PLANNING BOARD

Tuesday, July 9, 2024 at 4:30 PM
Hybrid Meeting, Room 24 (Basement Level of City Hall) and Zoom

MEMBERS
Brandon Mazer, Chair
Justin Barker, Vice Chair
Marpheen Chann
Sean Murphy
David Silk
Austin Smith
Maggie Stanley

The Planning Board invites the public to attend the meeting in person or Zoom pursuant to the Remote Meeting Policy adopted by the Planning Board. Prior to the meeting, please check the Agenda Center (https://portlandme.portal.civiccler.com) to view memos and reports which will be posted by the end of the day on the Friday before the Planning Board meeting as well as start times for each item as placement on the agenda can change. To submit written public comment on an agenda item, email planningboard@portlandmaine.gov. Submissions must be received by 12:00 pm the day before the Planning Board meeting to guarantee their inclusion in the agenda packet. All submissions must include the commenter's name and legal address. To help ensure your comment is submitted for the correct item, please include the name of the agenda item (see below).

REMOTE PARTICIPATION
Allow your computer to install the free Zoom app to get the best meeting experience. If you are not able to attend either in person or Zoom, a recording will be available in the Agenda Center following the meeting.

Please click the link below to join the webinar:
https://portlandmaine-gov.zoom.us/j/81434550342
Or One tap mobile :
+13017158592,,81434550342# US (Washington DC)
+13052241968,,81434550342# US
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
+1 301 715 8592 US (Washington DC)
+1 305 224 1968 US
+1 309 205 3325 US
+1 312 626 6799 US (Chicago)
+1 646 931 3860 US
+1 929 205 6099 US (New York)
+1 689 278 1000 US
+1 719 359 4580 US
+1 253 205 0468 US
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 360 209 5623 US
+1 386 347 5053 US
+1 507 473 4847 US
+1 564 217 2000 US
+1 669 444 9171 US
+1 669 900 6833 US (San Jose)
Webinar ID: 814 3455 0342
International numbers available: https://portlandmaine-gov.zoom.us/u/kcCewTSbxV

For more information on how to use Zoon, please visit https://www.portlandmaine.gov/remotePUD

PUBLIC COMMENT INFORMATION:
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Please note that the placement of items on this agenda are subject to change – please check the Agenda Center prior to the meeting for the item start time.

AGENDA:

WORKSHOP - 4:30 PM

i. Zoning Map and Text Amendment; 165 Washington Avenue; Redfern Properties, LLC, Applicant. The Planning Board will hold a hybrid workshop to consider a request to rezone the property at 165 Washington Avenue from B-1 Neighborhood Business zone to B-2b Community Business zone, and to amend the B-2b dimensional standards to eliminate the lot area per dwelling unit requirement, and increase the allowable height within the zone from 45 feet to 65 feet. This application is intended to facilitate a future development that would involve the construction of a seven-story building, with 320 rental apartments, including 80 deed-restricted workforce housing units. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number ZN-002879-2024.

ii. Major Site Plan and Conditional Use; 331 Cumberland Avenue; Developer's Collaborative Predevelopment, LLC and Youth and Family Outreach, Co-Applicants. The Planning Board will hold a hybrid workshop to consider a proposal to develop a new mixed-use building at 331 Cumberland Avenue, with ground-level daycare and pre-school, along with 60 residential units; 48 of which would be affordable. The subject property totals 19,592 square feet, and is zoned B-3 Downtown Business. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-002938-2024.

PUBLIC HEARING - 6:30 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON JUNE 25, 2024**

   Workshop
   197 Oxford Street: Barker, Chann, Murphy, Smith, and Stanely present. Mazer recused, Silk absent.
   156 High Street: Barker, Chann, Mazer, Murphy, Smith, and Stanley present. Silk recused.

   Public Hearing
   Sec. 6 of Technical Manual: Barker, Chann, Mazer, Murphy, Smith, and Stanley present. Silk absent.
4. **REPORTS OF DECISIONS AT THE MEETING HELD ON JUNE 25, 2024**

i. Technical Manual; Section 6, Erosion and Sedimentation Control; City of Portland, Applicant. Barker motioned, and Murphy seconded a motion to approve the draft amendments to Section 6 of the City of Portland Technical Manual. Vote 6-0. Silk absent.

5. NEW BUSINESS

i. Major Site Plan; 9 Boyd Street; COMB Block Phase One, LP and Portland Housing Development Corporation, Co-Applicants. The Planning Board will hold a hybrid public hearing to consider a proposal to demolish two existing residential buildings, with 40 residential units, in order to facilitate the construction of a new 55-unit residential building, with 50 affordable units and five market rate units. Other site improvements include the reconstruction of sidewalks along the property frontage, construction of a retaining wall to create more usable open space on the property, utility upgrades, and division of the parcel to create two buildable lots. The subject property totals 1.54 acres, is zoned R-6 Residential, and is within the R-7 Overlay zone. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-002845-2024.

ii. Major Site Plan; 235 Park Ave; Portland Sea Dogs, Applicant. The Planning Board will hold a hybrid public hearing to consider a proposal to construct a new 2-story, 23,600 square foot pre-fabricated building which will serve as the Sea Dogs Clubhouse. The clubhouse will include lockers, restrooms, showers, lounge space, and baseball workout areas. The subject property totals 22.7 acres, and is zoned ROS Recreation Open Space. A project and plan summary are available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-002896-2024.

B-2 + B-2b
Zone Guide

Draft zones are proposed and have not yet been adopted by the City of Portland

The draft B-2 and B-2b zones contain some important updates, including consolidation of the B-2c zone within the current land use code, updates to permitted uses in the zones, and updates to some key dimensional standards. This zone guide will highlight some of the key differences between the current B-2 zones and the draft B-2 zones, to help you get a better understanding of proposed changes.

Click here to view a map of current zones on the City's zoning map viewer.

Draft

Purpose Statements

B-2: To provide locations for a mixture of commercial, service, and residential uses in a comfortable pedestrian environment that is easily accessible and well-connected to surrounding neighborhoods. Such a mixture may serve the daily needs of nearby residents within walking distance, as well as surrounding neighborhoods via multiple modes of transportation. The zone provides a broad range of goods and services with a mixture of large and small buildings, such as grocery stores, shops and services located in shopping centers and along arterial streets. The B-2 zone's multi-modal orientation accommodates all modes of transportation, and the standards of the zone require that development relate to surrounding neighborhoods by design, orientation, and circulation patterns. The zone encourages mixed-use development, and provides locations for moderate to high-density housing in urban neighborhoods along arterials.

B-2b: To provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is suitable in areas where a more compact urban development pattern exists or where a neighborhood-compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood-oriented building pattern. The B-2b zone encourages mixed-use development, and provides locations for moderate to high-density housing in urban neighborhoods along arterials.

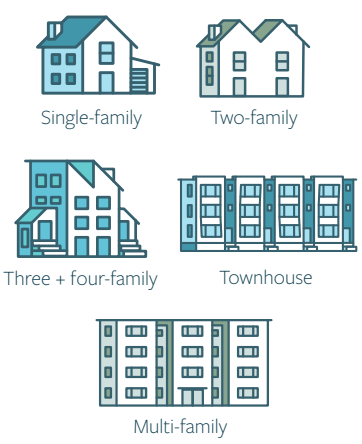
What uses would be allowed?

Residential uses

B-2/B-2b/B-2c zones *Current*



B-2/B-2b zones *Draft*



Nonresidential uses

● - Permitted ◐ - Conditional

Use	Current B-2/b/c	Draft B-2/b
Bed + Breakfasts	●	●
Clinics	●	●
Low-impact industrial	●	●
Market gardens		●
Restaurants	●	●
Retail	●	●
Specialty food service		●
Warehousing + distribution	◐	

Please note: *This is a sample comparison of uses, and not the full set of uses allowed in these zones. It is intended for informational purposes only.*

How have dimensional standards been changed?

Lot area + frontage

	Current B-2/b/c	Draft B-2/b
Lot area (min.)	--	--
Per dwelling unit	--	--
On-peninsula	435 SF	--
Off-peninsula	1,000 SF / 435 SF with active frontage	--
Street frontage (min.)	20 ft.	--

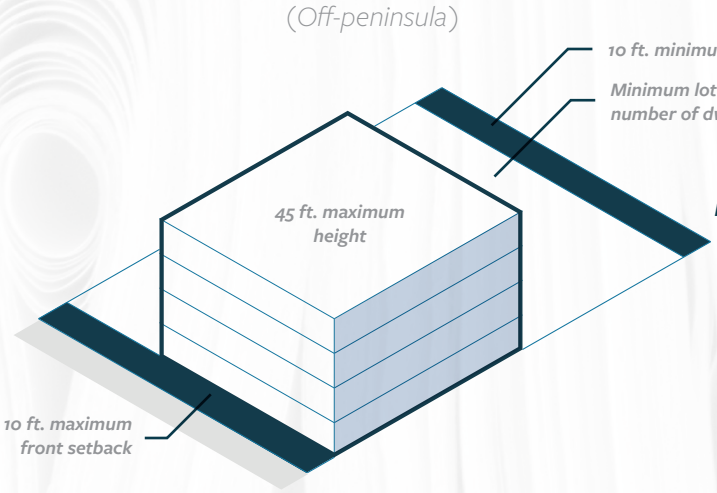
Setbacks (*principal structures*)

	Current B-2/b/c	Draft B-2/b
Front setback	10 ft. (max.)	0-10 ft. build-to zone
Rear setback	10 ft. (min.)	None, except 10 ft. if abutting a residential zone
Side setback	None	None, except 5 ft. if abutting a residential zone

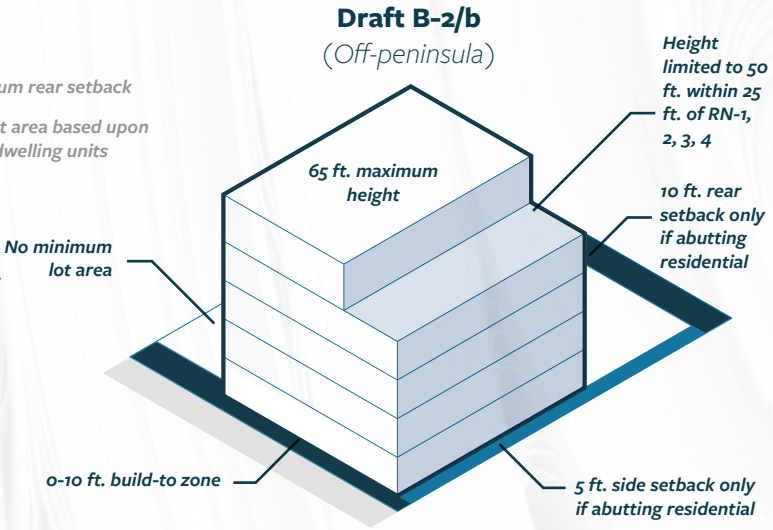
Structure Height (*max.*)

Current B-2/b/c	Draft B-2/b
45 ft. | 50 ft. if commercial first floor. 65 ft. in B-2 and B-2c on lots > 5 ac. if side and rear setbacks are increased by 1 ft. for each ft. of height over 45 ft.	65 ft or as shown on the Portland Height Map, except 50ft for any portion of a structure within 25 ft. of RN-1, RN-2, RN-3, RN-4.

Current B-2/b/c (*Off-peninsula*)



Draft B-2/b (*Off-peninsula*)



ReCode PORTLAND

Please note: *This sheet presents key changes, and not the entirety of change from the current Code to the Draft Code. It is intended for informational purposes only.*

120 Exchange Street
Suite 330
Portland, ME 04101

Redfern
PROPERTIES

Planning and Urban Development Department
Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

Subject: 165 Washington Avenue - Zoning Map & Text Amendment Application

April 3, 2024

To Whom It May Concern,

Redfern Properties LLC, is pleased to submit the accompanying package of materials for the proposed Zone Map and Text Amendment for the property located at 165 Washington Avenue.

The project is a 7-story, mixed-use building, which will contain roughly 320 rental apartments, including roughly 80 deed-restricted Workforce Housing units, and ground level retail.

The Text and Map Amendments are precisely what the Planning Department has already recommended and proposed for the property as part of the ongoing ReCode process. Redfern is seeking these Amendments independent from the ReCode process because the timing of ReCode is unknown, while we have finite time constraints to launch this project.

To summarize, the proposed Map Amendment contemplates a change from B1 to B-2b, as recommended by Planning staff in the proposed Zoning Map, dated July 3, 2024. The Text changes propose removing the minimum lot area per dwelling from the B-2b text and increasing the height limit from 45' to 65', subject to additional height bonuses for Workforce Housing. Again, these changes have already been recommended by City staff for the B-2b Zone citywide.

There is both a massive need and a regulatory requirement to deliver Workforce Housing to walkable neighborhoods in Portland. Since the 2020 changes to the Inclusionary Zoning requirements, Redfern has been working to devise projects which could meet the 25% Workforce Housing requirement with private financing. This project represents a proposed solution, and once built, would be the single largest contribution of deed-restricted Workforce Housing from a privately funded project in the City's history. Without the proposed Zoning Amendments, the project could not achieve the necessary scale to make it financially viable.

The attached analysis demonstrates that the proposal is consistent with the City's comprehensive plan. First and foremost, the project meets the City's urgent and critical need for new housing units, particularly rental housing. The project is in a walkable neighborhood, and on a major transit line.

This package is intended to meet the City's Submission Requirements for Map and Text Amendment applications. The following documents and drawings are to be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Submission Checklist
- Consistency with Comprehensive Plan
- Proposed Text Amendment
- Right, Title, and Interest (Purchase and Sale Agreement)

Drawings:

- Vicinity Map
- Proposed Map Amendment
- Preliminary Civil Site Plan
- Conceptual Renderings

Redfern Properties, LLC and the design team look forward to your review of this project.

Sincerely,



Jonathan Culley
Redfern Properties, LLC

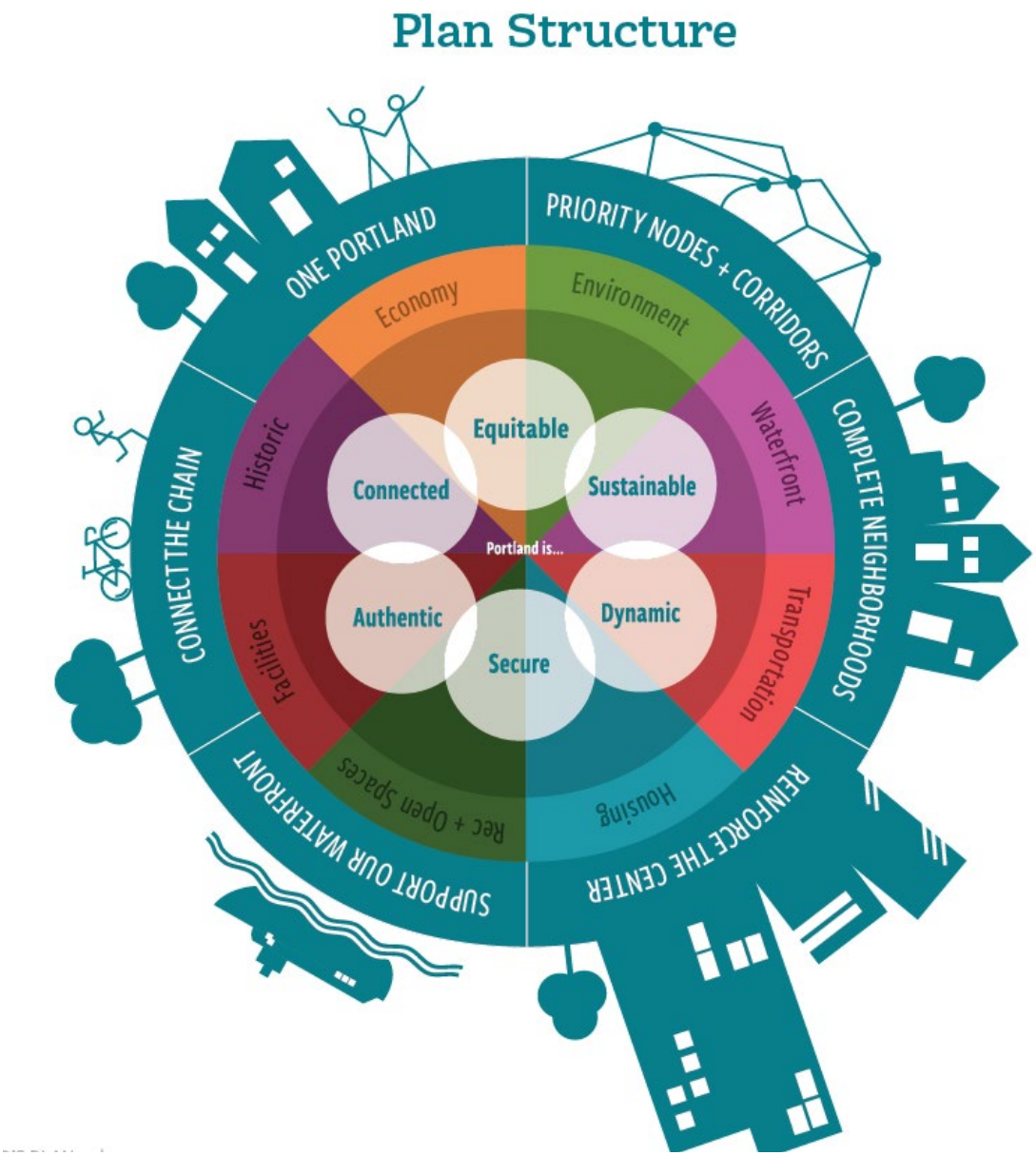
CITY OF PORTLAND
Planning & Urban Development Department

MAP AND TEXT AMENDMENT SUBMISSION CHECKLIST * Please submit each document and drawing as a separate PDF file * Please submit all drawings in a 24 x 36 sheet size * Please confirm each item by electronically checking the boxes to the left for each document/drawing	
GENERAL APPLICATION DOCUMENTS	
☑	**Project Description** • Cover Letter with detailed project description
☑	**Consistency with Comprehensive Plan** • Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☑	**Proposed Text Amendment** • Provide proposed language for text amendment(s) and cite the relevant sections to be revised in the Land Use code.
☑	**Completed Checklist – Map and Text Amendment Application (this document)**
☑	**Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
PLANS	
☑	**Vicinity Map**
☑	**Proposed Map Amendment** (please use the Portland zoning map as a reference)
☑	**Site Plan (if applicable)** On a separate sheet, please provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.

165 WASHINGTON DEVELOPMENT: CONSISTENCY WITH *PORTLAND'S PLAN 2030*

The 2017 Comprehensive Plan has a number of policy goals related to sustainable development and housing. This map amendment request helps meet those goals.

The Plan's Executive Summary emphasizes the need to "Reinforce the Center" through better housing and transportation. This location, in a major commercial area near downtown Portland and right on transit service, is extremely well located for housing that takes advantage of multimodal transportation options. By locating housing near job opportunities and other commercial activities, it also emphasizes downtown walkability. This strategy is emphasized later in the Future Land Use section as well.
This proposal also meets specific goals in the Plan's policy guides.



MEETING THE CITY'S HOUSING PRODUCTION GOALS

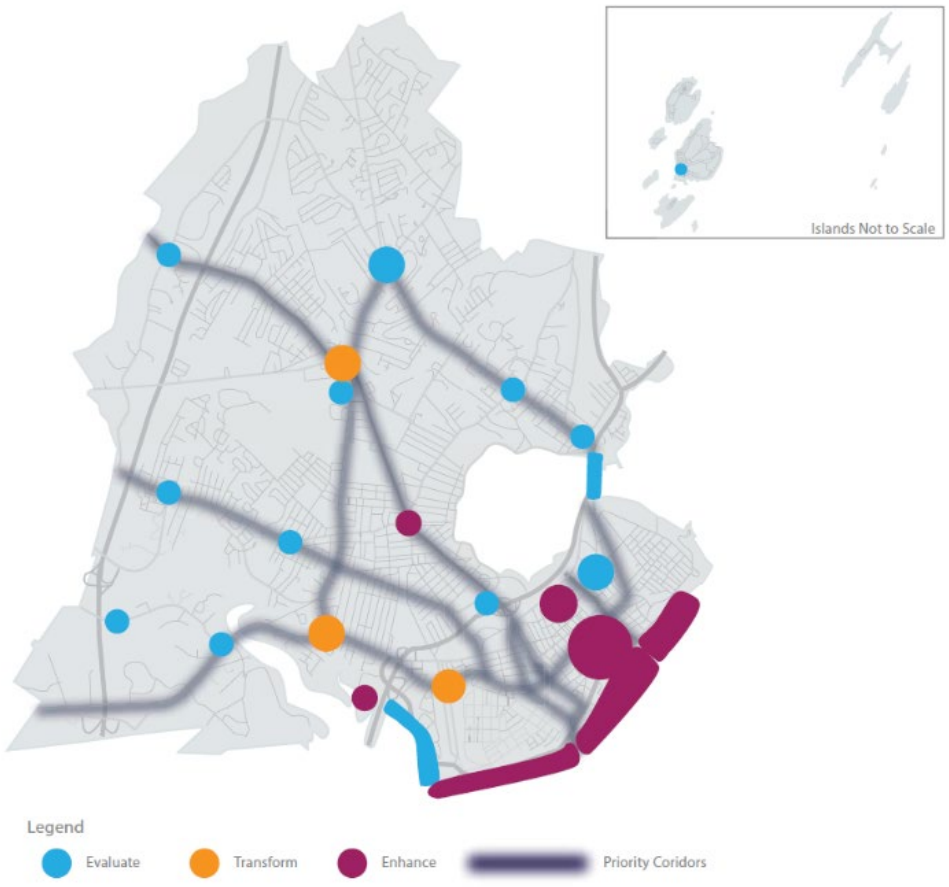
At the core of Portland's Plan is housing production. The Plan calls for production of a variety of housing types and locations, with a focus on key nodes and corridors. This site is on the Washington Avenue Priority Corridor, and yet the zoning is not consistent with that corridor designation. The Plan further sets a specific, but achievable, goal of reaching a population of 72,000 by 2027. That target will require production of 2,557 housing units, or almost 300 per year. While a change in the height allowance in this location will not met that goal by itself, it is part of an overall strategy to produce housing in a sustainable way that supports this primary development node.

OTHER POLICY GOALS

Economy: A Vibrant City

The Economy Policy Guide says that the City actions should: *"Evaluate zoning and the condition of existing infrastructure in priority areas — downtown, identified neighborhood nodes, and along transit corridors — to ensure that employment and housing growth can be supported."*

The current zoning in this area, while allowing for some residential density, falls short of the density needed to make a housing development viable with private financing. By moving the parcel into the B-2b zone (which is the designation across Washington Avenue,) the economics of a housing development can be supported.



Housing: A Livable City

The Housing Policy Guide similarly calls for City actions to *"[e]valuate whether current zoning allows for new development consistent with historic patterns of form, density, and/or use, as well as whether it allows for priority growth areas."* In order to support the Washington Avenue Priority Corridor with private financing, some additional height is needed. This policy guide also states that those who work in Portland should be able to live in Portland. Production of housing at this location will make this goal economically feasible by allowing for production of new units immediately downtown, near employment opportunities.

PORTLAND'S PLAN IMPLEMENTATION STEPS

Portland's Plan also outlines a series of implementation steps in a matrix in Appendix D similar to the policy goals outlined in the Policy Guides. In addition to the actions listed above, this map amendment is consistent with the following implementation steps:

- ✓ "Coordinate linkages between accessible transportation and housing affordability" (p.302)
- ✓ "Allow for a range of housing models in City codes, whether small units, co-housing, or others that may suit changing needs and demographics" (p. 302)
- ✓ "Create incentives to spur transit-oriented, mixed-use development on corridors and in areas that can support high-quality transit service" (p. 309)

OTHER PLANS

Downtown Vision (1991)
The 1991 *Downtown Vision: A Celebration of Urban Living and A Plan For The Future of Portland - Maine's Center For Commerce And Culture* outlines a multi-pronged strategy for downtown development. The Vision promotes downtown housing as having a beneficial effect on downtown's businesses and overall vitality:

> *"Promote a mix of housing options within the Downtown and surrounding neighborhoods relative to cost, ownership, unit type and size. … Existing building codes and zoning ordinances should be evaluated to assure adequate support for residential uses. Amendments should be proposed that increase housing opportunity without compromising basic health and safety concerns."*

CONCLUSION

The current B-1 zoning designation does not factor in policies and goals more recently outlined in current plans. *Portland's Plan 2030* makes housing production in a walkable set of Priority Corridors an important public goal. For example, in the Transportation Policy Guide, it says to *"Invest in a walkable city through sidewalk maintenance, accessibility improvements, trail and path connections, snow clearance, lighting, landscaping, traffic calming, enhanced street crossings, strong urban design, artistic elements, and wayfinding."*

There is also a sidebar that emphasizes the goal of density through quality design. However, at no point does Portland's Plan suggest that densities should continue to be limited along Priority Corridors.

The specific housing production and sustainability goals of the 2017 Plan deserve serious consideration as the City looks at its overall density limits. Some additional density is needed to meet those goals, both due to space limitations and financial feasibility. Even with the B-2b designation, there will be limits on the development potential of the site, but the map amendment will allow the site to be planned thoughtfully and with additional open space for resident use and to help preserve views from other parts of the neighborhood.

In conclusion, there is a solid planning argument to be made for allowing for a variation from the strict numerical recommendations in the existing zoning. As the city completes the ReCode Portland effort, it will likely be looking at map changes such as the one proposed here. This amendment can serve as a case study in why such amendments might make sense in light of the 2017 Comprehensive Plan and other municipal goals.

165 WASHINGTON DEVELOPMENT:
PROPOSED TEXT AMENDMENT

Table 7-C: Mixed-Use Dimensional Standards		
B-2/B-2b		
	Current	**Proposed**
Lot Area (min.) *Per Dwelling Unit* *On-Peninsula*	435 SF	-
Structure Height (max)	45 ft / 50 ft if commercial first floor. 65 ft in B-2 and B-2c zones >5 ac. If side and rear setbacks by 1 ft for each ft of height over 45 ft	65 ft, with height bonuses based on % Low-income or Workforce Units, or as shown on the Portland Height Map, except 50 ft for any portion of the structure within 25 ft of RN-1, RN-2, RN-3, RN4

B-2 + B-2b
Zone Guide

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The draft B-2 and B-2b zones contain some important updates, including consolidation of the B-2c zone within the current land use code, updates to permitted uses in the zones, and updates to some key dimensional standards. This zone guide will highlight some of the key differences between the current B-2 zones and the draft B-2 zones, to help you get a better understanding of proposed changes.

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Draft

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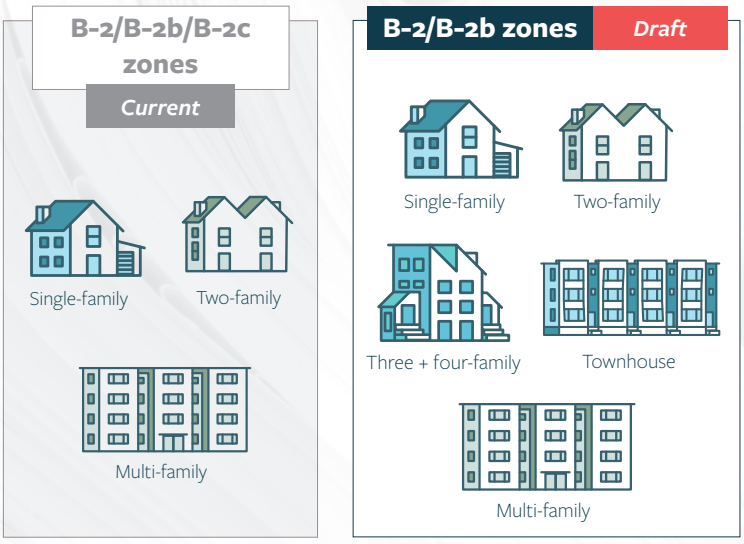
What uses would be allowed?

Residential uses



Nonresidential uses

● - Permitted ◐ - Conditional

Use	Current B-2/b/c	Draft B-2/b
Bed + Breakfasts	●	●
Clinics	●	●
Low-impact industrial	●	●
Market gardens		●
Restaurants	●	●
Retail	●	●
Specialty food service		●
Warehousing + distribution	◐	

Please note: *This is a sample comparison of uses, and not the full set of uses allowed in these zones. It is intended for informational purposes only.*

How have dimensional standards been changed?

Lot area + frontage

	Current B-2/b/c	Draft B-2/b
Lot area (min.)	--	--
Per dwelling unit	--	--
On-peninsula	435 SF	--
Off-peninsula	1,000 SF / 435 SF with active frontage	--
Street frontage (min.)	20 ft.	--

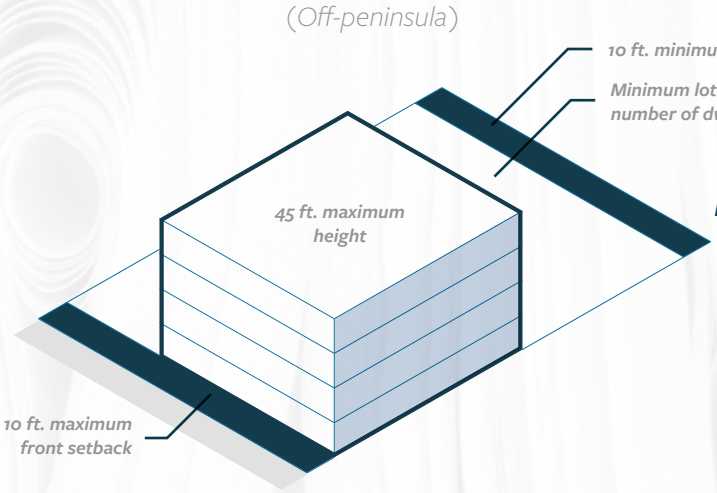
Setbacks (*principal structures*)

	Current B-2/b/c	Draft B-2/b
Front setback	10 ft. (max.)	0-10 ft. build-to zone
Rear setback	10 ft. (min.)	None, except 10 ft. if abutting a residential zone
Side setback	None	None, except 5 ft. if abutting a residential zone

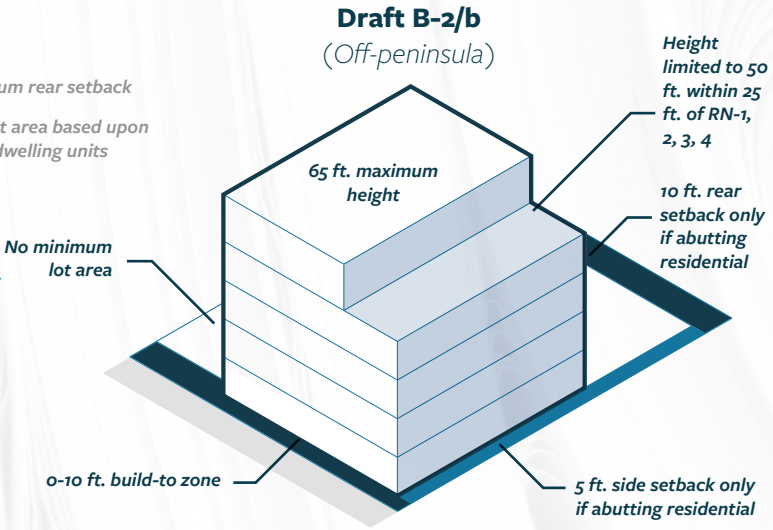
Structure Height (*max.*)

Current B-2/b/c	Draft B-2/b
45 ft. | 50 ft. if commercial first floor. 65 ft. in B-2 and B-2c on lots > 5 ac. if side and rear setbacks are increased by 1 ft. for each ft. of height over 45 ft.	65 ft or as shown on the Portland Height Map, except 50ft for any portion of a structure within 25 ft. of RN-1, RN-2, RN-3, RN-4.

Current B-2/b/c
(Off-peninsula)



Draft B-2/b
(Off-peninsula)



ReCode PORTLAND

Please note: *This sheet presents key changes, and not the entirety of change from the current Code to the Draft Code. It is intended for informational purposes only.*

PURCHASE AND SALE AGREEMENT

165 WASHINGTON AVENUE, PORTLAND, MAINE

THIS PURCHASE AND SALE AGREEMENT ("Contract" or "Agreement"), made and entered into as of this ~~31st day of May~~ 1st day of June, 2023 (the "Effective Date"), is by and between **RAYMOND H. WATERHOUSE and ALINA WATERHOUSE,** individuals having an address at 105 Partridge Circle, Portland, Maine 04102 (hereinafter collectively referred to as "Seller"), and **REDFERN PROPERTIES LLC,** a Maine limited liability company having an address at P.O. Box 8816, Portland, Maine 04104, or its assigns (hereinafter referred to as "Buyer").

W I T N E S S E T H

WHEREAS, Seller is the record owner of fee simple title to certain real property situated in Portland, Cumberland County, Maine known as 165 Washington Avenue, Portland, Maine, together with certain improvements constructed thereon including a commercial building, and related amenities, facilities, improvements, and appurtenances thereto; and

WHEREAS, the Seller wishes to sell and convey said real property and improvements to Buyer and Buyer wishes to purchase the same from Seller.

NOW THEREFORE, for and in consideration of the foregoing, the sums of money to be paid hereunder, the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto covenant, stipulate and agree as follows:

1. Description of Property to be Conveyed. The property which is to be sold and conveyed by Seller and purchased and accepted by Buyer pursuant to this Contract shall consist of the following:

(a) That certain parcel of land lying and being in Portland, Maine, being the property comprised of a 1.53 +/- acre lot identified by the Portland Assessor as Map 10, Block D, Lot 1 and Map 12, Block F, Lot 2, and described in that certain deed to Seller dated September 14, 2007, and recorded in the Cumberland County Registry of Deeds at Book 25470, Page 272, but excepting premises conveyed to Redfern Munjoy, LLC, by deed recorded in Book 31302, Page 177 of said Registry, and being more particularly described in Exhibit A attached hereto and made a part hereof, including all, rights, privileges, easements, hereditaments and appurtenances thereto, and all right, title and interest of Seller in and to the land lying in the bed of any public street, road or avenue in front of or adjoining said property (hereinafter collectively referred to as the "Land");

(b) All buildings, structures, facilities, fixtures, installations and improvements of every kind and description located in, on, over and under the Land, together with the appurtenances thereto including, without limitation, paved parking areas and various drainage and utility structures and improvements (collectively, the "Improvements"); and

(c) All of Seller's right, title and interest, if any, in and to the following (to the extent assignable and to the extent in the Seller's possession or control) and without warranty or representation: (i) all assignable warranties or guaranties given or made in respect of the Improvements; and (ii) all transferable consents, authorizations, variances or waivers, licenses, permits and approvals from any governmental or quasi-governmental agency, department, board, commission, bureau or other entity or instrumentality solely in respect of the Land or the Improvements (collectively, the "Personal Property").

The Land and Improvements are sometimes referred to herein collectively as the "Real Property." The Real Property and the Personal Property are referred to herein collectively as the "Subject Property".

2. Agreement to Sell and Purchase. Seller hereby agrees to sell and convey the Subject Property to Buyer, upon the terms and subject to the conditions set forth in this Contract. Buyer hereby agrees to purchase and accept the Subject Property from Seller, upon the terms and subject to the conditions set forth in this Contract.

3. Earnest Money Deposit. Within three (3) business days after the Effective Date, Buyer shall deposit the sum of [redacted] as the earnest money deposit (which amount shall hereinafter be referred to as the "Initial Earnest Money Deposit") hereunder with The Boulos Company, whose address is One Canal Plaza, Suite 500, Portland, Maine 04101 (hereinafter referred to as the "Escrow Agent"). So much of the Initial Earnest Money Deposit and the Additional Earnest Money Deposit (as hereinafter defined) as may have from time to time been deposited with Escrow Agent hereunder, and any interest earned thereon, are collectively referred to as the "Deposit". Upon Buyer's written request, and subject to the receipt by Escrow Agent of a completed and executed IRS Form W-9 and any other forms or information reasonably requested by the Escrow Agent, the Deposit will be placed in an interest-bearing account. Any interest accrued or accruing on the Deposit shall be and become part of the Deposit. Escrow Agent shall not be responsible for the amount of interest earned on, or charges on, the Deposit. By its counter-execution of this Agreement, Escrow Agent hereby agrees to hold the Deposit in escrow, subject to disbursement in accordance with the terms and provisions of this Contract. In the event Buyer does not elect to timely terminate this Contract pursuant to the express terms herein, the Deposit shall become non-refundable and shall not be returnable to the Buyer under any circumstances except in the event Seller is not able to provide title to the Subject Property as provided in this Contract, or otherwise defaults hereunder, but such Deposit shall, however, be credited to and considered as payment of part of the total Purchase Price (as defined below) at the time of closing hereunder.

Escrow Agent, may, at its option, require the receipt, release and authorization in writing of all parties before releasing the Deposit or delivering or redelivering documents or property to any party or to third parties. In the event a controversy arises over the Deposit, Escrow Agent, at its sole discretion, may tender the funds into court for settlement, after deducting its attorney's fees, court costs, and escrow fees, if any, which have accrued, including any attorney's fees and court costs relating to the tender into court. Seller and Buyer indemnify and hold harmless Escrow Agent and its agents and representatives from all loss or damage they

may sustain in connection with Escrow Agent's performance of these instructions and do hereby jointly and severally release and waive any claims they may have against Escrow Agent, other than any claims a party may have due to the gross negligence, malfeasance or misconduct of Escrow Agent in the performance of its duties hereunder.

4. Purchase Price and Method of Payment. Subject to credits, adjustments and prorations for which provisions are hereinafter expressly made, the total purchase price to be paid by Buyer to Seller for the Subject Property (the "Purchase Price") shall be [redacted] The Purchase Price shall be paid by Buyer to Seller in the manner and at the times as follows:

(i) The Deposit, to the extent paid by Buyer to Escrow Agent hereunder, shall be credited to Seller and considered as payment of part of the Purchase Price for the Subject Property at the time and upon consummation of the closing of the sale and purchase transaction contemplated in this Contract.

(ii) The balance of the Purchase Price shall be paid to Seller by Buyer by wire transfer or other immediately available funds acceptable to Seller, at the time of closing hereunder, subject to credits, adjustments and prorations as expressly provided herein.

5. Title and Survey.

(a) Title Commitment. Buyer shall obtain from a nationally recognized title company (sometimes referred to herein as the "Title Company") a commitment for owner's title insurance for the Real Property (the "Title Commitment"). Within five (5) days after the Effective Date, Seller shall deliver to Buyer copies of surveys of the Land that Seller may have in its possession or control (collectively, the "Existing Survey"). Buyer may order an update of the Existing Survey, or if no Existing Survey exists, a new survey of the Land; provided, however, Buyer must notify Seller of any material objections to the update of the Existing Survey or the new survey prior to the expiration of the Due Diligence Termination Date (as defined below), otherwise Buyer shall be deemed to have waived any right to object to same and any such inconsistencies shall constitute Permitted Exceptions (as defined below).

(b) Buyer's Review of Title Matters. Buyer shall have until the Due Diligence Termination Date to notify Seller in writing of any objection which Buyer may have to any matters reported or shown in the Title Commitment or the exception documents ("Buyer's Objection Letter"). Any matters reported in or shown by the Title Commitment and not timely objected to by Buyer as provided above shall be deemed to be "Permitted Exceptions". On or before the fifth (5th) business day following receipt of Buyer's Objection Letter, Seller shall elect, by delivering written notice of such election to Buyer and Escrow Agent ("Seller's Response") whether or not to cause the Title Company to remove any matters objected to in Buyer's Objection Letter. If Seller fails to deliver Seller's Response within the time frame set forth above, it shall be deemed to be an election by Seller not to cause Title Company to so remove such objections. Notwithstanding the foregoing, Seller shall be obligated to cure and remove without need for a Buyer's Objection Letter all of the following

title exceptions or encumbrances, if any: (i) the liens of any mortgage; (ii) tax liens for delinquent ad valorem real estate taxes; (iii) mechanics liens, judgment liens or other monetary liens; and (iv) broker's liens ("Seller's Mandatory Cure Items"). Seller shall have until Closing to cure and remove any Seller Mandatory Cure Items. If either (a) Seller elects to cause the Title Company to so remove and, at least one (1) day prior to the Closing (the "Cure Deadline"), Seller is unable to remove any exceptions or matters objected to by Buyer; or (b) Seller elects not to cause Title Company to so remove, then Buyer must elect, by delivering written notice of such election to Seller and Escrow Agent on or before (i) the fifth (5th) business day following Buyer's receipt of Seller's Response, or (ii) if no Seller's Response is received by Buyer, the fifth (5th) business day following the date on which Seller shall have been deemed to have responded, as provided above, or (iii) in the event Seller elects to cause the Title Company to so remove and, prior to the Cure Deadline, Seller is unable to remove any exceptions or matters objected to by Buyer, on or before the Cure Deadline, to: (A) terminate this Agreement (in which case Escrow Agent shall return the Deposit to Buyer, and neither party shall thereafter have any rights or obligations to the others hereunder, other than pursuant to any provision hereof which expressly survives the termination of this Agreement); or (B) proceed to a timely Closing without liability to Seller whereupon such objected to exceptions or matters shall be deemed to be Permitted Exceptions. Seller shall be responsible for removing any exceptions or deficiencies to title which first arise between the date upon which Permitted Exceptions are established ("Permitted Exception Date") and Closing unless created by or with the consent of Buyer.

6. Buyer's Due Diligence.

(a) Seller Deliverables. Seller shall deliver to Buyer within five (5) days of the Effective Date the following, if any (the "Property Documents"): Seller's existing survey(s) and/or title reports with respect to the Subject Property; copies of service contracts or management agreements, any environmental reports (including Phase I or Phase II reports) in Seller's possession or control; floor plans and building specifications, insurance information (including a current certificate of insurance regarding property, casualty and general liability insurance for the Subject Property) and property tax statements for the previous two (2) years; copies of certificate(s) of occupancy and any property condition reports.

Buyer agrees to return the foregoing and all such other documents to Seller, without retaining copies, in the event the closing hereunder does not occur.

(b) Inspection Rights. At all reasonable times from and after the Effective Date, Buyer, its agents and representatives shall be entitled at Buyer's sole cost and expense to make investigations with respect to the compliance of the Real Property and the Improvements with all applicable laws, ordinances, rules and regulations; to review any documents or information Buyer has or may receive with respect to the Subject Property; to review any contracts and agreements affecting the Subject Property; to enter onto the Real Property during normal business hours to conduct such inspections and investigations of the condition of the Property as Buyer deems relevant with respect to the operating systems, structural components, and site conditions of the Real Property and Improvements, and perform Phase I and if necessary, Phase II environmental studies, which may include without limitation drilling and borings and the taking of soil samples. Buyer shall at its own expense restore the Real Property

to as close as reasonably possible to its present condition. All such inspections shall be done by qualified inspectors chosen and paid for by Buyer. Seller agrees to reasonably cooperate with Buyer in connection with Buyer's investigations, and shall grant Buyer access to the Real Property at reasonable times upon reasonable prior notice. Buyer shall indemnify, protect, defend and hold harmless Seller from all claims (including, without limitation, any claim for a mechanic's lien or materialman's lien), causes of action, costs, losses, damages and reasonable attorney's fees incurred by Seller in connection with or arising out of any inspections or investigations carried on, by or on behalf of Buyer pursuant to this Section. The foregoing indemnity shall not apply to any claims (including, without limitation, claims that the Real Property has declined in value) or liabilities to the extent the same arise out of or are incurred in connection with (i) the negligence or willful misconduct of the Seller or their agents, consultants or contractors; (ii) the discovery by Buyer or its agents, consultants or contractors of any or pre-existing conditions on the Real Property; (iii) the release (other than by Buyer, its agents, consultants, employees, contractors or representatives) or discovery by Buyer or presence of any pollutants, hazardous waste, hazardous substance or material located on or about the Real Property, except to the extent that Buyer or its agents, consultants, employees, contractors or representatives have exacerbated such condition; (iv) the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property; or (v) any disclosure or notification made or given by Buyer or any its agents, consultants or contractors to any governmental agency or other party that is required by law based upon the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property. The provisions of this Section shall survive the Closing or the earlier termination of this Agreement.

(c) Buyer's Termination Right. Buyer shall have the right at any time on or before ninety (90) days after the Effective Date (the "Due Diligence Termination Date") to terminate this Contract if Buyer determines for any reason that the Property Documents or all or any portion of the Subject Property is not acceptable to Buyer in its sole and absolute discretion. Notwithstanding the foregoing, if Buyer's environmental consultant determines that a Phase II report is warranted, the Due Diligence Termination Date shall be extended for up to an additional period of ninety (90) days provided Buyer gives Seller written notice of its intent to so extend prior to the initial Due Diligence Termination Date, and provided Buyer confirms that it has waived all other due diligence conditions, including title review (subject to any Buyer's Objection Letter that may have been sent). If Buyer exercises its right to extend the Due Diligence Termination Date, said extension shall last until the earlier of (i) five (5) business days after Buyer has received the final results of its Phase II testing; and (ii) ninety (90) days after the original Due Diligence Termination Date. If Buyer delivers a written notice to Seller and Escrow Agent exercising its termination right hereunder ("Buyer's Termination Notice") on or before the Due Diligence Termination Date (as it may be extended), then (a) Escrow Agent shall return the Deposit to Buyer; (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract; and (c) Buyer shall, upon Seller's request, deliver to Seller copies of all surveys, environmental and other reports undertaken by Buyer with respect to the Subject Property without any representation or warranty of any kind or nature whatsoever, express or implied, about the accuracy, reliability or usefulness of any information contained therein. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Termination Notice on or before the Due Diligence Termination Date, Buyer shall be deemed to have waived its right to terminate this Contract

pursuant to this Section, and [redacted] of the Deposit shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

7. Approval Contingency. This Contract is contingent upon Buyer obtaining all permits and approvals from the City of Portland (the "City") for its proposed use and occupancy of the Subject Property acceptable to Buyer in its sole and absolute discretion (the "Approvals"). An Approval shall not be deemed to have been "obtained" until it has become final and non-appealable, and any periods for challenge to the same (or any conditions to its final effectiveness) shall have expired. Buyer shall use its best efforts to obtain the Approvals as expeditiously as reasonably possible. Seller shall reasonably cooperate with Buyer in connection with Buyer obtaining the Approvals and agrees to execute and deliver all documents reasonably requested by Buyer, at no cost or liability to Seller. Buyer shall have sixty (60) days from the expiration of the Due Diligence Termination Date (the "Approval Date") to obtain the Approvals. If Buyer has not received its Approvals by the Approval Date, then Buyer shall have the right to extend the Approval Date for up to six (6) additional sixty (60) day periods (each, an "Approval Extension Period"), by giving notice to Seller on or before the Approval Date, as it may be extended, on the follow terms and conditions:

(i) If Buyer exercises the first Approval Extension Period, an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(ii) If Buyer exercises the second Approval Extension Period, an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iii) If Buyer exercises the third Approval Extension Period, an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iv) If Buyer exercises the fourth Approval Extension Period, an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(v) If Buyer exercises the fifth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase

Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(vi) If Buyer exercises the sixth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

Such portion of the Deposit that is non-refundable as set forth in [redacted] At Seller's request, which may be made at any time and from time to time, Escrow Agent shall release the Non-refundable Deposit available as of the date of Seller's request(s) to Seller to, among other things, pay carrying costs of the Real Property, such as taxes, insurance, utilities etc., provided that Seller at the time they first request a release of the Non-refundable Deposit delivers to Buyer a comfort letter or account statement from a financial institution or investment management firm reflecting that Seller maintains accounts with such financial institution or investment management firm in an amount sufficient to fund Seller's obligation to return to Buyer the Non-refundable Deposit (or so much as has been released to Seller from time to time) pursuant to the terms of this Contract. Buyer hereby authorizes Escrow Agent to release the Non-refundable Deposit to Seller from time to time provided such comfort letter or account statement has been received by Buyer.

The Additional Earnest Money Deposit shall be considered part of the Deposit for all purposes of this Contract. If Buyer does not receive the Approvals on or prior to the Approval Date, as it may be extended, or if Buyer at any time prior to the Approval Date, as it may be extended, determines in its sole and absolute discretion that the Approvals will not be suitable or satisfactory for Buyer's proposed use and occupancy of the Subject Property, then Buyer may terminate this Contract by delivering written notice to Seller and Escrow Agent ("Buyer's Approval Termination Notice") exercising its termination right hereunder on or before the Approval Date, as it may be extended, whereupon (a) Escrow Agent shall return so much of the Deposit that is refundable at that time, if any, to Buyer; (b) release so much of the Deposit that is non-refundable at that time, if any, to Seller; and (c) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Approval Termination Notice on or before the Approval Date, as it may be extended, Buyer shall be deemed to have waived its right to terminate this Contract pursuant to this Section.

8. Conveyance of Subject Property and Personal Property; Delivery Free of Tenants and Occupants. At the time of Closing hereunder, Seller shall convey its fee simple interest and estate in and title to the Subject Property by Quitclaim with Covenant Deed, free and clear of any and all liens, security interests, exceptions or encumbrances arising by or though Seller, other than Permitted Exceptions. Seller shall pay for personal property taxes through the Closing Date (as hereinafter defined). Seller agrees to terminate the tenancy and/or occupancy of the any current tenants or occupants of the Subject Property, and to deliver the Subject Property free and

clear of all personal property, inventory, equipment, free-standing shelving, tenants and occupants. If Seller is unable to provide the Subject Property to Buyer free and clear of personal property, inventory, equipment, free-standing shelving, tenants and occupants, by the Closing Date then Seller shall be deemed in default of this Contract and Buyer shall have the right to terminate this Contract whereupon notwithstanding anything in this Contract to the contrary (a) Escrow Agent shall return the entire Deposit to Buyer; and (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract.

9. Closing. The sale and purchase transaction contemplated in this Contract shall be closed, and the Purchase Price paid, on the date that is forty-five (45_days after the Approval Date (as it may be extended) (the "Closing Date"). Purchaser shall notify Seller in writing when all Approvals have been obtained. The following documents and items shall be delivered by Seller and Purchaser at Closing, as applicable:

(a) A Quitclaim Deed with Covenant from Seller in form reasonably acceptable to Seller and Buyer, together with applicable conveyance tax forms.

(b) An Owner's Affidavit executed by Seller in the form provided by the Title Company, provided such requested Affidavit does not expand the liability or representations of Seller hereunder beyond the terms of this Contract.

(c) An Affidavit stating that Seller is a Maine resident, or in the alternative, a Certificate of Exemption, Certificate of Reduction or REW-1 filing form.

(d) An Affidavit of Seller stating that Seller is not a "foreign person" as defined in Section 1445(B)(2) of the Internal Revenue Code of 1986, as amended.

(e) All transferable licenses, permits, certificates, approvals, authorizations, variances and consents held by Seller and issued by governmental and quasi-governmental bodies, officers and authorities in respect to the ownership, occupancy, use and operation of the Subject Property in the possession or control of Seller.

(f) Reserved.

(g) Keys.

(h) Appropriate evidence of authorization reasonably satisfactory to the Title Company regarding the consummation of the transaction contemplated by this Contract.

Seller shall pay the following closing costs (a) any and all costs incurred by Seller in performing its obligations under this Contract, and (b) the cost of recording the discharge of any existing mortgage on the Subject Property and any other documents required to be recorded or filed in order to transfer title as provided herein. Buyer shall pay the following closing costs (a) title search and examination charges, and the premium for the Commitment and Lender's and/or Owner's Title Insurance Policy, if any, to be issued pursuant thereto; (b) the cost of the update to the Survey or a new survey, if any; (c) the cost of the brokerage commission payable to The

Boulos Company, (d) the cost of any inspections or investigations of the Subject Property, (e) the cost of recording the Deed and any mortgages or other recorded documents relating to its purchase of the Subject Property, and (f) all costs associated with Buyer's financing of its acquisition, if applicable, it being understood and agreed that obtaining financing is not a condition to Purchaser's obligations hereunder. Seller and Buyer will each pay one-half of the transfer tax payable with respect to the Purchase Price. Each of the respective parties shall bear its own attorneys' fees.

10. Possession and Risk of Loss. Without limiting the provisions of Section 8 of this Contract, possession of the Subject Property shall be delivered by Seller to Buyer at the time of closing hereunder, free and clear of all tenants and occupants. Risk of Loss shall be on Seller until transfer of Property.

11. Prorations. Prorations shall be made as of the Closing Date as if Buyer were in title for the entire Closing Date. The following shall be prorated and adjusted between Seller and Buyer:

(a) Utilities and Operating Expenses. Water, electricity, sewer, gas, telephone and other utility charges based, to the extent practicable, on final meter readings and final invoices.

(b) Assessments. All assessments, general or special, assessed as of the date hereof shall be prorated as of the Closing Date, with Seller being responsible for any installments of assessments that are due and payable prior to the Closing Date and Buyer being responsible for any installments of assessments that are due and payable on or after the Closing Date. All such assessments assessed after the date hereof shall be the sole responsibility of Buyer.

(c) Taxes. All ad valorem real estate and personal property taxes with respect to the Real Property and the Improvements shall be prorated as of the Closing Date, based on the most currently available final tax bill and on a cash basis for the tax year in which the Closing occurs, regardless of the year for which such taxes are assessed.

(d) Other. Such other items as are customarily prorated in transactions of this nature in the county in which the Project is located shall be ratably prorated.

12. Representations, Warranties and Covenants of Seller.

12.1 Seller hereby makes the following representations and warranties to Buyer:

(a) Seller's execution and delivery and performance of this Contract by the undersigned and the performance of its obligations hereunder, including the closing of the sale and purchase transaction contemplated herein on the terms set forth herein, have been duly authorized and directed by Seller and no further consents or approvals are or shall be required as a condition precedent to the consummation and closing of the sale and purchase transaction contemplated herein except as expressly set forth in this

Contract. Seller has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Seller on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Seller, enforceable against Seller in accordance with its terms.

(b) The performance by the Seller of the terms, covenants and conditions contained herein will not conflict with, constitute an event of default under, any agreement or other instrument to which Seller is a party or by which its properties or assets are bound.

(c) Seller is not a party to any leases, agreements, contracts or licenses affecting the Real Property or any use of the Real Property that would not be terminable at will by Buyer without penalty from and after the Closing.

(d) Seller has not received any written notice from any governmental authority that the Real Property, or the present condition, operation or use thereof, violates any applicable laws, rules, regulations, restrictions, covenants, agreements, site plan approvals, zoning or subdivision regulations or any duly issued variances and Seller has no other actual knowledge of any such violation(s).

(e) Seller has received no written notice that there is any pending judicial, municipal or administrative proceedings affecting the Real Property or in which Seller is a party by reason of Seller's ownership of the Real Property or any portion thereof, including, without limitation, proceedings for or involving collections, condemnations, eminent domain, alleged building code, zoning or environmental violations, or personal injuries or property damage alleged to have occurred on the Real Property or by reason of the condition or use of the Real Property and Seller has no other actual knowledge of any such proceedings.

(f) Seller represents that, after the execution of this Contract and until such time as Closing occurs or the Contract expires without performance, it shall not enter into any leases, encumbrances or other arrangements pertaining to the Real Property which shall not be removed or terminated not later than the Closing.

(g) To the best of Seller's knowledge, the Real Property does not contain and has not contained, any Hazardous Substances, other than in amounts that do not violate any applicable law or regulation. "Hazardous Substances" means and refers to any "hazardous substance" as now or hereafter defined in §101(14) of CERCLA or any regulations promulgated under CERCLA; (ii) any "hazardous waste" as now or hereafter defined in the RCRA or regulations promulgated under RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. §2601 et seq.); (iv) gasoline, diesel fuel, or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; (vii) radon gas; (viii) lead paint; (ix) any additional substances or materials which are

now or hereafter classified or considered to be hazardous or toxic under local, state or federal environmental laws.

(h) Seller is the sole owner of good, fee simple, marketable and insurable title to all of the Real Property.

(i) There are no options to purchase or rights of first refusal with respect to all or any part of the Real Property and Seller has entered into no contracts for the sale, pledge, hypothecation, assignment, lease or other transfer of all or any part of the Real Property, other than the existing lease to Northern Burner Supply Co., Inc. or its successor tenant, which will be terminated prior to Closing.

(j) Seller has paid, or will pay at or prior to Closing, all taxes (including all real estate, personal property, sales and use taxes), assessments, charges, fees, levies and impositions associated with the Real Property, coming due prior to the Closing Date for periods prior to the Closing Date. Seller knows of no actual or pending imposition of any assessments for public improvements and, to the best of Seller's knowledge, no such improvements have been constructed or planned that would be paid for by means of assessments upon the Real Property.

(k) Seller has received no notice of any claims, demands, suits, or actions arising out of or relating in any way to any water damage, water intrusion, mold growth or mold infestation occurring in, on or about the Real Property.

Seller shall indemnify, defend and hold Buyer and Buyer's members, managers, partners, officers, shareholders, directors and employees harmless from all claims, demands, liabilities, costs or expenses (including, without limitation, reasonable attorneys' fees) arising from or attributable to any breach by Seller of any of its warranties or representations in this Section 12.1 or elsewhere in this Contract, and the representations and warranties set forth herein and this indemnification shall survive the Closing for a period of twelve (12) months.

12.2 Seller covenants and agrees with Buyer as follows:

(a) From the Effective Date until physical possession of the Real Property has been delivered to Buyer, Seller will keep and maintain all of the Real Property in good order and condition, will not permit any waste with respect thereto and shall operate the Real Property in accordance with its current good faith business practices, provided, however, that nothing herein shall require Seller to continue to lease the Real Property to Northern Burner Supply Co., Inc. until Closing.

(b) From the Effective Date until the Closing Date, Seller shall not enter into any new agreements affecting the Subject Property unless such agreements may be terminated not later than the Closing without penalty.

(c) Between the Effective Date and the Closing Date, Seller shall not grant or permit any new encumbrances on or about the Subject Property.

13. Representations and Warranties of Buyer. Buyer represents, covenants and warrants to and agrees with Seller that Buyer has the legal right, power and authority to enter into this Contract and to perform all of its obligations hereunder, and the execution and delivery of this Contract and the performance by Buyer of its obligations hereunder (i) have been duly authorized by all requisite limited liability company action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization of Buyer or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which Buyer is a party or by which it is bound. No further consents or approvals are or shall be required as a condition precedent to the consummation and Closing of the sale and purchase transaction contemplated herein except as expressly set forth in this Contract. Buyer has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Buyer on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Buyer, enforceable against Buyer in accordance with its terms.

14. Default

(a) Buyer Default. In the event of any material default on the part of Buyer under this Contract, the Seller shall be entitled, as its sole remedy hereunder, to either (i) retain the Deposit as consideration for its execution of this Contract and in full settlement of, and as liquidated damages for, any and all claims for damages occasioned by Buyer's default, and this Contract shall terminate, expire, cease and become null and void and, thereafter, all parties hereto shall be relieved of any and all further obligations and liabilities to each other under this Contract, other than as to those obligations which specifically survive the termination of this Contract; (ii) enforce specific performance of Buyer's obligations under this Contract.

(b) Seller Default. In the event of any default on the part of Seller under this Contract, the Buyer, as its sole remedy hereunder, may elect any of the following: (i) enforce specific performance of Seller's obligations under this Contract if the nature of Seller's default has not rendered specific performance unavailable, or (ii) if the nature of Seller's default has rendered specific performance unavailable or in Buyer's sole and absolute discretion not desirable or ineffective as a remedy, Buyer shall receive a return of the entire Deposit and Buyer may seek damages; or (iii) waive the breach, or default or other closing condition and proceed to consummate the transaction contemplated hereby without any adjustment of the Purchase Price in accordance with the provisions of this Agreement; or (iv) terminate this Contract, whereupon neither party hereto shall have any further rights or obligations hereunder (except as expressly set forth herein as surviving termination), and the Escrow Agent shall deliver the entire Deposit to Buyer, and Buyer shall recover from Seller all of Buyer's reasonable out-of-pocket expenses incurred to the date of such termination.

15. Litigation and Attorneys' Fees. In the event it shall be necessary for either party to this Contract to bring suit to enforce any provision hereof or for damages on account of any breach of this Contract, then the prevailing party in such suit shall be entitled to recover from the other party its attorney fees and costs in any such litigation and any appeals therefrom.

16. Time of Essence. It is expressly agreed by the parties hereto that time is of the essence of this Contract and in the performance of all conditions, covenants, requirements, obligations and warranties to be performed or satisfied by either party hereto. Waiver of performance or satisfaction of timely performance or satisfaction of any condition, covenant, requirement, obligation or warranty by one party shall not be deemed to be a waiver of the performance or satisfaction of any other condition, covenant, requirement, obligation or warranty unless specifically consented to in writing. Whenever a date specified herein shall fall on a Saturday, Sunday or legal holiday, the date shall be extended to the next business day.

17. Captions and Paragraph Headings. Captions and paragraph headings contained in this Contract are for convenience and reference only and in no way define, describe, extend or limit the scope or content of this Contract nor the intent of any provision hereof.

18. Notices. Any notice or other communication permitted or required to be given hereunder by one party to the other shall be in writing and shall be either (i) hand delivered, (ii) sent by Federal Express or other overnight delivery service, or (iii) sent by email, to the party entitled or required to receive the same at the address specified below or at such other address as may hereafter be designated in writing by any such party, provided that email notice is permitted as an accommodation only and must be followed immediately by other permitted delivery method hereunder.

TO SELLER:

Raymond H. and Alina Waterhouse
105 Partridge Circle
Portland, Maine 04102
Email: lori@northernburner.com

with a copy to:

Jensen, Baird, Gardner & Henry
10 Free Street
Portland, Maine 04101
Attention: Michael Quinlan
Email: mquinlan@jensenbaird.com

TO BUYER:

Redfern Properties, LLC
P.O. Box 8816
Portland, Maine 04104
Email: jonathan@redfernproperties.com

with a copy to:

Murray, Plumb & Murray
75 Pearl Street
Portland, Maine 04101
Attention: Drew A. Anderson
Email: danderson@mpmlaw.com

TO ESCROW AGENT:

The Boulos Company
One Canal Plaza, Suite 500
Portland, Maine 04101
Email: dsigfridson@boulos.com

The respective attorneys for Seller and Buyer are authorized to give notices with the same force and effect as if given by the parties.

19. Governing Law and Binding Effect. This Contract and the interpretation and enforcement of the same shall be governed by and construed in accordance with the laws of the State of Maine and shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto as well as their respective successors, heirs, executors, personal representatives, agents, and assigns.

20. Integrated Contract, Waiver and Modification. This Contract represents the complete and entire understanding and agreement between and among the parties hereto with regard to all matters involved in the purchase and sale transaction contemplated in this Contract and supersedes any and all prior or contemporaneous agreements, whether written or oral. No covenants, agreements, terms, provisions, warranties, statements, representations or undertakings, whether written or oral, made or executed by any party hereto shall be binding on any party hereto, unless specifically set forth or incorporated in this Contract. This Contract may not be modified or amended, nor may any covenant, agreement, condition, requirement, provision, warranty or obligation contained herein be waived, except in writing signed by all parties, or in the event that such modification, amendment or waiver is for the benefit of one or more of the parties hereto and to the detriment of the other or others, then the same must be in writing signed by that party or those parties hereto to whose detriment such modification, amendment or waiver inures.

21. Brokerage. Seller and Buyer hereby acknowledge, represent and warrant to each other that, other than The Boulos Company, who shall be paid by Buyer at Closing pursuant to a separate agreement or agreements, no broker or finder has been employed by either Seller or Buyer in connection with the sale and purchase transaction contemplated in this Contract and that no commission, finder's fee or similar remuneration, by whatever name, is payable by Seller or Buyer or due to any broker or finder in connection with this Contract or the sale and purchase transaction contemplated herein. Seller and Buyer each, respectively, hereby agree to indemnify, defend, save and hold the other harmless from and against the payment of any commissions or fees or claims for commissions or fees as a result of any actions taken or agreements, respectively, made by them with respect to the sale and purchase transaction contemplated in this Contract. The provisions of this Paragraph shall expressly survive any closing or closings hereunder or the termination of this Contract for any reason.

22. Assignment. This Agreement is not assignable by Seller except for the purpose of a like-kind exchange. Buyer shall be entitled to assign its right, title and interest herein to any limited liability company, corporation, partnership or other entity, whether now existing or

hereafter formed, controlled by, controlling or under common control with Buyer (each an "Affiliate"), provided that Redfern Properties, LLC shall remain liable for all obligations of Buyer under this Agreement regardless of any such assignment.

23. Non-Disclosure. Subject at all time to the rights of the parties as set forth in this Contract, unless and until the transaction contemplated hereby is closed, Buyer and Seller shall make no public announcements regarding the terms of this transaction. In any event, Buyer and Seller shall hold all proprietary information obtained by them with respect to each other or the Subject Property in strict confidence and shall not disclose such information to any other person or entity except to the extent necessary to consummate the transaction contemplated hereby.

24. Condemnation. In the event the Subject Property or any material portion or portions thereof shall be taken or condemned or be the subject of a bona fide written threat of condemnation by any governmental authorities or other entity prior to the closing, then the Buyer shall have the option of either (a) terminating this Contract by giving written notice thereof to the Seller, whereupon the Earnest Money Deposit shall be immediately refunded to the Buyer, and this Contract and all rights and obligations created hereunder shall be null and void and of no further force and effect, except as otherwise specified herein, or (b) requiring the Seller to convey the remaining portion or portions of the Subject Property to the Buyer pursuant to the terms and provisions hereof and to transfer and assign to the Buyer at the closing all of the right, title and interest of the Seller in and to any award made or to be made by reason of such condemnation, less amounts expended by Seller in connection therewith prior to such time. The Seller and the Buyer hereby further agree that the Buyer shall have the right to be present in all negotiations with any governmental authorities relating to the Subject Property and to be apprised of the compensation to be paid for any portion or portions thereof condemned by such governmental authorities or other entity.

25. Casualty. Seller will promptly upon receiving actual notice of a casualty, notify Buyer of any fire or other casualty affecting the Subject Property between the date hereof and the Closing. Unless otherwise mutually agreed in writing by Buyer and Seller, as soon as reasonably possible thereafter, subject to Seller's actual receipt of the proceeds, and subject in any event to the terms of any existing mortgage on the Real Property, Seller will commence any necessary repairs as a result of such fire or other casualty, and will provide Buyer with current information concerning insurance coverage therefor (the "Casualty Notice"). Buyer will have the right to terminate this Contract by written notice to Seller within fifteen (15) days following receipt of the Casualty Notice. If Buyer so terminates this Contract then, notwithstanding any provision of this Contract to the contrary, the entire Deposit, other than the portion of the Deposit that has become non-refundable, will be returned to Buyer, and the parties will have no further obligations or liabilities hereunder, except as otherwise expressly provided herein. If Buyer elects not to terminate this Contract, the purchase contemplated herein will be consummated without reduction of the Purchase Price within the later of ten (10) days after the expiration of such fifteen (15) day period or on the Closing Date specified herein, in which event the insurance proceeds will be used for such repairs, to the extent necessary, and Seller will assign transfer and set over to Buyer all of Seller's right, title and interest in and to such insurance proceeds less any amounts actually expended by Seller towards the repair or restoration prior to the date thereof, and Buyer shall receive a credit at Closing in an amount equal to the amount of the insurance deductible under Seller's insurance policy.

26. Execution in Counterparts. This Contract may be executed in counterparts, each of which shall be deemed an original and all such counterparts together shall be deemed to constitute an original instrument. Electronic signatures shall be afforded the full force and effect of original ink signatures.

27. Exchange. At either party's request, the other party shall cooperate to structure the sale of the Subject Property as a tax-deferred exchange under Section 1031 of the Internal Revenue Code, provided that: (a) the requesting party shall reimburse the other party for all resultant additional expenses it pays or incurs, (b) the other party shall not be obligated to take title to any property other than the Subject Property for any period of time, (c) the other party shall not be obligated to execute any notes or mortgages or to incur any liabilities as a result of participating in the exchange, (d) the Closing is not delayed beyond the Closing Date, and (e) the requesting party shall indemnify, defend and hold harmless the other party against claims, costs, loss, or liability arising from or related to the exchange.

[*Signatures appear on following page.*]

IN WITNESS WHEREOF, the parties have caused these presents to be executed as of the day and year first above written.

"SELLER"

Name: Raymond H. Waterhouse

Alina Waterhouse

"BUYER"

Redfern Properties, LLC

By. _____
Name. Jonathan Culley
Its: Member

"ESCROW AGENT"

The Boulos Company

By: _____
Name: Nate Stevens
Its: Designated Broker

EXHIBIT "A"

A certain lot or parcel of land, with the building thereon, situated on the easterly side of Washington Avenue in the City of Portland, County of Cumberland and State of Maine and being further bounded and described as follows:

Beginning at an iron set in the ground on the easterly side of said Washington Avenue at land now or formerly of the City of Portland; thence running North 79° 11' 30" East by land now or formerly of said City of Portland 181.49 feet to an iron set in the ground; thence running South 15° 52' East by Poplar Street Ext. (so called) 213.20' to an iron set in the ground at land now or formerly of Dewer Rich; thence running South 74° 21' West by said Rich land 33.23 feet to an iron set in the ground, thence running South 15° 39' East by said Rich land 64.00 feet to an iron set in the ground; thence running North 74° 21' East by said Rich land 33.47 feet to an iron set in the ground on the westerly line of said Poplar Street Ext. (so called); thence running South 15° 52' East by said Poplar Street Ext. (so called) 63.00 feet to an iron set in the ground; thence running South 74° 21' West 115.91 feet to an iron set in the ground; thence running South 82° 30' West 111.71 feet to an iron set in the ground on the easterly side of said Washington Avenue; thence running North 7° 30' West by the Easterly line of said Washington Avenue 254.40 feet to an angle in the easterly line of said Washington Avenue; thence running North 10° 15' 30" West by the easterly line of said Washington Avenue 88.25 feet to an iron set in the ground at land now or formerly of the City of Portland and said point of beginning.

The triangular strip of land lying northwesterly of Lots no. 10 and 20 on the Little, Weeks & Moody Plan was conveyed by the City of Portland to Equipment Leasing Co., Inc. by deed recorded in Cumberland County Registry of Deeds in Book 2695, Page 281.

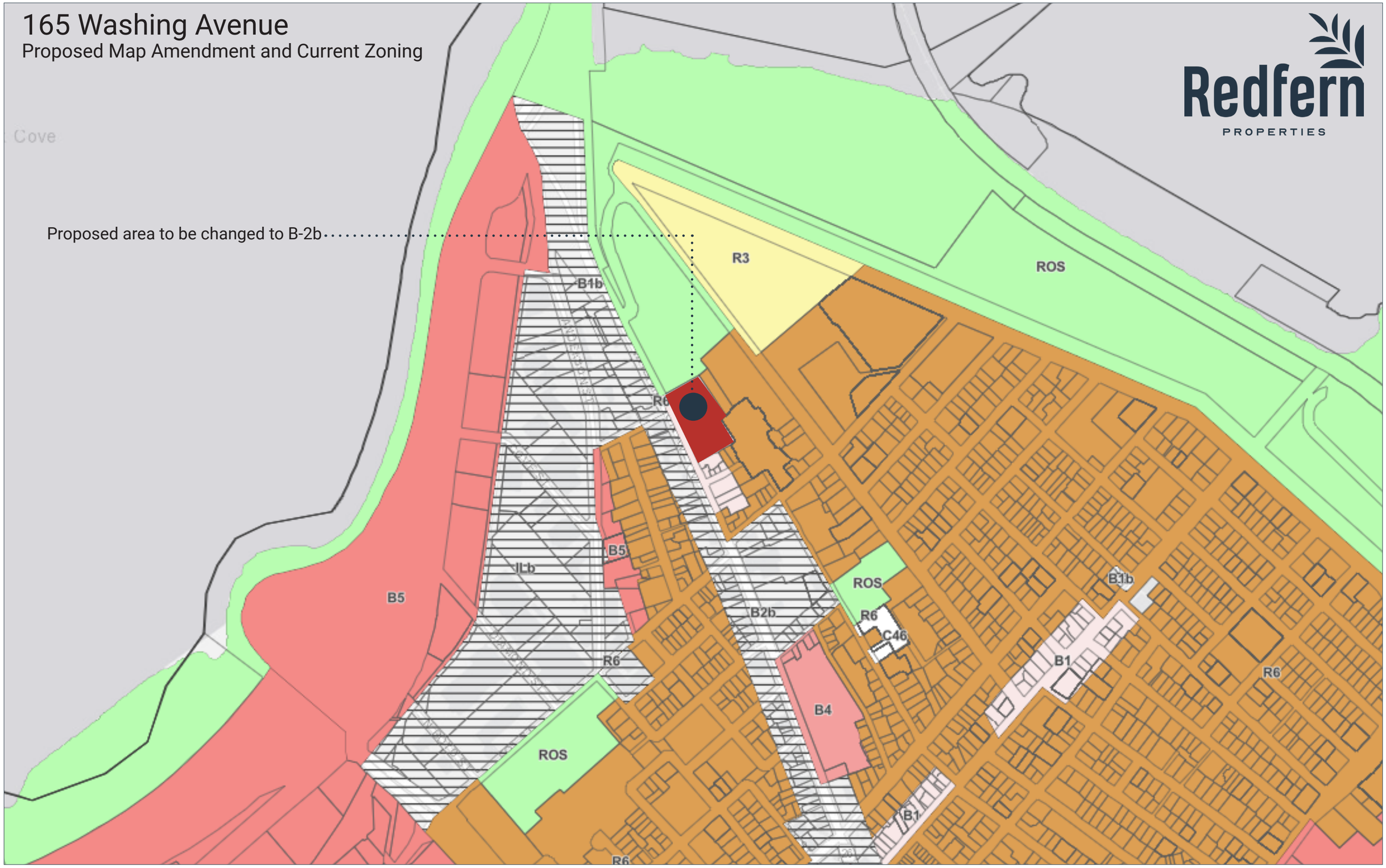
Also, excepting all those certain premises conveyed by Raymond H. Waterhouse and Alina Waterhouse to Redfern Munjoy, LLC, by deed dated January 14, 2014, recorded in Book 31302, Page 177.

165 Washing Avenue

Proposed Map Amendment and Current Zoning

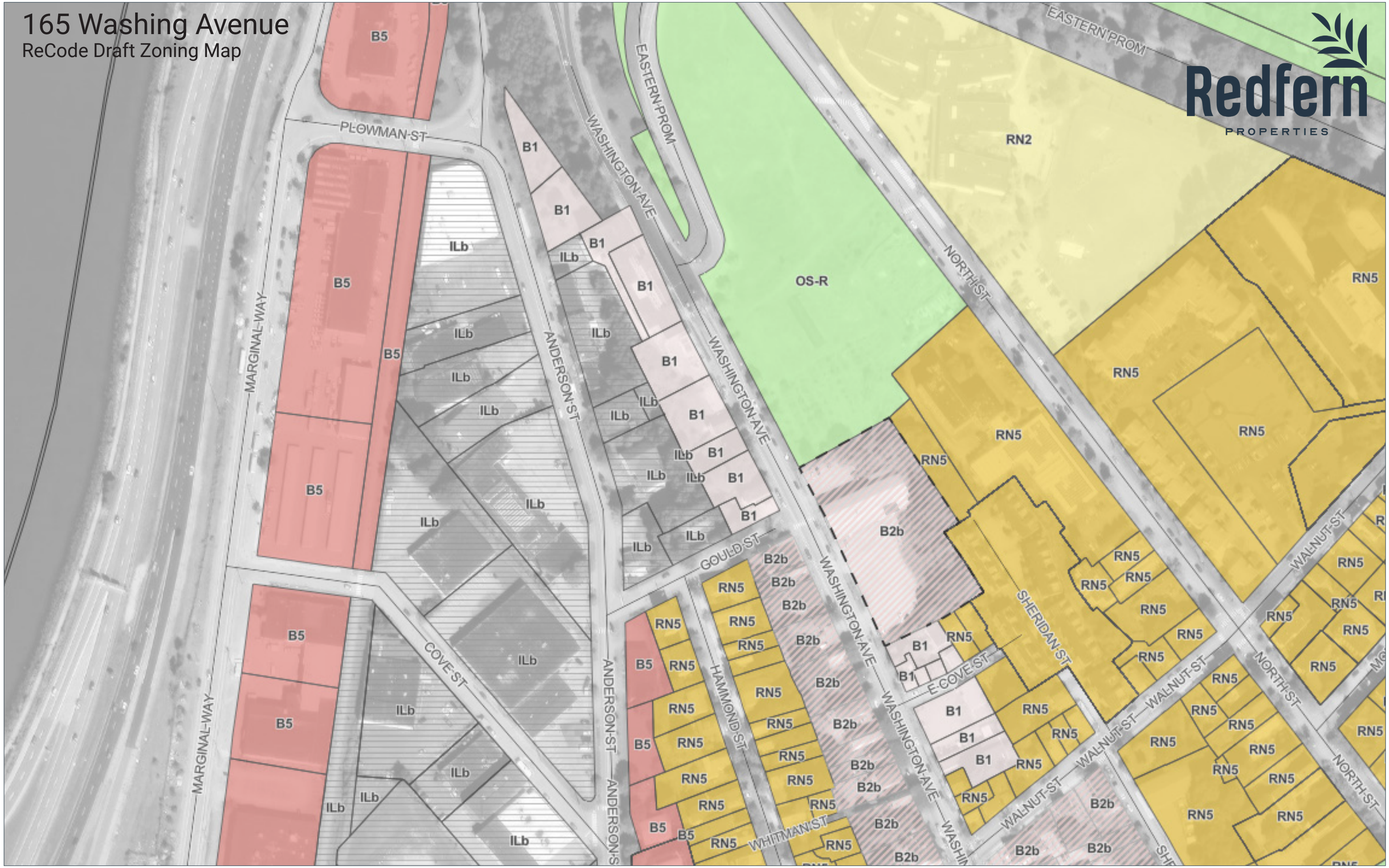
Redfern PROPERTIES

Proposed area to be changed to B-2b



165 Washing Avenue

ReCode Draft Zoning Map



165 Washing Avenue

Vicinity Map

Approximate Site Location

Redfern PROPERTIES

Conceptual Rendering

GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.

LEGEND

WATER — W
SEWER — S — S
STORMWATER — > — >
ELECTRIC — UGE

TM 10-C-1
N/F
PORTLAND VOA
ELDERLY HOUSING, INC.

SHERIDAN STREET
A.K.A. POPLAR STREET
STATUS UNKNOWN

TM 12-H-1
N/F
MUNJOY HEIGHTS CONDO
32240/98
SEE 31302/177

TM 10-B-6
N/F
CITY OF PORTLAND
1720/252
EXCEPT
2695/281

TM 12-F-10,11
N/F
HIGH PEAKS, LLC
34058/254

TM 12-F-9
N/F JEFFREY A. CURRAN
TW: 68.00'/77.00'
BW: 65.00'

TM 12-F-8
N/F JEFFREY A. CURRAN
37720/297

AREA=
65,375 S.F.
1.501 AC.

3RD FLOOR
FFE = 91.00'

FFE = 65.00'

UPPER FLOOR FOOTPRINT ABOVE

PR. 52 LF RETAINING WALL TO BE DESIGNED BY OTHERS, TYP.

PR. 45 LF RETAINING WALL LOCATION

PR. 275 LF RETAINING WALL TO BE DESIGNED BY OTHERS, TYP.

PR. ROOF DRAINS PER ARCHITECT, TYP.

APPROXIMATELY 1,100 R-TANKS

INSTALL RIPRAP TRENCH UPGRADIENT OF PROPOSED BUILDING

EXISTING TREE 10" DIA OR MORE

EXISTING TREE 10" DIA OR LESS

PROPOSED FIELD INLET WITH BEEHIVE GRATE. TYP OF 3.
RIM: 90.00'

PR. DRAIN MANHOLE, TYP.

EX. 91.00'
PR. 90.35'
PR. 91.00'

PR. CATCH BASIN
RIM: 64.90'

PR. DROP MH
(25' VERTICAL DROP)

TW: 95.50'/92.00'
BW: 91.05'

TW: 98.00'/95.50'
BW: 91.15'

TW: 98.00'
BW: 91.50'

TW: 98.00'
BW: 92.00'

TW: 98.00'
BW: 94.50'

TW: 74.00'
BW: 65.00'

TW: 72.00'/74.00'
BW: 65.00'

TW: 72.00'/68.00'
BW: 65.00'

TW: 68.00'
BW: 65.00'

TW: 73.00'/77.00'
BW: 65.40'

TW: 77.00'/73.00'
BW: 65.30'

TW: 77.00'/81.00'
BW: 65.10'

TW: 81.00'
BW: 65.50'

PR. 65.40'

PR. 65.75'

TRANSITION TO 12' DRIVE AISLE AT REAR OF PARCEL

TW: 82.00'/77.00'
BW: 65.20'

TW: 82.00'
BW: 65.15'

PR. CATCH BASIN
RIM: 65.05'

150' FROM EX. WASHINGTON AVENUE CURB LINE

PR. 65.00'
22.00'
25.00'

PR. 64.50'

PR. FLOOR DRAIN
RIM: 64.45'

PR. CATCH BASIN
RIM: 64.85'

PR. CATCH BASIN
RIM: 64.85'

PR. CATCH BASIN
RIM: 64.35'

PR. 65.00'

PR. 64.65'

PR. 64.70'

PR. 65.00'

POTENTIAL LOCATION OF OIL WATER SEPARATOR
RIM: 64.70'

PR. 64.75'

PR. FLOOR DRAIN
RIM: 64.65'

PR. 64.90'

PR. 65.00'

TW: 77.00'/82.00'
BW: 64.55'

GRADE BREAK, TYP.

PR. CATCH BASIN
RIM: 64.60'

8" SEWER SERVICE

POTENTIAL LOCATION OF R-TANKS

22' DRIVE AISLE WITH 3' SHOULDER (25' WIDTH) FOR EMERGENCY VEHICLE ACCESS

TW: 68.00'
BW: 65.85

PR. 65.75'±

POTENTIAL (6) 6" UGE & (4) 4" UGT/C CONDUIT DUCT BANK (345 LF)

POTENTIAL LOCATION FOR SECONDARY ELECTRIC VAULT

POTENTIAL LOCATION FOR SUBSURFACE TRANSFORMER

POTENTIAL LOCATION FOR TELECOM SPLICE BOX

POTENTIAL RISER POLES, TRANSITION TO UNDERGROUND ELECTRIC, TELECOM, AND CABLE

POTENTIAL 38Y MANHOLE, TYP. OF 3.

PR. FOUNDATION DRAIN, INTERIOR FOUNDATION DRAIN PER ARCHITECTURAL DRAWINGS

PROPOSED CATCH BASIN, TYP.

PROPOSED CATCH BASIN, TYP.

PROPOSED CATCH BASIN, TYP.

EXISTING UTILITY POLE TO POTENTIALLY BE REMOVED

PROPOSED SEWER DOGHOUSE MANHOLE

EXISTING STREET TREE TO BE REMOVED

WASHINGTON AVENUE
PAVED - PUBLIC

EAST COVE STREET
PAVED - PUBLIC - 30' WIDE

GOULD ST.

BIKE LANE

WHITE LINES

WHITE CURB

PROPOSED 8" FIRE SUPPRESSION SERVICE

PROPOSED 6" DOMESTIC SERVICE

PROPOSED 2" DOMESTIC SERVICE

POTENTIAL 15" STORMDRAIN MAIN INSTALLATION, TYP.

MAINTAIN ABUTTER UGE/T/C SERVICES, TYP.

POTENTIAL WATER MAIN REPLACEMENT (350 LF)

SEE SHEET C-31 FOR ADDITIONAL INFORMATION

SMH RIM=63.67
INV. IN=55.71
INV. OUT=55.61

RIM=63.22
AT DROP INLET
8"OUT w/ HOOD
H20=59.06
SUMP=58.32

RIM=62.40
AT DROP INLET
8"OUT w/ HOOD
H20=59.19
SUMP=57.40

RIM=61.92
AT DROP INLET
INV.=57.64

SMH RIM=63.05
10"INV. IN=53.35
8"INV. IN=56.31
12"INV. IN=55.39
8"INV. IN=56.29
18"INV. OUT=53.31

MH RIM=62.80
DROP INLET=62.38
8"OUT w/ HOOD
H20=57.94
SUMP=57.80

SMH RIM=67.22
8"INV. IN=61.26
8"INV. IN=60.44
8"INV. OUT=60.40

TBM: BONNET BOLT HYDRANT ELEV.=65.40

TBM: BONNET BOLT HYDRANT ELEV.=69.41

20 0 20 40
SCALE: 1" = 20'

CONCEPT
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
CONCEPT	PFH	10/31/23

DRAWING NAME: SITE, UTILITY, & GRADING PLAN

PROJECT NAME: REDFERN PROPERTIES

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.
THESE PLANS SHALL BE ADDED TO AND MODIFIED WITH ADDITIONAL INFORMATION OR OTHERWISE, SHALL BE USED BY THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 ROUTE 25, BRUNSWICK, MAINE 04011
PO BOX 326, NEW GLOUCESTER, MAINE 04260
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

DRAWING NO.
C-30

165 Washing Avenue

Conceptual Rendering

Redfern PROPERTIES



165 Washing Avenue

Conceptual Rendering

Redfern PROPERTIES



165 Washing Avenue

Conceptual Rendering



Mt Joy Community Orchard 0 views

Subscribe



Natalie Hyde <whyde777@gmail.com> Apr 27, 2024, 9:25:35 AM (2 days ago)

to planning@portlandmaine.gov, mount.joy.orchard@gmail.com

Hello,

I would like to express my opposition to a proposed zoning change for the lot abutting the Mount Joy Orchard, 165 Washington Avenue. Currently the space is zoned for a 4 story building but Redfern Properties is asking that it be changed to 7 stories. A seven story building would shade out the orchard, threatening the health of the trees and other plants. A community resource like the Mt Joy orchard, or any urban green space for that matter, needs to be considered and protected over the long term; mature fruiting trees can't just be moved around when conditions suddenly change. The orchard was planned and planted with the understanding that abutting buildings would be four stories or less, and those of us who care about it are only asking that those rules continue to be honored.

I would like to add that I am not against housing being built in that space; I and others who care about the orchard only oppose any building that would be almost double what existing zoning restrictions allow for height. More people living near and having access to the beautiful space that is the community orchard would be a great thing, and we all know that Portland needs more housing. A four story apartment building would be a welcome addition to the neighborhood, just not a seven story one.

If you've gotten this far, thank you for reading, and I hope as the planning board makes their decision about 165 Washington Avenue that you consider the orchard.

Natalie Hyde Petersen

Mika Sato <m.sato4224@gmail.com> Apr 27, 2024, 8:11:40 PM (2 days ago)

to atrevorrow@portlandmaine.gov, planning@portlandmaine.gov

Hello,

I live on Sheridan St in the east end and I
oppose the change in zoning from B1 to B2 for 165 Washington Avenue. The Mount Joy Orchard is a treasure and I hope nothing will be done to negatively impact it.

Thank you,
Mika

Jason Rubinoff <jasonrubinoff11@gmail.com> May 17, 2024, 9:54:58 AM (3 days ago)

to planning@portlandmaine.gov

Hello all,

My name is Jason Rubinoff and I'm a 29 year old who's lived in Portland for all but 4 years of my life. Fort Sumner Park, or the "Top of the World" as my friends and I know it as, is where Ive spent countless sunrises and sunsets, had picnics, and brought my friends "from away" every time I want them to see the Portland I love. It's where my fiancé and I will be taking our first photos for our wedding.

I was alarmed to read that Redfern Properties has submitted a proposal to build up to 75 feet, effectively blocking at least part of Fort Sumner's vantage point of the city. I understand that they are submitting this proposal in an effort to build more affordable housing, but my prerogative is that this project will do more harm than good by taking away a dynamic public space if allowed to be built at the height proposed. Build the project, don't change the zoning to allow for more height. Thank you for your time, and I look forward to hearing from you.

Best,
Jason Rubinoff

Natasha Kypfer <nkypfer@portlandmaine.gov>

Fwd: Planning Board Statement Concerning Proposed Zone Change

1 message

Kevin Kraft <kkraft@portlandmaine.gov> Wed, Jul 3, 2024 at 1:11 PM
To: Natasha Kypfer <nkypfer@portlandmaine.gov>

---------- Forwarded message ---------
From: **'Richard Marino' via Planning Board** <planningboard@portlandmaine.gov>
Date: Wed, Jul 3, 2024 at 1:03 PM
Subject: Planning Board Statement Concerning Proposed Zone Change
To: Portland Planning Board <Planningboard@portlandmaine.gov>

Planning Board Statement Concerning Proposed Zone Change

My name is Richard Marino. I am a lifelong resident of Portland. With my brother Mike Marino I have been involved in several development projects in Portland, including the conversion of the McClellan School to residential units in the 1980s. We also have developed owned and operated multiple restaurants in Portland, Including The Roma Cafe which was founded by my father in 1924. We are currently in the planning stage of a 44 unit housing development in Freeport. (by the way it is in compliance with all existing zoning rules). I have lived at my current address on Munjoy Hill for more than 9 years. I have also lived at 6 other addresses in Portland, but I especially like Munjoy Hill because of the parks and trails, the pedestrian scale, and the community it supports.

I am the closest and most affected abutter to 165 Washington Ave. The proposed building includes a 75 foot facade 40 feet from my home. I would like to address several issues in regard to this proposed development.

1. The Planning Department should not make residents defend the parks, streets, and public amenities of their neighborhood. Yet in this case residents are in a position of having to argue against proposed zoning recommendations presented in Portland Recode, which is far from being approved. In fact, this proposal creates a zone that currently does not exist. The planning department has become an advocate for the developers and dismissive of the concerns of residents who live in the neighborhood. THIS IS NOTHING LESS THAN SPOT ZONING.
2. I believe the height, mass, density and scale of the proposed zone change are out of proportion to the surrounding neighborhood. A reasonable comparison is the new building at 218 Washington Ave. That building is in keeping with the surrounding scale of the Eastern Prom Park and Washington Ave. The spot zoning proposal doubles the mass and density of the current B1.
3. The 165 Washington Ave spot zoning is inconsistent and out of scale with the R 6 to the north , the Eastern Prom Park to the west, and the existing B1 to the south. There is an existing B 2 across the street,that would be impractical to develop at the B2 maximum.
4. In my opinion the planning department is wrong to assume that this gateway entrance to the peninsula should have a building of this height and scale. This is the wrong site for a seven story 320 unit building. The experts did not get it right.
5. I acknowledge the need for more housing in Portland and am supportive of a proposal that adheres to the existing zoning rules. But this one site should not have to carry the excessive burden that this development would bring with a zone change. There should be other considerations other than just the need for housing. There should not be a spot zone that changes the character of the neighborhood and enriches the developers at others expense.
6. You probably are aware of the fact that 94.2% of households in Portland have at least one automobile. I know Portland has eliminated parking requirements, but that does not mean that most people won't have cars. What it does mean is that there will be a major increase in parking and traffic congestion.

7. The developers could develop under the current B1 and have a very viable project. They could easily develop the planned commercial space and 160 units of housing. Even that would be considerably more dense than the surrounding area. (I would not rely on the developers statement that the economics are not viable for a B1 project.
8. As someone that walks this neighborhood everyday I have an in-depth feel in for this area. I encourage you to spend a little time walking and getting a feel for the area that is my home. Thank You.

Sent from my iPad

--
Kevin Kraft, AICP
Interim Director Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101
Phone: 207.874.8430
kkraft@portlandmaine.gov





165 WASHINGTON AVE **COMMUNITY** CONSIDERATIONS

SUNLIGHT WILL BE **BLOCKED** FOR THE RESIDENCE AND BUSINESSES WITH A 70’ BUILDING



7 STORY BUILDING

70FT RISE FROM CURB

SUN: 2024 MARCH 19, 10:00 A.M.

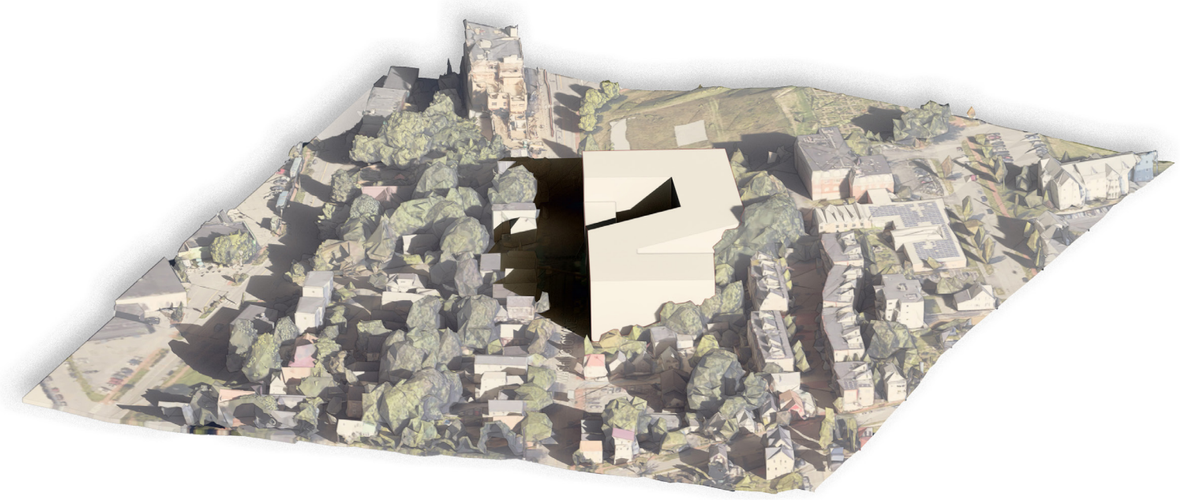


4 STORY BUILDING

40FT RISE FROM CURB

SUN: 2024 MARCH 19, 10:00 A.M.

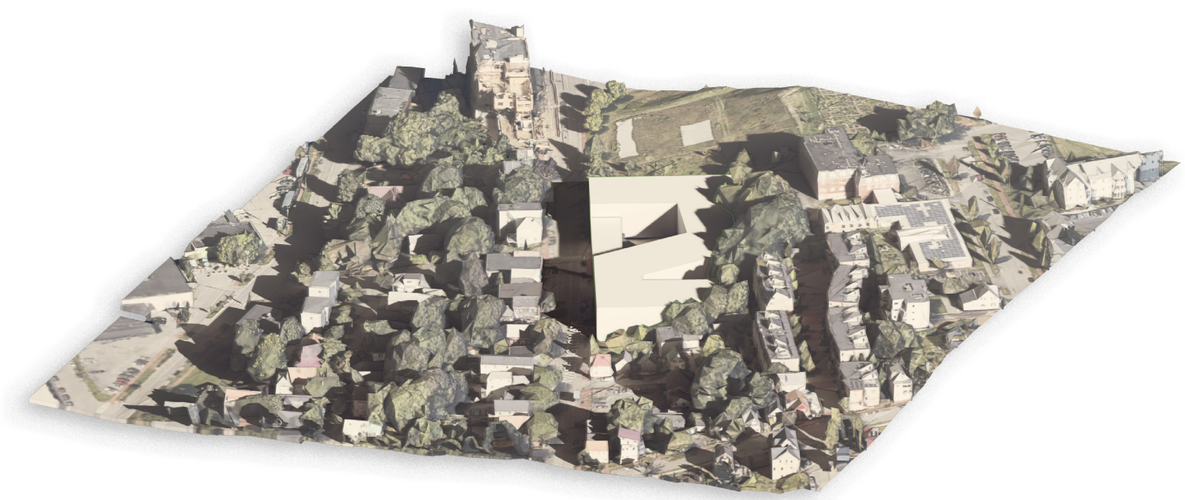
A 70’ BUILDING **WILL BLOCK** NATURAL LIGHT FROM REACHING HOMES



7 STORY BUILDING
70FT RISE FROM CURB

SUN: 2024 MARCH 19, 10:00 P.M.

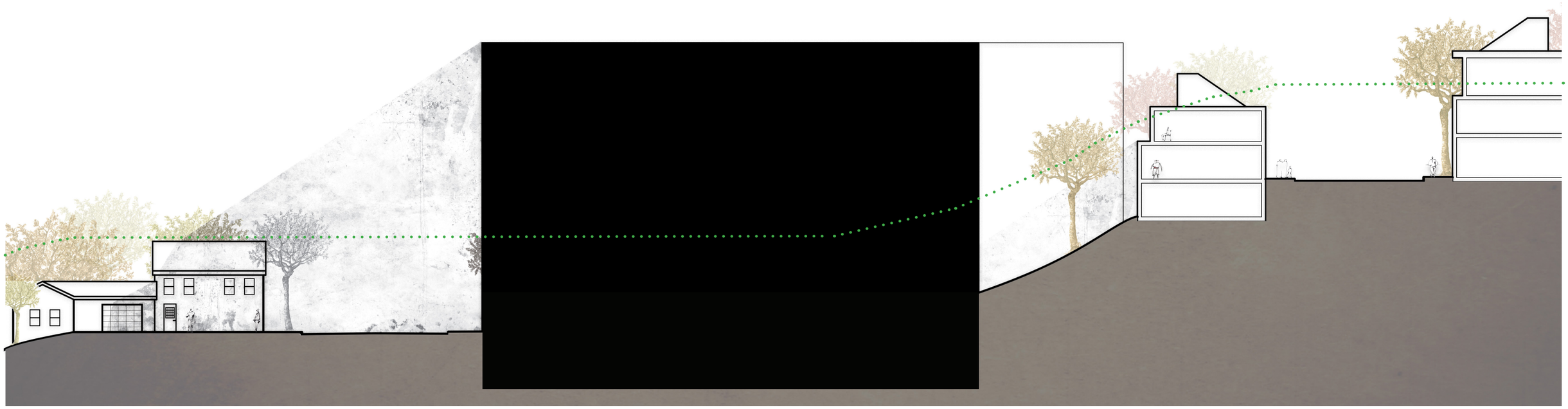
THE 40’ **ALLOWS SUNLIGHT** TO REACH THE COMMUNITY

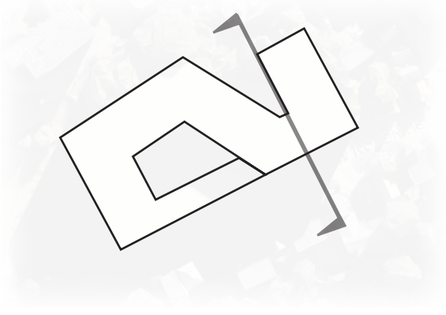


4 STORY BUILDING
40FT RISE FROM CURB

SUN: 2024 MARCH 19, :00 P.M.

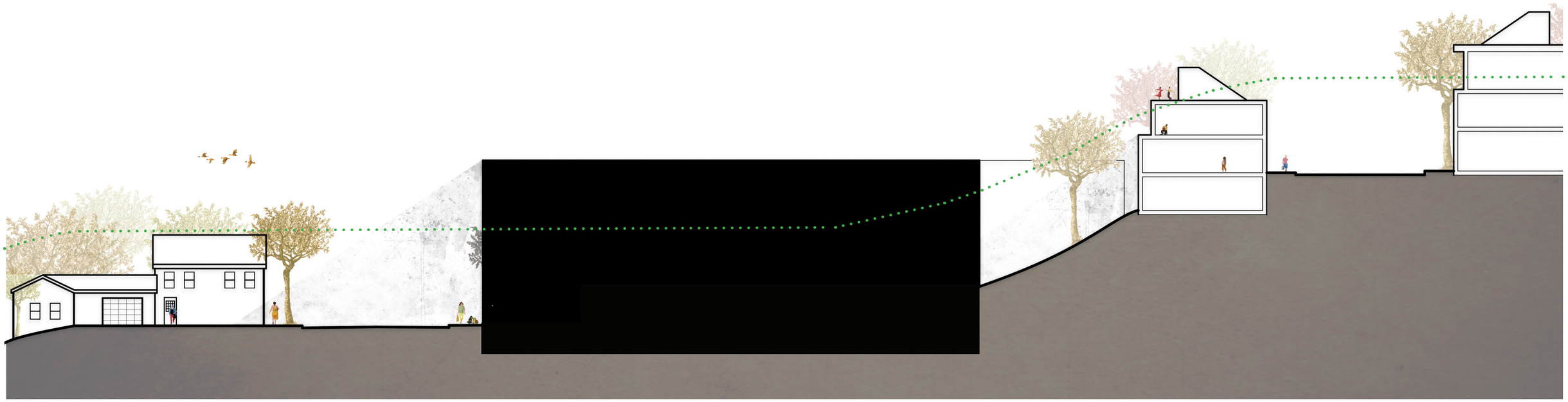
A 70’ BUILDING IS **DISPROPORTIONATE** TO THE SCALE OF MUNJOY HILL

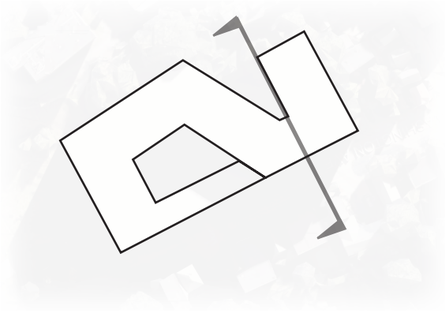




MARCH 19 10:00 A.M.
VERNAL EQUINOX

THE 40’ BUILDING **MATCHES** THE SCALE OF MUNJOY HILL

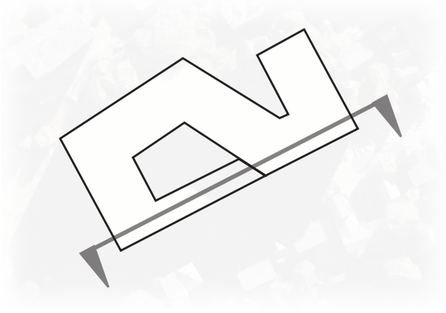




MARCH 19 10:00 A.M.
VERNAL EQUINOX

A 70'BUILDING WILL CAST A **SHADOW** OVER THE ORCHARD

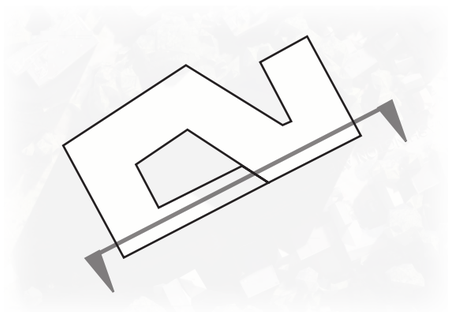




MARCH 19 10:00 A.M.
VERNAL EQUINOX

THE 40’ BUILDING WILL **ALLOW SUNLIGHT** TO REACH THE ORCHARD





MARCH 19 10:00 A.M.
VERNAL EQUINOX

WRITTEN TESTIMONY BY BEVERLY BOOKIN, AICP (RETIRED)
RELATED TO PROPOSED ZONING MAP AMENDMENT FOR 165 WASHINGTON AVENUE
PLANNING BOARD WORK SESSION (7/9/24)

My name is Beverly Bookin. We own property at 203 Sheridan Street, which makes me a party of standing in this land use case to up-zone the subject parcel at 165 Washington Avenue from B-1 to B-2b and amend the text of Table 7-E (Mixed-Use Zones Dimensional Standards) in the City of Portland Land Use Code to eliminate the site area/dwelling unit (DU) standard and increase the base building height from 45' to 65'. The zoning map and code text amendments are necessary to facilitate the applicant's (Redfern Properties) proposal to build a seven-story mixed-use building.

As documented in the two attachments, I have done a detailed analysis of this project, relying upon my 35+ years of experience as an urban planning consultant in Portland, Oregon, and five-year tenure as a member of the City of Gloucester (MA) Planning Board. I have never encountered a land use case that has raised so many serious red flags related to legality, technical sufficiency and public accountability. I haven't practiced in Maine and have only a superficial knowledge of the Portland zoning code. However, my concerns are related to widely-accepted land use theory and practice that transcend state boundaries. These concerns fall into two categories:

- Legal/land use (Appendix A) related to the manner in which this land use application is being processed and its inextricable and inappropriate connection to the-Recode Portland 2023 Project now underway.

- Residential density analysis (Appendix B) primarily related to the impacts associated with the proposal to eliminate the minimum site area/DU in both the B-1 and B-2 zones (Table B-7), effectively eliminating the maximum density requirement. Thus, the maximum density would only be limited by the size of the building envelope.

Legal/Land Use Analysis

Discussion. As described in Appendix A, what appears to be an inappropriate level of coordination between the Planning Department and Redfern Properties has created a circular logic:

- The Redfern request is based solely on the Planning Department's long-range planning for the Washington Avenue Corridor and modifications of the mixed-use zoning (B-1b/B-2b) to implement the Recode Portland 2023 recommendations. These changes have not been adopted and, therefore, cannot form the legal basis of approval for the Redfern request for a zoning map amendment on the subject parcel.

- At the same time, the Planning Department is modifying its proposals for the Washington Avenue Corridor to reflect Redfern Properties' proposal, essentially using it as the "poster child" that supports the proposed changes. This is evident in the Phase II recommendations, released only in early June, whereupon the department has proposed to:

  - Re-zone five additional properties on the east side of Washington Avenue immediately south of the subject parcel from B-1 to B-2b. This reasonably can be interpreted as an attempt to assist Redfern in its application by eliminating the appearance that the re-zoning of a single parcel on the east side constitutes "spot zoning".

  - Remove the maximum residential density requirement of 435 sf of site area/DU in Table 7-E without which the proposal could not achieve its proposed unit count. The department also proposes the increase in the maximum height standard to seven stories without which the allowed building envelope would not be of sufficient size to accommodate 320 DUs.

To make matters worse, the department and applicant have agreed that the two key changes in Table 7-E be carried forward in the applicant's request that was filed in April, two months before the release of the Phase II recommendations. These are proposals that will affect a whole class of property owners in the B-1 and B-2 zones and should be considered as part of a broad legislative process to update the zoning code, not sneaked through the back door of a zoning map amendment on a single parcel.

This is more than a "bad look". It is a reasonable public expectation that the Planning Department is a neutral arbitrator in both its long-range and current planning functions. It is not the department's role to pick winners and losers – in this case handing Redfern an enormous economic windfall -- or put its "finger on the scale" to assist an applicant whose project it favors.

Recommendations. Based on the detailed analysis in Appendix A, it is my professional opinion that:

1) The Redfern Properties' application should either be voluntarily withdrawn by the applicant or removed from consideration, if not by the Planning Department, then by the Planning Board:

   - The application is incomplete as it does not provide a thorough analysis of all of the goals of the city's comprehensive plan, Portland's Plan 2030, the only apparent criteria for approval of a zoning map amendment.

   - Approval of the proposed seven-story mixed-use project is not possible today given the current development standards on maximum residential density and maximum height in Table 7-E. The proposal will not become feasible unless and until these standards are modified.

- Modification of these and other provisions of the zoning code that allow the project to be developed as proposed has only been recommended recently in the Phase II of the Recode Portland 2023 Project in June 2024 and, therefore, have not been fully vetted nor subject to meaningful public input. Their adoption is far from certain.

  - It is highly irregular and may be a violation of the State of Maine land use law to allow text amendments, such as those associated with Tables B-7 that will affect whole classes of property owners in the B1/B2 zones, to be approved through a quasi-judicial zoning map amendment for a single property.

  - Approving a zone change based on a specific project that in the end may be significantly modified to remove its more appealing features, abandoned altogether or replaced by an entirely different project is highly irregular and may be illegal under Maine law. If the proposal to up-zone the property is to be approved prior to the completion of the Recode Portland 2023 Project, it needs to be reviewed on the basis of the most intense use allowed in the zone at its maximum allowed density to show that the site is an appropriate location for such development. The land use application submitted by Redfern Properties fails to undertake the necessary analysis for this approach.

- If the current application is voluntarily withdrawn or removed from consideration by the city based on the legal/technical analysis provided in this paper, the applicant can continue to participate in the Recode Portland 2023 Project to lobby for the necessary legislative zoning text and map amendments. Should these modifications to the zoning code and map be approved, the applicant can then undertake the project as proposed by right subject to Major Site Plan Review.

2) If the application is not voluntarily withdrawn by the applicant, the Planning Board should consider recommending denial of the quasi-judicial land use request submitted by Redfern Properties as the request for re-zoning the site is premature given schedule of the Recode Portland 2023 process and is the improper vehicle for the proposed changes to the development standards in Table 7-E, upon which its proposal for 320 DUs is dependent. Aside from this, the application is deeply flawed, providing inadequate justification for this request for up-zoning on its own merits.

3) As an alternative, the applicant can re-submit for the zoning map amendment with a project that meets all the current development standards in Table 7-E and other pertinent code requirements. This would result in a significantly smaller project limited by the existing standards for maximum residential density and maximum height but still represent a major infusion of dwelling units into the city's housing supply.

Residential Density Analysis. Appendix B analyzes in detail the proposal to alter the development standards for the B1/B-2 zones in Table 7-E (Mixed-Use Zones Dimensional Standards). This includes the elimination of the site area/dwelling unit (DU), effectively removing the cap on maximum residential density, combined with a height increase from 45' (four stories) to 65' (six stories) with a 10' height bonus for affordable housing, bringing the total to 75' (seven stories). This is exactly the formula needed for a building envelope on the subject site of sufficient size to accommodate Redfern Properties' proposal for 320 DUs (without addressing the obvious feature that the project will need 1-2 stories of underground parking). The analysis in Appendix B is highly technical as needed to parse these complicated proposals in Phase II of the Recode Portland 2023. A summary of this analysis is provided below.

Discussion

- Despite the housing shortage in the Portland metropolitan area, no one project can be expected to solve the housing crisis. Rather, housing should be maximized to the degree that it is also consistent with the scale of the surrounding neighborhood and availability of infrastructure.

- The proposal in the Phase II recommendations for the Recode Portland 2023 Project related to eliminating the site area/DU standard, effectively removing the cap on maximum residential density before an affordable housing density bonus is applied, is highly problematic. It is apparent that it has not been analyzed sufficiently from the technical, functional and public policy perspectives:

  - The current and the proposed standards for site area/DU and maximum height are the same in both the B-1/B-1b, intended for "neighborhood" commercial scale, and B-2/B-2b zones, intended for "community" commercial scale. Shouldn't the intensity of development in the B-1 zones be less than the supposedly more intense B-2 zones?

  - That being the case, why not retain the current site area (435 sf)/DU and 45' maximum height requirement in the B-1 zones to reflect this? This will yield a maximum residential density of 100 DUs/Net Acre (NA) before the affordable housing bonus is added. With a 33% increase in DUs for workforce housing (per the Redfern proposal) this would yield 133 DUs/NA. On the 1.57-acre subject site, this translates into 209 DUs.

  - To reflect the intended intensity of the B-2/B-2b zones, decreasing the site area/DU in a measured way, say to 350 sf/DU, the maximum residential density would be 124 DUs/NA before the affordable housing bonus and 165 DUs after the application of a 33% affordable housing increase. On a the 1.57-acre site this translates in 259 DUs. This then can be coupled with a height increase from 45' (four stories) to 55' (five stories) with a 10' height bonus for affordable housing to 65' (six stories), resulting in a major contribution to the city's housing stock at a reasonable scale.

- In contrast, the applicant proposes a total 320 DUs, a combination of market-rate and affordable housing, for a total density of 209 DUs/NA. This is feasible only if the site area/DU standard is eliminated and the maximum height increased to 65' (six stories) with a 10' height bonus for affordable housing, bringing the maximum height to 75' (seven stories).

- A summary of the maximum residential densities in various zones/scenarios is presented below, with the methodology for these calculations presented in Appendix B

SUMMARY OF MAXIMUM RESIDENTIAL DENSITY IN SEVERAL ZONES
EXISTING AND PROPOSED

ZONE	SA/DU	BASE MRD/NA	W/33% WFH	ON 1.57 AC SITE	% INC FROM R6
R6	725 SF	60 DU	80	126	------
B-1/B-1b/B-2/B-2b Existing	435 SF	100 DU	133	209	66%
B-1/B-1b Proposed	435 SF	100 DU	133	209	66%
B-2/B-2b Proposed	350 SF	124 DU	165	259	106%
Redfern Proposal	-----	157 DU	209	320	154%

KEY:

MRA	Maximum Residential Density
SA/DU	Site Area/Dwelling Unit
NA	Net Acre (Already served by street network)
WFH	Workforce Housing DUs

- Density matters with regard to neighborhood compatibility, scale, shading, tree removal, and impacts on traffic, parking and other public infrastructure. A picture is worth "a thousand words".



Recommendations

1) As the Phase II recommendations related to this site were only introduced in early June 2024 and clearly have not yet been fully vetted nor broadly available for public comment, the Planning Department staff has much work to do before finalizing these recommendations. This work should be undertaken as part of the Recode Portland 2023 process. Thus, it is inappropriate and premature for modification of Table 7-E to be reviewed and approved in the Redfern application.

2) As part of its continuing evaluation of this portion of the Washington Avenue Corridor, the Planning Department staff may want to reassess the up-zoning the subject property given its sensitive location immediately south of the East Promenade Park. Even under the current zoning of B-1 and current development standards in Table 7-E, the above analysis demonstrates that the 1.57-acre site would yield more 209 DUs (133 DUs/NA), assuming an additional 33% of affordable housing units, consistent with the Redfern proposal.

3) If it is determined that up-zoning the site to B-2b is more appropriate, a more measured approach would be to adopt a meaningful increase in the maximum residential density, by reducing site area/DUs say to 350 sf, which would yield 259 DU (165 DUs/NA) on the subject 1.57-acre site, assuming 33% increase in workforce housing per the Redfern proposal. This could be coupled with a height increase from the current 45' (four stories) to 55' (five stories) with a height bonus of 10' (six stories)r. Thus, a project of this size could provide a sizable increase in the city's housing supply at a more acceptable scale.

Respectfully submitted:
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Email: bookin@bookingroup.com

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APPENDIX A: LEGAL/LAND USE ANALYSIS
FOR PROPOSED MIXED-USE PROJECT AT 165 WAHSINGTON AVENUE

Proposed Land Use Request

- Re-zone site to B-2b (Mixed-Use Residential/Community Commercial)
- Eliminate lot area/dwelling unit (DU) requirement for B-2b zone on Table 7-E → no maximum residential density
- Increase maximum height from 45' (four stories) to 65' (six stories) for B2-b zone on Table 7-E + 10' height bonus for affordable housing (7 stories)

Some Land Use Theory. In theory (if not explicit in Maine's state land use enabling act), there are two types of zoning map changes.

- A legislative amendment is one initiated by the local government to implement a comprehensive plan or zoning code update and generally applies to several properties.
- A quasi-judicial amendment is one initiated by a property owner on specific parcel.

As a general rule, amendments to the zoning code text are legislative changes as they apply to a whole class(es) of properties. Thus, an individual property owner shouldn't be able to initiate a zoning code text amendment. If he wishes an exception, say for a development standard, he must ask for an exception, waiver or variance, a quasi-judicial request that only applies to the specific site.

Analysis. The most serious issue is related to the manner in which this land use application is being processed and its inextricable and inappropriate connection to the Recode Portland 2023 Project now underway. This raises serious red flags related to legality, technical analysis and public accountability. This has resulted in circular logic:

- The Redfern request is based solely on the Planning Department's long-range planning for the Washington Avenue Corridor and modifications of the mixed-use zoning (B-1b/B-2b) to implement the Recode Portland 2023 Phase II recommendations. These changes have not been adopted, and, therefore, cannot form the legal basis for approval of the Redfern request for a zone map change on the subject parcel at this time.

- At the same time, the Planning Department is modifying its proposals for the Washington Avenue Corridor to reflect the Redfern Properties' proposal, essentially using it as the "poster child" to support the proposed changes. This is evident in the Phase II recommendations, released in early June 2024, whereupon the department has proposed to:

    - Up-zone five additional properties on the east side of Washington Avenue immediately south of the subject parcel from B-1 to B-2b. This can be reasonably interpreted as an attempt to assist Redfern in its application by eliminating the appearance that the re-zoning of a single parcel on the east side constitutes "spot zoning".

- Remove the maximum residential density requirement of 435 sf of site area/DU in Table 7-E, without which the project could not reach its proposed density of 320 DUs. The department also proposes the increase the height in the B-2b zone from 45' to 65' (from four to six stories) plus 10' for a height bonus for affordable housing to 75' (seven stories). Without this change, the allowed building envelope would not be of sufficient size to accommodate 320 DUs. It is also noteworthy that the Redfern application was filed in early April 2024, two months before the release of the Phase II recommendations.

- As noted above, these recommendations have not yet been fully vetted nor subject to meaningful public comment. To make matters worse, the department and applicant have agreed that the two key changes – elimination of the site area/DU standard and increased height – in Table 7-E be carried forward in the applicant's request. These are proposals that will affect a whole class of property owners in the B-1/B-1b and B-2/B-2b zones and should be considered as part of a broader legislative process to update the zoning code, not sneaked through the back door of a zone map amendment on a single parcel.

- This is more than a "bad look". Even is not illegal under Maine law, mixing the quasi-judicial and legislative decision-making processes is bad planning practice and inadequate public accountability. It is a reasonable public expectation that the Planning Department is an impartial arbitrator in both its long-range and current planning functions. It is not the Planning Department's role to pick winners and losers among the city's property owners – in this case handing Redfern an enormous economic windfall -- or put its "finger on the scale" to assist an applicant whose project it favors.

More detailed analysis includes:

- The Redfern Properties' request is based on a proposed re-zoning of a portion of the Washington Avenue Corridor including the subject site now under consideration but not yet adopted in the Recode Portland 2023 process to advance the goals and policies of the existing comprehensive plan, Portland's Plan 2030, by updating its most important implementing ordinance, the City of Portland Land Use Code. Thus, these "recommendations" currently are not legally binding as a basis for approval of this quasi-judicial zone change.

- As the requested zoning map amendment affects only 165 Washington Avenue, the requests for elimination of the DU/site area and increase maximum height from the standards in the current version of Table 7-E should be treated as variances, that is, affecting this property only.*

*It is interesting to note that the applicant does not ask for the modification of Table 19-A to eliminate all minimum parking spaces for residential uses including the current standard of one space/DU. However, the applicant's current proposal, only 30 parking spaces (a ratio of one space/10.7 DUs), is clearly too low. Should the proposal advance to Major Site Plan Review, the applicant will have to provide a Transportation Demand Management (TDM) Plan to provide technical support for its proposed on-site parking demand, which this reviewer thinks is at least 275 on-site spaces (0.85 spaces/DU), which will require 1-2 floors of underground parking

- Changing the text of Table 7-E as part of the Redfern Properties' zoning map amendment request would liberalize these standards for all future development on any B-2/B-2b-zoned property. As noted above, the Redfern Properties' zoning map amendment application is not the proper vehicle for consideration of text changes of such a sweeping nature. Rather, they should be considered as part of the Recode Portland 2023 Project, that is, through the legislative review process, not adopted though the back door on this quasi-judicial zoning map amendment for 165 Washington Avenue. It also is noteworthy that the proposed re-zoning of this portion of Washington Avenue and changes to development standards in Table 7-E were only proposed in Phase II of the Recode Portland 2023 process in early June 2024, so these have yet to be fully vetted nor broadly available for public comment. Thus, an effort to adopt them at this time via the Redfern Properties' application is premature.

- If the applicant was willing to wait until the legislative re-zoning and modification of the development standards in Table 7-E are approved, if approved, the proposed project would be allowed by right subject to Site Plan Review. However, the applicant chooses to forge ahead with a quasi-judicial zone change. In so, doing, the application needs to be approved on its own legal and technical merits. <u>The question is: what is the legal framework for doing so? What are the criteria of approval?</u>

- A zoning map amendment is the most impactful action especially when the proposed up-zoning significantly increases the parcel's development capacity, as is the case here. In most zoning codes with which this reviewer is familiar, such a change is subject to legal findings such as
  - There is a compelling need for more land in this zoning designation because of the range of uses and/or density of development it allows.
  - The site is at an appropriate location and size to accommodate allowed uses at maximum development allowed by the new zoning map designation.
  - There is adequate infrastructure on- and off-site to accommodate maximum development of the site.
  - The proposed zone map change and resulting development will be in keeping with the character of the neighborhood and will not have adverse impacts upon the surrounding properties unless these adverse impacts can be reasonably mitigated.

- This reviewer has not been able to find the citations within the <u>Land Use Code</u> that dictate the criteria to which zoning map amendments are held. Apparently, only an analysis of the comprehensive plan goals is required. The Redfern Properties' application, relies solely upon the goal statements in the city's existing comprehensive plan, <u>Portland's Plan 2030</u>. In so doing, the applicant cherry picks the goals -- <u>Housing, Economy and Future Land Use</u> – that supports its proposal and ignores other pertinent proposed goals, such as <u>Environment, Recreation/Open Space, Transportation and Facilities/Services,</u> that are not as supportive.

- In this reviewer's experience, zoning map amendments cannot be conditioned on the promise of a specific development project, and even if allowed by Maine law, such an action is problematic. Even when an applicant presents a conceptual development proposal in good faith as the basis to justify a re-zoning request, once in development is subjected to detailed legal, functional, design and economic analyses, the final project may vary substantially. This could mean the most attractive features – the amount of affordable housing for example – may be reduced, or the project is abandoned because the developer cannot get financing, goes bankrupt, decides to put the site to an entirely new use (bait-and-switch) or sells the property to another party.

- In any of these circumstances, the city has few legal options – can it rescind the approved zoning map amendment or deny the modified version or new use? Generally not. To put it another way: a zoning map amendment is forever and, once granted, the property can be developed to any use permitted in the zone and at the highest possible density. This is one more reason why Redfern Properties' specific proposal for a mixed-use project with 320 DUs should not be used as the basis for granting this zoning map amendment, especially since it cannot be built as proposed unless and until the more liberal development standards only recently proposed in the Phase II of Recode Portland 2023 Project's recommendations are adopted. That, of course, underscores that such zoning code text amendments should not be approved via a quasi-judicial land use application that applies to a single property.

- The open coordination between the Planning Department and applicant described above has allowed the applicant to submit a slipshod application that in no way analyzes the potential adverse impacts as well as the benefits associated with this request for the significant up-zoning of the site, relying totally on the argument that this is exactly what the Planning Department visualizes for the Washington Avenue Corridor, serving as a "poster child" for future development there.

  - It is not the Planning Department's role to pick winners and losers among the community's property owners. Given the open coordination of the Planning Department and Redfern Properties, the department is engineering a major economic windfall to benefit a single property owner.

  - Moreover, this "finger-on-the-scale" is contrary to the department's role to be a neutral arbitrator on quasi-judicial land use applications, where it judges the appropriateness, legal sufficiency and potential benefits and adverse impacts of proposed applications before recommending approval, approval with conditions or denial.

Conclusions and Recommendations

1) In consideration of the following, Redfern Properties' application should either be voluntarily withdrawn by the applicant or removed from consideration, if not by the Planning Department, then by the Planning Board.

2) If the application is not voluntarily withdrawn by the applicant, the Planning Board should consider recommending denial of the quasi-judicial land use request submitted by Redfern Properties as the request for re-zoning the site is premature given schedule of the Recode Portland 2023 process and is the improper vehicle for the proposed changes to the development standards in Table 7-E upon which its proposal for 320 DUs is dependent. Aside from this, the applicant's application is deeply flawed, providing inadequate justification for this request for up-zoning on its own merits without relying on recommended changes to the zoning code text and map that have not yet and may not be adopted.

3) As an alternative, the applicant can re-submit for the zoning map amendment with a project that meets all the development standards in Table 7-E and other pertinent code requirements. This would result in a significantly smaller project limited by the existing standards for maximum residential density and maximum height but still represent a major infusion of dwelling units into the city's housing supply.

APPENDIX B: RESIDENTIAL DENSITY ANALYSIS
PROPOSED MIXED-USE PROJECT AT 165 WASHINGTON AVENUE

The purpose of this portion of Beverly Bookin's written testimony is to explore the Implications associated with the modification of the minimum residential density for the B-1-b/B2-b zoning districts on Table 7-E in the City of Portland Land Use Code as part of the proposed zone map change for the property at 165 Washington Avenue. The analysis is presented below. To re-cap:

Current Zoning/Development Standards

- Currently zoned B-1 (Mixed-Use Residential/Neighborhood Commercial)
- Maximum density: 1 dwelling unit (DU)/435 sf of site area (Table 7-E: Mixed-Use Zones Dimensional Standards)
- Maximum height: 45' (4 stories) (Table 7-E) + 10' height bonus for affordable housing (5 stories)

Proposed Land Use Request

- Re-zone to B-2b (Mixed-Use Residential/Community Commercial)
- Eliminate lot area/DU requirement for B-2/B-2b zones on Table 7-E → no maximum residential density
- Increase maximum height from 45' (four stories) to 65' (6 stories) for B-2/B-2b zones on Table 7-E + 10' height bonus for affordable housing (7 stories)

Summary of Redfern Property's Proposal

- Site size: 1.57 acres (68,720 sf)
- 320 Dwelling Units (DUs) including 240 Market-Rate and 80 Workforce DUs
- Limited ground-floor commercial
- 30 on-site parking spaces

Findings

- The current maximum residential density before density bonuses for affordable housing are applied, 435 sf of site area/dwelling unit (DU), is exactly the same for the B-1/B-1b and B-2/B2b zones as is the maximum height of 45' (four stories), which is eligible for a 10' height bonus for the inclusion of affordable housing, bringing the maximum height to 55' (five stories).

- Washington Avenue is major transportation corridor with four bus lines connecting downtown Portland to the north via I-295. To maximize the use of this transit capacity, increasing the residential density along the corridor is warranted. As the B2 zones are intended to be more intensive than the B1 zones (Community Commercial versus Neighborhood Commercial), increasing the maximum residential density and maximum height in the B-2/B-2b zones potentially may be justified if proposals are fully vetted and technically sound.

- The question is how much more intense? To examine this in greater detail, here are the current maximum residential densities in the R6 zone, the current designation for properties immediately adjacent of the subject property including the Munjoy Heights Condominiums and Volunteers of America (VOA) senior housing complex, and the B1 and B2 zones, which are expressed in density/net acre (NA), a standardized unit of measure:
  - Current R6 standard (725 sf if site area/DU) 43,560 sf (NA) ÷ 725 sf = 60 DUs/NA
  - Current B1/B2 standard (435 sf of site area/DU): 43,560 sf (NA) ÷ 435 sf = 100 DUs/NA
  - Currently, the maximum residential density in B-1/B-2 zones is 66% higher than in the R6.

- However, in its Recode Portland 2023 process, the Planning Department has recommended in its Phase II recommendations to eliminate the minimum site area/DU in both the B--1 and B-2 zones, effectively eliminating the maximum density requirement:
  - If it makes sense to distinguish scale and density of the B-2/B-2b zones, Community Commercial, from the less intensive B-1 zones, Neighborhood Commercial, then the proposed revised standard should apply only the B-2 zones.
  - At the current standard of 435 sf site area/DU, the maximum residential density of 100 DUs.Net Arce in the B-1/B-1b zone seems "right-sized" when adjacent to even high-density residential neighborhoods such as Munjoy Hill that is primarily zoned R6.

- To distinguish the higher-intensity B-2/B-2b zone from the less-intense B-1/B-1b zones, one option is to decrease the site area/DU more modestly, rather than eliminate it altogether. One possibility:
  - 350 sf: 43,560 sf (NA) ÷ 350 sf = 124 DUs/NA (24%% increase over the current 100 DUs)

- However, it is the proposed elimination of the site area/DU standard upon which the applicant is relying and whose application includes text changes contained in Table 7-E of the zoning code even though there is a legitimate concern that a quasit-judicial land use request that affects a single property should not serve as the vehicle by which legislative changes to the zoning code are undertaken (see the Appendix B: Legal/Land Use Analysis in this written submission).

- In this context, the applicant proposes a base residential density of 240 market-rate DUs on its 1.57-acre site. This is a base residential density of 153 DUs/NA (240 DU ÷ 1.57 NA). This is compared to the current 60 DU/NA (R6) and 100 DUs/NA (currently in B-1/B-2 zones),

- However, the full impact of the Redfern Properties' proposal cannot be measured without adding in the proposed 80 DUs of workforce housing, which is a 33% increase (80 DUs ÷ 240 DUs). This works out to 204 DUs/NA (320 DUs ÷ 1.57 acre). Let's see how this compares to other existing or proposed minimum site area/DU standards:
  - R6: @735 sf site area/DU: 60 DUs X 1.33% Workforce DU Bonus = 80 DUs/NA
  - Existing/Proposed B1/B2 Zones: @435 sf site area/DU: 100 DUs X 1.33% = 133 DUs/NA
  - Bookin Proposal B-2 Zones only: @350 sf site area/DU: 124 DUs X1.33% = 165 DUs/NA

- Now let's look at the application of these net-acre maximum residential densities immediately above on the subject 1.57-acre site:
  - R6: 80 DUs/NA X 1.57 = 126 DUs
  - Existing /Proposed B1/B2 Zones: 133 DUs/NA X 1.57 = 209 DUs
  - Bookin Proposal B-2 Zones only: 165 DUs/NA X 1.57 = 259 DUs
  - Redfern Properties' Proposal: 204 DUs/NA X 1.33 =320 DUs

- The total number, 320 DUs, proposed by Redfern Properties is 24% higher than even a modest reduction of site area/DU to 350 sf, which would yield 259 DUs on this 1.57-acre site. Other written testimony provided by Peggy Shaffer, Ben Jacks and Dick Marino, all living within 500' of the site and, therefore, legal parties of standing, illustrates the overwhelming scale of the resulting seven-story building, completely out of character with the surrounding development including the recently-opened four-story residential complex at 218 Washington Avenue and immediately-adjacent East Promenade Park, including the Mt. Joy Orchard, East End Community Garden, East End School Garden/Outdoor Classroom and Jack Path Trail.

- Given the nature of surrounding uses to the north, northwest and east, further consideration should be given in the Recode Portland 2023 process to retain the subject property's current zoning designation of B-1, which would still yield 209 DUs (including density bonuses for affordable housing) per the housing density analysis above.

- If it is determined that up-zoning the site to B-2b is more appropriate, a more measured approach would be to adopt a meaningful increase in the maximum residential density, by reducing site area/DU, to say 350 sf, which would result in a significant contribution to the city's housing supply, including a meaningful number of workforce/affordable units. This could be coupled with a height increase from the current 45' (four stories) to 55' (five stories) with a height bonus of 10' (six stories), resulting in a significant reduction in overall scale.

- The analysis in this and other submitted written materials submitted raise substantial issues as they relate to the up-zoning Washington Avenue Corridor that have not been fully explored:
  - Determining the appropriate scale of development on this and other existing and proposed properties with the B-2/B-2b zoning designation.
  - Identifying impacts on neighborhood character including scale, open space protection ad shading.
  - Balancing the obvious benefits of additional mixed-use housing/commercial development (Housing. Economy, and Future Land Use) against other goals in the Comprehensive Plan such as Environment, Recreation/Open Space, Transportation and Facilities/Services.
  - Quantifying collective impacts of B-2b-zoned properties on this portion of the Wahington Avenue Corridor associated with parking, traffic, and other public infrastructure/services.
  - Exploring unintended consequences.

- With regard to the latter, one possible unintended consequence of eliminating the minimum site area/DU may be a disincentive to the provision of affordable housing, as counter-intuitive as that sounds. If a developer can develop by right the total number of DUs that can be accommodated in the building envelope, as established by site size, height and other development standards, what incentive is there to do more than designate 20% of these units as deed-restricted workforce housing, the minimum required by the city's inclusionary zoning (IZ) provisions? The latter still qualifies the height bonus of 10' (Table 18-C). On the other hand, if the maximum residential density is capped at less than full development potential, there may be a greater incentive to back-fill the additional capacity with workforce units beyond 20% to trigger the 10' height bonus. This is a complicated matter that warrants additional analysis.

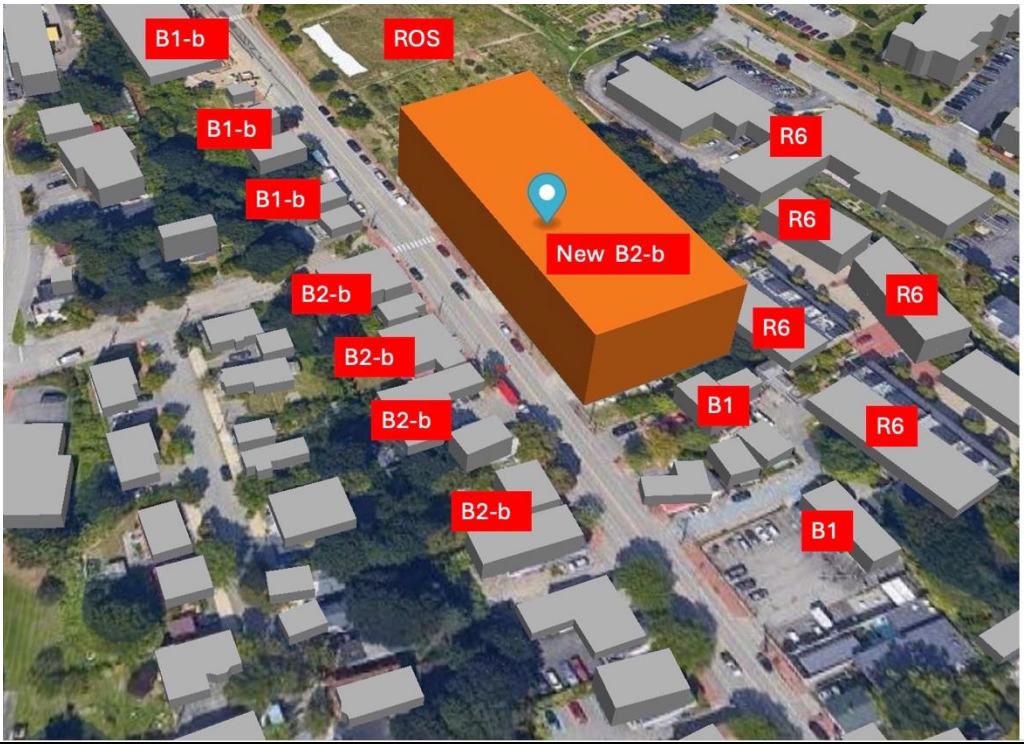
A summary of maximum residential density in a variety of zones/scenarios is presented below:

SUMMARY OF MAXIMUM RESIDENTIAL DENSITY IN SEVERAL ZONES
EXISTING AND PROPOSED

ZONE	SA/DU	BASE MRD/NA	W/33% WFH/NA	ON 1.57 AC SITE	% INC FROM R6
R6	725 SF	60 DU	80	126	------
B-1/B-1b/B-2/B-2b Existing	435 SF	100 DU	133	209	66%
B-1/B-1b Proposed	435 SF	100 DU	133	209	66%
B-2/B-2b Proposed	350 SF	124 DU	165	259	106%
Redfern Proposal	-----	157 DU	204	320	154%

KEY:

MRA	Maximum Residential Density
SA/DU	Site Area/Dwelling Unit
NA	Net Acre (Already served by street network)
WFH	Workforce Housing DUs



Recommendations

4) As Recode Phase II recommendations related to this site were only introduced in early June 2024 and clearly have not yet been fully vetted nor broadly available for public comment, the Planning Department staff has much work to do before finalizing these recommendations. This work should be undertaken as part of the Recode Portland 2023 process. Thus, it is inappropriate and premature for modification of Table 7-E to be reviewed and approved in the Redfern application.

5) As part of its continuing evaluation of this portion of the Washington Avenue Corridor, the Planning Department staff may want to reassess the up-zoning the subject property given its sensitive location immediately south of the East Promenade Park. Even under the current zoning of B-1 and current development standards in Table 7-E, the above analysis demonstrates that the 1.57-acre site would yield 209 DUs (133 DUs/NA), assuming an additional 33% of affordable housing units, consistent with the Redfern proposal.

6) If it is determined that up-zoning the site to B-2b is more appropriate, a more measured approach would be to adopt a meaningful increase in the maximum residential density, by reducing site area/DUs, say to 350 sf, which would yield 259 DU (165 DUs/NA) on this site, assuming 33% increase in workforce housing per the Redfern proposal. This could be coupled with a height increase from the current 45' (four , stories) to 55' (five stories) with a height bonus of 10' (six stories). A project of this size could provide a sizable increase in the city's housing supply at a more acceptable scale.

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TESTIMONY RELATED TO PROPOSED ZONE CHANGE FOR 165 WASHINGTON AVENUE PLANNING COMMISSION MEETING (7/9/24)

My name is Peggy Shaffer. I am a Harvard trained environmental historian with expertise in parks and outdoor recreation, and a party of interest as a resident of Munjoy Hill who lives within 500 feet of the 165 Washington Avenue site.

When it holds a formal public hearing in this matter, I request that the Planning Board recommend that the City Council reject Redfern's application for a zoning change from B-1 to B-2b with modifications related to maximum residential density and maximum height contained in the Portland Land Use Code Table 7-E (Mixed Use Zone Dimensional Standards).

To this end, I am submitting written testimony to the Planning Board in advance to document the following reasons why the board should recommend denial of this application.

The Portland Planning Board website provides general guidelines for the development review process, noting that the proposal's consistency with the city's comprehensive plan is a critical part of the review process.

There are eight policy categories in the existing comprehensive plan, Portland Plan 2030: 1. Environment, 2. Historic Resources, 3. Waterfront, 4. Economy, 5. Housing, 6. Recreation & Open Space, 7. Facilities & Services, 8. Transportation, as well as the additional policy defined by Future Land Use.

The following Policy Goal Analysis based on Portland Plan 2030, shows that Redfern has not conducted a complete analysis of the project's compliance with the current comprehensive plan. In its application, Redfern addresses only three goals – Housing, Economy and Future Land Use – that support the proposed project, ignoring several other goals that are not supportive. Although housing is an important goal, it is not the only policy guideline. Overall, the proposed project has a negative impact on several of the policy goals in the current comprehensive plan.

Given the magnitude of Redfern's proposal—they are requesting a unique code change that increases the density and height requirements of the current B-2b code standards, which changes the standards contained in The Portland Land Use Code Table 7-E (Mixed Use Zone Dimensional Standards), it is incumbent upon the applicant to show that they meet and are not detracting from the other policy guidelines.

Redfern is requesting extensive rezoning of almost a full block on the northeast side of Washington Avenue. The application presents this request as a precedent and model project for Portland Recode. Yet, the proposal makes no effort to examine the collective impact of the proposed building, specifically in relation to the adjacent Recreation and Open Space zone (ROS), as well and the "physical form and scale" of the project in relation to the surrounding Munjoy Hill neighborhood. (Fig.1)

Notably, the current comprehensive plan includes a precedent and model for protecting open space and providing guidelines for proper scale in a very analogous situation—the Fort Sumner Park Height Overlay (section 8.3)—less than three blocks away on North Street.

If you balance all the policy goals presented in Portland Plan 2030, the following policy goal analysis demonstrates that the negative impacts of this proposal outweigh the positive impacts. (Note: all quotations included here are from Portland Plan 2030.)



Fig. 1

Environment
Two of the stated goals under the Environment guidelines include:

- Support agricultural, forest, and scenic resources appropriate to our urban context.
- Increase the urban tree canopy by 15% above current canopy coverage to benefit air quality, local climate, CO2 absorption, and aesthetics.

Redfern's proposed building abuts the western end of the Eastern Promenade Park, which includes the Mt. Joy Orchard, the East End Community School Garden & Outdoor Classroom, and the East End Community Garden. The 7-story building is bounded to the east by a small vestigial forest and Jack Path, which is part of the Eastern Promenade Trail System.

Construction of the building will necessitate the elimination of trees from the vestigial forest thus decreasing the urban tree canopy. Jack Path will be hemmed in on each side by buildings and cast in permanent shadow. The Mt. Joy Orchard will be bordered by a 75-foot building wall, which will deprive the Orchard of morning sun.

Economy
This goal is nested under the vision of equity, and one of the stated goals under the Economy guidelines is:

- Respect that our unique quality of place is key to our current and future economic success.

Redfern's proposal for a zoning change is inequitable. Approval of this zoning change would single out one developer to benefit economically from proposed changes to the comprehensive plan before the comprehensive plan has been formally approved by Portland City Council.

In addition, the Eastern Promenade Park was established in the 19th century "to provide open space on these promontories and to protect majestic views," as stated in Portland 2030. The Prom is an iconic public park that defines the city of Portland, making it a scenic and economic asset that attracts tourists as well as residents. The park is also a limited environmental, cultural, and historical resource that should not be infringed upon.

The zoning change requested and the proposed building would permanently alter the landscape, the experience, the "majestic views" in the park. Given that there are a number of sites along Washington Avenue that do not border the park that could be developed to increase housing and given that the Eastern Promenade Park is a unique public landscape with significant historic, cultural, recreational and environmental value, it is critical that the Planning Board follow the multiple policy guidelines that protect Portland's signature parks.

Recreation & Open Space
Policy guidelines for Recreation & Open Space are multifaceted, addressing scenic resources, greenspace, recreational spaces, public health, and environment among other goals. The guidelines note:

> "Being virtually encircled by water, Portland owes much of its beauty to the surrounding water bodies, including freshwater rivers, the ocean, a working harbor and an enclosed cove. Portland's waters were recognized early in the city's history as scenic resources."

Stated goals include:

- Preserve the intrinsic values of the park and open space system, including historic resources, vistas, healthy ecosystem functions, and biological diversity.
- Provide high-quality, well-designed, well-maintained, safe, and integrated parks, trails, public open spaces, and recreational opportunities accessible to all residents. Encourage physical and visual access to Portland's waterfront — Casco Bay, Back Cove, and the Stroudwater, Presumpscot, and Fore Rivers — as a "blueway" network and an extension of public space for local and regional recreation and transportation needs.
- Promote scenic resources

The western end of the Eastern Promenade, situated between North Street and Washington Avenue, offers expansive views of Back Cove, the Portland city skyline, and Mt. Washington. (Fig. 2) Throughout the year, residents and visitors come to the park, which is also home to the North Street Community Garden, the East End Community School Garden and Outdoor Classroom, and the Mount Joy Orchard, to enjoy the expansive vistas or watch the sun set over Back Cove. Fort Sumner Park, which sits on North Street to the east has a park overlay (Land Use Code Seciton 8.3) that protects similar quintessential views of the dynamic Portland landscape.

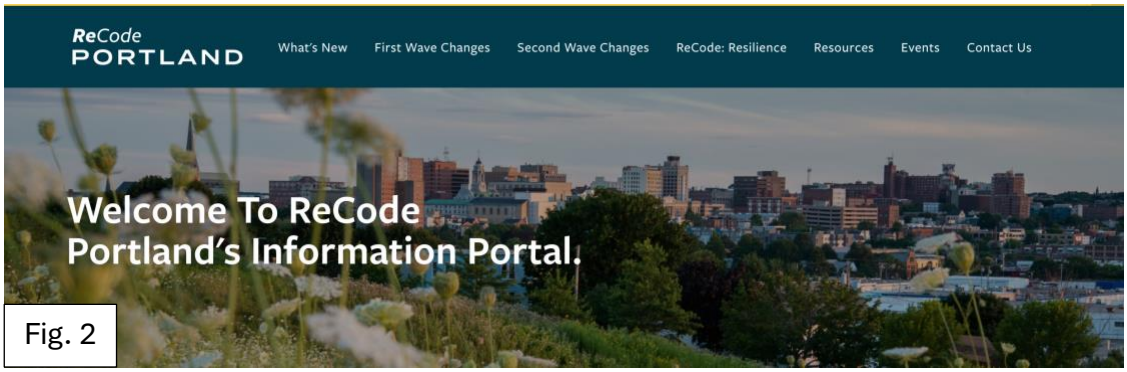


Fig. 2

In addition, the western end of the Eastern Promenade Park is a highly valued and used park space that knits together the green spaces that exemplify the core of the Munjoy Hill neighborhood and the Eastern Prom.

As the "Park Equity" Map in the appendices of the Portland 2030 shows (Fig. 3), the western end of the Eastern Promenade and Jack Path are part of an extensive trail, park, recreational space, and pedestrian landscape that links to Back Cove trail and parkland, East Bayside and West Bayside trails, the northeastern end of the Portland waterfront, and Ft. Sumner Park.



Fig. 3

The proposed building will infringe on and detract from these interconnected park landscapes. It will create a 75-foot wall at the edge of the Eastern Promenade on Washington Avenue, blocking expansive views for which the park was established. It will encroach on the vestigial forest that borders Jack Path, while also walling off Jack Path. It will cast the Mt. Joy Orchard in morning shadow, changing the ecology and the physical experience of the orchard and the park. (Fig.4 & Fig. 5)



Fig. 4


Fig. 5

Transportation
Two of the stated goals under Transportation include:

- Manage parking strategically
- Identify, plan, and zone for parking needs, particularly downtown, on the waterfront, and in conjunction with large institutions.

The current land use code mandates one parking space per unit. In the presentation of their proposed building Redfern has stated that there will be approximately 30 parking spaces for 320 units. Current code does mandate a parking and traffic study at the Site Plan Phase.

At this phase, Redfern is exporting their parking demand to the public streets. There are no parking garages in Munjoy Hill and there are limited large parking areas. Residents, visitors, and retail shops

depend on the reasonable availability of street parking. Cars are a necessity to reach affordable supermarkets, off peninsula workplaces, hospitals, and other necessary facilities. (Fig. 6 from Data USA: Portland, ME).

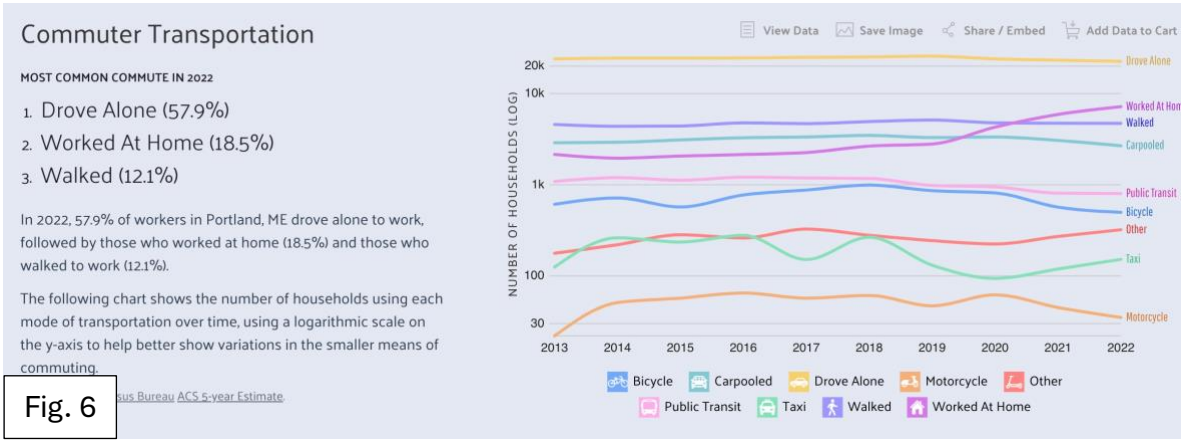


Fig. 6

Data shows that in 2022, over 40% of the households in Portland owned 2 cars (Fig. 7 from Data USA: Portland ME).

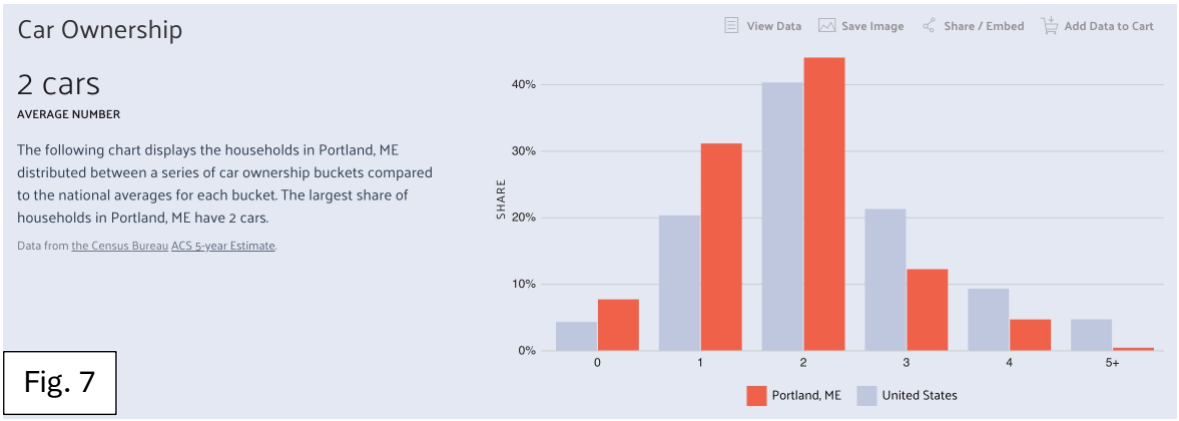


Fig. 7

To suggest that that one parking space for every 10 units will meet parking demands is not a strategic approach to parking management.

Street parking is a public resource. Redfern underestimates the vehicular traffic their building will generate. Their proposal will place added parking pressure on the East End Community School, the Volunteers of America Bayview Heights, and the retail shops and business on Washington Avenue.

Parking is a public resource that should be available to everyone. It is incumbent on the Planning Department and Planning Board to manage that resource fairly rather than shifting the parking burden generated by one development onto the public streets. The public should not be responsible for providing parking for the proposed building; public streets are not a private resource.

Future Land Use

One of the key components of the guidelines on future land use is the concept of Complete Neighborhoods. Portland Plan 2030 cites Munjoy Hill as a model for a complete neighborhood, stating:

> "The city already has examples of these neighborhoods, each with its own social networks, physical form and scale, and distinct sense of identity. Neighborhoods such as Munjoy Hill and Deering Center, with their schools, expansive open spaces, small groceries, and restaurants, provide precedents for complete neighborhoods that can inform the evolution of other areas in the city."

In the current code, 165 Washington Ave abuts an ROS Recreation and Open Space zone (The Eastern Promenade Park) on the northwest side; the buildings across the street from the Eastern Promenade Park are zoned B-1b with a 45 foot height restriction and a density requirement of 435 square feet per dwelling unit (100 DU/net acre); and the buildings to the southeast on both sides of Cove Street are zoned B-1 with a 45 foot height restriction and a density requirement of 435 square feet per dwelling unit (100 DU/net acre). The buildings to the north of the project on Sheridan Street are zoned R6 with a 45-foot height limit and a density requirement of 725 square feet per dwelling unit (60 DU/net acre).

The building proposed by Redfern has a 75-foot height limit (with the workforce housing bonus) and a base density of 275 square feet per DU (157 DU/net acre). The project is doubling the density of the current B-2 zone requirements.

The height and density allowed by the zone change and the proposed 75-foot, 320-unit project will be an anomaly on Washington Avenue, dwarfing the existing 2-4 story surrounding structures. It will create a 75-foot wall at the edge of the Eastern Promenade Park.

It is completely out of character with the existing streetscape, and it will detract from the current "physical form and scale" of the existing Munjoy Hill neighborhood.

Finally, it is important to note that should this zoning change be approved, Redfern is under no obligation to build the building it has submitted as part of this application process. As has been shown with the 54 York St. property, Redfern could easily build a luxury boutique hotel, or 2000 or 3000 square foot luxury condos, among other things. Or, because the zoning change will dramatically increase the value of the site, Redfern could sell the property to a developer who could adopt a maximalist approach to developing the property (see Fig. 1, which depicts the buildable site area for the zone change requested by Redfern).

I support the goal to increase housing density in Portland, and Washington Avenue is a reasonable corridor for high density housing. Anchored at the northwest end by the Eastern Promenade Park and the at the southeast end by Eastern Cemetery, the street marks the western edge of the Munjoy Hill Complete Neighborhood.

Seventy properties line Washington Avenue from I-295 to Congress Street. It encompasses seven zones (Fig.1):

- R6 (high density residential) (3 properties)
- B-1 (mixed use zone for small scale commercial establishments) (6 properties)
- B-1b (mixed use allowing for ground floor commercial use) (8 properties)
- B-2b (mixed use for retail, business, and service establishments) (47 properties)
- B4 (mixed use for businesses catering to highway trade) (3 properties)

- IS-FBC (India Street form based) (3 properties)
- ROS (open space zone to preserve and protect open space as a limited valuable resource). (Eastern Promenade Park and Eastern Cemetery)

It is a major transit corridor with four bus lines; and it is an active pedestrian space that connects to trails and parks within the Munjoy Hill neighborhood and beyond.

Two thirds of the properties on Washington Avenue (47) are currently zoned B-2b. Many of those properties are ripe for development and could accommodate increased height and density standards currently under consideration as part of Portland Recode.

However, the properties adjacent to the Eastern Promenade Park, including 165 Washington Avenue and the eight properties across the street from the park, are appropriately zoned B-1 and B-1b to protect the standards outlined in the ROS zone; specifically,

> "To preserve and protect open space as a limited invaluable resource; to permit the reasonable use of open space, while simultaneously preserving and protecting its inherent open space characteristics to assure its continued availability for public use as a scenic, recreation, and conservation or natural resource area….and to develop an open space system throughout the city, which provides the highest quality parks, plazas, and pedestrian environment." (Portland Land Use Code Table 5-G: Open Space Zone Purpose Statement).

Notably, Portland Recode is not proposing changes to the current recreation and open space zone (ROS).

Changing the zoning and zoning standards for this one property will not solve Portland's housing crisis. Rather, I believe it will undermine the legitimacy of the comprehensive planning process, the Planning Department, and the Planning Board; it will detract from the "physical form and scale" of Munjoy Hill, and it will do permanent damage to an iconic park set aside in the 19th century to preserve the "majestic views" that define the city of Portland.

Design Review
Planning and Urban Development Department

Subject:	331 Cumberland Avenue – Major Site Plan Review
Zone:	B3
Date of Review:	June 5, 2024 Design Review
Reviewer(s):	Sean King (Urban Designer), Eric Freeman (Planner), Evan Schueckler (Historic Preservation Manager)
Project ID:	PL-002938-2024

I. INTRODUCTION

The project at 331 Cumberland Avenue for the proposed 60-unit residential condominiums and day care facility is subject for review according to the B-3 and multi-family residential housing design standards from the City of Portland *Design Manual* as defined in the land use code section 14.6.4.l.

The project is also within 100' of a historic landmark and is subject to an advisory design review by Historic Preservation staff.

The built context of the surrounding area contains a variety of building types, architectural styles and mix of uses that vary in height and close proximity to the street typically found throughout Portland's downtown district. Numerous locally designated historical landmarks are within 2-blocks of the proposed development, including the Lancaster Block at 472 Congress Street located at Monument Square Plaza. that exhibit a consistency of architectural ornamentation, materiality and fenestration pattern for a mixed-use building facing the street.

II. HISTORIC PRESERVATION ADVISORY REVIEW

III. DESIGN REVIEW COMMENTS: red text denotes standards not met and require resubmission.

The project at 331 Cumberland Avenue shall meet the following standards based on the B-3 Downtown Business Zone design standards in the City of Portland Design Manual, ***Land Use Code Section 14.6.4.l Design standards.***

§(b)(1)a.1. Relationship of pedestrian environment:

- *§(b)(1)a.1.i. General: The exterior design of portions of buildings within the first thirty-five (35) feet of height shall enhance the character, attractiveness, comfort, security, and usability of the street level pedestrian environment. Factors to be considered include the design, placement, character and quality of the following:* Not Met

  Staff comment: The property is located in the B-3 Downtown Business zone within close proximity to adjacent mixed-use and residential zones with a variety of building typologies and lot

sizes that contribute to the character of the neighborhood. Staff requests that the Applicant relate more closely to the neighborhood context and exterior materiality at the first 35-feet of the building, particularly along Portland Street and Preble Street. Staff recommends incorporating brick to the base façade of the building and adjust the building placement to provide transitional areas that allow for separation between the residential units located on the ground level from the Portland Street & Preble Street sidewalk.

- *§(b)(1)a.1.i.1) Storefronts and building facades, including such factors as relationship to adjacent or nearby structures or open space, pedestrian character, materials and detailing, transparency (having a visible transmittance (VT) of .7 or higher) and contemporary design:* Not Met

  Staff comment: The proposed building has a contemporary design to include exterior materials that are commonly utilized in larger scale mixed-use residential structures throughout Downtown. Staff has concerns about durability of the fibercement at the building's base and recommends a substitution for brick to create greater articulation for the pedestrian environment.

  In addition, staff has concerns about the ground-level residential units along Portland Street and Preble Street due to adjacency of units below grade to be negatively impacted by car headlights and the public sidewalk. Staff suggests a more communal use (such as the Community Room) be located at the corner of Portland Street and Preble Street along with consideration for a transitional space or material to screen residential units at the sidewalk.

  Staff is requesting that the Applicant provide window transparency (VT of .7 or higher) and any window treatment that would provide privacy for residential units along Portland Street & Preble Street.

- *§(b)(1)a.1.i.2) Building entrances, including such factors as compatibility with the building's façade, prominence along the street, access to the street, and accessibility for physically handicapped or for those with special needs:* Not Met

  Staff comment: The primary building entrance along Cumberland Avenue is recessed to create an alcove that Staff finds a safety and security concern. Staff recommends placing the building entrance at Cumberland Avenue closer to the street to allow for the door access directly at the street.

- *§(b)(1)a.1.i.3) Blank facades; and* Met

  Staff comment: Staff finds the street facing façades to provide adequate fenestration, massing variation and material changes to reduce large expanses of blank facades.

- *§(b)(1)a.1.i.4) Special features, such as selective use of such features as building arcades and skywalks or elevated walkways:*

  Staff comment: Not applicable. The proposed development does not propose any special features to require a review of this design standard.

- *§(b)(1)b. Pedestrian Activities District (PAD)*

  Staff comment: Not applicable. The site is not located within the PAD overlay district.

- *§(b)(1)c. Pedestrian Activities District (PAD) encouragement areas shall be designed and constructed to be reasonably capable of being converted to accommodate uses permitted in the PAD overlay zone in accordance with the factors set forth in subsection b. of this section.* **Met**

  Staff comment: Not applicable. The site is not located within a PAD encouragement area.

- *§(b)(1)d. Sidewalk areas and open space: The design of publicly accessible sidewalk areas and open space shall complement the general pattern of the downtown pedestrian environment, conform to special City of Portland streetscape programs described in the Technical Manual, and enhance the attractiveness, comfort, security, and usability of the pedestrian environment. Factors to be considered include the design, placement, character, durability, and quality of the following:*

  1. *Sidewalk, crosswalk, and street paving materials;* **Not Met**

  Staff comment: The proposed development plan indicates to reconstruct brick sidewalk along the property frontages on Cumberland Ave, Preble Street & Portland Street that Staff finds appropriate in this location. Existing crosswalks to adjacent public sidewalks provide current level of pedestrian service that will remain. The Applicant has proposed a bump out in the curbing along Portland Street, Staff recommends to add street trees, lighting and shrub plantings as appropriate as a contribution to the pedestrian character in this location.

  2. *Landscaping, planters, irrigation, and tree guards and grates;* **Not Met**

  Staff comment: The Applicant is required to provide street trees along the property frontages along Cumberland Ave., Preble Street & Portland Street under Technical Manual Section 4. The development plan indicates preservation of existing trees in the esplanade along Cumberland Ave and one tree along Preble Street to protect and remain in place. Staff recommends coordination with proposed utilities to minimize impacts to existing trees and root system for adequate tree preservation. Staff suggests adding street trees along Portland Street by means of adjusting the building placement to create a transitional space (≥ 5 feet) to allow for curbed planters and street trees while providing some separation between the proposed ground-level residential units and sidewalk.

  3. *Lighting;* **Not Met**

  Staff comment: The Applicant has submitted lighting plan and proposed lighting fixtures that does not include lighting within the public right of way required under *Technical Manual Section 10. Municipal Street Lighting Standards*. Staff requests the Applicant locate new light fixtures along Portland Street and Preble Street that are withinin the Peninsula zone under Figure X-4 & Figure X-7A and specify the Peninsula Medium Street light pole and fixture under Figure X-7B found under *Technical Manual Section 10. Municipal Street Lighting Standards*.

4. *Pedestrian amenities such as benches and other seating, trash receptacles, kiosks, bus shelters, artwork, directional and informational signage, fountains, and other special features; and* Not Met

Staff comment: The development plan does not indicate any pedestrian amenities along the property frontages, Staff recommends the Applicant identify areas within the public right-of-way that could adequately provide for seating, trash receptacles, bus shelter and/or informational signage as an identified Gateway under section VIII of the City's Design Manual.

Staff recommends that the Applicant consider a publicly accessible linear plaza with outdoor seating, shade trees, planters and expansion of the brick sidewalk to accommodate for safe passage along the public sidewalk.

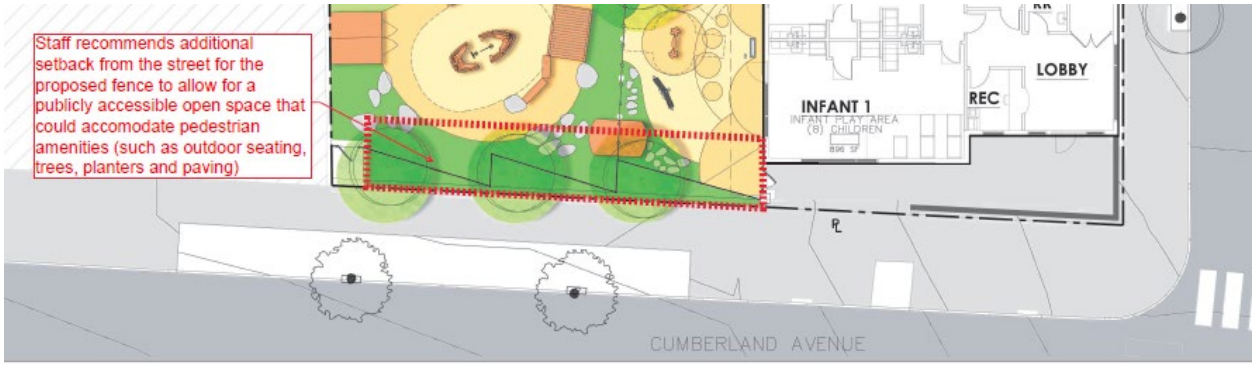


Figure 1 – Staff diagram onto Drawing L101, dated 05-02-2024

5. *Sidewalk vendors and sidewalk cafes.* Not Applicable

Staff comment: The development plan does not propose a use conducive for sidewalk vendors, café furnishings or retail, Staff recommends permanent pedestrian amenities within or adjacent to the public sidewalk.

- *§(b)(1)e. Relationship to existing development:*
  1. *General: Proposed development shall respect, enhance, and be integrated with the existing character of the general pattern of development in the downtown, surrounding building environment and streetscape, as described and illustrated in the Downtown Urban Design Guidelines (Appendix 1). Factors to be considered include the relationship to the following existing patterns:*

  i. *Street walls and building setbacks;* Not Met

Staff comment: The prevailing street wall and building setbacks are primarily located directly onto the street at the build-to line. Staff observes several building precedents along Cumberland Ave. that recess the primary building entry to allow for door swing while maintaining a building placement directly adjacent to the public right-of-way.

The development plan incorporates a generous front setback at the ground floor at Cumberland Ave. for the Infant 1 room and primary entry that is deeply recessed with a

partition wall that mitigates the grade change at the corner. Staff finds the partition wall along Cumberland Avenue does not fit within the surrounding context and recommends the Applicant enclose the proposed alcove with storefront windows facing the street and a primary door entry perpendicular to the property frontage.

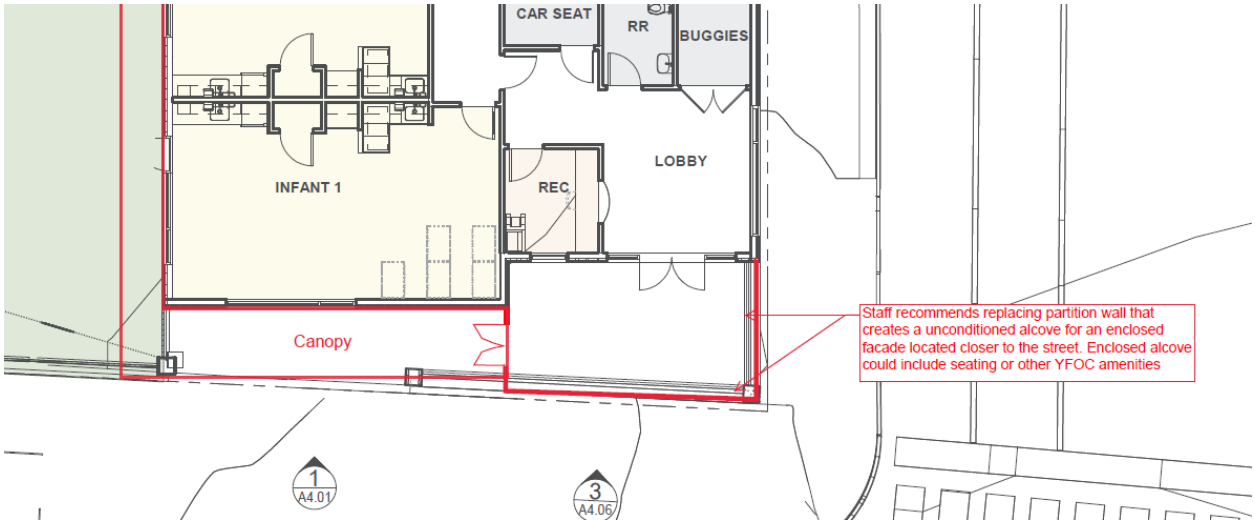


Figure 2 – Staff diagram onto Drawing A1.02, dated 05-03-2024

ii. *Open space;* Not Met

Staff comment: Staff finds the proposed privately accessible open space for the Youth and Family Outreach is located appropriately to prioritize the property's corner with the new building. Staff is recommending a publicly accessible linear park directly adjacent to the Cumberland Ave sidewalk to provide for pedestrian amenities, see design standard *§(b)(1)d.4.Pedestrian amenities & Figure 1* for additional information.

iii. *Building form, scale and massing;* Not Met

Staff comment: The proposed building is segmented by a base that transitions to a lower level as the site slopes down towards Portland Street from Cumberland Ave. The building delineates the base from the upper floors with a stepback along the majority of street facing facades, with the exemption of the building massing at the corner as a distinct building expression that Staff finds appropriate. Staff is recommending additional massing treatments to further reduce the building massing along Portland Street and Preble Street with particular attention towards this corner. Staff suggest that the Applicant consider recessed balconies and/or window bay projections to allow residents the opportunity for additional light, air and private open space into the units.

iv. *Façade proportion and composition;* Met

Staff comment: The proposed building design begins to identify a composition with a base, middle and top, however Staff recommends additional consistency with the surrounding buildings for neighborhood context. Staff has concerns about the proposed wood-look

fibercement paneling at the first two stories along Portland Street & Preble Street as an introduced exterior material at the ground-level to the neighborhood. Staff recommends a brick façade treatment that responds more closely to the context as a durable, textured exterior material.

The middle portion of the building is stepback from the lower two levels and provides a mostly symmetrical fenestration pattern and rhythm both vertically and horizontally that Staff finds appropriate.

The top portion of the building does not have a clear termination, with the exception of the corner projection at Cumberland Ave with the vertical parapet roofline extension. Staff recommends a cornice articulation above the top level that is more consistent with larger buildings found in the neighborhood and suggests the additional roofline articulation at the corners that express the property as a defined gateway into the City center.

v. Pedestrian circulation and building entrances; **Not Met**

Staff comment: The proposed development plan identifies a primary entrance as recessed, oriented towards Cumberland Avenue and delineated from the upper levels by a horizontal canopy to wrap around the building's internal playscape for the day care facility proposed to occupy the second floor. Staff has safety concerns for the recessed alcove created by the proposed partition wall along the property frontage and recommends the addition of conditioned space to the build-to line along Cumberland. See design review standard *§(b)(1)e. Relationship to existing development: i. Street walls and building setbacks & Figure 2* for Staff recommendations.

The primary entrance for the residential units is located at Portland Street and is recessed with an overhead canopy. Staff request that the Applicant clarify the location of the double door shown on first floor plan and recommends the door entry is within close proximity to the build-to street line. In addition, Staff recommends addition articulation for residents that may include addressing signage, change in exterior material and/or additional expression of the overhead canopy.

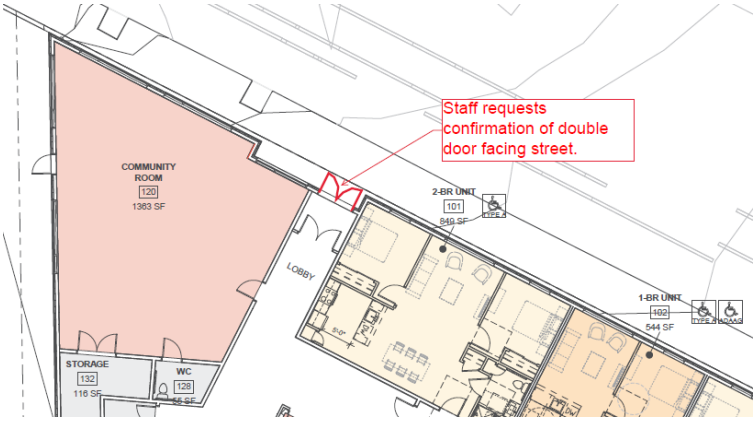


Figure 3 – Staff diagram onto Drawing A1.01, dated 05-03-2024

*vi. Parking, **Not Applicable***

Staff comment: The proposed development plan removes the existing surface parking and driveway at Portland Street into the property site and does not propose any parking within the property.

***2.** Standards for increasing setback beyond street build-to line: A proposed development may exceed maximum setbacks:* Not Met

Staff comment: The proposed development plan proposes to demolition the existing buildings on site to create an Elle-shaped building placed primarily along the property frontages, with the exception of the private open space along Cumberland Avenue intended for the day care facility as a playspace. Under this design standard, a proposed development may exceed the maximum setback based on an evaluation of open space and amenity; prevailing character and continuity; support for existing open space; quality and orientation. Staff finds the setback along Cumberland Ave creates minimal publicly accessible open space and recommends the Applicant add pedestrian amenities (such as permanent outdoor seating, trees in planters, and special surface treatments) as a linear open space would support open space within this location.

***3.** Roof top appurtenances: All mechanical equipment, ventilating and air conditioning and other building systems, elevators, stairways, radio or television masts or equipment, or other rooftop elements not intended for human occupancy shall be fully enclosed in a manner consistent with the character, shape and materials of the principal building,* Not Met

Staff comment: The Applicant is requested to submit a roof level plan that indicates all proposed mechanical equipment and other building systems to require screening that is integrated into the building design.

- *§(b)(1)f. Shadow impact on open space: The location, massing and orientation of portions of buildings in excess of sixty-five (65) feet in height shall be such that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided. **Not Applicable***

  Staff comment: Portions of the proposed building along Portland Street exceed 65 feet in height however will not impact any public open spaces as there are none within the immediate vicinity.

- *§(b)(1)g. Wind impacts:* The location, massing, orientation and architectural design of a new building or a building addition shall be such that no significant adverse wind impacts are created. Met

  Staff comment: The proposed building design utilizes a variety of features to break down the building's mass and height with stepback at the upper floors and variation in the façade planes to help mitigate the potential impact of winds.

- *§(b)(1)h. Setbacks for existing structures: The location and design of proposed structures shall not create a detrimental impact on the structural integrity or the safety of adjacent structures or the occupants thereof;* Met

  Staff comment: The proposed development plan does not pose a detrimental impact on the structural integrity of any adjacent structures as it is standalone on a parcel bounded by public streets and sufficient separation from abutting buildings. Existing structures to be demolished to construct the proposed Ell-shaped building.

- *§(b)(1)i. Building tops: Buildings or structures which exceed one hundred fifty (150) feet in height shall be designed so as to provide a distinctive top to the building which visually conveys a sense of interest and vertical termination to the building.* Not Applicable

  Staff comment: Not applicable, building does not exceed 150 feet in height

MULTIPLE-FAMILY STANDARDS. Multiple-family shall meet the following standards:

1. *The exterior design of the proposed structure, shall be designed to complement and enhance the nearest residential neighborhood.* Not Met

   Staff comment: The property is located in the B-3 Downtown Business zone within close proximity to adjacent mixed-use and residential zones with a variety of building typologies and lot sizes that contribute to the character of the neighborhood. Staff requests that the Applicant provide further articulation along the ground level at Portland Street and Preble Street and recommends the Applicant incorporate brick into the base of the building to complement the character and quality of exterior materials found in the neighborhood.

2. *The proposed development shall respect the existing relationship of buildings to public streets.* Met

   Staff comment: The proposed building is located within close proximity to the street that responds to the surrounding context of building located at the street.

3. *Open space on the site for all multiple-family development shall be integrated into the development site.* Not Met

   Staff comment: The development plan indicates a generous play yard that appears to only be accessed by the day care facility during operating hours. Open space for the proposed 60 residential units is not provided and is required under this design standard for multi-family developments. Staff recommends that the Applicant incorporate communal outdoor open space, where appropriate within the building footprint (such as shared rooftop amenity, roof area created by stepback at third floor or end of internal corridor at each floor) or within ground plane areas (such as transitional area along Portland Street, linear park along Cumberland Avenue or at shared passageway easement at Portland Street) – See additional Staff recommendations under design standard *§(b)(1)d. Sidewalk areas and open space.*

In addition, the Applicant is requested to provide private open space for the residential units (such as recessed or projecting balconies) as an alternative to meet open space for multi-family developments.

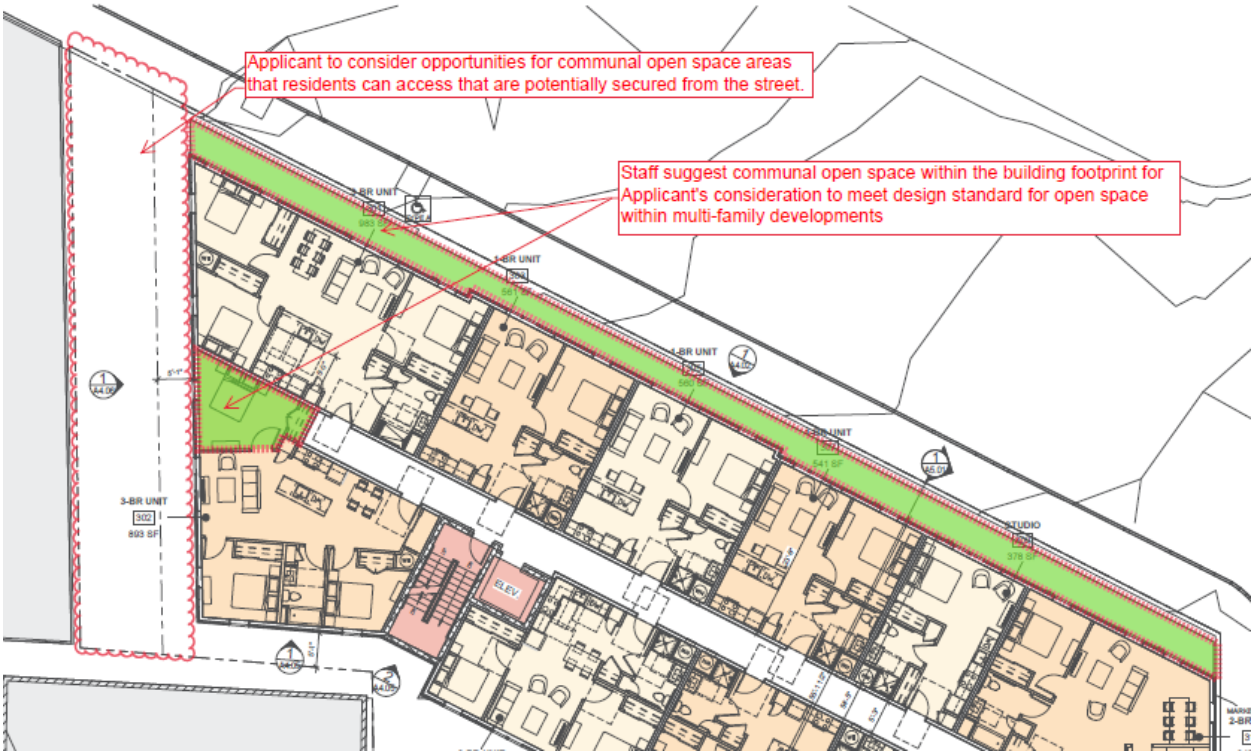


Figure 4 – Staff diagram onto Drawing A1.03, dated 05-03-2024

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principle living areas and shall also provide sufficient storage areas.* **Met**

   Staff comment: Sufficient windows and interior unit storage provided at each residential unit.

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscape to properly screen vehicles from adjacent properties and streets.* **Not Applicable**

   Staff comment: Not applicable, no surface parking or driveways into the property are proposed.

6. *Multiple-family dwellings shall not be converted to lodging houses unless all units in building have been vacant for at least one (1) year.* **Not Applicable**

   Staff comment: Not applicable, the proposed development plan does not propose a conversion to lodging houses as the existing structures are to be demolished.

GORRILL PALMER

300 Southborough Drive, Suite 200
South Portland, Maine 04106
207.772.2515

May 14, 2024

Mr. Kevin Kraft – Interim Director
City of Portland Planning & Urban Development
389 Congress Street, 4th Floor
Portland, ME 04101

Subject: 331 Cumberland Ave - Major Site Plan Application
Mixed use development
Applicant: Youth and Family Outreach
CBL: 033-K-005, 006, 007, 009, & 010

Dear Kevin:

On behalf of **Developers Collaborative Predevelopment LLC & Youth and Family Outreach,** Gorrill Palmer is submitting application materials for a Major Site Plan Application, for a new mixed-use LIHTC apartment building on Cumberland Avenue. This development was previously reviewed under PL-001140-2020 and approved by the Planning Board. The 2020 program was unable to be constructed due to various circumstances. The current proposal is to construct a new six-story building to contain the Youth and Family Outreach program on the ground level and first level 60 apartment units on floors 3-6. According to the boundary survey by Northeast Civil Solutions, the property is 19,592 SF in size. The site presently contains the existing Youth and Family Outreach building at the corner of Cumberland and Preble Streets. The former Maria's Restaurant was acquired by the applicant and is now planned for demolition. The development includes greater than three dwelling units therefore the proposal qualifies for a Major Site Plan approval from the Planning Board in accordance with Table 14-A of the ReCode. We attended a Pre application meeting with City staff on February 21, 2024. Assisting on the project are Invivid Architecture and Studio MLA Landscape Architects. The following summarizes the reviews required by the City:

Proposal	Applicable Standards
New Construction over 20,000 SF	Sec 14-526 Level III Site plan Review, B-3 Design Review, HP Advisory
Subdivision (60 dwelling units)	Sec 14-497 Subdivision Review
Multi-family Residential >10 units	Sec 14-487 Inclusionary Zoning Conditional Use
Parking Requirements reduction	Ch 14 Div 20 Off-street Parking – B-3 Zone

Existing Conditions

The existing site is bounded by Cumberland Avenue to the south, Preble Street to the east and Portland Street to the north. The Earl Apartments lie west of the site. The Youth and Family Outreach operates out of an existing two-story wood building at the corner of Cumberland and Preble. The

vacant, former two-story brick Maria's Restaurant building and parking lot are at 337 Cumberland Ave. The site is located in the B-3 zone as identified below.

According to City records, underground utilities in the surrounding streets include water, gas, and sewer. Overhead power and communications lines are located on the sidewalk on the development side of Portland Street. Relocation of several existing utility poles within proposed curbline bump outs is proposed to provide separation from the overhead wires to the face of the proposed building. The proposed building will occupy over 50% of the lot and contain street level access along the Portland Street and Cumberland Avenue sidewalks. The primary YFO entrance will be at the corner of Cumberland Ave and Preble Street. The residential space will also have entry access to the Portland Street frontage. The construction will require coordination with the abutting building owners at 339 Cumberland Ave (Earl Apartments), and nearby uses. YFO will need to temporarily relocate during the construction. The construction will involve reconstruction of brick sidewalk along the adjacent streets, and repaving of some of the site and the adjacent alleyway. Portions of adjacent streets may also require restoration due to proposed utility connections.



Fig 1: Zoning Excerpt

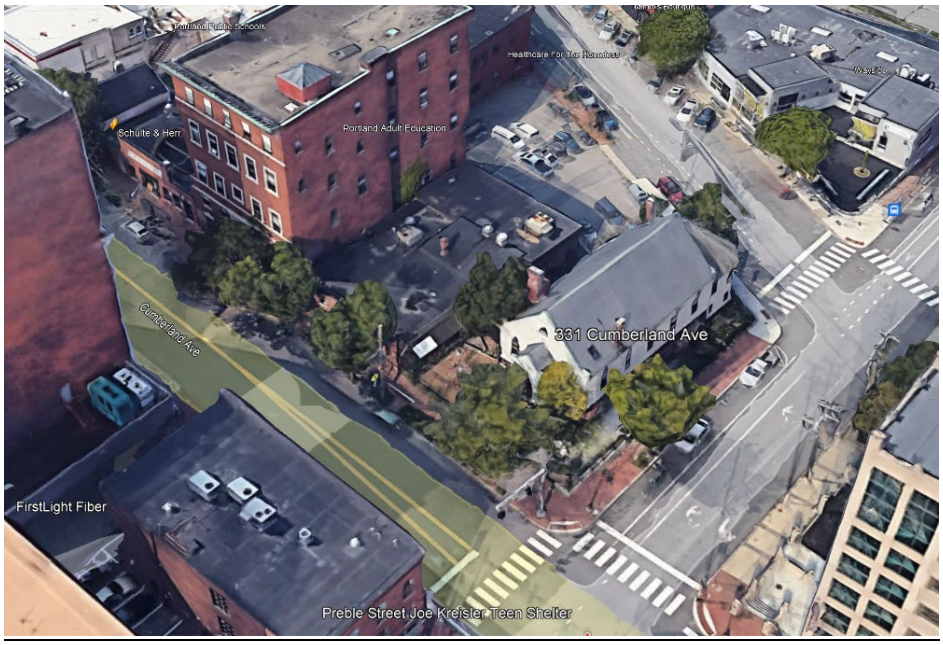


Fig 2: Google Earth View

Proposed Development

The proposed building will involve a tenant mix as follows:

Level	Tenant/Use	Area (SF)	Land Use category
1	Youth and Family Outreach and tenant space	11,073 SF	**Institutional and Residential** 1-One bedroom unit 3 – two-bedroom units
2	Youth and Family Outreach	12,608 SF	**Daycare and preschool**
3 thru 6	Residential	12,189 SF+/- per floor	**Residential** 4 studio units 23 one-bedroom units 19 two-bedroom units 10 – three-bedroom units
	Total	**72,437 SF +/-**	60 units – 12 market rate and 48 MSHA LIHTC

Preliminary floor plans and site renderings by Invivid accompany this submission.

Traffic/parking

The site has a small parking lot off Portland Street that will be eliminated. Tenants of the building will be required to secure parking in nearby parking facilities including, but not limited to; the adjacent Elm Street garage and Brown Street garages. YFO visitors will use nearby on-street parking or the garages as is typical for the downtown area. The project is not expected to generate substantial new traffic above the existing traffic generated by historic uses. Tenants at the adjacent building west of the site will continue to be able to use the alleyway off Portland Street for access to their building. The owner is coordinating for the continuation of access and related use benefiting their sites. There are approximately four parking spaces on Portland Street that will be modified as a result of the closing of an existing curb opening and the proposed bump outs. No parking capacity will be removed from the Portland Street frontage as a result of the proposed curb bump outs. Pedestrian and sidewalk accommodations will be improved along the street.

Utilities

The proposed project will involve new utility connections that are described as follows:

- The building will be sprinkled and contain a domestic water service, both to be extended from an 8" water main in Cumberland Avenue. The Fire Dept connection will be located along the south side of the building.
- A domestic sewer connection is proposed to tie into an existing 10" sewer line in Portland Street.

- The building may be served by Natural gas coming from nearby, although the MEP design has not been advanced enough to decide on gas need. All HVAC equipment will be roof top mounted and screened.
- There is Overhead power in Portland Street. The design team is currently coordinating with CMP and the communications providers on these services. The objective is to shift the overhead lines into the street by means of several curb bump outs so that the overhead lines will be at least 18' from the face of the building in accordance with CMP guidelines.

Consistency with Master Plan

On Portland's Future Land Use Plan, Cumberland Avenue remains located in the Mixed Use/Commercial/Office zone and is located near an enhanced Priority Corridor (Congress Street). Priority Corridors are "*major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer.*" Located near Congress Street, the site is within a downtown area that is maintaining a robust level of activity and development. This site is an ideal location for a building that continues the existing onsite Youth and Family Outreach programming while providing new residential above. We believe the proposed uses go hand in hand as complimentary uses to the surrounding land use as envisioned in the Comprehensive plan and current zoning.

In accordance with the Major Site plan General Document Checklist, we offer the following information:

General Documents

1. **Project Description** – New mixed use building construction with greater than three dwelling units, located in the B-3 zoning District. See description above.
2. **Completed Checklist** – See upload to Eplan once authorized.
3. **Evidence of Right, Title and Interest**. The site is owned by Youth and Family Outreach per Deed recorded at the CCRD Book 35530, page 234, and deed book 225 page 350, a copy of which are attached to this submission document.
4. **Zoning Assessment** – see attached. Located in B-3 zone.
5. **Site plan Standards Assessment** – see attached information below.
6. **Summary of Existing and/or proposed easements or covenants** – no easements or covenants are proposed at this time.
7. **Waiver Request** – none requested.

8. **Evidence of financial and Technical Capacity** – The applicant has retained Invivid Architecture, Studio MLA, Gorrill Palmer Consulting Engineers, and Developers Collaborative Predevelopment to assist with the design and construction of the proposed project. The applicant will be seeking Maine State Housing Low Income Housing Tax Credit financing support. They also have financing support from cPort Credit Union.

Transportation

9. **Impact on Surrounding Street system** – The impact on the surrounding street system is expected to be minor based on historic street conditions and land use surrounding the site. The activity involves redevelopment of previously developed property. The site use is not expected to create or aggravate any existing or proposed hazard or safety concern on adjacent streets as the sidewalk conditions are robust and accommodating. The site access conditions are consistent with the neighboring sites on both sides of the street.
10. **Access and Circulation** – The first floor of the building is to be accessible to foot traffic from Portland Street and the second floor will be accessible from Cumberland Avenue. There will be multiple stairs and an elevator supporting the building. The elevator will be sized to allow for stretcher and emergency personnel. The building entrances off the Portland Street sidewalk will be flush to existing grade. The proposed finish floor elevation will be 43.00' (NGVD29). The Second level will have multiple access points from the sidewalk as well as from the proposed playground area that will tie the Cumberland Ave street frontage into the site. Access to a trash room will be provided off the alleyway at the rear of the site, off Portland Street.
11. **Public transit** – There are no METRO routes on Cumberland Ave however there are stops on Preble Street and the METRO Pulse and Monument Square stops are located less than 1,000 feet from the site.
12. **Off-Street Parking** – No onsite parking is proposed as tenants and YFO staff will be required to park offsite within various nearby parking structures or lots. The tenant population is not expected to require much parking as most will not own a vehicle.

Environmental

13. **Preservation of Significant Natural Features** – Not applicable
14. **Landscape Preservation** – the existing trees within the sidewalks will be preserved to the extent practicable. The applicant will cooperate with the Parks and Recreation Department on the planting of new trees on the sidewalks and/or payment of the in-lieu fee for trees based on sixty apartment units.
15. **Site landscaping and Buffers** – As mentioned above, the applicant is proposing an expanded playground area along the Cumberland Street frontage and around the building perimeter. The area is to be planted with approved trees, shrubs, and grasses. This landscaped area is to be larger than

the existing non-impervious area on the site. No heritage or feature trees exist on the site, and none are proposed.

16. **Water Quality, Stormwater Management and Erosion control** – Save for a couple small parking lot islands, the site is fully paved/concrete in the current condition. The majority of the surface will change to roof top, while some will be converted to landscaped area. The roof drains will tie into the existing drainage system consisting of a drainpipe along the Portland Street frontage. There is no expected change in overall site drainage, however, the elimination of parking will improve water quality. Typical erosion control measures including stabilized construction entrance and sediment sacks at nearby catch basins will be employed during the construction to minimize sediment transport into the drainage systems.

Public Infrastructure and Safety

17. **Consistency with City Master Plans** – See Above
18. **Public Safety and Fire Prevention** – The new building will have a full sprinkler system and Fire Department Connection along the Cumberland Street Façade. The nearest fire hydrant is located on Cumberland Avenue, less than one hundred feet from the proposed building.
19. **Availability and Adequacy of Public Utilities** – see above.

Site Design

20. **Massing, Ventilations and Wind Impact** – not applicable – See Architectural renderings for further information on the building.
21. **Shadows** – Not applicable
22. **Snow and Ice Loading** – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties.
23. **View Corridors** – Not applicable
24. **Historic Resources** Not applicable
25. **Exterior Lighting** – The applicant proposes some building mounted fixtures to satisfy safety and security needs around the site. There are existing cobra head streetlights on the existing utility poles on the surrounding streets, opposite the property.
26. **Noise and Vibration** – Not applicable- rooftop equipment will be screened and dampened as necessary to satisfy City noise and vibration standards.
27. **Signage and Wayfinding** – All signage to be permitted separately by the applicant.
28. **Zone Related Design Standards** – The development satisfies ReCode 14.6.4.I.1.for the B-3 where the design shall support the development of a dense, Mixed-use neighborhood with an attractive, safe, and convenient street-level pedestrian environment.

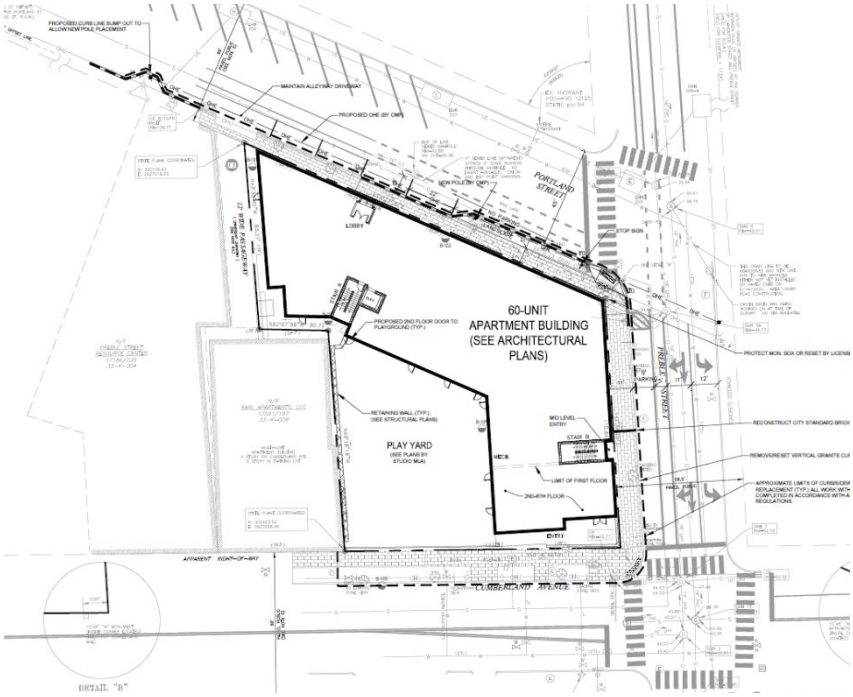


Fig 3 Proposed Site plan – 331 Cumberland Ave



Fig 4 – Rendering from Cumberland Ave – looking north



Fig 5 – Rendering from Cumberland Ave/Preble Street

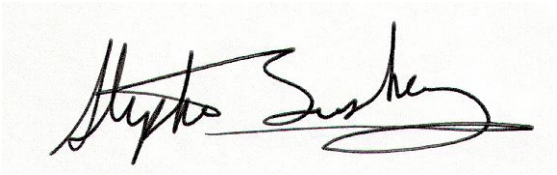


Fig 6 – Rendering from Portland Street/Preble Street

We trust the supporting application materials are acceptable and we look forward to the Planning Authority's prompt review and scheduling of a workshop with the Planning Board.

Sincerely,

GORRILL-PALMER



Stephen Bushey, PE
Senior Associate
Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

Attachments

c: Camelia Babson-Haley - Youth and Family Outreach
Laura Reading, DC Predevelopment LLC

U:\4277_Youth and Family Outreach Portland ME\P Applications\Local\Major site plan application\2024.05.14 app_331 Cumberland_YFO_site plan_Cover Letter

CITY OF PORTLAND
Planning & Urban Development Department

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

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

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

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

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN
DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all 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, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)

- Location of fire hydrants
- Location of solid waste management receptacles
- Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable
- Location of proposed easements and rights-of-way, including dimensions
- Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed

UTILITY PLAN including:

- Proposed electrical infrastructure
- Location, sizing and directional flows of all proposed sewer and stormwater infrastructure
- Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- Proposed grades
- Proposed stormwater management measures meeting Technical Manual (Section 5) standards
- Any proposed alteration of a watercourse or wetlands
- Any groundwater protection measures
- Proposed buffers and preservation measures for wetlands or significant natural features

LANDSCAPE PLAN including:

- Existing vegetation to be preserved and preservation measures
- Proposed landscaping, screening, and street trees, including caliper widths for trees
- Planting schedule, including street trees

ARCHITECTURAL PLANS AND RENDERINGS including:

- Exterior building elevations, color renderings, illustrations of all sides
- Axonometric and street-level views for structures greater than three stories in height
- Provide context drawings, if applicable (Design Manual, page 1)
- Floor plans

CONSTRUCTION MANAGEMENT PLAN including:

- Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
- Include a drawing and written narrative

OTHER

- Details and cross-sections, as necessary

Portland, Maine Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B-3 - apartment site

All Projects:

	Required	Proposed
Lot Size	-	19,592
Area Per Dwelling Unit	-	
Minimum Street Frontage	15 ft	122.82 ft
Front Yard Minimum		
Front Yard Maximum	5 ft	2 ft
Rear Yard		
Yard Right		
Yard Left		
Side Street Setback		
Step Back		
Maximum Lot Coverage	100%	<100%
Minimum Lot Coverage		
Maximum Height	85 ft	74 ft
Open Space		
Maximum Impervious Area	100%	<100%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	0	0
Loading Bays		
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):			

Doc#: 11493 Bk:35530 Ps: 234

1001940052854

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, **ANTHONY M. NAPOLITANO, GREGORY J. NAPOLITANO** and **FRANCIS W. NAPOLITANO**, each of Portland, Maine, for consideration paid, grant to **YOUTH AND FAMILY OUTREACH**, a Maine nonprofit corporation with a mailing address of 331 Cumberland Avenue, Portland, Maine 04101, with QUITCLAIM COVENANT, certain real property, together with any improvements thereon, located in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Parcel One (14 Portland Street):

A certain lot or parcel of land with the buildings thereon, situated in the City of Portland, County of Cumberland and State of Maine, on the southerly side of Portland Street and numbered 16 on said street, bounded as follows:

COMMENCING at the westerly corner of said side of said street of land now or formerly belonging to the heirs of the late George Worcester; thence running on said street westerly thirty-four (34) feet and seven (7) inches to a stake and to land now or formerly belonging to the heirs of the late James Bedlow; thence South 33 degrees East, eighty-six (86) feet to a cross fence and to land now or formerly belonging to the heirs of the late Major Sweetser; thence easterly by line of said Sweetser land thirty (30) feet and two (2) inches to said Worcester land; thence North 33 degrees West, seventy-three and one-half (73 ½) feet by line of said Worcester land to point of commencing, together with the privilege of passing and repassing through a lane laid by Elijah Kellogg adjoining the westerly side of said premises, twelve (12) feet in width and extending from said street to said Sweetser land, said lane to be kept open and unencumbered forever for the benefit of all who are or may be interested in the property adjoining said premises being the homestead of the late John Dain, at the time of his decease, for a further description of which reference may be had to the deed of Charles Staples to said John Damn dated September 1, 1837, recorded in the Cumberland County Registry of Deeds in Book 155, Page 290.

ALSO, a certain lot or parcel of land with any buildings thereon, situated in Portland, in the County of Cumberland and State of Maine, bounded and described as follows:

BEGINNING on the southerly side of Portland Street at a point thirty-six and twenty-nine hundredths (36.29) feet westerly from the northwesterly corner of Chapel lot; thence running westerly by said Portland Street thirty-six and twenty-nine hundredths (36.29) feet to the lot now or formerly of John Darin; thence southeasterly at an included angle 62 degrees 57' by the easterly sideline of said Dain land to a post eighty (80) feet distant by said sideline from the southerly sideline of Portland Street; thence northeasterly at an included angle of 93 degrees 47' thirty and forty-three hundredths (30.43) feet to other

MAINE REAL ESTATE TAX PAID

land formerly of George Worcester; thence northwesterly on a straight course sixty-four and ninety-eight hundredths (64.98) feet to the point begun at.

TOGETHER with a right of way six (6) feet wide over and across the lot or land adjoining the lot hereby conveyed on its easterly side and subject to a right of way two (2) feet along the easterly side of the lot hereby conveyed, creating a passageway of eight (8) feet wide, which is forever to be kept open for the benefit of both of said lots and extending from Portland Street southerly to a point not less than twenty-five (25) feet from the rear line of said lots which is to be used in common by the owners and occupants of said lots, all as more fully described in a deed from Josephine L. Dalton to the Elm Realty Co., dated July 20, 1938 and recorded in the Cumberland County Registry of Deeds in Book 1556, Page 239, to which deed and the record thereof reference is hereby made for a more particular description of said right of way.

A certain lot or parcel of land with the buildings thereon, situated in the City of Portland, County of Cumberland and State of Maine, on the south side of Portland Street, bounded as follows: Beginning on the line of said Portland Street at the Northwesterly corner of the Preble Chapel Lot; thence running Southeasterly by the Westerly side line of the said Chapel Lot, fifty (50) feet to a stake; thence Southwesterly at an angle with the last named course, ninety degrees, one minute (90 degrees 1') thirty and forty-three hundredths (30.43) feet to a stake; thence Northeasterly at an angle of ninety-two degrees nineteen minutes (92 degrees 19') with the last course, sixty-four and ninety-eight hundredths (64.98) feet to said Portland Street; thence Easterly at an angle of sixty-three degrees twenty-five minutes (63 degrees 25') with the last named course, by the South side line of said Street, thirty-six and twenty-nine hundredths(36.29) feet to the point begun at, containing eighteen hundred and eighty-two (1882) square feet, more or less.

Being the same premises conveyed to Anthony M. Napolitano, Gregory J. Napolitano and Francis W. Napolitano in the following instruments: (a) Deed of Distribution by Anthony M. Napolitano, Personal Representation of the Estate of Madeline A. Napolitano, dated November 1, 2018 and recorded in the Cumberland County Registry of Deeds in Book 35266, Page 280; and (b) Deed of Distribution by Anthony M. Napolitano, Personal Representation of the Estate of Anthony J. Napolitano, dated November 1, 2018 and recorded in the Cumberland County Registry of Deeds in Book 35266, Page 282.

Parcel Two (337 Cumberland Avenue):

A certain lot or parcel of land with the buildings thereon, situated on the northerly side of Cumberland Avenue, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the northerly side of Cumberland Avenue at the southwesterly corner of the Preble Chapel lot; thence running westerly by said Cumberland Avenue to land formerly of M. H. Sweetser; thence northerly by said Sweetser land to land formerly of George

Worcester; thence easterly by said Worcester land to said Preble Chapel lot; thence southerly by said Preble Chapel lot to said Cumberland Avenue at the point of beginning.

Being the same premises conveyed to Anthony M. Napolitano, Gregory J. Napolitano and Francis W. Napolitano in the following instruments: (a) Deed of Distribution by Anthony M. Napolitano, Personal Representation of the Estate of Madeline A. Napolitano, dated November 1, 2018 and recorded in the Cumberland County Registry of Deeds in Book 35266, Page 284; and (b) Deed of Distribution by Anthony M. Napolitano, Personal Representation of the Estate of Anthony J. Napolitano, dated November 1, 2018 and recorded in the Cumberland County Registry of Deeds in Book 35266, Page 285.

IN WITNESS WHEREOF, Anthony M. Napolitano, Gregory J. Napolitano, and Francis W. Napolitano, have set their hands and seals this 21st day of March, 2019.

Witness: to all

Anthony M. Napolitano

Witness:

Gregory J. Napolitano

Witness:

Francis W. Napolitano

STATE OF MAINE
COUNTY OF CUMBERLAND, ss. March 21, 2019

Then personally before me appeared the above named Anthony M. Napolitano, Gregory J. Napolitano, and Francis W. Napolitano, and acknowledged the foregoing instrument to be their free acts and deeds.

~~Notary Public~~/Attorney at Law
Nicholas T. Ucker

Received
Recorded Register of Deeds
Mar 21,2019 03:33:00P
Cumberland County
Nancy A. Lane

Whereas I Mary Preble of Portland in the County of Cumberland & State of Maine in my deed of conveyance to the Trustees of the Portland Ministry at Large, of a lot of land on Preble Street in said Portland, dated September 17th A.D. 1850, made & inserted the following proviso or condition viz. "Provided however, and this deed is on the express condition viz. that said Trustees shall within two years erect on said land a chapel for the benefit of the Poor, under charge of said Ministry at Large, and further that the land hereby conveyed shall be used for no other purpose than that mentioned above. And whereas it was not, and is not my intention, that said Trustees should be deprived of the privilege of using said lot & the building to be erected thereon by them for other proper purposes by which the funds and the objects of said Ministry may be aided & advanced.

x

M. Preble

to

Ministry at Large

Now know all men by these presents, that I said Mary Preble, for good considerations me thereunto moving, and a desire to promote the best good of said Ministry, do hereby for myself, my heirs, executors, administrators and assigns, remise release and quitclaim unto said Trustees & their successors forever, the restriction contained in the proviso or condition aforesaid, viz. "that said land shall be used for no other purpose than that mentioned above", so far as to permit, authorize and enable said Trustees, to use occupy or let said land and the building to be erected thereon, for such purposes as they may think suitable and proper which may be beneficial or profitable to said Ministry.

In witness whereof I have hereunto set my hand and seal this tenth day of May in the year of our Lord eighteen hundred and fifty one.

In presence of Mary Preble LS

Mary Ann Deering

Cumberland ss. May 10, 1851 Then personally appeared the above named Mary Preble & acknowledged the foregoing instrument to be her free act. before me,

Nathl. F. Deering Justice of the Peace

Received May 19. 1851 at 9.30. AM & recorded from the original

By William Ross Regr.

TECHNICAL CAPABILITY

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

Civil Engineer	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 300 Southborough Drive, Suite 200 South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
Owner	Camelia Babson-Haley Executive Director Youth and Family Outreach 331 Cumberland Ave. Portland, ME 04101 Phone: 207-874-1073
Architect	Virginie Stanley Invivid Architecture 631 Stevens Avenue Suite 200 Portland, ME 04103 Virginie Stanley <virginie@invividarchitecture.com>
Surveyor	Northeast Civil Solutions Troy McDonald 381 Payne Road Scarborough, ME 04074 troy.mcdonald@northeastcivilsolutions.com
Owners representative	Laura Reading Developers Collaborative 631 Stevens Avenue, Suite 203 Portland Maine 04103 Laura Reading <reading.lauraj@gmail.com>
Construction Manager	Wright Ryan Construction

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

Michael O'Donovan

Relationship Manager, Regulated Industries

cPort Credit Union

35 Middle Street | Portland, ME 04101

p (207) 553-3502 | f (207) 358-1500

modonovan@cportcu.org

Date: 04/16/2024

RE: Letter of Financial Capacity

To Whom It May Concern,

Please accept this letter as validation that Youth and Family Outreach has an existing relationship with cPort Credit Union. As of the date of this letter, Youth and Family Outreach Limited Partnership's has significant funds available in their account.

Sincerely,

Michael O'Donovan

Michael O'Donovan

Relationship Manager, Regulated Industries

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

14.6.3.A Consistency with City Master Plans – On Portland's Future Land Use Plan, Cumberland Avenue is located within the residential zone and is located near enhanced Priority Corridors (Congress Street and Forest Avenue). Priority Corridors are "*major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer.*" Located near Congress Street, the site is within a downtown area that is maintaining a robust level of activity and development. This site is an ideal location for a building with ground and first level institutional use and residential above. We believe the proposed mixed-use building and uses go hand in hand in hand as complimentary uses to the surrounding land uses and land use as envisioned in the Comprehensive plan and current zoning.



Aerial Image of surrounding vicinity

14.6.3 (B) Public Safety and Fire Prevention – The new building will have a full sprinkler system and Fire Department Connection along the Cumberland Ave Façade. The nearest fire hydrant is located on Cumberland Ave, opposite the site, less than one hundred feet from the proposed building. The YFO has operated at this location for many years and they are familiar with the neighborhood and activities associated with the Preble Street Resource Center and other facilities. Features for safety and security including locking doors, video, and related

measures will be considered and applied as needed within the building to assure safety and security throughout.

14.6.3 (C) Availability and Adequacy of Public Utilities – The proposed project will involve new utility connections that are described as follows:

- The building will be sprinkled and contain a domestic water service, both to be extended from an 8" water main in Cumberland Avenue. The Fire Dept connection will be located along the south side of the building.
- A domestic sewer connection is proposed to tie into an existing 10" sewer line in Portland Street.
- The building may be served by Natural gas coming from Cumberland Ave.
- There is overhead power on Portland Street. The design team is currently coordinating with CMP and the communications providers on these services.

SITE DESIGN

14.6.4 (A) Massing, Ventilations and Wind Impact – not applicable – See architectural elevations and renderings for further information on the building.

14.6.4 (B) Shadows – Not applicable

14.6.4 (C) Snow and Ice Loading – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties.

14.6.4 (D) View Corridors – Not applicable

14.6.4 (E) Historic Resources – Not applicable.

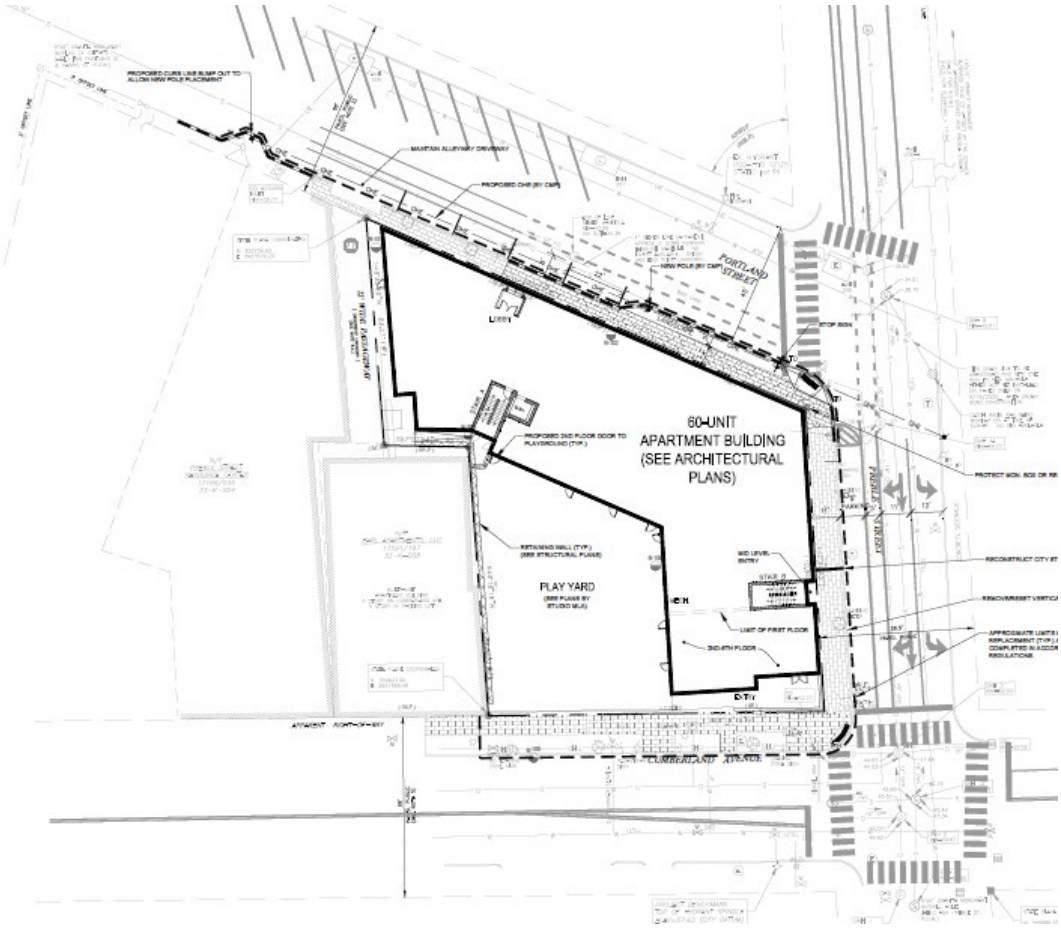
14.6.4 (F) Exterior Lighting – The applicant proposes wall mount lighting for safety and security and the door entrances. All lighting will be full cut off and dark sky complaint.

14.6.4 (G) Noise and Vibration – Not applicable- roof top equipment will be screened and dampened as necessary to satisfy City noise and vibration standards.

14.6.4 (H) Signage and Wayfinding – All tenant signage to be permitted separately by the applicant.

14.6.4 (I) Zone Related Design Standards – The development satisfies ReCode 14.6.4.I.1.a for the B-3 where the design shall support the development of a dense, Mixed-use neighborhood with an attractive, safe, and convenient street-level pedestrian environment. The site is also within the Downtown Entertainment Overlay, however the provisions within the DEOZ are not applicable to the proposed use.





Proposed Site plan – YFO Cumberland Ave

TRANSPORTATION

14.6.1(A) **Impact on Surrounding Street system** – No significant impact is predicted for the proposed development. The activity consists of redevelopment of two sites that have been long actively used for a restaurant and the Youth and Family Outreach. The site use is not expected to create or aggravate any existing or proposed hazard or safety concern on adjacent streets as sidewalk conditions are ample to allow pedestrian movement to nearby streets and activities. The site access conditions are consistent with the neighboring sites on both sides of the street. The activity is considered an urban infill development that's consistent with City goals and objectives.

14.6.1(B) **Access and Circulation** – The ground level and first floor of the building will be accessible with ample access for emergency vehicles and site tenants along the street fronts. The elevator will be sized to allow for a medical stretcher and emergency personnel. The building entrances off the Portland Street sidewalk and Cumberland Avenue sidewalk will be flush to existing grade. The existing sidewalk along the site perimeter will be reconstructed as they will be impacted during foundation construction. ADA access will be accommodated at the entrances off Portland Street and Cumberland Avenue.



Youth and Family Outreach Cumberland Avenue



14.6.1(C) **Public transit** –The nearest bus stop is on Preble Street that includes the Metro 8 Route (Peninsula Loop) and the Monument Square/Metro Pulse located less than 1000 feet from the site.

1. 14.6.1(D) **Off-Street Parking** – Off street parking is to be provided within one or more of the nearby parking garages within 500 feet of the site. Several City Standard Dero Bike Hitches will be provided in the sidewalks as may be determined by City Staff to support the 490 SF interior bike room in the building.

14.6.1 (E) **Traffic Demand Management** - Not applicable





Nearby Parking Garages

ENVIRONMENTAL

14.6.2 (A) Preservation of Significant Natural Features – Not applicable

14.6.2 (B) Landscape Preservation – There are several trees as identified on the L100 plan sheet that will be removed as a part of the construction of the building. The applicant is proposing landscaped area within the playground space along the Cumberland Ave frontage. This area is to be planted with native, approved trees and grass. This new, proposed landscaped area will be considerably larger than the existing landscaped area on site.



14.6.2 (C) Site landscaping and Buffers – As mentioned above, the applicant is proposing new street tree plantings along the Preble St. frontage. No heritage or feature trees exist on the site, and none are proposed.





Streetview from Preble Street to corner of building.

14.6.2 (D) Water Quality, Stormwater Management and Erosion control – Save for a few small sparsely landscaped areas, the site is fully paved/rooftop/concrete in the current condition. The majority of the surface will change to roof top, while some will be converted to landscaped area. The roof drains will tie into the existing drainage system consisting of a 12" drain pipe along the Portland Street frontage. There is no expected change in overall site drainage however, the elimination of parking will improve water quality. Typical erosion control measures including stabilized construction entrance and sediment sacks at nearby catch basins will be employed during the construction to minimize sediment transport into the drainage systems.

PROJECT PARCEL SITE		
ZONING: B3 DOWNTOWN ZONING DISTRICT		
PORTLAND TAX ASSESSOR'S MAP AND LOT NUMBERS		
MAP	BLOCK	LOT
33	K	010
33	K	007

APPLICANT:
Youth and Family Outreach
331 CUMBERLAND AVENUE
PORTLAND, ME 04101

C.C.R.D. BOOK 35530, PAGE 234
BOOK 225, PAGE 350

REFERENCE PLAN:
1. "BOUNDARY AND TOPOGRAPHIC SURVEY 331 & 337 CUMBERLAND AVENUE PORTLAND ME", BY NORTHEAST CIVIL SOLUTIONS, DATE AUGUST 15, 2018.

SITE DEVELOPMENT PLANS

FOR THE

YOUTH AND FAMILY OUTREACH CENTER

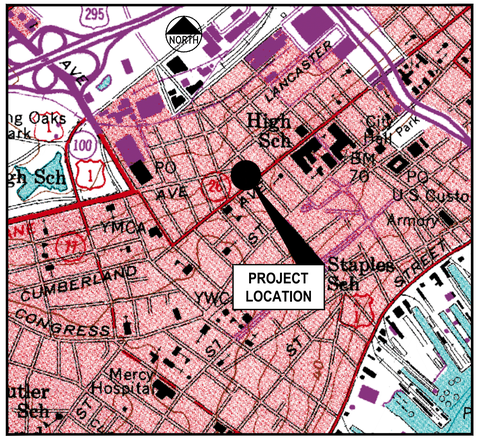
331 CUMBERLAND AVENUE

INCLUDING NEW YFO COMMUNITY CENTER & 60 APARTMENT UNITS (AFFORDABLE)

PORTLAND, MAINE

MAJOR SITE PLAN SUBMISSION

MAY 2024



LOCATION MAP
N.T.S.

INDEX

C-1.0 COVER SHEET
C-1.1 GENERAL NOTES & LEGEND
C-1.2 BOUNDARY & EXISTING CONDITIONS SURVEY (BY NORTHEAST CIVIL SOLUTIONS)
C-2.0 EXISTING CONDITIONS & REMOVALS PLAN
C-3.0 OVERALL SITE PLAN
C-3.1 PORTLAND STREET BUMPOUT PLAN
C-4.0 GRADING, DRAINAGE & EROSION CONTROL PLAN
C-5.0 UTILITY PLAN
C-6.0 SITE & MISCELLANEOUS DETAILS
C-6.1 SITE & MISCELLANEOUS DETAILS
C-6.2 SITE & MISCELLANEOUS DETAILS
C-7.0 SITE SECTIONS

L-1.0 LANDSCAPE PLAN (STUDIO MLA ARCHITECTS)
P-1.0 SITE LIGHTING / PHOTOMETRICS PLAN (SWANEY LIGHTING)

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04104
207.761.8310
CONTACT: ROBERT BARTELS
rbartels@pwd.org

SEWER:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8840
CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH / PAUL DUPERRE

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
207.541.2536
CONTACT: BRIDGET HARMON
harmon@unitil.com

CABLE TV:
TIME WARNER CABLE / SPECTRUM
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

PERMITS / APPROVALS

LOCAL	GOVERNING BODY	STATUS
MAJOR SITE PLAN APPLICATION	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL 389 CONGRESS STREET PORTLAND, MAINE 04101 207.874.8719 CONTACT: MATT GROOMS	PRE APP- FEBRUARY 21, 2024 MAJOR SITE PLAN SUBMISSION:
BUILDING AND DEMOLITION PERMITS	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL 389 CONGRESS STREET PORTLAND, MAINE 04101 207.874.8703	TO BE FILED PRIOR TO CONSTRUCTION BY CONTRACTOR
STREET OPENING PERMIT	CITY OF PORTLAND PUBLIC SERVICES DIVISION 212 CANCO ROAD PORTLAND, MAINE 04103 207.874.8801	TO BE FILED PRIOR TO CONSTRUCTION BY CONTRACTOR

ALL PERMITS ARE ANTICIPATED TO HAVE CONDITIONS ATTENDANT WITH THEIR APPROVAL. THE CONTRACTOR SHALL REVIEW ALL PERMITS AND THE CONDITIONS ATTENDANT WITH APPROVALS PRIOR TO THE START OF THE WORK. UNLESS OTHERWISE STIPULATED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR IS REQUIRED TO COMPLY AND FULFILL ALL CONDITIONS OF APPROVAL.

CONSULTANT LIST

CIVIL ENGINEER:
Gorrill Palmer Consulting Engineers, Inc.
300 SOUTHBOROUGH DRIVE, SUITE 200
SOUTH PORTLAND, MAINE 04106
207.772.2515
ATTN: STEVE BUSHEY
sbushey@gorrillpalmer.com

SURVEYOR:
Northeast Civil Solutions
381 PAYNE ROAD
SCARBOROUGH, ME 04074
ATTN: TROY MCDONALD

GEOTECHNICAL:
S.W. Cole Engineering, Inc.
286 PORTLAND ROAD
GRAY, ME 04039
207.657.2866
ATTN: TIM BOYCE, P.E.
infogray@swcole.com

BUILDING ARCHITECT:
Invivid Architecture
631 STEVENS AVENUE, SUIT 200
PORTLAND, ME 04103
207.939.7602
ATTN: GINNY STANLEY
virginie@invividarchitecture.com

PREDEVELOPMENT CONSULTANT:
Developers Collaborative Predevelopment
631 STEVENS AVENUE
PORTLAND, ME 04103
ATTN: LAURA READING
reading.lauraj@gmail.com

INTERIORS / PLANNING / LANDSCAPE:
Studio MLA Architects
320 WASHINGTON STREET
BROOKLINE, MA 02445
617.608.1551, ext. 302
ATTN: MIKE LINDSTROM
mlindstrom@studiomla.com

ENVIRONMENTAL CONSULTANT:
TRC Solutions
63 MARGINAL WAY- 4TH FLOOR
PORTLAND, ME 04101
EMILY WASSMER, PG/LG, LSP
ewassmer@trccompanies.com

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

STATE OF MAINE — STEPHEN R. BUSHEY — 05.14.24 — LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-COVER.dwg		

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

GORRILL PALMER
300 Southborough Drive, Suite 200
South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
Relationships. Responsiveness. Results.

Drawing Name:	COVER SHEET
Project:	PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT 331 CUMBERLAND AVENUE, PORTLAND, MAINE
Client:	YOUTH AND FAMILY OUTREACH 331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

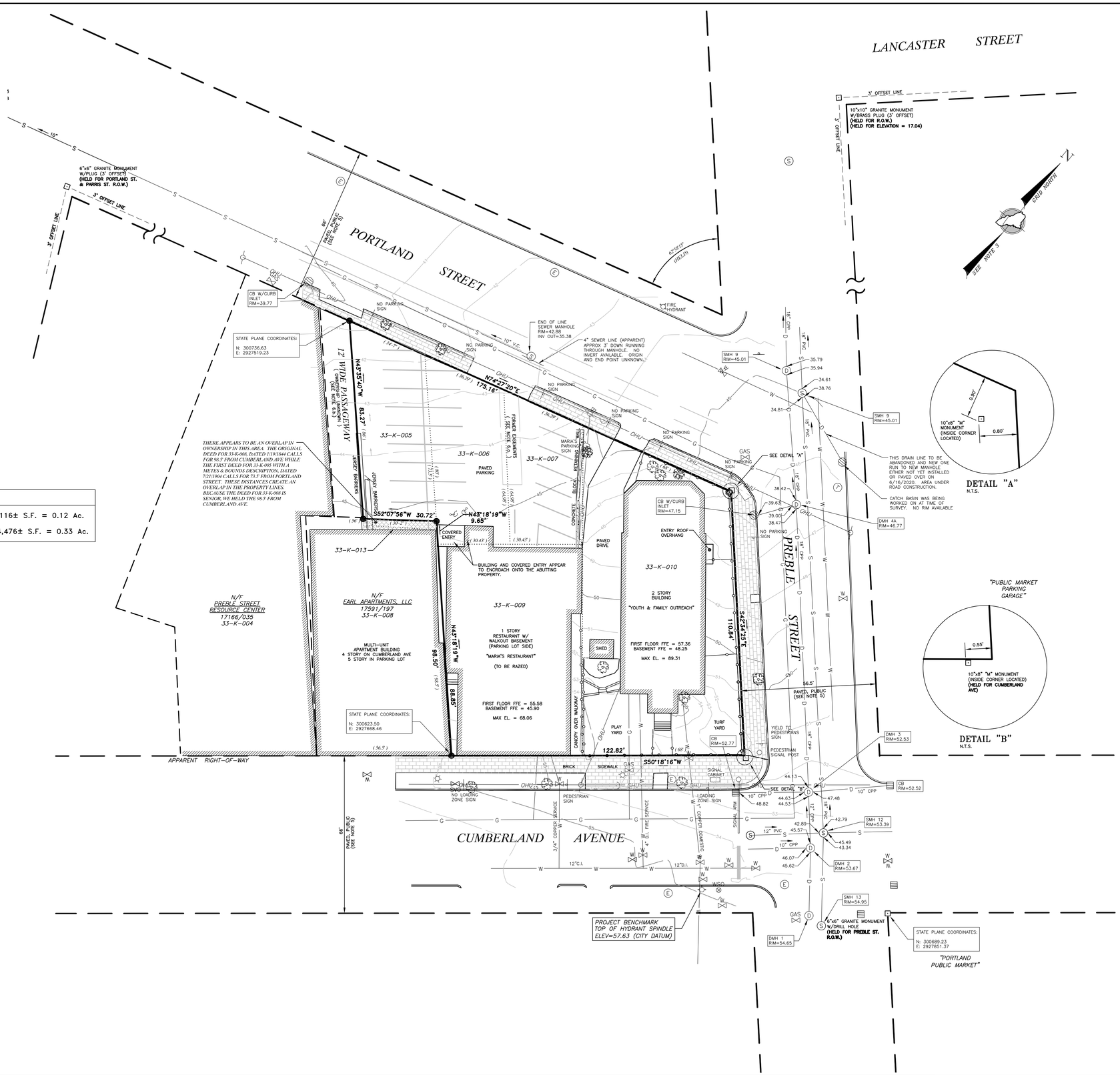
Drawing No.
C-1.0

U:\4277_Youth and Family Outreach Portland ME\Z - CAD\DWG\4277-COVER.dwg 5/14/2024 3:20 PM



VICINITY MAP
N.T.S.

LOT AREA CHART	
PARCEL 33-K-10	5,116± S.F. = 0.12 Ac.
PARCELS 33-K-5, 6, 7, 9	14,476± S.F. = 0.33 Ac.



LEGEND

●	#5 REBAR WITH PLASTIC CAP (PROPOSED)
⊡	FOUND MONUMENT (SIZE & TYPE AS NOTED)
	UTILITY POLE (NUMBER AS NOTED)
	GUY WIRE ANCHOR
	FOUND DECIDUOUS TREE (SIZE & TYPE AS NOTED)
	FOUND CONIFEROUS TREE (SIZE & TYPE AS NOTED)
	BOUNDARY LINE
	EASEMENT LINE
	EDGE OF PAVEMENT
	RIGHT-OF-WAY LINE
	ABUTTER LINE
	BUILDING SETBACK
OHU	OVERHEAD UTILITY
W	WATER LINE
G	GAS LINE
	FORMER DEED LINES
N/F	NOW OR FORMERLY OWNED BY
1234/567	DEED BOOK AND PAGE
12-34	TAX MAP-LOT
(123.45')	PARENTHESIS DENOTE RECORD DATA

NOTES

1. RECORD OWNER OF PARCEL 33-K-10 IS YOUTH & FAMILY OUTREACH (f/k/a PORTLAND MINISTRY AT LARGE) AS DESCRIBED IN A DEED FROM MARY PREBLE, DATED SEPTEMBER 17, 1850 AND RECORDED IN BOOK 225, PAGE 350 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

   RECORD OWNER OF PARCELS 33-K-5, 6, 7 & 9 IS YOUTH AND FAMILY OUTREACH AS DESCRIBED IN A DEED FROM ANTHONY M. NAPOLITANO, GREGORY J. NAPOLITANO AND FRANCIS W. NAPOLITANO, DATED MARCH 4, 2019 AND RECORDED IN BOOK 35530, PAGE 234 IN SAID REGISTRY.

   TOTAL LOT AREA IS:19,593± S.F.

2. THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 33, BLOCK K, PARCELS 5, 6, 7, 9 & 10.

3. THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON MAINE COORDINATE SYSTEM OF 1983, WEST ZONE, GRID NORTH.

4. REFERENCE IS MADE TO THE FOLLOWING PLANS:
   a. CITY OF PORTLAND VALUATION MAP VOLUME #33, DATED 1882, PROVIDED BY CITY OF PORTLAND PUBLIC WORKS.

5. THE WIDTH OF CUMBERLAND AVENUE IS 66' BASED ON CITY RECORDS. THE WIDTH OF PREBLE STREET IS 56.5' BASED ON CITY RECORDS. THE WIDTH OF PORTLAND STREET IS 66' BASED ON CITY RECORDS. THE LAYOUT OF THE RIGHT-OF-WAY LIMITS ARE BASED ON CITY STREET LINE SHEETS PROVIDED BY PUBLIC WORKS AND MONUMENTATION FOUND.

6. REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
   a. CROSS EASEMENTS BETWEEN 33-K-006 AND 33-K-007 APPEAR TO HAVE BEEN EXTINGUISHED BY MERGER OF TITLE AS THE EASEMENTS DO NOT BENEFIT ANY OTHER PARCELS AND BOTH PARCELS ARE IN THE SAME OWNERSHIP.

   b. PARCELS 33-K-004, 33-K-005 AND 33-K-008 ALL APPEAR TO HAVE RIGHTS IN THIS 12' WIDE PASSAGEWAY. THE FEE OWNERSHIP APPEARS TO LIE WITH A PARTY OTHER THAN THE ABOVE MENTIONED PARCELS.

7. AS OF THE ORIGINAL DATE OF THIS PLAN, THE PARCEL SURVEYED IS LOCATED IN THE B-3 ZONE. PORTIONS OF BULK & SPACE REQUIREMENTS ARE AS FOLLOWS:
   MINIMUM LOT AREA = NONE
   MINIMUM FRONTAGE = 15'
   SETBACKS:
   FRONT = 5' MAXIMUM
   SIDE = NONE
   REAR = NONE

   OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY. BEFORE PROCEEDING ON ANY PROJECT WE RECOMMEND VERIFYING CURRENT ZONE AND ALL APPLICABLE SETBACKS AND RESTRICTIONS WITH THE APPROPRIATE AGENCIES.

8. ELEVATIONS AND CONTOURS ARE BASED ON CITY OF PORTLAND DATUM USING THE 3' OFFSET MONUMENT AT PREBLE & LANCASTER STREETS (ELEV 17.04) PROVIDED BY PUBLIC WORKS. SEE PLAN FOR TBM DESCRIPTION.

9. THE UTILITIES SHOWN ON THIS PLAN WERE MARKED BY DIG SMART OF MAINE ON 8/07/2018 AND THEIR LOCATIONS ARE TO BE CONSIDERED APPROXIMATE. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTRACTOR TO CONTACT DIG-SAFE (888)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.

Revision:	By:	Date:	Change:
4	ASF	5/8/2024	REVISED LOT AREA CHART
3	ASF	5/13/2024	ADDED TOTAL LOT AREA
2	JAP	6/22/2020	ADD INVERTS AND STATE PLANE COORDINATES
1	JAP	5/13/2020	REVISE OWNER OF RECORD FOR 33-K-5, 6, 7 & 9

PROJECT: 41694	DRAWING NAME: 41694.dwg		
ISSUED: AUGUST 15, 2018	SCALE: 1"= 20'	FB # 449B	DRAWN BY: JAP
FIELDED BY: DPH / ASF	FIELD DATE: 8/08/2018		CHECKED BY: DMM / TFM

Drawing Name and Location:
BOUNDARY & TOPOGRAPHIC SURVEY
331 & 337 CUMBERLAND AVENUE, PORTLAND, MAINE

Owner:
YOUTH & FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Prepared For:
YOUTH & FAMILY OUTREACH

SURVEYING ● ENGINEERING ● LAND PLANNING
Northeast Civil Solutions
INCORPORATED
381 PAYNE ROAD, SCARBOROUGH, MAINE 04074
tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com

0 20' 40' 80'

STAMP AND SIGNATURE

5/8/2024
TROY F. McDONALD DATE
MAINE PROFESSIONAL LAND SURVEYOR No. 2080

STATE OF MAINE TROY F. McDONALD #2080 PROFESSIONAL LAND SURVEYOR

E:\Land Projects\41000\41694-Youth & Family - Portland\dwg\41694.dwg



AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		**12**
MAINE HOUSING:	4	20	14	10	**48**
FIRST FLOOR		1	3		**4**
THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	**60**

1 | 1ST FLOOR
1/8" = 1'-0"
0' 2'-0" 4'-0" 8'-0" 16'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

FIRST FLOOR PLAN

Scale:
As indicated

3 MAY, 2024

A1.01



1 2ND FLOOR
1/8" = 1'-0"
0' 2'-0" 4'-0" 8'-0" 16'-0"

AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

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THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	60

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Childcare Center Architect

studio MLA ARCHITECTS
320 Washington St.
Brookline, MA 02445
617 608-1551

Revisions:

Key Plan:

SECOND FLOOR PLAN

Scale: As indicated

3 MAY, 2024

A1.02



AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		**12**
MAINE HOUSING:	4	20	14	10	**48**
FIRST FLOOR		1	3		**4**
THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	**60**

1 | 3RD, 4TH, 5TH, 6TH FLOOR PLAN
1/8" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

THIRD FLOOR PLAN

Scale: As indicated

3 MAY, 2024

A1.03



AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		**12**
MAINE HOUSING:	4	20	14	10	**48**
FIRST FLOOR		1	3		**4**
THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	**60**

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

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

FOURTH FLOOR PLAN

Scale: As indicated

3 MAY, 2024

A1.04



AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		**12**
MAINE HOUSING:	4	20	14	10	**48**
FIRST FLOOR		1	3		**4**
THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	**60**

1 | 5TH FLOOR
1/8" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

FIFTH FLOOR PLAN

Scale: As indicated

3 MAY, 2024

A1.05



1 | 6TH FLOOR
1/8" = 1'-0"

AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTHT FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	**72,437 GSF**

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		**12**
MAINE HOUSING:	4	20	14	10	**48**
FIRST FLOOR		1	3		**4**
THIRD FLOOR	1	6	4	3	**14**
FOURTH FLOOR	1	6	4	3	**14**
FIFTH FLOOR	1	6	4	3	**14**
SIXTH FLOOR	1	5	7	1	**14**
TOTAL	**4**	**24**	**22**	**10**	**60**

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Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

SIXTH FLOOR PLAN

Scale: As indicated

3 MAY, 2024

A1.06



1 CUMBERLAND AVE ELEVATION 1
1/8" = 1'-0"

architecture
invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale:
1/8" = 1'-0"

3 MAY, 2024

A4.01

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:



1 PORTLAND STREET ELEVATION
1/8" = 1'-0"

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale: 1/8" = 1'-0"

3 MAY, 2024

A4.02



1 PREBLE STREET ELEVATION

1/8" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale: 1/8" = 1'-0"

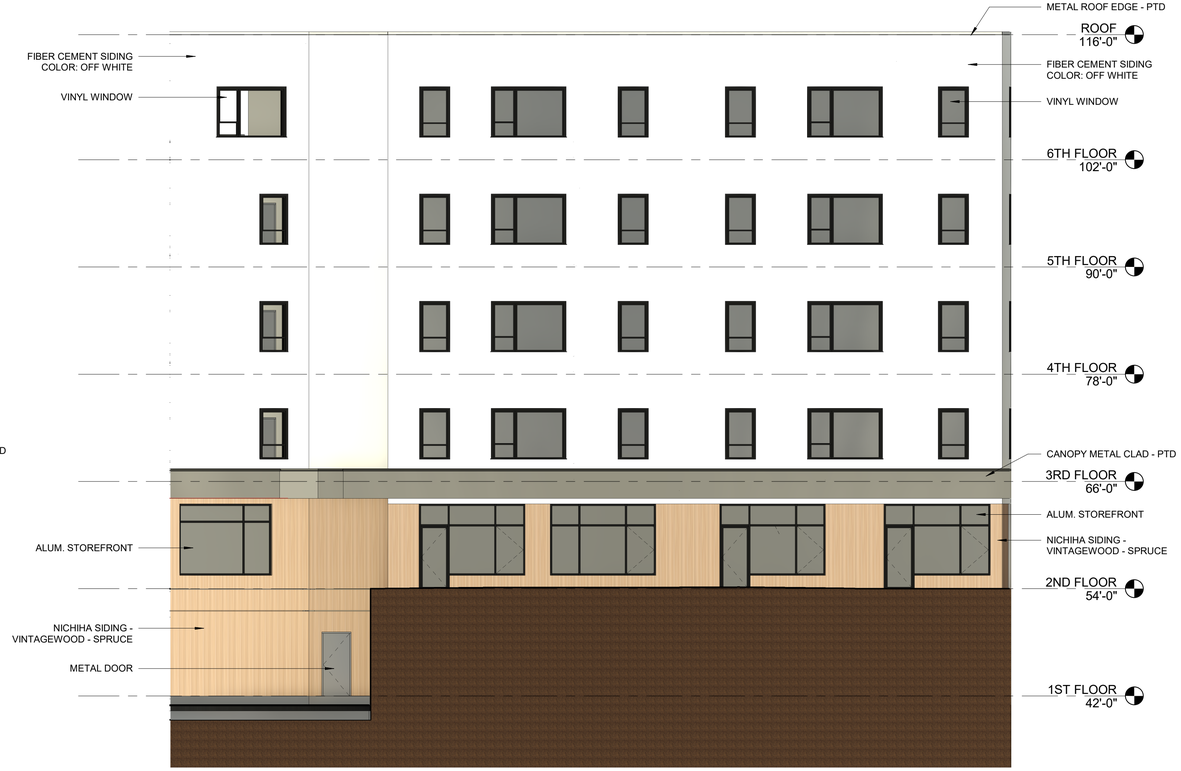
3 MAY, 2024

A4.03



1 COURTYARD ELEVATION 1

1/8" = 1'-0"



2 COURTYARD ELEVATION 2

1/8" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale:
1/8" = 1'-0"

3 MAY, 2024

A4.04

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

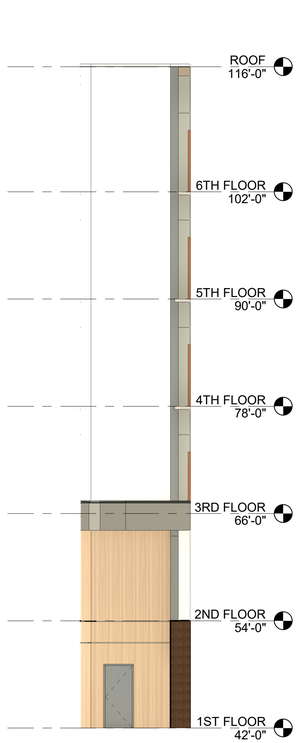
337 CUMBERLAND AVENUE

Portland, Maine

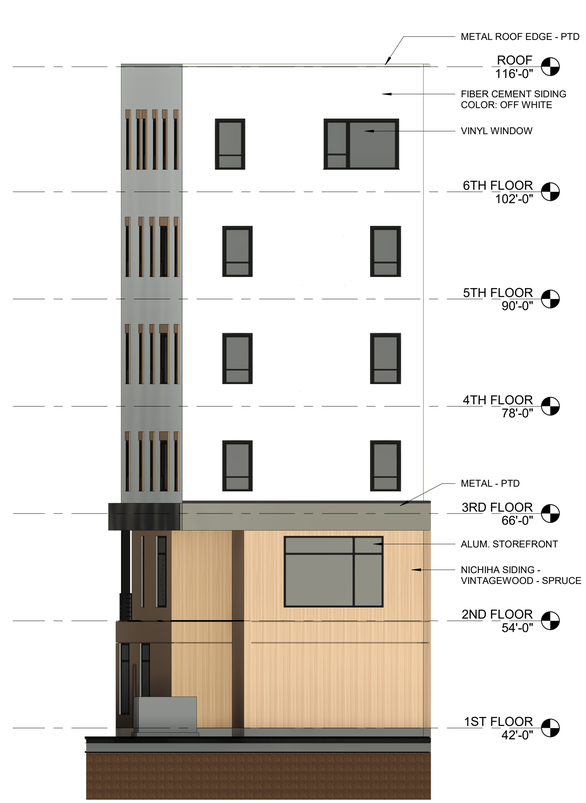
Owner/Client:

Youth and Family Outreach

Consultant:



2 | COURTYARD ELEVATION 3
1/8" = 1'-0"



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

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale:
1/8" = 1'-0"

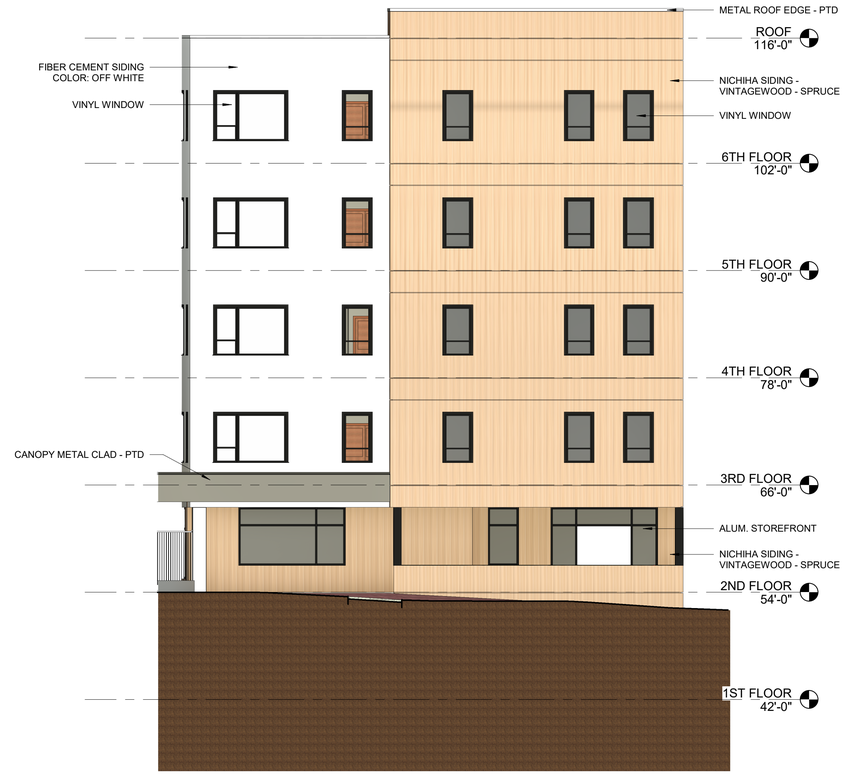
3 MAY, 2024

A4.05



1 ACCESS DRIVEWAY ELEVATION

1/8" = 1'-0"



3 CUMBERLAND AVE ELEVATION 2

1/8" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

BUILDING ELEVATIONS

Scale:
1/8" = 1'-0"

3 MAY, 2024

A4.06



1 BUILDING SECTION
1/4" = 1'-0"

architecture invivid
631 Stevens Ave Ste #200
Portland, ME 04103
207 - 939 - 7602

Project:

337 CUMBERLAND AVENUE

Portland, Maine

Owner/Client:

Youth and Family Outreach

Consultant:

Revisions:

Key Plan:

BUILDING SECTIONS

Scale:
1/4" = 1'-0"

3 MAY, 2024

A5.01






architecture
invivid


architecture
invivid

GENERAL NOTES

1. IN ADDITION TO THESE PLANS AND NOTES, THE CONTRACTOR SHALL REFER TO THE PROJECT MANUAL OR MOST CURRENT MAINE DEPARTMENT OF TRANSPORTATION (MAINE DOT) SPECIFICATIONS FOR CONSTRUCTION SPECIFICATIONS AND BIDDING PROCEDURES.

2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.

3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.

4. ALL REQUIRED AND NECESSARY INSPECTIONS AND OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.

5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT ITS SOLE COST.

6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.

7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.

8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF ELECTRONIC FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.

10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AND ALL ADJACENT PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACT OR CHANGES TO SITE ACCESS CONDITIONS, SIDEWALK AND / OR STREET CLOSINGS.

PERMITTING NOTES

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.

2. THE CONTRACTOR SHALL REVIEW THE ABOVE-REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

SITE LAYOUT NOTES

1. BITUMINOUS CONCRETE CURB, SLIPFORM CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.001, 703.07 AND 609.04.

2. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.

3. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.

4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N = 0.012 OR LESS.

2. AN "AS-BUILT" CERTIFICATION AND PLANS OF THE STORMWATER DRAINAGE SYSTEM IS REQUIRED PRIOR TO THE OWNER ACCEPTING ANY BUILDINGS AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT, WITH CONTRACTOR RESPONSIBLE FOR ANY ASSOCIATED COSTS.

3. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.

4. SEE EXISTING CONDITIONS FOR BENCHMARK INFORMATION.

5. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.

6. ALL DISTURBED AREAS NOT TO BE PAVED, GRAVELED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.

7. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION*
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM-D-1557.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

9. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS.

10. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.

11. NATIVE SOILS RANGE FROM SANDY TO SILTY. CARE MUST BE EXERCISED TO LIMIT DISTURBANCE OF THE BEARING SOILS. THE NATIVE SILTY SOILS SHOULD NOT BE PROOF-ROLLED. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHOULD BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO EXTRA EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

LOCAL APPROVALS, WAIVERS AND VARIANCES

THE CONSTRUCTION PLANS ARE TO BE SUBMITTED TO THE CITY OF PORTLAND FOR THEIR REVIEW, APPROVAL AND RECORDS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

PENDING SITE PLAN CONDITIONS OF APPROVAL - TO BE ADDED UPON RECEIPT OF APPROVALS

STANDARD CONDITIONS OF APPROVAL

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

2. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.

3. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.

4. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

5. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

7. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

8. Third Party Inspections For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

9. The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

10. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

11. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater. Please provide one hard copy of the mylar.

12. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

13. Impact Fees New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy.

UTILITY NOTES

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE SITE CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR(S) AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE GENERAL CONTRACTOR.

2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.

3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC SERVICES DIVISION. CONNECTIONS TO EXISTING SEWER SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF PORTLAND PUBLIC SERVICES DIVISION RECOMMENDATIONS AND REGULATIONS.

4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, CONDUIT AND BACKFILLING ASSOCIATED WITH UNDERGROUND POWER, COMMUNICATIONS AND CABLE.

5. COORDINATE ALL OTHER UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT, AT NO EXTRA EXPENSE TO THE OWNER.

6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY, PROJECT ARCHITECTS AND MEP DESIGNERS.

7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO CENTRAL MAINE POWER STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT. WORK ADJACENT TO THE UNE SHALL BE MONITORED BY CENTRAL MAINE POWER.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OR WORK TO FINISH GRADE.

9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.

10. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.

11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.

12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES, GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCE, SEDIMENT BARRIERS AND THE CONSTRUCTION ENTRANCE ASSOCIATED WITH THE PROJECT.

2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.

3. PRIOR TO PAVING OR GRAVEL PLACEMENT, THE CONTRACTOR SHALL REMOVE SILT FROM ALL STORM LINES AND APPURTANCES.

4. SILT BARIRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.

5. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD. SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR ON AN AS NEEDED BASIS, BUT AT A MINIMUM ONCE A WEEK.

6. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.

7. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.

8. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION/SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.

9. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE DIV 312513 SPECIFICATIONS.

10. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.

11. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCHES OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 OF THE STRUCTURE HEIGHT.

12. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, 2014".

EXISTING

- IRON PIPE OR ROD FND
- MONUMENT FOUND
- GAS VALVE
- WATER VALVE
- UTILITY POLE
- LIGHT POLE
- DRAINAGE MANHOLE (DMH)
- ELECTRIC MANHOLE (EMH)
- SEWER MANHOLE (SMH)
- CATCH BASIN
- SIGN
- EDGE OF PAVEMENT
- CURB
- ohw — OVERHEAD WIRES
- E — UNDERGROUND ELECTRIC
- T — TELEPHONE
- W — WATER LINE
- G — GAS LINE
- 15"san — SANITARY SEWER
- SD — STORM DRAIN
- 15 — 1' CONTOUR
- × 15.23 — SPOT ELEVATION
- TREE
- TREE LINE OR LIMIT OF CLEARING
- BUILDING
- RETAINING WALL/WOOD TILES
- PROPERTY LINE
- EASEMENT LINE
- TEST BORING

PROPOSED

- BARRIER FREE SYMBOL
- SIGN
- SIGN LABEL
- BUILDING / BUILDING ACCESS
- VERTICAL GRANITE CURB
- CB — CATCH BASIN
- 22 — CONTOUR LABEL
- DMH — DRAIN MANHOLE
- 2 / 1 — 2:1 — SLOPE DESIGNATION
- 18.73 — SPOT GRADE
- 28.58 TW / 16.20 BW — SPOT GRADE AT RETAINING WALL (TW = TOP WALL / BW = BOTTOM WALL)
- 10"UD — UNDERDRAIN
- 12" SD L = 188' S = 0.005 — STORM DRAIN
- CURB STOP
- HYDRANT
- LIGHT POLE WITH FIXTURE(S)
- SMH — SANITARY SEWER MANHOLE
- TEST PIT
- UTILITY POLE
- VALVE
- 6" SAN — SANITARY SEWER
- W — DOMESTIC/ FIRE WATER MAIN
- 2"G — GAS MAIN
- UGE/T/C — UNDERGROUND ELECTRIC

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

STATE OF MAINE — STEPHEN R. BUSHEY — 05.14.24 — LICENSED PROFESSIONAL ENGINEER

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

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB | Draft: CDD | Date: MARCH 2024
Checked: SRB | Scale: AS NOTED | Job No.: 4277
File Name: 4277-GEN NOTES.dwg

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

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Relationships. Responsiveness. Results.

Drawing Name: GENERAL NOTES & LEGEND
Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE
Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

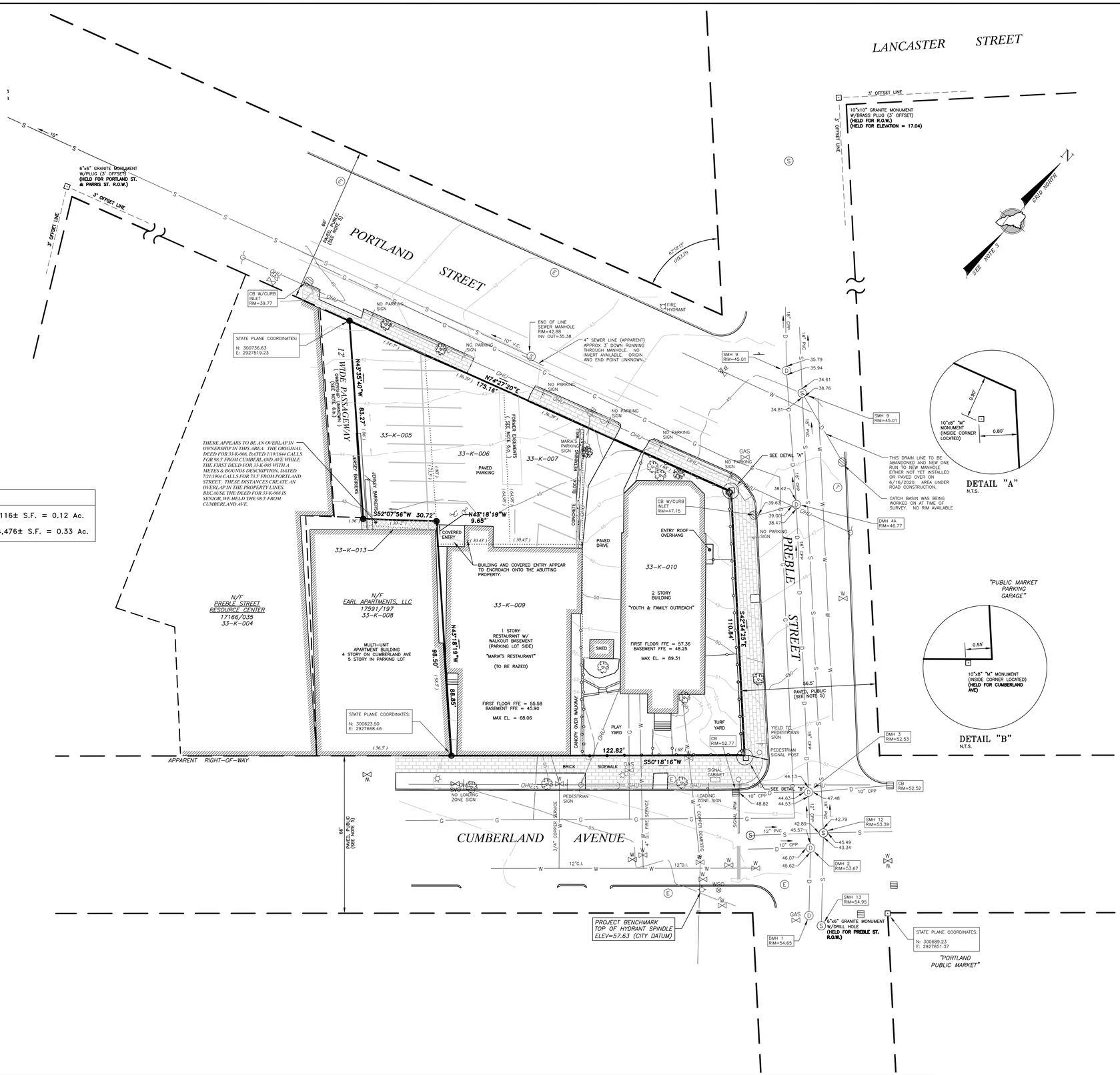
Drawing No. C-1.1

U:\4277_Youth and Family Outreach Portland ME\2 - CAD\DWG\4277-GEN NOTES.dwg 5/14/2024 3:21 PM



VICINITY MAP
N.T.S.

LOT AREA CHART	
PARCEL 33-K-10	5,116± S.F. = 0.12 Ac.
PARCELS 33-K-5, 6, 7, 9	14,476± S.F. = 0.33 Ac.



LEGEND

●	#5 REBAR WITH PLASTIC CAP (PROPOSED)
□	FOUND MONUMENT (SIZE & TYPE AS NOTED)
	UTILITY POLE (NUMBER AS NOTED)
	GUY WIRE ANCHOR
	FOUND DECIDUOUS TREE (SIZE & TYPE AS NOTED)
	FOUND CONIFEROUS TREE (SIZE & TYPE AS NOTED)
———	BOUNDARY LINE
— — —	EASEMENT LINE
———	EDGE OF PAVEMENT
— — —	RIGHT-OF-WAY LINE
— — —	ABUTTER LINE
— - — - —	BUILDING SETBACK
——OHU——	OVERHEAD UTILITY
——W——	WATER LINE
——G——	GAS LINE
.....	FORMER DEED LINES
N/F	NOW OR FORMERLY OWNED BY
1234/567	DEED BOOK AND PAGE
12-34	TAX MAP-LOT
(123.45')	PARENTHESIS DENOTE RECORD DATA

NOTES

1. RECORD OWNER OF PARCEL 33-K-10 IS YOUTH & FAMILY OUTREACH (f/k/a PORTLAND MINISTRY AT LARGE) AS DESCRIBED IN A DEED FROM MARY PREBLE, DATED SEPTEMBER 17, 1850 AND RECORDED IN BOOK 225, PAGE 350 IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

   RECORD OWNER OF PARCELS 33-K-5, 6, 7 & 9 IS YOUTH AND FAMILY OUTREACH AS DESCRIBED IN A DEED FROM ANTHONY M. NAPOLITANO, GREGORY J. NAPOLITANO AND FRANCIS W. NAPOLITANO, DATED MARCH 4, 2019 AND RECORDED IN BOOK 35530, PAGE 234 IN SAID REGISTRY.

   TOTAL LOT AREA IS:19,593± S.F.

2. THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 33, BLOCK K, PARCELS 5, 6, 7, 9 & 10.

3. THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON MAINE COORDINATE SYSTEM OF 1983, WEST ZONE, GRID NORTH.

4. REFERENCE IS MADE TO THE FOLLOWING PLANS:
   a. CITY OF PORTLAND VALUATION MAP VOLUME #33, DATED 1882, PROVIDED BY CITY OF PORTLAND PUBLIC WORKS.

5. THE WIDTH OF CUMBERLAND AVENUE IS 66' BASED ON CITY RECORDS. THE WIDTH OF PREBLE STREET IS 56.5' BASED ON CITY RECORDS. THE WIDTH OF PORTLAND STREET IS 66' BASED ON CITY RECORDS. THE LAYOUT OF THE RIGHT-OF-WAY LIMITS ARE BASED ON CITY STREET LINE SHEETS PROVIDED BY PUBLIC WORKS AND MONUMENTATION FOUND.

6. REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
   a. CROSS EASEMENTS BETWEEN 33-K-006 AND 33-K-007 APPEAR TO HAVE BEEN EXTINGUISHED BY MERGER OF TITLE AS THE EASEMENTS DO NOT BENEFIT ANY OTHER PARCELS AND BOTH PARCELS ARE IN THE SAME OWNERSHIP.

   b. PARCELS 33-K-004, 33-K-005 AND 33-K-008 ALL APPEAR TO HAVE RIGHTS IN THIS 12' WIDE PASSAGEWAY. THE FEE OWNERSHIP APPEARS TO LIE WITH A PARTY OTHER THAN THE ABOVE MENTIONED PARCELS.

7. AS OF THE ORIGINAL DATE OF THIS PLAN, THE PARCEL SURVEYED IS LOCATED IN THE B-3 ZONE. PORTIONS OF BULK & SPACE REQUIREMENTS ARE AS FOLLOWS:
   MINIMUM LOT AREA = NONE
   MINIMUM FRONTAGE = 15'
   SETBACKS:
   FRONT = 5' MAXIMUM
   SIDE = NONE
   REAR = NONE

   OTHER MUNICIPAL AND STATE OVERLAY ZONES MAY EXIST AND APPLY. BEFORE PROCEEDING ON ANY PROJECT WE RECOMMEND VERIFYING CURRENT ZONE AND ALL APPLICABLE SETBACKS AND RESTRICTIONS WITH THE APPROPRIATE AGENCIES.

8. ELEVATIONS AND CONTOURS ARE BASED ON CITY OF PORTLAND DATUM USING THE 3' OFFSET MONUMENT AT PREBLE & LANCASTER STREETS (ELEV 17.04) PROVIDED BY PUBLIC WORKS. SEE PLAN FOR TBM DESCRIPTION.

9. THE UTILITIES SHOWN ON THIS PLAN WERE MARKED BY DIG SMART OF MAINE ON 8/07/2018 AND THEIR LOCATIONS ARE TO BE CONSIDERED APPROXIMATE. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTRACTOR TO CONTACT DIG-SAFE (888)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.

Revision:	By:	Date:	Change:
4	ASF	5/8/2024	REVISED LOT AREA CHART
3	ASF	5/13/2024	ADDED TOTAL LOT AREA
2	JAP	6/22/2020	ADD INVERTS AND STATE PLANE COORDINATES
1	JAP	5/13/2020	REVISE OWNER OF RECORD FOR 33-K-5, 6, 7 & 9

PROJECT: 41694	DRAWING NAME: 41694.dwg		
ISSUED: AUGUST 15, 2018	SCALE: 1"= 20'	FB # 449B	DRAWN BY: JAP
FIELDED BY: DPH / ASF	FIELD DATE: 8/08/2018		CHECKED BY: DMM / TFM

Drawing Name and Location:

BOUNDARY & TOPOGRAPHIC SURVEY
331 & 337 CUMBERLAND AVENUE, PORTLAND, MAINE

Owner:

YOUTH & FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Prepared For:

YOUTH & FAMILY OUTREACH

SURVEYING ● ENGINEERING ● LAND PLANNING
Northeast Civil Solutions
INCORPORATED
381 PAYNE ROAD, SCARBOROUGH, MAINE 04074
tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com

0 20' 40' 80'

STAMP AND SIGNATURE

TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR No. 2080

5/8/2024
DATE

STATE OF MAINE TROY F. McDONALD #2080 PROFESSIONAL LAND SURVEYOR

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NOTES:

1. CONTRACTOR SHALL VIDEO INSPECT ALL SEWER AND DRAIN SERVICES EXTENDING FROM EXISTING BUILDINGS TO CONFIRM LOCATIONS / DEPTHS. ALL PIPES NOT TO BE REUSED SHALL BE REMOVED / ABANDONED PER CITY REQUIREMENTS.
2. SEE REQUIREMENTS IN THE SOILS MANAGEMENT PLAN PREPARED BY THE PROJECT ENVIRONMENTAL CONSULTANT.
3. ANY ITEMS FOR SALVAGE SHALL BE REMOVED, CLEANED AND STORED OFFSITE AT AN OWNER DESIGNATED LOCATION.
4. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CITY'S REGULATIONS.

EXISTING EXPLORATIONS LEGEND:

B-101 — TEST BORINGS CONDUCTED BY S.W. COLE EXPLORATIONS, LLC ON MARCH 4 AND 10, 2020 AND DETAILED IN A REPORT BY S.W. COLE ENGINEERING, INC. DATED MARCH 20, 2020.

NORTH

SEWER MANHOLE
RIM=37.28
INV IN=29.98
INV IN=29.83
INV OUT=29.73

6"x6" GRANITE MONUMENT W/PLUG (3' OFFSET) (HELD FOR PORTLAND ST. & PARRIS ST. R.O.W.)

3' OFFSET LINE

10"x10" GRANITE MONUMENT W/BRASS PLUG (3' OFFSET) (HELD FOR R.O.W.) (HELD FOR ELEVATION = 17.04)

EX. HYDRANT POD=HYD 12125 STATIC psi:94

FIRE HYDRANT

EMH 208

EMH 207

EMH 206-A

EMH 206

CB W/CURB INLET RIM=39.77

STATE PLANE COORDINATES:
N: 300736.63
E: 2927519.23

END OF LINE SEWER MANHOLE RIM=42.88 INV OUT=35.38

4" SEWER LINE (APPARENT) APPROX 3' DOWN RUNNING THROUGH MANHOLE. NO INVERT AVAILABLE. ORIGIN AND END POINT UNKNOWN.

NO PARKING & 2-HR. PARKING SIGNS

NO PARKING SIGN

NO PARKING & NO LEFT TURN SIGNS

PORTLAND STREET

12' WIDE PASSAGEWAY (PRIVATE WAY)

EX. CONCRETE

B-101

B-102

B-103

B-104

B-105

REMOVE & RESET SIGN

REMOVE TREE, TYP.

REMOVE & RESET SIGN

REMOVE GRANITE CURB, TYP.

REMOVE ALL PAVEMENT

SAWCUT PAVEMENT AT LIMITS OF REMOVAL, TYP.

THIS DRAIN LINE TO BE ABANDONED AND NEW ONE RUN TO NEW MANHOLE EITHER NOT YET INSTALLED OR PAVED OVER ON 6/16/2020. AREA UNDER ROAD CONSTRUCTION.

CATCH BASIN WAS BEING WORKED ON AT TIME OF SURVEY. NO RIM AVAILABLE.

SMH 9 RIM=45.01

DMH 4A RIM=46.77

CB W/CURB INLET RIM=47.15

PROTECT CITY MONUMENT (RESET AT NO EXTRA COST TO OWNER IF NEEDED)

REMOVE & RESET SIGN

PROTECT PARKING METER (NO PARKING DURING CONSTRUCTION)

N/F
PREBLE STREET RESOURCE CENTER
17166/035
33-K-004

DEMOLISH EXISTING BUILDING IN ENTIRETY TO INCLUDE FULL DEPTH FOUNDATION REMOVAL, TYP. - BACKFILL WITH CLEAN MATERIAL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER OR ENVIRONMENTAL CONSULTANT, TYP.

REMOVE ALL PAVEMENT

DEMOLISH EXISTING BUILDING IN ENTIRETY TO INCLUDE FULL DEPTH FOUNDATION REMOVAL, TYP.

33-K-10
331 CUMBERLAND AVENUE
"YOUTH & FAMILY OUTREACH"
(SEE BUILDING DETAIL FOR DIMENSIONS)

PREBLE STREET

REMOVE / RECONSTRUCT BRICK SIDEWALK PER CITY STANDARDS, TYP.

PROTECT PARKING METER (NO PARKING DURING CONSTRUCTION)

N/F
EARL APARTMENTS, LLC
17591/197
33-K-008

MULTI-UNIT APARTMENT BUILDING
4 STORY ON CUMBERLAND AVE
5 STORY IN PARKING LOT

33-K-9
337 CUMBERLAND AVENUE
"MARIA'S RESTAURANT"
(SEE BUILDING DETAIL FOR DIMENSIONS)

PROTECT TREE

EX. PLAYGROUND EQUIPMENT TO BE REMOVED BY OWNER

REMOVE WROUGHT IRON FENCE, TYP.

APPROX. LIMIT OF REMOVALS, TYP.

REMOVE DECORATIVE STONE WALL

REMOVE OHE

ABANDON GAS SERVICE PER UNITIL REQIREMENTS

EXISTING WATER SERVICES TO BE RETIRED PER PWD STANDARDS, TYP. (SV271100)

RETIRE EXISTING ¾" WATER SERVICE PER PWD STANDARDS

STATE PLANE COORDINATES:
N: 300623.50
E: 2927668.46

REMOVE & RESET SIGN

DMH 3 RIM=52.53

PROTECT PED. SIGNAL POST & PULL BOX

APPARENT RIGHT-OF-WAY

PROTECT CITY MONUMENT (RESET AT NO EXTRA COST TO OWNER IF NEEDED)

CB RIM=52.52

CUMBERLAND AVENUE

PROTECT TREES

REMOVE & REPLACE SIGN

PROTECT TREE

PROTECT SIGNAL CABINET & SIGNAL POLE

PROTECT CITY LIGHT POLE

REMOVE WROUGHT IRON FENCE, TYP.

DMH 2 RIM=53.67

CB RIM=52.77

CB RIM=52.05

PROJECT BENCHMARK
TOP OF HYDRANT SPINDLE
ELEV=57.63 (CITY DATUM)
POD-HYD 12124
STATIC PSI 84
TEST FLOW: 1402

DMH 1 RIM=54.65

6"x6" GRANITE MONUMENT W/DRILL HOLE (HELD FOR PREBLE ST. R.O.W.)

STATE PLANE COORDINATES:
N: 300689.23
E: 2927851.37

GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

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

STATE OF MAINE
STEPHEN R. BUSHEY
05.14.24
LICENSED PROFESSIONAL ENGINEER

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

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD
Checked: SRB	Scale: AS NOTED
File Name: 4277-EX & REMOVALS.dwg	

Date: MARCH 2024
Job No.: 4277

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Relationships. Responsiveness. Results.

Drawing Name: EXISTING CONDITIONS & REMOVALS PLAN
Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE
Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-2.0

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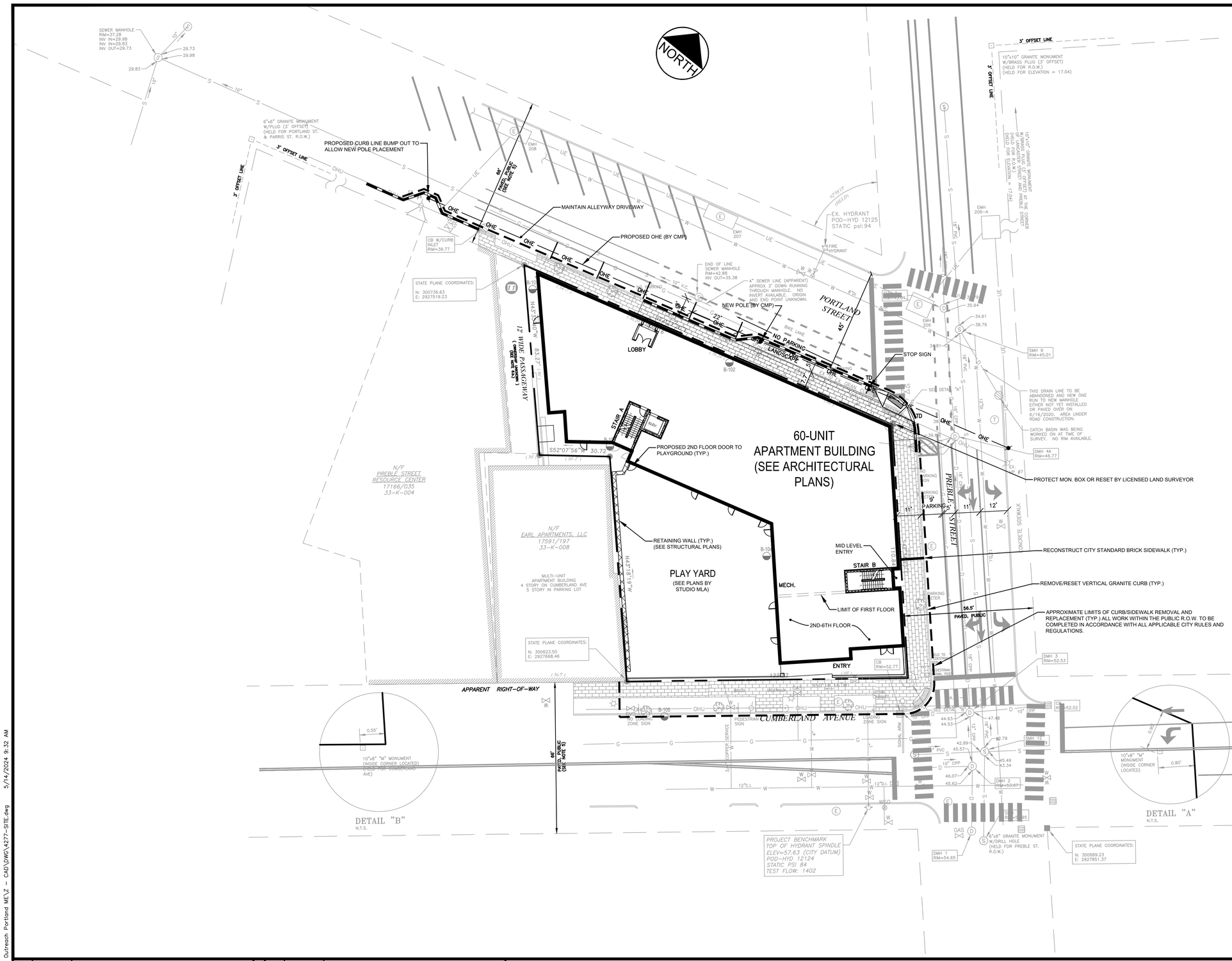

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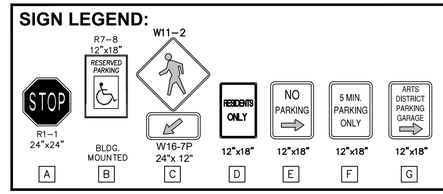

SPACE AND BULK REGULATIONS

SPACE AND BULK REGULATION	REQUIRED - B3 ZONE	PROVIDED LOT 1
MINIMUM LOT SIZE	NONE	26,100 SF
MIN. STREET FRONTAGE	15 FT	360 FT
MAX. FRONT YARD SETBACK	5 FT	0 FT
SIDE / REAR SETBACK	N / A	
MAX. BUILDING HEIGHT	*	58 FT
LENGTH OF UNDIFFERENTIATED BLANK WALL ALONG PUBLICLY ACCESSIBLE WAY	30 FT (MAX.)	< 30 FT (MAX.)

* MAXIMUM BUILDING HEIGHT ACCORDING TO THE DOWNTOWN HEIGHT OVERLAY DISTRICT

AREAS

FIRST FLOOR	11,073 GSF
SECOND FLOOR	12,608 GSF
THIRD FLOOR	12,189 GSF
FOURTH FLOOR	12,189 GSF
FIFTH FLOOR	12,189 GSF
SIXTH FLOOR	12,189 GSF +
TOTAL	72,437 GSF

UNIT COUNT

	STUDIO	1-BR	2-BR	3-BR	TOTAL
MARKET RATE:		4	8		12
MAINE HOUSING:	4	20	14	10	48
FIRST FLOOR		1	3		4
THIRD FLOOR	1	6	4	3	14
FOURTH FLOOR	1	6	4	3	14
FIFTH FLOOR	1	6	4	3	14
SIXTH FLOOR	1	5	7	1	14
TOTAL	4	24	22	10	60

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

STATE OF MAINE — STEPHEN R. BUSHEY — 05.13.24 — LICENSED PROFESSIONAL ENGINEER

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

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.13	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-SITE.dwg		

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300 Southborough Drive, Suite 200
South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
Relationships. Responsiveness. Results.

Drawing Name: SITE LAYOUT PLAN

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-3.0

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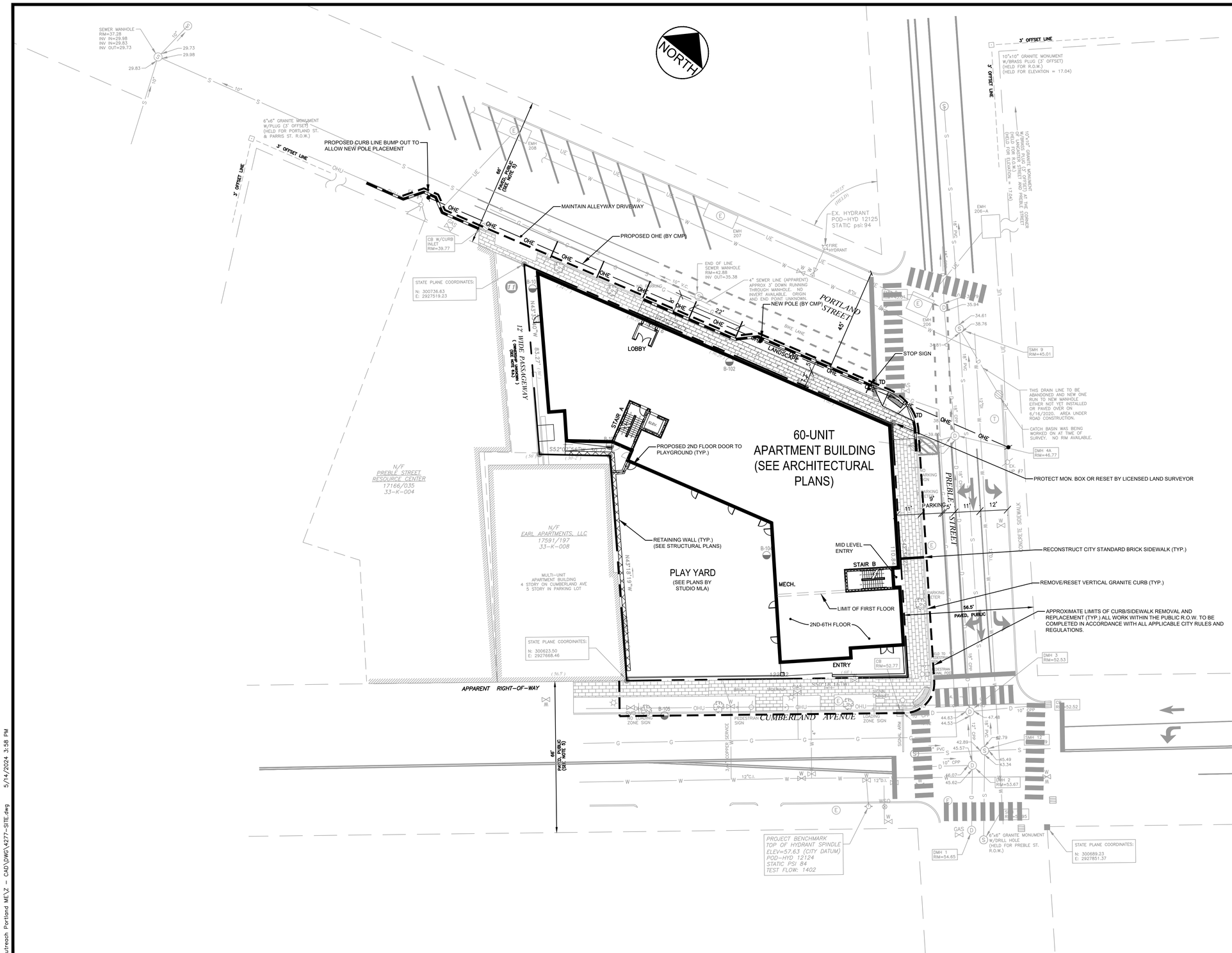

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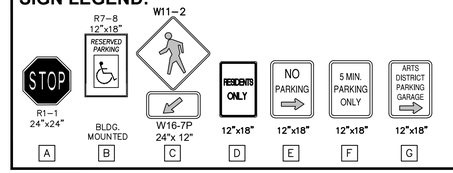

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FOURTH FLOOR	1	6	4	3	14
FIFTH FLOOR	1	6	4	3	14
SIXTH FLOOR	1	5	7	1	14
TOTAL	4	24	22	10	60

GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

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

STATE OF MAINE
STEPHEN R. BUSHEY
05.14.24
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-SITE.dwg		

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Relationships. Responsiveness. Results.

Drawing Name: SITE LAYOUT PLAN

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-3.0

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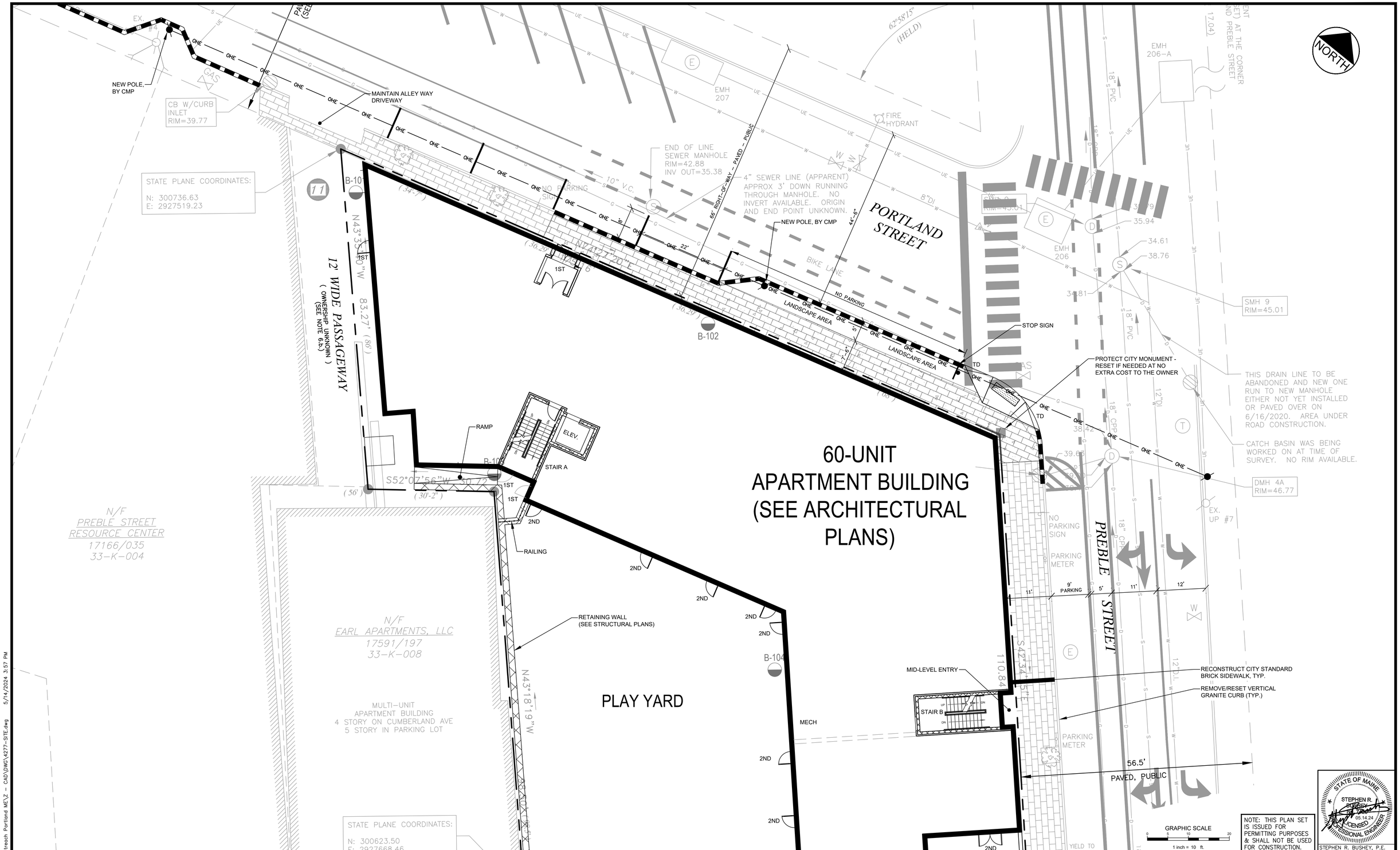

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Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-SITE.dwg		

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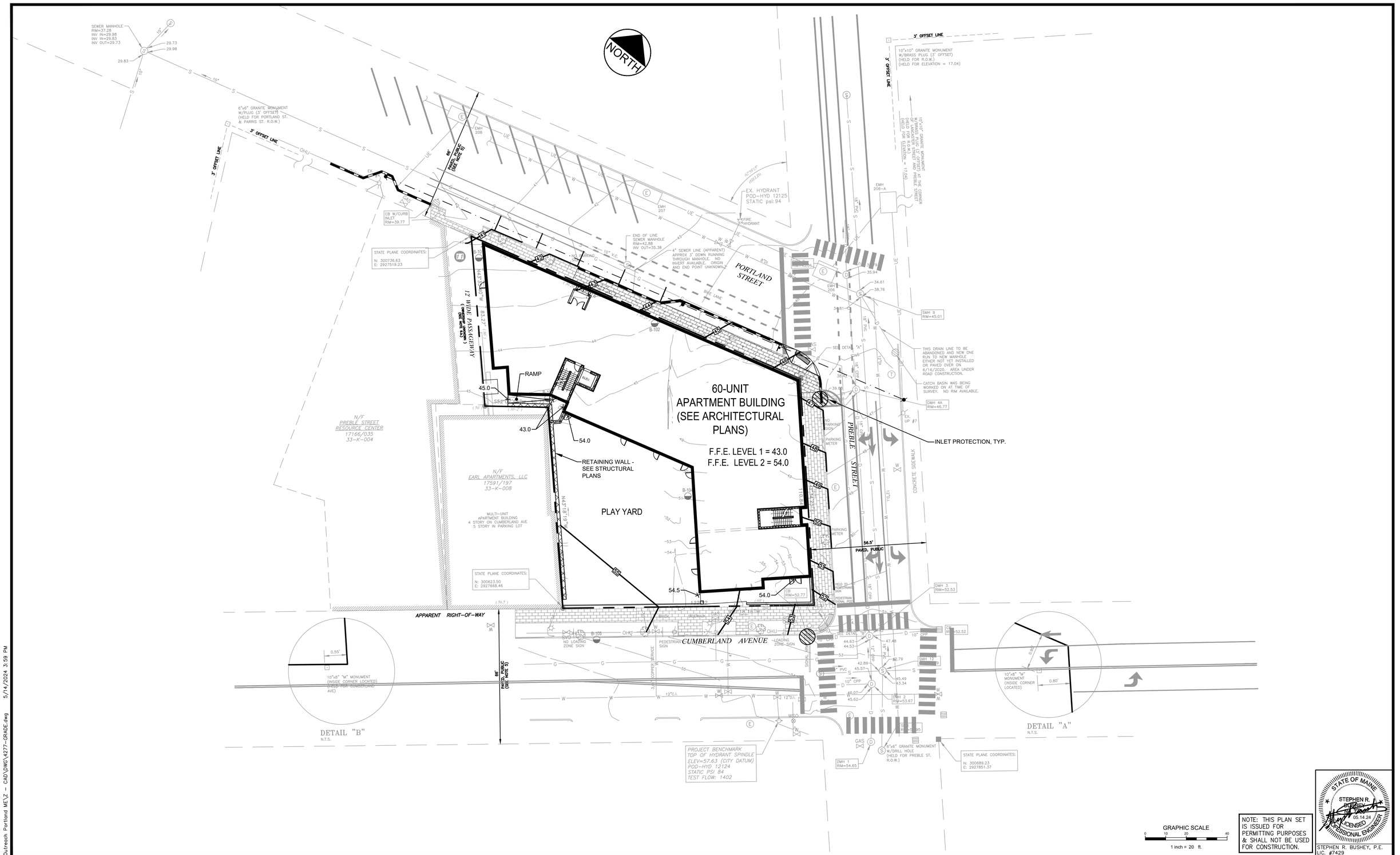
Relationships. Responsiveness. Results.

Drawing Name: PORTLAND STREET BUMPOUTS

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-3.1



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Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-GRADE.dwg		

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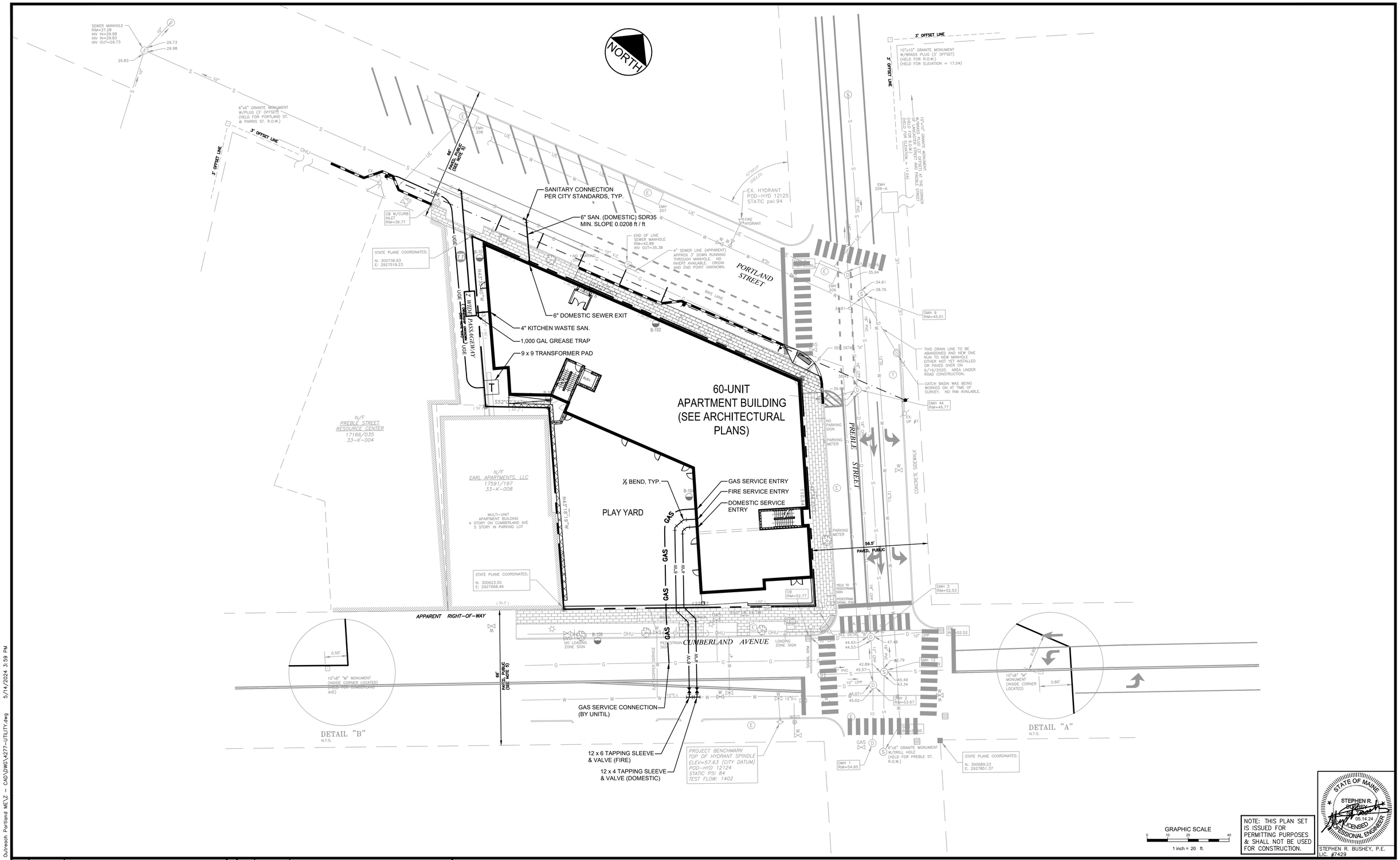
Relationships. Responsiveness. Results.

Drawing Name: GRADING, DRAINAGE & EROSION CONTROL PLAN

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-4.0



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

STATE OF MAINE
STEPHEN R. BUSHEY
05.14.24
LICENSED PROFESSIONAL ENGINEER

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

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277-UTILITY.dwg		

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South Portland, Me 04106
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Relationships. Responsiveness. Results.

Drawing Name: UTILITY PLAN

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-5.0

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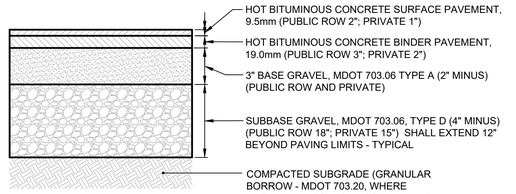
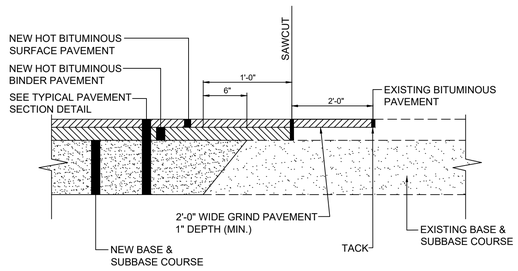


NOTES:

1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION AND/OR CITY OF PORTLAND TECHNICAL STANDARD, WHICHEVER IS MORE STRINGENT. COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE MDOT STANDARD SPECIFICATIONS.
3. CONTRACTOR TO VERIFY TRENCH RESTORATION SECTION IN ADJACENT STREETS WITH THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY EXCAVATION.

(A) BITUMINOUS CONCRETE PAVEMENT SECTION

N.T.S.



NOTES:

1. USE THIS DETAIL FOR THE RADIUS FILLET AT THE DRIVEWAY ENTRANCE TO THE PUBLIC STREETS OR TO MATCH PARKING LOT/DRIVE PAVEMENTS WHERE WIDENING OF EXISTING PAVEMENT AREA IS REQUIRED.
2. WHERE SURFACE PAVEMENT HAS NOT BEEN INSTALLED, THE 2'-0" WIDE GRIND IS NOT REQUIRED.

(D) PAVEMENT SAWCUT DETAIL

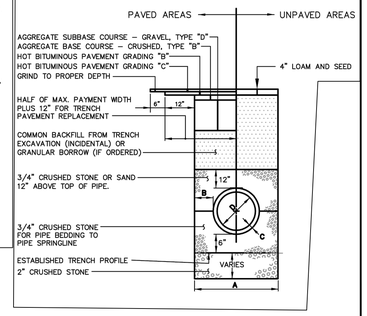
N.T.S.

NOTES:
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION **B** SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE, BUT IN ALL CASES DIMENSION **B** SHALL BE AT LEAST 9".
4. DIMENSION **A** IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION **A** SHALL BE BASED ON PIPE DIAMETER **D**, AS SET FORTH IN THE FOLLOWING TABLE.

PIPE DIAMETER, **D** (INCHES)	MAX. TRENCH WIDTH, **A** (FEET)
4 – – – –	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18 – – – –	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36 – – – –	6.0
42	7.0
48	7.0

NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.

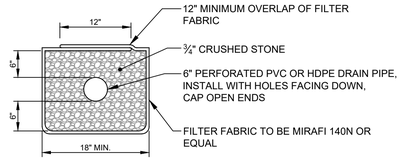
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES..



(G) TYPICAL PIPE TRENCH INSTALLATION AND NOTES

N.T.S.

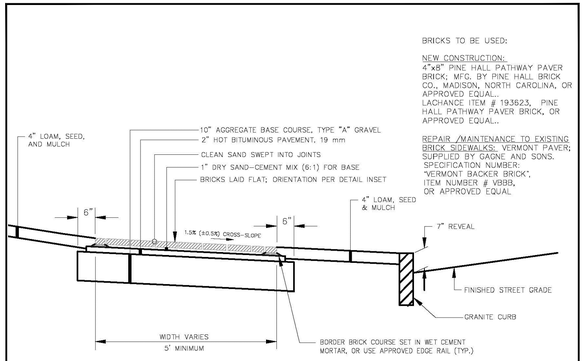
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
LOCATIONS AS NOTED ON PLANS - COORDINATE WITH ARCHITECTURAL AND / OR STRUCTURAL PLANS.

(J) TYPICAL FOUNDATION DRAIN DETAIL

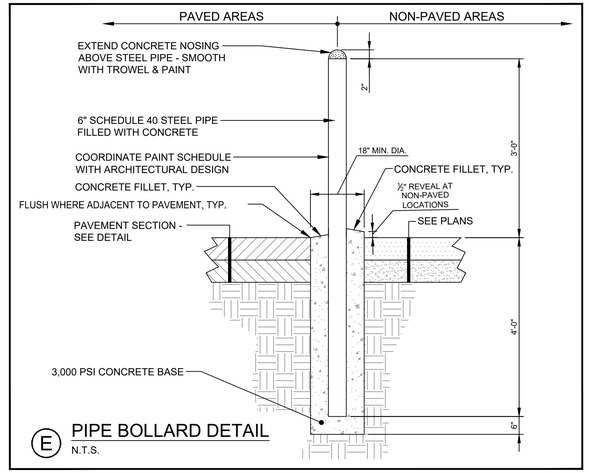
N.T.S.



(B) BRICK SIDEWALK WITH BITUMINOUS BASE

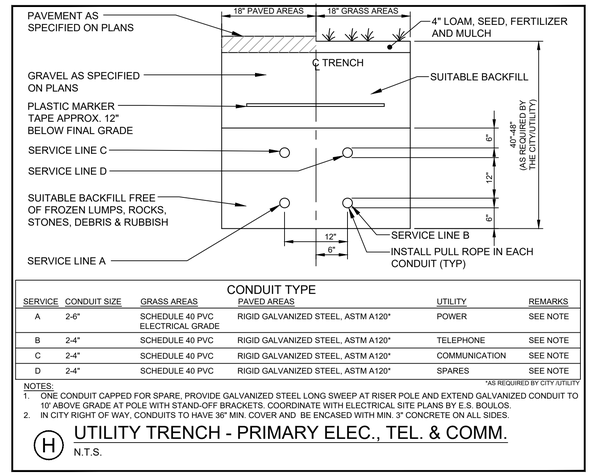
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



(E) PIPE BOLLARD DETAIL

N.T.S.



CONDUIT TYPE

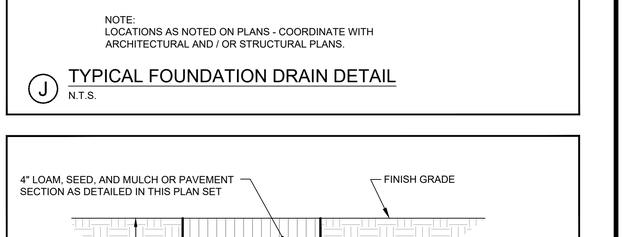
SERVICE	CONDUIT SIZE	GRASS AREAS	PAVED AREAS	UTILITY	REMARKS
A	2-6"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120*	POWER	SEE NOTE
B	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120*	TELEPHONE	SEE NOTE
C	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120*	COMMUNICATION	SEE NOTE
D	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120*	SPARES	SEE NOTE

*AS REQUIRED BY CITY /UTILITY

NOTES:
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10' ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS. COORDINATE WITH ELECTRICAL SITE PLANS BY E.S. BOULOS.
2. IN CITY RIGHT OF WAY, CONDUITS TO HAVE 36" MIN. COVER AND BE ENCASED WITH MIN. 3" CONCRETE ON ALL SIDES.

(H) UTILITY TRENCH - PRIMARY ELEC., TEL. & COMM.

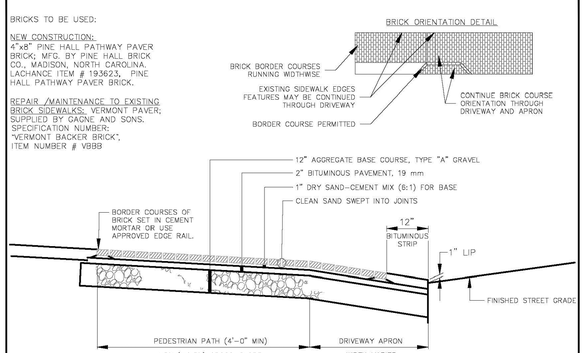
N.T.S.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (L)

(K) WATER SERVICE TRENCH SECTION

N.T.S.



(C) BRICK DRIVEWAY APRON WITH BITUMINOUS BASE

N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

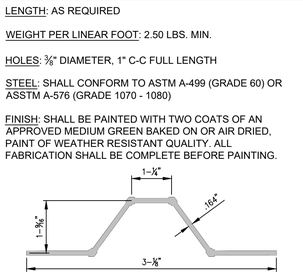
LENGTH: AS REQUIRED

WEIGHT PER LINEAR FOOT: 2.50 LBS. MIN.

HOLES: ⅜" DIAMETER, 1" C-C FULL LENGTH

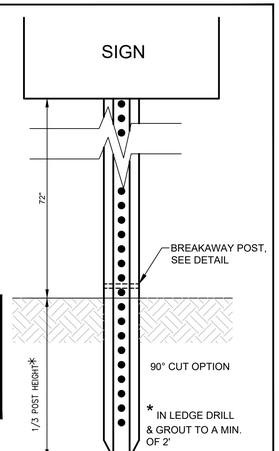
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASSTM A-576 (GRADE 1070 - 1080)

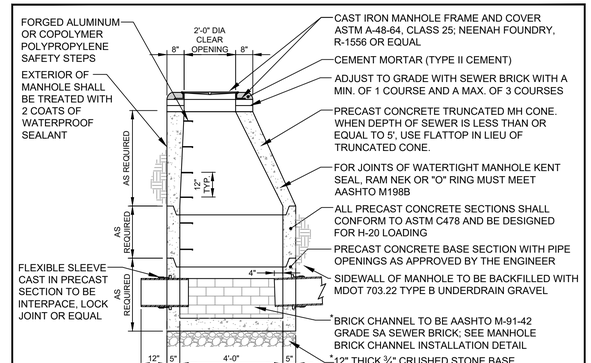
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.



(F) U-CHANNEL METAL SIGN POST

N.T.S.





(I) 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL

N.T.S.

*NOTE:
CHANNEL MAY ALSO BE A PREFABRICATED FIBERLINER 2000 CHANNEL AS FABRICATED BY GDT, INC. OF ESSEX, CT OR EQUAL

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.
2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.
4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING™.

BEARING SURFACE REQUIRED IN SQUARE FEET

PIPE SIZE	⅛ BEND	⅙ BEND	⅛ BEND	¼ BEND	TEES/CAPS
6" / 8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

(L) THRUST BLOCK NOTES

N.T.S.

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

STATE OF MAINE
STEPHEN R. BUSHEY
05.14.24
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277–DETAILS.dwg		

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South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
Relationships. Responsiveness. Results.

Drawing Name: SITE & MISCELLANEOUS DETAILS

Project: PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT
331 CUMBERLAND AVENUE, PORTLAND, MAINE

Client: YOUTH AND FAMILY OUTREACH
331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101

Drawing No. C-6.0

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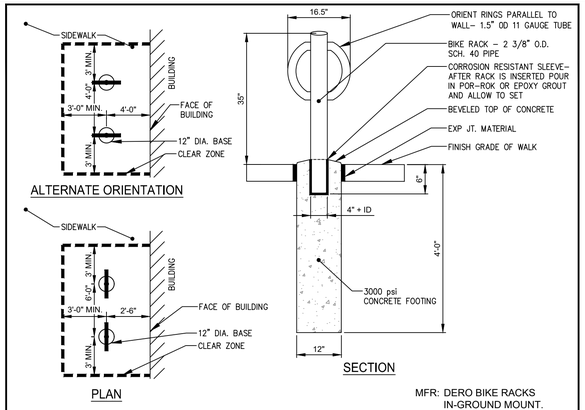
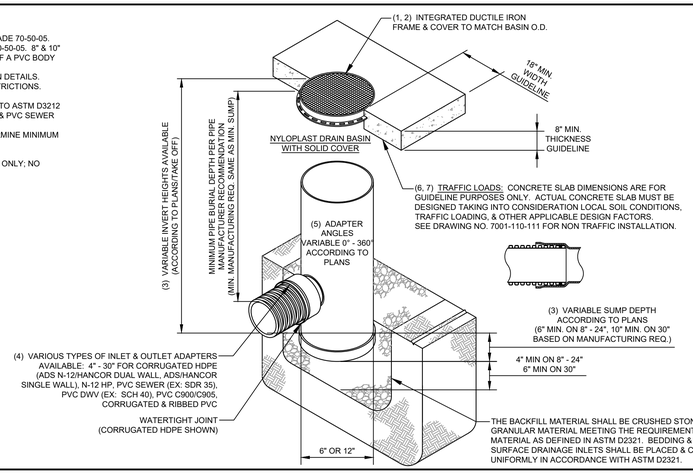


MFR: DERO BIKE RACKS
IN-GROUND MOUNT.
POWDER COAT FINISH
COLOR: BLACK
www.dero.com
1-800-298-4915

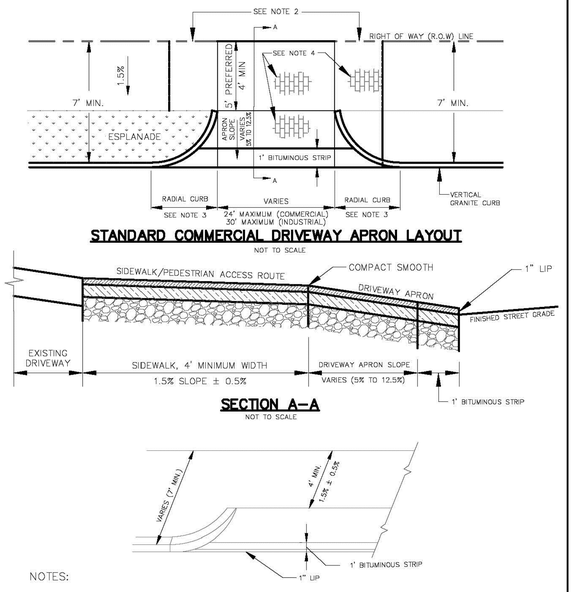
Ⓐ BIKE HITCH MOUNTING DETAIL
N.T.S.

NOTES

1. 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5. ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6. 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7. 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.



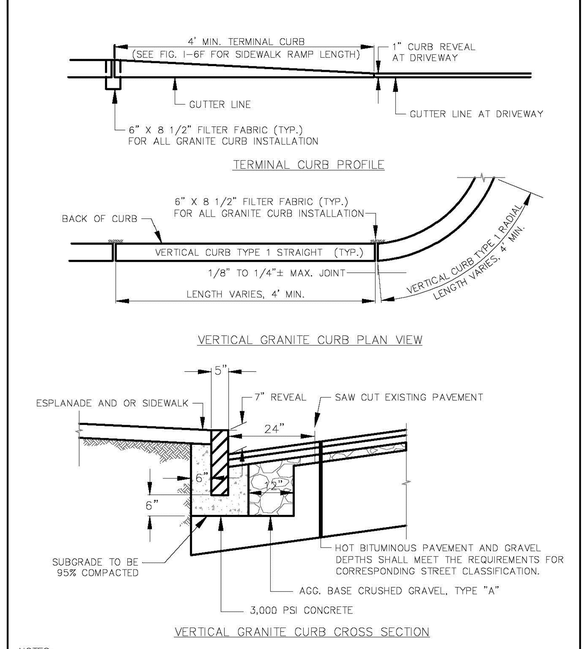
Ⓒ NYLOPLAST DRAIN BASIN
N.T.S.



NOTES:

1. MATCH EXISTING GRADE AT R.O.W LINE. WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. DRIVEWAY CURB RADIUS SHALL NOT BE LARGER THAN REQUIRED BY THE SITE'S DESIGN VEHICLE.
4. ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK..

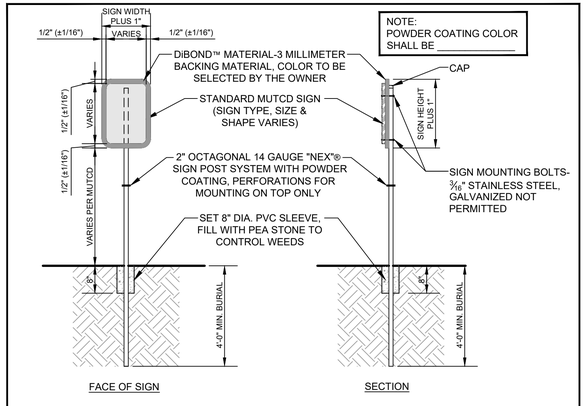
Ⓑ COMMERCIAL DRIVEWAY APRON DETAIL
N.T.S.
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTES:

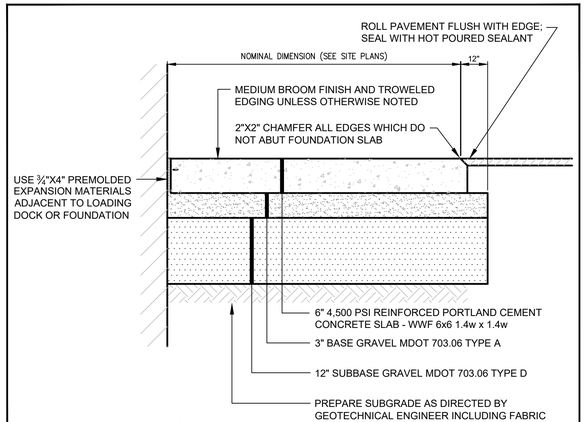
1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10–INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
3. CURBING SHALL BE SET IN A 6–INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.

Ⓓ VERTICAL GRANITE CURB DETAIL
N.T.S.
AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



NOTE:
POWDER COATING COLOR SHALL BE _____

Ⓔ TRAFFIC SIGN (WITH BACKING)
N.T.S.



Ⓕ CONCRETE SLAB DETAIL
N.T.S.

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

STATE OF MAINE
STEPHEN R. BUSHEY
05.14.24
LICENSED PROFESSIONAL ENGINEER
STEPHEN R. BUSHEY, P.E.
LIC. #7429

Rev.	Date	Revision

Rev.	Date	Revision
1	2024.05.14	SITE PLAN APPLICATION SUBMISSION

Design: SRB	Draft: CDD	Date: MARCH 2024
Checked: SRB	Scale: AS NOTED	Job No.: 4277
File Name: 4277–DETAILS.dwg		

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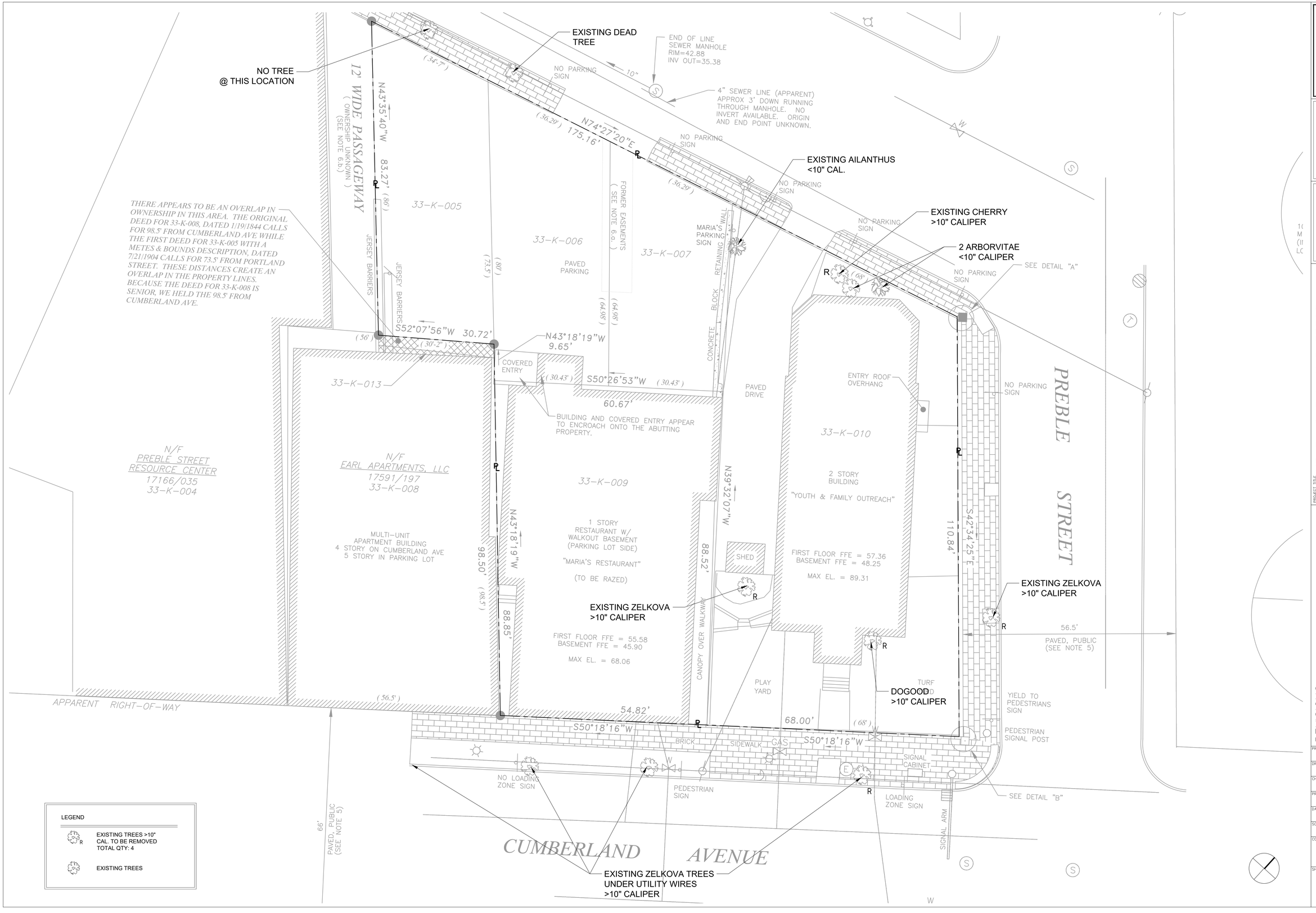
GORRILL PALMER
300 Southborough Drive, Suite 200
South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
Relationships. Responsiveness. Results.

Drawing Name:	SITE & MISCELLANEOUS DETAILS
Project:	PROPOSED MULTI-UNIT RESIDENTIAL DEVELOPMENT 331 CUMBERLAND AVENUE, PORTLAND, MAINE
Client:	YOUTH AND FAMILY OUTREACH 331 CUMBERLAND AVENUE, PORTLAND, MAINE 04101
Drawing No.	C-6.1

U:\4277_Youth and Family Outreach Portland ME\2 – CAD\DWG\4277–DETAILS.dwg 5/14/2024 3:34 PM



studio MLA ARCHITECTS
320 WASHINGTON STREET
2ND FLOOR
BROOKLINE, MA 02445
t 617-608-1551
f 617-608-1555

STAMP

PROJECT TITLE: YOUTH & FAMILY OUTREACH
331 CUMBERLAND AVE.
PORTLAND, ME 04101

CLIENT: YOUTH & FAMILY OUTREACH

REVISIONS

REV #	DESCRIPTION	DATE

PROJECT ARCHITECT: sMLA
DRAWN BY: BU
CHECKED BY: JH
PROJECT NUMBER:
DATE: 05-02-2024
SCALE: 3/32" = 1'-0"
CONTENT: EXISTING CONDITIONS
SHEET: L100

KITCHEN

PRESCHOOL

PORTLAND ST.

GROSS MOTOR

UP

DN

DN

PRE-K 2

?

PRE-K 1

TYKES

TODDLER/ TYKES PLAY AREA
(24) CHILDREN
1800 SF

TODDLER 3

TODDLER 2

DIR.

PARENT

TODDLER 1

THERAPY

THERAPY

UP

DN

DN

INFANT 2

RR

LOBBY

REC

INFANT 1
INFANT PLAY AREA
(8) CHILDREN
896 SF

PRESCHOOL PLAY AREA
(35) CHILDREN
2657 SF

PREBLE ST.

CUMBERLAND AVENUE

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320 WASHINGTON STREET
2ND FLOOR
BROOKLINE, MA 02445
t 617-608-1551
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STAMP

PROJECT TITLE
YOUTH & FAMILY OUTREACH
331 CUMBERLAND AVE.
PORTLAND, ME 04101

CLIENT
YOUTH & FAMILY OUTREACH

REVISIONS

REV #	DESCRIPTION	DATE

PROJECT ARCHITECT: sMLA
DRAWN BY: BU
CHECKED BY: JH
PROJECT NUMBER:
DATE: 05-02-2024
SCALE: 1/8" =1'-0"
CONTENT: PLAYGROUND PLAN
SHEET: L101

PLANT LIST			
QTY	BOTANIC NAME/COMMON NAME	COMMENTS	IMAGE #
2	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple		1/L-103
6	Amelanchier "Autumn Brilliance" Autuumn Brilliance Amelanchier	Multi-stemmed	2,3/L-103
3	Betula Nigra River Birch	Multi-stemmed	4//L-103
2	Malus Apple Tree	(1) Fruiting Apple (1) Pollinator	5/L-103
1	Oxydendron arboreum Sourwood		6/L-103

1 PLANT LIST
NTS

7' WIDE SIDEWALK
PORTLAND ST.
STAFF BREAK
KITCHEN
PRESCHOOL
GROSS MOTOR
UP
DN
PRE-K 2
PRE-K 1
TYKES
TODDLER/ TYKES PLAY AREA
(24) CHILDREN
1800 SF
TODDLER 3
TODDLER 2
TODDLER 1
DIR.
PARENT
THERAPY
THERAPY
RR
LOBBY
REC
INFANT 2
INFANT 1
INFANT PLAY AREA
(8) CHILDREN
896 SF
PRESCHOOL PLAY AREA
(35) CHILDREN
2657 SF
PREBLE ST.
CUMBERLAND AVENUE
(2) ACER SACCHARUM RED MAPLES 35' O.C. IN 3'X5' GRATES
(1) BETULA NIGRA RIVER BIRCH
(1) APPLE
(1) OXYDENDRON SOURWOOD
(3) AMELANCHIER 'AUTUMN BRILLIANCE' IN PLANT BED
EXISTING TO REMAIN

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PORTLAND, ME 04101

CLIENT
YOUTH & FAMILY OUTREACH

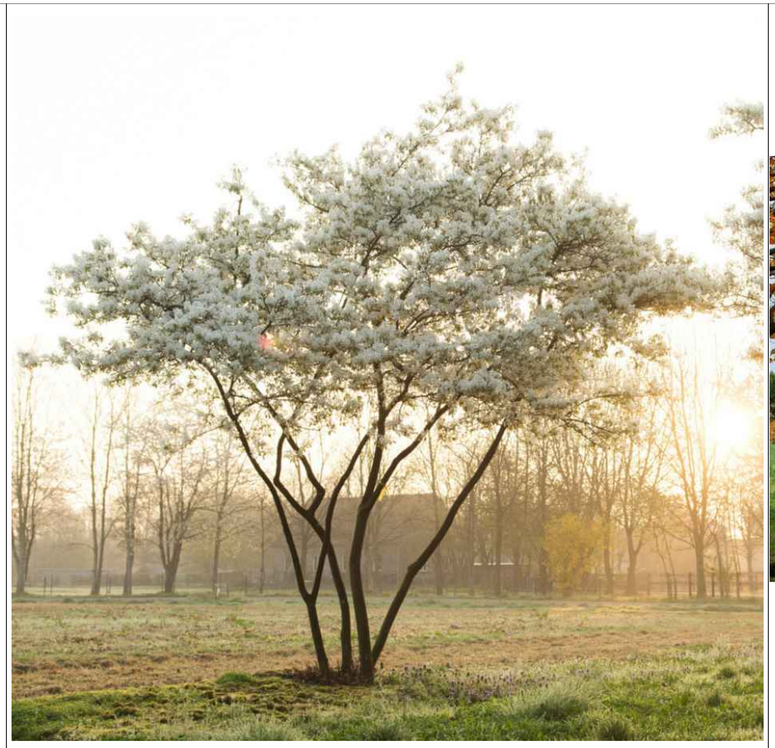
REVISIONS

REV #	DESCRIPTION	DATE

PROJECT ARCHITECT: sMLA
DRAWN BY: BU
CHECKED BY: JH
PROJECT NUMBER:
DATE: 05-02-2024
SCALE: 3/32" = 1'-0"
CONTENT: PROPOSED SITE PLANTING PLAN
SHEET: L102



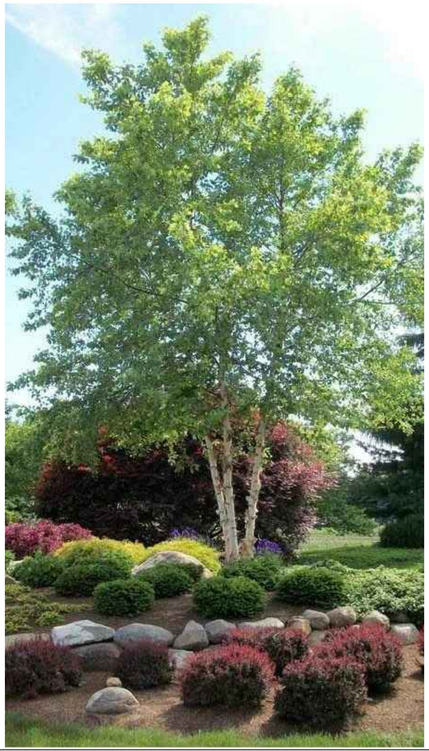
1 SUGAR MAPLE (45' HT.)
NTS



2 AMELANCHIER- SPRING (20' HT.)
NTS



3 AMELANCHIER- FALL (20' HT.)
NTS



4 RIVER BIRCH (25' HT.)
NTS



5 APPLE TREE (15' HT.)
NTS



6 SOURWOOD (20' HT.)
NTS

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STAMP

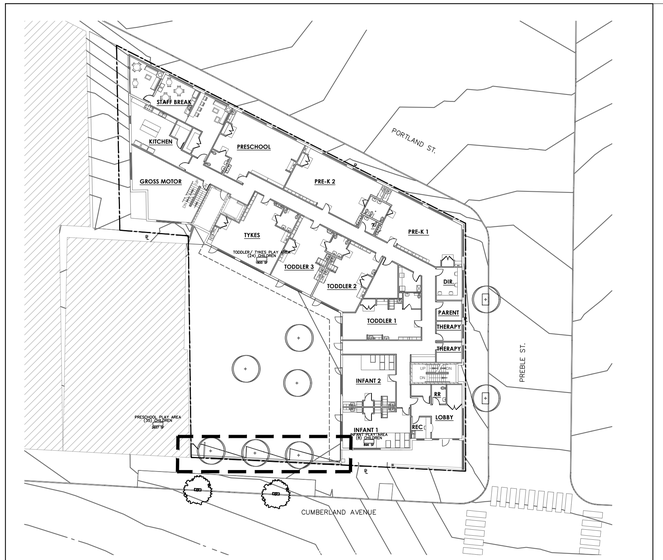
PROJECT TITLE
YOUTH & FAMILY OUTREACH
331 CUMBERLAND AVE.
PORTLAND, ME 04101

CLIENT
YOUTH & FAMILY OUTREACH

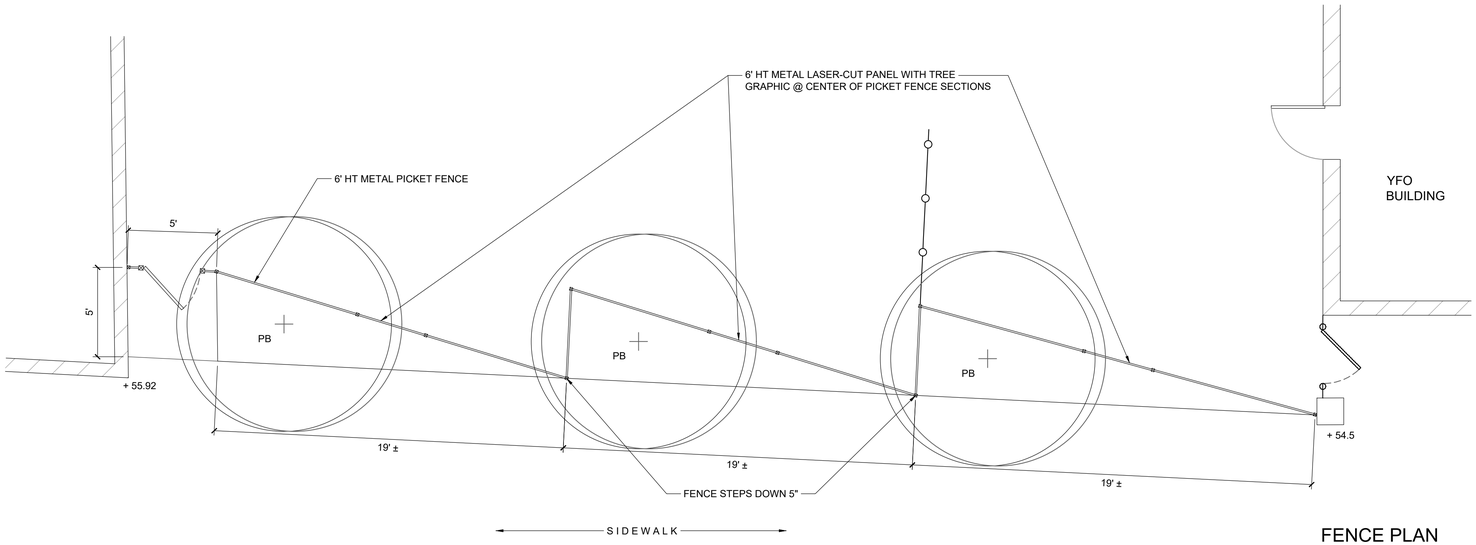
REVISIONS

REV #	DESCRIPTION	DATE

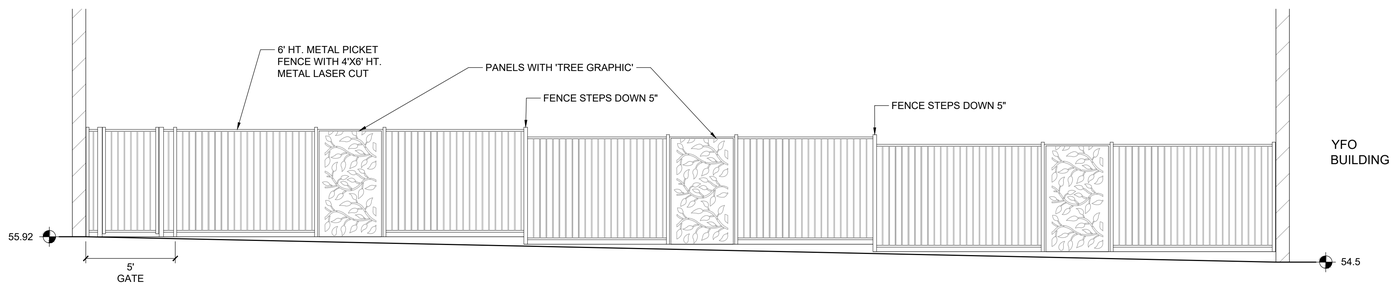
PROJECT ARCHITECT: sMLA
DRAWN BY: BU
CHECKED BY: JH
PROJECT NUMBER:
DATE: 05-02-2024
SCALE: NOT TO SCALE
CONTENT: TREE IMAGES
SHEET: L103



1 KEY PLAN
1/32"=1'-0"



FENCE PLAN
1/4" = 1-0"



FENCE ELEVATION
1/4" = 1-0"

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320 WASHINGTON STREET
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331 CUMBERLAND AVE.
PORTLAND, ME 04101

CLIENT
YOUTH & FAMILY OUTREACH

REVISIONS

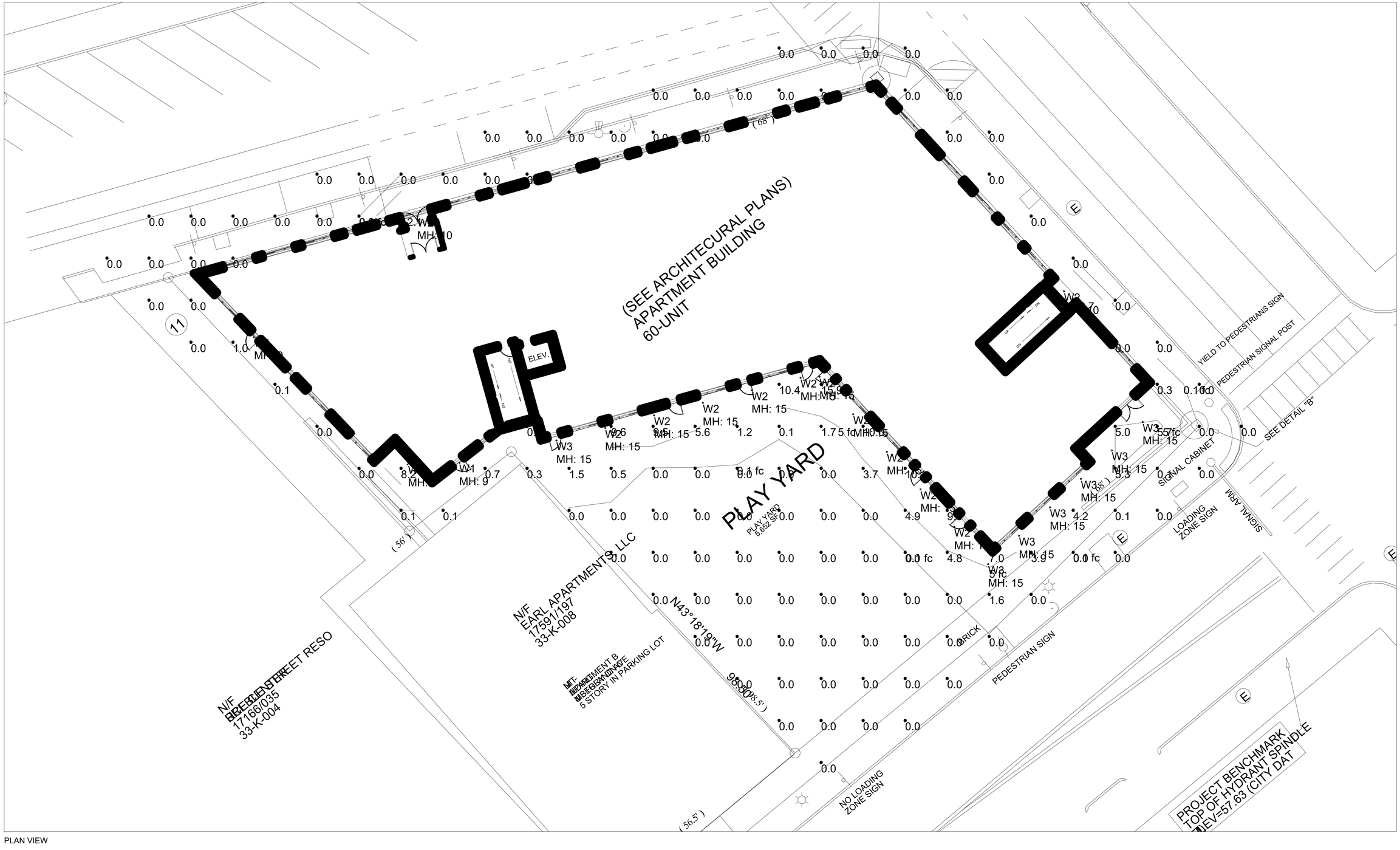
REV #	DESCRIPTION	DATE

PROJECT ARCHITECT: sMLA
DRAWN BY: BU
CHECKED BY: JH
PROJECT NUMBER:
DATE: 05-02-2024
SCALE: 1/4"=1'-0"
CONTENT: FENCE DETAIL
SHEET: L104

Luminaire Schedule (note fixture cataloge numbers are not complete)						
Type	**Qty**	**Lum. Lumens**	**LLF**	**Lum. Watts**	**Description**	**Mounting Height**
W1	3	890	0.860	13	CK-LED-TR-X98-SP-13-3000K prorated for 3K	9
W2	12	1494	0.860	12	LFR-4RD-M-15L30K8WD-DM1_ LFR-4RD-T-S	10, 15
W3	7	932	0.860	7.6	LFR-4RD-M-10L30K8MD-DM1_ LFR-4RD-T-CL-S	15

Calculation Summary					
Label	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
site	1.24	16.7	0.0	N.A.	N.A.

NOTES:
1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



PLAN VIEW

TITLE
337 CUMBERLAND AVE
PORTLAND, ME
EXTERIOR LIGHTING LAYOUT

GENERATED FOR:
GORRILL PALMER

SCALE NOT TO SCALE

Page 1 of 1

Date:5/13/2024

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

site ltg 5-10-24.AGI

SWANEY LIGHTING ASSOCIATES, INC.

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NOTICE: THE INTENT OF THIS LIGHTING LAYOUT IS TO SUGGEST THE BEST UTILIZATION OF LIGHTING FIXTURES INCLUDED IN THIS DRAWING. IT IS PROVIDED USING FIXTURE PHOTOMETRICS FURNISHED BY THE MANUFACTURER. ANY VARIATION IN FIXTURE PERFORMANCE FROM PERFORMANCE SHOWN IN ES FILE IS NOT THE RESPONSIBILITY OF THE MANUFACTURER. IT'S USE FOR ANY OTHER PURPOSE IS NOT AUTHROIZED BY SWANEY LIGHTING ASSOCIATES.

CATSKILL LED (INTEGRAL) IP66 RATED

DATE: | PROJECT: | TYPE:

CATALOG NUMBER LOGIC:



**Accommodates up to 2 lens/shielding media.*

***120V only.*

TITLE 24, JA8 COMPLIANT

CATALOG NUMBER LOGIC		
Example: CK - LED - TR - x98 - SP - BZW - 9 - 11 - A - INC - 120		
MATERIAL		
Aluminum		
SERIES		
CK - Catskill		
SOURCE		
LED - Chip on Board (COB) Technology		
HOUSING		
TR - Integral Driver		
LED TYPE		
x98 - 13W/2700K/80CRI	x101 - 13W/2700K/90CRI	✓
x99 - 13W/3000K/80CRI	x102 - 13W/3000K/90CRI	✓
x103 - 13W/3500K/80CRI	x104 - 13W/3500K/90CRI	✓
x100 - 13W/4000K/80CRI	x121 - 13W/4000K/90CRI	✓
x122 - 21W/2700K/80CRI	x126 - 21W/2700K/90CRI	✓
x123 - 21W/3000K/80CRI	x127 - 21W/3000K/90CRI	✓
x124 - 21W/3500K/80CRI	x128 - 21W/3500K/90CRI	✓
x125 - 21W/4000K/80CRI	x129 - 21W/4000K/90CRI	✓
OPTICS		
SP - Spot (17°) FL - Flood (45°) WFL - Wide Flood (55°)		
FINISH (See page 2 for full-color swatches)		
Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)		
Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRM, HUG, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR) *		
Also available in RAL Finishes		
LENS TYPE*		
9 - Clear (Standard)		
12 - Soft Focus 13 - Rectilinear		
SHIELDING*		
11 - Honeycomb Baffle		
CAP STYLE		
A - 45°		
B - 90°		
C - Flush		
D - 45° Less Weephole (Downward Aiming Only)		
E - 90° Less Weephole (Downward Aiming Only)		
CONTROL		
ELV - Dimming Driver (For use with Electronic Low Voltage Dimmer)**		
INC - Dimming Driver (For use with Incandescent Dimmer)**		
010 - 0-10V Dimming Driver (Dimming ≤3-100%)		
INPUT VOLTAGE		
120 - 120 VAC		
277 - 277 VAC		

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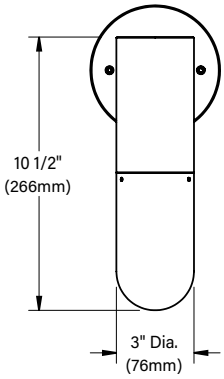
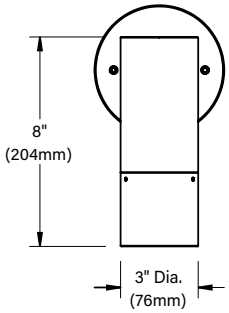
12/06/2022 SKU-1371
SUB-2822-00

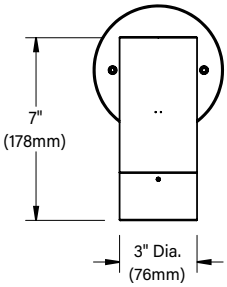
DATE: | PROJECT: | TYPE:



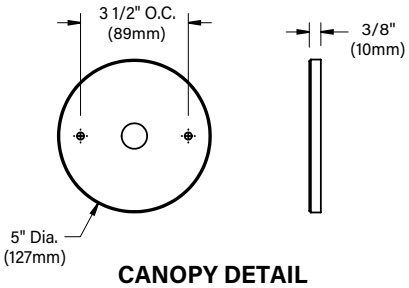
"A/D" CAP



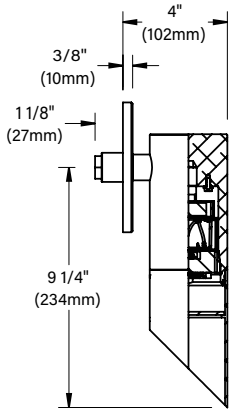
"B/E" CAP

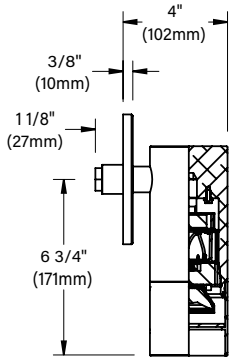


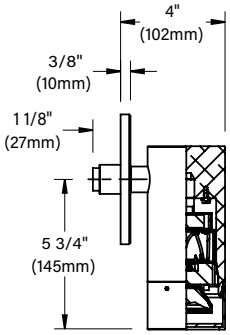
"C" CAP



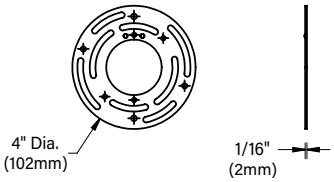
CANOPY DETAIL







UNIVERSAL RING



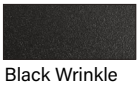
STANDARD FINISHES


Satin Black (BLP)

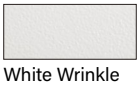

Satin Bronze (BZP)


Satin White (WHP)


Satin Aluminum (SAP)


Black Wrinkle (BLW)


Bronze Wrinkle (BZW)


White Wrinkle (WHW)


Verde (VER)

Click Here to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES


Cascade Mtn. Granite (CMG)


Rocky Mtn. Granite (RMG)


Sierra Mtn Granite (SMG)


Aleutian Mtn Granite (AMG)


Textured Forest (TXF)


Black Chrome (BCM)


Beige (BGE)


Weathered Copper (WCP)


Old Copper (OCP)


Hunter Green (HUG)


Antique Brass Powder (ABP)


Brown Patina Powder (BPP)


Sonoran Desert Sandstone (SDS)


Weathered Iron (WIR)


Clear Anodized Powder (CAP)


Cream (CRM)


Antique White (AQW)


Natural Brass Powder (NBP)

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12/06/2022 SKU-1371
SUB-2822-00

DATE:	PROJECT:	TYPE:

Accessories (Configure separately)

Drivers (Configure separately)

SPECIFICATIONS

ELECTRICAL	WATTAGE	13W or 21W LED
	LED	COB technology and modular design with electrical quick disconnects allow for easy field upgrade and maintenance. LM-80 certified. Title 24, JA8 compliant options available. Minimum 50,000 hour rated life at 70% of initial lumens (L70).
	COLOR MANAGEMENT	COB technology delivers natural white light. Exact color point conformity exceeds ANSI C78.377 standard. Module exceeds 80 CRI (RA>80, R9.16). Color point uniformity 2 SDCM color control for 2700K-4000K CCT.
	WIRING	INC/ELV Wiring: 3 Wire,18GA, Stranded, XLPE, 125°C, 300V, UL3265 rated wire 0-10 Wiring: 5 Wire, 16GA, Stranded, TPE, 105°C, 300V, SJTOW, Cable Master, SJTOW-165-BLK-GVCC
	DRIVER	Incandescent/ELV Control Option Driver: Dimming driver for use with standard incandescent or electronic low voltage dimmers (10-100% range), 120VAC only. 0-10 Control Option Driver: Dimming driver for use with standard 0-10V dimmers (≤3-100% dim. range), 120-277VAC. With [1] 440mA (13W) / 700mA (21W). 50/60Hz. >0.9 Power Factor, (INC/ELV)10.0A/(0-10) <250mA in-rush current , .20%THD (nominal at 120VAC full load). Output over-voltage, overcurrent, and short circuit protection with auto recovery. Class 2 power supply; FCC47CFR Part 15 Compliant Class B (120VAC)/Class A (277VAC).
PHYSICAL	MATERIALS	Furnished in copper-free aluminum (6061-T6).
	BODY	Unibody design with enclosed, water-proof wireway and integral heat sink is fully machined from solid billet. Anti-condensation and corrosion vent equalizes fixture pressure and eliminates potential for damage to internal components.
	CAP	Fully machined and accommodates two (2) lens or louver media.
	LENS	Shock-resistant, tempered, 1/8" thick soda lime glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.
	INSTALLATION	5" dia., machined canopy with stainless steel universal mounting ring permits mounting to 4" octagonal junction box (by others).
	OPTICS	Interchangeable optics permit changes in the field.
	HARDWARE	Tamper-resistant, stainless steel hardware. 360HD hardware is additionally black oxide treated for corrosion resistance.
	FINISH	StarGuard, our 15-stage chromate-free process, cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating, and is RoHS compliant.
	WARRANTY	5-year limited warranty.
	CERTIFICATION & LISTING	UL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant components. Suitable for indoor or outdoor use. IP66 Rated. Made in the USA with sustainable processes.

TITLE 24, JA8

c UL us LISTED

RoHS

MADE IN THE USA

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12/06/2022 SKU-1371
SUB-2822-00

LAMP & DRIVER DATA (page 1 of 2)

DATE: | PROJECT: | TYPE:

DRIVER ELECTRICAL DATA

Type	AC Input Range	Frequency Hz	Power Factor At Full Load (Efficiency)	THD	InRush Current	Operating Current	Operation Ambient Temperature	Dimmer Type	Dimmer Range
Integral	120VAC	50/60	> 0.9	20%	10A	440mA (13W)/700mA (21W)	-30° C ~ 70°C	TRIAC/ELV	1-100%
Integral	105-300VAC	50/60	> 0.9	20%	<250mA	440mA (13W)/700mA (21W)	-30° C ~ 90°C	0-10	≤3-100%

LM79 DATA				OPTICAL DATA				
BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	L70 Data	Angle	CBCP	Del. Lumens	Muliplier
x98	2700	80	13	50,000	17	6,480	829	0.92
x98	**2700**	**80**	**13**	**50,000**	**45**	**1,773**	**1,041**	**0.92**
x98	2700	80	13	50,000	55	1,478	1,180	0.92
x99	3000	80	13	50,000	17	6,796	869	0.96
x99	**3000**	**80**	**13**	**50,000**	**45**	**1,860**	**1,091**	**0.96**
x99	3000	80	13	50,000	55	1,550	1,237	0.96
x103	3500	80	13	50,000	17	6,685	855	0.95
x103	**3500**	**80**	**13**	**50,000**	**45**	**1,829**	**1,074**	**0.95**
x103	3500	80	13	50,000	55	1,525	1,217	0.95
x100	4000	80	13	50,000	17	7,059	903	1.00
x100	**4000**	**80**	**13**	**50,000**	**45**	**1,931**	**1,134**	**1.00**
x100	4000	80	13	50,000	55	1,610	1,285	1.00
x101	2700	90	13	50,000	17	4,486	574	0.69
x101	**2700**	**90**	**13**	**50,000**	**45**	**1,228**	**720**	**0.69**
x101	2700	90	13	50,000	55	1,023	817	0.69
x102	3000	90	13	50,000	17	4,936	631	0.73
x102	**3000**	**90**	**13**	**50,000**	**45**	**1,350**	**793**	**0.73**
x102	3000	90	13	50,000	55	1,126	899	0.73
x104	3500	90	13	50,000	17	4,775	611	0.71
x104	**3500**	**90**	**13**	**50,000**	**45**	**1,307**	**767**	**0.71**
x104	3500	90	13	50,000	55	1,089	869	0.71
x121	4000	90	13	50,000	17	5,324	681	0.75
x121	**4000**	**90**	**13**	**50,000**	**45**	**1,457**	**855**	**0.75**
x121	4000	90	13	50,000	55	1,214	969	0.75
x122	2700	80	21	50,000	17	9,040	1,208	0.87
x122	**2700**	**80**	**21**	**50,000**	**45**	**2,437**	**1,359**	**0.87**
x122	2700	80	21	50,000	55	1,876	1,416	0.87
x123	3000	80	21	50,000	17	10,030	1,341	0.96
x123	**3000**	**80**	**21**	**50,000**	**45**	**2,704**	**1,508**	**0.96**
x123	3000	80	21	50,000	55	2,082	1,571	0.96
x124	3500	80	21	50,000	17	8,496	1,136	0.81
x124	**3500**	**80**	**21**	**50,000**	**45**	**2,290**	**1,277**	**0.81**
x124	3500	80	21	50,000	55	1,763	1,331	0.81
x125	4000	80	21	50,000	17	10,431	1,394	1.00
x125	**4000**	**80**	**21**	**50,000**	**45**	**2,812**	**1,568**	**1.00**
x125	4000	80	21	50,000	55	2,165	1,634	1.00

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LAMP & DRIVER DATA (page 2 of 2)

DATE: | PROJECT: | TYPE:

LM79 DATA					OPTICAL DATA			
BK No.	**CCT (Typ.)**	**CRI (Typ.)**	**Input Watts (Typ.)**	**L70 Data**	**Angle**	**CBCP**	**Del. Lumens**	**Muliplier**
x126	2700	90	21	50,000	17	6,120	818	0.68
x126	**2700**	**90**	**21**	**50,000**	**45**	**1,650**	**920**	**0.68**
x126	2700	90	21	50,000	55	1,270	959	0.68
x127	3000	90	21	50,000	17	7,535	1,007	0.75
x127	**3000**	**90**	**21**	**50,000**	**45**	**2,031**	**1,133**	**0.75**
x127	3000	90	21	50,000	55	1,564	1,180	0.75
x128	3500	90	21	50,000	17	5,406	723	0.64
x128	**3500**	**90**	**21**	**50,000**	**45**	**1,457**	**813**	**0.64**
x128	3500	90	21	50,000	55	1,225	847	0.64
x129	4000	90	21	50,000	17	8,148	1,089	0.78
x129	**4000**	**90**	**21**	**50,000**	**45**	**2,196**	**1,225**	**0.78**
x129	4000	90	21	50,000	55	1,691	1,277	0.78

OPTICS	
Optic	**Angle**
Spot w/ 13 Accy	16 x 50
Spot	17°
Flood	45°
Wide Flood	55°

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LITEFRAME 2.0



FEATURES

- 4" LED downlight delivering 1000–6000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Optional housing accessories available
- Five beam distributions
- 2700K–5000K, 80+ and 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem
- NX Lighting Controls wired and wireless controls capability available

C SP US · WET LOCATION · IP65 · ENERGY STAR

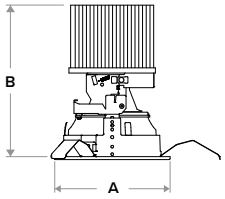
With CL Lens Option

SERVICE PROGRAMS

STOCK QS10

CONTROLS TECHNOLOGY

NX WIRELESS · NX WIRED



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.37 (136)	5.45 (138)	4 (1.8)
35L - 60L	5.37 (136)	7.03 (179)	4.3 (1.9)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Standard Fixture Module designed for Non-IC, Direct Install construction
- Optional Non-IC frame or IC housing available with pre-installed bar hangers
- Die cast aluminum fixture module support ring with spring steel clips for secure mounting to ceiling
- Driver J-Box can be installed and accessed from below the ceiling as direct install or easily snap on to optional housing frame/enclosure
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- High purity spun aluminum reflector, self-flanged
- 57° visual cutoff to source image and 31° cutoff to source
- Specular or Semi-Specular anodized or White painted cone reflector finish/colors
- Painted flange options in White or Black
- Optional clear lens trim for wet location applications
- Wide Angle and Soft Focus lens filter/clip accessories available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >50,000 hours (TM-21)

ELECTRICAL (CONTINUED)

- Universal voltage 120–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker-free dimming options in a wide range of protocols from 1% to <0.1% performance
- 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Integral and remote emergency battery options available

INSTALLATION

- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)

CERTIFICATIONS

- cCSAus certified to UL 1598
- For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture

CERTIFICATIONS (CONTINUED)

- Suitable for wet locations, covered ceiling when used with CL lens trim; all other configurations, suitable for damp locations
- CL Lens option: IP65 rated (room side) when properly installed per installation instructions
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EM/EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring
- ENERGY STAR® certified models available (For list and additional information, visit www.energystar.gov)

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	105–135
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–450 (120V)

*Based on Specular, 35K, 80 CRI

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

Gray Shading = Service Program STOCK QS10 Limit of 150 Luminaries

ORDERING GUIDE

Example: LFR–4RD–M–10L35K8–WD–DM1 / LFR–4RD–T–S / LFR-4RD-H

CATALOG #

FIXTURE MODULE

LFR-4RD-M –

Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Voltage	Module Options
LFR-4RD-M 4" Round Downlight Fixture Module for Direct Install *(Non-IC frame or IC housing available under Housing Options below)*	**10L** 1000 **15L** 1500 **20L** 2000 **25L** 2500 **30L** 3000 **35L** 3500 **40L** 4000 **50L** 5000[1] **60L** 6000[1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**8** 80+ **9** 90+	**VNR** Very Narrow (17°/0.3 SC) **NR** Narrow (26°/0.4 SC) **MD** Medium (34°/0.6 SC) **WD** Wide (49°/0.7 SC) **XW** Extra Wide (65°/1.0 SC)[12]	**DM1** 0–10V Dimming to 1% **DM01** 0–10V Dimming to < 1%[2] **PDM** Phase (Forward/Reverse) Dimming to 1%[2] **DMX** DMX with RDM dimming to < 0.1%[2] **DALI** DALI Dimming to 1%[2] **EDM** Lutron Hi-Lume EcoSystem Dimming to 1%[2]	**NX Lighting Controls** Networked Wireless **NXW** NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor[3] Networked Wired **NXE** NX Wired Dual RJ45 SmartPORTS, without Sensor[3]	*Standard 120–277V* **34** 347V[4]	**CP** Chicago Plenum[5,6] **EM** 6W Emergency Battery Pack (CEC Title 20 Compliant) with integral test switch and indicator light[6] **EMR** 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light[6] **DTS** Device Transfer Switch with Dimming Bypass[6,7]

TRIM (Ships separately)

LFR-4RD-T –

Aperture/Shape/Function	Distribution	Reflector Finish/Color	Flange Color Options	Lens Options	Lower Trim Options
LFR-4RD-T 4" Round Downlight Trim Assembly	*Standard NR, MD, WD, XW* **VNR** Very Narrow	**S** Specular[12] **SS** Semi-Specular **WC** Painted White Cone and Flange	*Standard matches reflector color* **WT** White Flange[8] **BT** Black Flange	*Standard no lens* **CL** Clear Lens (Wet listed)[9]	**EM** Pre-punched reflector for EM integral test switch and indicator[9] **FM** Flush Mount Mud-In Ring[13]

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
☐ **LFR-4RD-H**	4" Housing Frame, New Construction, Non-IC
☐ **LFR-4RD-H-IC**	4" Housing Enclosure, New Construction, IC Rated[10,11]

Accessories	
☐ **SFL4**	Soft Focus Lens and Clip, 4" Round
☐ **WAL4**	Wide Angle 80° Lens and Clip, 4" Round
☐ **LiteGear**	LiteGear® Inverter, 125VA–250VA
☐ **LPS Series**	LightPower Micro-Inverter, 20VA–55VA
☐ **LF-FMR4-R**	Flush Mount Mud-in Ring, 4"[13]
☐ **LF-MOR4-R-WH**	Metal Oversized Ring, 4" Round, White (8.3" outside diameter)
☐ **LFR-SCA4-__**	Sloped Ceiling Adapter, 4" White[14]

Notes:

1 50L and 60L require marked spacing. See line art for more details.
2 DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
3 NX requires DM1 driver option.
4 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EM, EMR.
5 CP not available with PDM, DMX, or Controls.
6 Module options not available in combination.
7 DTS available with DM1, DM01, or DALI.
8 WT not needed for WC.
9 CL lens and EM trim options not available in combination.
10 IC available up to 35L; 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)
11 IC Housing not for use in combination with Controls or with Module Options CP, EM, EMR, DTS.
12 XW distribution is not available for Specular (S) reflector finish.
13 Flush Mount Flange (FM) requires FMR accessory (sold separately).
14 Specify slope angle 5°–35° in 5° increments. Not available with EM or FM options.

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

NX LIGHTING CONTROLS

	Control Option Ordering Logic & Description		Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓		NXRM2-H
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor	✓	✓	✓	–	–	✓	✓	✓[1]		NXDSP

1 Requires NXBTC, order separately.

NX LIGHTING CONTROLS APP



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.

Android

Apple iOS

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PERFORMANCE DATA TABLE

Performance data shown is 3500K 80+CRI with Specular reflector except Extra Wide distribution which is Semi-Specular.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	979	7.6	129
		Narrow	1023	7.6	135
		Medium	997	7.6	131
		Wide	995	7.6	131
		Extra Wide	947	7.6	125
15L	1500	Very Narrow	1471	11.8	125
		Narrow	1536	11.8	130
		Medium	1498	11.8	127
		Wide	1494	11.8	127
		Extra Wide	1422	11.8	121
20L	2000	Very Narrow	1937	15.2	127
		Narrow	1982	15.3	130
		Medium	1933	15.3	127
		Wide	1928	15.3	126
		Extra Wide	1835	15.2	121
25L	2500	Very Narrow	2465	20.9	118
		Narrow	2574	20.9	123
		Medium	2510	20.9	120
		Wide	2504	20.9	120
		Extra Wide	2384	20.9	114
30L	3000	Very Narrow	2938	26.0	113
		Narrow	3068	26.0	118
		Medium	2992	26.0	115
		Wide	2985	26.0	115
		Extra Wide	2842	26.0	109
35L	3500	Very Narrow	3571	29.4	121
		Narrow	3729	29.4	127
		Medium	3637	29.4	124
		Wide	3628	29.4	123
		Extra Wide	3454	29.4	117
40L	4000	Very Narrow	3982	32.9	121
		Narrow	4157	32.9	126
		Medium	4055	32.9	123
		Wide	4045	32.9	123
		Extra Wide	3851	32.9	117
50L	5000	Very Narrow	4844	42.0	115
		Narrow	5058	42.0	120
		Medium	4933	42.0	117
		Wide	4921	42.0	117
		Extra Wide	4684	42.0	112
60L	6000	Very Narrow	5778	53.4	108
		Narrow	6033	53.4	113
		Medium	5884	53.4	110
		Wide	5870	53.4	110
		Extra Wide	5588	53.4	105

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

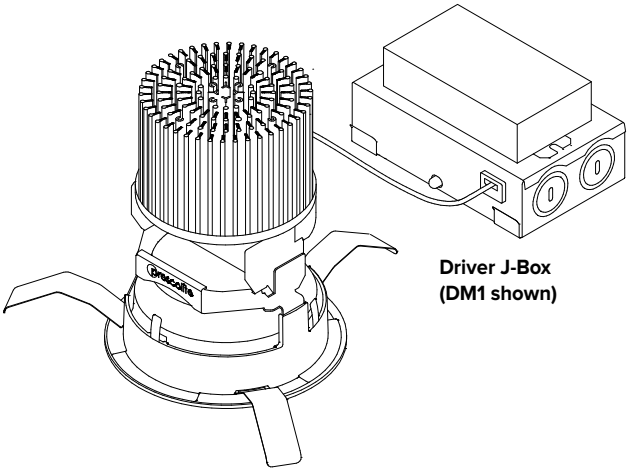
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DIMENSIONS

LFR-4RD-M

Fixture Module consists of Light Engine and Driver J-Box assemblies.
Overall dimensions for each are dependent upon configuration selected.
See the following pages for details.



Driver J-Box (DM1 shown)

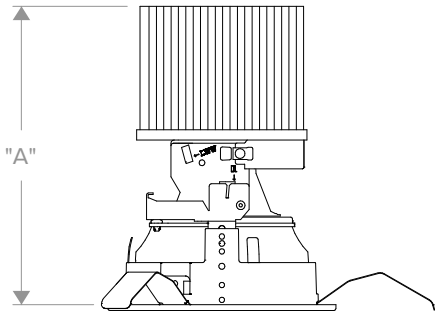
Light Engine with Trim assembly installed

DIMENSIONAL DATA		
APERTURE		ø4.00" (101.6mm)
OVERALL		Ø5.37" (136.5mm)
FLANGE WIDTH	Standard	0.69" (17.5mm)
	Flush Mount	0.19" (4.8mm)
FLANGE TO FLANGE	Standard	Ø5.37" (136.6mm)
	Flush Mount	Ø4.38" (111.2mm)
CEILING CUTOUT	Standard	Ø4.75" (120.7mm)
	Flush Mount	Ø4.88" (123.9mm)
CEILING THICKNESS		0.50" – 2.50" (12.7 – 63.5mm)

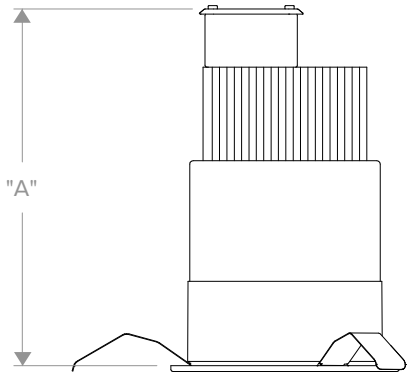
LFR-4RD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *				
LUMEN PACKAGE	FIXTURE MODULE	BEAM DISTRIBUTION		
		VNR	NR / MD/ WD	XW
10L–30L	STANDARD	6.24" (158.5mm)	5.45" (138.5mm)	5.1" (129.5mm)
	CP	9.22" (324.1mm)	8.43" (214.0mm)	8.08" (205.1mm)
35L–60L	STANDARD	7.82" (198.6mm)	7.03" (178.6mm)	6.68" (169.7mm)
	CP	9.22" (234.1mm)	8.43" (214.0mm)	8.08" (205.1mm)

* Note: Add ½" minimum plenum clearance above overall Light Engine Height.
** For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture.
*** Non-IC rating requires 3" from insulation and combustible materials.



Side View Standard



Side View CP – Chicago Plenum

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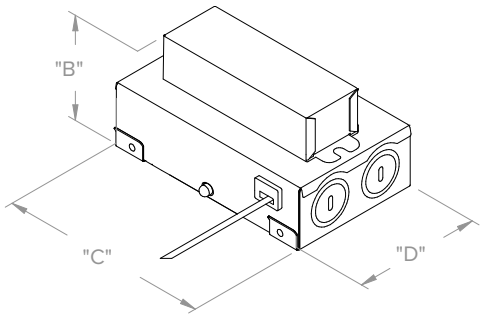
LFR-4RD

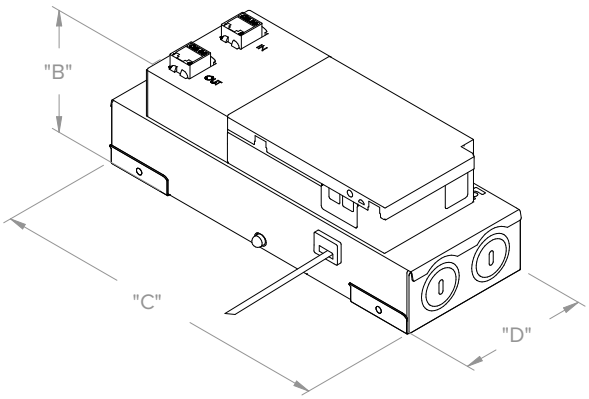
LITEFRAME 4" ROUND DOWNLIGHT

DIMENSIONS CONTINUED

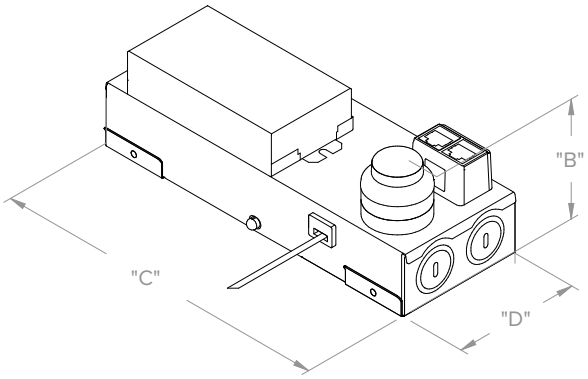
DRIVER J-BOX



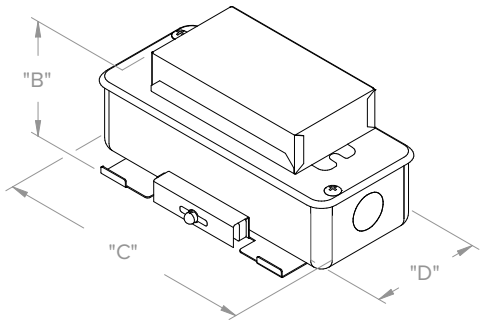
DM1 / DM01 / PDM / DALI



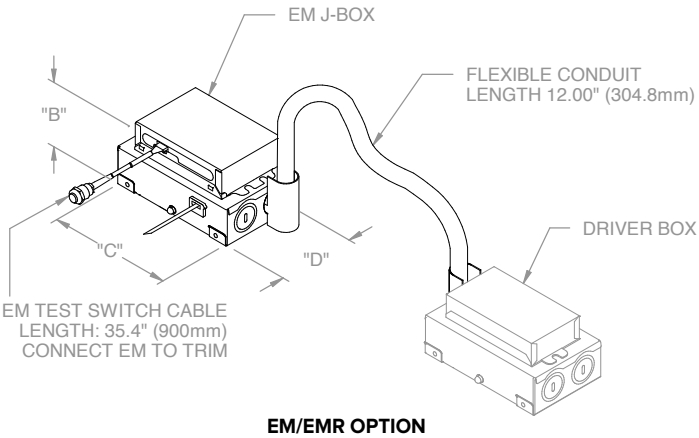
DMX



NX CONTROLS OPTION



CP



EM/EMR OPTION

EM/EMR Driver J-Box Conduit (provided) connects to Driver J-Box
(see Driver J-Box for additional details)

OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	6.00" (152.4mm)
EM/EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	4.00" (101.6mm)
CP	1.89" (73.4mm)	6.50" (165.1mm)	2.72" (69.1mm)	5.00" (127mm)

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

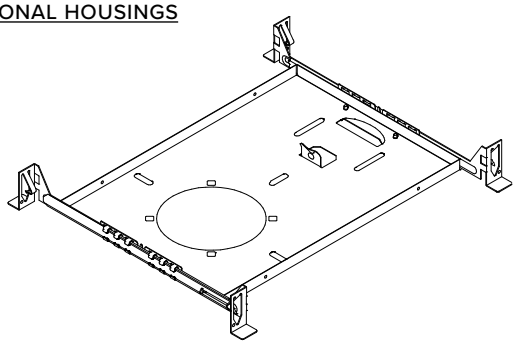
DATE: LOCATION:

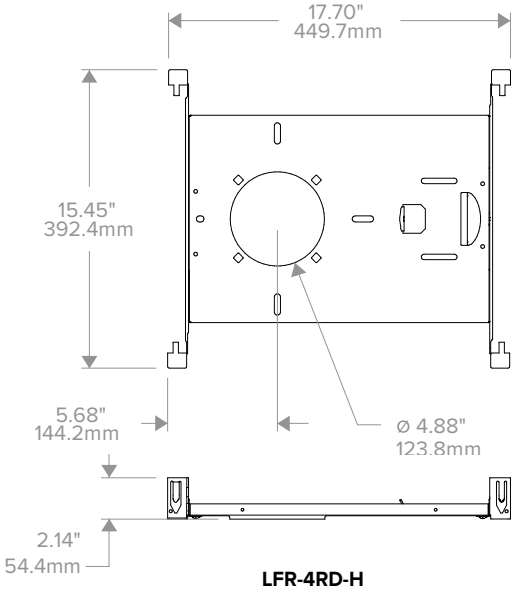
TYPE: PROJECT:

CATALOG #:

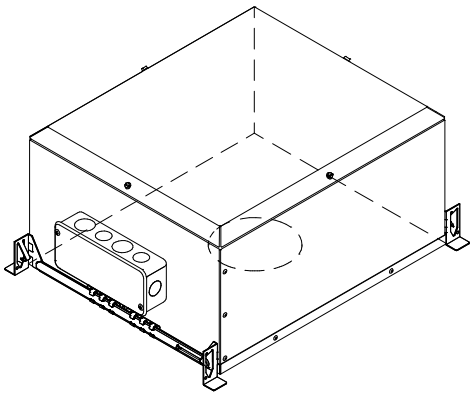
DIMENSIONS CONTINUED

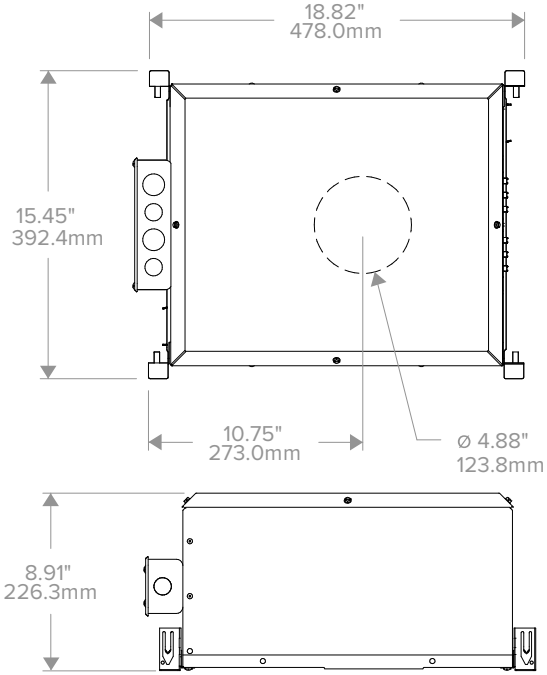
OPTIONAL HOUSINGS



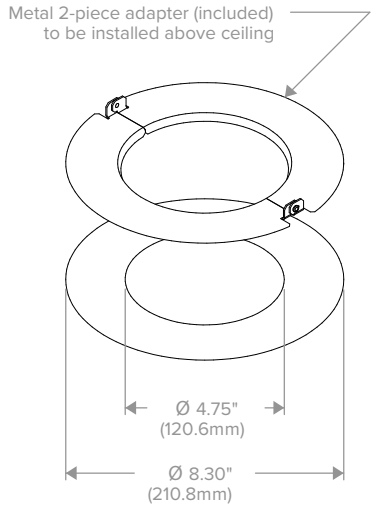


LFR-4RD-H
NON-IC HOUSING FRAME

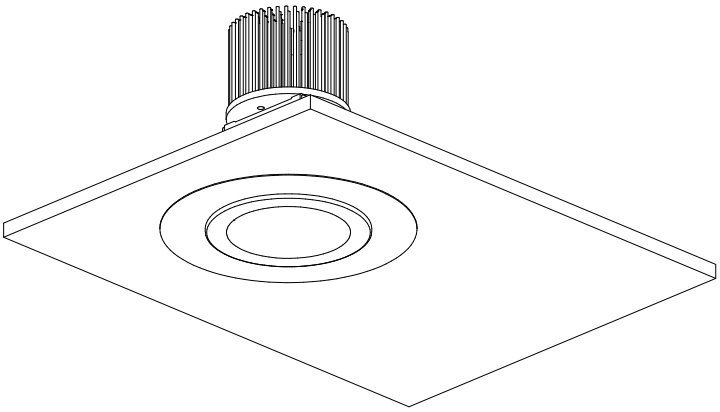




LFR-4RD-H-IC
IC HOUSING
Not for use with CP Shroud



ROUND LF-MOR4-R
METAL OVERSIZED RING
(See LF-MOR Installation Instruction for more details)



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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PHOTOMETRY

LFR-4RD-M-20L35K8VNR-DM1 / LFR-4RD-T-VNR-S

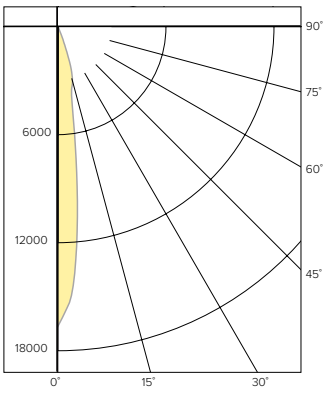
LUMINAIRE DATA

Test No.	**21.001652**
Description	**2000 lm, Very Narrow, 3500K, 80 CRI**
Delivered Lumens	**1937**
Watts	**15.2W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.3**
Beam Angle (FWHM)	**15**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1932	99.8
0-60	1936	99.9
0-90	1937	100.0
0-180	1937	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	16778
5	12300
15	3246
25	139
35	7
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8NR-DM1 / LFR-4RD-T-S

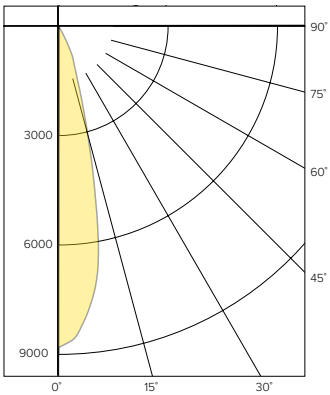
LUMINAIRE DATA

Test No.	**21.00574**
Description	**2000 lm, Narrow, 3500K, 80 CRI**
Delivered Lumens	**1982**
Watts	**15.3W**
Efficacy	**130**
Mounting	**Recessed**
Spacing Criterion	**0.4**
Beam Angle (FWHM)	**26**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1978	99.3
0-60	1981	100.0
0-90	1982	100.0
0-180	1982	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	8819
5	8106
15	3103
25	858
35	7
45	2
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	349
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8MD-DM1 / LFR-4RD-T-S

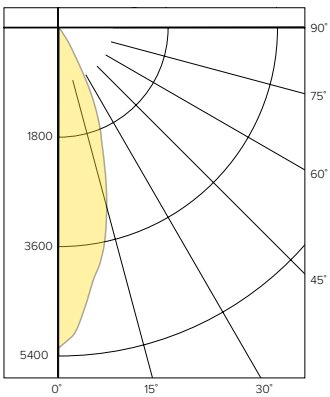
LUMINAIRE DATA

Test No.	**21.00585**
Description	**2000 lm, Medium, 3500K, 80 CRI**
Delivered Lumens	**1933**
Watts	**15.3W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.6**
Beam Angle (FWHM)	**34**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1928	99.8
0-60	1931	99.9
0-90	1933	100.0
0-180	1933	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	5267
5	4677
15	3033
25	1352
35	55
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PHOTOMETRY CONTINUED

LFR-4RD-M-20L35K8WD-DM1 / LFR-4RD-T-S

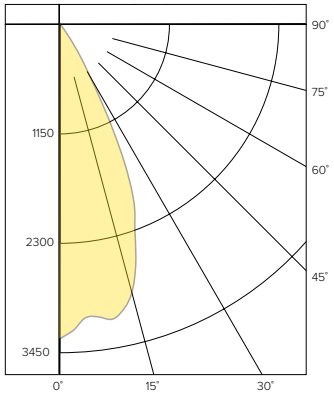
LUMINAIRE DATA

Test No.	**21.00577**
Description	**2000 lm, Wide, 3500K, 80 CRI**
Delivered Lumens	**1928**
Watts	**15.3W**
Efficacy	**126**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**49**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1922	99.7
0-60	1927	99.9
0-90	1928	100.0
0-180	1928	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	3329
5	3118
15	2946
25	1625
35	117
45	4
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	698
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8XW-DM1 / LFR-4RD-T-SS

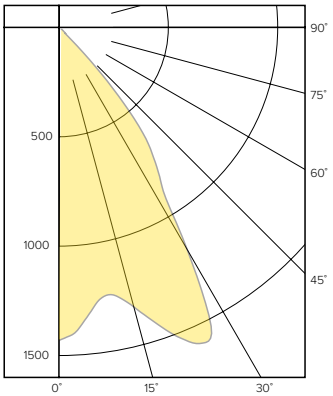
LUMINAIRE DATA

Test No.	**21.01456**
Description	**2000 lm, Extra Wide, 3500K, 80 CRI**
Delivered Lumens	**1835**
Watts	**15.2W**
Efficacy	**121**
Mounting	**Recessed**
Spacing Criterion	**1.0**
Beam Angle (FWHM)	**65**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1686	91.9
0-60	1826	99.5
0-90	1835	100.00
0-180	1835	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1431
5	1345
15	1323
25	1589
35	781
45	80
55	16
65	6
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	13955
55°	3441
65°	1751
75°	953
85°	0

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9	50K9
Multiplier	0.93	0.96	1.00	1.01	1.03	0.78	0.82	0.85	0.87	0.89

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

LENS OPTION / LENS FILTER ACCESSORY MULTIPLIER (Based on Clear Specular)

Option	CL (Clear Lens)	SFL4 (Soft Focus Accessory)	WAL4 (Wide Angle Accessory)
Multiplier	0.95	0.96	0.83

Multiply lumen/lens multipliers to calculate applicable combinations. Example: 30K8 with Clear Lens option (CL) = 0.96 x 0.95 = **0.91**

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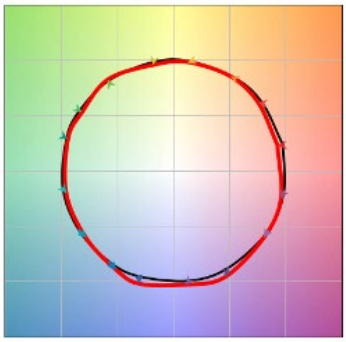
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

TM-30 DATA

COLOR VECTOR GRAPHIC 3500K, 90 CRI



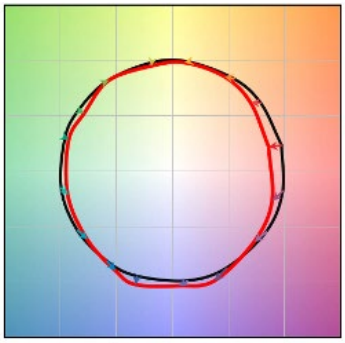
Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	85	90
R_g	95	99
CCT (K)	3422	3416
D_{UV}	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R_a	85	93
CIE R_9	16	66

COLOR VECTOR GRAPHIC 3500K, 80 CRI



Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI



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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.

DMX

See instruction sheet on currentlighting.com/prescolite for connection & installation information.

Central Inverters

For full fixture output in back-up mode, we recommend you visit currentlighting.com/dual-lite.com for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

Lumen Output in Emergency Mode

To determine the lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW). For example, 6W x 120 LPW = 720 lumens in emergency mode.

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Site Plan Worksheet | 04/20/2024 | **PL-02815-2024***| 9 Boyd Street.*
Submission #: 02-23-2023
Planner: Eric Freeman – efreeman@portlandmaine.gov – 207-874-8724

Site Plan Review Standards (Sec. 14.6)

Transportation Standards (Sec. 14.6.1)

Standard	*Discussion*	*Finding*
Impact on Surrounding Street Systems	Overview: The applicant proposes to install a curb extension at the intersection of Oxford and Boyd Streets. The curb extension would extend approximately 20 feet along Boyd Street, removing one on-street parking space. The project will not generate 100 or more cars during peak hour; therefore, a Traffic Movement Permit will not be required. The project is not anticipated to create any significant impact to surrounding streets. Updates Requested • None	Met
Access and Circulation	Overview: The applicant proposes to reconstruct sidewalks along Boyd and Oxford Street using Brick pavers. Sidewalks will be rebuilt to city standards. Internal sidewalks are provided to allow for site circulation and mid-block permeability. Internal sidewalks will meet ADA standards, providing pedestrian access to and from the building entrances and connect to future project phases It is anticipated that the loading and servicing of the proposed building will be primarily from the parking area. Updates Requested • The applicant should consider redesigning the Boyd Street sidewalk to avoid excess deviation and weaving around proposed street tree plantings. • The applicant shall provide a signage plan to ensure any street signage within the right of way that is disturbed as part of construction shall be reset and/or replaced as needed in its current or appropriate location. • The applicant shall design a continuous sidewalk behind the proposed trees (a public easement for the sidewalk will be required). • The applicant shall reduce the proposed curb extension to 4 ft rather than what is currently proposed.	Not Met

	• The applicant shall consider rebuilding the proposed sidewalk in concrete. DPW will support a waiver for concrete in this area because it meets item 1 of the exception to the Sidewalk Materials policy. *(It should be noted that staff are still discussing these items internally)*	
Public Transit Access	Overview: Not applicable Updates Requested • None – Not applicable	Met
Parking	Overview: This application will retain the six (6) existing ADA parking spaces utilized by the adjacent "Bayside Anchor" Development. The applicant has cited table 19-B to establish a lesser parking requirement for affordable housing regardless of the size of the proposed project, The project is also within ¼ mile of fixed-route transit and is thus not required to provide any on-site vehicular parking. Bicycle parking is provided on-site in a secure room with 20 proposed bicycle spaces. Updates Requested: • The applicant is requesting a waiver from city standards for the width of the parking lot aisle width. From reviewing the site plan, it appears dimensional standards can be met and therefore it is unclear why the layout of the parking lot can't be modified to comply with standards. At this time staff do not support a waiver.	Not Met
Transportation Demand Management	Overview: Not Applicable Updates Requested • None at this time.	Met
Environmental Quality Standards (Sec. 14.6.2)		
Standard	*Discussion*	*Finding*
Preservation of Significant Natural Features and Landscape Preservation	Overview: 4 trees will be removed due to the scale of the proposed building. One existing 12" tree will be preserved and incorporated into the site design, adjacent to the driveway entrance. The applicant will ensure measures will be taken to prevent impacts to existing vegetation during demolition and construction. The proposed plan includes the retention of a 12" caliper Honey Locust on East Oxford Street, the planting of 11 new street trees along Boyd and East Oxford Street, Updates Requested • None	Met

Site Landscaping and Buffers	Overview: The site's interior will be planted with a mix of canopy trees, understory trees, shrubs, and accent plantings. A total of 18 trees are being proposed. The project also proposes 30% of the site as open space consisting of 10% hardscape open space and 20% landscaped open space. Updates Requested • The applicant should consider redesigning the Boyd Street sidewalk to avoid excess deviation and weaving around proposed street tree plantings.	Not Met
Water Quality, Stormwater Management and Erosion Control	Overview: The drainage patterns for stormwater draining onto the lot in its pre- development state will generally be maintained post-development. There will be no increase in the volume or rate of stormwater draining from the lot onto adjacent lots or city RoW. This development is subject to Chapter 5 regulations for stormwater management. Updates Requested The project is required to comply with Maine DEP Chapter 500 and City of Portland Technical Manual Section 5 regulations for stormwater management. o Basic Standards – The Applicant has provided for erosion and sedimentation control measures as required by the Basic Standards. o General/Flooding Standards – The project is not creating new impervious surface subject to the General or Flooding Standards, and is a redevelopment project as noted below. o Redevelopment Standard – The Applicant is providing a system with a Stormfilter and R-Tanks to provide for treatment of the redeveloped non-roof impervious surface. This system also manages the site to reduce flows from the pre-development to post-development condition. o Future Development – Based on my understanding of what has been submitted, the Applicant has modeled the site considering for future development. This is conservative to show that with the proposed future development, the system has been designed to manage the site's stormwater flows. In the interim condition, undeveloped portions of the site will be planted with grass. I would recommend that the Applicant	Not Met

	coordinate with the City relative to this proposed interim condition with regards to stormwater fees and surface conditions. Depending on the timing of future development, these vegetated areas may not be considered as redevelopment. The City is also working on a revised stormwater management standard • The Applicant is corresponding with Portland Water District and the City of Portland for water and sewer requirements and has noted that confirmation of ability to serve will be provided when received. • • The plans should account for pavement replacement on Boyd Street for the locations of the proposed sewer service and the abandonment of the existing water service at the main. • The applicant should specify how much new impervious area and redeveloped area associated with future development phases will be managed by the proposed oversized stormwater BMPs being installed as part of this project phase. It should be noted that the City is currently working on an update to its stormwater standards (section 5 of the technical manual). It's recommended that the applicant size the BMP's such that the treatment/detention volume requirements for future phases will meet the proposed updated standard. This updated standard is likely to be adopted later this year.	
Public Infrastructure and Community Safety Standards (Sec. 14.6.3)		
Standard	*Discussion*	*Finding*
Consistency with City Master Plans	Overview: There are no City plans applicable to this application. Updates Requested: • None	Met
Public Safety and Fire Prevention	Overview: Access to the site has been designed to provide adequate emergency vehicle access to the site. Updates Requested • None.	Met
Public Utilities	Overview: The proposed building will be served via underground electrical conduit, with a riser proposed on the utility pole along Boyd Street across from the project parcel. Utility providers have been contacted for their ability to serve the proposed project. Central Maine Power and Portland Water district have provided ability to serve letters. The building will be connect to the existing sanitary sewer main along Boyd Street.	Not Met

	The proposed building will have an interior trash room which will open directly to the proposed parking lot. Updates Requested • Underground electrical conduit and vaults shall be placed behind the curbline of a street per City of Portland, Maine Technical Standards Manual Section 1 Figure I-4 (Utility Locations in Streets). • The proposed bends in the underground electrical conduit may not be feasible and should be reconfigured to minimize roadway crossing distance.	
Site Design Standards (Sec. 14.6.4)		
Standard	*Discussion*	*Finding*
Massing, Ventilation and Wind Impact	Overview: The Massing, Ventilation, and Wind impacts of the proposed design should not have an adverse affect on abutting structures due to the Site's openness and large amount of street frontages. Updates Requested • None	Met
Shadow	Overview: The the proposed design should not cast shadows on publicly accessible open space as the building is on the North Side of the Street, the community garden is South of the Site. Updates Requested • None	Met
Snow and Ice Loading	Overview: There are no snow or ice impacts anticipated with this application. The building features a flat roof and significant open areas for snow storage. Updates Requested • None	Met
View Corridors	Overview: Not Applicable Updates Requested • None – Not Applicable to this Application as it is not within an established view corridor.	Met
Historic Resources	Overview: **Not applicable - The site does not fall within any designated historic districts or historic landscape districts.** Updates Requested: • None – Not Applicable to this Application	Met
Exterior Lighting	Overview: The proposed development includes full cutoff / dark sky compliant light fixtures to minimize light spillover. A full photometric plan was included. All proposed lighting meets Tech Manual standards. Updates Requested	Met

	• None	
Noise and Vibration	Overview: No significant noise or vibration impacts are anticipated with this application. HVAC equipment will be located at the interior of the site away from abutting residential properties Updates Requested • None	Met
Signage and Wayfinding	Overview: Not applicable Updates Requested • None -Not Applicable	Met
Design Standards	Overview: See attached design review Updates Requested • See attached design review	Met

Design Review
Planning and Urban Development Department

City of portland

Subject:	9 Boyd Street
Zone:	R-7
Date of Review:	Monday, April 8, 2024
Reviewer(s):	Sean King (Urban Designer), Eric Freeman (Planner), Ameriz Gamez (Planner)
Project ID:	PL-002845-2024

I. DESIGN REVIEW CRITERIA

The project at 9 Boyd Street was reviewed under the Land Use Code section 14.6.4.I.e for multi-family residential development and shall also comply with the following development standards under the Land Use Code section 8.1.4 for R-7 Compact Urban Residential Overlay Zone.

II. APPLICABILITY

The City of Portland Design Manual - Design Standards under (i) MULTIPLE-FAMILY:

> *(1) STANDARDS. Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts, and emergency shelters shall meet the following standards outlined below in section III. Design Review comments*

The City of Portland Land Use Code section 8.1.4 Design Standards for residential development in the R-7 Compact Urban Residential Overlay Zone:

> *Residential development shall be reviewed by the Planning Board under Article 14. Such development shall also comply with the following development standards. The general intent of these development standards is to achieve an attractive and comfortable city neighborhood environment. Varied and human-scaled building facades are key to making a place "pedestrian-oriented." Building designs should provide a high level of visual interest, without creating a chaotic image. Residences should include design elements that enhance the streetscape and address the street.*

III. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, red text denotes standards not met to require resubmission.

MULTIPLE-FAMILY STANDARDS. Multiple-family shall meet the following design standards:

1. *The exterior design of the proposed structure including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;*

Staff comment: The surrounding context of the neighborhood is comprised of larger footprint, multi-storied residential buildings with multiple residential units per floor, planned residential unit developments with housing types of townhouse and apartments, two-to-three storied multi-family

residential structures on individual parcels and single-family residences. Architectural style varies throughout the neighborhood and generally relates to each building's scale. The proposed development is more directly comparable to the adjacent larger footprint, multi-storied residential buildings that include a flat roof form, façade variation through projections and varied exterior materials to articulate building elements.

The proposed multi-family building is located at the corner of Boyd Street and Oxford Street with placement and orientation towards both streets. The proposed multi-family building incorporates angled projections along the street-facing facades with a clear fenestration pattern that Staff finds appropriate to add visual character to the facades. **The Applicant has proposed additional fenestrations along the ground level at the Boyd Street façade to account for the change in grade along the public sidewalk that Staff finds appropriate to minimize large expanses of blank facade. In addition, the Applicant has added transom windows above a double door with wall-mounted architectural lighting to distinguish the primary entry at the corner along with a transom window above the secondary building entries that Staff finds appropriate to articulate the building entries.**

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

Staff comment: Staff finds the building placement along Boyd Street and Oxford Street closely relates to adjacent properties that front the street and provides various entries directly accessible from the public sidewalk for residents. **The development plan includes a transitional space with shrub plantings adjacent to a new continuous sidewalk along Boyd Street and Oxford Street that Staff finds appropriate.**

3. *Open space on the site for all … multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;*

Staff comment: The proposed development includes open space through landscape buffers that create low screening with shrubs from the street and along the edge of the building, a lawn area and seating opportunities on the site and adjacent to the public sidewalk. The proposed development is within a two-block walking distance of Kennedy Park with a playground, recreation fields and walking paths that residents can access for recreational activities beyond the site.

The Applicant is providing communal open space with a primary flexible lawn area that intends to function for periodic programmed events, a mixture of seating and shade trees that Staff finds appropriate. Additional outdoor gathering spaces with seating and planting areas are located adjacent to building entries and towards the rear of the property that Staff finds appropriate as semi-private open space.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;*

Staff comment: **Staff finds the allocation of windows for each proposed dwelling to be generally appropriate and sufficient storage is proposed within each dwelling unit.**

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;*

Staff comment: The development proposes to screen all surface parking areas with shrubs at the abutting property and deciduous trees with understory shrubs at Oxford Street that Staff finds acceptable.

6. *Two-family or multi-family dwellings shall not be converted to lodging houses unless all units in the building have been vacant for at least one (1) year prior to the date conversion is sought or unless the individual multiple-family units are less than one thousand (1,000) square feet in size. In no event shall any single-family dwelling in the R-5 or R-6 zone be converted in whole or in part to a lodging house.*

Staff comment: Not applicable as the proposed development does not include a lodging house conversion.

R-7 COMPACT URBAN RESIDENTIAL OVERLAY ZONE: Residential developments shall meet the following design standards:

A. *Porches and bays should face the street.*

Staff comment: No porches are proposed in the development plan and window bays face both Boyd Street and Oxford Street.

B. *Primary ground floor residential entries to multi-family buildings must orient to street, not to interior blocks or parking lots. Secondary and upper-floor entries from the interior of a block are acceptable. The front door to single-family homes, duplexes, and townhouses must be visible from the street.*

Staff comment: The primary entry at the corner of Boyd Street and Oxford Street is oriented to the street and secondary entries are also oriented with direct access to the street.

C. *The design approach shall provide an architecture that will be a visible and permanent expression of the character of the neighborhood.*

Staff comment: The architectural design contributes to the character of the neighborhood with selection of exterior materials with fibercement lap siding of various tones and consistent trim detailing for the windows and roofline. **Staff has recommended that the Applicant provide a physical sample of the proposed exterior facades materials, in particular the porcelain tile at**

the ground-level, Staff will continue to evaluate based on the exterior materials that is more represented throughout the neighborhood.

D. The facade shall be varied and articulated to provide visual interest to pedestrians.

Staff comment: The façade is varied and articulated by the angled bays, large windows facing the street at the ground level and articulated entries with a canopy.

E. The design shall reinforce the public realm of the public open space, sidewalks, and streets through appropriately scaled entries, porches, fenestration, landscaping, and architectural details.

Staff comment: The site slopes up towards Congress Street and requires the proposed building to step-up a complete floor level to meet the existing grade. The Applicant has resubmitted plans that include additional windows and a fenestration pattern along the public sidewalk that Staff finds appropriate.

F. The design shall provide visual and acoustical privacy between units.

Staff comment: The building design as indicated on the proposed floor plans provides adequate visual and acoustical privacy between all units.

G. The design shall maximize natural light and ventilation within units.

Staff comment: The building design includes windows within each unit that Staff finds allows for natural light, ventilation is per Passivhaus standards in place by the Applicant's energy code requirements.

Design Review
Planning and Urban Development Department

Subject:	9 Boyd Street
Zone:	R-7
Date of Review:	Monday, April 8, 2024
Reviewer(s):	Sean King (Urban Designer), Eric Freeman (Planner), Ameriz Gamez (Planner)
Project ID:	PL-002845-2024

I. DESIGN REVIEW CRITERIA

The project at 9 Boyd Street was reviewed under the Land Use Code section 14.6.4.I.e for multi-family residential development and shall also comply with the following development standards under the Land Use Code section 8.1.4 for R-7 Compact Urban Residential Overlay Zone.

II. APPLICABILITY

The City of Portland Design Manual - Design Standards under (i) MULTIPLE-FAMILY:

> *(1) STANDARDS. Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts, and emergency shelters shall meet the following standards outlined below in section III. Design Review comments*

The City of Portland Land Use Code section 8.1.4 Design Standards for residential development in the R-7 Compact Urban Residential Overlay Zone:

> *Residential development shall be reviewed by the Planning Board under Article 14. Such development shall also comply with the following development standards. The general intent of these development standards is to achieve an attractive and comfortable city neighborhood environment. Varied and human-scaled building facades are key to making a place "pedestrian-oriented." Building designs should provide a high level of visual interest, without creating a chaotic image. Residences should include design elements that enhance the streetscape and address the street.*

III. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, red text denotes standards not met to require resubmission.

MULTIPLE-FAMILY STANDARDS. Multiple-family shall meet the following design standards:

1. *The exterior design of the proposed structure including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;*

Staff comment: The surrounding context of the neighborhood is comprised of larger footprint, multi-storied residential buildings with multiple residential units per floor, planned residential unit developments with housing types of townhouse and apartments, two-to-three storied multi-family

residential structures on individual parcels and single-family residences. Architectural style varies throughout the neighborhood and generally relates to each building's scale. The proposed development is more directly comparable to the adjacent larger footprint, multi-storied residential buildings that include a flat roof form, façade variation through projections and varied exterior materials to articulate building elements.

The proposed multi-family building is located at the corner of Boyd Street and Oxford Street with placement and orientation towards both streets. The proposed multi-family building incorporates angled projections along the street-facing facades with a clear fenestration pattern that Staff finds appropriate to add visual character to the facades. Staff has concerns about the ground-level facade to activate the pedestrian environment and recommends additional fenestrations along the Boyd Street facade where office spaces are proposed to create a stronger visual presence towards the corner and reduce the amount of blank facade. Staff recommends the addition of perpendicular retaining seatwalls to allow for additional windows along the ground-level by terracing the grade change up Boyd Street within the private property.

The primary entry at the corner is angled and recessed with large fenestrations to allow for natural light into the lobby area. Staff finds the primary entry is minimally obscured by the proposed retaining seatwall that follows the front property line and recommends additional articulation at the entry such as a canopy, two way door, architectural lighting and/or change in exterior material. Adjacent multi-storied residential structures incorporate an extended canopy to articulate the primary building entries.

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

Staff comment: Staff finds the building placement along Boyd Street and Oxford Street closely relates to adjacent properties that front the street and provides various entries directly accessible from the public sidewalk for residents. The development plan includes a transitional space with plantings that jog in several locations to account for the proposed street trees, Staff recommends a continuous brick sidewalk along the Boyd Street frontage to reduce sidewalk maintenance concerns and provide additional sidewalk width.

In addition, staff recommends the Applicant explore recessed secondary entries that are accessible from the public sidewalk to clearly articulate points of entry for residents.

3. *Open space on the site for all ... multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;*

Staff comment: The proposed development includes open space through landscape buffers that create low screening with shrubs from the street and along the edge of the building, a lawn area and

seating opportunities on the site and adjacent to the public sidewalk. The proposed development is within a two-block walking distance of Kennedy Park with a playground, recreation fields and walking paths that residents can access for recreational activities beyond the site.

Staff finds the open space provided for the fifty residential units is limited and recommends that the Applicant program the common open space, proposed as an open lawn area, to include additional gathering places with seating, shade elements, other outdoor amenities and patio spaces that could function for multiple groups during the same time.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;*

Staff comment: Staff finds the allocation of windows for each proposed dwelling to be generally appropriate, however recommends that the Applicant include additional horizontally stacked windows at the street facing façade to reduce the amount of fiber cement panels for a more balanced facade.

In addition, sufficient storage is proposed within each dwelling unit.

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;*

Staff comment: The development proposes to screen all surface parking areas with shrubs at the abutting property and deciduous trees with understory shrubs at Oxford Street that Staff finds acceptable.

6. *Two-family or multi-family dwellings shall not be converted to lodging houses unless all units in the building have been vacant for at least one (1) year prior to the date conversion is sought or unless the individual multiple-family units are less than one thousand (1,000) square feet in size. In no event shall any single-family dwelling in the R-5 or R-6 zone be converted in whole or in part to a lodging house.*

Staff comment: Not applicable as the proposed development does not include a lodging house conversion.

R-7 COMPACT URBAN RESIDENTIAL OVERLAY ZONE: Residential developments shall meet the following design standards:

A. *Porches and bays should face the street.*

Staff comment: No porches are proposed in the development plan and window bays face both Boyd Street and Oxford Street.

B. *Primary ground floor residential entries to multi-family buildings must orient to street, not to interior blocks or parking lots. Secondary and upper-floor entries from the interior of a block are*

acceptable. The front door to single-family homes, duplexes, and townhouses must be visible from the street.

Staff comment: The primary entry at the corner of Boyd Street and Oxford Street is oriented to the street and secondary entries are also oriented with direct access to the street.

C. *The design approach shall provide an architecture that will be a visible and permanent expression of the character of the neighborhood.*

Staff comment: The architectural design contributes to the character of the neighborhood with selection of exterior materials with fibercement lap siding of various tones. Staff recommends that the Applicant consider a replacement for the porcelain tile at the ground-level for a exterior material that is more represented throughout the neighborhood.

D. *The facade shall be varied and articulated to provide visual interest to pedestrians.*

Staff comment: The façade is varied and articulated by the angled bays and articulated entries with a canopy. Staff has provided additional recommendations for articulation in section III. Design Comments of the design review memorandum.

E. *The design shall reinforce the public realm of the public open space, sidewalks, and streets through appropriately scaled entries, porches, fenestration, landscaping, and architectural details.*

Staff comment: The site slopes up towards Congress Street and requires the proposed building to step-up a complete floor level to meet the existing grade. Staff recognizes the ground-level façade along Boyd Street as significant, as it faces the street and engages the public realm. Staff requests additional fenestration within the lobby and office spaces to reduce the blank façade along Boyd Street.

F. *The design shall provide visual and acoustical privacy between units.*

Staff comment: The building design as indicated on the proposed floor plans provides adequate visual and acoustical privacy between all units.

G. *The design shall maximize natural light and ventilation within units.*

Staff comment: The building design includes operable windows within each unit, Staff recommends the Applicant add windows into the living and/or bedroom areas to reduce the amount of fibercement panels where appropriate.

CITY OF PORTLAND, MAINE

PLANNING BOARD

Brandon Mazer, Chair
Justin Barker, Vice Chair
Marpheen Chann
Sean Murphy
David Silk
Austin Smith
Maggie Stanley

July 9, 2024

Sarah Tatarczuk
Portland Housing Authority
970 Baxter Blvd.
Portland, ME 04103

Project Name:	Major Site Plan	**Project ID:**	PL-002845-2024
Address:	9 Boyd Street	**CBL:**	002 H001
Applicant:	Portland Housing Development Corporation		
Planner:	Eric Freeman		

Dear Sarah,

On July 9, 2024, the Planning Board approved a major site plan application for a six-story, 55-unit multi-family residential building located at 9Boyd Street in the R-6 Residential zone and the R-7 Compact Residential Overlay. The decision is based upon the application, documents and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance, Ch. 14, Article 14, Section 14.6. based on the information provided to the Board in the application, plans, and reports through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing on July 9, 2024, which is attached hereto and incorporated herein by reference. Based upon those findings, conclusions and recommendations, the Planning Board found that the application met all relevant standards and voted (X-X) to approve the application with the following conditions as presented below.

Site Plan Review

On the basis of the application, plans, reports and other information submitted by the Applicant; findings and recommendations contained in the Planning Board Report for the public hearing on July 9, 2024 for application # PL-002845-2024 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board voted (X-X) to find that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall provide an ability to serve letter from the Portland Water District.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

2. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.

3. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.

4. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

5. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

6. Department of Public Works Permits If work or obstructions will occur within the public right-

of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

7. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

8. Stormwater Management The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements.

   A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.

9. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

10. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater. Please provide one hard copy of the mylar.

11. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

12. Impact Fees New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit https://www.portlandmaine.gov/2409/Impact-Fees

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at drc@portlandmaine.gov or (207)874-8984. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Eric Freeman at (207)874-8724 or via email at efreeman@portlandmaine.gov

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

1. Planning Board Report
2. Portland City Code: Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet

ACORN ENGINEERING, INC.

Planning & Urban Development Department
Attn: Matthew Grooms, Development Review Service Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

March 13, 2024

Subject: Major Site Plan Application
70 East Oxford Street, Portland, ME

Mr. Grooms:

On behalf of COMB Block Phase One, LP and Portland Housing Development Corporation (PHDC), we are pleased to submit a Major Site Plan Application for redevelopment in Portland's East Bayside neighborhood. The proposed project is within a 1.53-acre parcel located at 70 East Oxford Street (Chart 22, Block H1, Lot 1), otherwise known as the COMB Block (Cumberland-Oxford-Mayo-Boyd). The parcel is currently within the R6 Residential Zone with an R7 Overlay.

COMB Block Phase One, LP is the applicant and will be the owner of the proposed COMB Block Phase One development. Portland Housing Development Corporation (PHDC) is the co-applicant and developer, and the Sole Manager of the COMB Block Phase One, LP General Partner. PHDC is a Maine 501(c)(4) nonprofit corporation and instrumentality of Portland Housing Authority (current landowner). PHA and PHDC have interlocking Boards and share the mission to preserve and expand affordable housing in Portland, Maine.

The project proposes to demolish the four existing multifamily buildings on the parcel. A division of land is also proposed to split the parcel into two separate lots, a 0.56 acre parcel (Lot 1) and a 0.97 acre parcel (Lot 2). A 50-unit multifamily building is proposed to be constructed on Lot 1, at the corner of Oxford and Boyd Streets. The building will consist of 45 affordable units and 5 market-rate units. In total there will be (10) 1-bedroom, (16) 2-bedroom, (19) 3-bedroom, and (5) 4-bedroom units. The building will also consist of amenities for residents & space for building management on the ground floor. Lot 2 will be stabilized and reserved for potential future development.

Site improvements associated with the project include reconstructed sidewalks along the project frontage of Oxford & Boyd Streets, reconstructing the existing parking lot on site accessed off of Oxford Street, and construction of retaining walls to reduce steep grades and create more usable and accessible open space on the parcel. The parking lot will consist of 6 ADA spaces which currently serve the adjacent Bayside Anchor building, also owned by a Portland Housing Authority related entity. The project will upgrade existing utilities servicing the site and install stormwater detention and treatment facilities to meet the City's stormwater requirements.

The project is subject to a Major Site Plan Development Application and approval from the Planning Board. We look forward to your review of this project, if you have any questions regarding these application materials, please do not hesitate to reach out.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Checklists
- Section C: Zoning Assessment
- Section D: Right, Title, Interest
- Section E: Easements
- Section F: Site Plan Standards Assessment
- Section G: Financial Capacity
- Section H Technical Capacity
- Section I: Waiver Table
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity Letter
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste
- Section S: Parking Analysis

Drawings:

- Civil Site Plan Set dated 3/13/24.
- Architectural Plan Set dated 3/13/24.
- Landscaping Plan Set dated 3/13/24.

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

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

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

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

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

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN
DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all 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, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- Location of fire hydrants

- Location of solid waste management receptacles
- Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable
- Location of proposed easements and rights-of-way, including dimensions
- Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed

UTILITY PLAN including:

- Proposed electrical infrastructure
- Location, sizing and directional flows of all proposed sewer and stormwater infrastructure
- Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- Proposed grades
- Proposed stormwater management measures meeting Technical Manual (Section 5) standards
- Any proposed alteration of a watercourse or wetlands
- Any groundwater protection measures
- Proposed buffers and preservation measures for wetlands or significant natural features

LANDSCAPE PLAN including:

- Existing vegetation to be preserved and preservation measures
- Proposed landscaping, screening, and street trees, including caliper widths for trees
- Planting schedule, including street trees

ARCHITECTURAL PLANS AND RENDERINGS including:

- Exterior building elevations, color renderings, illustrations of all sides
- Axonometric and street-level views for structures greater than three stories in height
- Provide context drawings, if applicable (Design Manual, page 1)
- Floor plans

CONSTRUCTION MANAGEMENT PLAN including:

- Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
- Include a drawing and written narrative

OTHER

- Details and cross-sections, as necessary

Portland, Maine Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) R-7 Compact Residential Overlay

All Projects:

	Required	Proposed
Lot Size	None	24,403 SF
Area Per Dwelling Unit	174 SF/DU	444 SF
Minimum Street Frontage	NONE	315'
Front Yard Minimum	0'	5.30'
Front Yard Maximum	NONE	5.30'
Rear Yard	0'	47.37'
Yard Right	0'	16.26'
Yard Left	0'	6.87'
Side Street Setback	N/A	N/A
Step Back	N/A	See C-10
Maximum Lot Coverage	100%	44.6%
Minimum Lot Coverage	N/A	44.6%
Maximum Height	75'	61.03'
Open Space	N/A	24.9%
Maximum Impervious Area	80%	See C-10
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	TBD	6
Loading Bays	N/A	N/A
Other 1		
Other 2		
Other 3		

*Zoning Requirements per R-7 with affordable housing bonuses

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	Increase	174 SF/DU	444 SF
Height	Increase	75'	61.03'
Setback Reduction	Decrease	See Sheet C-10	See Sheet C-10
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space	Decrease	0%	24.9%
Explanatory Text 1 (optional): Project proposes 50 affordable housing units			
Explanatory Text 2 (optional): (91% affordable)			
Explanatory Text 3 (optional):			

D. Evidence of Right, Title & Interest

Attached is the deed for the proposed project parcel which gives Portland Housing Authority right, title and interest for the proposed project.

COMB Block Phase One, LP is the applicant and will be the owner of the proposed COMB Block Phase One development. Portland Housing Development Corporation (PHDC) is the co-applicant and developer, and the Sole Manager of the COMB Block Phase One, LP General Partner. PHDC is a Maine 501(c)(4) nonprofit corporation and instrumentality of Portland Housing Authority (current landowner). PHA and PHDC have interlocking Boards and share the mission to preserve and expand affordable housing in Portland, Maine.

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THIS INDENTURE, dated as of the **second** day of **June**, 1970, by and between the PORTLAND RENEWAL AUTHORITY, a corporation incorporated and existing under and by virtue of the Private and Special Laws of the State of Maine, 1951, Chapter 217 and Amendments thereto (hereinafter sometimes referred to as the Authority) and the PORTLAND HOUSING AUTHORITY, a public body corporate and politic, duly organized and existing under the laws of the State of Maine and exercising public and essential governmental functions, of said Portland, County of Cumberland and State of Maine (hereinafter sometimes referred to as the "Redeveloper"):

WITNESSETH, That:

WHEREAS the Authority is the owner of the below described parcels of land and is desirous of conveying the same to the Redeveloper; and

WHEREAS the Authority has been duly authorized by virtue of an order by the City Council for the City of Portland which approved and authorized the execution and delivery of a quit claim deed with covenants from the Authority to the Redeveloper, duly passed on **May 4, 1970** and which order became effective on **May 14, 1970** and by virtue of a resolution of the Board of Commissioners of said Authority which approved and authorized the execution and delivery of a quit claim deed with covenants from said Authority to the Redeveloper adopted on **April 23, 1970** ; and

WHEREAS the Redeveloper is desirous of purchasing said parcels of land, subject to the encumbrances set forth herein,

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein contained and of the sum of Nine Thousand Two Hundred Forty ($9,240.00) Dollars paid by the Redeveloper to the Authority, the receipt whereof upon delivery hereof the Authority hereby acknowledges, the Authority does hereby remise, release, bargain, sell and convey, and forever quitclaim unto the Redeveloper, its successors and assigns, forever, the following described parcels of land:

1. Description of Parcel 38E

A certain lot or parcel of land situated on the northerly sideline of Cumberland Avenue, lying between Boyd Street and Mayo Street, in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the intersection formed by the northerly sideline of Cumberland Avenue and the easterly sideline of Boyd Street; thence northwesterly by the easterly sideline of Boyd Street 158 feet, more or less, to land now or formerly of Arthur H. Wakefield and Eiryl Wakefield; thence in a general easterly direction by the southerly sideline of land now or formerly of said Arthur H. Wakefield et al 110 feet to the southeasterly corner of land of said Wakefield et al; thence northwesterly by the easterly sideline of land of said Arthur H. Wakefield et al 38 feet, more or less, to the southwesterly corner of land now or formerly of Giovina Ferrante; thence in a general easterly direction by the southerly sideline of said Ferrante 111 feet

more or less, to the westerly sideline of Mayo Street; thence in a general southerly direction by the westerly sideline of Mayo Street 58 feet, more or less, to the northeasterly corner of land now or formerly of the Portland Congregation of Jehovah's Witnesses, Inc; thence in a general westerly direction by the northerly sideline of land of said Jehovah's Witnesses Inc., to the northwesterly corner of land of said Jehovah's Witnesses, Inc.; thence in a general southerly direction by the westerly sideline of land of said Jehovah's Witnesses, Inc., and by land now or formerly of warren DiPietro and Grace DiPietro 144 feet, more or less, to the northerly sideline of Cumberland Avenue; thence in a general westerly direction by the northerly sideline of Cumberland Avenue 110 feet, more or less, to the intersection formed by said northerly sideline of Cumberland Avenue and the easterly sideline of Boyd Street and the point of beginning.

Together with all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises, and including all right, title and interest conveyed in any and to so much of Cumberland Avenue and Fox Street as was acquired by the Portland Renewal Authority as is described in a Statement of Taking dated November 30, 1962, and recorded in Cumberland County Registry of Deeds in Book 2720, page 251. Plan of said area being recorded in said Registry in Plan Book 61, pages 64 and 65.

Meaning and intending to convey and hereby conveying the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Hattie Branch by warranty deed dated May 3, 1963, and recorded in Cumberland County Registry of Deeds in Book 2747, Page 180, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by William H. Ham et al, by Warranty Deed dated June 23, 1960, and recorded in Cumberland County Registry of Deeds in Book 2548, page 41, the lot of land conveyed to this Authority by Richard P. Twomey et al by Warranty Deed dated April 25, 1963 and recorded in Cumberland County Registry of Deeds in Book 2744, page 128, the lot of land conveyed to this Authority by Richard P. Twomey et al by Warranty Deed dated March 30, 1962 and recorded in Cumberland County Registry of Deeds in Book 2664, page 370, the lot of land conveyed to this Authority by Gordon T. Taylor et als, by deeds dated June 27, 1963 and recorded in Cumberland County Registry of Deeds in Book 2765, pages 351, 362, 367 and 373, the lot of land conveyed to this Authority by Laurina Ferrante et al by Warranty Deed dated February 10, 1962 and recorded in Cumberland County Registry of Deeds in Book 2660 page 479, and the lot of land conveyed to this Authority by Carmine DiLallo by Administrator's Deed dated October 17, 1967 and recorded in Cumberland County Registry of Deeds in Book 3015, page 339.

2. <u>Description of Parcel 36E</u>

A certain lot or parcel of land, situated on the southerly sideline of Oxford Street adjoining the easterly sideline of Boyd Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the intersection formed by the southerly sideline of Oxford Street and the easterly sideline of Boyd Street; thence in a general easterly direction by the southerly

sideline of Oxford Street 145 feet, more or less, to land now or formerly of Gertrude M. Grady; thence in a general southerly direction by the westerly sideline of land of said Gertrude M. Grady 60 feet, more or less, to land now or formerly of Vincent Black and Laurebelle Black; thence in a general westerly direction by the northerly sideline of land of said Vincent Black et al 36.1 feet to land now or formerly of Clyde Harriman and Ethel Harriman; thence in a general northerly direction by the easterly sideline of land of said Clyde Harriman et al 10 feet, more or less to the northeasterly corner of land of said Clyde Harriman et al; thence in a general westerly direction by the northerly sideline of land of said Clyde Harriman et al 108 feet, more or less, to the easterly sideline of Boyd Street; thence in a general northerly direction by the easterly sideline of Boyd Street 47 feet, more or less, to the intersection formed by said easterly sideline of Boyd Street and the southerly sideline of Mayo Street, and the point of beginning.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises. Meaning and intending to convey and hereby conveying the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Arthur W. Simmons by Warranty Deed dated April 1, 1960 and recorded in Cumberland County Registry of Deeds in Book 2531, page 308, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Mitchell D. Goffin by Warranty Deed dated April 1, 1960 and recorded in Cumberland County Registry of Deeds in Book 2531, page 310, the lot of land conveyed to the Portland Renewal Authority by Ralph Amergian by Warranty Deed dated September 17, 1965 and recorded in Cumberland County Registry of Deeds in Book 2922, page 268, and the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Mollie D. Finkelman by Warranty Deed dated May 6, 1960 and recorded in Cumberland County Registry of Deeds in Book 2535, page 479.

3. Description of Parcel 60

A certain lot or parcel of land situated on the southerly sideline of Oxford Street adjoining the westerly sideline of Mayo Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the point of intersection formed by the southerly sideline of Oxford Street and the westerly sideline of Mayo Street; thence in a general westerly direction by the southerly sideline of Oxford Street 38 feet, more or less, to land now or formerly of Gertrude M. Grady; thence in a general southerly direction by the easterly sideline of land of said Grady 75 feet, more or less, to land now or formerly of Vincent Black and Laurebelle Black; thence in a general easterly direction by the northerly sideline of land of said Vincent Black et al 38 feet, more or less to the westerly sideline of Mayo Street; thence in a general northerly direction by the westerly sideline of Mayo Street 75 feet, more or less, to the southerly sideline of Oxford Street and the point of beginning.

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Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by Val Valeriani et al, by Warranty Deed dated December 4, 1964, and recorded in Cumberland County Registry of Deeds in Book 2869, page 247.

4. Description of Parcel 26E

A certain lot or parcel of land situated on the northerly sideline of Oxford Street adjoining, in part, the easterly sideline of Boyd Street in the City of Portland, County of Cumberland and State of Maine, being more particularly described as follows:

Beginning at the intersection formed by the northerly sideline of Oxford Street and the easterly sideline of Boyd Street; thence in a general northerly direction by the easterly sideline of Boyd Street 105 feet, more or less, to land now or formerly of Maria Pesce; thence in a general easterly direction by the southerly sideline of land of said Pesce 110 feet, more or less, to land now or formerly of Nicholas DiPietro and Katherine DiPietro; thence in a general southerly direction by the westerly sideline of land of said Nicholas DiPietro et al 35 feet, more or less, to the southwesterly corner thereof; thence in a general easterly direction by the southerly sideline of land of said Nicholas DiPietro et al 45 feet, more or less, to land now or formerly of Mekail Amergian; thence in a general southerly direction by the westerly sideline of land of said Amergian 70 feet, more or less, to the northerly sideline of Oxford Stree; thence in a general westerly direction by the northerly sideline of Oxford Street 90 feet, more or less, to land now or formerly of Charles Rosenbloom; thence in a general northerly direction by the easterly sideline of land of said Rosenbloom 75 feet, more or less, to the northeasterly corner thereof; thence in a general westerly direction by the northerly sideline of land of said Rosenbloom 20 feet, more or less, to the northwesterly corner thereof; thence in a general southerly direction by the westerly sideline of land of said Rosenbloom, 75 feet, more or less to the northerly sideline of Oxford Street; thence in a general westerly direction by the northerly sideline of Oxford Street 31 feet, more or less, to its intersection with the easterly sideline of Boyd Street and the point of beginning.

This conveyance is made, subject to whatever rights the owners of the property at 81-83 Oxford Street may have to use and maintain a sewer line leading from their property to the sewer line in Boyd Street.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by Santo DiDonato by Warranty Deed dated April 18, 1962, and recorded in Cumberland County Registry of Deeds in Book 2668, page 147, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now

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Portland Renewal Authority) by Bella R. Finkelman et al, by Warranty Deed dated September 21, 1960, and recorded in Cumberland County Registry of Deeds in Book 2564, page 42, the lot of land conveyed to this Authority by Steve A. Notis by Warranty Deed dated November 19, 1965, and recorded in Cumberland County Registry of Deeds in Book 2935, page 229, and the lot of land conveyed to this Authority by Mekail Amerikian et al by Warranty Deed dated June 7, 1966, and recorded in Cumberland County Registry of Deeds in Book 2960, page 403.

5. Description of Parcel 61

A certain lot or parcel of land situated on the westerly sideline of Mayo Street, in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at a point on the westerly sideline of Mayo Street, said point being 115 feet northerly of the point of intersection formed by said westerly sideline of Mayo Street and the northerly sideline of Oxford Street, said point also marking the northeasterly corner of land now or formerly of Nicholas DiPietro and Katherine DiPietro; thence in a general westerly direction by the northerly sideline of said Nicholas DiPietro et al 100 feet, more or less, to land now or formerly of Maria Pesce; thence in a general northerly direction by the easterly sideline of land of said Pesce and by land of Frank P. Briggs 45 feet, more or less to land now or formerly of Esther Pearl Hensley; thence in a general easterly direction by the southerly line of said Hensley 100 feet, more or less, to the westerly sideline of Mayo Street; thence in a general southerly direction by the westerly sideline of Mayo Street 45 feet, more or less, to the northeasterly corner of land now or formerly of Nicholas DiPietro et al and the point of beginning.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by Paul J. McCormick, Jr. by deed dated December 13, 1961, and recorded in Cumberland County Registry of Deeds in Book 2649, page 346.

6. Description of Parcel 64

A certain lot or parcel of land situated on the northerly sideline of Oxford Street, adjoining the easterly sideline of Smith Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the monument at the junction of the northeasterly side of Smith Street with the northwesterly side of Oxford Street and running thence northwesterly by Smith Street seventy (70) feet to a stake; thence northeasterly and parallel with Oxford Street, seventy-four (74) feet, eleven (11) inches to a stake; thence southeasterly in the rear of the house and adjoining land formerly of Charlotte R. Shaw, seventy (70) feet to Oxford Street; thence southwesterly by said Oxford Street seventy-three (73) feet to the point of beginning.

Also a certain strip of land in the rear of said house; said strip of land is described in the deed recorded in Cumberland County Registry of Deeds in Book 309, Page 466, as being bound and described as follows:

Beginning at a point on the northwesterly sideline of the premises herein above described at a point which is sixty (60) feet northeasterly of Smith Street; thence northwesterly by land formerly of one Orr, thirty (30) feet to land formerly of one Pennell, thence northeasterly by said Pennell land fourteen (14) feet to land formerly of one Shaw; thence southeasterly by said Shaw land thirty (30) feet to the premises hereinabove described; thence southwesterly by said premises fourteen (14) feet to the point of beginning.

Together with a right and easement in common with Margaret F. Mulkern, her heirs and assigns, to use a five (5) foot strip northeasterly of the boundary of land herein conveyed, or described in deed of Margaret F. Mulkern to this Grantor, dated May 16, 1958, recorded in said Registry of Deeds in Book 2411, Page 128.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by YOUR HOME, INC., by Warranty Deed dated November 24, 1965, and recorded in Cumberland County Registry of Deeds in Book 2935, Page 227.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

7. Description of Parcel 29E

A certain lot or parcel of land situated on the northerly sideline of Oxford Street and the westerly sideline of Anderson Street, in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the intersection formed by the northerly sideline of Oxford Street and the westerly sideline of Anderson Street; thence in a general westerly direction by the northerly sideline of Oxford Street 81 feet, more or less, to land now or formerly of Anacam, Inc.; thence in a general northerly direction by the easterly sideline of land of sand Anacam, Inc., 100 feet, more or less, to land now or formerly of Pearl E. Flaherty; thence in a general easterly direction by the southerly sideline of land of said Flaherty 81 feet, more or less, to the westerly sideline of Anderson Street; thence in a general southerly direction by the westerly sideline of Anderson Street 30 feet, more or less, to land now or formerly of Emma Florence Fitts; thence in a general westerly direction by the northerly sideline of land of said Fitts 45 feet, more or less, to the northwesterly corner of land of said Fitts; thence in a general southerly direction by the westerly sideline of land of said Fitts 30 feet, more or less, to the southwesterly corner of land of said Fitts; thence in a general easterly direction by the southerly sideline of land of said Fitts 45 feet, more or less, to the westerly sideline of Anderson Street; thence in a general southerly direction by the westerly sideline of Anderson Street 38 feet, more or less, to the northerly sideline of Oxford Street and the point of beginning.

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Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Margaret A. Mullen by Warranty Deed dated June 1, 1960, and recorded in Cumberland County Registry of Deeds in Book 2542, page 173, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Peter E. Carpenter by Warranty Deed dated April 8, 1960, and recorded in said Registry in Book 2532, page 145, and the lot of land conveyed to this Authority by Maybelle E. Haley et al by Warranty Deed dated February 25, 1965, and recorded in said Registry in Book 2940, page 11.

8. Description of Parcel 48E

A certain lot or parcel of land situated on the easterly sideline of Smith Street, northerly of Oxford Street, and extending in part to the westerly sideline of Mayo Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at a point on the easterly sideline of Smith Street, said point being 100 feet, more or less, northwesterly of the intersection formed by said easterly sideline of Smith Street and the northerly sideline of Oxford Street, said point also marking the northwesterly corner of land now or formerly of Anthony G. Ciazzo and Mary R. Ciazzo; thence in a general northerly direction by the easterly sideline of Smith Street 100 feet, more or less, to land now or formerly of Robert W. Gunn; thence in a general easterly direction by the southerly sideline of land of said Gunn and by land now or formerly of Bronet Sanuk and Margaret L. Sanuk 115 feet, more or less, to the southeasterly corner of land of said Bronet Sanuk et al; thence in a general northerly direction by the easterly sideline of land of said Bronet Sanuk et al 30 feet, more or less, to land now or formerly of Jacob Lamport et al; thence in a general easterly direction by the southerly sideline of land of said Jacob Lamport et al 60 feet, more or less, to the westerly sideline of Anderson Street; thence in a general southerly direction by the westerly sideline of Anderson Street 65 feet, more or less, to land now or formerly of John F. Hughes; thence in a general westerly direction by the northerly sideline of land of said Hughes 84 feet, more or less, to the northwesterly corner thereof; thence in a general southerly direction by the westerly sideline of land of said Hughes and by land now or formerly of Pearl E. Flaherty 62 feet, more or less, to the southwesterly corner of land of said Flaherty and to a point on the northerly sideline of land now or formerly of Anacam, Inc; thence in a general westerly direction by the northerly sidelines of land now or formerly of Anacam, Inc., of Your Home, Inc., and of Anthony G. Ciazzo and Mary R. Ciazzo 110 feet, more or less, to the easterly sideline of Smith Street and the point of beginning.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lo

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of land conveyed to this Authority by the Administrator of Veterans' Affairs by deed dated February 13, 1968 and recorded in Cumberland County Registry of Deeds in Book 3030, page 108, the lot of land conveyed to this Authority by Salvatore, Inc., by Warranty Deed dated January 10, 1963, and recorded in Cumberland County Registry of Deeds in Book 2727, page 46, the lot of land conveyed to this Authority by Linwood B. Whitney et al, by Warranty Deed dated November 29, 1962, and recorded in Cumberland County Registry of Deeds in Book 2720, page 49, and the lot of land acquired by the Authority by condemnation action on June 9, 1965.

9. Description of Parcel 18C

A certain lot or parcel of land situated on the northerly sideline of Lancaster Street, adjoining the westerly sideline of Anderson Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at the point of intersection formed by the northerly sideline of Lancaster Street and the westerly sideline of Anderson Street; thence in a general westerly direction by the northerly sideline of Lancaster Street 105 feet, more or less, to land of the Portland Housing Authority; thence in a general northerly direction by the easterly sideline of land of said Portland Housing Authority 80 feet, more or less, to the southerly sideline of Anderson Lane; thence in a general easterly direction by the southerly sideline of Anderson Lane 69 feet, more or less, to land formerly of George Durfee and Mary Pinkham, now of the Portland Housing Authority; thence in a general southerly direction by the westerly sideline of land formerly of said George Durfee et al, on the following three courses: first, in a general southerly direction 23 feet to a point; thence in a general easterly direction 3 feet to a point, and, finally, in a general southerly direction 10 feet to the southwesterly corner of land formerly of said George Durfee et al; thence in a general easterly direction by the southerly sideline of land formerly of said George Durfee et al 33 feet to the westerly sideline of Anderson Street; thence in a general southerly direction by the westerly sideline of Anderson Street 47 feet, more or less, to the northerly sideline of Lancaster Street and the point of beginning.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now the Portland Renewal Authority), by A. Frances Robishaw, by Warranty Deed dated October 4, 1960, and recorded in Cumberland County Registry of Deeds in Book 2566, page 381, and the lot of land conveyed to this Authority by Constantino Piacentini, by Warranty Deed dated February 6, 1964, and recorded in said Registry in Book 2803, page 135.

10. Description of Parcel 12

A certain lot or parcel of land situated on the southerly sideline of Madison Street and lying between Anderson Street and Greenleaf Street, in the City of Portland, County of Cumberland

and State of Maine, and being more particularly described as follows:

Beginning at the corner formed by the intersection of the easterly sideline of Anderson Street with the southerly sideline of Madison Street; thence by said Madison Street N 66° 36' E 239.76 feet to the corner formed by the intersection of the southerly sideline of said Madison Street with the westerly sideline of Greenleaf Street; thence by said Greenleaf Street S 23° 27' 30" E 160.19 feet to the corner formed by the intersection of the westerly sideline of said Greenleaf Street with the northerly sideline of Monroe Street; thence by said Monroe Street S 66° 33' 30" W 239.69 feet to the corner formed by the intersection of the northerly sideline of said Monroe Street with the easterly sideline of said Anderson Street N 23° 29' W 160.36 feet to the point of beginning.

Said above described courses are magnetic and of the date of 1959.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by the County of Cumberland by warranty Deed dated September 7, 1965, and recorded in Cumberland County Registry of Deeds in Book 2920, page 581.

11. Description of Parcel 13E

A certain lot or parcel of land situated on the southerly sideline of Monroe Street in the City of Portland, County of Cumberland and State of Maine, and being more particularly described as follows:

Beginning at a point on the southerly sideline of Monroe Street, said point being distant 80 feet easterly from the point of intersection of said southerly sideline of Monroe Street and the easterly sideline of Anderson Street, said point also marking the northeasterly corner of land now or formerly of Beverly Ann Hayden; thence in a general southerly direction by the easterly sideline of land of said Hayden 100 feet to the northwesterly corner of land now or formerly of Nicholas DiPietro and Katherine DiPietro; thence in a general easterly direction by the northerly sideline of land of said Nicholas DiPietro et al 40 feet to the northeasterly corner thereof; thence in a general southerly direction by the easterly sideline of land of said Nicholas DiPietro 80 feet to the northerly sideline of Oxford Street; thence in a general easterly direction by the northerly sideline of Oxford Street 120 feet, more or less, to the westerly sideline of Greenleaf Street; thence in a general northerly direction by the westerly sideline of Greenleaf Street; thence in a general northerly direction by the westerly sideline of Greenleaf Street 83 feet, more or less, to land now or formerly of King Butland; thence in a general westerly direction by the southerly sideline of land of said Butland 80 feet, more or less, to the southwesterly corner thereof; thence in a general northerly direction by the westerly

sideline of land of said Butland 33 feet, more or less, to the northwesterly corner thereof; thence in a general easterly direction by the northerly sideline of land of said Butland 80 feet, more or less, to the westerly sideline of Greenleaf Street; thence in a general northerly direction by the westerly sideline of Greenleaf Street 33 feet, more or less, to land now or formerly of Maurice G. Harding; thence in a general westerly direction by the southerly sidelines of land of said Harding and by land now or formerly of Perley V. Patrick and Alice R. Patrick 80 feet, more or less, to the southwesterly corner of land of said Perley V. Patrick et al; thence in a general northerly direction by the westerly sideline of land of said Perley V. Patrick et al 32 feet, more or less, to the southerly sideline of Monroe Street; thence in a general westerly direction by the southerly sideline of Monroe Street 80 feet, more or less, to land now or formerly of Beverly Ann Hayden and the point of beginning.

Also all right, title and interest, if any, in and to all passageways, lanes, streets or alleys adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying the lot of land conveyed to this Authority by the County of Cumberland by warranty Deed dated September 7, 1965, and recorded in Cumberland County Registry of Deeds in Book 2920, page 585, the lot of land conveyed to this Authority by Helen M. Jones, by Executor's Deed dated February 1, 1963, and recorded in said Registry in Book 2731, page 229, the lot of land conveyed to the Slum Clearance Authority (now Portland Renewal Authority) by Richard C. Payson et al by Quit Claim Deed dated November 3, 1960, and recorded in said Registry in Book 2575, page 167, the lot of land conveyed to this Authority by Annie M. Kelley, by warranty Deed dated November 24, 1961, and recorded in said Registry in Book 2645, page 412, and the lot of land conveyed to this Authority by Roland B. Roberts et al by Warranty Deed dated February 19, 1965, and recorded in said Registry in Book 2881, page 148.

12. Description of Parcel 20P

A certain lot or parcel of land situated on the southerly sideline of Lancaster Street westerly of Boyd Street in the City of Portland, County of Cumberland and State of Maine and being more particularly described as follows:

Beginning at a drill hole at the corner formed by the intersection of the westerly sideline of Boyd Street with the southerly sideline of Lancaster Street; thence from said point of beginning and by said Lancaster Street S 48° 56' 21" W 152.10 feet to an iron on the easterly sideline of the Franklin Street Arterial Highway; thence by said Franklin Street by a convex curve to the southeast, having a radius of 2,827.79 feet a distance of 112.77 feet measured on the arc thereof to an iron at a point of tangent in said Franklin Street; thence continuing by said Franklin Street S 48° 43' 15" E 31.98 feet to an iron at the former location of the northerly sideline of Heath Street; thence by said former location of Heath Street N 48° 56' 21" E 138.15 feet to a drill hole in the westerly sideline of Boyd Street; thence by said Boyd Street N 42° 21' 07" W 143.75 feet to the point of beginning. Said above described courses are based on true Meridian as determined by the Maine State Highway Commission.

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The above described premises are hereby conveyed subject to an easement granted to the City of Portland dated 1970 and recorded in Cumberland County Registry of Deeds in Book , Page

Also all right, title and interest, if any, in and to all passageways, alleys, streets and lanes adjoining, abutting and/or running with the above described premises.

Meaning and intending to convey and hereby conveying a part of the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority), by Sumner G. Whittier as Administrator of Veterans' Affairs, by Quit Claim Deed dated May 25, 1959, and recorded in Cumberland County Registry of Deeds in Book 2474, page 286, the lot of land conveyed to this Authority by Charles Boyd Coleman, by Quit Claim Deed dated January 17, 1962, and recorded in said Registry in Book 2656, Page 324; a part of the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Terese Hubbard, by Warranty Deed dated January 11, 1960, and recorded in said Registry in Book 2520, page 139, a part of the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Leonard Pelletier, by Warranty Deed dated April 7, 1960, and recorded in Said Registry in Book 2532, page 147, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by Samuel C. Modes, by Warranty Deed dated October 28, 1959, and recorded in said Registry in Book 2508, page 265, the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority) by V. Grace Wood, by Warranty Deed dated August 4, 1959, and recorded in said Registry in Book 2490, page 354, and the lot of land conveyed to the Slum Clearance and Redevelopment Authority (now Portland Renewal Authority), by Edward L. Delaney, by Warranty Deed dated August 21, 1959, and recorded in said Registry in Book 2494, Page 316.

The above described premises are hereby conveyed subject to the following restrictions, covenants and agreements:

1. The redeveloper, its successors and assigns, will and shall devote the above described premises to the uses specified in the Redevelopment and Renewal Plan for the Bayside Park Urban Renewal Project, Me. R-1, dated the thirteenth day of February, AD 1958, approved by resolution of the Authority and by order of the City Council for the City of Portland under date of November 3, 1958, and duly recorded under date of November 3, 1958, in the Clerk's office for the City of Portland, Maine, in Volume 75, page 325, as amended to date and in accordance with the zoning ordinance for the City of Portland dated December 18, 1961.

2. The Redeveloper, its successors and assigns, will not and shall not devote the premises or any part thereof to any other use than the uses specified for the above described premises in accordance with said Plan, as amended to date or contrary to any of the applicable limitations or requirements of said plan.

3. The Redeveloper, its successors and assigns, will not

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and shall not effect any covenant, agreement, lease, or other instrument whereby the property is restricted on the basis of race, creed, color or national origin in the sale, lease or occupancy thereof, and will and shall comply with all Federal, State and local Laws, in effect from time to time, prohibiting discrimination or segregation by reason of race, religion, color or national origin in the sale, lease or occupancy of the property, and further, covenants and agrees not to discriminate on the basis of race, color, creed or national origin in the sale, lease or rental, or in the use or occupancy of the demised property or any improvement erected or to be erected therein, or any part thereof.

4. The Redeveloper, its successors and assigns, will not and shall not devote the premises or any part thereof except in accordance with the following special restrictions, covenants and agreements which are hereby made a part of this Indenture.

a) The Redeveloper shall construct on the premises hereby conveyed a housing project designated to provide housing for low-income families, in accordance with the Annual Contributions Contract as amended from time to time, between the Redeveloper and the Public Housing Administration.

b) The Redeveloper herein, its successors and assigns, shall not convey said premises to any person, firm or corporation other than a public body unless the deed by which such conveyance is effected shall contain the following covenant and restriction:

> "This conveyance is subject to all of the restrictions, covenants and agreements contained in the Indenture by which said premises were conveyed to the Portland Housing Authority, and in addition, the Grantee, its successors and assigns shall not reconstruct, demolish or subtract from the buildings and structures now on said land, nor make any additions thereto or extensions thereof without prior written approval of the Portland Renewal Authority, which approval shall not unreasonably be withheld.
>
> "The foregoing, like all of the other covenants contained in the aforesaid Indenture to the Portland

Housing Authority from the Portland Renewal Authority, shall be a covenant running with the land and shall be enforceable in the same manner as prescribed in the original Indenture from the Portland Renewal Authority for the enforcement of the covenants therein contained."

The covenants in this conveyance in Paragraphs 1, 2, 3, and 4 shall be covenants running with the land and covenants to the same effect, which shall be and shall be expressed to be covenants running with the land, shall be contained in any instruments from the Redeveloper or from its successors and assigns to any future Grantee or to its successors and assigns covering the premises or any portion thereof or interest therein. All such covenants shall be enforceable by the Portland Renewal Authority and its successors and assigns.

c) All covenants relating to discrimination as presented in paragraph three (3) of this instrument, shall be covenants running with the land in perpetuity.

It is intended and agreed that the covenants provided in Paragraphs 1, 2, 3, and 4 shall be covenants running with the land binding to the fullest extent permitted by law and equity for the benefit and in favor of, and enforceable by, the Authority , its successors and assigns, the City, and any successor in interest to the property, or any part thereof, and the owner of any other land (or of any interest in such land) in the project area which is subject to the land use requirements and restirctions of the Urban Renewal Plan and the United States (in the case of the covenant provided in paragraph 3) against the Redeveloper, its successors and assigns, and every successor in interest to the Property or any part thereof or any interest therein, and any party in possession or occupancy of the Property or any part thereof.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said Portland Housing Authority, its successors and assigns, to its use and behoof forever and the Authority does covenant with the said Portland Housing Authority, its successors and assigns, that it will warrant and forever defend the premises to it the said Portland Housing Authority, its successors and assigns

forever against the lawful claims and demands of all persons claiming by, through or under it.

ATTEST:

Thomas F. Valleau
Secretary

PORTLAND RENEWAL AUTHORITY

By Charles W. Redman, Jr.
Charles W. Redman, Jr.
Chairman

ATTEST:

George G. Mulligan
Secretary

PORTLAND HOUSING AUTHORITY

By Thomas F. Monaghan
Thomas F. Monaghan
Chairman

STATE OF MAINE
COUNTY OF CUMBERLAND, SS

Portland, Maine

On this 1st day of June, 1970, personally appeared Charles W. Redman, Jr., to me personally known, who, being by me duly sworn, did say that he is the Chairman of the Portland Renewal Authority; that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by the authority of its commission; and that said Charles W. Redman, Jr. acknowledged said instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,

Justice of the Peace
Notary Public

STATE OF MAINE
COUNTY OF CUMBERLAND, SS

Portland, Maine

On this 1st day of June, 1970, personally appeared Thomas F. Monaghan, to me personally know, who, being by me duly sworn, did say that he is the Chairman of the Portland Housing Authority; that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by the authority of its commission; and that said Thomas F. Monaghan acknowledged said instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,

X
Justice of the Peace
Notary Public

JUN 2 1970

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 1 H 41 M P.M. and recorded in
BOOK 3129 PAGE 374 Edward P. Thyng Register

OPTION TO PURCHASE AND LEASE AGREEMENT
(COMB Block Phase 1 – Land Only)

THIS OPTION TO PURCHASE AND LEASE AGREEMENT ("Agreement") dated this 11th day of March, 2024, is by and among PORTLAND HOUSING AUTHORITY, a public body corporate and politic organized as Maine municipal housing authority having a mailing address of 970 Baxter Boulevard, Portland, ME 04103 ("PHA"), PORTLAND HOUSING DEVELOPMENT CORPORATION, a Maine nonprofit corporation having a mailing address of 970 Baxter Boulevard, Portland, ME 04103 or its assigns ("PHDC"), and COMB BLOCK PHASE ONE, LP, a Maine limited partnership having a mailing address of 970 Baxter Boulevard, Portland, ME 04103, or its assigns ("LP") .

RECITALS

WHEREAS, PHA is the owner of a certain parcel of land at 20 & 24 Mayo Street and 9 & 25 Boyd Street, Portland, Maine and all improvements, buildings and fixtures presently on said land (the "Property"); and

WHEREAS, PHA has applied to the Department of Housing and Urban Development Special Application Center ("HUD") for authority to demolish the existing buildings, to remove the Property from the Public Housing Program through a disposition under Section 18 of the United States Housing Act of 1937 (collectively, the "Disposition"), and develop new Project Based Section 8 affordable housing (the "New Project"); and

WHEREAS, in order to facilitate the New Project, PHA wishes to grant to PHDC and option to purchase a portion of the Property approximately shown on the survey attached hereto as **Exhibit A** (the "Premises") on the terms set forth herein;

WHEREAS, in order to facilitate the financing and development of the New Project using Federal Low Income Housing Tax Credits ("LIHTC"), PHDC wishes to grant to LP an option to lease the Premises through a long-term ground lease on the terms set forth herein (the "Ground Lease").

NOW, THEREFORE, in consideration of one dollar ($1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Option Period; Exercise of Option. PHA hereby grants PHDC the option to purchase the Premises (the "Purchase Option") for a period extending through December 31, 2027 (the "Option Period"). Concurrent with the Purchase Option and for the Option Period, PHDC hereby grants LP an option to lease the Premises (the "Lease Option" and collectively with the Purchase Option, the "Options").

    a. PHDC and LP may exercise the Options at any time during the Option Period by giving written notice to PHA of their intent to exercise the Option (the "Option Notice"). Said Option Notice shall also serve as notice to PHDC of LP's desire to exercise the Lease Option. An Option Notice signed by both PHDC and LP and

delivered to PHA by hand or certified mail, return receipt request is sufficient notice of both Options.

b. The Options and the obligation of PHA, PHDC and LP to perform their respective obligations hereunder shall be conditional upon (i) approval by HUD of Disposition (ii) receipt of all required municipal and state approvals for the development of the New Project; (iii) an award of LIHTC for the New Project.

2. Purchase Price. Subject to adjustment as set forth below, PHDC shall pay PHA a purchase price equal to One Dollar ($1.00) (the "Purchase Price") plus any additional amount that HUD may require be paid to PHA in connection with the Disposition.

3. Lease Terms. If the Lease Option is exercised, the Ground Lease from PHDC to LP will be for a term of 95 years, with rent due for entire term equal to $10.00 and all operating expenses to be paid by LP, or such other terms as the lenders and investors for the New Project may require.

4. Closing. If PHDC and LP exercise the Options, closing shall take place at a date, time and location mutually agreed upon by PHA, PHDC and LP ("Closing").

5. Conditions to Closing. If PHDC and LP exercise the Options, the following terms and provisions shall apply:

a. PHA, PHDC, and LP respective obligations to close on the transactions contemplated herein shall be conditioned upon (i) approval of the Disposition by HUD; (ii) receipt of all required municipal and state approvals for the New Project; (iii) and an award of LIHTC for the New Project.

b. Title to the Premises shall be conveyed to PHDC by good and sufficient Quitclaim Deed with Covenant, free from encumbrances except provisions of existing building and zoning laws and any covenants and/or easements of record provided same do not interfere with the intended use of the New Project; such real estate taxes for the then current tax period which are not due and payable on the date of delivery of such deed; utility and access easements in common with areas retained by PHA's, and any matters of record which in PHDC and LP's opinion does not interfere with the New Project. PHDC and LP shall notify PHA of any defects in title that would make PHA unable to give title to the Premises as herein stipulated. PHA shall be obligated to proceed in good faith to cure any such title defect(s). If required, the Closing shall be extended to allow PHA time to cure any such title defects, but in no event shall the Closing be extended more than thirty (30) days for such purposes. If a title defect exists, PHDC and LP may elect, by written notice to PHA, either (i) to accept title to the Premises subject to any uncured defects in title or (ii) to terminate the Option, whereupon any extension fee(s) paid by PHDC or LP to PHA shall be immediately refunded to PHDC or LP as the case may be, the obligations of all parties hereunder shall cease, and neither party shall have any claim against the other by reason of this Agreement;

c. Each party shall pay one-half of the Maine state transfer tax unless one of the parties is exempt, in which case no transfer tax shall be due from the exempt party.

6. Representations.

a. PHA represents, covenants and warrants to PHDC and LP that:

i. PHAis the current owner of the Premises, and, subject to approval by HUD, has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by PHA of the obligations hereunder will not conflict with, or result in breach of any regulation, order, judgment, injunction or decree of any court or governmental authority or any agreement or instrument to which PHA is a party or by which PHA is bound.

ii. There are no agreements or contracts affecting the Premises or any use of the Premises that would not be terminable at will by PHDC without penalty from and after the Closing, other than those for which PHA will be seeking approval from HUD in connection with its Disposition application.

b. PHDC represents, covenants and warrants to PHA and LP that PHDC has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by PHDC of its obligations hereunder: (i) have been duly authorized by all requisite action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization of PHDC or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which PHDC is a party or by which it is bound.

c. LP represents, covenants and warrants to PHA and PHDC that LP has the legal right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and the execution and delivery of this Agreement and the performance by LP of its obligations hereunder: (i) have been duly authorized by all requisite action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization of LP or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which LP is a party or by which it is bound.

7. Notice. Whenever notice is given or required to be given by either of the parties hereto to the other, it shall be deemed to have been given if in writing and mailed by certified or registered mail, return receipt requested, postage prepaid, or hand delivered, addressed to the parties at the address set forth in the first paragraph above or to such other address(es) as either party shall have last designated by like notice in writing. All notices shall be effective upon hand delivery or mailing, whichever first occurs.

8. Further Assurances. The parties agree that up to and after the date of Closing, they shall do such things and execute, acknowledge and deliver any and all additional instruments,

documents and materials as either party may reasonably request to fully effectuate the purposes of this Agreement.

9. Buyer's Access. PHDC and LP and others whom they may designate shall have the right, at all reasonable times, at PHDC or LP's sole cost and expense, risk and hazard, to enter upon the Premises to examine and/or show the same and make, or cause to be made, engineering studies with respect thereto, including, without limitation, surveying, conducting test borings in order to determine sub-soil conditions, and in general conducting all other tests, analysis and studies of the Premises which PHDC or LP deems prudent in connection with the Disposition and the New Project. PHDC or LP (as the case may be) shall restore the Premises following any testing as reasonably as possible to its pre-existing condition, unless otherwise agreed by PHA.

10. Construction of Agreement. This instrument, executed in duplicate, is to be construed as a Maine contract, is to take effect as a sealed instrument, sets forth the entire contract between the parties, is binding upon and inures to the benefit of the parties hereto and their respective heirs, devisees, executors, administrators, successors and assigns, and may be canceled, modified or amended only by a written instrument executed by PHA, PHDC and LP. The captions are used only as a matter of convenience and are not to be considered a part of this Agreement or to be used in determining the intent of the parties to it. Time is of the essence with respect to all dates set forth in this Agreement.

11. Risk of Loss. At all times until Closing, the risk of loss shall remain with PHA.

12. Assignment. PHDC or LP may assign their interest in this Agreement to any party affiliated with PHDC or LP and formed for the purpose of carrying out the New Project.

Remainder of Page Intentionally Blank – Signature Page to Follow

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

PORTLAND HOUSING AUTHORITY
By: _____
Brian Frost
Its: Executive Director

PORTLAND HOUSING DEVELOPMENT CORPORATION
By: _____
Brian Frost
Its: President

COMB BLOCK PHASE ONE, LP
By: COMB Block Development, LLC
By: _____
Brian Frost
Its: President

STATE OF MAINE

COUNTY OF CUMBERLAND, SS. March 11, 2024

Personally appeared the above-named, Brian Frost, Executive Director of Portland Housing Authority, President of Portland Housing Development Corporation, and President of PortHouse, LLC, the general partner of Franklin Towers, LP and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the foregoing entities.

Before me,

_____
Notary Public/Attorney at Law

Printed Name

Cynthia R. LaRochelle
Notary Public - Maine
My Commission Expires
11/09/2027

EXHIBIT A

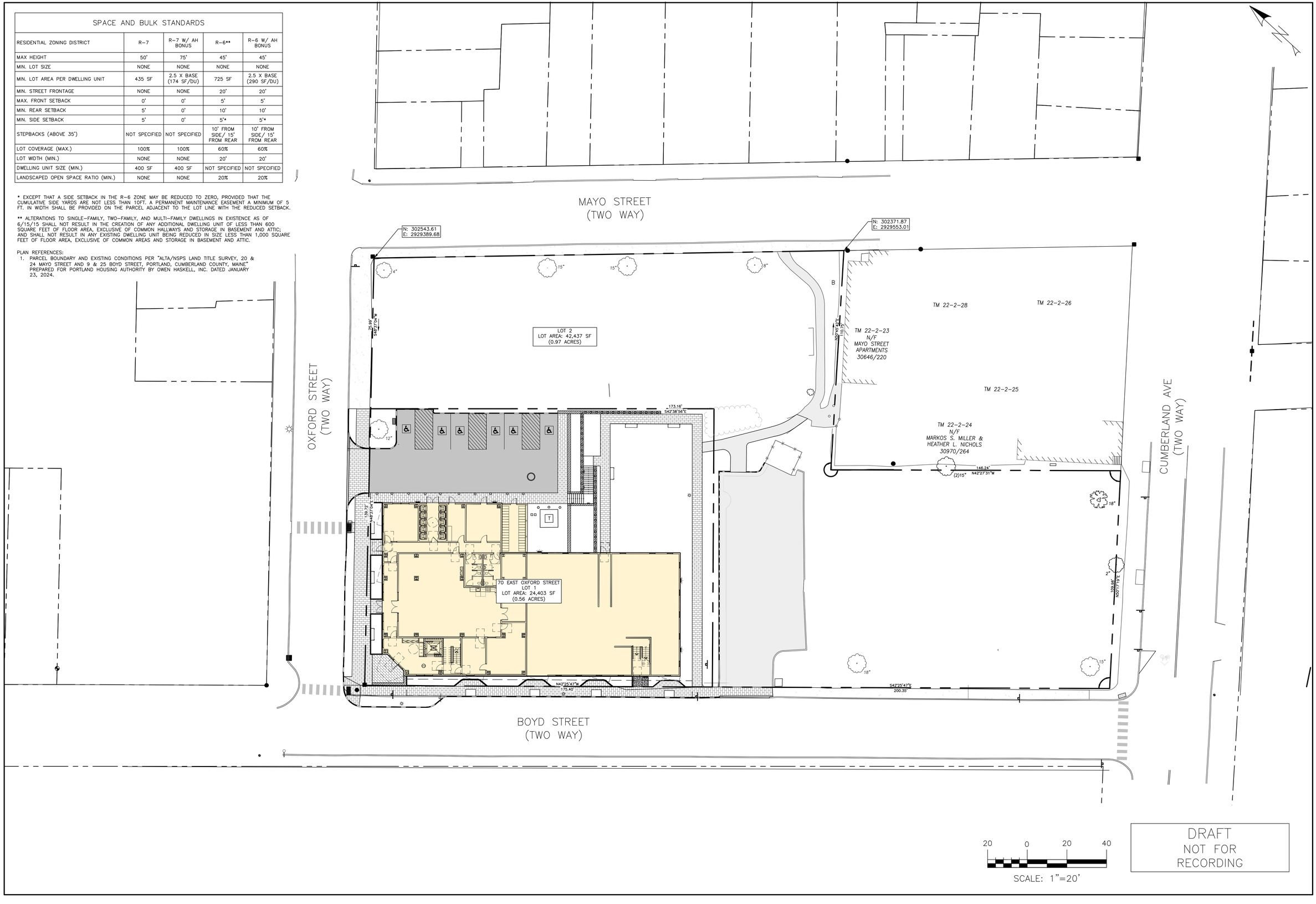
SPACE AND BULK STANDARDS				
RESIDENTIAL ZONING DISTRICT	R-7	R-7 W/ AH BONUS	R-6**	R-6 W/ AH BONUS
MAX HEIGHT	50'	75'	45'	45'
MIN. LOT SIZE	NONE	NONE	NONE	NONE
MIN. LOT AREA PER DWELLING UNIT	435 SF	2.5 X BASE (174 SF/DU)	725 SF	2.5 X BASE (290 SF/DU)
MIN. STREET FRONTAGE	NONE	NONE	20'	20'
MAX. FRONT SETBACK	0'	0'	5'	5'
MIN. REAR SETBACK	5'	0'	10'	10'
MIN. SIDE SETBACK	5'	0'	5'*	5'*
STEPBACKS (ABOVE 35')	NOT SPECIFIED	NOT SPECIFIED	10' FROM SIDE/ 15' FROM REAR	10' FROM SIDE/ 15' FROM REAR
LOT COVERAGE (MAX.)	100%	100%	60%	60%
LOT WIDTH (MIN.)	NONE	NONE	20'	20'
DWELLING UNIT SIZE (MIN.)	400 SF	400 SF	NOT SPECIFIED	NOT SPECIFIED
LANDSCAPED OPEN SPACE RATIO (MIN.)	NONE	NONE	20%	20%

* EXCEPT THAT A SIDE SETBACK IN THE R-6 ZONE MAY BE REDUCED TO ZERO, PROVIDED THAT THE CUMULATIVE SIDE YARDS ARE NOT LESS THAN 10FT. A PERMANENT MAINTENANCE EASEMENT A MINIMUM OF 5 FT. IN WIDTH SHALL BE PROVIDED ON THE PARCEL ADJACENT TO THE LOT LINE WITH THE REDUCED SETBACK.

** ALTERATIONS TO SINGLE-FAMILY, TWO-FAMILY, AND MULTI-FAMILY DWELLINGS IN EXISTENCE AS OF 6/15/15 SHALL NOT RESULT IN THE CREATION OF ANY ADDITIONAL DWELLING UNIT OF LESS THAN 600 SQUARE FEET OF FLOOR AREA, EXCLUSIVE OF COMMON HALLWAYS AND STORAGE IN BASEMENT AND ATTIC; AND SHALL NOT RESULT IN ANY EXISTING DWELLING UNIT BEING REDUCED IN SIZE LESS THAN 1,000 SQUARE FEET OF FLOOR AREA, EXCLUSIVE OF COMMON AREAS AND STORAGE IN BASEMENT AND ATTIC.

PLAN REFERENCES:

1. PARCEL BOUNDARY AND EXISTING CONDITIONS PER "ALTA/NSPS LAND TITLE SURVEY, 20 & 24 MAYO STREET AND 9 & 25 BOYD STREET, PORTLAND, CUMBERLAND COUNTY, MAINE" PREPARED FOR PORTLAND HOUSING AUTHORITY BY OWEN HASKELL, INC. DATED JANUARY 23, 2024.



DRAFT
NOT FOR
RECORDING

ISSUED FOR	BY / DATE
CONCEPT	MKT 3/11/2024

DRAWING NAME: SUBDIVISION PLAT

PROJECT NAME: 70 EAST OXFORD STREET REDEVELOPMENT

CLIENT: PORTLAND HOUSING AUTHORITY
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE:	1215_CIVIL
JN:	####
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	DSH
CHECKED BY:	WHS

DRAWING NO.
PLAT-1

E. Summary of Written Easements

Exiting Easements:

There are no existing easements shown on the plan titled ALTA / NSPS Land Title Survey dated December 22, 2023, prepared by Owen Haskell, Inc.

Proposed Easements:

There are no proposed easements as part of this project.

F. Site Plan Standards Assessment

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 14, Section 6 - Site Plan Review Standards.

OVERVIEW

The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

14.6.1 Transportation Standards

A. Impact on Surrounding Street Systems:

1. The project will not generate 100 or more cars during peak hour; therefore, a Traffic Movement Permit will not be required. The project is not anticipated to create any significant hazard to safety on the surrounding street network. Vehicular access to the site will be updated per technical manual standards, including providing continued accessible parking for the adjacent Bayside Anchor building. The proposed reconstructed parking area may also be used by vehicles servicing the proposed building.

2. No substantial increase in congestion on any streets is anticipated.

B. Access and Circulation:

1. In general:

a. Internal sidewalks are provided to allow for site circulation. Internal sidewalks will be constructed to meet ADA standards, providing pedestrian access to and from the building entrances, public sidewalk system, and the open space on site.

b. An internal sidewalk system will provide continuous access to the existing public street/sidewalk system, building entrances, and the open space on site.

c. The proposed driveway location will match the existing driveway location. No points of conflicts with turning movements and traffic flows are anticipated.

d. The proposed site uses do not require stacking capacity.

2. Loading and Servicing: It is anticipated that the loading and servicing of the proposed building will be primarily from the parking area. Due to the low use of the parking area, no conflicts are anticipated with parking or site circulation.

3. Curb and Sidewalks:

   a. Curbing and sidewalks along project frontages on Boyd and Oxford Streets will be reconstructed to City of Portland standards as shown on C-10 Site Plan.

   b. Since existing sidewalks along project frontages do not meet current City standards, they will be reconstructed to City standards as shown on C-10 Site Plan and details.

   c. Not applicable.

   d. Not applicable.

C. Public Transit Access:

1. The project is not proposed along any existing transit routes, therefore does not need to provide a transit shelter.

2. Not applicable – no transit facilities are proposed.

3. Not applicable – no transit facilities are proposed.

D. Parking:

1. Vehicular parking:

   a. Per table 19-B: Categorical Exceptions to Off-Street Parking Minimum, the Planning Board may establish a lesser parking requirement for affordable housing regardless of the size of the structure. The parking spaces on-site that will be reconstructed as part of the project will serve the adjacent Bayside Anchor buildings, so it is respectfully requested that the board reduce the parking requirement for the project to zero spaces. The project is proposed in an urban area of the city, and is within a walkable distance to many amenities that will be necessary for residents, including being within a walkable distance to existing Metro routes. Portland Housing Authority has an extensive waiting list for families seeking housing, and many of the families do not own vehicles. Therefore, the project will not require parking in order to serve prospective residents.

   b. Not applicable – no parking study is required for the proposed development.

   c. Not applicable – the project will not exceed minimum parking requirements.

   d. The 5 ADA spaces & 1 EV ADA space meet ADA & City design standards. A waiver is being sought to reduce the aisle width from 24' to 22'.

2. Bicycle Parking

   a. Bicycle parking for the proposed development is provided in a dedicated bike room on the east side of the building. The bike room will provide racks for a minimum of 20 bikes, as is required by Table 19-A (2spaces/5 units).

   b. Not applicable – no waiver is sought to reduce the number of bicycle parking spaces on the site.

3. Snow Storage:

   a. Excess snow accumulated during large storm events will be trucked off site.

   b. Excess snow accumulated during large storm events will be trucked off site. to all pedestrian walkways and parking areas remain clear.

4. Electric Vehicle (EV) charging

   a. Of the 6 ADA parking spaces provided, one space shall be constructed with an EV charger to meet the Technical Manual Requirements. Conduit will be installed for an additional 3 spaces to be "EV Ready".

E. Transportation Demand Management (TDM):

1. A Transportation Demand Management plan is not required for this project.

2. Not applicable – no TDM plan is prepared for the project.

14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features:

1. The development shall preserve and protect significant natural features by incorporating them into site design:

   a. Not applicable - there are no known populations of trees and plants listed on the Official List of Endangered and Threatened Plants in Maine. The area is not listed as habitat of endangered species per the Maine Natural Areas program maps.

   b. Not applicable - there are no known species appearing on the list of endangered or threatened animal species in the project vicinity.

   c. Not applicable - the project will not impact any high or moderate value waterfowl and wading bird habitat.

   d. Not applicable - the project is not located in an aquifer on island.

e. Not applicable – no waterbodies exist in the project vicinity.

2. Not applicable - there are no habitat blocks set aside for preservation in the project vicinity.

3. Not applicable – no waiver is being sought for preservation of significant natural features.

B. Landscape Preservation:

1. 4 trees will be removed due to the scale of the proposed building. One existing 12" tree will be preserved and incorporated into the site design, adjacent to the driveway entrance. Please refer to the attached landscaping narrative for additional information.

2. Adequate protection measures will be taken to protect existing trees and vegetation to be preserved from construction impacts. Tree protection requirements are shown on plan sheet C-42. Please refer to the attached landscaping narrative for additional information.

3. Not applicable – the project is not subject to zoning setbacks per R-7 zoning with affordable housing bonus.

4. Not applicable – since the project is not subject to zoning setbacks, tree preservation is not required.

5. Not applicable – Since the project is not subject to zoning setbacks, tree preservation is not required.

C. Site landscaping and buffers.

Please refer to the attached landscaping narrative for additional information.

D. Water Quality, Stormwater Management and Erosion Control:

1. Stormwater

a. The drainage patterns for stormwater draining onto the lot in its pre-development state will generally be maintained post-development.

b. There will be no increase in volume or rate of stormwater draining from the lot onto adjacent lots or City property. See attached Stormwater Management Report for more information.

c. There will be no increase in volume or rate of stormwater entering the city's separated storm drain system. See attached Stormwater Management Report for more information.

2. The development will be subject to Chapter 5, Section II.D. requirements for redevelopment projects. Since greater than 5,000 sf of non-roof impervious area will be redeveloped, the project is subject to General Standards for no less than 50% of the redeveloped area. This requirement is exceeded. Stormwater treatment is provided with a StormFilter proprietary BMP. See attached Stormwater Management Report for more information. Additionally, the project is subject to Basic Standards. See attached Erosion and Sediment Control Report for information on how the project will meet these standards.

3. The development is not anticipated to pose a contamination risk to groundwater during or after construction.

14.6.3 Public Infrastructure and Community Safety Standards

A. Consistency with City Master Plans:

1. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure. Additionally, the project will be consistent with City Council-approved Master Plans and Projects as is shown in the following:
   a. Bayside Tree Planting Surge: Sidewalks along the project frontage are shown in the ARPA Tree Planting Project as significant to maximum viability for a high need for trees and favorable conditions for tree survival with appropriate infrastructure. As such, street trees will be provided along the streets as required in the City Technical Manual.

2. Not applicable – no off-premises public infrastructure is proposed as part of the project.

B. Public Safety and Fire Prevention:

1. Public Safety Design
   a. The proposed site design will promote natural surveillance as proposed open spaces are visible from Boyd and Oxford Streets, as well as visible from the proposed building.

   b. The building will have an adequate lock system to prevent unauthorized access. It is anticipated that Portland Housing Authority will regularly if not continuously have staff at the proposed building who will monitor the site.

   c. The proposed open space and parking lot on the site are separated from the public way, providing territorial reinforcement to promote a sense of ownership.

2. Emergency vehicles will be able to access the parking area via the driveway on Oxford Street, and they will be able to access the open space portion of the site from the driveway on Boyd Street.

C. Public Utilities:

1. The project will not over-burden City sanitary sewer, storm drains, or other public utilities. An outlet control structure is provided for peak flow control and provide no increase in volume or rate of stormwater draining into the City Storm Drain System. See attached Stormwater Management Report for more information on peak flows. Utility providers have been contacted for their ability to serve the proposed project. Confirmations received are included in this submission in the Utilities section & others will be forwarded to the city upon receipt.

2. The proposed building will be served via underground electrical conduit, with a riser proposed on the utility pole along Boyd Street across from the project parcel.

3. All storm drain, sanitary sewer, and water supply lines will be constructed in accordance with the standards of the Technical Manual.

4. The building will be connect to the existing sanitary sewer main along Boyd Street.

5. The proposed building will have an interior trash room, which will open to the proposed parking lot on the northeast side of the building. The trash will be removed from the building in a timely manner. Storage for recyclable containers shall be separated from trash containers within the trash room.

14.6.4 Site Design Standards

A. Massing, Ventilation and Wind Impact:

1. See Section O. Architectural Design Narrative.

2. See Section O. Architectural Design Narrative.

3. See Section O. Architectural Design Narrative.

B. Shadows: See Section O. Architectural Design Narrative.

C. Snow and Ice Loading: See Section O. Architectural Design Narrative.

D. View Corridors: Not applicable – the proposed development is not within any view corridors identified in the Downtown Vision View Corridor Protection Plan.

E. Historic Resources:

1. Not applicable - there are no known historic landmarks present on site. The site does not fall within any designated historic districts or historic landscape districts.

2. Not Applicable - the proposed development is not within 100' of a historical landmark or district. The nearest historical landmark to the project is the Cathedral of Immaculate Conception at 307 Congress St, which is approximately 280' away from the proposed building.

3. Not applicable - the site does not contain any state or local archeological resources.

F. Exterior Lighting:

1. Site Lighting.

   a. All proposed lighting shall meet Technical Manual standards. A lighting plan is included within the proposed plan set and lighting cut sheets are provided in a separate section of the application.

   b. It is not anticipated that any light from the development will adversely impact adjacent residential properties.

2. Architectural and Specialty Lighting.

   a. No architectural or specialty lighting is anticipated.

   b. No up-lighting is proposed.

3. Street Lighting: Proposed street lighting shall meet Technical Manual Standards.

G. Noise and Vibration:

1. See Section X. Architectural Design Narrative.

H. Signage and Wayfinding:

1. Signage

   a. Not applicable.

2. Wayfinding: No wayfinding signage is proposed as part of the development at this time.

I. Design Standards:

1. The project has been designed to meet the standards set forth in R7 Residential Overlay Zone. Please refer to the Site Plan & Zoning Assessment for more information on the zone-specific space & bulk standards, and Section O. Architectural Design Narrative for further info on how the zone-specific standards are met.

dry landscape architecture l.l.c.

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March 12, 2024

Mark Reiland - City of Portland Arborist
Parks, Recreation & Facilities
Forestry, Parks & Horticulture
212 Canco Road - Suite A
Portland, ME. 04103

Subject: Tree Removals & COMB Block Redevelopment

Dear Mark,

I am writing to inform you of the planned removal of four existing trees on Oxford Street and Boyd Street. As part of our ongoing planning and site development project at 25 Boyd Street.

The proposed development will consist of the demolition of the 25 Boyd Street building and the construction of a 6-story 50-unit affordable housing building. The phase 1project plan seeks to maximize the site to provide streetscape enhancements within the public realm along with interior site improvements that address accessibility concerns and provide accessible interior open space for residents. We have assessed the existing conditions and our design team have gone through an extensive planning process. A large part of the initial study was understanding the neighborhood and taking an inventory of the trees onsite. Our inventory has identified 4 existing trees for removal for the phase one development on the corner of East Oxford Street and Boyd Street.

Trees identified for removal are as follows:

East Oxford Street:

1. (1) 15" Zelkova
2. (1) 6" Maple

Internal Site Trees

1. (1) 28" Ash Tree
2. (1) 30" Ash Tree

Our conversations to date have outlined the proposed plans and the existing trees listed above. We understand that there is a desire to try and preserve the 15" Zelkova Tree at the corner of Oxford and Boyd Street. While the design team understands the value of maintaining existing urban tree canopy, the need to address tricky site conditions while providing adequate housing, parking, amenities for the neighborhood, and future residents we believe the best case is to move forward with the removal of the 15" Zelkova. Our team does not take the removal of street trees lightly and the decision to move ahead with the removal request comes after careful

consideration. The proposed plan includes the retention of a 12" caliper Honey Locust on East Oxford Street, the planting of 11 new street trees along Boyd and East Oxford Street, sand based structural soil, streetscape improvements including brick sidewalks, seating, a new traffic calming bump out, and planted esplanade along Oxford Street to match the streetscape along the Bayside Anchor building. The site's interior will be planted with a mix of canopy trees, understory trees, shrubs, and accent plantings. A total of 18 trees are being proposed. The project also proposes 30% of the site as open space consisting of 10% hardscape open space and 20% landscaped open space. The remaining street trees will be provided through a contribution to the city of Portland tree fund. With the planting of the proposed trees and contribution to the tree fund, the application will meet the minimum street tree planting requirements.

Please note that every effort will be made to minimize the environmental impact of this removal process. We are committed to implementing proper tree removal techniques to ensure the safety of our workers, protect surrounding vegetation, and mitigate any potential disruptions.

Additionally, we understand the importance of preserving green spaces and are committed to offsetting the loss of these trees by incorporating new planting initiatives into our site development plans as stated above. Our goal is to maintain a sustainable and environmentally responsible approach throughout the entirety of the project.

We would be happy to meet onsite and discuss the plans further. If you have any questions or concerns regarding this tree removal plan, please do not hesitate to contact me at Dry-la@outlook.com or you can reach me at (603)496-8020. We value your input and are open to discussing any alternative solutions that may align with our project goals while addressing your concerns. We are committed to keeping the community informed throughout the process and working together to create a balance between progress and preserving our natural environment.

Thank you for your attention to this matter. We appreciate your understanding and cooperation as we work towards the successful completion of the COMB block project.

Sincerely,

Braden Drypolcher, Principal
Dry Landscape Architecture, LLC.



dry landscape architecture l.l.c.

G. Financial Capacity

A letter from the Applicant confirming financial capacity is attached to this section.

PORTLAND HOUSING DEVELOPMENT CORPORATION

Financing Capacity
COMB Block Phase 1

Portland Housing Development Corporation (PHDC), an instrumentality of Portland Housing Authority (PHA), self-certifies it has the financial capacity and experience to secure financing and complete the redevelopment of COMB Block. Assembly of financing is in the early stages and will be completed within the development timeline based on PHDC's existing relationships and strong track record.

PRE-DEVELOPMENT

PHDC self-finances pre-development expenses with unrestricted funds and is reimbursed at construction loan closing.

CONSTRUCTION FINANCING

PHDC has several relationships with banks and will be selecting a bank partner for construction financing. Typical terms are expected for this loan, which will extend the duration of the construction period with interest-only payments at a market-based interest rate typical of such loans. PHDC has successfully obtained construction financing on multiple projects in recent years, including $2.5 million at Bayside Anchor (81 E. Oxford St), $8.2 million at Solterra Apartments (58 Boyd St), and $12.2 million at Washington Gardens (577 Washington Ave).

LOW INCOME HOUSING TAX CREDIT

In the past five years, PHDC has been awarded eight Low Income Housing Tax Credits (LIHTC) awards for Solterra Apartments, Washington Gardens, Front Street Phases 1 and 2, 337 Cumberland Ave, Equinox Apartment, Winter Landings and Harbor Terrace. These include both 9% and 4% LIHTC deals.

It is expected COMB Block Phase 1 will be submitted this fall to the competition for a 9% allocation award for Low Income Housing Tax Credits (LIHTC) from MaineHousing. The tax credits will generate equity to fund redevelopment. A tax credit investor will be identified after notice of an award.

Our organization is experienced in and knowledgeable of the competitive nature of the LIHTC funding rounds and have maximized our points for this project under the latest Qualified Allocation Plan (QAP). **Planning Board approval by August 2024 will provide COMB Block with additional "readiness" QAP points and is essential for the project to secure a LIHTC award in the upcoming application round.**

PERMANENT FINANCING

PHDC will secure an interest-only permanent senior loan for the project from either MaineHousing or a private bank. PHDC has successfully obtained permanent financing or commitments for permanent

financing on multiple projects in recent years, including $2.6 million at Bayside Anchor, $8.5 million at 58 Boyd St, $8.8 million at Washing Gardens, and $15.2 million at Harbor Terrace.

PHDC anticipates securing Affordable Housing Program (AHP) funds from the Federal Home Loan Bank of Boston.

PHDC anticipates applying for a City Housing Trust Fund award from the City of Portland.

OPERATING SUBSIDY

The COMB Block currently operates as Public Housing. Using HUD's Section 18 Demolition & Disposition program, the project is eligible to receive up to 40 Section 8 Project Based Vouchers (PBVs). The project will benefit from PBVs, guaranteeing that those households will pay no more than 30% of their income towards housing costs.

STAFF EXPERIENCE & CAPACITY

PHDC staff have over 30 years of experience in real estate development, sustainable design, community planning, finance, and construction. They have collectively developed nearly 2,000 affordable homes in their careers. PHDC utilizes private and public financing to renovate PHA's aging multifamily housing stock and create new units of attractive, affordable and workforce housing for Portland residents. Our real estate development team is practiced in environmentally responsible building techniques, smart growth planning and community revitalization. This experience allows PHDC to secure and assemble project financing from a broad range of local, state, and federal sources.

PHDC's new construction and preservation projects provide residents with quality, energy-efficient homes in growing Portland neighborhoods and areas of opportunity. These projects help foster sustainable and diverse and vibrant communities near transit, schools, services, and jobs. PHDC's efforts, in concert with public and private partnerships, encourage community revitalization, create essential affordable housing opportunities, and contribute to a better built environment for future generations.

H. Technical Capacity

A letter from the Applicant summarizing & confirming technical capacity is attached to this section.

PORTLAND HOUSING DEVELOPMENT CORPORATION

Technical Capacity
COMB Block Phase 1

Portland Housing Development Corporation (PHDC), an instrumentality of Portland Housing Authority (PHA), 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 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.

PHDC staff have over 30 years of experience in real estate development, sustainable design, community planning, finance, and construction. They have collectively developed nearly 2,000 affordable homes in their careers. PHDC utilizes private and public financing to renovate PHA's aging multifamily housing stock and create new units of attractive, affordable and workforce housing for Portland residents. Our real estate development team is practiced in environmentally responsible building techniques, smart growth planning and community revitalization. This experience allows PHDC to secure and assemble project financing from a broad range of local, state, and federal sources.

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PORTLAND HOUSING AUTHORITY
Owner
970 Baxter Blvd., Portland, ME 04103
207-773-4753
Contact: Brian Frost, Executive Director

COMB BLOCK PHASE ONE, LP
C/O Portland Housing Development Corporation
Applicant
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207-773-4753
Contact: Sarah Tatarczuk, Development Officer

RYAN SENATORE ARCHITECTURE
Architect
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Contact: Ryan Senatore, Principal

ACORN ENGINEERING, INC
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Contact: Peter Heil, Project Manager

DRY LANDSCAPE ARCHITECTURE, LLC
Landscape Architect
603-496-8020
Contact: Braden Drypolcher, Principal

OWEN HASKELL, INC
Surveyor
390 US Route One, Unit 10, Falmouth, ME 04105
207-774-0424
Contact: Randy Loubier, Professional Land Surveyor

DRUMMOND WOODSUM
Attorney
84 Marginal Way, Suite 600, Portland, ME 04101-2480
207-772-1941
Contact: Gary Vogel

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.
Technical Manual Section 1.10.3	The minimum two-way drive aisle width is 24 feet for standards, right-angle parking.	Reducing the two-way parking lot drive aisle to 22'	Reduced drive aisle width will keep the parking area on the parcel and remove the requirement to get an easement for use on the adjacent parcel. The reduction will reduce impervious area while providing adequate circulation.

A C O R N
ENGINEERING, INC.

STORMWATER MANAGEMENT REPORT

Prepared For:

COMB Block Phase One, LP
970 Baxter Boulevard
Portland, ME 04103

Prepared By:

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104



March 2024

INTRODUCTION

Acorn Engineering, Inc. has been retained by COMB Block Phase One, LP to provide civil engineering services for the proposed work located at 70 East Oxford Street, Portland, ME 04101. The site is currently comprised of four (4) apartment buildings with surface parking and landscaping. The property consists of approximately 1.53 acres of land near Portland's Franklin Arterial. The proposed project is subject to stormwater treatment due to redevelopment of non-roof impervious area greater than 5,000 sf.

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the City of Portland (the City):

- City of Portland Land Use Ordinance Article 14.6.2.D.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.
- City of Portland Code of Ordinances Chapter 32 – Post-Construction Stormwater Management
- DPW Specific Standard: Provide a minimum detention volume of 1" of rainfall over the entire project redeveloped area being proposed on the parcel with a maximum outflow rate of 0.1 CFS per acre until the storage is maximized.

EXISTING CONDITIONS

The proposed project site is located at 70 East Oxford Street, bounded by Boyd Street, Mayo Street and Cumberland Avenue. An ALTA/NSPS Land Title Survey has been prepared by Owen Haskell, Inc., dated December 22, 2023.

The existing property is covered by approximately 49.6% impervious surfaces including the four (4) apartment buildings, pavement, and concrete.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces, a field inventory of significant natural features was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The project proposes to demolish the existing (4) buildings located on the parcel of the 70 East Oxford Street development and construct a proposed 50-unit apartment building. The project also includes various parking, utility, and landscape improvements.

The proposed stormwater system will capture runoff from the roof, parking, hardscaped, and landscaped areas and convey to the subsurface detention and treatment BMPs in the parking area before discharging into the storm drain network in Oxford Street. The storm drain

network eventually enters back into the combined sewer system downstream of the project area. The stormwater detention will be provided by an R-tank system and treatment will be via a Stormfilter BMP. Pre-treatment will be provided by treatment rows within the R-tank system.

The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards, as well as meeting more stringent DPW standards for discharging into combined sewer systems.

GENERAL STANDARDS – WATER QUALITY

The proposed project was designed to provide primary water quality treatment through the use of a Stormfilter proprietary BMP. This proprietary system is an approved system per Appendix B. of the MDEP Volume III BMPs Technical Design Manual. A design review letter has been provided by the manufacturer, Contech, and is attached to this report as Attachment D of this report. Pretreatment for the system is provided by treatment rows within the R-tank detention system, which is an approved system per Appendix B of the Maine Stormwater BMP Manual. The stormwater treatment BMP is designed to provide treatment per City of Portland Technical Manual, Chapter 5 requirements. The Municipal code states: "*All projects not subject to requirements of an existing Site Law or Stormwater Management Law Permit that include redevelopment of non-roof impervious area greater than 5,000 square-feet and are subject to City of Portland review shall provide stormwater quality treatment in accordance with the General Standards for no less than 50% of the redeveloped impervious area.*"

Treatment Area

The development shall provide water quality treatment in accordance with the DEP Chapter 500 General Standards for no less than 50% of the redeveloped impervious area. The following is a summary of existing and proposed impervious area within the redeveloped portion of the site:

Table 1 – Treatment Area

Existing Impervious Area	Redeveloped Impervious Area	Redeveloped Impervious Area with Treatment
11,778	17,952	16,958 SF (94.5%)

In addition to the treatment of the redeveloped impervious area, the system is also size to treat additional impervious area for future development on the lot.

Stormfilter Sizing

The proposed Stormfilter BMP sizing is based on flows provided to Contech by Acorn in HydroCAD format. Contech has sized the Stormfilter system to be contained within 60" manhole and consist of (4) 27" Stormfilter cartridges. Please reference the attached Stormfilter Design Review Letter for further sizing information.

Please refer to Table 2 below for the required area calculations.

Table 2 – Total Filter Surface Area, displays the proposed USSF sizing requirement, actual size and the percentage of required area.

Table 2 – Total Filter Surface Area		
	Required Filter Area (SF)	Actual Filter Area (SF)
USSF	1,019	1,040

As shown, the size of the soil filter area will exceed the surface area requirements.

Pre-treatment R-tank Row Sizing

The R-tank stormwater detention system has been designed to incorporate treatment rows that will provide pre-treatment prior to discharging to the Stormfilter treatment BMP. The treatment rows have been sized to be able to handle the flow of the 1 yearr 24-hour storm, accounting for 0.02 cfs per Access Module. The total flow in the system is modeled as 1.86 cfs, requiring 93 R-tank Access Modules. See attached R-tank Design Review Letter for further sizing information.

FLOODING STANDARD – WATER QUANTITY

To meet the City's requirement of limiting the burden on the downstream combined sewer main, the project is subject to provide a minimum detention volume of 1" of rainfall over the entire project redeveloped area being proposed on the parcel with a maximum outflow rate of 0.1 CFS per acre during the design storm event (1 inch, 24-hour). The project will utilize an R-tank stormwater detention system before being discharged to an outlet control structure. The outlet control structure provides an orifice and weir system to control flows to the Stormfilter and also provides a bypass pipe for larger storm events.

See below table for the project redevelopment requirements and calculations for water quality volume.

Table 5 – DPW Detention Volume Requirement			
	Redeveloped Area (SF)	Total Detention Volume Required (CF)	Detention Volume Provided (CF)
R-tank	24,700	2,058	3,752*
* System has been up-sized to provide detention for potential future development			

To meet the 0.1 CFS per acre requirement. A 2" orifice will be installed within the weir of the outlet control structure. The 2" orifice will decrease the flow out of the R-tanks and as a result storage will be provided within the R-tank system. The flow out of the site into the city storm system is 0.08 cfs during the design storm event (1", 24-hour).

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively. Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering to round to the nearest whole number. However due to the small size of the project and the minimal existing flows, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 100 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered fair grass, and impervious areas consisted of either roof of existing building or pavement from parking lot.

Pre-Development

- Pavement, Walkways, Roofs – CN 98
- 75% Grass Cover – Good, HSG D – CN 80

Post-Development

- Pavement, Walkways, Roofs – CN 98
- >75% Grass Cover (new landscaping) – Good, HSG D – CN 80

Pre-development Calculations

The pre-development model was broken into two separate subcatchments.

- Subcatchment 1 – This tributary area include the interior and western of the site, which currently surface flows to Oxford Street where it enters the city storm drain system through a catch basin within Oxford Street.
- Subcatchment 2 – This tributary area includes the southern portion of the site and upper parking lot, which is currently caught by a drainage system and discharged to the storm drain system in Boyd Street.
- Subcatchment 3 – This tributary area includes the northeastern edge of the site, which currently surface flows to the Mayo Street gutter and enters the storm drain system through the manhole at the corner of Mayo St and Oxford St.

A pre-development watershed map developed for this project can be viewed in Attachment A and a copy of the HydroCAD calculations is included within Attachment C, of this report. Point of interest flow rates for the two sub catchments outlined above are as follows:

Table 6 – Pre-Development Peak Stormwater Flows			
	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI 1	1.7	2.7	3.6
POI 2	1.2	2.0	2.7
POI 3	0.5	0.9	1.1

Post-development Calculations

The post-development model was broken into three separate sub catchments.

- Subcatchment 1.1 – This tributary area includes the roof of the proposed multifamily building.
- Subcatchment 1.2 - This tributary area includes an area of the site that will be reserved for a future building. It is assumed impervious area.
- Subcatchment 1.3 – This tributary area includes the proposed parking area and landscaped open space in the interior of the site.
- Subcatchment 2.1 – This tributary area includes the southern portion of the site and upper parking lot, which is currently caught by a drainage system and discharged to the storm drain system in Boyd Street. The post-demolition condition is modeled in HydroCAD.
- Subcatchment 3.1 – This tributary area includes the northeastern edge of the site, which will surface flow to the Mayo Street gutter and enters the storm drain system through the manhole at the corner of Mayo St and Oxford St.

Total Peak flow rates for the post-development storm events are as follows:

Table 7 – Post-Development Peak Stormwater Flows			
	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
POI 1	1.6	2.5	3.5
POI 2	1.1	1.8	2.4
POI 3	0.2	0.3	0.4

The post-development calculations include changes to the land use and the compensation provided by the stormwater BMPs. It should be noted that the project is also reducing the

overall impervious area. As a result, the total peak flow rates in the post development are reduced in comparison to the total predevelopment flow rates for the 2, 10, & 25-year storms.

The following table represents a comparison of pre- development and post-development condition peak runoff rates for the proposed development and tributary area.

Table 9 – Comparison of Peak Flows						
POI	2-Year Storm Event (cfs)		10-Year Storm Event (cfs)		25-Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
POI 1	1.7	1.6	2.7	2.5	3.6	3.5
POI 2	1.2	1.1	2.0	1.8	2.7	2.4
POI 3	0.5	0.2	0.9	0.3	1.1	0.4

A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 1 - "K" Value		
Soils Type	**Subsurface**	**Substratum**
Deerfield Loamy Fine Sand	0.17	0.17
Hinckley Loamy Sand	0.17	0.17

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County.

CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management from several perspectives as outlined above.

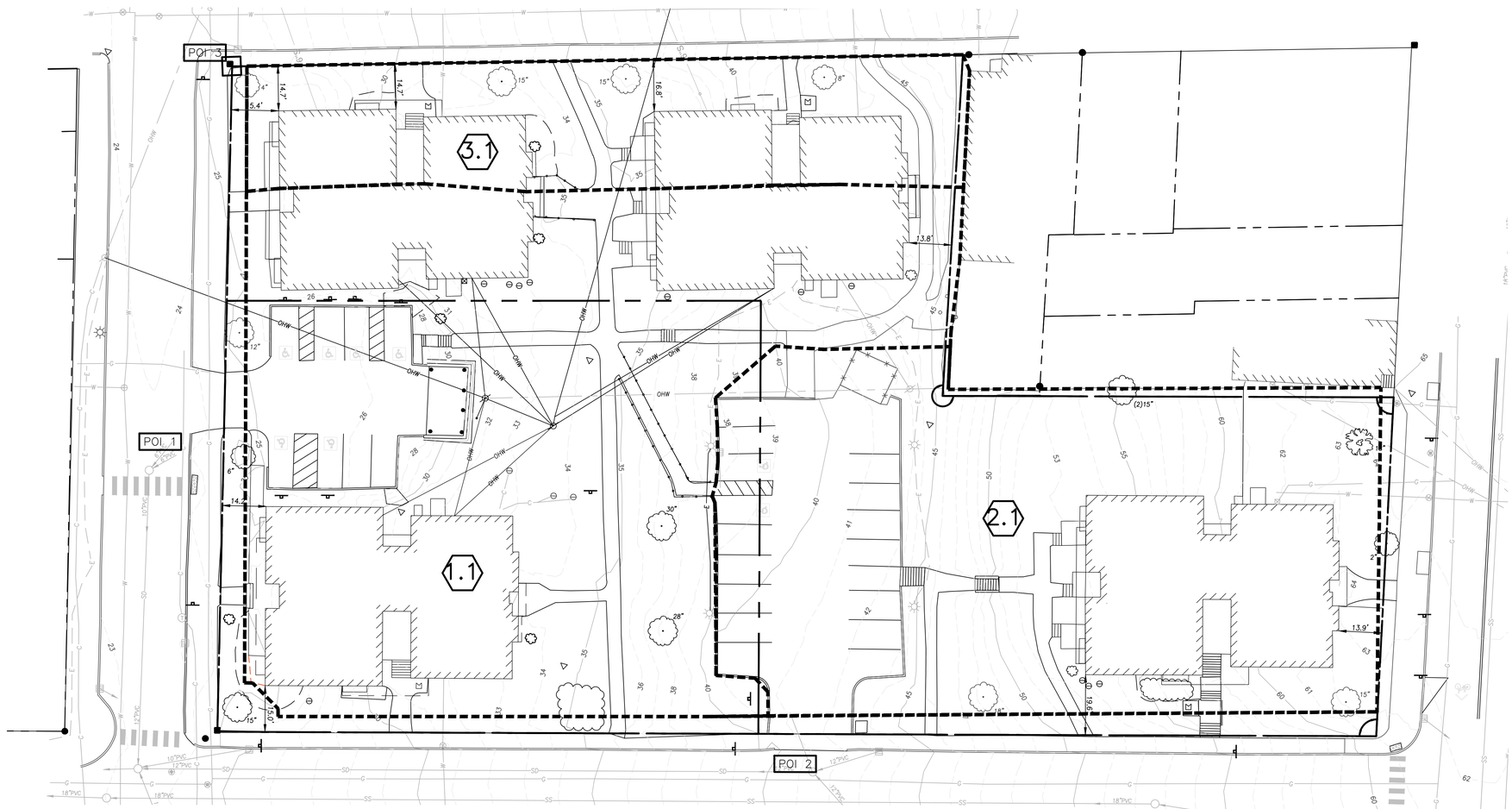
ATTACHMENTS

Attachment A: Pre-Development Watershed Plan
Attachment B: Post-Development Watershed Plan
Attachment C: HydroCAD Calculations
Attachment D: Stormfilter Design Review Letter
Attachment E: R-tank Design Review Letter
Attachment F: Stormwater Inspection and Maintenance Plan
Attachment G: Medium Intensity Web Soil Survey

GENERAL NOTES:

REFER TO STORMWATER REPORT FOR MORE INFORMATION.

1	SUBCATCHMENT
	SUBCATCHMENT EXTENTS
POI 1	POINT OF INTEREST (POI)



20 0 20 40

SCALE: 1"=20'

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
MAJOR SITE PLAN SUBMISSION	PFH	5/13/2024

DRAWING NAME: **PRE-DEVELOPMENT WATERSHED PLAN**

PROJECT NAME: **70 EAST OXFORD STREET REDEVELOPMENT**

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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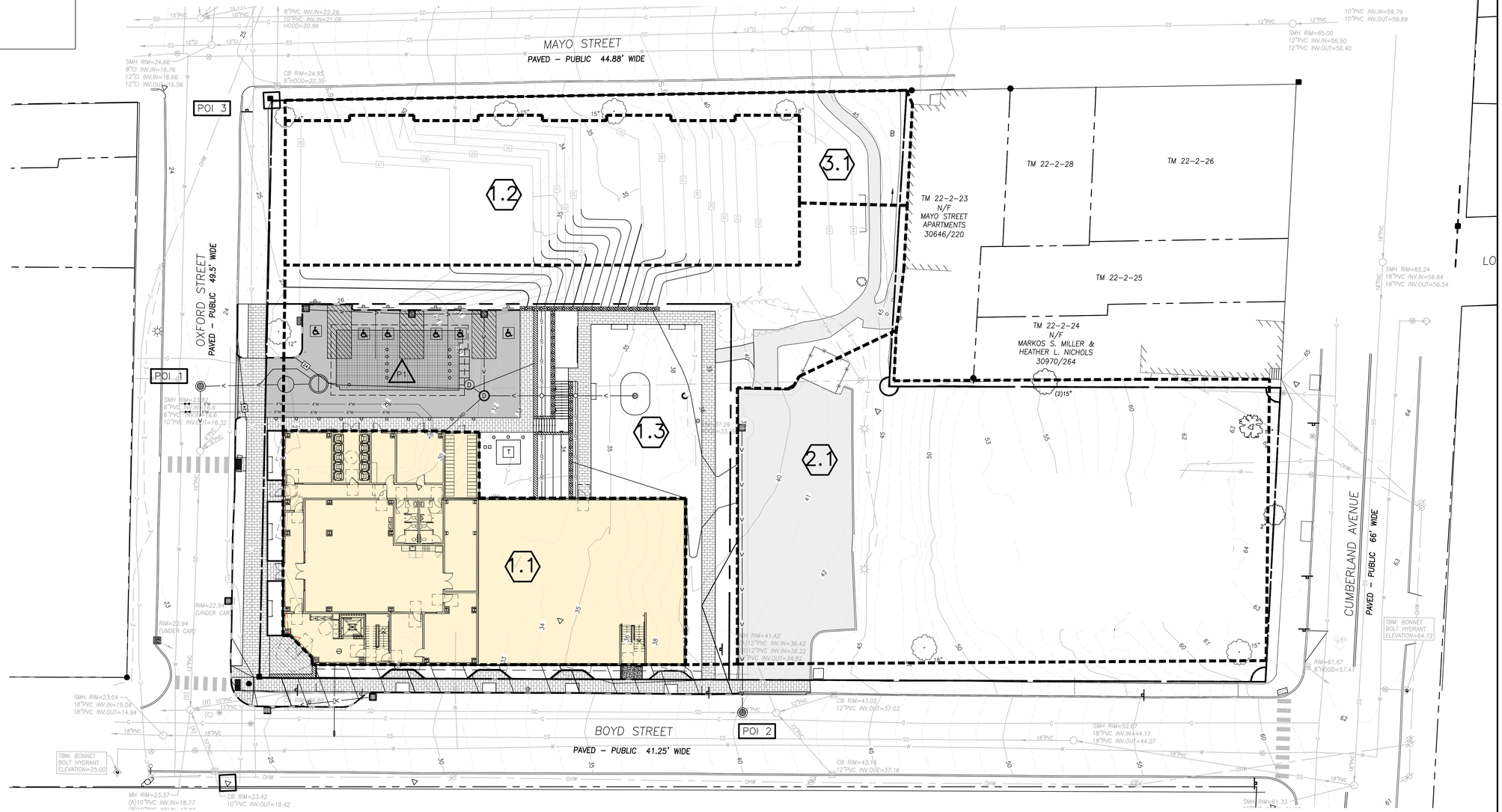
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

DRAWING NO.
SW-1

GENERAL NOTES:

REFER TO STORMWATER REPORT FOR MORE INFORMATION.

1	SUBCATCHMENT
	SUBCATCHMENT EXTENTS
POI 1	POINT OF INTEREST (POI)
1	POND



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
MAJOR SITE PLAN SUBMISSION	PFH	5/13/2024

DRAWING NAME: POST-DEVELOPMENT WATERSHED PLAN

PROJECT NAME: 70 EAST OXFORD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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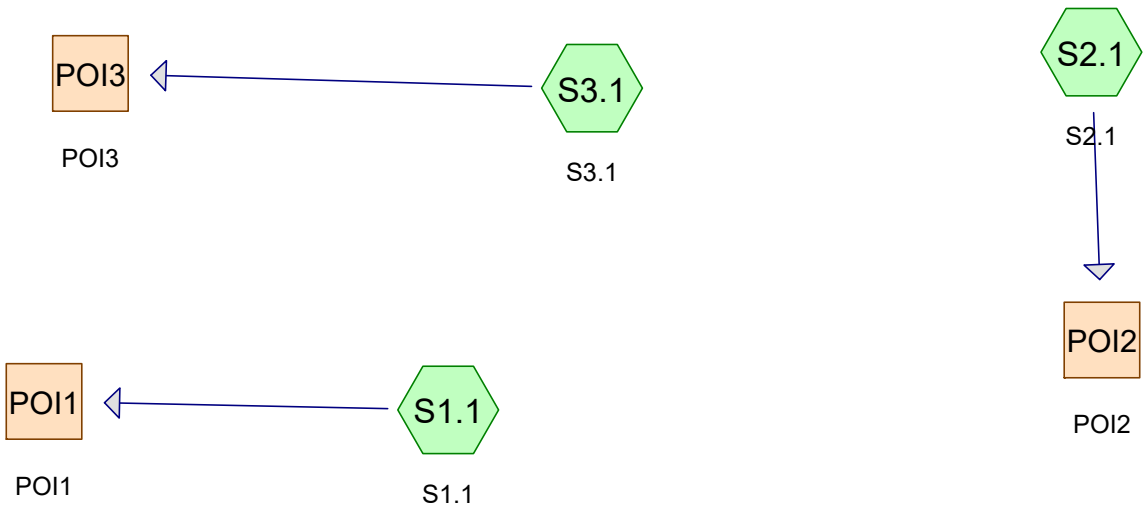
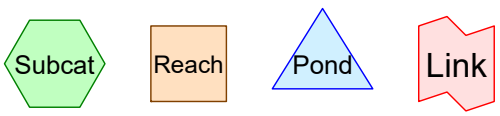
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

DRAWING NO.
SW-2





Routing Diagram for 1215 Pre-Development
Prepared by HP Inc., Printed 3/13/2024
HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.686	80	>75% Grass cover, Good, HSG D (S1.1, S2.1, S3.1)
0.440	98	Roofs, HSG D (S1.1, S2.1, S3.1)
0.314	98	Unconnected pavement, HSG D (S1.1, S2.1, S3.1)
1.440	**89**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.440	HSG D	S1.1, S2.1, S3.1
0.000	Other	
1.440		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.686	0.000	0.686	>75% Grass cover, Good	S1.1, S2.1, S3.1
0.000	0.000	0.000	0.440	0.000	0.440	Roofs	S1.1, S2.1, S3.1
0.000	0.000	0.000	0.314	0.000	0.314	Unconnected pavement	S1.1, S2.1, S3.1
0.000	**0.000**	**0.000**	**1.440**	**0.000**	**1.440**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=29,855 sf 53.01% Impervious Runoff Depth>1.95"
Tc=6.0 min CN=90 Runoff=1.62 cfs 0.111 af

Subcatchment S2.1: S2.1 Runoff Area=23,313 sf 51.22% Impervious Runoff Depth>1.87"
Tc=6.0 min CN=89 Runoff=1.22 cfs 0.083 af

Subcatchment S3.1: S3.1 Runoff Area=9,561 sf 53.34% Impervious Runoff Depth>1.95"
Tc=6.0 min CN=90 Runoff=0.52 cfs 0.036 af

Reach POI1: POI1 Inflow=1.62 cfs 0.111 af
Outflow=1.62 cfs 0.111 af

Reach POI2: POI2 Inflow=1.22 cfs 0.083 af
Outflow=1.22 cfs 0.083 af

Reach POI3: POI3 Inflow=0.52 cfs 0.036 af
Outflow=0.52 cfs 0.036 af

Total Runoff Area = 1.440 ac Runoff Volume = 0.230 af Average Runoff Depth = 1.92"
47.61% Pervious = 0.686 ac 52.39% Impervious = 0.754 ac

Summary for Subcatchment S1.1: S1.1

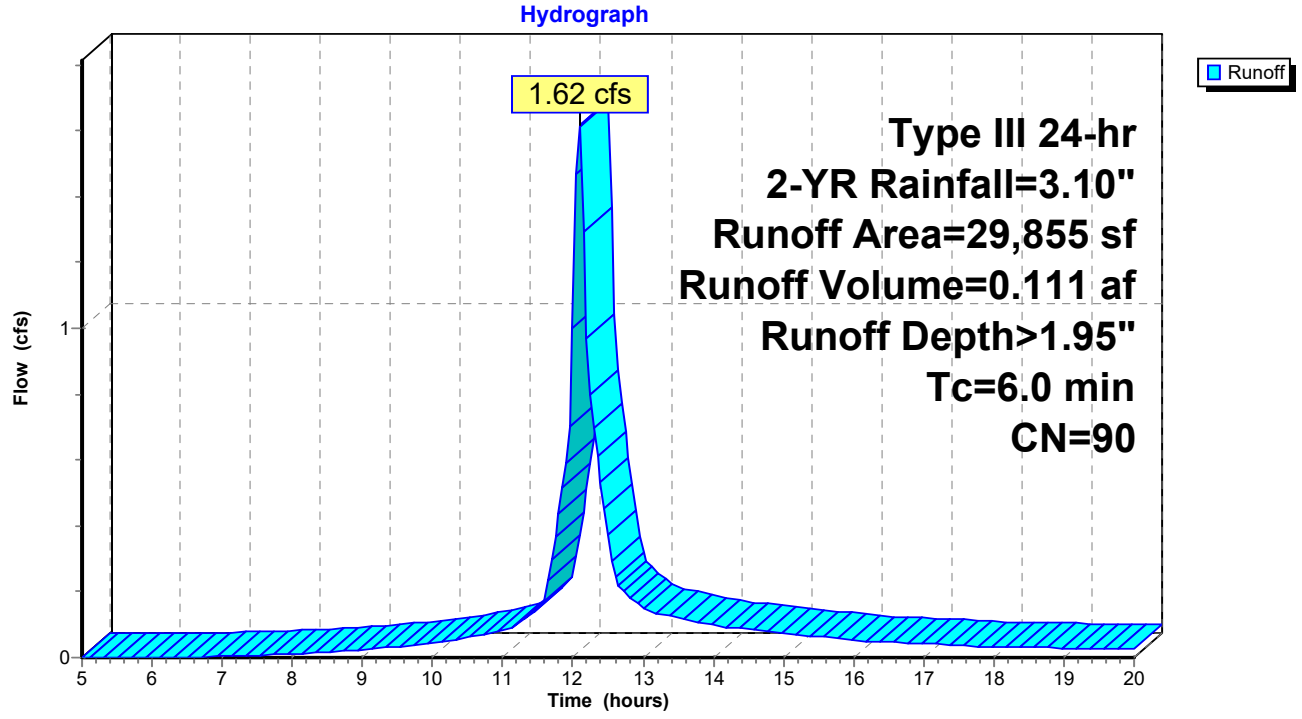
Runoff = 1.62 cfs @ 12.09 hrs, Volume= 0.111 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
14,030	80	>75% Grass cover, Good, HSG D
10,101	98	Roofs, HSG D
5,724	98	Unconnected pavement, HSG D
29,855	90	Weighted Average
14,030		46.99% Pervious Area
15,825		53.01% Impervious Area
5,724		36.17% Unconnected

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S2.1: S2.1

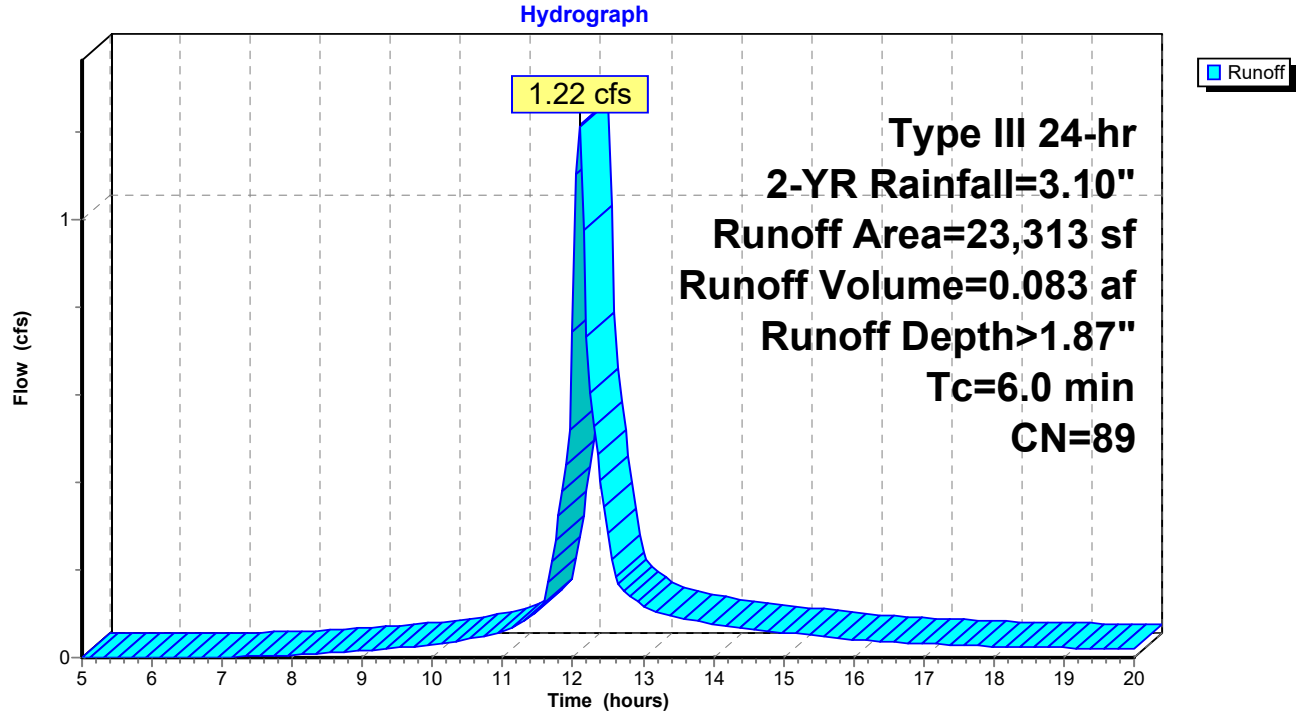
Runoff = 1.22 cfs @ 12.09 hrs, Volume= 0.083 af, Depth> 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
11,373	80	>75% Grass cover, Good, HSG D
4,899	98	Roofs, HSG D
7,041	98	Unconnected pavement, HSG D
23,313	89	Weighted Average
11,373		48.78% Pervious Area
11,940		51.22% Impervious Area
7,041		58.97% Unconnected

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

Subcatchment S2.1: S2.1



Summary for Subcatchment S3.1: S3.1

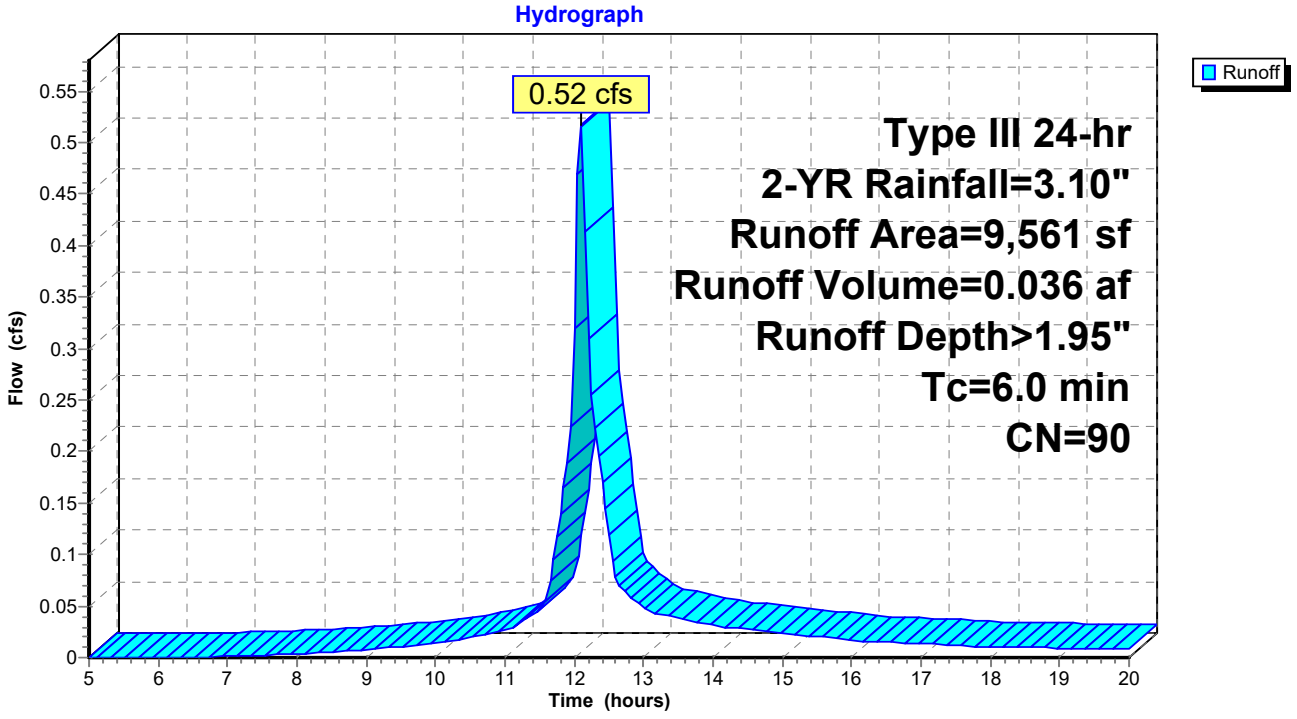
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
4,461	80	>75% Grass cover, Good, HSG D
4,173	98	Roofs, HSG D
927	98	Unconnected pavement, HSG D
9,561	90	Weighted Average
4,461		46.66% Pervious Area
5,100		53.34% Impervious Area
927		18.18% Unconnected

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

Subcatchment S3.1: S3.1

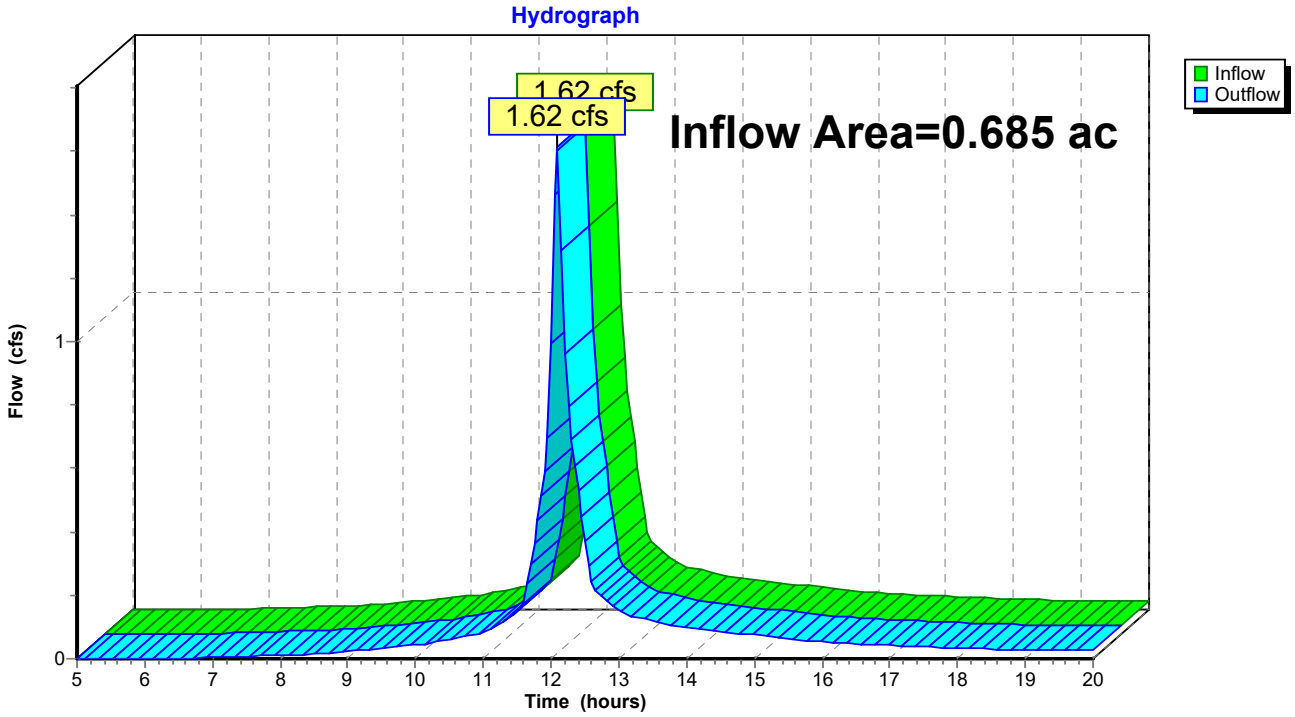


Summary for Reach POI1: POI1

Inflow Area = 0.685 ac, 53.01% Impervious, Inflow Depth > 1.95" for 2-YR event
Inflow = 1.62 cfs @ 12.09 hrs, Volume= 0.111 af
Outflow = 1.62 cfs @ 12.09 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI1: POI1

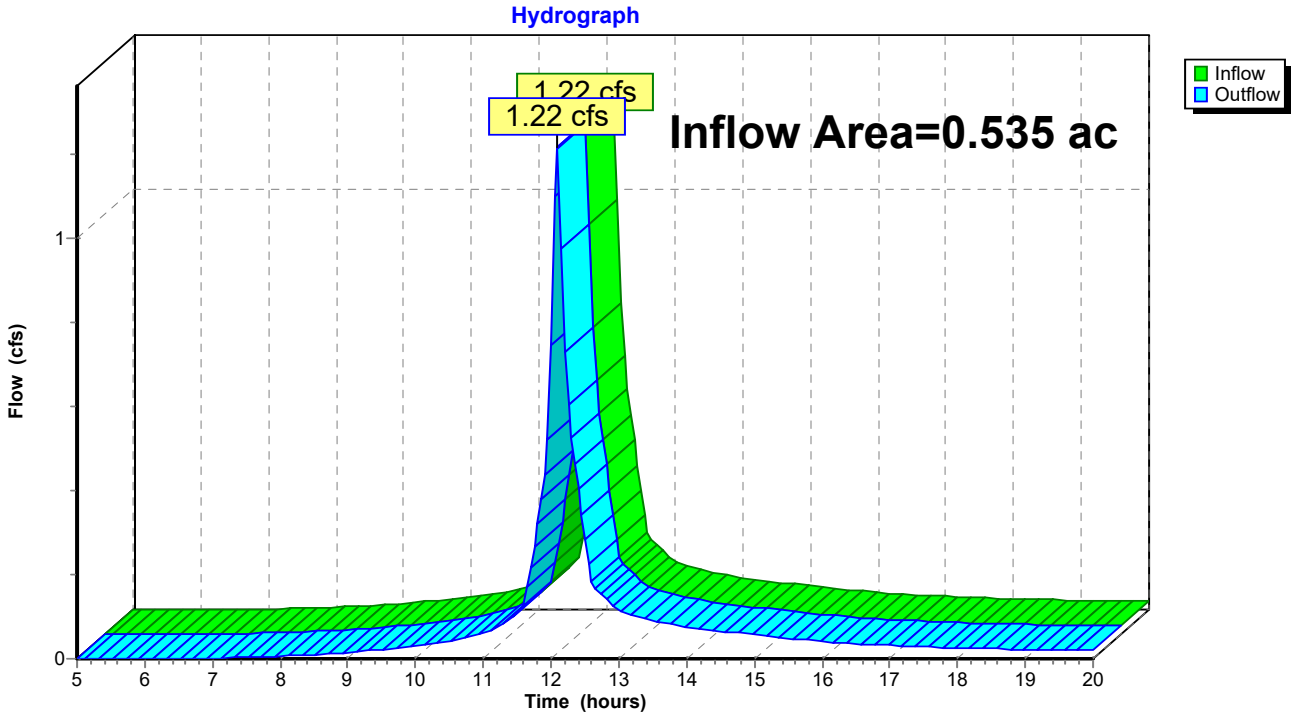


Summary for Reach POI2: POI2

Inflow Area = 0.535 ac, 51.22% Impervious, Inflow Depth > 1.87" for 2-YR event
Inflow = 1.22 cfs @ 12.09 hrs, Volume= 0.083 af
Outflow = 1.22 cfs @ 12.09 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI2: POI2

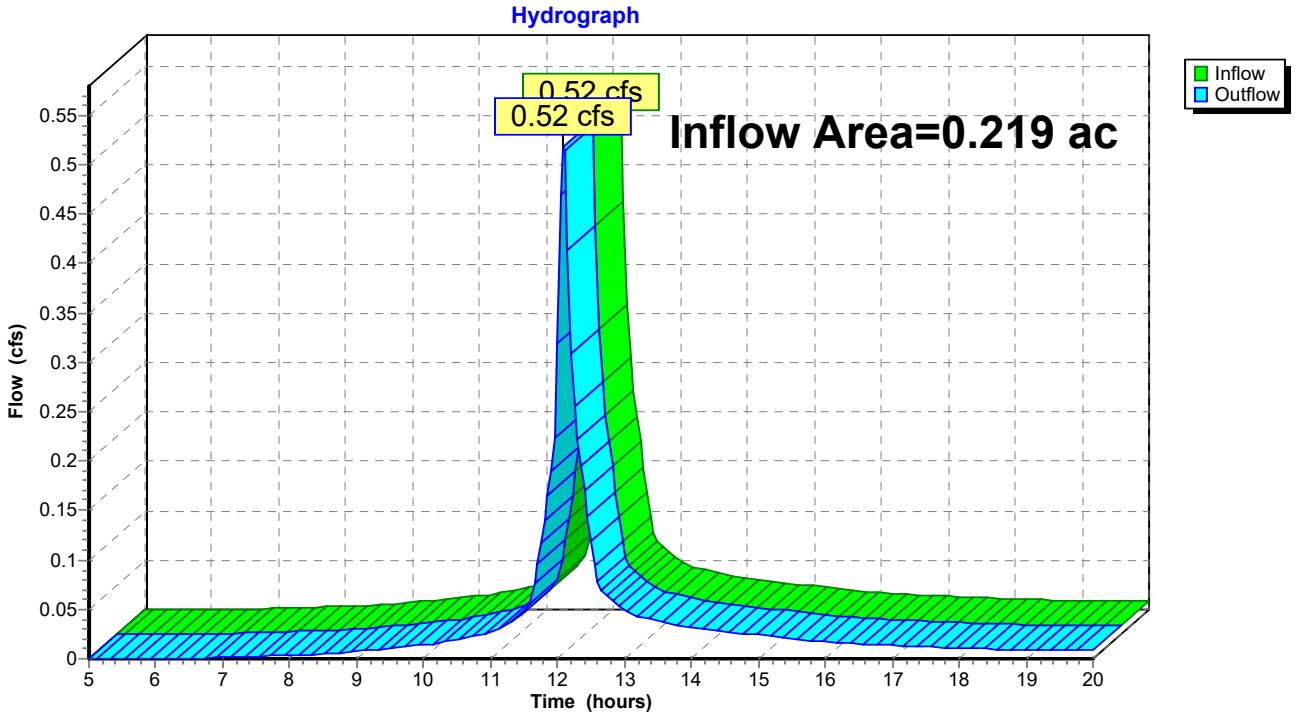


Summary for Reach POI3: POI3

Inflow Area = 0.219 ac, 53.34% Impervious, Inflow Depth > 1.95" for 2-YR event
Inflow = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af
Outflow = 0.52 cfs @ 12.09 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI3: POI3



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=29,855 sf 53.01% Impervious Runoff Depth>3.30"
Tc=6.0 min CN=90 Runoff=2.66 cfs 0.188 af

Subcatchment S2.1: S2.1 Runoff Area=23,313 sf 51.22% Impervious Runoff Depth>3.20"
Tc=6.0 min CN=89 Runoff=2.03 cfs 0.143 af

Subcatchment S3.1: S3.1 Runoff Area=9,561 sf 53.34% Impervious Runoff Depth>3.30"
Tc=6.0 min CN=90 Runoff=0.85 cfs 0.060 af

Reach POI1: POI1 Inflow=2.66 cfs 0.188 af
Outflow=2.66 cfs 0.188 af

Reach POI2: POI2 Inflow=2.03 cfs 0.143 af
Outflow=2.03 cfs 0.143 af

Reach POI3: POI3 Inflow=0.85 cfs 0.060 af
Outflow=0.85 cfs 0.060 af

Total Runoff Area = 1.440 ac Runoff Volume = 0.391 af Average Runoff Depth = 3.26"
47.61% Pervious = 0.686 ac 52.39% Impervious = 0.754 ac

Summary for Subcatchment S1.1: S1.1

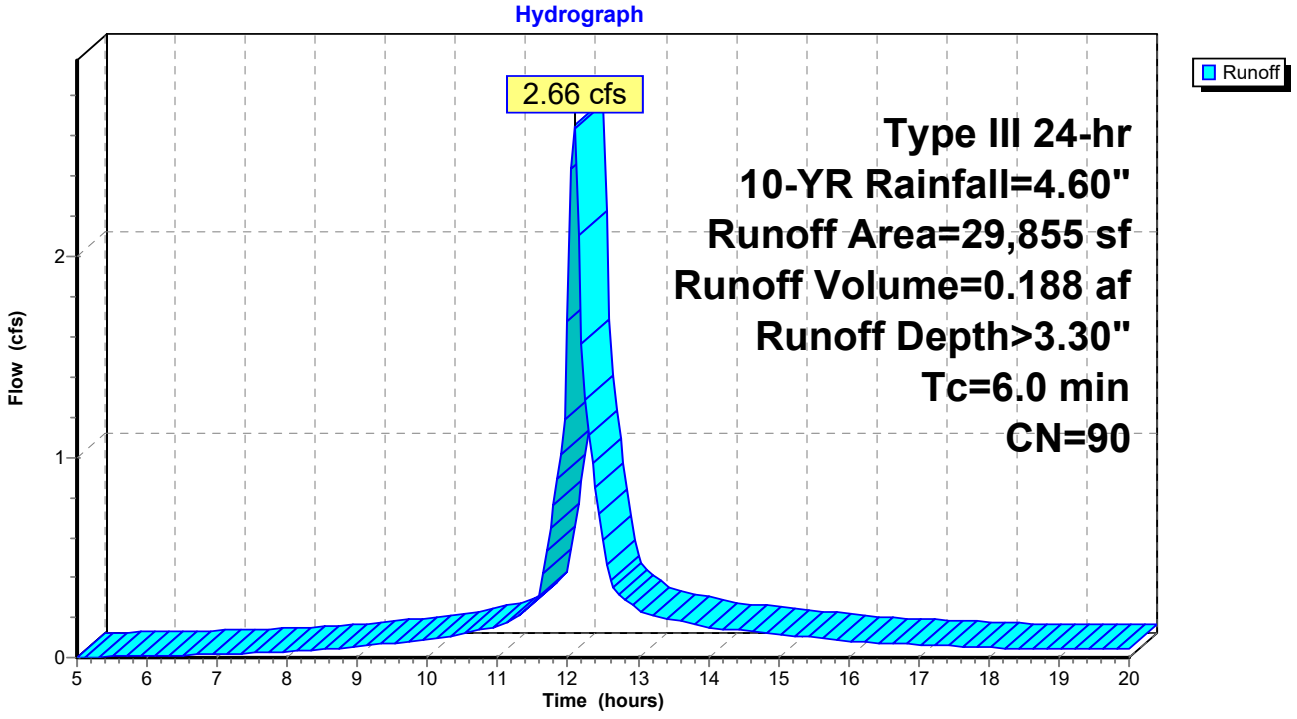
Runoff = 2.66 cfs @ 12.09 hrs, Volume= 0.188 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
14,030	80	>75% Grass cover, Good, HSG D
10,101	98	Roofs, HSG D
5,724	98	Unconnected pavement, HSG D
29,855	90	Weighted Average
14,030		46.99% Pervious Area
15,825		53.01% Impervious Area
5,724		36.17% Unconnected

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S2.1: S2.1

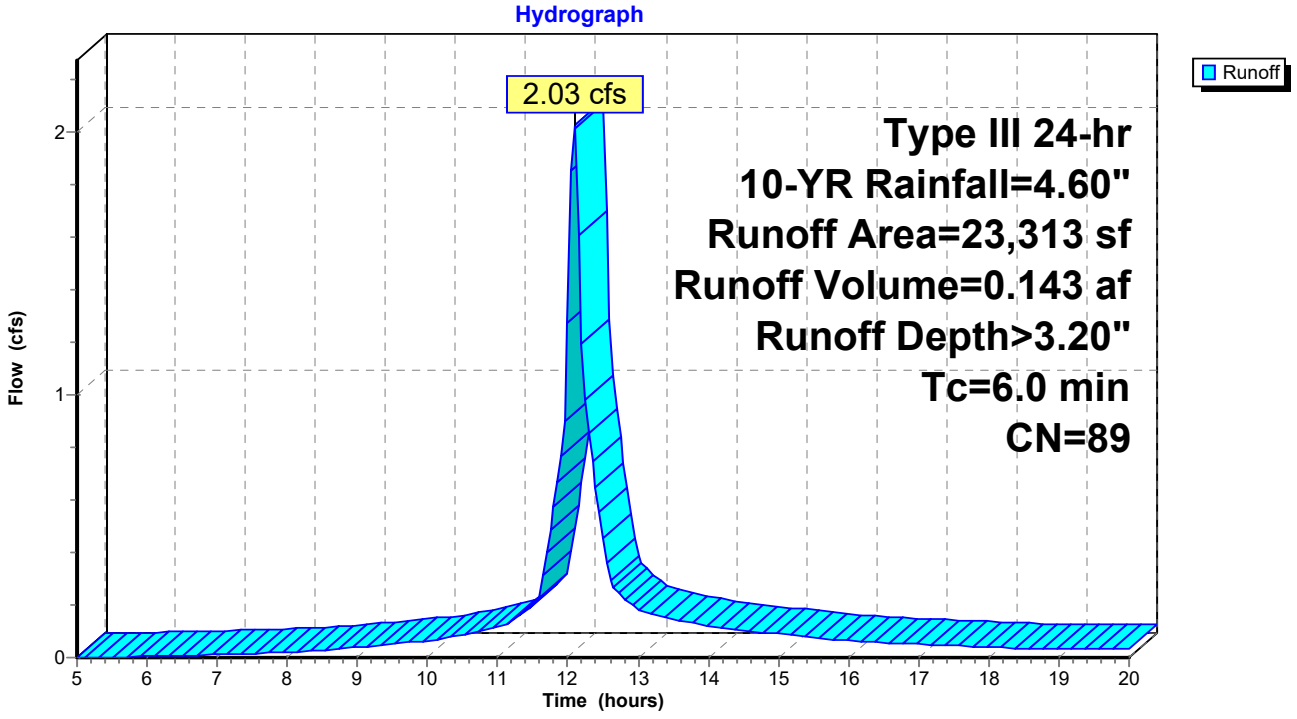
Runoff = 2.03 cfs @ 12.09 hrs, Volume= 0.143 af, Depth> 3.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
11,373	80	>75% Grass cover, Good, HSG D
4,899	98	Roofs, HSG D
7,041	98	Unconnected pavement, HSG D
23,313	89	Weighted Average
11,373		48.78% Pervious Area
11,940		51.22% Impervious Area
7,041		58.97% Unconnected

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

Subcatchment S2.1: S2.1



Summary for Subcatchment S3.1: S3.1

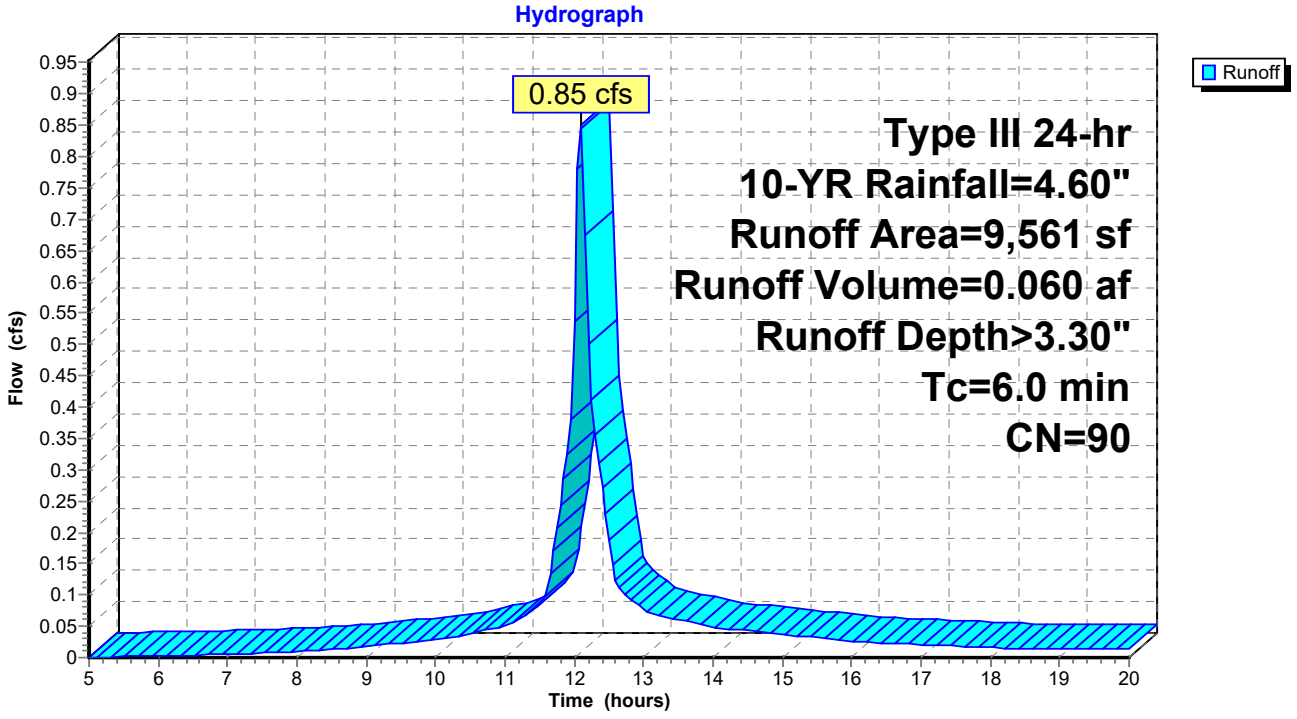
Runoff = 0.85 cfs @ 12.09 hrs, Volume= 0.060 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
4,461	80	>75% Grass cover, Good, HSG D
4,173	98	Roofs, HSG D
927	98	Unconnected pavement, HSG D
9,561	90	Weighted Average
4,461		46.66% Pervious Area
5,100		53.34% Impervious Area
927		18.18% Unconnected

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

Subcatchment S3.1: S3.1

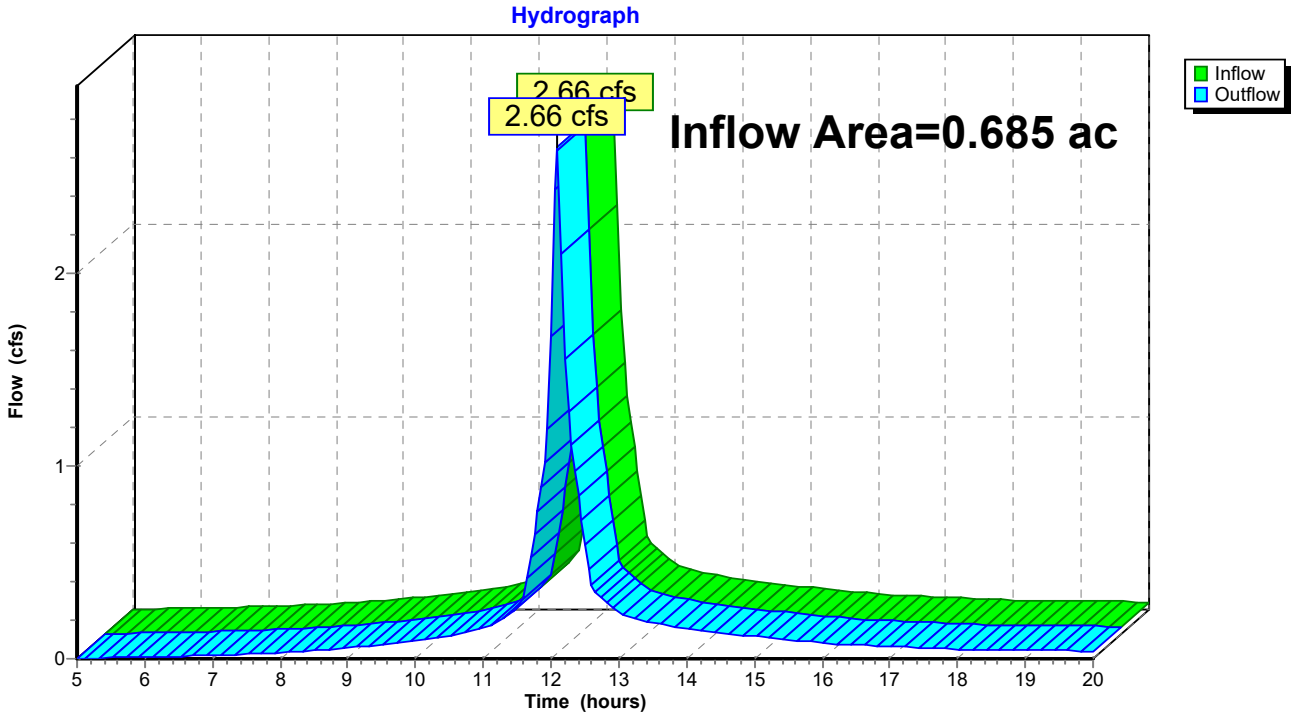


Summary for Reach POI1: POI1

Inflow Area = 0.685 ac, 53.01% Impervious, Inflow Depth > 3.30" for 10-YR event
Inflow = 2.66 cfs @ 12.09 hrs, Volume= 0.188 af
Outflow = 2.66 cfs @ 12.09 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI1: POI1

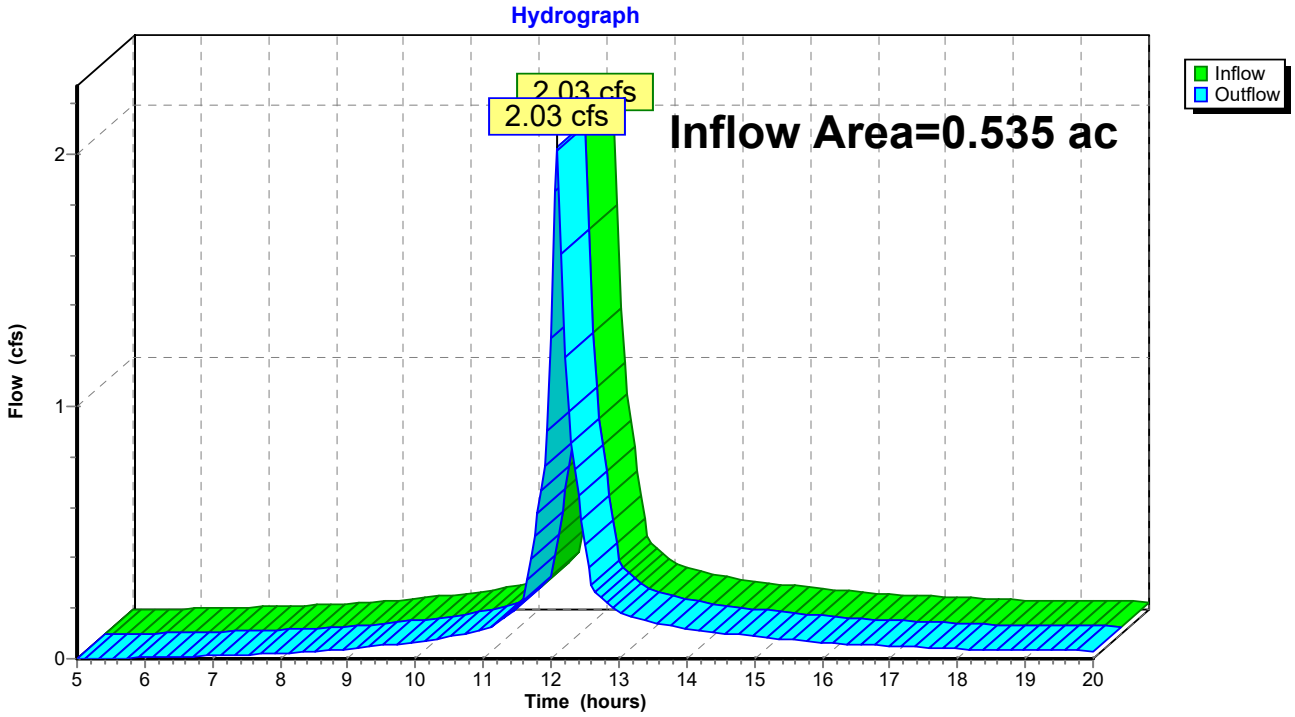


Summary for Reach POI2: POI2

Inflow Area = 0.535 ac, 51.22% Impervious, Inflow Depth > 3.20" for 10-YR event
Inflow = 2.03 cfs @ 12.09 hrs, Volume= 0.143 af
Outflow = 2.03 cfs @ 12.09 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI2: POI2

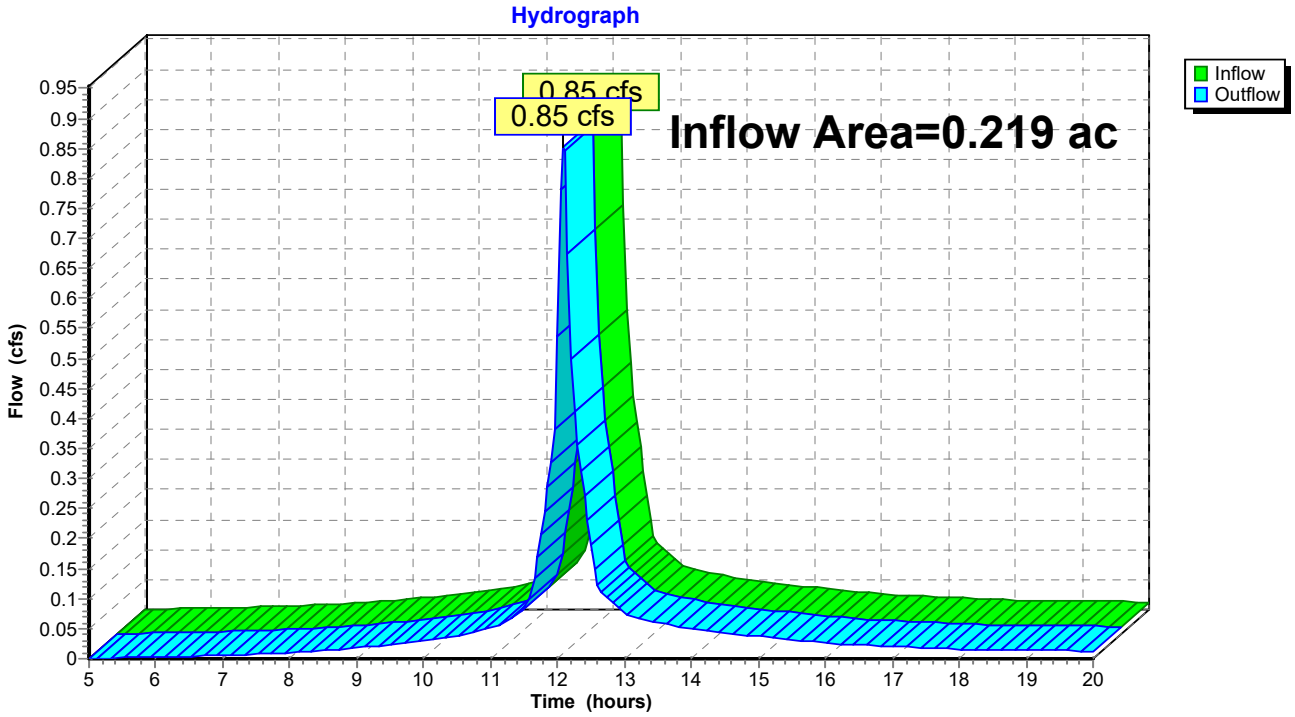


Summary for Reach POI3: POI3

Inflow Area = 0.219 ac, 53.34% Impervious, Inflow Depth > 3.30" for 10-YR event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.060 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI3: POI3



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=29,855 sf 53.01% Impervious Runoff Depth>4.40"
Tc=6.0 min CN=90 Runoff=3.49 cfs 0.251 af

Subcatchment S2.1: S2.1 Runoff Area=23,313 sf 51.22% Impervious Runoff Depth>4.29"
Tc=6.0 min CN=89 Runoff=2.68 cfs 0.191 af

Subcatchment S3.1: S3.1 Runoff Area=9,561 sf 53.34% Impervious Runoff Depth>4.40"
Tc=6.0 min CN=90 Runoff=1.12 cfs 0.080 af

Reach POI1: POI1 Inflow=3.49 cfs 0.251 af
Outflow=3.49 cfs 0.251 af

Reach POI2: POI2 Inflow=2.68 cfs 0.191 af
Outflow=2.68 cfs 0.191 af

Reach POI3: POI3 Inflow=1.12 cfs 0.080 af
Outflow=1.12 cfs 0.080 af

Total Runoff Area = 1.440 ac Runoff Volume = 0.523 af Average Runoff Depth = 4.36"
47.61% Pervious = 0.686 ac 52.39% Impervious = 0.754 ac

Summary for Subcatchment S1.1: S1.1

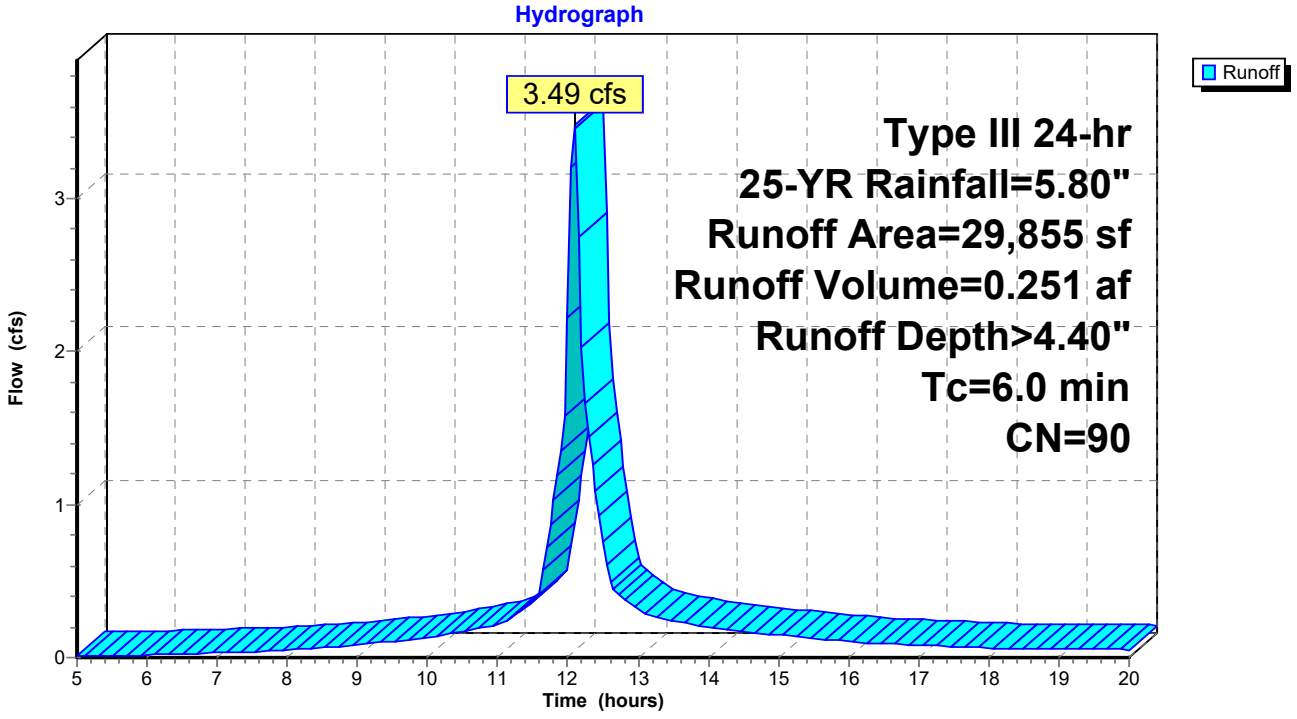
Runoff = 3.49 cfs @ 12.09 hrs, Volume= 0.251 af, Depth> 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
14,030	80	>75% Grass cover, Good, HSG D
10,101	98	Roofs, HSG D
5,724	98	Unconnected pavement, HSG D
29,855	90	Weighted Average
14,030		46.99% Pervious Area
15,825		53.01% Impervious Area
5,724		36.17% Unconnected

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S2.1: S2.1

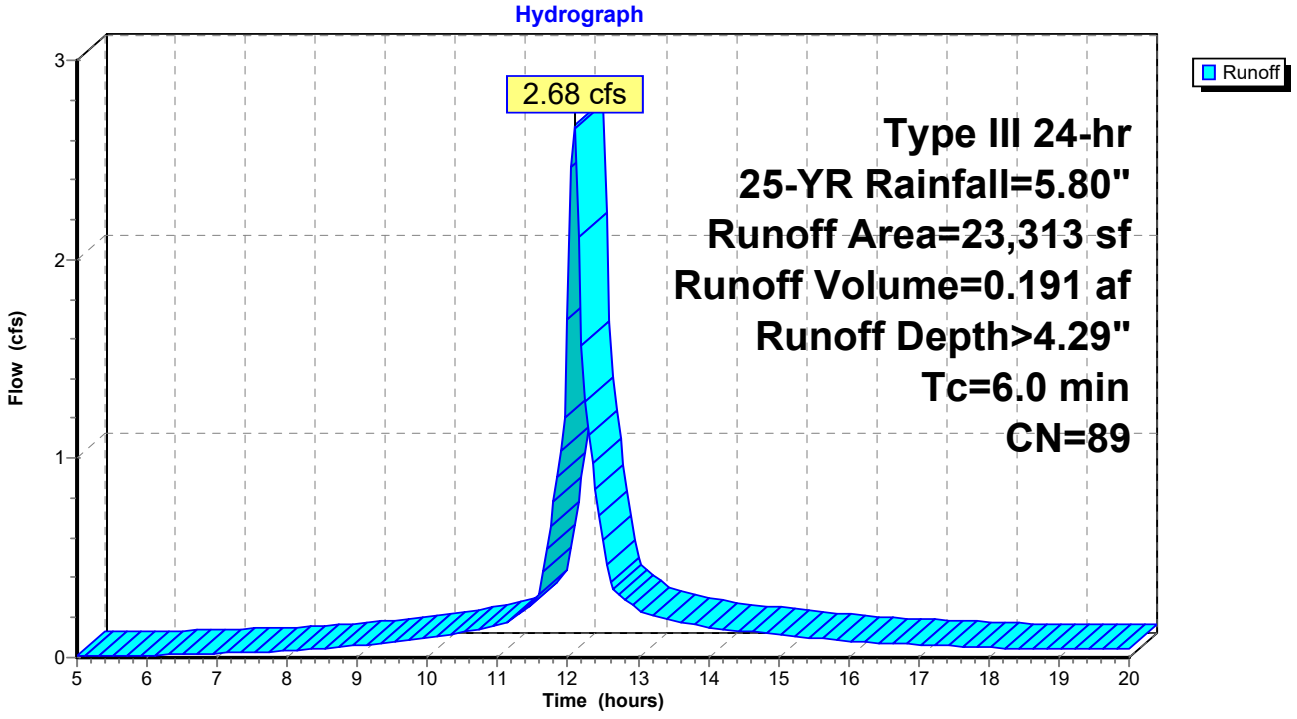
Runoff = 2.68 cfs @ 12.09 hrs, Volume= 0.191 af, Depth> 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
11,373	80	>75% Grass cover, Good, HSG D
4,899	98	Roofs, HSG D
7,041	98	Unconnected pavement, HSG D
23,313	89	Weighted Average
11,373		48.78% Pervious Area
11,940		51.22% Impervious Area
7,041		58.97% Unconnected

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

Subcatchment S2.1: S2.1



Summary for Subcatchment S3.1: S3.1

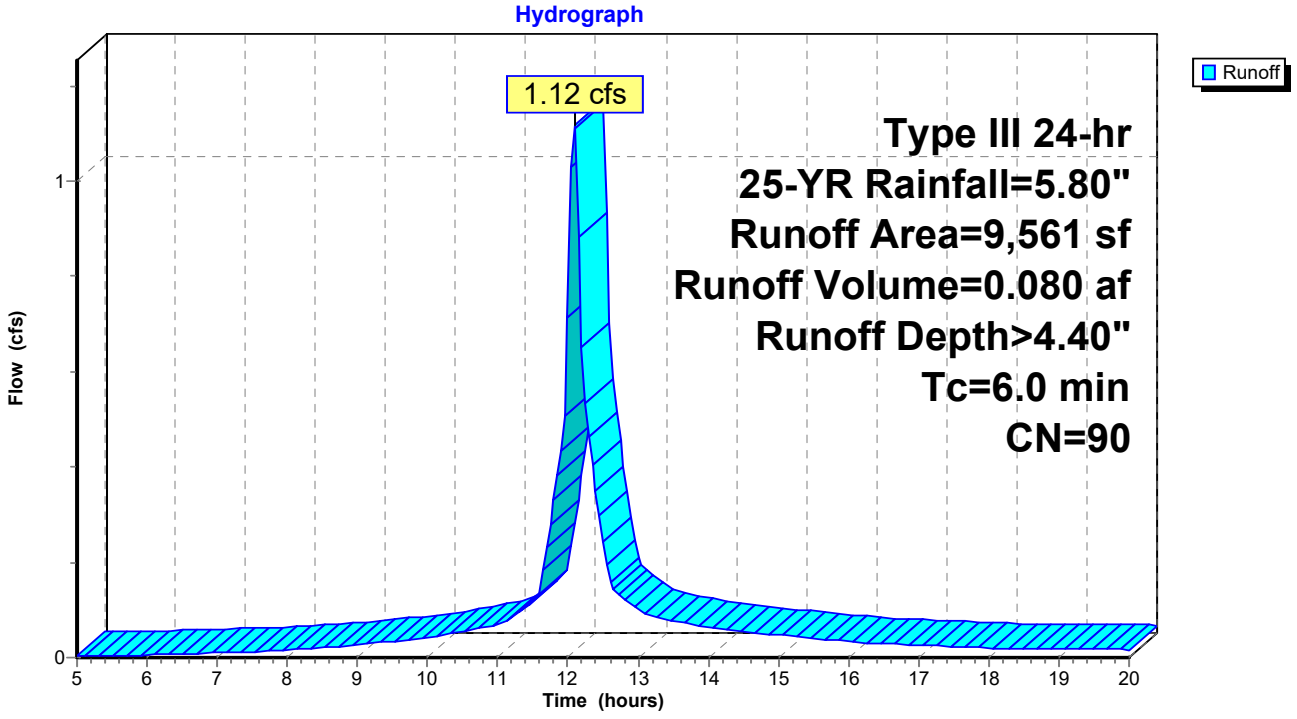
Runoff = 1.12 cfs @ 12.09 hrs, Volume= 0.080 af, Depth> 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
4,461	80	>75% Grass cover, Good, HSG D
4,173	98	Roofs, HSG D
927	98	Unconnected pavement, HSG D
9,561	90	Weighted Average
4,461		46.66% Pervious Area
5,100		53.34% Impervious Area
927		18.18% Unconnected

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

Subcatchment S3.1: S3.1

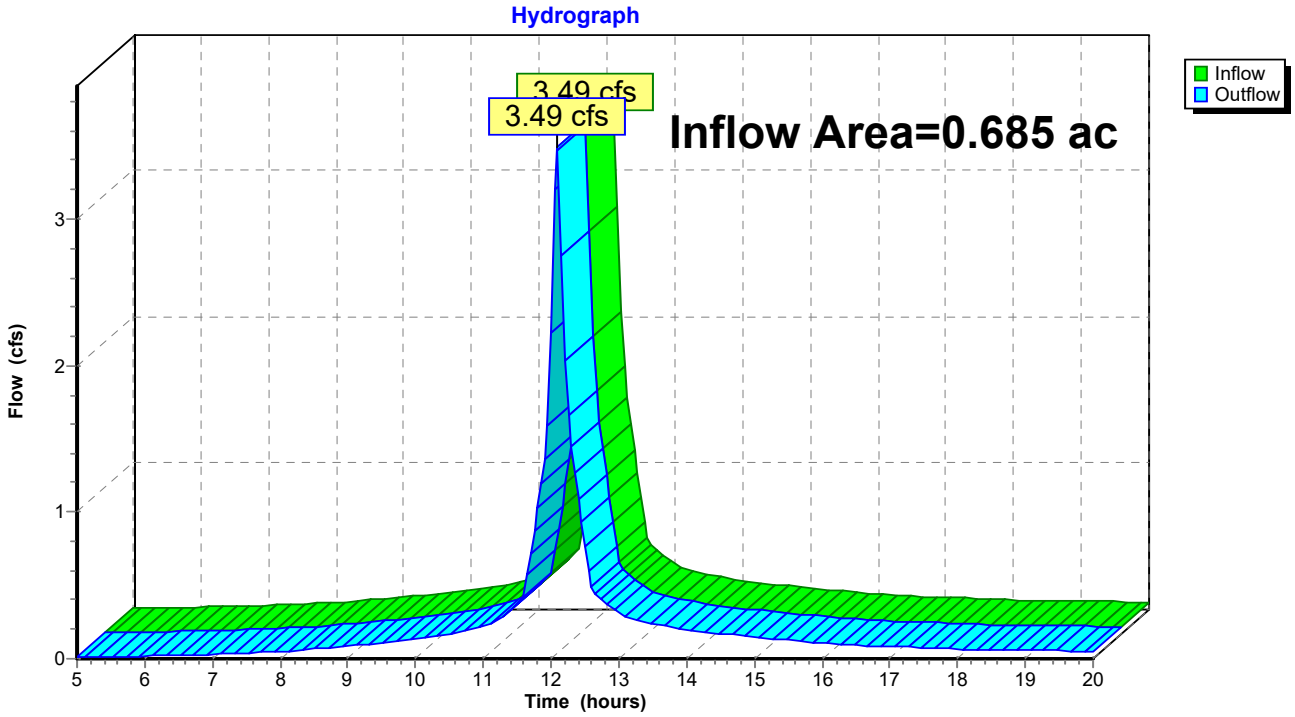


Summary for Reach POI1: POI1

Inflow Area = 0.685 ac, 53.01% Impervious, Inflow Depth > 4.40" for 25-YR event
Inflow = 3.49 cfs @ 12.09 hrs, Volume= 0.251 af
Outflow = 3.49 cfs @ 12.09 hrs, Volume= 0.251 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI1: POI1

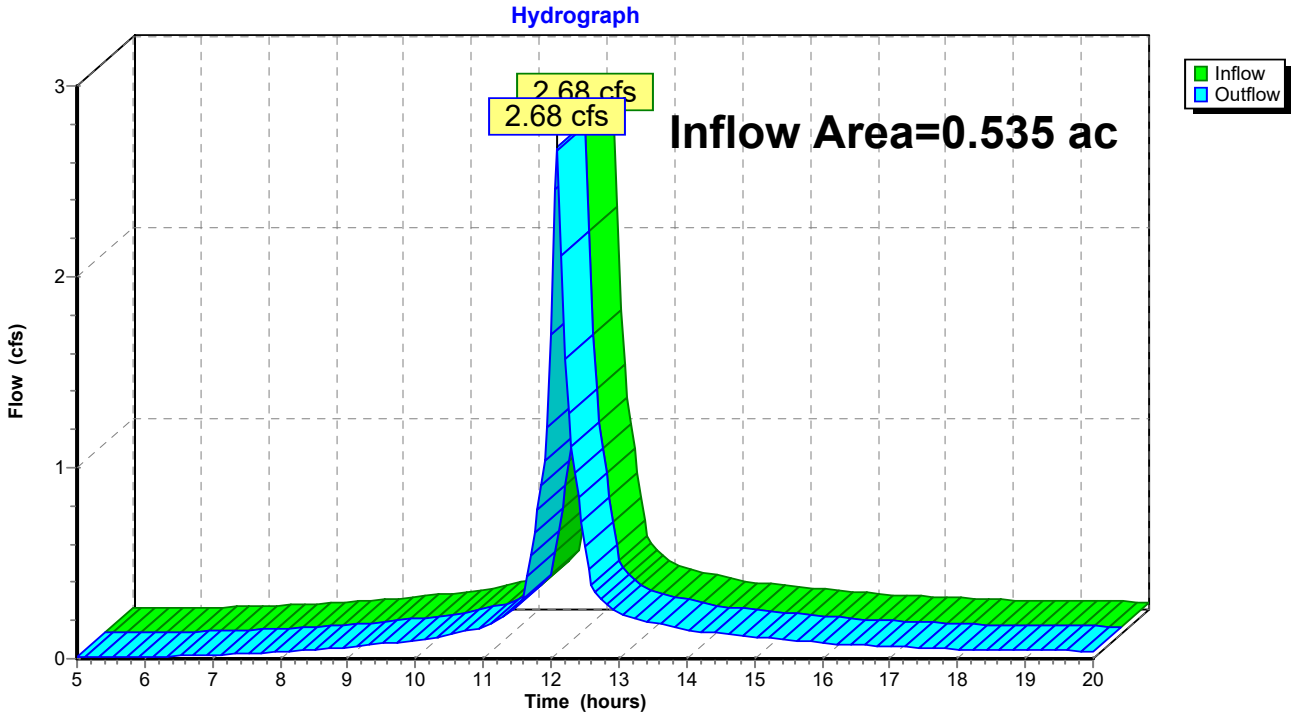


Summary for Reach POI2: POI2

Inflow Area = 0.535 ac, 51.22% Impervious, Inflow Depth > 4.29" for 25-YR event
Inflow = 2.68 cfs @ 12.09 hrs, Volume= 0.191 af
Outflow = 2.68 cfs @ 12.09 hrs, Volume= 0.191 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI2: POI2

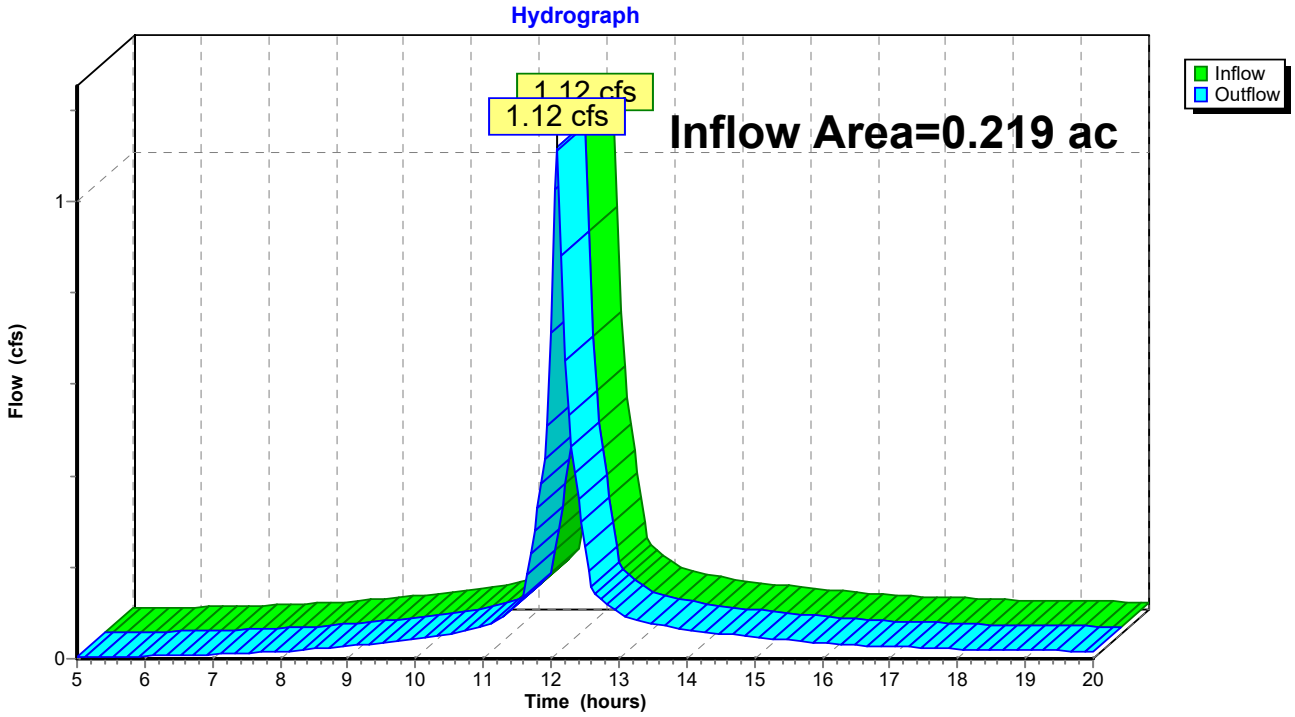


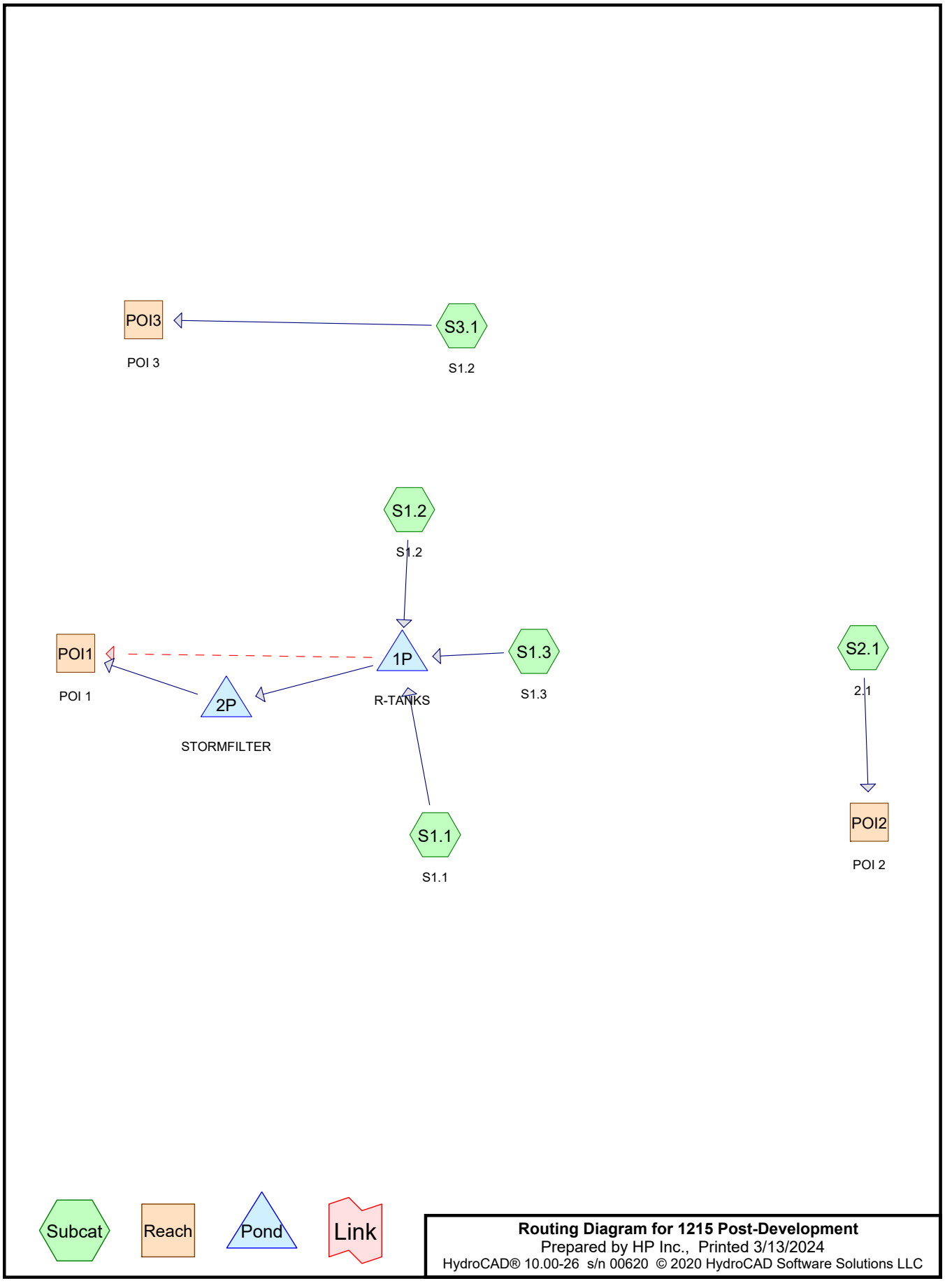
Summary for Reach POI3: POI3

Inflow Area = 0.219 ac, 53.34% Impervious, Inflow Depth > 4.40" for 25-YR event
Inflow = 1.12 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.12 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach POI3: POI3




POI3
POI 3
S3.1
S1.2
S1.2
S1.2
POI1
POI 1
1P
R-TANKS
S1.3
S1.3
2P
STORMFILTER
S1.1
S1.1
S2.1
2.1
POI2
POI 2
Subcat
Reach
Pond
Link
Routing Diagram for 1215 Post-Development
Prepared by HP Inc., Printed 3/13/2024
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.502	80	>75% Grass cover, Good, HSG D (S1.3, S2.1, S3.1)
0.402	98	Paved parking, HSG D (S1.3, S2.1)
0.497	98	Roofs, HSG D (S1.1, S1.2)
0.038	98	Unconnected pavement, HSG D (S3.1)
1.439	**92**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.439	HSG D	S1.1, S1.2, S1.3, S2.1, S3.1
0.000	Other	
1.439		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.502	0.000	0.502	>75% Grass cover, Good	S1.3, S2.1, S3.1
0.000	0.000	0.000	0.402	0.000	0.402	Paved parking	S1.3, S2.1
0.000	0.000	0.000	0.497	0.000	0.497	Roofs	S1.1, S1.2
0.000	0.000	0.000	0.038	0.000	0.038	Unconnected pavement	S3.1
0.000	**0.000**	**0.000**	**1.439**	**0.000**	**1.439**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	19.00	18.98	3.6	0.0056	0.010	8.0	0.0	0.0
2	1P	21.00	19.77	23.0	0.0535	0.010	10.0	0.0	0.0

Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=11,070 sf 100.00% Impervious Runoff Depth>2.82"
Tc=6.0 min CN=98 Runoff=0.75 cfs 0.060 af

Subcatchment S1.2: S1.2 Runoff Area=10,560 sf 100.00% Impervious Runoff Depth>2.82"
Tc=6.0 min CN=98 Runoff=0.71 cfs 0.057 af

Subcatchment S1.3: S1.3 Runoff Area=16,626 sf 43.39% Impervious Runoff Depth>1.91"
Tc=6.0 min CN=88 Runoff=0.83 cfs 0.061 af

Subcatchment S2.1: 2.1 Runoff Area=21,126 sf 48.83% Impervious Runoff Depth>1.99"
Tc=6.0 min CN=89 Runoff=1.10 cfs 0.080 af

Subcatchment S3.1: S1.2 Runoff Area=3,296 sf 50.00% Impervious Runoff Depth>1.99"
Tc=6.0 min CN=89 Runoff=0.17 cfs 0.013 af

Reach POI1: POI 1 Inflow=1.62 cfs 0.173 af
Outflow=1.62 cfs 0.173 af

Reach POI2: POI 2 Inflow=1.10 cfs 0.080 af
Outflow=1.10 cfs 0.080 af

Reach POI3: POI 3 Inflow=0.17 cfs 0.013 af
Outflow=0.17 cfs 0.013 af

Pond 1P: R-TANKS Peak Elev=20.74' Storage=1,763 cf Inflow=2.29 cfs 0.177 af
Primary=1.62 cfs 0.173 af Secondary=0.00 cfs 0.000 af Outflow=1.62 cfs 0.173 af

Pond 2P: STORMFILTER Inflow=1.62 cfs 0.173 af
Primary=1.62 cfs 0.173 af

Total Runoff Area = 1.439 ac Runoff Volume = 0.270 af Average Runoff Depth = 2.25"
34.89% Pervious = 0.502 ac 65.11% Impervious = 0.937 ac

Summary for Subcatchment S1.1: S1.1

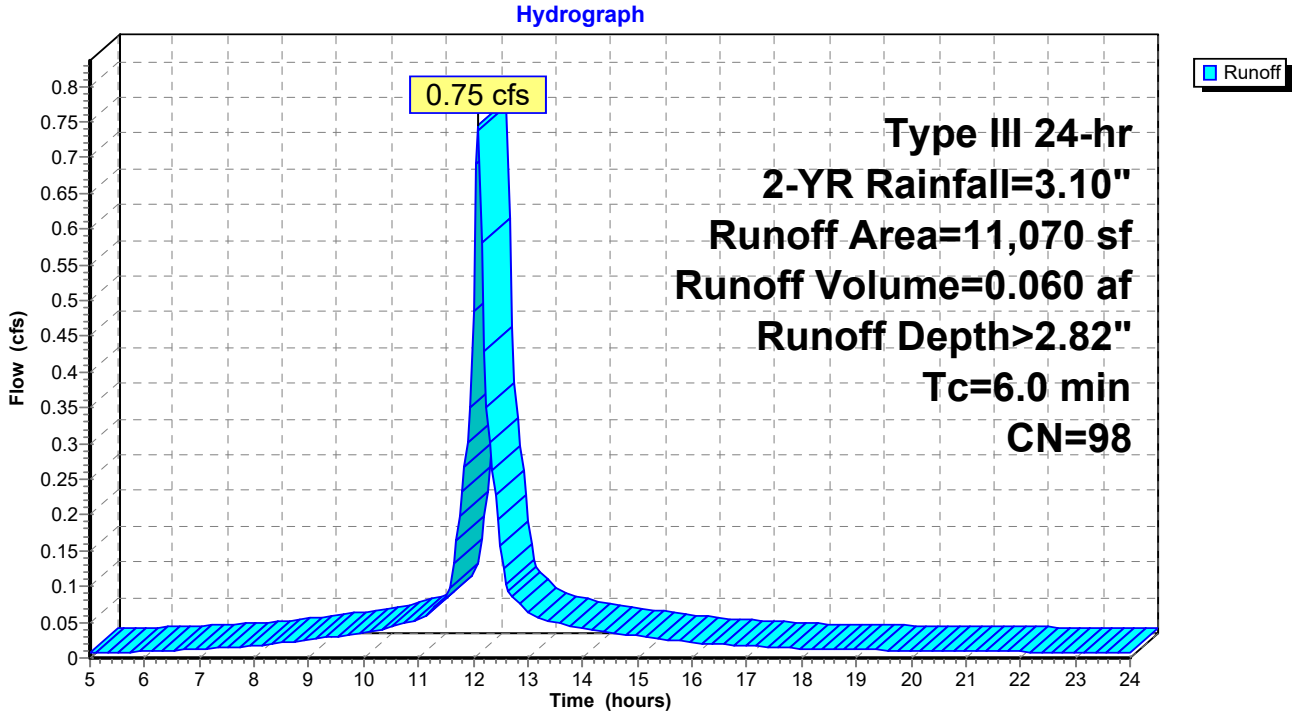
Runoff = 0.75 cfs @ 12.09 hrs, Volume= 0.060 af, Depth> 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
11,070	98	Roofs, HSG D
11,070		100.00% Impervious Area

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S1.2: S1.2

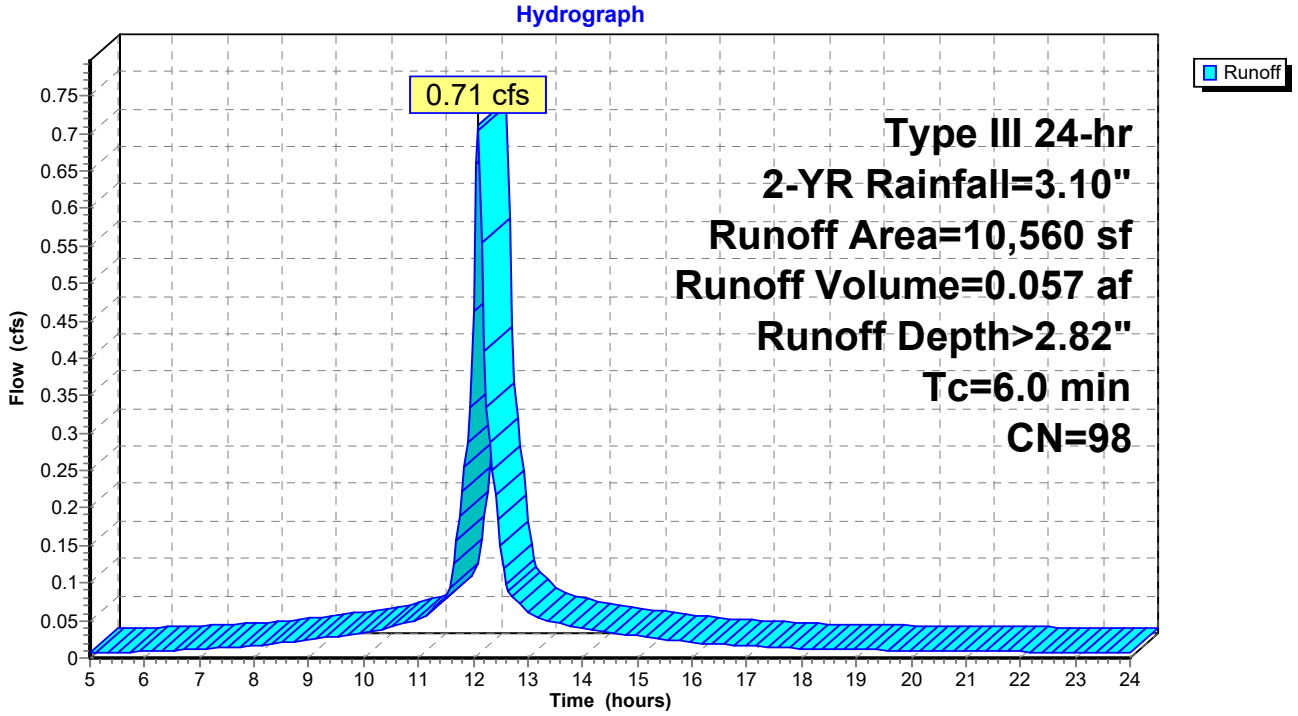
Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.057 af, Depth> 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
10,560	98	Roofs, HSG D
10,560		100.00% Impervious Area

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

Subcatchment S1.2: S1.2



Summary for Subcatchment S1.3: S1.3

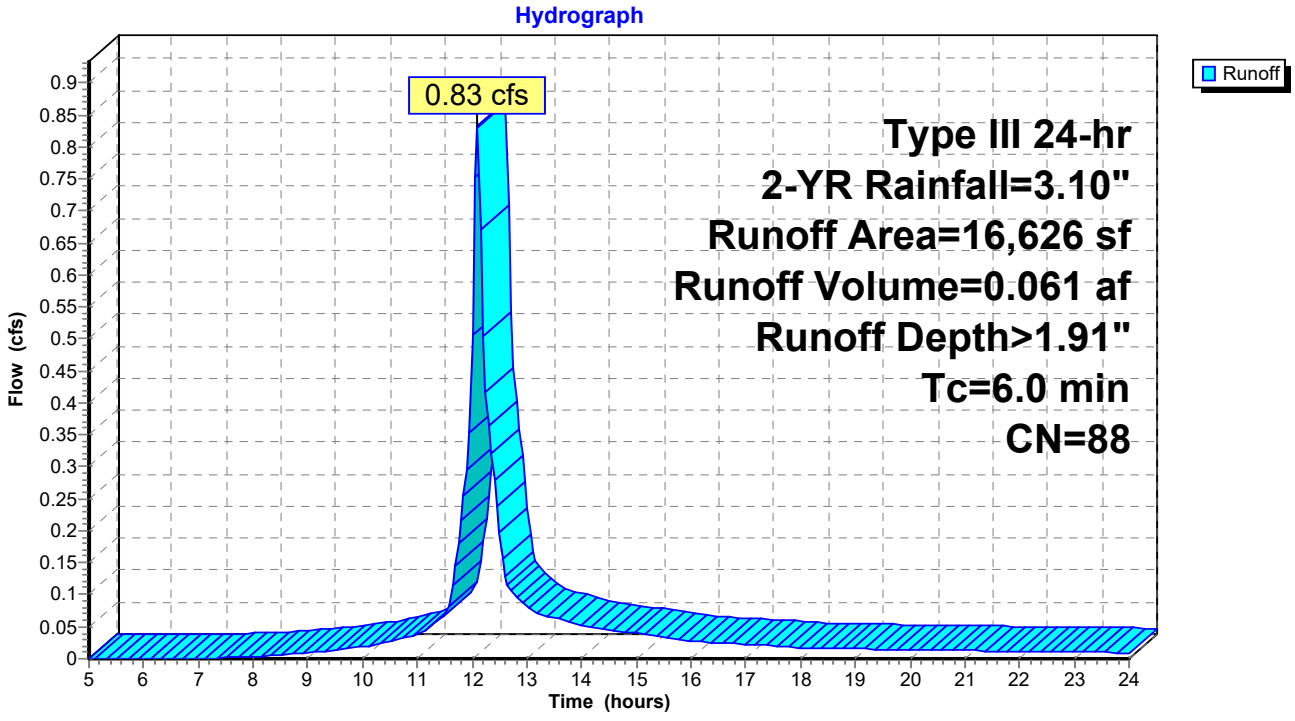
Runoff = 0.83 cfs @ 12.09 hrs, Volume= 0.061 af, Depth> 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
4,495	98	Paved parking, HSG D
557	98	Paved parking, HSG D
2,162	98	Paved parking, HSG D
1,839	80	>75% Grass cover, Good, HSG D
3,250	80	>75% Grass cover, Good, HSG D
814	80	>75% Grass cover, Good, HSG D
89	80	>75% Grass cover, Good, HSG D
2,107	80	>75% Grass cover, Good, HSG D
885	80	>75% Grass cover, Good, HSG D
428	80	>75% Grass cover, Good, HSG D
16,626	88	Weighted Average
9,412		56.61% Pervious Area
7,214		43.39% Impervious Area

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

Subcatchment S1.3: S1.3



Summary for Subcatchment S2.1: 2.1

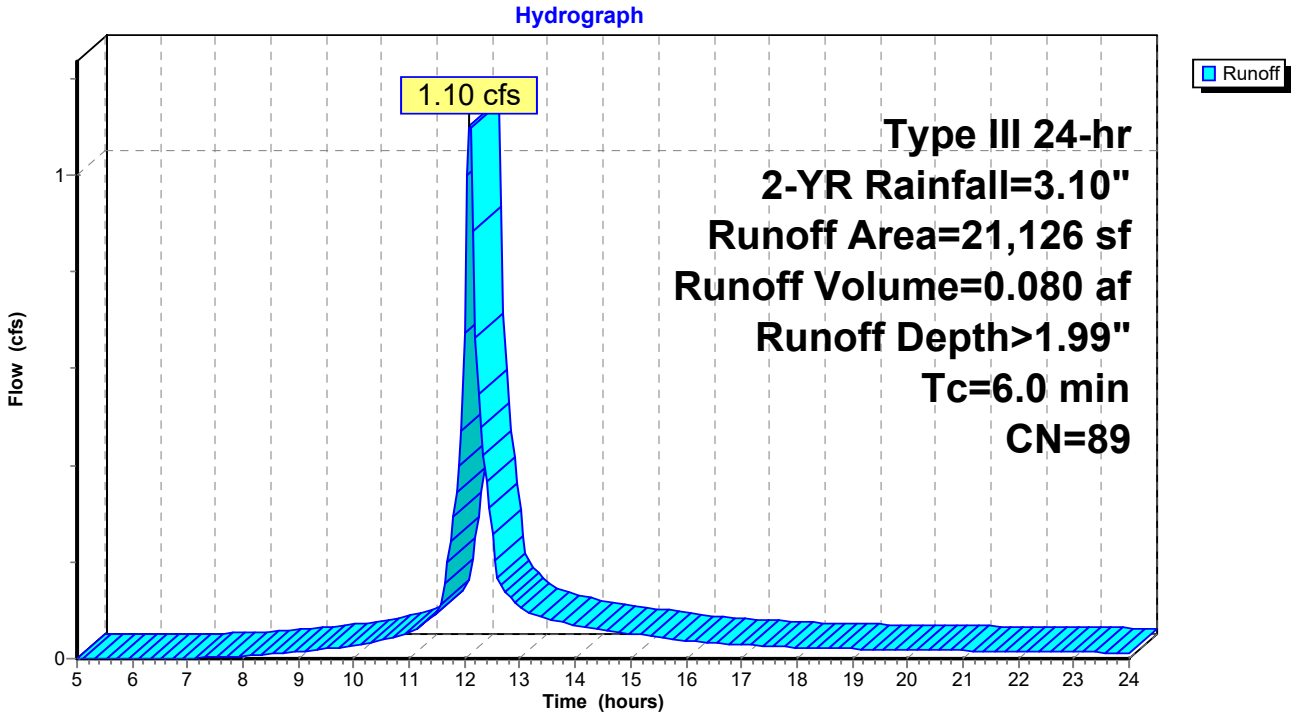
Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.080 af, Depth> 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
7,454	80	>75% Grass cover, Good, HSG D
486	80	>75% Grass cover, Good, HSG D
1,326	80	>75% Grass cover, Good, HSG D
562	80	>75% Grass cover, Good, HSG D
983	80	>75% Grass cover, Good, HSG D
10,315	98	Paved parking, HSG D
21,126	89	Weighted Average
10,811		51.17% Pervious Area
10,315		48.83% Impervious Area

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

Subcatchment S2.1: 2.1



Summary for Subcatchment S3.1: S1.2

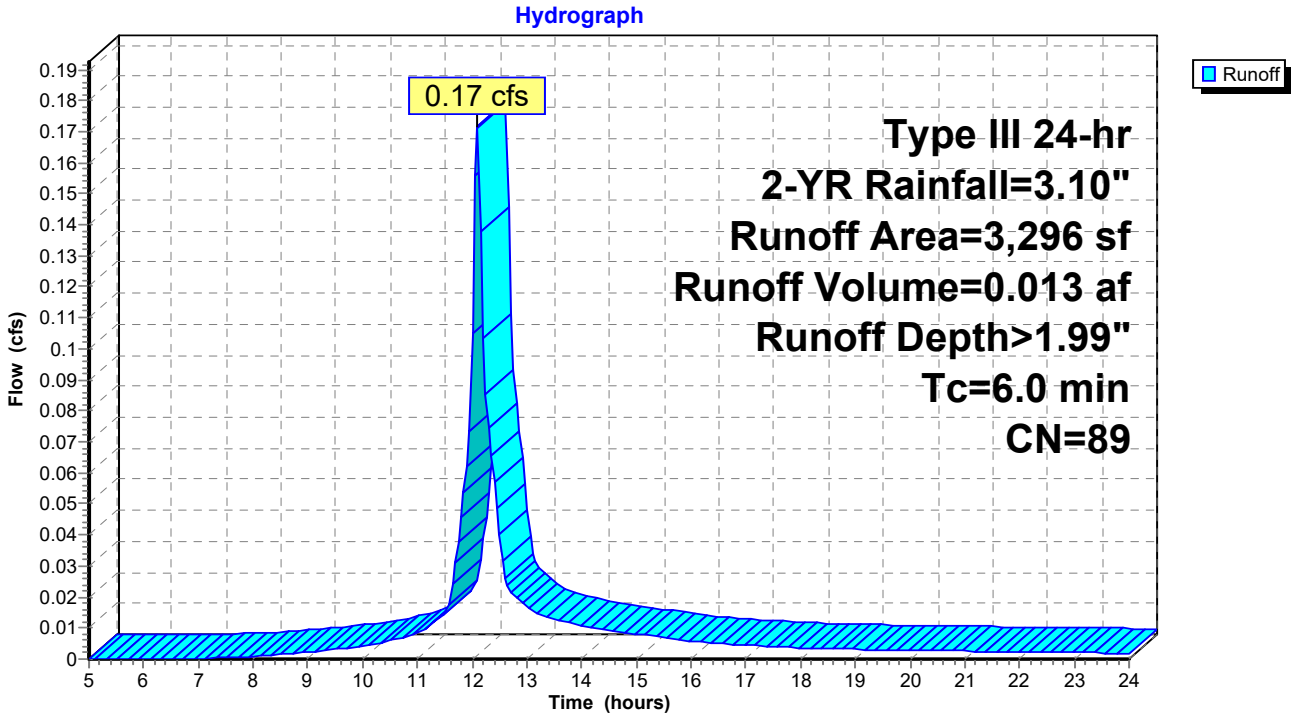
Runoff = 0.17 cfs @ 12.09 hrs, Volume= 0.013 af, Depth> 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (sf)	CN	Description
1,648	80	>75% Grass cover, Good, HSG D
1,648	98	Unconnected pavement, HSG D
3,296	89	Weighted Average
1,648		50.00% Pervious Area
1,648		50.00% Impervious Area
1,648		100.00% Unconnected

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

Subcatchment S3.1: S1.2

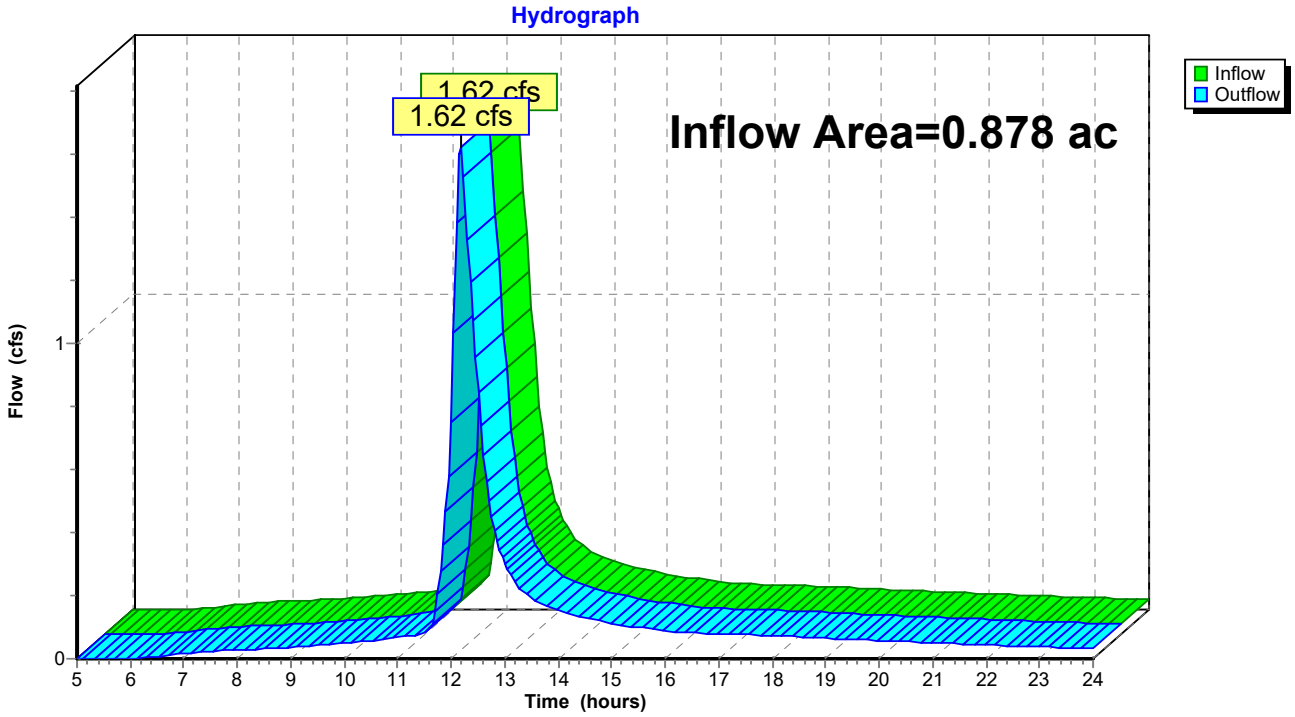


Summary for Reach POI1: POI 1

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 2.37" for 2-YR event
Inflow = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af
Outflow = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI1: POI 1

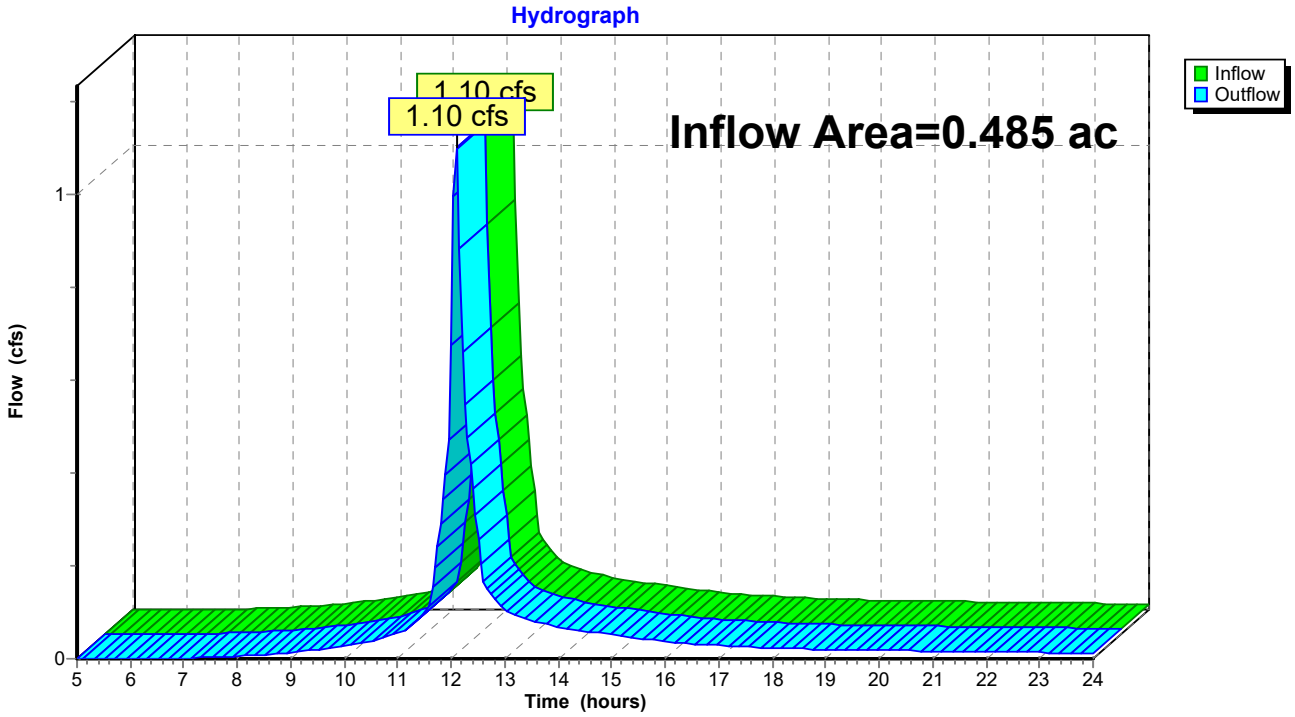


Summary for Reach POI2: POI 2

Inflow Area = 0.485 ac, 48.83% Impervious, Inflow Depth > 1.99" for 2-YR event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.10 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI2: POI 2

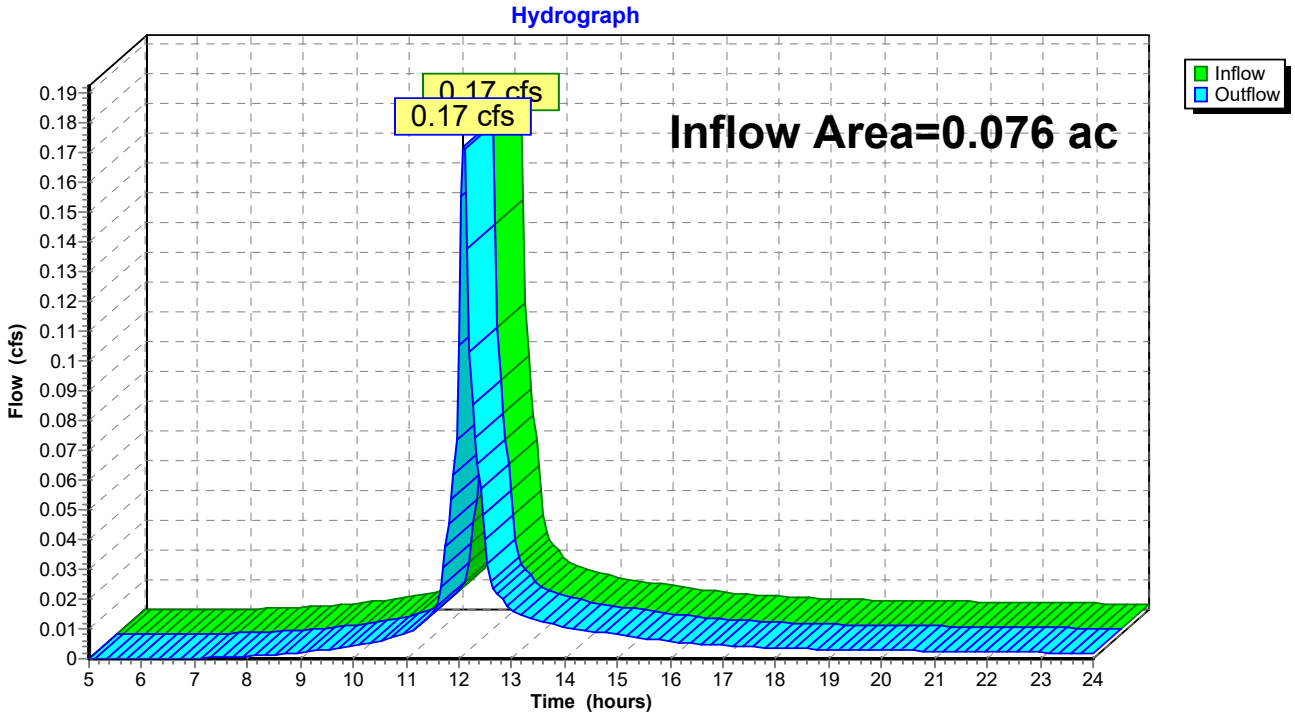


Summary for Reach POI3: POI 3

Inflow Area = 0.076 ac, 50.00% Impervious, Inflow Depth > 1.99" for 2-YR event
Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.013 af
Outflow = 0.17 cfs @ 12.09 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI3: POI 3



Summary for Pond 1P: R-TANKS

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 2.42" for 2-YR event
Inflow = 2.29 cfs @ 12.09 hrs, Volume= 0.177 af
Outflow = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af, Atten= 29%, Lag= 5.1 min
Primary = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 20.74' @ 12.17 hrs Surf.Area= 1,324 sf Storage= 1,763 cf

Plug-Flow detention time= 70.7 min calculated for 0.173 af (98% of inflow)
Center-of-Mass det. time= 57.7 min (840.9 - 783.2)

Volume	Invert	Avail.Storage	Storage Description
#1	19.00'	996 cf	**stone envelope (Prismatic)**Listed below (Recalc) 5,389 cf Overall - 2,899 cf Embedded = 2,490 cf x 40.0% Voids
#2	19.25'	2,754 cf	**R-Tank footprint (Prismatic)**Listed below (Recalc) Inside #1 2,899 cf Overall x 95.0% Voids
		3,750 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.00	1,324	0	0
23.07	1,324	5,389	5,389

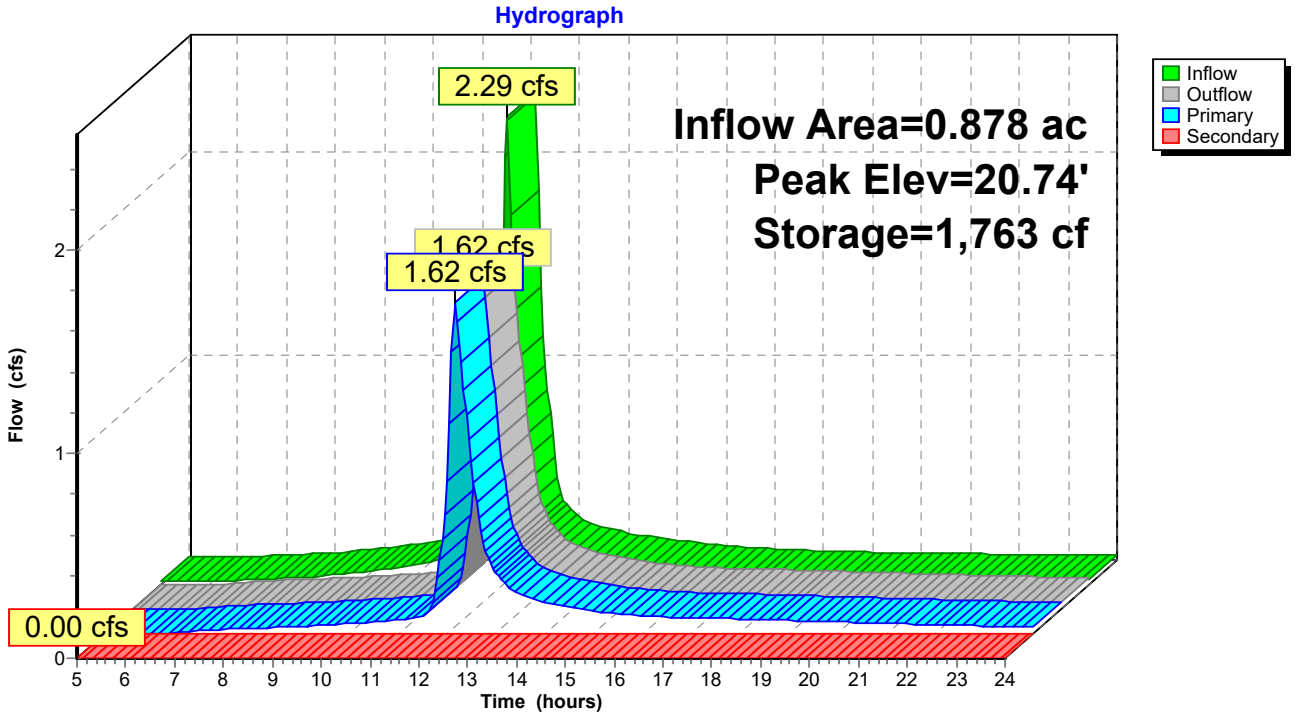
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.25	1,028	0	0
22.07	1,028	2,899	2,899

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**8.0" Round Culvert** L= 3.6' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 19.00' / 18.98' S= 0.0056 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	19.10'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	21.00'	**10.0" Round Culvert** L= 23.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 21.00' / 19.77' S= 0.0535 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#4	Device 1	19.80'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Head (feet) 0.00 0.50 0.75 1.00 Width (feet) 0.50 0.50 0.50 0.50
#5	Device 1	20.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=1.59 cfs @ 12.17 hrs HW=20.73' (Free Discharge)
└─**1=Culvert** (Passes 1.59 cfs of 1.98 cfs potential flow)
  └─**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 5.98 fps)
  └─**4=Custom Weir/Orifice** (Weir Controls 1.46 cfs @ 3.15 fps)
  └─**5=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=19.00' (Free Discharge)
└─**3=Culvert** (Controls 0.00 cfs)

Pond 1P: R-TANKS

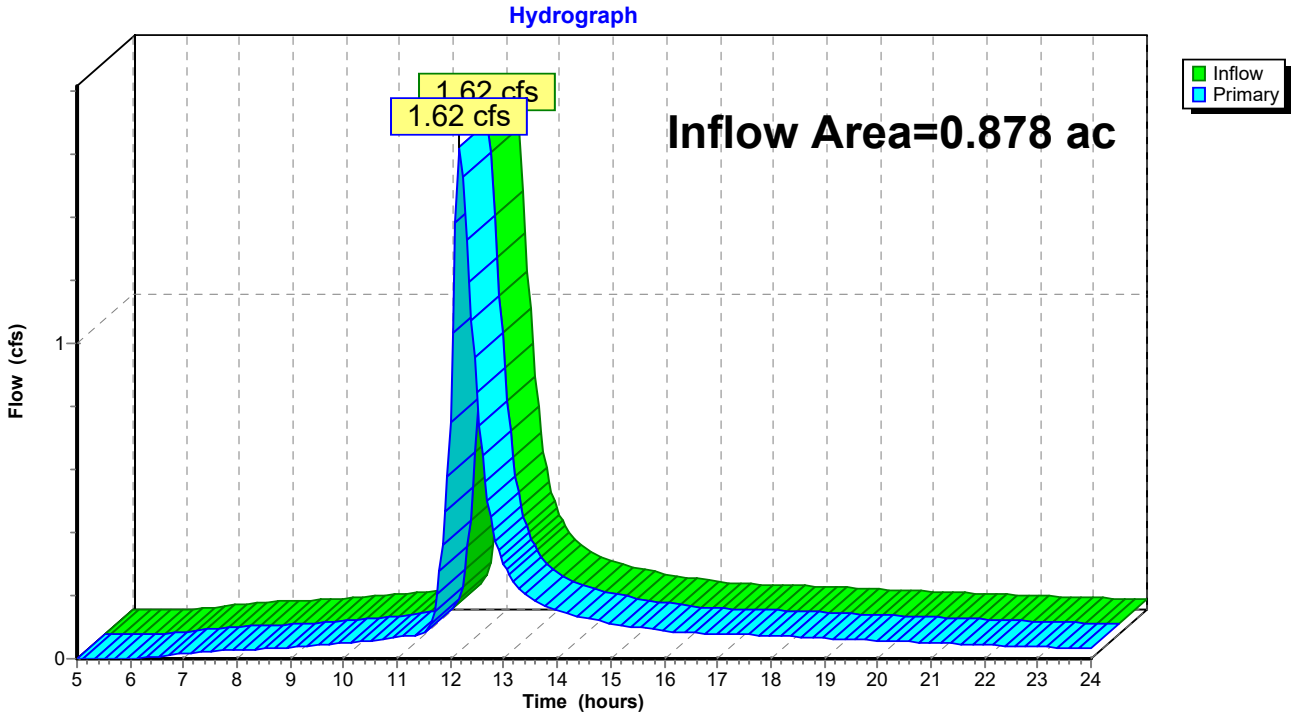


Summary for Pond 2P: STORMFILTER

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 2.37" for 2-YR event
Inflow = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af
Primary = 1.62 cfs @ 12.17 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Pond 2P: STORMFILTER



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=11,070 sf 100.00% Impervious Runoff Depth>4.25"
Tc=6.0 min CN=98 Runoff=1.12 cfs 0.090 af

Subcatchment S1.2: S1.2 Runoff Area=10,560 sf 100.00% Impervious Runoff Depth>4.25"
Tc=6.0 min CN=98 Runoff=1.06 cfs 0.086 af

Subcatchment S1.3: S1.3 Runoff Area=16,626 sf 43.39% Impervious Runoff Depth>3.29"
Tc=6.0 min CN=88 Runoff=1.41 cfs 0.105 af

Subcatchment S2.1: 2.1 Runoff Area=21,126 sf 48.83% Impervious Runoff Depth>3.39"
Tc=6.0 min CN=89 Runoff=1.84 cfs 0.137 af

Subcatchment S3.1: S1.2 Runoff Area=3,296 sf 50.00% Impervious Runoff Depth>3.39"
Tc=6.0 min CN=89 Runoff=0.29 cfs 0.021 af

Reach POI1: POI 1 Inflow=2.46 cfs 0.273 af
Outflow=2.46 cfs 0.273 af

Reach POI2: POI 2 Inflow=1.84 cfs 0.137 af
Outflow=1.84 cfs 0.137 af

Reach POI3: POI 3 Inflow=0.29 cfs 0.021 af
Outflow=0.29 cfs 0.021 af

Pond 1P: R-TANKS Peak Elev=21.20' Storage=2,272 cf Inflow=3.59 cfs 0.281 af
Primary=2.30 cfs 0.272 af Secondary=0.16 cfs 0.001 af Outflow=2.46 cfs 0.273 af

Pond 2P: STORMFILTER Inflow=2.30 cfs 0.272 af
Primary=2.30 cfs 0.272 af

Total Runoff Area = 1.439 ac Runoff Volume = 0.439 af Average Runoff Depth = 3.66"
34.89% Pervious = 0.502 ac 65.11% Impervious = 0.937 ac

Summary for Subcatchment S1.1: S1.1

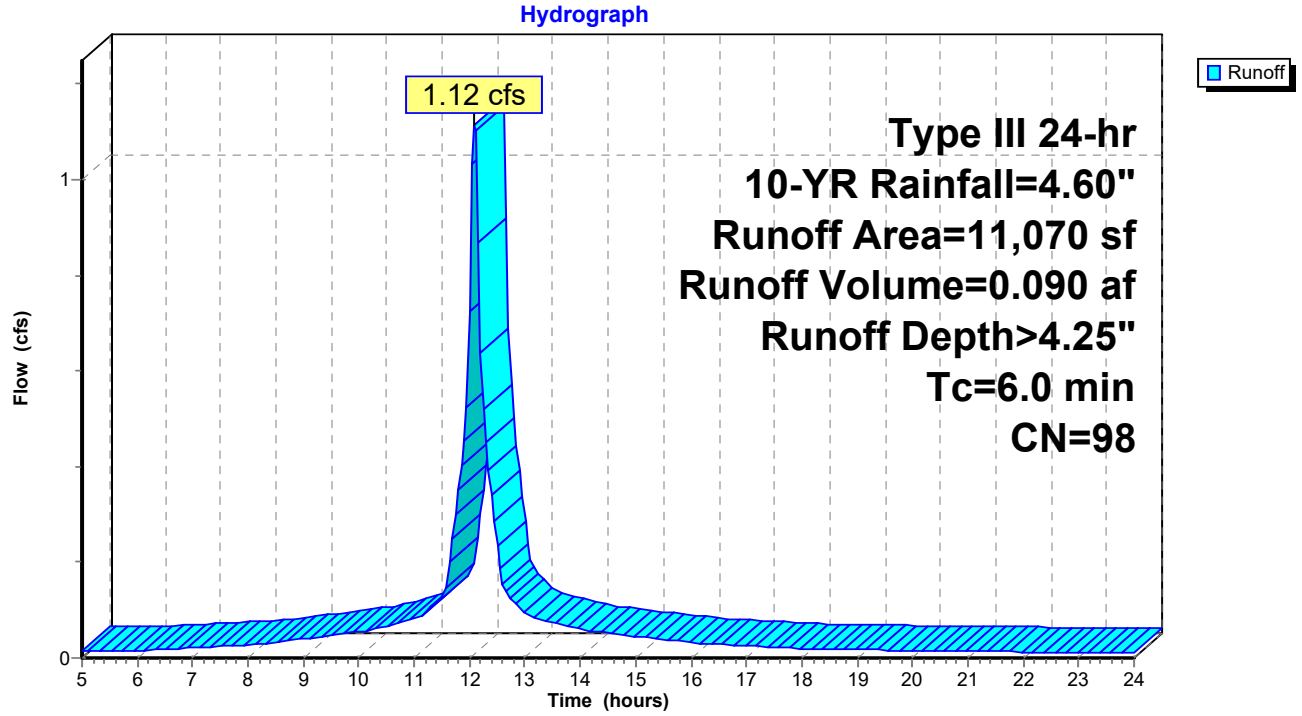
Runoff = 1.12 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
11,070	98	Roofs, HSG D
11,070		100.00% Impervious Area

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S1.2: S1.2

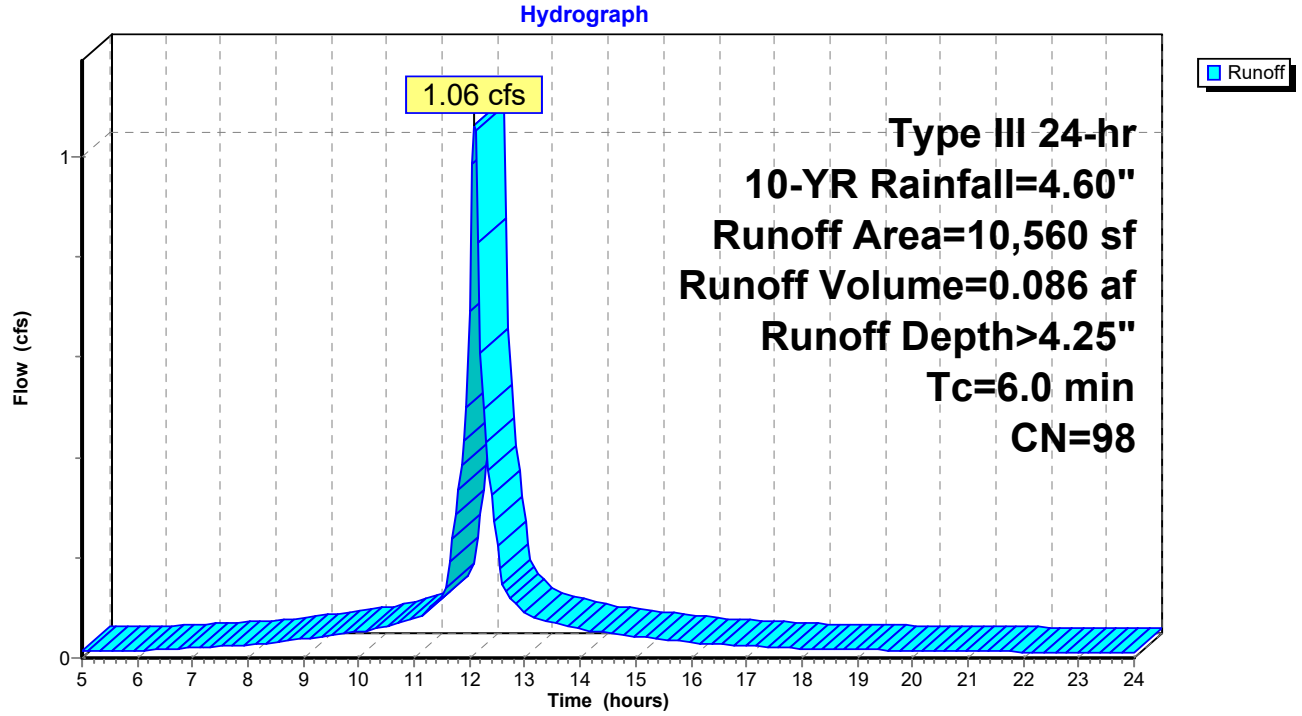
Runoff = 1.06 cfs @ 12.09 hrs, Volume= 0.086 af, Depth> 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
10,560	98	Roofs, HSG D
10,560		100.00% Impervious Area

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

Subcatchment S1.2: S1.2



Summary for Subcatchment S1.3: S1.3

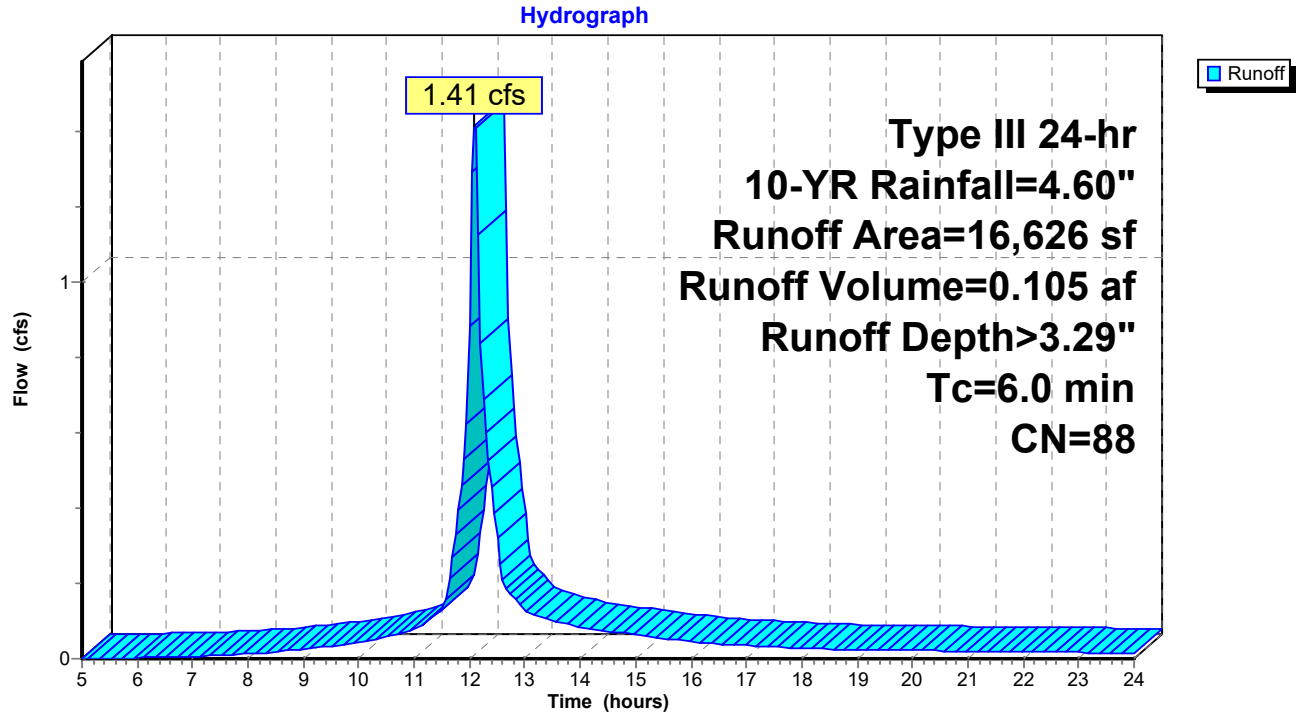
Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.105 af, Depth> 3.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
4,495	98	Paved parking, HSG D
557	98	Paved parking, HSG D
2,162	98	Paved parking, HSG D
1,839	80	>75% Grass cover, Good, HSG D
3,250	80	>75% Grass cover, Good, HSG D
814	80	>75% Grass cover, Good, HSG D
89	80	>75% Grass cover, Good, HSG D
2,107	80	>75% Grass cover, Good, HSG D
885	80	>75% Grass cover, Good, HSG D
428	80	>75% Grass cover, Good, HSG D
16,626	88	Weighted Average
9,412		56.61% Pervious Area
7,214		43.39% Impervious Area

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

Subcatchment S1.3: S1.3



Summary for Subcatchment S2.1: 2.1

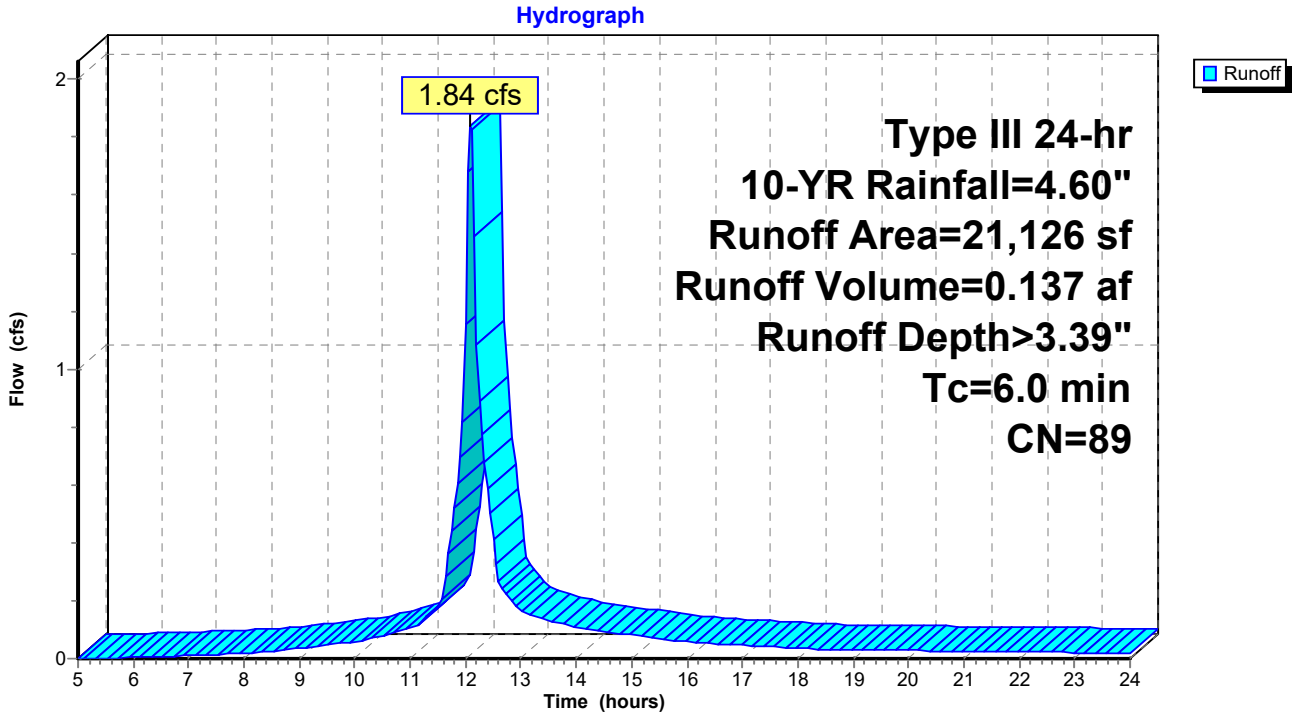
Runoff = 1.84 cfs @ 12.09 hrs, Volume= 0.137 af, Depth> 3.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
7,454	80	>75% Grass cover, Good, HSG D
486	80	>75% Grass cover, Good, HSG D
1,326	80	>75% Grass cover, Good, HSG D
562	80	>75% Grass cover, Good, HSG D
983	80	>75% Grass cover, Good, HSG D
10,315	98	Paved parking, HSG D
21,126	89	Weighted Average
10,811		51.17% Pervious Area
10,315		48.83% Impervious Area

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

Subcatchment S2.1: 2.1



Summary for Subcatchment S3.1: S1.2

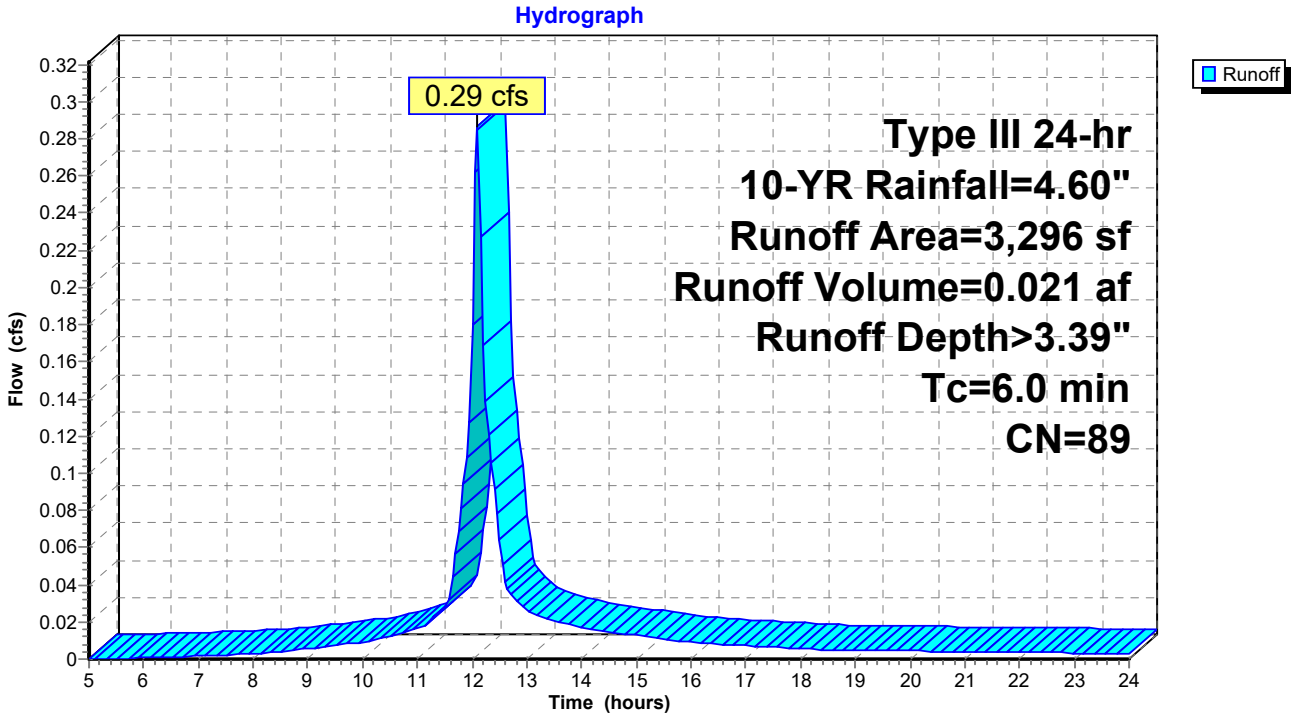
Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af, Depth> 3.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (sf)	CN	Description
1,648	80	>75% Grass cover, Good, HSG D
1,648	98	Unconnected pavement, HSG D
3,296	89	Weighted Average
1,648		50.00% Pervious Area
1,648		50.00% Impervious Area
1,648		100.00% Unconnected

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

Subcatchment S3.1: S1.2

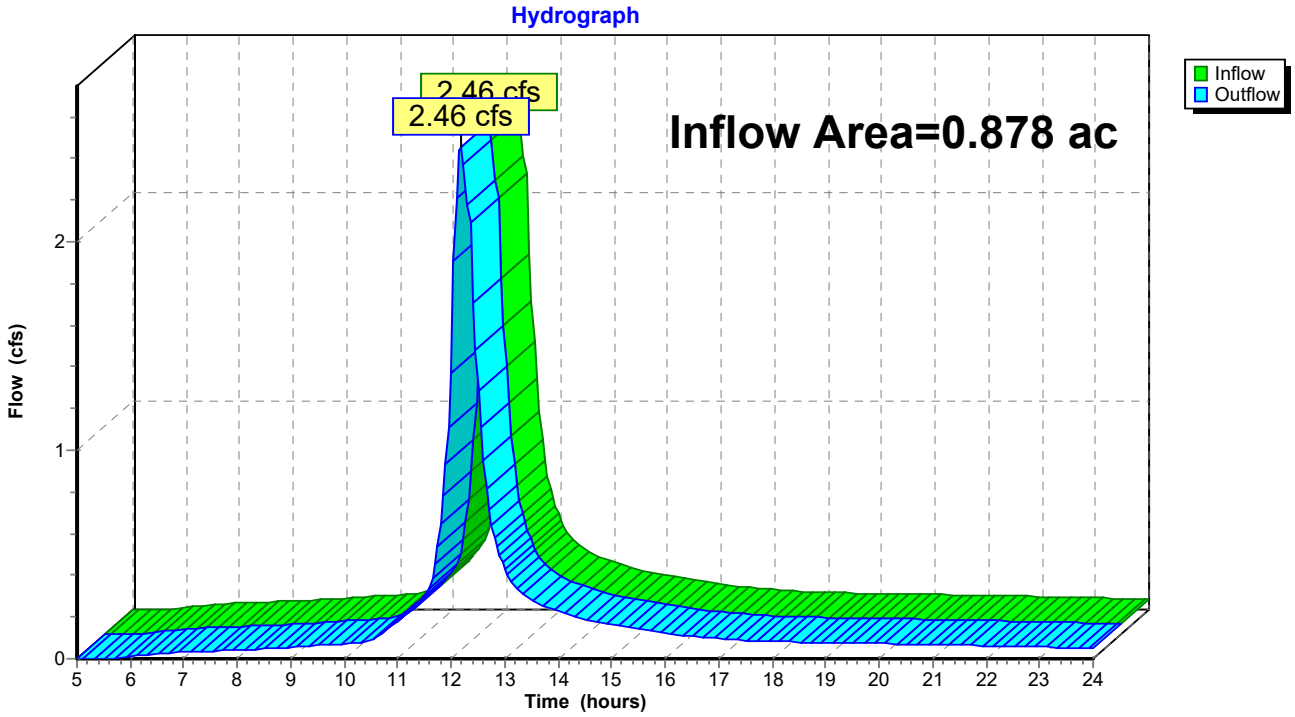


Summary for Reach POI1: POI 1

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 3.74" for 10-YR event
Inflow = 2.46 cfs @ 12.18 hrs, Volume= 0.273 af
Outflow = 2.46 cfs @ 12.18 hrs, Volume= 0.273 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI1: POI 1

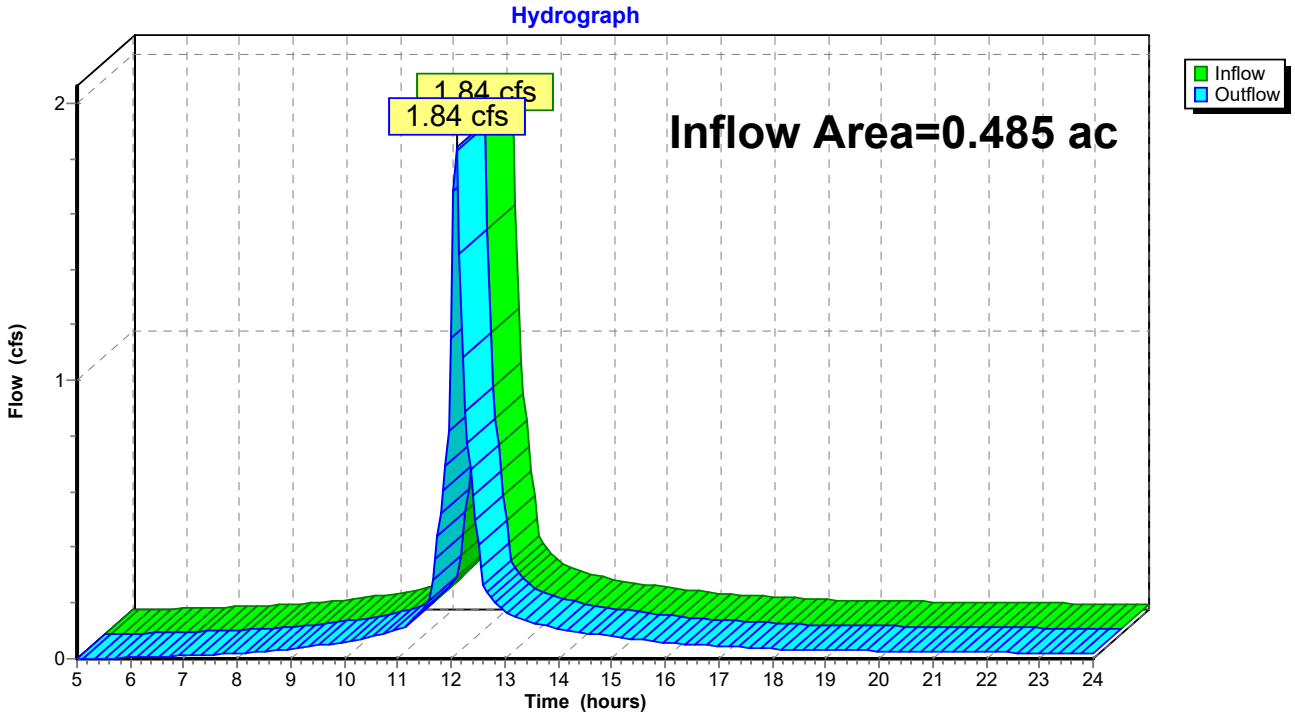


Summary for Reach POI2: POI 2

Inflow Area = 0.485 ac, 48.83% Impervious, Inflow Depth > 3.39" for 10-YR event
Inflow = 1.84 cfs @ 12.09 hrs, Volume= 0.137 af
Outflow = 1.84 cfs @ 12.09 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI2: POI 2

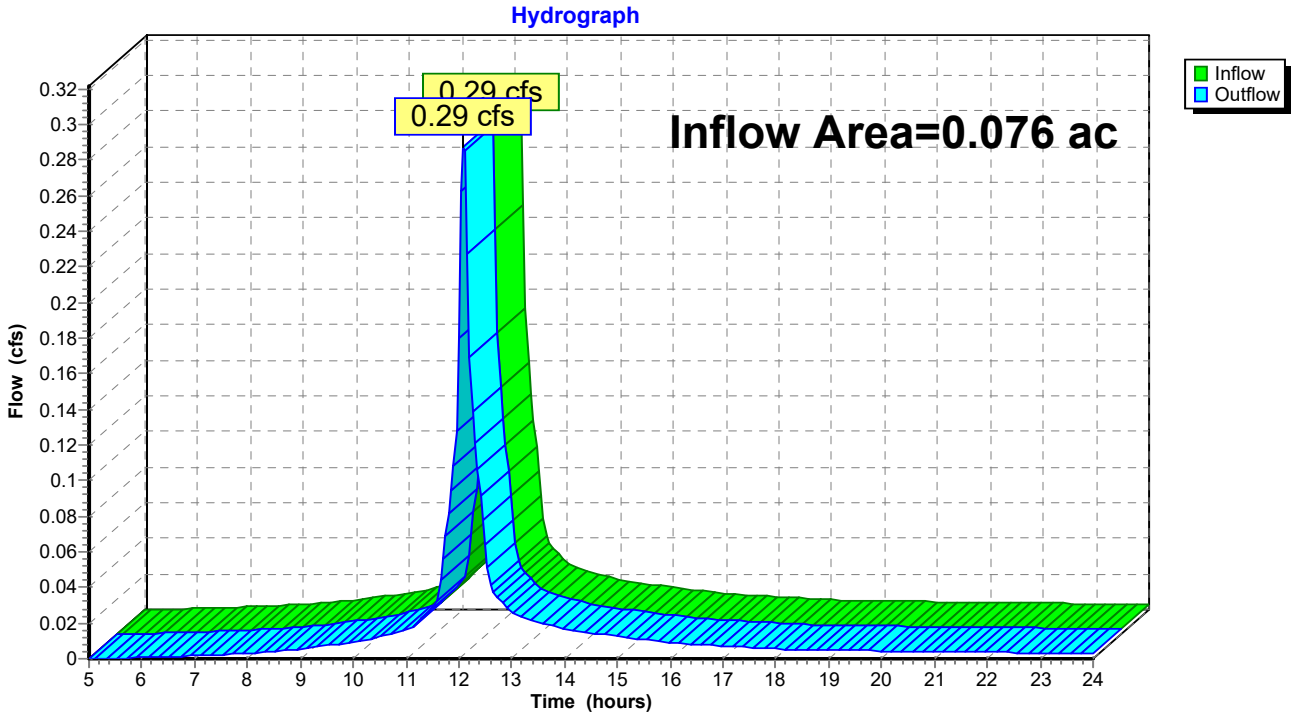


Summary for Reach POI3: POI 3

Inflow Area = 0.076 ac, 50.00% Impervious, Inflow Depth > 3.39" for 10-YR event
Inflow = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI3: POI 3



Summary for Pond 1P: R-TANKS

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 3.83" for 10-YR event
Inflow = 3.59 cfs @ 12.09 hrs, Volume= 0.281 af
Outflow = 2.46 cfs @ 12.18 hrs, Volume= 0.273 af, Atten= 32%, Lag= 5.3 min
Primary = 2.30 cfs @ 12.18 hrs, Volume= 0.272 af
Secondary = 0.16 cfs @ 12.18 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 21.20' @ 12.18 hrs Surf.Area= 1,324 sf Storage= 2,272 cf

Plug-Flow detention time= 58.7 min calculated for 0.273 af (97% of inflow)
Center-of-Mass det. time= 42.9 min (819.6 - 776.7)

Volume	Invert	Avail.Storage	Storage Description
#1	19.00'	996 cf	**stone envelope (Prismatic)**Listed below (Recalc) 5,389 cf Overall - 2,899 cf Embedded = 2,490 cf x 40.0% Voids
#2	19.25'	2,754 cf	**R-Tank footprint (Prismatic)**Listed below (Recalc) Inside #1 2,899 cf Overall x 95.0% Voids
		3,750 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.00	1,324	0	0
23.07	1,324	5,389	5,389

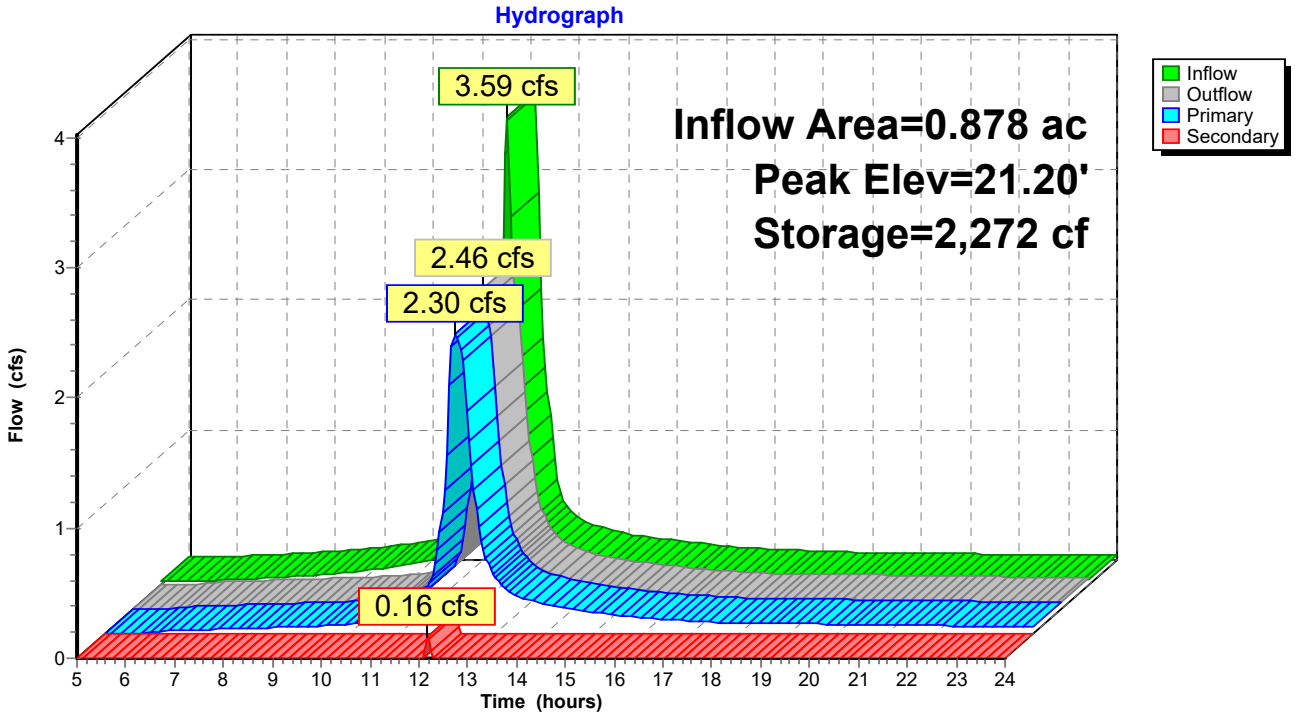
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.25	1,028	0	0
22.07	1,028	2,899	2,899

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**8.0" Round Culvert** L= 3.6' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 19.00' / 18.98' S= 0.0056 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	19.10'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	21.00'	**10.0" Round Culvert** L= 23.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 21.00' / 19.77' S= 0.0535 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#4	Device 1	19.80'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Head (feet) 0.00 0.50 0.75 1.00 Width (feet) 0.50 0.50 0.50 0.50
#5	Device 1	20.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=2.29 cfs @ 12.18 hrs HW=21.19' (Free Discharge)
└─**1=Culvert** (Inlet Controls 2.29 cfs @ 6.57 fps)
  └─**2=Orifice/Grate** (Passes < 0.15 cfs potential flow)
  └─**4=Custom Weir/Orifice** (Passes < 2.29 cfs potential flow)
  └─**5=Sharp-Crested Rectangular Weir** (Passes < 4.79 cfs potential flow)

Secondary OutFlow Max=0.14 cfs @ 12.18 hrs HW=21.19' (Free Discharge)
└─**3=Culvert** (Inlet Controls 0.14 cfs @ 1.50 fps)

Pond 1P: R-TANKS

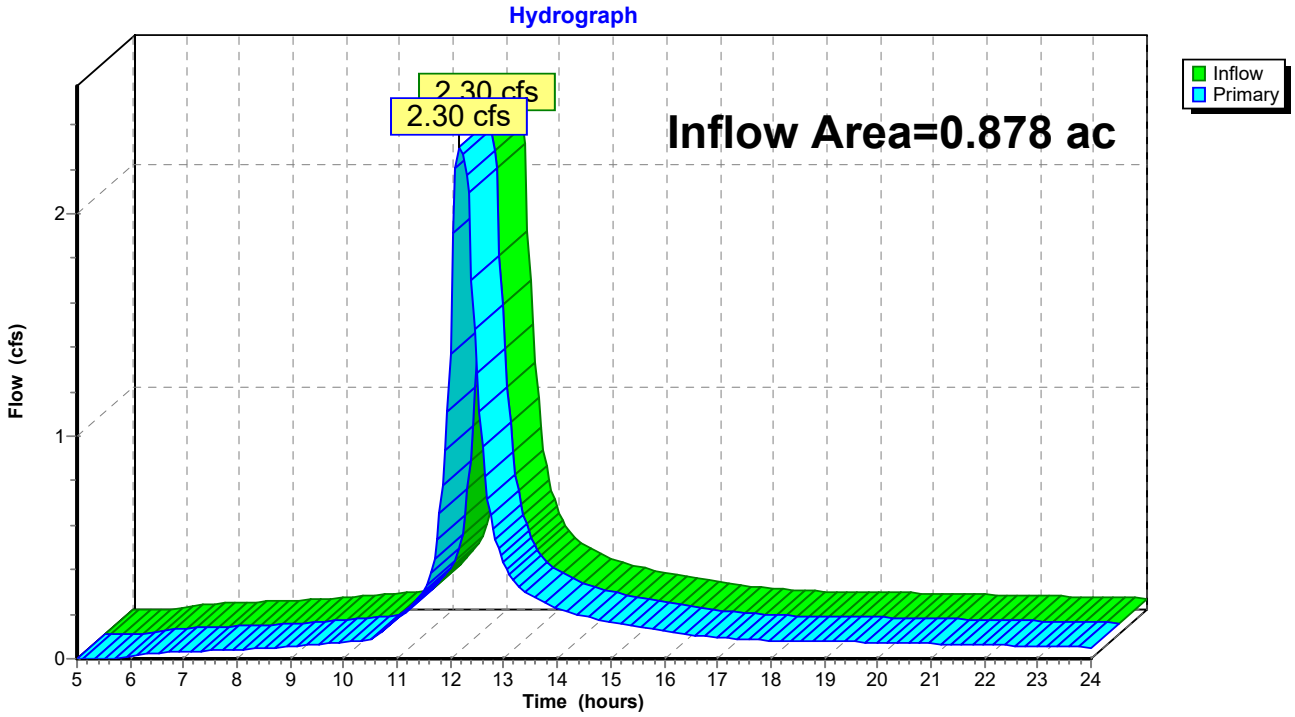


Summary for Pond 2P: STORMFILTER

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 3.72" for 10-YR event
Inflow = 2.30 cfs @ 12.18 hrs, Volume= 0.272 af
Primary = 2.30 cfs @ 12.18 hrs, Volume= 0.272 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Pond 2P: STORMFILTER



Time span=5.00-24.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment S1.1: S1.1 Runoff Area=11,070 sf 100.00% Impervious Runoff Depth>5.40"
Tc=6.0 min CN=98 Runoff=1.41 cfs 0.114 af

Subcatchment S1.2: S1.2 Runoff Area=10,560 sf 100.00% Impervious Runoff Depth>5.40"
Tc=6.0 min CN=98 Runoff=1.35 cfs 0.109 af

Subcatchment S1.3: S1.3 Runoff Area=16,626 sf 43.39% Impervious Runoff Depth>4.43"
Tc=6.0 min CN=88 Runoff=1.88 cfs 0.141 af

Subcatchment S2.1: 2.1 Runoff Area=21,126 sf 48.83% Impervious Runoff Depth>4.53"
Tc=6.0 min CN=89 Runoff=2.43 cfs 0.183 af

Subcatchment S3.1: S1.2 Runoff Area=3,296 sf 50.00% Impervious Runoff Depth>4.53"
Tc=6.0 min CN=89 Runoff=0.38 cfs 0.029 af

Reach POI1: POI 1 Inflow=3.45 cfs 0.354 af
Outflow=3.45 cfs 0.354 af

Reach POI2: POI 2 Inflow=2.43 cfs 0.183 af
Outflow=2.43 cfs 0.183 af

Reach POI3: POI 3 Inflow=0.38 cfs 0.029 af
Outflow=0.38 cfs 0.029 af

Pond 1P: R-TANKS Peak Elev=21.55' Storage=2,648 cf Inflow=4.63 cfs 0.364 af
Primary=2.50 cfs 0.341 af Secondary=0.95 cfs 0.013 af Outflow=3.45 cfs 0.354 af

Pond 2P: STORMFILTER Inflow=2.50 cfs 0.341 af
Primary=2.50 cfs 0.341 af

Total Runoff Area = 1.439 ac Runoff Volume = 0.576 af Average Runoff Depth = 4.80"
34.89% Pervious = 0.502 ac 65.11% Impervious = 0.937 ac

Summary for Subcatchment S1.1: S1.1

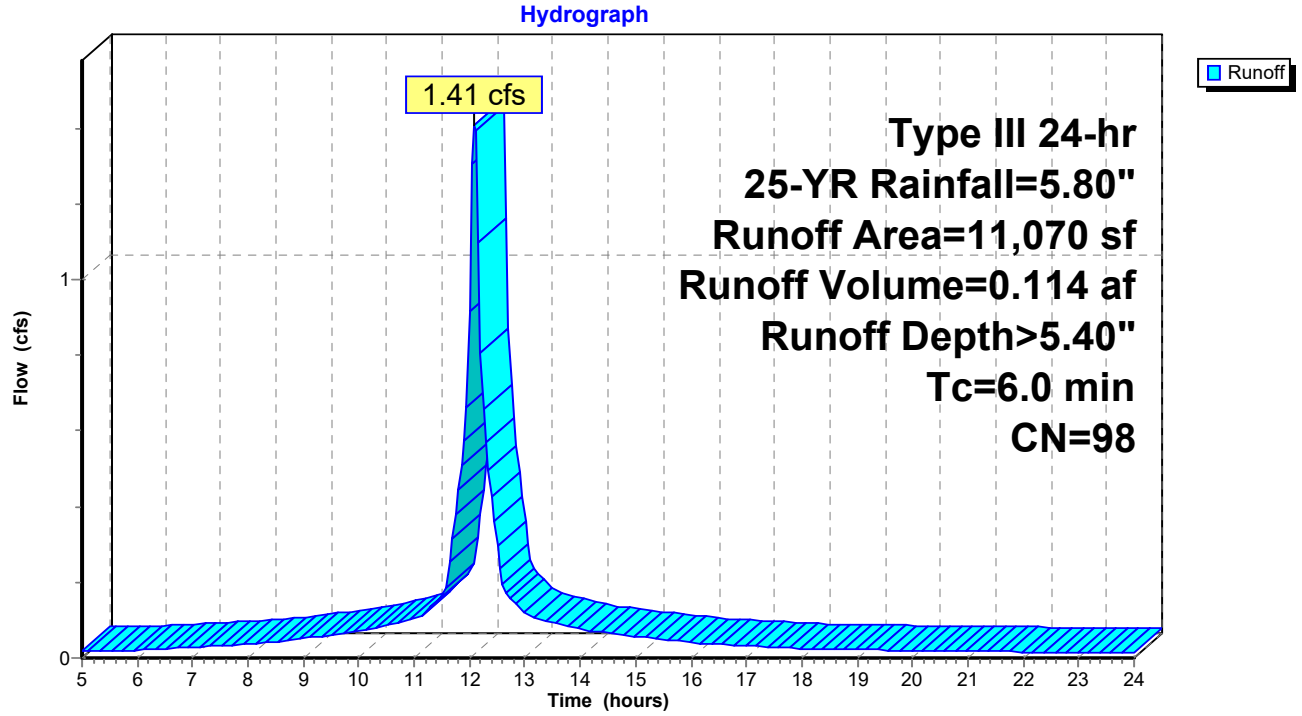
Runoff = 1.41 cfs @ 12.09 hrs, Volume= 0.114 af, Depth> 5.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
11,070	98	Roofs, HSG D
11,070		100.00% Impervious Area

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

Subcatchment S1.1: S1.1



Summary for Subcatchment S1.2: S1.2

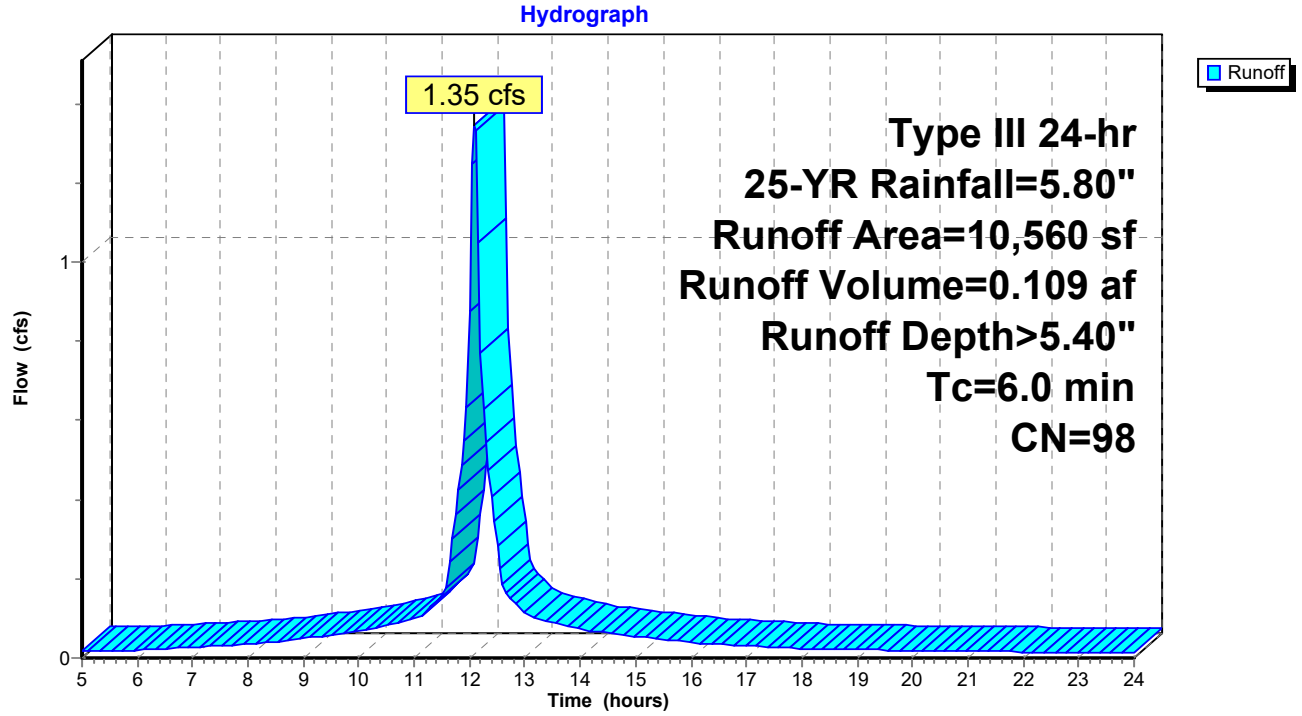
Runoff = 1.35 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 5.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
10,560	98	Roofs, HSG D
10,560		100.00% Impervious Area

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

Subcatchment S1.2: S1.2



Summary for Subcatchment S1.3: S1.3

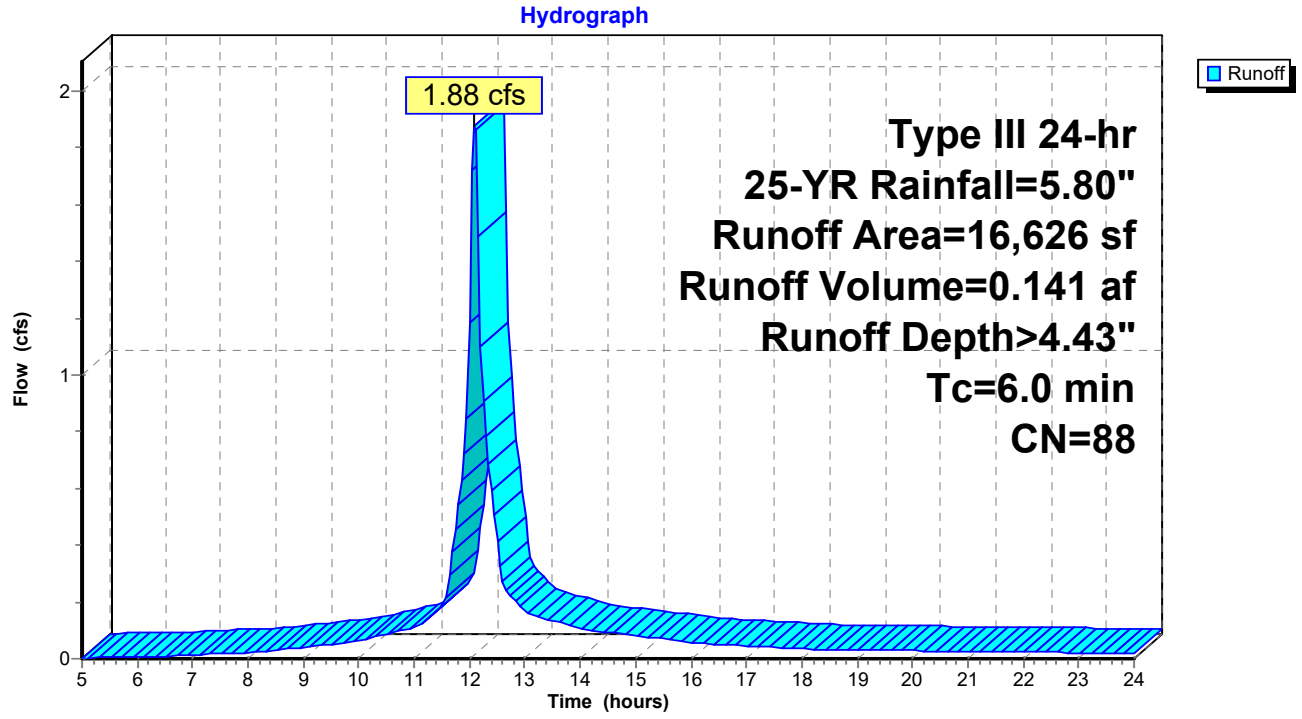
Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.141 af, Depth> 4.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
4,495	98	Paved parking, HSG D
557	98	Paved parking, HSG D
2,162	98	Paved parking, HSG D
1,839	80	>75% Grass cover, Good, HSG D
3,250	80	>75% Grass cover, Good, HSG D
814	80	>75% Grass cover, Good, HSG D
89	80	>75% Grass cover, Good, HSG D
2,107	80	>75% Grass cover, Good, HSG D
885	80	>75% Grass cover, Good, HSG D
428	80	>75% Grass cover, Good, HSG D
16,626	88	Weighted Average
9,412		56.61% Pervious Area
7,214		43.39% Impervious Area

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

Subcatchment S1.3: S1.3



Summary for Subcatchment S2.1: 2.1

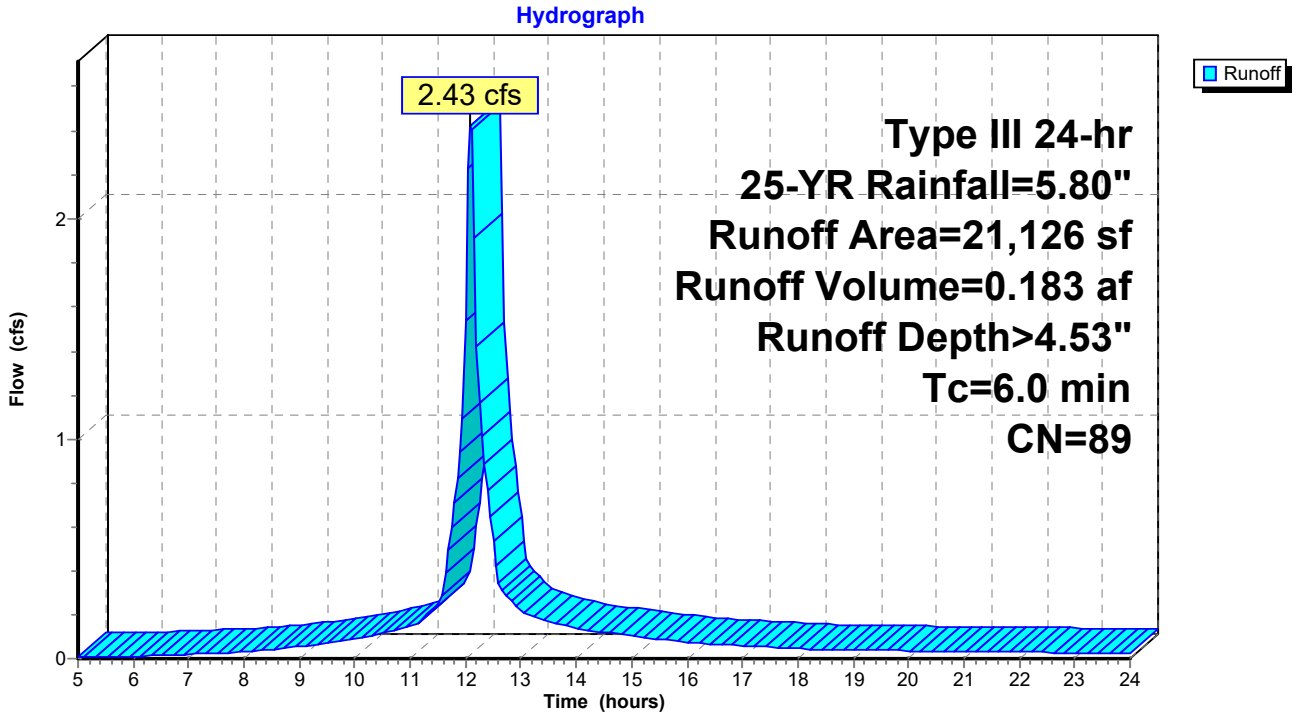
Runoff = 2.43 cfs @ 12.09 hrs, Volume= 0.183 af, Depth> 4.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
7,454	80	>75% Grass cover, Good, HSG D
486	80	>75% Grass cover, Good, HSG D
1,326	80	>75% Grass cover, Good, HSG D
562	80	>75% Grass cover, Good, HSG D
983	80	>75% Grass cover, Good, HSG D
10,315	98	Paved parking, HSG D
21,126	89	Weighted Average
10,811		51.17% Pervious Area
10,315		48.83% Impervious Area

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

Subcatchment S2.1: 2.1



Summary for Subcatchment S3.1: S1.2

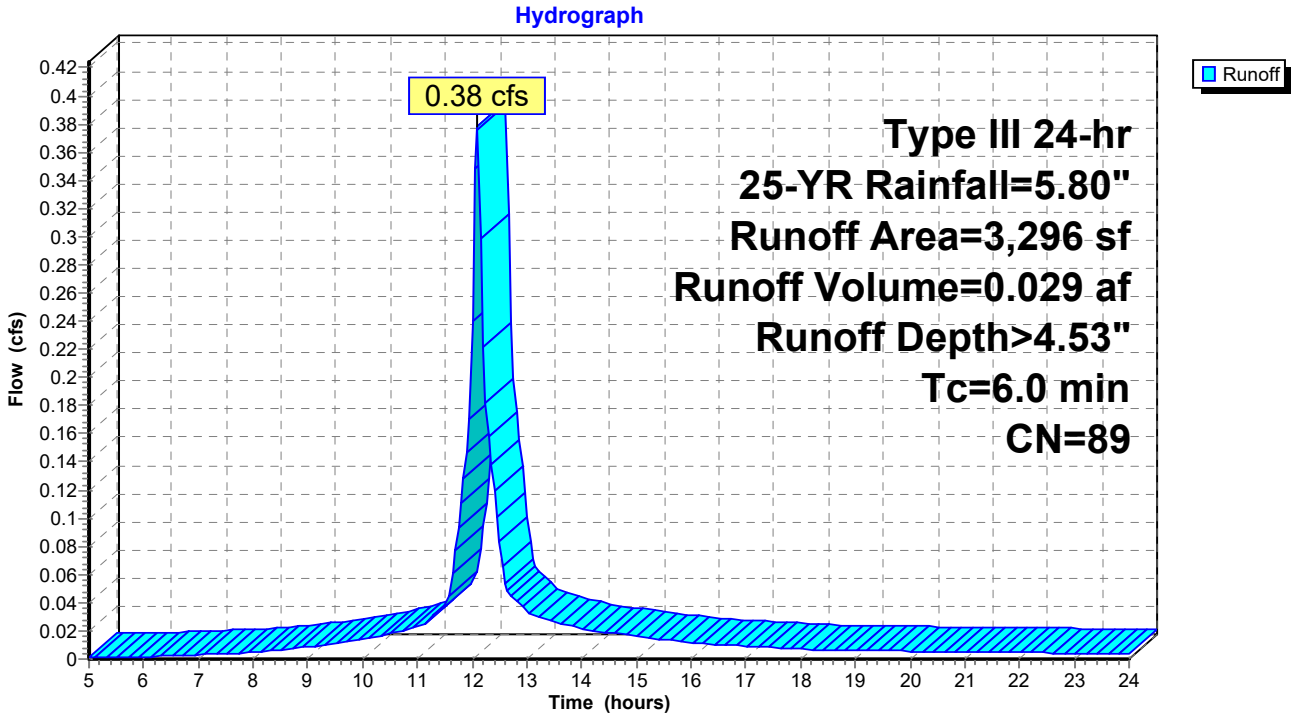
Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.029 af, Depth> 4.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (sf)	CN	Description
1,648	80	>75% Grass cover, Good, HSG D
1,648	98	Unconnected pavement, HSG D
3,296	89	Weighted Average
1,648		50.00% Pervious Area
1,648		50.00% Impervious Area
1,648		100.00% Unconnected

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

Subcatchment S3.1: S1.2

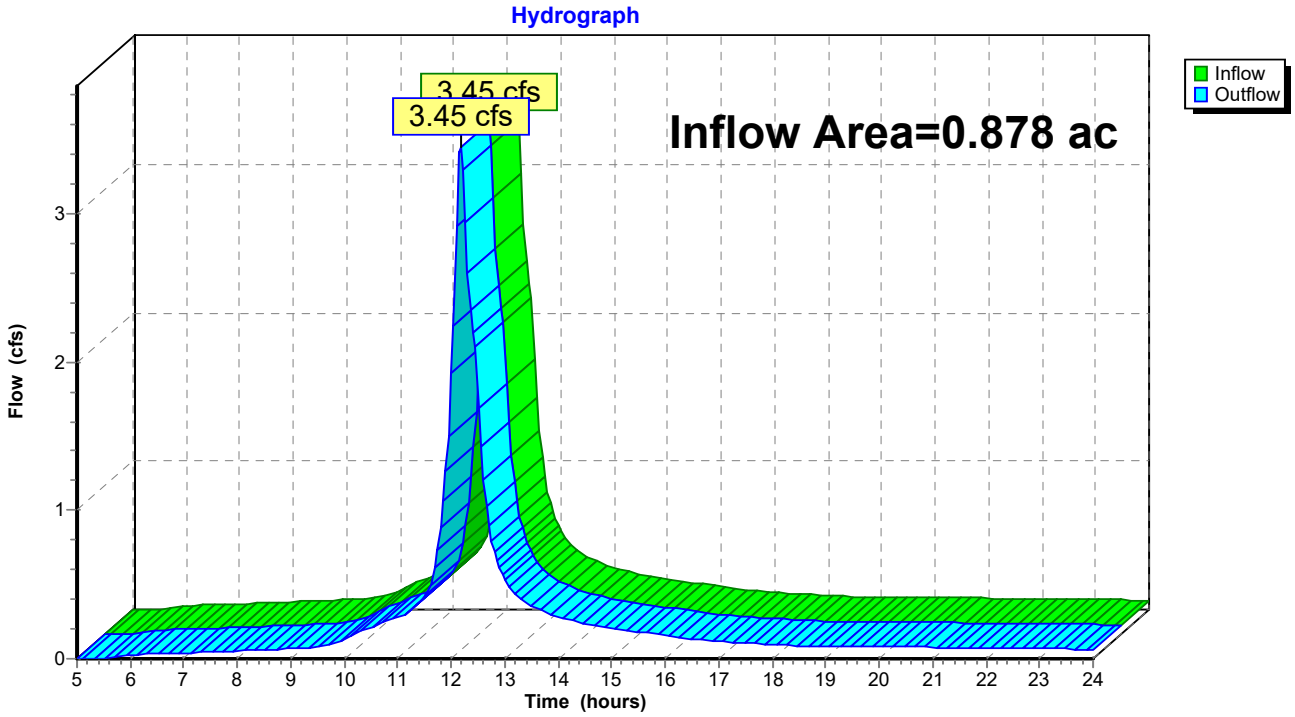


Summary for Reach POI1: POI 1

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 4.84" for 25-YR event
Inflow = 3.45 cfs @ 12.17 hrs, Volume= 0.354 af
Outflow = 3.45 cfs @ 12.17 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI1: POI 1

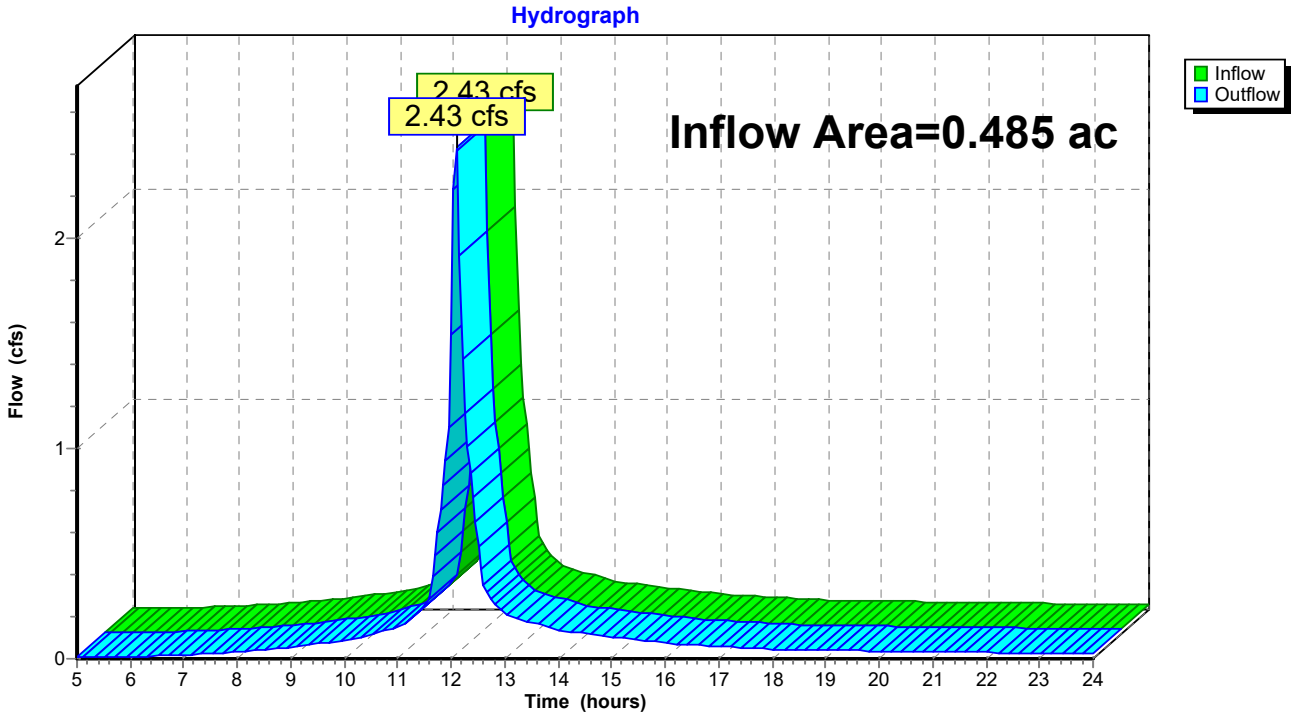


Summary for Reach POI2: POI 2

Inflow Area = 0.485 ac, 48.83% Impervious, Inflow Depth > 4.53" for 25-YR event
Inflow = 2.43 cfs @ 12.09 hrs, Volume= 0.183 af
Outflow = 2.43 cfs @ 12.09 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI2: POI 2

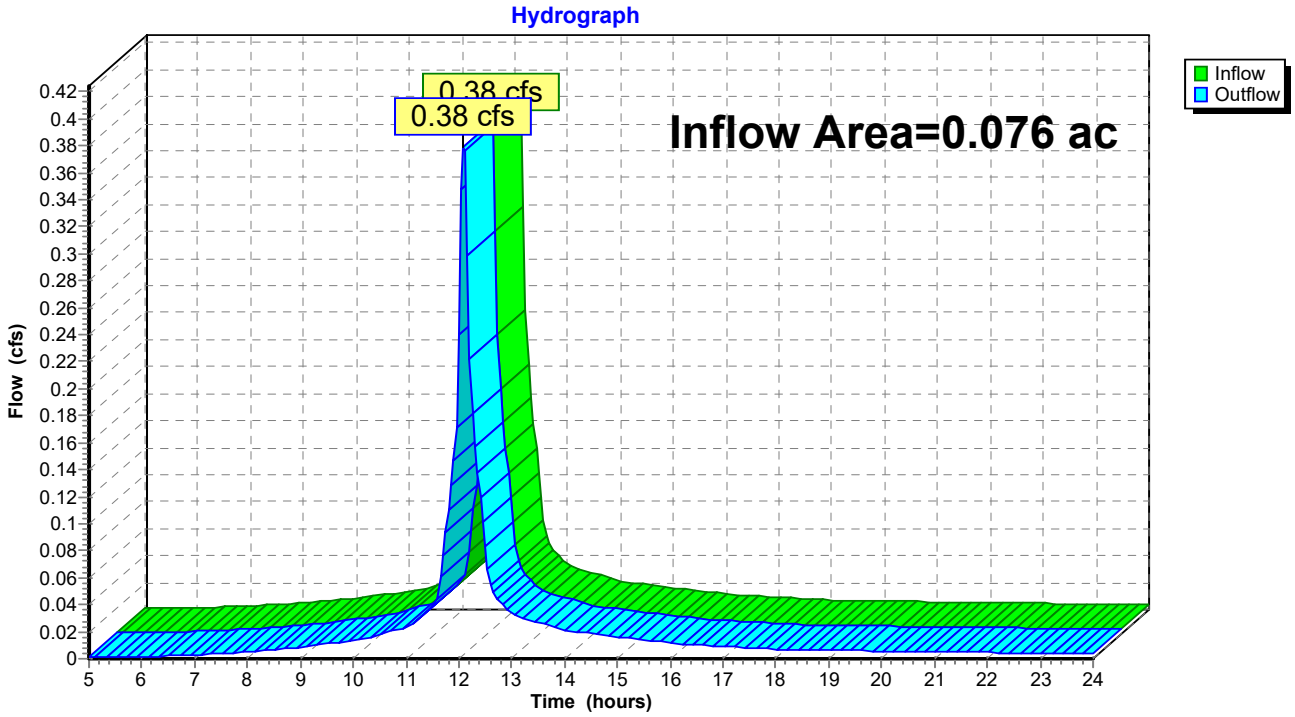


Summary for Reach POI3: POI 3

Inflow Area = 0.076 ac, 50.00% Impervious, Inflow Depth > 4.53" for 25-YR event
Inflow = 0.38 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.38 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI3: POI 3



Summary for Pond 1P: R-TANKS

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 4.98" for 25-YR event
Inflow = 4.63 cfs @ 12.09 hrs, Volume= 0.364 af
Outflow = 3.45 cfs @ 12.17 hrs, Volume= 0.354 af, Atten= 25%, Lag= 4.7 min
Primary = 2.50 cfs @ 12.17 hrs, Volume= 0.341 af
Secondary = 0.95 cfs @ 12.17 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 21.55' @ 12.17 hrs Surf.Area= 1,324 sf Storage= 2,648 cf

Plug-Flow detention time= 51.7 min calculated for 0.353 af (97% of inflow)
Center-of-Mass det. time= 34.7 min (808.0 - 773.3)

Volume	Invert	Avail.Storage	Storage Description
#1	19.00'	996 cf	**stone envelope (Prismatic)**Listed below (Recalc) 5,389 cf Overall - 2,899 cf Embedded = 2,490 cf x 40.0% Voids
#2	19.25'	2,754 cf	**R-Tank footprint (Prismatic)**Listed below (Recalc) Inside #1 2,899 cf Overall x 95.0% Voids
		3,750 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.00	1,324	0	0
23.07	1,324	5,389	5,389

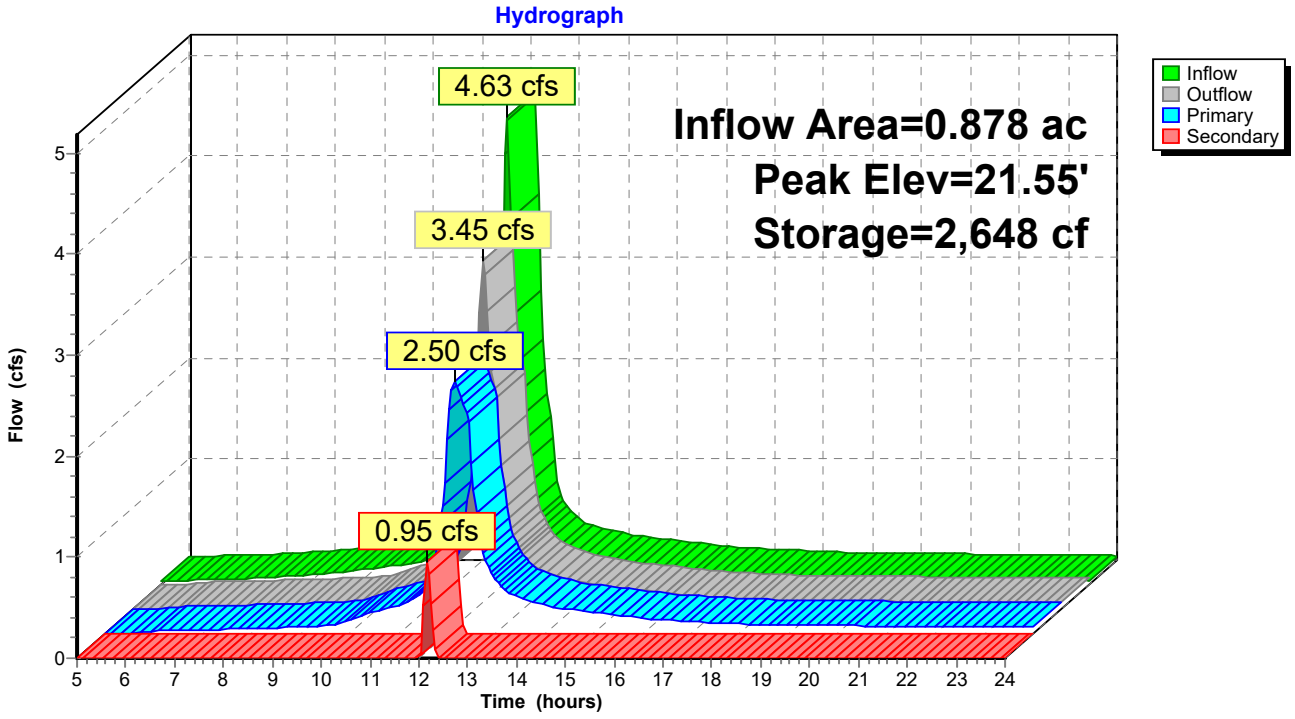
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
19.25	1,028	0	0
22.07	1,028	2,899	2,899

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**8.0" Round Culvert** L= 3.6' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 19.00' / 18.98' S= 0.0056 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	19.10'	**2.0" Vert. Orifice/Grate** C= 0.600
#3	Secondary	21.00'	**10.0" Round Culvert** L= 23.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 21.00' / 19.77' S= 0.0535 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf
#4	Device 1	19.80'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Head (feet) 0.00 0.50 0.75 1.00 Width (feet) 0.50 0.50 0.50 0.50
#5	Device 1	20.80'	**6.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=2.49 cfs @ 12.17 hrs HW=21.53' (Free Discharge)
└─**1=Culvert** (Inlet Controls 2.49 cfs @ 7.13 fps)
  └─**2=Orifice/Grate** (Passes < 0.16 cfs potential flow)
  └─**4=Custom Weir/Orifice** (Passes < 2.70 cfs potential flow)
  └─**5=Sharp-Crested Rectangular Weir** (Passes < 11.86 cfs potential flow)

Secondary OutFlow Max=0.90 cfs @ 12.17 hrs HW=21.53' (Free Discharge)
└─**3=Culvert** (Inlet Controls 0.90 cfs @ 2.47 fps)

Pond 1P: R-TANKS

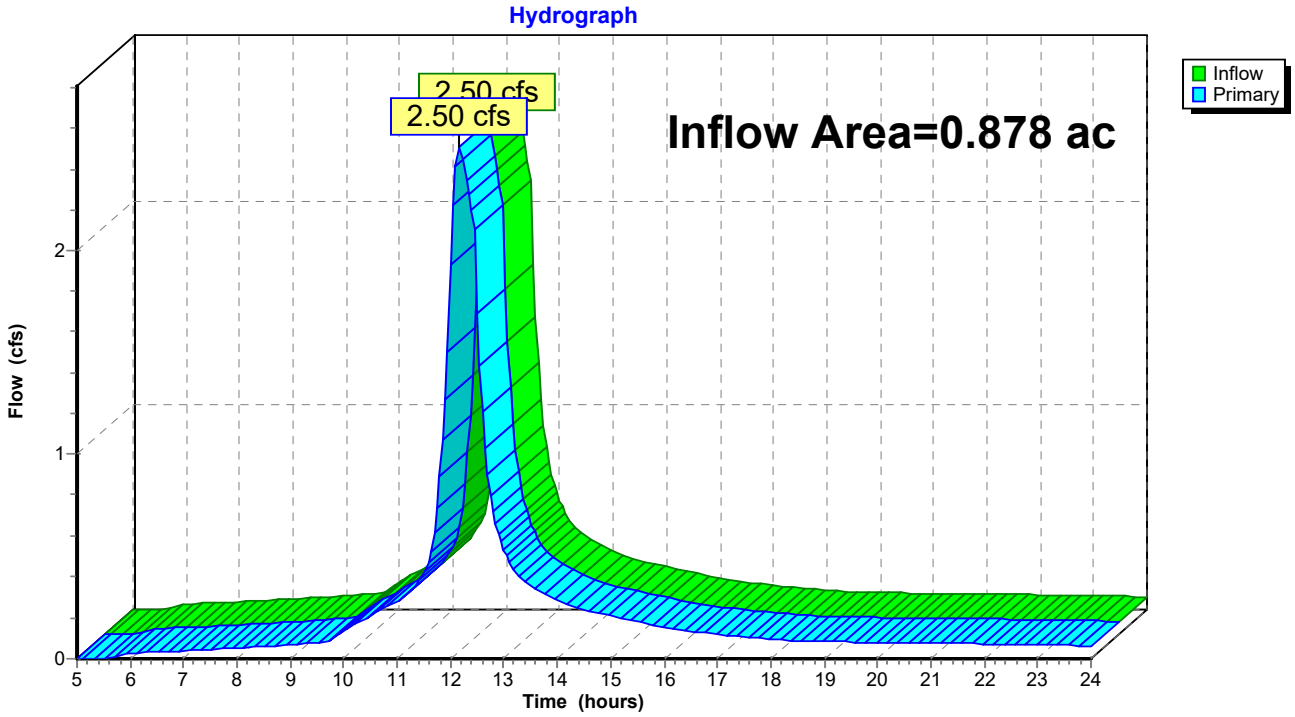


Summary for Pond 2P: STORMFILTER

Inflow Area = 0.878 ac, 75.40% Impervious, Inflow Depth > 4.66" for 25-YR event
Inflow = 2.50 cfs @ 12.17 hrs, Volume= 0.341 af
Primary = 2.50 cfs @ 12.17 hrs, Volume= 0.341 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Pond 2P: STORMFILTER

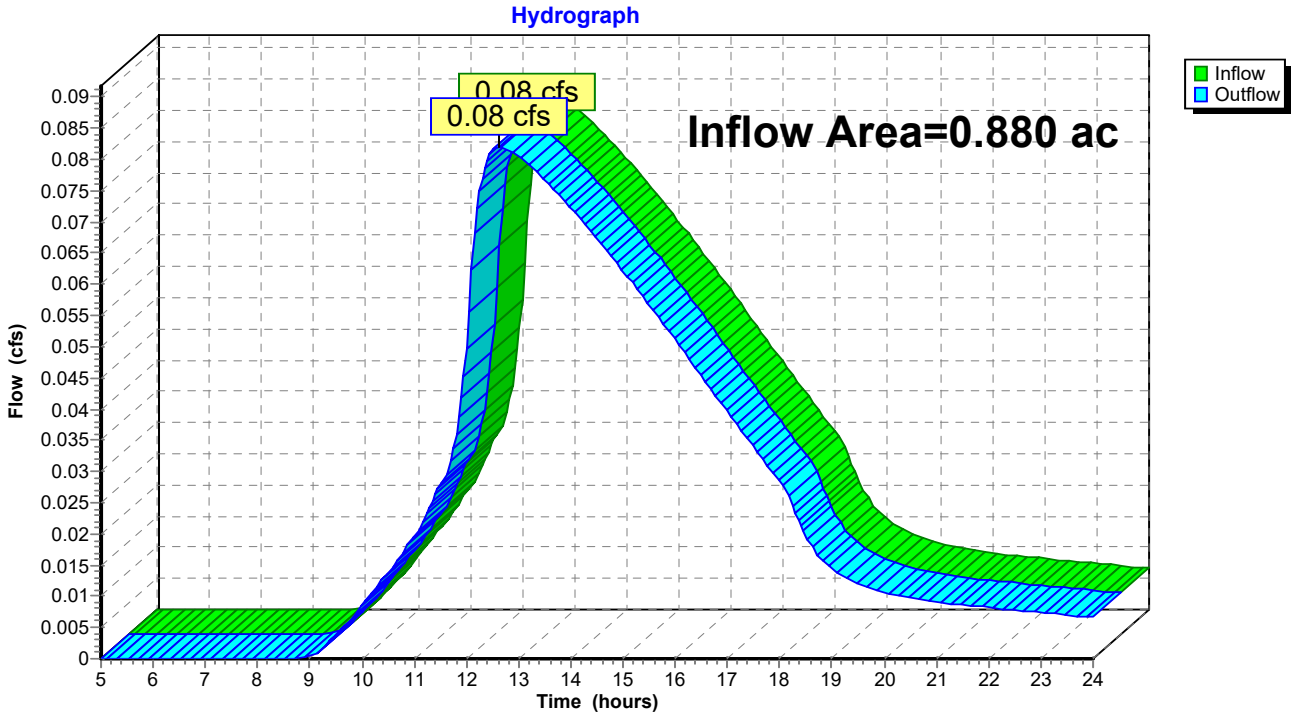


Summary for Reach POI1: POI 1

Inflow Area = 0.880 ac, 75.44% Impervious, Inflow Depth > 0.53" for 1" 24-HR event
Inflow = 0.08 cfs @ 12.61 hrs, Volume= 0.039 af
Outflow = 0.08 cfs @ 12.61 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.05 hrs

Reach POI1: POI 1



Contech Engineered Solutions LLC
71 US Rte 1, Suite F
Scarborough, ME 04074
Phone: (207) 885-6191
www.ContechES.com

March 11, 2024

Mike Triglione, PE
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

RE: 70 East Oxford Street Redevelopment (Contech Reference No. 792726)
Review of StormFilter Design

To whom it may concern,

The purpose of this letter is to document Contech Engineered Solutions review of the plans and the proposed application of the StormFilter Media Filtration System water quality unit for your project.

Contech Engineered Solutions (Contech) has reviewed the StormFilter (SF) design for this project. We believe the SF configuration to be an appropriate water quality solution for this site.

The SF system with Phosphosorb (Psorb) media cartridges is approved for use by MEDEP meeting the General Standard of the Stormwater rules (Chapter 500) if designed, installed, and maintained in accordance with the provisions noted in the February 24, 2023 approval letter from the MEDEP.

The StormFilter system is designed in accordance with the maximum drain down rate of 1.67 gallons per minute per square foot of filter surface area (18.78 gpm maximum per 27" cartridge). Additionally, the StormFilter is designed with an upstream water quality volume (WQv) detention system to retain, route and treat the entire WQ event flow from the contributing drainage area to the treatment unit. The resultant volume from the WQ event storm is detained in the upstream detention to an elevation below any bypass flow paths resulting in a routed storm event volume through the SF cartridges. Due to the extended detention time upstream of the SF in the WQv detention system, Contech assumes sedimentation of the larger solids at an estimated 50 percent reduction of the total suspended solids prior to the treatment by the StormFilter vault.

The engineer of record provided a drainage area of 0.88 acres, of which 0.66 acres is impervious. In order to adequately treat the runoff from this area, Contech recommends an offline StormFilter 60" Manhole (model SFMH60) with quantity 4 x 27" Psorb cartridges.

The SF system requires a hydraulic headwater condition to fully immerse the media and activate the cartridge float valve. For 27" SF cartridges, this headwater condition is 3.05 ft above SF outlet invert. This is achieved by the either physical inlet to outlet pipe elevation drop or an upstream WQ detention filling during the WQ storm flow to the required SF float valve activation elevation.

The WQv is routed through the SF vault and the detention system WQ outlet control shall be designed to drain down in 24 to 48 hours after the beginning of the storm resulting in a cumulative treated WQv.

It is recommended to have the site detention system Outlet Control Structure (OCS) designed to store the WQv and flow to the treatment BMP prior to any bypass flow from initiating.

Contech Engineered Solutions LLC
71 US Rte 1, Suite F
Scarborough, ME 04074
Phone: (207) 885-6191
www.ContechES.com

Our systems require periodic maintenance to continue operating properly. Given typical runoff pollutant loading rates, Contech recommends maintenance inspections on an annual basis.

This system is expected to operate in accordance with Contech's design intent. Please feel free to contact me if you have any questions or concerns.

Sincerely,



David Adams, PE
Contech Engineered Solutions, LLC.
(207) 885-6191
dadams@conteches.com

StormFilter Design Calculation

Contech Engineered Solutions, LLC Engineer:	**DRA**
Date	**3/11/2024**

Site Information

Project Name	**70 East Oxford Street Redevelopment**	
Project State	**Portland**	
Project Location	**ME**	
Site Designation	**Filter BMP**	
Total Drainage Area, Ad	**0.88**	ac
Post Development Impervious Area, Ai	**0.66**	ac
Pervious Area, Ap	**0.22**	
% Impervious	**75**	%
Runoff Coefficient, Rc	**0.73**	
Treatment release rate from detention, $Q_{release\ treat}$	**0.04**	cfs
Upstream pretreatment credit	**50%**	

Mass loading calculations

Mean Annual Rainfall, P	**49**	in
Agency required % removal	**80%**	
Percent Runoff Capture	**90%**	
Mean Annual Runoff,V_t	**120,065**	ft^3
Event Mean Concentration of Pollutant, EMC	**70**	mg/l
Annual Mass Load, M_{total}	**524**	lbs

Filter System

Filtration brand	**StormFilter**	
Cartridge height	**27**	in
Specific Flow Rate	**1.00**	gpm/ft^2

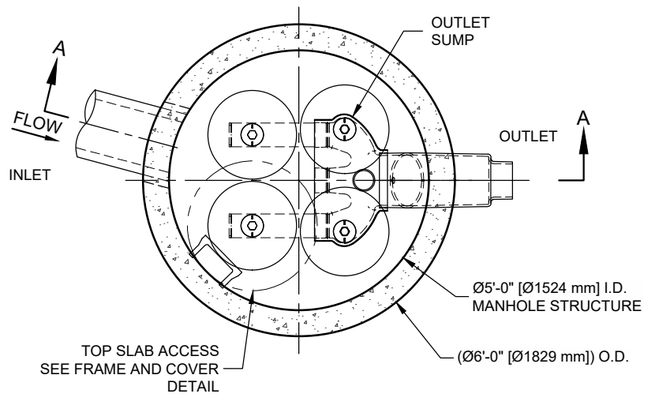
Number of cartridges - mass loading

Mass removed by pretreatment system, M_{pre}	**262**	lbs
Mass load to filters after pretreatment, M_{pass1}	**262**	lbs
Mass to be captured by filters, M_{filter}	**210**	lbs
Allowable Cartridge Flow rate, Q_{cart}	**11.25**	gpm
Mass load per cartridge, M_{cart} (lbs)	**54**	lbs
Number of Cartridges required, N_{mass}	**4**	ea
Treatment Capacity	**0.100**	cfs

Determine Critical Sizing Value

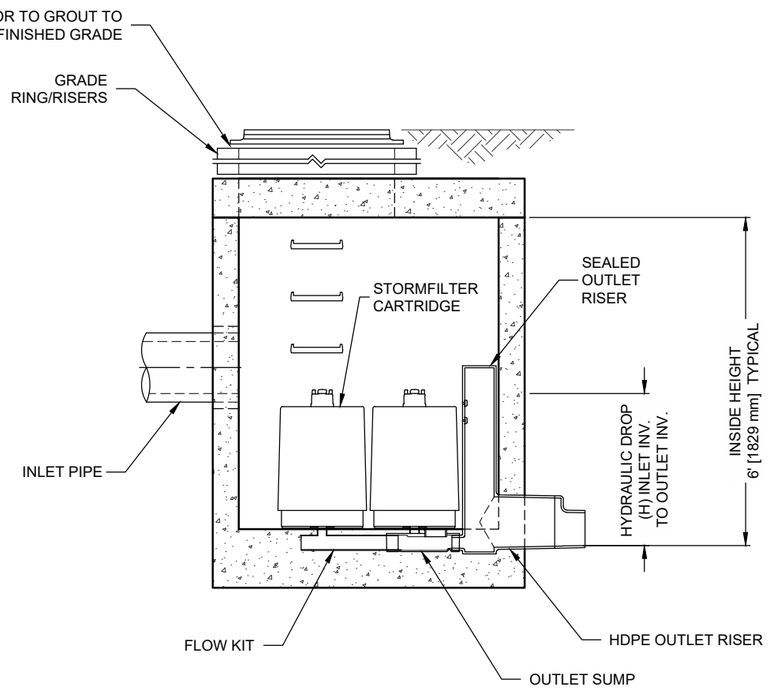
Number of Cartridges using $Q_{release\ treat}$, Nmass	**4**	ea
Method to Use:	**MASS-LOADING**	

Summary			
	Treatment Fow Rate	0.100	cfs
Mass	Treatment Mass Provided	216	lbs
	Required Cartridge Quantity	**4**	



PLAN VIEW

STANDARD OUTLET RISER
FLOWKIT: 41A



SECTION A-A

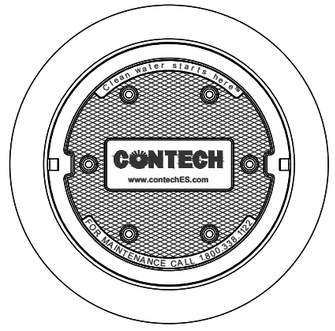
STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (4). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 4 CARTRIDGES.
Ø5'-0" [1524 mm] MANHOLE STORMFILTER WITH SEALED OUTLET RISER MAY REQUIRE AN UPSTREAM BYPASS STRUCTURE.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27" [686 mm]			18" [458 mm]			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05' [930 mm]			2.3' [700 mm]			1.8' [550 mm]		
SPECIFIC FLOW RATE (gpm/sf) [L/s/m^2]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]
CARTRIDGE FLOW RATE (gpm) [L/s]	22.5 [1.42]	18.79 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.44]	10 [0.63]	8.35 [0.54]	5 [0.32]

* 1.67 gpm/sf [1.08 L/s/m^2] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs) [L/s]	*
PEAK FLOW RATE (cfs) [L/s]	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
CARTRIDGE HEIGHT (SEE TABLE ABOVE)	*
NUMBER OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (PERLITE, ZPG, PSORB)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' [1524 mm] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES [178 mm]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) [L/s] DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft)[m^2].
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES [200 mm], CONTRACTOR TO REMOVE THE 8 INCH [200 mm] OUTLET STUB AT MOLDED-IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

The Stormwater Management StormFilter®

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,524,576; 5,707,527; 5,985,157; 6,027,639; 6,649,048; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

SFMH60
STORMFILTER
STANDARD DETAIL

Ferguson Waterworks
94 Pleasant Ave
South Portland, ME 04106

Mike Triglione, P.E.
Project Engineer
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

March 13, 2024

SUBJECT: 70 East Oxford Street Redevelopment – Portland, ME
R-Tank - Plan Review and Construction Oversight Commitment

Dear Mike,

Thank you for forwarding the permit plans for the 70 East Oxford Street Redevelopment in Portland, ME to Ferguson Waterworks for review of the proposed R-Tank Subsurface storage system.

After reviewing the permit plans with the latest revision February 29th 2024, as well as the hydrocad modeling, our team has provided a concept for an R-Tank system that consists of 239 R-Tank^{HD} Double modules, and 95 R-Tank^{HD} Double Access Modules.

The treatment rows have been sized (according to Maine DEP regulations) to be able to handle the flow of the 1yr 24 hour storm, accounting for 0.02cfs per Access Module. Based on the hydrocad modeling received, total flow into the system was shown as 1.86 cfs, requiring minimum 93 R-Tank^{HD} Access Modules.

The plan set includes all the details and specification information necessary for both the permitting and construction of the detention system.

The R-Tank system has been designed with a 3" stone base (meeting the 3" minimum requirement), 2 ft stone perimeter surrounding the modules, and a sectional build-up over the system that meets the min cover guidance for R-Tank^{HD} systems designed in traffic loaded locations.

The cover over the system fits within the allowable cover limits. For R-TankHD modules, minimum cover for traffic rating consists of 20" total cover (including 12" of stone). Maximum cover allowable cannot exceed 7' from module top to finished grade.

The tanks are to be wrapped with an N080 Non-Woven Geotextile and the excavation is to be wrappedN080 Non-Woven Geotextile. The R-Tank Treatment rows are to be wrapped in 30 Mil. PVC Liner (Top and sides only) between two layers of N080 Non-Woven Geotextile. Two layers of S300 Woven fabric is to be placed under each treatment row section.

An appropriate number of inspection ports have been provided for proper maintenance and inspection.

Overall, Ferguson takes no exceptions to the location and application of the R-Tank system for this project.

With regard to the installation, Ferguson will host a preconstruction meeting with the site contractor and will visit the site several times during the installation to ensure the installation is being conducted in accordance with our standard installation procedures and specifications.

Please review and contact me with any questions from your office.

We look forward to working with you on this project.

Sincerely,
Brett Keszczyk,
Green Stormwater Infrastructure (GSI) Engineer
Ferguson Waterworks

Cc: Rob Woodman, PE – Director of Engineering & Green Stormwater Infrastructure
Maggie Chase, PE – Green Stormwater Infrastructure Specialist (New England)

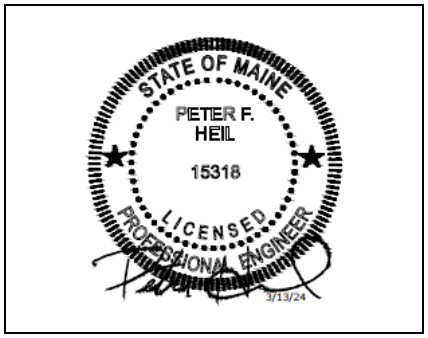
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

COMB Block Phase One, LP
970 Baxter Boulevard
Portland, ME 04103

Prepared By:

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04102



March 2024

RESPONSIBLE PARTY

The owner, COMB Block Phase One, LP and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Engineering Department prior to June 15th.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Peter Heil, PE
Acorn Engineering, Inc
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP – Certified in Maintenance & Inspection of Stormwater BMP's Cert
- Maine DEP – Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria are based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules. The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years.

OPERATION AND MAINTENANCE ACTIVITY

StormFilter Cartridges:

Inspection and Maintenance shall be conducted per the Contech StormFilter Inspection and Maintenance Procedures manual. General inspection and maintenance information for the StormFilter and StormFilter cartridges is provided below.

StormFilter Systems to be inspected at least once every six months, and filters maintained annually per the manufacturer's guidelines.

- Conducting inspections during a rain event is desirable to observe relative flow through the filter cartridges.
  - If cartridges are plugged with sediment and little flow is being discharged from the drainage pipes, then, maintenance is warranted, and the cartridges need to be replaced.
- In addition to the above circumstance, maintenance may also be warranted based on the following conditions.
  - >4" of sediment* accumulation on vault door.
  - >1/4" of sediment* accumulation on top of cartridge.
  - >4" of static water above cartridge bottom for more than 24 hours after end of rain event.
  - Plugged Media; pore space between media granules is absent.
  - StormFilter remain in bypass condition during average rainfall event.
  - Hazardous material release is reported in or around the StormFilter.
  - Pronounced scum line (>1/4" thick) is present above top cap.

If maintenance is to be performed, maintenance personnel shall follow all applicable OSHA safety regulations including but not limited to confined space entry. Maintenance shall be completed in agreement with the methods outlined in the Contech StormFilter Inspection and Maintenance Procedures. Any inspection or maintenance done to the StormFilter shall be accompanied by a detailed inspection/maintenance report.

*Sediment deposition depths and patterns within the StormFilter are likely to be quite different compared to systems without upstream storage and therefore shouldn't be used exclusively to evaluate a need for maintenance.

Subsurface R-Tank Storage Chambers:

Inspection and Maintenance shall be conducted per the R-Tank Operation, Inspection and Maintenance manual. General inspection and maintenance information for the R-Tank system is provided below.

R-Tank Systems to be inspected at least once annually (six months during the first year of operation). Inspections may be required more frequently for pre-treatment systems.

- All access points shall be examined including to complete a thorough inspection.
  - Inspection ports – Usually located centrally in the R-Tank System, are perorated columns designed to give the user a base-line sediment depth across the system floor.
  - Maintenance ports – Usually located near inlet and outlet connections, will likely have deeper deposits of heavier sediments.
  - Pipes – check for sediment or debris in the pipe connecting to the R-Tank
  - Manholes – Usually located at the inlet and outlet. If there is more than one location where stormwater enters the system than there will be additional manholes to inspect.
    - Manholes often include a sump below the invert of the pipe connecting to the R-Tank. Existence of sediment in the sump does NOT necessarily mean sediment has accumulated in the R-Tank.

- If sediment or debris is observed in any of these structures the depth of the material shall logged and kept on file.
- Maintenance of the R-Tank System should be conducted once sediment accumulation has reached 6" or 15% of the total system height.

If maintenance is to be performed, maintenance personnel shall follow all applicable OSHA safety regulations including but not limited to confined space entry. Maintenance shall be completed in agreement with the methods outlined in the R-Tank Operation, Inspection and Maintenance manual. Any inspection or maintenance done to the R-Tank System shall be accompanied by a detailed inspection/maintenance report.

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

General Operation:

Facility operations including but not limited to salt storage shall occur within the maintenance building or offsite at an appropriate area. Vehicle oil changes shall be performed inside the building or at an appropriate offsite area.

Catch Basins / Field Inlets:

Catch basins and field inlets shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

Sweeping:

Annual sweeping of the parking lot following the snow melt, if necessary. Appropriately dispose of all collected material.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris. Any sediment shall be removed as required.

- The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins. Liquids must be decanted on-site and returned to the catch basin.

Vegetated Areas and Embankments:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the approved Site Plan

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Catch Basins	X			X
Vegetated Areas & Slopes	X			X
R-tank Storage Chambers	X		X	X
StormFilter Cartridges	X			X
Storm Drains	X			X
Sweeping	X			X

In the above chart, it is assumed the certified stormwater professional will inspect each item in the spring. Inspections outside of the spring visits can likely be conducted by the property manager.

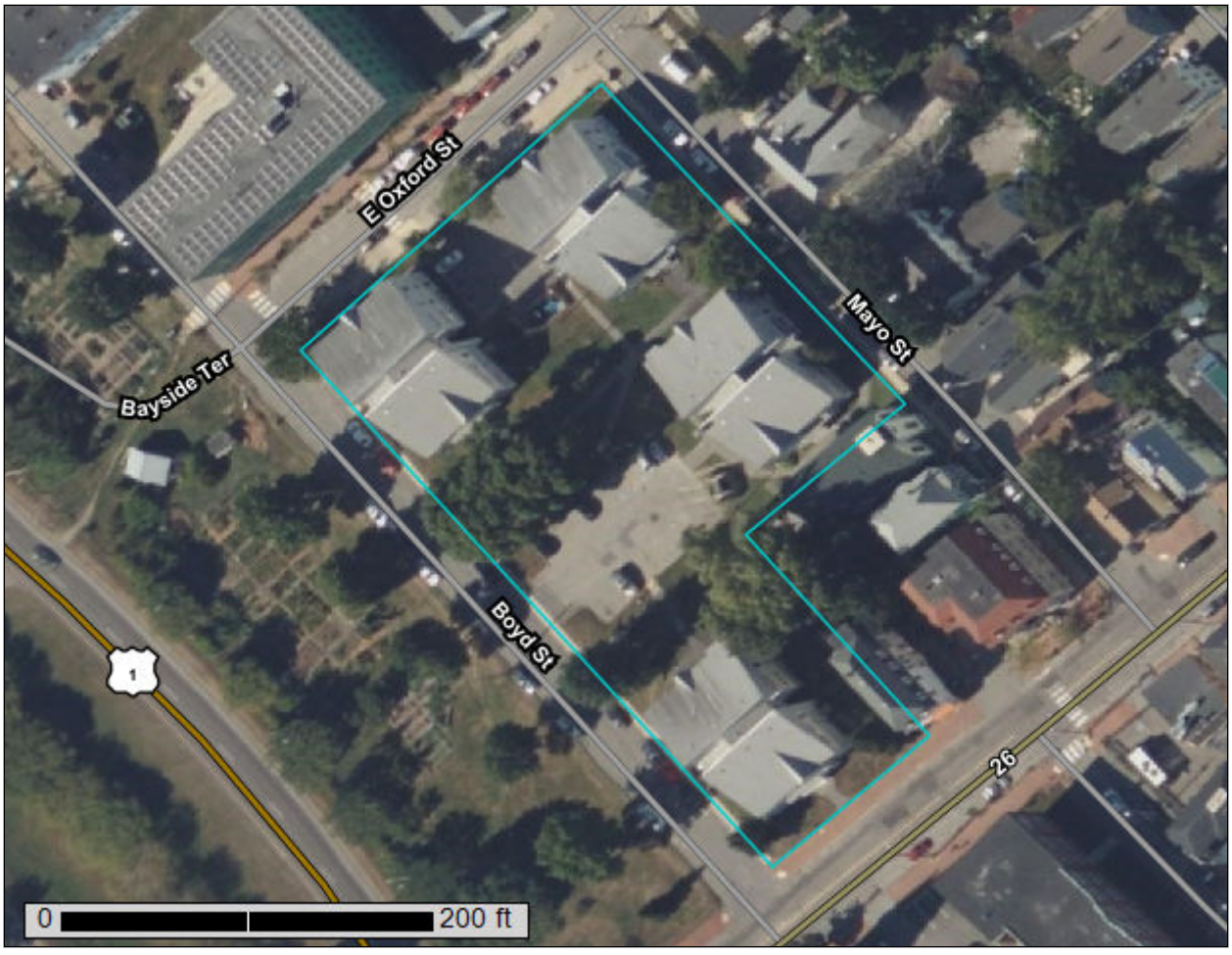
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



January 11, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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HlB—Hinckley loamy sand, 3 to 8 percent slopes.....12
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Soil Properties and Qualities..... 14
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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Map Scale: 1:797 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	0.1	5.1%
HlB	Hinckley loamy sand, 3 to 8 percent slopes	1.5	94.9%
Totals for Area of Interest		**1.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

DeB—Deerfield loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xfg9
Elevation: 0 to 1,190 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Outwash deltas, outwash terraces, outwash plains, kame terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand
Bw - 9 to 25 inches: loamy fine sand
BC - 25 to 33 inches: fine sand
Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: About 15 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Sodium adsorption ratio, maximum: 11.0
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: A
Ecological site: F144AY027MA - Moist Sandy Outwash
Hydric soil rating: No

HIB—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash deltas, outwash terraces, kames, kame terraces, moraines, eskers, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

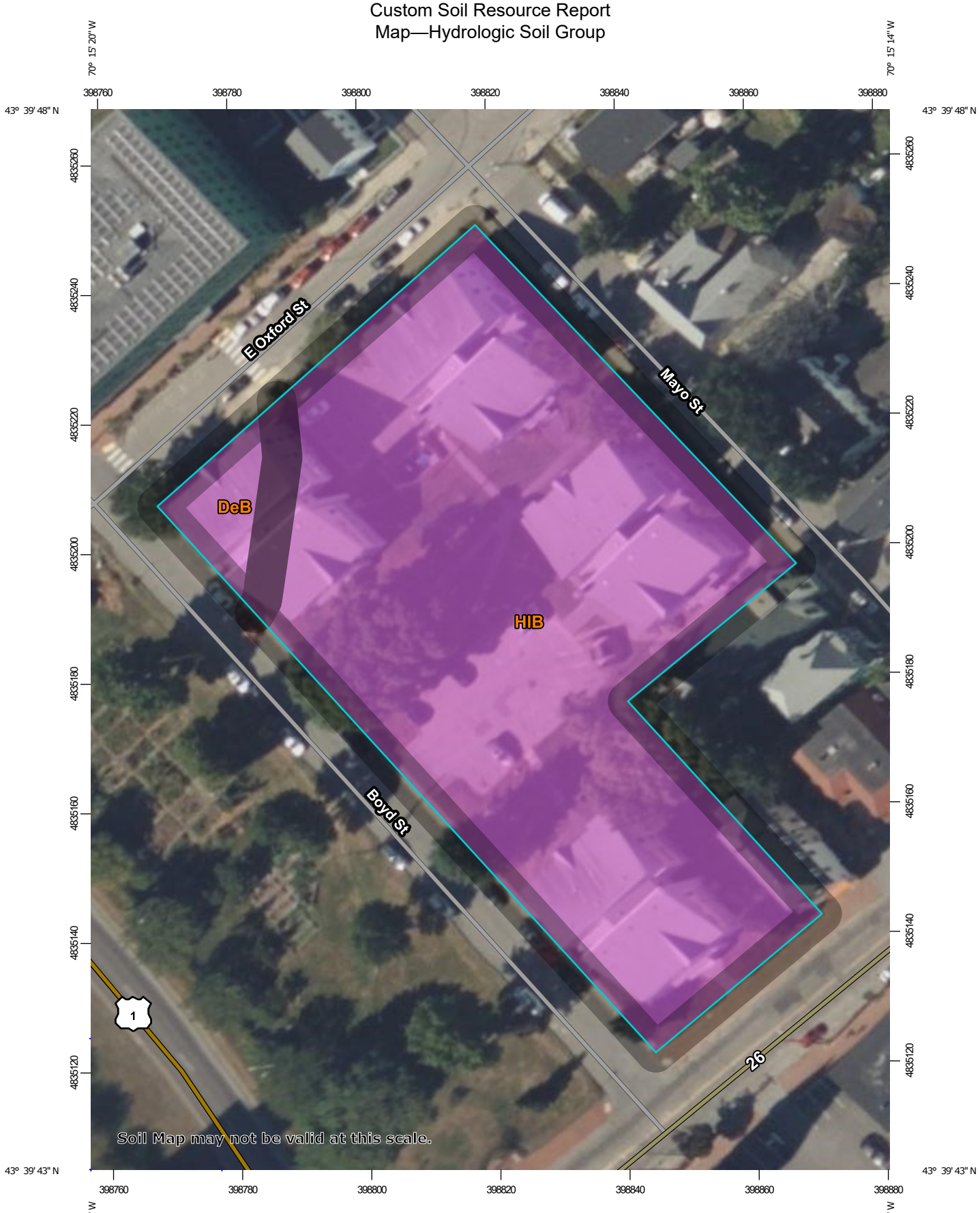
Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



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N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

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MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DeB	Deerfield loamy fine sand, 3 to 8 percent slopes	A	0.1	5.1%
HlB	Hinckley loamy sand, 3 to 8 percent slopes	A	1.5	94.9%
Totals for Area of Interest			**1.5**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

K. EROSION & SEDIMENTATION CONTROL REPORT

Prepared For:

COMB Block Phase One, LP
970 Baxter Boulevard
Portland, ME 04103

Prepared By:

Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104



March 2024

INTRODUCTION

Acorn Engineering, Inc. has been retained by COMB Block Phase One LP, an entity of Portland Housing Authority, to provide civil engineering services for the proposed work located at 70 East Oxford Street, Portland, ME 04101. The project proposes to demolish the 4 existing multi-family buildings located on the existing parcel at 70 East Oxford development and construct a 50-unit multifamily housing building. The project also includes various parking, utility, and landscape improvements.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project is located at 70 East Oxford Street. An ALTA / NSPS Land Title Survey has been prepared by Owen Haskell, Inc. on December 22, 2023.

Abutting Uses:

- North R6 Zone — Residential
- East R7 Zone — Residential
- South R6 Zone — Educational/Surface Parking
- West R6 Zone — Open Space/Community Garden

A large majority of the existing site is impervious surface that mainly includes buildings and parking lot. The average slope is moderate with grades dropping from the Southwest to Northeast across the site.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, the Class D (Medium Intensity) Soil Survey is adequate for the proposed project.

The area within and surrounding the project includes soil types listed in the table below.

Soils Type	Hydrologic Soil Group
Deerfield Loamy Fine Sand	A
Hinckley Loamy Sand	A

1.2 Existing Erosion Problems

There are no known erosion problems on the site.

1.3 Critical Areas

There are no critical areas within the project vicinity.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.

- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

2.1.5 Boyd Street and Oxford Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.

2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.

2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.

2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as

necessary. Sediments shall be removed when accumulation has reached ½ the design height.

2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.

2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.

2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.

2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched.

2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and

either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.

- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the

seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.

- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a "storm event". A "storm event" shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Peter Heil, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's
- Maine DEP – Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence earthwork operations, associated with the building construction.
5. Commence installation of utilities & drainage infrastructure.
6. Continue earthwork and grading to subgrade as necessary for construction.
7. Complete installation of drainage infrastructure, as well as other utility work.
8. Complete remaining earthwork operations.
9. Install sub-base and base gravels in paved areas.
10. Install paving, curbing and brickwork.
11. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
12. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
13. Touch up areas without a vigorous catch of grass with loam and seed.
14. Complete site signage and striping.
15. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan

TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.

PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.

ACORN ENGINEERING, INC.

Chief Gautreau
City of Portland Fire Department
380 Congress St.
Portland, ME 04101

March 13, 2024

Subject: 70 East Oxford Street – Fire Department Checklist
Section L of Major Site Plan Application

On behalf of COMB Block Phase One, LP, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant:

   COMB Block Phase One, LP
   970 Baxter Boulevard
   Portland, ME 04103
   (207) 773-4753

2. Name address, telephone number of architect:

   Ryan Senatore Architecture
   500 Congress Street, Suite #2
   Portland, Maine 04101
   207-838-0927

3. Proposed uses of any structures [NFPA and IBC classification]

   NFPA: Apartment / IBC: R-2

4. Square footage of all structures, including decks [total and per story]

Existing (4 buildings)

Existing Building		
1st Floor	Approx. 2,170	sf
2nd Floor	Approx. 4,132	sf
3rd Floor	Approx. 4,132	sf
Total (Single Building)	Approx. 10,434	**sf**
Total (4 Buildings)	Approx. 41,736	**sf**

Proposed

Existing Building		
1st Floor	5,359	sf
2nd Floor	10,887	sf
3rd Floor	10,919	sf
4th Floor	10,919	sf
5th Floor	10,919	sf
6th Floor	10,919	sf
Total	59,922	**sf**

5. Elevation of all structures

   The proposed 6-story structure's height will be below the allowable 75 feet within the R-7 zoning district, which includes the affordable housing height bonus. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

   The proposed buildings will have a sprinkler system per code. Fire flows and requirements for system storage or booster pumping are subject to the fire designer which will be performed prior to the request for a building permit.

7. Hydrant locations

   a. There are two existing hydrants on the Northern side of the parcel. One is located west of the parcel on the corner of Boyd Street and East Oxford Street the other is located North of the parcel on the corner of Mayo Street and East Oxford Street. Additionally, there are three hydrants located on Cumberland Ave (see hydrant map below). Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.



8. Water main size and location

   The proposed residential building will be serviced by a proposed 4" domestic water service connection as well as a 6" fire suppression service from the existing water main within Oxford Street.

9. Access to all structures [min. 2 sides]

   Access to the structure is provided directly via Boyd Street and East Oxford Street as well as from the parking lot off of Boyd Street and the parking lot off of East Oxford Street.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a heavily developed area and is fronted by a public street. The following pavement street width is currently available:

- Boyd Street: 41.25 feet
- East Oxford Street: 49.5 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: There are no dead-end roadway conditions more than one hundred fifty feet in length included as part of the proposed project.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: Access to structures onsite is provided directly from Boyd Street/East Oxford Street and from the internal parking lot. See the Site Plan for additional information.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route, namely Boyd Street or East Oxford Street.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: The proposed site maintains the required clearance height of nine feet in all cases.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: elevators will be sized to accommodate an 80 x 24-inch stretcher.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The site's address is 70 East Oxford Street in Portland Maine. The final address locations will be coordinated with public works as part of the proposed subdivision application process.

Thank you for your review. Please let me know if you have any additional questions or comments.
Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Department of Public Works
Mike Murray
Director

Date: April 22, 2024 Revised June 26, 2024
Re: Wastewater Capacity Authorization
Address: 9 Boyd Street
Applicant: Portland Housing Authority
Planner: Eric Freeman

Estimate of Anticipated Wastewater Flows				
Development	**Unit Size**	**Number of Units**	**Gallons per Day per Unit**	**Total Gallons per Day**
Existing Flow to Remain				
Multiple Family Dwelling Units	2-Bedroom	10	180	-1800
Proposed flow				
Multiple Family Dwelling Units	Studio	5	120	600
Multiple Family Dwelling Units	1-Bedroom	15	120	1800
Multiple Family Dwelling Units	2-Bedroom	16	180	2880
Multiple Family Dwelling Units	3-Bedroom	19	270	5130
Net Change				**+ 8,610**
*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.

However, storm drainage and sanitary sewer flows in this project area drain to the City's combined sewer system. Lack of wet weather capacity results in frequent system wide combined sewer overflows. City wide mitigation of combined sewer overflows is required as part of the City's CSO consent decree administered by the EPA and Maine DEP.

Section 2.2.3 of the City's Technical Manual requires DPW Water Resources approval when rain water is being proposed to discharge into a sewer which conveys sanitary waste. Prior to authorizing a new stormwater connection into the combined sewer, DPW will require that the applicant provide an on-site stormwater detention volume equal to the greater of: 1" of rainfall over the entire project redeveloped area being proposed on the parcel, or the projected average 24 hour daily sanitary sewer flow being added to the combined sewer system by the project.

You are also reminded that new connections into the combined sewer system shall be equipped with backflow prevention in accordance with Section 2.6.10 of the City's Technical Manual.

If the City can be of further assistance, please contact me at 207-874-8840 or brad@portlandmaine.gov

Sincerely,



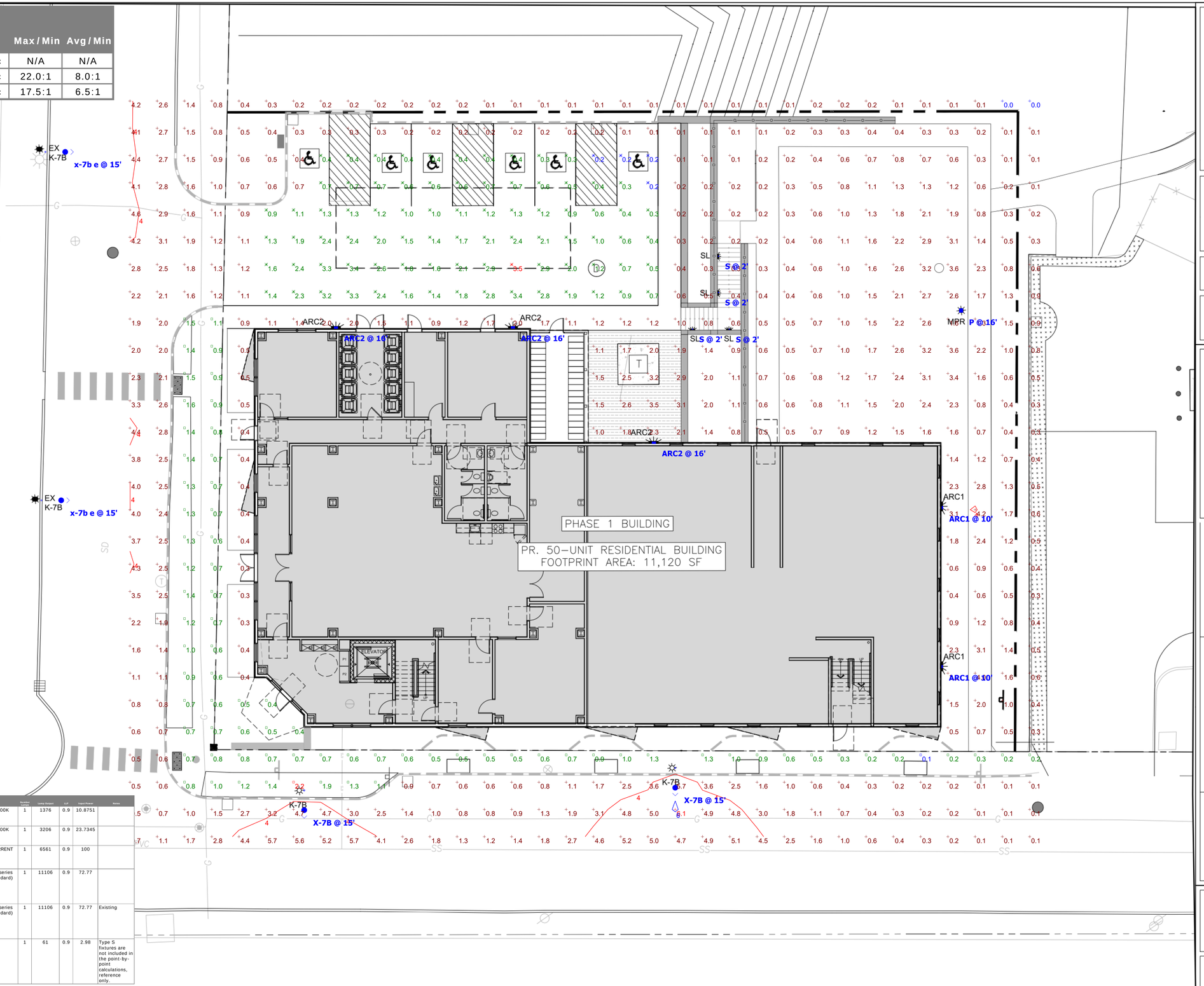
Bradley A. Roland, P.E.,
Senior Project Engineer

N. Lighting

All new construction will have exterior lighting at egresses and will be down shaded and dark sky compliant. Please refer to the Photometric Plan and attached cut sheets for additional information.

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Project Extents	+	1.3 fc	6.1 fc	0.0 fc	N/A	N/A
Sidewalk	□	0.8 fc	2.2 fc	0.1 fc	22.0:1	8.0:1
Parking Lot	✳	1.3 fc	3.5 fc	0.2 fc	17.5:1	6.5:1



Schedule												
Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Lumens	LLF	Input Power	Notes
	ARC1		2	Lithonia Lighting	ARC1 LED P1 30K	ARC1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K	1	1376	0.9	10.8751	
	ARC2		3	Lithonia Lighting	ARC2 LED P3 30K	ARC2 LED WITH P3 - PERFORMANCE PACKAGE, 3000K	1	3206	0.9	23.7345	
	P		1	Lithonia Lighting	MRP LED 42C 700 30K SR4 MVOLT	MRP POST TOP LIGHT 42 LEDs 700 mA DRIVE CURRENT 30K COLOR TEMP TYPE 4 DISTRIBUTION	1	6561	0.9	100	
	X-7B		2	Holophane	ESL3 P20S 30K XXXXX TG2	Esplanade style housings Standard housing, 3000 series (CCT Auto-sensing voltage, Type IV, Medium, (Standard) or Type III, Short, (Uplight)	1	11106	0.9	72.77	
	x-7b e		2	Holophane	ESL3 P20S 30K XXXXX TG2	Esplanade style housings Standard housing, 3000 series (CCT Auto-sensing voltage, Type IV, Medium, (Standard) or Type III, Short, (Uplight)	1	11106	0.9	72.77	Existing
	S		0	Hydrel	HSL11 RD L LED 30K MVOLT	Suface mount step light	1	61	0.9	2.98	Type S fixtures are not included in the point-by-point calculations, reference only.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
PERMITTING

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Title:
LIGHTING PLAN

70
EAST OXFORD
STREET
Portland ME 04103

Revisions:

North:

Sheet No.:
L3

Scale: 1" = 10'-0"

0 5 10 20

NOTE: This drawing is PRELIMINARY REVIEW ONLY. It is NOT intended for use as a construction document.

C:\Users\DRY-L\OneDrive\Documents\Onedrive\DRY-L\A\Projects\COMB\CAD\L-BASE COMB 24.03.07 Rev.dwg dry-l 3/8/2024



ARC1 LED

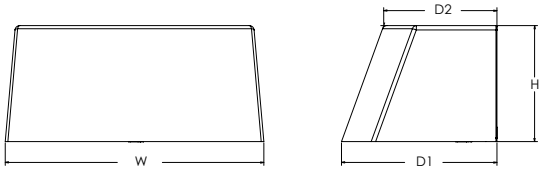
Architectural Wall Luminaire

Catalog Number	ARC1 LED P1 30K MVOLT PE DBLXD
Notes	
Type	ARC1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1):	6.5"
Depth (D2):	4.75"
Height:	5"
Width:	11"
Weight: (without options)	7 lbs



Introduction

The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC1 delivers up to 3,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of ARC1, with its integrated emergency battery backup option, is ideal for over-the-door applications.

ARC LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Approximate Lumens (4000K)				
			P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information

EXAMPLE: ARC1 LED P2 40K MVOLT PE DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish
ARC1 LED	P1 1,500 Lumens P2 2,000 Lumens P3 3,000 Lumens	30K 3000K 40K 4000K 50K 5000K	MVOLT 347[1]	E4WH Emergency battery backup, CEC compliant (4W, 0°C min)[1] PE Button type photocell for dusk-to-dawn operation DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[2] SPD6KV 6kV surge protection FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100%[2]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

WSBBW DDBXD U	Surface - mounted back box (specify finish)

NOTES

1 347V not available with E4WH.
2 FAO not available with DMG.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	30K (3000K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
		Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	11W	1,376	127	0	0	0	1,454	134	0	0	0	1,464	135	0	0	0
P2	17W	2,035	121	1	0	1	2,151	128	1	0	1	2,165	129	1	0	1
P3	25W	2,859	117	1	0	1	3,021	123	1	0	1	3,041	124	1	0	1

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	11W	0.111	0.061	0.053	0.047	0.045
P2	17W	0.139	0.081	0.071	0.063	0.060
P3	25W	0.208	0.122	0.108	0.097	0.081

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Lumens
E4WH	620

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	0.97	>0.96	>0.95	>0.91

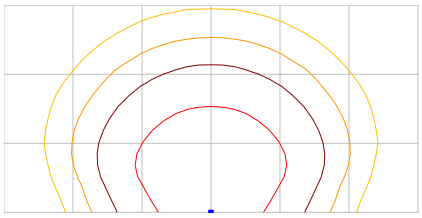
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting ARC LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

0.25 fc
0.5 fc
1.0 fc
3.0 fc

MH = 10ft
Grid = 10ft x 10ft



ARC1 LED P3 40K

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Emergency Egress Options

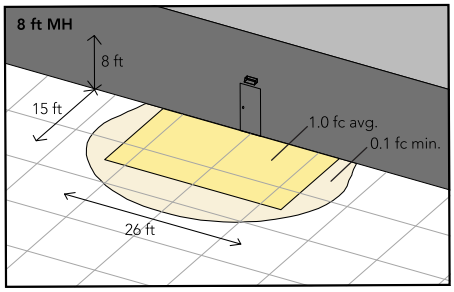
Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

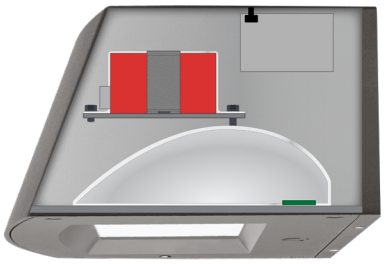
Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode.

Grid = 10ft x 10ft



ARC1 LED 40K MVOLT E4WH



Self-contained solution for clean aesthetic

Mounting, Options & Accessories

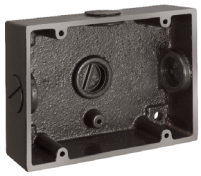


E4WH – 4W Emergency Battery Backup

D = 6.5”

H = 5”

W = 11”



BBW – Standard Back Box

D = 1.5”

H = 4”

W = 5.5”

For surface conduit applications.
3/4" conduit entry holes.

FEATURES & SPECIFICATIONS

INTENDED USE
The clean architectural shape of the ARC LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long-life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION
The die-cast aluminum housing and door act as heat sinks to optimize thermal transfer from the light engine and driver to promote long-life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Recessed lens to cut off high angle light and reduce glare. Combination of diffused lens and reflector design has low surface brightness creating a visually comfortable environment with great distribution. LEDs are fully hidden from view to eliminate pixelization and harsh glare. The ARC LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long-life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire is 0-10V dimmable.

INSTALLATION
The universal wall plate, supplied with the luminaire, fits multiple size junction boxes and supports the luminaire during wiring for easy installation. Built-in wet location wiring compartment on the luminaire to accommodate wiring connections for where there is no junction box. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International DarkSky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only. Rated for -40°C minimum ambient.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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ARC2 LED

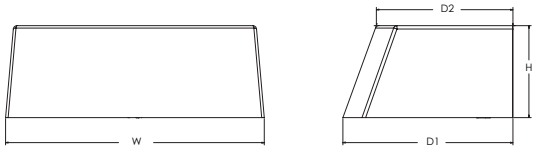
Architectural Wall Luminaire

Catalog Number	ARC2 LED P3 30K MVOLT PE DBLXD
Notes	
Type	ARC2

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 9.25"
Depth (D2): 7.5"
Height: 5"
Width: 14"
Weight: (without options) 11 lbs



Introduction

The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC2 delivers up to 6,500 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. It offers integrated emergency battery backup options, including an 8W cold temperature option, making it suitable for pedestrian scale applications in any environment.

ARC LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Approximate Lumens (4000K)				
			P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information

EXAMPLE: ARC2 LED P2 40K MVOLT PE DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish
ARC2 LED	P1 1,500 Lumens P2 2,000 Lumens P3 3,000 Lumens P4 4,000 Lumens P5 6,500 Lumens	30K 3000K 40K 4000K 50K 5000K	MVOLT 347[1]	E4WH Emergency battery backup, CEC compliant (4W, 0°C min)[1] E8WC Emergency battery backup, CEC compliant (8W, -20°C min)[1] PE Button type photocell for dusk-to-dawn operation DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[2] SPD6KV 6kV surge protection[1] FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100%[2]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

WSBBW DDBXD U Surface - mounted back box (specify finish)

NOTES

1 347V not available with E4WH, E8WC and SPD6KV.
2 FAO not available with DMG.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	30K (3000K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
		Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	11W	1,502	142	0	0	1	1,587	150	0	0	1	1,598	151	0	0	1
P2	16W	2,250	140	0	0	1	2,377	147	0	0	1	2,393	148	0	0	1
P3	24W	3,206	135	0	0	1	3,387	143	0	0	1	3,410	144	0	0	1
P4	30W	3,903	128	1	0	1	4,124	136	1	0	1	4,152	136	1	0	1
P5	51W	6,260	122	1	0	1	6,615	129	1	0	1	6,659	130	1	0	1

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	11W	0.090	0.055	0.049	0.046	0.045
P2	16W	0.141	0.081	0.072	0.064	0.059
P3	24W	0.202	0.117	0.103	0.091	0.079
P4	30W	0.280	0.162	0.144	0.128	0.095
P5	51W	0.471	0.272	0.239	0.212	0.158

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Lumens
E4WH	693
E8WC	1,413

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
10°C	50°F	1.03
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.93	>0.88

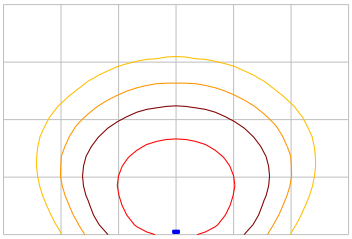
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting ARC LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND

- 0.25 fc
- 0.5 fc
- 1.0 fc
- 3.0 fc

MH = 15ft
Grid = 15ft x 15ft



ARC2 LED P3 40K

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Emergency Egress Options

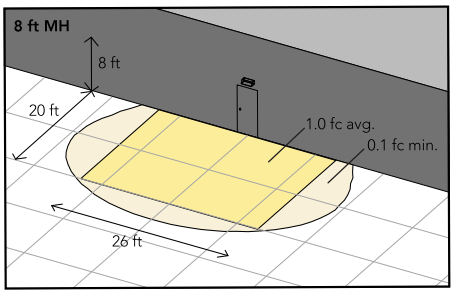
Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90minutes.

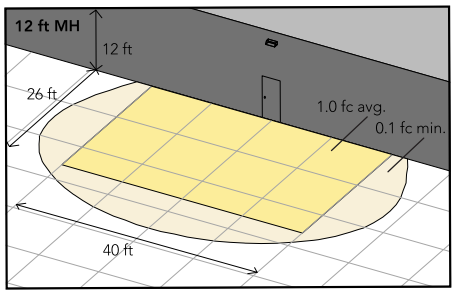
Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode.

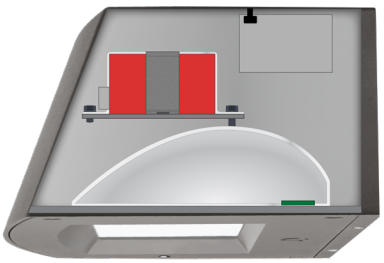
Grid = 10ft x 10ft



ARC2 LED 40K MVOLT E4WH



ARC2 LED 40K MVOLT E8WC



Self-contained solution for clean aesthetic

Mounting, Options & Accessories

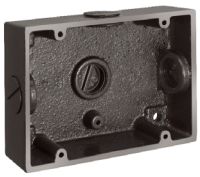


E4WH and E8WC – Emergency Battery Backup

D = 6.5”

H = 5”

W = 11”



BBW – Standard Back Box

D = 1.5”

H = 4”

W = 5.5”

For surface conduit applications.
3/4" conduit entry holes.

FEATURES & SPECIFICATIONS

INTENDED USE
The clean architectural shape of the ARC LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long-life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION
The die-cast aluminum housing and door act as heat sinks to optimize thermal transfer from the light engine and driver to promote long-life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH
Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS
Recessed lens to cut off high angle light and reduce glare. Combination of diffused lens and reflector design has low surface brightness creating a visually comfortable environment with great distribution. LEDs are fully hidden from view to eliminate pixelization and harsh glare. The ARC LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long-life (up to L88/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire is 0-10V dimmable.

INSTALLATION
The universal wall plate, supplied with the luminaire, fits multiple size junction boxes and supports it during wiring for easy installation. Built-in wet location wiring compartment on the luminaire to accommodate wiring connections for applications with no junction box. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International DarkSky Association (IDA) Fixture Seal of approval (FSA) is available for all products on this page utilizing 3000K color temperature only. Rated for -40°C minimum ambient.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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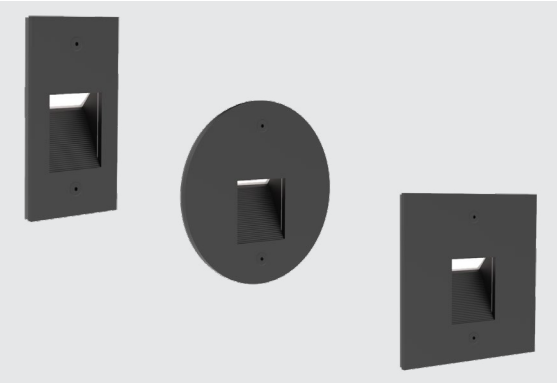


HSL11

Static White and Static Color Step Light 11

HIGHLIGHTS

- Integral Driver
- Short, Medium, and Long throw distributions
- Standard 0-10V dimming option
- Die-cast housing with solid aluminum, brass, or stainless steel faceplate
- Wet location listed
- Back Box provided by Hydrel or by others
- Suitable for concrete pour if BB option is chosen or Steel City back box is used

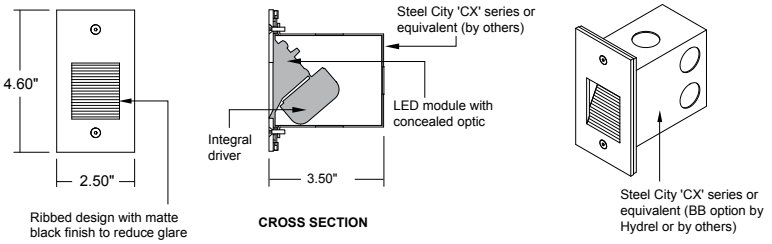
5 YEAR warranty

LED

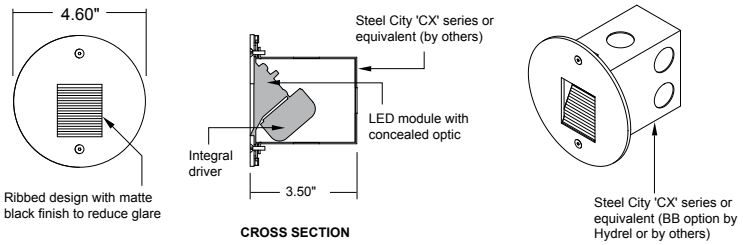
BAA

DIMENSIONS

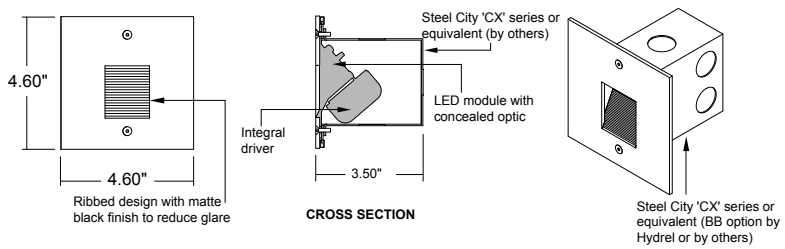
RECTANGLE



ROUND



SQUARE



LUMEN PACKAGES

Distribution	Delivered Lumens	Input Watts	Lumens/ Watt
Short	36	3	12
Medium	42	3	14
Long	54	3	18

Performance data based upon 30K LED 80CRI

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ORDERING INFORMATION

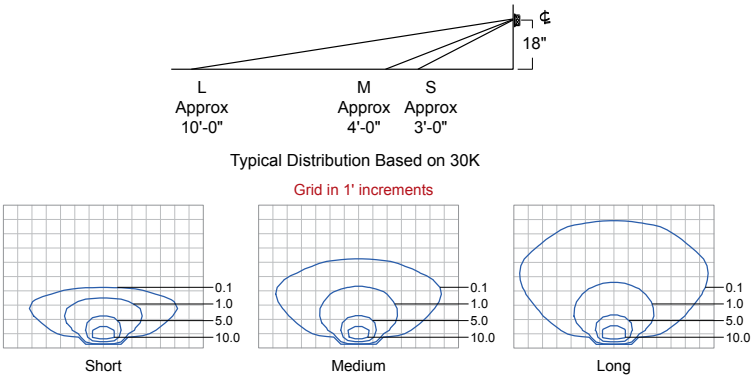
EXAMPLE: HSL11 SQ LED 27K MVOLT L MIN5 BRB

Series*	Shape*	Source*	Color Temperature*	Voltage*	Distribution*
HSL11 Step Light 11	**RECT** Rectangle **RD** Round **SQ** Square	**LED**	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K **AMBLW** Amber Limited Wavelength 590 nm **BLU** Blue **RED** Red **RDO** Red-Orange	**MVOLT** Multi-Volt 120V thru 277V	**L** Long Throw **M** Medium Throw **S** Short Throw

Dimming **Optional**	OPTION	Finish*
MIN5 Dimming Driver	**BB** Back Box *Note:* *Include BB if you need a back box, otherwise back box is by others.* *Note:* *Suitable for concrete pour if BB option is chosen or Steel City back box is used*	**BRB** Brushed Brass **BBP** Brushed Brass Paint **BRSS** Brushed Stainless Steel **LBPS** Light Bronze Paint Smooth **PBR** Polished Brass **PSS** Polished Stainless Steel **SGB** Semi Gloss Black **SGW** Semi Gloss White **CF** Custom Finish **RALTBD** Ral Paint Finishes *Note:* *RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.*

Note: * is a required field

PERFORMANCE DATA



Lumen Multiplier Table for CCT

CCT	Multiplier
27K	0.888
30K	1.000
35K	1.031
40K	1.047
50K	1.056
AMBLW	0.263
RED	0.318
GREEN	0.546
BLUE	0.283

BUG RATING CHART

SERIES	CCT	Distribution	BUG Rating
HSL11	30K	S Short Throw	B0U0G0

Note: For full report see IES file.

Expected Life: Static White LED: L70 @ 60,000 hours
Static Color LED: L70 @ 60,000 hours

OPERATING TEMPERATURE: -40°C through 45°C

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WIRING & DIMMING

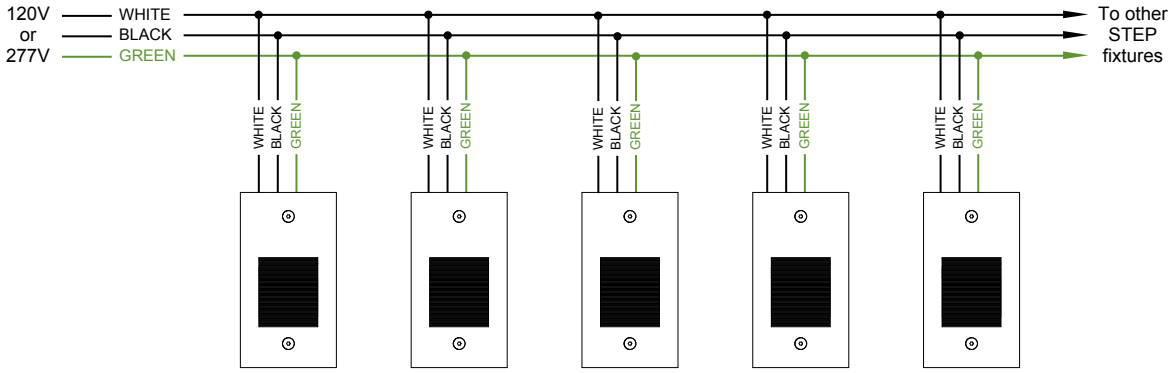
POWER SUPPLY / DIMMING

Dimming drivers require a 0-10V fluorescent-type dimming control.

Read all instructions before installation. Do not make live connections!

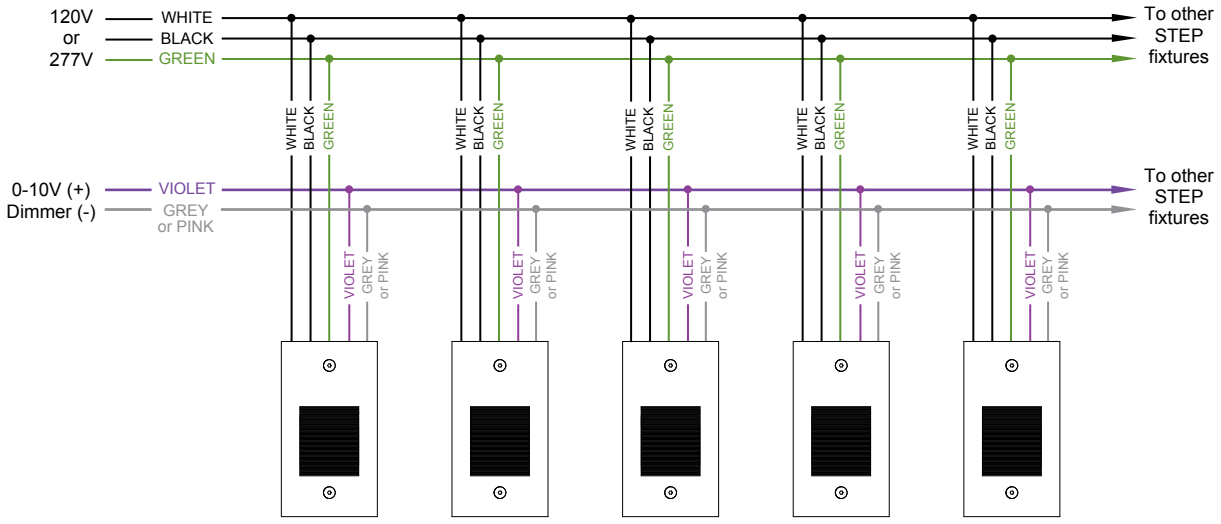
NON-DIMMING INSTALLATIONS (For non-dimming, cap off the grey and purple wires seperately)

Connect STEP WHITE wire to power NEUTRAL.
Connect STEP BLACK wire to power HOT.
Connect STEP GREEN wire to power GROUND.



DIMMING INSTALLATIONS

The integral dimming driver is designed to the 0-10V IEC dimming specification 60929 and is compatible with common 0-10V dimmers and dimming systems.
Do NOT connect line voltage to dimming input wires.
Connect STEP WHITE wire to power NEUTRAL.
Connect STEP BLACK wire to power HOT.
Connect STEP VIOLET wire to POSITIVE INPUT of Dimming Control.
Connect STEP GREY or PINK wire to NEGATIVE INPUT of Dimming Control.



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SPECIFICATIONS & FEATURES

Construction
Die-cast housing with solid aluminum, brass, or stainless steel faceplate. Two visible fasteners.

Source
Light source is a single powerful LED available in five static white color temperatures/80CRI & four colored LED choices. All within 3MacAdam ellipse

Optics
Concealed optic is available in three light distribution patterns. Short for narrow corridors, Medium for wide corridors, and Long for large area illumination.

Electrical
Integral electronic driver for 120 through 277v/50-60Hz input. Standard 0-10V dimming to 5%. THD: <20%. PFC: > 0.90. Complies to FCC CFR Title 47 Part 15, Class B at 120v and Class A at 277v EMI noise rating.

Mounting
Fixture designed to mount to a Steel City CX single gang deep junction box (BB option from Hydrel or by others) or equivalent.

Lens
Extruded clear acrylic optic lens concealed in reflector housing.

Circuiting
Single circuit

Environment
Wet location.

BUY AMERICAN ACT: This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Listing
ETL / cETL

Finish
Recessed surfaces have a ribbed design with matte black finish to reduce glare. Faceplates are available in four metal finishes with protective clear coat or one of four polyester powder coat painted finishes.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

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Phone: 800-705-SERV (7378) • www.hydrel.com



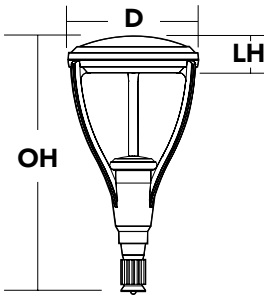
MRP LED
LED Area Luminaire

Catalog Number	MRP LED 42C 700 40K SR4 MVOLT DBLXD
Notes	With RTA 16' Pole
Type	P

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.125 ft² *(0.105 m²)*
Luminaire Height:	6-3/8″ *(16.2 cm)*
Overall Height:	32″ *(81.3 cm)*
Diameter:	18″ *(45.7 cm)*
Weight (max):	37.5 lbs *(17 kg)*



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background[1]

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: MRP LED 42C 700 40K SR5 MVOLT DDBXD

MRP LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
MRP LED	42C 42 LEDs (one engine)	350 350mA 530 530mA 700 700mA 1000 1000mA (1A)	30K 3000K 40K 4000K 50K 5000K	SR2 Type II SR3 Type III SR4 Type IV SR5 Type V	MVOLT[1] 277[2] 120[2] 347[2] 208[2] 480[2] 240[2]	**Shipped included** (blank) Fits 4″OD round pole **Shipped separately**[3] MRPT20 2-3/8″ tenon slipfitter MRPT25 2-7/8″ tenon slipfitter **Shipped separately**[3] MRPT30 3-1/2″tenon slipfitter MRPT35 4″tenon slipfitter MRPF3 3″OD round pole adapter MRPF5 5″OD round pole adapter[4]

Control options	Other options	Finish *(required)*
Shipped installed PER NEMA twist-lock receptacle only (control ordered separate) PER5 Five-wire receptacle only (control ordered separate)[5] PER7 Seven-wire receptacle only (control ordered separate)[5] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[6]	SF Single fuse (120, 277, 347V)[2] DF Double fuse (208, 240, 480V)[2]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [7]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [7]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [7]
DSHORT SBK U	Shorting cap [7]
MRPT20 DDBXD U	2-3/8" tenon slipfitter (specify finish)
MRPT25 DDBXD U	2-7/8" tenon slipfitter (specify finish)
MRPT30 DDBXD U	3-1/2" tenon slipfitter (specify finish)
MRPT35 DDBXD U	4" tenon slipfitter (specify finish)
MRPF3 DDBXD U	3" OD round pole adapter (specify finish)
MRPF5 DDBXD U	5" OD round pole adapter (specify finish) [3]

For more control options, visit DTL and ROAM online.

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
3. Also available as a separate accessory; see Accessories information at left.
4. Maximum pole wall thickness is 0.156".
5. If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
6. DMG not available with PER, PER5 or PER7.
7. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
42C (42 LEDs)	530	75W	SR2	5,456	1	2	1	73	6,605	1	2	1	88	6,671	1	2	1	89
			SR3	5,436	1	1	1	72	6,581	1	1	2	88	6,647	1	1	2	89
			SR4	5,399	1	1	1	72	6,537	1	1	2	87	6,602	1	1	2	88
			SR5	5,748	3	1	3	77	6,959	3	1	3	83	7,029	3	1	3	94
	700	100W	SR2	6,630	1	2	1	66	8,026	2	2	2	80	8,106	2	2	2	81
			SR3	6,605	1	1	2	66	7,997	1	2	2	80	8,077	1	2	2	81
			SR4	6,561	1	1	2	66	7,943	1	2	2	79	8,022	1	2	2	80
			SR5	6,985	3	1	3	70	8,456	3	2	3	85	8,541	3	2	3	85
	1000	151W	SR2	8,165	2	2	2	54	9,885	2	2	2	65	9,983	2	2	2	66
			SR3	8,135	1	2	2	54	9,848	2	2	2	65	9,947	2	2	2	66
			SR4	8,080	2	2	2	54	9,782	2	2	2	65	9,880	2	2	2	65
			SR5	8,602	3	2	3	57	10,414	4	2	4	70	10,518	4	2	4	70

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion (ROAM on/off only)	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended

⊘ Will not work

⚠ Alternate

*Futureproof means: Ability to change controls in the future.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.06
10°C	50°F	1.04
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
40°C	104°F	0.96

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **MRP LED 42C 700** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.96	0.92	0.85

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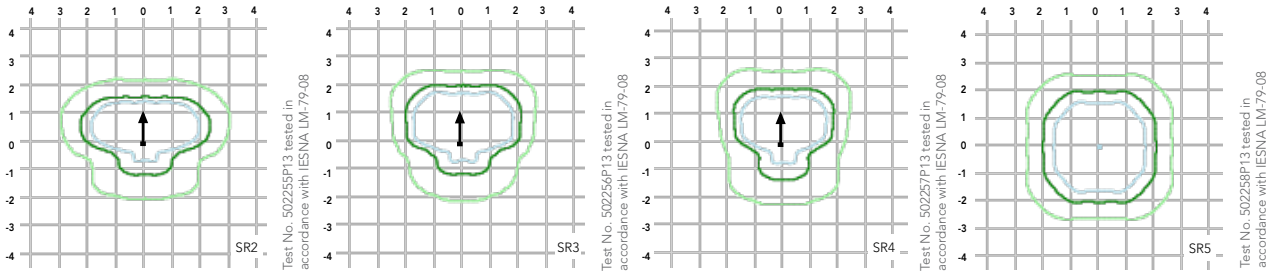
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's MRP LED homepage.

Isofootcandle plots are considered to be representative of available optical distributions.

LEGEND

- 0.1 fc
- 0.5 fc
- 1.0 fc



FEATURES & SPECIFICATIONS

INTENDED USE
Streets, walkways, parking lots and surrounding areas.

CONSTRUCTION
Single-piece die-cast aluminum housing with nominal wall thickness of .012". Die-cast top access doorframe has impact-resistant, tempered glass lens (3/16" thick). Doorframe is fully gasketed with one-piece tubular silicone.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum and white. Available in textured and non-textured finishes.

OPTICS
Precision acrylic refractive optics for optimum light distribution through the flat glass lens. Light engines are available in standard 3000K (70 CRI) or optional 4000K (70 CRI) or 5000K (70 CRI) configurations.

ELECTRICAL
Light engine consists of 42 high-efficacy LEDs mounted to a metal-core circuit board and aluminum heat sink, ensuring optimal thermal management and long life. Class 1 electronic driver has a power factor >90%, THD <20%, and has an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low for operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Standard post-top mounting configuration fits into a 4" OD open pole top (round pole only). Multiple options and accessories are available for other mounting needs.

LISTINGS
CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. Rated for -40°C minimum ambient. **U.S. Patent No. D556,357.**

BUY AMERICAN ACT
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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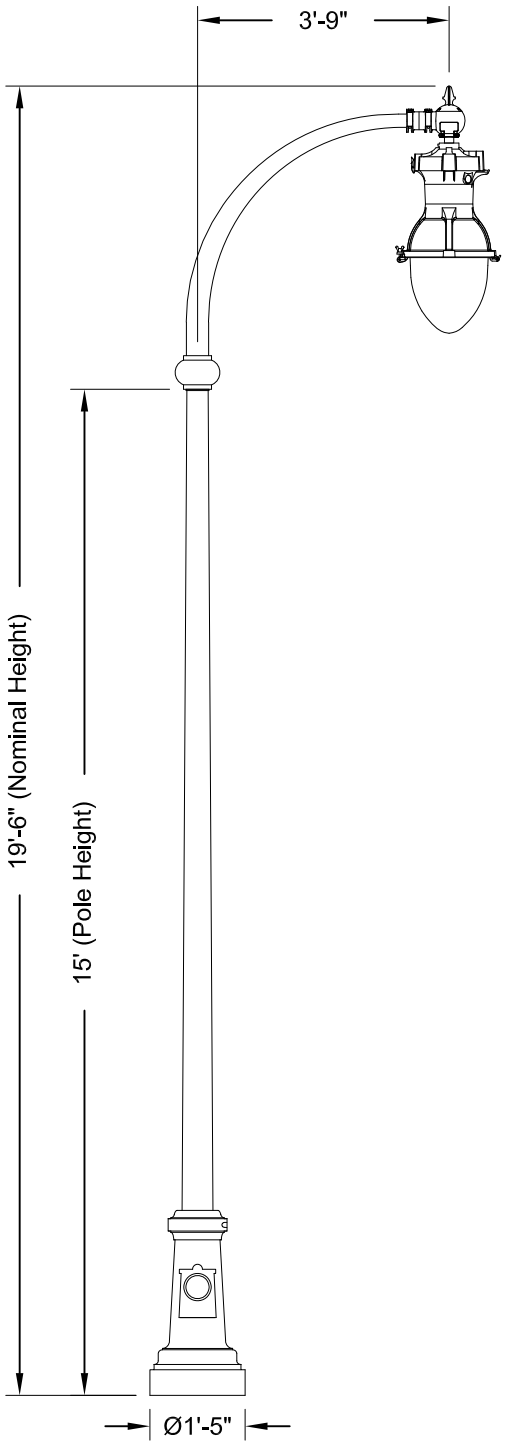


Specifications

GENERAL DESCRIPTION
The lighting post shall be all steel, one or two piece construction, consisting of a tapered shaft welded to a steel anchor base. The post shall be provided with (1) Ø17" clam shell base, (1) OUC series arm, 45" from post center to luminaire center, and (1) Boston Harbour QSL fitter.

MATERIAL
The shaft shall conform to ASTM A595 Grade-A and is supplied in .1196" thickness. The anchor base is fabricated from structural quality hot rolled carbon steel plate conforming to ASTM A36. The base plate telescopes the pole shaft and is circumferentially welded top and bottom.

DIMENSIONS
The post shall be 15'-0" in height with a 10" square base.

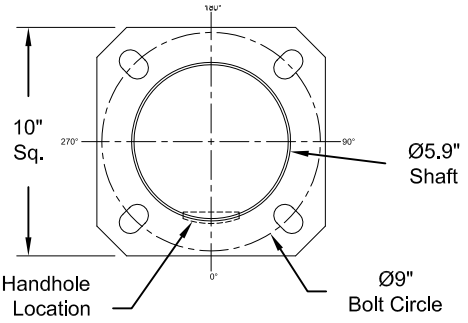
WIRE ACCESS
A reinforcing handhole rim is provided on the post and is made of a rectangular shaped tubing material. It is provided with one or two steel attachment bars, steel cover, and one or two round head machine screw. The handhole is welded in the post shaft and is located above the base.

INSTALLATION
The post shall use four L-type anchor bolts (anchor bolts by others) . Anchor bolts shall be installed on a Ø9" bolt circle.

FINISH
All material to have zink rich prime coating (not galvanized) suitable for use with the following coatings; Cardinal Industries Finishes T357-GR105 Polyester TGIC powder coat metallic silver top coated with T009-CL05 Clear.

LUMINAIRE DESCRIPTION
- Esplanade Teardrop LED 2
- 10,000 Lumens, 3 COBs; 4000K CCT
- Auto Sensing Voltage (120-277)
- Custom Match Color, as described in "Finish" section above
- Teardrop Glass and Door, Type 3 Asymmetric Distribution
- Quick Lock Stem Mount

Anchorage Detail



DO NOT USE TO SET ANCHOR BOLTS
CONTACT CUSTOMER SERVICE FOR TEMPLATE

Catalog #'s:
RFD192337
Pole: CM(15.0)RTSU472A
Anchor Bolts: AB-27-4
Clamshell Base: CM17CSBU472A
Arm: OUC45/1CAY215J
RFD209202
Fixture/Fitter: ESL2P20S40KASCMCTG3S, BHDF13200CMC

Customer Signature: **Date:**

HOLOPHANE®
LEADER IN LIGHTING SOLUTIONS
An AcuityBrandsCompany

City of Portland - Bayside Anchor
Portland, ME

ORDER #: 2066-15-10999-0	TYPE: BAYSIDE MED. COMM.	DRAWING #: TSG 009468
REVISION:	REVISION DATE:	
DRAWN: MAB	ORIGIN DATE: 03/23/16	PAGE: 1 of 1

THIS DRAWING, WHEN APPROVED, SHALL BECOME THE COMPLETE SPECIFICATION FOR THE MATERIAL TO BE FURNISHED BY HOLOPHANE ON THE ORDER NOTED ABOVE. A UNIT OF SIMILAR DESIGN MAY BE SUPPLIED, BUT ONLY AFTER APPROVAL BY THE CUSTOMER IN WRITING, ON POLE ORDERS AN ANCHOR BOLT TEMPLATE PRINT WILL BE SUPPLIED WITH EACH ANCHOR BOLT ORDER TO MATCH THE POLE PROVIDED. THIS PRINT IS THE PROPERTY OF HOLOPHANE AND IS LOANED SUBJECT TO RETURN UPON DEMAND AND UPON EXPRESS CONDITION THAT IT WILL NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTERESTS, AND ONLY IN CONNECTION WITH MATERIAL FURNISHED BY HOLOPHANE.

LITHONIA LIGHTING®

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Round Tapered Aluminum is a general purpose light pole for up to 50-foot mounting heights. This pole provides a lighter and naturally corrosion-resistant option for mounting area light fixtures and floodlights.

CONSTRUCTION —

Pole Shaft: The pole shaft is of uniform wall thickness and is one-piece extruded 6063 aluminum alloy with T6 temper. The shaft is cone-tapered. Available shaft diameters are 4", 5", 6", 7", 8", and 10".

Pole Top: Options include tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. A removable cast aluminum top cap with set screws is provided for all poles that will receive drilling patterns for side-mount luminaire arm assemblies or when ordered with open top (PT) option. The top cap resists intrusion of moisture and environmental contaminants.

Handhole: 4" - 6" RTA poles have non-reinforced 2" x 4" handhole with overlap cover. 7" - 10" RTA poles have reinforced 4" x 6" handhole with flush surface covers. 4" - 5" RTA poles have handhole located 12" above base. 6" - 10" RTA poles handhole located 18" above base on side A. Poles with non-reinforced handhole have supplemental ground lug with tapped hole for 3/8-16 ground bolt welded inside pole opposite handhole. Poles with reinforced handhole have 5/16-18 tapped hole in handhole reinforcement adjacent to opening. Positioning the handhole lower than standard may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. Standard and extra handholes come with cover and attachment hardware.

Bolt Caps/Base Cover: Pole base plate for RTA poles utilizes cast aluminum A365 bolt caps to cover anchor bolt and nut assembly (included). 1 piece, spun aluminum base cover available as an option.

Anchor Base/Bolts: Anchor base is cast from A356 alloy aluminum and is heat treated to a T6 temper after welding. Anchor bolts are manufactured to ASTM F1554 Standards Grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Upper portion of anchor bolt is galvanized per ASTM A-153; bolts have an "L" bend on bottom end and are galvanized a minimum of 12" on the threaded end. Each hot-dipped galvanized anchor bolt is furnished with two hex nuts and two flat washers.

HARDWARE — All structural and non-structural fasteners are stainless-steel.

FINISH — Extra durable painted finish is coated with polyester powder that meets 5A and 5B classifications of ASTM D3359. Standard powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Other finishes include Brushed Aluminum, and Anodized Dark Bronze, Anodized Natural Aluminum and Anodized Black. Architectural Colors and Special Finishes are available by quote and include, but are not limited to RAL Colors, Custom Colors and Extended Warranty Finishes.

INSTALLATION — **Do not** erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

Anchor Base Poles

RTA

ROUND TAPERED ALUMINUM



RTA Round Tapered Aluminum Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: RTA 25 6E DM19 BA

RTA					
Series	**Nominal fixture mounting height**	**Nominal shaft base size/wall thickness[1]**	**Mounting[2]**	**Options**	**Finish[10]**
RTA	8'-50' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.)	4C 4" (.125") 5C 5" (.125") 5E 5" (.156") 5G 5" (.188") 6E 6" (.156") 6G 6" (.188") 7E 7" (.156") 8E 8" (.156") 8G 8" (.188") 8J 8" (.250") 9G 9" (.188") 10G 10" (.188") 10J 10" (.250") (See technical information table for complete ordering information.)	Tenon mounting PT Open top T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS) T35 4" O.D. (3-1/2" NPS) KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28PL 2 at 180° with one side plugged DM29 2 at 90° DM32 3 at 120° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM32AS 3 at 120° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[3] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM32RAD 3 at 120° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90° AERIS™ Suspend drill mounting[3,4] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[3,4] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	VD Vibration damper HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5,7] CPL12/xy 1/2" I.D. coupling[5] CPL34/xy 3/4" I.D. coupling[5] CPL1/xy 1" I.D. coupling[5] NPL12/xy 1/2" O.D. threaded nipple[5] NPL34/xy 3/4" O.D. threaded nipple[5] NPL1/xy 1" O.D. threaded nipple[5] EHHxy Extra handhole[5,8] FBC Full base cover (spun aluminum) L/AB Less anchor bolts (Include when anchor bolts are not needed) TP Tamper resistant handhole cover fasteners NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) UL UL listed with label (Includes NEC compliant cover) BAA Buy America(n) Act Compliant[9]	Super durable paint colors DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DGCXD Charcoal gray DTGXD Tennis green DBRXD Bright red DSBXD Steel blue DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white Brushed finish BA Brushed aluminum Class 1 architectural anodized ABL Black ADB Dark bronze ANA Natural Architectural colors and special finishes Duranodic Anodize, Paint over Duranodic Anodize, RAL Colors, Custom Colors and Extended Warranty Finishes available.

NOTES:

1. Wall thickness will be signified with a "C", "E", "G" or a "J" in nomenclature. "C" - 0.125 | "E" - 0.156 | "G" - 0.188 | "J" - 0.250.
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8 ", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard with radius curve providing 12' rise. If ordering two horizontal arm at the same height, specify with HAxyy. Example: HA20BD
7. FDL does not come with additional covering. Festoons must be a minimum of 3ft (36in) from the base in any orientation. Distance between any festoon and/or handhole must be at least 1ft and 6in (18in) apart in any orientation.
8. Combination of tenon-top and drill mount includes extra handhole. Extra Handholes must be a minimum of 3ft (36in) from the base in any orientation. Distance between any festoon and/or handhole must be at least 1ft and 6in (18in) apart in any orientation.
9. Use when mill certifications are required. Some configurations may be excluded, consult factory.
10. Finish must be specified. Additional colors available; see Architectural Colors brochure linked here (Form No. 794.3). Lead times may be extended up to 2 weeks due to paint procurement.

Accessories: *Order as separate catalog number.*

PL DT20	Plugs for ESX drillings
PL DT8	Plugs for DMxxAS drillings

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TECHNICAL INFORMATION — EPA (FT^2) WITH 1.3 GUST									
Catalog number	**Nominal mount ht. (ft) ***	**Pole shaft size (in x ft)**	**Wall thick (in)**	**80 mph**	**90 mph**	**100 mph**	**Max. weight**	**Bolt size (in. x in. x in.)**	**Approximate ship (lbs.)**
RTA 20 5C	20	5 x 3 x 19.66	0.125	3.9	2.5	1.6	100	.75 x 18 x 3	62
RTA 20 5G	20	5 x 3 x 19.66	0.188	7.4	5.2	3.8	100	.75 x 18 x 3	72
RTA 20 6G	20	6 x 4 x 19.66	0.188	12.2	9.2	7.2	214	.75 x 30 x 3	107
RTA 20 7E	20	7 x 4 x 19.66	0.156	15.0	11.4	9.0	256	1 x 36 x 4	103
RTA 25 6E	25	6 x 4 x 24.66	0.156	5.3	3.6	2.6	114	.75 x 30 x 3	106
RTA 25 7E	25	7 x 4 x 24.66	0.156	9.5	7.0	5.4	162	1 x 36 x 4	120
RTA 25 8E	25	8 x 4.5 x 24.66	0.156	14.2	10.9	8.5	220	1 x 36 x 4	130
RTA 25 8G	25	8 x 4.5 x 24.66	0.188	18.0	13.8	10.9	261	1 x 36 x 4	153
RTA 25 9G	25	9 X 4.5 X 24.66	0.188	24.2	18.7	14.9	150	1 X 36 X 4	167
RTA 30 7E	30	7 x 4 x 29.66	0.156	5.5	3.8	2.7	111	1 x 36 x 4	135
RTA 30 8E	30	8 x 4.5 x 29.66	0.156	9.4	7.0	5.3	151	1 x 36 x 4	150
RTA 30 8G	30	8 x 4.5 x 29.66	0.188	12.4	9.4	7.3	179	1 x 36 x 4	175
RTA 30 9G	30	9 X 4.5 X 29.66	0.188	17.4	13.3	10.4	150	1 X 36 X 4	180
RTA 30 10G	30	10 x 6 x 29.66	0.188	23.8	18.3	14.3	377	1 x 40 x 4	235
RTA 35 8E	35	8 x 4.5 x 34.66	0.156	5.8	4.1	2.9	119	1 x 36 x 4	185
RTA 35 8G	35	8 x 4.5 x 34.66	0.188	8.3	6.0	4.5	141	1 x 36 x 4	220
RTA 35 8J	35	8 x 4.5 x 34.66	0.250	12.9	9.7	7.5	183	1 x 36 x 4	251
RTA 35 9G	35	9 X 4.5 X 24.66	0.188	12.5	9.3	7.2	150	1 X 36 X 4	204
RTA 35 10G	35	10 x 6 x 34.66	0.188	17.9	13.6	10.4	295	1 x 40 x 4	268
RTA 39 8G	39	8 x 4.5 x 38.66	0.188	5.6	3.9	2.7	122	1 x 36 x 4	250
RTA 39 8J	39	8 x 4.5 x 38.66	0.250	9.7	7.1	5.4	158	1 x 36 x 4	280
RTA 39 9G	39	9 X 4.5 X 38.66	0.188	9.4	6.8	5.1	150	1 X 36 X 4	255
RTA 39 10G	39	10 x 6 x 38.66	0.188	14.2	10.5	7.8	253	1 x 40 x 4	295
RTA 39 10J	39	10 x 6 x 38.66	0.250	20.4	15.5	11.9	300	1.25 x 48 x 5	373
RTA 50 10J	50	10 x 6 x 49.66	0.250	12.5	9.1	6.5	300	1.25 x 48 x 5	447

NOTE: EPA values are based ASCE 7-93 wind map. Assumes center of load is located 1.5' above pole top.
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

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TECHNICAL INFORMATION — EPA (ft²) WITH 3-SECOND GUST PER AASHTO 2013																
Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight
RTA	8	4C	7.7	75	6.1	75	4.9	75	4	75	3.3	75	2.8	75	2.4	75
RTA	10	4C	5.9	75	4.6	75	3.6	75	2.9	75	2.3	75	1.9	75	1.6	75
RTA	10	5C	11.5	75	9.1	75	7.3	75	6	75	5	75	4.2	75	3.6	75
RTA	12	4C	4.5	75	3.4	75	2.6	75	2	75	1.5	75	1.2	75	0.9	75
RTA	12	5C	9.2	75	7.2	75	5.7	75	4.6	75	3.8	75	3.2	75	2.7	75
RTA	12	5E	11.6	75	9.2	75	7.4	75	6	75	5	75	4.2	75	3.6	75
RTA	12	5G	14	100	11.1	100	8.9	100	7.3	100	6.1	100	5.1	100	4.4	100
RTA	14	4C	3.4	75	2.5	75	1.8	75	1.2	75	0.8	75	0.5	75	-	75
RTA	14	5C	7.5	75	5.7	75	4.4	75	3.5	75	2.8	75	2.3	75	1.9	75
RTA	14	5E	9.6	75	7.4	75	5.9	75	4.7	75	3.8	75	3.2	75	2.7	75
RTA	14	5G	11.6	100	9	100	7.2	100	5.8	100	4.8	100	4	100	3.4	100
RTA	16	4C	2.5	75	1.6	75	1	75	0.6	75	-	75	-	75	-	75
RTA	16	5C	6	75	4.4	75	3.3	75	2.6	75	2	75	1.6	75	1.2	75
RTA	16	5E	7.8	75	5.9	75	4.6	75	3.6	75	2.9	75	2.3	75	1.9	75
RTA	16	5G	9.6	100	7.3	100	5.8	100	4.6	100	3.7	100	3	100	2.5	100
RTA	16	6E	13.7	100	10.8	100	8.7	100	7.1	100	6	100	5.1	100	4.3	100
RTA	16	6G	16.8	100	13.2	100	10.7	100	8.8	100	7.4	100	6.3	100	5.4	100
RTA	18	5C	4.6	75	3.3	75	2.4	75	1.7	75	1.2	75	0.9	75	0.6	75
RTA	18	5E	6.3	75	4.6	75	3.5	75	2.6	75	2	75	1.5	75	1.2	75
RTA	18	5G	7.8	100	5.8	100	4.5	100	3.5	100	2.7	100	2.2	100	1.8	100
RTA	18	6E	11.3	100	8.8	100	7	100	5.7	100	4.7	100	4	100	3.4	100
RTA	18	6G	13.9	100	10.9	100	8.8	100	7.2	100	6	100	5.1	100	4.3	100
RTA	18	7E	18	150	14.2	150	11.4	150	9.4	150	7.9	150	6.7	150	5.7	150
RTA	20	5C	3.5	75	2.4	75	1.6	75	1	75	0.6	75	-	75	-	75
RTA	20	5E	5	75	3.5	75	2.5	75	1.8	75	1.3	75	0.9	75	-	75
RTA	20	5G	6.3	100	4.6	100	3.4	100	2.5	100	1.9	100	1.4	100	1.1	100
RTA	20	6E	9.3	100	7.1	100	5.5	100	4.5	100	3.7	100	3.1	100	2.6	100
RTA	20	6G	11.6	100	9	100	7.1	100	5.8	100	4.8	100	4	100	3.4	100
RTA	20	7E	15.3	150	12	150	9.6	150	7.8	150	6.5	150	5.5	150	4.7	150
RTA	23	6E	6.9	100	5	100	3.7	100	2.9	100	2.3	100	1.9	100	1.5	100
RTA	23	6G	8.9	100	6.6	100	5.1	100	4	100	3.3	100	2.7	100	2.2	100
RTA	23	7E	12	150	9.2	150	7.2	150	5.8	150	4.8	150	4	150	3.3	150
RTA	23	8E	17.1	150	13.4	150	10.8	150	8.9	150	7.4	150	6.2	150	5.3	150
RTA	23	8G	21.3	150	16.8	150	13.6	150	11.3	150	9.4	150	8	150	6.8	150
RTA	25	6E	5.5	100	3.8	100	2.7	100	2	100	1.5	100	1.2	100	0.9	100
RTA	25	6G	7.3	100	5.3	100	3.9	100	3	100	2.4	100	1.9	100	1.6	100
RTA	25	7E	10.1	150	7.6	150	5.8	150	4.6	150	3.7	150	3.1	150	2.5	150
RTA	25	8E	14.7	150	11.4	150	9.1	150	7.5	150	6.2	150	5.1	150	4.3	150
RTA	25	8G	18.6	150	14.5	150	11.7	150	9.6	150	8	150	6.7	150	5.7	150
RTA	28	7E	7.7	150	5.6	150	4.2	150	3.2	150	2.5	150	2	150	1.6	150
RTA	28	8E	11.8	150	9	150	7.1	150	5.8	150	4.7	150	3.8	150	3.2	150
RTA	28	8G	15.1	150	11.7	150	9.4	150	7.6	150	6.3	150	5.2	150	4.4	150
RTA	28	8J	21.4	150	16.8	150	13.6	150	11.2	150	9.3	150	7.8	150	6.6	150
RTA	28	9G	21	150	16.5	150	13.3	150	10.9	150	9.1	150	7.6	150	6.4	150
RTA	28	10G	27.5	200	21.9	200	17.8	200	14.6	200	12.1	200	10.1	200	8.5	200
RTA	28	10J	37.3	300	29.9	300	24.4	300	20.2	300	16.9	300	14.2	300	12	300
RTA	30	7E	6.3	150	4.4	150	3.1	150	2.2	150	1.7	150	1.3	150	0.9	150
RTA	30	8E	10	150	7.4	150	5.8	150	4.6	150	3.7	150	3	150	2.4	150
RTA	30	8G	13.1	150	9.9	150	7.9	150	6.4	150	5.2	150	4.3	150	3.5	150
RTA	30	9G	18.6	150	14.6	150	11.7	150	9.5	150	7.8	150	6.5	150	5.4	150

*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

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TECHNICAL INFORMATION (cont.)— EPA (ft^2) WITH 3-SECOND GUST PER AASHTO 2013																
Series	**Mounting Height (ft)***	**Shaft Base Size**	**90 MPH**	**Max. weight**	**100 MPH**	**Max. weight**	**110 MPH**	**Max. weight**	**120 MPH**	**Max. weight**	**130 MPH**	**Max. weight**	**140 MPH**	**Max. weight**	**150 MPH**	**Max. weight**
RTA	30	8J	18.9	150	14.6	150	11.7	150	9.6	150	8	150	6.7	150	5.6	150
RTA	30	10G	24.6	200	19.6	200	15.8	200	13	200	10.7	200	8.8	200	7.3	200
RTA	30	10J	33.7	300	26.9	300	21.9	300	18.1	300	15	300	12.6	300	10.6	300
RTA	33	8E	7.8	150	5.7	150	4.3	150	3.4	150	2.6	150	2	150	1.5	150
RTA	33	8G	10.6	150	7.9	150	6.2	150	4.9	150	3.9	150	3.1	150	2.5	150
RTA	33	9G	15.5	150	11.9	150	9.5	150	7.6	150	6.2	150	5.1	150	4.1	150
RTA	33	8J	15.7	150	12.1	150	9.6	150	7.8	150	6.4	150	5.3	150	4.4	150
RTA	33	10G	20.8	200	16.5	200	13.2	200	10.7	200	8.8	200	7.2	200	5.8	200
RTA	33	10J	28.9	300	23	300	18.6	300	15.3	300	12.6	300	10.5	300	8.7	300
RTA	35	8E	6.3	150	4.4	150	3.2	150	2.4	150	1.8	150	1.3	150	0.9	150
RTA	35	8G	8.9	150	6.5	150	5	150	3.9	150	3	150	2.4	150	1.8	150
RTA	35	9G	13.6	150	10.4	150	8.2	150	6.6	150	5.3	150	4.2	150	3.4	150
RTA	35	8J	13.9	150	10.6	150	8.4	150	6.7	150	5.5	150	4.4	150	3.6	150
RTA	35	10G	18.7	200	14.7	200	11.7	200	9.4	200	7.6	200	6.1	200	4.9	200
RTA	35	10J	25.9	300	20.6	300	16.6	300	13.6	300	11.2	300	9.3	300	7.7	300
RTA	37	8G	7.6	150	5.5	150	4.1	150	3.2	150	2.4	150	1.8	150	1.3	150
RTA	37	9G	12	150	9.1	150	7	150	5.5	150	4.4	150	3.4	150	2.6	150
RTA	37	8J	12.2	150	9.2	150	7.2	150	5.7	150	4.6	150	3.6	150	2.9	150
RTA	37	10G	16.7	200	13.1	200	10.3	200	8.2	200	6.5	200	5.2	200	4	200
RTA	37	10J	23.7	300	18.7	300	15	300	12.2	300	9.9	300	8.1	300	6.5	300
RTA	39	8G	6.3	150	4.4	150	3.2	150	2.4	150	1.7	150	1.1	150	0.7	150
RTA	39	9G	10.5	150	7.8	150	6	150	4.6	150	3.5	150	2.7	150	2	150
RTA	39	8J	10.6	150	7.9	150	6.1	150	4.8	150	3.7	150	2.9	150	2.2	150
RTA	39	10G	14.9	200	11.6	200	9.1	200	7.1	200	5.6	200	4.3	200	3.2	200
RTA	39	10J	21.5	300	16.9	300	13.4	300	10.8	300	8.7	300	7	300	5.6	300
RTA	48	10J	12.6	300	9.7	300	7.5	300	5.8	300	4.4	300	3.2	300	2.2	300
RTA	50	10J	11.2	300	8.4	300	6.4	300	4.9	300	3.6	300	2.5	300	1.6	300

NOTE: AASHTO 2013 criteria is the most conservative existing EPA calculation. For poles not showing EPA values under AASHTO 2013, EPA values may exist under commercial criteria (see table above).
*For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

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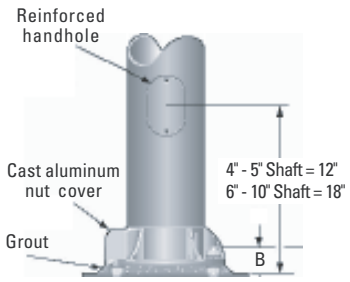
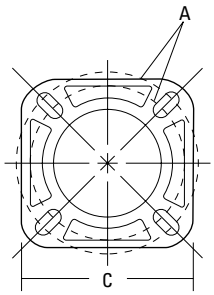
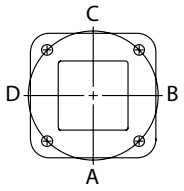
BASE DETAIL





POLE DATA						
Shaft base size	**Bolt circle A**	**Bolt projetion B**	**Base square**	**Base plate thickness**	**Template description**	**Anchor bolt description**
4"	6.75"-8.25"	3.25"	8.75"	0.630"	ABTEMPLATE 227905D VLEX	AB18-0
5"	7.75" - 8"	3.25"	9.61"	0.630"	ABTEMPLATE PJ50032	AB18-0 2IN WASHER
6"	9"–10"	3.50"	10.32"	0.630"	ABTEMPLATE PJ50033	AB30-0 2IN WASHER
7"	10.13" - 11"	4.13"	11.26"	0.750"	ABTEMPLATE PJ50034	AB36-0
8"	11.26" - 12"	4.13"	12.05"	0.750"	ABTEMPLATE PJ50035	AB36-0
9"	12.50" - 14"	4.13"	12.48"	1.250"	ABTEMPLATE PJ50037	AB36-0
10"G	14"–15"	4.75"	14"	1.250"	ABTEMPLATE PJ50036	AB40-0
10"J	14"–15"	5.25"	14"	1.250"	ABTEMPLATE PJ50063	AB48-0

HANDHOLE ORIENTATION



Handhole

Default DM19 is on side B.

IMPORTANT INSTALLATION NOTES:

- **Do not** erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use factory template.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

CAUTION: These specifications are intended for general purposes only. Lithonia Lighting reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

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O. Architectural Design Narrative

Please find attached the design narrative completed by Ryan Senatore Architecture.

March 1, 2024

Planning Department
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: COMB Block Apartments - Design Narrative

The proposed building to be located on Boyd Street in Portland's East Bayside Neighborhood consists of 50 residential apartment units intended for families. The building is a 6 story structure along the street.

Prior to developing the building concept we spent time walking the surrounding streets, analyzing existing streetscapes, building massing, forms, materials and textures. This approach allowed us to develop a design concept that is grounded by the existing neighborhood context but reflects our contemporary time.

The neighborhood is comprised of a diverse palate of Architectural forms, and time periods of design and construction. Boyd Street and the surrounding neighborhood blocks have a variety of Architectural forms and massing from two story to 6 story structures.

We designed the building using color, massing and texture to scale the building as reflected on the Boyd Street elevation. The body of the building is comprised of neutral earth tones, the base is a durable tile cladding that references the historic brick materials found throughout Portland. The siding above is a lap siding and panel product in two tones. To provide further massing and visual interest on the facades we have designed facade breaks or 'bays' on a regular rhythm and alternate the siding colors to scale the facades.

The Massing, Ventilation, and Wind impacts of the proposed design should not have an adverse affect on abutting structures due to the Site's openness and large amount of street frontages.

The the proposed design should not cast shadows on publicly accessible open space as the building is on the North Side of the Street, the community garden is South of the Site.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

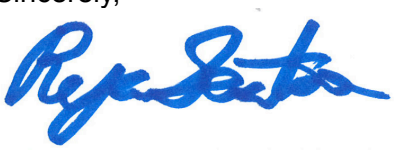
The building should not generate significant amounts of snow or ice accumulation on adjacent structures or public ways as it is a flat roof building and has a large open site area around the building.

View corridors will not be impacted by the proposed structure.

All Mechanical equipment will meet all applicable emissions standards and be located at the interior of the site away from abutting residential properties.

We look forward to discussing the project at the upcoming Planning Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

P. Utilities

Please see below for the proposed utility breakdown as part of the redevelopment of 70 East Oxford Street.

Water:

A proposed 4" domestic and 6" fire suppression service tapped off the water main within Oxford Street are anticipated to serve the proposed multi-family building. Correspondence with PWD confirming their ability to serve will be forwarded upon receipt.

Sewer:

A proposed 6" sewer will outlet the building and tap the existing 18" main in Boyd Street. A request for ability to serve has been forwarded to City of Portland DPW, Sewer Department, and confirmation will be forwarded to the city upon receipt.

Stormwater:

The project proposes stormwater detention and treatment within the proposed parking area with an R-tank detention system and Stormfilter treatment BMP. This will connect to the existing storm drain network in Oxford Street. The storm drain mainline in Oxford Street will be extended about 21' to reach the proposed site storm outlet. See Stormwater Management Report for more information. A request for ability to serve has been forwarded to City of Portland DPW, Sewer Department, and confirmation will be forwarded to the city upon receipt.

UGE/T/C:

Underground electrical, cable, and communications line will be brought to the site subsurface via a pole on Boyd Street, which will be replaced as part of the proposed improvements. Electrical service will be brought to a pad-mount transformer on the project site. External metering is anticipated for the new building. External pedestal locations will be provided for telecommunication services. Ability to serve confirmations have been received by CMP, Spectrum, and Consolidated Communications and are attached to this section.

Gas:

The proposed building will be served via the gas main within the Oxford Street sidewalk. Unitil's ability to serve confirmation is attached to this section.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use Code. Responses received thus far from the utility companies can be found attached.

From: Celina Azevedo
To: Mike Triglione
Cc: Pete Heil
Subject: 526213 PO 70 E Oxford - request for ability to serve
Date: Monday, February 5, 2024 1:52:31 PM
Attachments: Phone_223ae454-93d7-49cd-a6ff-c6b3f6771a32.png
Envelope_01e51944-8e48-4eab-9cd3-85f555862fe6.png
Web_f9738a30-9efc-4f48-8727-bc60554c3569.png
PWDlogoCMYK_finalhorzwaveandtagline_805ff89e-b71e-453e-9acc-ec30c963a648.png
Facebook_029ff86a-eef2-441a-a2e2-e87d9e072e45.png
Linedin_3a2597ae-b197-4488-b0b0-8b9f3d581365.png
Youtube_a37e753a-5442-4998-83f9-aa8e55933873.png
Xlogo2email_bf573aae-16ef-43ac-b631-1018580e1842.png
Peak Flow Based on Fixture Count.xls

Mike, good afternoon,

I have received your plans, including the survey of current conditions and the utility plan for the site as well as for Phase 1. I understand you intend to retire the existing water service on Boyd Street and install a new fire and domestic service from our main in Oxford Street. I am consulting our chief operator for wastewater systems on the proposed sewer extension.

This should be a straightforward review once we have a) your fixture count (please fill out the sheet attached) and b) your fire-protection designer's calculated peak fire demand in gallons per minute. I am here for any questions you may have in the meantime. If I need any other information, I will let you know.

Best regards,
Celina

CELINA AZEVEDO
Associate Engineer
(207) 699-5134
cazevedo@pwd.org
https://www.pwd.org/

Portland Water District
From Sebago Lake to Casco Bay

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Please consider the environment before printing this email

From: MITCHELL, JOSHUA
To: Mike Triglione
Cc: Pete Heil
Subject: CMP Three Phase Service Process and Ability to Serve Letter for 70 East Oxford Street in Portland, ME
Date: Friday, February 9, 2024 10:50:18 AM
Attachments: image001.png
Easement_Information_Worksheet.doc
Standard Easement Sample.pdf
blank W9.pdf
EDET Feb 2024.xlsx

Mike Triglione
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104

RE: 70 East Oxford Street Development
70 East Oxford Street, Portland, Maine
Letter of Ability to Serve Request

SAP TBD
Project Description:

The proposed development will subdivide the parcel into three separate parcels, and construct a new residential building on the west corner of the lot, abutting Oxford & Boyd Streets. The proposed building will consist of 50 residential units; 10 1-bedroom, 16 2-bedroom, 19 3-bedroom, and 5 4-bedroom units.

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to CMP Installation Checklists for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning

Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.

- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form). Please email them at your earliest convenience. If you are returning an Easement Form, a 1190 or State Permit please be sure to send those documents to lineclerknewservice@cmpco.com, All W9's should be sent to gettingconnected@cmpco.com. All other forms including the EDET (load sheet) and technical information should be sent to me.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: CMP Handbook of Standard Requirements An additional resource is

our Distribution Construction Standards: CMP Distribution Construction Standards CMP Distribution Construction Standards.

You will be responsible for installing the customer connections, conduits, and metering in accordance with the CMP Handbook of Standard Requirements The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: CMP ArcGIS Information

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the CMP Handbook of Standard Requirements

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to Chapter 324 Interconnection Standards and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If you project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: Net Energy Billing

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as "developments" do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: PolyphaseLineExtension.

This line extension will be part of Central Maine Power's distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the "Customer" taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don't already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- **Maine PUC**
2. By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Worksheet and Sample Standard Easement
W9

Best regards,

Josh



Joshua Mitchell
Energy Service Specialist
Portland Service Area
207-200-0333
Joshua.Mitchell@cmpco.com

Please consider the environment before printing this email.
If you have received this message in error, please notify the sender and immediately delete this message and any attachment hereto and/or copy hereof, as such message contains confidential information intended solely for the individual or entity to whom it is addressed. The use or disclosure of such information to third parties is prohibited by law and may give rise to civil or criminal liability. The views presented in this message are solely those of the author(s) and do not necessarily represent the opinion of Avangrid Networks, Inc. or any company of its group. Neither Avangrid Networks, Inc. nor any company of its group guarantees the integrity, security or proper receipt of this message. Likewise, neither Avangrid Networks, Inc. nor any company of its group accepts any liability whatsoever for any possible damages arising from, or in connection with, data interception, software viruses or manipulation by third parties.

5 Davis Farm Rd
Portland, ME 04103
207- 535-4271 office
207-745-9363 cell
207- 797-1098 fax

February 21, 2024

To Whom It May Concern:

My name is Patrick Morrison and I am the engineer for the Portland area. This letter is to inform that Consolidated Communications has the capacity and capability to serve the proposed development at 70 East Oxford St in Portland, ME. Consolidated Communications currently has aerial copper facilites in the area. We also have our fiber service named Fidium in the area. Please do not hesitate to contact me with any questions.

Sincerely,

Patrick Morrison

Consolidated Communications Outside Plant Engineer

February 28, 2024

Mike Triglione, PE

RE: May Serve Letter by Charter Communications or an affiliated to provide service (“Spectrum”)

70 East Oxford Street Development
70 East Oxford Street
Portland, ME 04101

Dear Mike:

Thank you for your interest in receiving Spectrum service. Your development of 70 East Oxford Street Development at the site of 70 East Oxford Street, Portland, ME 04101 (“Property”) is within an area where Spectrum may lawfully provide video, internet and voice services.

However, this letter is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Spectrum will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or easements
- [Other as required] _____

Please forward this information to me. Upon receipt, I will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation in the process is appreciated.

Sincerely,

Steven Holmes
MDU Account Manager-Spectrum Community Solutions
444 Perry Road
Bangor, ME 04401
(207) 631-1618, steven.holmes@charter.com

Unitil
ME GAS OPERATIONS

February 2, 2024

Mike Triglione
Acorn Engineering Inc.
70 East Oxford Street Development
Portland, ME 04101

Re: Ability to Serve for 70 East Oxford Street Portland, Maine

Dear Mike,

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system that are necessary to provide this service, as well as the design of the gas system in the project itself, will be established as the overall design and scope of your project progresses.

All work necessary to provide service will be performed in accordance with the Maine Public Utilities Commission requirements.

If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or email at morrisons@unitil.com.

Sincerely,

Sara Morrison

Sara Morrison
Business Development Representative
(T) 207-541-2536 (F) 207-541-2536

ME GAS OPERATIONS
376 Riverside Industrial Parkway
Portland, ME 04103-3586

T 207.541.2508 www.unitil.com

Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

April 3, 2024

Pete Heil, PE
Acorn Engineering
Portland, ME 04104

Re: 70 E Oxford Street, PO
Ability to Serve with PWD Water

Dear Mr. Heil:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on February 2, 2024. Based on the information provided per plans dated April 3, 2024, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch domestic service with a 1.5-inch meter and a 6-inch fire service may be installed from the water main in Oxford Street. Each service should enter through the property's frontage on Oxford Street at least 10-feet from any side property lines.
- An approved testable double-check backflow prevention device must be installed on each service line directly after the meter or before the sprinkler riser 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.
- The existing building is currently served with a 1.5-inch domestic water service and 1.5-inch meter. This service must be terminated by shutting the corporation valve and cutting the pipe from the water main. Before the service can be retired, the meter must be pulled and the account closed. Please contact Customer Service at 207-761-8310 to complete this work prior to service retirement..

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

Existing Site Service

According to District records, the project site does currently have existing water service. A 1.5-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 12-inch diameter cast-iron water main in Oxford Street and a public fire hydrant located approximately 60 feet from the site. The estimated static pressure in the area is 103 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

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

Department of Public Works
Mike Murray
Director

Date: April 22, 2024 Revised June 26, 2024
Re: Wastewater Capacity Authorization
Address: 9 Boyd Street
Applicant: Portland Housing Authority
Planner: Eric Freeman

Estimate of Anticipated Wastewater Flows				
Development	**Unit Size**	**Number of Units**	**Gallons per Day per Unit**	**Total Gallons per Day**
Existing Flow to Remain				
Multiple Family Dwelling Units	2-Bedroom	10	180	-1800
Proposed flow				
Multiple Family Dwelling Units	Studio	5	120	600
Multiple Family Dwelling Units	1-Bedroom	15	120	1800
Multiple Family Dwelling Units	2-Bedroom	16	180	2880
Multiple Family Dwelling Units	3-Bedroom	19	270	5130
Net Change				**+ 8,610**
*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.

However, storm drainage and sanitary sewer flows in this project area drain to the City's combined sewer system. Lack of wet weather capacity results in frequent system wide combined sewer overflows. City wide mitigation of combined sewer overflows is required as part of the City's CSO consent decree administered by the EPA and Maine DEP.

Section 2.2.3 of the City's Technical Manual requires DPW Water Resources approval when rain water is being proposed to discharge into a sewer which conveys sanitary waste. Prior to authorizing a new stormwater connection into the combined sewer, DPW will require that the applicant provide an on-site stormwater detention volume equal to the greater of: 1" of rainfall over the entire project redeveloped area being proposed on the parcel, or the projected average 24 hour daily sanitary sewer flow being added to the combined sewer system by the project.

You are also reminded that new connections into the combined sewer system shall be equipped with backflow prevention in accordance with Section 2.6.10 of the City's Technical Manual.

If the City can be of further assistance, please contact me at 207-874-8840 or brad@portlandmaine.gov

Sincerely,



Bradley A. Roland, P.E.,
Senior Project Engineer

Q. Construction Management Plan

Project Address: 70 East Oxford Street, Portland, ME

Project Description:

The project proposes to demolish the four existing multifamily buildings on the parcel. A division of land is also proposed to split the parcel into two separate lots, a 0.56 acre parcel (Lot 1) and a 0.97 acre parcel (Lot 2). A 50-unit multifamily building is proposed to be constructed on Lot 1, at the corner of Oxford and Boyd Streets. The building will consist of 45 affordable units and 5 market-rate units. In total there will be (10) 1-bedroom, (16) 2-bedroom, (19) 3-bedroom, and (5) 4-bedroom units. The building will also consist of amenities for residents & space for building management on the ground floor. Lot 2 will be stabilized and reserved for potential future development. The project also includes associated utility, parking and landscaping improvements.

Project Team Summary:

Owner:	COMB Block Phase One, LP
General Contractor:	TBD
Civil Engineer:	Acorn Engineering, Inc.
Architect:	Ryan Senatore Architecture
Structural Engineer:	Structural Integrity

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. The GC will prepare a Construction Management Plan their means and methods to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

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

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

   Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

   Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

   Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along Boyd Street and Oxford Street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contact information for the project personnel is:

Sarah Tatarczuk
Portland Housing Authority
(207) 221-8034

GC and Subcontractor information will be posted along Oxford Street frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in

construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Due to the limited space within the project parcel, deliveries will need to be stored in an alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

Project Start Date:	2025
Project End Date:	2027

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security & Public Safety

1. The GC will provide all fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.

2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*

3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
    - Good Housekeeping
    - On-site security
    - Installation of new fire protection systems as construction progresses
    - Preservation of existing systems during demolition
    - Organization and training of an on-site fire brigade
    - Development of a pre-fire plan with the local fire department
    - Rapid communication
    - Consideration of special hazards resulting from previous occupancies
    - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.

4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.

5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

   Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

   Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Boyd Street (sanitary) and Oxford Street (storm).

3. Traffic Control Plans

   Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

   The MOT will address the work required for utility connections in Boyd and Oxford Streets. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

   The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Boyd and Oxford Streets Street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

   - Construction speed signing may be used as needed to slow traffic.
   - Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
   - Flaggers will be utilized when necessary.

   All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or

diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces on Boyd and Oxford Streets shall not be permissible. The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.

2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.

3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.

4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.

5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.

6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:

    a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
    b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
    c. Clear all walks and ramps within the work zone
    d. Sand or salt as needed
    e. Clear all basin or drainage to help snow melt
    f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion Control and Preservation of Trees

1. The Contractor shall install all erosion and sedimentation controls as outlined in the plan set, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24

hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.

3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.

2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.

3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided.

2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:

    - Gravel & Stone – Approx. 600 CY. Earthwork subcontractor(s) pit to project site.
    - Hot Mix Asphalt – Approx. 235 tons. Paving subcontractor(s) pit to project site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.

2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:

    - Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
    - General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
    - Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
    - Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

    Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.

R. Solid Waste Disposal

An existing solid waste container is located in the existing parking lot on site. This solid waste container is anticipated to remain.

The proposed affordable housing building will utilize a new solid waste roll out containers located in the interior trash room. A private hauler will be contracted for removal services.

S. Parking Analysis

Per Land Use Code Section 19 Off Street Parking Table 19-B Categorical Exceptions to Off-Street Parking Minimums, Affordable Housing: the Planning Board may establish a lesser parking requirement regardless of the size of structure. As the project proposes affordable housing, in close walking proximity to the City's downtown core for goods and services, along with close proximity to transit stops, the applicant requests the Board establish zero (0) parking spaces required for the development.

ACORN ENGINEERING, INC.

Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

April 25, 2024

Subject: 9 Boyd St Neighborhood Meeting

I, Michael Triglione, hereby certify that a neighborhood meeting was held on February 24, 2024 at 58 Boyd Street at 5:30 pm.

I also certify that on January 12, 2022, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.

2. Residents on the "interested parties" list.

Sincerely,

Michael Triglione, P.E.
Project Engineer
Acorn Engineering, Inc.

Included with this certification are:

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

Neighborhood Meeting for the 9 Boyd St Redevelopment Project

April 11, 2024

Dear Neighbor:

Portland Housing Authority and Portland Housing Development Corporation have submitted a Major Site Plan Development Application to the City of Portland for the redevelopment of 9 Boyd St (formerly 70 E Oxford).

Please join us for a Neighborhood Meeting to discuss our redevelopment plans for new affordable housing and resident services, including the construction of a new 6-story building with 50 residential units and site improvements.

Meeting Date:	**Wednesday, April 24th, 2024**
Meeting Time:	**5:30 PM**
Meeting Location:	**Solterra Community Room** **58 Boyd St, Portland, ME 04101**

Interpreters available. If you have any questions, please call Sarah Tatarczuk at 207-221-8034.

Sincerely,

Sarah Tatarczuk
Development Officer
PHA and PHDC

Note:
Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

PORTLAND HOUSING AUTHORITY

Neighborhood Meeting
COMB BLOCK
April 24, 2024

Name	Address and/or Email
Joanne Ham	15A Mayo St.
Mohomed Hussein	21 School Street
Khalil Mohammad	260 Veranda st. portland (Arabic Interpreter)
Sean Noe	23 Mayo St.

CamScanner

9 Boyd Street Redevelopment

Neighborhood Meeting Minutes
April 24, 2024 / 5:30 pm
58 Boyd St, Portland, ME

Project Team Attendees:

Sarah Tatarczuk (ST): Portland Housing Authority

Ryan Senatore (RS): Ryan Senatore Architecture

Braden Drypolcher (BD): Dry Landscape Architecture

Peter Heil (PH): Acorn Engineering

Meeting started at approximately 5:30 pm.

Presentation:

Sarah Tatarczuk:
- Introduction to PHA development team & design team
- Overview of project/PHA mission

Braden Drypolcher:
- Overview of project open space & site access

Ryan Senatore:
- Overview of Phase 1 building layout:
    - First floor layout consisting of entry, lobby, elevator, community room
    - Typical residential floor layout consisting of 10 units, a mix of 1-,2-, 3-, and 4-bedroom units
    - No significant changes to building since last neighborhood meeting

Sarah Tatarczuk:
- Please stay up to date by viewing the project website & signing up for notifications on the project.

Peter Heil:

- Planning board workshop is tentatively scheduled for May 14, 2024 at 4:30PM at City Hall in Portland.

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Neighbor: Are there any other significant changes since last meeting?
ST: Minor changes to the interior layout and increase in open space.

Neighbor: Will pets be allowed?
ST: Yes, PHA Property Management has a pet policy.

Neighbor: How does someone get selected to live in new building?
ST: It is based on who is on the PHA waitlist. Preference will be given to people that currently live on the existing block to move into the new building.

Neighbor: How will the project be phased? Will all the existing buildings be torn down at once?
ST: Yes, all the buildings are anticipated to be demolished at once. There is an hopeful 9-12 month timeline for that after approvals.

Neighbor: Generally, in support of the project, the city needs more & better housing. I have concerns about parking for the proposed housing and the number of people who may be parking on the street.

Meeting concluded at approximately 6:00 pm.

The abovementioned material was interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,

Mike Triglione, PE
Project Engineer, Acorn Engineering, Inc.
mtriglione@acorn-engineering.com

ACORN ENGINEERING, INC.

Eric Freeman – City Planner
City of Portland
Planning & Urban Development Department
389 Congress Street, 4th Floor
Portland, ME 04101

May 6, 2024

Subject: Comment Response Letter – PL-02815-2024
9 Boyd Street Redevelopment, Portland Maine

Eric,

On behalf of Portland Housing Authority, we are pleased to respond to the Project Review Letter, dated 4/20/24 for the 9 Boyd Street redevelopment project.

Please find responses to the comments received thus far below. Below responses provide additional information and clarify documents request as outlined in the Staff memos. Any items not specifically addressed in this comment response letter are understood to have met the required City standards.

SITE PLAN REVIEW COMMENTS

Comment – *Access and Circulation: The applicant should consider redesigning the Boyd Street sidewalk to avoid excess deviation and weaving around proposed street tree plantings.*

Response – The plans have been revised to provide a continuous sidewalk width along Boyd Street on the backside of the proposed tree wells. The sidewalk provides 4' clear width on the backside of the tree wells.

Comment – *Access and Circulation: The applicant shall provide a signage plan to ensure any street signage within the right of way that is disturbed as part of construction shall be reset and/or replaced as needed in its current or appropriate location.*

Response – A signage key and additional labeling in plan view has been added to the Site Plan, sheet C-10.

Comment – *Access and Circulation: The applicant shall design a continuous sidewalk behind the proposed trees (a public easement for the sidewalk will be required).*

Response – The plans have been revised to provide for a continuous sidewalk along Boyd Street. It is understood that a public easement will be required for this portion of the sidewalk.

Comment – *Access and Circulation: The applicant shall reduce the proposed curb extension to 4 ft rather than what is currently proposed.*

Response – We understand the curb extension is still under discussion with Planning and DPW. At this time, we have left the curb extension as previously shown until final direction is provided by the City. The applicant would prefer to leave as shown to match the curbline and extension downhill across Oxford Street and also provides additional esplanade areas and soil volumes for the street trees.

Comment – *Access and Circulation: The applicant shall consider rebuilding the proposed sidewalk in concrete. DPW will support a waiver for concrete in this area because it meets item 1 of the exception to the Sidewalk Materials Policy.*

Response – The proposed sidewalk along Boyd Street has been revised to be installed as concrete.

Comment – *Parking: The applicant is requesting a waiver from city standards for the width of the parking lot aisle width. From reviewing the site plan, it appears dimensional standards can be met and therefore it is unclear why the layout of the parking lot can't be modified to comply with standards. At this time staff do not support a waiver.*

Response – The reduction in width of the drive aisle has been designed to leave adequate space for future development of the norther portion of the property. Conceptual massing designs have been conducted for the future building along Mayo St to work in unison with the proposed 9 Boyd Street building with the reduced driveway width. It has been determined through this exercise that the reduction in aisle width will help PHA meet their housing goals with the future buildout of the entire parcel. Additionally, the reduction in aisle width reduces the overall paved impervious area and pollutant load caused by the site development. The existing parking lot, with 90 degree parking, double loaded, is currently 18' wide. The proposed conditions also serve a low turn over accessible only parking area with <10 spots. Reducing the driveway curb cut also provides greater separation to an existing street tree the project intends on preserving and limits disturbance to the trees root system. Where this waiver is granted in other urban sites throughout the city, the applicant intends to move forward and present the waiver request to the Planning Board.

Comment – *Site landscaping and Buffers: The applicant should consider redesigning the Boyd Street sidewalk to avoid excess deviation and weaving around proposed street tree plantings.*

Response – The Boyd Street sidewalk has been revised to minimize the deviations around the proposed street tree wells.

Comment – *Water Quality, Stormwater Management and Erosion Control: The project is required to comply with Maine DEP Chapter 500 and City of Portland Technical Manual Section 5 regulations for Stormwater Management.*

- *Basic Standards – The applicant has provided for erosion and sedimentation control measures as required by the Basic Standards.*
- *General/Flooding Standards – The project is not creating new impervious surface subject to the General or Flooding Standards, and is a redevelopment project as noted below.*

- *Redevelopment Standard – The applicant is providing a system with a Stormfilter and R-Tanks to provide for treatment of the redeveloped non-roof impervious surface. This system also manages the site to reduce flows from the pre-development to post-development condition.*
- *Future Development – Based on my understanding of what has been submitted, the Applicant has modeled the site considering for future development. This is conservative to show that with the proposed future development, the system has been designed to manage the site's stormwater flows. In the interim condition, undeveloped portions of the site will be planted with grass. I would recommend that the applicant coordinate with the city relative to this proposed interim condition with regards to stormwater fees and surface conditions. Depending on the timing of future development, these vegetated areas may not be considered as redevelopment. The city is also working on a revised stormwater management standard.*

Response – At this time, the timing of the future development phases is unclear. The treatment & storage system is designed to treat the roof of a future proposed building that is about 10,500 sf & a total additional developed area of 24,400 sf. This is based on preliminary massing for a future building on the northern portion of the parcel.

Based on MDEP Chapter 500 Pollutant Impact Ratings, rooftops (not flat asphalt or industrial), grassed areas mowed more than twice per year, and walkways/foot traffic pavement carry the same pollutant ranking. Therefore, MDEP treatment requirements will remain the same with/without accounting for the footprint of the existing buildings.

Understood that the city is working on revised stormwater management standard. We have designed the site to account for future development to the maximum extent practicable for this project. When other portions of the parcel are developed, they will utilize the over-sized storage and treatment system as well as, if necessary, additional measures to ensure they meet the stormwater treatment and storage requirements at that time.

Comment – *Water Quality, Stormwater Management and Erosion Control: The applicant is corresponding with Portland Water District and the City of Portland for water and sewer requirements and has noted that confirmation of ability serve will be provided when received.*

Response – Ability to serve has been confirmed by Portland Water District as well as City of Portland DPW for water and sewer, respectively. Confirmation letters are included as part of this submission.

Comment – *Water Quality, Stormwater Management and Erosion Control: The plans should account for pavement replacement on Boyd Street for the locations of the proposed sewer service and the abandonment of the existing water service at the main.*

Response – Utility Plan and Construction Management Plan have been updated to account for pavement replacement in these locations.

Comment – *Water Quality, Stormwater Management and Erosion Control: The applicant should*

specify how much new impervious area and redeveloped area associated with future development phases will be managed by the proposed oversized stormwater BMP's such that the treatment/detention volume requirements for future phases will meet the proposed updated standard. This updated standard is likely to be adopted later this year.

Response – The detention volume of the proposed R-tank system is 3,752 CF. Back calculating the area based on 1" of rainfall, this provides storage for 45,024 sf. The redeveloped area associated with the 9 Boyd St building is approximately 24,400 sf. Therefore, additional storage will meet the 1" over developed area standard for an additional 20,624 sf of developed area. The sizing of the treatment system is flow-based. Flows to size the Stormfilter have accounted for 10,560 sf of additional impervious roof area to be routed to the system.

Comment – *Public Utilities: Underground electrical conduit and vaults shall be placed behind the curbline of a street per City of Portland, Maine Technical Standards Manual Section 1 Figure I-4 (Utility Locations in Streets).*

Response – It is unfeasible to install the electrical conduit and vaults behind the curbline due to the existing gas main and telecom conduits that exist behind the curbline in Oxford Street. The proposed electrical and telecom conduit will need to be encased in concrete and has separation requirements to gas mains that will need to be maintained. Additionally, if a concrete encased duct bank and structures were installed behind the curb, it would be of the detriment of street trees proposed within the esplanade along Oxford.

Comment – *Public Utilities: The proposed bends in the underground electrical conduit may not be feasible and should be reconfigured to minimize roadway crossing distance.*

Response – The electrical conduit layout has been reviewed and approved by CMP. Correspondence with CMP has been included as part of this resubmission.

DESIGN REVIEW COMMENTS

The below comments relate to the site/civil/landscape comments included within the Design Review memo. For additional comment responses to the building and architectural design review, please see attached to this response a letter from Ryan Senatore Architecture which addresses the design review comments, informed by a meeting with Sean King.

Comment – *Staff recommends a continuous brick sidewalk along the Boyd Street frontage to reduce sidewalk maintenance concerns and provide additional sidewalk width.*

Response – The plans have been revised to provide for a continuous sidewalk along Boyd Street. The proposed sidewalk along Boyd Street has been revised to be installed as concrete as identified above from the DPW review comment. We understand there are ongoing discussions with Planning and DPW on materiality.

Comment – *Staff finds the open space provided for the fifty residential units is limited and recommends that the Applicant program the common open space, proposed as an open lawn area, to include additional gathering places with seating, shade elements, other outdoor amenities and patio spaces that could function for multiple groups during the same time.*

Response – The plans have been updated to provide additional seating / picnic table areas within the open space, as well as provides a robust planting plan, including shade trees. Based on the design team call with City staff, we understand Staff is comfortable to having the larger open space area remain as open lawn / flex area for the residents.

Please let us know if you have any additional questions or comments.

Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

RYAN SENATORE **ARCHITECTURE**

May 1, 2024

Sean King
Urban Designer
Planning Department
City of Portland Maine
389 Congress Street
Portland, Maine 04101

Re: COMB Block Apartments - Design Narrative

Dear Sean,

Thank you for our meeting to go over the resign review comments and discuss these in further detail, we appreciate the collaboration, as a follow up to our meeting, please see the attached drawing package reflecting revisions in response to the Design Review comments within the memo dated 4/8/24.

Below is a description of the revisions made:

III. #1 - We have revised the fenestration on Boyd Street to provide more glazing and connection to the Street. At the lobby we have revised the glazing size to a triple window and raised the head up to provide this visual connection to the street. We have increased the size of the glazing in the office adjacent to the stair, as well as added windows to the next office up the hill. We have also increased the size of the windows in the living rooms of the apartments along Boyd Street by doubling their width to 6'.

In order to provide more visibility to the main entry on the street corner we have stepped the seat wall down at its midpoint. To provide more visual prominence to the entry itself we have made the entry doors a pair of doors, and increased the height of the transom glazing above the doors. We have also added exterior wall sconces adjacent to the entry and provided signage above the doors.

III. #2 - We have addressed what we believe is the intent of this comment by providing a transom at the secondary entires and additional signage at them, giving them more articulation and visibility as entrances.

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101

III. #4 - We feel the facades are a good balance of natural light and fenestration for the internal units as well as the exterior composition. We are trying to maintain the goal of a Passive House (very energy efficient) building design so adding more fenestration would impact that effort thus why we would prefer to maintain the current fenestration as proposed.

R-7. C. - We have designed the base of the building utilizing a 'brick' color 12"x24" exterior tile to provide a durable street level facade material that is a bit more modern in nature than brick but uses its color to recall the cladding material found in the neighboring context of the masonry buildings on Cumberland Avenue and throughout Portland. We will provide physical material samples of the tile to staff and the board for review.

R-7. D. - This item was addressed in a section above.

R-7. E. - This item was addressed in a section above.

R-7. G. - This item was addressed in a section above.

We look forward to discussing the project at the upcoming Planning Board workshop.

Sincerely,



Ryan Senatore, AIA LEED AP

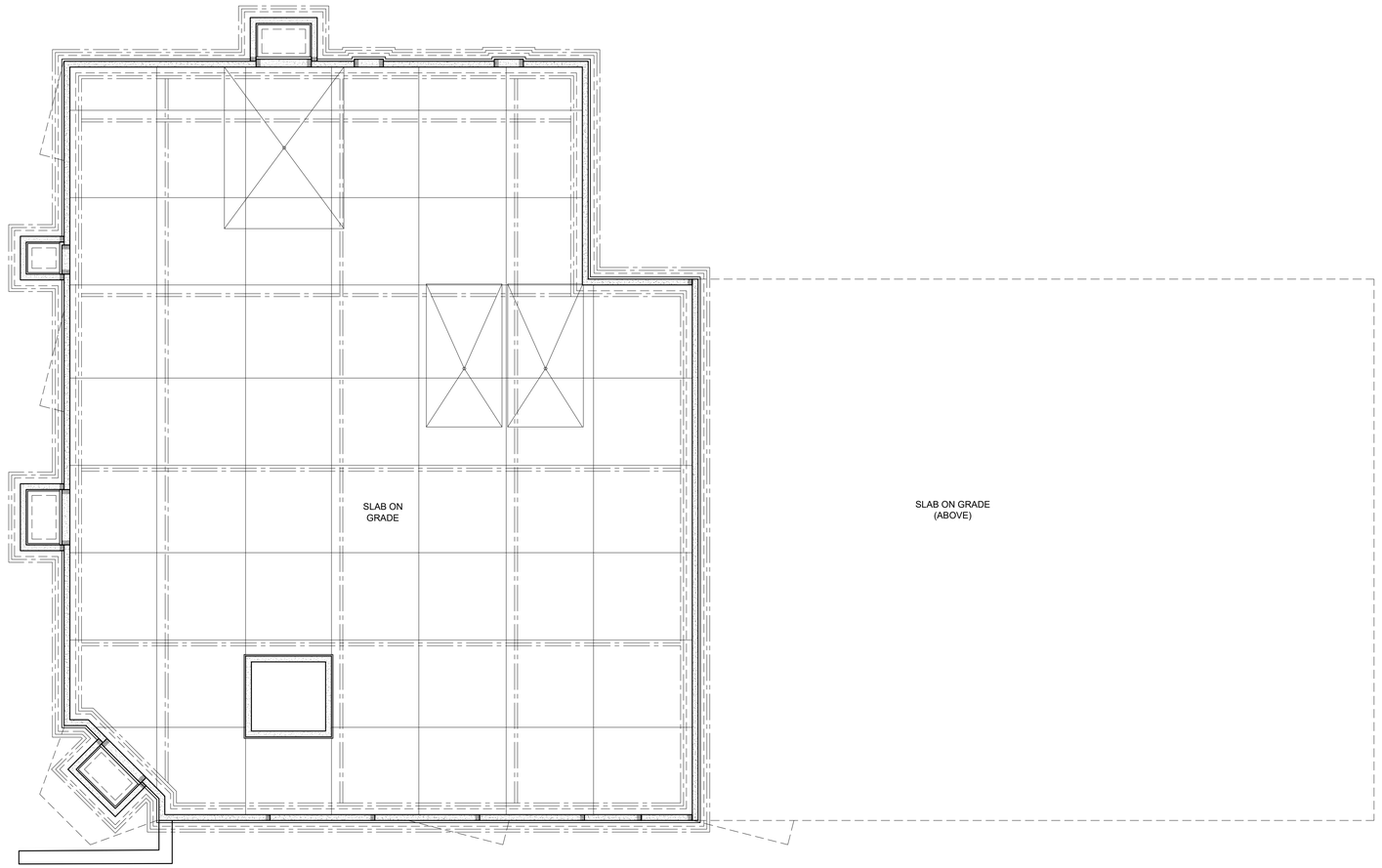
Principal

207-747-5159

senatorearchitecture.com

ryan@senatorearchitecture.com

500 Congress Street, Suite 2
Portland, Maine 04101



OXFORD STREET

BOYD STREET

1 FIRST FLOOR SLAB PLAN
1/8" = 1'-0"

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APARTMENTS

9 BOYD STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
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CONSULTANTS:

PROGRESS PRINT ONLY
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JUNE 14TH, 2024

REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR SLAB PLAN

A1-0

NOTE: AT ALL EXTERIOR WALL PANELS, ALL PANEL JOINTS, BOTH VERTICAL AND HORIZONTAL, TO HAVE TWO CONTINUOUS BEADS OF ELASTOMERIC SEALANT INSTALLED.

UNIT ACCESSIBILITY SUMMARY

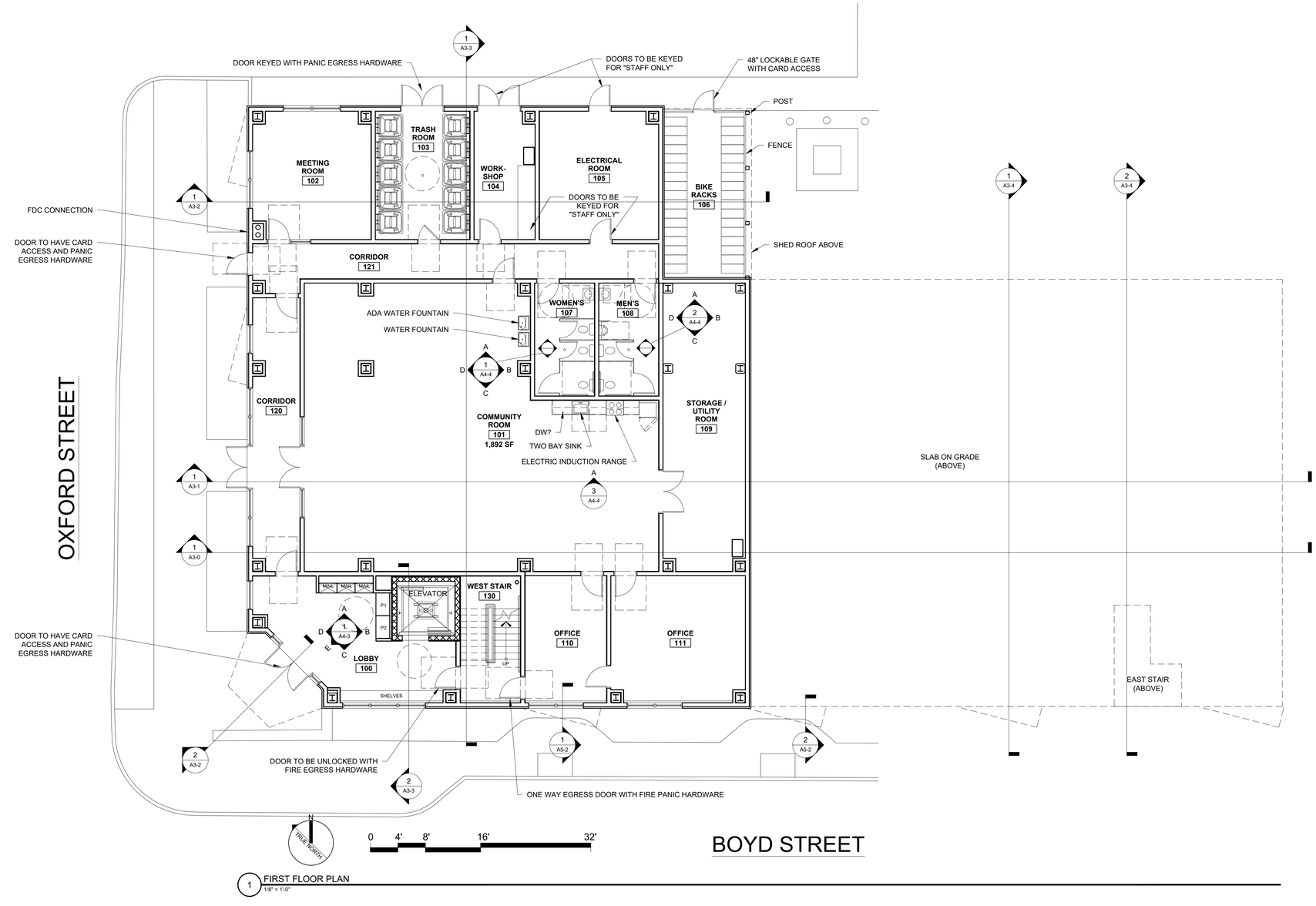
REGULATION: HUD 504 AND ADA, STANDARD: ADAAG 2010	PROVIDED IN PROJECT	EXCESS UNITS
SCOPING REQUIREMENT: 5% units accessible and additional 2% of units to be hearing and vision impaired		
55 units within building X 5% = 3 units to meet ADAAG	3 ADAAG units	0 Excess
55 units within building X 2% = 2 units to be hearing and vision impaired	2 Hearing and Vision Impaired Units	0 Excess
REGULATION: MAINE HUMAN RIGHTS ACT (MHRA), STANDARD: ANSI A117.1-2009		
SCOPING REQUIREMENT: 10% of Ground Floor units to be Type A		
11 Ground Floor (2nd Floor) Units X 10% = 2 units	2 Type-A units (includes 1 ADAAG)	0 Excess
SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
44 Upper Floor (3rd,4th,5th,6th Floors) Units X 10% = 5 units	11 Type-A units (includes 2 ADAAG)	6 Excess
	13 Type-A units total (INCUDES ADAAG)	**6 Excess Type-A units total**
All the rest to be Type B	42 Type-B units (includes 1 H/V)	
MHRA requires ALL units to either be Type A or B units		
All units to meet Federal Fair Housing Act		

UNIT TYPES - 55 TOTAL UNITS

SECOND FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	4 TWO BEDROOM UNITS	3 THREE BEDROOM UNITS
THIRD FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FOURTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FIFTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
SIXTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
TOTALS	**5 STUDIO UNITS**	**15 ONE BEDROOM UNITS**	**16 TWO BEDROOM UNITS**	**19 THREE BEDROOM UNITS**

ACCESSIBLE UNIT TYPES

FLOOR	H/V IMPAIRED ONE BED	TYPE - A ONE BED	TYPE - ADDAG ONE BED	H/V IMPAIRED TWO BED	TYPE - A TWO BED	TYPE - ADDAG TWO BED	TYPE - A THREE BED	TYPE - ADDAG THREE BED
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



1 FIRST FLOOR PLAN
1/8" = 1'-0"

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APARTMENTS
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CONSULTANTS:

PROGRESS PRINT ONLY
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JUNE 14TH, 2024

REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
FIRST FLOOR PLAN

A1-1

NOTE: AT ALL EXTERIOR WALL PANELS, ALL PANEL JOINTS, BOTH VERTICAL AND HORIZONTAL, TO HAVE TWO CONTINUOUS BEADS OF ELASTOMERIC SEALANT INSTALLED.

UNIT ACCESSIBILITY SUMMARY

REGULATION: HUD 504 AND ADA, STANDARD: ADAAG 2010	PROVIDED IN PROJECT	EXCESS UNITS
SCOPING REQUIREMENT: 5% units accessible and additional 2% of units to be hearing and vision impaired		
55 units within building X 5% = 3 units to meet ADAAG	3 ADAAG units	0 Excess
55 units within building X 2% = 2 units to be hearing and vision impaired	2 Hearing and Vision Impaired Units	0 Excess
REGULATION: MAINE HUMAN RIGHTS ACT (MHRA), STANDARD: ANSI A117.1-2009		
SCOPING REQUIREMENT: 10% of Ground Floor units to be Type A		
11 Ground Floor (2nd Floor) Units X 10% = 2 units	2 Type-A units (includes 1 ADAAG)	0 Excess
SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
44 Upper Floor (3rd,4th,5th,6th Floors) Units X 10% = 5 units	11 Type-A units (includes 2 ADAAG)	6 Excess
	13 Type-A units total (INCUDES ADAAG)	**6 Excess Type-A units total**
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All units to meet Federal Fair Housing Act		

UNIT TYPES - 55 TOTAL UNITS

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ACCESSIBLE UNIT TYPES

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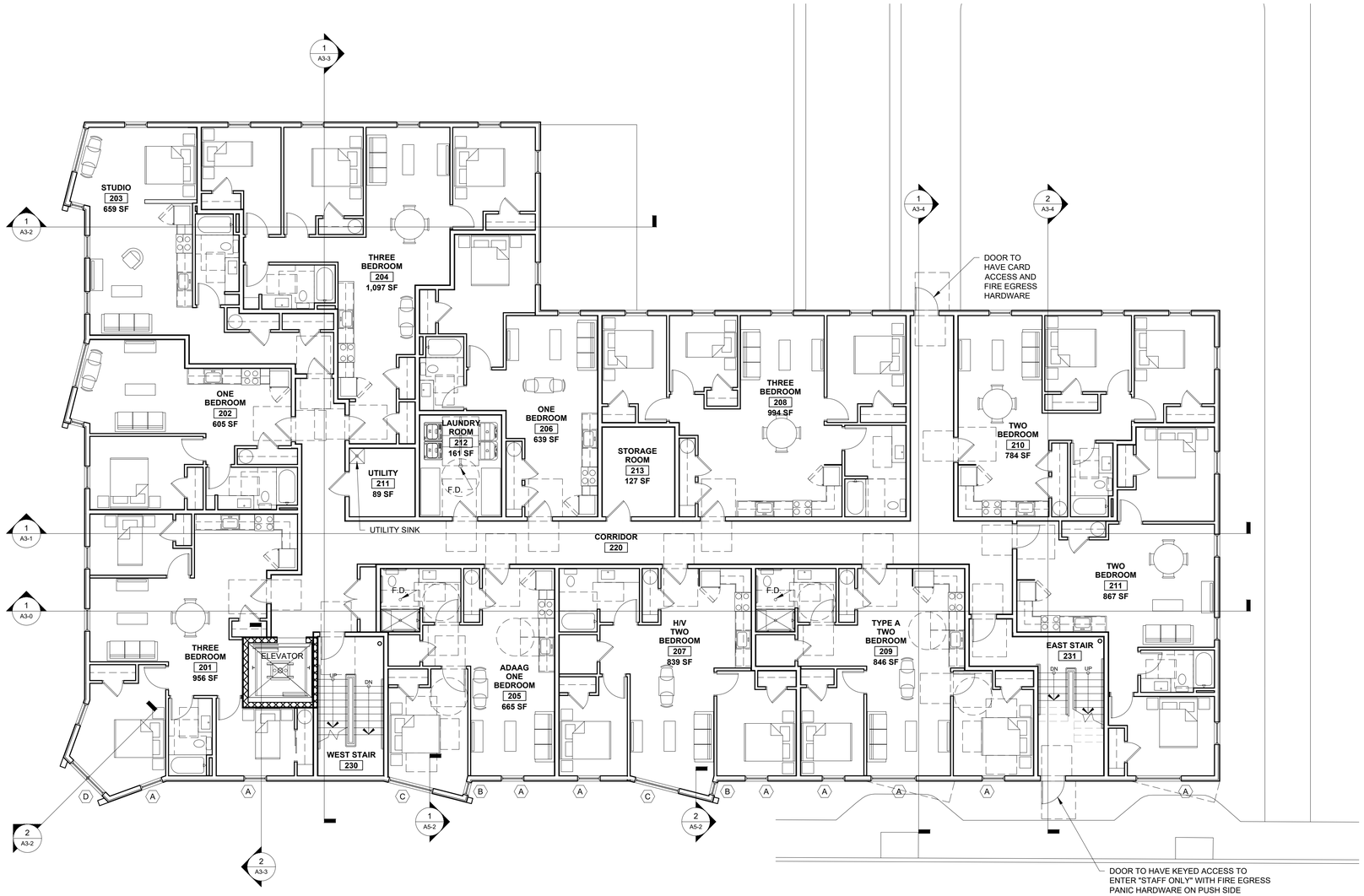
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



1 SECOND FLOOR PLAN
1/8" = 1'-0"

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CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
SECOND FLOOR PLAN

A1-3

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SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
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ACCESSIBLE UNIT TYPES

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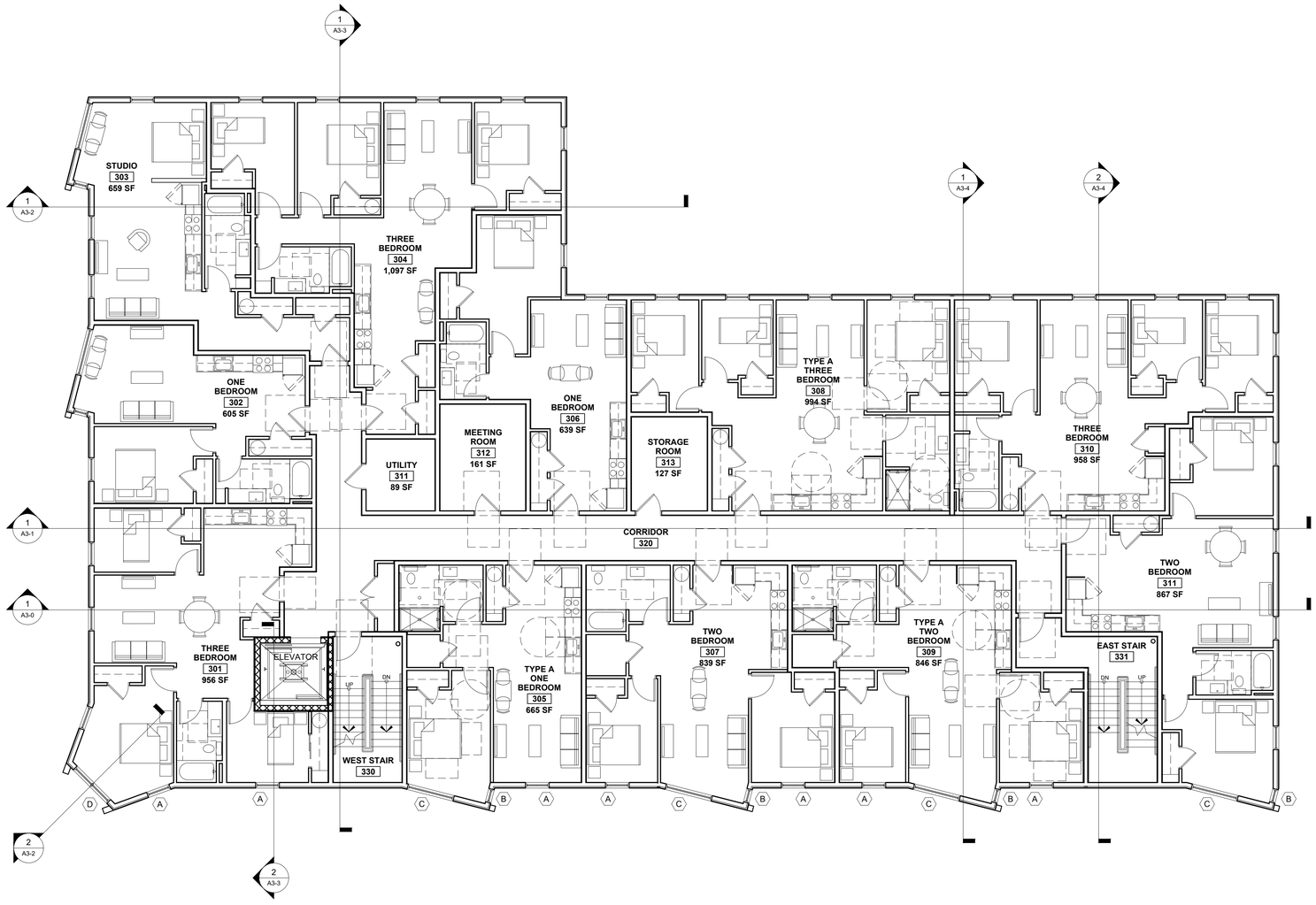
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



1 THIRD FLOOR PLAN
1/8" = 1'-0"

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REVISIONS:

DATE:

PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
THIRD FLOOR PLAN

A1-4

NOTE: AT ALL EXTERIOR WALL PANELS, ALL PANEL JOINTS, BOTH VERTICAL AND HORIZONTAL, TO HAVE TWO CONTINUOUS BEADS OF ELASTOMERIC SEALANT INSTALLED.

UNIT ACCESSIBILITY SUMMARY

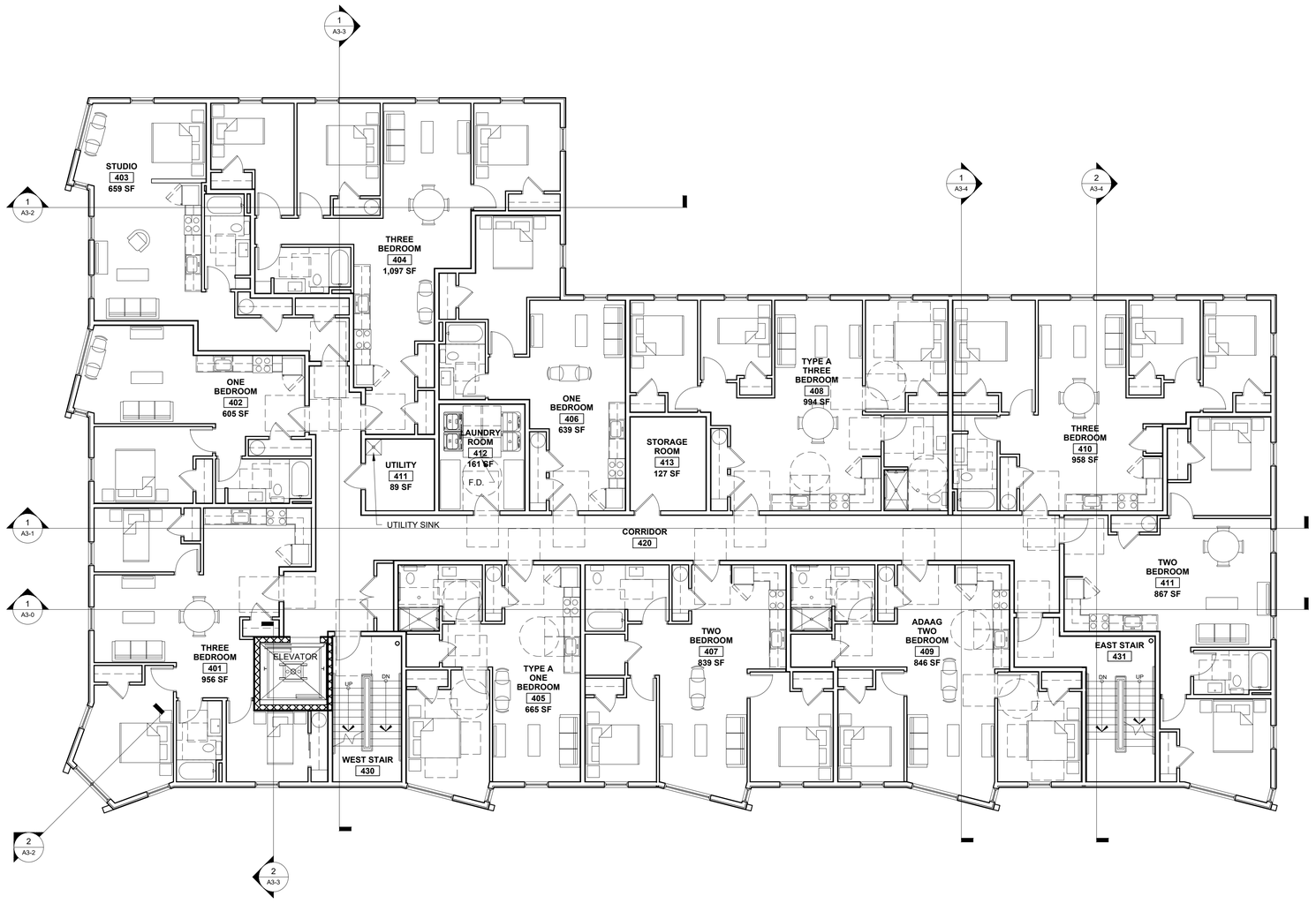
REGULATION: HUD 504 AND ADA, STANDARD: ADAAG 2010	PROVIDED IN PROJECT	EXCESS UNITS
SCOPING REQUIREMENT: 5% units accessible and additional 2% of units to be hearing and vision impaired		
55 units within building X 5% = 3 units to meet ADAAG	3 ADAAG units	0 Excess
55 units within building X 2% = 2 units to be hearing and vision impaired	2 Hearing and Vision Impaired Units	0 Excess
REGULATION: MAINE HUMAN RIGHTS ACT (MHRA), STANDARD: ANSI A117.1-2009		
SCOPING REQUIREMENT: 10% of Ground Floor units to be Type A		
11 Ground Floor (2nd Floor) Units X 10% = 2 units	2 Type-A units (includes 1 ADAAG)	0 Excess
SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
44 Upper Floor (3rd,4th,5th,6th Floors) Units X 10% = 5 units	11 Type-A units (includes 2 ADAAG)	6 Excess
	13 Type-A units total (INCUDES ADAAG)	**6 Excess Type-A units total**
All the rest to be Type B	42 Type-B units (includes 1 H/V)	
MHRA requires ALL units to either be Type A or B units		
All units to meet Federal Fair Housing Act		

UNIT TYPES - 55 TOTAL UNITS

SECOND FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	4 TWO BEDROOM UNITS	3 THREE BEDROOM UNITS
THIRD FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FOURTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FIFTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
SIXTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
TOTALS	**5 STUDIO UNITS**	**15 ONE BEDROOM UNITS**	**16 TWO BEDROOM UNITS**	**19 THREE BEDROOM UNITS**

ACCESSIBLE UNIT TYPES

FLOOR	H/V IMPAIRED ONE BED	TYPE - A ONE BED	TYPE - ADDAG ONE BED	H/V IMPAIRED TWO BED	TYPE - A TWO BED	TYPE - ADDAG TWO BED	TYPE - A THREE BED	TYPE - ADDAG THREE BED
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



1 FOURTH FLOOR PLAN
1/8" = 1'-0"

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JUNE 14TH, 2024

REVISIONS:

DATE:

PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
FOURTH FLOOR PLAN

A1-5

NOTE: AT ALL EXTERIOR WALL PANELS, ALL PANEL JOINTS, BOTH VERTICAL AND HORIZONTAL, TO HAVE TWO CONTINUOUS BEADS OF ELASTOMERIC SEALANT INSTALLED.

UNIT ACCESSIBILITY SUMMARY

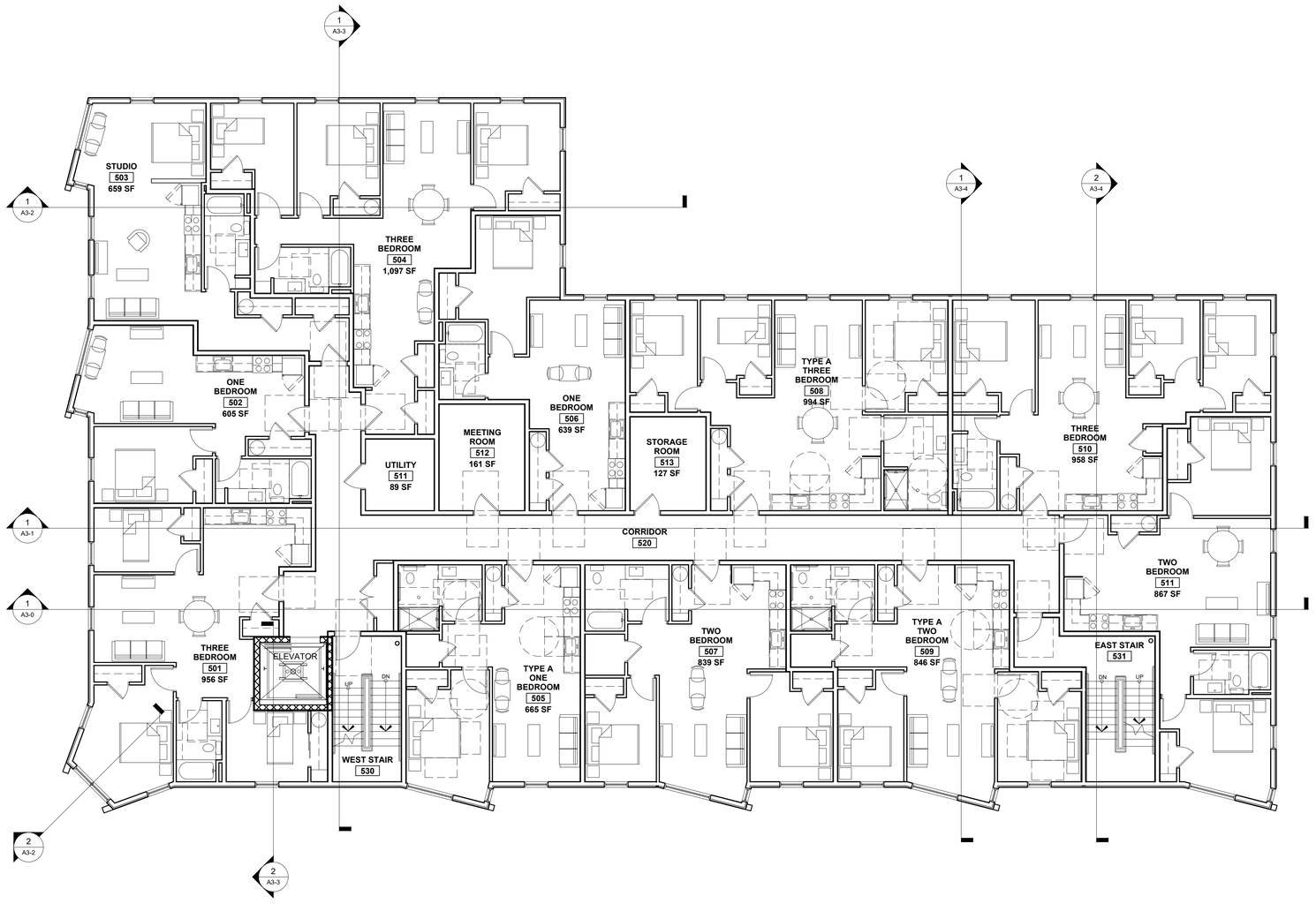
REGULATION: HUD 504 AND ADA, STANDARD: ADAAG 2010	PROVIDED IN PROJECT	EXCESS UNITS
SCOPING REQUIREMENT: 5% units accessible and additional 2% of units to be hearing and vision impaired		
55 units within building X 5% = 3 units to meet ADAAG	3 ADAAG units	0 Excess
55 units within building X 2% = 2 units to be hearing and vision impaired	2 Hearing and Vision Impaired Units	0 Excess
REGULATION: MAINE HUMAN RIGHTS ACT (MHRA), STANDARD: ANSI A117.1-2009		
SCOPING REQUIREMENT: 10% of Ground Floor units to be Type A		
11 Ground Floor (2nd Floor) Units X 10% = 2 units	2 Type-A units (includes 1 ADAAG)	0 Excess
SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
44 Upper Floor (3rd,4th,5th,6th Floors) Units X 10% = 5 units	11 Type-A units (includes 2 ADAAG)	6 Excess
	13 Type-A units total (INCUDES ADAAG)	**6 Excess Type-A units total**
All the rest to be Type B	42 Type-B units (includes 1 H/V)	
MHRA requires ALL units to either be Type A or B units		
All units to meet Federal Fair Housing Act		

UNIT TYPES - 55 TOTAL UNITS

SECOND FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	4 TWO BEDROOM UNITS	3 THREE BEDROOM UNITS
THIRD FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FOURTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FIFTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
SIXTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
TOTALS	**5 STUDIO UNITS**	**15 ONE BEDROOM UNITS**	**16 TWO BEDROOM UNITS**	**19 THREE BEDROOM UNITS**

ACCESSIBLE UNIT TYPES

FLOOR	H/V IMPAIRED ONE BED	TYPE - A ONE BED	TYPE - ADDAG ONE BED	H/V IMPAIRED TWO BED	TYPE - A TWO BED	TYPE - ADDAG TWO BED	TYPE - A THREE BED	TYPE - ADDAG THREE BED
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



1 FIFTH FLOOR PLAN
1/8" = 1'-0"

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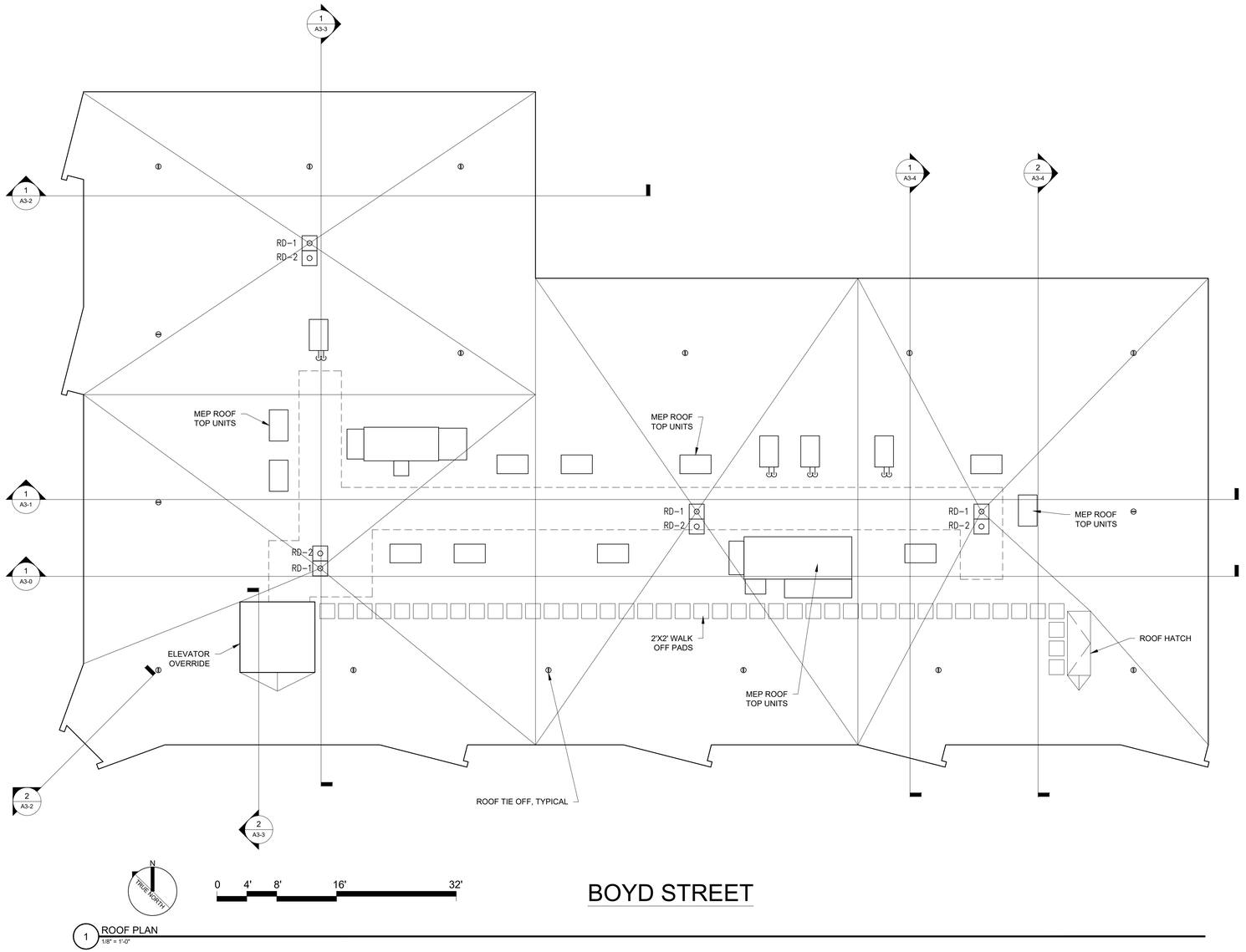
SCALE:	AS NOTED

SHEET TITLE:
FIFTH FLOOR PLAN

A1-6



OXFORD STREET

BOYD STREET

1 ROOF PLAN
1/8" = 1'-0"

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MAY 6TH, 2024

REVISIONS:

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PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
ROOF PLAN

A1-7

NOTE: AT ALL EXTERIOR WALL PANELS, ALL PANEL JOINTS, BOTH VERTICAL AND HORIZONTAL, TO HAVE TWO CONTINUOUS BEADS OF ELASTOMERIC SEALANT INSTALLED.

UNIT ACCESSIBILITY SUMMARY

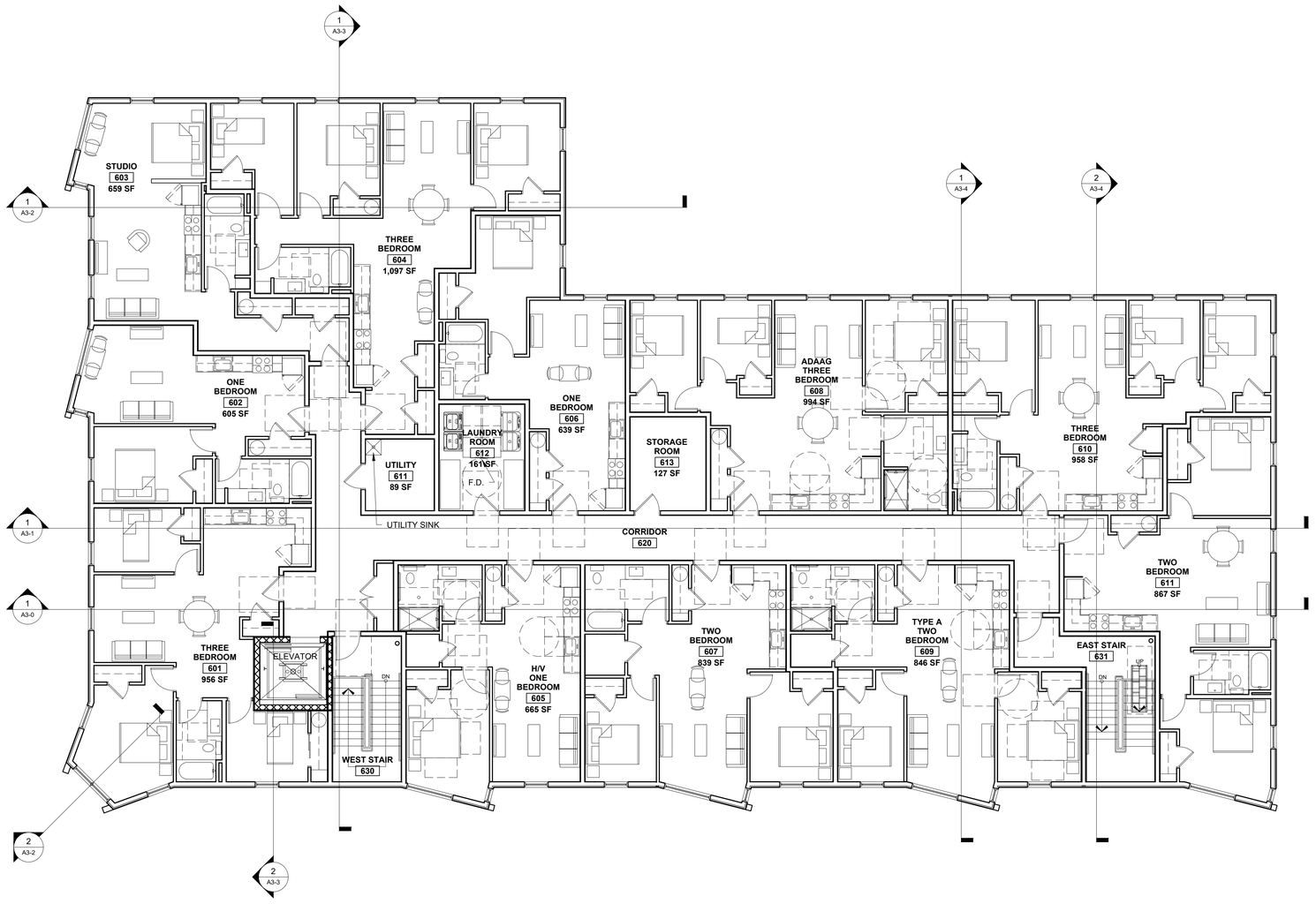
REGULATION: HUD 504 AND ADA, STANDARD: ADAAG 2010	PROVIDED IN PROJECT	EXCESS UNITS
SCOPING REQUIREMENT: 5% units accessible and additional 2% of units to be hearing and vision impaired		
55 units within building X 5% = 3 units to meet ADAAG	3 ADAAG units	0 Excess
55 units within building X 2% = 2 units to be hearing and vision impaired	2 Hearing and Vision Impaired Units	0 Excess
REGULATION: MAINE HUMAN RIGHTS ACT (MHRA), STANDARD: ANSI A117.1-2009		
SCOPING REQUIREMENT: 10% of Ground Floor units to be Type A		
11 Ground Floor (2nd Floor) Units X 10% = 2 units	2 Type-A units (includes 1 ADAAG)	0 Excess
SCOPING REQUIREMENT: 10% of Upper Floor units to be Type A		
44 Upper Floor (3rd,4th,5th,6th Floors) Units X 10% = 5 units	11 Type-A units (includes 2 ADAAG)	6 Excess
	13 Type-A units total (INCUDES ADAAG)	**6 Excess Type-A units total**
All the rest to be Type B	42 Type-B units (includes 1 H/V)	
MHRA requires ALL units to either be Type A or B units		
All units to meet Federal Fair Housing Act		

UNIT TYPES - 55 TOTAL UNITS

SECOND FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	4 TWO BEDROOM UNITS	3 THREE BEDROOM UNITS
THIRD FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FOURTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
FIFTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
SIXTH FLOOR	1 STUDIO UNIT	3 ONE BEDROOM UNITS	3 TWO BEDROOM UNITS	4 THREE BEDROOM UNITS
TOTALS	**5 STUDIO UNITS**	**15 ONE BEDROOM UNITS**	**16 TWO BEDROOM UNITS**	**19 THREE BEDROOM UNITS**

ACCESSIBLE UNIT TYPES

FLOOR	H/V IMPAIRED ONE BED	TYPE - A ONE BED	TYPE - ADDAG ONE BED	H/V IMPAIRED TWO BED	TYPE - A TWO BED	TYPE - ADDAG TWO BED	TYPE - A THREE BED	TYPE - ADDAG THREE BED
SECOND FLOOR	0	0	1	1	1	0	0	0
THIRD FLOOR	0	1	0	0	1	0	1	0
FOURTH FLOOR	0	1	0	0	0	1	1	0
FIFTH FLOOR	0	1	0	0	1	0	1	0
SIXTH FLOOR	1	0	0	0	1	0	0	1
TOTALS	**1**	**3**	**1**	**1**	**4**	**1**	**3**	**1**



OXFORD STREET

1 SIXTH FLOOR PLAN
1/8" = 1'-0"

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JUNE 14TH, 2024

REVISIONS:

DATE:

PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
SIXTH FLOOR PLAN

A1-7

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #2
PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

MATERIALS NOTE:

1.) ALL DIS-SIMILAR METALS TO BE ISOLATED FROM ONE ANOTHER WITH ADHERED STRIPS OR SEALANTS TO PREVENT GALVANIC ACTION

ELEVATION NOTES

1.) ALL SIDING AND TRIM TO BE INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS

2.) SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING SPECS

3.) FOR EXTERIOR VENT LOCATIONS SEE MECHANICAL PLANS. ALL VENTS AND PENETRATIONS TO BE FLASHED INTO FACADE AND PAINTED TO MATCH THE SIDING THEY ARE MOUNTED WITHIN

4.) G.C. TO PROVIDE A PARTIAL FULL SCALE MOCKUP FOR OWNER APPROVAL OF FINISH PRIOR TO CONSTRUCTION

5.) EXTERIOR THIN BRICK MUST HAVE CONTROL (MOVEMENT) JOINTS AT SPACED NO MORE THAN 16'-0" O.C. (INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS).

COLOR LEGEND

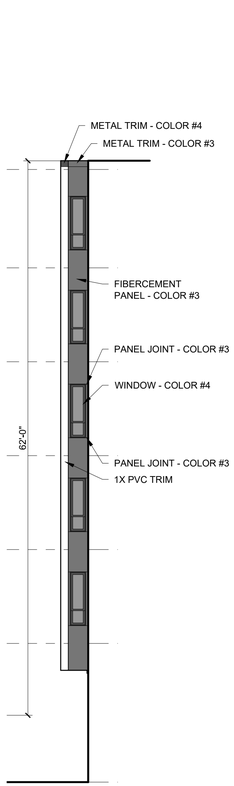
= COBBLE STONE (COLOR #1)

= MONTEREY TAUPE (COLOR #2)

= AGED PEWTER (COLOR #3)

= BLACK (COLOR #4)

= EXTERIOR TILE (COLOR #5)



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



1 SOUTH ELEVATION
1/8" = 1'-0"

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SCALE:	AS NOTED

SHEET TITLE:
SOUTH ELEVATION

A2-0A

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #2
PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

MATERIALS NOTE:

1.) ALL DIS-SIMILAR METALS TO BE ISOLATED FROM ONE ANOTHER WITH ADHERED STRIPS OR SEALANTS TO PREVENT GALVANIC ACTION

ELEVATION NOTES

1.) ALL SIDING AND TRIM TO BE INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS

2.) SEE ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING SPECS

3.) FOR EXTERIOR VENT LOCATIONS SEE MECHANICAL PLANS. ALL VENTS AND PENETRATIONS TO BE FLASHED INTO FACADE AND PAINTED TO MATCH THE SIDING THEY ARE MOUNTED WITHIN

4.) G.C. TO PROVIDE A PARTIAL FULL SCALE MOCKUP FOR OWNER APPROVAL OF FINISH PRIOR TO CONSTRUCTION

5.) EXTERIOR THIN BRICK MUST HAVE CONTROL (MOVEMENT) JOINTS AT SPACED NO MORE THAN 16'-0" O.C. (INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS).

COLOR LEGEND

- = COBBLE STONE (COLOR #1)
- = MONTEREY TAUPE (COLOR #2)
- = AGED PEWTER (COLOR #3)
- = BLACK (COLOR #4)
- = EXTERIOR TILE (COLOR #5)



1 SOUTH ELEVATION
1/8" = 1'-0"

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REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
SOUTH ELEVATION - COLORED

A2-0B

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #2
PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

MATERIALS NOTE:

1.) ALL DIS-SIMILAR METALS TO BE ISOLATED FROM ONE ANOTHER WITH ADHERED STRIPS OR SEALANTS TO PREVENT GALVANIC ACTION

ELEVATION NOTES

1.) ALL SIDING AND TRIM TO BE INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND APPROVED SHOP DRAWINGS

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5.) EXTERIOR THIN BRICK MUST HAVE CONTROL (MOVEMENT) JOINTS AT SPACED NO MORE THAN 16'-0" O.C. (INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS).

COLOR LEGEND

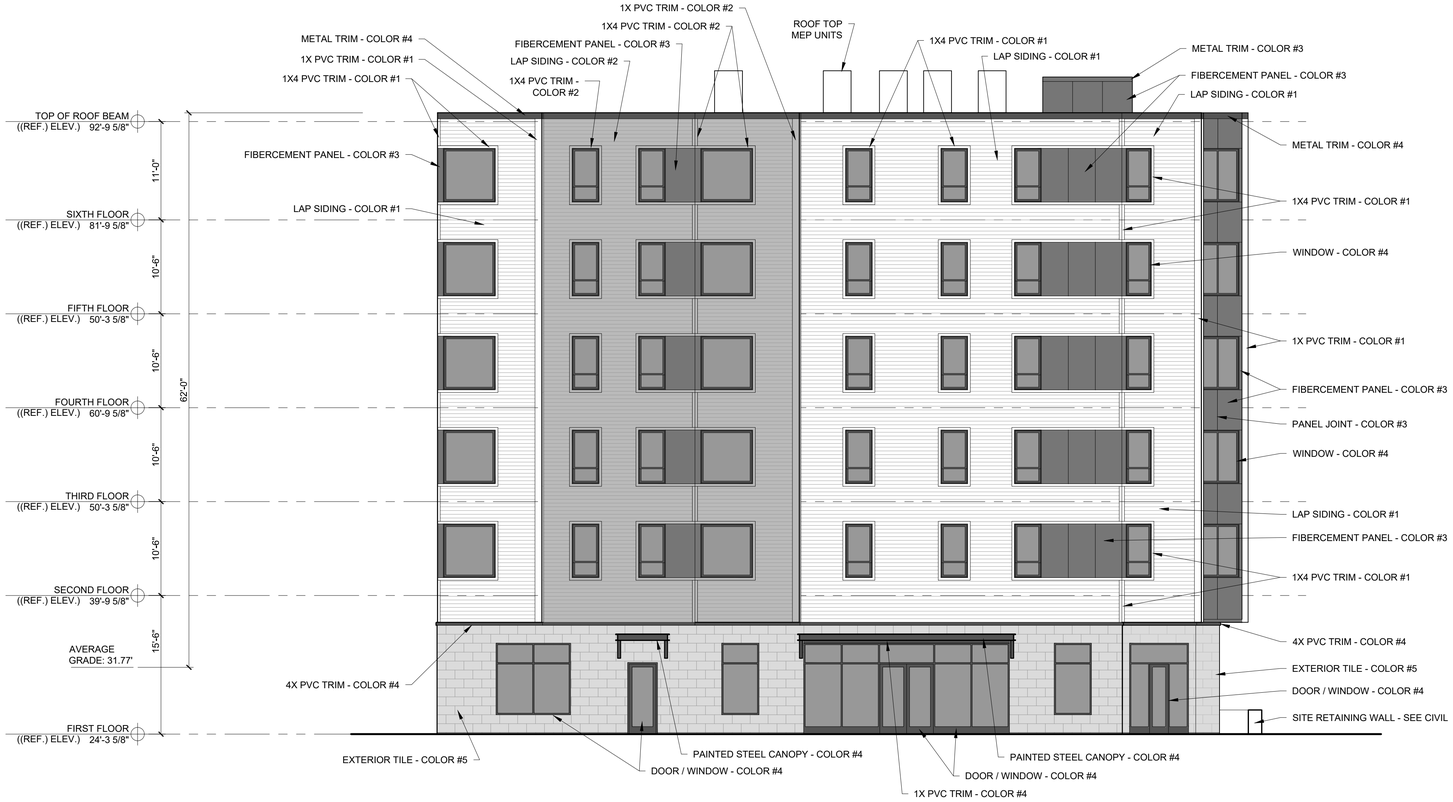
= COBBLE STONE (COLOR #1)

= MONTEREY TAUPE (COLOR #2)

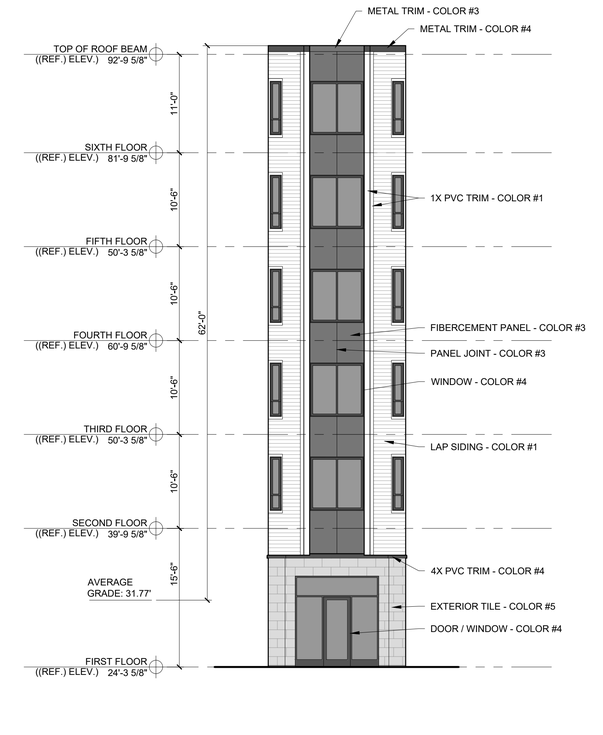
= AGED PEWTER (COLOR #3)

= BLACK (COLOR #4)

= EXTERIOR TILE (COLOR #5)



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



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

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CONSULTANTS:

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MARCH 8TH, 2024

REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
WEST ELEVATION

A2-1A

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #2
PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

MATERIALS NOTE:

1.) ALL DIS-SIMILAR METALS TO BE ISOLATED FROM ONE ANOTHER WITH ADHERED STRIPS OR SEALANTS TO PREVENT GALVANIC ACTION

ELEVATION NOTES

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5.) EXTERIOR THIN BRICK MUST HAVE CONTROL (MOVEMENT) JOINTS AT SPACED NO MORE THAN 16'-0" O.C. (INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS).

COLOR LEGEND

= COBBLE STONE (COLOR #1)

= MONTEREY TAUPE (COLOR #2)

= AGED PEWTER (COLOR #3)

= BLACK (COLOR #4)

= EXTERIOR TILE (COLOR #5)



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

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DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
WEST ELEVATION - COLORED

A2-1B

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #2
PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

MATERIALS NOTE:

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ELEVATION NOTES

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3.) FOR EXTERIOR VENT LOCATIONS SEE MECHANICAL PLANS. ALL VENTS AND PENETRATIONS TO BE FLASHED INTO FACADE AND PAINTED TO MATCH THE SIDING THEY ARE MOUNTED WITHIN

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COLOR LEGEND

- = COBBLE STONE (COLOR #1)
- = MONTEREY TAUPE (COLOR #2)
- = AGED PEWTER (COLOR #3)
- = BLACK (COLOR #4)
- = EXTERIOR TILE (COLOR #5)



1 NORTH ELEVATION
1/8" = 1'-0"

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APARTMENTS
COMB BLOCK
PORTLAND, MAINE

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C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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MARCH 8TH, 2024

REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
NORTH ELEVATION

A2-2A

MATERIALS KEY

ITEM	INFORMATION	COLOR
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
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PANEL SIDING	FIBERCEMENT - SMOOTH	COLOR #3
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
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SHEET TITLE:
NORTH ELEVATION - COLORED

A2-2B

MATERIALS KEY

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TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #1
LAP SIDING	FIBERCEMENT - SMOOTH - 5" EXPOSURE	COLOR #1
TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #2
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TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
EXTERIOR 12" X 24" TILE	TBD	COLOR #5

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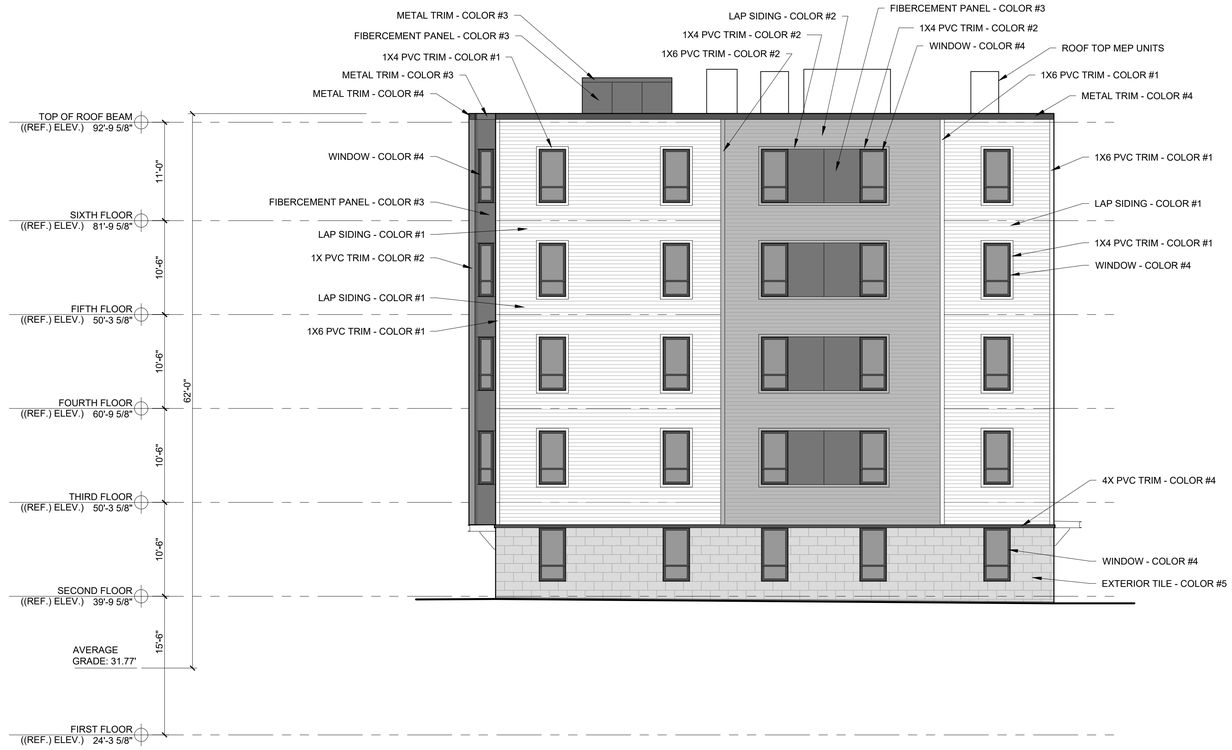
2 EAST ELEVATION
1/8" = 1'-0"



1 EAST ELEVATION
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EAST ELEVATION

A2-3A

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TRIM	PVC - PAINTED / METAL - PRE FINISHED	COLOR #4
DOORS / WINDOWS	PRE FINISHED	COLOR #4
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EAST ELEVATION - COLORED

A2-3B

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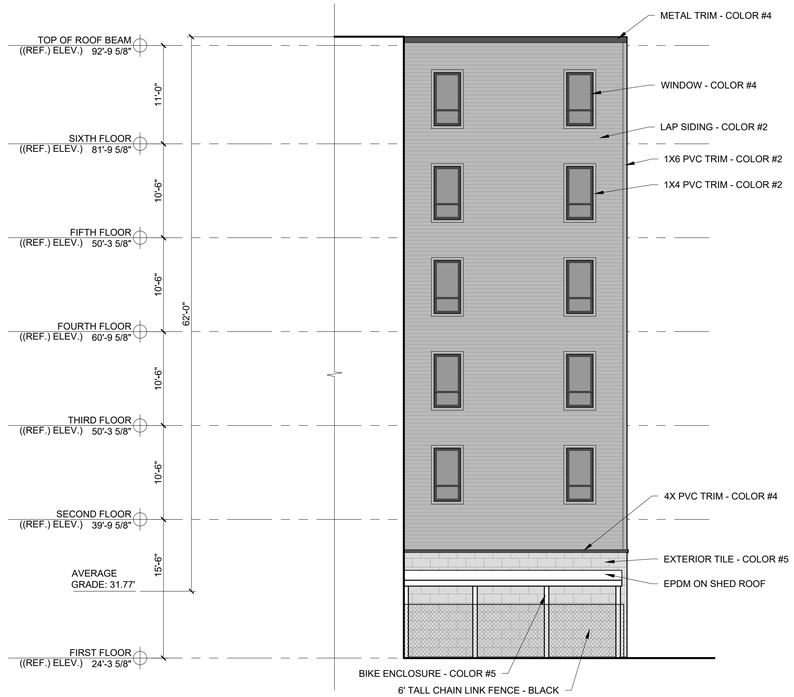

1 EAST ELEVATION 2
1/8" = 1'-0"

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EAST
ELEVATION 2

A2-4A

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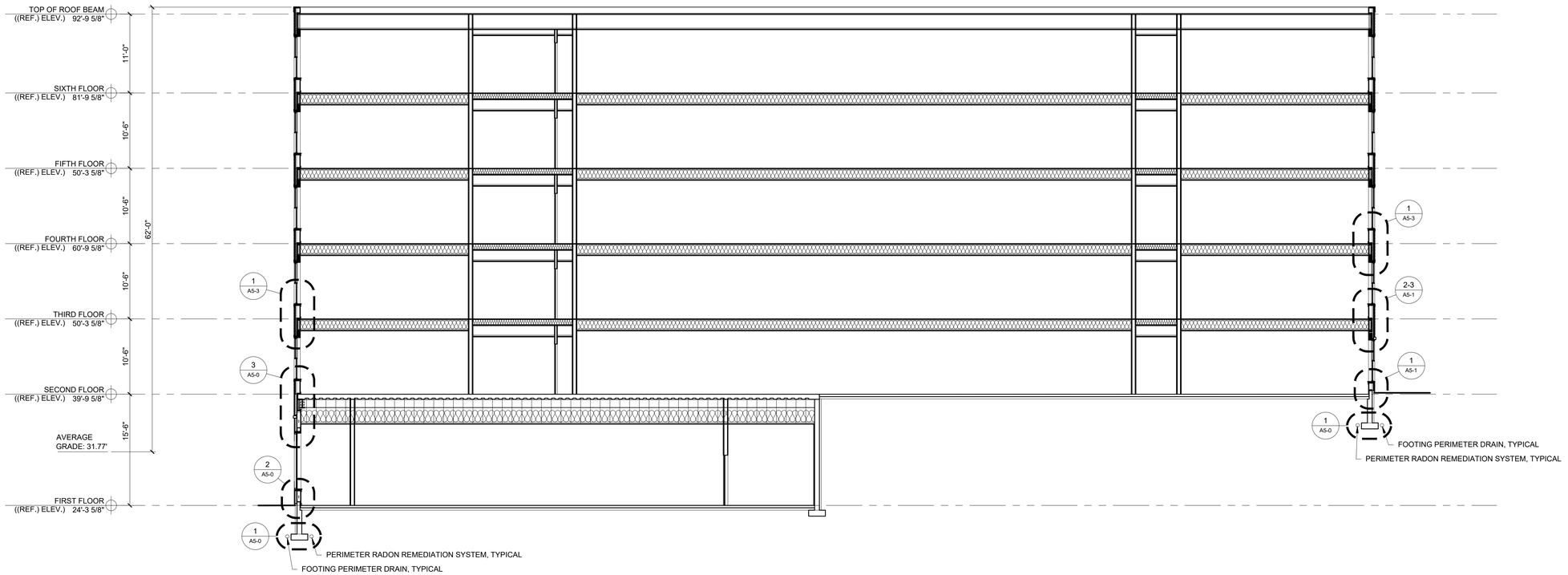
A2-4B



1 SECTION
1/8" = 1'-0"

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SHEET TITLE:
SECTION

A3-0

9 BOYD STREET REDEVELOPMENT

COMB BLOCK PHASE ONE, LP
PORTLAND, MAINE

LEGEND

EXISTING

REFER TO THE EXISTING CONDITIONS PLAN FOR ADDITIONAL INFORMATION

PROPOSED

	UNDERDRAIN
	GREEN SPACE
	UTILITY PAVEMENT CUTS
	STRIPING
	SEDIMENTATION BARRIER
	EDGE OF EX. PAVEMENT
	CURB
	SIGN
	LAMP OR LIGHT POLE
	UTILITY POLE
	GUY WIRE
	WATER VALVE
	FIRE HYDRANT
	SEWER MANHOLE
	CATCH BASIN
	DRAIN MANHOLE
UE — UE	UNDERGROUND ELECTRIC LINE
W — W	UNDERGROUND WATER LINE
64	MINOR CONTOURS (1 FT)
65	MAJOR CONTOURS (5 FT)
G — G	GAS LINE
SD — SD	STORM DRAIN LINE
S — S	SEWER LINE
	EXISTING/PROPOSED BUILDING
OHE/T/C	OVERHEAD ELECTRICAL/TELEPHONE/CABLE
	PROPERTY LINE
	SETBACKS

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D-2	R-TANK SYSTEM OVERLAY
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D-5	R-TANK SYSTEM DETAILS
D-6	R-TANK TREATMENT ROW DETAILS
D-7	R-TANK CONSTRUCTION EQUIPMENT COVER DETAIL
D-8	R-TANK SPECIFICATION

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRADLEY ROLAND, P.E.
(207) 874-8840

ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JOSHUA MITCHELL
(207) 828-2882

TELEPHONE

CONSOLIDATED COMMUNICATIONS
5 DAVIS FARM ROAD
PORTLAND, MAINE 04103
CONTACT: PATRICK MORRISON
(207) 745-9363

WATER

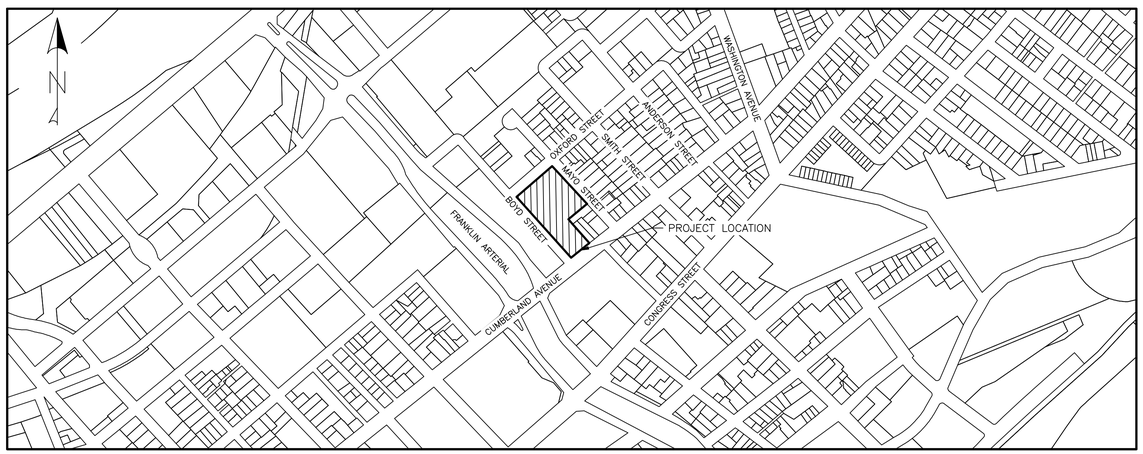
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
CONTACT: KATHRYN RODRIGUEZ
(207) 774-5961

CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: STEVEN HOLMES
(207) 631-1618

NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: SCOTT CARPENTER
(207) 541-2536



VICINITY MAP
SCALE: 1:100

PROJECT TEAM

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970 BAXTER BOULEVARD
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PORTLAND, ME 04101
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(207) 221-8009

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OWEN HASKELL, INC
390 U.S. ROUTE 1,
FALMOUTH, MAINE, 04105
CONTACT: ELLEN BREWER PLS
(207) 774-0424

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DRY LANDSCAPE ARCHITECTURE
BIDDEFORD, MAINE
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(603) 496-8020

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ACORN ENGINEERING, INC.
500 WASHINGTON AVE
PORTLAND, MAINE 04104
CONTACT: PETER HEIL, P.E.
(207) 775-2655

GEOTECHNICAL ENGINEER

SUMMIT GEOENGINEERING SERVICES
210 MAINE AVE
FARMINGDALE, MAINE 04344
CONTACT: BILL PETERLEIN, P.E.
(207) 576-3313

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CAD	COMPUTER AIDED DESIGN
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

STATE OF MAINE — WILLIAM H. SAVAGE — 11419 — 3/20/24 — LICENSED PROFESSIONAL ENGINEER

STATE OF MAINE — PETER F. HEIL — 15318 — LICENSED PROFESSIONAL ENGINEER

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 5/20/2024

DRAWING NAME: COVER SHEET & LEGEND
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

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500 WASHINGTON AVE
PORTLAND, MAINE 04104
PO BOX 3367
(207) 775-2655

FILE: 1215_DETAILS
JN: 1215
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: MKT
CHECKED BY: WHS

DRAWING NO.
C-01

GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED ''AS–BUILT''. IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED ALTA/NSPS LAND TITLE SURVEY BY OWEN HASKELL FOR PORTLAND HOUSING AUTHORITY, LAST REVISED 1/23/24
8. SUBSURFACE DATA HAVE BEEN OBTAINED BY SUMMIT GEOENGINEERING SERVICES, INC. AND SHALL BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ALSO REVIEW THE REPORT PRIOR TO SUBMITTING A BID.
9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT–OF–WAY.
12. THE CONTRACTOR SHALL CONDUCT A PRE–CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM ADJACENT STRUCTURES. PROVIDE A COPY OF THE SURVEY TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO PROVIDE TO ACORN ENGINEERING.
14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON–STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650–.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

SPECIAL INSPECTION NOTES

1. ALL SITE SOILS–RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE–RELATED WORK SHALL BE REVIEWED BY ACORN.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY PORTLAND HOUSING AUTHORITY/ PORTLAND HOUSING DEVELOPMENT CORPERATION AND COORDINATED BY THE CONTRACTOR.

LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF MAJOR SITE PLAN APPLICATION FROM THE CITY OF PORTLAND.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT–OF–WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF PORTLAND. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

GRADING AND DRAINAGE NOTES:

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. 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. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 1% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.
6. CONTRACTOR TO REVIEW EXISTING SOIL CONDITIONS, TEST PITS, AND BORINGS. THERE WILL BE NO ADDITIONAL PAYMENT FOR UNSUITABLE SOILS.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N=0.012 OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

EROSION CONTROL NOTES:

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.
3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED AND SHOWN TO PASS PRIOR TO BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR–16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.
5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAINT ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT ''WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE'', MOST RECENT REVISION.
9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH PORTLAND WATER DISTRICT, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
16. 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.
17. ALL UTILITY PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.
18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.
19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.
20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE,
21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.
22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.
23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.
24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

DEMOLITION NOTES:

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
   - ROCK AND CONCRETE FOUNDATIONS
   - CONCRETE SLABS
   - BITUMINOUS ASPHALT PAVEMENT
   - CONCRETE PADS AND BLOCKS
   - FENCE POST AND FENCING
   - UNDERGROUND UTILITY LINES
   - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
   - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
   - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.
4. A PHASE II – ENVIRONMENTAL SITE ASSESSMENT FOR 9 BOYD STREET, 20 MAY STREET, 24 MAYO STREET AND 25 BOYD STREET, PORTLAND, MAINE HAS BEEN COMPLETED BY SEVEE & MAHER ENGINEERS FOR PORTLAND HOUSING DEVELOPMENT CORPORATION DATED MARCH 2024.
5. A ENVIRONMENTAL MEDIA MANAGEMENT PLAN FOR 9 BOYD STREET, 20 MAY STREET, 24 MAYO STREET AND 25 BOYD STREET, PORTLAND, MAINE HAS BEEN COMPLETED BY SEVEE & MAHER ENGINEERS FOR PORTLAND HOUSING DEVELOPMENT CORPORATION DATED MARCH 2024.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 7/30/2024

DRAWING NAME: GENERAL NOTES
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

THESE PLANS SHALL NOT BE COPIED, MODIFIED, OR ALTERED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF ACORN ENGINEERING, INC. ANY UNAUTHORIZED USE OF THESE PLANS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 CENTRAL STREET, KENNEBUNK, MAINE 04043
PO BOX 3287, PORTLAND, MAINE 04104
(207) 775–2655

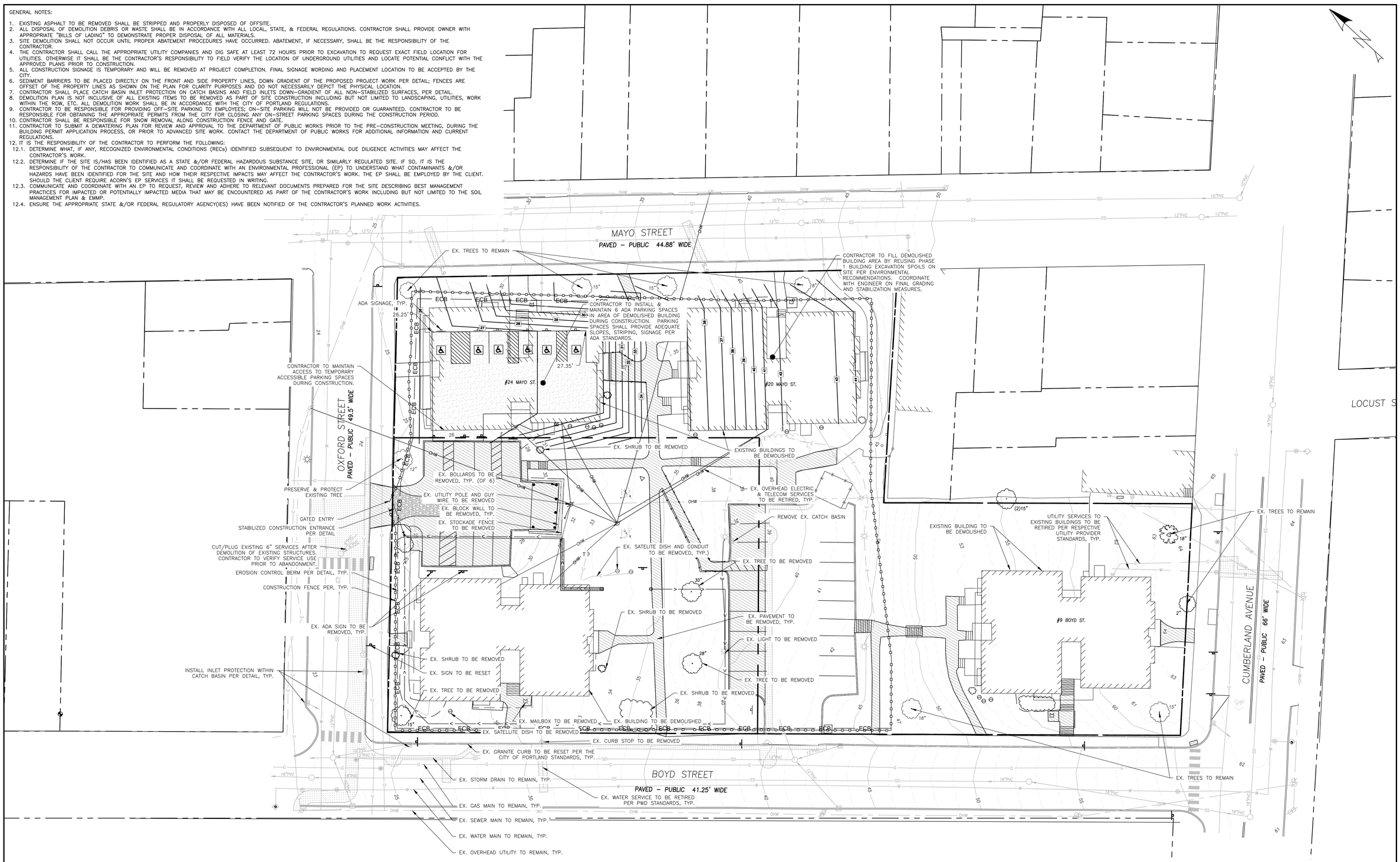
FILE: 1215_DETAILS
JN: 1215
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: MKT
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-02

GENERAL NOTES:

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
11. CONTRACTOR TO SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE PRE-CONSTRUCTION MEETING, DURING THE BUILDING PERMIT APPLICATION PROCESS, OR PRIOR TO ADVANCED SITE WORK. CONTACT THE DEPARTMENT OF PUBLIC WORKS FOR ADDITIONAL INFORMATION AND CURRENT REGULATIONS.
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE FOLLOWING:
    - 12.1. DETERMINE WHAT, IF ANY, RECOGNIZED ENVIRONMENTAL CONDITIONS (RECs) IDENTIFIED SUBSEQUENT TO ENVIRONMENTAL DUE DILIGENCE ACTIVITIES MAY AFFECT THE CONTRACTOR'S WORK.
    - 12.2. DETERMINE IF THE SITE IS/HAS BEEN IDENTIFIED AS A STATE &/OR FEDERAL HAZARDOUS SUBSTANCE SITE, OR SIMILARLY REGULATED SITE. IF SO, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMMUNICATE AND COORDINATE WITH AN ENVIRONMENTAL PROFESSIONAL (EP) TO UNDERSTAND WHAT CONTAMINANTS &/OR HAZARDS HAVE BEEN IDENTIFIED FOR THE SITE AND HOW THEIR RESPECTIVE IMPACTS MAY AFFECT THE CONTRACTOR'S WORK. THE EP SHALL BE EMPLOYED BY THE CLIENT. SHOULD THE CLIENT REQUIRE ACORN'S EP SERVICES IT SHALL BE REQUESTED IN WRITING.
    - 12.3. COMMUNICATE AND COORDINATE WITH AN EP TO REQUEST, REVIEW AND ADHERE TO RELEVANT DOCUMENTS PREPARED FOR THE SITE DESCRIBING BEST MANAGEMENT PRACTICES FOR IMPACTED OR POTENTIALLY IMPACTED MEDIA THAT MAY BE ENCOUNTERED AS PART OF THE CONTRACTOR'S WORK INCLUDING BUT NOT LIMITED TO THE SOIL MANAGEMENT PLAN & EMMP.
    - 12.4. ENSURE THE APPROPRIATE STATE &/OR FEDERAL REGULATORY AGENCY(IES) HAVE BEEN NOTIFIED OF THE CONTRACTOR'S PLANNED WORK ACTIVITIES.



20 0 20 40

SCALE: 1"=20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 3/20/2024
COMMENT RESPONSE	PFH 5/6/2024

DRAWING NAME: **CONSTRUCTION MANAGEMENT PLAN**

PROJECT NAME: **9 BOYD STREET REDEVELOPMENT**

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE:	1215_CIVIL
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-03

SPACE AND BULK STANDARDS

RESIDENTIAL ZONING DISTRICT	R-7	R-7 W/ AH BONUS	R-6**	R-6 W/ AH BONUS	PROPOSED BUILDING
MAX HEIGHT	50'	75'	45'	45'	61.03'
MIN. LOT SIZE	NONE	NONE	NONE	NONE	0.56 AC
MIN. LOT AREA PER DWELLING UNIT	435 SF	2.5 X BASE (174 SF/DU)	725 SF	2.5 X BASE (290 SF/DU)	488 SF/DU
MIN. STREET FRONTAGE	NONE	NONE	20'	20'	315'
MAX. FRONT SETBACK	0'	0'	5'	5'	5.30'
MIN. REAR SETBACK	5'	0'	10'	10'	47.37'
MIN. SIDE SETBACK	5'	0'	5'*	5'*	6.87'
STEPBACKS (ABOVE 35')	NOT SPECIFIED	NOT SPECIFIED	10' FROM SIDE/ 15' FROM REAR	10' FROM SIDE/ 15' FROM REAR	N/A
LOT COVERAGE (MAX.)	100%	100%	60%	60%	44.6%
LOT WIDTH (MIN.)	NONE	NONE	20'	20'	173.9'
DWELLING UNIT SIZE (MIN.)	400 SF	400 SF	NOT SPECIFIED	NOT SPECIFIED	639 SF
LANDSCAPED OPEN SPACE RATIO (MIN.)	NONE	NONE	20%	20%	24.9%

* EXCEPT THAT A SIDE SETBACK IN THE R-6 ZONE MAY BE REDUCED TO ZERO, PROVIDED THAT THE CUMULATIVE SIDE YARDS ARE NOT LESS THAN 10FT. A PERMANENT MAINTENANCE EASEMENT A MINIMUM OF 5 FT. IN WIDTH SHALL BE PROVIDED ON THE PARCEL ADJACENT TO THE LOT LINE WITH THE REDUCED SETBACK.

** ALTERATIONS TO SINGLE-FAMILY, TWO-FAMILY, AND MULTI-FAMILY DWELLINGS IN EXISTENCE AS OF 6/15/15 SHALL NOT RESULT IN THE CREATION OF ANY ADDITIONAL DWELLING UNIT OF LESS THAN 600 SQUARE FEET OF FLOOR AREA, EXCLUSIVE OF COMMON HALLWAYS AND STORAGE IN BASEMENT AND ATTIC; AND SHALL NOT RESULT IN ANY EXISTING DWELLING UNIT BEING REDUCED IN SIZE LESS THAN 1,000 SQUARE FEET OF FLOOR AREA, EXCLUSIVE OF COMMON AREAS AND STORAGE IN BASEMENT AND ATTIC.

PLAN REFERENCES:
1. PARCEL BOUNDARY AND EXISTING CONDITIONS PER "ALTA/NSPS LAND TITLE SURVEY, 20 & 24 MAYO STREET AND 9 & 25 BOYD STREET, PORTLAND, CUMBERLAND COUNTY, MAINE" PREPARED FOR PORTLAND HOUSING AUTHORITY BY OWEN HASKELL, INC. DATED JANUARY 23, 2024.

GENERAL NOTES:
1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.
9. SNOW TO BE REMOVED AND TRUCKED OFF SITE AS NECESSARY.

A

A1 ℄

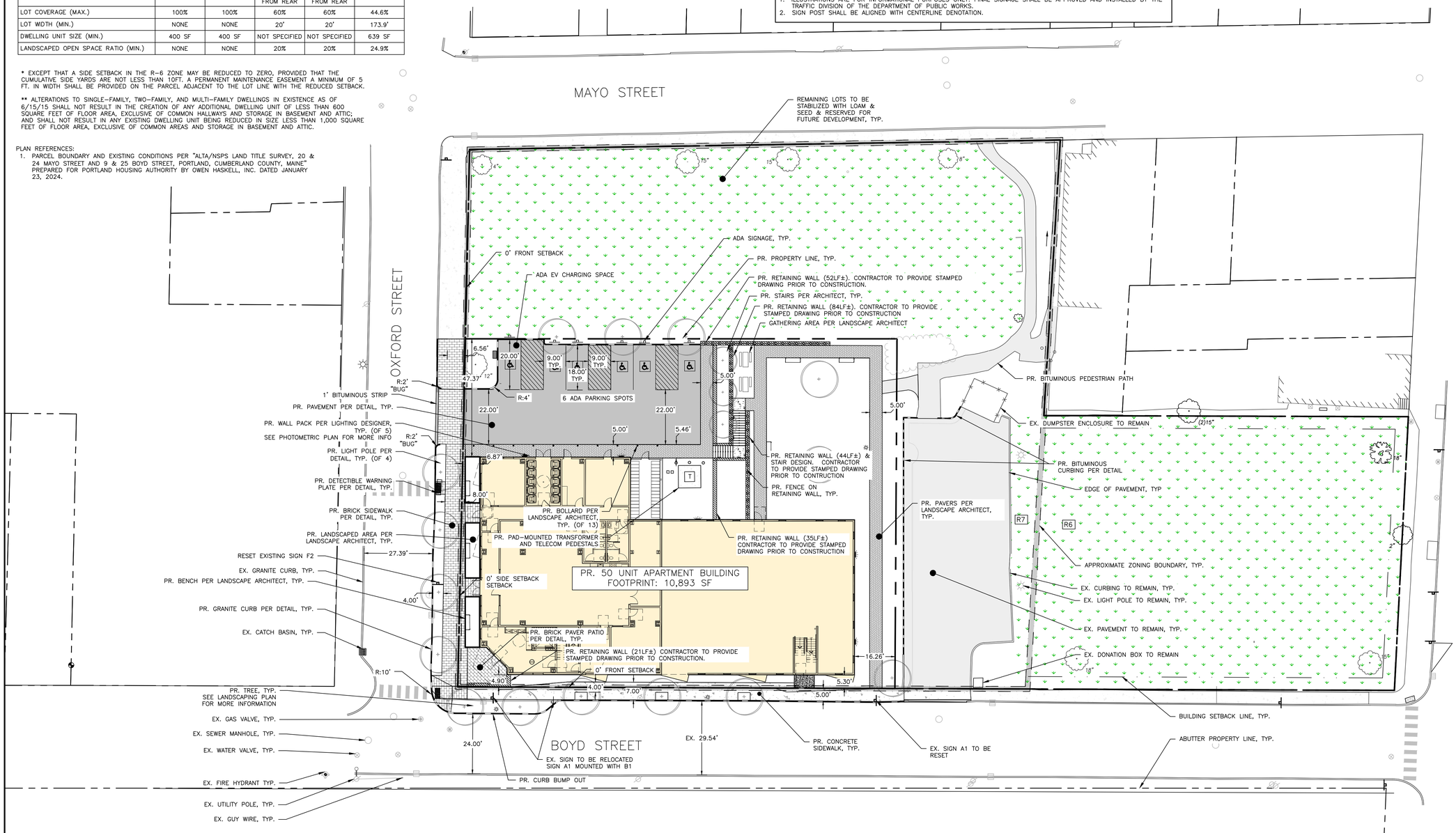
NO PARKING THIS SIDE OF THE STREET 1ST & 3RD WEDNESDAY OF THE MONTH 12:01AM TO 7AM (OCTOBER 1st – MAY 31st)

B

B1 ℄ NO PARKING ANY TIME

B2 ℄ NO PARKING ANY TIME

1. ILLUSTRATIONS ARE FOR INFORMATIONAL PURPOSES ONLY. FINAL SIGNAGE SHALL BE APPROVED AND INSTALLED BY THE TRAFFIC DIVISION OF THE DEPARTMENT OF PUBLIC WORKS.
2. SIGN POST SHALL BE ALIGNED WITH CENTERLINE DENOTATION.



PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
CSS SUBMISSION	PFH 5/8/24
MAJOR SITE PLAN SUBMISSION	PFH 5/13/2024
ADDRESS UPDATE	PFH 5/20/2024
COMMENT RESPONSE	PFH 5/6/2024

DRAWING NAME: SITE PLAN
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

THIS PLAN, SHALL NOT BE ADDED TO, WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND ALTERATIONS, ADDITIONS OR REUSE OF THIS PLAN BY OTHERS, AUTHORIZED WITHOUT LIABILITY TO ACORN ENGINEERING, INC. SHALL BE AT SOLE RISK AND

ACORN ENGINEERING, INC.
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(207) 775-2655

FILE: 1215_CIVIL
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DRAWN BY: MKT
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

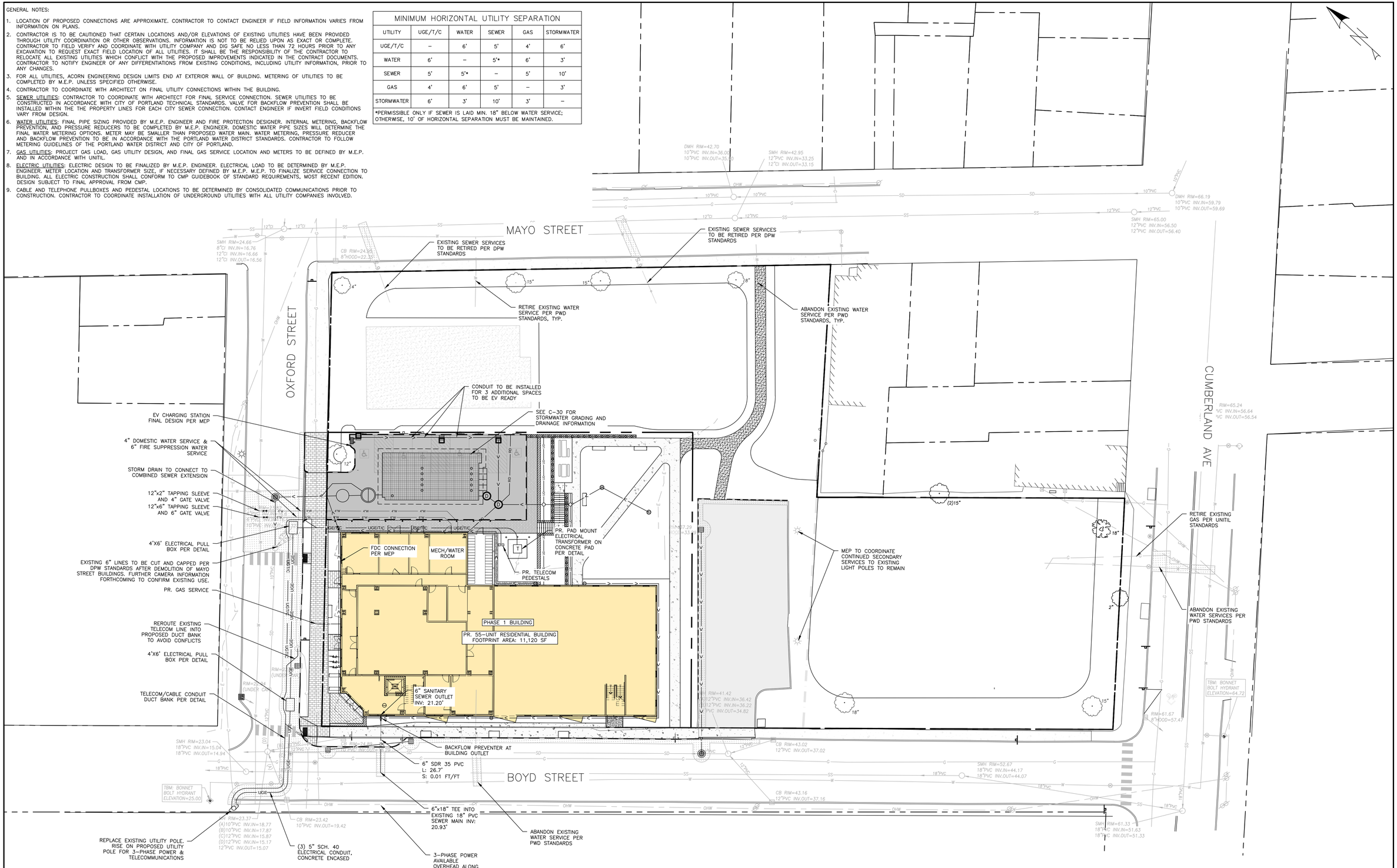
GENERAL NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNITIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CONSOLIDATED COMMUNICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

MINIMUM HORIZONTAL UTILITY SEPARATION

UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	–	6'	5'	4'	6'
WATER	6'	–	5'*	6'	3'
SEWER	5'	5'*	–	5'	10'
GAS	4'	6'	5'	–	3'
STORMWATER	6'	3'	10'	3'	–

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 3/20/2024
COMMENT RESPONSE	PFH 5/6/2024
WORKSHOP RESPONSE	PFH 5/22/2024
UPDATE UNIT COUNT	PFH 6/17/2024

DRAWING NAME: UTILITY PLAN
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-20

GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.
7. THE NOSING OF LEADING EDGES OF THE TREADS AT NONUNIFORM HEIGHT RISERS SHALL HAVE A DISTINCTIVE MARKING, DIFFERENT FROM ANY OTHER NOSING MARKING PROVIDED ON THE STAIR FLIGHT. THE DISTINCTIVE MARKING STRIPE SHALL BE VISIBLE IN DESCENT OF THE STAIR AND SHALL HAVE A SLIP-RESTANT SURFACE. MARKING STRIPES SHALL HAVE A WIDTH OF NOT LESS THAN 1 INCH, BUT NO MORE THAN 2 INCHES.

HEIGHT CALC
AVERAGE GRADE: (24.31'+39.00'+39.50'+24.25')/4 =31.77'
BUILDING HEIGHT: 92.80'-31.77'=61.03'

SEE SHEET C-03 FOR ADDITIONAL INFORMATION ON DEMOLITION AND SITE REGRADING AFTER BUILDINGS HAVE BEEN DEMOLISHED

TM 22-2-23
N/F
MAYO STREET
APARTMENTS
30646/220

MATCH EXISTING CURB ELEVATIONS
EX BC: 23.82'
TC: 23.90'
EX BC:23.79'
5' PEDESTRIAN PATH, TYP.
MATCH EX. 23.76'
TOP OF LIP: 23.84'
GRADE BREAK, TYP.
10"X10"X4" WYE INV: 16.84'
1" LIP AT DRIVEWAY APRON
MATCH EX. 23.65'
TOP OF LIP: 23.73'
PR. DMH-2
RIM: 23.95'
PR. 10" INV IN: 16.73'
PR. 10" INV OUT: 16.63'
10" SDR-35 PVC SD
L: 47.10'
S: 0.005 FT/FT
4" SOLID SDR35 PVC SD
L: 17.3'
S: 0.0025 FT/FT (MIN.)
MATCH EX. 23.60'
TOP OF LIP: 23.68'
EX BC:23.55'
TC: 24.13'
PR. SDR-35 PVC SD
L: 21.1'
S: 0.01 FT/FT
EX. DMH
PR. 10" INV IN: 16.42'
EX. 6" INV IN: 16.60'
EX. 6" INV IN: 16.60'
EX. 10" INV OUT: 16.32'
EX BC: 23.49'
TC: 24.07'
EX BC: 23.25'
TC: 23.83'
EX:23.09'
RESET EX. CATCH BASIN WITH HEADSTONE
RIM: 22.94'
UTILIZE EXISTING INV. OUT
RIM=22.94
(UNDER CAR)
EX BC: 23.33'
TC: 23.91'
PR. CB-1
RIM: 22.85'
12" INV OUT: 20.56'
10" OVERFLOW BYPASS SD
L: 23.06'±
S: 0.005 MIN
BC:24.32'
TC:24.32'
BC: 22.90'
TC: 23.48'
BC: 23.20'
TC: 23.78'
12" SD
L: 3.6'
S: 0.005 FT/FT
BC:23.64'
TC:24.22'
BC:23.61'
TC:24.19'
INV IN: 20.79'
BC:24.25'
TC:24.25'
8" SD
L: 5.7'
S: 0.005 FT/FT
PR. STORMFILTER BMP PER DETAIL
INV IN: 18.97'
INV OUT: 16.87'
JUNCTION OF 4" FD AND 4" SD INV: 16.88' INSTALL BACKFLOW VALVE AT JUNCTION
PR. CB-2
RIM: 22.85'
12" INV IN: 20.37'
12" INV OUT: 20.27'
12" SDR-35 PVC SD
L: 37.3'
S: 0.005 FT/FT
SUBSURFACE R-TANK STORMWATER DETENTION SYSTEM, SEE DETAIL SHEET D-2 THROUGH D-8
BC: 23.16'(HP)
TC: 23.74'
BC: 23.05'(HP)
TC: 23.63'
12" SDR-35 PVC SD
L: 24.6'
S: 0.005 FT/FT
PR. CB-3
RIM: 22.85'
12" INV IN: 20.15'
12" INV OUT: 20.05'
BC: 23.12'
TC: 23.70'
BW: 23.77'
TW: 30.25'
12" SDR-35 PVC
L: 27.5'
S: 0.005 FT/FT
12" SDR-35 PVC
L: 18.9'
S: 0.06 FT/FT
BW: 24.30'
TW: 30.25'
MAX ¾" DOOR THRESHOLD, TYP.
FFE: 24.30'
PR. OCS – SEE DETAIL SHEET C-45
PROPOSED ROOF DRAIN WITH BACKFLOW PREVENTER
4" FD
L: 118.80'
S: 0.0025 FT/FT (MIN.)
18" WIDE CRUSHED STONE DRIP EDGE, TYP. PER DETAIL
PR. DMH-1
RIM: 23.48'
12" INV IN: 19.91'
12" INV IN: 19.91'
12" INV OUT: 19.81'
BW: 33.94'
TW: 40.00'
BW: 24.78'
TW: 30.25'
CLEANOUT PER DETAIL
INV: 19.8'
2ND FLOOR
FEE: 39.80'
4" FD
L: 177.90'
S: 0.0025 FT/FT (MIN.)
CLEANOUT PER DETAIL
INV: 35.3'
4" FD
L: 154.80'
S: 0.0025 FT/FT (MIN.)
CLEANOUT PER DETAIL
INV: 19.80'
FFE AT ENTRY: 37.25'
PROPOSED STEP, HEIGHT TO VARY FROM 0" TO 7". SEE NOTE 7.
LANDING: 29.55'
(9) 7" RISERS
BOTTOM OF STAIRS: 24.30'
TOP OF STAIRS: 38.30'
(15) 7" RISERS
BW: 31.70'
TW: 40.00'
BW: 36.58'
TS: 37.16'
BS: 37.16'
TS: 37.16'
TW: 40.00'
BW: 39.05'
PR. CB-8 WITH BEEHIVE GRATE
RIM: 38.10'
12" INV OUT: 33.22'
12" INV IN: 33.32'
12" SDR-35 PVC
L: 16.0'
S: 0.01 FT/FT
PR. DRAIN BASIN AT PIPE JUNCTION
RIM: 38.40'
12" INV IN: 33.00'
(2) 4" INV IN: 33.00'
12" INV OUT: 30.00'
12" SDR-35 PVC
L: 11.2'
S: 0.15 FT/FT
PR. DRAIN BASIN AT PIPE JUNCTION
RIM: 30.05'
12" INV IN: 28.32'
(2) 4" INV IN: 24.00'
12" INV OUT: 22.00'
12" SDR-35 PVC
L: 25.0'
S: 0.01 FT/FT
PR. CB-9 WITH BEEHIVE GRATE
RIM: 38.10'
12" INV OUT: 33.57'
1.5% MAX CROSS SLOPE & 4.5% MAX RUNNING SLOPE ACROSS PEDESTRIAN PATH, TYP.
EX. TC: 42.01'
EX. BC: 41.58'
TC: 39.97'
BC: 39.39'
TC: 40.43'
BC: 39.85'
TC: 39.68'
BC: 39.10'
EXISTING PAVEMENT TO REMAIN, TYP.
PR. F-TYPE CB-4
RIM: 38.80'
12" INV OUT: 34.86'
TC: 39.53'
BC: 38.95'
CUT EXISTING PIPE AND CONNECT WITH 22.5° 12" PVC BEND FITTING. CONTRACTOR TO TEST PIT TO CONFIRM PIPE LOCATION.
TC: 40.98'
BC: 40.40'
HP: 40.07'
12" SDR-35 PVC SD
L: 105.3'
S: 0.005 FT/FT
MH RIM=41.42
(A)12"PVC INV.IN=36.42
12"PVC INV.IN=36.22
12"PVC INV.OUT=34.82
EXISTING CURBING TO REMAIN, TYP.
MATCH EX. GRADE AT EX. GRANITE CURB
TC: 41.44'
BC: 40.91'
RIM=43.02
PVC INV.OUT=37.02
TC: 40.39'
BC: 40.60'
PLUG EXISTING 12" SD FROM PARKING AREA
EXISTING CONCRETE SIDEWALK TO REMAIN, TYP.
PR. DOGHOUSE MH
RIM: 40.18'
PR. INV IN: 34.33'
EX. INV IN: 33.88'
EX. INV OUT: 33.78'
PR. CB-6 WITH HEADSTONE
CONTRACTOR TO CUT EXISTING PIPE & DEWATER EXISTING FLOWS DURING INSTALLATION
RIM: 27.86'
EX. 12" INV IN: 18.33'
PR. 10" INV IN: 21.62'
Ex. 12" INV OUT: 18.23'
10" SDR-35 PVC
L: 37.4'
S: 0.10 FT/FT
PR. CB-7 WITH HEADSTONE
RIM: 27.86'
10" INV OUT: 25.36'
TC: 28.44'
BC: 27.86'
TC: 31.04'
BC: 30.46'
TC: 33.54'
BC: 32.96'
TC: 35.06'
BC: 34.48'
TC: 36.48'
BC: 35.90'
TC: 37.19'
BC: 36.61'
TC: 39.40'
BC: 38.82'
MATCH EX.: 39.60'
TC: 25.02'
BC: 24.44'
(AVG) 9.2%
PR. STEP WALL
TW: 27.00'
BW: 24.10'
BW: 26.90'
TW: 27.00'
26.82'
SCALE: 1"=10'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
COMMENT RESPONSE	PFH 5/6/2024
WORKSHOP RESPONSE	PFH 5/22/2024
UPDATE UNIT COUNT	PFH 6/17/2024

DRAWING NAME: GRADING & DRAINAGE PLAN
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

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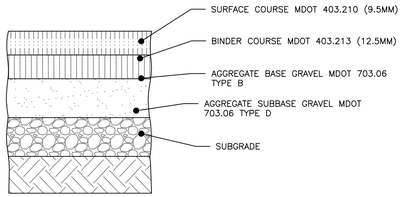
ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04104
(207) 775-2655

FILE: 1215_CIVIL
JN: 1215
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: MKT
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-30

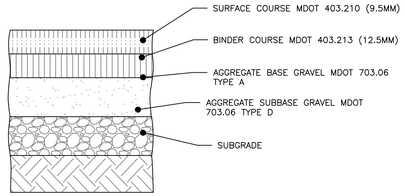


NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.210 (9.5mm)
2"	BINDER COURSE MDOT 403.213 (12.5mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PRIVATE PAVEMENT PROFILE
NOT TO SCALE



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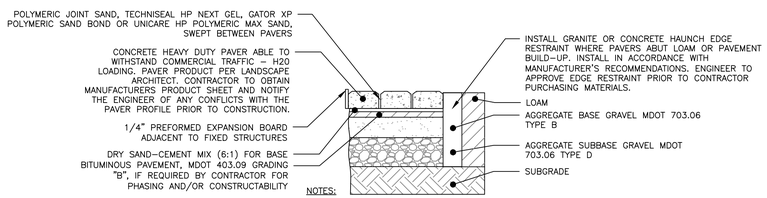
THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.210 (9.5mm)
2"	BINDER COURSE MDOT 403.213 (12.5mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND LOCAL STREET BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE



NOTES:

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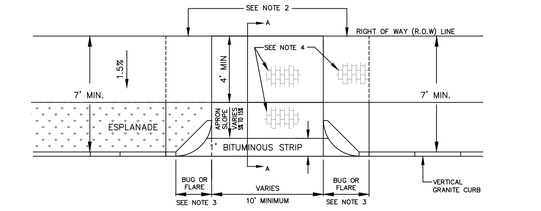
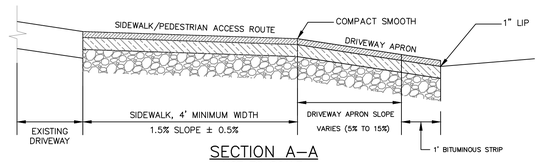
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.
3. JOINT SAND COMPRESSION STRENGTH: PROVEN RESISTANCE TO COMPRESSION OF 550 PSI AFTER DRYING FOR 7 DAYS UNDER CONTROLLED CONDITIONS (73 DEGREE F AT 50% HUMIDITY)

GRADATION REQUIREMENTS FOR JOINT SAND		
SIEVE SIZE	NATURAL SAND PERCENT PASSING	MANUFACTURED SAND PERCENT PASSING
NO. 4 (4.75mm)	100	100
NO. 8 (2.36mm)	95-100	95-100
NO. 16 (1.18mm)	70-100	70-100
NO. 30 (0.60mm)	40-75	40-75
NO. 50 (0.30mm)	10-30	20-40
NO. 100 (0.15mm)	2-15	10-25
NO. 200 (0.075)	0-1	0-10

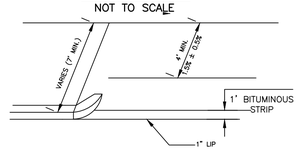
THICKNESS OF LAYERS	
STANDARD	LAYERS
3.149"	CONCRETE PAVER (DEPTH TBD BASED UPON MANUFACTURER)
1"	DRY SAND-CEMENT MIX (6:1)
2"	BITUMINOUS MDOT 403.09 GRADING "B"
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PAVER PROFILE
NOT TO SCALE





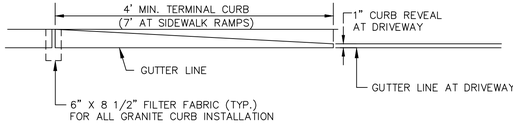
SECTION A-A
NOT TO SCALE



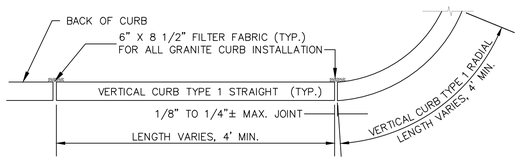
NOTES:

1. MATCH EXISTING GRADE AT R.O.W LINE. WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. TWO-FOOT RADIUS CORNER GRANITE PIECES ("BUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
4. ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.
5. THIS LAYOUT MAY BE REQUIRED AT MINOR DRIVEWAYS SERVING COMMERCIAL OR INDUSTRIAL USES.

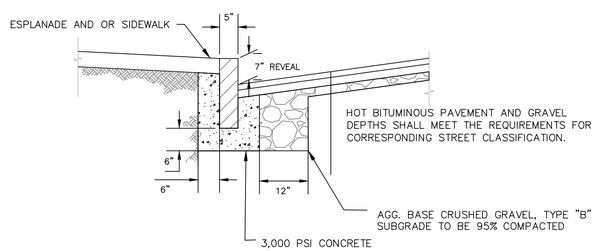
STANDARD RESIDENTIAL DRIVEWAY APRON LAYOUT
NOT TO SCALE



TERMINAL CURB PROFILE



VERTICAL GRANITE CURB PLAN VIEW

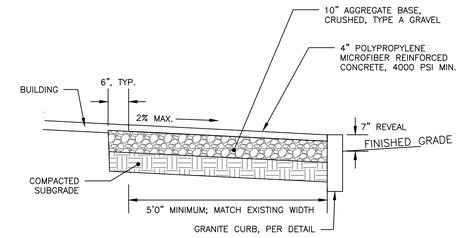


VERTICAL GRANITE CURB CROSS SECTION

NOTES:
1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE TOP OF CURB.
3. CURBING SHALL BE SET IN A 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.

VERTICAL GRANITE CURB
NOT TO SCALE

1. AT A MINIMUM, TESTING SHALL CONSIST OF ENTRAINED AIR AND SLUMP TESTS ON SITE PRIOR TO POURING THE SIDEWALKS. ENTRAINED AIR TESTS SHALL BE DONE IN ACCORDANCE WITH AASHTO T152. TEST FIRST TWO LOADS AND EVERY THIRD LOAD THEREAFTER PROVIDED CONSISTENT RESULTS ARE ACHIEVED.
2. IF THE CONTRACTOR ELECTS TO USE WELDED WIRE FABRIC, THE FABRIC SHALL BE PLACED 2 INCHES ABOVE THE CRUSHED GRAVEL, AND 2 INCHES FROM ALL FINISHED EDGES, EXPANSION JOINTS AND CURBS. ALL FABRIC JOINTS SHALL BE OVERLAPPED A MINIMUM OF 1 FOOT AND BE PROPERLY TIED. IF THE CONTRACTOR ELECTS TO USE REBAR, ONLY 4-GAUGE WILL BE ACCEPTABLE. IF THE CONTRACTOR ELECTS TO USE A PRE-MIXED FIBER MESH, A SPECIFICATION SHEET MUST BE SUBMITTED AND PRE-APPROVED BY THE ENGINEER PRIOR TO ITS APPLICATION.
3. SLABS SHALL BE PLACED ALTERNATELY IN LENGTHS NOT TO EXCEED 30 FEET OR AS DIRECTED AND SHALL BE SEPARATED BY AN EXPANSION JOINT OF PREFORMED EXPANSION FILLER ½ INCH IN THICKNESS.
4. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A ½ INCH THICK PREFORMED JOINT FILLER SHALL BE USED BETWEEN THE SLAB AND THE STRUCTURE.
5. THE SIDEWALK SURFACE SHALL BE SCORED INTO BLOCK UNITS NO GREATER THAN 40 SQUARE FEET AS DIRECTED. THE DEPTH OF THE SCORING SHALL BE AT LEAST ONE QUARTER OF THE THICKNESS OF THE SLAB.
6. ANY MATCHING INTO EXISTING SIDEWALKS SHALL BE DONE SO WITH A CLEAN VERTICAL FACE CONNECTION.
7. THE SURFACE SHALL BE FINISHED TO PRODUCE A BROOMLIKE "BRUSHED" PATTERN. NO PLASTERING OF THE SURFACE WITH MORTAR WILL BE PERMITTED. THE FINISH SHALL RESULT IN A SURFACE OF UNIFORM TEXTURE AND COLOR. ALL OUTSIDE EDGES OF THE SLAB AND ALL JOINTS SHALL BE ROUNDED WITH A ½ INCH RADIUS EDGING TOOL.
8. CONCRETE SHALL BE CURED FOR 72 HOURS. CURING SHALL BE BY MEANS OF THOMPSON'S WATER SEAL AS MANUFACTURED BY E.A. THOMPSON CO., INC. OF MEMPHIS, TENNESSEE, BOILED LINSEED OIL, WHITE PIGMENTED CURING COMPOUND, OR BY OTHER APPROVED METHODS. CONCRETE SIDEWALK TO BE SEALED WITH CONSOLIDECK SALTGUARD WB OR APPROVED EQUAL 28 DAYS AFTER PLACEMENT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION.
9. GENERAL CONTRACTOR TO COLLECT DELIVERY SLIPS AND TRANSFER TO THE OWNER.
10. REFER TO CITY OF PORTLAND CONCRETE SPECIFICATIONS SECTION 608 FOR MORE INFORMATION.



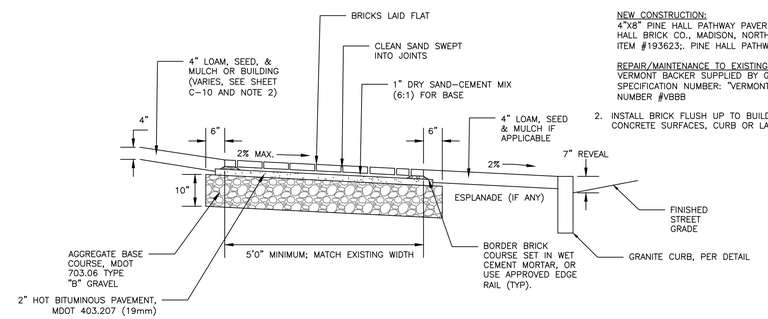
REINFORCED CONCRETE SIDEWALK
NOTES:

1. BRICKS TO BE USED:

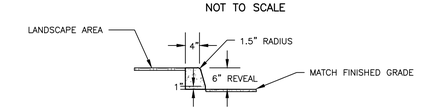
   NEW CONSTRUCTION:
   4"X8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO.; MADISON, NORTH CAROLINA. LACHANCE ITEM #193623;. PINE HALL PATHWAY PAVER BRICK.

   REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:
   VERMONT BACKER SUPPLIED BY GAGNE AND SONS SPECIFICATION NUMBER: "VERMONT PAVER BRICK", ITEM NUMBER #VBBB

2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.

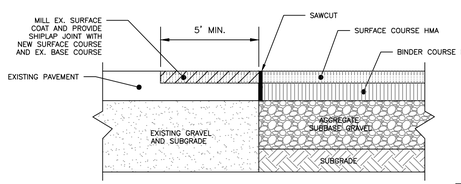


BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL WITH ESPLANADE
NOT TO SCALE



BITUMINOUS CURB DETAIL
NOTES:

1. SAWCUT EXISTING PAVEMENT AND REMOVE 5' STRIP OF EXISTING PAVEMENT TO CREATE A UNIFORM AND RIGID BUTT JOINT TO CREATE SHIPLAP JOINTS BETWEEN THE PAVEMENT LAYERS.
2. APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD TO EXISTING PAVEMENT JOINTS AND SURFACES PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
3. THE NEW PAVEMENT SECTION SHALL MEET "PAVEMENT PROFILE DETAIL" AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT WITH SHIPLAP JOINTS DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 3/20/2024

DRAWING NAME: SITE DETAILS - 1

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

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ACORN ENGINEERING, INC.
PO BOX 3377
PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1215_DETAILS
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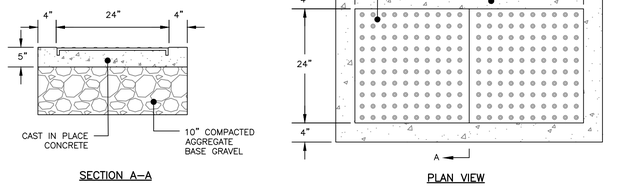
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

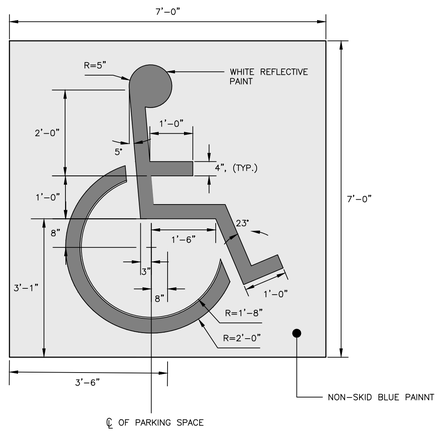
DRAWING NO.
C-40

NOTES:

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



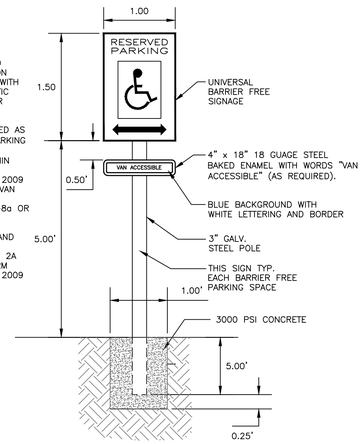
SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE



INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE

NOTES:

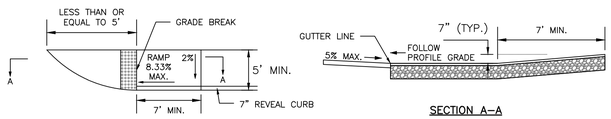
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7–8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7–8a OR R7–8b.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.



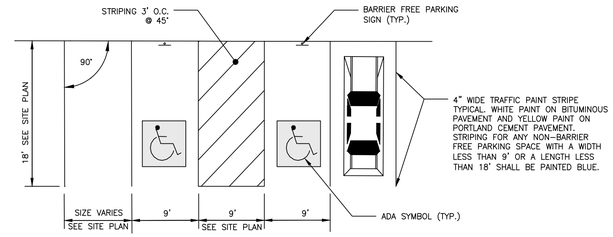
BARRIER FREE PARKING SIGN
NOT TO SCALE

NOTES:

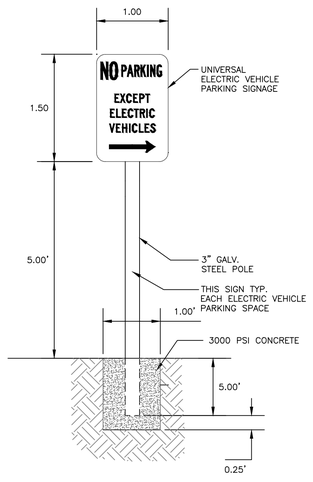
1. ALL PEDESTRIAN RAMPS SHALL COMPLY WITH ADA STANDARDS.
2. PEDESTRIAN RAMP CROSS SLOPE SHALL BE A MAXIMUM OF 2%.
3. ADJACENT SURFACE TO PEDESTRIAN RAMP SHALL BE FLUSH WITH THE BOTTOM OF THE PEDESTRIAN RAMP.
4. DETECTABLE WARNINGS SHALL SPAN THE WIDTH OF THE PEDESTRIAN RAMP.
5. FOR USE ONLY WHEN NO SIDEWALK IS PRESENT ON THE SIDE ROAD.



SIDE STREET PEDESTRIAN RAMP DETAIL
NOT TO SCALE



PARKING SPACE DIMENSIONS
NOT TO SCALE



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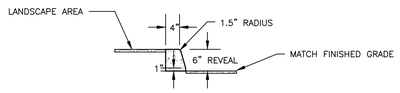
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.

ELECTRIC VEHICLE PARKING SIGN
NOT TO SCALE

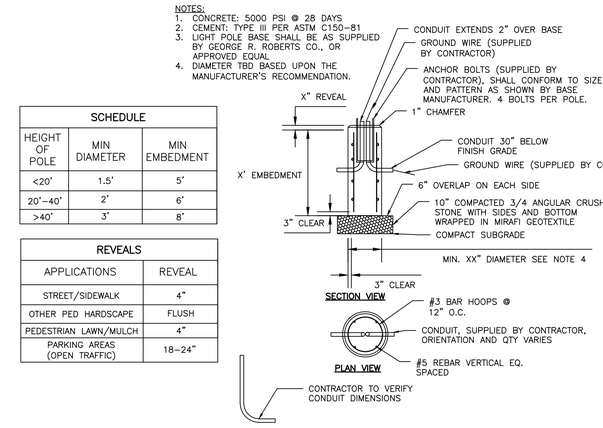


BITUMINOUS CURB DETAIL
NOT TO SCALE

NOTES:
1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150–81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.

SCHEDULE		
HEIGHT OF POLE	MIN DIAMETER	MIN EMBEDMENT
<20'	1.5'	5'
20'–40'	2'	6'
>40'	3'	8'

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	18–24"



LIGHT POLE BASE
NOT TO SCALE

PERMITTING
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ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 3/26/2024

DRAWING NAME: SITE DETAILS – 2

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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STATE OF MAINE
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15318
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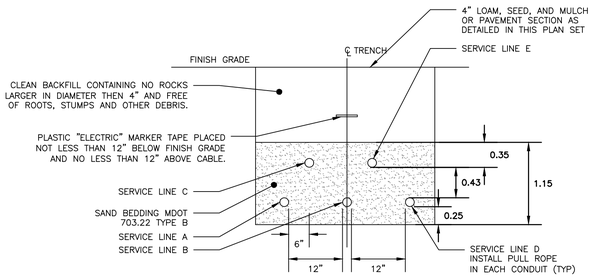


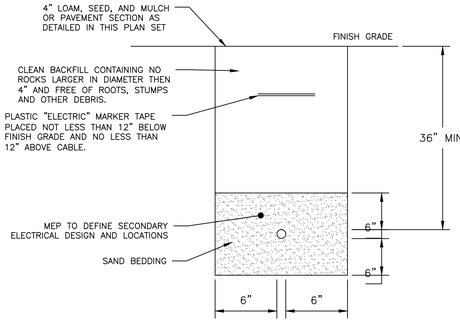
CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	4"	SCHEDULE 40 PVC	COMMUNICATION	–
D	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	SEE NOTE 1
E	4"	SCHEDULE 40 PVC	CABLE	–

NOTES:

1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

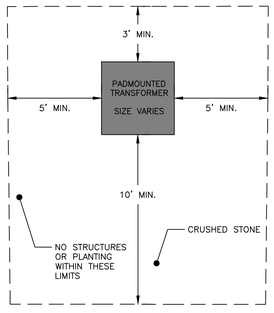
UTILITY TRENCH – PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE

NOT TO SCALE



SECONDARY ELECTRICAL TRENCH

NOT TO SCALE

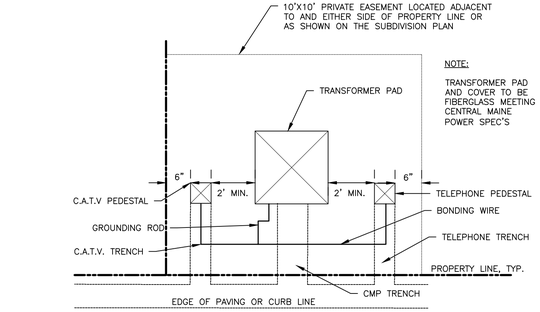


NOTES:

1. WHERE DANGER OF PLOW OR TRAFFIC DAMAGE EXISTS, BARRIERS CONSISTING OF CONCRETE FILLED 6 INCH IPS STEEL POSTS SET 4 FEET DEEP SHALL BE PROVIDED FOR PROTECTION (PRESSURE TREATED 6X6 INCH MIN. TIMBER POSTS MAY BE SUBSTITUTED IN RESIDENTIAL AREAS). POSTS SHALL NOT INTERFERE WITH TRANSFORMER ACCESS. GENERALLY THE POSTS SHALL BE LOCATED NEAR THE CORNERS OF THE TRANSFORMERS.
2. THE SETBACKS DEPICT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
3. THERE SHALL BE NO OPENINGS IN THE BUILDING WALL IN BACK OF, BESIDE, OR OVER THE TRANSFORMER UNLESS THE TRANSFORMER IS A MIN. OF 10 FEET FROM THE BUILDING.
4. SIDE CLEARANCES FROM DOORS OR WINDOWS SHALL NOT BE LESS THAN 10 FEET.
5. THERE SHALL BE A MIN. OF 10 FEET BETWEEN THE TRANSFORMER AND ANY GAS METER/REGULATOR, GAS RELIEF VALVE, GAS VENT DISCHARGE, GAS FILLING CONNECTION, OR PROPANE TANK. SOME INSURANCE COMPANIES MAY REQUIRE INCREASED CLEARANCES.
6. TRANSFORMER SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANGS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
7. IF TRANSFORMER IS NOT INSTALLED IMMEDIATELY UPON THE INSTALLATION OF THE CABLE IN THE PAD, THE CONTRACTOR SHALL PROVIDE AND INSTALL A CMP APPROVED CONCRETE, STEEL, OR FIBERGLASS COVER OVER THE PAD OPENING TO ELIMINATE EXPOSURE OF THE CABLE.

CMP TRANSFORMER SETBACKS

NOT TO SCALE

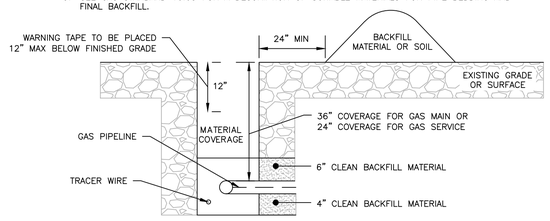


TYPICAL TRANSFORMER DETAIL

NOT TO SCALE

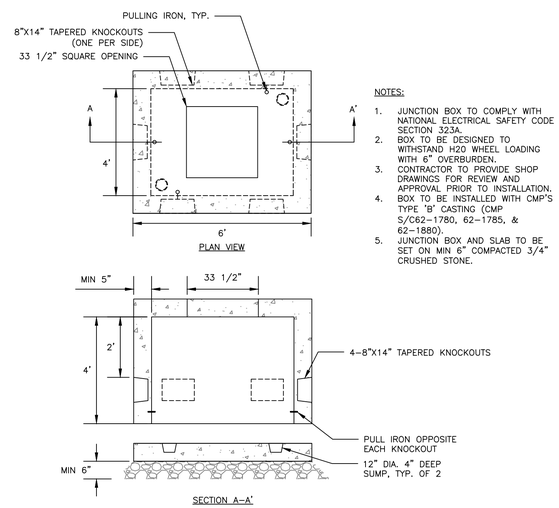
NOTES:

1. INSTALL MAINS WITH A MINIMUM OF 36" OF COVER AND SERVICES WITH A MINIMUM OF 24" OF COVER. EXCEPTIONS MAY BE MADE WITHIN SLATE AND FEDERAL CODES WITH THE PRIOR APPROVAL OF THE OPERATIONS CENTER MANAGER. INSTALL PLASTIC PIPE WITH SLACK SO EXTERNAL LOADING OR THERMAL CONTRACTION WILL NOT PLACE UNNECESSARY STRESS ON THE PIPE OR JOINTS. IN CASES WHERE A STOPPER FITTING OF OTHER NEW MATERIAL IS ADDED TO AN OLDER MAIN SUCH THAT THE MAIN HAS LESS THAN 24" OF COVE, THE CONTRACTOR SHOULD PROVIDE PERMANENT PROTECTION SUCH AS CONCRETE. WHENEVER A MAIN WILL BE INSTALLED WITH LESS THAN 24" OF COVER, NOTIFY THE OPERATIONS CENTER MANAGER OR THE DESIGNEE SO THEY CAN REQUEST APPROVAL FROM THE DEPARTMENT OF PUBLIC UTILITIES.
2. PROCEDURE – SEE FIGURE BELOW
   - 2.1. REMOVE ALL EXCESS WATER FROM THE TRENCH WITH PUMPS OR EQUIVALENT
   - 2.2. PLACE A LAYER OF SAND 4" DEEP IN TRENCH BOTTOM BEFORE LAYING THE PIPE IN THE TRENCH. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.3. FOR PLASTIC PIPE, INSTALL NUMBER 12 AWG SOLID COPPER WIRE (TRACER WIRE) WITH YELLOW INSULATION JACKET ALONG THE LENGTH OF THE SERVICE. THIS WIRE IS USED TO LOCATE THE PIPE. DO NOT PHYSICALLY ATTACH THE WIRE OR ALLOW THE WIRE TO TOUCH THE PLASTIC PIPE. KEEP THE TRACER WIRE AT LEAST 4" AWAY FROM THE PLASTIC PIPE. IF THE INSTALLATION IS TRENCHLESS, THE TRACER WIRE MAY BE LESS THEN 4" AWAY FROM THE PLASTIC PIPE.
   - 2.4. PLACE A MINIMUM OF 6" OF SAND OVER THE PIPE. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.5. PLACE WARNING TAPE IN THE TRENCH NOT MORE THAN 12" BELOW FINISHED GRADE. THE STANDARD WARNING TAPE IS YELLOW, NON-DETECTABLE TAPE, 6" WIDE.
   - 2.6. FILL THE REST OF THE TRENCH WITH CLEAN FILL MATERIAL, USING THE SPOIL WHERE SUITABLE AND ACCEPTABLE. IF THE ORIGINAL SPOIL MATERIAL IS NOT SUITABLE FOR USE AS A SUB-GRADE MATERIAL WHEN RESTORING ROAD SURFACES, USE MATERIAL REQUIRED BY STATE OR LOCAL AGENCIES. REMOVE ALL EXCESS SPOIL IN THE ACCEPTED MANNER.
   - 2.7. PROPERLY COMPACT THE TRENCH TO INSURE THE TRENCH WILL NOT SETTLE.
3. SEE GAS STANDARD 10.03 FOR A DESCRIPTION OF SUITABLE MATERIALS FOR PIPE BEDDING AND FINAL BACKFILL.



NATURAL GAS MAIN/SERVICE TRENCH DETAIL

NOT TO SCALE



NOTES:

1. JUNCTION BOX TO COMPLY WITH NATIONAL ELECTRICAL SAFETY CODE SECTION 323A.
2. BOX TO BE DESIGNED TO WITHSTAND H20 WHEEL LOADING WITH 6" OVERBURDEN.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. BOX TO BE INSTALLED WITH CMP'S TYPE 'B' CASTING (CMP S/C62-1780, 62-1785, & 62-1880).
5. JUNCTION BOX AND SLAB TO BE SET ON MIN 6" COMPACTED 3/4" CRUSHED STONE.

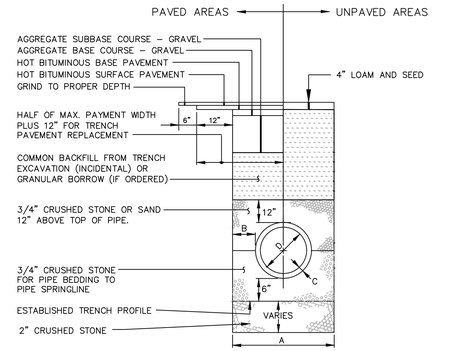
CMP JUNCTION BOX (PULL BOX)

NOT TO SCALE

NOTES:

DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.

ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.



NOTES:

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSH STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
4. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

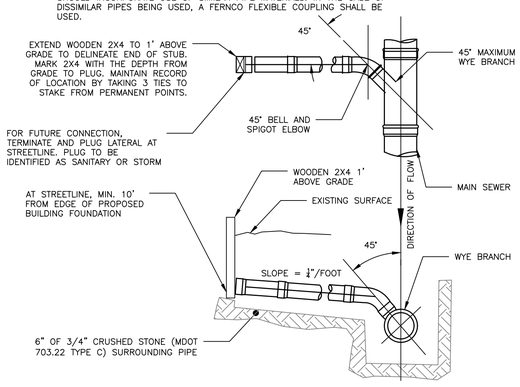
PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4 – – – –	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18 – – – –	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36 – – – –	6.0
42	7.0
48	7.0

TYPICAL SEWER PIPE TRENCH INSTALLATION

NOT TO SCALE

NOTES:

1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO HOUSEHOLD PLUMBING WITH ARCHITECTURAL CONTRACTOR
3. CONNECTION OF PROPOSED SEWER LATERAL TO HOUSEHOLD PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.



SEWER AND STORM DRAIN TEE/WYE CONNECTION DETAIL

NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 5/20/2024

DRAWING NAME: UTILITY DETAILS – 1

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

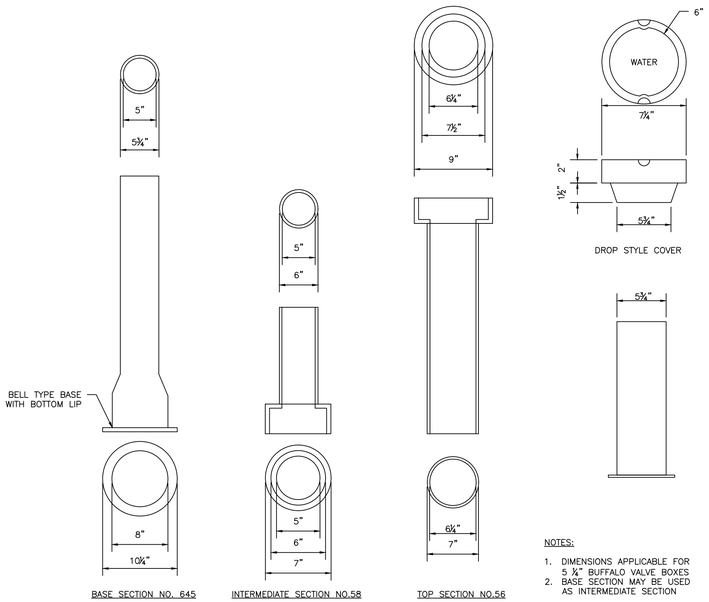
THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND SHALL NOT BE USED BY ANYONE, AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC. OR, OTHERWISE, SHALL BE EXPRESSLY AGREED TO BY ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 CENTER STREET, AUBURN, MAINE 04104
PO BOX 3297, AUBURN, MAINE 04212-3297
(207) 775-2655

FILE:	1215_DETAILS
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-42



BASE SECTION NO. 645 | INTERMEDIATE SECTION NO.58 | TOP SECTION NO.56

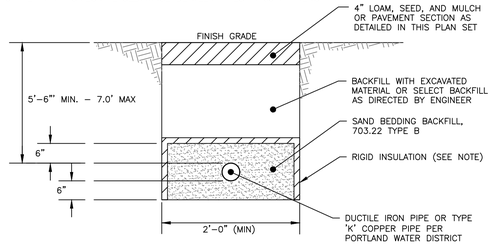
NOTES:

1. DIMENSIONS APPLICABLE FOR 5 ¼" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION

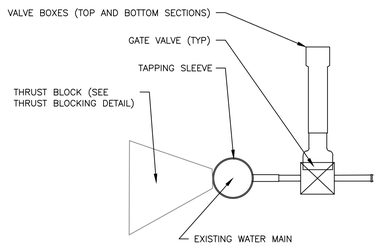
VALVE BOX & COVER
NOT TO SCALE

NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS NECESSARY ADD 1 INCH OF "BLUE DOW" RIGID INSULATION FOR EVERY 12" LESS COVER.
3. 12" MIN. HORIZONTAL CLEARANCE BETWEEN PIPES IN JOINT TRENCH.

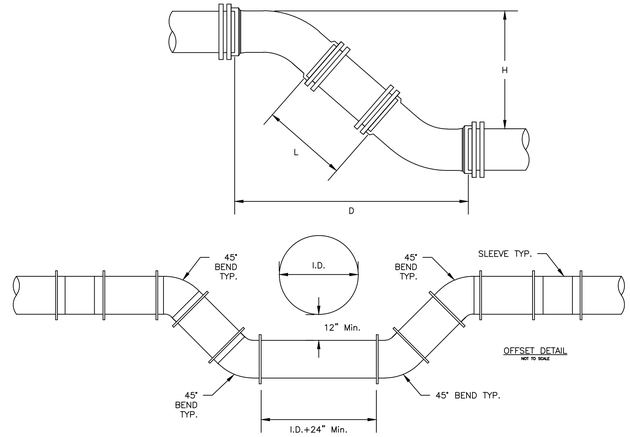


WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE



SIDE VIEW

TAPPING SLEEVE AND VALVE
NOT TO SCALE

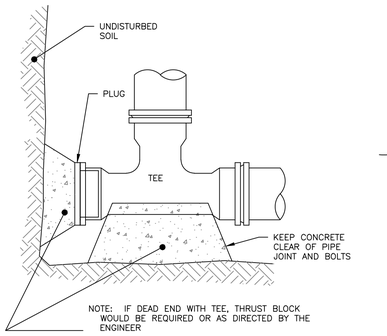


NOTE:

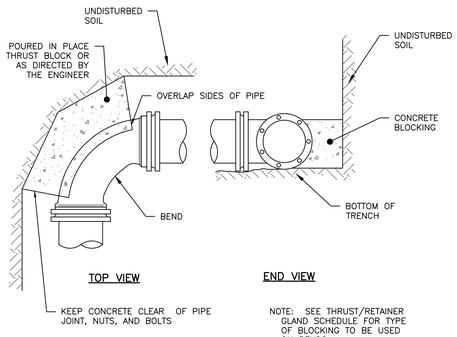
DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION. FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.

TYPICAL MAIN OFFSET
NOT TO SCALE

	8" PIPE	
H	D	L
12"	1' 7-1/2"	0' 9-1/2"
13"	1' 8-1/2"	0' 10-7/8"
14"	1' 9-1/2"	1' 0-5/16"
15"	1' 10-1/2"	1' 1-11/16"
16"	1' 11-1/2"	1' 3-1/16"
17"	2' 0-1/2"	1' 4-9/16"
18"	2' 1-1/2"	1' 5-15/16"
19"	2' 2-1/2"	1' 7-3/8"
20"	2' 3-1/2"	1' 8-13/16"
21"	2' 4-1/2"	1' 10-3/16"
22"	2' 5-1/2"	1' 11-5/8"
23"	2' 6-1/2"	2' 1"
24"	2' 7-1/2"	2' 2-7/16"
25"	2' 8-1/2"	2' 3-7/8"
26"	2' 9-1/2"	2' 5-1/4"
27"	2' 10-1/2"	2' 6-11/16"
28"	2' 11-1/2"	2' 8-1/8"
29"	3' 0-1/2"	2' 9-1/2"
30"	3' 1-1/2"	2' 10-15/16"
31"	3' 2-1/2"	3' 0-5/16"
32"	3' 3-1/2"	3' 1-3/4"
33"	3' 4-1/2"	3' 3-3/16"
34"	3' 5-1/2"	3' 4-9/16"
35"	3' 6-1/2"	3' 6"
36"	3' 7-1/2"	3' 7-7/16"
37"	3' 8-1/2"	3' 8-13/16"
38"	3' 9-1/2"	3' 10-1/4"
39"	3' 10-1/2"	3' 11-11/16"
40"	3' 11-1/2"	4' 1-1/16"
41"	4' 0-1/2"	4' 2-1/2"
42"	4' 1-1/2"	4' 3-7/8"
43"	4' 2-1/2"	4' 5-5/16"
44"	4' 3-1/2"	4' 6-3/4"
45"	4' 4-1/2"	4' 8-1/8"
46"	4' 5-1/2"	4' 9-9/16"
47"	4' 6-1/2"	4' 10-15/16"
48"	4' 7-1/2"	5' 0-3/8"
49"	4' 8-1/2"	5' 1-13/16"
50"	4' 9-1/2"	5' 3-3/16"
51"	4' 10-1/2"	5' 4-5/8"
52"	4' 11-1/2"	5' 6-1/16"
53"	5' 0-1/2"	5' 7-7/16"
54"	5' 1-1/2"	5' 8-7/8"
55"	5' 2-1/2"	5' 10-5/16"



END SECTION

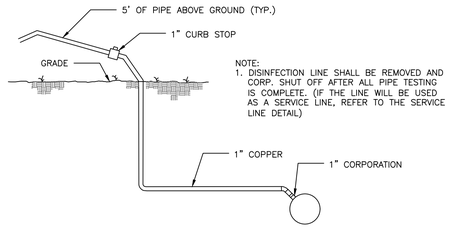


TOP VIEW | END VIEW

NOTE: SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

REGULAR BEND

THRUST BLOCKING
NOT TO SCALE



DISINFECTION LINE DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 7/30/2024

DRAWING NAME: UTILITY DETAILS – 2

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

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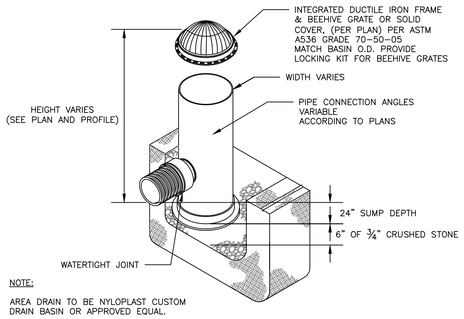
ACORN ENGINEERING, INC.
PO BOX 327 FREEPORT, MAINE 04104
(207) 775-2655

FILE:	1215_DETAILS
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
3/20/24

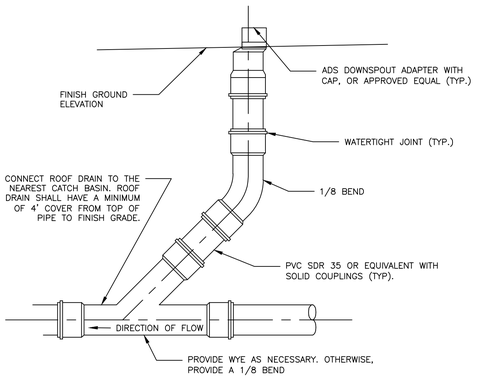
DRAWING NO.
C-43



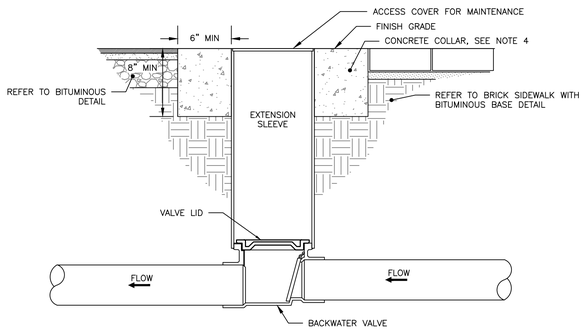
NOTE:

AREA DRAIN TO BE NYLOPLAST CUSTOM DRAIN BASIN OR APPROVED EQUAL.

DRAIN BASIN DETAIL
NOT TO SCALE



ROOF DRAIN DETAIL
NOT TO SCALE



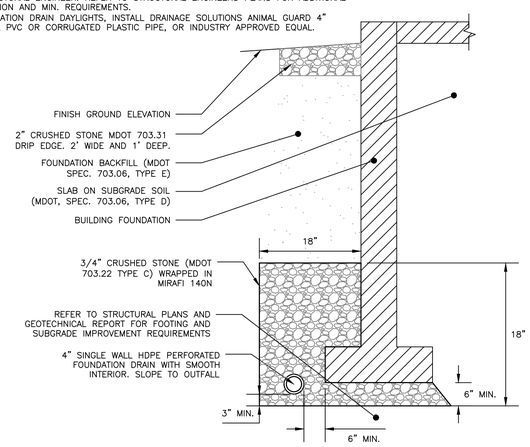
NOTES:

1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE 'SEWER' ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

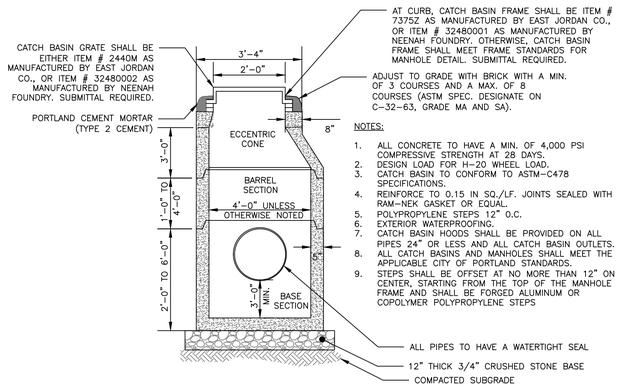
BACKFLOW VALVE ASSEMBLY
NOT TO SCALE

NOTES:

1. REFER TO THE BUILDING ARCHITECTS AND STRUCTURAL ENGINEERING PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECTION OF THE ROOF EVE.
4. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER OR STRUCTURAL ENGINEER. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
5. IF FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE SOLUTIONS ANIMAL GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUAL.



FOUNDATION DRAIN DETAIL
NOT TO SCALE



NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEK GASKET OR EQUAL.
5. POLYPROPYLENE STEPS 12" O.C.
6. EXTERIOR WATERPROOFING.
7. CATCH BASIN HOODS SHALL BE PROVIDED ON ALL PIPES 24" OR LESS AND ALL CATCH BASIN OUTLETS.
8. ALL CATCH BASINS AND MANHOLES SHALL MEET THE APPLICABLE CITY OF PORTLAND STANDARDS.
9. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS

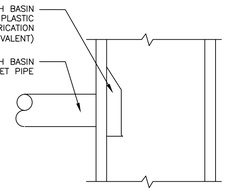
PRECAST CATCH BASIN/ DRAINAGE MANHOLE
NOT TO SCALE

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLD AND SHALL HAVE ONE ⅞" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
9. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CATCH BASIN HOOD.
11. HYDROCARBON ABSORBENT BOOM IN ALL CATCH BASINS REQUIRED BY CONTRACTOR FOLLOWING PAVING. OWNER TO MAINTAIN/REPLACE FOR 1-YEAR FOLLOWING FINAL PAVEMENT.

GENERAL NOTES FOR STORM MANHOLES AND CATCH BASINS

NOTES:

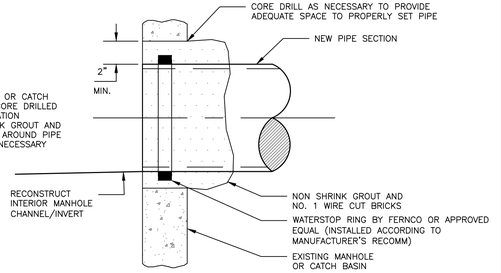
1. INSTALL HOOD ON ALL OUTLETS 24" OR LESS.
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS.



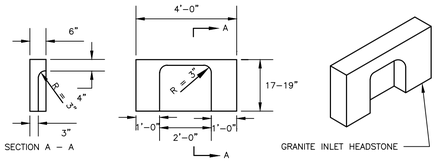
CATCH BASIN HOOD DETAIL
NOT TO SCALE

NOTE:

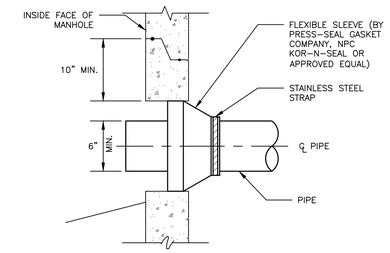
1. EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION
2. PLACE NON-SHRINK GROUT AND WIRE-CUT BRICKS AROUND PIPE CONNECTIONS AS NECESSARY



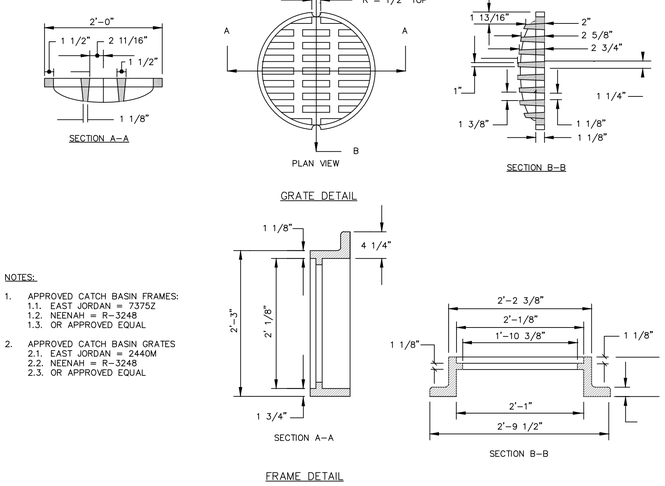
NEW PIPE TO EXISTING STRUCTURE CONNECTION DETAIL
NOT TO SCALE



4' GRANITE HEADSTONE FOR CATCH BASIN INLET
NOT TO SCALE



NEW PIPE TO NEW STRUCTURE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. APPROVED CATCH BASIN FRAMES:
   1.1. EAST JORDAN = 7375Z
   1.2. NEENAH = R-3248
   1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
   2.1. EAST JORDAN = 2440M
   2.2. NEENAH = R-3248
   2.3. OR APPROVED EQUAL

CATCH BASIN FRAME & GRATE
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 5/30/2024

DRAWING NAME: DRAINAGE DETAILS - 1

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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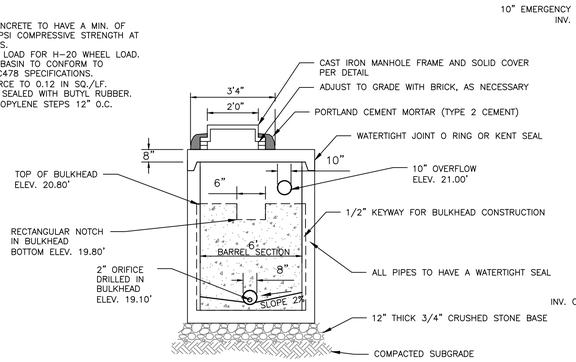
FILE:	1215_DETAILS
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

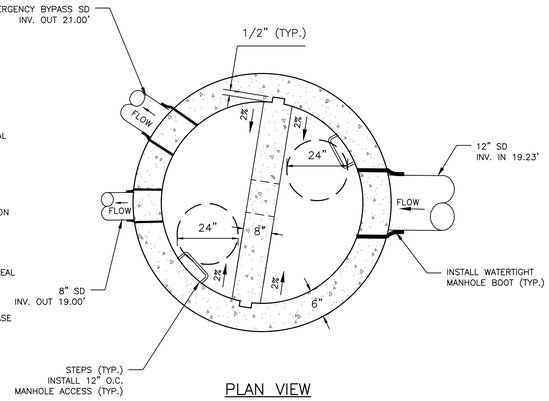
DRAWING NO.
C-44

NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. POLYPROPYLENE STEPS 12" O.C.



SIDE PROFILE



PLAN VIEW

OUTLET CONTROL STRUCTURE
NOT TO SCALE

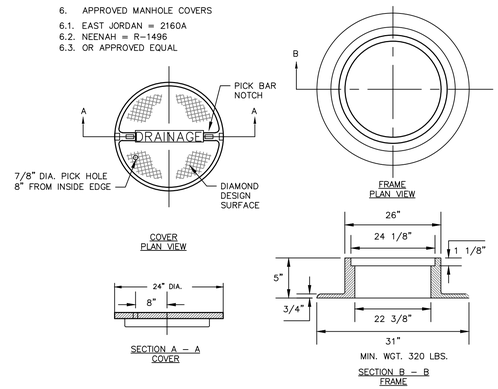
NOTES:

1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES:

5.1. EAST JORDAN = 1690Z
5.2. NEENAH = R-1496
5.3. OR APPROVED EQUAL

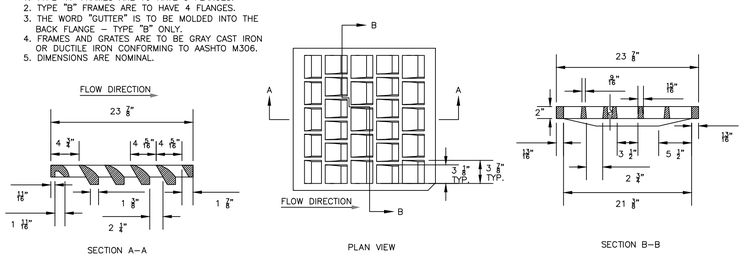
6. APPROVED MANHOLE COVERS

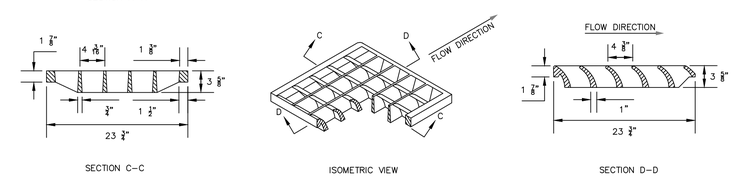
6.1. EAST JORDAN = 2160A
6.2. NEENAH = R-1496
6.3. OR APPROVED EQUAL



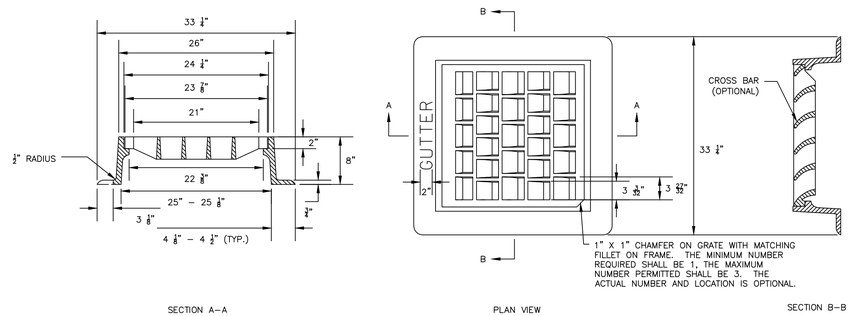
CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

NOTES:
1. TYPE "A" FRAMES ARE TO HAVE 3 FLANGES.
2. TYPE "B" FRAMES ARE TO HAVE 4 FLANGES.
3. THE WORD "GUTTER" IS TO BE MOLDED INTO THE BACK FLANGE - TYPE "B" ONLY.
4. FRAMES AND GRATES ARE TO BE GRAY CAST IRON OR DUCTILE IRON CONFORMING TO AASHTO M306.
5. DIMENSIONS ARE NOMINAL.



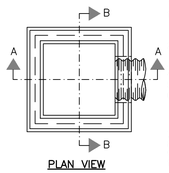


GRATE DETAIL



FRAME DETAIL

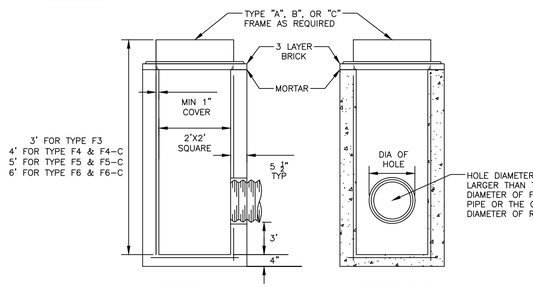
CATCH BASIN FRAME & GRATE - SQUARE
NOT TO SCALE



PLAN VIEW

NOTES:

1. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME AND GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, #4 REBAR MINIMUM 8" O.C. OR EQUIVALENT WITH ENGINEER OF RECORD'S APPROVAL.
2. FIBER-REINFORCED CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. DESIGN LOAD FOR H-20 WHEEL LOAD.
4. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
5. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEK GASKET OR EQUAL.
6. POLYPROPYLENE STEPS 12" O.C.
   6.1. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS.
7. EXTERIOR WATERPROOFING.
8. FLEXIBLE WATERTIGHT PIPE BOOTS TO CONFORM TO ASTM C-923.
9. SHALL MEET THE APPLICABLE LOCAL AND STATE STANDARDS.
10. CATCH BASIN SHALL BE AS MANUFACTURED BY PRECAST OF MAINE OR APPROVED EQUAL.



24" SQUARE CATCH BASIN "TYPE F"
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
MAJOR SITE PLAN SUBMISSION	PFH	3/13/2024
ADDRESS UPDATE	PFH	7/26/2024

DRAWING NAME: DRAINAGE DETAILS - 2

PROJECT NAME: 9 BOYD STREET REDEVELOPMENT

CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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PO BOX 2372, PORTLAND, MAINE 04104
(207) 775-2655

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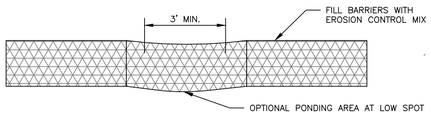
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

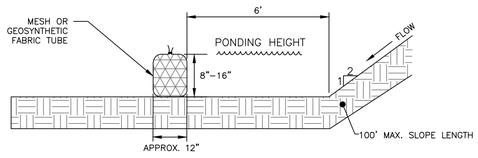
DRAWING NO.
C-45

NOTES:

1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE – THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

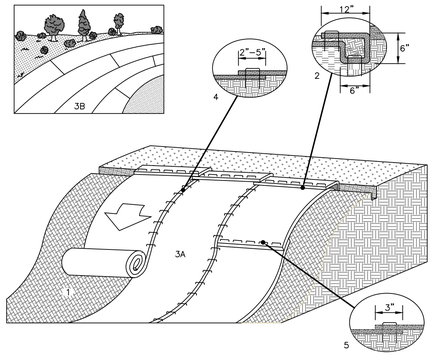


FRONT VIEW



SIDE VIEW

FILTER SOCK DETAIL
NOT TO SCALE

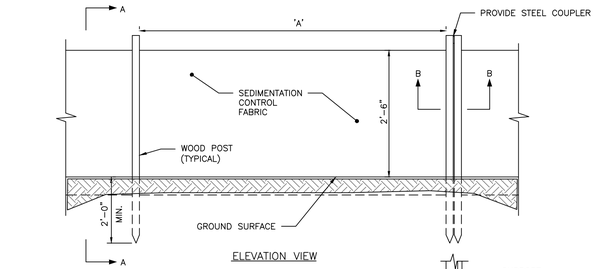


EROSION CONTROL BLANKET SLOPE INSTALLATION
NOT TO SCALE

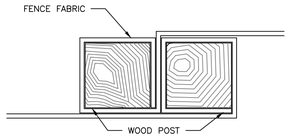
SLOPE
INSTALLATION DETAIL

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (ECB), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF ECB EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE ECB WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF ECB BACK OVER THE SEED AND COMPACTED SOIL. SECURE ECB OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE ECB.
3. ROLL THE ECB (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. ECB WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ECB MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL ECB MUST BE STAPLED WITH APPROXIMATELY 2" – 5" OVERLAP DEPENDING ON THE ECB TYPE.
5. CONSECUTIVE ECB SPLICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE ECB WIDTH.

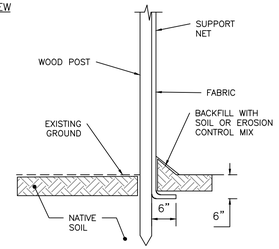
NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE ECB.



ELEVATION VIEW



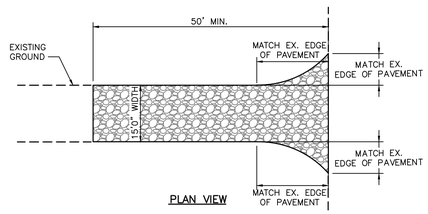
SECTION B–B



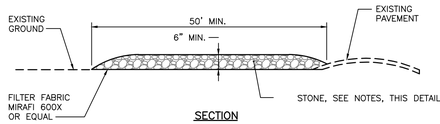
SECTION A–A

SILT FENCE REINFORCEMENT	MAX. SPACING "A"
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'

SILTATION FENCE DETAIL
NOT TO SCALE



PLAN VIEW



SECTION

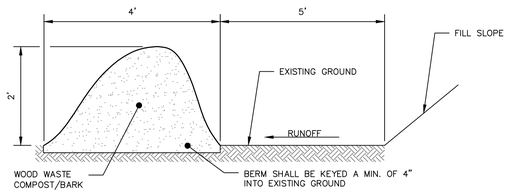
NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"–3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON–SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT–OF–WAY

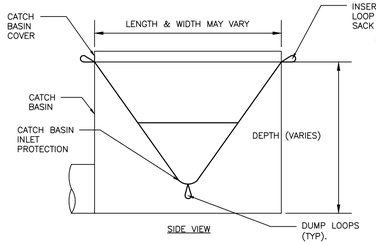
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

NOTES:

1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):
   - 1.1. pH BETWEEN 5.0 – 8.0
   - 1.2. PARTICLE SIZE (BY WEIGHT):
     - 1.2.1. 100% PASSING A 150 MM (6 IN) SCREEN
     - 1.2.2. 75 TO 85% PASSING A 19 MM (0.75 IN) SCREEN
   - 1.3. SOLUBLE SALTS CONTENT < 4.0 MMHOS/CM
   - 1.4. ORGANIC MATTER 20 TO 100% , DRY WEIGHT BASIS
2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.
3. THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. WHERE A BERM IS USED AT THE BASE OF A SLOPE GREATER THAN 8%, ANOTHER MEASURE SHALL BE USED IN CONJUNCTION WITH A BERM, SUCH AS A SILT FENCE.
5. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.



EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE



SIDE VIEW

NOTES:

1. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED DOWNGRADIENT OF PROPOSED PROJECT AND ROUTINELY MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
2. CATCH BASIN SIZE VARIES. CONTRACTOR TO ENSURE CATCH BASIN INLET PROTECTION MATCHES CATCH BASIN DIMENSIONS.
3. SILT SACK SHALL BE ACF ENVIRONMENTAL SILT SACK, TYPE A, OR APPROVED EQUAL.

CATCH BASIN INLET PROTECTION
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 5/30/2024

DRAWING NAME: EROSION & SEDIMENTATION CONTROL DETAILS
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

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FILE: 1215_DETAILS
JN: 1215
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: MKT
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
3/20/24

DRAWING NO.
C-46

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2–3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
- THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
- GEOTEXTILE FABRIC (WOVEN OR NON–WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROAD WAYS.

1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.

1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.

1.1.5 **BOYD STREET, OXFORD STREET, MAYO STREET AND CUMBERLAND AVENUE** SHALL BE SWEPT TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.

1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.

1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.

1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.

1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.

1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.

1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.

1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4 OF LOAM AND SHALL BE LIMED, AND MULCHED.

EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.

1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.

1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER–WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75–LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE–INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR–INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE–ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER–WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE–COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD – THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE–SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX – EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH STONE RIPRAP – PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL – BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD–TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE–INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: PETER HEIL, PE
TELEPHONE: (207) 775–2655

QUALIFICATIONS:

- Ø MAINE PROFESSIONAL ENGINEERING LICENSE #15318
- Ø MAINE DEP – CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT
- Ø MAINE DEP – CERTIFIED THIRD–PARTY INSPECTOR
- Ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #7071

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN BOYD STREET.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB–BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE–VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10–10–10 (N–P205–K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

TEMPORARY SEED APPLICATION RATES

SEED	LBS / ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	2.57	8/15 TO 10/1
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15
ANNUAL RYGRASS	0.92	4/1 TO 7/1
SUDANGRASS	0.92	5/15 TO 8/15
PERENNIAL	0.92	8/15 TO 9/15
TOTAL	7.17 LBS/ACRE	

PERMANENT SEED APPLICATION RATES

SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREEPING RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS – 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
MAJOR SITE PLAN SUBMISSION	PFH 3/13/2024
ADDRESS UPDATE	PFH 7/30/2024

DRAWING NAME: EROSION & SEDIMENTATION CONTROL NOTES
PROJECT NAME: 9 BOYD STREET REDEVELOPMENT
CLIENT: COMB BLOCK PHASE ONE, LP
970 BAXTER BOULEVARD, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

THE PLANS, DESIGNS, AND DRAWINGS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF ACORN ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE REUSE OF THESE PLANS, DESIGNS, AND DRAWINGS WITHOUT THE WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

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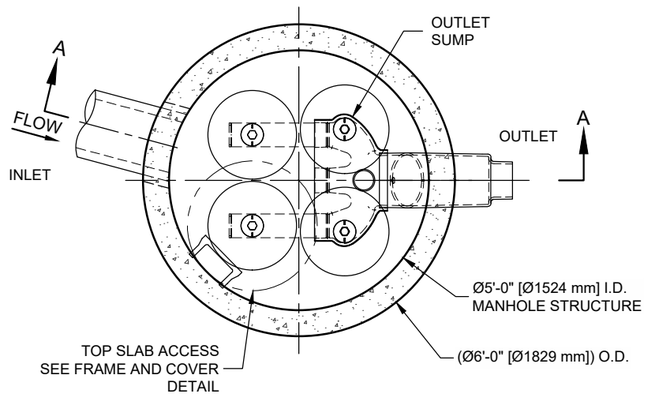
FILE:	1215_DETAILS
JN:	1215
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	MKT
CHECKED BY:	WHS

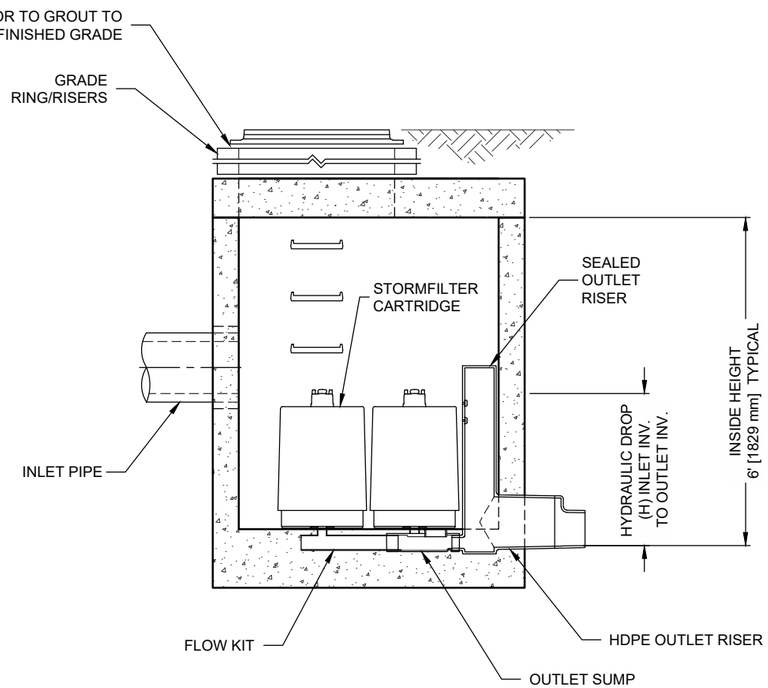
STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-47



PLAN VIEW

STANDARD OUTLET RISER
FLOWKIT: 41A



SECTION A-A

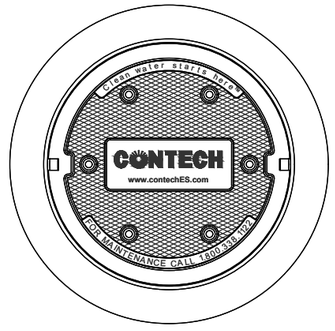
STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (4). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 4 CARTRIDGES.
Ø5'-0" [1524 mm] MANHOLE STORMFILTER WITH SEALED OUTLET RISER MAY REQUIRE AN UPSTREAM BYPASS STRUCTURE.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27" [686 mm]			18" [458 mm]			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05' [930 mm]			2.3' [700 mm]			1.8' [550 mm]		
SPECIFIC FLOW RATE (gpm/sf) [L/s/m^2]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]
CARTRIDGE FLOW RATE (gpm) [L/s]	22.5 [1.42]	18.79 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.44]	10 [0.63]	8.35 [0.54]	5 [0.32]

* 1.67 gpm/sf [1.08 L/s/m^2] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs) [L/s]	*
PEAK FLOW RATE (cfs) [L/s]	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
CARTRIDGE HEIGHT (SEE TABLE ABOVE)	*
NUMBER OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (PERLITE, ZPG, PSORB)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' [1524 mm] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES [178 mm]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) [L/s] DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft)[m^2].
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

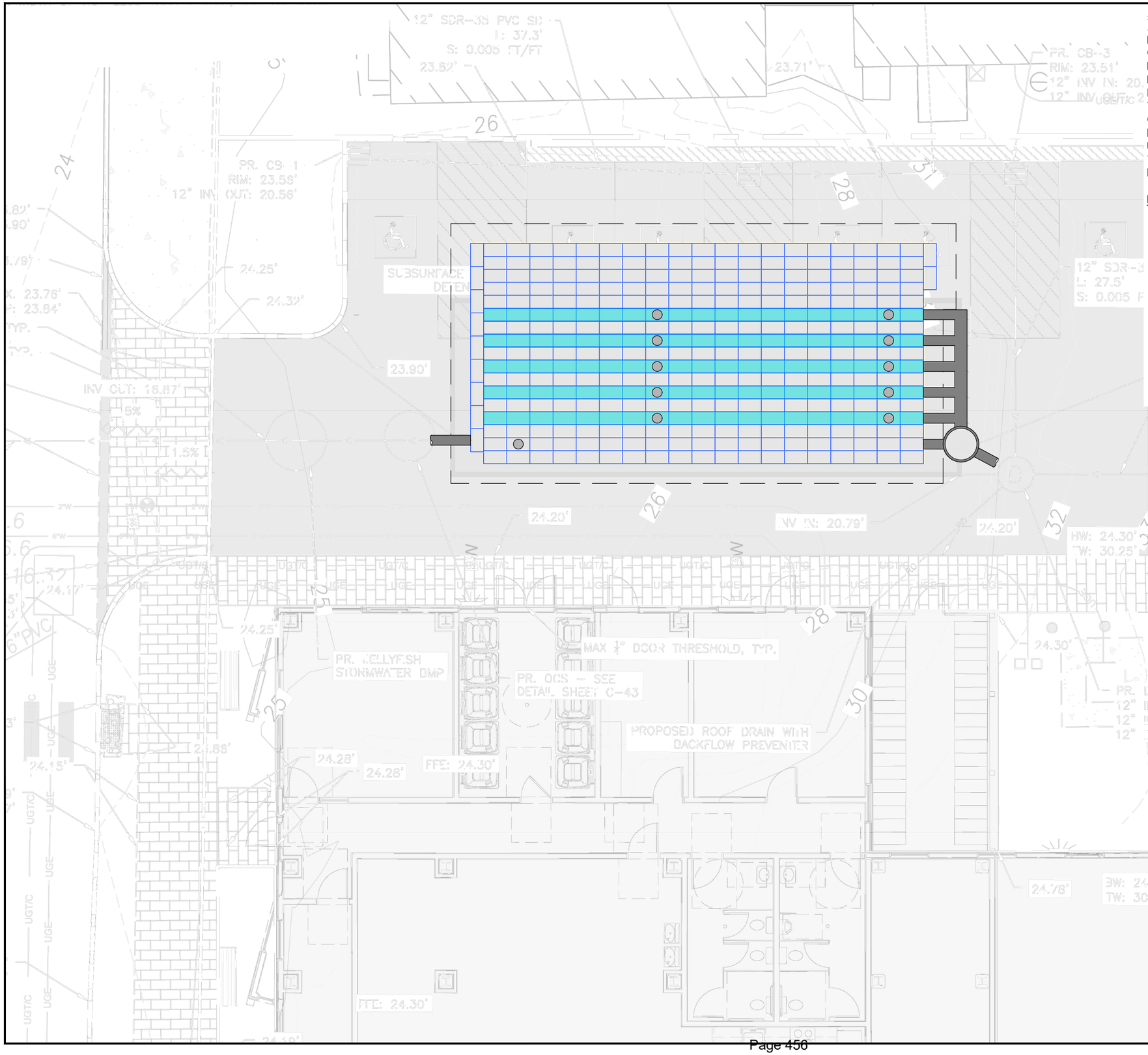
INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES [200 mm], CONTRACTOR TO REMOVE THE 8 INCH [200 mm] OUTLET STUB AT MOLDED-IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

The Stormwater Management StormFilter®

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,524,576; 5,707,527; 5,985,157; 6,027,639; 6,649,048; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

SFMH60
STORMFILTER
STANDARD DETAIL



ACKNOWLEDGEMENT:
AN APPROVAL OF THE SUBMITTAL PLANS IS REQUIRED PRIOR TO MATERIAL ORDER. AS PART OF THE SUBMITTAL APPROVAL, THE ENGINEER OF RECORD HEREBY ACKNOWLEDGES THAT THE R-TANK SYSTEM IS NOT DESIGNED TO SUPPORT LOADS FROM BUILDINGS OR STRUCTURES. THEREFORE, THE ENGINEER OF RECORD HAS COORDINATED WITH THE PROPER DISCIPLINES TO ENSURE NO STRUCTURAL LOADS ARE IMPARTED UPON THE SYSTEM AND ANY INFILTRATION FROM THE SYSTEM HAS BEEN ACCOUNTED FOR IN THE FOUNDATION DESIGN.

NOTES:

- THE CONTRACTOR SHALL PARTICIPATE IN A PRECONSTRUCTION MEETING AND SIGN THE PRECONSTRUCTION CHECKLIST PRIOR TO MATERIAL INSTALLATION.
- DOCUMENTATION SHALL BE RECORDED BY THE CONTRACTOR OR ENGINEER OF RECORD SHOWING PROPER INSTALLATION OF THE SYSTEM AND ALL CONNECTIONS, IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
- IT IS HEREBY RECOMMENDED THAT THE R-TANK SYSTEM BE INSTALLED AFTER THE FOUNDATIONS HAVE BEEN INSTALLED TO ENSURE PROPER SEPARATION DISTANCES ARE MAINTAINED.

HD R-TANK

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

FERGUSON WATERWORKS

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
FERGUSON WATERWORKS,
1-800-448-3636, www.fergusongss.com

R-TANK^{HD} SYSTEM OVERLAY
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

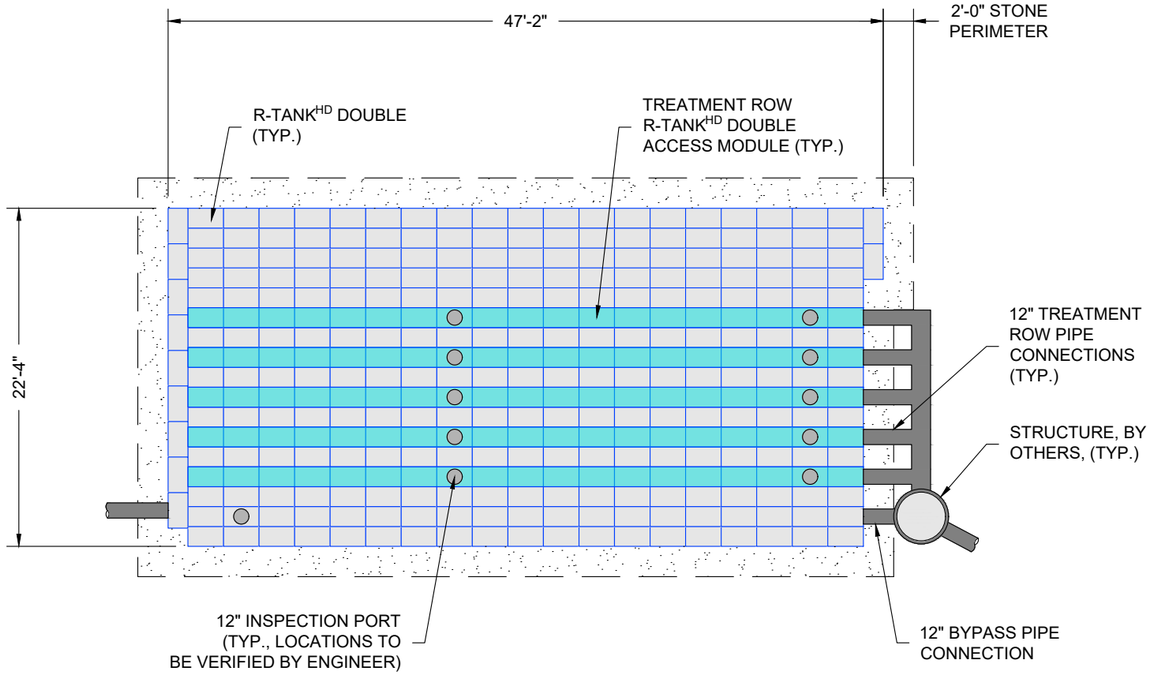
SCALE
1" = 10'

DRAWN BY
JEC

DATE
03/06/2024

SHEET NO.
1 of 7

0 10' 20'
SCALE 1" = 10'



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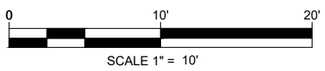
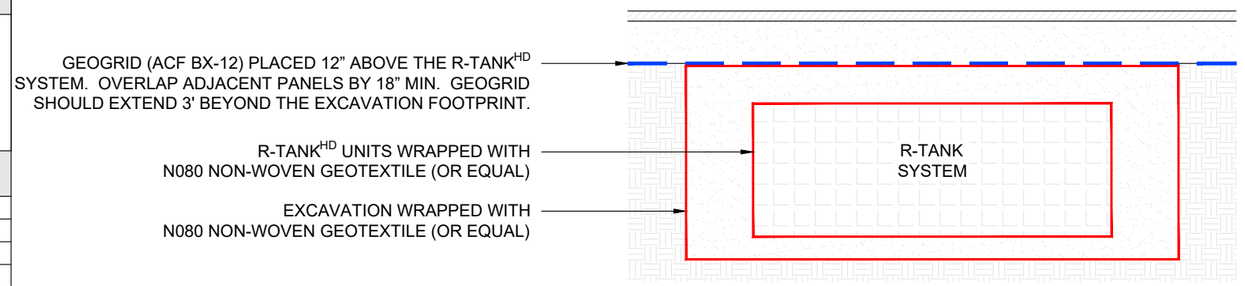
R-TANK QUANTITIES	
R-TANK^HD MODULE TYPE	DOUBLE
TRAFFIC LOAD	HS-20
# OF DOUBLE R-TANKS	239
# OF DOUBLE R-TANK ACCESS MODULES	95
TOTAL SYSTEM STORAGE	3,752 CF
R-TANK STORAGE VOLUME	2,757 CF
STONE STORAGE VOLUME (40% VOID RATIO)	996 CF
STONE BED FOOTPRINT	1,324 SF
STONE QUANTITY	92 CY
N080 NON-WOVEN GEOTEXTILE TANK WRAP	313 SY
N080 NON-WOVEN GEOTEXTILE EXCAVATION WRAP	420 SY
30 MIL. PVC LINER TREAT. ROW WRAP	203 SY
8 OZ. NON-WOVEN GEOTEXTILE TREAT. ROW WRAP FABRIC	406 SY
S300 WOVEN GEOTEXTILE TREAT. ROW BASE FABRIC	81 SY
ACF BX-12 GEOGRID	233 SY
12" INSPECTION PORTS	11
GEOTEXTILE PIPE BOOTS (12")	7
STORMRING CPS (15")	1
NOTE: STONE QUANTITY INCLUDES 12" OF COVER AND 3" OF BASE.	
NOTE: GEOTEXTILE / LINER QUANTITIES INCLUDE A 15% WASTE FACTOR.	
SEE SHEETS 3 - 7 FOR DETAILS AND ADDITIONAL INFORMATION	

GRAPHIC SCALE



R-TANK ELEVATIONS

DESCRIPTION	ELEVATION
BASE INV.	19.00
TANK INV.	19.25
TOP OF TANK	22.07
GEOGRID	23.07
MIN. ALLOW. FINAL GRADE	23.74
MAX. ALLOW. FINAL GRADE	29.06



R-TANK^HD TANK WRAP & EXCAVATION ENVELOPE DETAIL

HD R-TANK

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

FERGUSON WATERWORKS

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1-800-448-3636, www.fergusongss.com

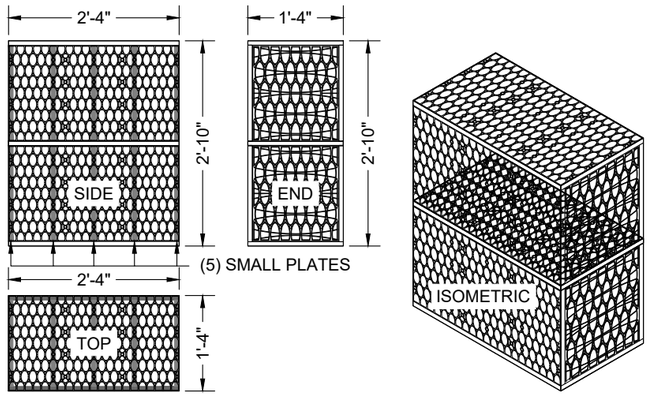
R-TANK^HD SYSTEM LAYOUT
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

SCALE
1" = 10'

DRAWN BY
JEC

DATE
03/06/2024

SHEET NO.
2 of 7



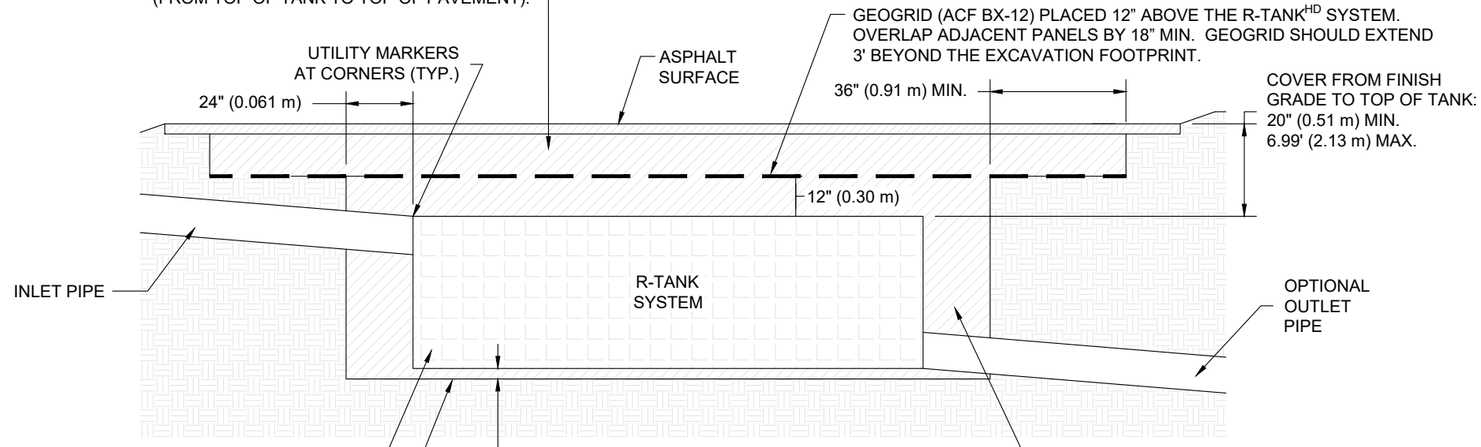
MODULE DATA

GEOMETRY:	**LOAD RATING:**
LENGTH = 28.15 IN. (715 MM)	33.4 PSI, (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS20/HS25 - SEE SPEC FOR
HEIGHT = 33.86 IN. (860 MM)	COVER REQUIREMENTS
TANK VOLUME = 8.69 CF	**MATERIAL:**
STORAGE VOLUME = 8.25 CF	100% RECYCLED POLYPROPYLENE
VOID INTERNAL VOLUME: 95%	**SMALL PLATES REQUIRED:**
VOID SURFACE AREA: 90%	5/SEGMENT, 10/MODULE

DOUBLE R-TANK^{HD} - MODULE DETAIL

TOTAL COVER: 20" MINIMUM AND 84" MAXIMUM. FIRST 12" MUST BE FREE DRAINING BACKFILL (SPEC SECTION 2.03B): STONE <1.5" OR SOIL (USCS CLASS GW, GP, SW OR SP). ADDITIONAL FILL MAY BE STRUCTURAL FILL (SPEC SECTION 2.03C): STONE OR SOIL (USCS CLASS SM, SP, SW, GM, GP OR GW) WITH MAX CLAY CONTENT<10%, MAX 25% PASSING NO. 200 SIEVE, AND MAX PLASTICITY INDEX OF 4. A MIN. 12" COVER MUST BE MAINTAINED BETWEEN BACKFILL EQUIPMENT AND THE TOP OF THE R-TANK™ SYSTEM AT ALL TIMES. TOTAL HEIGHT OF TOP BACKFILL SHOULD NOT EXCEED 7'. CONTACT FERGUSON WATERWORKS IF MORE THAN 7' OR LESS THAN 20" OF TOP BACKFILL IS REQUIRED (FROM TOP OF TANK TO TOP OF PAVEMENT).

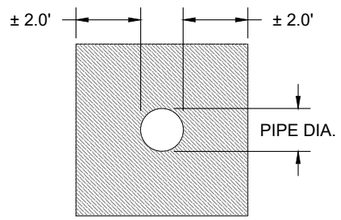
NOTES:
1. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. PRE-TREATMENT STRUCTURES NOT SHOWN.
3. FOR INFILTRATION APPLICATIONS, UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK^{HD} FOOTPRINT.
4. FOR INSTALLATIONS IN LANDSCAPED AREAS, THE INSTALLATION OF TREES IS PROHIBITED ABOVE THE R-TANK UNITS. PLEASE CONTACT YOUR LOCAL FERGUSON WATERWORKS REPRESENTATIVE FOR MORE INFORMATION.



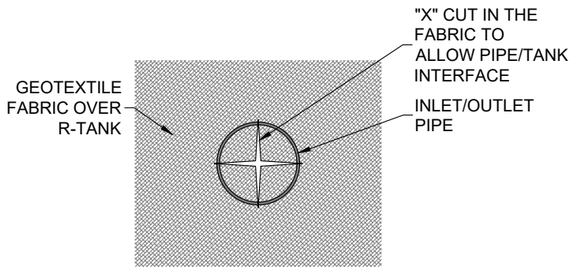
R-TANK^{HD} & HS-20 LOADS - SECTION VIEW

NOTE:
- PIPE BOOTS ARE AVAILABLE IN THE FOLLOWING STANDARD SIZES: 8" | 12" | 15" | 18" | 24".
- LARGER SPECIAL ORDER, CUSTOM SIZES ARE AVAILABLE.

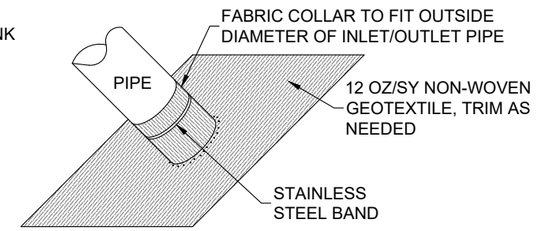
CUT AN "X" IN THE FABRIC ENVELOPE THAT IS SLIGHTLY LARGER THAN THE PIPE. PULL THE FABRIC FLAPS AROUND THE PIPE, AND SEAL WITH A STAINLESS STEEL BAND.



FRONT VIEW OF GEOTEXTILE BOOT

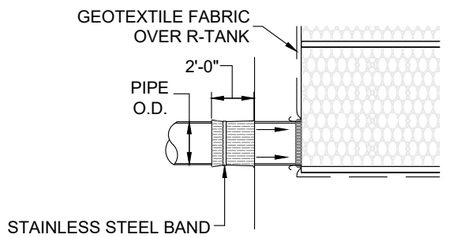


END VIEW OF PIPE/FABRIC CONNECTION

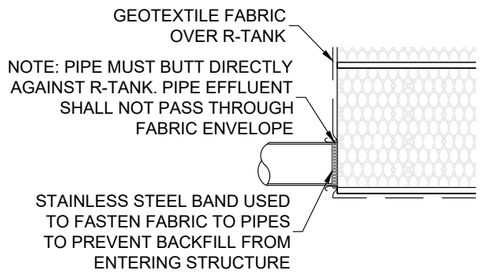


GEOTEXTILE BOOT

AFTER TANK WRAP IS SECURED TO PIPE, SLIDE BOOT AGAINST R-TANK AND SECURE WITH SECOND STAINLESS STEEL BAND, THEN ATTACH BOOT FLAP TO TANK ENVELOPE FABRIC WITH DUCT TAPE OR OTHER ADHESIVE.



SIDE VIEW OF GEOTEXTILE BOOT



SIDE VIEW OF PIPE/FABRIC CONNECTION

R-TANK TYPICAL TANK INLET/OUTLET W/ GEOTEXTILE PIPE BOOT DETAIL

HD R-TANK

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

FERGUSON WATERWORKS

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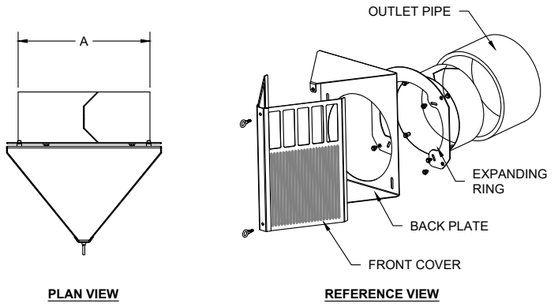
R-TANK^{HD} SYSTEM DETAILS
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

SCALE
NTS

DRAWN BY
JEC

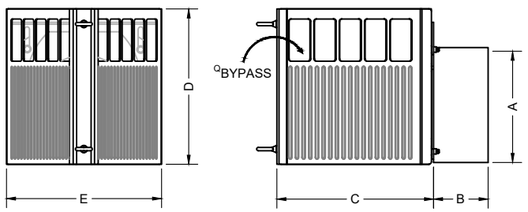
DATE
03/06/2024

SHEET NO.
3 of 7



PLAN VIEW

REFERENCE VIEW

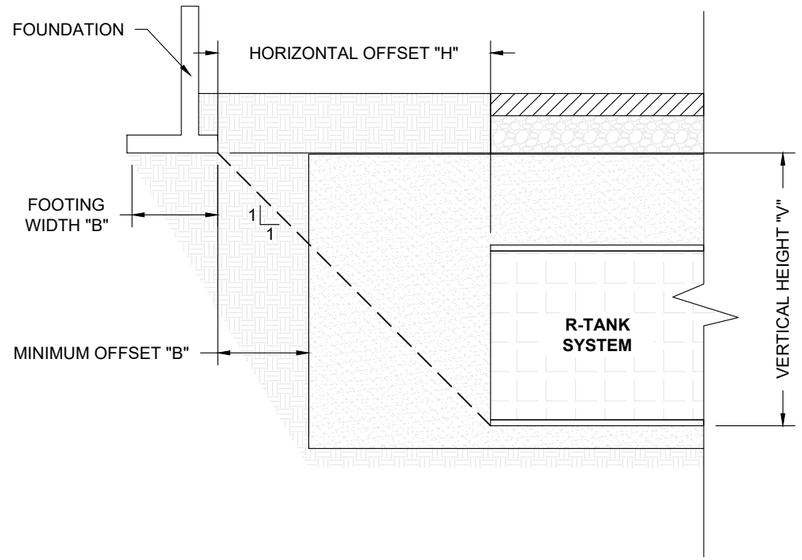


FRONT VIEW

SIDE VIEW

PART NUMBER	NOMINAL PIPE DIA.	EXPANDING COLLAR DIA. (A)		STUB LENGTH (B)	CPS DEPTH (C)	CPS HEIGHT (D)	CPS WIDTH (E)
		MIN.	MAX.				
SCA6-1	6"	5.63"	6.50"	6.00"	10.00"	10.13"	10.13"
SCA8-1	8"	7.50"	8.50"	6.00"	13.00"	11.88"	11.38"
SCA10-1	10"	9.50"	10.50"	8.00"	13.50"	13.50"	13.25"
SCA12-1	12"	11.38"	12.63"	8.00"	15.50"	15.38"	15.38"
SCA15-1	15"	14.25"	15.50"	8.00"	15.50"	21.38"	18.38"
SCA18-1	18"	17.38"	18.63"	8.00"	15.75"	28.00"	21.38"
SCA24-1	24"	23.25"	24.50"	9.00"	17.00"	40.00"	28.38"

STORMRING CPS PRETREATMENT DETAIL



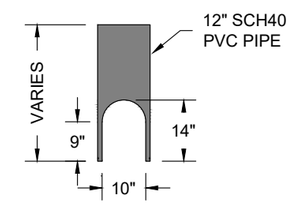
R-TANK IS NOT DESIGNED TO SUPPORT STRUCTURAL LOADS ASSOCIATED WITH BUILDINGS, RETAINING WALLS OR OTHER STRUCTURES.

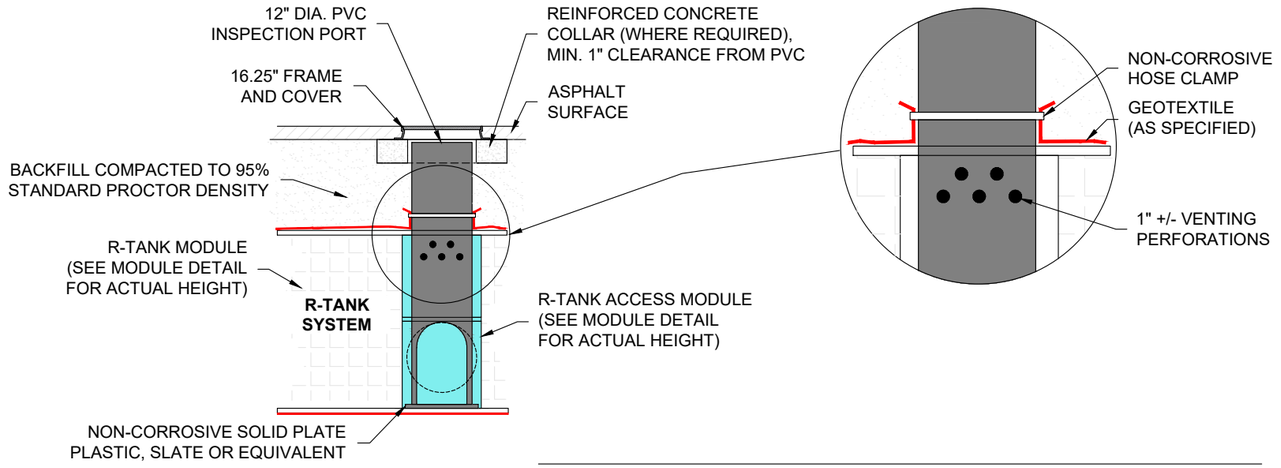
- FOUNDATIONS OF WIDTH "B" SHALL BE OFFSET A MINIMUM "B" FEET FROM THE STONE BACKFILL.
- THE CIVIL ENGINEER AND STRUCTURAL ENGINEER SHALL REVIEW ALL DOCUMENTATION AND DESIGNS TO ENSURE NO STRUCTURAL LOADS ARE APPLIED BY THE STRUCTURE ON THE R-TANK UNITS. IT IS RECOMMENDED THAT ALL R-TANK UNITS BE INSTALLED ABOVE THE ELEVATION OF ANY SUBSURFACE STRUCTURAL ELEMENTS SUCH AS FOOTERS. IF THIS CANNOT BE ACHIEVED, IT RECOMMENDED THAT A MINIMUM 1:1 ZONE OF INFLUENCE, SITE SPECIFIC SOILS MAY REQUIRE GREATER SEPARATION DISTANCE, BE MAINTAINED BETWEEN THE STRUCTURAL ELEMENT AND THE UNITS.
- THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER SHALL REVIEW ALL DOCUMENTATION AND DESIGNS TO ENSURE PROPER STABILITY OF STRUCTURAL ELEMENTS DURING SATURATED SOIL CONDITIONS POTENTIALLY CAUSED BY THE PROXIMITY OF INFILTRATION FACILITIES TO THE STRUCTURAL ELEMENTS.

R-TANK - MINIMUM OFFSET DETAIL

NOTES

1. THE INSPECTION PORT IS USED IN THE ACCESS MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
3. R-TANK^{HD}, R-TANK^{SD}, R-TANK^{UD} AND R-TANK^{XD} MAY BE USED IN TRAFFIC APPLICATIONS.
4. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.
5. IF INSPECTION PORT IS LOCATED IN A NON-TRAFFIC AREA, A PLASTIC CAP CAN BE USED IN LIEU OF A FRAME AND COVER WITH CONCRETE COLLAR.





R-TANK TYPICAL VEHICULAR LOAD RATED INSPECTION PORT

R-TANK^{HD} SYSTEM DETAILS
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

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4 of 7

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

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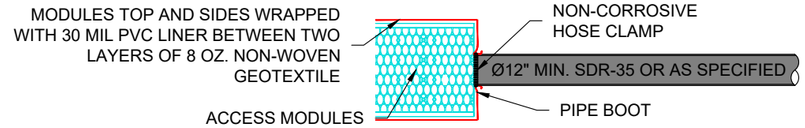
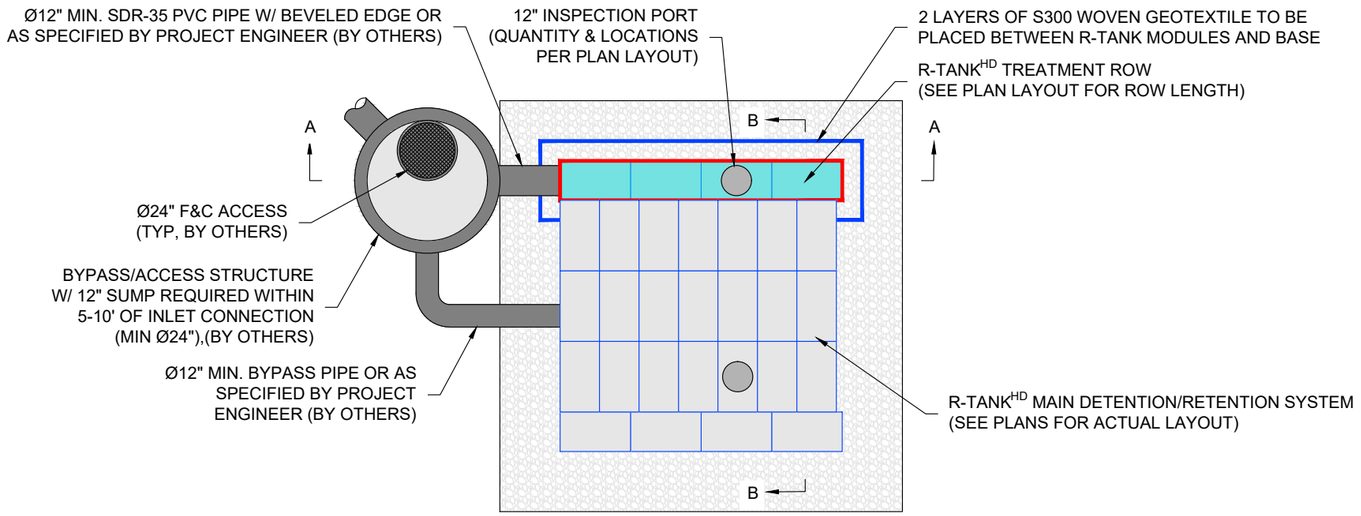
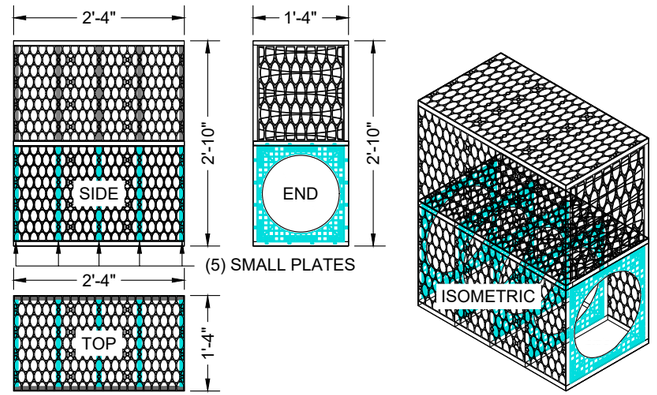


TYPICAL PIPE CONNECTION DETAIL

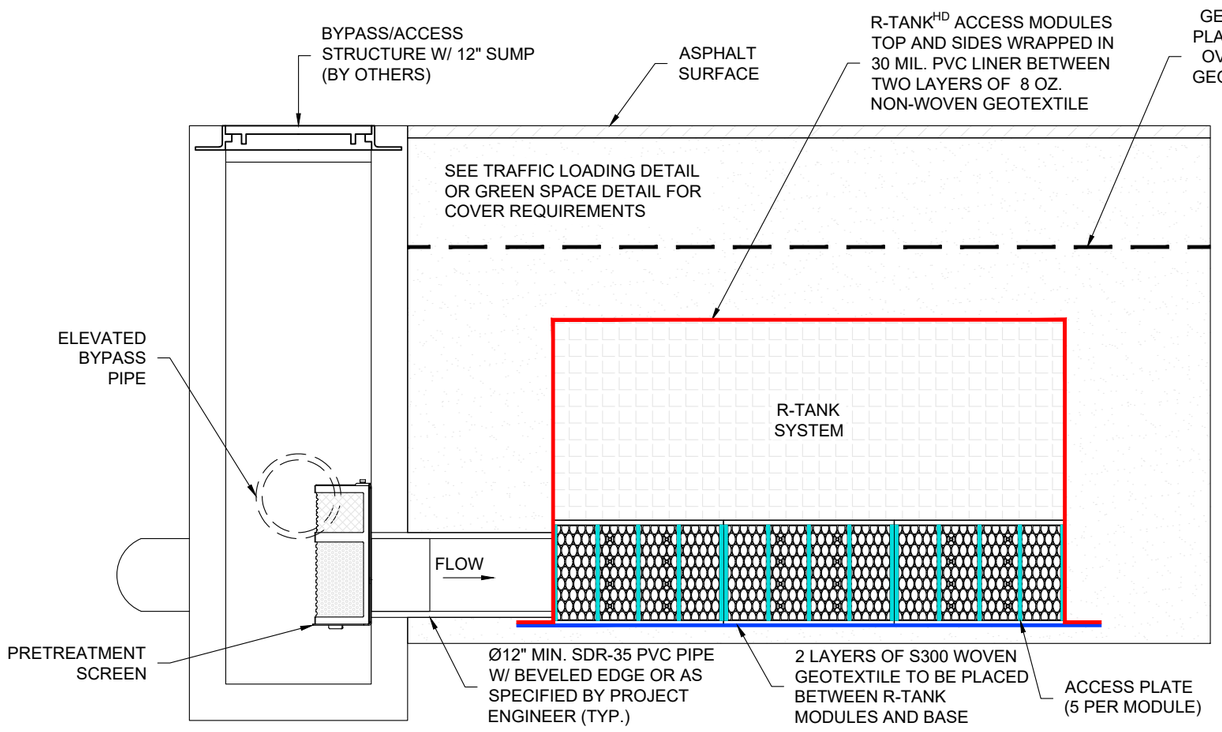
NOTE:
IF PIPE CONNECTING TO TREATMENT ROW IS LARGER THAN Ø12" SDR-35, IT SHALL BE ABUTTED FLUSH TO END PLATE AND SEALED WITH A PIPE BOOT.



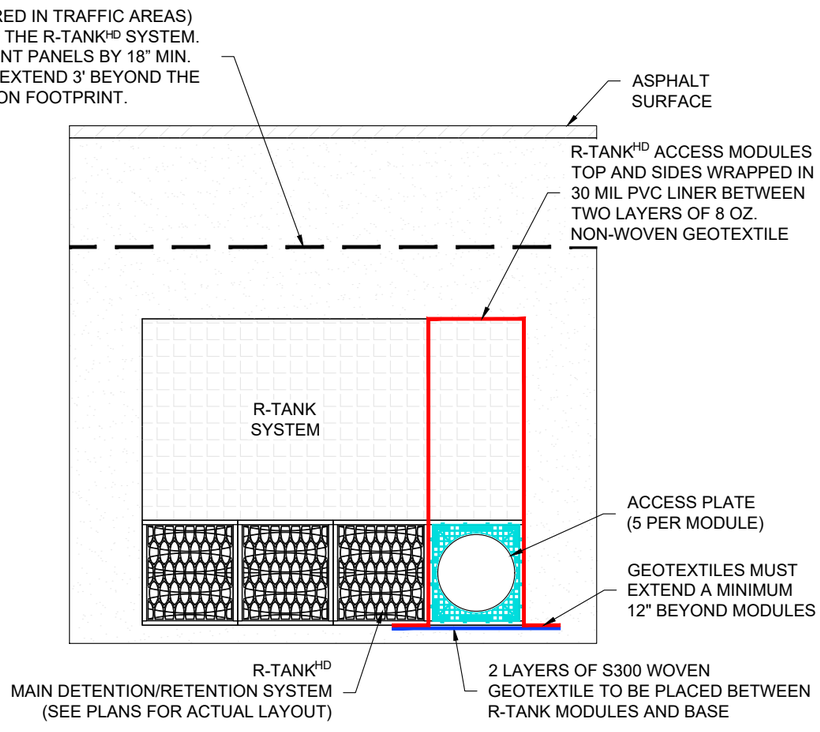
R-TANK^{HD} TREATMENT ROW WITH PRECAST INLET/ACCESS STRUCTURE



DOUBLE R-TANK^{HD} - ACCESS MODULE DETAIL
(FOR MODULE DATA, SEE STANDARD MODULE DETAIL)



R-TANK^{HD} TREATMENT ROW SECTION A-A



R-TANK^{HD} TREATMENT ROW SECTION B-B

HD R-TANK

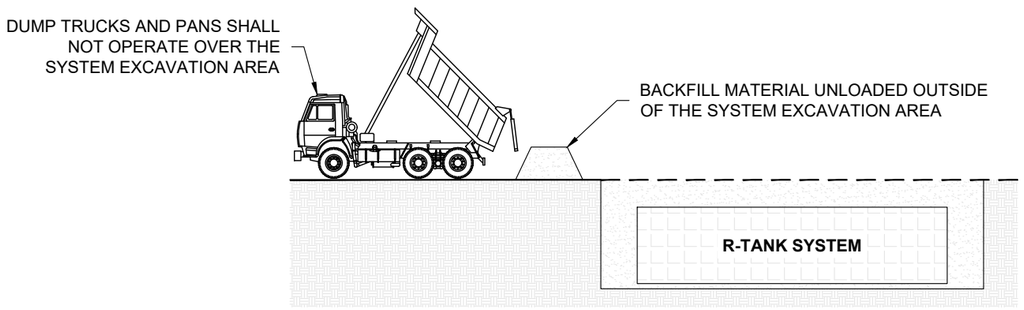
ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FERGUSON WATERWORKS

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
FERGUSON WATERWORKS,
1-800-448-3636, www.fergusongss.com

R-TANK^{HD} TREATMENT ROW DETAILS
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

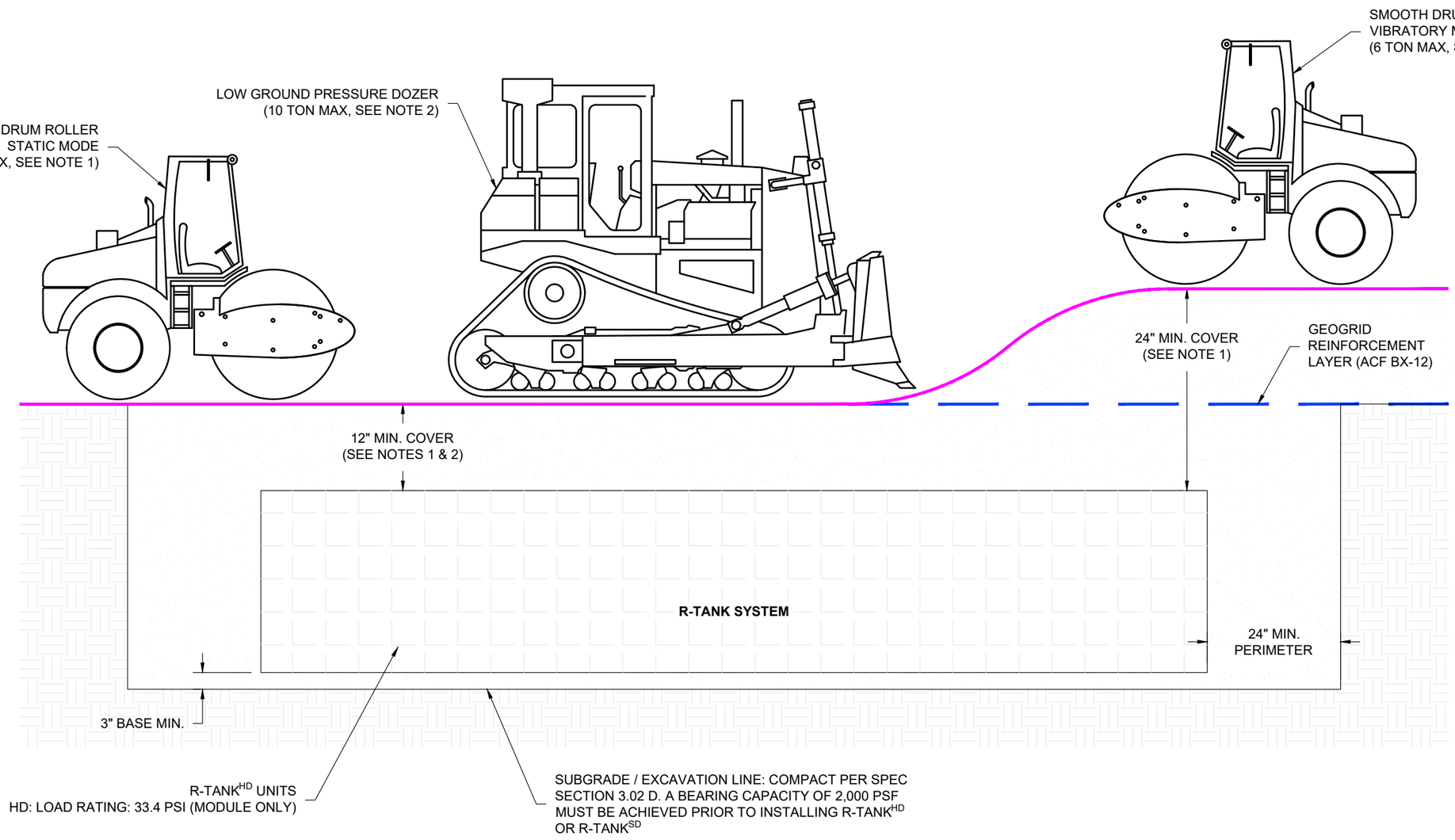
SCALE	NTS
DRAWN BY	JEC
DATE	03/06/2024
SHEET NO.	5 of 7



DUMP TRUCK DETAIL (SEE NOTE 3)

NOTES:

1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B1) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A5**
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 A5**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 A5**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 B**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL FERGUSON REPRESENTATIVE FOR ADDITIONAL INFORMATION.



CONSTRUCTION EQUIPMENT COVER DETAIL - VEHICULAR TRAFFIC

R-TANK HD

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

FERGUSON WATERWORKS

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
FERGUSON WATERWORKS,
1-800-448-3636, www.fergusongss.com

R-TANK^HD CONSTRUCTION EQUIPMENT COVER DETAIL
70 EAST OXFORD STREET REDEVELOPMENT
PORTLAND, ME

SCALE	NTS
DRAWN BY	JEC
DATE	03/06/2024
SHEET NO.	6 of 7

R-TANK SPECIFICATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings, technical specification and general provisions of the Contract as modified herein apply to this section.

1.02 DESCRIPTION OF WORK INCLUDED

A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.

B. Provide and install R-TankLD/, R-TankHD/, R-TankSD/, or R-TankU/D/ system (hereafter called R-Tank) and all related products including fill materials, geotextiles, geogrids, inlet and outlet pipe with connections per the manufacturer's installation guidelines provided in this section.

C. Provide and construct the cover of the R-Tank system including; stone backfill, structural fill cover, and pavement section as specified.

D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.03 QUALITY CONTROL

A. All materials shall be manufactured in ISO certified facilities.

B. Installation Contractor shall demonstrate the following experience:

1. A minimum of three R-Tank or equivalent projects completed within 2 years; and,
2. A minimum of 25,000 cubic feet of storage volume completed within 2 years.
3. Contractor experience requirement may be waived if the manufacturer's representative provides on-site training and review during construction.

C. Installation Personnel: Performed only by skilled workers with satisfactory record of performance on bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.

D. Contractor must have manufacturer's representative available for site review if requested by Owner.

1.04 SUBMITTALS

A. Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.

B. Submit manufacturer's product data, including compressive strength and unit weight.

C. Submit manufacturer's installation instructions.

D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.

E. Submit material certificates for geotextile, geogrid, base course and backfill materials.

F. Submit required experience and personnel requirements as specified in Section 1.03.

G. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect R-Tank and other materials from damage during delivery, and store UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.

B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.

C. Cold weather:

1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
2. Do not use frozen materials or materials mixed or coated with ice or frost.
3. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.06 PREINSTALLATION CONFERENCE.

A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.07 PROJECT CONDITIONS

A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard AASHTO HS20 (or HS25, depending on design criteria) load be allowed on the system at any time.

B. Protect adjacent work from damage during R-Tank system installation.

C. All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system. Additional pretreatment measures may be needed if unit is operational during construction due to increased sediment loads.

D. Contractor is responsible for any damage to the system during construction.

PART 2 - PRODUCTS

2.01 R-TANK UNITS

A. R-Tank - Injection molded plastic tank plates assembled to form a 95% void modular structure of predesigned height (custom for each project).

B. R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank^{LD} VALUE	R-Tank^{HD} VALUE	R-Tank^{SD} VALUE	R-Tank^{UD} VALUE
Void Area	Volume available for water storage	95%	95%	95%	95%
Surface Void Area	Percentage of exterior available for infiltration	90%	90%	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2418	30.0 psi	33.4 psi	42.9 psi	134.2 psi
Lateral Compressive Strength	ASTM D 2412 / ASTM F 2418	20.0 psi	22.4 psi	28.9 psi	N/A
HS-20 Minimum Cover	Cover required to support HS-20 loads	N/A	20"	18"	12" (STONE BACKFILL)
HS-25 Minimum Cover	Cover required to support HS-25 loads	N/A	24"	19"	15" (STONE BACKFILL)
Maximum Cover	Maximum allowable cover depth	3 feet	< 7 feet	< 10 feet	5 feet
Unit Weight	Weight of plastic per cubic foot of tank	3.29 lbs / cf	3.62 lbs/cf	3.96 lbs / cf	4.33 lbs / cf
Rib Thickness	Thickness of load-bearing members	0.18 inches	0.18 inches	0.18 inches	N/A
Service Temperature	Safe temperature range for use	-14 – 167° F	-14 – 167° F	-14 – 167° F	-14 – 167° F

C. Supplier: Ferguson Waterworks 2831 Cardwell Road Richmond, VA 23234 (T): 800-448-3636; (F): 804-743-7779 www.ferguson.com

2.02 GEOSYNTHETICS

A. Geotextile. A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.

1. Standard Application: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile (ACF N080 or equivalent).
2. Infiltration Applications: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament (ACF M200 or equivalent) shall be used.

B. Geogrid. For installations subject to traffic loads and/or when required by project plans, install geogrid (ACF BX12 or equivalent) to reinforce backfill above the R-Tank system. Geogrid is not always required for R-TankUD/ installations, and is often not required for non-traffic load applications.

2.03 BACKFILL & COVER MATERIALS

A. Bedding Materials: Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum). Material must be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation. For infiltration applications bedding material shall be free draining.

B. Side and Top Backfill: Material must be free from lumps, debris and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

1. Traffic Applications - Free draining material shall be used adjacent to (24" minimum) and above (for the first 12") the R-Tank system.

a. For HD, and SD modules, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System).

b. For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.

2. Non-Traffic / Green Space Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.

C. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall have a maximum of 25 percent passing the No. 200 sieve, shall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

2.04 OTHER MATERIALS

A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 - EXECUTION

3.01 ASSEMBLY OF R-TANK UNITS

A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION

A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.

B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.

C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.

D. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.

1. Standard Applications: Compact subgrade to a minimum of 95% of Standard Proctor (ASTM D698) density or as required by the Owner's engineer.
2. Infiltration Applications: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.

E. Unsuitable Soils or Conditions: All questions about the base of the excavation shall be directed to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.

1. If unsuitable soils are encountered at the subgrade, or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
2. If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
3. Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

3.03 PREPARATION OF BASE

A. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within ½" (+/- ¼") or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and are accepted by the owner's engineer.

1. Standard Applications: Static roll or otherwise compact bedding materials until they are firm and unyielding.
2. Infiltration Applications: Bedding materials shall be prepared in accordance with the contract documents.

B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper installation and compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS

A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.

B. Where an impervious liner (for containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from impervious liner by a non-woven geotextile fabric installed accordance with Section 3.04A.

C. Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The modules are to be oriented as per the design drawing with required depth as shown on plans.

1. For LD, HD, and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank area will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details
2. For UD installations, there is no perpendicular end row required.

D. Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.

E. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile, impervious liner (if specified) or pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.

F. Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install all ports as noted in the R-Tank Installation Guide.

G. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 90 degree elbow with PVC pipe into a landscaped area with 'U" bend or venting bollard to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

3.05 BACKFILLING OF THE R-TANK UNITS

A. Backfill and fill with recommended materials as follows:

1. Place freely draining backfill materials (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
4. No compaction equipment is permissible to operate directly on the R-Tank modules.
5. Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an operating weight of less than 10 tons.
   a. Typical Applications: Install a 12" (or as shown on plans) lift of freely draining material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.
   b. Shallow Applications (< 18" total cover): Install top backfill in accordance with plans.
6. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall.
7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geosynthetic reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.

B. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).

C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.

D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

3.06 MAINTENANCE REQUIREMENTS

A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected yearly, or as directed by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).

B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.

C. If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.

D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.

HD TANK
ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

FERGUSON WATERWORKS
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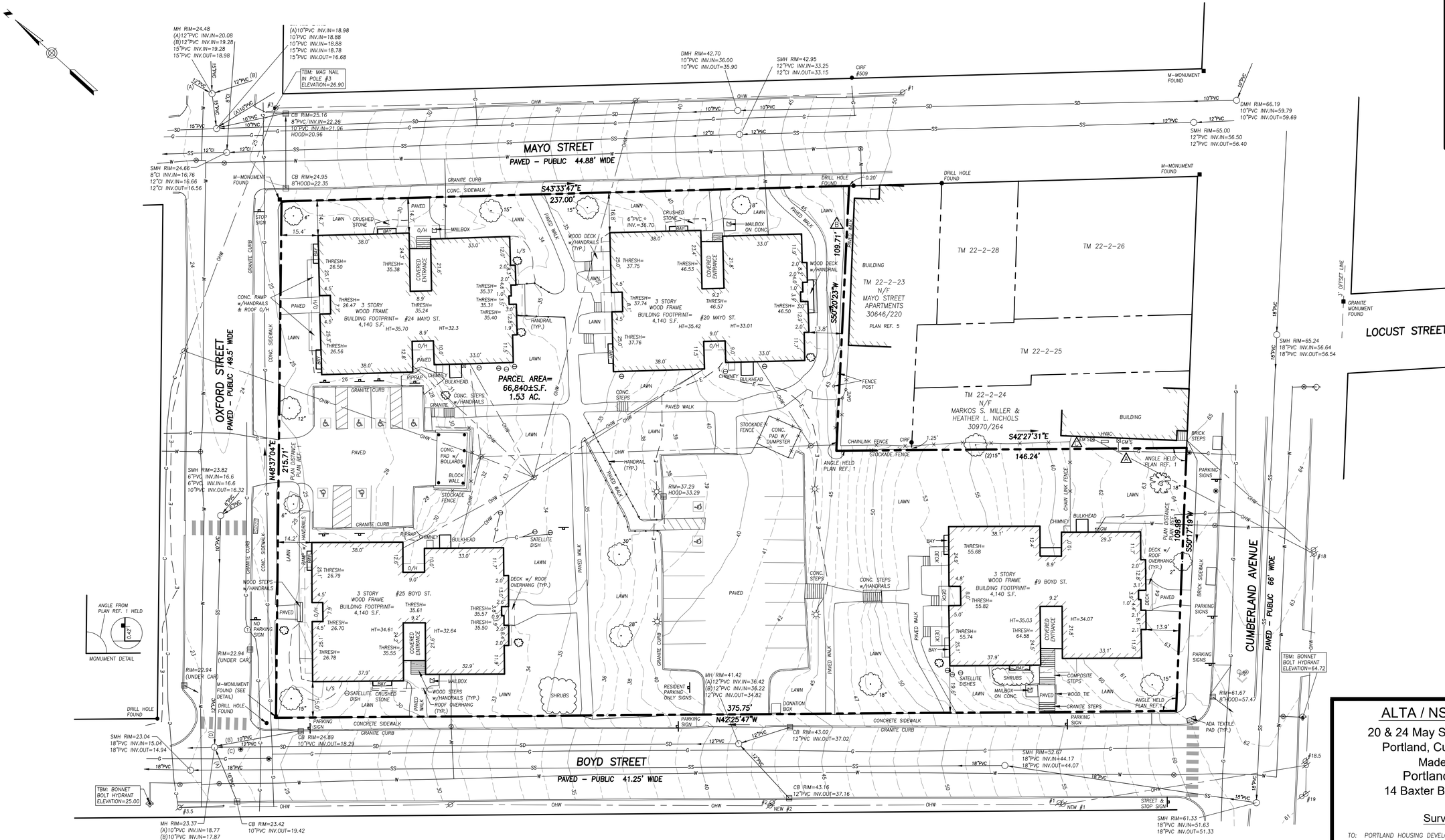
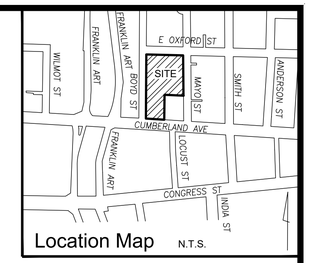




Legend

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- EM/GM ELECTRIC/GAS METER
- MAILBOX
- SIGN
- SATELLITE DISH
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE
- LIGHT POLE
- BUSH / SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE
- CURB
- FENCE
- OHW — OVERHEAD WIRES
- E — UNDERGROUND POWER
- W — WATER LINE
- G — GAS LINE
- C — TELEPHONE/COMMUNICATION
- SD — STORM DRAIN
- SS — SANITARY SEWER
- 40 — 1' CONTOUR
- N/F — NOW OR FORMERLY
- 000/000 — DEED BOOK / PAGE
- L/S — LANDSCAPED AREA
- CONC. — CONCRETE
- HT= — HEIGHT
- THRES — THRESHOLD
- A — POSSIBLE ENCROACHMENT
- 1 — SCHEDULE B EXCEPTION

Zoning Information

NONE PROVIDED

Possible Encroachments

- A — GAS LINE/ OVERHEAD UTILITIES TO ABUTTER
- B — PAVED WALK ONTO LOCUS
- C — FENCE ONTO ABUTTER

SCALE : 1" = 20'

0' 10' 20' 40'

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS IN ZONE C (AREAS OF MINIMAL FLOODING) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0013B, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 1986 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

Utility Note

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

Plan References

1. "PLAN OF PROPERTY, TOPOGRAPHIC & UTILITIES PORTLAND HOUSING AUTHORITY PORTLAND, CUMBERLAND, MAINE H.I. & E.C. JORDAN SURVEYORS AUGUST 1969 H.A.A. PROJECT ME 3-5 PLAN NO. 42"

2. "RECORDING PLAT ON OXFORD STREET & BOYD STREET, PORTLAND, MAINE MAD FOR BAYSIDE ANCHOR APARTMENTS, LP" DATED OCTOBER 8, 2015 BY OWEN HASKELL, INC.

3. "BOUNDARY & TOPOGRAPHIC SURVEY AT BOYD STREET, PORTLAND MAINE MADE FOR MITCHELL & ASSOCIATES" DATED DECEMBER 10, 2014 BY OWEN HASKELL, INC.

4. CITY OF PORTLAND ENGINEERING PLANS FOR BOYD, OXFORD AND MAYO STREET.

5. "BOUNDARY SURVEY OF LAND AT 8-10 MAYO STREET, PORTLAND, MAINE AND 12 MAYO STREET, PORTLAND, MAINE" DATED 03-03-20 BY LIVINGSTON-HUGHES.

General Notes

1. OWNER OF RECORD: PORTLAND HOUSING AUTHORITY
   14 BAXTER BOULEVARD, PORTLAND, MAINE
   CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 3129 PAGE 374
   TAX MAP 22 BLOCK H LOT 1

2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM MAINE WEST NAD83 CITY CONTROL POINTS T102-78-101 AND L751-8-3007 HELD.

3. BENCHMARK: MONUMENT T102-77-1 AT NORTHWEST CORNER OF ANDERSON STREET AND EAST LANCASTER STREET, ELEVATION 19.57 CITY DATUM.

4. THERE ARE 17 REGULAR SPACES AND 8 HANDICAP SPACES, FOR A TOTAL OF 25 PARKING SPACES.

5. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.

6. NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.

ALTA / NSPS Land Title Survey

20 & 24 May Street and 9 & 25 Boyd Streets
Portland, Cumberland County, Maine
Made For Record Owner
Portland Housing Authority
14 Baxter Boulevard, Portland, Maine

Surveyor's Certification

TO: PORTLAND HOUSING DEVELOPMENT CORPORATION

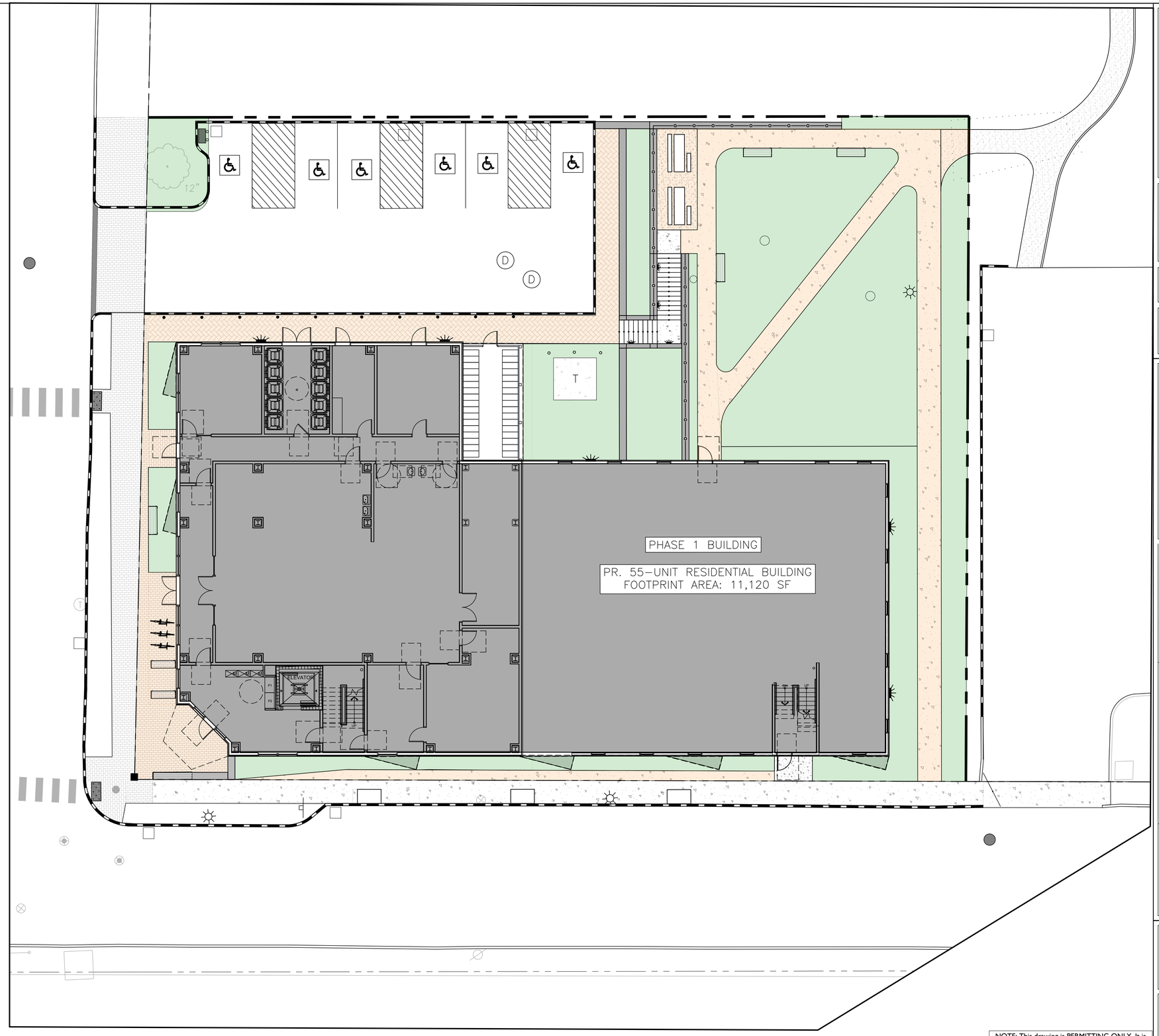
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6(A), 7(A), 7(B)(1), 7(C), 8, 9, 11A, 11B, 13, 16 AND 17 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON DECEMBER 19, 2023.

ELLEN C. BREWER
PROFESSIONAL LAND SURVEYOR NO. 2367

DATE OF PLAT OR MAP: DECEMBER 22, 2023
DATE OF LAST REVISION: JANUARY 23, 2024

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: RRL / JLW	FIELD BOOK: FILE	JOB NO.	2023-306 P
CHECKED BY: RRL	SCALE: 1" = 20'	DRWG. NO.	1



OPEN SPACE SUMMARY– LOT SIZE 24,403 SF		
	R–7 OVERLAY	COLOR
LANDSCAPED OPEN SPACE	19.4%	
HARDSCAPED OPEN SPACE	13.5%	
TOTAL OPEN SPACE	32.9%	

NOTE: This drawing is PERMITTING ONLY. It is NOT intended for use as a construction document.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
PERMITTING

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Title: OPEN SPACE EXHIBIT

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response
05.22.2024 Workshop Comment Response
06.17.2024 Update Unit Count

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
EX-A

Scale: 1" = 10'-0"
0 5 10 20

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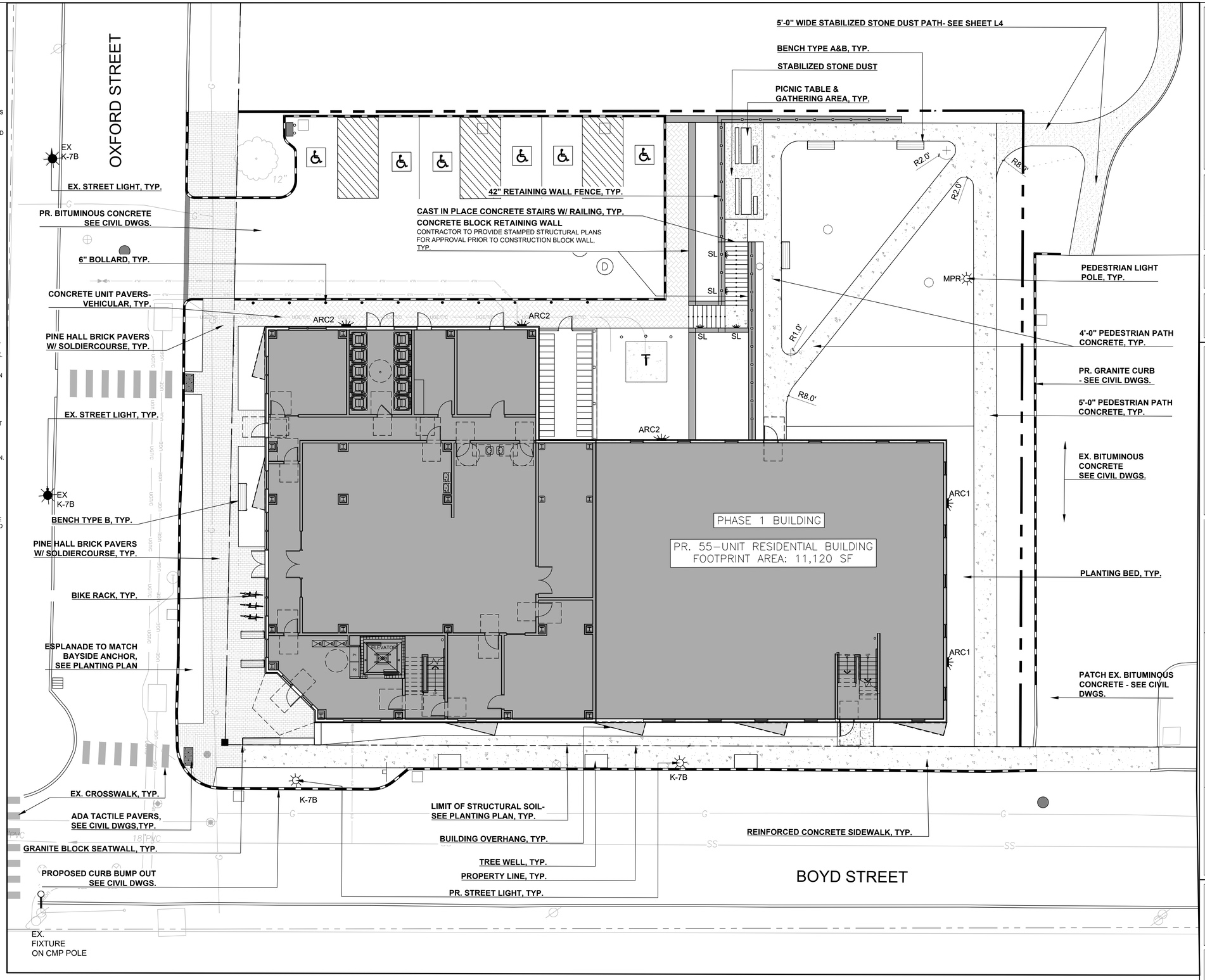
GENERAL NOTES

1. THE PLANTING DESIGN IS BASED ON CIVIL ENGINEERING DRAWINGS PRODUCED BY ACORN ENGINEERING. EXISTING BUILDINGS, GRADING, EASEMENTS AND UTILITIES ARE BASED ON SURVEY INFORMATION PROVIDED BY THE OWNER.
2. VERIFY ALL CONDITIONS AT PROJECT SITE AND NOTIFY LANDSCAPE ARCHITECT OF DIMENSIONAL ERRORS, OMISSIONS OR DISCREPANCIES BEFORE BEGINNING WORK.
3. THE LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE UTILITIES OR STRUCTURES NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING OVER OR NEAR EXISTING GAS MAINS AND ELECTRICAL LINES. CONTRACTOR IS TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, ABOVE AND BELOW GRADE, PRIOR TO EXCAVATION OR TRENCHING. CALL DIG SAFE AT 1-(800) 452-4699. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS. DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
4. ARCHITECTURAL ELEMENTS ARE SHOWN ON LANDSCAPE PLANS FOR REFERENCE ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL ARCHITECTURAL INFORMATION. NOTIFY OWNER OR OWNER'S REPRESENTATIVE & LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
5. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR FOR SAFETY PRECAUTIONS OR PROBLEMS UTILIZED IN CONNECTION WITH THE WORK, AND HE WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

LAYOUT NOTES

1. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OF OR INSTALLATION OF ANY PART OF THIS WORK. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. CONTRACTOR SHALL NOTIFY DIG SAFE (1-888-344-7233) PRIOR TO EXCAVATION.
5. CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS AND SHALL PRESERVE EXISTING VEGETATION.
6. CONTRACTOR SHALL LOAM AND SEED ALL GRADED AND DISTURBED AREAS NOT OTHERWISE IMPROVED.
7. ALL WORK ASSOCIATED WITH THE PROPOSED WATER SERVICE MUST ADHERE TO CITY OF PORTALND WATER DISTRICT STANDARDS. ALL WORK ASSOCIATED WITH THE PROPOSED SANITARY SEWER LINE MUST ADHERE TO THE CITY OF PORTLAND DEPARTMENT OF WASTEWATER CONTROL STANDARDS.
8. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR UNDERTAKING THE WORK IN A SAFE AND EFFICIENT MANNER, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. ALL WORK AREAS SHALL BE DELINEATED CLEARLY AND FENCED AS APPROPRIATE TO PREVENT UNAUTHORIZED ACCESS. THE SITE SHALL BE LEFT IN A SAFE, ORDERLY AND TIDY MANNER AT THE END OF EACH WORK DAY.
9. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND PERFORM ALL WORK NECESSARY TO REGULATE TRAFFIC IN THE AREA OF THE SITE, AND SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO AND FROM PUBLIC AND PRIVATE PROPERTIES AND RIGHTS OF WAY DURING CONSTRUCTION.
10. PROVIDE EXPANSION JOINTS
11. REQUEST INSPECTION OF FIELD STAKING BY LANDSCAPE ARCHITECT A MINIMUM OF 24 HOURS IN ADVANCE OF PERFORMING ANY WORK UNLESS INDICATED OTHERWISE.



NOTE: This drawing is PERMITTING ONLY. It is NOT intended for use as a construction document.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
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31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
PERMITTING

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Title:
MATERIAL PLAN

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response
05.22.2024 Workshop Comment Response
06.17.2024 Update Unit Count

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L1

Scale: 1" = 10'-0"
0 5 10 20

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PLANTING NOTES

1. LANDSCAPE ARCHITECT TO APPROVE PLANT MATERIAL PRIOR TO DELIVERY TO SITE.
2. PLANT MATERIAL PROVIDED BY THE CONTRACTOR IS TO CONFORM TO THE HIGHEST STANDARD AS ADOPTED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. (ANSI). PLANT MATERIAL IS TO BE HEALTHY SPECIMENS, FREE FROM DISEASE OR DAMAGE.
3. THE CONTRACTOR IS TO FURNISH PLANTS AND SOD SHOWN ON THE DRAWINGS. PLANTS ARE TO CONFORM WITH THE BOTANICAL IDENTIFICATIONS. PLANTS ARE TO BE SOURCED FROM A NURSERY WITHIN THE SAME CLIMATIC ZONE AS THE SITE LOCATION. NO SUBSTITUTIONS OF PLANT SPECIES ARE PERMITTED WITHOUT PRIOR APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE & THE LANDSCAPE ARCHITECT.
4. SUBSTITUTIONS OF PLANT SPECIES SHALL BE A PLANT OF EQUIVALENT OVERALL FORM, HEIGHT AND BRANCHING HABIT, FLOWER, LEAF, FRUIT, COLOR, TIME OF BLOOM & CLIMATIC LOCATION AS APPROVED BY LANDSCAPE ARCHITECT.
5. LOCATE AND VERIFY EXISTING & PROPOSED UTILITY LINE LOCATIONS PRIOR TO STAKING AND REPORT CONFLICTS TO LANDSCAPE ARCHITECT.
6. PLANTING DEMOLITION DEBRIS, GARBAGE, LUMPS OF CONCRETE, STEEL AND OTHER MATERIALS DELETERIOUS TO PLANT'S HEALTH AS DETERMINED BY LANDSCAPE ARCHITECT SHALL BE REMOVED FROM PLANTING AREAS.
7. THE CONTRACTOR IS TO VERIFY SITE LAYOUT & GRADES & INFORM THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR CHANGES IN LAYOUT AND/OR GRADING PRIOR TO CONSTRUCTION. NO PLANTING IS TO BE INSTALLED BEFORE ACCEPTANCE OF ROUGH GRADING.
8. ALL PROPOSED TREE LOCATIONS SHALL BE STAKED OR LAID OUT IN THEIR APPROXIMATE LOCATION BY THE CONTRACTOR. THE CONTRACTOR SHALL ADJUST THE LOCATIONS AS REQUESTED BY THE LANDSCAPE ARCHITECT TO ACCOUNT FOR SUBSURFACE UTILITIES AND OTHER FIELD CONDITIONS. FINAL LOCATIONS OF PLANTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
9. INSTALL PLANTS WITH ROOT FLARES FLUSH WITH FINISHED GRADE. IMMEDIATELY REPLANT PLANTS THAT SETTLE OUT OF PLUMB OR BELOW FINISHED GRADE. PLANT AND STAKES ARE TO BE SET PLUMB UNLESS OTHERWISE NOTED. PLANT UNDER FULL TIME SUPERVISION OF CERTIFIED ARBORIST, NURSERYMAN, OR LICENSED LANDSCAPE ARCHITECT. PROVIDE WRITTEN VERIFICATION OF CERTIFICATION AND/OR LICENSE FOR LANDSCAPE ARCHITECT'S APPROVAL.
10. WATER PLANTS THOROUGHLY AFTER INSTALLATION, A MINIMUM OF TWICE WITHIN THE FIRST 24 HOURS.
11. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN PLANT MATERIALS INCLUDING SOD/SEED AREAS IN A HEALTHY STATE DURING CONSTRUCTION AND DURING REQUIRED WARRANTY PERIODS. ANY DAMAGE TO PLANT MATERIAL DUE TO NEGLECT BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
12. REPAIR DAMAGE DUE TO LANDSCAPE INSTALLATION OPERATIONS INSIDE AND OUTSIDE OF LIMIT OF WORK.
13. SOAK ALL PERENNIALS FOR 24 HOURS PRIOR TO INSTALLATION.
14. A LIST OF PLANTS INCLUDING BOTANICAL NAMES, SIZES, AND SPACING ARE SHOWN ON THE DRAWINGS. QUANTITIES ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE AND ARE TO BE VERIFIED. IN THE EVENT THAT QUANTITIES OR OMISSIONS OCCUR THE PLAN DRAWINGS ARE TO BE FOLLOWED.
15. IRRIGATION: A TEMPORARY UNDERGROUND DRIP AND SPRINKLER IRRIGATION SYSTEM IS TO BE PROVIDED FOR ALL PLANT MATERIAL AND SOD OR SEEDED AREAS.
16. DISTURBED SITE AREAS ARE TO BE DRESSED WITH 6" MIN. OF AMENDED TOPSOIL FOR LAWNS AND 12" MIN. FOR PLANT BEDS. TOPSOIL FOR SEEDED AND/OR SEEDED AREAS IS TO BE TWO PARTS SHARP SAND, ONE PART LOAM AND ONE PART ORGANIC COMPOST.
17. PLANT BEDS ARE TO BE MULCHED TO A DEPTH OF 2" MIN. WITH NATURAL BARK MULCH WITH BARK SIZES NO LARGER THAN 3". PERENNIAL PLANT BEDS ARE TO BE MULCHED WITH BARK SIZES NO MORE THAN 1". TREES IN LAWN AREAS ARE TO HAVE MULCH RINGS OF 5' DIA.
18. TREES ADJACENT TO PEDESTRIAN ROUTES AND WITHIN PARKING ISLANDS ARE TO BE LIMBED TO 6' ABOVE GRADE.
19. IRRIGATION DESIGN BY OTHERS

SITE LANDSCAPING & BUFFERS

PARKING & SCREENING:

THE SITE HAS 6 PROPOSED PARKING SPACES WHICH REQUIRE THE PLANTING OF TWO TREES (OR ONE TREE AND THREE SHRUBS) PER FIVE PARKING SPACES.

PROPOSED TREES & SHRUBS = 6 TREES, 11 SHRUBS.

TREE PLANTING REQUIREMENTS:

REQUIREMENT - ONE STREET TREE IS REQUIRED PER DWELLING UNIT (55),

PROPOSED TREES = 18
EXISTING TO REMAIN =1
TOTAL TREES = 19

THE REMAINING STREET TREES WILL BE PROVIDED THROUGH A CONTRIBUTION TO THE CITY OF PORTLAND TREE FUND. THROUGH THE PLANTINGS OF THE PROPOSED TREES AND CONTRIBUTION TO THE TREE FUND, THE APPLICATION WILL MEET THE MINIMUM STREET TREE PLANTING REQUIREMENTS.

PLANTING REQUIREMENTS PER FRONTAGE:

THE SITE HAS 305 FEET OF FRONTAGE IN THE R-7 OVERLAY DISTRICT, WHICH REQUIRES THE 10 SHADE TREES OR THE EQUIVALENT OF A SHADE TREE VIA 6 PLANTINGS (1 PER 30 FEET)

PROPOSED STREET TREES = 10
EXISTING STREET TREE = 1
TOTAL STREET TREES = 11

PLANTING SCHEDULE- SEE SHEET L5

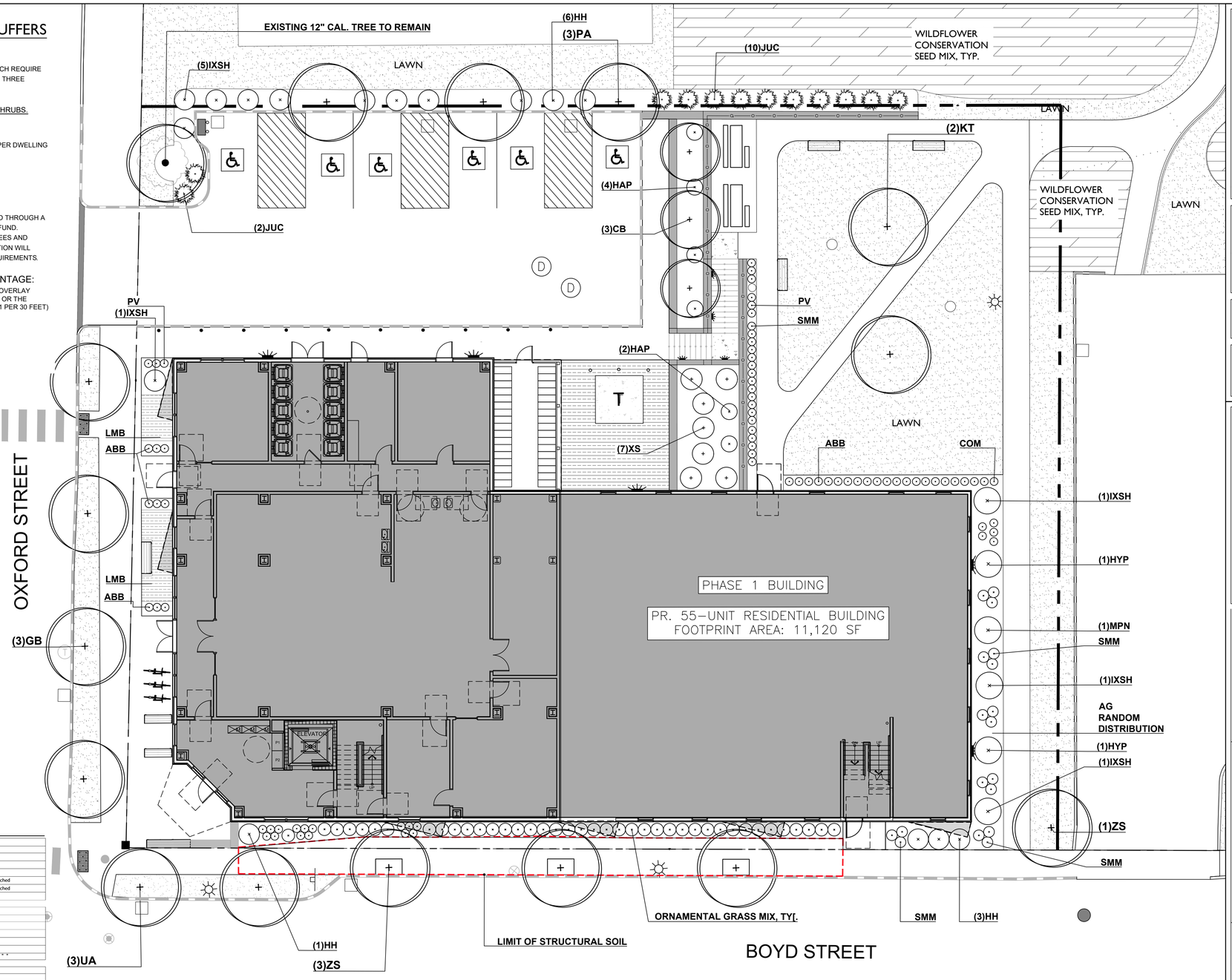
CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
DECIDUOUS TREES						
CB	*Carpinus betulus 'Frans Fontaine'*	Hornbeam 'Frans Fontaine'	3	1.75-2" cal	as shown	
GB	*Ginkgo biloba 'Princeton Sentry'*	Princeton Sentry Gingko	3	2.75-3" cal	as shown	
KT	*Cercidiphyllum japonicum*	Katsura Tree	2	2.75-3" cal	as shown	
PA	*Prunus 'Accolade'*	Prunus accolade	3	1.75-2" cal		Single Stem, Matched
UA	*Ulmus 'Accolade'*	Accolade Elm	3	2.75-3" cal	as shown	Single Stem, Matched
ZS	*Zelkova Serrata*	City Sprite Zelkova	4	2.75-3" cal	as shown	

CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
DECIDUOUS SHRUBS						
HAP	*Hydrangea anomala'*	Climbing Hydrangea	6	24" ht.	As shown	
HYP	*Hydrangea paniculata 'Little Quick Fire'*	Little Quick Fire Panicle Hydrangea	1	30"-36" ht.	60" O.C.	
HH	*Hypericum 'Hidcote'*	St. John's Wort	12	24"-36" ht.	36" O.C.	
MPN	*Myrica pensylvanica*	Northern Bayberry	1	24"-30" ht.	60" O.C.	
XS	*Xanthorrizza simplicisima*	Yellowroot	7	24"-30" ht.	48" O.C.	

CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
EVERGREEN SHRUBS						
IXSH	*Ilex glabra 'Shamrock'*	Shamrock Inkberry	9	30"-36" ht.	60" O.C.	
JUC	*Juniperus conferta 'Emerald Sea*	Emerald Sea Shore Juniper	12	18"-24" ht.	36" O.C.	

CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
PERENNIAL						
APM	*Amsonia hubrichtii*	Thread-leafed Bluestar	tbd	tbd	36" O.C.	
ABB	*Astilbe 'Bressingham Beauty'*	Bressingham Beauty Astilbe	tbd	tbd	18" O.C.	
COM	*Coreopsis 'Moonbeam'*	Moonbeam Coreopsis	tbd	tbd	18" O.C.	
GRC	*Geranium x 'Rozanne'*	Rozanne Cranesbill	tbd	tbd	24" O.C.	
HAH	*Hemerocallis 'Heavenly Angel Ice'*	Heavenly Angel Ice Daylilly	tbd	tbd	24" O.C.	
HEC	*Heuchera 'Caramel'*	Caramel Coral Bells	tbd	tbd	18" O.C.	
RFA	*Rudbeckia fulgida 'American Gold Rush'*	Gold Rush Black-Eyed Susan	tbd	tbd	24" O.C.	
SMM	*Salvia 'May Night'*	May Night Salvia	tbd	tbd	24" O.C.	

CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
GRASSES, VINES & GROUND COVERS						
AG	*Allium gladiator*	Ornamental Onion	tbd	Bulb	12" O.C.	
CA	*Calamagrostis acutiflora 'Karl Foerster'*	Karl Foerster Feather Reed Grass	tbd	#2	24" O.C.	
LMB	*Liriope muscari 'Big Blue'*	Big Blue Lilyturf	tbd	PLUG	10" O.C.	
PVS	*Panicum virgatum 'Shenandoah'*	Shenandoah Switchgrass	tbd	#2	24" O.C.	
SS	*Schizachyrum scoparium*	Little Bluestem	tbd	#2	18" O.C.	



SITE SOIL NOTES

1. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE FOR LOCATION OF STOCKPILE AREAS FOR STRIPPED TOPSOIL AND PLANTING SOIL PRODUCTS. CONTRACTOR SHALL ENSURE AREA IS PROTECTED AND CONTAMINATION OR DISTURBANCE OF STORED PRODUCTS IS NOT ALLOWED.
2. CONTRACTOR SHALL ENSURE SUBGRADE IS SCARIFIED PRIOR TO INSTALLING PLANTING SOIL AND BLEND WITH INITIAL LIFT OR PLACEMENT OF PROPOSED PLANTING SOIL.
3. COORDINATE PLACEMENT OF PLANTING SOIL WITH OTHER WORK, ESPECIALLY UTILITIES. PLACEMENT SHOULD OCCUR AFTER INSTALLATION OF ALL HARDSCAPE IMPROVEMENTS, IRRIGATION SYSTEM, UTILITIES, ETC. AND BEFORE INSTALLATION OF PLANTS.

SEED SCHEDULE

HATCH	TYPE	NOTES
	LAWN	SUNNY
	LAWN	SHADE
	WILDFLOWER/ CONSERVATION SEED MIX	

NOTE: This drawing is PERMITTING ONLY. It is NOT intended for use as a construction document.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
PERMITTING

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Title:
PLANTING PLAN

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response
05.22.2024 Workshop Comment Response
06.17.2024 Update Unit Count

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L2

Scale: 1" = 10'-0"
0 5 10 20

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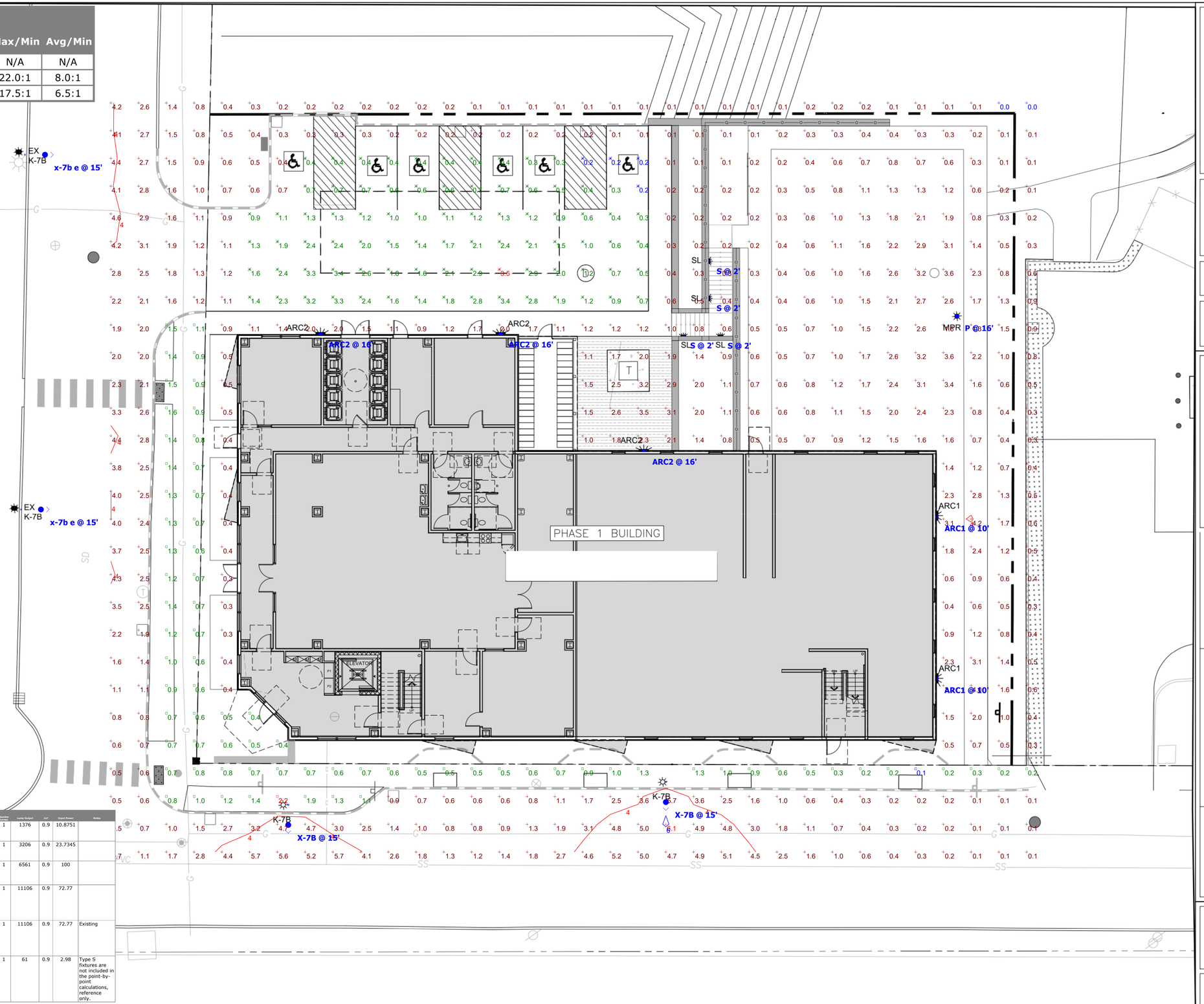
Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Project Extents	+	1.3 fc	6.1 fc	0.0 fc	N/A	N/A
Sidewalk	□	0.8 fc	2.2 fc	0.1 fc	22.0:1	8.0:1
Parking Lot	✳	1.3 fc	3.5 fc	0.2 fc	17.5:1	6.5:1



Schedule Symbol	Label	Image	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power	Notes
	ARC1		2	Lithonia Lighting	ARC1 LED P1 30K	ARC1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K	1	1376	0.9	10.8751	
	ARC2		3	Lithonia Lighting	ARC2 LED P3 30K	ARC2 LED WITH P3 - PERFORMANCE PACKAGE, 3000K	1	3206	0.9	23.7345	
	P		1	Lithonia Lighting	MRP LED 42C 700 30K SR4 MVOLT	MRP POST TOP LIGHT 42 LEDs 700 mA DRIVE CURRENT 30K COLOR TEMP TYPE 4 DISTRIBUTION	1	6561	0.9	100	
	X-7B		2	Holophane	ESL3 P20S 30K XXXXX TG2	Esplanade style housings Standard housing, 3000 series CCT Auto-sensing voltage, Type IV, Medium, (Standard) or Type III, Short, (Uplight)	1	11106	0.9	72.77	
	x-7b e		2	Holophane	ESL3 P20S 30K XXXXX TG2	Esplanade style housings Standard housing, 3000 series CCT Auto-sensing voltage, Type IV, Medium, (Standard) or Type III, Short, (Uplight)	1	11106	0.9	72.77	Existing
	S		0	Hydrel	HSL11 RD L LED 30K MVOLT	Suface mount step light	1	61	0.9	2.98	Type S fixtures are not included in the point-by-point calculations, reference only.

NOTE: This drawing is PRELIMINARY REVIEW ONLY. It is NOT intended for use as a construction document.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
PERMITTING

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Title:
LIGHTING PLAN

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response
05.22.2024 Workshop Comment Response

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No. RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L3

Scale: 1" = 10'-0"
0 5 10 20

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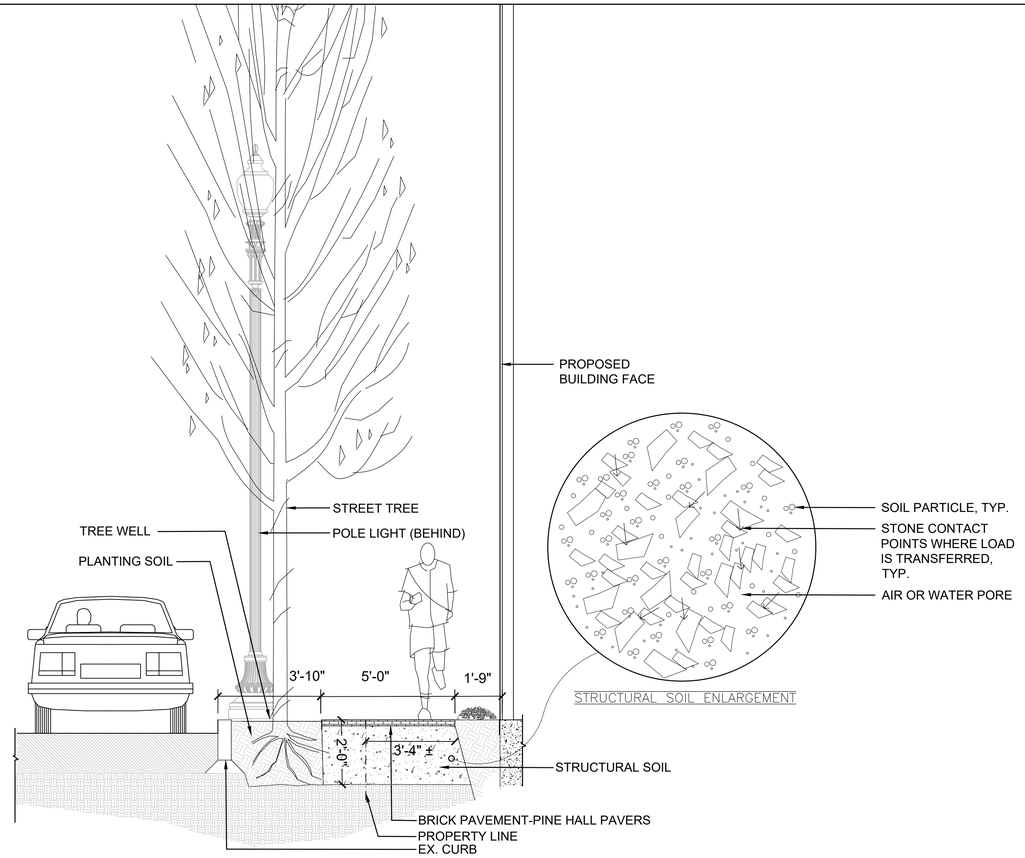
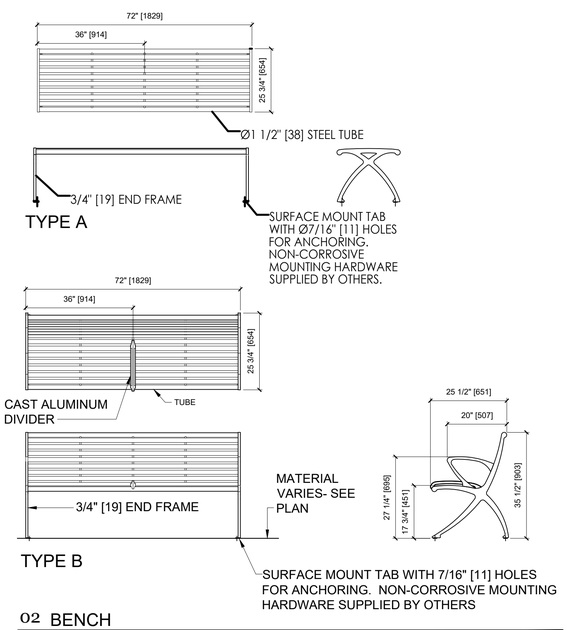


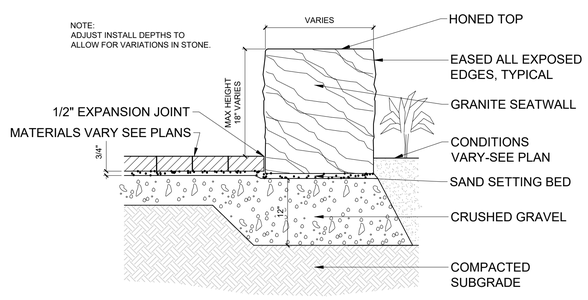
01 SIDEWALK SECTION - BOYD STREET

SCALE: N.T.S.



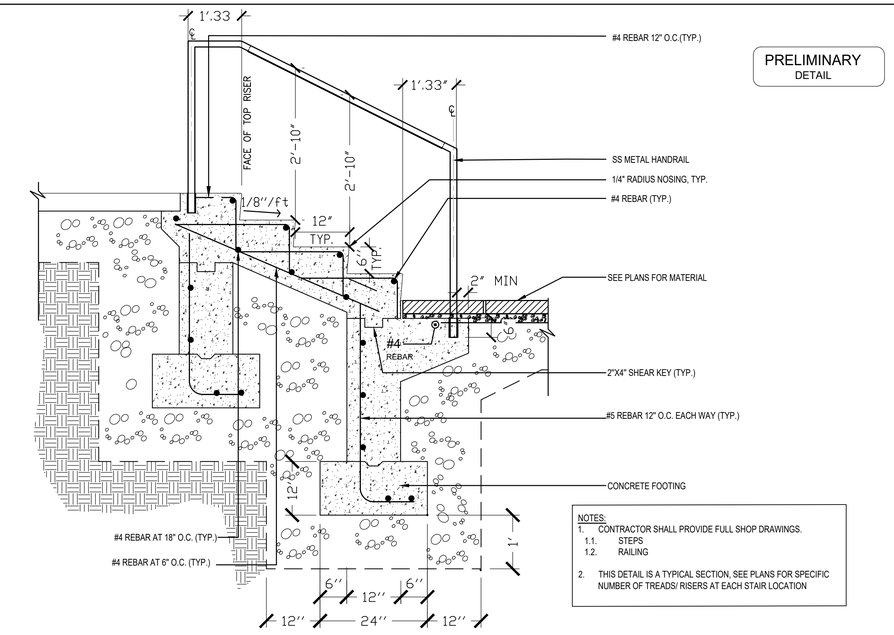
02 BENCH

SCALE: N.T.S.



03 MONOLITHIC GRANITE BLOCK

SCALE: N.T.S.



NOTES:
1. CONTRACTOR SHALL PROVIDE FULL SHOP DRAWINGS.
   1.1. STEPS
   1.2. RAILING
2. THIS DETAIL IS A TYPICAL SECTION. SEE PLANS FOR SPECIFIC NUMBER OF TREADS/ RISERS AT EACH STAIR LOCATION

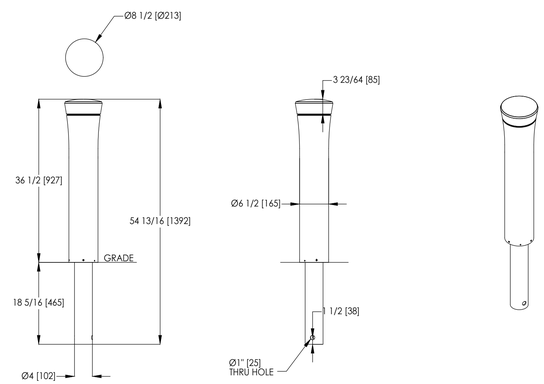
04 PRECAST STAIRS & STAIR RAILING

SCALE: N.T.S.

PRELIMINARY
Professional Engineering Design
Required for Construction
FINAL WALL COLOR & MATERIAL
TBD

05 RETAINING WALL FENCE

SCALE: N.T.S.



06 BOLLARD

SCALE: N.T.S.

NOTE: This drawing is PRELIMINARY REVIEW ONLY. It is NOT intended for use as a construction document.

PRELIMINARY
DETAIL

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
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Title:
DETAILS

70
EAST OXFORD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L4

Scale:
AS NOTED

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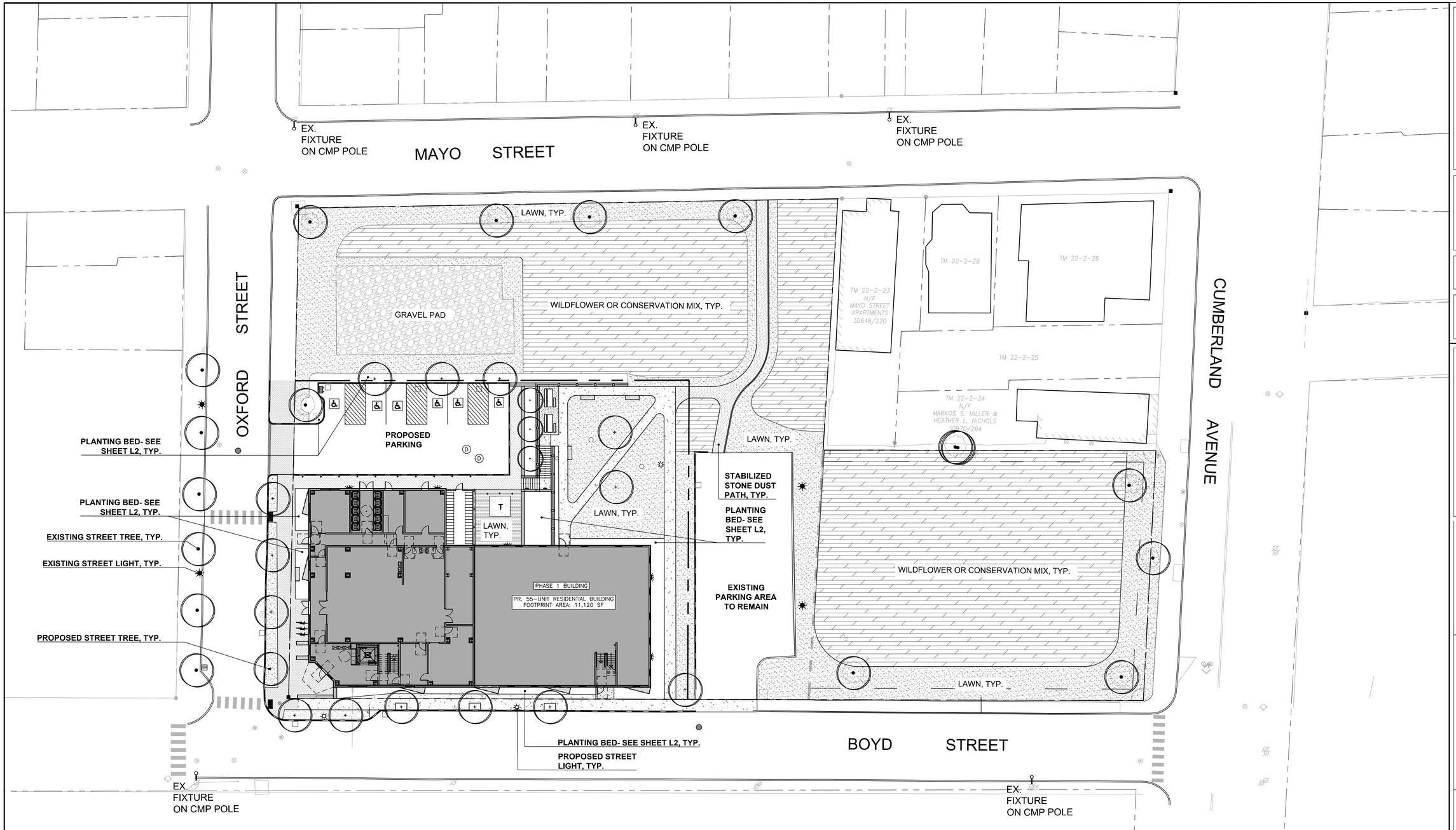

SEED SCHEDULE

HATCH	TYPE	NOTES
	LAWN	SUNNY
	LAWN	SHADE
	WILDFLOWER/ CONSERVATION SEED MIX	

LEGEND

- PROPOSED TREE
- EXISTING TREE
- PROPOSED GRAVEL PAD
- PROPOSED CONCRETE SIDEWALK
- PROPOSED BRICK SIDEWALK
- PROPOSED STONE DUST
- PROPOSED LIGHTING
- EXISTING LIGHTING
- PROPOSED SEATING
- PROPOSED RETAINING WALL
- PROPOSED BIKE RACKS

NOTE: This drawing is PERMITTING ONLY. It is NOT intended for use as a construction document.

Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
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Title:
SITE LANDSCAPE PLAN UNDEVELOPED PHASES

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.22.2024 Workshop Comment Response
06.17.2024 Update Unit Count

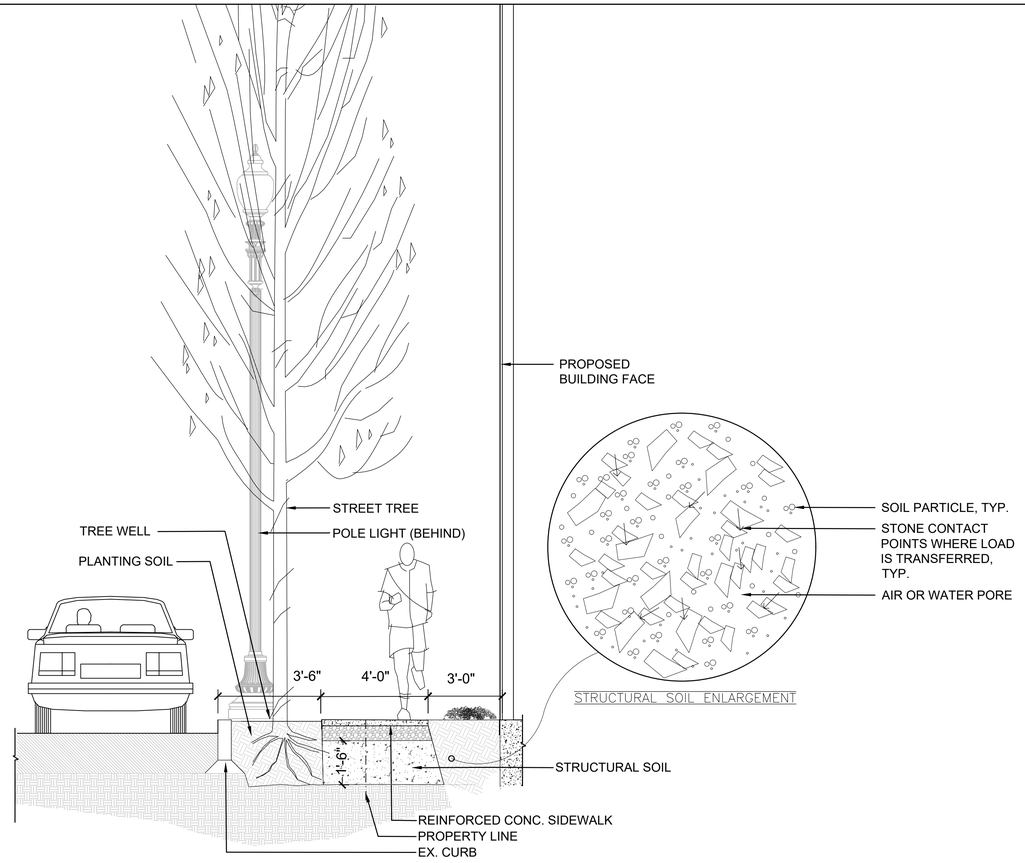
REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L4

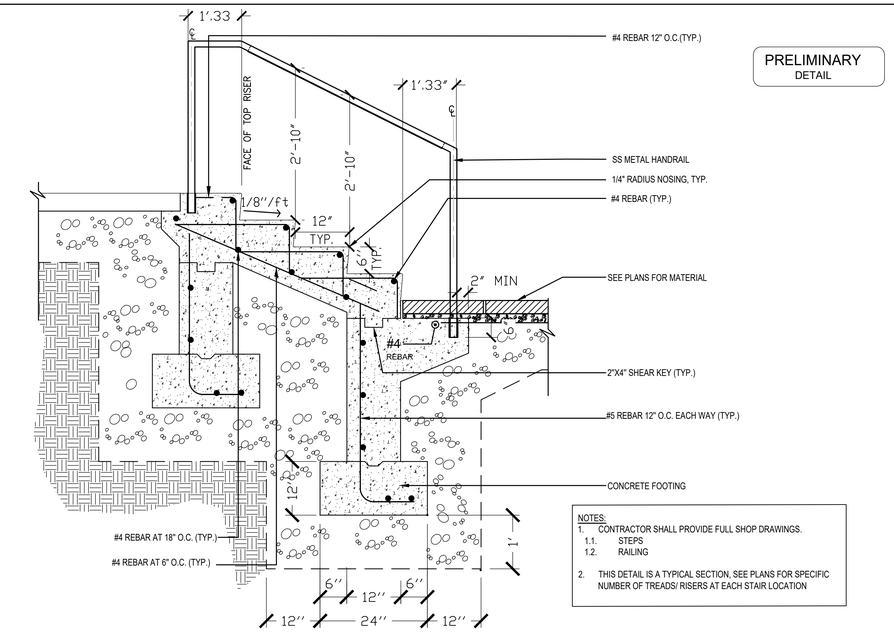
Scale: 1" = 10'-0"
0 5 10 20

C:\Users\DRY-L\OneDrive\Documents\Onedrive\DRY-LA\Projects\COMB\BOADL BASE COMB 24.06.17- Workshop Comment Response Rev-1.SUB SET.dwg dry-l 6/18/2024



01 SIDEWALK SECTION - BOYD STREET

SCALE: N.T.S.



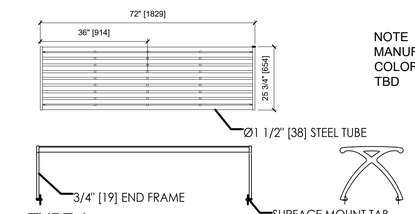
NOTES:
1. CONTRACTOR SHALL PROVIDE FULL SHOP DRAWINGS.
   1.1. STEPS
   1.2. RAILING
2. THIS DETAIL IS A TYPICAL SECTION. SEE PLANS FOR SPECIFIC NUMBER OF TREADS/ RISERS AT EACH STAIR LOCATION

PRELIMINARY
DETAIL

05 PRECAST STAIRS & STAIR RAILING

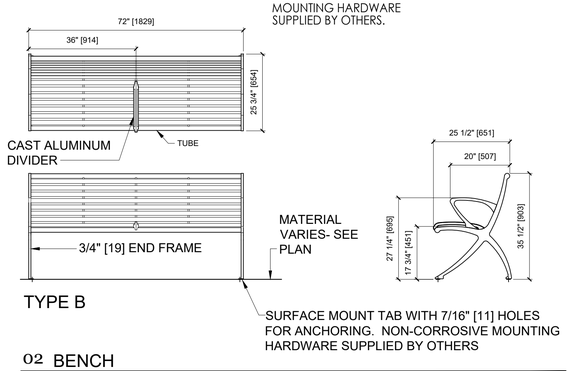
SCALE: N.T.S.

PRELIMINARY
Professional Engineering Design
Required for Construction
FINAL WALL COLOR & MATERIAL
TBD



NOTE
MANUFACTURER, COLOR, AND STYLE TBD

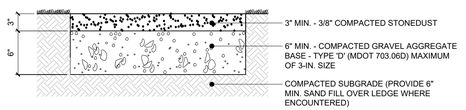
TYPE A



TYPE B

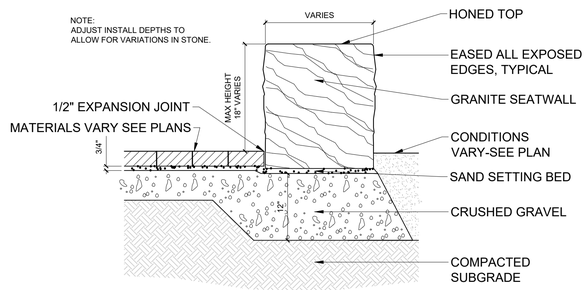
02 BENCH

SCALE: N.T.S.



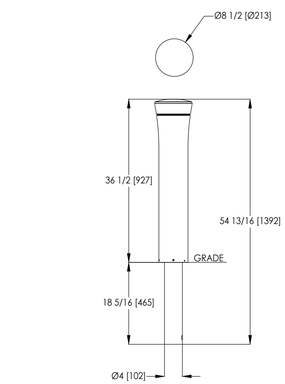
03 STONEDUST PATH

SCALE: N.T.S.



04 MONOLITHIC GRANITE BLOCK

SCALE: N.T.S.



06 RETAINING WALL FENCE

SCALE: N.T.S.

07 BOLLARD

SCALE: N.T.S.

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Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
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9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response
05.22.2024 Workshop Comment Response

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L5

Scale:
AS NOTED

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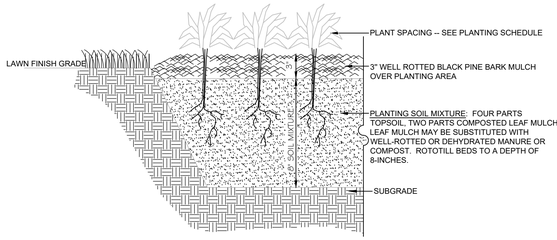
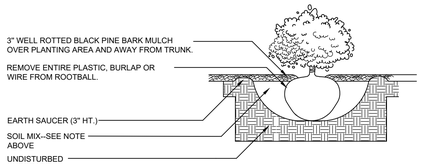


01 PLANTING BED AND MULCH DETAIL

SCALE: N.T.S.



PLANT INSTALLATION NOTES:
DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS: 1 FULL WHEELBARROW EXISTING SOIL, 3 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

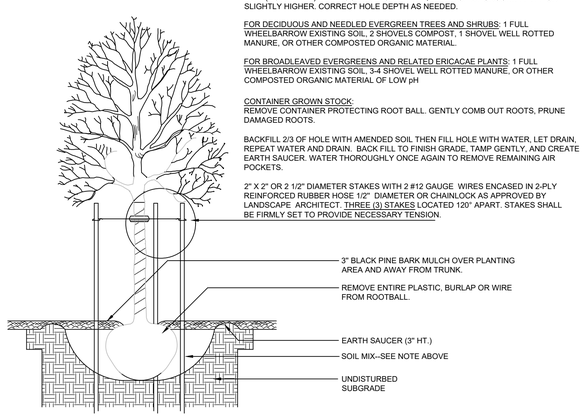
FOR BROADLEAVED EVERGREENS AND RELATED ERICACAE PLANTS: 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVELS COMPOST, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH

CONTAINER GROWN STOCK:
REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS, PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

02 SHRUB INSTALLATION

SCALE: N.T.S.



PLANT INSTALLATION NOTES:
DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR DECIDUOUS AND NEEDLED EVERGREEN TREES AND SHRUBS: 1 FULL WHEELBARROW EXISTING SOIL, 2 SHOVELS COMPOST, 1 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

FOR BROADLEAVED EVERGREENS AND RELATED ERICACAE PLANTS: 1 FULL WHEELBARROW EXISTING SOIL, 3-4 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL OF LOW pH

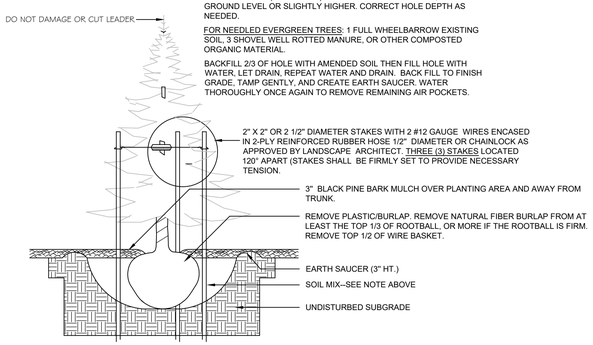
CONTAINER GROWN STOCK:
REMOVE CONTAINER PROTECTING ROOT BALL. GENTLY COMB OUT ROOTS, PRUNE DAMAGED ROOTS.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

2" X 2" OR 2 1/2" DIAMETER STAKES WITH 2 #12 GAUGE WIRES ENCASED IN 2-PLY REINFORCED RUBBER HOSE 1/2" DIAMETER OR CHAINLOCK AS APPROVED BY LANDSCAPE ARCHITECT. THREE (3) STAKES LOCATED 120° APART. STAKES SHALL BE FIRMLY SET TO PROVIDE NECESSARY TENSION.

03 DECIDUOUS TREE DETAIL

SCALE: N.T.S.



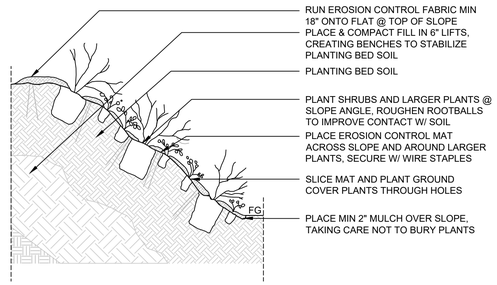
PLANT INSTALLATION NOTES:
DIG HOLE AT LEAST 2 TIMES THE WIDTH OF ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH TOP AT GROUND LEVEL OR SLIGHTLY HIGHER. CORRECT HOLE DEPTH AS NEEDED.

FOR NEEDLED EVERGREEN TREES: 1 FULL WHEELBARROW EXISTING SOIL, 3 SHOVEL WELL ROTTED MANURE, OR OTHER COMPOSTED ORGANIC MATERIAL.

BACKFILL 2/3 OF HOLE WITH AMENDED SOIL THEN FILL HOLE WITH WATER, LET DRAIN, REPEAT WATER AND DRAIN. BACK FILL TO FINISH GRADE, TAMP GENTLY, AND CREATE EARTH SAUCER. WATER THOROUGHLY ONCE AGAIN TO REMOVE REMAINING AIR POCKETS.

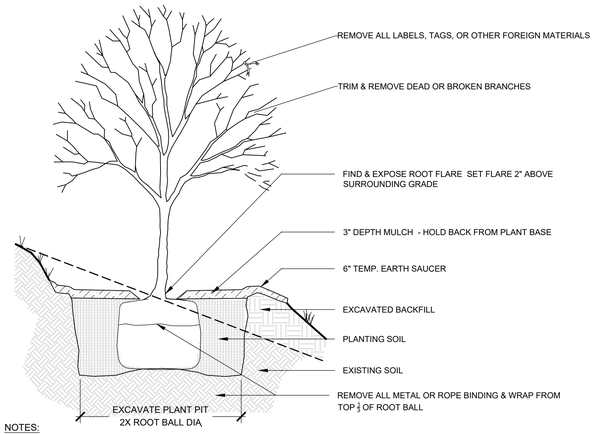
04 CONIFEROUS TREE DETAIL

SCALE: N.T.S.



05 SLOPE PLANTING DEATIL

SCALE: N.T.S.

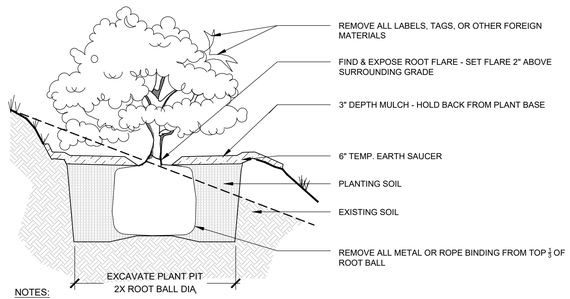


NOTES:

1. TREE TO BE SET PLUMB.
2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

06 TREE PLANTING ON SLOPE

SCALE: N.T.S.

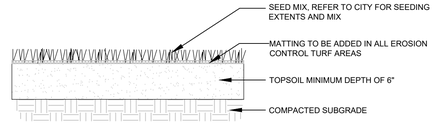


NOTES:

1. SHRUB TO BE SET PLUMB.
2. SECURE SHRUB AS MAY BE REQUIRED ACCORDING TO SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

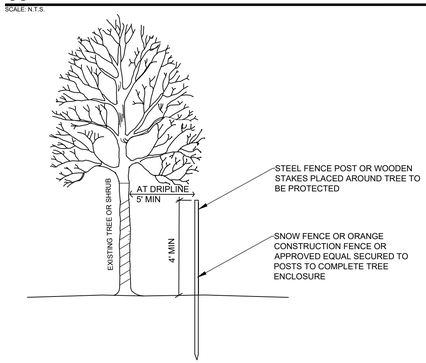
07 SHRUB PLANTING ON SLOPE

SCALE: N.T.S.



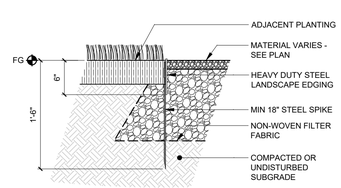
08 LAWN SEED MIX

SCALE: N.T.S.



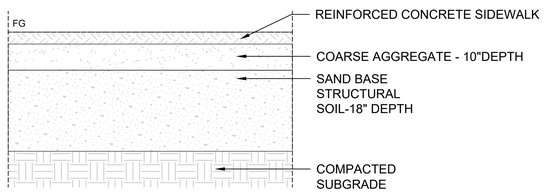
09 TREE PROTECTION

SCALE: N.T.S.



10 METAL EDGING

SCALE: N.T.S.



10 STRUCTURAL SOIL

SCALE: N.T.S.

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Prepared For:
COMB Block Phase One, LP

Prepared By:
DryLA
dry landscape architecture, l.l.c
31 miller ave.
biddeford, me 04005

Date:
MARCH 12, 2024

Issued For:
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Title:
DETAILS

9
BOYD STREET
REDEVELOPMENT
Portland ME 04103

Revisions:
05.06.2024 City Staff Comment Response

REGISTERED LANDSCAPE ARCHITECT
BRADEN DRYPOLCHER
No.RLA 5043
03/12/24
STATE OF MAINE

North:

Sheet No.:
L6

Scale:
AS NOTED

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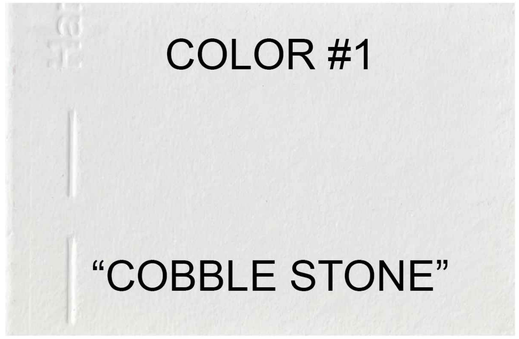
COMB BLOCK - MATERIALS BOARD

LAP SIDING



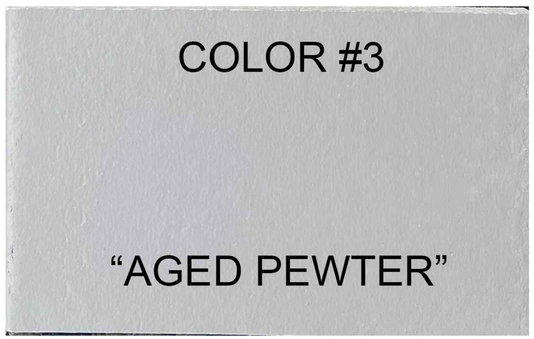
JAMES HARDIE

LAP SIDING



JAMES HARDIE

PANEL SIDING



JAMES HARDIE

DOOR / WINDOWS / TRIM



12” X 24” EXTERIOR
PORCELAIN TILE



DALTILE

© 2024 RYAN SENATORE ARCHITECTURE

APARTMENTS
9 BOYD STREET
PORTLAND, MAINE

RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

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MAY 6TH, 2024

REVISIONS:

DATE:	
PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
MATERIALS BOARD

M1



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APARTMENTS

9 BOYD STREET
PORTLAND, MAINE

RSA
RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
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PERSPECTIVE
IMAGE 1

P1



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SHEET TITLE:
PERSPECTIVE IMAGE 2

P2



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PORTLAND, MAINE

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SCALE:	AS NOTED

SHEET TITLE:
PERSPECTIVE IMAGE 3

P3



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CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
PERSPECTIVE
IMAGE 4

P4



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APARTMENTS

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PORTLAND, MAINE

RYAN SENATORE
ARCHITECTURE
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PERSPECTIVE IMAGE 5

P5



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PORTLAND, MAINE

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SHEET TITLE:
PERSPECTIVE
IMAGE 6

P6



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MAY 6TH, 2024

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PROJECT No.	2336
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SCALE:	AS NOTED

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PERSPECTIVE IMAGE 7

P7



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APARTMENTS

COMB BLOCK
PORTLAND, MAINE

RYAN SENATORE
ARCHITECTURE
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REVISIONS:

DATE:

PROJECT No. 2336

DRAWN BY: RRT

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
PERSPECTIVE IMAGE 7

P7



© 2024 RYAN SENATORE ARCHITECTURE

APARTMENTS

9 BOYD STREET
PORTLAND, MAINE

RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

PROGRESS PRINT ONLY
Not for Construction
MAY 6TH, 2024

REVISIONS:

DATE:

PROJECT No.	2336
DRAWN BY:	RRT
CHECKED BY:	RJS
SCALE:	AS NOTED

SHEET TITLE:
PERSPECTIVE IMAGE 8

P8



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SHEET TITLE:

PERSPECTIVE IMAGE 9

P9

CITY OF PORTLAND, MAINE

PLANNING BOARD

Brandon Mazer, Chair
Justin Barker, Vice Chair
Marpheen Chann
Sean Murphy
David Silk
Austin Smith
Maggie Stanley

July 9, 2024

Geoff Iacuesa
President and Business Manager
235 Park Avenue
Portland, ME 04102

David Senus, P.E.
Vannasse Hangen Brustlin, Inc
500 Southborough Drive, Suite 105B
South Portland, ME 04106

Project Name: Sea Dogs Clubhouse
Address: 235 Park Avenue
Applicant: Portland Sea Dogs
Planner: Ameriz Gamez

Project ID:PL-002896-2024
CBL: 049 A001001

Dear Geoff Iacuesa and David Senus:

On July 9, 2024 the Planning Board approved a major site plan application for the Portland Sea Dogs Clubhouse, a 23,600 square foot pre-engineered, two-story clubhouse in the Recreational Open Space (R -OS) zone. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance, Ch. 14, Article 14, Section 14.6. Based on the information provided to the Board in the application, plans, reports. Through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing on July 9, 2024, which is attached hereto and incorporated herein by reference. Based upon those findings, conclusions and recommendations, the Planning Board found that the application met all relevant standards and voted (X-X) to approve the application with the following conditions as presented below.

Site Plan Review
Based upon the information provided to the Board in the application, plans, reports, through testimony and other information submitted by the applicant, the Planning Board adopted the findings, conclusions and recommendations contained in Section IX of the Planning Board Report for the public hearing on July 9, 2024, which is attached hereto and incorporated herein by reference. The Planning Board voted (X-X) to find that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following conditions of approval:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The applicant shall provide evidence of electrical service from the utility provider to the Planning Authority.
2. The applicant is required to submit a Stormwater Maintenance Agreement.

The approval is based on the submitted plans and findings related to site plan review, as contained in the Planning Board report dated July 5, 2024 for application #PL-002896-2024 which is attached.

Standard Procedures
Note: The following standard procedures and requirements apply to all approved site plans:

1. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.

2. Performance Guarantee and Inspection Fees A performance guarantee covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.

3. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

4. Preconstruction Meeting Prior to the release of a building permit and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works representative, and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

5. Department of Public Works Permits If work or obstructions will occur within the public

right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

6. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, or of any approved exterior elevations, which were the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

7. Stormwater Management The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements.

   A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Final copies shall be submitted to both the Department of Planning and Urban Development and the Department of Public Works.

8. Third Party Inspections For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

   The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

9. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

10. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the

Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater. Please provide one hard copy of the mylar.

11. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

12. Impact Fees New development or changes of use that result in net new residential dwelling units, non- residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit https://www.portlandmaine.gov/2409/Impact-Fees

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at (207)874-8901 or DRC@portlandmaine.gov. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Ameriz Gamez at (207) 874-8632 or via Agamez@portlandmaine.gov

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:
1. Planning Board Report
2. Portland City Code: Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet

April 19, 2024

Ref: 55748.00

Mr. Kevin Kraft
Planning & Urban Development Director
City of Portland
389 Congress Street
Portland, Maine 04101

Re: Major Site Plan Review
Site Plan Review Application
Portland Sea Dogs Clubhouse Addition
Map 52 Block C Lot 1

Dear Mr. Kraft

On behalf of our client, Portland Sea Dogs, VHB has prepared the following application package for a Major Site Plan Review related to the proposed clubhouse addition to be located on Map 52 Lot 1 located at 275 Park Avenue.

The application package includes the following items:

- Cover letter (this document)
- Completed Checklist
- Evidence of Right
- Zoning Assessment Table
- Site Plan Standards Assessment
- Summary of Existing Easements
- Site Plan Standards Assessment
- Financial Capablility
- Technical Capability
- Project Planset
- Stormwater Memorandum
- Supplemental Architectural documents

Engineers | **Scientists** | **Planners** | **Designers**
2 Bedford Farms Drive, Suite 200, Bedford, New Hampshire 03110
P 603.391.3900 **F** 603.518.7495 www.vhb.com

CITY OF PORTLAND
Planning & Urban Development Department

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

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

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

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

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

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

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

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

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

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

MAJOR SITE PLAN
DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all 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, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)

- Location of fire hydrants
- Location of solid waste management receptacles
- Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable
- Location of proposed easements and rights-of-way, including dimensions
- Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed

UTILITY PLAN including:

- Proposed electrical infrastructure
- Location, sizing and directional flows of all proposed sewer and stormwater infrastructure
- Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- Proposed grades
- Proposed stormwater management measures meeting Technical Manual (Section 5) standards
- Any proposed alteration of a watercourse or wetlands
- Any groundwater protection measures
- Proposed buffers and preservation measures for wetlands or significant natural features

LANDSCAPE PLAN including:

- Existing vegetation to be preserved and preservation measures
- Proposed landscaping, screening, and street trees, including caliper widths for trees
- Planting schedule, including street trees

ARCHITECTURAL PLANS AND RENDERINGS including:

- Exterior building elevations, color renderings, illustrations of all sides
- Axonometric and street-level views for structures greater than three stories in height
- Provide context drawings, if applicable (Design Manual, page 1)
- Floor plans

CONSTRUCTION MANAGEMENT PLAN including:

- Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
- Include a drawing and written narrative

OTHER

- Details and cross-sections, as necessary

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:44 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
6025	DEED	01998/402	05/12/1950

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
MAINE INSTITUTION FOR THE BLIND	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Maine Inst'n. For The Blind to Portland City Of War.

KNOW ALL MEN BY THESE PRESENTS, That THE MAINE INSTITUTION FOR THE BLIND, a corporation organized and existing under the laws of the State of Maine, located in Portland in the County of Cumberland and State of Maine, in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, the entire consideration being under One hundred Dollars ($100.00), paid by CITY OF PORTLAND, a body politic and corporate located in said County of Cumberland and State of Maine, the receipt whereof it does hereby acknowledge, does hereby give, grant, bargain, sell and convey, unto the said CITY OF PORTLAND, its successors and assigns forever, a certain lot or parcel of land located in Portland in said County of Cumberland and State of Maine and described as follows:

Beginning at an iron stake in the westerly side line of land owned by The Maine Institution for the Blind, said iron stake and point being distant two hundred seventy-six and seventy-four hundredths (276.74) feet northwesterly, measured along said side line, from an iron stake situated in the northerly side line of Park Avenue and marking the southerly corner of The Maine Institution for the Blind land and land of the City of Portland; thence in a northerly direction sixty-two (62) feet, more or less, along said westerly side line of The Maine Institution for the Blind land and land of the City of Portland to an iron stake marking the corner of The Maine Institution for the Blind land; thence in an easterly direction along the division line of The Maine Institution for the Blind land and land of the City of Portland one hundred fifty (150) feet to a point marked by an iron stake; thence in a westerly direction one hundred sixty-three (163) feet, more or less, to the iron stake at the point of beginning.

Hereby conveying to said City of Portland a triangular piece of land containing approximately four thousand six hundred fifty (4,650) square feet, more or less,from the rear of the lot of land owned by The Maine Institution for the Blind situated on Park Avenue.

TO HAVE AND TO HOLD the aforegranted and bargained premises with all of the privileges and appurtenances thereof, to the said CITY OF PORTLAND, its successors and assigns, to its and their use and behoof forever.

AND The Maine Institution for the Blind does covenant with the said Grantee, its successors 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 Grantee to hold as aforesaid; and that it and its successors shall and will warrant and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, The Maine Institution for the Blind has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Henry R. Gillis, its Treasurer thereunto duly authorized, this 28th day of October, 1947.

Signed, Sealed and Delivered in Presence of

THE MAINE INSTITUTION FOR THE BLIND

CORPORATE SEAL

Nathaniel M. Haskell

By Henry R. Gillis Treasurer

COUNTY OF CUMBERLAND

STATE OF MAINE

Portland, Maine, October 28, 1947.

There personally appeared the above-named Henry R. Gillis, as aforesaid and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of The Maine Institution for the Blind.

Before me, Nathaniel M. Haskell

Notary Public Notarial Seal

I hereby certify, that as Clerk of THE MAINE INSTITUTION FOR THE BLIND I am the Secretary of the Board of Directors, and that a meeting of the Board of Directors, held on the 28th day of October, 1947, at which time a quorum was present and acting throughout, that the following motion was made, seconded and

" VOTED: That the corporation transfer to the City of Portland, a certain lot or parcel of land consisting of 4,650 square feet, more or less, as per deed drawn and submitted; and that the Treasurer of the corporation, Mr. Henry R. Gillis, be and hereby is authorized to sign said deed in behalf of the corporation and that the Clerk of the Corporation be and is hereby authorized to affix the seal of the corporation thereto. "

A true record:

Attest:

Nathaniel M. Haskell Clerk

CORPORATE SEAL OF THE MAINE INSTITUTION FOR THE BLIND

= Received May 12, 1950, at 1h 40m P. M., and recorded according to the original

---

Gryskewicz & to Portland Pipe Line Corp. Easement

KNOW ALL MEN BY THESE PRESENTS, THAT We, Gadmin Gryskewicz and Nellie Gryskewicz of Portland, Maine, hereinafter called Grantor(s), for and in consideration of One Dollar and other valuable considerations, the receipt of which is hereby acknowledged, do hereby give, grant, bargain, sell and convey unto PORTLAND PIPE LINE CORPORATION, a Maine corporation having an office at 335 Forest Avenue, Portland, Maine, hereinafter called Grantee, its successors and assigns, a right of way over, under and through a certain lot or parcel of land in South Portland in the County of Cumberland and State of Maine, bounded and described as follows:

Lot No. 77 as shown on Plan of Lots at Main Street Terrace recorded in Cumberland County Registry of Deeds, in Plan Book 14, Page 45,

for the purposes of constructing at a location to be designated by Grantee herein, and maintaining and operating a line of pipe with such valves and fittings as may be necessary or convenient, for the transportation of oil, petroleum, gas and petroleum products and altering, enlarging, replacing, repairing and removing the same, with free ingress and egress for all of the above purposes.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:05 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
4769	DEED	01712/354	05/17/1943

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
USA	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

354

U.S.I.R. $0.55 5-14-43 McD Land Co.

TO HAVE AND TO HOLD the aforesaid granted premises, with all the privileges and appurtenances thereto belonging, unto and to the use of said Grantee, and his heirs and assigns forever.

AND the George E. McDonald Land Company does hereby, for itself and for its successors and assigns, covenant with the said Grantee, and his heirs and assigns that the said granted premises are free from all incumbrances made by it, and that it will, and shall warrant and defend the same to the said Grantee, and his heirs and assigns forever against all incumbrances made as aforesaid.

IN WITNESS WHEREOF, the said George E. McDonald Land Company has caused this instrument to be sealed with its corporate seal, and signed in its corporate name by George E. McDonald, its President, thereunto duly authorized, this 11th day of May, in the year of our Lord one thousand nine hundred and forty-three.

Signed and Sealed in the presence of

Clinton T. Goudy

GEORGE E. McDONALD LAND COMPANY.

CORPORATE SEAL

By: George E. McDonald

Its President

State of Maine

County of Cumberland

In Portland, on the eleventh day of May A. D. 1943. Personally appeared the above named George E. McDonald President of said George E. McDonald Land Company, and acknowledged the foregoing instrument by him executed to be his free act and deed in his said capacity, and the free act and deed of said George E. McDonald Land Company. Before me, Clinton T. Goudy Justice of the Peace

Received May 17, 1943, at 9h 30m A. M., and recorded according to the original

---

U. S. of America to Portland City of Deed

QUITCLAIM DEED

WHEREAS, the City of Portland, Maine, conveyed the property hereinafter described to the United States of America by deed dated December 16, 1942, of record in the Registry of Deeds, Cumberland County, Maine, in Deed Book 1704, Page 17; and

WHEREAS, the said land was acquired by the United States under the provisions of Section 202 of Title II of the Act of October 14, 1940, as amended; and

WHEREAS, the said land has been found to be unsuitable for the war public works project for which it was acquired; and

WHEREAS, the said City of Portland, Maine, has conveyed another parcel of land to the United States of America which is suitable for the purpose, and has asked that the United States of America convey the property hereinafter described back to the City of Portland; and

WHEREAS, the Administrator of the Federal Works Agency deems that the said property should be conveyed back to the City of Portland, and that this conveyance is made in the public interest.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That the United States of America in the consideration of the foregoing prem-

ises and $1.00, the receipt of which is hereby acknowledged, does hereby remise, release, and forever quitclaim unto the City of Portland, a body politic and corporate in the County of Cumberland, State of Maine, and its assigns forever, all that tract or parcel of land situated in Cumberland County, Maine, described as follows:

Beginning at a point in the westerly side line of Deering Avenue, said point being distant 334.21 feet northerly along said westerly side line of Deering Avenue from its intersection with the northerly side line of Park Avenue; thence northerly along said westerly side line of Deering Avenue on a course of North 1° 40' East, a distance of 15.39 feet to a point; thence northerly and northwesterly along said westerly side line of Deering Avenue on a curve to the left tangent to the last above described course and having a radius of 517.97 feet, a distance of 254.78 feet, measured on the arc, to a point - the long chord of the curve last above described bearing North 12° 25½' West and having a length of 252.22 feet; thence westerly on a course of South 80° 26' West, a distance of 238.38 feet, more or less, to a point in the extension northerly of the easterly side line of land now owned by the Maine Institution for the Blind; thence southerly on a course of South 1° 40' West along the said extension of and the easterly side line, itself, of land now owned by the Maine Institution for the Blind, a distance of 272.21 feet to a point, said point being distant 270.60 feet northerly along said easterly side line of land now owned by the Maine Institution for the Blind from its intersection with the northerly side line of Park Avenue; thence easterly on a course of North 80° 26' East, a distance of 300.99 feet, more or less, to the point of beginning in the westerly side line of Deering Avenue.

The bearings describing the courses in the above description are magnetic and are computed from an observed bearing from angles turned with a transit, and are of the date of May 1942.

IN WITNESS WHEREOF, the United States of America has caused these presents to be executed in its name by the Administrator of the Federal Works Agency and the seal of the Federal Works Agency to be hereunto affixed this 4th day of May,1943.

Witnesses:

Ida B. Sills

Maude E. Lyles

UNITED STATES OF AMERICA

By Philip B.Fleming

Administrator

Federal Works Agency

FEDERAL WORKS AGENCY UNITED STATES OF AMERICA SEAL

UNITED STATES OF AMERICA)
DISTRICT OF COLUMBIA) SS.

On this 4th day of May, 1943, personally appeared before me Ida B. Sills, a Notary Public in andfor the District of Columbia, the above named Major General Philip B. Fleming, Administrator, Federal Works Agency, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the said United States of America.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year aforesaid.

Ida B. Sills Notary Public, District of Columbia

My Commission expires November 30, 1947 Notarial Seal

Received May 17, 1943, at 9h 50m A. M., and recorded according to the original

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Phair to Payant & War.

KNOW ALL MEN BY THESE PRESENTS, That I, Ellen L. Phair, of Scarborough, in the County of Cumberland and State of Maine, formerly Ellen L. Fogg, of said Scarborough, in consideration of one dollar and other valuable consideration paid by Alfred V. Payant and Carrie T. Payant, husband and wife, both of Cape Elizabeth, in said County and State, the receipt whereof I do hereby acknowledge, do hereby give,grant, bargain, sell and convey unto the said Alfred V. Payant and Carrie T. Payant, as joint tenants and not as tenants in common, and their heirs and assigns, and the survivor of them and the heirs and assigns of the survivor of them, forever,

(1) A certain lot or parcel of land with the buildings thereon, situated in said Scarborough, and bounded and described as follows:

Beginning on the westerly line of the Prouts Neck Road, also known as Black Point Road, at the southeasterly corner of land formerly of Abraham Plummer and now known as the Grange Hall Lot; thence running southerly by said line of said road thirty-nine (39) rods, more or less, to a point and the second parcel of land described in deed from George W. Libby to John A. Libby and Simon Libby, dated October 8, 1858, and recorded in Cumberland County Registry of Deeds, Book 290, Page 129; thence running westerly by said land conveyed as aforesaid to John A. Libby and Simon Libby twelve (12) rods to a point; thence running southerly by said land conveyed as aforesaid to John A. Libby and Simon Libby twenty (20) rods to a point; thence running westerly by said land conveyed as aforesaid to John A. Libby and Simon Libby ninety-four (94) rods, more or less, to Nonesuch River; thence running westerly by said river eleven (11) rods and fifteen (15) links, more or less, to marsh formerly of Sumner J. Libby; thence running northwesterly by said Marsh formerly of Sumner J. Libby and marsh formerly of Larrabee, twenty-seven (27) rods, more or less, to said river; thence running northwesterly by said river forty-nine (49) rods, more or less, to marsh formerly of Dominicas Libby; thence running northerly by said last named marsh eight (8) rods, more or less, to said river; thence running easterly by said river thirty-nine (39) rods, more or less, to Roundabout Creek; thence running southeasterly by said Roundabout Creek and by the westerly line of the second lot described in this deed, twenty-one (21) rods, more or less, to a point; thence running southerly by said westerly line of said second lot described in this deed, three (3) rods and five (5) links, more or less, to a point and to Negro Head Road, so called; thence running easterly by the southerly line of said second lot described in this deed and by said Negro Head Road, thirty-two (32) rods, more or less, to a point; thence running northerly by the line of said second lot described in this deed eighteen (18) rods, more or less, to a point; thence running westerly by the line of said

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:07 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
12055	DEED	01694/158	09/29/1942

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
MAINE INSTITUTION FOR THE BLIND	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

IN WITNESS WHEREOF, We, the said Geneva P. Haskell, Lois E. Stewart, and Leah E. Pike, in our said capacity, have hereunto set our hands and seals this fourth day of September in the year of our Lord one thousand nine hundred and forty-two.

Signed, Sealed and Delivered in Presence of

Fred W. Small
Witness to all three

Geneva P. Haskell Seal
Lois E. Stewart Seal
Leah E. Pike Seal
Administratrices of the Estate
of George C. Pike

State of Maine. Cumberland,ss. September 4, 1942.

Personally appeared the above named Geneva P. Haskell, Lois E. Stewart, and Leah E. Pike, and acknowledged the foregoing instrument to be their free act and deed in their capacity of Administratrices of the Estate of George C. Pike.

Before me, Fred W. Small Justice of the Peace

Received September 29, 1942, at 11h 16m A. M., and recorded according to the original =

Maine Inst'n. for the Blind to Port. City of War.

KNOW ALL MEN BY THESE PRESENTS, That The Maine Institution for the Blind, a corporation organized and existing under the laws of the State of Maine and located at Portland in the County of Cumberland and State of Maine, in consideration of one dollar ($1.00) and other valuable considerations,paid by the City of Portland, Maine, a body corporate and politic in the County of Cumberland and State of Maine, the receipt whereof it does hereby acknowledge, does hereby give, grant, bargain, sell and convey, unto the said City of Portland, its successors and assigns forever, a certain lot or parcel of land with the buildings thereon, situated at the intersection of the Westerly side of Deering Avenue (formerly called Grove Street) with the Northerly side of Park Avenue, formerly Portland Street in said Portland and bounded and described as follows: Beginning at the intersection of the said Westerly side of Deering Avenue with the said Northerly side of Park Avenue; thence running North 1° 24' West by Deering Avenue three hundred feet to land of Mary E. Libby, sold to Caroline P. Dow by deed dated August 16, 1879, and recorded in Cumberland County Registry of Deeds in Book 457, Page 305; thence Westerly at right angles to Deering Avenue and by said Dow land one hundred feet; thence Northerly parallel with Deering Avenue and by said Dow land and by land of Portland Savings Bank sold to Caroline P. Dow October 15, 1888, by deed recorded in said Registry in Book 554, Page 140, eighty feet; thence Easterly on a course at right angles to Deering Avenue and by said Dow land one hundred feet to Deering Avenue; thence Northerly by Deering Avenue one hundred sixty feet to land Portland Savings Bank soldto George D. Clark November 15, 1878, by deed recorded in said Registry in Book 450, Page 333; thence Westerly at right angles to Deering Avenue and by said Clark land one hundred feet; thence Northerly parallel with Deering Avenue forty feet; thence Easterly at right angles to Deering Avenue one hundred feet; thence North 1° 24' West by Deering Avenue fifty eight and eight tenths feet to an angle in Deering Avenue; thence at right

angles to said last course of Deering Avenue and along the line of land of the said City of Portland two hundred ninety feet, more or less, to the stake and other land of the said City of Portland; thence about South 1° 24' East by land of said City of Portland about two hundred eighty feet to a fence at land Jonathan Morgan sold to Isaac Waldron by deed dated July 25, 1835,and recorded in said Registry in Book 142, Page 432; thence Easterly by said fence one hundred and fourteen hundredths feet; thence South 1° 24' East parallel to and one hundred feet Easterly of said City of Portland land three hundred fifty-one and two tenths feet to Park Avenue; thence North 89° 29' East by Park Avenue one hundred ninety-five and twenty-six hundredths feet to point of beginning; excepting, however, the privilege of a right of way about ten feet wide granted in said deed of Jonathan Morgan to Isaac Waldron; and excepting whatever rights may exist for a certain agreement granted by Israel Hunt to Nathaniel Stevens; said lot contains including said passageway above mentioned 151,600 square feet of land. Excepting from the foregoing a strip of land taken by the said City of Portland in widening said Park Avenue in 1896 and also the strip of land taken by the said City of Portland in the widening of Deering Avenue. The measurements and bounds herein given are based upon the street lines of Park Avenue(formerly Portland Street) and Deering Avenue as they existed prior to 1896.

The above described premises were conveyed to said Grantor by Albert S. Rines by warranty deed dated December 13, 1920 and recorded in Cumberland County Registry of Deeds in Book 1067, Page 206.

The above described premises are conveyed subject to a lease to Mexican Petroleum Corporation recorded in said Registry in Book 1421, Page 189, modifications of which are recorded in said Registry in Book 1468, Page 203 and Book 1606, Page 312.

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appurtenances thereof to the said CITY OF PORTLAND, its successors and assigns, to its and their use and behoof forever.

U.S.I.R.
$60.50
T.M.I.B.
9/29/42

AND the said Grantor Corporation does hereby covenant with the said Grantee, its successors 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, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, the said The Maine Institution for the Blind has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Convers E. Leach, its President and Harry G. Eastman, its Treasurer, thereunto duly authorized, this 28th day of September in the year one thousand nine hundred and forty-two.

Signed, Sealed and Delivered in Presence of

THE MAINE INSTITUTION FOR THE BLIND
CORPORATE SEAL

Harry L. Cram
to both

By Convers E. Leach
President

By Harry G. Eastman
Treasurer

State of Maine. County of Cumberland, ss. September 28, 1942.

Then personally appeared the above named Convers E. Leach, President and Harry G. Eastman, Treasurer of said Grantor Corporation as aforesaid, and each 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, Harry L. Cram Justice of the Peace

Received September 29, 1942, at 12h 25m P.M., and recorded according to the original

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Rangeley Trust Co. to Matthews Rel.

PARTIAL DISCHARGE

KNOW ALL MEN BY THESE PRESENTS, That the Rangeley Trust Company, Rangeley, Maine, owner of a certain mortgage given by Mary B. Matthews to said Rangeley Trust Company datedJanuary 11, 1938, and recorded in Cumberland County Registry of Deeds, Book 1542, Page 37, does hereby acknowledge that in consideration of One Dollar and other valuable considerations, it does hereby release from said mortgage a certain piece or parcel of land bounded and described as follows:- Situated in Falmouth, in the County of Cumberland and State of Maine, being numbered two hundred and fifty-four (254) on plan of FALMOUTH BY THE SEA made by Percy H. Richardson C. E. dated June 1923 and recorded in Cumberland County Registry of Deeds, Book 15, Page 37, also another parcel of land on plan of Falmouth by the Sea which is bounded and described as follows, viz: Beginning at a point in the Northeasterly line of Crosby Road, now called Hammond Road, as shown on said plan, which point is the Southwesterly corner of lot No. 253 on said plan, thence running Easterly (erroneously designated as Westerly in a certain deed given by Otis H. Perry, Trustee, to Mary B. Matthews dated April 29, 1924 and recorded in Cumberland County Registry of Deeds in Book 1165, Page 348) along the Northeasterly line of Hammond Road, thirty (30) feet to a stake; thence turning and running Northeasterly fifty (50) feet distant from and parallel to the Easterly line of Lot No. 253 one hundred ten (110)feet,more or less, to the Northeasterly line of said lot No. 253, thence turning and running Northwesterly along the Northeasterly line of said lot No. 253 fifteen (15) feet to a stake, at the Northeast corner of lot No. 254, thence turning and running Southwesterly along the easterly line of Lot No. 254 one hundred ten (110) feet to Hammond Road and the point and place of beginning. Containing two thousand four hundred seventy-five (2,475) feet of land, more or less. Being a portion of lot No. 253 as shown on plan of Falmouth by the Sea.

This Partial Discharge is to release from the above mentioned Mortgage only such Real Estate as is located in Falmouth, Cumberland County, Maine, and does not effect any other property covered by said mortgage.

IN WITNESS WHEREOF, the said Rangeley Trust Company by its President, duly authorized, has hereunto set its hand and seal this fifteenth day of September, A.D.1942.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:09 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
11688	DEED	01693/174	09/28/1942

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
WALDRON LILLIAN M	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

I, Lillian M. Waldron, of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations, paid by City of Portland, a body politic and corporate in the County of Cumberland and State of Maine,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, its successors and assigns forever, the following described property:

A certain lot or parcel of land situated in said Portland, and bounded and described as follows: Beginning at a point on the easterly side line of a lot of land conveyed by the City of Portland to the Maine Institute for the Blind by deed dated April 4,1908 and recorded in the Cumberland County Registry of Deeds, Book 821, Page 196, said easterly side line being the division line between land now of the Maine Institute for the Blind and land of the Grantor, and said point of beginning being distant one hundred thirty-one (131) feet northerly along said division line from its intersection with the northerly side line of Park Avenue; thence northerly along said division line between land of the Maine Institute for the Blind and land of the Grantor, a distance of one hundred ninety-three and seventy-hundredths (193.70) feet to a point; thence easterly and making an included angle of 87° 01½' through the southeast and along a line formerly occupied by a fence, a distance of one hundred and twelve hundredths (100.12) feet to a point; thence southerly and making an included angle of 92° 58½' through the southwest and on a line parallel with the first mentioned course, a distance of one hundred ninety and twenty hundredths (190.20) feet to a point, said last mentioned point being distant one hundred thirty-one (131) feet northerly from the northerly side line of Park Avenue, measured along a prolongation in a straight line of the last above described course;thence westerly and making an included angle of 89° 02' through the northwest and on a line parallel with the northerly side line of Park Avenue, a distance of one hundred (100) feet, more or less, to the point of beginning. Containing nineteen thousand one hundred ninety-three (19,193) square feet, more or less.

Being a portion of the premises devised under the Last Will and Testament of Isaac Waldron, an abstract of which is recorded in Cumberland County Registry of Deeds, Book 783, Page 386. Linda C. Waldron, life tenant named therein, is now deceased, and I. Louville Waldron, named therein as one of the remaindermen, died intestate, unmarried and without issue, leaving the Grantor herein as his sole heir-at-law.

Also all right, title and interest in and to so much only of a right-of-way leading northerly from the northerly side of Park Avenue as lies adjacent to the easterly side line of the lot above described.

U.S.I.R. $2.75 L.M.W. 9/28/42

To Have and to Hold the aforegranted and bargained premises, with all ~~the~~ privileges and appurtenances thereof, to the said City of Portland, its successors ~~heirs~~ and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said Lillian M. Waldron, unmarried,

have hereunto set my hand and seal this twenty-eighth day of September, in the year of our Lord one thousand nine hundred and forty-two.

Signed, Sealed and Delivered in presence of

Carroll S. Chaplin — Lillian M. Waldron — Seal

State of Maine, CUMBERLAND, SS. September 28, 1942. Personally appeared the above named Lillian M. Waldron, and acknowledged the above instrument to be her free act and deed.

Before me, Carroll S. Chaplin, Justice of the Peace

Received September 28 19 42, at 3 o'clock45 m. P.M., and recorded according to the original.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:08 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
6215	DEED	01677/247	06/02/1942

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
CORNISH GERTRUDE B	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

247

I, Gertrude B. Cornish of Portland in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations, paid by City of Portland, a body corporate and politic, in the County of Cumberland and State of Maine,
the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, its successors and assigns forever, a certain lot or parcel of land, with the buildings thereon, situated on the westerly side of Deering Avenue in said Portland, bounded and described as follows: Beginning at a point on said westerly side of Deering Avenue, formerly Grove Street, three hundred (300) feet feet from its intersection with the northerly side of Park Avenue, formerly Portland Street; thence northerly by said Deering Avenue eighty (80) feet, and from these two points extending westerly at right angles with said Deering Avenue and parallel with said Park Avenue, one hundred (100) feet, keeping the width of eighty (80) feet. Said measurements from Park Avenue are as of the width of Portland Street prior to the widening of said street in 1896. My title to said premises was obtained by tax deeds from the City of Portland, and by quit-claim of even date herewith from Augustus E. Dow, to be recorded herewith.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, its successors

~~heirs~~ and assigns, to its and their use and behoof forever. And I do hereby covenant with the said Grantee, its successors
~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee
to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors
~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

U.S.I.R.
$4.40
G.B.C.
6/2/42

In Witness Whereof, I, the said Gertrude B. Cornish, being unmarried

have hereunto set my hand and seal this second day of June in the year of our Lord one thousand nine hundred and forty-two.

Signed, Sealed and Delivered in presence of

Walter F. Murrell — Gertrude B. Cornish Seal

State of Maine, CUMBERLAND, SS. June 2, 1942 Personally appeared

the above named Gertrude B. Cornish

and acknowledged the above instrument to be her free act and deed.

Before me, Walter F. Murrell, Notary Public Notarial Seal

Received June 2 19 42, at 4 o'clock41 m. P. M., and recorded according to the original.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:46 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
1028	DEED	01361/465	01/08/1931

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
CLARK ALBERT P	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

I, Albert P. Clark of Portland in the County of Cumberland, State of Maine, being a widower,

~~in consideration of~~ - for valuable consideration, paid by City of Portland, a municipal corporation in the County of Cumberland and State of Maine,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, a municipal corporation, its successors and assigns forever, a certain lot or parcel of land with the buildings thereon, situated on the westerly side of Deering Avenue, formerly Grove Street, in the City of Portland in the State of Maine, and more specifically described as follows, viz: Commencing on said westerly side of Deering Avenue at a point five hundred and forty (540) feet northerly on said westerly side of Deering Avenue from the intersection of the northerly side of Park Avenue, formerly Portland Street, as it existed on November 15, 1878, and before said Park Avenue was widened on the northerly side, and said westerly side of Deering Avenue; thence running westerly at right angles to said Deering Avenue one hundred (100) feet to a stake; thence running Northerly parallel to said Deering Avenue forty (40) feet to a stake; thence running easterly at right angles to said Deering Avenue one hundred (100) feet to said Deering Avenue; thence running southerly by said Deering Avenue (40) feet to the point of beginning.

Being the same premises conveyed to me by Joseph A. Greer of Medford, in the Commonwealth of Massachusetts, by warranty deed for eight ninths (8/9) in common and undivided interest, dated January 6, 1928, and recorded in Cumberland County Registry of Deeds Book 1283, Page 208, and by Warranty Deed for one ninth (1/9) in common and undivided interest conveyed to me by Lucy Doris Clark of Portland, State of Maine, dated June 8, 1929, and recorded in the Cumberland County Registry of Deeds, Book 1321, Page 429. The eight ninths (8/9) in common and undivided interest being the same premises conveyed to Joseph A. Greer by Warranty Deed dated January 6, 1928 from Albert P. Clark, Paul M. Clark, Bertha Clark Corbett, Edith M. Clark, Genevieve M. Clark, Stella Clark Harrigan, as they are the heirs-at-law and next to kin of Mary Ellen Clark, late of said Portland, State of Maine. The one ninth (1/9) in common and undivided interest being the interest inherited by the said Lucy Doris Clark from her mother, Mary Ellen Clark, late of said Portland, State of Maine. All of which is the same premises conveyed to the said Mary Ellen Clark by Warranty deed from Edith Clark Stacy, dated May 26, 1916, and recorded in the Cumberland County Registry of Deeds, Book 969, Page 390. Being the same premises conveyed to George D. Clark by the Portland Savings Bank by Quit-Claim deed dated November 15, 1878, and recorded in the Cumberland County Registry of Deeds, Book 450, Page 333, and also being the same premises described in a warranty deed from Mary A. Clark and Elliot F. Clark to George D. Clark, dated January 2, 1879, and recorded in said Cumberland County Registry of Deeds, Book 456, Page 100.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, a municipal corporation, its successors ~~heirs~~ and assigns, to its and ~~their~~ use and behoof forever. And I do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all ~~in~~ cumbrances; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said Albert P. Clark, being a widower, has ~~have~~ hereunto set his hand and seal this third day of January in the year of our Lord one thousand nine hundred and thirty-one.

Signed, Sealed and Delivered in presence of

Haywood W. Corbett — Albert P. Clark Seal

State of Maine, CUMBERLAND, ss. January 3, 1931. Personally appeared the above named Albert P. Clark and acknowledged the above instrument to be his free act and deed.

Before me, Albert E. Libby, Notary Public ~~Justice of the Peace.~~ Notarial Seal

Received January 8, 1931, at 4 o'clock - m. P. M., and recorded according to the original.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:55 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
6613	DEED	01352/153	07/24/1930

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
REDLON FRANKLIN R	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

I, Franklin R. Redlon of Portland in the County of Cumberland and State of Maine,

in consideration of twenty-two thousand five hundred dollars ($22,500.00) paid by the City of Portland, a body politic, incorporated and located in said County of Cumberland and State of Maine,
the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, its successors and assigns forever, a certain lot or parcel of land situated on the southerly side of Deering Avenue in said Portland and bounded and described as follows:

Beginning at a point in the southerly side of Deering Avenue at an angle in said southerly side line of Deering Avenue, said angle being six hundred eight and fifteen hundredths (608.15) feet northerly of the northerly side line of Park Avenue; thence westerly along the northerly line of land formerly of Rines Bros. and now of the Maine Institute for the Blind, three hundred thirty-five and eight tenths (335.8) feet to a point; thence northerly one hundred thirty-five and seventy-five hundredths (135.75) feet, more or less, to the southerly side of Longfellow Avenue now discontinued, as relocated by the City Council of the City of Portland by an order duly passed November 6, 1905; thence easterly by said southerly side of said Longfellow Avenue as relocated two hundred and fifty-four (254) feet, more or less, to the said southerly side line of Deering Avenue; thence southeasterly along said southerly side line of Deering Avenue to the point of beginning. Being the same premises conveyed to N.E. Redlon Co. by deed of N. E. Redlon dated December 31, 1902, and recorded in the Registry of Deeds for said County of Cumberland, Book 727, page 295; by deed of the City of Portland dated December 8, 1905, and recorded in said Registry of Deeds, Book 779, page 44; by deed of the City of Portland dated February 1, 1906, and recorded in said Registry of Deeds, Book 777, page 234; and being the same premises conveyed to Franklin R. Redlon by N. E. Redlon Co. by deed dated April 5, 1912, recorded in said Registry of Deeds, Book 884, page 448.

Meaning and intending hereby to convey all the land owned by Franklin R. Redlon southerly of Deering Avenue and between the land of the Maine Institute for the Blind and the land of the City of Portland. The lot of land described in the deed of N. E. Redlon Co. to the City of Portland, dated December 9, 1905, recorded in the Cumberland County Registry of Deeds, Book 779, page 45, is not included in this conveyance.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, its successors ~~heirs~~ and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Franklin R. Redlon (unmarried) have hereunto set my hand and seal this twenty-fourth day of July in the year of our Lord one thousand nine hundred and thirty.

Signed, Sealed and Delivered in presence of

H. C. Wilbur — Franklin R. Redlon Seal

State of Maine, CUMBERLAND, ss. July 24th, 1930. Personally appeared the above named Franklin R. Redlon and acknowledged the above instrument to be his free act and deed.

Before me, H. C. Wilbur, *Justice of the Peace.*

Received July 24, 1930, at 2 o'clock 45m. P. M., and recorded according to the original.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:47 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
3336	DEED	01316/336	07/11/1929

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
PORTLAND TERMINAL CO	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

336

Know all Men by these Presents, That

Portland Terminal Company, a corporation existing under the laws of the State of Maine, with a principal office in Portland, Cumberland County, said state

in consideration of one dollar and other valuable considerations paid by City of Portland in said County of Cumberland

the receipt whereof it does ~~do~~ hereby acknowledge, do hereby remise, release, bargain, sell and convey, and forever quit-claim unto the said City of Portland, its successors and assigns forever, a certain parcel of land situated in said City of Portland, bounded and described as follows:

Beginning on the southwesterly side line of Deering Avenue, formerly called Grove Street, at a point thirty-three (33) feet southeasterly, measured at right angles from the base line of location of the extension of the Portland and Rochester Railroad as recorded March 20, 1889, in Book 16, Page 169, of County Commissioners' Records of Cumberland County;

Thence southwesterly on a line parallel with said base line of location four hundred seventy (470) feet more or less to the southwesterly side line of land conveyed by the Rochester Savings Bank to the Portland and Rochester Railroad by deed dated February 6, 1888, and recorded in Cumberland County Registry of Deeds, Book 542, Page 280;

Thence southeasterly along said southwesterly side line of said land conveyed to said Railroad one hundred twenty-two (122) feet more or less to the southeasterly side line of said land described in said deed;

Thence northeasterly along said last mentioned southeasterly side line four hundred sixty-three (463) fee t, more or less, to the aforesaid side line of said Avenue;

Thence northwesterly along said line of said Avenue one hundred fifteen (115) feet, more or less, to point of beginning.

Containing 55,300 square feet, more or less.

Hereby conveying all that part of the above mentioned land conveyed by said Rochester Savings Bank to said Railroad by said deed recorded as aforesaid, which lies south of a line parallel with and thirty-three (33) feet distant southerly measured at right angles, from the aforesaid base line of location of the extension of the Portland and Rochester Railroad.

To Have and to Hold the same, together with all the privileges and appurtenances thereunto belonging, to it the said City of Portland, its successors ~~heirs~~ and assigns forever.

~~And do covenant with the said heirs and assigns, that will warrant and defend the premises to the said heirs and assigns forever, against the lawful claims and demands of all persons claiming by, through or under me.~~

In Witness Whereof, it the said Portland Terminal Company has caused these presents to be signed, and its corporate seal affixed, by Morris McDonald, its President, hereunto duly authorized

~~have hereunto set hand and seal~~ this first day of July in the year of our Lord one thousand nine hundred and twenty-nine.

Signed, Sealed and Delivered in presence of

Edward W. Wheeler

PORTLAND TERMINAL COMPANY, CORPORATE SEAL
By Morris McDonald President.

State of Maine, Cumberland, ss. Portland, July 1, 1929.

Personally appeared the above named Morris McDonald and acknowledged the above instrument to be the free act and deed of said Portland Terminal Company and of himself as said President.

BEFORE ME,
Edward W. Wheeler, *Justice of the Peace.*

RECEIVED July 11, 1929., at 1 o'clock --m. P. M., and recorded according to the original.

196

Know all Men by these Presents, That

The City of Portland, a body corporate and politic, created and existing under the laws of the State of Maine and located at Portland in the County of Cumberland in said State

in consideration of Five thousand dollars and other valuable considerations paid by Maine Institution for the Blind, a corporation legally orgamized and existing under and by virtue of the laws of the State of Maine and located at said Portland.

the receipt whereof it do es hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Maine Institution For The Blind, its successors and assigns forever a certain lot or parcel of land situated in said Portland and bounded and described as follows:- Beginning on the northerly side of Portland street in the southwesterly corner of land owned and occupied by Isaac Walton, thence extending westerly on said Portland street a distance of three hundred feet to a point and extending back from these two points at right angles to said Portland street, keeping the width of three hundred feet a distance of three hundred and fifty feet.

it

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Maine Institution for the Blind, its successors and assigns ~~heirs and assigns,~~ to their use and behoof forever. And said City of Portland doth ~~do~~ covenant with the said Grantee, its successors heirs and assigns, that it is lawfully seized in fee of the premises; that they are free of all incumbrances;

that it has ~~have~~ good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors ~~heirs~~, shall and will warrant and defend the same to the said Grantee,--- heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said City of Portland has caused its corporate seal to be affixed and these presents to be signed in its behalf, by Samuel S.Gilbert its Treasurer, hereunto duly authorized (by order of the City Council passed.

~~hand and seal this~~ this fourth day of April ~~have hereunto set~~ in the year of our Lord one thousand nine hundred and eight

Signed, Sealed and Delivered in presence of

John W. Turner, Jr.

CITY OF PORTLAND Seal

By Samuel S. Gilbert, Treas.

State of Maine, CUMBERLAND, ss. April 4th 190 8. Personally appeared the above-named

and acknowledged the above instrument to be his free act and deed. and the free act and deed of the City of Portland

Before me, John W. Turner, Jr. *Justice of the Peace.*

Received April 6, 190 8, at 2 o'clock 35 m., P.M., and recorded according to the original.

Attest, Frank L Clark *Register.*

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:57 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
6047	DEED	00779/45	12/09/1905

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
N E REDLON CO	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

the N. E. Redlon Co., a corporation existing under the laws of the State of Maine and having its place of business in said Portland, in the County of Cumberland and State of Maine

in consideration of a conveyance of even date herewith by the City of Portland ~~paid by~~ to said N. E. Redlon Co. of a certain parcel of land, which is more particularly described in said conveyance of said City of Portland to said N. E. Redlon Co.

~~the receipt whereof~~ ~~do~~ ~~hereby acknowledge~~, do es hereby give, grant, bargain, sell and convey unto the said City of Portland, a body corporate and politic and situated in the County of Cumberland and State of Maine, its successors ~~heirs~~ and assigns forever, a certain lot or parcel of land situated on the Westerly side of Deering Avenue and bounded and described as follows: Beginning at a point in the southerly side line of Deering Avenue one hundred and forty and seven hundredths (140.07) feet distant north-westerly from the angle in said southerly side line of Deering Avenue, said angle being one hundred and eight and fifteen hundredths (108.15) feet north of the northerly side line of Portland Street; thence westerly a distance of two hundred and four (204) feet, more or less, to land of the City of Portland; thence northerly by the division line between land of Nathan E. Redlon and land of said City of Portland a distance of one hundred and forty-five (145) feet, more or less, to a point in the southerly side line of Deering Avenue; thence southeasterly by said southerly side line of Deering Avenue a distance of two hundred and fifty-five (255) feet, more or less, to the point of beginning.

N. E. Redlon Co. To City of Portland

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, its successors ~~heirs~~ and assigns, to ~~their~~ use and behoof forever. And it does ~~do~~ covenant with the said Grantee, its successors ~~heirs~~ and assigns, that it is lawfully seized in fee of the premises; that they are free of all incumbrances;

that it has ~~have~~ good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors ~~heirs~~, shall and will warrant and defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said N. E. Redlon Co. by Franklin R. Redlon its treasurer hereunto duly authorized by a vote of its directors has hereunto set its corporate name and seal ~~have hereunto set my hand and seal~~ this ninth day of December in the year of our Lord one thousand nine hundred and five.

Signed, Sealed and Delivered in presence of

Scott Wilson

N. E. Redlon Co.
Franklin R. Redlon
Treas.

State of Maine, CUMBERLAND, SS. December 9th A.D. 1905. Personally appeared the above-named Franklin R. Redlon and acknowledged the above instrument to be his free act and deed, and the free act and deed of said corporation. Before me, Scott Wilson, *Justice of the Peace.*

Received December 9 1905, at 9 o'clock 16 m., A.M., and recorded according to the original.

Attest, Ray P. Eaton *Register.*

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:52 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
8917	PARTIAL RELEASE	00569/424	02/04/1891

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
WESCOTT GEO P	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That

I, George P. Wescott of Portland, in the County of Cumberland and State of Maine

in consideration of one dollar and other valuable considerations dollars paid by the City of Portland, a body corporate and politic, created and existing and the laws of the State of Maine

the receipt whereof I do hereby acknowledge, do hereby remise, release, bargain, sell and convey, and forever quit-claim unto the said City of Portland, its successors

~~heirs~~ and assigns forever, ~~all right, title and interest in and to~~

Wescott To Portland

A certain lot or parcel of land situated in said Portland, and bounded and described as follows:

Beginning at the corner formed by the intersection of the westerly side line of Grove street with the northerly side line of a certain passage way, which said corner is found by measuring northerly on the easterly side line of said Grove street, a distance of six hundred thirty-nine and sixty-five one-hundredths (639.65) feet from the monument at the northeasterly corner of Grove and Portland streets, and thence westerly at right angles sixty-six (66) feet; and from said point of beginning running northwesterly with an angle to the left from the westerly side line of Grove street produced northerly, of thirty-eight degrees and forty-eight minutes (38° 48') a distance of five hundred eight and seventy-seven one-hundredths (508.77) feet to an angle in the fence on the westerly side of said Grove street as it existed June 30, 1890; thence southeasterly and southerly by the westerly side line of Grove street as it existed June 30, 1890, to the corner begun at.

The object of this deed is to release to said city all land owned by said Wescott and lying easterly of the first line above mentioned and which has been included within the limits of Grove street as now constructed and established, all as shown upon plan annexed to this deed and made a part of the above description.

To Have and to Hold the same, together with all the privileges and appurtenances thereunto belonging, to the said City of Portland, its successors ~~heirs~~ and assigns forever. And I do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that I will warrant and forever defend the premises to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons claiming by, through, or under me.

In Witness Whereof, I the said Grantor and Sara G. wife of said George P. Wescott in testimony of her relinquishment of her right of dower in the above-described premises,

have hereunto set our hands and seals this twenty-ninth day of January in the year of our Lord one thousand eight hundred and ninety-one.

Signed, Sealed and Delivered in presence of

Ardon W. Coombs to G.P.W. — Geo. P. Wescott — Seal

E. C. Hussey to S.G.W. — Sara G. Wescott — Seal

State of Maine

Cumberland, ss. January 29 A.D. 1891

Then Personally appeared the above named George P. Wescott and acknowledged the above instrument to be his free act and deed.

Before me, Ardon W. Coombs *Justice of the Peace.*

RECEIVED February 4 1891, at 11 o'clock 25 m., A. M., and recorded according to the original.

Attest, James M Thompson *Register.*

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:03 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
4202	DEED	00349/468	02/15/1867

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
MEAD THOMAS H	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That I,

Thomas H. Mead of Bridgton, in the County of Cumberland and State of Maine

in consideration of the sum of Six Hundred and seventy nine Dollars and twenty five Cts paid by

the City of Portland, in the same County

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, its successors

Mead to City of Portland

~~heirs~~ and assigns forever, a certain piece or parcel of land, being all that part of my land, situated in the said City of Portland, lying North westerly of, and adjoining Portland street, and bounded South-westerly and North-westerly by land owned by the City of Portland, and South easterly by land owned by Mrs Elias Banks; the same containing six thousand one hundred and seventy five feet, more or less.

U. S. I. R.
One Dollar.
T. H. M.
Jan. 8th 67

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, its successors ~~heirs~~ and assigns, to their use and behoof forever. And I do covenant with the said City of Portland, its successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said City of Portland to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said City of Portland, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Thomas H. Mead and Harriet P. Mead wife of the said Thomas H. Mead in testimony of her relinquishment of her right of dower in the above described premises, have hereunto set our hands and seals this eighth day of January in the year of our Lord one thousand eight hundred and sixty-seven,

Signed, Sealed, and Delivered, in presence of

Augusta L. Mead.
Ella F. Mead.

Thomas H. Mead. Seal
Harriet P. Mead. Seal

Cumberland, ss. Bridgton, Jan. 8th 1867 Personally appeared the above-named Thomas H. Mead and acknowledged the above instrument to be his free act and deed. Before me,

M. Gould, Justice of the Peace.

Received Feb. 15, 1867, at 10 o'clock m., A. M., and recorded according to the original.

Attest: Thomas Hancock Register.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:01 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
4203	DEED	00349/469	02/15/1867

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
BANKS ELIAS, BANKS DORCAS H	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Know all Men by these Presents, That we, Elias Banks of the City of Portland, in the County of Cumberland and and State of Maine, and Dorcas H. Banks, his wife, in her right

in consideration of the sum of Twenty five Hundred and forty seven & 82/100 Dollars paid by the said City of Portland

the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland, their successors

~~heirs~~ and assigns forever, a lot of land, situate near the Alms House, on the Northerly side of Portland street, in said Portland, bounded and described as follows, Beginning at the South easterly corner of a lot of land, on said street, owned by Thomas H. Mead; thence North westerly by said Mead's land 146 feet, more or less, to land owned by the City of Portland, thence North easterly by said City's land 96½ feet, more or less, to a post; thence South easterly by said City's land 240 3/10 feet, more or less, to a post; thence South westerly by said City's land 32 2/10 feet, more or less, to Portland street; thence Westerly by the line of said Portland street 132½ feet, more or less, to the first bound; the same containing 23,162 square feet, more or less.

U. S. I. R.
Three Dollars
E. B.
Jan. 7 "67

Banks to City of Portland,

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland, their successors

~~heirs~~ and assigns, to their use and behoof forever. And we do covenant with the said City of Portland, their successors

~~heirs~~ and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances; that we have good right to sell and convey the same to the said City of Portland, their successors and assigns

to hold as aforesaid; and that we and our heirs, shall and will warrant and defend the same to the said City of Portland, their successors

~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, we the said Elias Banks and Dorcas H. Banks wife of the said Elias Banks ~~in testimony of her relinquishment of her right of dower in the above described premises,~~ have hereunto set our hands and seals this twentieth day of December in the year of our Lord one thousand eight hundred and sixty-six (1866)

Signed, Sealed, and Delivered, and stamped in presence of

R. H. Hinkley,

Elias Banks Seal
Dorcas H. Banks Seal

Cumberland, ss. December 31st 1866 Personally appeared the above-named Elias Banks and Dorcas H. Banks

and acknowledged the above instrument to be their free act and deed. Before me,

Rufus H. Hinkley, Justice of the Peace.

Received Feb. 15, 1867, at 10 o'clock m., A. M., and recorded according to the original.

Attest: Thomas Hancock, Register.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:03 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
2647	DEED	00218/163	08/25/1849

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
WEYMOUTH LEVI	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

KNOW ALL MEN BY THESE PRESENTS, THAT I

Levi Weymouth of Portland in the County of Cumberland & State of Maine

in consideration of the sum of one hundred dollars

paid by The City of Portland in said County & State

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland their successors

~~heirs~~ and assigns forever,

A certain triangular piece of land in said Portland, southwesterly of the City Alms House situated on Portland Street, and bounded as follows: viz: beginning at a post on the north side line of said Portland Street at the corner of Sophia Meads land; thence running north 10½° west by said Meads land 106½ feet to the centre of the salt water creek, which divides the premises from land of said City; thence southwesterly by said creek as the same now runs about 178 feet to said Portland Street; thence south 78° 40' east by said street 171 feet to the bounds begun at; being the same premises which I purchased in part of Danl Boyle by deed dated Nov. 3. 1846. recorded Book 199. page 358. and in part of John K. Ingraham by deed dated April 3. 1846. recorded book 197. page 132. reference there to being had.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland their successors ~~heirs~~ and assigns, to their use and behoof forever.

And I do covenant with the said City of Portland their successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said City of Portland to hold as aforesaid: and that I and my heirs shall and will warrant and defend the same to the said City of Portland their successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said Levi Weymouth and Mary wife of the said Levi Weymouth in testimony of her relinquishment of her right of Dower in the above described premises have hereunto set our hands and seals this seventeenth day of April in the year of our Lord, one thousand eight hundred and forty eight

Signed, Sealed, and Delivered, In Presence of

Wm Boyd
Sarah C. Weymouth

Levi Weymouth L S
Mary Weymouth L S

CUMBERLAND, SS. Portland Apl. 17th 1848 Personally appeared the above named the above named Levi Weymouth and acknowledged the above instrument to be his free act and deed. BEFORE ME,

Wm Boyd
Justice of the Peace.

Received Augt. 25. 1849 at 5 o'clock, and 12 m. P. M., and recorded from the original. By William Ross *Register.*

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:48 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
519	DEED	00146/159	01/22/1836

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
FOX CHARLES	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

KNOW ALL MEN BY THESE PRESENTS, THAT I Charles Foy of Portland, County of Cumberland

in consideration of the sum of Seven hundred and fifty dollars paid by the City of Portland

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Portland their Successors

~~heirs~~ and assigns forever a certain lot of land in said Portland & lying on the Northwesterly side of the New County road on Portland Street and bounded as follows, viz, beginning at the Corner or intersection of said Portland Street and Alms Street thence Northeasterly by said Portland Street about sixteen rods and seven links to the land belonging to said City of Portland, thence Northwesterly by said Citys land about ~~seventeen~~ rods and seven links to a stake, thence by Alms house lot or Citys land Southwesterly about twenty rods and a half to Alms Street, thence Southeasterly by the Easterly side of Alms Street about Eight rods to the first bounds ——

TO HAVE AND TO HOLD, the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said City of Portland their Successors ~~heirs~~ and assigns, to their use and behoof forever. And I do covenant with the said City of Portland their Successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said City of Portland to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said City of Portland & their Successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I THE SAID Charles Foy & Ennis my wife who hereby relinquishes her dower

have hereunto set my hand and seal this twelfth day of October in the year of our Lord one thousand eight hundred and thirty-five

SIGNED, SEALED AND DELIVERED, IN PRESENCE OF

E M Foy
Ellen Foy

Charles Foy {L S}
E Foy {L S}

CUMBERLAND, ss. Octr 13th 1835 Personally appeared the above named Charles Foy and acknowledged the above instrument to be his free act and deed....Before me,

Neal Dow
Justice of the Peace.

RECEIVED January 22d 1836 AND RECORDED FROM THE ORIGINAL, BY

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:07:00 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
1556	DEED	00134/357	08/05/1833

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
ADAMS JOSEPH	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

KNOW ALL MEN BY THESE PRESENTS, THAT
I Joseph Adams of Portland in the County of Cumberland & State
in consideration of the sum of one hundred & fifty dollars
paid by the Inhabitants of the same Portland

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey ~~unto~~ the said Inhabitants & to their Successors

~~heirs and assigns~~ forever the following described tract of land situated in said Portland bounded on the Northeasterly side thereof by Alms Street, on the Northwesterly side thereof by the powder house lot so called & on the Southerly side thereof by the road lately laid out crossing said Alms Street & leading therefrom to Westbrook said tract being of a triangular form.

TO HAVE AND TO HOLD THE ~~AFOREGRANTED AND BARGAINED~~ same **PREMISES**, with ~~all the privileges and appurtenances thereof~~, to the said Inhabitants & to their Successors forever ~~heirs and assigns~~, to their use and behoof forever. And I do covenant with the said Inhabitants ~~heirs and assigns~~, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the ~~said~~ as to hold as aforesaid; and that I ~~and~~ ~~heirs shall and~~ will warrant and defend the same to the ~~said~~ & their Successors ~~heirs and assigns forever~~, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I ~~the said~~ have hereunto set my hand and seal this tenth day of June in the year of our Lord one thousand eight hundred and thirty three. Also Sarah B my wife who relinquishes her right to dower in the premises has hereto set her hand & seal

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF
Amelia H Bagelow
Sarah B Thacher

Joseph Adams (Seal)
Sarah B. Adams (Seal)

CUMBERLAND....SS. June 13. 1833 Personally appeared
Joseph Adams above named
and acknowledged the above instrument to be his free act and deed.—BEFORE ME,
Nathan Cummings Justice of the Peace.

RECEIVED August 5. 1833 AND RECORDED BY Samuel Small REGISTER.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:58 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
1138	MISCELLANEOUS	00109/246	05/25/1827

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
ROBIE TOPPAN, CUMMINGS WM, RACKLIFF CHANDLER	PORTLAND CITY OF , FOX CHARLES, JEWETT JOSEPH		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

The proceedings of the Committee on the foregoing petition of Dorcas Fowler being returned are read seen and understood It is therefore considered by the Court here that the same be accepted and recorded as the law directs and that the petitioner hereafter have and hold her said share in severalty accordingly

Attest Wm T Vaughan Clerk

Cumberland SS Registry of Deeds received May 25 1827 and recorded from the Original Samuel Small Register

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State of Maine

Warrant on the Petin of the Inht of Portland

Cumberlands ss

To Toppan Robie William Cummings & Chandler Rackliff Esquires all freeholdlers in said County Greeting Whereas at our Supreme Judicial Court began and holden at Portland within and for said County of Cumberland on the first Tuesday of May A D 1827. Upon the petition of the Inhabitants of Portland in said County of Cumberland setting fourth that they are interested in and seized in fee as tenants in common with certain persons to them unknown of a certain tract or parcel of land situated in said Portland containing about thirty six acres and bounded thus viz Begining where the road coming from back Cove meets the road coming from Stroudwater thence running by the westerly side of said road to Back Cove bridge & the Creek over which said bridge is built thence up said Creek to land fomerly belonging to Thomas Hopkins thence Sautherly by said land formerly belonging to said Hopkins to said road coming from Stroudwater thence by said last mentioned road to the bounds first began at Excepting that part of said premises which was set off to Charles Fox by order of the Judge of Probate and that part thereof which was set off to Joseph Jewett deceased. also that part thereof which was conveyed to the Town of Portland by Joseph H Ingraham Esq also that part thereof which has been set off to said Ingraham by order of the Supreme Judicial Court and that part thereof which has been sett off to Joseph Adams Esq by the order of the Court of common pleas That their share or proportion of said tract is twenty two one hundredth parts of the whole of said tract which they are desirous of holding in severalty And the Court did thereupon appoint you to make partition accordingly you are therefore hereby authorized to make such partition being under oath and assign to the partitioners their said purparty therein and that said commissioners return with their doings

Book 109 Page 246

Joseph H Ingraham

James D Hopkins

Sophia Mead

Elizabeth Hopkins

Jos Adams

Powder House

Road to Poor House

Poor House lot

Fox's lot

Brook

Broade to Stroudwater

Set off to the town of Portland and contains 5 acres and forty two square rods

N. 17° W 60 rods

Sewalls lot

Bridge

a plan of the premises made by them from actual survey exhibiting thereon such lines and monuments as any party in interest may require and giving due notice to all concerned that are known and live within the State that they may be present if they see meet at the time and make return thereof into the Clerks office of said Court

For any person or persons who may be beyond sea or out of the State for the space of one year and have no sufficient Attorney within the same the Court have appointed William B Sewall Esquire as an agent to be advising on their behalf in making such partition

Witness Prentiss Mellen Esquire at Portland the fourth day of May in the year of our Lord one thousand eight hundred and twenty seven Wm J Vaughan Clerk

Cumberland ss: Portland May 10 1827

Then personally appeared William Cummings Joseph Robie & Chandler Rackliff Esquires and made oath that they would faithfully and impartially perform the service assigned them in the foregoing warrant

Before me John Ewelth. Justice Peace

Pursuant to the foregoing Order of Court we the subscribers having been duly sworn and having notified all parties known to us to be interested of the time and place of our meeting met accordingly and have set off to the Inhabitants of Portland their share or proportion of the whole of said tract viz twenty two one hundredth parts thereof which share or proportion thus set off by us is bounded as follows viz Beginning at a stake standing in the easterly line of the share set off to Charles Fox which stake stands six and a half rods from the main road leading from Portland over Bromhalls hill to Stroutwater thence running South 85° East about seven rods to a Canal set off to Deacon Joseph Jewett thence N 7 0° W by said Jewetts about 60 rods to back Cove Creek thence westerly by said Creek to that part of said tract now owned and in possession of said Inhabitants thence by said Inhabitants Lands to said Fox's lands thence to the Northeasterly corner of said Fox's lands and thence southerly by said Fox's lands to the bound first mentioned containing five acres and forty two square rods more or less a plan of which is hereunto annexed, We notified Wm B. Sewal Elizabeth Hopkins and James D Hopkins for himself and as attorney to Sophia Mead they being all the persons known to be interested in said premises and said James D Hopkins attended, said Sewall has examined our doings and has expressed his satisfaction therewith

Portland May 11th 1827

Joseph Robie
Wm Cummings
Chandler Rackliff

248

State of Maine

Cumberland ss

At the Supreme Judicial Court begun & holden at Portland within and for the County of Cumberland on the first Tuesday of May A D 1827

By the Hon: Prentiss Mellen Chief Justice
Hon: William Pitt Preble } Justices
Hon: Nathan Weston Jr }

The proceedings of the Committee on the foregoing petition of the Inhabitants of Portland being returned are read seen and understood it is therefore considered by the Court here that the same be accepted and recorded as the law directs and that the petitioners hereafter have and hold their said share in severalty

Att Wm J Vaughan Clerk

Cumberland ss Registry of Deeds received May 25th 1827 and recorded from the Original Samuel Small Register

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Sophia Noyes to Thomas Greely Q C

Know all men by these Presents That I Sophia Noyes of Cumberland in the County of Cumberland and State of Maine ——— Widow in consideration of seventy five dollars paid by Thomas Greely of said Cumberland Cordwainer the receipt whereof I do hereby acknowledge do hereby remise release bargain sell and convey & forever quitclaim unto the said Greely his heirs and assigns forever all my right title and interest in and to two acres and a half of land situated in said Cumberland it being a part of the hundred acre lot Numbered sixty three in said Cumberland or N Yarmouth Proprietors book of Records and lying on the west side of Royals River bounded as follows beginning at the most Southerly corner of said lot thence to run Northeast twenty four Rods thence Northwest ten rods thence Southwest Eight rods thence Northwest ten rods thence sixteen rods southwest to the Town road thence southeast by said road to the corner first mentioned and is the same land conveyed by Moses Noyes to Nathaniel Noyes by deed dated September 18th 1815 and recorded in the Cumberland Registry Book 91 Page 315

To have and to hold the same together with all the privileges and appurtenances thereunto belonging to him the said Thomas his heirs and assigns forever And I do covenant with the said Thomas Greely his heirs and assigns that I will warrant and forever defend the premises to him the said Thomas Greely his heirs and assigns forever against the lawful claims and demands of all persons claiming by through or under me

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:56 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
942	DEED	00105/115	03/11/1826

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
NEAL JAMES	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

Therefore Know ye that I the said Barnett Potter in consideration of one hundred and seventy five dollars to me paid by the said Ingersoll do by these Presents grant bargain sell convey and assign to the said Nathaniel L Ingersoll his heirs and assigns forever the said Mortgage and premises therein contained To have and to hold the same to him the said Nathaniel L. Ingersoll his heirs and assigns forever, together with the balance of the debt due ~~due~~ and described in the condition of said Mortgage deed now being in a judgment recovered by the said Potter against the said Samuel Nason at the Court of Common Pleas in the County of Cumberland June term Anno Domini eighteen hundred and twenty four on which the sum of ninety five dollars has only been paid in part satisfaction thereof. And I the said ~~Barnett~~ Potter for myself my heirs executors and administrators do covenant with the said Ingersoll his heirs and assigns that I have good right to assign said Mortgage and judgment, and that I will if necessary execute any further assignment and acquittance to the said Ingersoll his heirs or assigns that they may require to convey and assign all the right I have in and to said premises and judgment as aforesaid. In witness whereof I the said Barnett Potter have hereunto set my hand and seal this twenty sixth day of July Anno Domini eighteen hundred and twenty five

Signed sealed and delivered in presence of } Barnett Potter (Seal)
us Horatio Southgate Wm Bradbury Jr }

Cumberland ss July 26th 1825 Personally appeared Barnett Potter and acknowledged the above instrument by him signed and sealed to be his free act and deed before me

Horatio Southgate Justice of the Peace

Cumberland ss Registry of Deeds received March 11th 1826 and recorded from the original. Saimuel Small Register

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1

James Neal to Town of Portland

D

Know all men by these presents, That I James Neal of Portland in the County of Cumberland Merchant in consideration of the sum of three hundred and twenty two dollars paid by the inhabitants of the Town of Portland the receipt whereof, I do hereby acknowledge do hereby give grant bargain sell and convey unto the said Inhabitants of the town of Portland their successors and assigns forever all my right title and interest

in and to a certain tract of land in Portland aforesaid Bounded beginning where the road coming from Back cove meets the road came from Stroudwater thence running by the westerly side of said road to Back cove Bridge and the brook over which the bridge is built thence up said brook to land formerly Thomas Hopkins thence South by said Hopkins to the road coming from Stroudwater and by said Stroudwater road to the first beginning being the same I purchased of George Mead Oct. 30th 1822 by deed recorded Book 94 Page 335 being about 100 parts of said tracts.

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said Inhabitants of Portland aforesaid their successors and assigns to their use and behoof forever. And I do covenant with the said Inhabitants their successors and assigns that I am lawfully seized in fee of the premises, that they are free of all incumbrances: that I have good right to sell and convey the same to the said Inhabitants of Portland to hold as aforesaid And that I will warrant and defend the same to the said Inhabitants of Portland their successors and assigns forever against the lawful claims and demands of all persons.

In witness whereof I the said ——— have hereunto set my hand and seal this third day of August in the year of our Lord one thousand eight hundred and twenty five

Signed Sealed and delivered in presence of Stephen Patten Rufus Emerson ——— James Neal (SEAL)

Cumberland ss Portland Aug 20. 1825 Personally appeared James Neal and acknowledged the above instrument to be his free act and deed before me. Isaac Adams Justice of the Peace.

Cumberland ss Registry of Deeds received March 11th 1826 and recorded from the original, Samuel Small Register

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N

Betsey Campbell to Jeremiah O'Brien E. R. for Mortgage see Book 73 Page 307

Know all men by these presents, that I Betsey Campbell of Brunswick in the County of Cumberland in consideration of forty three dollars and fifty two cents to me paid by Jeremiah O'Brien of Brunswick aforesaid Merchant the receipt whereof I do hereby acknowledge, do hereby give grant sell and convey to him the said Jeremiah O'Brien the right in equity of redeeming the within Mortgaged premises, whereof my late mother Sarah Rose died seized and possessed.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:53 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
648	DEED	00101/188	04/28/1825

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
BRACKETT JOHN, FABYAN JOHN, FABYAN SARAH, SAWYER JANE B, REED JOSEPH, REED MARY	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

188

good right to sell and convey the same to the said Philip Chandler his heirs and assigns: And that I will warrant and defend the same Premises to the said Philip Chandler his heirs and assigns, forever against the lawful claims and demands of all persons:

In witness whereof, I the said Samuel Jackson Junr have hereunto set my hand and seal this thirty first day of December in the year of our Lord one thousand seven hundred and ninety six

Signed Sealed and delivered in presence of Dennis Ryons — William Tucker — Samuel Jackson Jr [seal]

Cumberland ss New Gloucester Dec. 31 1796 Then the above named Samuel Jackson Junior personally appeared and acknowledged the above Instrument to be his free act and deed before me Samuel Thaxter Justice of the Peace

Cumberland ss Clerk's Office received April 27th 1825 and recorded from the original.

Attest William Vaughan
Clerk of the Judicial Courts

2

John Brackett et als to Portland Town's Inhabitants of

Know all men by these presents That we John Brackett yeoman and John Fabyan and Sarah Fabyan his wife in her right, and Jane Bowyer, singlewoman, all of Portland in the County of Cumberland and State of Maine and Joseph Reed yeoman and Mary Reed his wife in her right both of Durham in said County in consideration of the sum of three hundred Dollars paid by the Inhabitants of the Town of Portland aforesaid the receipt whereof we do hereby acknowledge, do hereby give grant bargain sell and convey unto the said Inhabitants of the Town of Portland their successors and assigns forever all our right title and interest in and to a parcel of land situated in said Portland and bounded as follows, viz beginning where the road leading from back cove meets the road coming from Stroudwater thence running by the Westerly side of said road to Back cove bridge and the creek over which said bridge is built thence up said creek to land formerly belonging to Thomas Hopkins thence Southerly by said land formerly owned by said Hopkins to said road coming from Stroudwater thereby said road coming from said Stroudwater to the bounds first begun at it being the same that descended to us as heirs of Thomas Brackett late of said Portland deceased the whole being in common and undivided and is Eleven one hundredths parts of the above described premises

To have and to hold the afore granted and bargained premises with all the privileges and appurtenances thereof to the said

Inhabitants of the Town of Portland their successors and assigns to their use and behoof forever And we do covenant with the inhabitants of the Town of Portland their successors and assigns that we are lawfully seized in fee of the premises: that they are free of all incumbrances that we have good right to sell and convey the same to the said Inhabitants of the Town of Portland to hold as aforesaid And that we will warrant and defend the same to the said Inhabitants of the Town of Portland their successors and assigns forever against the lawful claims and demands of all persons

In Witness whereof, we the said John Brackett John Fabyan and Sarah Fabyan and Jane B Sawyer and Joseph Reed and Mary Reed and Lucy Brackett wife of said John Brackett for the consideration aforesaid does hereby sell grant & relinquish all her right to Dower in the foremises have hereunto set our hands and seals this twenty eighth day of April in the year of our Lord one thousand eight hundred and twenty five

Signed Sealed and delivered in presence of AB the erasure of the word "heirs" in four several places made before sealing:

Rufus Emerson
John Anderson

John Brackett
John Fabyan
Sarah Fabyan
Joseph Reed
Mary Reed
Jane B Sawyer
Lucy + Brackett
her mark

Cumberland ss April 28, 1825 Personally appeared the above named John Brackett John Fabyan Sarah Fabyan Jane B. Sawyer Joseph Reed and Mary Reed and Lucy Brackett and acknowledged the above instrument to be their free act and deed

Before me John Anderson Justice of the Peace

Cumberland ss Clerks Office received April 28th 1825 and recorded from the original,

Wm S Vaughan
Clerk of the Judicial Courts

No
H Titcomb
to
Charles L. Clapp

Know all men by these presents That I Henry Titcomb of Portland in the County of Cumberland and State of Maine Merchant in consideration of the sum of Twelve hundred dollars paid by Charles L. Clapp of the same Portland Merchant, the receipt whereof I do hereby acknowledge, do hereby give grant bargain sell and convey unto the said Charles L. Clapp his heirs and assigns forever a certain lot of land situate on the eastern side of Union Street in said Portland beginning twelve feet from the Southerly corner of the brick store

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:49 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
855	DEED	00090/81	10/03/1821

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
SAWYER M P	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year
S/06727/302	EASEMENT	1985

Legal Description\Remarks

Lot	Block	Subdivision	Plat

81

M. P. Sawyer to Inhts Portland

Know all men by these presents. That I Matthias Plant Sawyer of Portland in the County of Cumberland Merchant in consideration of twenty three hundred dollars paid by Samuel Trask of said Portland as Treasurer for and in behalf of the Inhabitants of the Town of Portland aforesaid in their corporate capacity. the receipt whereof I do hereby acknowledge, do hereby remise, release bargain sell and convey and forever quit claim unto the said Inhabitants of Portland their successors and assigns forever, all right, title and interest in and to a certain tract of land situate in said Portland, being a part of the Freeman farm so called, lately owned by Ralph Cross decd the said part being all of said farm which I purchased of Jacob Cutter and wife and Clarinda Cross by their deed to me bearing even date with these presents, excepting so much thereof as is now included within the boundaries following viz. Beginning at the Northerly corner of David Ross' land, on the Westerly side of the highway leading by said farm from the guide board to North Yarmouth, thence Northerly by the Westerly side of said highway fifty three rods and five links to within two rods of James Deerings land, thence South sixty one and an half degrees West keeping at the distance of two rods from said Deerings land twenty six rods and fourteen links thence South twenty two degrees East by the fence now standing fifty seven and one fourth rods thence North fifty five degrees East adjoining David Ross' land to the beginning. The said part hereby intended to be conveyed being bounded Northerly by said Deerings land, Westerly by land of William and Barnard Douglass Southerly by Back Cove Creek, and Easterly by the land excepted as aforesaid and said highway, reserving a right to pass and repass in the two rod strip adjoining said Deerings land in common with said grantees, To have and and to hold, the same, together with all the privileges and appurtenances thereto belonging, to them the said Inhabitants of Portland their successors and assigns forever. And I do covenant with the said Inhabitants of Portland their successors and assigns, that I will warrant and forever defend the premises to them the said Inhabitants their successors and assigns, against the lawful claims and demans of all persons claiming by, through or under me. In witness whereof I the said Matthias P. Sawyer have hereunto set my hand and seal this twenty eighth day of September in the year of our Lord one thousand eight hundred & twenty one

Signed Sealed and Delivered in presence of
E. Whitman Toppan Robie } M. P. Sawyer LS

Cumberland

Cumberland ss. October 3. 1821 Personally appeared Matthias P. Sawyer & acknowledged the above instrument to be his free act and deed. 82

Before me Joppan Robie Justice of the Peace

Received October 3. 1821 and recorded from the original

Elias Merrill Regr

Know all men by these presents, That we Ebenezer Lord and Ruth Lord wife of the said Eben^r Lord in her right both of Standish in the County of Cumberland and State of Maine, in consideration of three hundred dollars paid by William Tompson of Standish in said County Esqr Administrator De Bonis non of Aaron Richardson late of Newton dec^d the receipt whereof we do hereby acknowledge. do hereby remise, release, bargain sell and convey, and forever quit-claim unto the said William Tompson Esq for the benefit of the creditors of said estate for ever, all right, title and interest in and to the three thirty acre lots of land in Standish numbered 27. 28 and 29 with the dwelling house stable and barn standing thereon, seized as the reversion of the widdows dower in said estate, and not heretofore sold as the estate of said Richardson. To have and to hold the same together with all the privileges thereto belonging, to him the said Tompson his heirs and assigns forever. And we do covenant with the said Tompson as administrator af^d that we will warrant and forever defend the premises to the said administrator for the creditors afores^d against the lawful claims and demands of all persons claiming by through or under us or either of us or our heirs.

Eben Lord wife to Aaron Richardson estate

In witness whereof we the said Ebenezer Lord and Ruth Lord have hereunto set our hands and seals this fifteenth day of October in the year of our Lord one thousand eight hundred and twenty one.

Signed Sealed and Delivered in presence of Jon^a Jackson Charles Jackson

Eben Lord Ls
Ruth Lord Ls

Cumberland ss. October 15. 1821 Personally appeared Ebenezer Lord and Ruth Lord and acknowledged the above instrument to be their free act and deed. Before me

Green Cram Justice of the Peace

Received October 16. 1821 and recorded from the original

Elias Merrill Regr

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:54 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
867	DEED	00049/356	05/15/1806

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
BRACKETT JOSHUA, BRACKETT NATHANIEL, INGRAHAM JOSEPH H, BRACKETT THOMAS, HOPKINS THOS	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

356

Wm Cushing
to
Jon.a Pratt

Know all Men, that I William Cushing named in the within written deed of Mortgage as Grantee, In Consideration of a Note of hand made to me by Luther Cary & Joseph Copeland, for the Money due on said Mortgage do hereby release & discharge to Jonathan Pratt Grantor Named therein, his heirs & assigns, the Mortgage aforesaid with all interest, & estate, right & title which accrued to me thereby, together with the Note of said Jonathan mentioned therein, In Witness whereof I have hereto set my hand & seal this 19th day of September A.D. 1805.

Signed, Sealed & Delivd
in presence of —
Wm Jackson. Margaret Bowers

Wm Cushing Seal

Plymouth ss. September the 19. day A. D. 1805
Then the above Named William Cushing acknowledged the above written Deed of Release by him subscribed to be his act & Deed, before me —

Wm Jackson Just. Peace —

Received May 20. 1806. & recorded from the Original

Per Elias Merrill Regr.

Whereas Joseph Holt Ingraham of Portland, in the County of Cumberland, Merchant, by deed bearing date this day hath sold & conveyed to the Inhabitants of said Portland two acres of land Lying in Common with thirty four acres more, which thirty five acres were sett off as part of the Dower of Hannah Appleby Brackett, Now Know all Men by these presents, that we the aforesaid Joseph H. Ingraham, Joshua Brackett & Nathaniel Brackett of Gorham, in said County Gorman, and Thomas Brackett and Thomas Hopkins of said Portland Gentleman In Consideration of the sum of ten Dollars paid us by the said Inhabitants of Portland, do by these presents Covenant & agree to & with the said Inhabitants that the said two acres of land shall, in all or any future Division or partitions of said thirty five acres, & from & after the signing of these presents, be Located & bounded as follows viz, beginning at a Monument Stone about eighteen rods from Back Cove creek, thence running North 63°. East Eighteen rods to another Monument Stone, thence on a Course North 21°. West from the two Stones aforesaid, keeping the width of Eighteen Rods to Back Cove Creek; and we do further

Covenant

Covenant & agree to & with the said Inhabitants, as well for Ourselves as for our heirs & assigns that Neither we our heirs or assigns shall or will obstruct the said Inhabitants in their taking possession of said two acres so bounded as aforesaid, nor in any manner disturb them in their possession of the same, from this time henceforth and forever — In Witness whereof we have hereunto set our hands and seal this 12th day of October in the year - - - - - - 1802

Signed, sealed & Delivered in presence of - - - - Samuel Weeks - - -

Joshua Brackett - - Seal
Nathaniel Brackett Seal
Thomas Brackett Seal
Thos. Hopkins - Seal

Received May 15. 1806. and Recorded from the Original
Pr Elias Merrill Reg —

Know All Men... That Aaron Hinkley & Edmund Hinkley of Brunswick, in the County of Cumberland and Commonwealth of Massachusetts, for and in Consideration of two thousand Dolers paid us by James Curtis Junr of said Brunswick, the Receipt whereof we do hereby acknowledge & do hereby give grant sell and Convey to the said James Curtis Junr — A certain Lot of land Lying in Brunswick aforesaid, Containing about one hundred Achres & bounded as follows viz, Fronting about thirty Rods on Stevens' River & Northerly on Capt. James Curtis's lot, and Southerly on land belonging to the Heirs of Capt. Saml Harding, & runing on parallel lines to Andrescogan River — all within the above Mentioned bounds Excep. — two Achers we sold to Joseph Blackmer — To Have and to hold the above described premises — to the said James Curtis to his use & his heirs and assigns forever, & we do Covenant with the sd James Curtis his Heirs and Assigns, that we are the true and lawfull Owners, and we are Lawfully seized in fee of the premises, that they are free from all Incumbrances, that we have good right to sell and Convey the same to the said Curtis, and that we for ourselves & our Heirs, will warrant and Defend the said premises to the said Curtis his heirs and assigns, against the Lawfull Claims and demands of all persons whatsoever — In Testimony whereof we have hereby set our hands & seals this . . . in the year of our Lord one thousand Eight hundred and six - - Aaron Hinkley Seal

Edmund Hinkley to James Curtis Jr

Signed, sealed & Delivered in presence of Hannah Sewall -

Edmund Hinkley Seal
Anna Hinkley - Seal

Lincoln ss. 29. April 1806. Personally appeared Aaron Hinkley & Edmund Hinkley and acknowledged the ab within written Instrument by them subscribed to be their free act and Deed — before me Dumr Sewall Just. of the Peace

Received May 20. 1806. and recorded from the Original Pr Elias Merrill Reg.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:57 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
1569	DEED	00048/20	11/21/1805

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
INGRAHAM JOSEPH H	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

20

KNOW ALL MEN BY THESE PRESENTS,

That I Joseph Holt Ingraham of Portland, in the County of Cumberland, Merchant —

in consideration of the sum of One Dollar -

paid by the Inhabitants of the Town of Portland

the receipt whereof I do hereby acknowledge — do hereby give, grant, bargain, sell and convey unto the said Inhabitants — — — — — — — — — — — — ~~heirs and assigns forever~~

One quarter of an Acre of land, Situate in the said Town of Portland and lying in Common, with thirty five Acres and three quarters more, which thirty six Acres are the same that was set off to Kerenhappuck Brackett, widow of the late Anthony Brackett, as part of her Dower as by the Record thereof in the Probate Court of said County may appear, and is bounded Southerly and Easterly by Roads, Northerly by a Creek, and westerly by land lately in the Possession of the Reverend Samuel Dean, but since sold by him to one or more persons of the Name of Douglass, With the Appurtenances — — —

To have and to hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Inhabitants and their Successors ~~heirs and assigns~~, to their use and behoof forever. And I do covenant with the said Inhabitants ~~heirs and assigns~~, that I am lawfully siezed in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Inhabitants as aforesaid — — — to hold as aforesaid. And that I will warrant and defend the same to the said Inhabitants and their Successors ~~heirs and assigns~~ forever, against the lawful claims and demands of all persons. In Witness Whereof I the said Joseph Holt Ingraham, and I Ann Ingraham wife of said Joseph, in token of my Release of Dower in the premises aforesaid —

have hereunto set our hands and seals this Sixth day of June — — in the year of our Lord, one thousand eight hundred and five

Signed, Sealed, and Delivered, in presence of us.

Melzer Lincoln. Eliza R. Ingraham } Joseph H. Ingraham (Seal) Ann Ingraham (Seal)

Cumberland ss. Portland June 6. 1805. Personally Appeared Joseph Holt Ingraham and Acknowledged the above Instrument to be his free act and Deed before me

John Frothingham Just. of the Peace

Recd. Novr 21. 1805. and Recorded from the Original

Mr Elias Merrill Reg.

Cumberland County Register of Deeds Current datetime: 12/13/2023 1:06:50 PM

DETAILS REPORT

**Note: Report is Sorted in Ascending Order by Office, Recorded Date, Document Number

Doc#	Document Type	Book/Vlm/Page	File Date
504	DEED	00045/512	06/05/1805

Street	Street Name	Description

Grantors	Grantees	Street	Property Description
INGRAHAM JOSEPH H	PORTLAND CITY OF		

References

Book/Vlm/Page	Description	Recorded year

Legal Description\Remarks

Lot	Block	Subdivision	Plat

512

in the above described ~~xxxxxxxx~~ Lots of Land have hereunto set our hands and seals this first day of June in the year of our LORD one thousand eight hundred and five -

Signed Sealed & delivered in presence of us
I bought, & enw Alexander Ros interlined before signing
John Frothingham Solomon Boyce
Anna Lowell Betsey Lowell -

Abner Lowell (Seal)
Mary Lowell (Seal)

Cumberland ss. Portland June 5th. 1805. Personally appeared Abner Lowell and acknowledged the above Instrument to be his free act and Deed.

Before me - John Frothingham Justice Peace

Received June 5th 1805 and Recorded from the Original. Elias Merrill Regr:

J. H. Ingraham to Inhabitants of Portland

Know all Men by these Presents, That I Joseph Hott Ingraham of Portland in the County of Cumberland Merchant in consideration of Ten dollars paid by the Inhabitants of the Town of Portland aforesaid, the receipt whereof I do hereby acknowledge, do hereby give, grant, sell and convey unto the said Inhabitants two acres of Land situate in the said town of Portland & Lying in common with thirty four acres more, which thirty five acres are the same that was set off to Kunkhappunk Brackett widow of Anthony Brackett as part of her dower as by the record thereof in the ~~xxxx~~ Probate Court of said County may appear, & is bounded southerly & easterly by woods, northerly by a creek, & westerly by Land lately in the Possession of the Rev. Samuel Deane, but since sold by him to one or more persons of the name of Douglas, with the appurtenances - To have and to hold the aforegranted premises to the said Inhabitants & their successors to their use and behoof forever, And I do covenant with the said Inhabitants, that I am lawfully seized in fee of the aforegranted Premises, ~~to the same~~ that they are free of all Incumbrances; that I have good right to sell and convey the same to the said Inhabitants as aforesaid. And that I will warrant and defend the same premises to the said Inhabitants & their successors forever, against the lawfully claims and demands of all persons. In Witness whereof I the said Joseph H. Ingraham and I Ann Ingraham wife of said Joseph in token of my ~~relinquish~~ release

release of Dower in the premises have hereunto set ~~my~~ our hands and Seals this twelvth day of October in the Year of our LORD one thousand eight hundred and two ——

Signed, Sealed and delivered in presence of us } Joseph Holt Ingraham (Seal)
Willm. Cambell Isaac Ilsley — } Ann Ingraham (Seal)

Cumberland ss. ~~Rec~~ October 12th 1802: then the above named Joseph H. Ingraham and Ann Ingraham acknowledged the above Instrument to be their act and deed — before Isaac Ilsley Justice of the Peace —

~~Rec~~ October 12th 1802 then the above named Joseph ~~H. Ingraham &~~ ~~Ann~~ Ingraham acknowledged the above Instrument to be their free ~~act and deed~~ — before me — Isaac Ilsley Justice Peace —

Received June 5th 1805 and Recorded from the Original —

Jr. Elias Merrill Regr.

Know all Men by these Presents, That I John Coe of Portland in the County of Cumberland Apothecary, in consideration of the Sum of Six hundred & fifty dollars paid by Stephen ~~Mr Sellar~~ Cummings of the same Portland Physician, the receipt whereof I do hereby acknowledge, have remised released and forever quitclaimed, and do by these presents remiss, release and forever quitclaim unto the said Stephen Cummings his heirs and assigns forever, all my right, Title and Interest in and upon a certain piece of Land situated in Portland and bounded as follows (viz beginning at a Stake, ~~Standing~~ and a heap of Stones Standing on the bank of fore river at the western line of the ~~river~~ Widow Brackets Dower, thence Northerly by the line of said dower eight rods to a Stake and from the two above mentioned bounds to keep the width of eight rods on a course South Sixty five degrees west to the eastern line of Mrs. Mary Thomas's Land including all the Land and Flatts lying below the above described Land said Flatts to keep the width of nine rods bounded by the dower on the east to the Channel in fore River — To have and to hold the

John Coe to S. Cummings

Same

Zoning Assessment Table

ZONING ANALYSIS Relevant Zone(s) Recreation Open Space (ROS)

All Projects:

	Required	Proposed
Lot Size	NA	NA
Area Per Dwelling Unit	NA	NA
Minimum Street Frontage	NA	NA
Front Yard Minimum	NA	NA
Front Yard Maximum	NA	NA
Rear Yard	25	NA
Yard Right	NA	NA
Yard Left	12	11
Side Street Setback	NA	NA
Step Back	NA	NA
Maximum Lot Coverage	NA	NA
Minimum Lot Coverage	NA	NA
Maximum Height	45	40
Open Space	NA	NA
Maximum Impervious Area	75%	< 75%
Pavement Setback	NA	NA
Floor Area Ratio	0.5	< 0.5
Off Street Parking Spaces	NA	NA
Loading Bays	NA	NA
Other 1	NA	NA
Other 2	NA	NA
Other 3	NA	NA

Planned Residential Unit Developments (PRUD) Requirements

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

Affordable Housing Density Bonuses (if applicable)

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

Site Plan Standards Assessment

To: Kevin Craft
Planning and Urban Development Director
City of Portland
389 Congress Street, Floor 4
Portland, Maine 04101

Date: April 19, 2024

Project #: 55748.00

From: David Senus, P.E.
Jason Howe

Re: Major Site Plan Review – Site Plan Standards Assessment
Portland Sea Dogs Clubhouse Addition

Please find the information below pertaining to the Site Plan Standards Assessment:

14.6.3 Public infrastructure and community safety standards

A. Consistency with City master plans

1. All developments shall be designed so as to be consistent with City Council-approved master plans and facilities plans and with off-premises infrastructure.

The project will allow for the Sea Dogs organization to comply with league rules through upgrades to the Hadlock Stadium facility, a City of Portland property maintained by the Sea Dog's organization through agreements with the City. The Sea Dogs have contracted with the City of Portland to be the primary tenant at Hadlock Stadium. The project is consistent with the Athletic Facilities Task Force Report (February 2011). Specifically, the project allows for the Sea Dogs organization to continue using and maintaining Hadlock Stadium both now and into the future, a use that is noted in the report as an existing and anticipated future use for this facility. The project will not result in impacts to off-premises infrastructure, as it will not create additional traffic, nor will the physical impacts of the project extend beyond the property boundaries. The project will preserve the former rail ROW that abuts the side and rear of the property, a parcel of land owned by the City of Portland and planned as a future greenway/trail system. In net the project will result in 500 less bleacher seats within the ballpark. All public utility infrastructure servicing the project will be connected to existing City systems in Park Ave with negligible or no anticipated change or impact to these systems.

2. The site plan shall include suitable easements, rights, and improvements to connect or continue off-premises public infrastructure as may be required by the review authority.

The project does not require any easements or rights to obtain access to the facilities, to construct the overall improvements, or to connect to abutting public infrastructure in Park Ave.

B. Public safety and fire prevention

1. All development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime:

a. Natural surveillance that promotes visibility of public spaces and areas.

The clubhouse addition will largely be visible from Park Ave and from the parking lot utilized by the Sea Dogs along south and west facades of the new structure, an area managed and overseen by Seadogs organization staff. This area is illuminated at night from existing parking lot light poles and building-mounted lights on the existing stadium, and planned lights mounted on the new clubhouse addition. The north façade of the clubhouse will face a City of Portland parcel that runs along the side and rear of Hadlock Stadium. This parcel is a former railroad ROW, programmed to become a future trail/greenway by the City. The drive-lane alley formed on the north side of the building will be fenced and gated for restricted access in this area, with a building-mounted lighting system illuminated this alleyway. The east

Memorandum

façade of the building is proposed along an access-controlled alley internal to the stadium, adjacent to the existing stadium wall. The internal alley terminates at a future bullpen/field area at the north end of the alley (also internal to the stadium, with controlled access).

b. Access control that promotes authorized and/or appropriate access to the site.

The alley that is formed by the clubhouse addition will provide maintenance and emergency service access to the rear of the stadium and to left field. This area will be fenced in with a vehicle fence gate, and there will be lighting on the building to increase security and visibility in this zone. The alley that is formed on the east edge of the addition is internal to the stadium, which is a controlled-access area.

c. Territorial reinforcement that promotes a sense of ownership and responsibility through environmental design.

The use of fences, gates, and stadium access controls along with facility signage will clearly delineate private, semi-private, and public spaces on the property.

2. All developments shall be designed to provide adequate emergency vehicle access to the site and comply with the Public Safety standards of the Technical Manual.

The project includes a rear vehicle alley to allow for emergency vehicle access to the north side of the building. The south and west sides of the new clubhouse are open to and accessible from an existing parking lot.

DBH-Portland LLC
Portland, Maine

April 19, 2024

Project Narrative: Major League Baseball is requiring the Portland Seadogs to add a new clubhouse to Hadlock Field so that they can provide facilities for both teams. The proposed building is a 23,600 sf 2-story pre-engineered metal building that will provide lockers, restrooms, showers, lounge space, baseball workout areas and general utilities for the building. This project is primarily for the players, umpires, and ground crew; there will be no public access to this building. The exterior material of the proposed building will be finished with a metal panel that will match the color of the existing Hadlock Field. The proposed construction type will be IBC – type IIB (IBC 602) with a maximum building height not to exceed 40'. The building will support an elevator for ADA access to the second level and will have provisions to allow a stretcher to fit within the elevator cab. The proposed project completion date is estimated to be March 2025.

Financial Capability: See the owner's financial information attached.

Technical Capability: See the owner, architect, civil, and construction manager attached profiles.

Massing, Ventilations and Wind Impact: The new Clubhouse Addition will replace the existing detached bleacher and concession buildings. The new building will be adjacent, but not attached to the exiting stadium's third baseline concourse. Its overall height will be below that of the stadiums. On the opposite side of the building is an existing field access path that will be maintained. Beyond that, outside the clubhouse's property line is an existing abandoned rail line and wooded area, backing up to a residential neighborhood. The proposed project has similar access points and building area currently on site and will not create any wind or ventilation impacts.

Massing, Ventilations and Wind Impact: The Clubhouse overall area is 20,632 sf evenly divided between two stories with an additional 3,194 sf "Bullpen" space exposed to the elements at grade next to the field. The new Clubhouse height will be roughly 39'-9" above grade at the roofs peak, below that of the existing stadiums box seats ~ 40'-0" above grade. The new structure will wrap in an "L" shape around a portion of the Stadiums third baseline concourse.

Shadows, if applicable: The Clubhouse is positioned on the site to be away from public spaces. It is adjacent to the stadium's concourse and bleachers but not accessible from them. It is also adjacent to an abandoned rail line and a wooded area on its opposite side. There will be minimum public interaction with the facility; Its primary purpose is back of house service for the Seadogs organization and staff. The overall height is comparable to the existing stadium and designed to accommodate public views / sightlines for the stadium's intended purpose.

Snow and Ice Loading: The Clubhouse will be designed to meet all applicable codes including those for snow loads and drifts. The Clubhouse roof is a single slope shed room that slopes away from all adjacent public spaces. Snowfall protection devices and restraints will be included along the roof, and above all egress points as applicable. Any snow that should manage to fall from the roof will do so onto areas not accessible to the public, directly adjacent to the building footprint, and wholly within the building's property line.

Exterior Lighting: The site related lighting consists of building mounted full cut off area lighting located at 16 feet AFG (W5) and (W6), wall mounted full cut off egress lighting mounted over the entry doors (W4), downlights under the canopy of the walkway (R2). See attachment for additional information.

Noise and Vibration: The Heating, ventilation, and air conditioning system are high-efficient units commonly used on new commercial projects. The units are located on the project to minimize any noise levels to surrounding neighbors.

Construction Management Plan: See attached information.

ARCHITECTURAL PLANS AND RENDERINGS: See attached drawings.

Portland, Maine Yes. Life's good here.

Planning & Urban Development Department

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All Projects:

	Required	Proposed
Lot Size	NA	NA
Area Per Dwelling Unit	NA	NA
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Front Yard Maximum	NA	NA
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Yard Right	NA	NA
Yard Left	12	11
Side Street Setback	NA	NA
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Height	NA	NA	NA
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Construction Management Plan: See attached information.

ARCHITECTURAL PLANS AND RENDERINGS: See attached drawings.

Att. F

General Notes

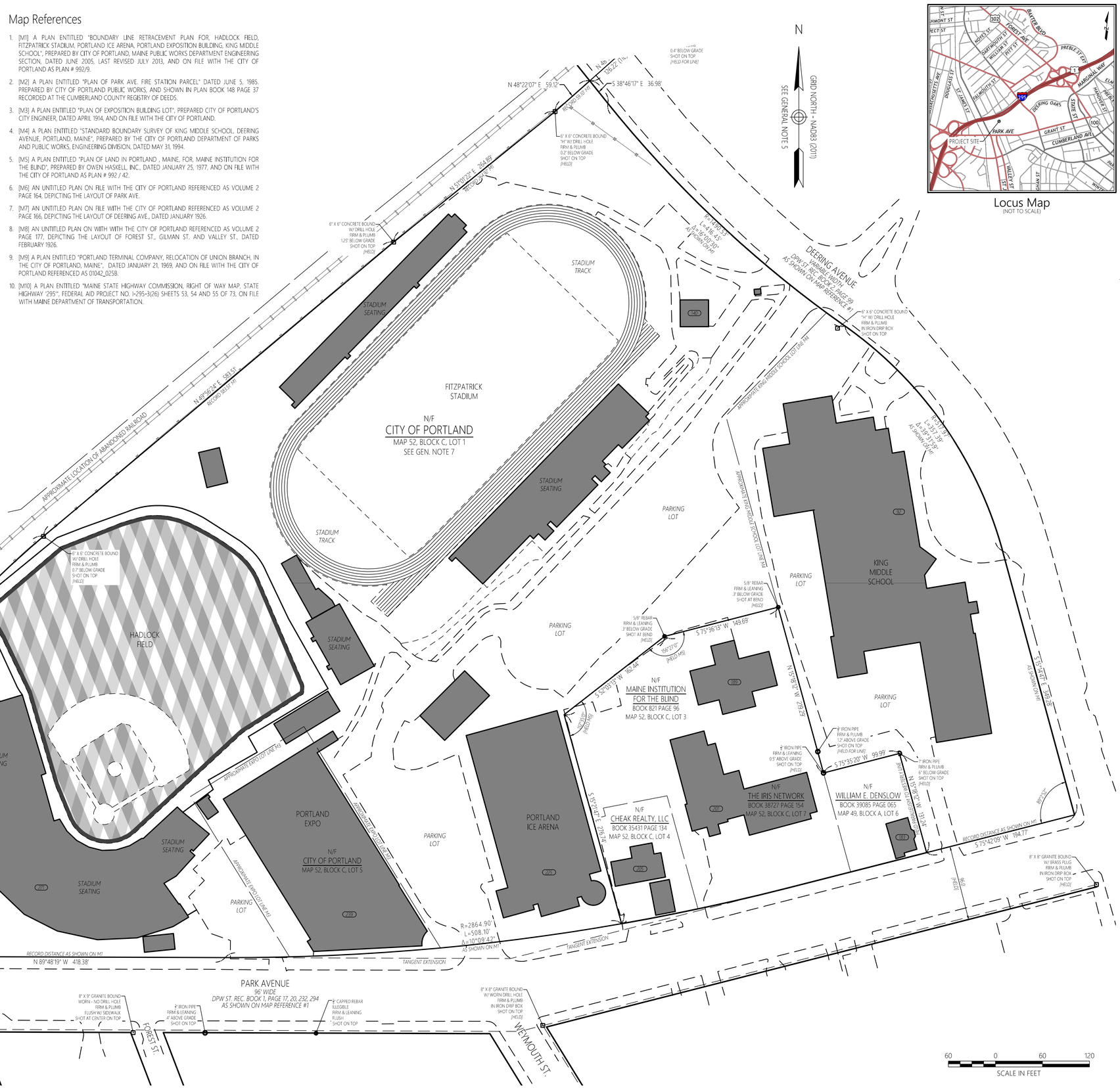
1. THIS PLAN AND ALL WORK ASSOCIATED WITH IT WAS PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. (VHB, INC.) PURSUANT TO A PROFESSIONAL SERVICES CONTRACT BETWEEN LAVALLEE / BRENSINGER ARCHITECTS AND VHB, INC. DATED OCTOBER 19, 2023.
2. THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON A BOUNDARY RETRACEMENT SURVEY CONDUCTED BY VHB, INC. IN DECEMBER OF 2023 AND FROM DEEDS AND PLANS OF RECORD.
3. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED ON PLANIMETRIC MAPPING OF AERIAL IMAGERY, DATED APRIL 20, 2023 ACQUIRED FROM NEARMAP. EXISTING CONDITIONS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY. AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY WAS PERFORMED BY VHB, INC. IN DECEMBER OF 2023 AND IS SHOWN ON SHEET 2 OF 2.
4. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON SURFACE OBSERVABLE FEATURES THAT WERE LOCATED AT THE TIME OF THE SURVEY. THIS EFFORT WAS SUPPLEMENTED BY STRUCTURE INVERTS AND PAINT MARKS FOUND DURING THE ON-THE-GROUND SURVEY. DIG-SAFE SHOULD BE CONTACTED PRIOR TO COMMENCING ANY EXCAVATION. (888-344-7233)
5. HORIZONTAL DATUM IS BASED ON GRID NORTH AND REFERS TO THE MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, NORTH AMERICAN DATUM OF 1983 (2011), 2010 EPOCH, GEOID 18, US SURVEY FEET; AND IS BASED ON GPS OBSERVATIONS PROCESSED USING ONLINE POSITION USER SERVICE (OPUS). ELEVATION DATA SHOWN HEREON IS IN REFERENCE TO THE CITY OF PORTLAND DATUM ESTABLISHED ON APRIL 02, 1901, AS ON RECORD WITH THE CITY OF PORTLAND MAINE DEPARTMENT OF PUBLIC WORKS.
6. THE LOCUS PARCEL IS DEPICTED PARCEL ID 049 A001001 ON THE CITY OF PORTLAND MAINE PARCEL VIEWER AND REFERENCED AS LOT 1, BLOCK A OF TAX MAP 49, LOT 1 AND 3, BLOCK C OF TAX MAP 51 WITH THE CITY OF PORTLAND TAX ASSESSOR. ABUTTING PROPERTY OWNER INFORMATION REFERENCED HEREON WAS TAKEN FROM HE CITY OF PORTLAND MAINE PARCEL VIEWER DATA AS OF THE DATE OF THE SURVEY.
7. THE RECORD OWNER FOR THE LOCUS PARCEL IS THE CITY OF PORTLAND, MAINE. REFERENCE DEEDS FOR THE LOCUS PARCEL ARE RECORDED WITH THE CUMBERLAND COUNTY REGISTRY OF DEEDS AND ARE AS FOLLOWS (DEED BOOK – PAGE): 1998-402, 1712-354, 1694-158, 1693-174, 1677-247, 1361-465, 1352-153, 1316-336, 779-45, 569-424, 349-469, 348-468, 218-163, 146-159, 134-357, 109-246, 105-115, 101-188, 90-81, 49-356, 48-20, 45-512 .
8. THE LOCUS PARCEL IS SUBJECT TO: TBD
9. THE LOT, *WITH THE EXCEPTION OF THE KING MIDDLE SCHOOL LOT*, LIES ENTIRELY WITHIN RECREATION AND OPEN SPACE (ROS) AS SHOWN ON THE "ZONING MAP VIEWER" ON FILE WITH THE CITY OF PORTLAND. DIMENSIONAL REQUIREMENTS FOR (ROS) AT THE TIME OF THIS SURVEY ARE:

	REQUIRED
MINIMUM FRONT YARD SETBACK	25 FEET
MINIMUM SIDE YARD SETBACK	12 FEET
MINIMUM REAR YARD SETBACK	25 FEET
MAXIMUM BUILDING HEIGHT	35 FEET, 45 FEET IS MORE THAN 1,000 FEET FROM SHORELAND ZONE

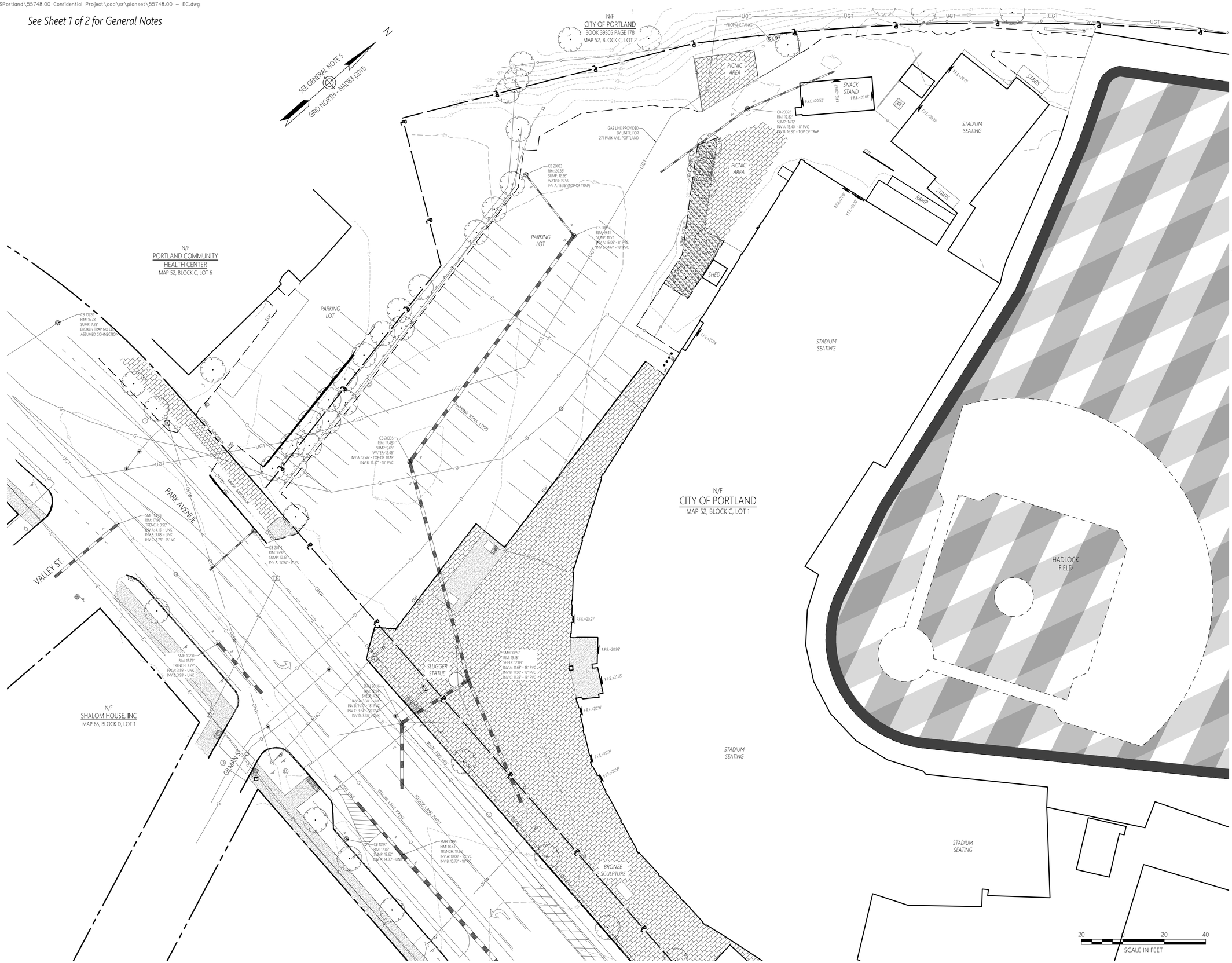
10. THE LOT LIES ENTIRELY WITHIN FLOOD ZONE C AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR CITY OF PORTLAND, CUMBERLAND COUNTY NUMBER PANEL 13 OF 17, COMMUNITY PANEL NUMBER 2300510138 WITH THE EFFECTIVE DATE OF JULY 17, 1986.
11. PARK AVENUE, FORMERLY PORTLAND STREET, IS AN 96' WIDE PUBLIC RIGHT OF WAY AS SHOWN ON MAP REFERENCE #1. DISCREPANCIES WERE FOUND IN RECORD PLANS AS NOTED ON SAID MAP REFERENCE #1.
12. DEERING AVENUE, IS VARIABLE WIDTH PUBLIC RIGHT OF WAY AS SHOWN ON MAP REFERENCE #1 AND MAP REFERENCE #7.
13. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND MAY BE SUBJECT TO ADDITIONAL INFORMATION DISCLOSED IN SUCH.

Map References

1. [M1] A PLAN ENTITLED "BOUNDARY LINE RETRACEMENT PLAN FOR, HADLOCK FIELD, FITZPATRICK STADIUM, PORTLAND ICE ARENA, PORTLAND EXPOSITION BUILDING, KING MIDDLE SCHOOL", PREPARED BY CITY OF PORTLAND, MAINE PUBLIC WORKS DEPARTMENT ENGINEERING SECTION, DATED JUNE 2005, LAST REVISED JULY 2013, AND ON FILE WITH THE CITY OF PORTLAND AS PLAN # 992/9.
2. [M2] A PLAN ENTITLED "PLAN OF PARK AVE. FIRE STATION PARCEL" DATED JUNE 5, 1985, PREPARED BY CITY OF PORTLAND PUBLIC WORKS, AND SHOWN IN PLAN BOOK 148 PAGE 37 RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
3. [M3] A PLAN ENTITLED "PLAN OF EXPOSITION BUILDING LOT", PREPARED CITY OF PORTLAND'S CITY ENGINEER, DATED APRIL 1914, AND ON FILE WITH THE CITY OF PORTLAND.
4. [M4] A PLAN ENTITLED "STANDARD BOUNDARY SURVEY OF KING MIDDLE SCHOOL, DEERING AVENUE, PORTLAND, MAINE", PREPARED BY THE CITY OF PORTLAND DEPARTMENT OF PARKS AND PUBLIC WORKS, ENGINEERING DIVISION, DATED MAY 31, 1994.
5. [M5] A PLAN ENTITLED "PLAN OF LAND IN PORTLAND , MAINE, FOR, MAINE INSTITUTION FOR THE BLIND", PREPARED BY OWEN HASKELL, INC., DATED JANUARY 25, 1977, AND ON FILE WITH THE CITY OF PORTLAND AS PLAN # 992 / 42.
6. [M6] AN UNTITLED PLAN ON FILE WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 164, DEPICTING THE LAYOUT OF PARK AVE.
7. [M7] AN UNTITLED PLAN ON FILE WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 166, DEPICTING THE LAYOUT OF DEERING AVE., DATED JANUARY 1926.
8. [M8] AN UNTITLED PLAN ON WITH WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 177, DEPICTING THE LAYOUT OF FOREST ST., GILMAN ST. AND VALLEY ST., DATED FEBRUARY 1926.
9. [M9] A PLAN ENTITLED "PORTLAND TERMINAL COMPANY, RELOCATION OF UNION BRANCH, IN THE CITY OF PORTLAND, MAINE", DATED JANUARY 21, 1969, AND ON FILE WITH THE CITY OF PORTLAND REFERENCED AS 01042_025B.
10. [M10] A PLAN ENTITLED "MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY "295", FEDERAL AID PROJECT NO. I-295-3(26) SHEETS 53, 54 AND 55 OF 73, ON FILE WITH MAINE DEPARTMENT OF TRANSPORTATION.


N
GRID NORTH - NAD83 (2011)
SEE GENERAL NOTE 5
0.4' BELOW GRADE SHOT ON TOP (HELD FOR LINE)
N 48°22'07" E 59.12'
N 38°46'17" E 36.98'
N 51°09'22" E 264.89'
RECORD DISTANCE AS SHOWN ON M1
6" X 6" CONCRETE BOUND "HI" W/ DRILL HOLE FIRM & PLUMB 0.2' BELOW GRADE SHOT ON TOP (HELD)
6" X 6" CONCRETE BOUND W/ DRILL HOLE FIRM & PLUMB 1.25' BELOW GRADE SHOT ON TOP (HELD)
N 49°56'24" E 583.55'
RECORD DISTANCE AS SHOWN ON M1
APPROXIMATE LOCATION OF ABANDONED RAILROAD
R=1120.92'
L=319.29'
Δ=16°19'41"
AS SHOWN ON M1
R=1430.35'
L=446.45'
Δ=17°53'30"
AS SHOWN ON M1
DEERING AVENUE
VARIABLE WIDTH
DPW ST. REC. BOOK 2, PAGE 99
AS SHOWN ON MAP REFERENCE #1
6" X 6" CONCRETE BOUND "HI" W/ DRILL HOLE FIRM & PLUMB IN IRON DRIP BOX SHOT ON TOP
R=2914.93'
L=357.71'
Δ=7°01'59"
AS SHOWN ON M1
APPROXIMATE KING MIDDLE SCHOOL LOT LINE M4
APPROXIMATE ROS/ZONE BOUNDARY
APPROXIMATE EXPO LOT LINE M3
APPROXIMATE EXPO LOT LINE M3
STADIUM TRACK
STADIUM SEATING
FITZPATRICK STADIUM
N/F
CITY OF PORTLAND
MAP 52, BLOCK C, LOT 1
SEE GEN. NOTE 7
PARKING LOT
STADIUM TRACK
STADIUM SEATING
HADLOCK FIELD
8" X 8" CONCRETE BOUND W/ DRILL HOLE FIRM & PLUMB 0.7' BELOW GRADE SHOT ON TOP (HELD)
N/F
CITY OF PORTLAND
BOOK 39305 PAGE 178
MAP 52, BLOCK C, LOT 2
PICNIC AREA
STADIUM SEATING
STADIUM SEATING
PARKING LOT
PORTLAND EXPO
N/F
CITY OF PORTLAND
MAP 52, BLOCK C, LOT 5
PARKING LOT
PARKING LOT
PORTLAND ICE ARENA
PARKING LOT
KING MIDDLE SCHOOL
PARKING LOT
PARKING LOT
5/8" REBAR FIRM & LEANING 3' BELOW GRADE SHOT AT BEND (HELD)
S 75°35'15" W 149.69'
S 32°10'15" W 182.44'
102°21'15" (HELD MS)
102°21'15" (HELD MS)
N/F
MAINE INSTITUTION FOR THE BLIND
BOOK 821 PAGE 96
MAP 52, BLOCK C, LOT 3
N 15°28'28" W 279.69'
S 75°35'20" W 99.99'
3/4" IRON PIPE FIRM & LEANING 0.5' ABOVE GRADE SHOT ON TOP (HELD)
3/4" IRON PIPE FIRM & PLUMB 1.3' ABOVE GRADE SHOT ON TOP (HELD FOR LINE)
3/4" IRON PIPE FIRM & PLUMB 6" BELOW GRADE SHOT ON TOP (HELD)
N/F
THE IRIS NETWORK
BOOK 38727 PAGE 154
MAP 52, BLOCK C, LOT 7
N/F
WILLIAM E. DENSLOW
BOOK 39085 PAGE 065
MAP 49, BLOCK A, LOT 6
N 15°28'28" W 278.74'
RECORD DISTANCE AS SHOWN ON M1
S 75°42'09" W 194.77'
89°30'
S 75°42'09" W 303.98'
AS SHOWN ON M1
8" X 8" GRANITE BOUND W/ BRASS PLUG FIRM & PLUMB IN IRON DRIP BOX SHOT ON TOP (HELD)
PARK AVENUE
96' WIDE
DPW ST. REC. BOOK 1, PAGE 17, 20, 232, 294
AS SHOWN ON MAP REFERENCE #1
N 89°48'19" W 418.38'
RECORD DISTANCE AS SHOWN ON M1
TANGENT EXTENSION
TANGENT EXTENSION
R=2864.90'
L=508.10'
Δ=10°09'42"
AS SHOWN ON M1
N 63°20'19" W 73.65'
N 63°20'19" W 73.65'
RECORD 76.84' M2
N 63°20'19" W 73.65'
RECORD 76.84' M2
N 63°20'19" W 73.65'
RECORD 76.84' M2

See Sheet 1 of 2 for General Notes



vhb.com

vhb

500 Southborough Drive
Suite 105B
South Portland, ME 04106
207.889.3150

Legend

- DRAIN MANHOLE
- FIRE HYDRANT
- WATER GATE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- UTILITY POLE W/ LIGHT
- TREE
- SHRUB
- BOUNDARY MONUMENT
- BOUNDARY MONUMENT
- SIGN
- SIGN POST
- GATE POST
- MB MAILBOX
- W WATER MANHOLE
- EM ELECTRIC METER
- EHH ELECTRIC HANDHOLE
- WATER VALVE
- CATCH BASIN
- MANHOLE
- TELEPHONE MANHOLE
- FIRE HOSE BIB
- FLOODLIGHT
- LIGHT POLE
- FFE = 45.27' FINISHED FLOOR ELEVATION
- TREE
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- DYL DOUBLE YELLOW LINE
- DWL DASHED WHITE LINE
- SYL SINGLE YELLOW LINE
- LSA LANDSCAPED AREA

- GIS PROPERY LINE
- GIS TOWN LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- EOP EDGE OF PAVEMENT
- SINGLE WHITE FOG LINE
- DOUBLE YELLOW LINES
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE CURB
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- EDGE OF GRAVEL
- TREELINE
- STOCKADE FENCE
- STONEWALL
- UNDERGROUND ELECTRIC LINE
- OHW OVERHEAD WIRES
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- GUARD RAIL
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- BUILDING
- EDGE OF CONCRETE
- CENTERLINE OF DITCH
- BARBWIRE FENCE
- STREAM
- ABUTTER PARCEL
- LOCUS PARCEL
- RIGHT OF WAY LINE
- EASEMENT LINE
- LEASE LINE
- SETBACK LINE

Hadlock Field Improvements

271 Park Avenue
Portland, Maine

No.	Revision	Date	Appvd.
A	Preliminary issued for client review	01/26/24	

Designed by: JA
Checked by: EGW

Issued for: CM Pricing Set
Date: January 26, 2024

Drawing Title
Existing Conditions

Drawing Number
Sv-2

Sheet 2 of 2

Project Number
55748.00

Saved Thursday, January 25, 2024 3:28:03 PM JADAMS Plotted Thursday, January 25, 2024 3:28:35 PM Josh Adams



HSBC BANK USA, NATIONAL ASSOCIATION
66 Hudson Boulevard
New York, New York 10001

Date April 10th, 2024

Re: DIAMOND BASEBALL HOLDINGS LLC

Dear Walter Bater,

Reference is made to the above-captioned Customer of HSBC Bank USA, National Association (the "Bank").

Please be advised that the Customer has maintained accounts with the Bank since 2021. All accounts are routine, non-borrowing accounts and have been maintained and operated in a satisfactory manner. Balances in the account are in aggregate in low 9-figure amounts.

This letter and the information herein is provided to you without engagement or liability on the part of the Bank (or any of our affiliates or our or their respective directors, officers, employees or agents) and is furnished on the condition that it is held strictly confidential. This letter makes no representations regarding the general condition of the Customer, its management, or its ability to meet its obligations and this letter refers only to facts as they exist as of the date hereof. The Bank shall not be under any duty or obligation to inform the addressee hereof of any future changes in such facts.

Very truly yours,

HSBC Bank USA, National Association

By: 

Name: Paul Weeks
Title: Regional Head

April 18, 2024

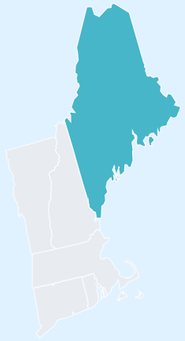
To Whom It May Concern:

DBH Portland, LLC DBA Portland Sea Dogs has owned the team since 2023. The team is led by President and General Manager Geoff Iacuessa who has been with the team since 2001 and served as GM since September of 2010. The team is the primary tenant of the city owned Hadlock Field. The relationship with the city of Portland is strong and the team enjoys great community support.

Thank you,

Geoff Iacuessa
President and General Manager
Portland Sea Dogs

DBH Portland LLC • PO Box 636 • Portland, ME 04104
Phone (207) 874-9300 • Fax (207) 780-0317 • www.seadogs.com
Class AA Affiliate of the Boston Red Sox



30+ Years Supporting Communities throughout Maine

For more than 30 years, VHB has worked with developers, retailers, corporations, municipalities, and state agencies throughout Maine to grow and enhance communities. We help create sought after institutional campuses, retail and restaurant destinations, office parks, residential communities, and four-season resorts, and design infrastructure improvements that have enabled mobility and improved connectivity throughout the region.

We offer technical excellence and local context in the markets in which we operate. VHB maintains strong relationships with cities, counties, brokers, attorneys, developers, retailers, architects, and state and local agencies that your development will directly benefit. We work alongside our clients and stakeholders to maneuver through complex permitting environments; prepare site designs; meet sustainability and budgetary goals; develop transportation options to better move staff, residents, and visitors; and deliver projects on time.

Core Service Areas

» Transportation Engineering & Permitting

» Land Development

» Environmental

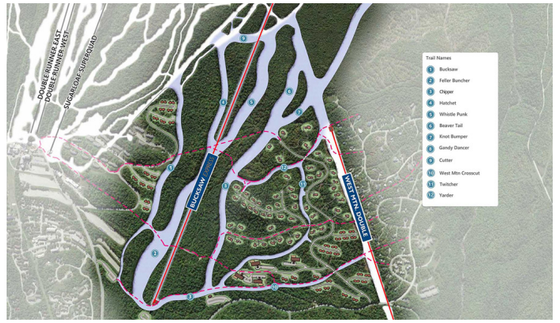
» Applied Technologies

» Planning & Design

VHB provided **transportation planning** services for the Maine Medical Center Campus Replacement and Modernization Project



The West Mountain project is considered **one of the most transformative enhancements in Sugarloaf's 70 years** and is a key part of the 10-year "Sugarloaf 2030 Road Map"





Courtesy of the Institute for Digital Engineering and Life Sciences

Highlighted Experience

Maine Medical Center Campus Replacement & Modernization

When the Maine Medical Center embarked on the most ambitious modernization and replacement project in its history—a patient-focused initiative that will enable the state's largest hospital to meet the most urgent healthcare needs well into the future, they entrusted VHB to provide transportation planning services, such as access, circulation, and parking solutions, and the development of a Transportation Demand Management (TDM) Plan for the healthcare system.

Sugarloaf West Mountain Expansion

Sugarloaf is one of the largest ski areas in the northeastern United States. VHB led the master planning and permitting effort to design a new residential real estate development for Sugarloaf's West Mountain. The project included ski-in/ski-out single-family lots, condominiums, and town homes, 130 acres of new ski terrain, and a new high-speed detachable lift. The master plan incorporated onsite storm water treatment and sensitive design around natural resources to minimize potential impacts, which required VHB to work closely with permitting agencies.

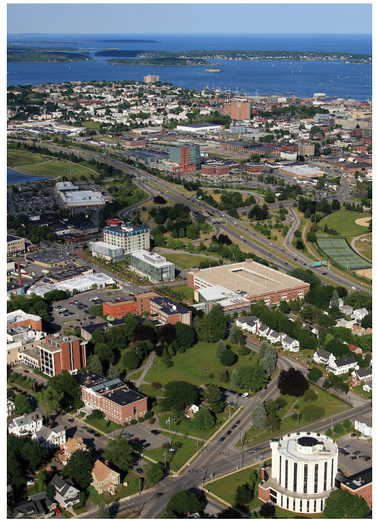
The Roux Institute at Northeastern University in Portland

The Initiative for Digital Engineering and Life Sciences (IDEALS) is a non-profit organization founded by David and Barbara Roux which is now developing a permanent home for the Roux Institute at Northeastern University in Portland. The Roux Institute combines graduate education, research, and support for entrepreneurs in partnership with business and community partners in the high-tech fields of artificial intelligence, big data, and genomics, among others.

VHB is leading the permitting of the new Roux Institute Campus on the former B&M site in Portland Maine. The campus will ultimately consist of the 4,500 student Roux Institute in addition to up to 500,000 square-feet of office and laboratory partners, up to 800 units of housing, a business incubator and supporting retail. VHB is working with the City of Portland, MaineDOT and Metro to ensure that the transportation network can accommodate this large multiuse development. Through increased transit options, new shared use paths and on street bicycle facilities and an extensive pedestrian network, the site will significantly limit reliance on single occupant automobiles.



VHB's passionate professionals partner with clients from 30+ locations, with three locations in Maine, including South Portland, Augusta, and Westbrook.



In 2019, the University of Southern Maine selected VHB to provide transportation consulting services in support of the university's advancement of its capital planning efforts for its Portland campus



VHB is providing site/civil engineering and transportation planning support for the update to **Colby College's Campus Framework Plan** (Colby College pictured to the left).

Besides competing for the best and the brightest students and faculty through program and curricula offerings, institutions recognize the need to renew and transform their physical environment. VHB is at the forefront of collaborating with colleges and universities as they build for the future. We offer the best of two worlds: the focus and personal attention of a small, local consulting firm backed by the in-house resources of an 1,800-person multidisciplinary company. **Our skilled professionals provide a range of services to help our institutional clients fulfill their fundamental role and mission.**



Brown University, Wellness Center and Residence Hall

National Reach, Local Expertise

VHB has worked with some of the nation's most distinguished universities and corporations. We bring a national perspective to our development projects in Maine with significant local knowledge, experience, depth, and skills. Below are some featured clients we have partnered with throughout Maine to support their development goals.







Colby College
- » Gordon Center for Creative & Performing Arts
- » Cotter Walk Access Study
- » Mayflower Hill Residential Hall
- » 2022 Framework Plan Update
- » Johnson Pond Housing
- » Bixler & Runnals Walk – Utility & Pedestrian Improvements
- » Alumni Drive
- » South Lot Parking
- » Campus Parking Strategic Plan
- » Energy Master Plan Support
- » Hillside Parking
- » Colby Green

University of Maine School of Law
- » Transportation Demand Management (TDM) Plan

Nouria Energy
- » Site Selection Support
- » ALTA Survey
- » Design, Permitting, and Construction Services

T.T. Maine Ventures
- » Time and Temperature Building Revitalization

The Jackson Laboratory
- » Permitting & Traffic Calming
- » Civil work including grading, stormwater and utilities, for Ellsworth Building 250

Travelers Insurance
- » Transportation Consulting

Portland Foreside Development
- » Transportation Demand Management (TDM) Plan

Program Retail Clients
- » CVS
- » Stop & Shop
- » Taco Bell
- » Jiffy Lube

Scarborough Downs
- » Offsite Mitigation Design

Flagpole of Freedom Park
- » Traffic & Transportation, Environmental Permitting

Maine Medical Center
- » Campus Replacement and Modernization Project
- » Traffic, Parking, and Transportation Demand Management (TDM) Plan

University of Southern Maine
- » Center for the Arts
- » Transportation Consulting
- » Residence Hall
- » Parking garage
- » Transportation Demand Management (TDM) Plan and Parking Demand Analysis

Waterstone Properties: Rock Row, Westbrook
- » TOD Transit Feasibility Study
- » Federal Railroad Administration Study

U.S. Customs & Border Protection
- » Madawaska Port of Entry Full Services



Firm Profile

ESTABLISHED
1976

PROFESSIONAL STAFF
47 Architectural Design
5 Interior Designers
4 Marketing / Graphic Design
6 Administrative

REGISTRATIONS
CA, CT, MA, ME, NH, NY, PA, RI, VT

LOCATIONS
MANCHESTER
155 Dow Street, Suite 400
Manchester, NH 03101
603.622.5450

BOSTON
99 Bedford Street, Suite 501
Boston MA 02111
617.398.2035

PORTLAND
305 Commercial Street
Portland, ME 04101
207.558.7200

PRIMARY CONTACT
Robert Robicsek, AIA
603.622.5450
robert.robicsek@LBPA.com

We are passionate about creative design that fulfills your vision and needs while building a lasting relationship. This is achieved through collaboration and being your advisor and advocate. Our approach is innovative, imaginative, and thoughtful, resulting in a design which is reflective of your brand, vision, and budget. We are trustworthy, fun to work with, diligent, and sincere in our commitment to help you reach your goals. Our staff and firm culture fully embraces this tenet; who we are, how we work, and our mission statement are all built on this principle.

OUR MISSION

Your Mission inspires us.
Our creativity and knowledge empower you.
Together we achieve excellence.

We offer extensive experience, focused expertise, a comprehensive complement of in-house services, and an extraordinary depth of portfolio. We serve a wide spectrum of market sectors including: healthcare; behavioral health; medical education / simulation; municipal / community; primary, secondary, and higher education; senior care; science and technology and workplace / corporate.

Together, in close collaboration with you and your team, we pledge our full commitment of resources with principal level staff who will lead your project from inception through successful completion!

PROFESSIONAL SERVICES

- 3-D modeling and animations
- ADA surveys
- Adaptive reuse
- Building code reviews
- Building design
- Construction budgeting
- Construction scheduling
- Environmental sustainability studies
- Facility assessment
- Feasibility studies
- Furniture and equipment
- Graphic design
- Historic renovation
- Interior design
- Life-cycle cost analysis
- Master planning
- Operations analysis
- Post-construction evaluation
- Project team management
- Signage and wayfinding
- Site analysis and land planning



Community Outreach

A Community Engagement Plan

The success of a project starts with community buy-in. This support is solely based on voter confidence. We believe in working closely with all community members, establishing vital connections with all stakeholders, and engaging in a constructive discourse regarding the value and return on investment your project will provide. Focusing discussions on community participation and community values, as well as the process used to arrive at decisions, helps justify the needs and cost.

Based on our successful track record, we are confident in our ability to assist you to do the same. Key components of our recommended community communication plan may include:

Strategic Planning

We will facilitate a Kick-Off Meeting to discuss the history, current opinions, and opportunities for building strong voter consensus. We will solicit input from the stakeholders regarding the key constituents and their issues and concerns. A time line will be generated and communication protocols established.

Media and Public Information

Based on your needs, we will devise a strategy which utilizes various media to engage and inform the community of the projects value and benefits. Communication tools may include:

- Informational brochures
- Community television and radio
- Internet-based discussion board, blogs, social networking sites
- On-line surveys, webcasts, podcasts
- Press releases and newsletters

Public Charrettes

Once sufficient information has been assembled to begin design of conceptual options and solutions, we will facilitate a series of public design meetings (a/k/a charrettes) at which the public will be encouraged to join the Building Committee, and the design team in considering design possibilities and alternatives. Often these charrettes include review and discussion of a physical model, or a 3-D computer-based “fly through” presentation.

Support Materials

Lavallee Brensinger Architects has a fully staffed marketing and graphic design group that will develop a variety of print and graphic materials to assist in the public outreach component of the development process. Our many successes have included very complex and sometimes controversial projects. We will bring our vast resources, skills, and expertise to help move your project forward.

GREAT FALLS
CONSTRUCTION SERVICES

- COMMERCIAL
- RESIDENTIAL
- MUNICIPAL & GOVERNMENT FACILITIES
- K-12 SCHOOLS
- HIGHER EDUCATION
- MIXED-USE FACILITIES
- MULTI-FAMILY HOUSING
- RENOVATION
- HISTORICAL RENOVATION



GREAT FALLS CONSTRUCTION
INDUSTRY ORGANIZATION MEMBERSHIPS

AGC MAINE
THE CONSTRUCTION ASSOCIATION

EMERGING CONTRACTOR'S GROUP
BUILDING MAINE'S FUTURE

ABC Associated Builders and Contractors Maine

PORTLAND Regional Chamber of Commerce

Lewiston Auburn METROPOLITAN CHAMBER of COMMERCE

MEREDA

The Falls CHAMBER OF COMMERCE

GrowSmart Maine

MAINE MUNICIPAL ASSOCIATION

GORHAM BUSINESS EXCHANGE

smps Northern New England

GORHAM VILLAGE ALLIANCE

Institute for Family-Owned Business

PROPEL
The Next Generation of Portland's Business Leaders
In Partnership with the Portland Regional Chamber of Commerce



CONSTRUCTING WITH A PURPOSE SINCE 1988

FAMILY OWNED & OPERATED

20 MECHANIC STREET
GORHAM, ME 04038

(207) 839-2744
info@greatfallsinc.com







ABOUT GREAT FALLS CONSTRUCTION

Great Falls Construction has been "Constructing with a Purpose" since 1988 as a premier Construction Management, Design-Build, and General Contracting firm respected throughout Maine and New Hampshire for meticulous craftmanship and committed customer service.

Great Falls has extensive experience working with clients on specialized projects. Regardless of the project type and contracted delivery method, we work closely with the project team to determine the scope of work, budget, and schedule that works best for the client and project at hand.

ESTABLISHED
Design Builder, General Contractor, and Construction Manager, Since 1988

ORGANIZATIONAL STRUCTURE
Family Owned and Operated Single Source Corporation with over 65 employees.
Bonding underwritten by Westfield Insurance. Current program to $225,000,000.

OWNERS
Jon Smith, President and Secretary
Cindy Smith, Vice President and Treasurer

OUR Great TEAM!

Our team of over 65 talented employees showcase Great Falls' strengths daily in our skills, constructability knowledge, experience, and the relationships we maintain with design, engineering and subcontractor professionals. We are confident you will find our team's unique approach to each project to be extremely personal, precise and efficient.



GREAT FALLS CONSTRUCTION EXPERIENCE

COMMERCIAL





INDUSTRIAL

RESIDENTIAL



GREAT FALLS SPECIALTIES



One of the reasons Great Falls is so adept at providing value as your construction partner is as a team we self-perform on many aspects of the project, when it provides value to the client and fits within the project's availability and schedule needs. Our on staff team is equipped to self-perform:

- ROUGH CARPENTRY
- FINISH CARPENTRY
- SIDING
- WINDOW INSTALLATION
- ROOFING
- PAINTING
- MISCELLANEOUS BUILDING SPECIALTIES
- OVERALL DEMOLITION
- CONCRETE PREP
- FRAMING
- CABINETRY INSTALLATION
- SMALL SCALE SITE DEVELOPMENT
- EXTERIOR TRIM
- LANDSCAPING
- DOORS
- FRAMES AND HARDWARE

May 29, 2024

Ref: Portland Sea Dogs Clubhouse Addition - Site Plan Review Process
Neighborhood Meeting Invitation

Dear Neighbor:

On Wednesday, June 12, 2024 at 6 PM, VHB invites you to attend a Neighborhood Meeting where we will present plans for a clubhouse addition to Hadlock Field for the Portland Sea Dogs (271 Park Avenue, Portland, Maine). The Portland Sea Dogs are adding a new clubhouse to Hadlock Field for conformance with league rules. The proposed building is a 23,600 sf, 2-story pre-engineered metal building to be located adjacent to the existing stadium. The building addition will provide lockers, restrooms, showers, baseball workout areas and general utilities. This project is primarily for the players, umpires, and ground crew; there will be no public access to this new building addition.

Meeting Location: Hadlock Field Function Room (located within the Stadium)
271 Park Avenue, Portland, Maine

Meeting Date: June 12, 2024

Meeting Time: 6 PM to 7 PM

The City of Portland's Land Use Code requires that neighboring property owners and residents on an "interested parties list" be invited to participate in this neighborhood meeting. A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board.

If you have any questions, please call 207.536.2583.

Sincerely,

David Senus, PE
VHB Senior Project Manager

Note:
Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Portland Dept. of Public Works -
Water Resources
212 Canco Road
Portland, Maine 04103

Date: 6/13/2024

Bradley Roland, P.E.
Water Resources Division
Department of Public Works
212 Canco Road
Portland, ME 04103

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

Site Address: 271 Park Avenue, Portland, Maine 04102

Chart Block Lot Number: 52-1

Proposed Use: Clubhouse Facility
Previous Use: None
Existing Sanitary Flows: Unknown GPD
Existing Process Flows: Unknown GPD
Description and location of City sewer that is to receive the proposed building sewer lateral.
Proposed sewer will connect to an existing City sewer line located on site

Site Category		
	Commercial *(see part 4 below)*	X
	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: Ameriz Gamez Phone: 207-874-8719
Owner/Developer Name: City of Portland
Owner/Developer Address: 389 Congress Street 4th Floor, Portland, ME 04101
Phone: 207-874-8719 Fax: 207-756-8258 E-mail: planning@portlandmaine.gov
Engineering Consultant Name: David Senus, PE
Engineering Consultant Address: 500 Southborough Drive, South Portland, ME 04106
Phone: 207-536-2583 Fax: NA E-mail: dsenus@vhb.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: *See Attached Calculations GPD
Peaking Factor/ Peak Times: Peaking Factor = 3
Specify the source of design guidelines: *(i.e.* X *"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.

*With the reduction in total stadium seating, the wastewater generated with the proposed design will be reduced by 206.4 gpd.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: NA

Size of External Grease Interceptor: NA

Retention Time: NA

Peaking Factor/ Peak Times: NA

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: NA GPD

Do you currently hold Federal or State discharge permits? Yes ____ No NA

Is the process wastewater termed categorical under CFR 40? Yes ____ No NA

OSHA Standard Industrial Code (SIC): *(http://www.osha.gov/oshstats/sicser.html)*

Peaking Factor/Peak Process Times: NA

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.

101 Walnut Street
Watertown, MA 02472
P 617.924.1770

Sewer Capacity Calculations

Project	Portland Seadog Clubhouse Addition	Project #	55748.00
Calculated by	JH	Date	13-Jun-24
Checked by	SJF	Date	13-Jun-24

Existing Conditions

FLOWS:

7,368	seats	Stadium seats
5	gpd	Flow rate per seat equals 5 gallons per day
36,840	gpd	Total Flow
4	hours	System discharge in hours per day
0.3420	cfs	Peak Flow Rate per second
1.0261	cfs	Peak Flow Rate per second (Peaking Factor=3.0)

Proposed Conditions

FLOWS:

6,868	seats	Proposed Stadium (Reduction)
5	gpd	Flow rate per seat equals 5 gallons per day
34,340	gpd	Total Flow
4	hours	System discharge in hours per day
0.3188	cfs	Peak Flow Rate per second
0.9564	cfs	Peak Flow Rate per second (Peaking Factor=3.0)
4,587	square feet	Clubhouse Addition (Player/Staff Areas)
50	gpd	Flow rate equals 50 gallons per day per 100 sf
2,294	gpd	Total Flow
12	hours	System discharge in hours per day
0.0071	cfs	Peak Flow Rate per second
0.0213	cfs	Peak Flow Rate per second (Peaking Factor=3.0)

Summary Table			
	EX	PR	Net
Total Flow (gpd)	36,840	36,634	-206.4
Peak Flow (cfs)	0.342	0.326	-0.016
Peak Flow with Peaking (cfs)	1.026	0.978	-0.048

Memorandum

June 14, 2024

Ref: 55748.00

Ms. Ameriz Gamez, Planner
Planning and Urban Development
389 Congress Street
Portland, Maine 04101

Re: PL-002896-2024 Site Plan Response to Comments

Ms. Gamez,

VHB has prepared the following response to comments received from the City of Portland, Maine Planning and Urban Development Department pertaining to the Site Plan Worksheet derived from the Major Site Plan Review for the Sea Dogs Clubhouse project at Hadlock Field in Portland, Maine.

For reference, the original comments are included below in italics.

COMMENTS

Transportation Standards (Sec. 14.6.1)

1. *Submit a Construction Management Schedule.*

   VHB Response : Acknowledged, a construction management schedule prepared by Great Falls Construction has been submitted with the title "Portland Sea Dogs Schedule" to the ePlan dashboard. The construction management schedule is also attached within this document.

2. *The driveway approach needs to be ADA accessible in order to meet our requirements. The driveway will need to be reconstructed and include a City driveway apron detail. Note that the wider brick area may need to be removed, please review the City's brick sidewalk detail. (See attachments from DPW Transportation).*

   VHB Response : Acknowledged, see plan sheets C3.00 and C4.00 with a designed driveway approach that is ADA accessible, meeting the City of Portland's Technical Manual standards.

Engineers | Scientists | Planners | Designers
500 Southborough Drive, Suite 105B, South Portland, Maine 04106
P 207.889.3150 F 207.253.5596 www.vhb.com

The 'wider brick area' within the stadium entry plaza will be removed and replaced in kind where it is impacted during construction. A 10' wide utility trench and sawcut was recommended to account for the repair of the surrounding brick sidewalk.

The following details have been added to sheet C7.03: I-6 Accessible Ramp General Notes, I-6E Side Street Ramp, I-9B Commercial/Industrial Driveway Apron, and I-11A Brick Sidewalk with Bituminous Base.

Environmental Quality Standards (Sec. 14.6.2)

1. *Provide size and species of all trees that are to be removed.*

   VHB Response: Here is a list of the seven trees being removed with the respective trunk diameter:

   - 15" Acer Saccharum
   - 7.5" Prunus Serotina
   - 4" Thuja Occidentalis (three total)
   - 8" Tilia Cordata
   - 15" Carpinus Caroliniana

2. *Confirm the trees that are to be removed from this site and if new planting is to take place.*

   VHB Response: Six trees will be removed within the proposed building footprint and one tree will be removed within the proposed porous pavement section. All other surrounding plantings on site will remain in existing condition, and there are no new plantings proposed.

3. *The following comments on the proposed porous pavement system:*
   a. *The Applicant should review the proposed outlet control structure design. A 1.5" orifice is proposed, however, based on the dimensions provided, only 1.26" of concrete will be provided between the top of that orifice and the top of the weir. This seems very close, and might not be a stable structural design, and may also be difficult to construct. The HydroCAD model also shows that there is no flow through the orifice and that at all modeled storm events, all flow is over the weir. The system design should be confirmed. The orifice should also be specifically identified as a specific maintenance item in the post-construction maintenance plan.*
   b. *The HydroCAD model includes two model points for the Porous Pavement, one specifically for the pavement modeled as a pond, and a second for the outlet control structure as a*

pond. Both of these ponds include the same storage volume representing the porous pavement, which appears to double count for storage. Please clarify the model.

c. *The detail for porous pavement shows a single 4" perforated pipe within the crushed stone layer. The plan view does not show the location of tChe underdrain pipes, so it is unclear where they will be located and how they will connect to any structures within the porous pavement area. This are will also encompass the stormdrain main line, numerous connections from the building drainage, as well as the proposed water services. The layout of the porous pavement piping should be clarified.*

d. *The porous pavement details indicate that impermeable liner will be provided on the sides of the section. Please clarify what will be provided along the base of the section – at a minimum a separation filter fabric should be provided, but also confirm that separation requirements from groundwater will not require an impermeable layer.*

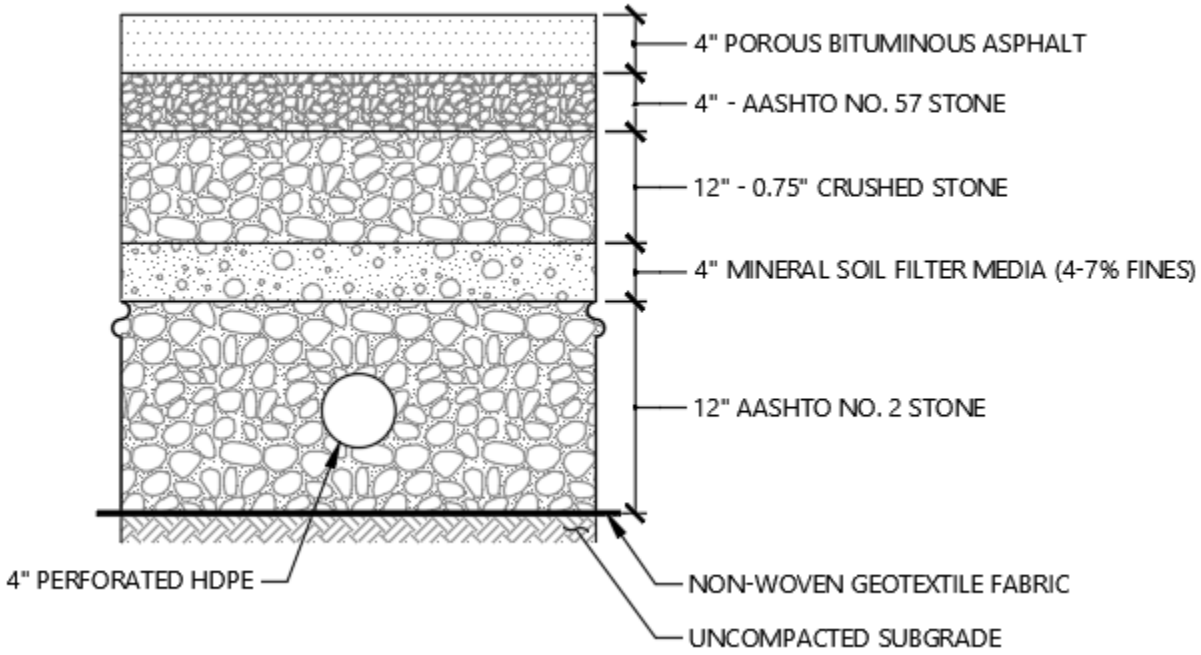
VHB Response:

a) The outlet control structure has been modified to provide 0.53' (17.9-17.37) of separation between the top of the orifice and the top of the concrete weir. This will allow for adequate room to install reinforcements within the concrete.

b) Node 1P is used to model the 12" of crushed stone above the filter media. The outlet of this node is exfiltration through the 4" of filter media to the remaining 12" of No. 2 stone. This 12" section of stone along with the 4" perforated HDPE is the storage defined in node 2P. The outlet of this node is controlled via OCS 104.

c) The layout of the 4" perforated HDPE pipe has been added to sheet C4.00 and C5.00.

d) A nonwoven geotextile fabric has been added to the base of the permeable pavement section. An impermeable liner is not required along the base section as the separation to groundwater is above the minimum required.



4. *The plans note that the water line will be concrete encased. A detail should be provided.*

   VHB Response: Acknowledged, plans are further clarified within the projects technical specifications. See sheet C7.02 for detail.

5. *The retaining wall detail indicates an underdrain behind the wall. Please clarify if this will be utilized and where it will connect or discharge.*

   VHB Response: The retaining wall design, including the underdrain, will be per the manufacturer of the wall. An underdrain will be utilized to reduce the hydrostatic pressure on the back of the wall. This underdrain will drain at the sides or thru the wall to grade. The water that will discharge from this underdrain will be minimal and run overland to the closed drainage system on site.

6. *The rim and invert information provided indicates that the stormdrain pipe at DBC 100 will have less than 2' of cover and the stormdrain pipe at AD 110 will have 2' of cover. It is recommended that insulation be utilized for these locations if additional cover depth cannot be provided.*

   VHB Response: The proposed drainage system has been designed with adequate slope to ensure that the water within the drainage system will drain within the appropriate timeframe. This will not allow the water to sit stagnant and freeze. Therefore, no additional insulation is required. The pipe

material that has been selected is also adequate for the depths specified. The proposed drainage system is constrained by the proposed connection elevation to the existing drainage system.

7. *The rim for DMH 108 is shown incorrectly per the site grades.*

   VHB Response: Acknowledged, the rim elevation for DMH 108 is now set to 18.96' to align with the existing surface topography.

8. *The details provided for the catch basins and associated frames and grates are the typical details from the City of Portland Technical Manual, however they are generally for use in the ROW when structures are installed along a curb line. Details should be provided for the types of structures to be utilized on the site. The structure names also indicate that some will be different types of structures (i.e. DCB and AD) and details should be provided for these as well.*

   VHB Response: Acknowledged, see sheet C7.02 for VHB Standard Details and sheet C7.03 for City of Portland Technical Manual details to be used in the Right of Way (R.O.W.) only.

Public Infrastructure and Community Safety Standards (Sec. 14.6.3)

1. *Provide a wastewater capacity authorization request to DPW in order to account for the facility expansion. Provide confirmation and evidence that there is no impact to existing wastewater flows. Confirmation of utility ability to serve will be required for the proposed new building. This will also include acceptance of design for the proposed utility connections.*

   VHB Response: VHB has prepared and submitted a wastewater capacity to serve request to the Portland Department of Public Works and a water service request to the Portland Water District, including calculations and design plans. Note that the project results in a net decrease of 500 stadium bleacher seats in the stadium, while adding no additional staff or players to the current facility. As such, our calculations indicate a net decrease in wastewater contribution to the City's system and a net decrease of water demand from PWD's system over present-day conditions. Copies of the requests are appended to this submittal. VHB will forward responses to the Planning Department upon receipt.

Site Design Standards (Sec. 14.6.4)

1. *Provide an exterior lighting plan to show that no lights are emitted about the horizontal plane or spilled onto any adjacent properties.*

   VHB Response : Property lines have been added to the exterior lighting plan with the parcel ownership information included. Please note that the abutting site is also owned by the City of Portland, and the light emissions about the horizontal plane do not exceed the setback lines.

2. *Please confirm, it appears that the exterior stair has either been removed or relocated inside the building. The note is still listed on A2.2 in elevations. The drawing of the stairway to the second floor has been removed, but not the note.*

   VHB Response : Acknowledged, the exterior stair has been revised to reflect the contents of the architectural drawings and are now shown as an enclosed stair case within the building footprint.

Additional Comments / Items:

1. During the Planning Board Workshop on June 11th, members of the Board inquired as to whether architectural interventions could be considered for the two-story building wall that faces toward the future Union Branch trail. The architect and owner propose to utilize vertical banners on this wall, comparable to the example depicted below (from Fenway) to provide visual break to the blank wall. We will be prepared to provide more information on this item at our Public Hearing:



2. A neighborhood meeting was held on June 12, 2024 at Hadlock Field at 6 PM, and neighbors and interested parties were invited to attend by way of letter sent on May 30th, 2024. No members of the public attended the meeting; however, one news team did stop by to conduct a brief interview about the project with Geoff Iacuessa, President & General Manager of the Sea Dogs. A copy of the neighborhood meeting certification is attached.

We trust this letter addresses the comments included as part of the peer review. As noted in our Planning Board Workshop on June 11th and as indicated on the appended project schedule, we are requesting to be added to the July 9th Planning Board agenda for a Public Hearing to allow us to achieve our tight

schedule for this critical project. Please feel free to reach out with any further questions regarding this Project.

Sincerely,

Vanasse Hangen Brustlin, Inc.

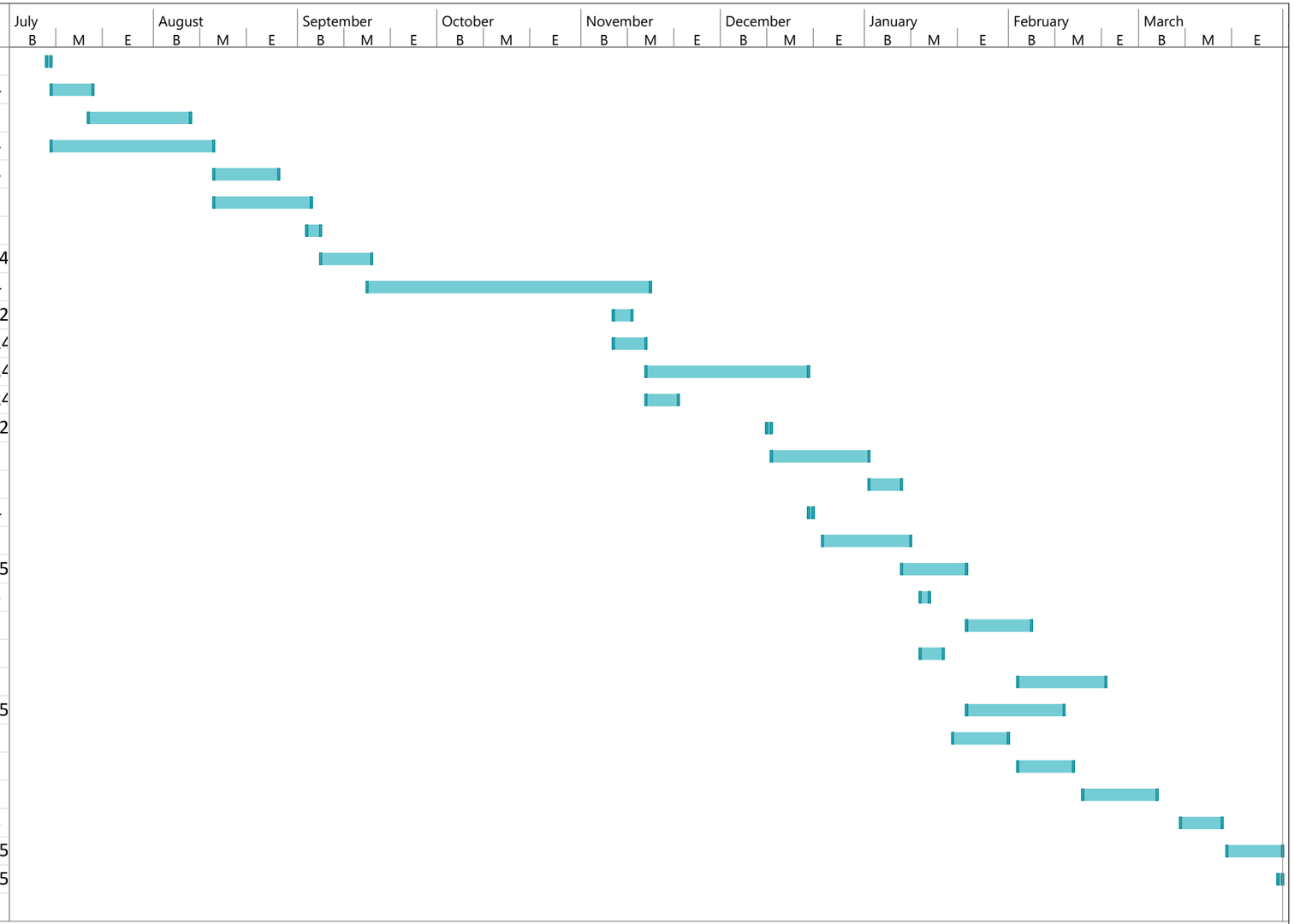
David Senus, PE

Senior Project Manager – Real Estate Lead
dsenus@vhb.com

Attachments: Construction Schedule
Wastewater Ability to Serve Request
Water Ability to Serve Request
Neighborhood Meeting Certification

CC: John Adams – LBA
Geoff Iacuessa – Portland Sea Dogs
Jason Howe – VHB

ID	Task Mode	Task Name	Duration	Start	Finish
1		Planning Approval	1 day	Tue 7/9/24	Tue 7/9/24
2		Demo Only Permit	7 days	Wed 7/10/24	Thu 7/18/24
3		Site work	16 days	Thu 7/18/24	Thu 8/8/24
4		Building Permit	25 days	Wed 7/10/24	Tue 8/13/24
5		Sub Slab Plumbing	10 days	Wed 8/14/24	Tue 8/27/24
6		Foundation	15 days	Wed 8/14/24	Tue 9/3/24
7		Pour Slab	3 days	Tue 9/3/24	Thu 9/5/24
8		Slab Cure	7 days	Fri 9/6/24	Mon 9/16/24
9		Building Delivery/Erection	45 days	Mon 9/16/24	Fri 11/15/24
10		Pour Slab 2nd Floor	2 days	Fri 11/8/24	Mon 11/11/2
11		Interior Framing 1st floor	5 days	Fri 11/8/24	Thu 11/14/24
12		MEP rough in	25 days	Fri 11/15/24	Thu 12/19/24
13		Interior framing 2nd floor	5 days	Fri 11/15/24	Thu 11/21/24
14		Inspect 1st floor	1 day	Wed 12/11/24	Wed 12/11/2
15		Hang and tape 1st floor	15 days	Thu 12/12/24	Wed 1/1/25
16		Prime and 1st coat 1st floor	5 days	Thu 1/2/25	Wed 1/8/25
17		Inspect 2nd Floor	1 day	Fri 12/20/24	Fri 12/20/24
18		Hang and tape 2nd floor	15 days	Mon 12/23/24	Fri 1/10/25
19		ACT grid 1st floor	10 days	Thu 1/9/25	Wed 1/22/25
21		Install door frames 1st floor	2 days	Mon 1/13/25	Tue 1/14/25
22		Install Tile	10 days	Thu 1/23/25	Wed 2/5/25
20		Prime and 1st coat 2nd floor	5 days	Mon 1/13/25	Fri 1/17/25
24		plumbing finishes	15 days	Mon 2/3/25	Fri 2/21/25
26		Electrical finishes 1st and 2nd	15 days	Thu 1/23/25	Wed 2/12/25
23		ACT grid 2nd floor	10 days	Mon 1/20/25	Fri 1/31/25
25		Flooring 2nd floor	10 days	Mon 2/3/25	Fri 2/14/25
27		Final Paint	12 days	Mon 2/17/25	Tue 3/4/25
28		Flood Ceilings	7 days	Mon 3/10/25	Tue 3/18/25
30		Carpet Throughout	8 days	Thu 3/20/25	Mon 3/31/25
29		CO	1 day	Mon 3/31/25	Mon 3/31/25
31					



Project: Portland Sea Dogs Sch
Date: Mon 6/3/24

Task	Project Summary	Manual Task	Start-only	Deadline	
Split	Inactive Task	Duration-only	Finish-only	Progress	
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress	
Summary	Inactive Summary	Manual Summary	External Milestone		

Jason Howe

From: David Senus
Sent: Thursday, June 13, 2024 3:45 PM
To: brad@portlandmaine.gov
Cc: Jason Howe; Steven Fleurock; Ameriz Gamez (agamez@portlandmaine.gov)
Subject: Sea Dogs Clubhouse Addition - Hadlock Field - Wastewater Capacity to Serve Request
Attachments: 2024.06.13 Wastewater Capacity Application.pdf; 55748.00-UT.pdf

Hi Brad.

Hope you are doing well!

On behalf of the Portland Sea Dogs, I am writing to request an "Ability to Serve" verification for the project's wastewater connection, which will result in a net decrease of sanitary flow into the City's system. The Portland Sea Dogs are adding a new clubhouse to Hadlock Field for conformance with league rules. The proposed building is a 23,600 sf, 2-story pre-engineered metal building to be located adjacent to the existing stadium. The building addition will provide lockers, restrooms, showers, baseball workout areas/batting cages, and general utilities. This project is for the players, umpires, and ground crew; there will be no public access to this new building addition. The project does not add capacity to the stadium, nor does it add additional players or staff. The project results in the removal/reduction of approximately 500 bleacher seats from Hadlock, which will effectively reduce the total flow to the City's system. As you will note from the attached calculation, we acknowledge that these additional player accommodations could result in more water use by the players; however, the net effective impact when factoring in the loss of seats is a reduction of water demand/wastewater generation on the whole.

We have also attached a copy of the project's utility plan for your review. We propose a sanitary sewer connection to an on-site existing combined sewer manhole, which then discharges to the adjacent Old Almshouse combined sewer. There are no commercial kitchens within the new building, so there are no proposed grease traps. Please let us know if you have any questions on the calculations or the utility plan.

Although not part of this wastewater request, we are proposing to utilize porous pavement in the low-use alley area between the new clubhouse and the old Union Branch Railbed. We are required to include underdrains in the pavement section; however, I anticipate much of the stormwater will infiltrate during most storm events, further reducing input into the City's system (the existing area is largely developed and paved under the current condition).

Don't hesitate to reach out if you have any questions, we look forward to hearing back.

Thank you.

David Senus, P.E.
Sr. Project Manager - Real Estate Lead
Maine
Licensed in ME

P 207.536.2583
M 207.210.7035
www.vhb.com

500 Southborough Drive
Suite 105B
South Portland ME 04106-6928

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Jason Howe

From: Jason Howe
Sent: Friday, June 14, 2024 10:06 AM
To: Robert Bartels
Cc: Steven Fleurock; David Senus
Subject: Sea Dogs Clubhouse Addition - Hadlock Field - Water Capacity to Serve Request [Filed 14 Jun 2024 10:06]
Attachments: 55748.00-UT.pdf; 2024-06-14 Wastewater Capacity Application.pdf; RE: [External] 526147-140 Deering Avenue, PO

Categories: Filed by Mail Manager

Hello Robert,

On behalf of the Portland Sea Dogs, I am writing to request and "Ability to Serve" verification for the project's water connection. The Portland Sea Dogs are adding a new clubhouse to Hadlock Field for conformance with league rules. The proposed building is a 23,600 sf, 2-story pre-engineered metal building to be located adjacent to the existing stadium. The building will provide lockers, restrooms, showers, baseball workout areas/batting cages, and general utilities. This project is for the players, umpires, and ground crew; there will be no public access to this new building addition. The project does not add capacity to the stadium, nor does it add additional players or staff. The project results in the removal/reduction of 500 bleacher seats from Hadlock, which will effectively reduce the total wastewater flow to the City's system and reduce the domestic water demand. As you will note from the attached wastewater capacity calculation, we acknowledge that these additional player accommodations could result in more water use by the players; however, the net effective impact when factoring in the loss of seats is a reduction of water demand/wastewater generation overall.

I have also attached a copy of the project's utility plan for your review. We propose a 6" domestic water service be tied into the existing water service to Hadlock Field within the proximity of the projects limit of work. The 3" fire protection service will connect to an internal meter located at Hadlock Field.

Please do not hesitate to reach out if you have any questions, we look forward to hearing back from you.

Thank you,

Jason Howe
Civil Designer
Land Development

P 603.391.3875
www.vhb.com

2 Bedford Farms Drive
Suite 200
Bedford NH 03110-6532

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June 12, 2024

Ref: Portland Sea Dogs Clubhouse Additions
Neighborhood Meeting Certification

I, David Senus hereby certify that a neighborhood meeting was held on June 12, 2024 at Hadlock Stadium at 6:00 pm for the proposed project located at 271 Park Avenue, Portland, Maine.

I also certify that on May 30, 2024, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development (1,000 feet for subdivisions within an industrial zone or industrial zone changes).
2. Residents on the "interested parties" list.

Signed,

David Senus, PE

Attachments

1. Copy of the notice sent
2. Sign-in sheet

Copy of Notice Sent

May 29, 2024

Ref: Portland Sea Dogs Clubhouse Addition - Site Plan Review Process
Neighborhood Meeting Invitation

Dear Neighbor:

On Wednesday, June 12, 2024 at 6 PM, VHB invites you to attend a Neighborhood Meeting where we will present plans for a clubhouse addition to Hadlock Field for the Portland Sea Dogs (271 Park Avenue, Portland, Maine). The Portland Sea Dogs are adding a new clubhouse to Hadlock Field for conformance with league rules. The proposed building is a 23,600 sf, 2-story pre-engineered metal building to be located adjacent to the existing stadium. The building addition will provide lockers, restrooms, showers, baseball workout areas and general utilities. This project is primarily for the players, umpires, and ground crew; there will be no public access to this new building addition.

Meeting Location: Hadlock Field Function Room (located within the Stadium)
271 Park Avenue, Portland, Maine

Meeting Date: June 12, 2024

Meeting Time: 6 PM to 7 PM

The City of Portland's Land Use Code requires that neighboring property owners and residents on an "interested parties list" be invited to participate in this neighborhood meeting. A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board.

If you have any questions, please call 207.536.2583.

Sincerely,

David Senus, PE
VHB Senior Project Manager

Note:
Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

Sign-in Sheet

June 12, 2024
Hadlock Field
Portland Sea Dogs Clubhouse Additions
271 Park Avenue
Portland, Maine 04102

Members of the Public in Attendance:

Name	Email

Developer and Consultant Team in Attendance:

Name	Email
Dave Senus	dsenus@vhb.com
Jason Howe	jhowe@vhb.com
Geoff Iacuessa	geoff@seadogs.com

Memorandum

To: City of Portland
389 Congress Street
4th Floor
Portland, ME 04101

Date: April 30, 2024

Project #: 55748.00

From: VHB
500 Southborough Drive
Suite 105B
South Portland, ME 04106

Re: Proposed Portland Sea Dogs Clubhouse Addition
271 Park Avenue
Portland, Maine 04102

Project Summary

The Applicant, Portland Sea Dogs, is proposing the construction of a 2-story clubhouse addition in the vicinity of the existing left field bullpen and General Admission bleacher seating, player bullpen, and associated utility infrastructure (the "Project"). The Site is located at 271 Park Avenue in Portland, Maine (see Figure 1: Site Location Map) on an approximate 22.3–acre parcel. The Site is bounded by an abandoned rail corridor to the west and north, Hadlock Field to the east, and residential buildings to the south. There are no wetlands located within the Project's limit of disturbance.

Existing Conditions

The Site consists of one lot, identified as City of Portland, Maine, Tax Map 51 Book C Lot 1. The lot is currently developed with Fitzpatrick Stadium, a mixed-use recreational complex, to the northeast, William B. Troubh Ice Arena in the south, and Hadlock Field in the west of the parcel. The project is not located within an area of minimal flood hazard as represented on the City of Portland, Maine FEMA Flood Insurance Rate Map, area number 2300510013B, dated 7/17/1986, attached. Underlying soils have been mapped by the Natural Resources Conservation Service (NRCS) and categorized as cut and fill surrounded by Hydrologic Soils Group Type A soils, attached.

The Site has minimal elevation changes with stormwater runoff primarily flowing northwest to southeast across the site. A majority of the hillside runoff flows to the wetland area northwest of the site which primarily drains to the north and to the south. A small portion of the wetland area extends east into the site area which drains towards the railroad tracks.

The existing conditions drainage area characteristics are summarized in Table 1 below.

Table 1 Existing Conditions Drainage Area Characteristics Summary

Discharge Points		Subcatchment(s)		Area (Acres)	Tc (Min.)	CN
DP-1	Park Avenue	EX-1	Project Site	0.59	6	89

*Weighted CN value

Proposed Conditions

The proposed Project includes the development of a 2-story clubhouse addition as a separate structure from the existing Hadlock Field stadium. Site improvements include sewer infrastructure, water infrastructure, and drainage improvements.

Grades were minimally altered and wherever possible, existing drainage and grading patterns were maintained. Although significant grading is not proposed, a small area of Parcel: 035 I002001, which is also owned by the City of Portland, will be disturbed to enhance the drainage design for the Site. The area around the modular block retaining wall and edge of pavement will be vegetated with a meadow mix, or planted per the Landscape Architect plans, which will help to stabilize the area from erosion and provide water quality treatment for stormwater runoff. In addition, porous pavement associated with an outlet control structure is proposed and designed to attenuate the peak flows for the 2-, 10-, 25-year, 24-hour storms.

Stormwater Management

A hydrologic model, using TR-20 methodology, was developed to evaluate the existing and proposed drainage conditions on the Site. The results of the analyses indicate that there is no increase in peak discharge rates between the pre- and post-development conditions for the 2-, 10-, and 25-year storm events with an overall increase of impervious surfaces calculated to be 3,776 SF. These rainfall events are based on a 24-hour storm duration using a Type III distribution curve. Rainfall volumes used for this analysis were based on data provided by Maine Department of Environmental Protection Appendix H. Precipitation estimates are 3.10, 4.6, and 5.8 inches, respectively.

The proposed conditions drainage area characteristics are summarized in Table 2 below.

Table 2 Proposed Conditions Drainage Area Characteristics Summary

Discharge Points		Subcatchment(s)		Area (Acres)	Tc (Min.)	CN
DP-1	Park Avenue	PR-1	Portion of Site	0.477	6	98
DP-1	Park Avenue	PR-2	Porous Pavement	0.111	6	98
Total				0.59		98*

*Weighted CN value

The proposed development qualifies for a Maine DEP Permit By Rule (PBR), however has been designed to meet the regulations set in Chapter 500 – Stormwater Management Rules, Basic and Flooding Standards. The proposed development is also subject to local requirements as stated in the Comprehensive Land Use Code for the City of Portland, Maine. The requirements include a design that shall reflect, as nearly possible, natural runoff conditions and evaluation of offsite impacts if post development runoff exceeds predevelopment runoff conditions.

The proposed stormwater management system will preserve natural drainage ways as much as is feasible and will generally maintain existing drainage patterns. The proposed detention basins have been designed to attenuate peak flows using outlet control structures and overflow weirs, so that the resulting post construction peak discharge rate is less than the pre-construction discharge rates (see Table 3 and supporting HydroCAD reports, attached). The outlet control structure has been designed to convey the 25-year, 24-hour storm event.

Table 3 Peak Stormwater Runoff Rates Summary

			Peak Rate Runoff (cfs)		
Discharge Point		Condition	2-Year	10-Year	25-Year
DP-1	Park Avenue	Existing	1.4	2.3	3.0
		Proposed	1.4	2.2	2.7

Porous Pavement

Porous pavement is designed to capture, infiltrate, and gradually release a volume of stormwater to an outlet control structure to attenuate and delay stormwater runoff peaks thereby reducing peak rates of runoff and providing filtering for post development conditions.

The porous pavement is designed as directed by the Maine Stormwater Best Management Practices Manual in accordance with the Maine DEP's Chapter 500 Stormwater Management Rules to handle the flow from the northern portion of the developed area. The porous bituminous asphalt pavement section will be 3 feet deep with a 4-inch perforated High Density Polyethylene (HDPE) outlet pipe located 4 inches from the bottom of the porous pavement section. The outlet is positioned to discharge to an outlet control structure prior to proceeding to the remaining drainage pipe and exiting the site in a closed City of Portland system.

The site contractor will be responsible for the implementation of an Erosion and Sediment Control Plan in accordance with the Maine Pollutant Discharge Elimination System (MPDES) Maine Construction General Permit (MCGP). The Erosion and Sediment Control Plan outlines components to be employed to provide erosion and sedimentation control during the construction period.

Conclusion

By implementing the provided stormwater management techniques, the proposed Project can successfully mitigate its impacts on peak stormwater runoff rates. Furthermore, the Basic and Flooding Standards as regulated by Stormwater Management Law can be addressed through the proposed implementation of standard practices (i.e. porous bituminous asphalt pavement) as well as implementation of erosion and sedimentation control and inspection and maintenance that are accepted by the local government and the Maine Department of Environmental Protection.

Figure 1: Site Location Map



0 500 1000 Feet

Site Location Map
Portland Sea Dogs Clubhouse Addition
165 Park Avenue
Portland, Maine 04102

Figure 1

04/19/2024

Figure 2: Existing Drainage Conditions



Legend

SYMBOLS

- DESIGN POINT
- DRAINAGE AREA DESIGNATION
- POND

LINETYPES

- DRAINAGE AREA BOUNDARY
- TIME OF CONCENTRATION FLOW LINE
- SOIL TYPE BOUNDARY

NRCS SOIL CLASSIFICATIONS

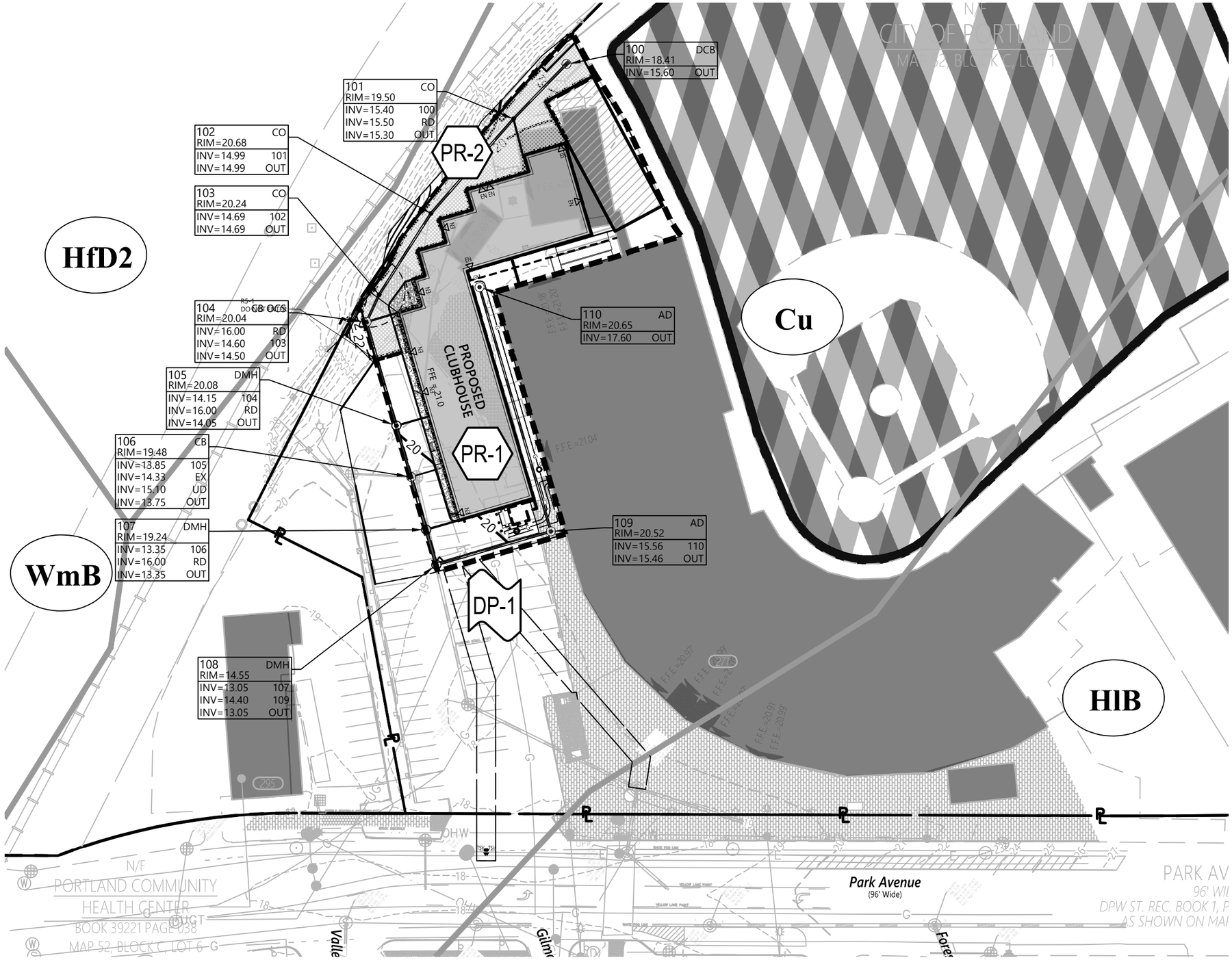
Cu	CUT AND FILL LAND
HfD2	HARTLAND VERY FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES, ERODED
HlB	HINCLEY LOAMY SAND, 3 TO 8 PERCENT SLOPES
WmB	WINDSOR LOAMY SAND, 0 TO 8 PERCENT SLOPES

0 30 60 Feet

Existing Drainage Conditions
Portland Sea Dogs Clubhouse Addition
165 Park Avenue
Portland, Maine 04102

Figure 2
04/19/2024

Figure 3: Proposed Drainage Conditions



Legend

SYMBOLS

- **DESIGN POINT**
- **DRAINAGE AREA DESIGNATION**
- **POND**

LINETYPES

- **DRAINAGE AREA BOUNDARY**
- **SOIL TYPE BOUNDARY**
- **NOTE: TIME OF CONCENTRATION DETERMINED TO BE 6 MINUTES FOR URBAN DESIGN**

NRCS SOIL CLASSIFICATIONS

- **Cu** — **CUT AND FILL LAND**
- **HfD2** — **HARTLAND VERY FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES, ERODED**
- **HlB** — **HINCLEY LOAMY SAND, 3 TO 8 PERCENT SLOPES**
- **WmB** — **WINDSOR LOAMY SAND, 0 TO 8 PERCENT SLOPES**

0 30 60 Feet

Proposed Drainage Conditions
Portland Sea Dogs Clubhouse Addition
165 Park Avenue
Portland, Maine 04102

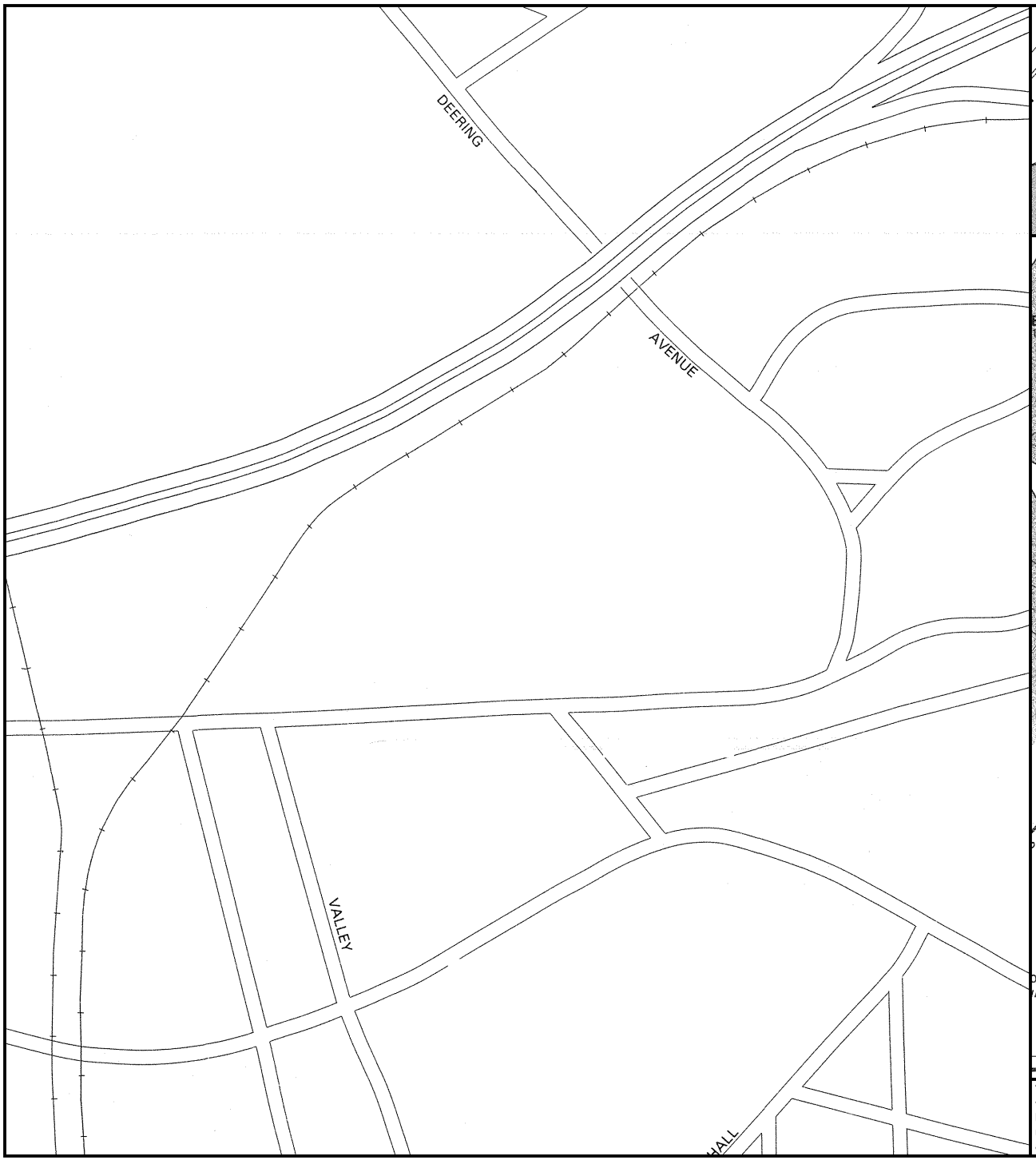
Figure 3
04/19/2024

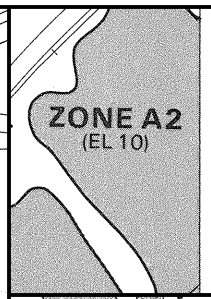
Attachment A: Support Data

- City of Portland, Maine FEMA Flood Insurance Rate Map (Area #2300510013B)
- Natural Resources Conservation Service (NRCS) Soil Report
- Maine Department of Environmental Protection Chapter 500: Stormwater Management Appendix H, 24-Hour Duration Rainfalls for Various Return Periods

Memorandum

City of Portland, Maine FEMA Flood Insurance Rate Map (Area #2300510013B)





Program, at (800) 638-6620.

APPROXIMATE

400 0

E A2
(0)

HARBOR

OOD ELEVATIONS
ARD OF 0.0 NGVD

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at https://msc.fema.gov.

Memorandum

Natural Resources Conservation Service (NRCS) Soil Report

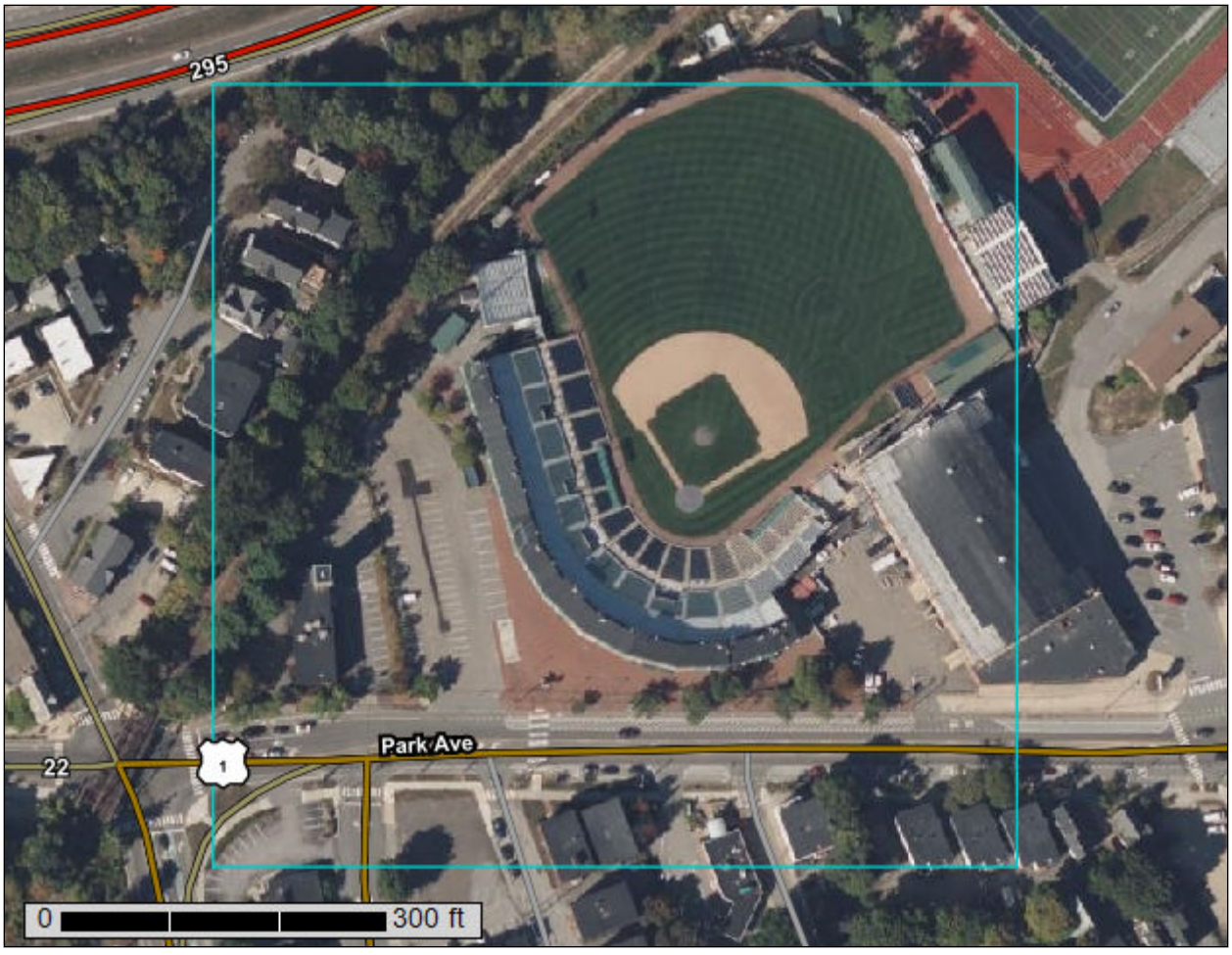
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



April 18, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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WmB—Windsor loamy sand, 0 to 8 percent slopes..... 13

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


70° 16' 51" W
70° 16' 33" W
396700
396740
396780
396820
396860
396900
396940
396980
397020
397060
397100
43° 39' 27" N
43° 39' 19" N
4834640
4834600
4834560
4834520
4834480
4834440
4834400
295
WmB
HfD2
Cu
WmB
HIB
Saint John
Park Ave
22
1
Soil Map may not be valid at this scale.
Map Scale: 1:1,860 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 25 50 100 150
Feet
0 50 100 200 300
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cu	Cut and fill land	6.6	53.7%
HfD2	Hartland very fine sandy loam, 15 to 25 percent slopes, eroded	1.4	11.6%
HlB	Hinckley loamy sand, 3 to 8 percent slopes	4.2	34.0%
WmB	Windsor loamy sand, 0 to 8 percent slopes	0.1	0.6%
Totals for Area of Interest		**12.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

Cu—Cut and fill land

Map Unit Composition

Cut and fill land: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cut And Fill Land

Typical profile

H1 - 0 to 65 inches: very gravelly sandy loam

Properties and qualities

Slope: 0 to 35 percent
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 20.00 in/hr)
Depth to water table: About 24 to 42 inches
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

HfD2—Hartland very fine sandy loam, 15 to 25 percent slopes, eroded

Map Unit Setting

National map unit symbol: blhd
Elevation: 0 to 330 feet
Mean annual precipitation: 48 to 49 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 150 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Hartland and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hartland

Setting

Landform: Lakebeds
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciolacustrine deposits

Typical profile

H1 - 0 to 9 inches: very fine sandy loam
H2 - 9 to 29 inches: silt loam
H3 - 29 to 65 inches: silt loam

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.8 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods), F144BY508ME - Silty Slope
Hydric soil rating: No

HlB—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2svm8
Elevation: 0 to 1,430 feet
Mean annual precipitation: 36 to 53 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting
Landform: Outwash deltas, outwash terraces, kames, kame terraces, moraines, eskers, outwash plains
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile
Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

WmB—Windsor loamy sand, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w2x2
Elevation: 0 to 1,410 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landform: Dunes, outwash plains, deltas, outwash terraces
Landform position (three-dimensional): Tread, riser
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Ecological site: F144BY601ME - Dry Sand
Hydric soil rating: No

Memorandum

Maine Department of Environmental Protection Chapter 500: Stormwater Management Appendix H, 24-Hour Duration Rainfalls for Various Return Periods

APPENDIX H. 24-hour duration rainfalls for various return periods

COUNTY	Storm Type	1-YR	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR	500-YR
ANDROSCOGGIN	III	2.5	3.0	3.7	4.3	5.4	6.4	7.6	11.1
AROOSTOOK C (Presque Isle Area)	II	1.9	2.3	2.8	3.2	3.9	4.6	5.3	7.6
AROOSTOOK N (Fort Kent Area)	II	1.9	2.2	2.7	3.1	3.7	4.3	5.0	7.0
AROOSTOOK S (Houlton Area)	II	2.1	2.5	3.0	3.4	4.1	4.7	5.4	7.5
CUMBERLAND NW (Bridgton Area)	III	2.5	3.0	3.7	4.3	5.4	6.3	7.5	10.9
CUMBERLAND SE (N Windham Area)	III	2.6	3.1	3.9	4.6	5.8	6.9	8.1	12.1
FRANKLIN	II	2.0	2.4	2.9	3.4	4.2	4.9	5.7	8.2
HANCOCK	III	2.5	2.9	3.6	4.2	5.2	6.1	7.2	10.5
KENNEBEC	III	2.4	2.8	3.5	4.2	5.2	6.1	7.2	10.6
KNOX	III	2.6	3.2	3.9	4.6	5.7	6.7	7.9	11.5
LINCOLN	III	2.5	3.1	3.8	4.5	5.5	6.5	7.6	11.1
OXFORD E (Rumford Area)	II[1]	2.3	2.7	3.3	3.9	4.8	5.7	6.7	9.7
OXFORD W (Gilead Area)	II	2.2	2.7	3.4	4.0	4.9	5.8	6.9	10.1
PENOBSCOT N (Millinocket Area)	II	2.2	2.6	3.2	3.8	4.7	5.6	6.5	9.5
PENOBSCOT S (Hudson Area)	II	2.3	2.7	3.4	3.9	4.9	5.7	6.7	9.7
PISCATAQUIS N (Chesuncook Area)	II	2.0	2.4	2.9	3.4	4.2	5.0	5.8	8.5
PISCATAQUIS S (Monson Area)	II	2.2	2.7	3.3	3.9	4.8	5.7	6.8	10.0
SAGADAHOC	III	2.6	3.2	3.9	4.6	5.7	6.7	7.8	11.4
SOMERSET N (Pittston Farm Area)	II	2.0	2.3	2.8	3.3	4.0	4.7	5.4	7.8
SOMERSET S (Solon Area)	II	2.3	2.7	3.4	3.9	4.9	5.7	6.7	9.8
WALDO	III	2.4	2.9	3.6	4.2	5.2	6.1	7.2	10.5
WASHINGTON	III	2.5	2.8	3.4	3.9	4.8	5.5	6.4	9.0
YORK	III	2.6	3.3	4.1	4.9	6.2	7.3	8.7	13.2

1 Use Type III rainfall for the towns of Brownfield, Buckfield, Denmark, Hartford, Hebron, Hiram, Oxford, and Porter.

Source: Data extracted by the Maine Department of Environmental Protection from the Northeast Regional Climate Center website (http://precip.eas.cornell.edu), Extreme Precipitation Tables. Data from this website was obtained from the National Oceanic and Atmospheric Administration's Regional Climate Center Program.
June 2014

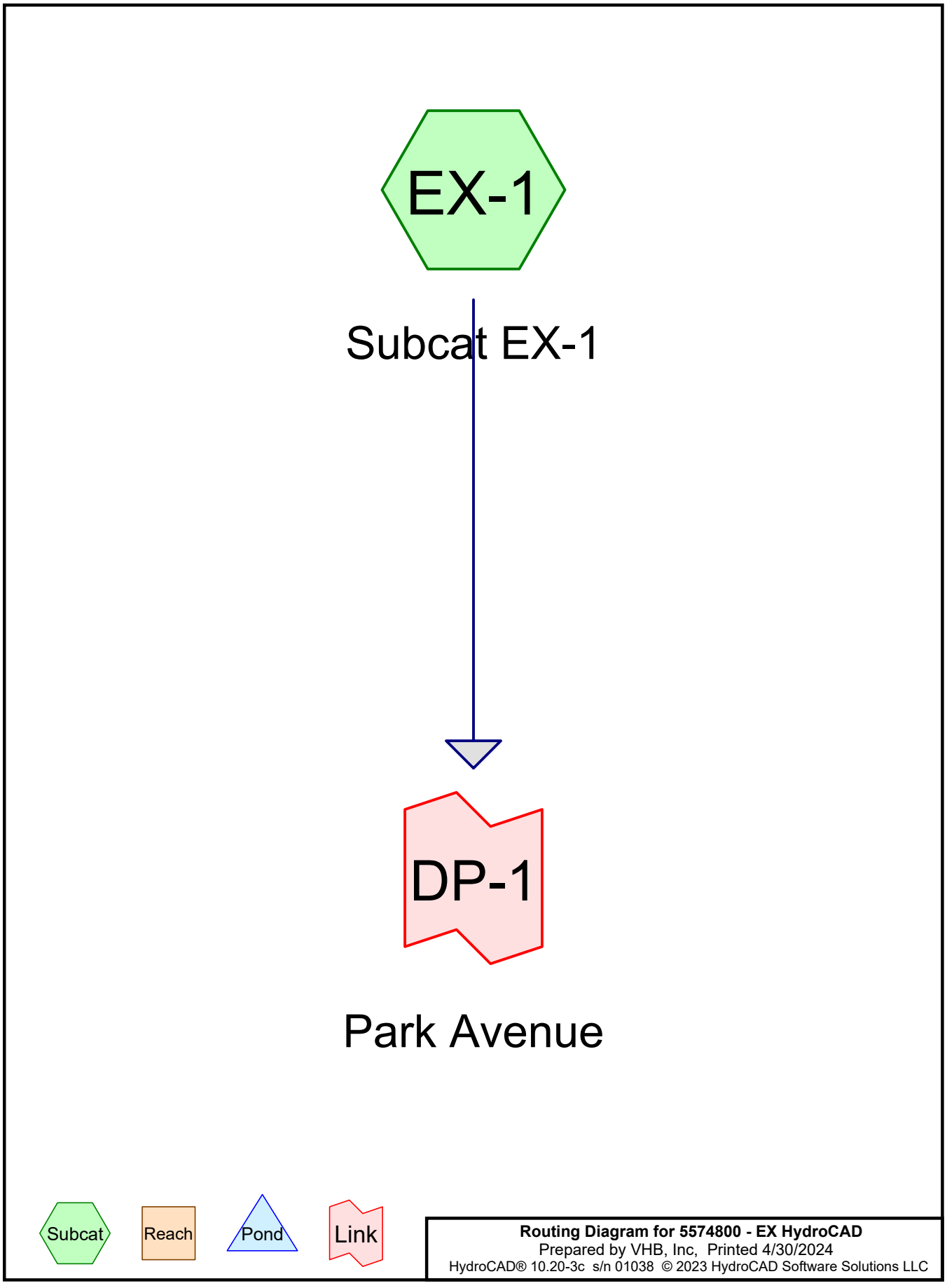
Memorandum

Attachment B: Hydrologic Calculations

- Existing Drainage Conditions HydroCAD Report (2, 10, 25-Year)
- Proposed Drainage Conditions HydroCAD Report (2, 10, 25-Year)

Memorandum

Existing Drainage Conditions HydroCAD Report


EX-1
Subcat EX-1
DP-1
Park Avenue
Subcat
Reach
Pond
Link
Routing Diagram for 5574800 - EX HydroCAD
Prepared by VHB, Inc, Printed 4/30/2024
HydroCAD® 10.20-3c s/n 01038 © 2023 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-YR	Type III 24-hr		Default	24.00	1	3.10	2
2	10-YR	Type III 24-hr		Default	24.00	1	4.60	2
3	25-YR	Type III 24-hr		Default	24.00	1	5.80	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.040	49	50-75% Grass cover, Fair, HSG A (EX-1)
0.056	39	>75% Grass cover, Good, HSG A (EX-1)
0.340	98	Paved parking, HSG A (EX-1)
0.104	98	Roofs, HSG A (EX-1)
0.047	98	Unconnected pavement, HSG A (EX-1)
0.588	**89**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.588	HSG A	EX-1
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.040	0.000	0.000	0.000	0.000	0.040	50-75% Grass cover, Fair	EX-1
0.056	0.000	0.000	0.000	0.000	0.056	>75% Grass cover, Good	EX-1
0.340	0.000	0.000	0.000	0.000	0.340	Paved parking	EX-1
0.104	0.000	0.000	0.000	0.000	0.104	Roofs	EX-1
0.047	0.000	0.000	0.000	0.000	0.047	Unconnected pavement	EX-1
0.588	**0.000**	**0.000**	**0.000**	**0.000**	**0.588**	**TOTAL AREA**	

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=0.588 ac 83.61% Impervious Runoff Depth=1.99"
Tc=6.0 min CN=89 Runoff=1.4 cfs 0.097 af

Link DP-1: Park Avenue Inflow=1.4 cfs 0.097 af
Primary=1.4 cfs 0.097 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.097 af Average Runoff Depth = 1.99"
16.39% Pervious = 0.096 ac 83.61% Impervious = 0.491 ac

Summary for Subcatchment EX-1: Subcat EX-1

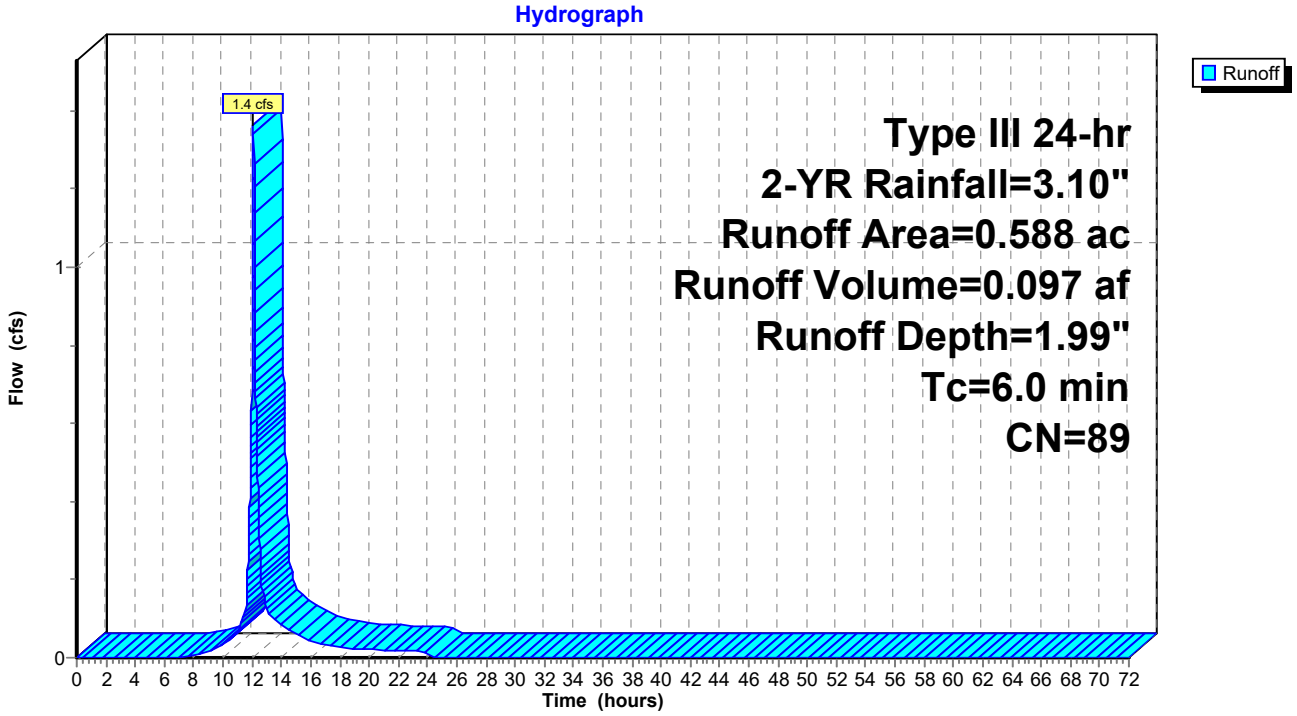
Runoff = 1.4 cfs @ 12.09 hrs, Volume= 0.097 af, Depth= 1.99"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.056	39	>75% Grass cover, Good, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.007	98	Unconnected pavement, HSG A
0.027	98	Unconnected pavement, HSG A
0.013	98	Unconnected pavement, HSG A
0.000	98	Unconnected pavement, HSG A
0.013	98	Roofs, HSG A
0.015	98	Roofs, HSG A
0.003	98	Roofs, HSG A
0.071	98	Roofs, HSG A
0.002	98	Roofs, HSG A
0.340	98	Paved parking, HSG A
0.588	89	Weighted Average
0.096		16.39% Pervious Area
0.491		83.61% Impervious Area
0.047		9.67% Unconnected

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

Subcatchment EX-1: Subcat EX-1



Hydrograph for Subcatchment EX-1: Subcat EX-1

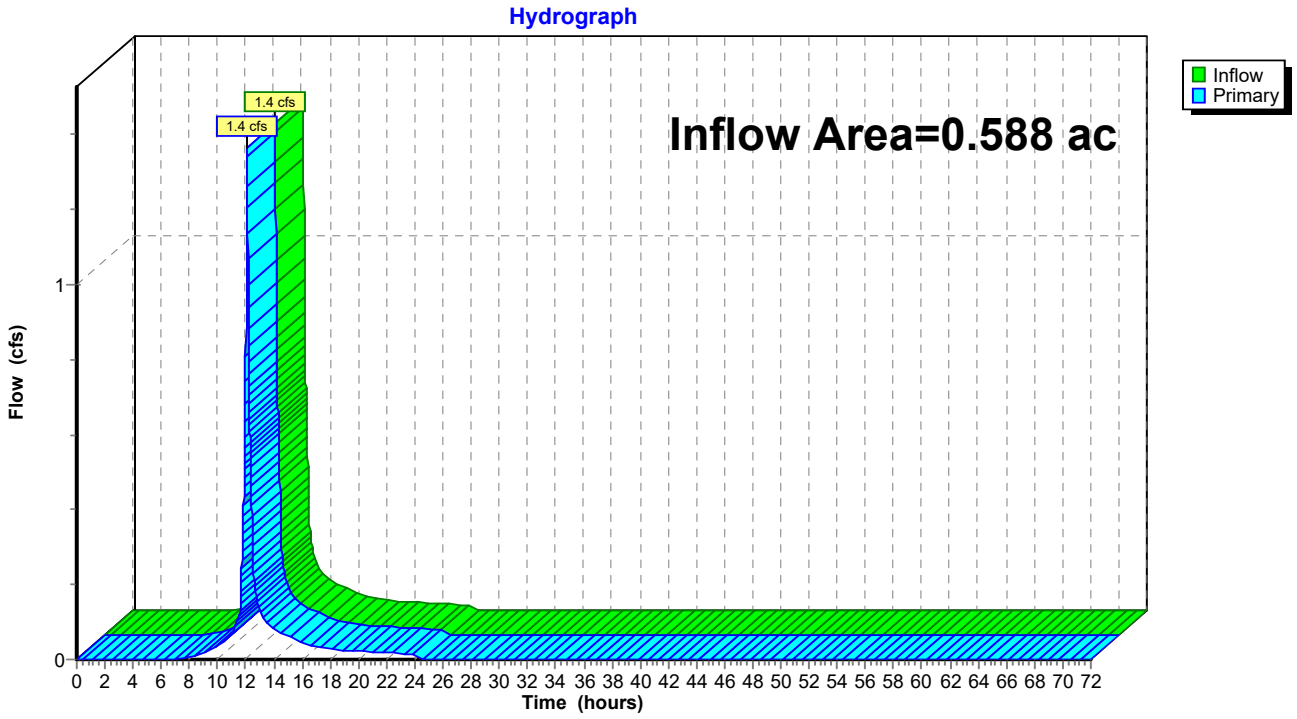
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.03	0.00	0.0
2.00	0.06	0.00	0.0
3.00	0.10	0.00	0.0
4.00	0.13	0.00	0.0
5.00	0.18	0.00	0.0
6.00	0.22	0.00	0.0
7.00	0.28	0.00	0.0
8.00	0.35	0.01	0.0
9.00	0.45	0.03	0.0
10.00	0.59	0.07	0.0
11.00	0.78	0.16	0.1
12.00	1.55	0.67	**0.8**
13.00	2.32	1.30	**0.1**
14.00	2.51	1.47	0.1
15.00	2.65	1.59	0.1
16.00	2.75	1.67	0.0
17.00	2.82	1.74	0.0
18.00	2.88	1.79	0.0
19.00	2.92	1.83	0.0
20.00	2.97	1.87	0.0
21.00	3.01	1.90	0.0
22.00	3.04	1.94	0.0
23.00	3.07	1.96	0.0
24.00	**3.10**	**1.99**	0.0
25.00	3.10	1.99	0.0
26.00	3.10	1.99	0.0
27.00	3.10	1.99	0.0
28.00	3.10	1.99	0.0
29.00	3.10	1.99	0.0
30.00	3.10	1.99	0.0
31.00	3.10	1.99	0.0
32.00	3.10	1.99	0.0
33.00	3.10	1.99	0.0
34.00	3.10	1.99	0.0
35.00	3.10	1.99	0.0
36.00	3.10	1.99	0.0
37.00	3.10	1.99	0.0
38.00	3.10	1.99	0.0
39.00	3.10	1.99	0.0
40.00	3.10	1.99	0.0
41.00	3.10	1.99	0.0
42.00	3.10	1.99	0.0
43.00	3.10	1.99	0.0
44.00	3.10	1.99	0.0
45.00	3.10	1.99	0.0
46.00	3.10	1.99	0.0
47.00	3.10	1.99	0.0
48.00	3.10	1.99	0.0
49.00	3.10	1.99	0.0
50.00	3.10	1.99	0.0
51.00	3.10	1.99	0.0
52.00	3.10	1.99	0.0
53.00	3.10	1.99	0.0
54.00	3.10	1.99	0.0
55.00	3.10	1.99	0.0
56.00	3.10	1.99	0.0
57.00	3.10	1.99	0.0
58.00	3.10	1.99	0.0
59.00	3.10	1.99	0.0
60.00	3.10	1.99	0.0
61.00	3.10	1.99	0.0
62.00	3.10	1.99	0.0
63.00	3.10	1.99	0.0
64.00	3.10	1.99	0.0
65.00	3.10	1.99	0.0
66.00	3.10	1.99	0.0
67.00	3.10	1.99	0.0
68.00	3.10	1.99	0.0
69.00	3.10	1.99	0.0
70.00	3.10	1.99	0.0
71.00	3.10	1.99	0.0
72.00	3.10	1.99	0.0

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac, 83.61% Impervious, Inflow Depth = 1.99" for 2-YR event
Inflow = 1.4 cfs @ 12.09 hrs, Volume= 0.097 af
Primary = 1.4 cfs @ 12.09 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue



Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.0	0.00	0.0	58.00	0.0	0.00	0.0
8.00	0.0	0.00	0.0	59.00	0.0	0.00	0.0
9.00	0.0	0.00	0.0	60.00	0.0	0.00	0.0
10.00	0.0	0.00	0.0	61.00	0.0	0.00	0.0
11.00	0.1	0.00	0.1	62.00	0.0	0.00	0.0
12.00	**0.8**	0.00	**0.8**	63.00	0.0	0.00	0.0
13.00	**0.1**	0.00	**0.1**	64.00	0.0	0.00	0.0
14.00	0.1	0.00	0.1	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.0	0.00	0.0	67.00	0.0	0.00	0.0
17.00	0.0	0.00	0.0	68.00	0.0	0.00	0.0
18.00	0.0	0.00	0.0	69.00	0.0	0.00	0.0
19.00	0.0	0.00	0.0	70.00	0.0	0.00	0.0
20.00	0.0	0.00	0.0	71.00	0.0	0.00	0.0
21.00	0.0	0.00	0.0	72.00	0.0	0.00	0.0
22.00	0.0	0.00	0.0				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=0.588 ac 83.61% Impervious Runoff Depth=3.39"
Tc=6.0 min CN=89 Runoff=2.3 cfs 0.166 af

Link DP-1: Park Avenue Inflow=2.3 cfs 0.166 af
Primary=2.3 cfs 0.166 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.166 af Average Runoff Depth = 3.39"
16.39% Pervious = 0.096 ac 83.61% Impervious = 0.491 ac

Summary for Subcatchment EX-1: Subcat EX-1

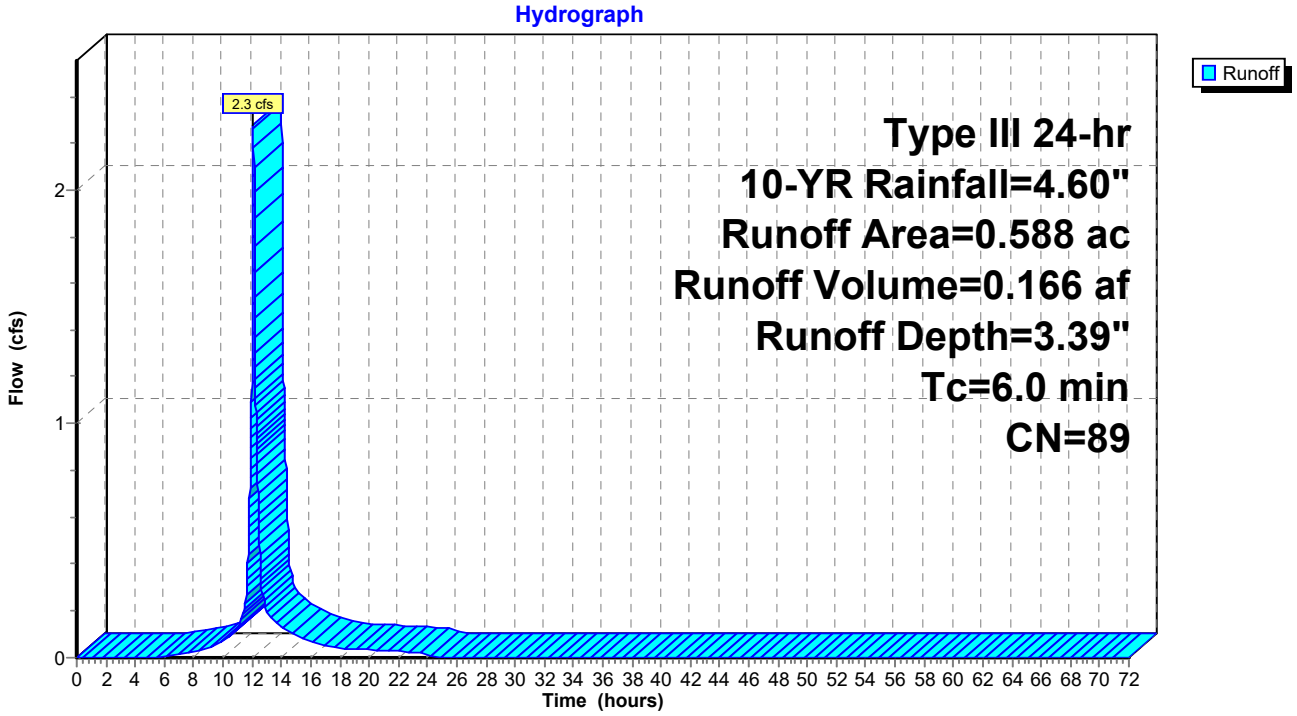
Runoff = 2.3 cfs @ 12.09 hrs, Volume= 0.166 af, Depth= 3.39"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.056	39	>75% Grass cover, Good, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.007	98	Unconnected pavement, HSG A
0.027	98	Unconnected pavement, HSG A
0.013	98	Unconnected pavement, HSG A
0.000	98	Unconnected pavement, HSG A
0.013	98	Roofs, HSG A
0.015	98	Roofs, HSG A
0.003	98	Roofs, HSG A
0.071	98	Roofs, HSG A
0.002	98	Roofs, HSG A
0.340	98	Paved parking, HSG A
0.588	89	Weighted Average
0.096		16.39% Pervious Area
0.491		83.61% Impervious Area
0.047		9.67% Unconnected

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

Subcatchment EX-1: Subcat EX-1



Hydrograph for Subcatchment EX-1: Subcat EX-1

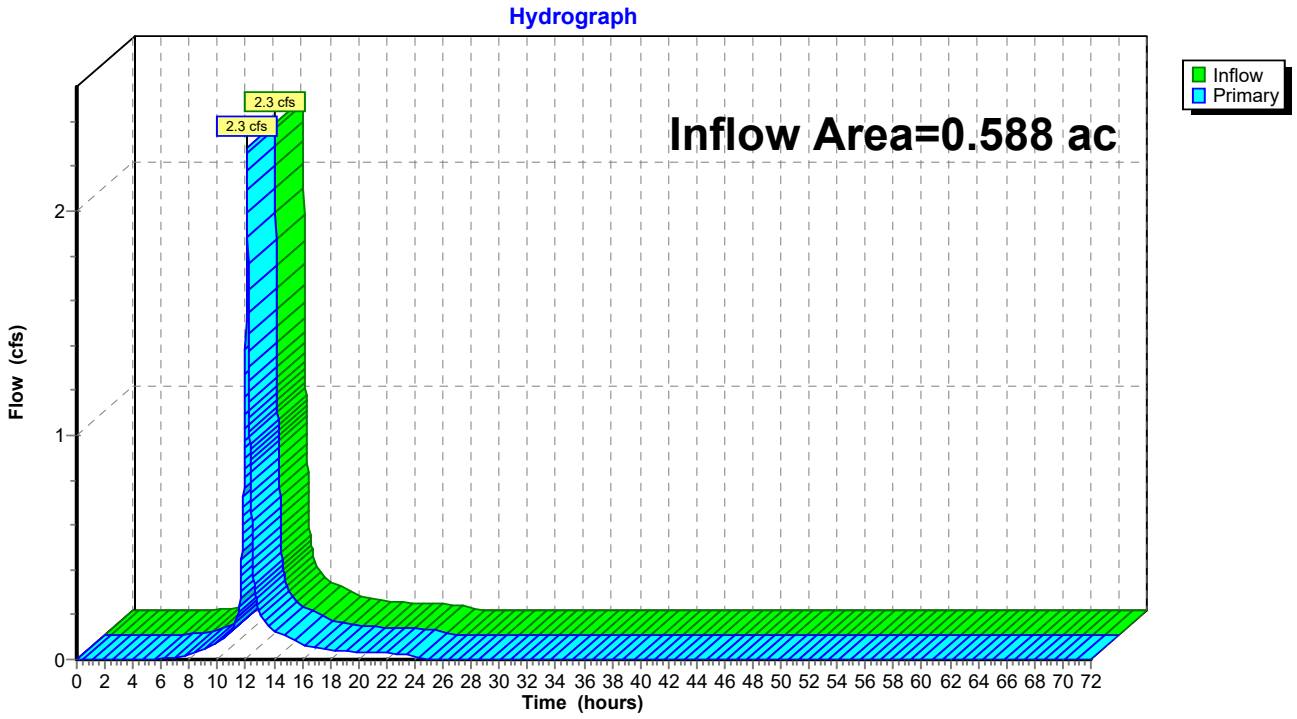
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.05	0.00	0.0
2.00	0.09	0.00	0.0
3.00	0.14	0.00	0.0
4.00	0.20	0.00	0.0
5.00	0.26	0.00	0.0
6.00	0.33	0.01	0.0
7.00	0.42	0.02	0.0
8.00	0.52	0.05	0.0
9.00	0.67	0.11	0.0
10.00	0.87	0.21	0.1
11.00	1.15	0.38	0.1
12.00	2.30	1.28	**1.4**
13.00	3.45	2.31	**0.2**
14.00	3.73	2.57	0.1
15.00	3.93	2.76	0.1
16.00	4.08	2.89	0.1
17.00	4.18	3.00	0.1
18.00	4.27	3.08	0.0
19.00	4.34	3.14	0.0
20.00	4.40	3.20	0.0
21.00	4.46	3.26	0.0
22.00	4.51	3.31	0.0
23.00	4.56	3.35	0.0
24.00	**4.60**	**3.39**	0.0
25.00	4.60	3.39	0.0
26.00	4.60	3.39	0.0
27.00	4.60	3.39	0.0
28.00	4.60	3.39	0.0
29.00	4.60	3.39	0.0
30.00	4.60	3.39	0.0
31.00	4.60	3.39	0.0
32.00	4.60	3.39	0.0
33.00	4.60	3.39	0.0
34.00	4.60	3.39	0.0
35.00	4.60	3.39	0.0
36.00	4.60	3.39	0.0
37.00	4.60	3.39	0.0
38.00	4.60	3.39	0.0
39.00	4.60	3.39	0.0
40.00	4.60	3.39	0.0
41.00	4.60	3.39	0.0
42.00	4.60	3.39	0.0
43.00	4.60	3.39	0.0
44.00	4.60	3.39	0.0
45.00	4.60	3.39	0.0
46.00	4.60	3.39	0.0
47.00	4.60	3.39	0.0
48.00	4.60	3.39	0.0
49.00	4.60	3.39	0.0
50.00	4.60	3.39	0.0
51.00	4.60	3.39	0.0
52.00	4.60	3.39	0.0
53.00	4.60	3.39	0.0
54.00	4.60	3.39	0.0
55.00	4.60	3.39	0.0
56.00	4.60	3.39	0.0
57.00	4.60	3.39	0.0
58.00	4.60	3.39	0.0
59.00	4.60	3.39	0.0
60.00	4.60	3.39	0.0
61.00	4.60	3.39	0.0
62.00	4.60	3.39	0.0
63.00	4.60	3.39	0.0
64.00	4.60	3.39	0.0
65.00	4.60	3.39	0.0
66.00	4.60	3.39	0.0
67.00	4.60	3.39	0.0
68.00	4.60	3.39	0.0
69.00	4.60	3.39	0.0
70.00	4.60	3.39	0.0
71.00	4.60	3.39	0.0
72.00	4.60	3.39	0.0

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac, 83.61% Impervious, Inflow Depth = 3.39" for 10-YR event
Inflow = 2.3 cfs @ 12.09 hrs, Volume= 0.166 af
Primary = 2.3 cfs @ 12.09 hrs, Volume= 0.166 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue



Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.0	0.00	0.0	58.00	0.0	0.00	0.0
8.00	0.0	0.00	0.0	59.00	0.0	0.00	0.0
9.00	0.0	0.00	0.0	60.00	0.0	0.00	0.0
10.00	0.1	0.00	0.1	61.00	0.0	0.00	0.0
11.00	0.1	0.00	0.1	62.00	0.0	0.00	0.0
12.00	**1.4**	0.00	**1.4**	63.00	0.0	0.00	0.0
13.00	**0.2**	0.00	**0.2**	64.00	0.0	0.00	0.0
14.00	0.1	0.00	0.1	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.1	0.00	0.1	67.00	0.0	0.00	0.0
17.00	0.1	0.00	0.1	68.00	0.0	0.00	0.0
18.00	0.0	0.00	0.0	69.00	0.0	0.00	0.0
19.00	0.0	0.00	0.0	70.00	0.0	0.00	0.0
20.00	0.0	0.00	0.0	71.00	0.0	0.00	0.0
21.00	0.0	0.00	0.0	72.00	0.0	0.00	0.0
22.00	0.0	0.00	0.0				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=0.588 ac 83.61% Impervious Runoff Depth=4.54"
Tc=6.0 min CN=89 Runoff=3.0 cfs 0.222 af

Link DP-1: Park Avenue Inflow=3.0 cfs 0.222 af
Primary=3.0 cfs 0.222 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.222 af Average Runoff Depth = 4.54"
16.39% Pervious = 0.096 ac 83.61% Impervious = 0.491 ac

Summary for Subcatchment EX-1: Subcat EX-1

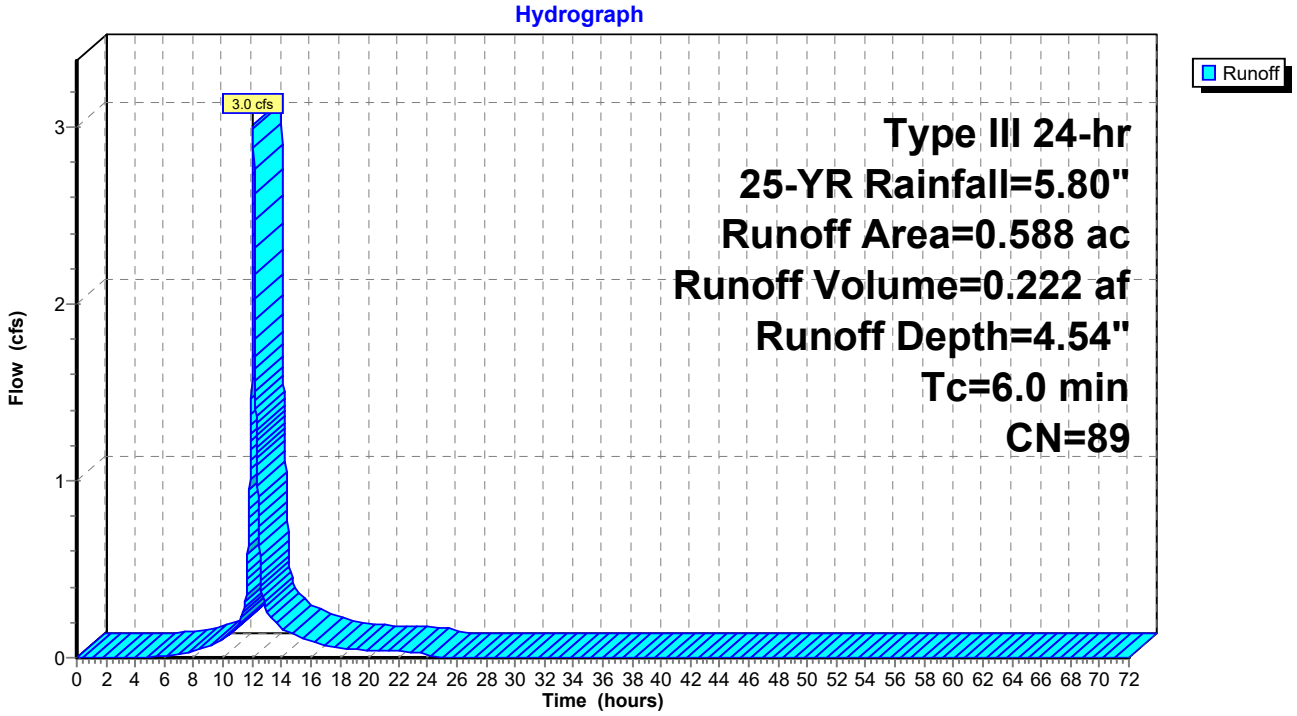
Runoff = 3.0 cfs @ 12.08 hrs, Volume= 0.222 af, Depth= 4.54"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.056	39	>75% Grass cover, Good, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.020	49	50-75% Grass cover, Fair, HSG A
0.007	98	Unconnected pavement, HSG A
0.027	98	Unconnected pavement, HSG A
0.013	98	Unconnected pavement, HSG A
0.000	98	Unconnected pavement, HSG A
0.013	98	Roofs, HSG A
0.015	98	Roofs, HSG A
0.003	98	Roofs, HSG A
0.071	98	Roofs, HSG A
0.002	98	Roofs, HSG A
0.340	98	Paved parking, HSG A
0.588	89	Weighted Average
0.096		16.39% Pervious Area
0.491		83.61% Impervious Area
0.047		9.67% Unconnected

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

Subcatchment EX-1: Subcat EX-1



Hydrograph for Subcatchment EX-1: Subcat EX-1

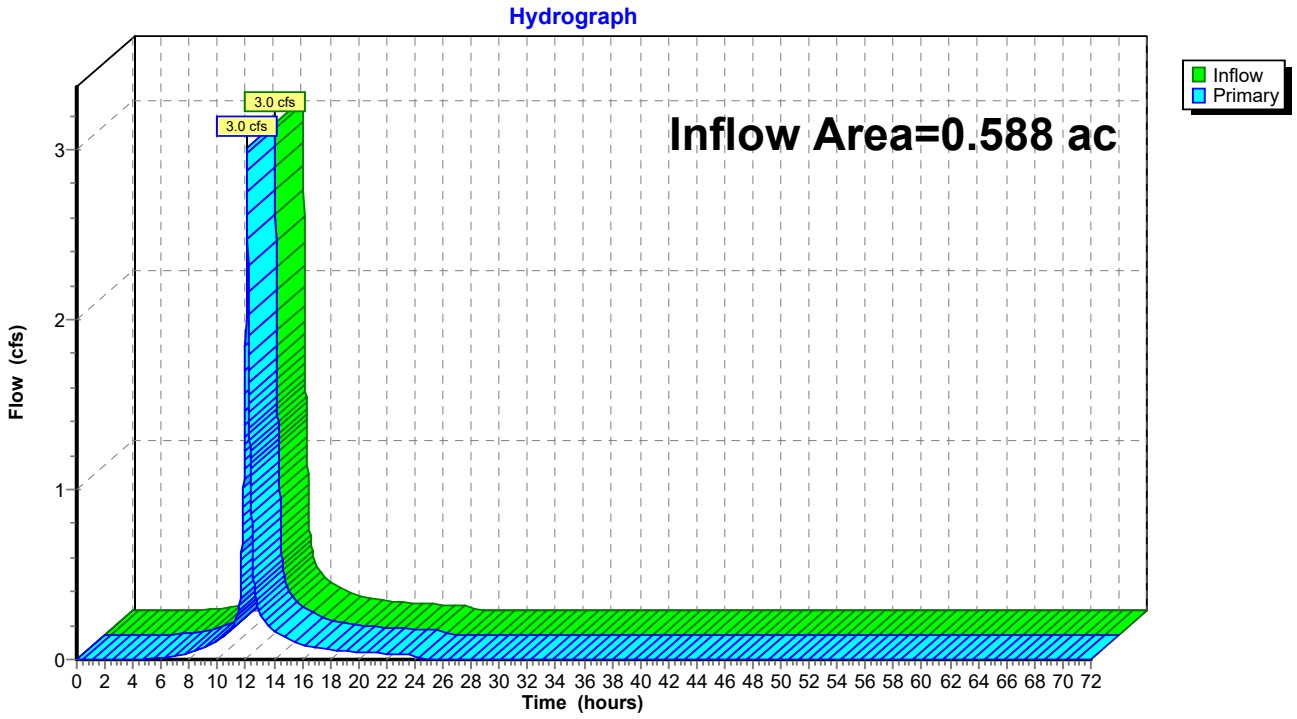
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.06	0.00	0.0
2.00	0.12	0.00	0.0
3.00	0.18	0.00	0.0
4.00	0.25	0.00	0.0
5.00	0.33	0.01	0.0
6.00	0.42	0.02	0.0
7.00	0.52	0.05	0.0
8.00	0.66	0.10	0.0
9.00	0.85	0.20	0.1
10.00	1.10	0.35	0.1
11.00	1.45	0.59	0.2
12.00	2.90	1.81	**1.8**
13.00	4.35	3.15	**0.3**
14.00	4.70	3.49	0.2
15.00	4.95	3.73	0.1
16.00	5.14	3.90	0.1
17.00	5.28	4.04	0.1
18.00	5.38	4.14	0.1
19.00	5.47	4.22	0.0
20.00	5.55	4.30	0.0
21.00	5.62	4.37	0.0
22.00	5.69	4.43	0.0
23.00	5.75	4.49	0.0
24.00	**5.80**	**4.54**	0.0
25.00	5.80	4.54	0.0
26.00	5.80	4.54	0.0
27.00	5.80	4.54	0.0
28.00	5.80	4.54	0.0
29.00	5.80	4.54	0.0
30.00	5.80	4.54	0.0
31.00	5.80	4.54	0.0
32.00	5.80	4.54	0.0
33.00	5.80	4.54	0.0
34.00	5.80	4.54	0.0
35.00	5.80	4.54	0.0
36.00	5.80	4.54	0.0
37.00	5.80	4.54	0.0
38.00	5.80	4.54	0.0
39.00	5.80	4.54	0.0
40.00	5.80	4.54	0.0
41.00	5.80	4.54	0.0
42.00	5.80	4.54	0.0
43.00	5.80	4.54	0.0
44.00	5.80	4.54	0.0
45.00	5.80	4.54	0.0
46.00	5.80	4.54	0.0
47.00	5.80	4.54	0.0
48.00	5.80	4.54	0.0
49.00	5.80	4.54	0.0
50.00	5.80	4.54	0.0
51.00	5.80	4.54	0.0
52.00	5.80	4.54	0.0
53.00	5.80	4.54	0.0
54.00	5.80	4.54	0.0
55.00	5.80	4.54	0.0
56.00	5.80	4.54	0.0
57.00	5.80	4.54	0.0
58.00	5.80	4.54	0.0
59.00	5.80	4.54	0.0
60.00	5.80	4.54	0.0
61.00	5.80	4.54	0.0
62.00	5.80	4.54	0.0
63.00	5.80	4.54	0.0
64.00	5.80	4.54	0.0
65.00	5.80	4.54	0.0
66.00	5.80	4.54	0.0
67.00	5.80	4.54	0.0
68.00	5.80	4.54	0.0
69.00	5.80	4.54	0.0
70.00	5.80	4.54	0.0
71.00	5.80	4.54	0.0
72.00	5.80	4.54	0.0

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac, 83.61% Impervious, Inflow Depth = 4.54" for 25-YR event
Inflow = 3.0 cfs @ 12.08 hrs, Volume= 0.222 af
Primary = 3.0 cfs @ 12.08 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue

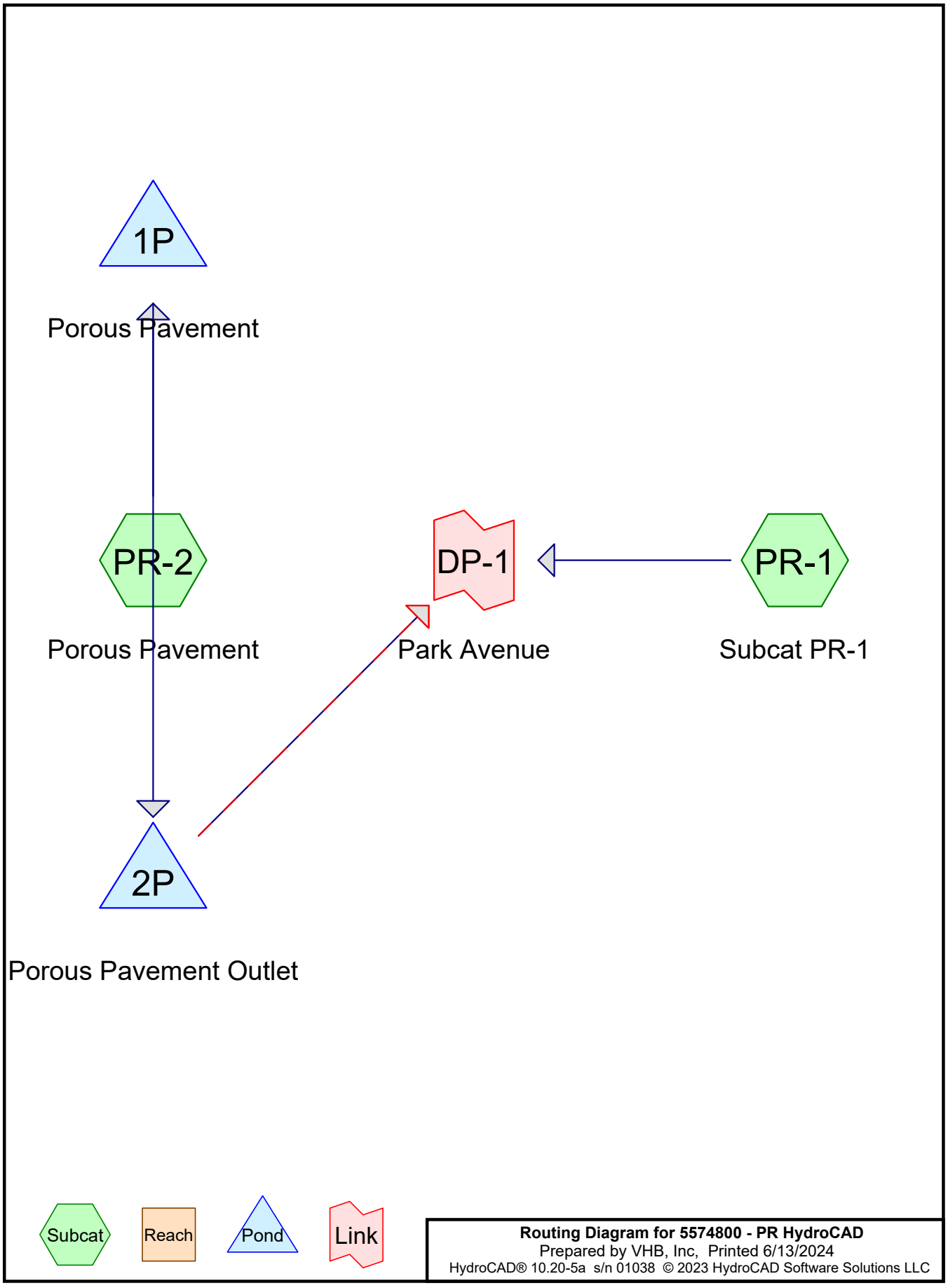


Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.0	0.00	0.0	58.00	0.0	0.00	0.0
8.00	0.0	0.00	0.0	59.00	0.0	0.00	0.0
9.00	0.1	0.00	0.1	60.00	0.0	0.00	0.0
10.00	0.1	0.00	0.1	61.00	0.0	0.00	0.0
11.00	0.2	0.00	0.2	62.00	0.0	0.00	0.0
12.00	**1.8**	0.00	**1.8**	63.00	0.0	0.00	0.0
13.00	**0.3**	0.00	**0.3**	64.00	0.0	0.00	0.0
14.00	0.2	0.00	0.2	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.1	0.00	0.1	67.00	0.0	0.00	0.0
17.00	0.1	0.00	0.1	68.00	0.0	0.00	0.0
18.00	0.1	0.00	0.1	69.00	0.0	0.00	0.0
19.00	0.0	0.00	0.0	70.00	0.0	0.00	0.0
20.00	0.0	0.00	0.0	71.00	0.0	0.00	0.0
21.00	0.0	0.00	0.0	72.00	0.0	0.00	0.0
22.00	0.0	0.00	0.0				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Memorandum

Proposed Drainage Conditions HydroCAD Report


1P
Porous Pavement
PR-2
Porous Pavement
DP-1
Park Avenue
PR-1
Subcat PR-1
2P
Porous Pavement Outlet
Subcat
Reach
Pond
Link
Routing Diagram for 5574800 - PR HydroCAD
Prepared by VHB, Inc, Printed 6/13/2024
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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-YR	Type III 24-hr		Default	24.00	1	3.10	2
2	10-YR	Type III 24-hr		Default	24.00	1	4.60	2
3	25-YR	Type III 24-hr		Default	24.00	1	5.80	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.000	39	>75% Grass cover, Good, HSG A (PR-2)
0.266	98	Paved parking, HSG A (PR-1, PR-2)
0.292	98	Roofs, HSG A (PR-1)
0.029	98	Unconnected pavement, HSG A (PR-1, PR-2)
0.588	**98**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.588	HSG A	PR-1, PR-2
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	0.000	0.000	>75% Grass cover, Good	PR-2
0.266	0.000	0.000	0.000	0.000	0.266	Paved parking	PR-1, PR-2
0.292	0.000	0.000	0.000	0.000	0.292	Roofs	PR-1
0.029	0.000	0.000	0.000	0.000	0.029	Unconnected pavement	PR-1, PR-2
0.588	**0.000**	**0.000**	**0.000**	**0.000**	**0.588**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	2P	14.50	14.15	62.4	0.0056	0.013	0.0	12.0	0.0	

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=0.476 ac 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=1.4 cfs 0.114 af

Subcatchment PR-2: Porous Pavement Runoff Area=0.111 ac 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=0.3 cfs 0.027 af

Pond 1P: Porous Pavement Peak Elev=18.62' Storage=37 cf Inflow=0.3 cfs 0.027 af
Outflow=0.3 cfs 0.027 af

Pond 2P: Porous Pavement Outlet Peak Elev=17.64' Storage=679 cf Inflow=0.3 cfs 0.027 af
Outflow=0.0 cfs 0.026 af

Link DP-1: Park Avenue Inflow=1.4 cfs 0.140 af
Primary=1.4 cfs 0.140 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.140 af Average Runoff Depth = 2.87"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.588 ac

Summary for Subcatchment PR-1: Subcat PR-1

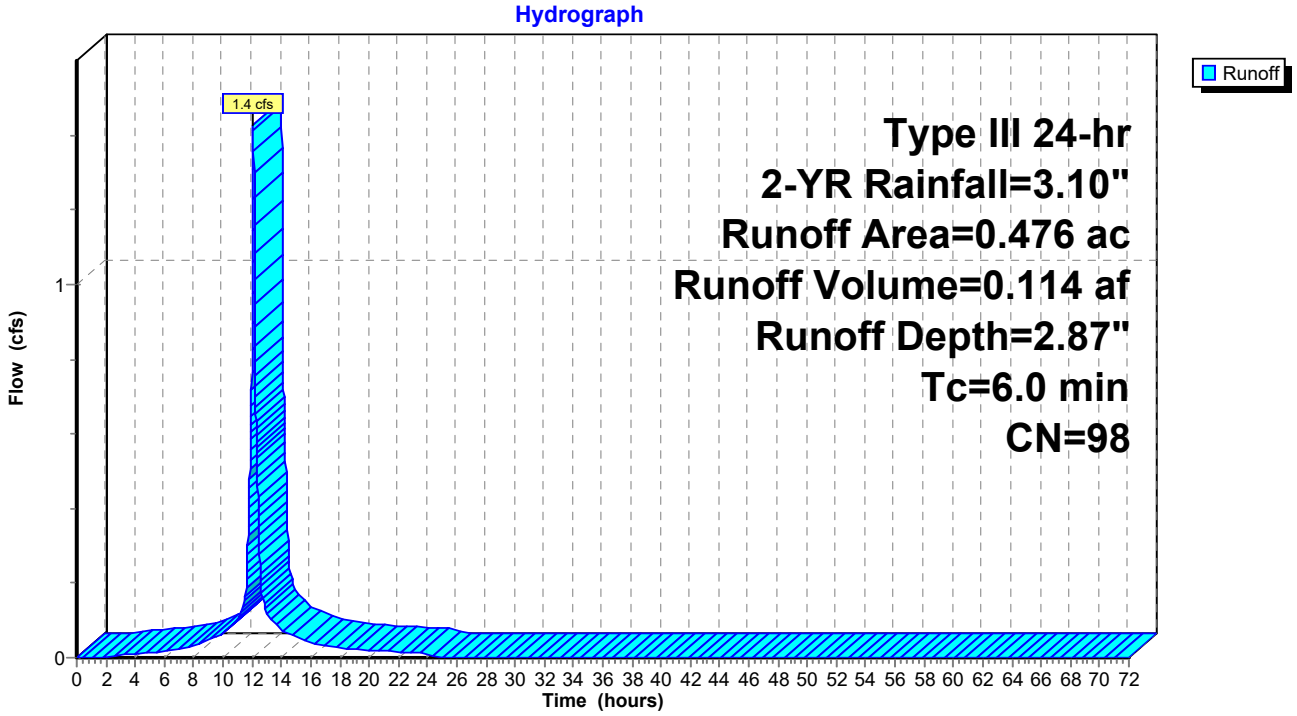
Runoff = 1.4 cfs @ 12.08 hrs, Volume= 0.114 af, Depth= 2.87"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.004	98	Unconnected pavement, HSG A
0.007	98	Unconnected pavement, HSG A
0.011	98	Unconnected pavement, HSG A
0.060	98	Roofs, HSG A
0.232	98	Roofs, HSG A
0.163	98	Paved parking, HSG A
0.476	98	Weighted Average
0.476		100.00% Impervious Area
0.021		4.49% Unconnected

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

Subcatchment PR-1: Subcat PR-1



Hydrograph for Subcatchment PR-1: Subcat PR-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.03	0.00	0.0
2.00	0.06	0.00	0.0
3.00	0.10	0.01	0.0
4.00	0.13	0.03	0.0
5.00	0.18	0.05	0.0
6.00	0.22	0.09	0.0
7.00	0.28	0.13	0.0
8.00	0.35	0.19	0.0
9.00	0.45	0.27	0.0
10.00	0.59	0.40	0.1
11.00	0.77	0.57	0.1
12.00	1.55	1.33	**0.9**
13.00	2.32	2.10	**0.1**
14.00	2.51	2.28	0.1
15.00	2.65	2.42	0.1
16.00	2.75	2.52	0.0
17.00	2.82	2.59	0.0
18.00	2.88	2.65	0.0
19.00	2.92	2.69	0.0
20.00	2.97	2.74	0.0
21.00	3.01	2.77	0.0
22.00	3.04	2.81	0.0
23.00	3.07	2.84	0.0
24.00	**3.10**	**2.87**	0.0
25.00	3.10	2.87	0.0
26.00	3.10	2.87	0.0
27.00	3.10	2.87	0.0
28.00	3.10	2.87	0.0
29.00	3.10	2.87	0.0
30.00	3.10	2.87	0.0
31.00	3.10	2.87	0.0
32.00	3.10	2.87	0.0
33.00	3.10	2.87	0.0
34.00	3.10	2.87	0.0
35.00	3.10	2.87	0.0
36.00	3.10	2.87	0.0
37.00	3.10	2.87	0.0
38.00	3.10	2.87	0.0
39.00	3.10	2.87	0.0
40.00	3.10	2.87	0.0
41.00	3.10	2.87	0.0
42.00	3.10	2.87	0.0
43.00	3.10	2.87	0.0
44.00	3.10	2.87	0.0
45.00	3.10	2.87	0.0
46.00	3.10	2.87	0.0
47.00	3.10	2.87	0.0
48.00	3.10	2.87	0.0
49.00	3.10	2.87	0.0
50.00	3.10	2.87	0.0
51.00	3.10	2.87	0.0
52.00	3.10	2.87	0.0
53.00	3.10	2.87	0.0
54.00	3.10	2.87	0.0
55.00	3.10	2.87	0.0
56.00	3.10	2.87	0.0
57.00	3.10	2.87	0.0
58.00	3.10	2.87	0.0
59.00	3.10	2.87	0.0
60.00	3.10	2.87	0.0
61.00	3.10	2.87	0.0
62.00	3.10	2.87	0.0
63.00	3.10	2.87	0.0
64.00	3.10	2.87	0.0
65.00	3.10	2.87	0.0
66.00	3.10	2.87	0.0
67.00	3.10	2.87	0.0
68.00	3.10	2.87	0.0
69.00	3.10	2.87	0.0
70.00	3.10	2.87	0.0
71.00	3.10	2.87	0.0
72.00	3.10	2.87	0.0

Summary for Subcatchment PR-2: Porous Pavement

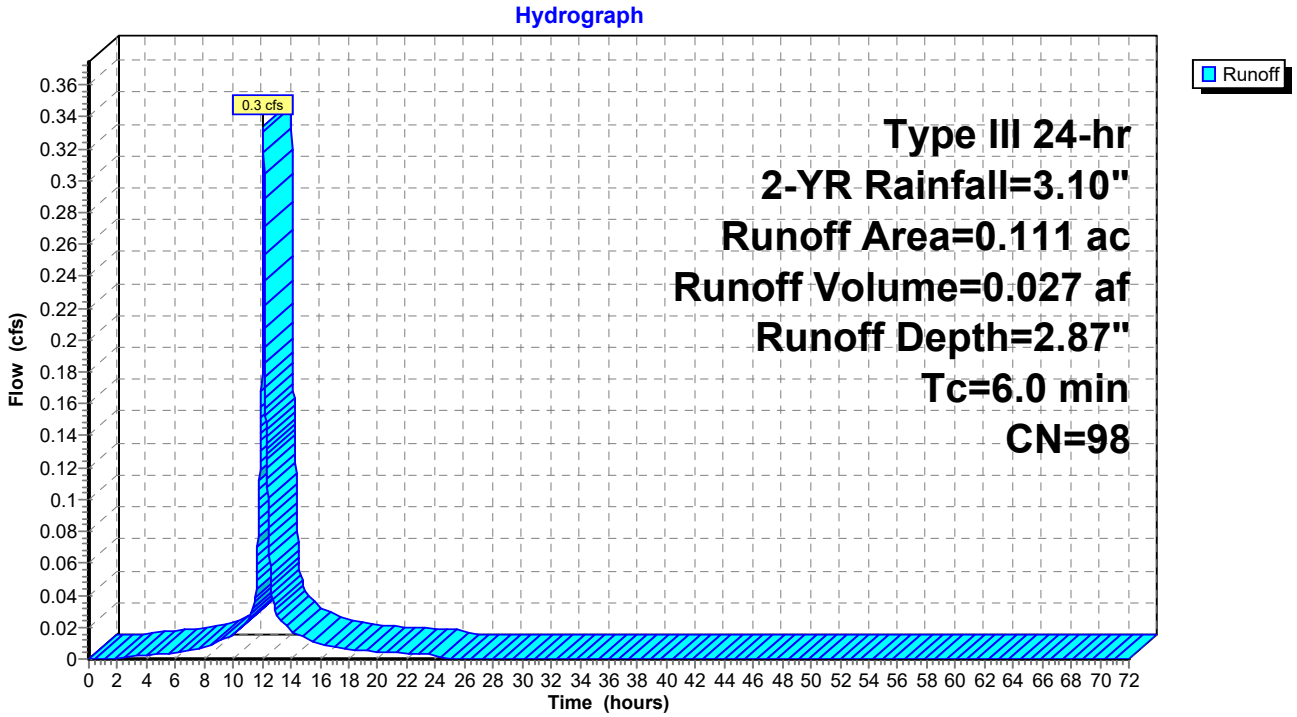
Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.027 af, Depth= 2.87"
Routed to Pond 1P : Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.007	98	Unconnected pavement, HSG A
0.104	98	Paved parking, HSG A
0.111	98	Weighted Average
0.000		0.00% Pervious Area
0.111		100.00% Impervious Area
0.007		6.73% Unconnected

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

Subcatchment PR-2: Porous Pavement



Hydrograph for Subcatchment PR-2: Porous Pavement

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.03	0.00	0.0
2.00	0.06	0.00	0.0
3.00	0.10	0.01	0.0
4.00	0.13	0.03	0.0
5.00	0.18	0.05	0.0
6.00	0.22	0.09	0.0
7.00	0.28	0.13	0.0
8.00	0.35	0.19	0.0
9.00	0.45	0.27	0.0
10.00	0.59	0.40	0.0
11.00	0.77	0.57	0.0
12.00	1.55	1.33	**0.2**
13.00	2.32	2.10	**0.0**
14.00	2.51	2.28	0.0
15.00	2.65	2.42	0.0
16.00	2.75	2.52	0.0
17.00	2.82	2.59	0.0
18.00	2.88	2.65	0.0
19.00	2.92	2.69	0.0
20.00	2.97	2.74	0.0
21.00	3.01	2.77	0.0
22.00	3.04	2.81	0.0
23.00	3.07	2.84	0.0
24.00	**3.10**	**2.87**	0.0
25.00	3.10	2.87	0.0
26.00	3.10	2.87	0.0
27.00	3.10	2.87	0.0
28.00	3.10	2.87	0.0
29.00	3.10	2.87	0.0
30.00	3.10	2.87	0.0
31.00	3.10	2.87	0.0
32.00	3.10	2.87	0.0
33.00	3.10	2.87	0.0
34.00	3.10	2.87	0.0
35.00	3.10	2.87	0.0
36.00	3.10	2.87	0.0
37.00	3.10	2.87	0.0
38.00	3.10	2.87	0.0
39.00	3.10	2.87	0.0
40.00	3.10	2.87	0.0
41.00	3.10	2.87	0.0
42.00	3.10	2.87	0.0
43.00	3.10	2.87	0.0
44.00	3.10	2.87	0.0
45.00	3.10	2.87	0.0
46.00	3.10	2.87	0.0
47.00	3.10	2.87	0.0
48.00	3.10	2.87	0.0
49.00	3.10	2.87	0.0
50.00	3.10	2.87	0.0
51.00	3.10	2.87	0.0
52.00	3.10	2.87	0.0
53.00	3.10	2.87	0.0
54.00	3.10	2.87	0.0
55.00	3.10	2.87	0.0
56.00	3.10	2.87	0.0
57.00	3.10	2.87	0.0
58.00	3.10	2.87	0.0
59.00	3.10	2.87	0.0
60.00	3.10	2.87	0.0
61.00	3.10	2.87	0.0
62.00	3.10	2.87	0.0
63.00	3.10	2.87	0.0
64.00	3.10	2.87	0.0
65.00	3.10	2.87	0.0
66.00	3.10	2.87	0.0
67.00	3.10	2.87	0.0
68.00	3.10	2.87	0.0
69.00	3.10	2.87	0.0
70.00	3.10	2.87	0.0
71.00	3.10	2.87	0.0
72.00	3.10	2.87	0.0

Summary for Pond 1P: Porous Pavement

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 2.87" for 2-YR event
Inflow = 0.3 cfs @ 12.08 hrs, Volume= 0.027 af
Outflow = 0.3 cfs @ 12.05 hrs, Volume= 0.027 af, Atten= 22%, Lag= 0.0 min
Primary = 0.3 cfs @ 12.05 hrs, Volume= 0.027 af
Routed to Pond 2P : Porous Pavement Outlet

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 18.62' @ 12.15 hrs Surf.Area= 4,517 sf Storage= 37 cf

Plug-Flow detention time= 1.3 min calculated for 0.027 af (100% of inflow)
Center-of-Mass det. time= 1.3 min (758.3 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	18.60'	1,807 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
18.60	4,517	541.7	0	0	4,517
19.60	4,517	541.7	4,517	4,517	5,059

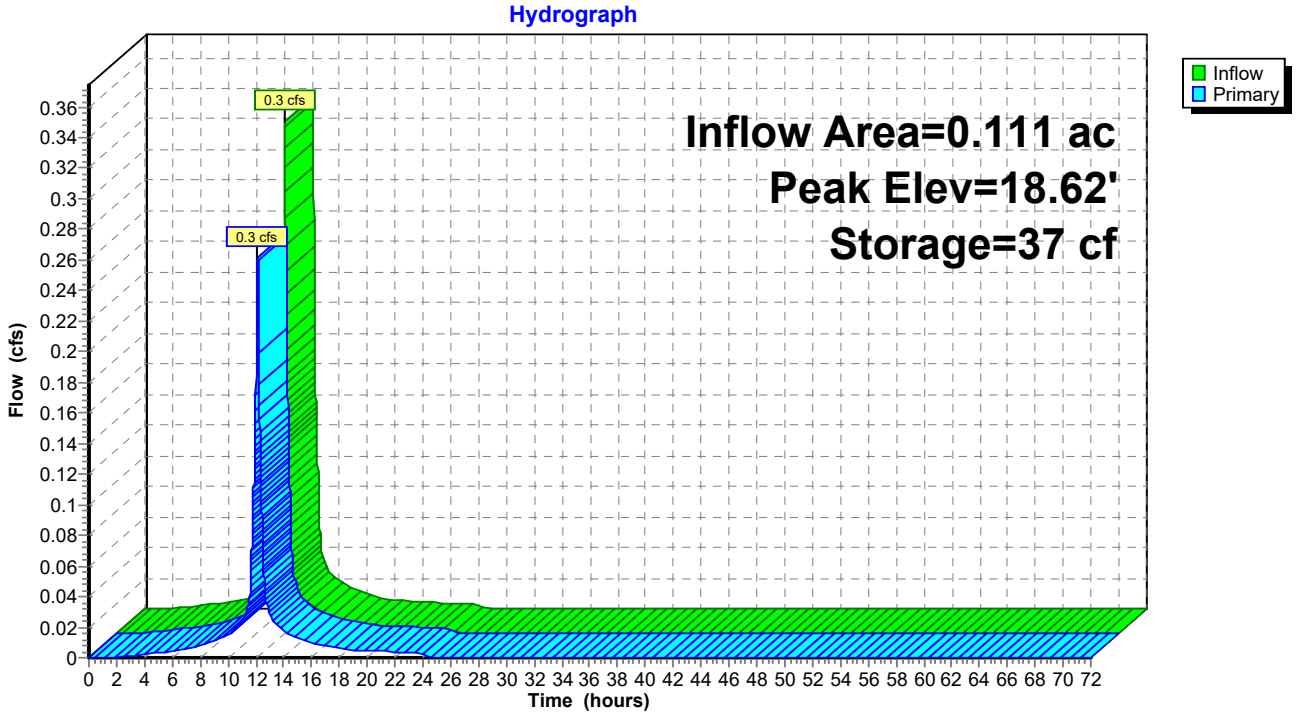
Device	Routing	Invert	Outlet Devices
#1	Primary	18.60'	**2.500 in/hr Exfiltration over Surface area**

Primary OutFlow Max=0.3 cfs @ 12.05 hrs HW=18.61' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.3 cfs)

Pond 1P: Porous Pavement

Exfiltration

Pond 1P: Porous Pavement



Hydrograph for Pond 1P: Porous Pavement

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	18.60	0.0
2.00	0.0	0	18.60	0.0
4.00	0.0	0	18.60	0.0
6.00	0.0	0	18.60	0.0
8.00	0.0	1	18.60	0.0
10.00	0.0	1	18.60	0.0
12.00	**0.2**	**13**	**18.61**	**0.2**
14.00	**0.0**	**1**	**18.60**	**0.0**
16.00	0.0	1	18.60	0.0
18.00	0.0	0	18.60	0.0
20.00	0.0	0	18.60	0.0
22.00	0.0	0	18.60	0.0
24.00	0.0	0	18.60	0.0
26.00	0.0	0	18.60	0.0
28.00	0.0	0	18.60	0.0
30.00	0.0	0	18.60	0.0
32.00	0.0	0	18.60	0.0
34.00	0.0	0	18.60	0.0
36.00	0.0	0	18.60	0.0
38.00	0.0	0	18.60	0.0
40.00	0.0	0	18.60	0.0
42.00	0.0	0	18.60	0.0
44.00	0.0	0	18.60	0.0
46.00	0.0	0	18.60	0.0
48.00	0.0	0	18.60	0.0
50.00	0.0	0	18.60	0.0
52.00	0.0	0	18.60	0.0
54.00	0.0	0	18.60	0.0
56.00	0.0	0	18.60	0.0
58.00	0.0	0	18.60	0.0
60.00	0.0	0	18.60	0.0
62.00	0.0	0	18.60	0.0
64.00	0.0	0	18.60	0.0
66.00	0.0	0	18.60	0.0
68.00	0.0	0	18.60	0.0
70.00	0.0	0	18.60	0.0
72.00	0.0	0	18.60	0.0

Stage-Discharge for Pond 1P: Porous Pavement

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
18.60	0.0	19.11	0.3
18.61	**0.3**	19.12	0.3
18.62	0.3	19.13	0.3
18.63	0.3	19.14	0.3
18.64	0.3	19.15	0.3
18.65	0.3	19.16	0.3
18.66	0.3	19.17	0.3
18.67	0.3	19.18	0.3
18.68	0.3	19.19	0.3
18.69	0.3	19.20	0.3
18.70	0.3	19.21	0.3
18.71	0.3	19.22	0.3
18.72	0.3	19.23	0.3
18.73	0.3	19.24	0.3
18.74	0.3	19.25	0.3
18.75	0.3	19.26	0.3
18.76	0.3	19.27	0.3
18.77	0.3	19.28	0.3
18.78	0.3	19.29	0.3
18.79	0.3	19.30	0.3
18.80	0.3	19.31	0.3
18.81	0.3	19.32	0.3
18.82	0.3	19.33	0.3
18.83	0.3	19.34	0.3
18.84	0.3	19.35	0.3
18.85	0.3	19.36	0.3
18.86	0.3	19.37	0.3
18.87	0.3	19.38	0.3
18.88	0.3	19.39	0.3
18.89	0.3	19.40	0.3
18.90	0.3	19.41	0.3
18.91	0.3	19.42	0.3
18.92	0.3	19.43	0.3
18.93	0.3	19.44	0.3
18.94	0.3	19.45	0.3
18.95	0.3	19.46	0.3
18.96	0.3	19.47	0.3
18.97	0.3	19.48	0.3
18.98	0.3	19.49	0.3
18.99	0.3	19.50	0.3
19.00	0.3	19.51	0.3
19.01	0.3	19.52	0.3
19.02	0.3	19.53	0.3
19.03	0.3	19.54	0.3
19.04	0.3	19.55	0.3
19.05	0.3	19.56	0.3
19.06	0.3	19.57	0.3
19.07	0.3	19.58	0.3
19.08	0.3	19.59	0.3
19.09	0.3	19.60	0.3
19.10	0.3		

Stage-Area-Storage for Pond 1P: Porous Pavement

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
18.60	**4,517**	0	19.11	4,517	921
18.61	4,517	18	19.12	4,517	940
18.62	4,517	36	19.13	4,517	958
18.63	4,517	54	19.14	4,517	976
18.64	4,517	72	19.15	4,517	994
18.65	4,517	90	19.16	4,517	1,012
18.66	4,517	108	19.17	4,517	1,030
18.67	4,517	126	19.18	4,517	1,048
18.68	4,517	145	19.19	4,517	1,066
18.69	4,517	163	19.20	4,517	1,084
18.70	4,517	181	19.21	4,517	1,102
18.71	4,517	199	19.22	4,517	1,120
18.72	4,517	217	19.23	4,517	1,138
18.73	4,517	235	19.24	4,517	1,156
18.74	4,517	253	19.25	4,517	1,174
18.75	4,517	271	19.26	4,517	1,192
18.76	4,517	289	19.27	4,517	1,211
18.77	4,517	307	19.28	4,517	1,229
18.78	4,517	325	19.29	4,517	1,247
18.79	4,517	343	19.30	4,517	1,265
18.80	4,517	361	19.31	4,517	1,283
18.81	4,517	379	19.32	4,517	1,301
18.82	4,517	397	19.33	4,517	1,319
18.83	4,517	416	19.34	4,517	1,337
18.84	4,517	434	19.35	4,517	1,355
18.85	4,517	452	19.36	4,517	1,373
18.86	4,517	470	19.37	4,517	1,391
18.87	4,517	488	19.38	4,517	1,409
18.88	4,517	506	19.39	4,517	1,427
18.89	4,517	524	19.40	4,517	1,445
18.90	4,517	542	19.41	4,517	1,464
18.91	4,517	560	19.42	4,517	1,482
18.92	4,517	578	19.43	4,517	1,500
18.93	4,517	596	19.44	4,517	1,518
18.94	4,517	614	19.45	4,517	1,536
18.95	4,517	632	19.46	4,517	1,554
18.96	4,517	650	19.47	4,517	1,572
18.97	4,517	669	19.48	4,517	1,590
18.98	4,517	687	19.49	4,517	1,608
18.99	4,517	705	19.50	4,517	1,626
19.00	4,517	723	19.51	4,517	1,644
19.01	4,517	741	19.52	4,517	1,662
19.02	4,517	759	19.53	4,517	1,680
19.03	4,517	777	19.54	4,517	1,698
19.04	4,517	795	19.55	4,517	1,716
19.05	4,517	813	19.56	4,517	1,735
19.06	4,517	831	19.57	4,517	1,753
19.07	4,517	849	19.58	4,517	1,771
19.08	4,517	867	19.59	4,517	1,789
19.09	4,517	885	19.60	4,517	**1,807**
19.10	4,517	903			

Summary for Pond 2P: Porous Pavement Outlet

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 2.87" for 2-YR event
Inflow = 0.3 cfs @ 12.05 hrs, Volume= 0.027 af
Outflow = 0.0 cfs @ 13.56 hrs, Volume= 0.026 af, Atten= 92%, Lag= 90.7 min
Primary = 0.0 cfs @ 13.56 hrs, Volume= 0.026 af
Routed to Link DP-1 : Park Avenue

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 17.64' @ 13.56 hrs Surf.Area= 4,530 sf Storage= 679 cf

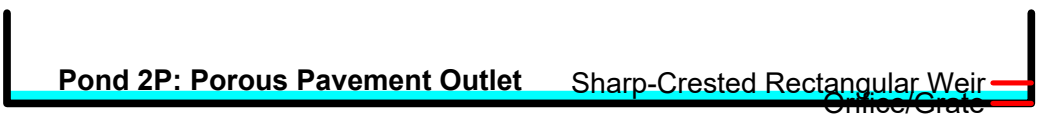
Plug-Flow detention time= 466.3 min calculated for 0.026 af (100% of inflow)
Center-of-Mass det. time= 463.8 min (1,222.1 - 758.3)

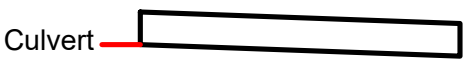
Volume	Invert	Avail.Storage	Storage Description
#1	17.27'	1,800 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall - 17 cf Embedded = 4,500 cf x 40.0% Voids
#2	17.60'	17 cf	**4.0" Round Pipe Storage** Inside #1 L= 200.0'
#3	17.27'	35 cf	**4.00'D x 2.77'H Vertical Cone/Cylinder**
		1,852 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
17.27	4,517	541.7	0	0	4,517
18.27	4,517	541.7	4,517	4,517	5,059

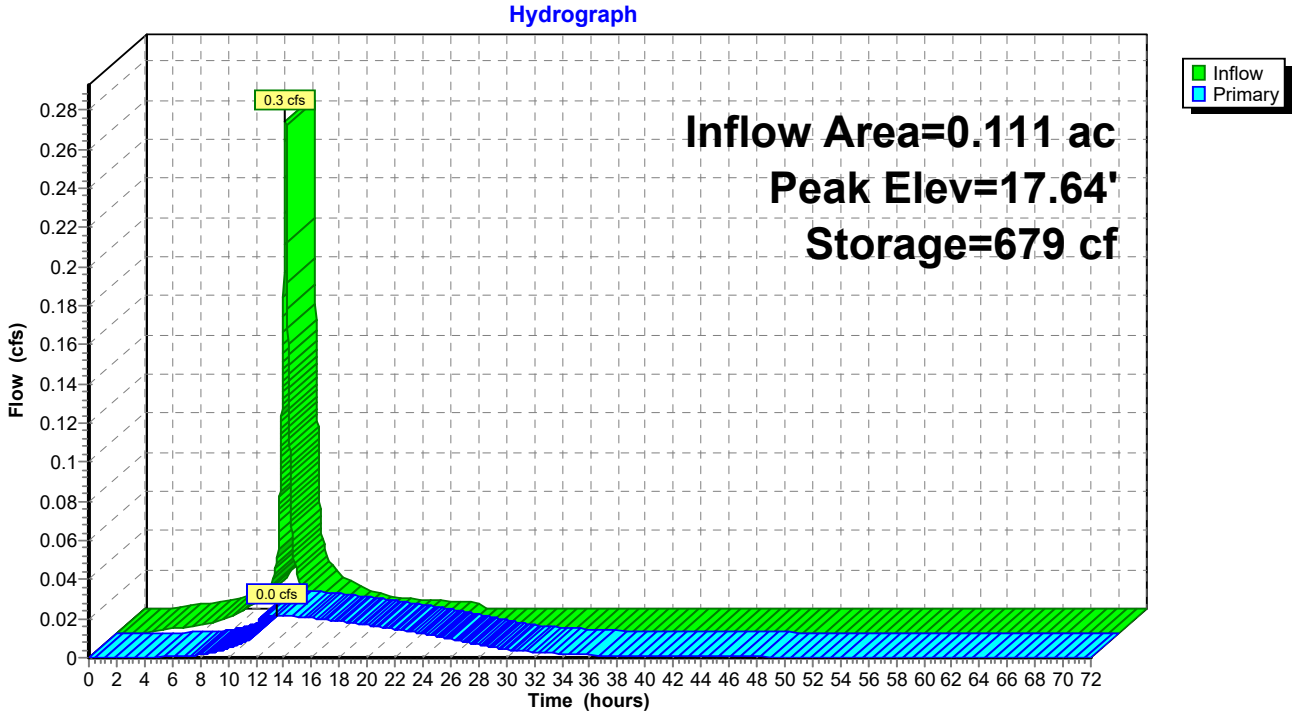
Device	Routing	Invert	Outlet Devices
#1	Primary	14.50'	**12.0" Round Culvert** L= 62.4' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 14.50' / 14.15' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	17.27'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	17.90'	**4.0' long x 1.10' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.0 cfs @ 13.56 hrs HW=17.64' (Free Discharge)
└**1=Culvert** (Passes 0.0 cfs of 5.4 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 2.74 fps)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.0 cfs)





Pond 2P: Porous Pavement Outlet



Hydrograph for Pond 2P: Porous Pavement Outlet

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	17.27	0.0
2.00	0.0	1	17.27	0.0
4.00	0.0	10	17.28	0.0
6.00	0.0	30	17.29	0.0
8.00	0.0	63	17.30	0.0
10.00	0.0	122	17.34	0.0
12.00	**0.2**	**340**	**17.46**	**0.0**
14.00	**0.0**	**677**	**17.64**	**0.0**
16.00	0.0	622	17.61	0.0
18.00	0.0	535	17.56	0.0
20.00	0.0	444	17.51	0.0
22.00	0.0	362	17.47	0.0
24.00	0.0	289	17.43	0.0
26.00	0.0	210	17.39	0.0
28.00	0.0	151	17.35	0.0
30.00	0.0	112	17.33	0.0
32.00	0.0	87	17.32	0.0
34.00	0.0	69	17.31	0.0
36.00	0.0	58	17.30	0.0
38.00	0.0	49	17.30	0.0
40.00	0.0	43	17.29	0.0
42.00	0.0	37	17.29	0.0
44.00	0.0	32	17.29	0.0
46.00	0.0	28	17.29	0.0
48.00	0.0	24	17.28	0.0
50.00	0.0	21	17.28	0.0
52.00	0.0	18	17.28	0.0
54.00	0.0	16	17.28	0.0
56.00	0.0	14	17.28	0.0
58.00	0.0	12	17.28	0.0
60.00	0.0	10	17.28	0.0
62.00	0.0	9	17.27	0.0
64.00	0.0	8	17.27	0.0
66.00	0.0	7	17.27	0.0
68.00	0.0	6	17.27	0.0
70.00	0.0	5	17.27	0.0
72.00	0.0	4	17.27	0.0

Stage-Discharge for Pond 2P: Porous Pavement Outlet

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
17.27	0.0	18.29	3.2	19.31	6.9
17.29	0.0	18.31	3.4	19.33	6.9
17.31	0.0	18.33	3.6	19.35	6.9
17.33	0.0	18.35	3.9	19.37	7.0
17.35	0.0	18.37	4.2	19.39	7.0
17.37	0.0	18.39	4.4	19.41	7.0
17.39	0.0	18.41	4.7	19.43	7.0
17.41	0.0	18.43	5.0	19.45	7.0
17.43	0.0	18.45	5.2	19.47	7.0
17.45	0.0	18.47	5.5	19.49	7.1
17.47	0.0	18.49	5.8	19.51	7.1
17.49	0.0	18.51	6.1	19.53	7.1
17.51	0.0	18.53	6.2	19.55	7.1
17.53	0.0	18.55	6.2	19.57	7.1
17.55	0.0	18.57	6.3	19.59	7.1
17.57	0.0	18.59	6.3	19.61	7.2
17.59	0.0	18.61	6.3	19.63	7.2
17.61	0.0	18.63	6.3	19.65	7.2
17.63	0.0	18.65	6.3	19.67	7.2
17.65	0.0	18.67	6.4	19.69	7.2
17.67	0.0	18.69	6.4	19.71	7.2
17.69	0.0	18.71	6.4	19.73	7.3
17.71	0.0	18.73	6.4	19.75	7.3
17.73	0.0	18.75	6.4	19.77	7.3
17.75	0.0	18.77	6.4	19.79	7.3
17.77	0.0	18.79	6.5	19.81	7.3
17.79	0.0	18.81	6.5	19.83	7.3
17.81	0.0	18.83	6.5	19.85	7.3
17.83	0.0	18.85	6.5	19.87	7.4
17.85	0.0	18.87	6.5	19.89	7.4
17.87	0.0	18.89	6.6	19.91	7.4
17.89	0.0	18.91	6.6	19.93	7.4
17.91	0.0	18.93	6.6	19.95	7.4
17.93	0.1	18.95	6.6	19.97	7.4
17.95	0.2	18.97	6.6	19.99	7.5
17.97	0.3	18.99	6.6	20.01	7.5
17.99	0.4	19.01	6.7	20.03	**7.5**
18.01	0.5	19.03	6.7		
18.03	0.6	19.05	6.7		
18.05	0.8	19.07	6.7		
18.07	0.9	19.09	6.7		
18.09	1.1	19.11	6.7		
18.11	1.3	19.13	6.8		
18.13	1.5	19.15	6.8		
18.15	1.6	19.17	6.8		
18.17	1.8	19.19	6.8		
18.19	2.0	19.21	6.8		
18.21	2.3	19.23	6.8		
18.23	2.5	19.25	6.9		
18.25	2.7	19.27	6.9		
18.27	2.9	19.29	6.9		

Stage-Area-Storage for Pond 2P: Porous Pavement Outlet

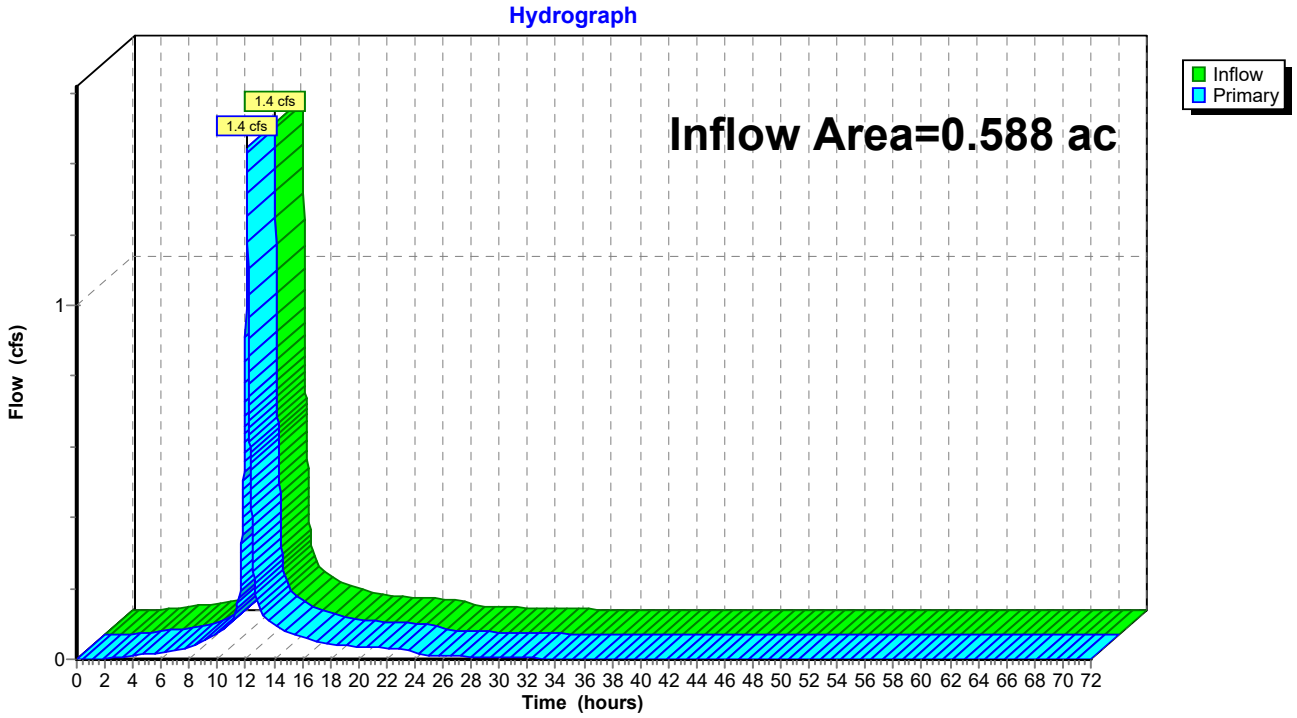
Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
17.27	0	18.29	1,830	19.31	1,843
17.29	36	18.31	1,830	19.33	1,843
17.31	73	18.33	1,831	19.35	1,843
17.33	109	18.35	1,831	19.37	1,844
17.35	146	18.37	1,831	19.39	1,844
17.37	182	18.39	1,831	19.41	1,844
17.39	218	18.41	1,832	19.43	1,844
17.41	255	18.43	1,832	19.45	1,845
17.43	291	18.45	1,832	19.47	1,845
17.45	327	18.47	1,832	19.49	1,845
17.47	364	18.49	1,833	19.51	1,845
17.49	400	18.51	1,833	19.53	1,846
17.51	437	18.53	1,833	19.55	1,846
17.53	473	18.55	1,833	19.57	1,846
17.55	509	18.57	1,834	19.59	1,846
17.57	546	18.59	1,834	19.61	1,847
17.59	582	18.61	1,834	19.63	1,847
17.61	619	18.63	1,834	19.65	1,847
17.63	655	18.65	1,835	19.67	1,847
17.65	692	18.67	1,835	19.69	1,848
17.67	729	18.69	1,835	19.71	1,848
17.69	766	18.71	1,835	19.73	1,848
17.71	804	18.73	1,836	19.75	1,848
17.73	841	18.75	1,836	19.77	1,849
17.75	878	18.77	1,836	19.79	1,849
17.77	915	18.79	1,836	19.81	1,849
17.79	952	18.81	1,837	19.83	1,849
17.81	989	18.83	1,837	19.85	1,850
17.83	1,027	18.85	1,837	19.87	1,850
17.85	1,064	18.87	1,837	19.89	1,850
17.87	1,101	18.89	1,838	19.91	1,850
17.89	1,138	18.91	1,838	19.93	1,851
17.91	1,175	18.93	1,838	19.95	1,851
17.93	1,211	18.95	1,838	19.97	1,851
17.95	1,248	18.97	1,839	19.99	1,851
17.97	1,284	18.99	1,839	20.01	1,852
17.99	1,320	19.01	1,839	20.03	**1,852**
18.01	1,357	19.03	1,839		
18.03	1,393	19.05	1,840		
18.05	1,430	19.07	1,840		
18.07	1,466	19.09	1,840		
18.09	1,502	19.11	1,840		
18.11	1,539	19.13	1,841		
18.13	1,575	19.15	1,841		
18.15	1,612	19.17	1,841		
18.17	1,648	19.19	1,841		
18.19	1,684	19.21	1,842		
18.21	1,721	19.23	1,842		
18.23	1,757	19.25	1,842		
18.25	1,793	19.27	1,842		
18.27	1,830	19.29	1,843		

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac,100.00% Impervious, Inflow Depth = 2.87" for 2-YR event
Inflow = 1.4 cfs @ 12.08 hrs, Volume= 0.140 af
Primary = 1.4 cfs @ 12.08 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue



Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.0	0.00	0.0	58.00	0.0	0.00	0.0
8.00	0.0	0.00	0.0	59.00	0.0	0.00	0.0
9.00	0.1	0.00	0.1	60.00	0.0	0.00	0.0
10.00	0.1	0.00	0.1	61.00	0.0	0.00	0.0
11.00	0.1	0.00	0.1	62.00	0.0	0.00	0.0
12.00	**0.9**	0.00	**0.9**	63.00	0.0	0.00	0.0
13.00	**0.1**	0.00	**0.1**	64.00	0.0	0.00	0.0
14.00	0.1	0.00	0.1	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.1	0.00	0.1	67.00	0.0	0.00	0.0
17.00	0.1	0.00	0.1	68.00	0.0	0.00	0.0
18.00	0.0	0.00	0.0	69.00	0.0	0.00	0.0
19.00	0.0	0.00	0.0	70.00	0.0	0.00	0.0
20.00	0.0	0.00	0.0	71.00	0.0	0.00	0.0
21.00	0.0	0.00	0.0	72.00	0.0	0.00	0.0
22.00	0.0	0.00	0.0				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=0.476 ac 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=2.1 cfs 0.173 af

Subcatchment PR-2: Porous Pavement Runoff Area=0.111 ac 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.040 af

Pond 1P: Porous Pavement Peak Elev=18.67' Storage=126 cf Inflow=0.5 cfs 0.040 af
Outflow=0.3 cfs 0.040 af

Pond 2P: Porous Pavement Outlet Peak Elev=17.85' Storage=1,058 cf Inflow=0.3 cfs 0.040 af
Outflow=0.0 cfs 0.040 af

Link DP-1: Park Avenue Inflow=2.2 cfs 0.214 af
Primary=2.2 cfs 0.214 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.214 af Average Runoff Depth = 4.36"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.588 ac

Summary for Subcatchment PR-1: Subcat PR-1

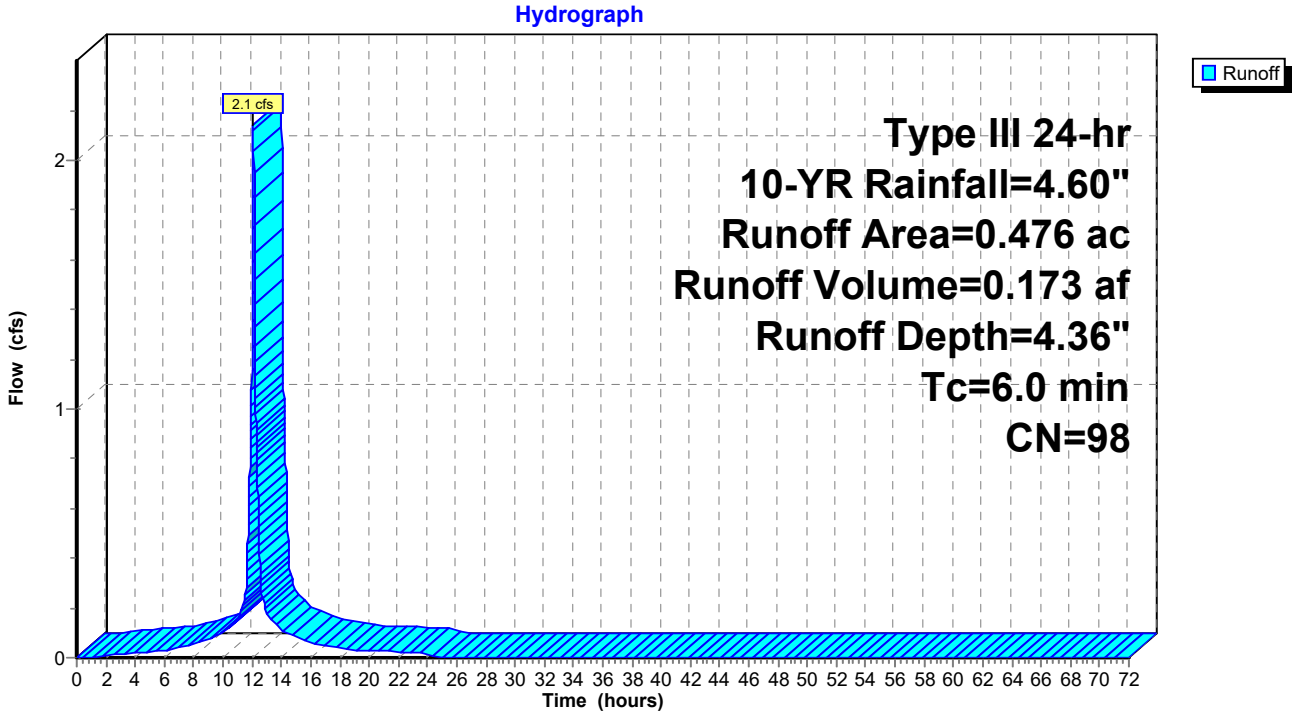
Runoff = 2.1 cfs @ 12.08 hrs, Volume= 0.173 af, Depth= 4.36"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.004	98	Unconnected pavement, HSG A
0.007	98	Unconnected pavement, HSG A
0.011	98	Unconnected pavement, HSG A
0.060	98	Roofs, HSG A
0.232	98	Roofs, HSG A
0.163	98	Paved parking, HSG A
0.476	98	Weighted Average
0.476		100.00% Impervious Area
0.021		4.49% Unconnected

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

Subcatchment PR-1: Subcat PR-1



Hydrograph for Subcatchment PR-1: Subcat PR-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.05	0.00	0.0
2.00	0.09	0.01	0.0
3.00	0.14	0.03	0.0
4.00	0.20	0.07	0.0
5.00	0.26	0.11	0.0
6.00	0.33	0.17	0.0
7.00	0.42	0.24	0.0
8.00	0.52	0.34	0.1
9.00	0.67	0.48	0.1
10.00	0.87	0.66	0.1
11.00	1.15	0.94	0.2
12.00	2.30	2.07	**1.3**
13.00	3.45	3.22	**0.2**
14.00	3.73	3.50	0.1
15.00	3.93	3.69	0.1
16.00	4.08	3.84	0.1
17.00	4.18	3.95	0.0
18.00	4.27	4.03	0.0
19.00	4.34	4.10	0.0
20.00	4.40	4.17	0.0
21.00	4.46	4.22	0.0
22.00	4.51	4.28	0.0
23.00	4.56	4.32	0.0
24.00	**4.60**	**4.36**	0.0
25.00	4.60	4.36	0.0
26.00	4.60	4.36	0.0
27.00	4.60	4.36	0.0
28.00	4.60	4.36	0.0
29.00	4.60	4.36	0.0
30.00	4.60	4.36	0.0
31.00	4.60	4.36	0.0
32.00	4.60	4.36	0.0
33.00	4.60	4.36	0.0
34.00	4.60	4.36	0.0
35.00	4.60	4.36	0.0
36.00	4.60	4.36	0.0
37.00	4.60	4.36	0.0
38.00	4.60	4.36	0.0
39.00	4.60	4.36	0.0
40.00	4.60	4.36	0.0
41.00	4.60	4.36	0.0
42.00	4.60	4.36	0.0
43.00	4.60	4.36	0.0
44.00	4.60	4.36	0.0
45.00	4.60	4.36	0.0
46.00	4.60	4.36	0.0
47.00	4.60	4.36	0.0
48.00	4.60	4.36	0.0
49.00	4.60	4.36	0.0
50.00	4.60	4.36	0.0
51.00	4.60	4.36	0.0
52.00	4.60	4.36	0.0
53.00	4.60	4.36	0.0
54.00	4.60	4.36	0.0
55.00	4.60	4.36	0.0
56.00	4.60	4.36	0.0
57.00	4.60	4.36	0.0
58.00	4.60	4.36	0.0
59.00	4.60	4.36	0.0
60.00	4.60	4.36	0.0
61.00	4.60	4.36	0.0
62.00	4.60	4.36	0.0
63.00	4.60	4.36	0.0
64.00	4.60	4.36	0.0
65.00	4.60	4.36	0.0
66.00	4.60	4.36	0.0
67.00	4.60	4.36	0.0
68.00	4.60	4.36	0.0
69.00	4.60	4.36	0.0
70.00	4.60	4.36	0.0
71.00	4.60	4.36	0.0
72.00	4.60	4.36	0.0

Summary for Subcatchment PR-2: Porous Pavement

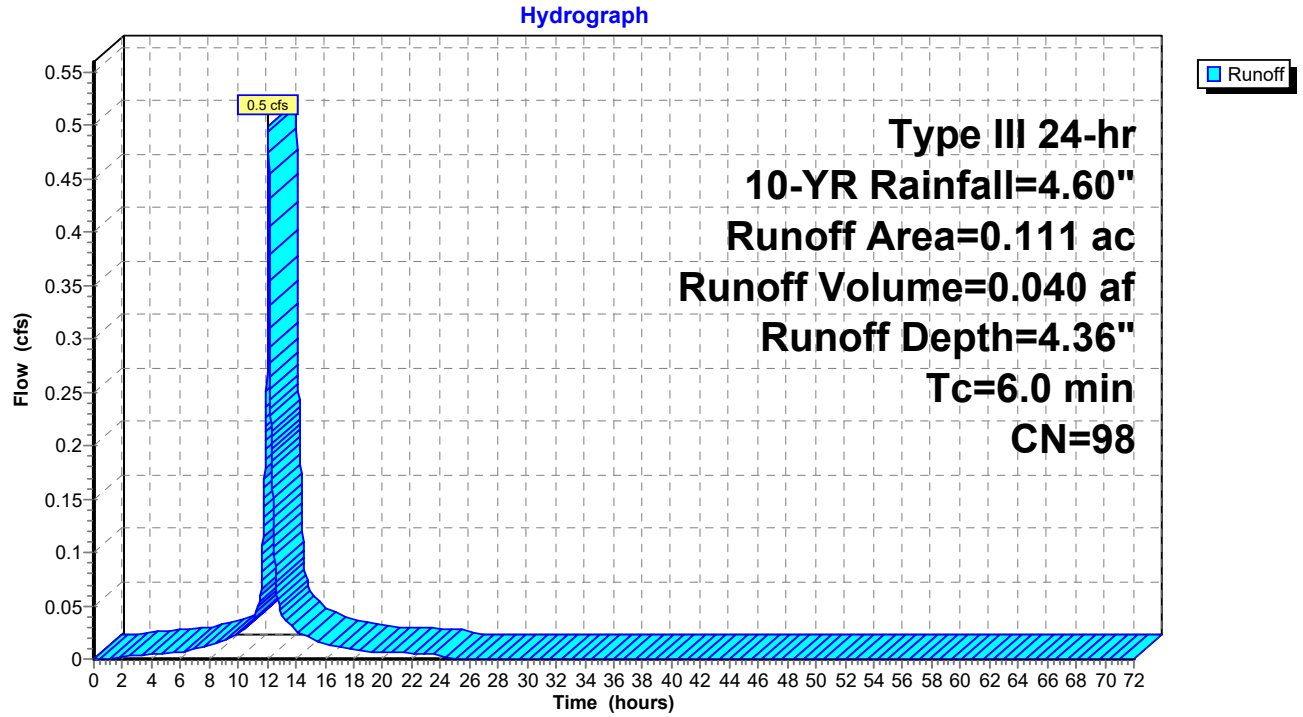
Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.040 af, Depth= 4.36"
Routed to Pond 1P : Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.007	98	Unconnected pavement, HSG A
0.104	98	Paved parking, HSG A
0.111	98	Weighted Average
0.000		0.00% Pervious Area
0.111		100.00% Impervious Area
0.007		6.73% Unconnected

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

Subcatchment PR-2: Porous Pavement



Hydrograph for Subcatchment PR-2: Porous Pavement

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.05	0.00	0.0
2.00	0.09	0.01	0.0
3.00	0.14	0.03	0.0
4.00	0.20	0.07	0.0
5.00	0.26	0.11	0.0
6.00	0.33	0.17	0.0
7.00	0.42	0.24	0.0
8.00	0.52	0.34	0.0
9.00	0.67	0.48	0.0
10.00	0.87	0.66	0.0
11.00	1.15	0.94	0.0
12.00	2.30	2.07	**0.3**
13.00	3.45	3.22	**0.0**
14.00	3.73	3.50	0.0
15.00	3.93	3.69	0.0
16.00	4.08	3.84	0.0
17.00	4.18	3.95	0.0
18.00	4.27	4.03	0.0
19.00	4.34	4.10	0.0
20.00	4.40	4.17	0.0
21.00	4.46	4.22	0.0
22.00	4.51	4.28	0.0
23.00	4.56	4.32	0.0
24.00	**4.60**	**4.36**	0.0
25.00	4.60	4.36	0.0
26.00	4.60	4.36	0.0
27.00	4.60	4.36	0.0
28.00	4.60	4.36	0.0
29.00	4.60	4.36	0.0
30.00	4.60	4.36	0.0
31.00	4.60	4.36	0.0
32.00	4.60	4.36	0.0
33.00	4.60	4.36	0.0
34.00	4.60	4.36	0.0
35.00	4.60	4.36	0.0
36.00	4.60	4.36	0.0
37.00	4.60	4.36	0.0
38.00	4.60	4.36	0.0
39.00	4.60	4.36	0.0
40.00	4.60	4.36	0.0
41.00	4.60	4.36	0.0
42.00	4.60	4.36	0.0
43.00	4.60	4.36	0.0
44.00	4.60	4.36	0.0
45.00	4.60	4.36	0.0
46.00	4.60	4.36	0.0
47.00	4.60	4.36	0.0
48.00	4.60	4.36	0.0
49.00	4.60	4.36	0.0
50.00	4.60	4.36	0.0
51.00	4.60	4.36	0.0
52.00	4.60	4.36	0.0
53.00	4.60	4.36	0.0
54.00	4.60	4.36	0.0
55.00	4.60	4.36	0.0
56.00	4.60	4.36	0.0
57.00	4.60	4.36	0.0
58.00	4.60	4.36	0.0
59.00	4.60	4.36	0.0
60.00	4.60	4.36	0.0
61.00	4.60	4.36	0.0
62.00	4.60	4.36	0.0
63.00	4.60	4.36	0.0
64.00	4.60	4.36	0.0
65.00	4.60	4.36	0.0
66.00	4.60	4.36	0.0
67.00	4.60	4.36	0.0
68.00	4.60	4.36	0.0
69.00	4.60	4.36	0.0
70.00	4.60	4.36	0.0
71.00	4.60	4.36	0.0
72.00	4.60	4.36	0.0

Summary for Pond 1P: Porous Pavement

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 4.36" for 10-YR event
Inflow = 0.5 cfs @ 12.08 hrs, Volume= 0.040 af
Outflow = 0.3 cfs @ 12.00 hrs, Volume= 0.040 af, Atten= 48%, Lag= 0.0 min
Primary = 0.3 cfs @ 12.00 hrs, Volume= 0.040 af
Routed to Pond 2P : Porous Pavement Outlet

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 18.67' @ 12.21 hrs Surf.Area= 4,517 sf Storage= 126 cf

Plug-Flow detention time= 2.3 min calculated for 0.040 af (100% of inflow)
Center-of-Mass det. time= 2.3 min (751.8 - 749.4)

Volume	Invert	Avail.Storage	Storage Description
#1	18.60'	1,807 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall x 40.0% Voids

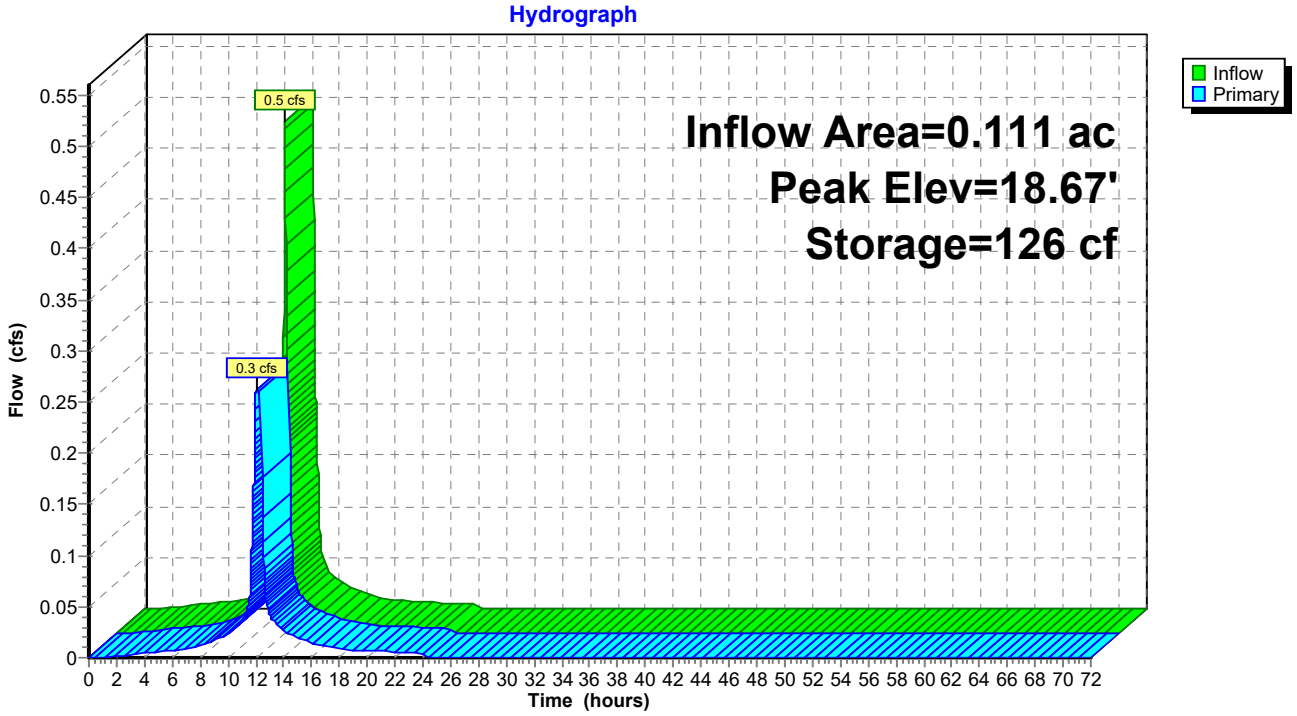
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
18.60	4,517	541.7	0	0	4,517
19.60	4,517	541.7	4,517	4,517	5,059

Device	Routing	Invert	Outlet Devices
#1	Primary	18.60'	**2.500 in/hr Exfiltration over Surface area**

Primary OutFlow Max=0.3 cfs @ 12.00 hrs HW=18.61' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.3 cfs)



Pond 1P: Porous Pavement



Hydrograph for Pond 1P: Porous Pavement

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	18.60	0.0
2.00	0.0	0	18.60	0.0
4.00	0.0	0	18.60	0.0
6.00	0.0	0	18.60	0.0
8.00	0.0	1	18.60	0.0
10.00	0.0	2	18.60	0.0
12.00	**0.3**	**19**	**18.61**	**0.3**
14.00	**0.0**	**2**	**18.60**	0.0
16.00	0.0	1	18.60	0.0
18.00	0.0	1	18.60	0.0
20.00	0.0	0	18.60	0.0
22.00	0.0	0	18.60	0.0
24.00	0.0	0	18.60	0.0
26.00	0.0	0	18.60	0.0
28.00	0.0	0	18.60	0.0
30.00	0.0	0	18.60	0.0
32.00	0.0	0	18.60	0.0
34.00	0.0	0	18.60	0.0
36.00	0.0	0	18.60	0.0
38.00	0.0	0	18.60	0.0
40.00	0.0	0	18.60	0.0
42.00	0.0	0	18.60	0.0
44.00	0.0	0	18.60	0.0
46.00	0.0	0	18.60	0.0
48.00	0.0	0	18.60	0.0
50.00	0.0	0	18.60	0.0
52.00	0.0	0	18.60	0.0
54.00	0.0	0	18.60	0.0
56.00	0.0	0	18.60	0.0
58.00	0.0	0	18.60	0.0
60.00	0.0	0	18.60	0.0
62.00	0.0	0	18.60	0.0
64.00	0.0	0	18.60	0.0
66.00	0.0	0	18.60	0.0
68.00	0.0	0	18.60	0.0
70.00	0.0	0	18.60	0.0
72.00	0.0	0	18.60	0.0

Stage-Discharge for Pond 1P: Porous Pavement

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
18.60	0.0	19.11	0.3
18.61	**0.3**	19.12	0.3
18.62	0.3	19.13	0.3
18.63	0.3	19.14	0.3
18.64	0.3	19.15	0.3
18.65	0.3	19.16	0.3
18.66	0.3	19.17	0.3
18.67	0.3	19.18	0.3
18.68	0.3	19.19	0.3
18.69	0.3	19.20	0.3
18.70	0.3	19.21	0.3
18.71	0.3	19.22	0.3
18.72	0.3	19.23	0.3
18.73	0.3	19.24	0.3
18.74	0.3	19.25	0.3
18.75	0.3	19.26	0.3
18.76	0.3	19.27	0.3
18.77	0.3	19.28	0.3
18.78	0.3	19.29	0.3
18.79	0.3	19.30	0.3
18.80	0.3	19.31	0.3
18.81	0.3	19.32	0.3
18.82	0.3	19.33	0.3
18.83	0.3	19.34	0.3
18.84	0.3	19.35	0.3
18.85	0.3	19.36	0.3
18.86	0.3	19.37	0.3
18.87	0.3	19.38	0.3
18.88	0.3	19.39	0.3
18.89	0.3	19.40	0.3
18.90	0.3	19.41	0.3
18.91	0.3	19.42	0.3
18.92	0.3	19.43	0.3
18.93	0.3	19.44	0.3
18.94	0.3	19.45	0.3
18.95	0.3	19.46	0.3
18.96	0.3	19.47	0.3
18.97	0.3	19.48	0.3
18.98	0.3	19.49	0.3
18.99	0.3	19.50	0.3
19.00	0.3	19.51	0.3
19.01	0.3	19.52	0.3
19.02	0.3	19.53	0.3
19.03	0.3	19.54	0.3
19.04	0.3	19.55	0.3
19.05	0.3	19.56	0.3
19.06	0.3	19.57	0.3
19.07	0.3	19.58	0.3
19.08	0.3	19.59	0.3
19.09	0.3	19.60	0.3
19.10	0.3		

Stage-Area-Storage for Pond 1P: Porous Pavement

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
18.60	**4,517**	0	19.11	4,517	921
18.61	4,517	18	19.12	4,517	940
18.62	4,517	36	19.13	4,517	958
18.63	4,517	54	19.14	4,517	976
18.64	4,517	72	19.15	4,517	994
18.65	4,517	90	19.16	4,517	1,012
18.66	4,517	108	19.17	4,517	1,030
18.67	4,517	126	19.18	4,517	1,048
18.68	4,517	145	19.19	4,517	1,066
18.69	4,517	163	19.20	4,517	1,084
18.70	4,517	181	19.21	4,517	1,102
18.71	4,517	199	19.22	4,517	1,120
18.72	4,517	217	19.23	4,517	1,138
18.73	4,517	235	19.24	4,517	1,156
18.74	4,517	253	19.25	4,517	1,174
18.75	4,517	271	19.26	4,517	1,192
18.76	4,517	289	19.27	4,517	1,211
18.77	4,517	307	19.28	4,517	1,229
18.78	4,517	325	19.29	4,517	1,247
18.79	4,517	343	19.30	4,517	1,265
18.80	4,517	361	19.31	4,517	1,283
18.81	4,517	379	19.32	4,517	1,301
18.82	4,517	397	19.33	4,517	1,319
18.83	4,517	416	19.34	4,517	1,337
18.84	4,517	434	19.35	4,517	1,355
18.85	4,517	452	19.36	4,517	1,373
18.86	4,517	470	19.37	4,517	1,391
18.87	4,517	488	19.38	4,517	1,409
18.88	4,517	506	19.39	4,517	1,427
18.89	4,517	524	19.40	4,517	1,445
18.90	4,517	542	19.41	4,517	1,464
18.91	4,517	560	19.42	4,517	1,482
18.92	4,517	578	19.43	4,517	1,500
18.93	4,517	596	19.44	4,517	1,518
18.94	4,517	614	19.45	4,517	1,536
18.95	4,517	632	19.46	4,517	1,554
18.96	4,517	650	19.47	4,517	1,572
18.97	4,517	669	19.48	4,517	1,590
18.98	4,517	687	19.49	4,517	1,608
18.99	4,517	705	19.50	4,517	1,626
19.00	4,517	723	19.51	4,517	1,644
19.01	4,517	741	19.52	4,517	1,662
19.02	4,517	759	19.53	4,517	1,680
19.03	4,517	777	19.54	4,517	1,698
19.04	4,517	795	19.55	4,517	1,716
19.05	4,517	813	19.56	4,517	1,735
19.06	4,517	831	19.57	4,517	1,753
19.07	4,517	849	19.58	4,517	1,771
19.08	4,517	867	19.59	4,517	1,789
19.09	4,517	885	19.60	4,517	**1,807**
19.10	4,517	903			

Summary for Pond 2P: Porous Pavement Outlet

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 4.36" for 10-YR event
Inflow = 0.3 cfs @ 12.00 hrs, Volume= 0.040 af
Outflow = 0.0 cfs @ 13.93 hrs, Volume= 0.040 af, Atten= 90%, Lag= 115.8 min
Primary = 0.0 cfs @ 13.93 hrs, Volume= 0.040 af
Routed to Link DP-1 : Park Avenue

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 17.85' @ 13.93 hrs Surf.Area= 4,530 sf Storage= 1,058 cf

Plug-Flow detention time= 523.2 min calculated for 0.040 af (100% of inflow)
Center-of-Mass det. time= 520.9 min (1,272.7 - 751.8)

Volume	Invert	Avail.Storage	Storage Description
#1	17.27'	1,800 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall - 17 cf Embedded = 4,500 cf x 40.0% Voids
#2	17.60'	17 cf	**4.0" Round Pipe Storage** Inside #1 L= 200.0'
#3	17.27'	35 cf	**4.00'D x 2.77'H Vertical Cone/Cylinder**
		1,852 cf	Total Available Storage

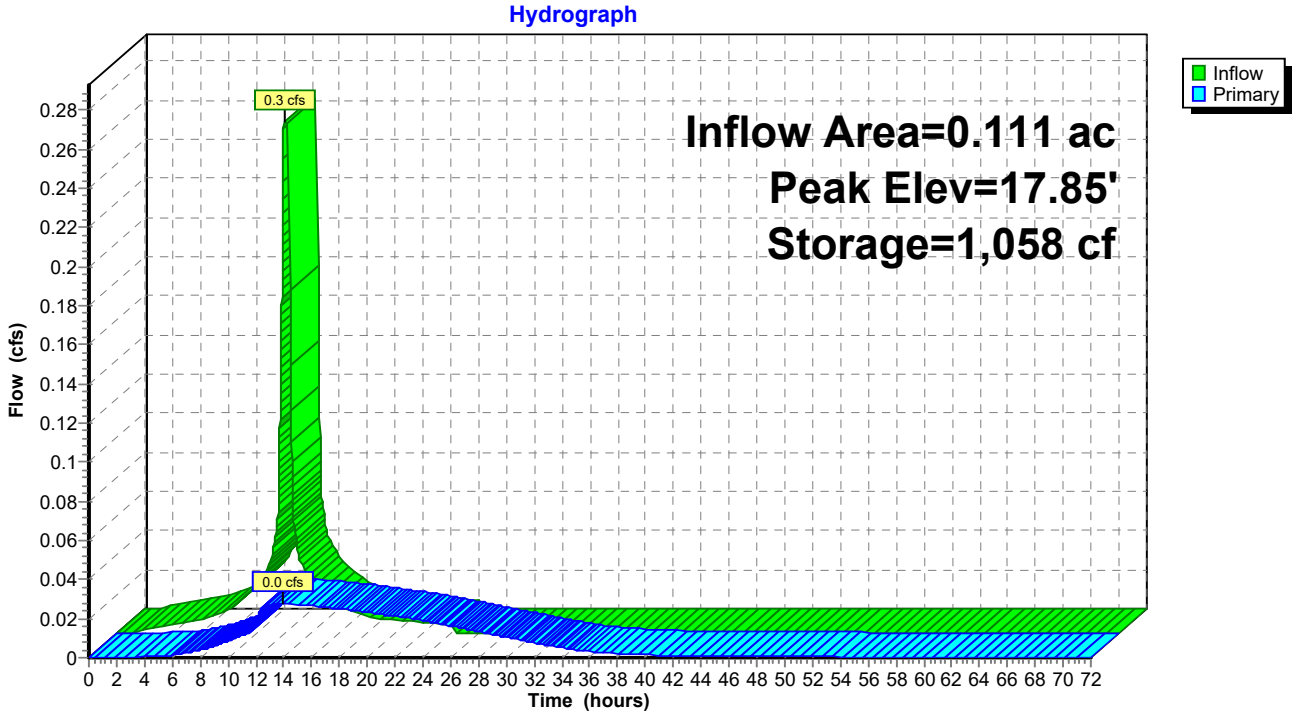
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
17.27	4,517	541.7	0	0	4,517
18.27	4,517	541.7	4,517	4,517	5,059

Device	Routing	Invert	Outlet Devices
#1	Primary	14.50'	**12.0" Round Culvert** L= 62.4' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 14.50' / 14.15' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	17.27'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	17.90'	**4.0' long x 1.10' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.0 cfs @ 13.93 hrs HW=17.85' (Free Discharge)
└**1=Culvert** (Passes 0.0 cfs of 5.6 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 3.49 fps)
└**3=Sharp-Crested Rectangular Weir** (Controls 0.0 cfs)



Pond 2P: Porous Pavement Outlet



Hydrograph for Pond 2P: Porous Pavement Outlet

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	17.27	0.0
2.00	0.0	3	17.27	0.0
4.00	0.0	24	17.28	0.0
6.00	0.0	58	17.30	0.0
8.00	0.0	106	17.33	0.0
10.00	0.0	188	17.37	0.0
12.00	**0.3**	**520**	**17.56**	**0.0**
14.00	0.0	**1,057**	**17.85**	**0.0**
16.00	0.0	1,006	17.82	0.0
18.00	0.0	899	17.76	0.0
20.00	0.0	779	17.70	0.0
22.00	0.0	664	17.63	0.0
24.00	0.0	555	17.57	0.0
26.00	0.0	429	17.51	0.0
28.00	0.0	322	17.45	0.0
30.00	0.0	235	17.40	0.0
32.00	0.0	169	17.36	0.0
34.00	0.0	123	17.34	0.0
36.00	0.0	94	17.32	0.0
38.00	0.0	75	17.31	0.0
40.00	0.0	61	17.30	0.0
42.00	0.0	52	17.30	0.0
44.00	0.0	45	17.29	0.0
46.00	0.0	39	17.29	0.0
48.00	0.0	34	17.29	0.0
50.00	0.0	29	17.29	0.0
52.00	0.0	25	17.28	0.0
54.00	0.0	22	17.28	0.0
56.00	0.0	19	17.28	0.0
58.00	0.0	16	17.28	0.0
60.00	0.0	14	17.28	0.0
62.00	0.0	12	17.28	0.0
64.00	0.0	11	17.28	0.0
66.00	0.0	9	17.28	0.0
68.00	0.0	8	17.27	0.0
70.00	0.0	7	17.27	0.0
72.00	0.0	6	17.27	0.0

Stage-Discharge for Pond 2P: Porous Pavement Outlet

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
17.27	0.0	18.29	3.2	19.31	6.9
17.29	0.0	18.31	3.4	19.33	6.9
17.31	0.0	18.33	3.6	19.35	6.9
17.33	0.0	18.35	3.9	19.37	7.0
17.35	0.0	18.37	4.2	19.39	7.0
17.37	0.0	18.39	4.4	19.41	7.0
17.39	0.0	18.41	4.7	19.43	7.0
17.41	0.0	18.43	5.0	19.45	7.0
17.43	0.0	18.45	5.2	19.47	7.0
17.45	0.0	18.47	5.5	19.49	7.1
17.47	0.0	18.49	5.8	19.51	7.1
17.49	0.0	18.51	6.1	19.53	7.1
17.51	0.0	18.53	6.2	19.55	7.1
17.53	0.0	18.55	6.2	19.57	7.1
17.55	0.0	18.57	6.3	19.59	7.1
17.57	0.0	18.59	6.3	19.61	7.2
17.59	0.0	18.61	6.3	19.63	7.2
17.61	0.0	18.63	6.3	19.65	7.2
17.63	0.0	18.65	6.3	19.67	7.2
17.65	0.0	18.67	6.4	19.69	7.2
17.67	0.0	18.69	6.4	19.71	7.2
17.69	0.0	18.71	6.4	19.73	7.3
17.71	0.0	18.73	6.4	19.75	7.3
17.73	0.0	18.75	6.4	19.77	7.3
17.75	0.0	18.77	6.4	19.79	7.3
17.77	0.0	18.79	6.5	19.81	7.3
17.79	0.0	18.81	6.5	19.83	7.3
17.81	0.0	18.83	6.5	19.85	7.3
17.83	0.0	18.85	6.5	19.87	7.4
17.85	0.0	18.87	6.5	19.89	7.4
17.87	0.0	18.89	6.6	19.91	7.4
17.89	0.0	18.91	6.6	19.93	7.4
17.91	0.0	18.93	6.6	19.95	7.4
17.93	0.1	18.95	6.6	19.97	7.4
17.95	0.2	18.97	6.6	19.99	7.5
17.97	0.3	18.99	6.6	20.01	7.5
17.99	0.4	19.01	6.7	20.03	**7.5**
18.01	0.5	19.03	6.7		
18.03	0.6	19.05	6.7		
18.05	0.8	19.07	6.7		
18.07	0.9	19.09	6.7		
18.09	1.1	19.11	6.7		
18.11	1.3	19.13	6.8		
18.13	1.5	19.15	6.8		
18.15	1.6	19.17	6.8		
18.17	1.8	19.19	6.8		
18.19	2.0	19.21	6.8		
18.21	2.3	19.23	6.8		
18.23	2.5	19.25	6.9		
18.25	2.7	19.27	6.9		
18.27	2.9	19.29	6.9		

Stage-Area-Storage for Pond 2P: Porous Pavement Outlet

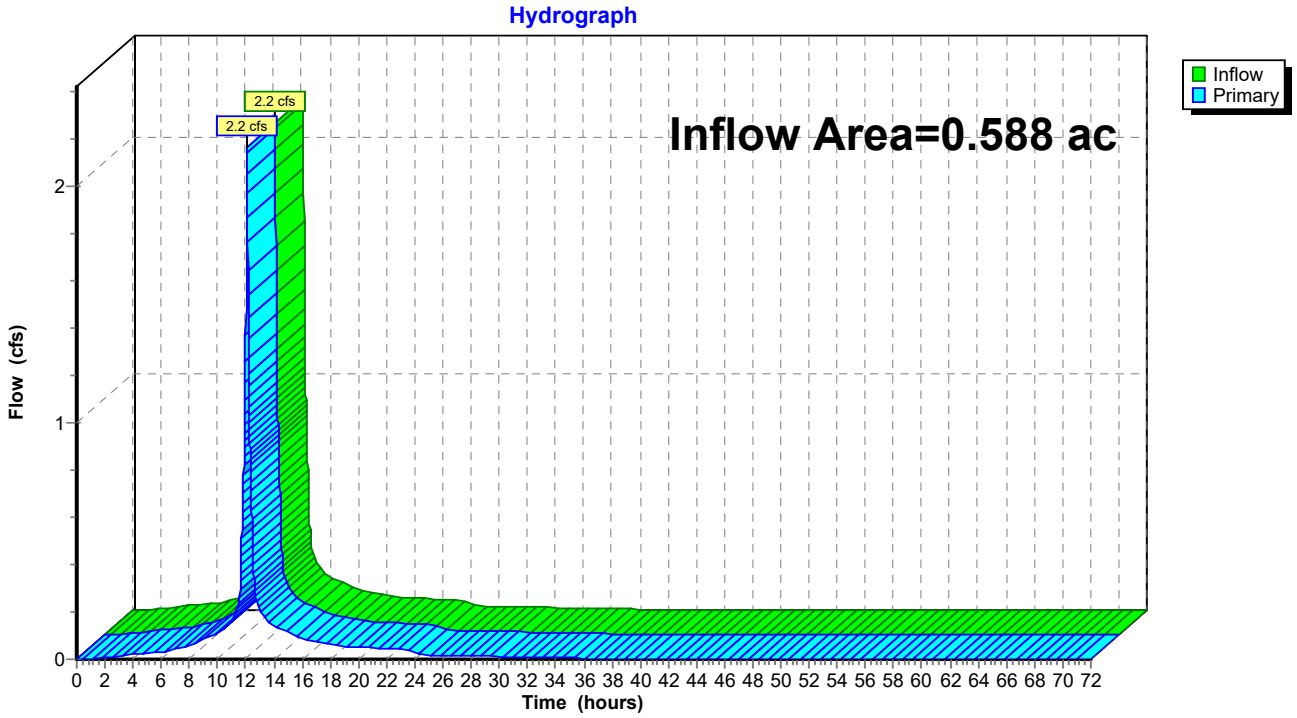
Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
17.27	0	18.29	1,830	19.31	1,843
17.29	36	18.31	1,830	19.33	1,843
17.31	73	18.33	1,831	19.35	1,843
17.33	109	18.35	1,831	19.37	1,844
17.35	146	18.37	1,831	19.39	1,844
17.37	182	18.39	1,831	19.41	1,844
17.39	218	18.41	1,832	19.43	1,844
17.41	255	18.43	1,832	19.45	1,845
17.43	291	18.45	1,832	19.47	1,845
17.45	327	18.47	1,832	19.49	1,845
17.47	364	18.49	1,833	19.51	1,845
17.49	400	18.51	1,833	19.53	1,846
17.51	437	18.53	1,833	19.55	1,846
17.53	473	18.55	1,833	19.57	1,846
17.55	509	18.57	1,834	19.59	1,846
17.57	546	18.59	1,834	19.61	1,847
17.59	582	18.61	1,834	19.63	1,847
17.61	619	18.63	1,834	19.65	1,847
17.63	655	18.65	1,835	19.67	1,847
17.65	692	18.67	1,835	19.69	1,848
17.67	729	18.69	1,835	19.71	1,848
17.69	766	18.71	1,835	19.73	1,848
17.71	804	18.73	1,836	19.75	1,848
17.73	841	18.75	1,836	19.77	1,849
17.75	878	18.77	1,836	19.79	1,849
17.77	915	18.79	1,836	19.81	1,849
17.79	952	18.81	1,837	19.83	1,849
17.81	989	18.83	1,837	19.85	1,850
17.83	1,027	18.85	1,837	19.87	1,850
17.85	1,064	18.87	1,837	19.89	1,850
17.87	1,101	18.89	1,838	19.91	1,850
17.89	1,138	18.91	1,838	19.93	1,851
17.91	1,175	18.93	1,838	19.95	1,851
17.93	1,211	18.95	1,838	19.97	1,851
17.95	1,248	18.97	1,839	19.99	1,851
17.97	1,284	18.99	1,839	20.01	1,852
17.99	1,320	19.01	1,839	20.03	**1,852**
18.01	1,357	19.03	1,839		
18.03	1,393	19.05	1,840		
18.05	1,430	19.07	1,840		
18.07	1,466	19.09	1,840		
18.09	1,502	19.11	1,840		
18.11	1,539	19.13	1,841		
18.13	1,575	19.15	1,841		
18.15	1,612	19.17	1,841		
18.17	1,648	19.19	1,841		
18.19	1,684	19.21	1,842		
18.21	1,721	19.23	1,842		
18.23	1,757	19.25	1,842		
18.25	1,793	19.27	1,842		
18.27	1,830	19.29	1,843		

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac,100.00% Impervious, Inflow Depth = 4.36" for 10-YR event
Inflow = 2.2 cfs @ 12.08 hrs, Volume= 0.214 af
Primary = 2.2 cfs @ 12.08 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue



Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.0	0.00	0.0	58.00	0.0	0.00	0.0
8.00	0.1	0.00	0.1	59.00	0.0	0.00	0.0
9.00	0.1	0.00	0.1	60.00	0.0	0.00	0.0
10.00	0.1	0.00	0.1	61.00	0.0	0.00	0.0
11.00	0.2	0.00	0.2	62.00	0.0	0.00	0.0
12.00	**1.4**	0.00	**1.4**	63.00	0.0	0.00	0.0
13.00	**0.2**	0.00	**0.2**	64.00	0.0	0.00	0.0
14.00	0.1	0.00	0.1	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.1	0.00	0.1	67.00	0.0	0.00	0.0
17.00	0.1	0.00	0.1	68.00	0.0	0.00	0.0
18.00	0.1	0.00	0.1	69.00	0.0	0.00	0.0
19.00	0.1	0.00	0.1	70.00	0.0	0.00	0.0
20.00	0.1	0.00	0.1	71.00	0.0	0.00	0.0
21.00	0.0	0.00	0.0	72.00	0.0	0.00	0.0
22.00	0.0	0.00	0.0				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=0.476 ac 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=2.7 cfs 0.221 af

Subcatchment PR-2: Porous Pavement Runoff Area=0.111 ac 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=0.6 cfs 0.052 af

Pond 1P: Porous Pavement Peak Elev=18.73' Storage=228 cf Inflow=0.6 cfs 0.052 af
Outflow=0.3 cfs 0.052 af

Pond 2P: Porous Pavement Outlet Peak Elev=17.95' Storage=1,250 cf Inflow=0.3 cfs 0.052 af
Outflow=0.2 cfs 0.051 af

Link DP-1: Park Avenue Inflow=2.7 cfs 0.272 af
Primary=2.7 cfs 0.272 af

Total Runoff Area = 0.588 ac Runoff Volume = 0.272 af Average Runoff Depth = 5.56"
0.00% Pervious = 0.000 ac 100.00% Impervious = 0.588 ac

Summary for Subcatchment PR-1: Subcat PR-1

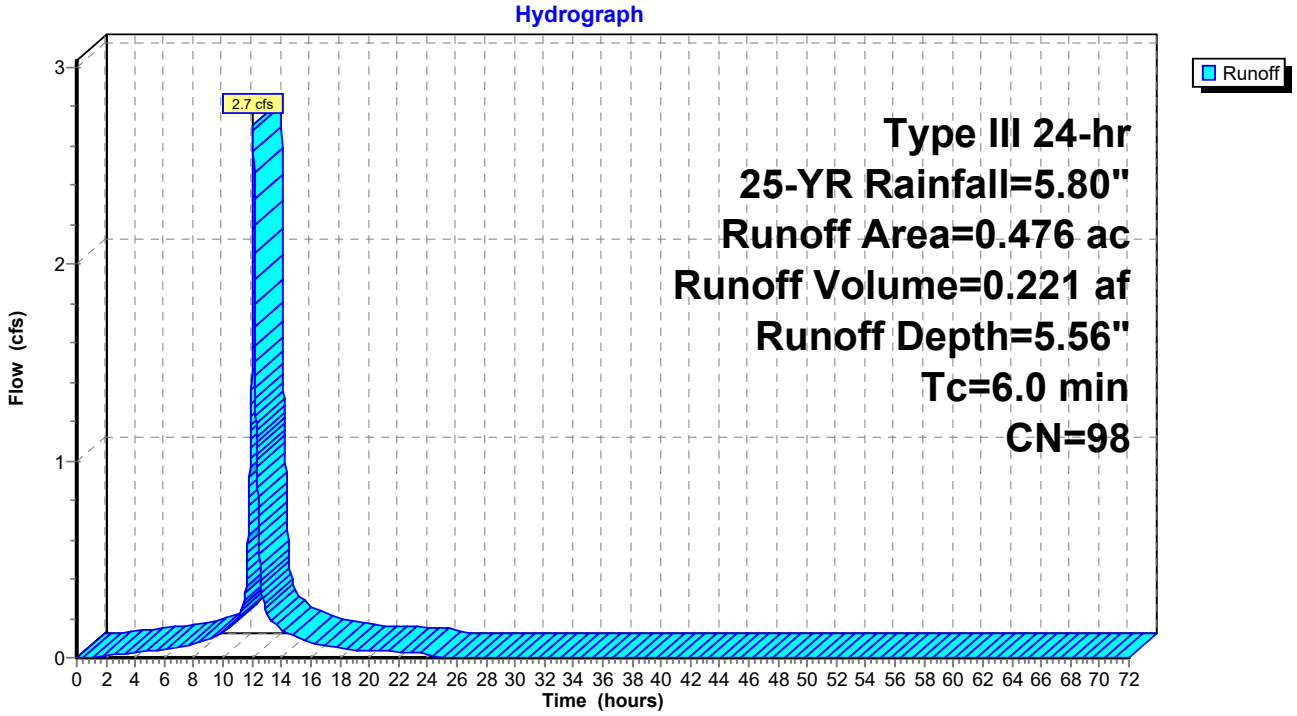
Runoff = 2.7 cfs @ 12.08 hrs, Volume= 0.221 af, Depth= 5.56"
Routed to Link DP-1 : Park Avenue

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.004	98	Unconnected pavement, HSG A
0.007	98	Unconnected pavement, HSG A
0.011	98	Unconnected pavement, HSG A
0.060	98	Roofs, HSG A
0.232	98	Roofs, HSG A
0.163	98	Paved parking, HSG A
0.476	98	Weighted Average
0.476		100.00% Impervious Area
0.021		4.49% Unconnected

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

Subcatchment PR-1: Subcat PR-1



Hydrograph for Subcatchment PR-1: Subcat PR-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	51.00	5.80	5.56	0.0
1.00	0.06	0.00	0.0	52.00	5.80	5.56	0.0
2.00	0.12	0.02	0.0	53.00	5.80	5.56	0.0
3.00	0.18	0.06	0.0	54.00	5.80	5.56	0.0
4.00	0.25	0.11	0.0	55.00	5.80	5.56	0.0
5.00	0.33	0.17	0.0	56.00	5.80	5.56	0.0
6.00	0.42	0.24	0.0	57.00	5.80	5.56	0.0
7.00	0.52	0.34	0.1	58.00	5.80	5.56	0.0
8.00	0.66	0.47	0.1	59.00	5.80	5.56	0.0
9.00	0.85	0.64	0.1	60.00	5.80	5.56	0.0
10.00	1.10	0.88	0.1	61.00	5.80	5.56	0.0
11.00	1.45	1.23	0.2	62.00	5.80	5.56	0.0
12.00	2.90	2.67	**1.7**	63.00	5.80	5.56	0.0
13.00	4.35	4.11	**0.2**	64.00	5.80	5.56	0.0
14.00	4.70	4.47	0.1	65.00	5.80	5.56	0.0
15.00	4.95	4.72	0.1	66.00	5.80	5.56	0.0
16.00	5.14	4.90	0.1	67.00	5.80	5.56	0.0
17.00	5.28	5.04	0.1	68.00	5.80	5.56	0.0
18.00	5.38	5.15	0.0	69.00	5.80	5.56	0.0
19.00	5.47	5.23	0.0	70.00	5.80	5.56	0.0
20.00	5.55	5.31	0.0	71.00	5.80	5.56	0.0
21.00	5.62	5.39	0.0	72.00	5.80	5.56	0.0
22.00	5.69	5.45	0.0				
23.00	5.75	5.51	0.0				
24.00	**5.80**	**5.56**	0.0				
25.00	5.80	5.56	0.0				
26.00	5.80	5.56	0.0				
27.00	5.80	5.56	0.0				
28.00	5.80	5.56	0.0				
29.00	5.80	5.56	0.0				
30.00	5.80	5.56	0.0				
31.00	5.80	5.56	0.0				
32.00	5.80	5.56	0.0				
33.00	5.80	5.56	0.0				
34.00	5.80	5.56	0.0				
35.00	5.80	5.56	0.0				
36.00	5.80	5.56	0.0				
37.00	5.80	5.56	0.0				
38.00	5.80	5.56	0.0				
39.00	5.80	5.56	0.0				
40.00	5.80	5.56	0.0				
41.00	5.80	5.56	0.0				
42.00	5.80	5.56	0.0				
43.00	5.80	5.56	0.0				
44.00	5.80	5.56	0.0				
45.00	5.80	5.56	0.0				
46.00	5.80	5.56	0.0				
47.00	5.80	5.56	0.0				
48.00	5.80	5.56	0.0				
49.00	5.80	5.56	0.0				
50.00	5.80	5.56	0.0				

Summary for Subcatchment PR-2: Porous Pavement

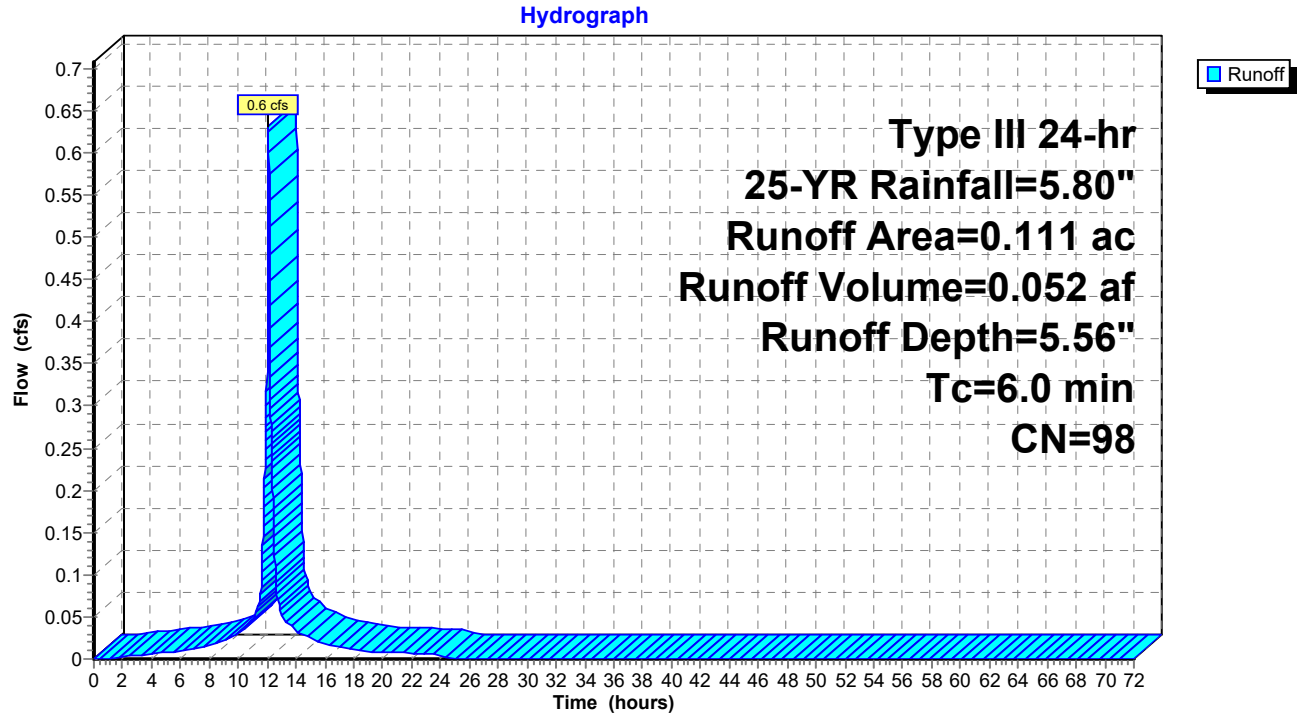
Runoff = 0.6 cfs @ 12.08 hrs, Volume= 0.052 af, Depth= 5.56"
Routed to Pond 1P : Porous Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

Area (ac)	CN	Description
0.000	39	>75% Grass cover, Good, HSG A
0.007	98	Unconnected pavement, HSG A
0.104	98	Paved parking, HSG A
0.111	98	Weighted Average
0.000		0.00% Pervious Area
0.111		100.00% Impervious Area
0.007		6.73% Unconnected

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

Subcatchment PR-2: Porous Pavement



Hydrograph for Subcatchment PR-2: Porous Pavement

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0
1.00	0.06	0.00	0.0
2.00	0.12	0.02	0.0
3.00	0.18	0.06	0.0
4.00	0.25	0.11	0.0
5.00	0.33	0.17	0.0
6.00	0.42	0.24	0.0
7.00	0.52	0.34	0.0
8.00	0.66	0.47	0.0
9.00	0.85	0.64	0.0
10.00	1.10	0.88	0.0
11.00	1.45	1.23	0.0
12.00	2.90	2.67	**0.4**
13.00	4.35	4.11	**0.1**
14.00	4.70	4.47	0.0
15.00	4.95	4.72	0.0
16.00	5.14	4.90	0.0
17.00	5.28	5.04	0.0
18.00	5.38	5.15	0.0
19.00	5.47	5.23	0.0
20.00	5.55	5.31	0.0
21.00	5.62	5.39	0.0
22.00	5.69	5.45	0.0
23.00	5.75	5.51	0.0
24.00	**5.80**	**5.56**	0.0
25.00	5.80	5.56	0.0
26.00	5.80	5.56	0.0
27.00	5.80	5.56	0.0
28.00	5.80	5.56	0.0
29.00	5.80	5.56	0.0
30.00	5.80	5.56	0.0
31.00	5.80	5.56	0.0
32.00	5.80	5.56	0.0
33.00	5.80	5.56	0.0
34.00	5.80	5.56	0.0
35.00	5.80	5.56	0.0
36.00	5.80	5.56	0.0
37.00	5.80	5.56	0.0
38.00	5.80	5.56	0.0
39.00	5.80	5.56	0.0
40.00	5.80	5.56	0.0
41.00	5.80	5.56	0.0
42.00	5.80	5.56	0.0
43.00	5.80	5.56	0.0
44.00	5.80	5.56	0.0
45.00	5.80	5.56	0.0
46.00	5.80	5.56	0.0
47.00	5.80	5.56	0.0
48.00	5.80	5.56	0.0
49.00	5.80	5.56	0.0
50.00	5.80	5.56	0.0
51.00	5.80	5.56	0.0
52.00	5.80	5.56	0.0
53.00	5.80	5.56	0.0
54.00	5.80	5.56	0.0
55.00	5.80	5.56	0.0
56.00	5.80	5.56	0.0
57.00	5.80	5.56	0.0
58.00	5.80	5.56	0.0
59.00	5.80	5.56	0.0
60.00	5.80	5.56	0.0
61.00	5.80	5.56	0.0
62.00	5.80	5.56	0.0
63.00	5.80	5.56	0.0
64.00	5.80	5.56	0.0
65.00	5.80	5.56	0.0
66.00	5.80	5.56	0.0
67.00	5.80	5.56	0.0
68.00	5.80	5.56	0.0
69.00	5.80	5.56	0.0
70.00	5.80	5.56	0.0
71.00	5.80	5.56	0.0
72.00	5.80	5.56	0.0

Summary for Pond 1P: Porous Pavement

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 0.6 cfs @ 12.08 hrs, Volume= 0.052 af
Outflow = 0.3 cfs @ 11.94 hrs, Volume= 0.052 af, Atten= 59%, Lag= 0.0 min
Primary = 0.3 cfs @ 11.94 hrs, Volume= 0.052 af
Routed to Pond 2P : Porous Pavement Outlet

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 18.73' @ 12.28 hrs Surf.Area= 4,517 sf Storage= 228 cf

Plug-Flow detention time= 3.9 min calculated for 0.052 af (100% of inflow)
Center-of-Mass det. time= 3.9 min (749.5 - 745.7)

Volume	Invert	Avail.Storage	Storage Description
#1	18.60'	1,807 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall x 40.0% Voids

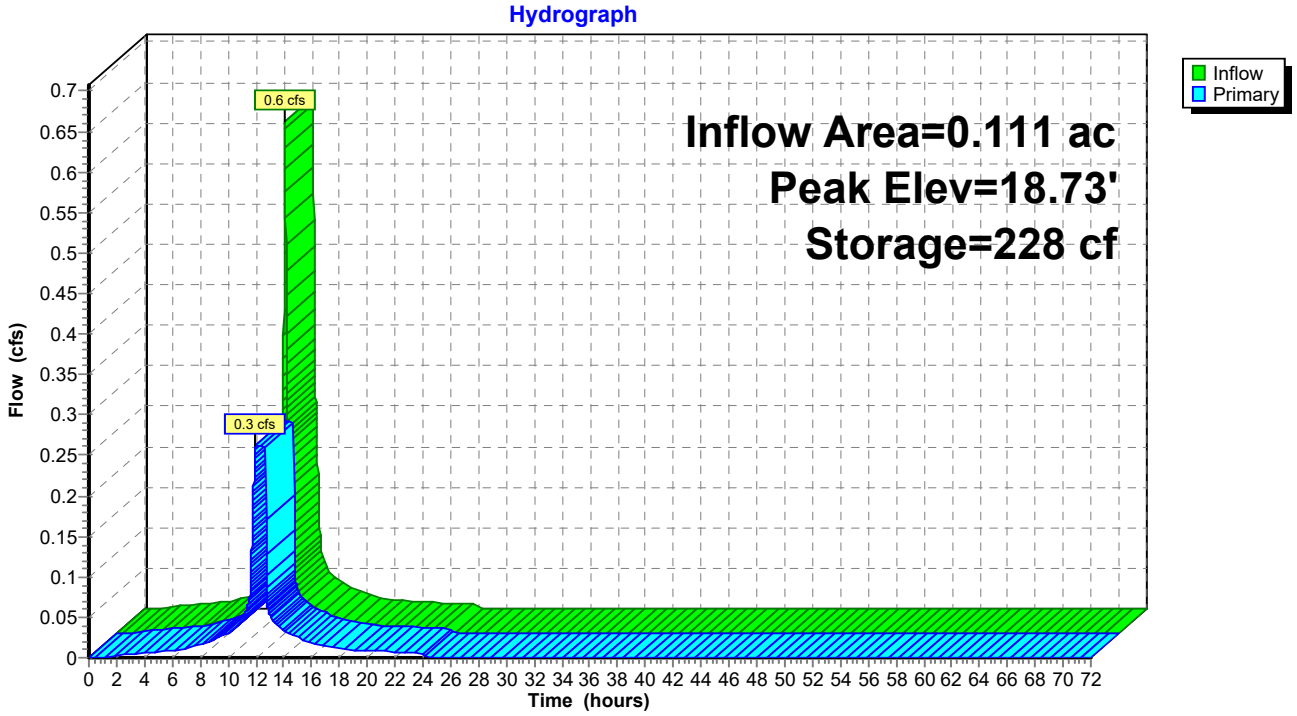
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
18.60	4,517	541.7	0	0	4,517
19.60	4,517	541.7	4,517	4,517	5,059

Device	Routing	Invert	Outlet Devices
#1	Primary	18.60'	**2.500 in/hr Exfiltration over Surface area**

Primary OutFlow Max=0.3 cfs @ 11.94 hrs HW=18.61' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.3 cfs)



Pond 1P: Porous Pavement



Hydrograph for Pond 1P: Porous Pavement

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	18.60	0.0
2.00	0.0	0	18.60	0.0
4.00	0.0	0	18.60	0.0
6.00	0.0	1	18.60	0.0
8.00	0.0	1	18.60	0.0
10.00	0.0	2	18.60	**0.0**
12.00	**0.4**	**32**	**18.62**	**0.3**
14.00	**0.0**	**2**	**18.60**	0.0
16.00	0.0	1	18.60	0.0
18.00	0.0	1	18.60	0.0
20.00	0.0	1	18.60	0.0
22.00	0.0	0	18.60	0.0
24.00	0.0	0	18.60	0.0
26.00	0.0	0	18.60	0.0
28.00	0.0	0	18.60	0.0
30.00	0.0	0	18.60	0.0
32.00	0.0	0	18.60	0.0
34.00	0.0	0	18.60	0.0
36.00	0.0	0	18.60	0.0
38.00	0.0	0	18.60	0.0
40.00	0.0	0	18.60	0.0
42.00	0.0	0	18.60	0.0
44.00	0.0	0	18.60	0.0
46.00	0.0	0	18.60	0.0
48.00	0.0	0	18.60	0.0
50.00	0.0	0	18.60	0.0
52.00	0.0	0	18.60	0.0
54.00	0.0	0	18.60	0.0
56.00	0.0	0	18.60	0.0
58.00	0.0	0	18.60	0.0
60.00	0.0	0	18.60	0.0
62.00	0.0	0	18.60	0.0
64.00	0.0	0	18.60	0.0
66.00	0.0	0	18.60	0.0
68.00	0.0	0	18.60	0.0
70.00	0.0	0	18.60	0.0
72.00	0.0	0	18.60	0.0

Stage-Discharge for Pond 1P: Porous Pavement

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
18.60	0.0	19.11	0.3
18.61	**0.3**	19.12	0.3
18.62	0.3	19.13	0.3
18.63	0.3	19.14	0.3
18.64	0.3	19.15	0.3
18.65	0.3	19.16	0.3
18.66	0.3	19.17	0.3
18.67	0.3	19.18	0.3
18.68	0.3	19.19	0.3
18.69	0.3	19.20	0.3
18.70	0.3	19.21	0.3
18.71	0.3	19.22	0.3
18.72	0.3	19.23	0.3
18.73	0.3	19.24	0.3
18.74	0.3	19.25	0.3
18.75	0.3	19.26	0.3
18.76	0.3	19.27	0.3
18.77	0.3	19.28	0.3
18.78	0.3	19.29	0.3
18.79	0.3	19.30	0.3
18.80	0.3	19.31	0.3
18.81	0.3	19.32	0.3
18.82	0.3	19.33	0.3
18.83	0.3	19.34	0.3
18.84	0.3	19.35	0.3
18.85	0.3	19.36	0.3
18.86	0.3	19.37	0.3
18.87	0.3	19.38	0.3
18.88	0.3	19.39	0.3
18.89	0.3	19.40	0.3
18.90	0.3	19.41	0.3
18.91	0.3	19.42	0.3
18.92	0.3	19.43	0.3
18.93	0.3	19.44	0.3
18.94	0.3	19.45	0.3
18.95	0.3	19.46	0.3
18.96	0.3	19.47	0.3
18.97	0.3	19.48	0.3
18.98	0.3	19.49	0.3
18.99	0.3	19.50	0.3
19.00	0.3	19.51	0.3
19.01	0.3	19.52	0.3
19.02	0.3	19.53	0.3
19.03	0.3	19.54	0.3
19.04	0.3	19.55	0.3
19.05	0.3	19.56	0.3
19.06	0.3	19.57	0.3
19.07	0.3	19.58	0.3
19.08	0.3	19.59	0.3
19.09	0.3	19.60	0.3
19.10	0.3		

Stage-Area-Storage for Pond 1P: Porous Pavement

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
18.60	**4,517**	0
18.61	4,517	18
18.62	4,517	36
18.63	4,517	54
18.64	4,517	72
18.65	4,517	90
18.66	4,517	108
18.67	4,517	126
18.68	4,517	145
18.69	4,517	163
18.70	4,517	181
18.71	4,517	199
18.72	4,517	217
18.73	4,517	235
18.74	4,517	253
18.75	4,517	271
18.76	4,517	289
18.77	4,517	307
18.78	4,517	325
18.79	4,517	343
18.80	4,517	361
18.81	4,517	379
18.82	4,517	397
18.83	4,517	416
18.84	4,517	434
18.85	4,517	452
18.86	4,517	470
18.87	4,517	488
18.88	4,517	506
18.89	4,517	524
18.90	4,517	542
18.91	4,517	560
18.92	4,517	578
18.93	4,517	596
18.94	4,517	614
18.95	4,517	632
18.96	4,517	650
18.97	4,517	669
18.98	4,517	687
18.99	4,517	705
19.00	4,517	723
19.01	4,517	741
19.02	4,517	759
19.03	4,517	777
19.04	4,517	795
19.05	4,517	813
19.06	4,517	831
19.07	4,517	849
19.08	4,517	867
19.09	4,517	885
19.10	4,517	903
19.11	4,517	921
19.12	4,517	940
19.13	4,517	958
19.14	4,517	976
19.15	4,517	994
19.16	4,517	1,012
19.17	4,517	1,030
19.18	4,517	1,048
19.19	4,517	1,066
19.20	4,517	1,084
19.21	4,517	1,102
19.22	4,517	1,120
19.23	4,517	1,138
19.24	4,517	1,156
19.25	4,517	1,174
19.26	4,517	1,192
19.27	4,517	1,211
19.28	4,517	1,229
19.29	4,517	1,247
19.30	4,517	1,265
19.31	4,517	1,283
19.32	4,517	1,301
19.33	4,517	1,319
19.34	4,517	1,337
19.35	4,517	1,355
19.36	4,517	1,373
19.37	4,517	1,391
19.38	4,517	1,409
19.39	4,517	1,427
19.40	4,517	1,445
19.41	4,517	1,464
19.42	4,517	1,482
19.43	4,517	1,500
19.44	4,517	1,518
19.45	4,517	1,536
19.46	4,517	1,554
19.47	4,517	1,572
19.48	4,517	1,590
19.49	4,517	1,608
19.50	4,517	1,626
19.51	4,517	1,644
19.52	4,517	1,662
19.53	4,517	1,680
19.54	4,517	1,698
19.55	4,517	1,716
19.56	4,517	1,735
19.57	4,517	1,753
19.58	4,517	1,771
19.59	4,517	1,789
19.60	4,517	**1,807**

Summary for Pond 2P: Porous Pavement Outlet

Inflow Area = 0.111 ac,100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 0.3 cfs @ 11.94 hrs, Volume= 0.052 af
Outflow = 0.2 cfs @ 12.76 hrs, Volume= 0.051 af, Atten= 29%, Lag= 49.1 min
Primary = 0.2 cfs @ 12.76 hrs, Volume= 0.051 af
Routed to Link DP-1 : Park Avenue

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 17.95' @ 12.76 hrs Surf.Area= 4,530 sf Storage= 1,250 cf

Plug-Flow detention time= 487.6 min calculated for 0.051 af (100% of inflow)
Center-of-Mass det. time= 485.5 min (1,235.0 - 749.5)

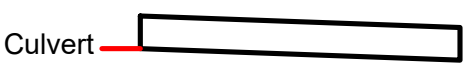
Volume	Invert	Avail.Storage	Storage Description
#1	17.27'	1,800 cf	**Custom Stage Data (Irregular)** Listed below (Recalc) 4,517 cf Overall - 17 cf Embedded = 4,500 cf x 40.0% Voids
#2	17.60'	17 cf	**4.0" Round Pipe Storage** Inside #1 L= 200.0'
#3	17.27'	35 cf	**4.00'D x 2.77'H Vertical Cone/Cylinder**
		1,852 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
17.27	4,517	541.7	0	0	4,517
18.27	4,517	541.7	4,517	4,517	5,059

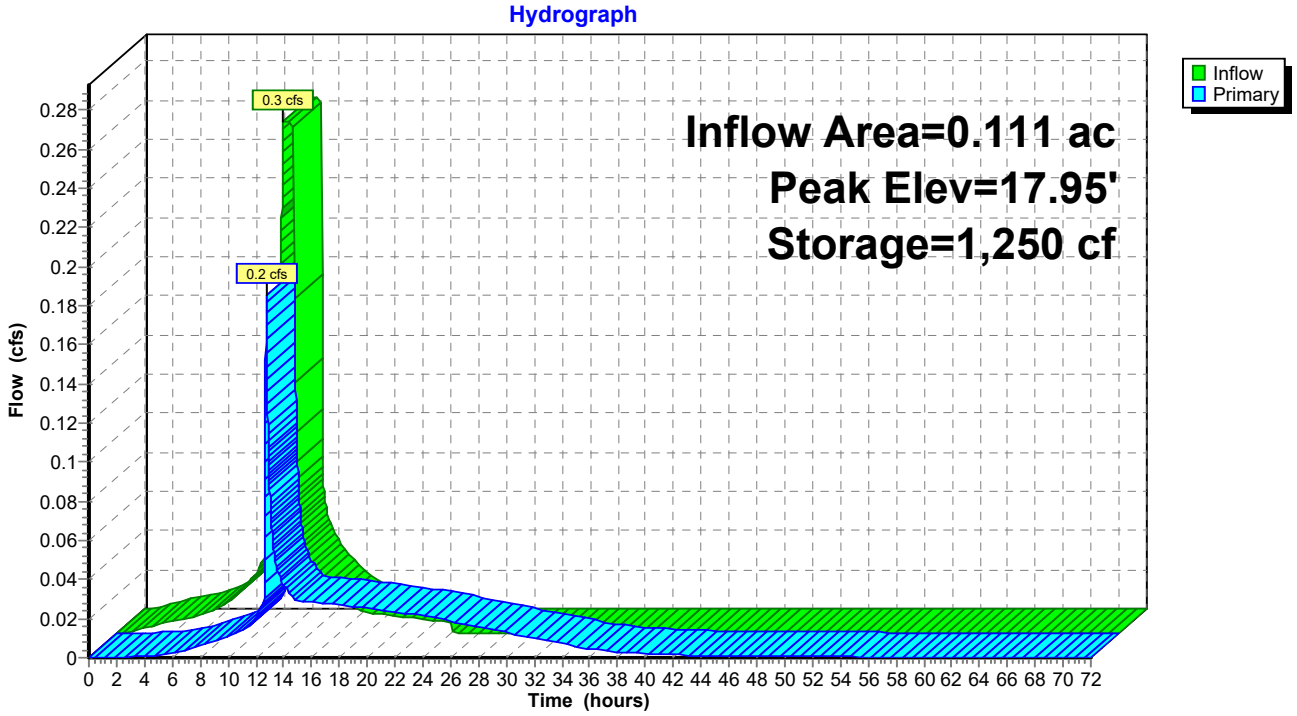
Device	Routing	Invert	Outlet Devices
#1	Primary	14.50'	**12.0" Round Culvert** L= 62.4' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 14.50' / 14.15' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	17.27'	**1.2" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	17.90'	**4.0' long x 1.10' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)

Primary OutFlow Max=0.2 cfs @ 12.76 hrs HW=17.95' (Free Discharge)
└**1=Culvert** (Passes 0.2 cfs of 5.7 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 3.83 fps)
└**3=Sharp-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.74 fps)





Pond 2P: Porous Pavement Outlet



Hydrograph for Pond 2P: Porous Pavement Outlet

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.0	0	17.27	0.0
2.00	0.0	7	17.27	0.0
4.00	0.0	37	17.29	0.0
6.00	0.0	81	17.31	0.0
8.00	0.0	139	17.35	0.0
10.00	**0.0**	241	17.40	0.0
12.00	**0.3**	**661**	**17.63**	**0.0**
14.00	0.0	**1,169**	**17.91**	**0.0**
16.00	0.0	1,130	17.89	0.0
18.00	0.0	1,031	17.83	0.0
20.00	0.0	911	17.77	0.0
22.00	0.0	791	17.70	0.0
24.00	0.0	676	17.64	0.0
26.00	0.0	533	17.56	0.0
28.00	0.0	409	17.49	0.0
30.00	0.0	306	17.44	0.0
32.00	0.0	222	17.39	0.0
34.00	0.0	160	17.36	0.0
36.00	0.0	117	17.33	0.0
38.00	0.0	90	17.32	0.0
40.00	0.0	72	17.31	0.0
42.00	0.0	59	17.30	0.0
44.00	0.0	51	17.30	0.0
46.00	0.0	44	17.29	0.0
48.00	0.0	38	17.29	0.0
50.00	0.0	33	17.29	0.0
52.00	0.0	28	17.29	0.0
54.00	0.0	25	17.28	0.0
56.00	0.0	21	17.28	0.0
58.00	0.0	18	17.28	0.0
60.00	0.0	16	17.28	0.0
62.00	0.0	14	17.28	0.0
64.00	0.0	12	17.28	0.0
66.00	0.0	10	17.28	0.0
68.00	0.0	9	17.27	0.0
70.00	0.0	8	17.27	0.0
72.00	0.0	7	17.27	0.0

Stage-Discharge for Pond 2P: Porous Pavement Outlet

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
17.27	0.0	18.29	3.2	19.31	6.9
17.29	0.0	18.31	3.4	19.33	6.9
17.31	0.0	18.33	3.6	19.35	6.9
17.33	0.0	18.35	3.9	19.37	7.0
17.35	0.0	18.37	4.2	19.39	7.0
17.37	0.0	18.39	4.4	19.41	7.0
17.39	0.0	18.41	4.7	19.43	7.0
17.41	0.0	18.43	5.0	19.45	7.0
17.43	0.0	18.45	5.2	19.47	7.0
17.45	0.0	18.47	5.5	19.49	7.1
17.47	0.0	18.49	5.8	19.51	7.1
17.49	0.0	18.51	6.1	19.53	7.1
17.51	0.0	18.53	6.2	19.55	7.1
17.53	0.0	18.55	6.2	19.57	7.1
17.55	0.0	18.57	6.3	19.59	7.1
17.57	0.0	18.59	6.3	19.61	7.2
17.59	0.0	18.61	6.3	19.63	7.2
17.61	0.0	18.63	6.3	19.65	7.2
17.63	0.0	18.65	6.3	19.67	7.2
17.65	0.0	18.67	6.4	19.69	7.2
17.67	0.0	18.69	6.4	19.71	7.2
17.69	0.0	18.71	6.4	19.73	7.3
17.71	0.0	18.73	6.4	19.75	7.3
17.73	0.0	18.75	6.4	19.77	7.3
17.75	0.0	18.77	6.4	19.79	7.3
17.77	0.0	18.79	6.5	19.81	7.3
17.79	0.0	18.81	6.5	19.83	7.3
17.81	0.0	18.83	6.5	19.85	7.3
17.83	0.0	18.85	6.5	19.87	7.4
17.85	0.0	18.87	6.5	19.89	7.4
17.87	0.0	18.89	6.6	19.91	7.4
17.89	0.0	18.91	6.6	19.93	7.4
17.91	0.0	18.93	6.6	19.95	7.4
17.93	0.1	18.95	6.6	19.97	7.4
17.95	0.2	18.97	6.6	19.99	7.5
17.97	0.3	18.99	6.6	20.01	7.5
17.99	0.4	19.01	6.7	20.03	**7.5**
18.01	0.5	19.03	6.7		
18.03	0.6	19.05	6.7		
18.05	0.8	19.07	6.7		
18.07	0.9	19.09	6.7		
18.09	1.1	19.11	6.7		
18.11	1.3	19.13	6.8		
18.13	1.5	19.15	6.8		
18.15	1.6	19.17	6.8		
18.17	1.8	19.19	6.8		
18.19	2.0	19.21	6.8		
18.21	2.3	19.23	6.8		
18.23	2.5	19.25	6.9		
18.25	2.7	19.27	6.9		
18.27	2.9	19.29	6.9		

Stage-Area-Storage for Pond 2P: Porous Pavement Outlet

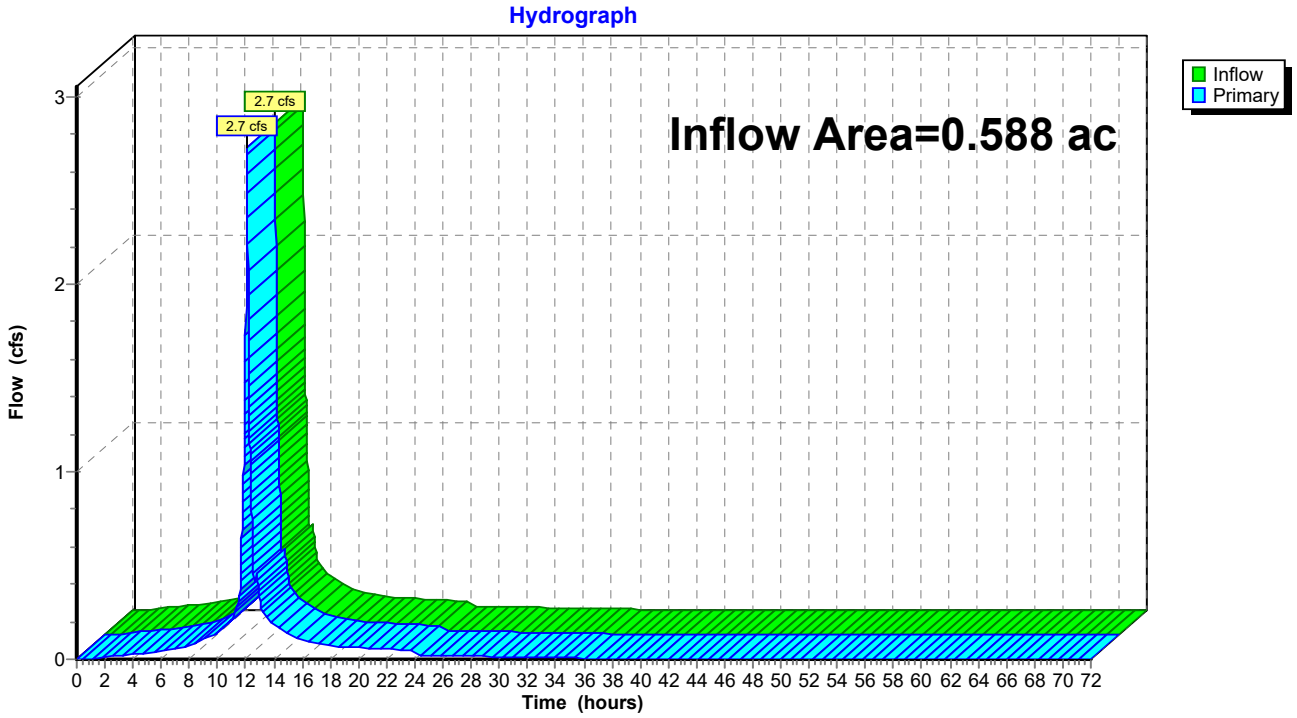
Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
17.27	0	18.29	1,830	19.31	1,843
17.29	36	18.31	1,830	19.33	1,843
17.31	73	18.33	1,831	19.35	1,843
17.33	109	18.35	1,831	19.37	1,844
17.35	146	18.37	1,831	19.39	1,844
17.37	182	18.39	1,831	19.41	1,844
17.39	218	18.41	1,832	19.43	1,844
17.41	255	18.43	1,832	19.45	1,845
17.43	291	18.45	1,832	19.47	1,845
17.45	327	18.47	1,832	19.49	1,845
17.47	364	18.49	1,833	19.51	1,845
17.49	400	18.51	1,833	19.53	1,846
17.51	437	18.53	1,833	19.55	1,846
17.53	473	18.55	1,833	19.57	1,846
17.55	509	18.57	1,834	19.59	1,846
17.57	546	18.59	1,834	19.61	1,847
17.59	582	18.61	1,834	19.63	1,847
17.61	619	18.63	1,834	19.65	1,847
17.63	655	18.65	1,835	19.67	1,847
17.65	692	18.67	1,835	19.69	1,848
17.67	729	18.69	1,835	19.71	1,848
17.69	766	18.71	1,835	19.73	1,848
17.71	804	18.73	1,836	19.75	1,848
17.73	841	18.75	1,836	19.77	1,849
17.75	878	18.77	1,836	19.79	1,849
17.77	915	18.79	1,836	19.81	1,849
17.79	952	18.81	1,837	19.83	1,849
17.81	989	18.83	1,837	19.85	1,850
17.83	1,027	18.85	1,837	19.87	1,850
17.85	1,064	18.87	1,837	19.89	1,850
17.87	1,101	18.89	1,838	19.91	1,850
17.89	1,138	18.91	1,838	19.93	1,851
17.91	1,175	18.93	1,838	19.95	1,851
17.93	1,211	18.95	1,838	19.97	1,851
17.95	1,248	18.97	1,839	19.99	1,851
17.97	1,284	18.99	1,839	20.01	1,852
17.99	1,320	19.01	1,839	20.03	**1,852**
18.01	1,357	19.03	1,839		
18.03	1,393	19.05	1,840		
18.05	1,430	19.07	1,840		
18.07	1,466	19.09	1,840		
18.09	1,502	19.11	1,840		
18.11	1,539	19.13	1,841		
18.13	1,575	19.15	1,841		
18.15	1,612	19.17	1,841		
18.17	1,648	19.19	1,841		
18.19	1,684	19.21	1,842		
18.21	1,721	19.23	1,842		
18.23	1,757	19.25	1,842		
18.25	1,793	19.27	1,842		
18.27	1,830	19.29	1,843		

Summary for Link DP-1: Park Avenue

Inflow Area = 0.588 ac,100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 2.7 cfs @ 12.08 hrs, Volume= 0.272 af
Primary = 2.7 cfs @ 12.08 hrs, Volume= 0.272 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Link DP-1: Park Avenue



Hydrograph for Link DP-1: Park Avenue

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0	**0.00**	0.0	51.00	0.0	0.00	0.0
1.00	0.0	0.00	0.0	52.00	0.0	0.00	0.0
2.00	0.0	0.00	0.0	53.00	0.0	0.00	0.0
3.00	0.0	0.00	0.0	54.00	0.0	0.00	0.0
4.00	0.0	0.00	0.0	55.00	0.0	0.00	0.0
5.00	0.0	0.00	0.0	56.00	0.0	0.00	0.0
6.00	0.0	0.00	0.0	57.00	0.0	0.00	0.0
7.00	0.1	0.00	0.1	58.00	0.0	0.00	0.0
8.00	0.1	0.00	0.1	59.00	0.0	0.00	0.0
9.00	0.1	0.00	0.1	60.00	0.0	0.00	0.0
10.00	0.1	0.00	0.1	61.00	0.0	0.00	0.0
11.00	0.2	0.00	0.2	62.00	0.0	0.00	0.0
12.00	**1.7**	0.00	**1.7**	63.00	0.0	0.00	0.0
13.00	**0.3**	0.00	**0.3**	64.00	0.0	0.00	0.0
14.00	0.2	0.00	0.2	65.00	0.0	0.00	0.0
15.00	0.1	0.00	0.1	66.00	0.0	0.00	0.0
16.00	0.1	0.00	0.1	67.00	0.0	0.00	0.0
17.00	0.1	0.00	0.1	68.00	0.0	0.00	0.0
18.00	0.1	0.00	0.1	69.00	0.0	0.00	0.0
19.00	0.1	0.00	0.1	70.00	0.0	0.00	0.0
20.00	0.1	0.00	0.1	71.00	0.0	0.00	0.0
21.00	0.1	0.00	0.1	72.00	0.0	0.00	0.0
22.00	0.1	0.00	0.1				
23.00	0.0	0.00	0.0				
24.00	0.0	0.00	0.0				
25.00	0.0	0.00	0.0				
26.00	0.0	0.00	0.0				
27.00	0.0	0.00	0.0				
28.00	0.0	0.00	0.0				
29.00	0.0	0.00	0.0				
30.00	0.0	0.00	0.0				
31.00	0.0	0.00	0.0				
32.00	0.0	0.00	0.0				
33.00	0.0	0.00	0.0				
34.00	0.0	0.00	0.0				
35.00	0.0	0.00	0.0				
36.00	0.0	0.00	0.0				
37.00	0.0	0.00	0.0				
38.00	0.0	0.00	0.0				
39.00	0.0	0.00	0.0				
40.00	0.0	0.00	0.0				
41.00	0.0	0.00	0.0				
42.00	0.0	0.00	0.0				
43.00	0.0	0.00	0.0				
44.00	0.0	0.00	0.0				
45.00	0.0	0.00	0.0				
46.00	0.0	0.00	0.0				
47.00	0.0	0.00	0.0				
48.00	0.0	0.00	0.0				
49.00	0.0	0.00	0.0				
50.00	0.0	0.00	0.0				

Memorandum

Attachment C: Inspection and Maintenance Manual

Portland Sea Dogs Clubhouse Addition

271 Park Avenue
Portland, Maine 04102

PREPARED FOR

Portland Sea Dogs
271 Park Avenue
Portland, ME 04102
207.874.9300

PREPARED BY

500 Southborough Drive
Suite 105B
South Portland, ME 04106
207.889.3150

APRIL 30, 2024

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Introduction

VHB has prepared the following Stormwater Management System Inspection & Maintenance Manual and Spill Response Procedures for the Portland Sea Dogs clubhouse addition located at 271 Park Avenue, Portland, Maine. The Site primarily drains to the south, primarily towards the adjacent Park Avenue roadway which is collected by existing catch basins and flows south. The intent of this plan is to provide the applicant/owner with a list of procedures that document the inspection and maintenance requirements and spill procedures for this development.

Inspection & Maintenance

The following inspection and maintenance program is necessary to keep the Stormwater Management System functioning properly. By following the enclosed procedures, the applicant will be able to maintain the functional design of the Stormwater Management System and maximize its ability to remove sediment and other contaminants from site generated stormwater runoff.

Pavement Systems

Standard Asphalt Pavement

› Sweep or vacuum standard asphalt pavement areas at least four times per year with a rotary brush sweeper, vacuum or regenerative air sweeper [select based on TSS credit required] and properly dispose of removed material.

› Recommended sweeping schedule:

› Oct/Nov

› Feb/Mar

› Apr/May

› Aug/Sep

› More frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.

› Check loading docks and dumpster areas frequently for spillage and/or pavement staining and clean as necessary.

Porous Asphalt Pavement

Regular maintenance of the porous pavement will prevent premature failure of the drainage and water quality treatment benefits of the system. Any areas that drain to the porous pavement must be free from erosion. Heavy sediment loads in these areas can clog the pavement surface and result in premature failure.

Preventing Clogging of Porous Pavement Surfaces

› Vacuum pavement at least four times per year with a commercial cleaning unit (Schwarze Industries "A" series regenerative air sweeper or equivalent) and properly dispose of removed material.

› The use of pavement washing systems or compressed air units is not recommended as it may result in diminished permeability.

› Maintain vegetated areas adjacent to porous asphalt pavement to prevent washout of soil onto surface.

› Do not allow construction staging, soil/mulch storage, etc. on unprotected pavement surface. If necessary, place tarp or other impermeable material beneath the stockpiled materials and do not allow to runoff onto pavement.

› Do not apply any type of sealant to porous asphalt pavement.

Snow and Ice Removal

› Do not stockpile snow on pavement surface. Sand and grit in snow will clog pavement.

› Plow parking areas paved with porous asphalt pavement carefully. Plow blades should be set approximately 1" higher than usual to avoid scarring the pavement and loosening material that could potentially clog surface pores.

› Do not apply abrasives such as sand or grit on or adjacent to porous asphalt pavement.

› Monitor application rates of deicing materials and reduce application rate accordingly. Porous pavements tend to require less deicer per unit area because the water is not required to remain liquid over the entire parking surface area before discharge.

Inspecting the System

› Inspect areas paved with porous asphalt pavement monthly during the first three months following installation and annually thereafter.

› Inspect the porous pavement surface annually for deterioration or spalling. Annual inspections should take place after large storms, when puddles will make any clogging obvious

Repairing Damages

› Do not apply any type of sealant to porous asphalt pavement.

› Spot-clogging may be fixed by drilling 1.3 centimeter (half-inch) holes through the porous pavement layer every few feet.

› Damaged areas less than 50 square feet may be patched with porous or standard asphalt.

› Larger areas will be patched with approved porous asphalt.

› Repairs of drainage structures shall be completed promptly to ensure continued proper functioning of the system.

Catch Basins

The proper removal of sediments and associated pollutants and trash occurs only when catch basin inlets and sumps are cleaned out regularly. The more frequent the cleaning, the less likely sediments will be re-suspended and subsequently discharged. In addition, frequent cleaning also results in more volume available for future deposition and enhances the overall performance. As noted in the pavement Inspection and Maintenance (I&M) section, more frequent sweeping of paved surfaces will result in less accumulation in catch basins, less cleaning of subsurface structures, and less disposal costs.

There are four (4) catch basins at the Site. These catch basins are constructed with sumps (minimum 4 feet) and hooded outlets to trap debris, sediments, and floating contaminants. Disposal of all sediments must be in accordance with applicable local, state, and federal guidelines.

Inspections and Cleaning

› All catch basins shall be inspected at least four times per year and cleaned a minimum of at least once per year.

› Sediment (if more than six inches deep) and/or floatable pollutants shall be pumped from the basin and disposed of at an approved offsite facility in accordance with all applicable regulations.

› Any structural damage or other indication of malfunction will be reported to the site manager and repaired as necessary

› During colder periods, the catch basin grates must be kept free of snow and ice.

› During warmer periods, the catch basin grates must be kept free of leaves, litter, sand, and debris.

Roof Drain Leader

Roof runoff from buildings and parking areas (description or name of contributing areas) at Project Name are directed to the rain garden units and to the subsurface infiltration units.

› Perform routine roof inspections quarterly.

› Keep roofs clean and free of debris.

› Keep roof drainage systems clear.

› Keep roof access limited to authorized personnel.

› Clean inlets twice per year or as necessary.

During Construction

The following procedures shall be implemented during construction. The Contractor shall adhere to the Erosion and Sediment Control (ESC) Plan associated with the Maine Construction General Permit (MCGP).

Erosion and Sediment Control Plan

- Impervious area, erosion control measures, materials storage areas exposed to precipitation and construction exits shall be inspected, at a minimum, once a week. Additional inspections shall be performed before and within 24 hours after a rainfall event and prior to permanent stabilization.
- BMPs shall be repaired upon discovery of problem and no later than the end of the next working day.
- Significant repairs to BMPs shall be completed within 7 calendar days and prior to a rainfall event.
- A Construction Inspection & Maintenance Log shall be completed for each inspection and maintenance activity.
- Inspection shall be performed by a person with knowledge of erosion and stormwater control which include the standards and conditions in the permit.
- The Inspection & Maintenance Logs shall be accessible to the Maine Department of Environmental Protection staff and a copy shall be provided upon request.
- The permittee shall retain copies of the logs for a period of at least three years from the completion of permanent stabilization.

Post-Construction

The following procedures shall be implemented after construction. The Inspection & Maintenance Plan does not include items and requirements specifically associated with the equipment located on the concrete pads.

Inspection & Maintenance Plan

By implementing the following procedures, the applicant will be able to maintain the functional design of the Stormwater Management System and maximize the system's ability to remove sediment and other contaminants from site generated stormwater runoff.

Regular Maintenance

- Routinely pick up and remove litter from the access road and gravel areas.
- Remove all trash litter from the access road and dispose of properly.

Vegetated Areas

- Inspect two times per year in Spring and Late Fall.
- Armor eroded areas or divert runoff to stabilized areas.
- Mow vegetation no more than twice in a 12-month period.

Record Keeping

- Inspections of the stormwater management system shall be conducted in accordance with the Inspection & Maintenance Checklist provided in this Manual.
- A Post-Construction Inspection & Maintenance Log shall be completed for each inspection and maintenance activity.
- Inspection shall be performed by a person with knowledge of erosion and stormwater control which include the standards and conditions in the permit.
- The Inspection & Maintenance Logs shall be accessible to the Maine Department of Environmental Protection staff and a copy shall be provided upon request.
- The permittee shall retain copies of the logs for a period of at least three years from the completion of permanent stabilization.

Re-Certification

- Re-certification shall be submitted within three months of the expiration of each five-year interval from the date of issuance of the permit.
- Submission of re-certification shall include: Identification of repair and erosion problems, Inspection and repair of stormwater system, and evidence that the maintenance plan has been implemented and modifications approved by the City.

Duration of Maintenance

Maintenance as described in the Inspection & Maintenance Plan shall be performed by the Responsible Party unless and until the system is formally accepted by its successor, heirs and assigns, the City or other entity.

Inspection & Maintenance Checklist

The following pages contain an Inspection & Maintenance Checklists for Construction and Post-Construction requirements and a reduced copy of the Erosion and Sediment Control Plan and Detail Sheets. These forms/plans are provided to assist the applicant with the inspection and maintenance of the Stormwater Management System.

Stormwater Management System

Inspection & Maintenance Checklist - Construction

Best Management Practice	Inspection Frequency	Date Inspected	Inspector Initials	Minimum Maintenance and Key Items to Check	Cleaning or Repair Needed Yes/No (List Items)	Date of Cleaning or Repair	Performed by:
Silt Sock Erosion Control Barriers	Weekly and after rainfall ≥0.5"	/ /		Flow around or under barrier, Sediment build up >half barrier height, excessive sag, erosion			
Stone Checkdam	Weekly and after any rainfall	/ /		Sediment build up, broken barrier or stakes			
Stabilized Construction Exit	Weekly and after any rainfall	/ /		Filled voids, runoff/sediments into street			
Erosion Control Blanket	Weekly and after any rainfall	/ /		Cracking, erosion, breakout, sediment buildup			
Diversion Channels	Weekly and after any rainfall	/ /		Maintained, moved as necessary to correct locations, Check for erosion or breakout			
Temporary Sedimentation Basins	Weekly and after any rainfall	/ /		Cracking, erosion, breakout, sediment buildup, contaminants			
Materials Storage Areas	Weekly and after any rainfall	/ /		Maintained, spills, breakout			

Inspector Name and Qualifications _____

Stormwater Management System

Inspection & Maintenance Checklist – Post-Construction

Best Management Practice	Inspection Frequency	Date Inspected	Inspector Initials	Minimum Maintenance and Key Items to Check	Cleaning or Repair Needed Yes/No (List Items)	Date of Cleaning or Repair	Performed by:
Vegetated Areas, Swales and Slopes	Spring and Late Fall	/ /		Inspect for erosion and bare areas Remove trash and debris as necessary Armor or divert flow to stabilized areas. Mow no more than twice per 12 months.			
Porous Pavement	Spring and Late Fall. Clean as needed based on sediment accumulation	/ /		Inspect and repair erosion at inlets, outlets, and within basins Clean and dispose sediments and trash legally Replace dislodged stone or exposed filter fabric			

Inspector Name and Qualifications _____

Spill Response Procedure

Spill response procedure is limited to during the construction of the facility. Spill prevention equipment and training for post-construction operations will be provided by the property management company.

Initial Notification

In the event of a spill the facility and/or construction manager or supervisor will be notified immediately.

Facility Manager (name): _____

Facility Manager (phone): _____

Construction Manager (name): _____

Construction Manager (phone): _____

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. The supervisor will first contact the Fire Department and then notify the Police Department. The fire department is ultimately responsible for matters of public health and safety and should be notified immediately.

Further Notification

The Maine Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the main construction/facility office and readily accessible to all employees. A hazardous waste spill report shall be completed as necessary using the attached form.

Emergency Notification Phone Numbers

1.	FACILITY MANAGER NAME: _____ ALTERNATE CONTACT: NAME: _____	PHONE:_____ CELL: _____, _____ HOME PHONE: _____ PHONE:_____ BEEPER/CELL: _____, _____ HOME PHONE: _____
2.	FIRE & POLICE DEPARTMENT	EMERGENCY: **911**
3.	CLEANUP CONTRACTOR: _____ ADDRESS: _____ _____	PHONE:_____
4.	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)	Oil Spills: **(800) 482-0777** Hazardous Materials: **(800) 452-4664** Central Maine Regional Office: **(800) 452-1942**
5.	NATIONAL RESPONSE CENTER ALTERNATE: U.S. ENVIRONMENTAL PROTECTION AGENCY	PHONE: **(800) 424-8802** EMERGENCY: **(800) 424-8802** BUSINESS (Region 1): **(888) 372-7341**
6.	MAINE EMERGENCY MANAGEMENT AGENCY	PHONE: (**800) 452-8735**

Hazardous Waste / Oil Spill Report

Date: ____/____/_____ Time: _____ AM / PM

Exact location _____

Type of equipment:_____ Make:_____ Size:_____

License or S/N:_____ Weather Conditions:_____

On or near water ☐ Yes If yes, name of body of water:_____

☐ No

Type of chemical / oil spilled: _____

Amount of chemical / oil spilled: _____

Cause of spill: _____

_____

_____

Measures taken to contain or clean up spill: _____

_____

_____

Amount of chemical / oil recovered: _____ Method:_____

Material collected as a result of clean up

_____ drums containing: _____

_____ drums containing: _____

_____ drums containing: _____

Location and method of debris disposal:_____

Name and address of any person, firm, or corporation suffering damages:_____

_____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring: :_____

_____

Spill reported to General Office by:_____Time: _____AM / PM

Spill reported to DEP / National Response Center by:_____

DEP Date: ____/_____/_____ Time:_____AM / PM Inspector:_____

NRC Date: ____/_____/_____ Time:_____AM / PM Inspector: _____

Additional comments: _____

_____

Assessment - Initial Containment

The supervisor or manager will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. A list of recommended spill equipment to be kept on site is included on the following page.

Emergency Response Equipment

The following equipment and materials shall be maintained at all times and stored in a secure area for long-term emergency response need.

--	SORBENT PADS	2 BALES
--	SORBENT BOOM	100 FEET
--	SAND BAGS (empty)	50
--	SEWER PIPE PLUGS	
--	12 INCH DIAM.	1
--	SPEEDI-DRI ABSORBENT	5 40# BAGS
--	SQUARE END SHOVELS	1
--	PICK	1
--	PRY BAR	1
--	DRAIN COVERS	2

From: AMaP MEANS <means@pwd.org>
Sent: Thursday, June 27, 2024 3:33 PM
To: Jason Howe
Cc: David Senus
Subject: [External] 526410-271 Park Avenue, PO - Change of Use Approval
Attachments: 526410-271 Park Avenue, PO - Change of Use - Fee Submittal Form.pdf

Hello Mr. Howe,

Based on the information provided, the existing **4-inch domestic service** with **3-inch meter** should be able to handle the domestic water demand at the site. The existing **8-inch diameter fire service** should be able to handle the fire demand at the site. As part of this approval, and in accordance with Portland Water District's (PWD) Cross Connection Control Program, an approved **testable double check backflow prevention device** must be installed on the fire service line before the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.

The next step would be for you to pay the initial backflow test fee of **$53.00** (check only). You are welcome to either mail in payment for the fee(s), or drop it off in the lockbox outside our Portland office at 225 Douglass Street. The fastest way for PWD to receive your payment would be delivering it to our Portland office. If you choose to mail the fee(s) in, please mail to the following address:

Portland Water District
ATTN: MEANS Group
PO Box 3553
Portland, ME 04104-3553

Please make sure to include a copy of the attached Change of Use Fee Submittal Form with your payment.

Once your plumber has prepared the piping for the **testable double check backflow preventer**, please contact Customer Service at 207-761-8310 to schedule your backflow inspection.

If you experience any water supply or pressure issues after the meter is installed, please contact PWD to increase the service size to the building.

Please feel free to reach out if you have any questions.

Thanks,
Bobby

AMAP MEANS

means@pwd.org
https://www.pwd.org/

Portland Water District
From Sebago Lake to Casco Bay

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Please consider the environment before printing this email

Construction Management Plan 1

Construction Management Plan

Project Address: **Hadlock Field,** 271 Park Ave., Portland Maine, 04102

Project Description:

The proposed project includes the new construction of a 2-story Clubhouse with support space for Portland Sea Dogs staff, team and umpires.

Project Team Summary:

Owner:	DBH-Portland LLC
General Contractor:	Great Falls Construction
Civil Engineer:	VHB
Architect:	Lavallee Brensinger Architects
Structural Engineer:	Foley Buhi Roberts & Associates Inc.

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. Refer to the Civil/Site Plan Set, Sheet C7.2 Construction Management Plan for visual representation of the measures to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

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

Guarantees and fees will be paid at the time of the respective application. Sections 14-11 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

   Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

   Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

   Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code. In addition to the best practices set forth in the Inclusionary Zoning Guidelines for Developers of rental housing.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor and Subcontractor contact information shall be posted somewhere along the project's street frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.

Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

Project Start Date:	Summer 2024
Project End Date:	Spring 2025

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security

1. The Construction Management Plan, Sheet C7.2, depicts all proposed fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. If applicable, Construction entrances per detail shall be installed.

2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*

3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
    - Good Housekeeping
    - On-site security
    - Installation of new fire protection systems as construction progresses
    - Preservation of existing systems during demolition
    - Organization and training of an on-site fire brigade
    - Development of a pre-fire plan with the local fire department
    - Rapid communication
    - Consideration of special hazards resulting from previous occupancies
    - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.

4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.

5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

   Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction

activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.

2. Sewer and Stormwater

   Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual.

3. Traffic Control Plans

   Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

   The MOT will address the work required for utility connections in Park Ave. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

   The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of the street during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

   - Construction speed signing may be used as needed to slow traffic.
   - Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
   - Flaggers will be utilized when necessary.

   All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance in all capacities shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.

2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.

3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.

4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.

5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.

6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:

    a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
    b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
    c. Clear all walks and ramps within the work zone
    d. Sand or salt as needed
    e. Clear all basin or drainage to help snow melt
    f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion & Sedimentation Control

1. The Contractor shall install all erosion and sedimentation controls as depicted on the approved Construction Management Plan, C7.2, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection

by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. Due to the existing, sparse landscaping on site, only minor protection during construction will be necessary.

3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.

2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.

3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.

2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:

    - Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
    - General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
    - Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
    - Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

    Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.

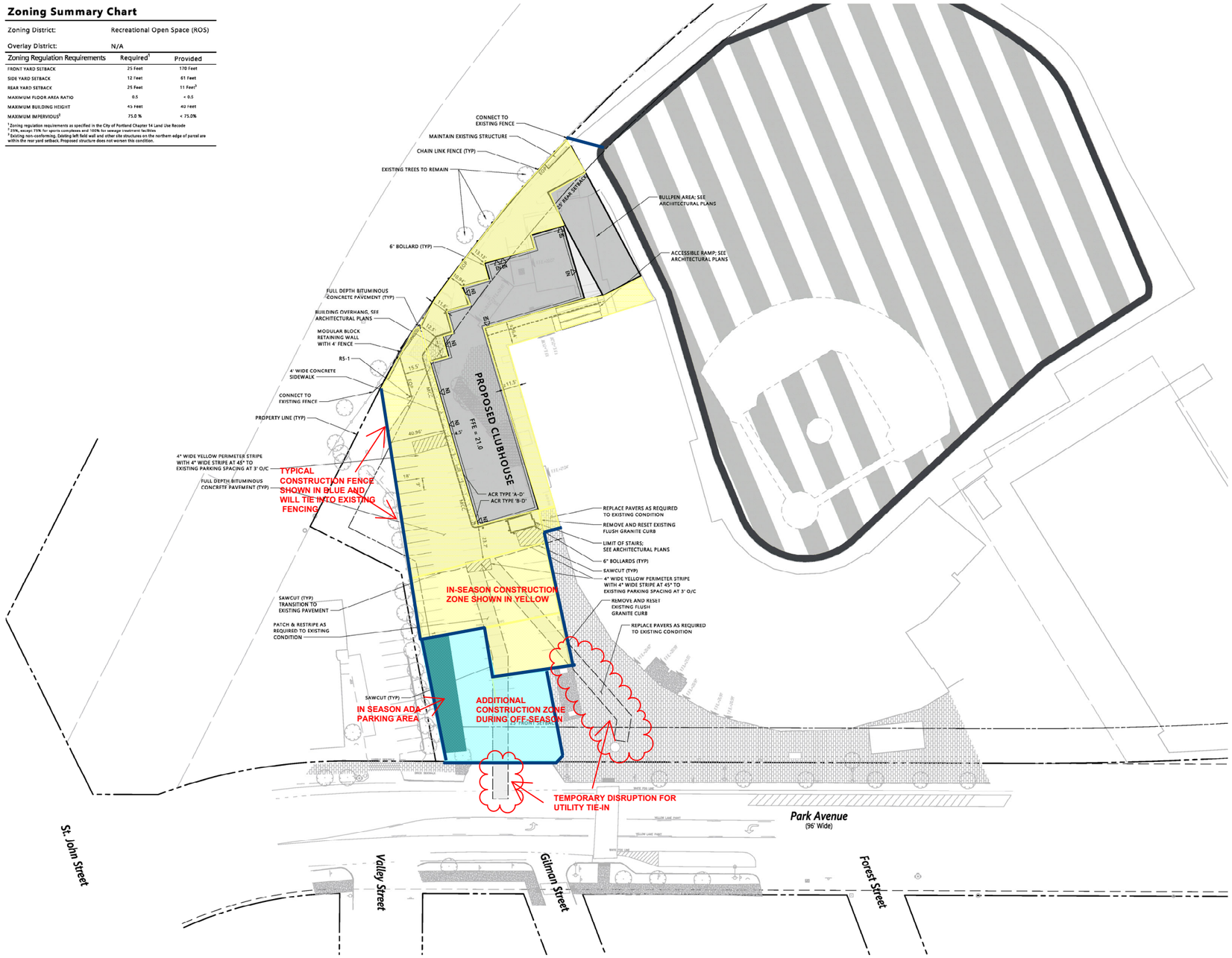
Construction Management Plan 2

Zoning Summary Chart

Zoning District:	Recreational Open Space (ROS)
Overlay District:	N/A

Zoning Regulation Requirements	Required[1]	Provided
FRONT YARD SETBACK	25 Feet	170 Feet
SIDE YARD SETBACK	12 Feet	61 Feet
REAR YARD SETBACK	25 Feet	11 Feet[2]
MAXIMUM FLOOR AREA RATIO	0.5	< 0.5
MAXIMUM BUILDING HEIGHT	45 Feet	40 Feet
MAXIMUM IMPERVIOUS[1]	75.0 %	< 75.0%

[1] Zoning regulation requirements as specified in the City of Portland Chapter 14 Land Use Recode
[1] 25%, except 75% for sports complexes and 100% for sewage treatment facilities
[2] Existing non-conforming. Existing left field wall and other site structures on the northern edge of parcel are within the rear yard setback. Proposed structure does not worsen this condition.



*NOTE: REFER TO BASIS OF DESIGN FOR CONSTRUCTION AND MATERIAL INFORMATION.
*NOT FOR CONSTRUCTION.

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vhb
500 Southborough Drive
Suite 105B
South Portland, ME 04106
207.889.3150

Great Falls CONSTRUCTION

DBH - PORTLAND LLC

CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT:
Great Falls Construction's Construction Management Plan

DRAWN BY:	JRH
PROJECT NO:	23-104-00
DATE:	04/12/2024
REVISED:	
SCALE:	1" = 30'

C7.2

Project Phase
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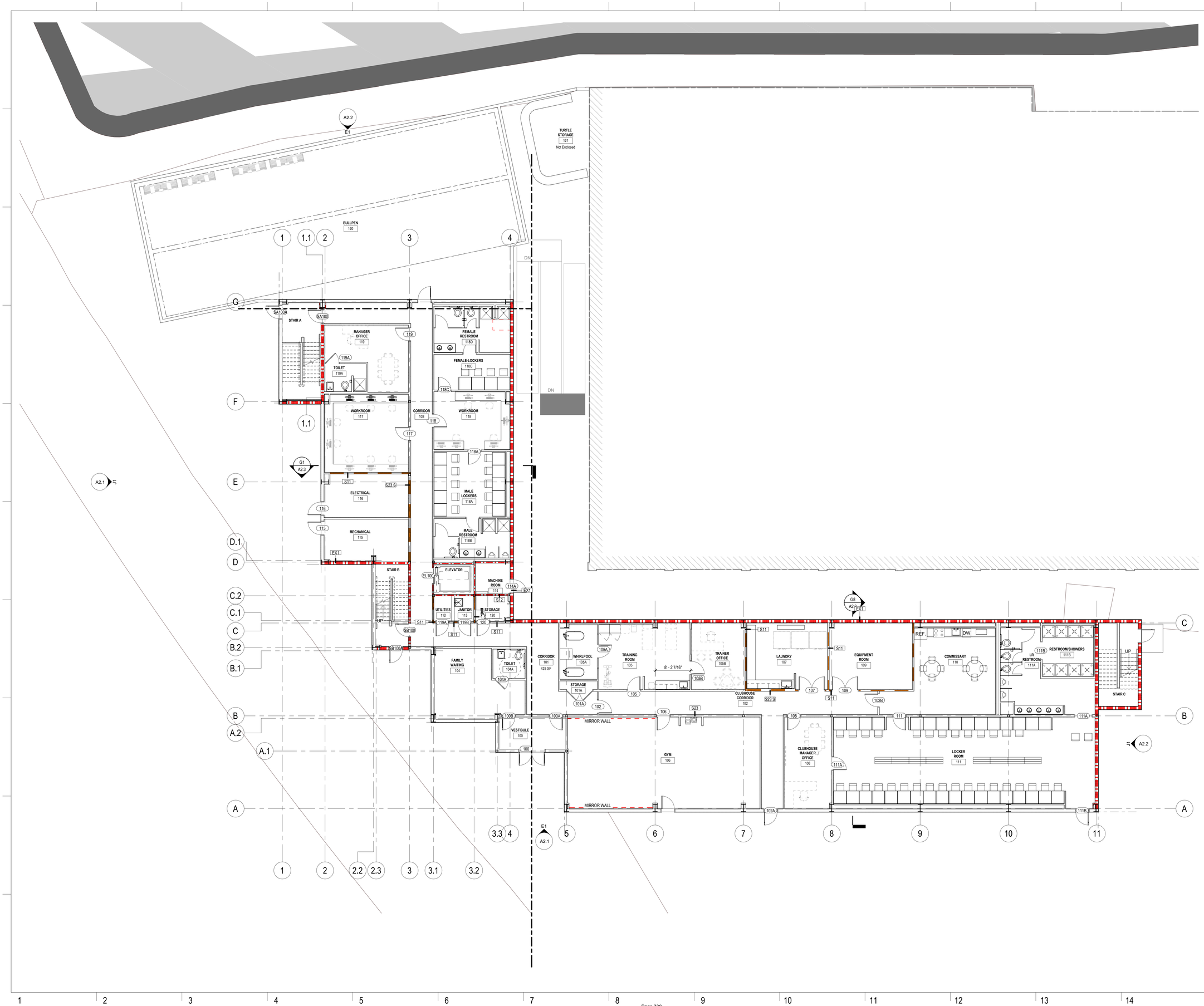

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

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CONTENT:	FIRST FLOOR PLAN
DRAWN BY:	JEA
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A1.1a

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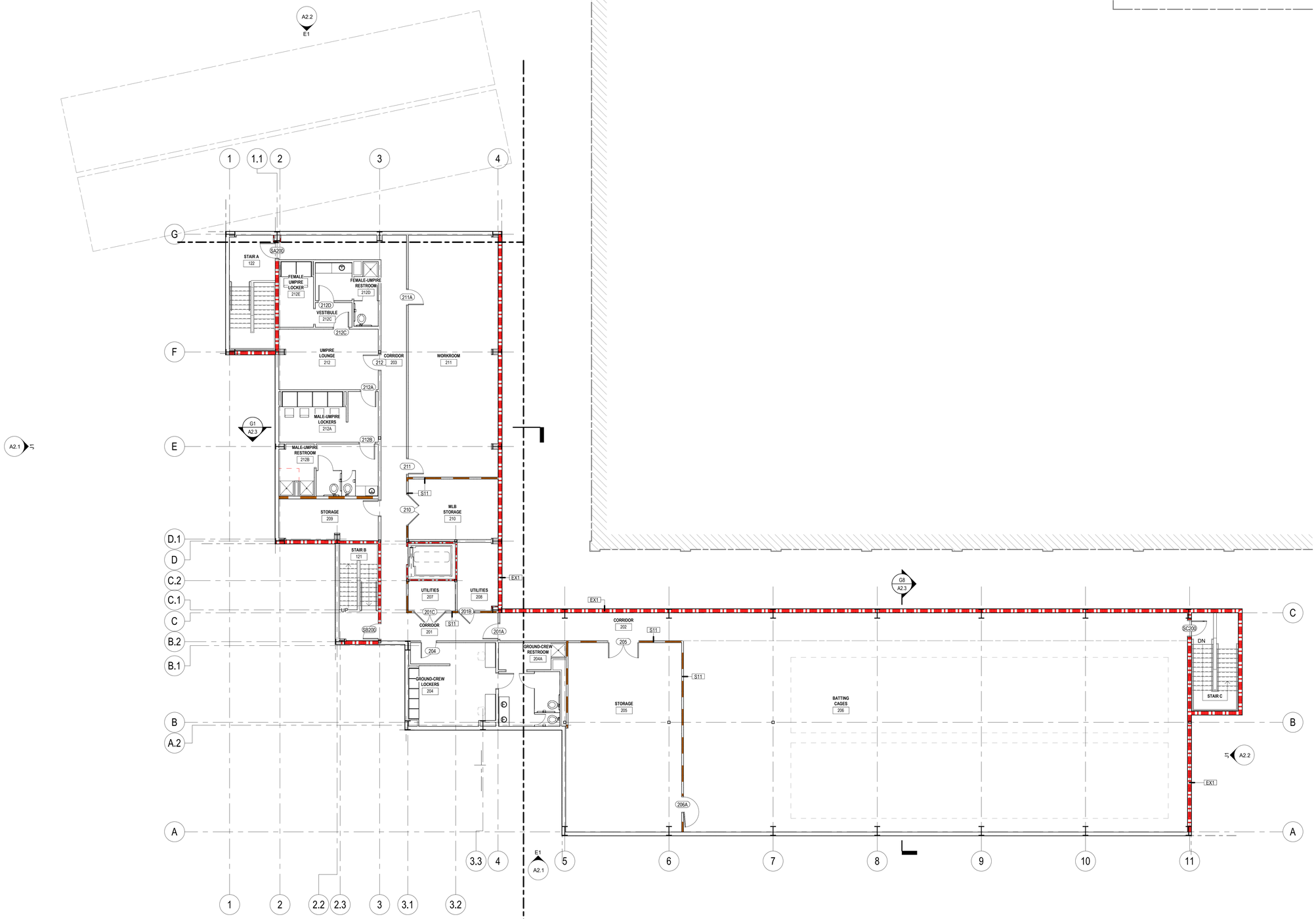

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Hadlock Field, 271 Park Ave.
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NO.	DESCRIPTION	DATE

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CONTENT:
SECOND FLOOR PLAN

DRAWN BY:	JEA III
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A1.2a

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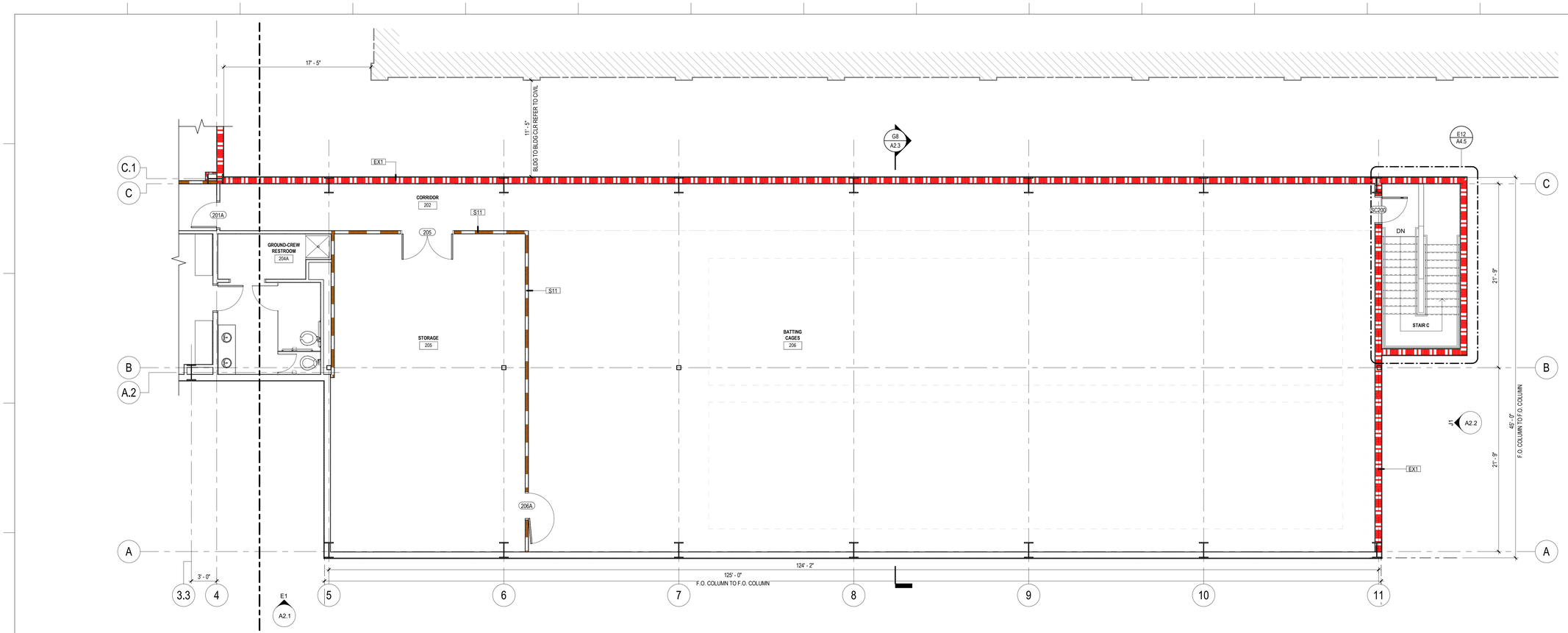
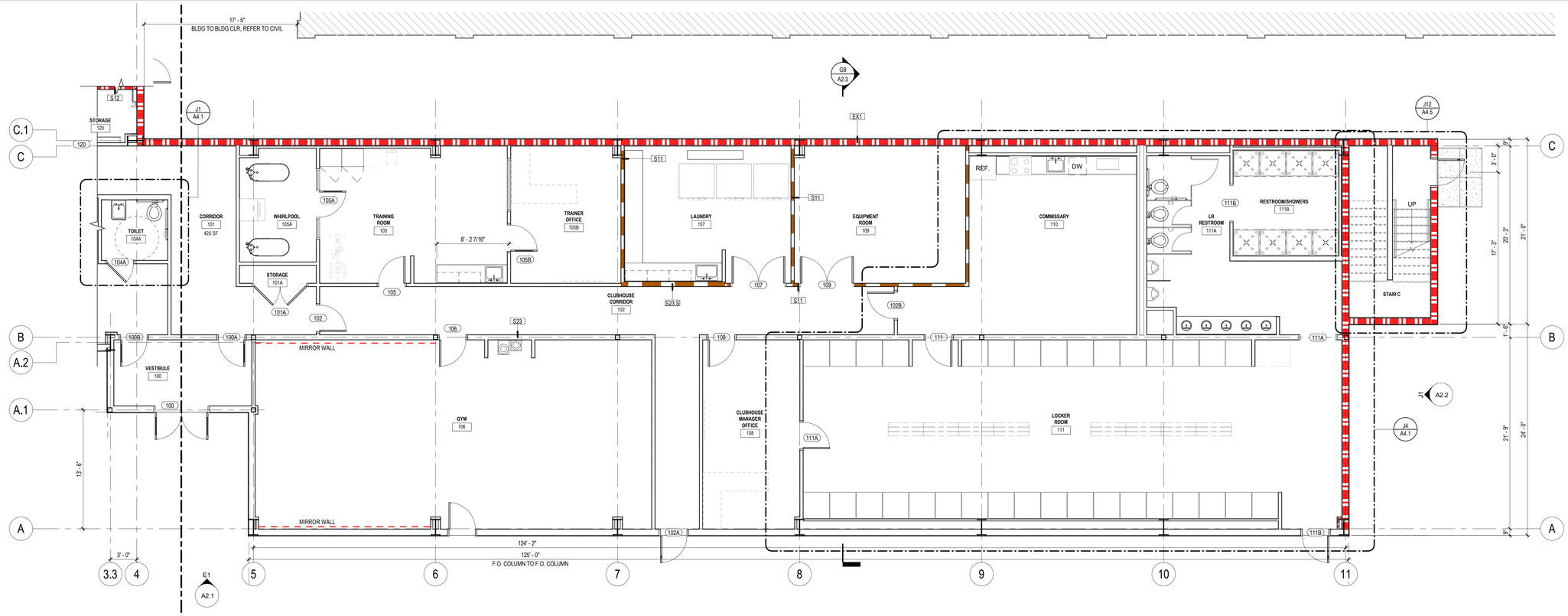


E1 LEVEL 2 - CONSTRUCTION PLAN - AREA A
A1.1b 3/16" = 1'-0"



J1 LEVEL 1 - CONSTRUCTION PLAN - AREA A
A1.1b 3/16" = 1'-0"

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Hadlock Field, 271 Park Ave.
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NO.	DESCRIPTION	DATE

CONTENT:
LEVEL 1 / LEVEL 2 FLOOR PLAN - AREA A

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	3/16" = 1'-0"

A1.1b

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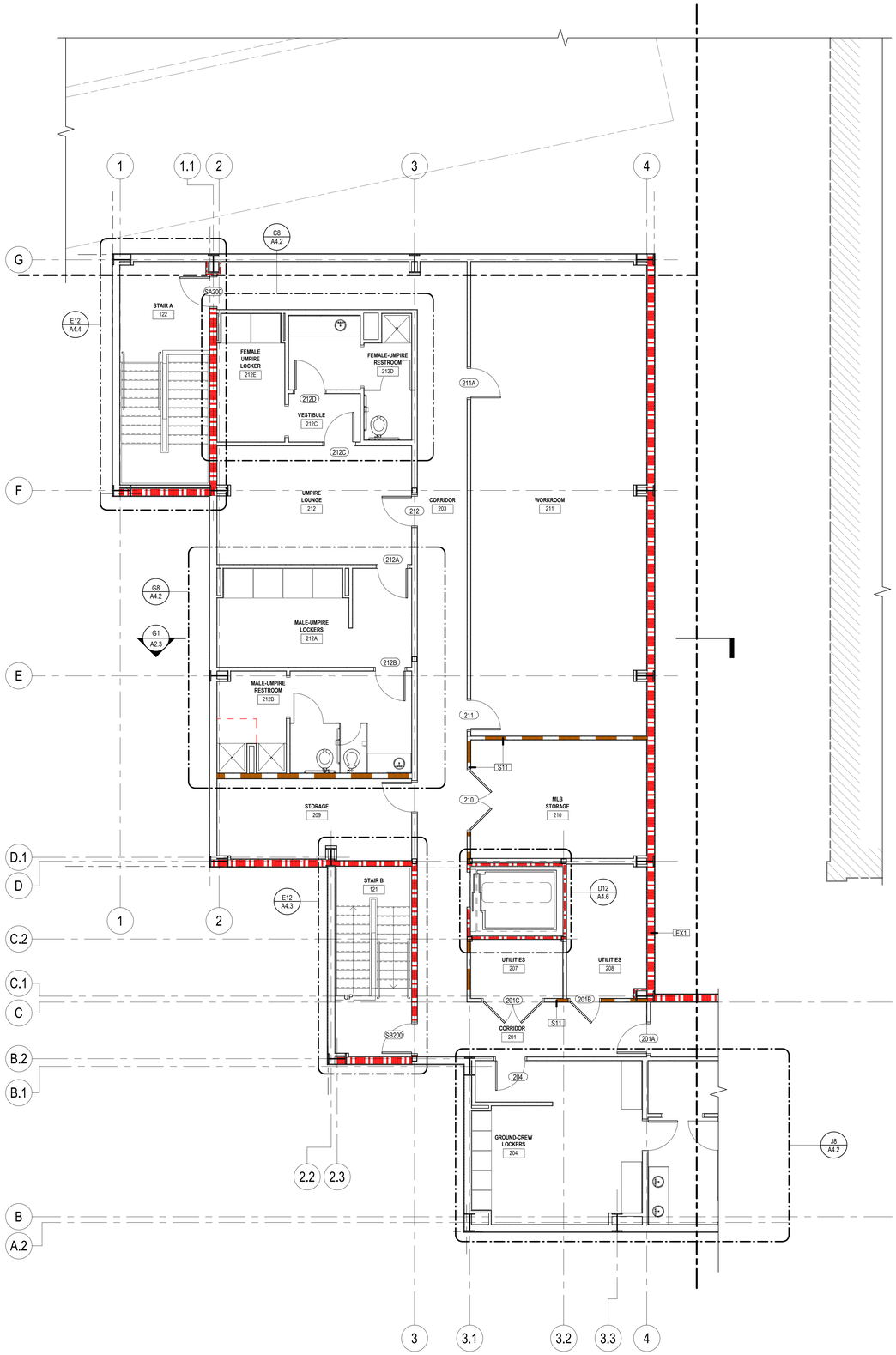

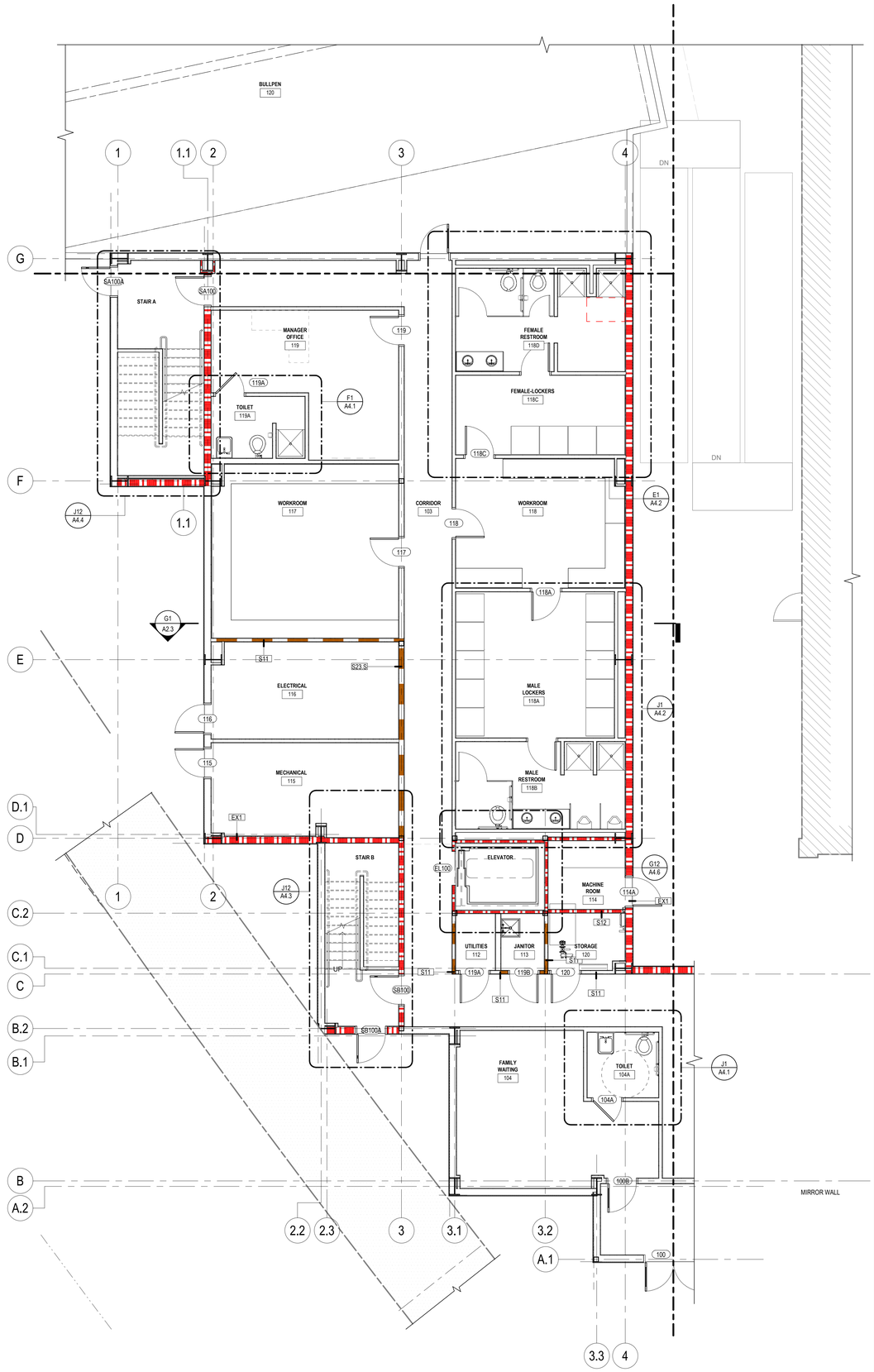

J1 LEVEL 2 - CONSTRUCTION PLAN - AREA B
A1.2b 3/16" = 1'-0"

J8 LEVEL 1 - CONSTRUCTION PLAN - AREA B
A1.2b 3/16" = 1'-0"

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT:
LEVEL 1 / LEVEL 2 FLOOR PLAN - AREA B

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	3/16" = 1'-0"

A1.2b

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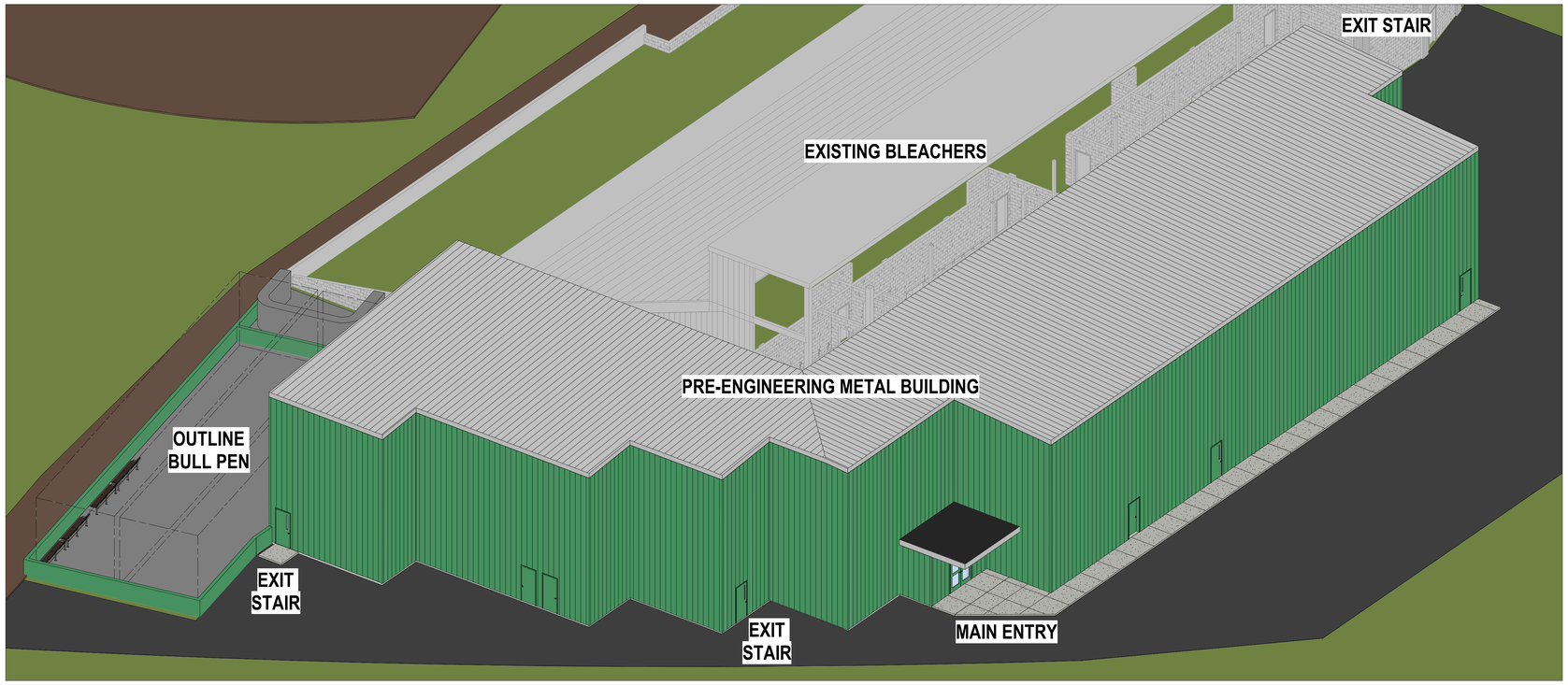

J1 A2.0a ISOEMTRIC #2

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT:
EXTERIOR ISOMETRIC

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DATE:	04/19/2024
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SCALE:	

A2.0a

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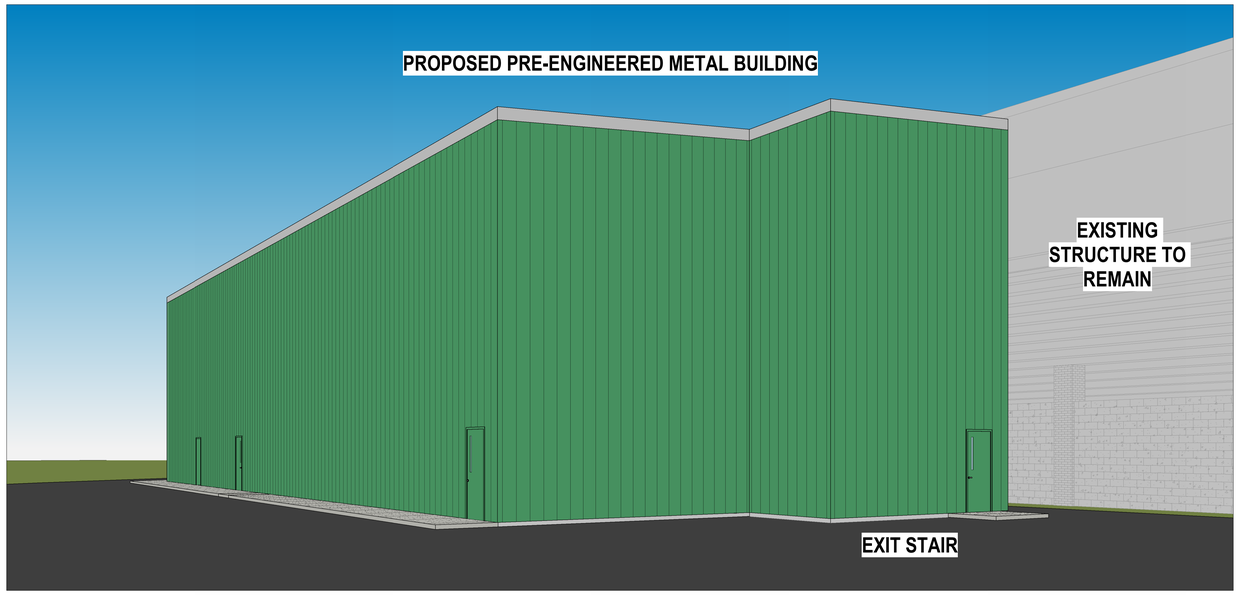
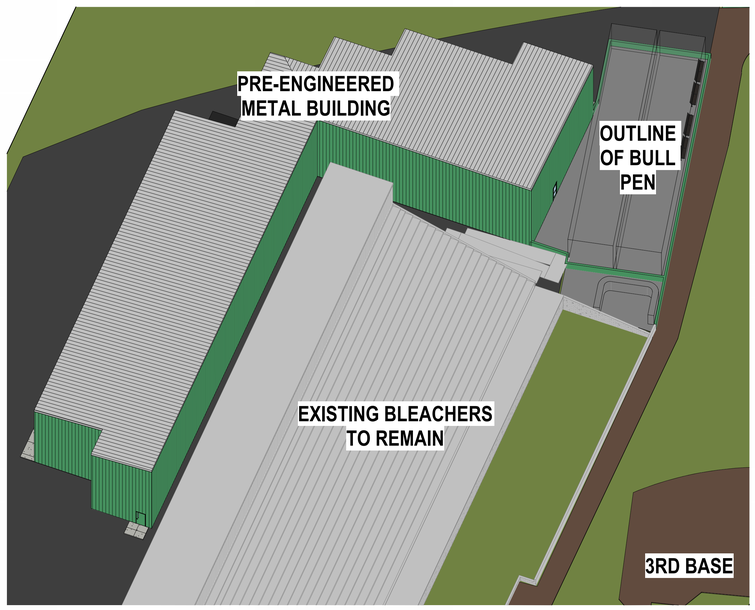
2 A2.0b PERSPECTIVE FROM BACK DRIVEWAY



1 A2.0b PERSPECTIVE FROM PARKING AREA



4 A2.0b ISOMETRIC VIEW



3 A2.0b PERSPECTIVE FROM OUTFIELD (3RD BASE)

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Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT:
PERSPECTIVES AND ISOMETRIC

DRAWN BY:	JEA III
PROJECT NO:	23-104-00
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SCALE:	

A2.0b

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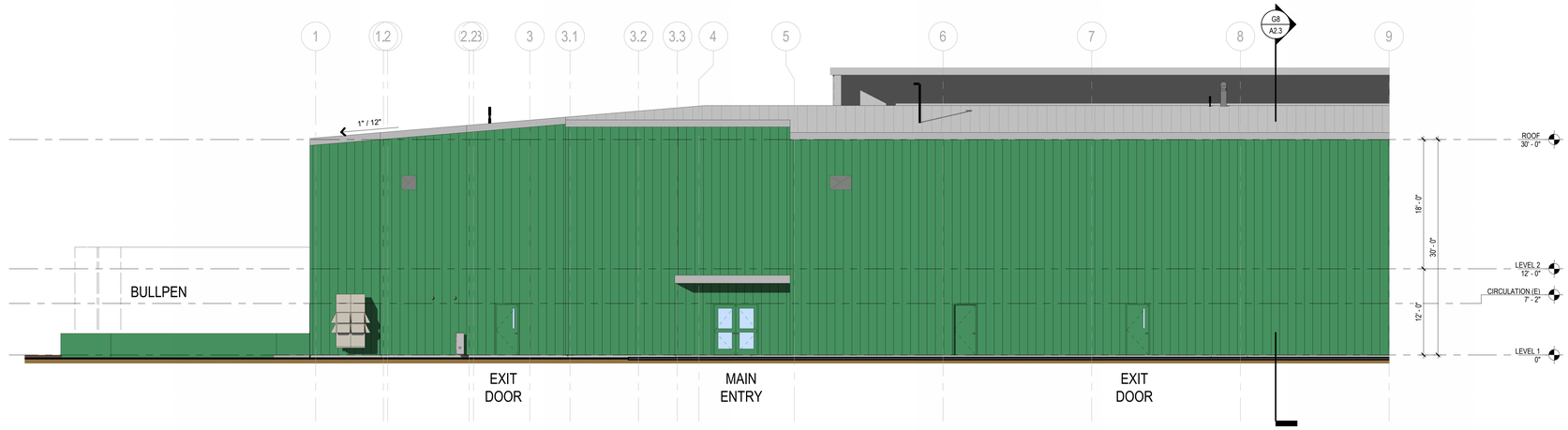

E1 WEST ELEVATION
A2.1 1/8" = 1'-0"



J1 NORTH ELEVATION
A2.1 1/8" = 1'-0"

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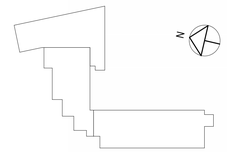

CONTENT:
EXTERIOR ELEVATIONS

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PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A2.1

Project Phase
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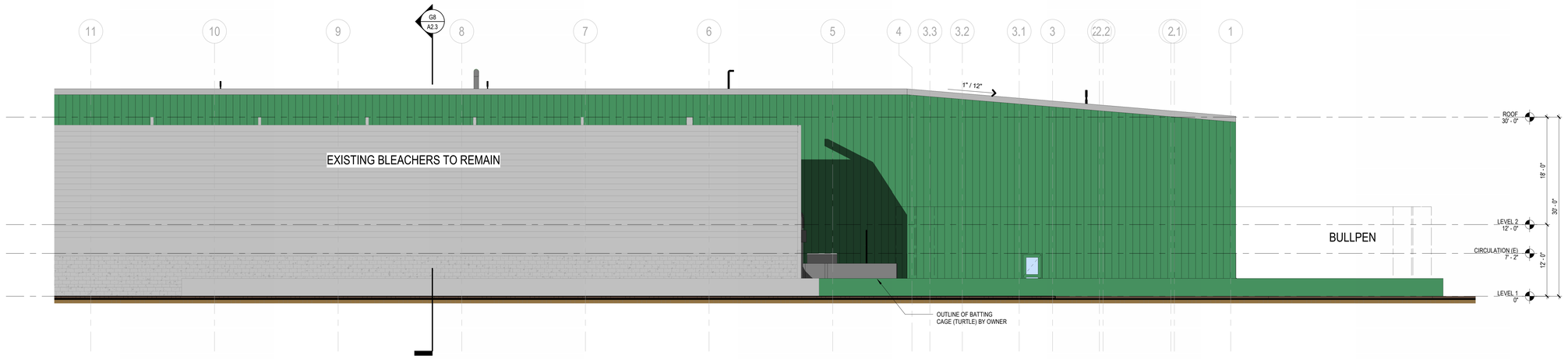
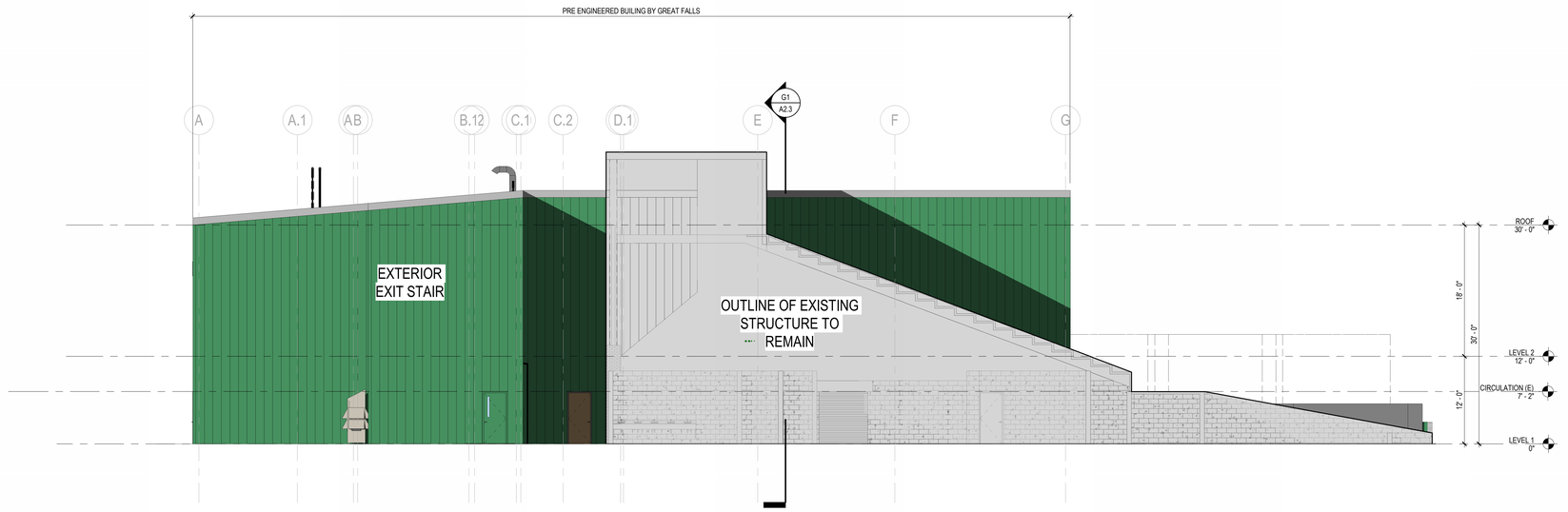


E1 EAST ELEVATION
A2.2 1/8" = 1'-0"



J1 SOUTH ELEVATION
A2.2 1/8" = 1'-0"

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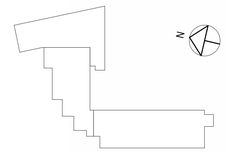
CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE



CONTENT:
EXTERIOR ELEVATIONS

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A2.2

Project Phase
BID PACKAGE #1

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June 12, 2024

Ref: Portland Sea Dogs Clubhouse Additions
Neighborhood Meeting Certification

I, David Senus hereby certify that a neighborhood meeting was held on June 12, 2024 at Hadlock Stadium at 6:00 pm for the proposed project located at 271 Park Avenue, Portland, Maine.

I also certify that on May 30, 2024, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development (1,000 feet for subdivisions within an industrial zone or industrial zone changes).
2. Residents on the "interested parties" list.

Signed,

David Senus, PE

Attachments

1. Copy of the notice sent
2. Sign-in sheet

Copy of Notice Sent

May 29, 2024

Ref: Portland Sea Dogs Clubhouse Addition - Site Plan Review Process
Neighborhood Meeting Invitation

Dear Neighbor:

On Wednesday, June 12, 2024 at 6 PM, VHB invites you to attend a Neighborhood Meeting where we will present plans for a clubhouse addition to Hadlock Field for the Portland Sea Dogs (271 Park Avenue, Portland, Maine). The Portland Sea Dogs are adding a new clubhouse to Hadlock Field for conformance with league rules. The proposed building is a 23,600 sf, 2-story pre-engineered metal building to be located adjacent to the existing stadium. The building addition will provide lockers, restrooms, showers, baseball workout areas and general utilities. This project is primarily for the players, umpires, and ground crew; there will be no public access to this new building addition.

Meeting Location: Hadlock Field Function Room (located within the Stadium)
271 Park Avenue, Portland, Maine

Meeting Date: June 12, 2024

Meeting Time: 6 PM to 7 PM

The City of Portland's Land Use Code requires that neighboring property owners and residents on an "interested parties list" be invited to participate in this neighborhood meeting. A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board.

If you have any questions, please call 207.536.2583.

Sincerely,

David Senus, PE
VHB Senior Project Manager

Note:
Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

Sign-in Sheet

June 12, 2024
Hadlock Field
Portland Sea Dogs Clubhouse Additions
271 Park Avenue
Portland, Maine 04102

Members of the Public in Attendance:

Name	Email

Developer and Consultant Team in Attendance:

Name	Email
Dave Senus	dsenus@vhb.com
Jason Howe	jhowe@vhb.com
Geoff Iacuessa	geoff@seadogs.com

June 10, 2024

Ref: PL-002896-2024

Ameriz Gamez, Planner
Planning & Urban Development Department
389 Congress Street
Portland, Maine 04101
agamez@portlandmaine.gov

Re: Notice of Public Meeting Certification - PL-002896-2024 (Sea Dogs Clubhouse Addition)

Dear Ameriz:

I, David Senus (VHB) hereby certify that a notice of neighborhood meeting sign was posted from May 31, 2024 to June 11, 2024 (tomorrow) prior to the public workshop held on June 11, 2024 for the proposed project PL-002896-2024 located at 235 Park Ave (Planning Assigned Address) / 271 Park Ave (physical address).



Sincerely,

David Senus, P.E.
VHB Senior Project Manager

Department of Public Works
Mike Murray
Director

Date: June 25, 2024
Re: Wastewater Capacity Authorization
Address: 271 Park Avenue (235 Park Avenue - PL-002896-2024)
Applicant: City of Portland
Planner: Ameriz Gamez

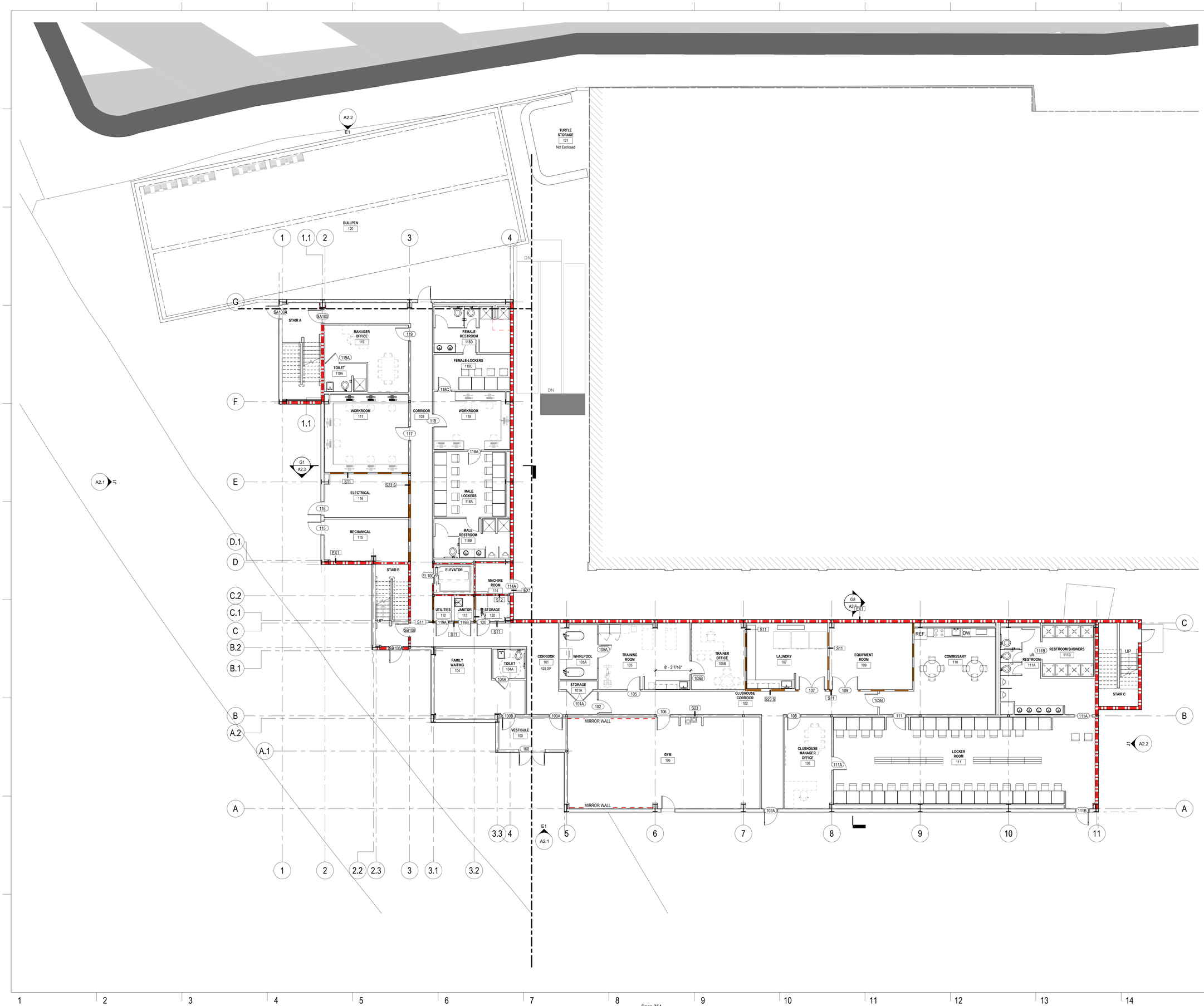
Estimate of Anticipated Wastewater Flows				
Development	**Unit Size**	**Number of Units**	**Gallons per Day per Unit**	**Total Gallons per Day**
Existing Flow				
Stadium	# Seats	7368	5 GPD/Seat	36840
Proposed flow				
Stadium	# Seats	6868 (Reduction)	5 GPD/Seat	34340
Clubhouse Addition (Sports Center – Fitness)	# Sq Ft	4587	50 gal / 100 sq ft	2294
Net Change				**- (206)**
*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.

You are also reminded that new connections into the combined sewer system shall be equipped with backflow prevention in accordance with Section 2.6.10 of the City's Technical Manual.

If the City can be of further assistance, please contact me at 207-874-8840 or brad@portlandmaine.gov
Sincerely,

Bradley A. Roland, P.E., Senior Project Engineer



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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

FOR ADDITIONAL INFORMATION, REFER TO PROJECT MANUAL.

CONTENT:	FIRST FLOOR PLAN
DRAWN BY:	JEA
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A1.1a

Project Phase
BID PACKAGE #1

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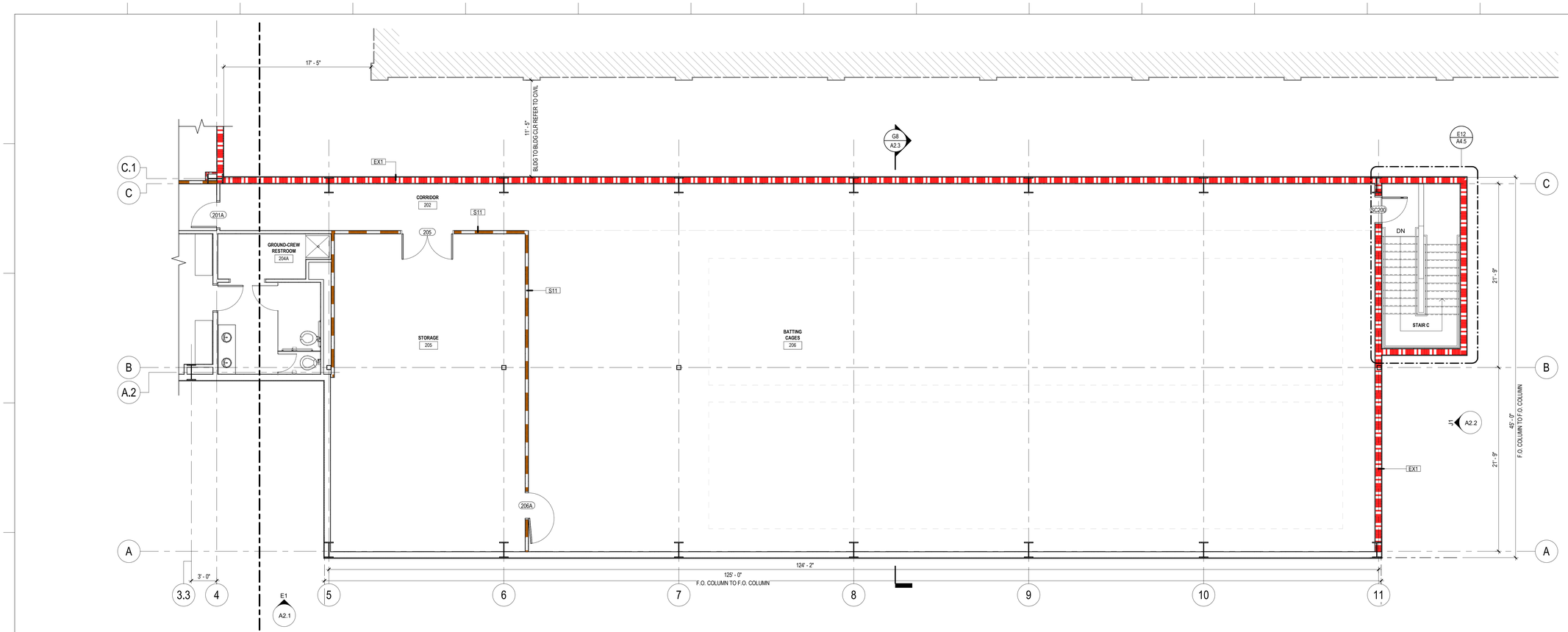
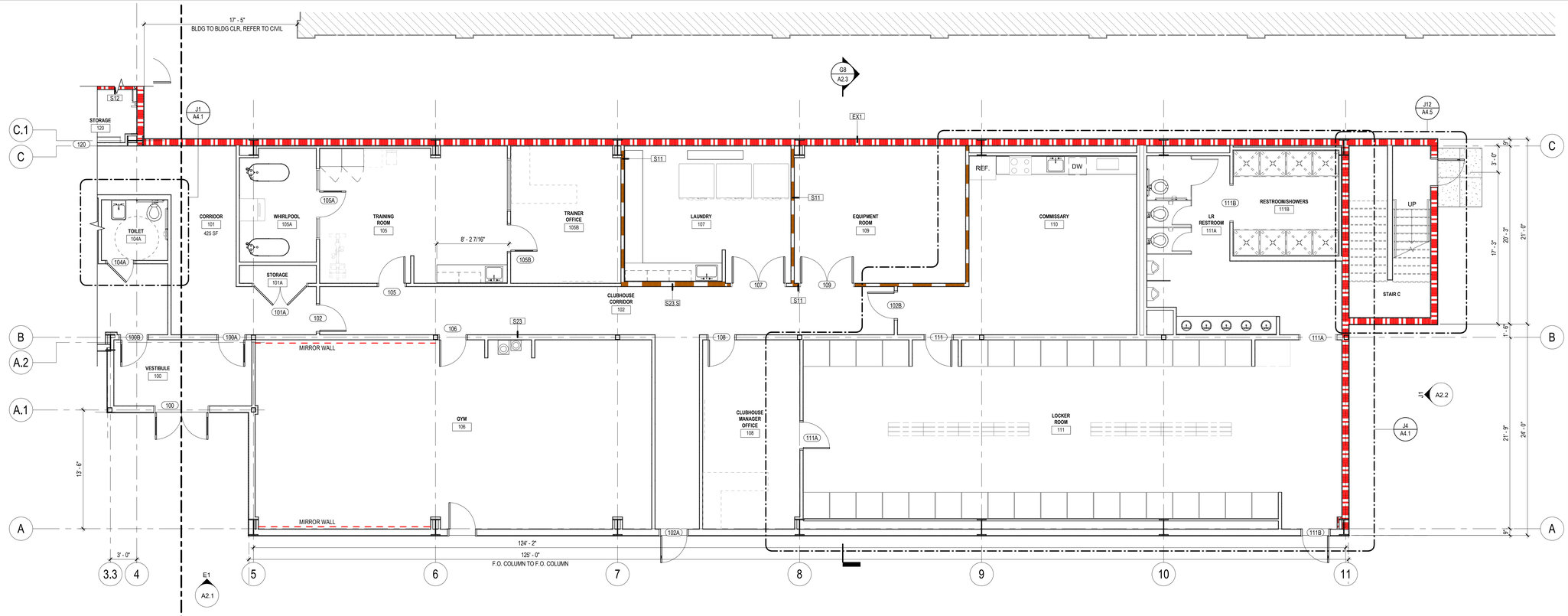


E1 LEVEL 2 - CONSTRUCTION PLAN - AREA A
A1.1b 3/16" = 1'-0"



J1 LEVEL 1 - CONSTRUCTION PLAN - AREA A
A1.1b 3/16" = 1'-0"

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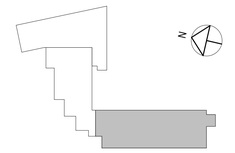
CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE



CONTENT:
LEVEL 1 / LEVEL 2 FLOOR PLAN - AREA A

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	3/16" = 1'-0"

A1.1b

Project Phase
BID PACKAGE #1

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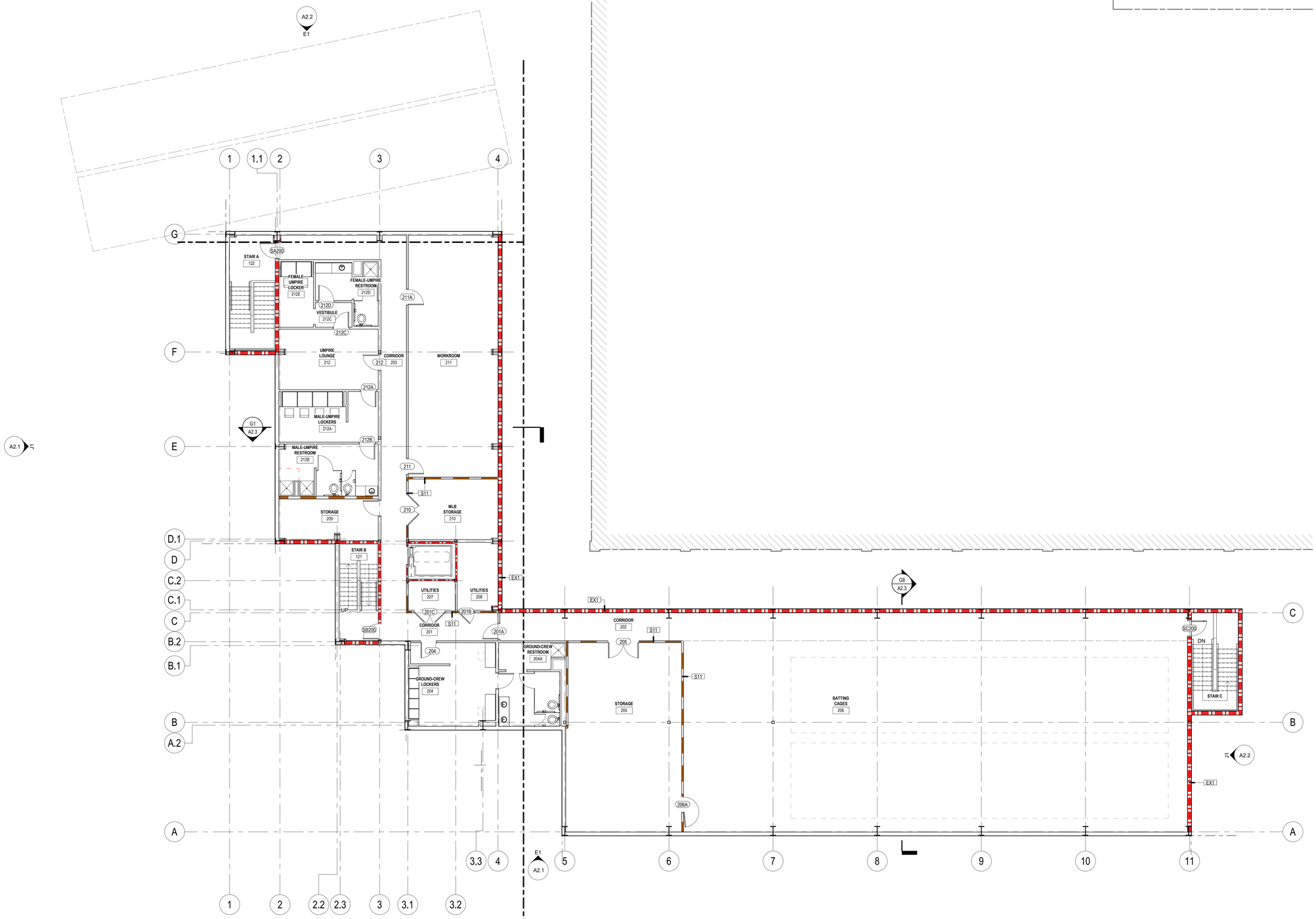

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT:
SECOND FLOOR PLAN

DRAWN BY:	JEA III
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A1.2a

Project Phase
BID PACKAGE #1

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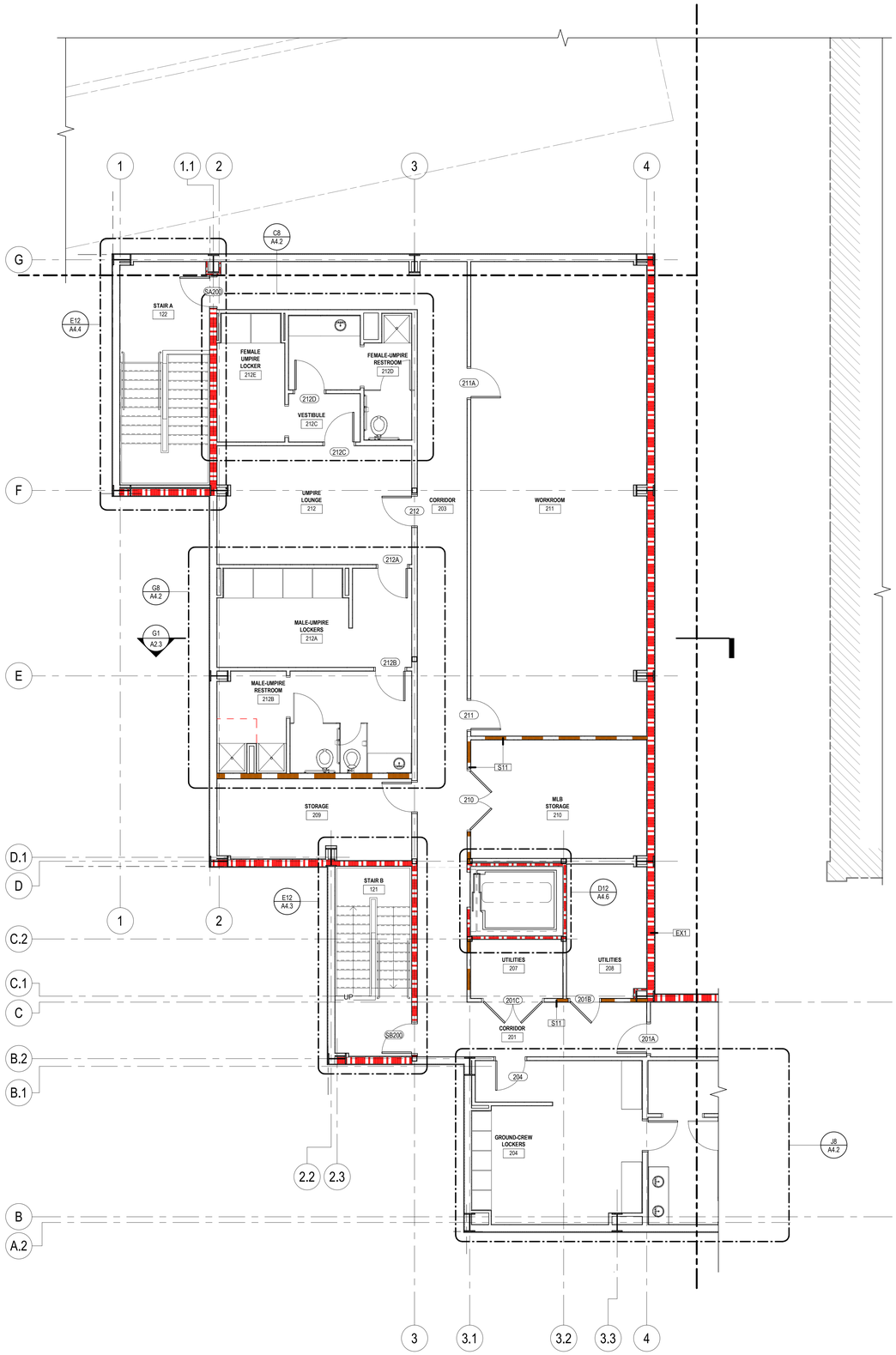
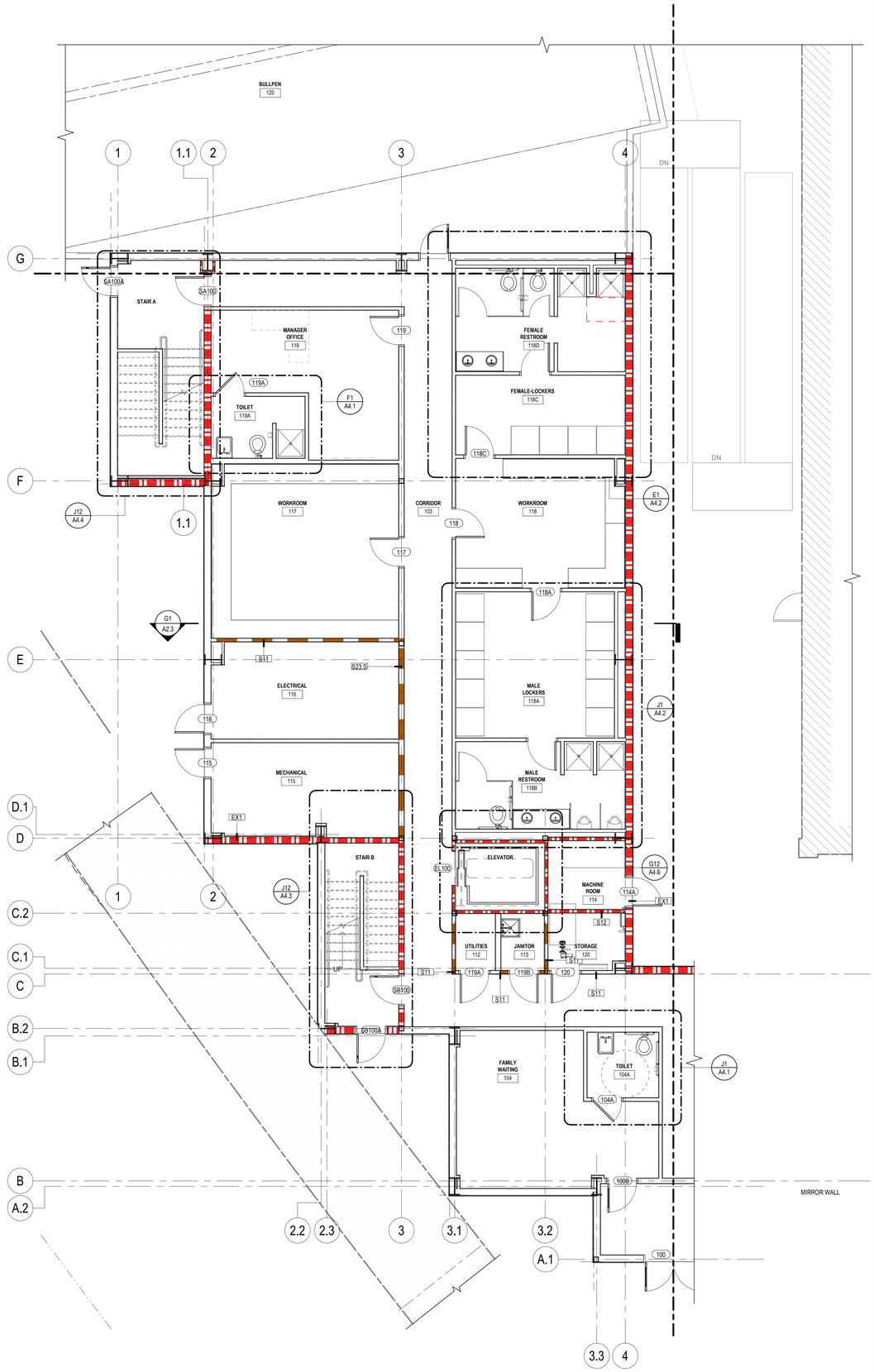


J1 LEVEL 2 - CONSTRUCTION PLAN - AREA B
A1.2b 3/16" = 1'-0"



J8 LEVEL 1 - CONSTRUCTION PLAN - AREA B
A1.2b 3/16" = 1'-0"

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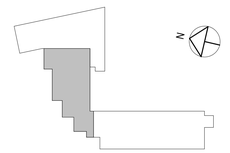
CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE



CONTENT:
LEVEL 1 / LEVEL 2 FLOOR PLAN - AREA B

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	3/16" = 1'-0"

A1.2b

Project Phase
BID PACKAGE #1

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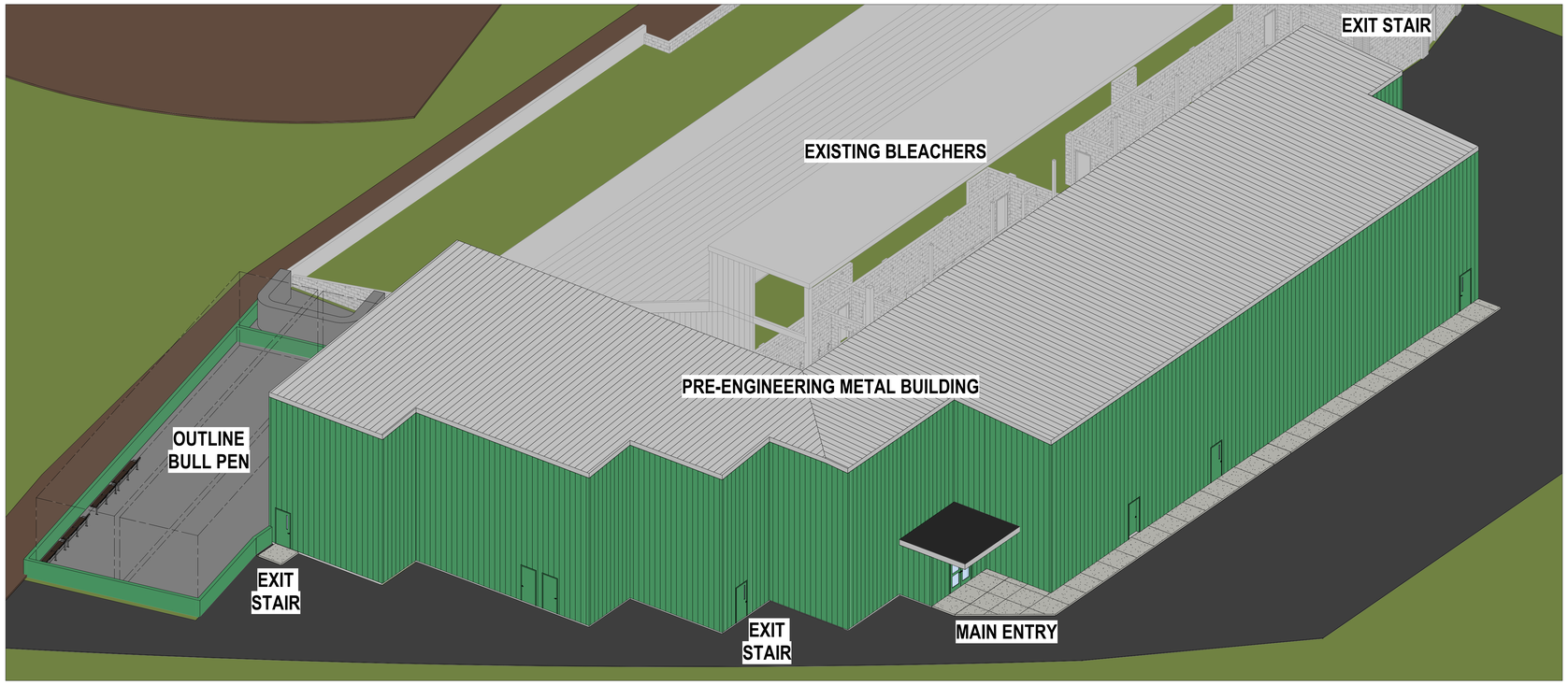

J1
A2.0a
ISOEMTRIC #2

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
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NO.	DESCRIPTION	DATE

CONTENT:
EXTERIOR ISOMETRIC

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	

A2.0a

Project Phase
BID PACKAGE #1

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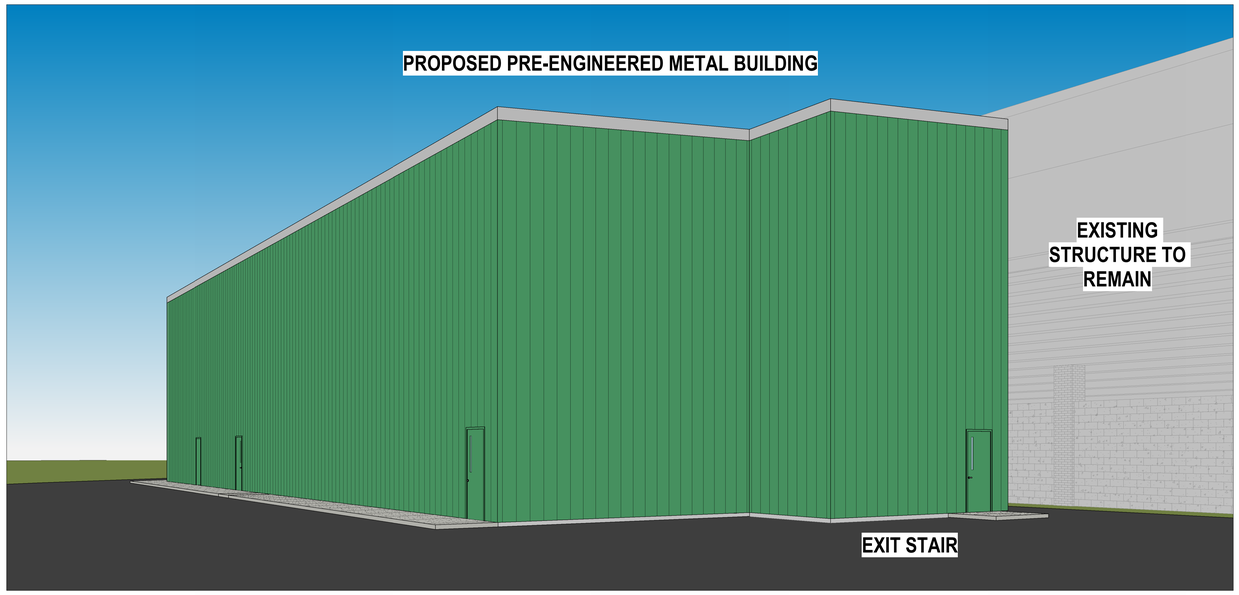
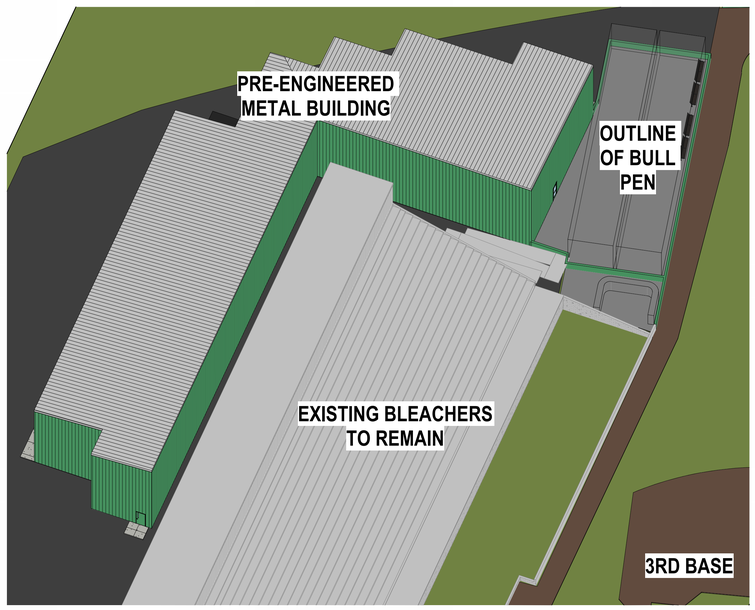
2 A2.0b PERSPECTIVE FROM BACK DRIVEWAY



1 A2.0b PERSPECTIVE FROM PARKING AREA



4 A2.0b ISOMETRIC VIEW



3 A2.0b PERSPECTIVE FROM OUTFIELD (3RD BASE)

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CLUBHOUSE ADDITION

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NO.	DESCRIPTION	DATE

CONTENT:
PERSPECTIVES AND ISOMETRIC

DRAWN BY:	JEA III
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	

A2.0b

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BID PACKAGE #1

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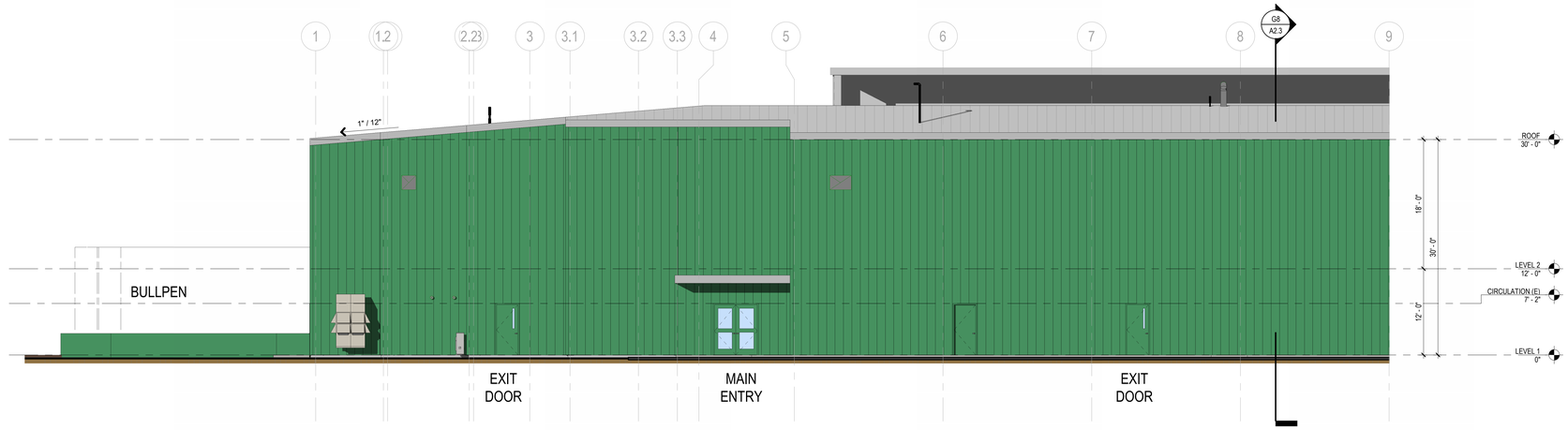

E1 WEST ELEVATION
A2.1 1/8" = 1'-0"



J1 NORTH ELEVATION
A2.1 1/8" = 1'-0"

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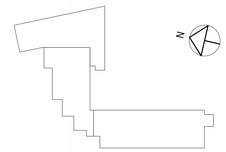
NO.	DESCRIPTION	DATE



CONTENT:
EXTERIOR ELEVATIONS

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A2.1

Project Phase
BID PACKAGE #1

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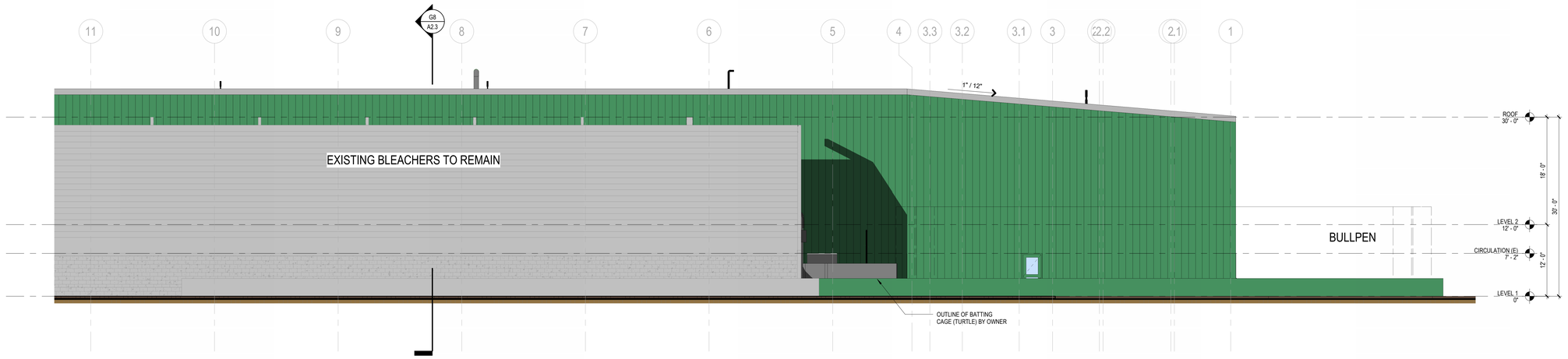
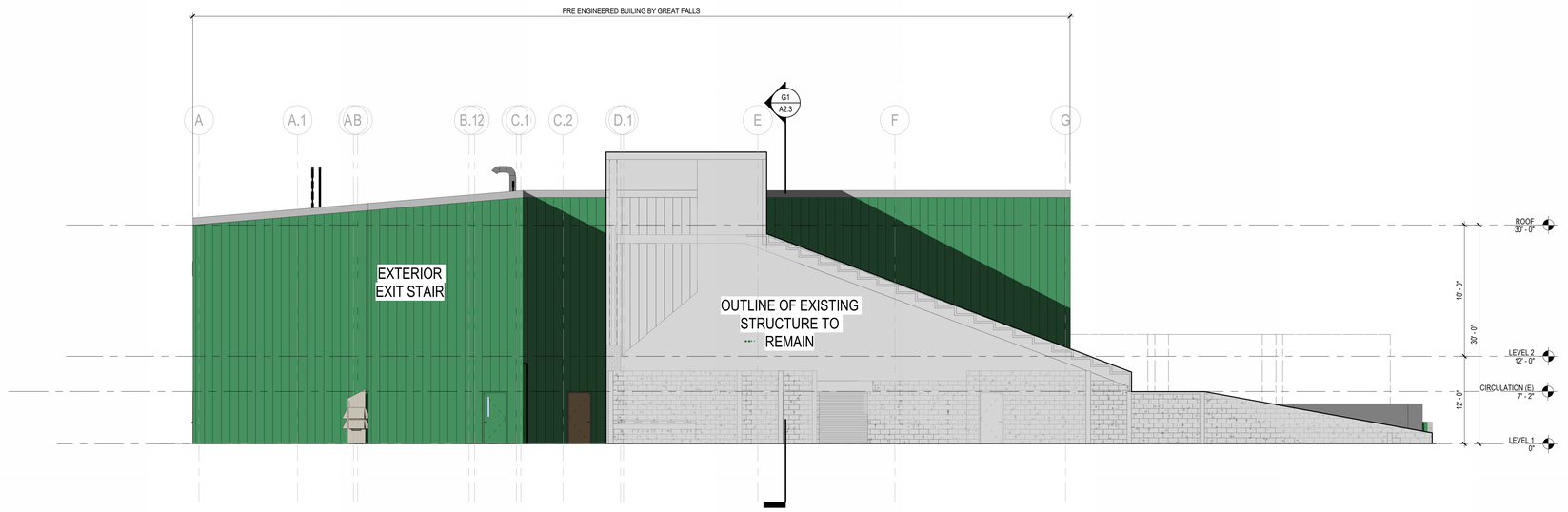


E1 EAST ELEVATION
A2.2 1/8" = 1'-0"



J1 SOUTH ELEVATION
A2.2 1/8" = 1'-0"

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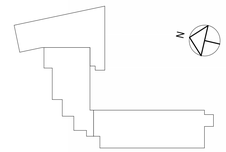
CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE



CONTENT:
EXTERIOR ELEVATIONS

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	04/19/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A2.2

Project Phase
BID PACKAGE #1

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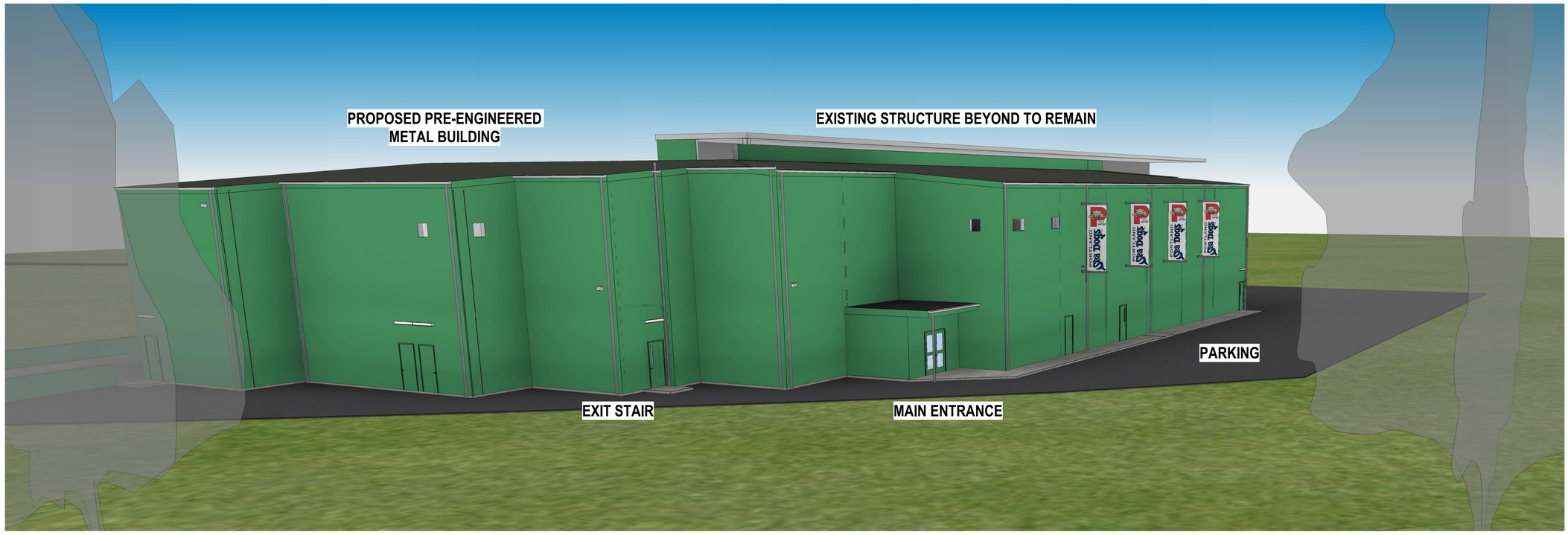

E1 A2.3 PERSPECTIVE FROM TRACKS



J1 A2.3 PERSPECTIVE FROM ROADWAY

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CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE

CONTENT: PERSPECTIVES

DRAWN BY:	JEA III
PROJECT NO:	23-104-00
DATE:	06/17/2024
REVISED:	
SCALE:	

A2.3

Project Phase
BID PACKAGE #2 - 100% CDs

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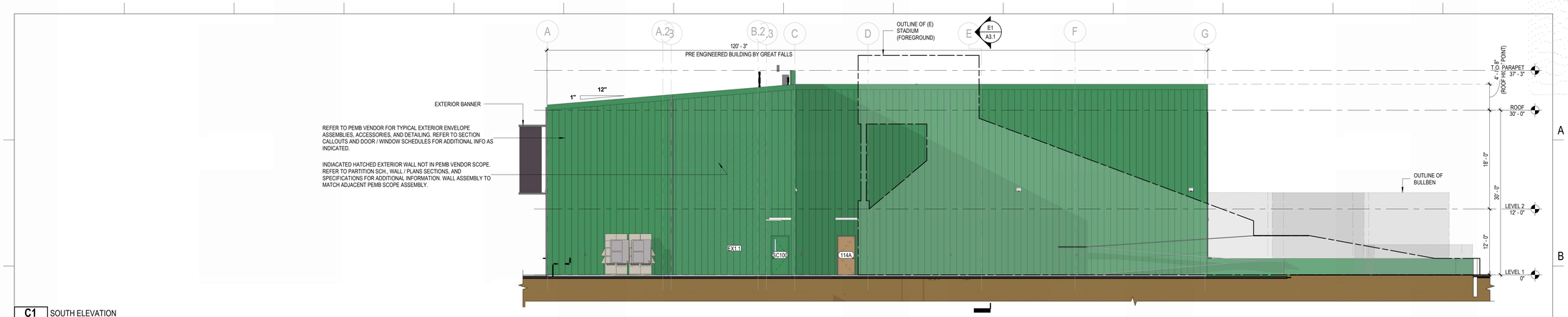
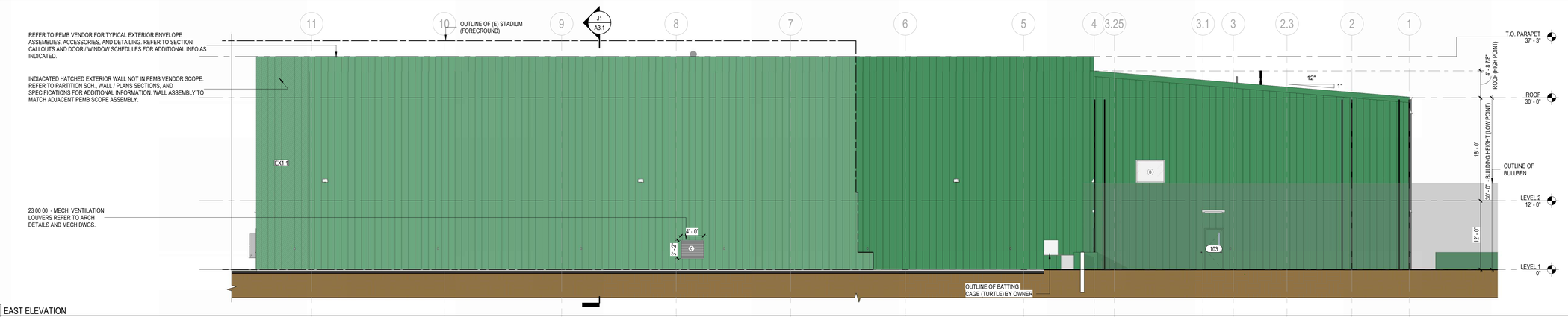
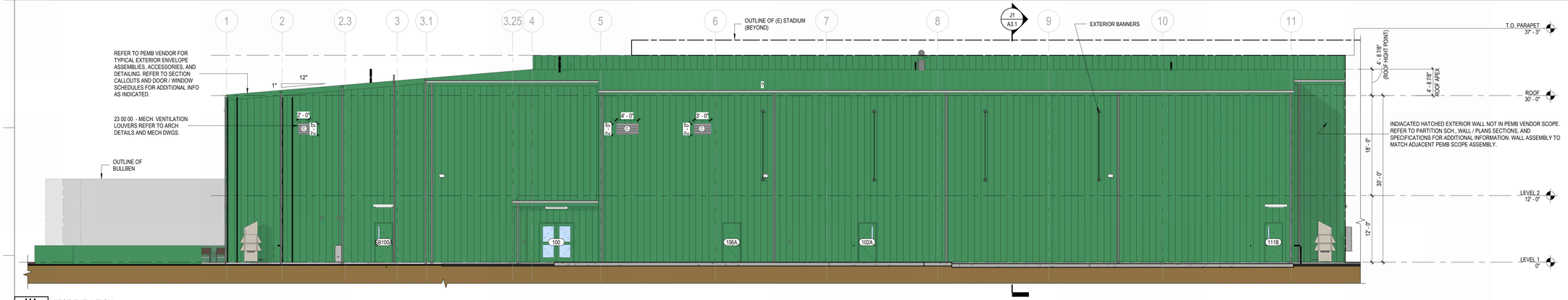


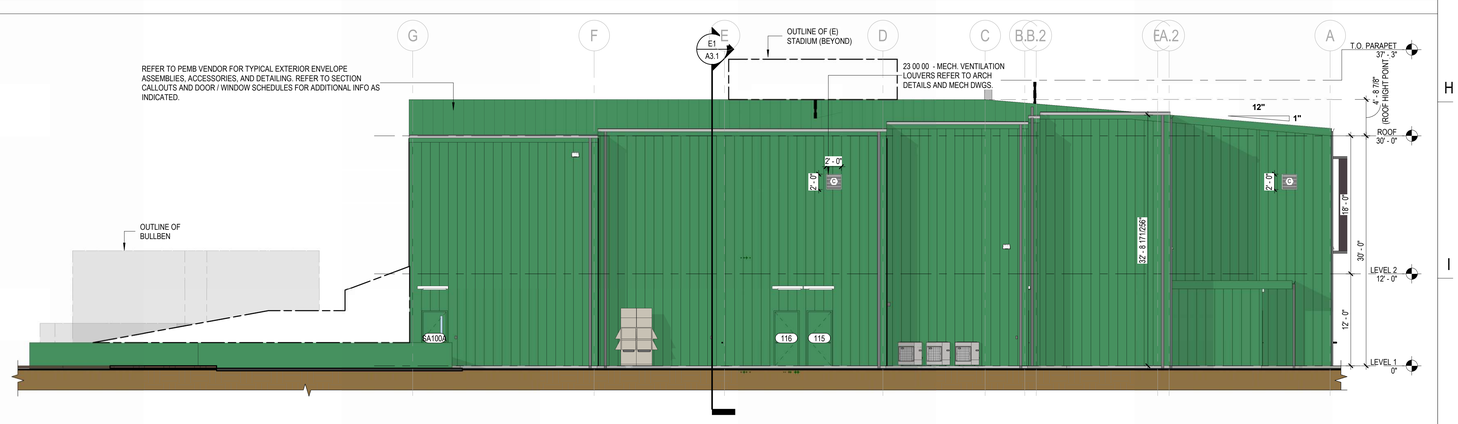
C1 SOUTH ELEVATION
A2.4 1/8" = 1'-0"



E1 EAST ELEVATION
A2.4 1/8" = 1'-0"



H1 WEST ELEVATION
A2.4 1/8" = 1'-0"



J1 NORTH ELEVATION
A2.4 1/8" = 1'-0"

1 2 3 4 5 6 7 8 9 10 11 12 13 14

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CLUBHOUSE ADDITION

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Porland, ME 04102

NO.	DESCRIPTION	DATE



FOR ADDITIONAL INFORMATION, REFER TO PROJECT MANUAL

CONTENT: EXTERIOR ELEVATIONS

DRAWN BY:	MOL
PROJECT NO:	23-104-00
DATE:	06/17/2024
REVISED:	
SCALE:	1/8" = 1'-0"

A2.4

Project Phase
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7/2/2024 1:25:17 PM

Site Plans

Issued for	**Site Plan Review**
Date Issued	**April 19, 2024**
Latest Issue	**April 19, 2024**

Portland Sea Dogs Clubhouse Addition

Hadlock Field
165 Park Avenue
Portland, Maine 04102



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Assessor's Map: 52
Lot: 1

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STATE OF MAINE
DAVID A. SENUS
10791
REGISTERED PROFESSIONAL ENGINEER

\\VHB.COM\GBL\PRO\SPORTLAND\55748.00 CONFIDENTIAL PROJECT\CAD\LD\PLANSET\55748.00-COV 22X34 19 April 2024

VHB Project : 55748.00 Portland Sea Dogs Clubhouse Addition
Issued for : Site Plan Review 04/19/2024

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF	BLSF	BORDERING LAND SUBJECT TO FLOODING
BZ	BZ	WETLAND BUFFER ZONE
NDZ	NDZ	NO DISTURB ZONE
200'RA	200'RA	200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
	CG	CURB AND GUTTER
CC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
10	10	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
		POROUS PAVEMENT
27.35 TC ×	27.35 TC ×	TOP OF CURB ELEVATION
26.85 BC ×	26.85 BC ×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW × 38.5 BW	45.0 TW × 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
		PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
S	S	SEWER MANHOLE CONCENTRIC
S	S	SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
FDC		FIRE DEPARTMENT CONNECTION
TSV (PWD)	TSV FH	TAPPING SLEEVE, VALVE & BOX FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GG	GG	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. THIS PROJECT REQUIRES REVIEW AND APPROVAL FROM THE CITY OF PORTLAND PLANNING AND URBAN DEVELOPMENT BOARD FOR MAJOR SITE PLAN REVIEW, AND WILL REQUIRE CHANGES TO THESE PLANS PRIOR TO START OF CONSTRUCTION, POTENTIALLY IMPACTING THE FINAL BUILDING LAYOUT, ACCESS WAYS, AND STORMWATER MANAGEMENT. ADDITIONALLY, ANY REQUIRED CONDITIONS OF APPROVAL WILL BE INCORPORATED IN TO THE FINAL DOCUMENTS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
4. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
5. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6 INCHES LOAM AND SEED.
6. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
7. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
8. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
9. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
10. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
11. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
12. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
13. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
14. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   A. WATER PIPES SHALL BE CLASS 52 THICKNESS DUCTILE IRON CEMENT LINED PIPE.
   B. SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) RING TYPE SEWER PIPE (SDR 35 OR EQUIVALENT, MINIMUM PS-46 RATING).
   C. STORM DRAINAGE PIPES SHALL BE SMOOTH BORE HIGH PERFORMANCE POLYPROPYLENE DUAL WALL STORM DRAIN PIPE (ADS HP STORM OR EQUAL) MEETING A MINIMUM PS-46.
   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE AS NOTED ON PLANS.
3. CURBING SHALL BE VGC WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED. THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN ARE BASED UPON A BOUNDARY RETRACEMENT SURVEY CONDUCTED BY VHB, INC. IN DECEMBER OF 2023 AND FROM DEEDS AND PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY VHB, INC. IN DECEMBER 2023.
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON THE CITY OF PORTLAND DATUM.
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM S.W. COLE ENGINEERING, INC.

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.

Designed by JRH | Checked by DAS

Issued for: Site Plan Review | Date: April 19, 2024

Not Approved for Construction

Drawing Title: Legend and General Notes

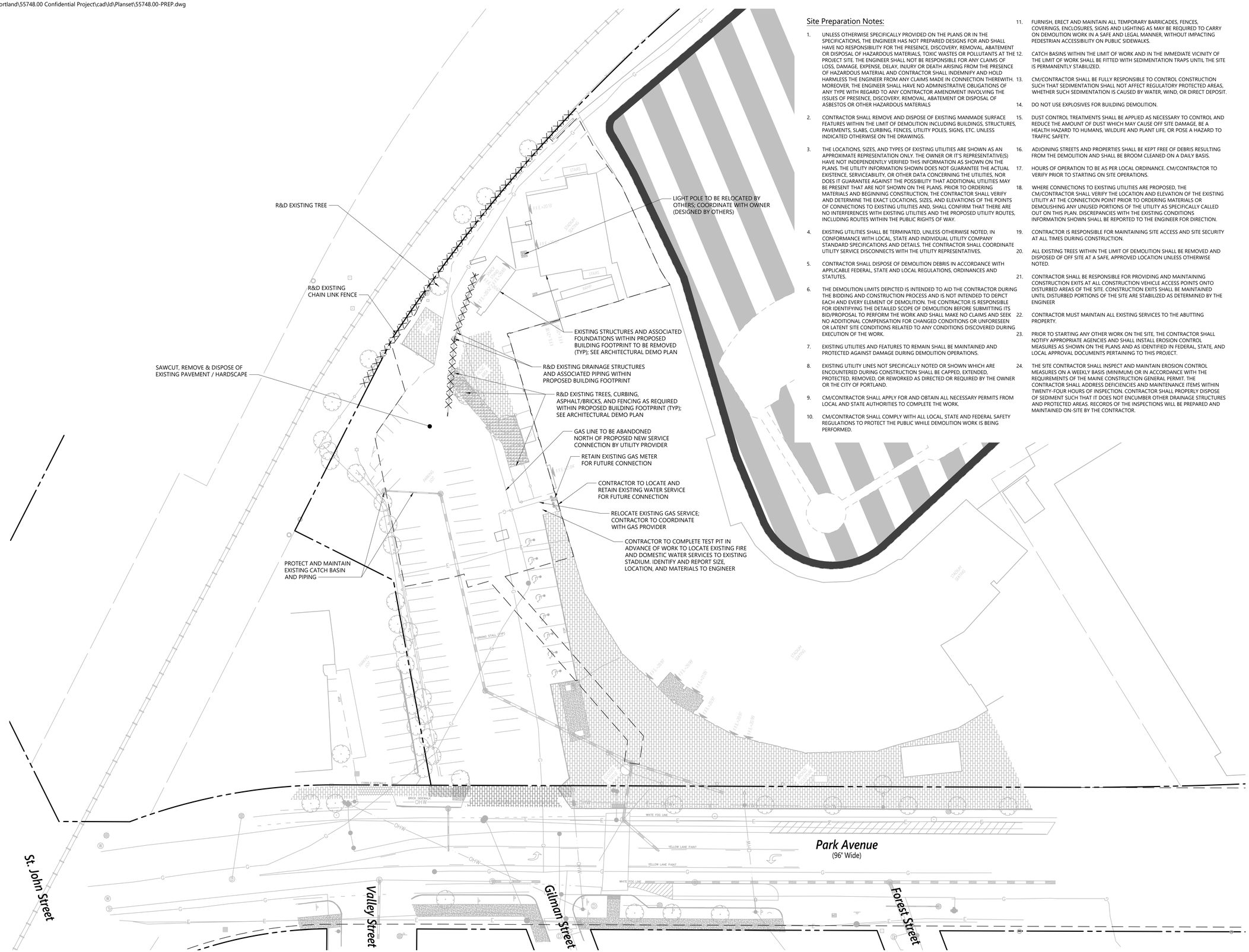
Drawing Number: C1.00

Sheet 1 of 8

Project Number: 55748.00

STATE OF MAINE · DAVID A. SENUS 10791 · PROFESSIONAL ENGINEER · LICENSED

Saved Friday, April 19, 2024 3:20:55 PM JHOWE Plotted Friday, April 19, 2024 6:28:05 PM Jason Howe



Site Preparation Notes:

1. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF DEMOLITION INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
3. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
4. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
5. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
6. THE DEMOLITION LIMITS DEPICTED IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
7. EXISTING UTILITIES AND FEATURES TO REMAIN SHALL BE MAINTAINED AND PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS.
8. EXISTING UTILITY LINES NOT SPECIFICALLY NOTED OR SHOWN WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE CAPPED, EXTENDED, PROTECTED, REMOVED, OR REWORKED AS DIRECTED OR REQUIRED BY THE OWNER OR THE CITY OF PORTLAND.
9. CM/CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FROM LOCAL AND STATE AUTHORITIES TO COMPLETE THE WORK.
10. CM/CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS TO PROTECT THE PUBLIC WHILE DEMOLITION WORK IS BEING PERFORMED.
11. FURNISH, ERECT AND MAINTAIN ALL TEMPORARY BARRICADES, FENCES, COVERINGS, ENCLOSURES, SIGNS AND LIGHTING AS MAY BE REQUIRED TO CARRY ON DEMOLITION WORK IN A SAFE AND LEGAL MANNER, WITHOUT IMPACTING PEDESTRIAN ACCESSIBILITY ON PUBLIC SIDEWALKS.
12. CATCH BASINS WITHIN THE LIMIT OF WORK AND IN THE IMMEDIATE VICINITY OF THE LIMIT OF WORK SHALL BE FITTED WITH SEDIMENTATION TRAPS UNTIL THE SITE IS PERMANENTLY STABILIZED.
13. CM/CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
14. DO NOT USE EXPLOSIVES FOR BUILDING DEMOLITION.
15. DUST CONTROL TREATMENTS SHALL BE APPLIED AS NECESSARY TO CONTROL AND REDUCE THE AMOUNT OF DUST WHICH MAY CAUSE OFF SITE DAMAGE, BE A HEALTH HAZARD TO HUMANS, WILDLIFE AND PLANT LIFE, OR POSE A HAZARD TO TRAFFIC SAFETY.
16. ADJOINING STREETS AND PROPERTIES SHALL BE KEPT FREE OF DEBRIS RESULTING FROM THE DEMOLITION AND SHALL BE BROOM CLEANED ON A DAILY BASIS.
17. HOURS OF OPERATION TO BE AS PER LOCAL ORDINANCE. CM/CONTRACTOR TO VERIFY PRIOR TO STARTING ON SITE OPERATIONS.
18. WHERE CONNECTIONS TO EXISTING UTILITIES ARE PROPOSED, THE CM/CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF THE EXISTING UTILITY AT THE CONNECTION POINT PRIOR TO ORDERING MATERIALS OR DEMOLISHING ANY UNUSED PORTIONS OF THE UTILITY AS SPECIFICALLY CALLED OUT ON THIS PLAN. DISCREPANCIES WITH THE EXISTING CONDITIONS INFORMATION SHOWN SHALL BE REPORTED TO THE ENGINEER FOR DIRECTION.
19. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SITE ACCESS AND SITE SECURITY AT ALL TIMES DURING CONSTRUCTION.
20. ALL EXISTING TREES WITHIN THE LIMIT OF DEMOLITION SHALL BE REMOVED AND DISPOSED OF OFF SITE AT A SAFE, APPROVED LOCATION UNLESS OTHERWISE NOTED.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION EXITS AT ALL CONSTRUCTION VEHICLE ACCESS POINTS ONTO DISTURBED AREAS OF THE SITE. CONSTRUCTION EXITS SHALL BE MAINTAINED UNTIL DISTURBED PORTIONS OF THE SITE ARE STABILIZED AS DETERMINED BY THE ENGINEER
22. CONTRACTOR MUST MAINTAIN ALL EXISTING SERVICES TO THE ABUTTING PROPERTY.
23. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
24. THE SITE CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR IN ACCORDANCE WITH THE REQUIREMENTS OF THE MAINE CONSTRUCTION GENERAL PERMIT. THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS. RECORDS OF THE INSPECTIONS WILL BE PREPARED AND MAINTAINED ON-SITE BY THE CONTRACTOR.

0 15 30 60 Feet

Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for: Site Plan Review
Date: April 19, 2024

Not Approved for Construction

Drawing Title: Site Preparation Plan

Drawing Number: C2.00

Sheet 2 of 9

Project Number: 55748.00

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DAVID A. SENUS 10791 STATE OF MAINE LICENSED PROFESSIONAL ENGINEER

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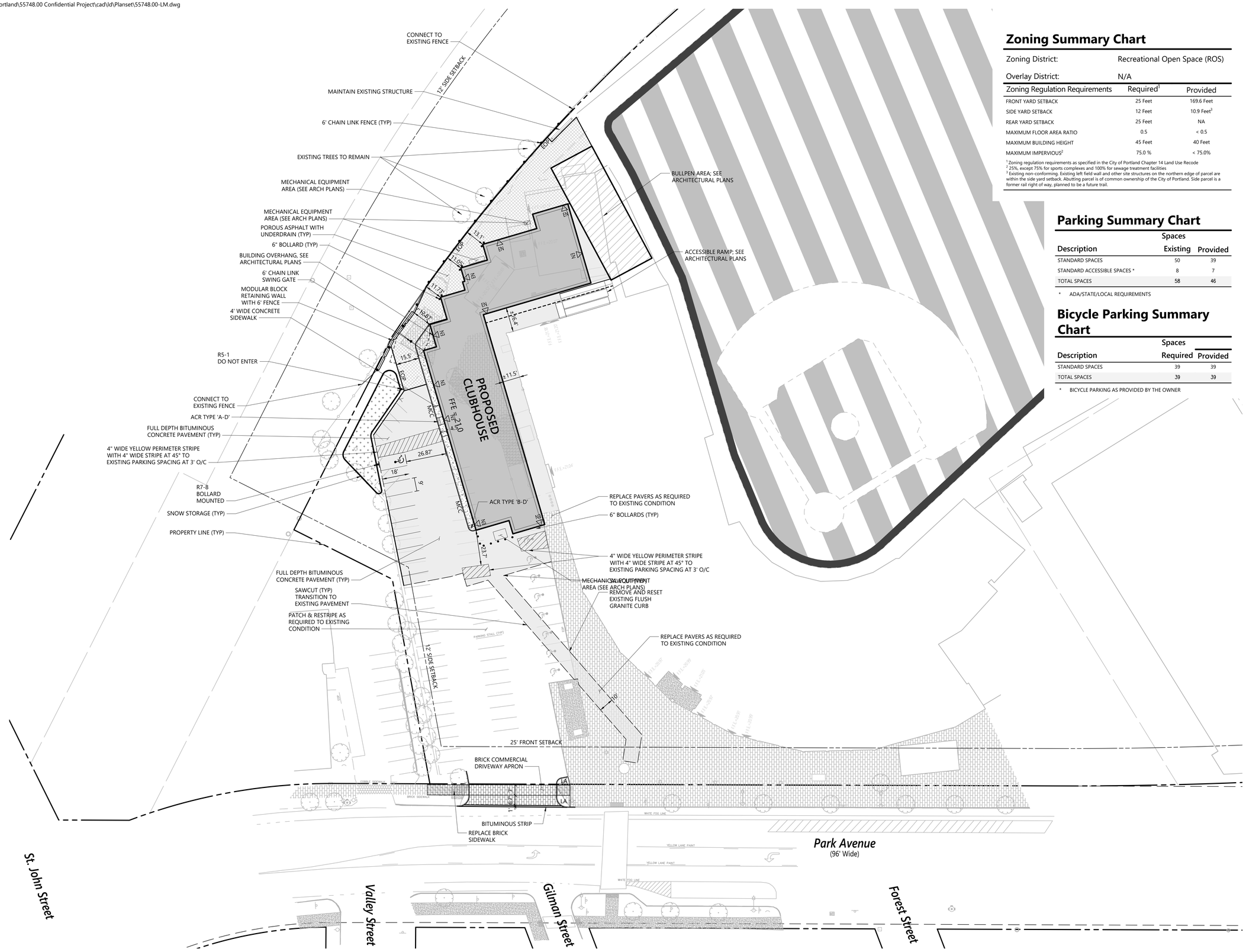

Zoning Summary Chart

Zoning District: Recreational Open Space (ROS)

Overlay District: N/A

Zoning Regulation Requirements	Required[1]	Provided
FRONT YARD SETBACK	25 Feet	169.6 Feet
SIDE YARD SETBACK	12 Feet	10.9 Feet[3]
REAR YARD SETBACK	25 Feet	NA
MAXIMUM FLOOR AREA RATIO	0.5	< 0.5
MAXIMUM BUILDING HEIGHT	45 Feet	40 Feet
MAXIMUM IMPERVIOUS[2]	75.0 %	< 75.0%

[1] Zoning regulation requirements as specified in the City of Portland Chapter 14 Land Use Recode
[2] 25%, except 75% for sports complexes and 100% for sewage treatment facilities
[3] Existing non-conforming. Existing left field wall and other site structures on the northern edge of parcel are within the side yard setback. Abutting parcel is of common ownership of the City of Portland. Side parcel is a former rail right of way, planned to be a future trail.

Parking Summary Chart

Description	Spaces Existing	Provided
STANDARD SPACES	50	39
STANDARD ACCESSIBLE SPACES *	8	7
TOTAL SPACES	58	46

* ADA/STATE/LOCAL REQUIREMENTS

Bicycle Parking Summary Chart

Description	Spaces Required	Provided
STANDARD SPACES	39	39
TOTAL SPACES	39	39

* BICYCLE PARKING AS PROVIDED BY THE OWNER

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Portland Sea Dogs Clubhouse Addition

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1	Site Plan Review - Response to Comments	6/14/2024	DAS

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Drawing Title
Layout and Materials Plan

Drawing Number
C3.00

Sheet 3 of 9

Project Number
55748.00

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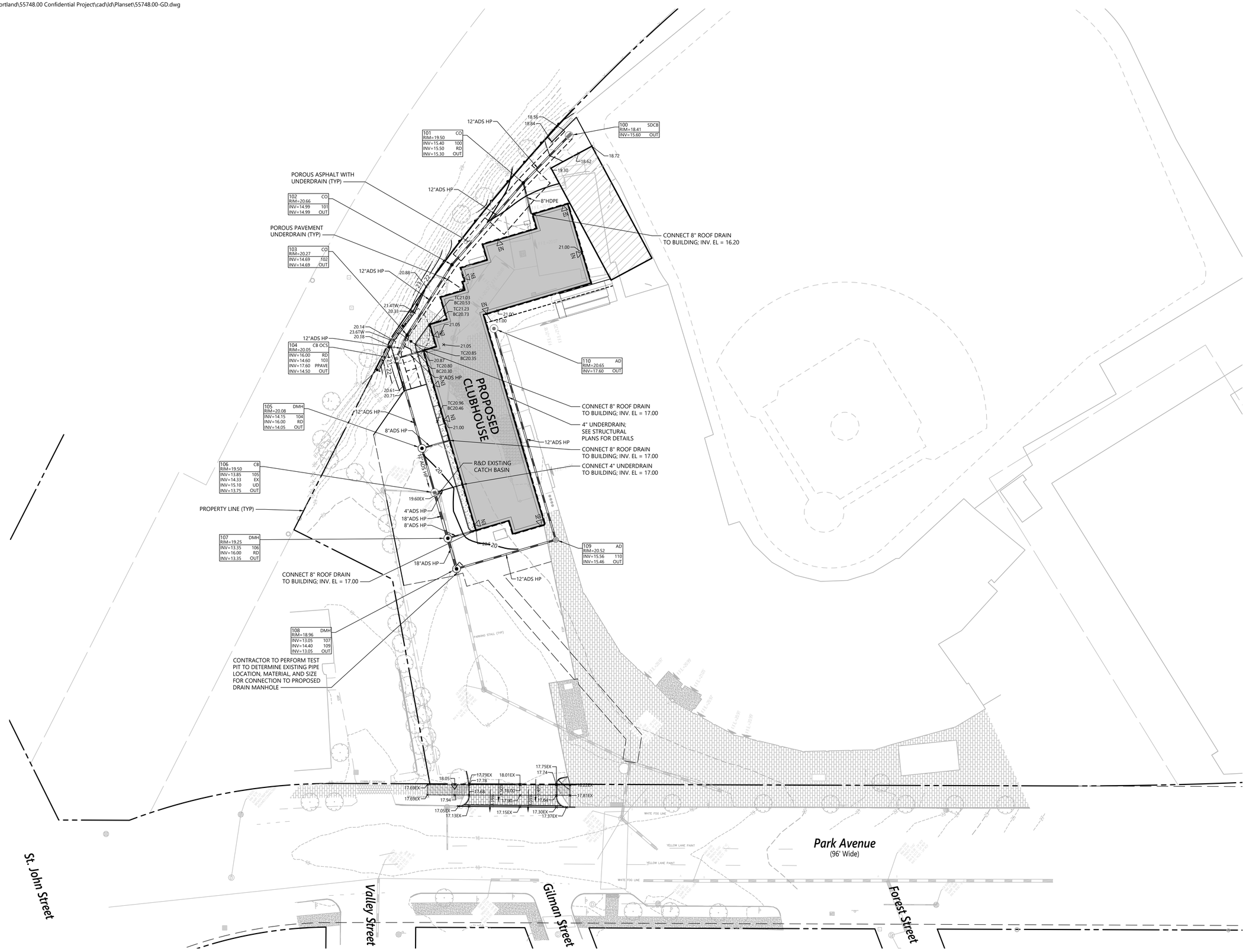
10791
PROFESSIONAL ENGINEER
LICENSED



0 15 30 60 Feet

Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for: Site Plan Review

Date: April 19, 2024

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Drawing Title: Grading and Drainage Plan

Drawing Number: C4.00

Sheet 4 of 9

Project Number: 55748.00

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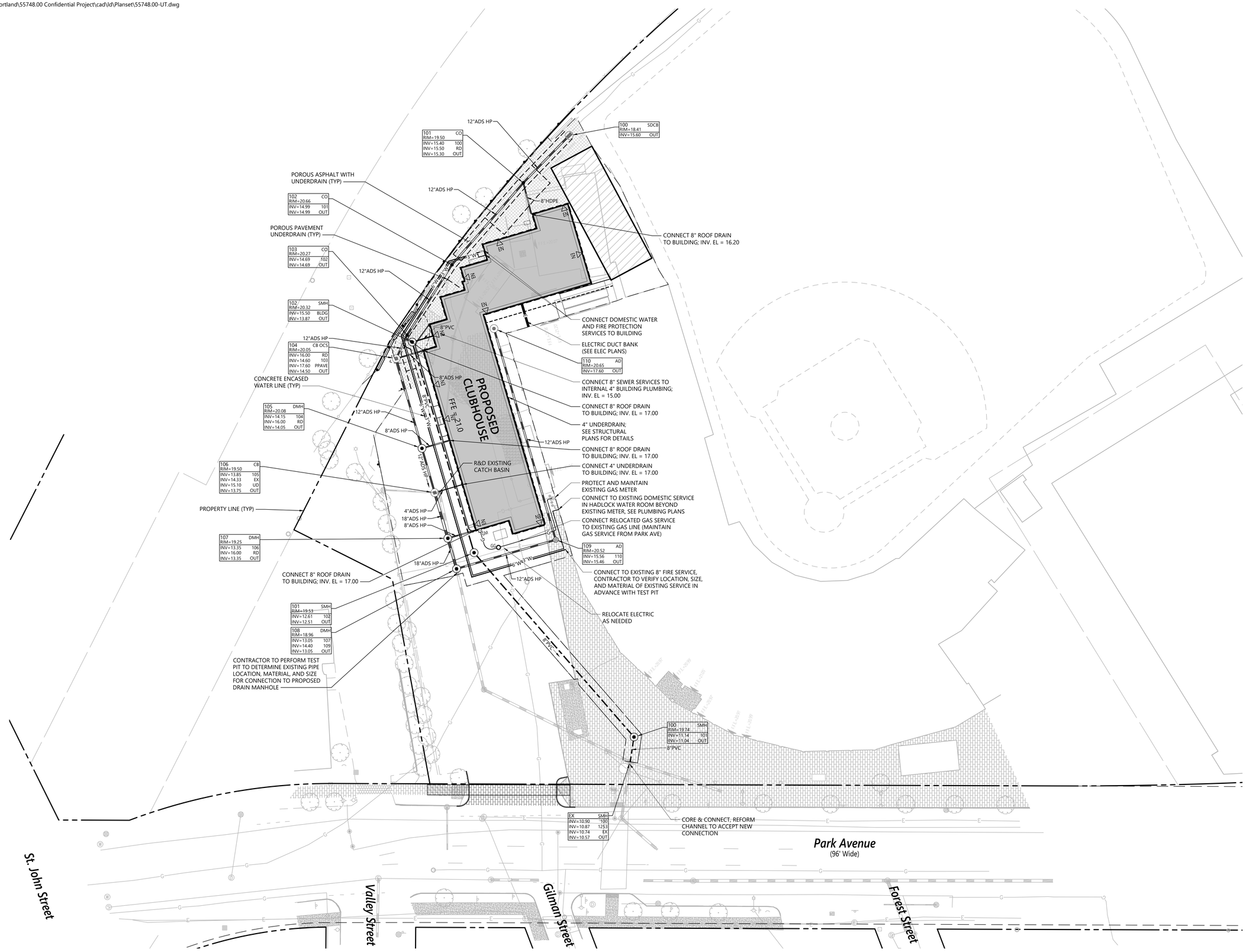

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Portland Sea Dogs Clubhouse Addition

165 Park Avenue
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No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

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Drawing Title: **Utility Plan**

Drawing Number: **C5.00**

Sheet 5 of 9

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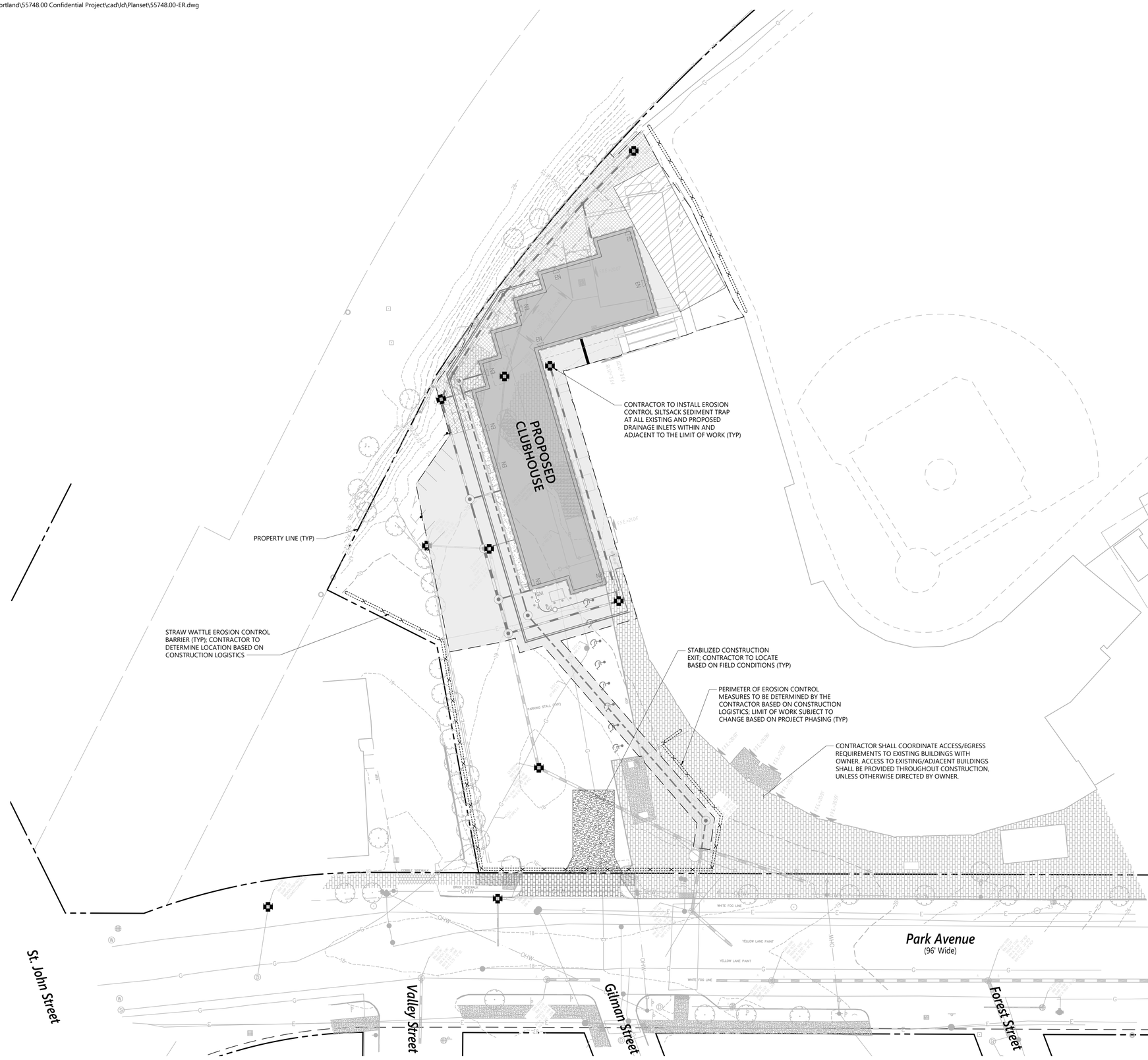
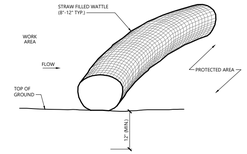
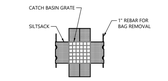




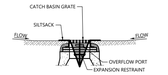
NOTES

1. STRAW WATTLE SHALL BE AS MANUFACTURED BY EARTHSAVER OR APPROVED EQUAL.
2. STRAW WATTLES SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. SECURE WATTLES IN PLACE USING SANDBAG OR EQUIVALENT WEIGHTED OBJECT PLACED 10 FT ON CENTER.
4. STRAW WATTLE SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
5. TEMPORARY STRAW WATTLES TO BE REMOVED BY CONTRACTOR. ALL OTHERS TO REMAIN IN PLACE UNLESS DIRECTED OTHERWISE BY ENGINEER.
6. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Straw Wattle - Erosion Control Barrier 1/20
N.T.S. Source: VHB LD_659



PLAN VIEW

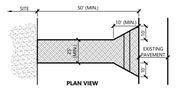


SECTION VIEW

NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND STRAW BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

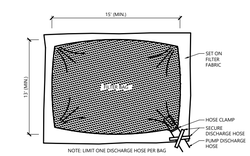
Siltsack Sediment Trap 1/20
N.T.S. Source: VHB LD_674



NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit 1/16
N.T.S. Source: VHB LD_682



NOTES

1. BAG TO BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

Dewatering Filter Bag 1/16
N.T.S. Source: VHB LD_691

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Portland Sea Dogs Clubhouse Addition

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No.	Revision	Date	Appvd
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for
Site Plan Review

Date
April 19, 2024

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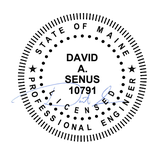
Drawing Title
Erosion Control Plan

Drawing Number
C6.00



Sheet 6 of 9

Project Number
55748.00

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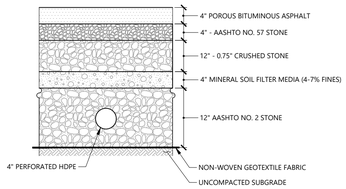


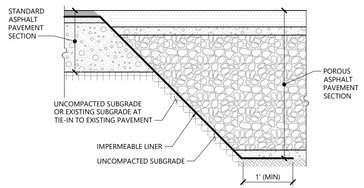
NOTES:

1. PROVIDE IMPERMEABLE LINER ON VERTICAL SIDES OF EXCAVATION AS INDICATED IN DETAILS.
2. UNLESS OTHERWISE INDICATED, INSTALL ALL UTILITY PIPES, CONDUIT, AND DUCT BANKS BELOW POROUS PAVEMENT SECTION.

Porous Bituminous Asphalt Pavement Section

10/20

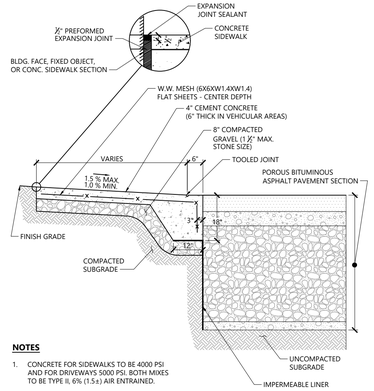
N.T.S. Source: VHB 14899.00



Porous Pavement Tie-In to Standard Pavement

4/19

N.T.S. Source: VHB 55748.00



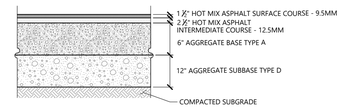
NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.
4. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

Monolithic Concrete Curb (MCC) & Sidewalk

1/16

N.T.S. Source: VHB REV LD_421



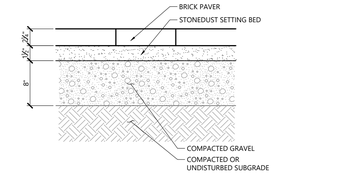
STANDARD DUTY FLEXIBLE PAVEMENT

NOTES

PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Bituminous Concrete Pavement Sections

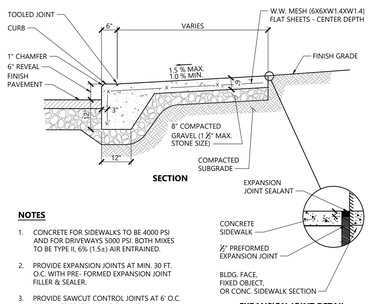
N.T.S. Source: VHB



Dryset Unit Pavers on Stonedust Bed

1/16

N.T.S. Source: VHB LD_835



SECTION

EXPANSION JOINT DETAIL

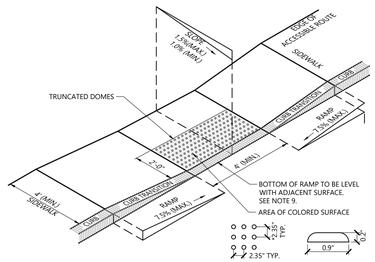
NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

Monolithic Concrete Curb (MCC) & Sidewalk

3/20

N.T.S. Source: VHB LD_421



TRUNCATED DOMES
*DIMENSIONS ARE CENTER TO CENTER

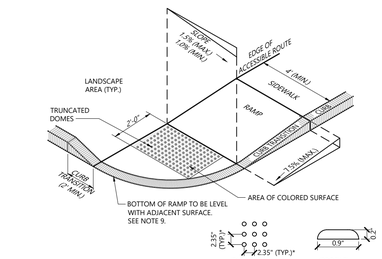
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'A-D'

12/20

N.T.S. Source: VHB LD_500



TRUNCATED DOMES
*DIMENSIONS ARE CENTER TO CENTER

NOTES

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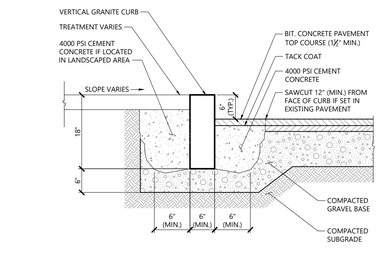
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) - Type 'B-D'

12/20

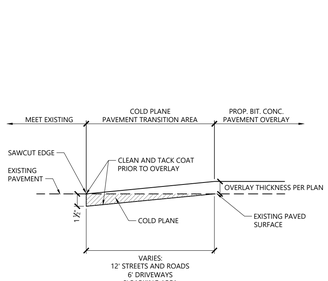
N.T.S. Source: VHB LD_501



Vertical Granite Curb (VGC)

3/20

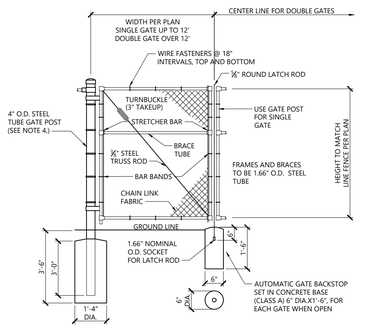
N.T.S. Source: VHB LD_402



Pavement Overlay Transition Section

1/16

N.T.S. Source: VHB LD_435



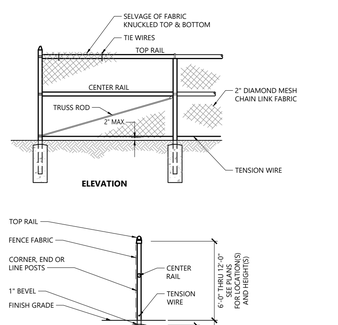
NOTES

1. CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
2. GATE POST BASE-PORTLAND CEMENT CONCRETE (3000 PSI).
3. FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
4. GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

Chain Link Fence Gate

12/19

N.T.S. Source: VHB LD_482



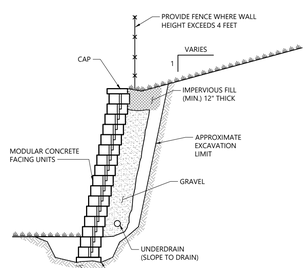
NOTES

1. MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.

6' to 12' Chain Link Fence

10/20

N.T.S. Source: VHB LD_480



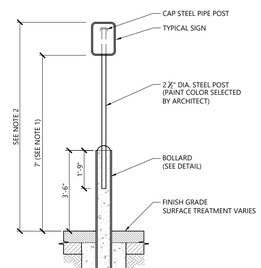
NOTES

DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. STAMPED FINAL DESIGN OF MODULAR WALL SYSTEM TO BE PROVIDED BY CONTRACTOR BASED ON GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

Modular Retaining Wall

10/20

N.T.S. Source: VHB LD_750

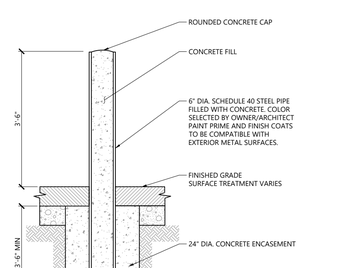


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

Bollard Mounted Sign

2/20

N.T.S. Source: VHB LD_703



Bollard

12/19

N.T.S. Source: VHB LD_700

vhb.com

500 Southborough Drive
Suite 105B
South Portland, ME 04106
207.889.3150

Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for: Site Plan Review

Date: April 19, 2024

Not Approved for Construction

Drawing Title: Site Details 1

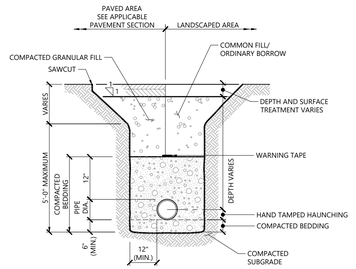
Drawing Number: C7.01

Sheet 7 of 9

Project Number: 55748.00

STATE OF MAINE DAVID A. SENIUS 10791 PROFESSIONAL ENGINEER

Saved Friday, June 14, 2024 2:40:38 PM JHOWE Plotted Friday, June 14, 2024 2:54:56 PM Jason Howe

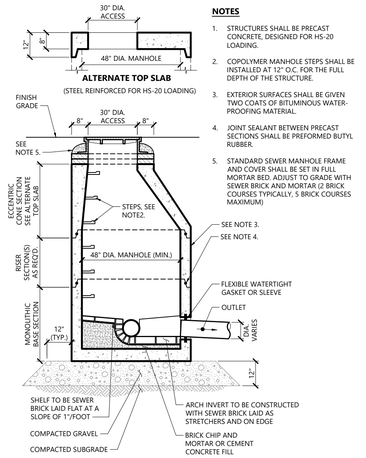


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY ENGINEER.

Utility Trench 11/19

N.T.S. Source: VHB LD_300

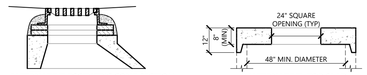


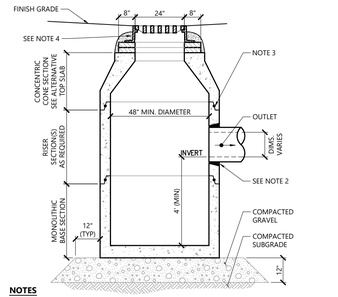
NOTES

1. STRUCTURES SHALL BE PRECAST CONCRETE, DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Sanitary Sewer Manhole (SMH) 1/16

N.T.S. Source: VHB LD_200



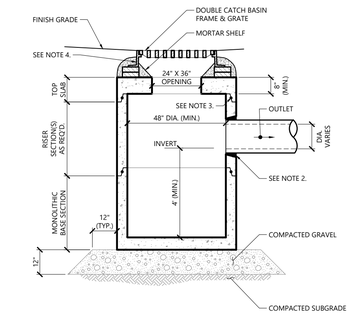


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

Catch Basin (CB) 11/19

N.T.S. Source: VHB LD_100

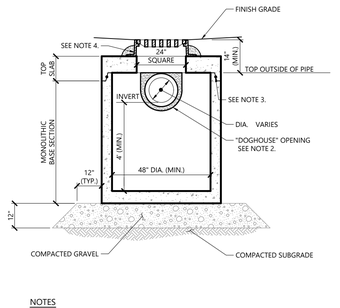


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS TYPICALLY, 5 BRICK COURSES MAXIMUM)

Double Grate Catch Basin (DCB) 11/19

N.T.S. Source: VHB LD_102

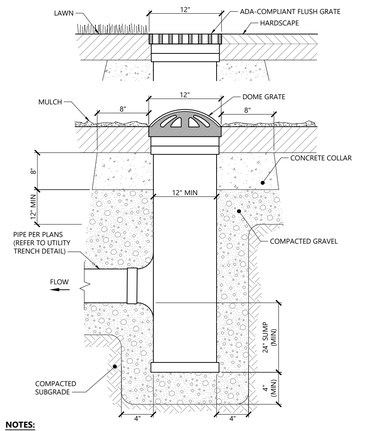


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE DOGHOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHALL NOT REST DIRECTLY ON PIPE. GROUT ALL PIPE CONNECTIONS (NON-SHRINK GROUT).
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE (4"DEPTH) SHALL BE SET IN FULL MORTAR BED.
5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

Catch Basin (CB) Shallow Cover 1/16

N.T.S. Source: VHB LD_104

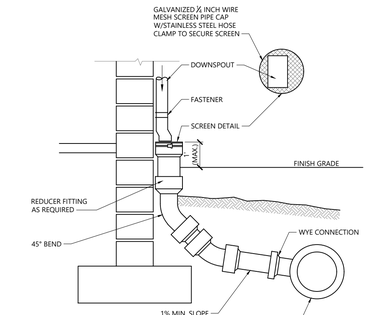


NOTES:

1. AREA DRAINS SHALL BE NYLOPLAST 12" DIAMETER DRAIN BASIN, OR APPROVED EQUAL.
2. GRATES SHALL BE NYLOPLAST 12" PEDESTRIAN MODEL 1299CGP OR 12" DOME GRATE MODEL 1299CGD (OR APPROVED EQUAL).

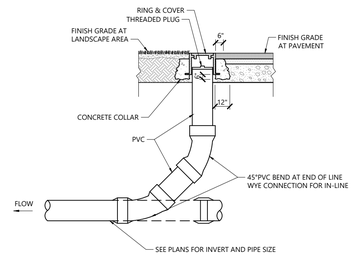
Area Drain (AD) Type 1 12/19

N.T.S. Source: VHB LD_193



Downspout Rain Leader 1/16

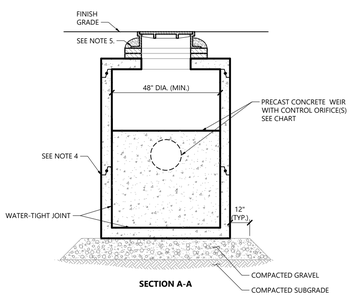
N.T.S. Source: VHB LD_195



Cleanout (CO) 12/19

N.T.S. Source: VHB LD_303

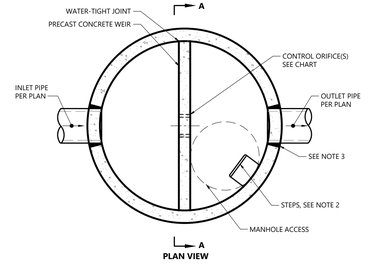
STRUCTURE NUMBER	TOP OF WEIR ELEVATION	DIMENSIONS ORIFICE A	INVERT ORIFICE A
104	17.9'	1.25"	17.27'



SECTION A-A

Outlet Control Structure with Weir (OCS) 3/20

N.T.S. Source: VHB LD_162A



NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

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Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for: Site Plan Review

Date: April 19, 2024

Not Approved for Construction

Drawing Title: Site Details 2

Drawing Number: C7.02

Sheet 8 of 9

Project Number: 55748.00

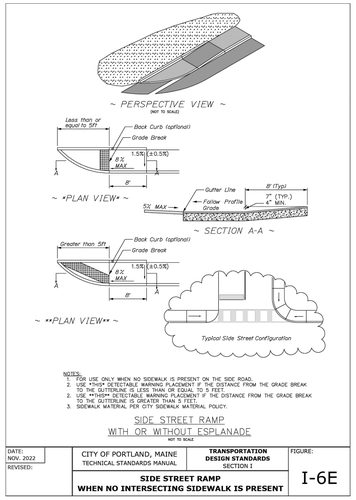
STATE OF MAINE · DAVID A. SENUS · 10791 · PROFESSIONAL ENGINEER · LICENSED

Saved Friday, June 14, 2024 2:40:38 PM JHOWE Plotted Friday, June 14, 2024 2:54:57 PM Jason Howe

GENERAL NOTES

1. DESIGN OF ACCESSIBLE RAMPS AND ASSOCIATED FACILITIES ARE GOVERNED BY THE 2010 AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN, WHICH IS DETAILED IN DOJ SECTION 28 CFR 35.151. ADDITIONAL GUIDANCE AND INFORMATION CAN BE FOUND IN THE PROPOSED PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES PUBLISHED BY THE U.S. ACCESS BOARD. IN ANY CASE WHERE THE DESIGN REQUIREMENTS ARE MORE STRINGENT BETWEEN ADA STANDARDS AND CITY REQUIREMENTS, THE ADA STANDARDS SHALL GOVERN.
2. SIDEWALKS SHALL BE CONSTRUCTED IN BRICK, CONCRETE, OR BITUMINOUS, ACCORDING TO THE SIDEWALK & DRIVEWAY APRON MATERIALS POLICY, UNLESS DIRECTED OTHERWISE BY THE CITY ENGINEER.
3. SIDEWALKS AND RAMPS SHALL BE BUILT ACCORDING TO THE FOLLOWING DIMENSIONS AND GRADES:
   SIDEWALK RUNNING SLOPE: MATCH ADJACENT STREET GRADE
   SIDEWALK CROSS SLOPE: 1.5% MINIMUM, 2.0% MAXIMUM
   RAMP RUNNING SLOPE: 5.0% MINIMUM, 8.3% MAXIMUM
   ESPLANADE WHERE PROVIDED: 2.0" MINIMUM, 4.0" OR GREATER PREFERRED IF LANDSCAPED.
4. TWO CURB RAMPS ARE REQUIRED AT EACH SIDEWALK CORNER. EACH CURB RAMP SHALL CONNECT THE PEDESTRIAN ACCESS ROUTE AT EACH PEDESTRIAN STREET CROSSING. IN ALTERATIONS WHERE PHYSICAL CONSTRAINTS PREVENT TWO CURB RAMPS FROM BEING INSTALLED AT A STREET CORNER, A SINGLE PEDESTRIAN CURB RAMP MAY BE PERMITTED.
5. OPPOSING CURB RAMPS AT A SINGLE CROSSING SHALL ALIGN TO PROVIDE A STRAIGHT PATH OF TRAVEL FROM THE TOP OF THE RAMP TO THE CURB RAMP ON THE OPPOSITE SIDE OF THE ROADWAY TO THE MAXIMUM EXTENT FEASIBLE.
6. ALL SIDEWALKS AND RAMPS SHALL DRAIN TOWARD THE STREET, DRIVEWAY, OR PARKING AREA, WITH A MAXIMUM CROSS SLOPE OF 2.0%.
7. LEVEL LANDINGS (NO GREATER THAN 2.0% SLOPE IN ANY DIRECTION) AT THE BOTTOM OF PERPENDICULAR RAMPS SHALL BE WHOLLY CONTAINED WITHIN MARKED CROSSWALKS.
8. PONDING SHALL NOT BE PERMITTED WITHIN THE CURB RAMP LIMITS. RAMPS SHALL NOT ALTER ROADWAY DRAINAGE PATTERNS.
9. TRANSITION FROM RAMPS TO WALKS OR STREET SURFACE SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. PAVEMENT AT THE STREET SURFACE SHALL BE MILLED AND REPAVED TO ACHIEVE FLUSH CONDITION.
10. CURB RAMP AND FORM WORK SLOPES SHALL BE CHECKED WITH A DIGITAL LEVEL OF AN APPROPRIATE LENGTH. NO PORTION OF A RAMP RUN SHALL EXCEED THE MAXIMUM SLOPE REQUIREMENT.
11. THE COUNTER SLOPE WITHIN 2'-0" THE CURB RAMP SHALL BE 5% MAXIMUM. IN ALTERATIONS, IF THE COUNTER SLOPE OF 5% MAXIMUM CANNOT BE ACHIEVED, THE SLOPE ELEVATION MAY BE ADJUSTED SO THAT THE COMBINED COUNTER SLOPE AND RAMP SLOPE DO NOT EXCEED 13.3%.
12. VERTICAL DROP-OFF EDGES TO RAMPS SHALL NOT BE BUILT UNLESS THE RAMP ABUTS AN ESPLANADE OR OTHER AREA NOT TO BE USED BY PEDESTRIANS.
13. AT MARKED CROSSWALKS, THE FULL WIDTH OF THE RAMP OR LANDING SHALL BE CONTAINED WITHIN THE PAVEMENT MARKINGS.
14. DETECTABLE WARNING PANELS SHALL BE PROVIDED ON ALL RAMPS AS PER FIGURE I-7 OF THESE STANDARD DETAILS.
15. RAMP FLARES SHOULD BE LOCATED OUTSIDE THE DIRECT LINE OF TRAVEL MOST LIKELY TO BE FOLLOWED BY THE VISUALLY IMPAIRED.
16. SIGNS, POLES, PLANTERS, MAILBOXES, ETC. SHALL NOT BE LOCATED WHERE THEY WILL INTERFERE WITH THE USE OF SIDEWALK RAMPS.
17. SIDEWALK RAMPS SHALL NOT BE LOCATED WHERE USERS MUST CROSS DROP INLET GRATES, MANHOLE COVERS, OR OTHER ACCESS LIDS. IF THIS CANNOT BE AVOIDED, THEN GRATE DESIGN AND PLACEMENT SHALL CONFORM TO ADA REQUIREMENTS.
18. THE PUBLIC SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. RAMP DESIGNS THAT ARE COMPLIANT WITH ADA BUT NOT LISTED IN THESE DETAILS MAY BE APPROVED BY THE CITY ENGINEER.
19. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THESE DETAILS AND TO ADA GUIDELINES TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS, AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE ADA ACCESSIBILITY GUIDELINES.
20. MAXIMUMS AND MINIMUMS DO NOT HAVE TOLERANCES AND ARE NOT TO BE EXCEEDED OR UNMET.
21. THE STANDARD TURNING SPACE (LEVEL LANDING) IS 4'-0" X 4'-0" SLOPING NO MORE THAN 2.0%. WHERE THE TURNING SPACE SHALL BE 4'-0" MINIMUM BY 5'-0" MINIMUM. THE 5'-0" DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
22. DETECTABLE WARNINGS SHALL BE INSTALLED AT ALL SIGNED OR SIGNALIZED INTERSECTIONS. THEY SHALL HAVE A TRUNCATED DOME SURFACE. THE DOMES SHALL BE IN A SQUARE PATTERN AND ALIGNED WITH PEDESTRIAN TRAFFIC WHERE POSSIBLE.
23. DETECTABLE WARNINGS SHALL SPAN THE WIDTH OF THE PEDESTRIAN RAMP. SEE STANDARD DETAIL FIGURE I-7.
24. ALL DETECTABLE WARNING FIELDS PLACED AT THE SAME INTERSECTION SHALL BE MADE UP OF THE SAME UNIFORM MATERIAL TYPE. DETECTABLE WARNINGS SHALL BE CONTRASTING IN COLOR TO THE ADJACENT WALKWAY.
25. A RAMP WITH A RUNNING SLOPE LESS THAN 5.0% IS DEFINED AS A "BLENDED TRANSITION". BLENDED TRANSITIONS DO NOT REQUIRE A LEVEL LANDING AT THE TOP OF THE RAMP.
26. THE RAMP LENGTH SHALL NOT EXCEED 15 FEET. ADJUST RAMP LENGTH OR SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
27. ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH.
28. RAMP GRADE BREAKS SHALL BE PERPENDICULAR TO THE RUNNING SLOPE.
29. THERE SHALL BE A MINIMUM OF 12" AGGREGATE SUBBASE COURSE - GRAVEL UNDER THE SIDEWALK SURFACE ON PEDESTRIAN RAMPS.
30. DRAINAGE STRUCTURES, UTILITY POLES, TRAFFIC SIGNAL EQUIPMENT OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED IN THE CURB RAMP OR TURNING SPACE AREAS.
31. BEFORE RETROFITTING RAMPS, THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE. MAINTAIN EXISTING DRAINAGE PATTERNS AND AVOID PONDING IN THE FINAL CONFIGURATION.
32. A TEMPORARY PEDESTRIAN ACCESS ROUTE SHALL BE PROVIDED WHENEVER THE EXISTING PEDESTRIAN ACCESS ROUTE IN THE PUBLIC RIGHT OF WAY IS BLOCKED BY CONSTRUCTION, ALTERATION, MAINTENANCE OR OTHER TEMPORARY CONDITIONS. REFER TO MUTCD FOR GUIDANCE.

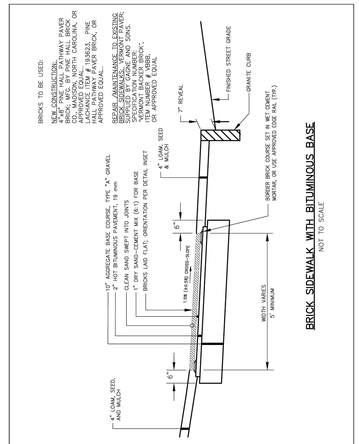
DATE: NOV. 2022	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	TRANSPORTATION DESIGN STANDARDS SECTION I	FIGURE: I-6
	ACCESSIBLE RAMP GENERAL NOTES		



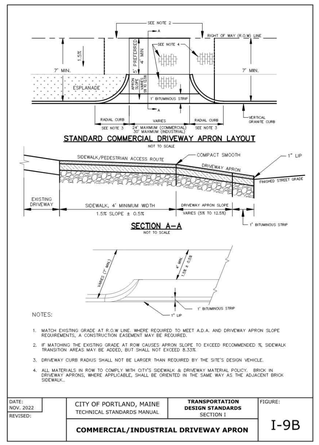
NOTES:
1. * FOR USE ONLY WHEN NO SIDEWALK IS PRESENT ON THE SIDE ROAD.
2. USE *THIS* DETECTABLE WARNING PLACEMENT IF THE DISTANCE FROM THE GRADE BREAK TO THE GUTTERLINE IS LESS THAN OR EQUAL TO 5 FEET.
2. USE **THIS** DETECTABLE WARNING PLACEMENT IF THE DISTANCE FROM THE GRADE BREAK TO THE GUTTERLINE IS GREATER THAN 5 FEET.
3. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

SIDE STREET RAMP
WITH OR WITHOUT ESPLANADE
NOT TO SCALE

DATE: NOV. 2022 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	TRANSPORTATION DESIGN STANDARDS SECTION I	FIGURE: I-6E
	SIDE STREET RAMP WHEN NO INTERSECTING SIDEWALK IS PRESENT		



DATE: NOV. 2022 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	TRANSPORTATION DESIGN STANDARDS SECTION I	FIGURE: I-11A
	BRICK SIDEWALK WITH BITUMINOUS BASE		

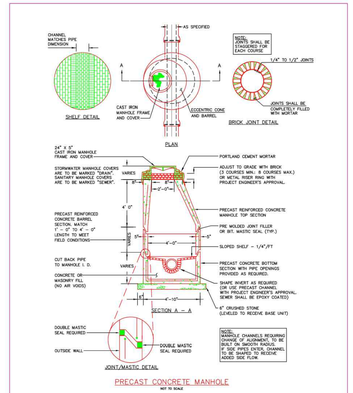


DATE: NOV. 2022 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	TRANSPORTATION DESIGN STANDARDS SECTION I	FIGURE: I-9B
	COMMERCIAL/INDUSTRIAL DRIVEWAY APRON		

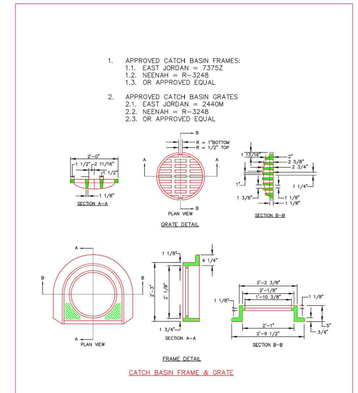
1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL PIPES ENTERING MANHOLES AND CATCH BASINS SHALL HAVE FLEXIBLE PIPE CONNECTIONS WITH STAINLESS STEEL BANDS. FILL ANY ANNULAR SPACE WITH NON SHRINK GROUT.
5. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID
6. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. INVERTS SHALL BE BUILT TO THE HEIGHT OF THE FOLLOWING AS DETERMINED BY THE LARGEST PIPE SIZE:
   8.1. FOR PIPE SIZES 4"-12" INVERTS SHALL GO TO THE TOP OF THE PIPE.
   8.2. FOR PIPE SIZES 15"-36" INVERTS SHALL GO TO THE SPRING LINE.
   8.3. FOR PIPE SIZES 42"-60" INVERTS SHALL GO TO THE 1/3 OF PIPE SIZE
9. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48–CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS: SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A HOOD / CASCO TRAP. SEE FIGURE II–09.
13. ALL MANHOLES AND CATCH BASINS REQUIRE BUOYANCY CALCULATIONS AND THE STRUCTURES SHALL BE MODIFIED AS NECESSARY BASED ON THOSE CALCULATIONS.

GENERAL NOTES FOR MANHOLES AND CATCH BASINS

DATE: MARCH 2019 REVISED: AUG 2022	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-4
	GENERAL NOTES FOR MANHOLES AND CATCH BASINS		

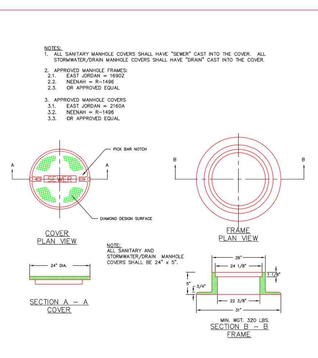


DATE: DEC. 2009 REVISED: DEC. 2021	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-2
	PRECAST CONCRETE MANHOLE		

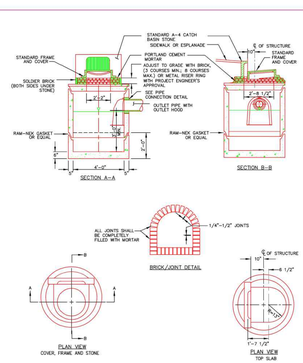


DATE: AUGUST 2009 REVISED: DEC. 2021	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-8
	CATCH BASIN FRAME AND GRATE		

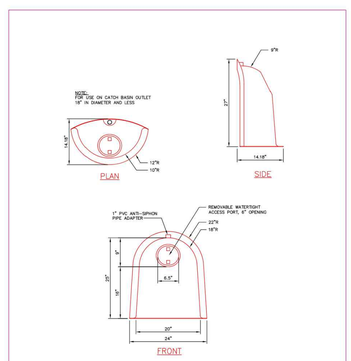
NOTES:
1. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
2. APPROVED MANHOLE FRAMES:
   2.1. EAST JORDAN = 1892Z
   2.2. NEENAH = R–1490
   2.3. OR APPROVED EQUAL
3. APPROVED MANHOLE COVERS
   3.1. EAST JORDAN = 2160A
   3.2. NEENAH = R–1490
   3.3. OR APPROVED EQUAL



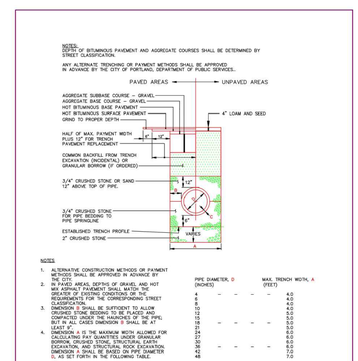
DATE: AUG 2009 REVISED: DEC 2021	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-5
	CAST IRON MANHOLE COVER AND FRAME		



DATE: MARCH 2009 REVISED: AUG 2022	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-7
	PRECAST CONCRETE CATCH BASIN		



DATE: MARCH 2019 REVISED:	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-9
	CATCH BASIN HOOD		



DATE: AUGUST 2009 REVISED: SEPTEMBER 2022	CITY OF PORTLAND, MAINE TECHNICAL STANDARDS MANUAL	SANITARY SEWER AND STORM DRAIN DESIGN STANDARDS SECTION II	FIGURE: II-12
	TYPICAL PIPE TRENCH INSTALLATION AND NOTES		

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Suite 105B
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207.889.3150

Portland Sea Dogs Clubhouse Addition

165 Park Avenue
Portland, Maine 04102

No.	Revision	Date	Appvd.
1	Site Plan Review - Response to Comments	6/14/2024	DAS

Designed by JRH | Checked by DAS

Issued for: Site Plan Review | Date: April 19, 2024

Not Approved for Construction

Drawing Title: Right of Way (R.O.W.) Details

Drawing Number: C7.03

Sheet 9 of 9

Project Number: 55748.00

STATE OF MAINE DAVID A. SENUS 10791 REGISTERED PROFESSIONAL ENGINEER

Saved Friday, June 14, 2024 2:40:38 PM JHOWE Plotted Friday, June 14, 2024 2:55:05 PM Jason Howe

General Notes

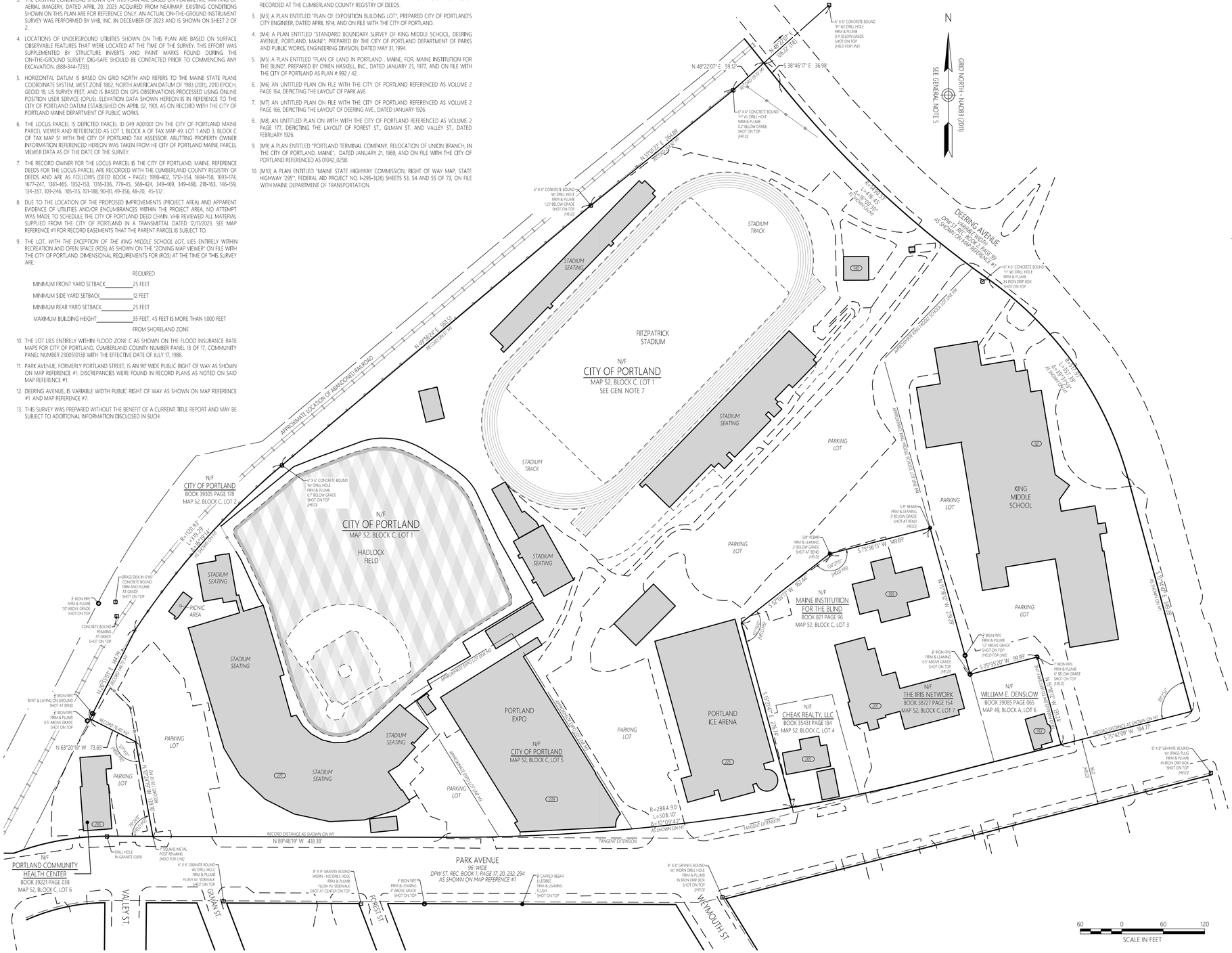
1. THIS PLAN AND ALL WORK ASSOCIATED WITH IT WAS PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. (VHB, INC.) PURSUANT TO A PROFESSIONAL SERVICES CONTRACT BETWEEN LAVALLEE / BRENSINGER ARCHITECTS AND VHB, INC. DATED OCTOBER 19, 2023.
2. THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON A BOUNDARY RETRACEMENT SURVEY CONDUCTED BY VHB, INC. IN DECEMBER OF 2023 AND FROM DEEDS AND PLANS OF RECORD.
3. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED ON PLANIMETRIC MAPPING OF AERIAL IMAGERY, DATED APRIL 20, 2023 ACQUIRED FROM NEARMAP. EXISTING CONDITIONS SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY. AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY WAS PERFORMED BY VHB, INC. IN DECEMBER OF 2023 AND IS SHOWN ON SHEET 2 OF 2.
4. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON SURFACE OBSERVABLE FEATURES THAT WERE LOCATED AT THE TIME OF THE SURVEY. THIS EFFORT WAS SUPPLEMENTED BY STRUCTURE INVERTS AND PAINT MARKS FOUND DURING THE ON-THE-GROUND SURVEY. DIG-SAFE SHOULD BE CONTACTED PRIOR TO COMMENCING ANY EXCAVATION. (888-344-7233)
5. HORIZONTAL DATUM IS BASED ON GRID NORTH AND REFERS TO THE MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, NORTH AMERICAN DATUM OF 1983 (2011), 2010 EPOCH, GEOID 18, US SURVEY FEET, AND IS BASED ON GPS OBSERVATIONS PROCESSED USING ONLINE POSITION USER SERVICE (OPUS). ELEVATION DATA SHOWN HEREON IS IN REFERENCE TO THE CITY OF PORTLAND DATUM ESTABLISHED ON APRIL 02, 1901, AS ON RECORD WITH THE CITY OF PORTLAND MAINE DEPARTMENT OF PUBLIC WORKS.
6. THE LOCUS PARCEL IS DEPICTED PARCEL ID 049 A001001 ON THE CITY OF PORTLAND MAINE PARCEL VIEWER AND REFERENCED AS LOT 1, BLOCK A OF TAX MAP 49, LOT 1 AND 3, BLOCK C OF TAX MAP 51 WITH THE CITY OF PORTLAND TAX ASSESSOR. ABUTTING PROPERTY OWNER INFORMATION REFERENCED HEREON WAS TAKEN FROM HE CITY OF PORTLAND MAINE PARCEL VIEWER DATA AS OF THE DATE OF THE SURVEY.
7. THE RECORD OWNER FOR THE LOCUS PARCEL IS THE CITY OF PORTLAND, MAINE. REFERENCE DEEDS FOR THE LOCUS PARCEL ARE RECORDED WITH THE CUMBERLAND COUNTY REGISTRY OF DEEDS AND ARE AS FOLLOWS (DEED BOOK - PAGE): 1998-402, 1712-254, 1694-158, 1693-174, 1677-247, 1361-465, 1352-153, 1316-336, 779-45, 569-424, 349-469, 349-468, 218-163, 146-159, 134-357, 109-246, 105-115, 101-188, 90-81, 49-356, 48-20, 45-512 .
8. DUE TO THE LOCATION OF THE PROPOSED IMPROVEMENTS (PROJECT AREA) AND APPARENT EVIDENCE OF UTILITIES AND/OR ENCUMBRANCES WITHIN THE PROJECT AREA, NO ATTEMPT WAS MADE TO SCHEDULE THE CITY OF PORTLAND DEED CHAIN. VHB REVIEWED ALL MATERIAL SUPPLIED FROM THE CITY OF PORTLAND IN A TRANSMITTAL DATED 12/11/2023. SEE MAP REFERENCE #1 FOR RECORD EASEMENTS THAT THE PARENT PARCEL IS SUBJECT TO.
9. THE LOT, *WITH THE EXCEPTION OF THE KING MIDDLE SCHOOL LOT*, LIES ENTIRELY WITHIN RECREATION AND OPEN SPACE (ROS) AS SHOWN ON THE "ZONING MAP VIEWER" ON FILE WITH THE CITY OF PORTLAND. DIMENSIONAL REQUIREMENTS FOR (ROS) AT THE TIME OF THIS SURVEY ARE:

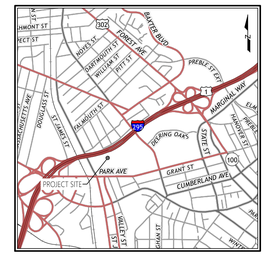
	REQUIRED
MINIMUM FRONT YARD SETBACK	25 FEET
MINIMUM SIDE YARD SETBACK	12 FEET
MINIMUM REAR YARD SETBACK	25 FEET
MAXIMUM BUILDING HEIGHT	35 FEET, 45 FEET IS MORE THAN 1,000 FEET FROM SHORELAND ZONE

10. THE LOT LIES ENTIRELY WITHIN FLOOD ZONE C AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR CITY OF PORTLAND, CUMBERLAND COUNTY NUMBER PANEL 13 OF 17, COMMUNITY PANEL NUMBER 2300510138 WITH THE EFFECTIVE DATE OF JULY 17, 1986.
11. PARK AVENUE, FORMERLY PORTLAND STREET, IS AN 96' WIDE PUBLIC RIGHT OF WAY AS SHOWN ON MAP REFERENCE #1. DISCREPANCIES WERE FOUND IN RECORD PLANS AS NOTED ON SAID MAP REFERENCE #1.
12. DEERING AVENUE, IS VARIABLE WIDTH PUBLIC RIGHT OF WAY AS SHOWN ON MAP REFERENCE #1 AND MAP REFERENCE #7.
13. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND MAY BE SUBJECT TO ADDITIONAL INFORMATION DISCLOSED IN SUCH.

Map References

1. [M1] A PLAN ENTITLED "BOUNDARY LINE RETRACEMENT PLAN FOR, HADLOCK FIELD, FITZPATRICK STADIUM, PORTLAND ICE ARENA, PORTLAND EXPOSITION BUILDING, KING MIDDLE SCHOOL", PREPARED BY CITY OF PORTLAND, MAINE PUBLIC WORKS DEPARTMENT ENGINEERING SECTION, DATED JUNE 2005, LAST REVISED JULY 2013, AND ON FILE WITH THE CITY OF PORTLAND AS PLAN # 992/9.
2. [M2] A PLAN ENTITLED "PLAN OF PARK AVE. FIRE STATION PARCEL" DATED JUNE 5, 1985, PREPARED BY CITY OF PORTLAND PUBLIC WORKS, AND SHOWN IN PLAN BOOK 148 PAGE 37 RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
3. [M3] A PLAN ENTITLED "PLAN OF EXPOSITION BUILDING LOT", PREPARED CITY OF PORTLAND'S CITY ENGINEER, DATED APRIL 1914, AND ON FILE WITH THE CITY OF PORTLAND.
4. [M4] A PLAN ENTITLED "STANDARD BOUNDARY SURVEY OF KING MIDDLE SCHOOL, DEERING AVENUE, PORTLAND, MAINE", PREPARED BY THE CITY OF PORTLAND DEPARTMENT OF PARKS AND PUBLIC WORKS, ENGINEERING DIVISION, DATED MAY 31, 1994.
5. [M5] A PLAN ENTITLED "PLAN OF LAND IN PORTLAND , MAINE, FOR, MAINE INSTITUTION FOR THE BLIND", PREPARED BY OWEN HASKELL, INC., DATED JANUARY 25, 1977, AND ON FILE WITH THE CITY OF PORTLAND AS PLAN # 592 / 42 .
6. [M6] AN UNTITLED PLAN ON FILE WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 164. DEPICTING THE LAYOUT OF PARK AVE.
7. [M7] AN UNTITLED PLAN ON FILE WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 166. DEPICTING THE LAYOUT OF DEERING AVE., DATED JANUARY 1926.
8. [M8] AN UNTITLED PLAN ON WITH WITH THE CITY OF PORTLAND REFERENCED AS VOLUME 2 PAGE 177, DEPICTING THE LAYOUT OF FOREST ST., GILMAN ST. AND VALLEY ST., DATED FEBRUARY 1926.
9. [M9] A PLAN ENTITLED "PORTLAND TERMINAL COMPANY, RELOCATION OF UNION BRANCH, IN THE CITY OF PORTLAND, MAINE", DATED JANUARY 21, 1969, AND ON FILE WITH THE CITY OF PORTLAND REFERENCED AS 01042_025B.
10. [M10] A PLAN ENTITLED "MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY "295", FEDERAL AID PROJECT NO. I-295-3(26) SHEETS 53, 54 AND 55 OF 73, ON FILE WITH MAINE DEPARTMENT OF TRANSPORTATION.





Legend

- DRAIN MANHOLE
- FIRE HYDRANT
- WATER GATE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- UTILITY POLE W/ LIGHT
- TREE
- SHRUB
- BOUNDARY MONUMENT
- BOUNDARY MONUMENT
- SIGN
- SIGN POST
- GATE POST
- MB MAILBOX
- WM WATER MANHOLE
- EM ELECTRIC METER
- EH ELECTRIC HANDHOLE
- WATER VALVE
- CATCH BASIN
- MANHOLE
- TELEPHONE MANHOLE
- FIRE HOSE BIB
- FLOODLIGHT
- LIGHT POLE
- FFE = 45.27' FINISHED FLOOR ELEVATION
- TREE
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- DYL DOUBLE YELLOW LINE
- DWL DASHED WHITE LINE
- SYL SINGLE YELLOW LINE
- LSA LANDSCAPED AREA

- GIS PROPERTY LINE
- GIS TOWN LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- EOP EDGE OF PAVEMENT
- SINGLE WHITE FOG LINE
- DOUBLE YELLOW LINES
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGR SLOPED GRANITE CURB
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- EDGE OF GRAVEL
- TREELINE
- STOCKADE FENCE
- STONEWALL
- UNDERGROUND ELECTRIC LINE
- OVERHEAD WIRES
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- GUARD RAIL
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- BUILDING
- EDGE OF CONCRETE
- CENTERLINE OF DITCH
- BARBWIRE FENCE
- STREAM
- ABUTTER PARCEL
- LOCUS PARCEL
- RIGHT OF WAY LINE
- EASEMENT LINE
- LEASE LINE
- SETBACK LINE

*NOTE: REFER TO BASIS OF DESIGN FOR CONSTRUCTION AND MATERIAL INFORMATION.
*NOT FOR CONSTRUCTION.

STATE OF MAINE
DANIEL T. OAKES
No. 2549
REGISTERED LAND SURVEYOR

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207.889.3150

DBH - PORTLAND LLC

CLUBHOUSE ADDITION

Hadlock Field, 271 Park Ave.
Porland, ME 04102

NO.	DESCRIPTION	DATE
A	CM PRICING SET	01/26/24
B	CM PRICING SET - REVISED	05/09/24

CONTENT:
BOUNDARY RETRACEMENT SURVEY
Sv-1

DRAWN BY:	JA
PROJECT NO:	23-104-00
DATE:	01/26/2024
REVISED:	
SCALE:	1"=60'

Project Phase
CM PRICING SET

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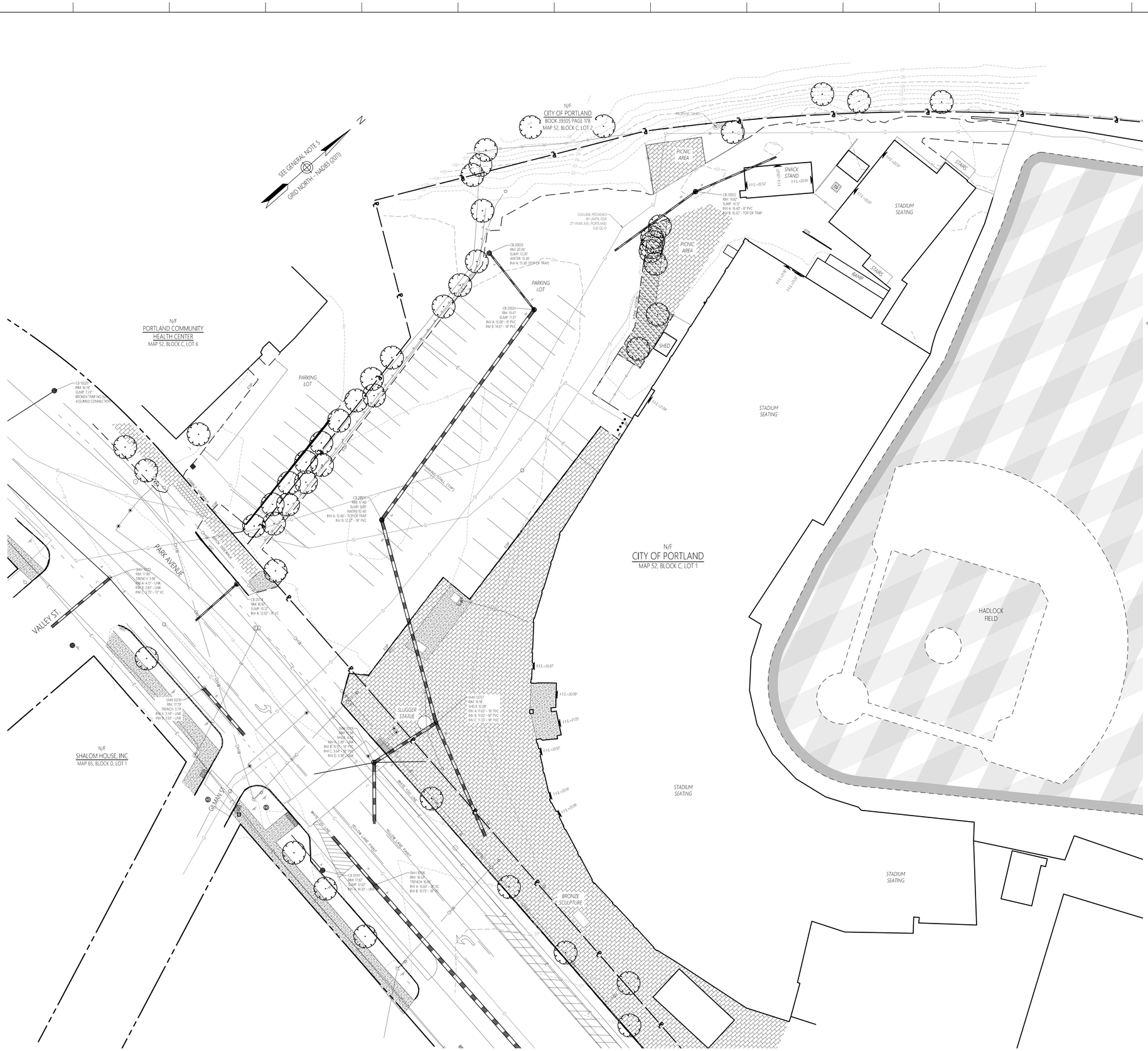

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- BARBWIRE FENCE
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- ABUTTER PARCEL
- LOCUS PARCEL
- RIGHT OF WAY LINE
- EASEMENT LINE
- LEASE LINE
- SETBACK LINE

20 0 20 40
SCALE IN FEET

*NOTE: REFER TO BASIS OF DESIGN FOR CONSTRUCTION AND MATERIAL INFORMATION.
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SEE Sv-1 FOR GENERAL NOTES

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NO.	DESCRIPTION	DATE
A	CM PRICING SET	01/26/24
B	CM PRICING SET - REVISED	05/09/24

STATE OF MAINE
DANIEL T. OAKES
No. 2549
REGISTERED LANDSCAPE ARCHITECT

CONTENT:
EXISTING CONDITIONS Sv-2

DRAWN BY:	JA
PROJECT NO:	23-104-00
DATE:	01/26/2024
REVISED:	
SCALE:	1"=20'

Project Phase
CM PRICING SET

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