

PLANNING BOARD

Tuesday, May 23, 2023 at 5:00 PM
Via Zoom



MEMBERS

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

REMOTE ACCESS INFORMATION:

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When: May 23, 2023 05:00 PM Eastern Time (US and Canada)

Topic: Planning Board Public Hearing 5-23-2023

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PUBLIC COMMENT INFORMATION:

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).

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:

PUBLIC HEARING - 5:00 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON MAY 9, 2023**

Attendance will be added as soon as it is finalized.

4. **REPORTS OF DECISIONS AT THE MEETING HELD ON MAY 9, 2023**

- i. Report of Decisions will be added as soon as they are finalized.

5. **NEW BUSINESS**

- i. Major Site Plan and Conditional Use; 465 Congress Street; CTR Congress, LLC, Applicant. The Planning Board will hold a remote public hearing to consider a proposal to redevelop the building at 465 Congress Street and convert currently vacant office space on floors 2-10 of the building into 63 market rate residential units. This development is also subject to the City's inclusionary zoning (IZ) requirements and is seeking IZ conditional use approval. The subject property is 19,477 square feet in size, is zoned B-3 Downtown Business, and is located within the Congress Street Historic District, the Pedestrian Activities District (PAD) and the Downtown Entertainment Overlay Zone (DEOZ). A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-002411-2023.
- ii. Major Site Plan and Conditional Use; 2 Riverton Drive; Riverton Park, LP, Portland Housing Development Corp. and Portland Housing Authority, Co-Applicants. The Planning Board will hold a remote public hearing to consider a proposal to redevelop Portland Housing Authority's Riverton Park community. The project would involve the demolition of four existing buildings with 24 residential units, rehabilitation of 21 existing buildings with 123 residential units, and construction of a new mixed-use building with ground level offices, health clinic and two retail bays along with 59 residential units. The project would further involve the demolition of an existing administration building, and the construction of a new neighborhood center, requiring conditional use approval for a place of assembly. Other site improvements include enhancements to site utility infrastructure, replacement of curbing, sidewalks and pathways, repaving of parking areas, development of new open space areas, replacement of recreational facilities, and improvements to site lighting. The subject property totals 17.72 acres and is located in the B-2 Community Business and R-5A Residential zones. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-002319-2022.

465 Congress Street
Major Site Plan | Inclusionary Zoning
PL-002411-2023
CTR Congress, LLC

Submitted to:	Portland Planning Board	Prepared By:	Austen Torres Davis
Public Hearing Date:	May 23, 2023	Date:	May 19, 2023

I. INTRODUCTION

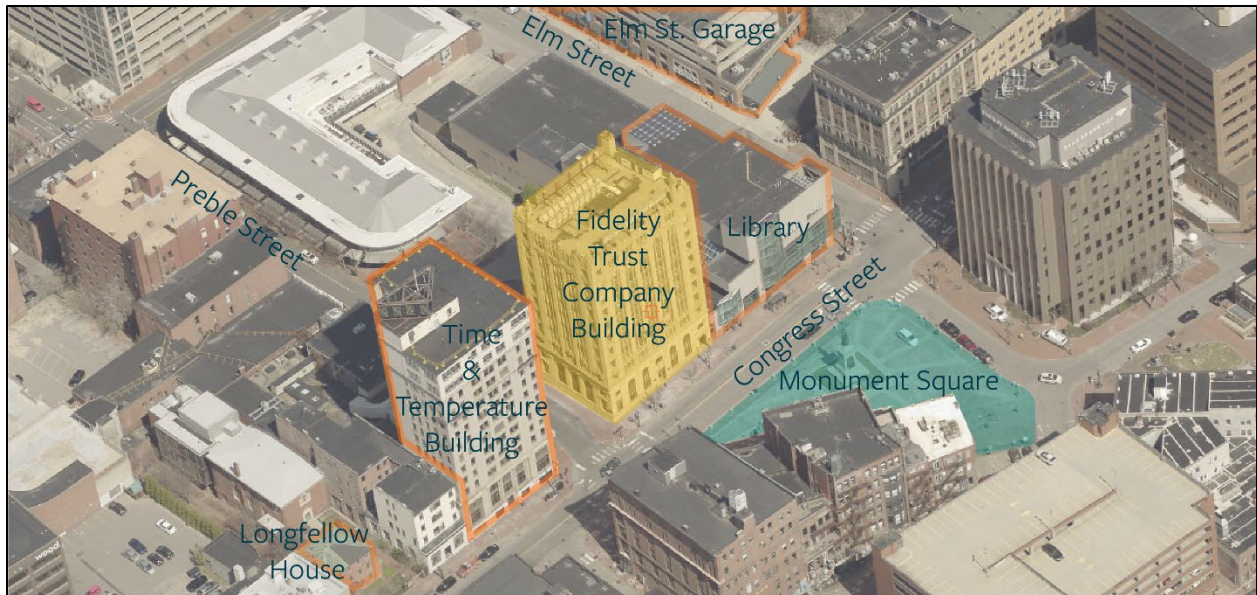


Figure 1: Neighborhood Context, 465 Congress Street Highlighted in Yellow

CTR Congress, LLC has submitted a Major Site Plan and Inclusionary Zoning Conditional Use application to redevelop the historic Fidelity Trust Company Building located at 465 Congress Street into a multifamily residential building containing 63 dwelling units. While most proposed work is within the interior of the existing building, a 10-story rear addition is proposed to provide an enclosed exit stairway to satisfy code requirements for adaptive reuse of the building as housing. The footprint of this proposed stairwell is approximately 170 square feet, while the building's total interior space is 84,180 square feet. As a change of use exceeding 20,000 square feet of floor area, and as a residential project of greater than three units, this application is being referred to the Planning Board for compliance with *Land Use Code Section 14.6, Site Plan Standards*. As a residential project of greater than 10 units, this application is being referred to the Planning Board for compliance with *Land Use Code Section 18.2.3, Inclusionary Zoning Conditional Use Standards*. Additional reviews for this project are triggered due to its location within Pedestrian Activities District (PAD); Downtown Entertainment Overlay Zone (DEOZ).

The Planning and Urban Development Department mailed 103 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the May 13 and 16, 2023 editions of the *Portland Press Herald*.

Applicant: CTR Congress, LLC
Applicant Gorrill Palmer Consulting Engineers; Archetype Architects;
Representatives: Owen Haskell Inc.; Ducas Construction

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan - Change of use >20,000 SF	Section 14.6
Inclusionary Zoning Conditional Use	Section 18.2.3

III. PROJECT DATA

Existing Zoning	B-3 Downtown Business; Congress Street Historic District; Pedestrian Activities District (PAD); Downtown Entertainment Overlay Zone (DEOZ)
Property Size	19,477 square feet (0.447 acres)
Existing Use	Commercial Offices (Vacant)
Proposed Use	Residential

	<i>Existing</i>	<i>Proposed</i>
Building Footprint	7,200 sf	7,200 sf
Building Floor Area	84,180 sf	84,180 sf
Impervious Surface Area	16,177 sf	16,300 sf
Parking Spaces	4	3
Bicycle Parking Spaces	0	2

IV. BACKGROUND & EXISTING CONDITIONS

465 Congress Street is occupied by the historic Fidelity Trust Company Building, which is a building with historic landmark status within the Congress Street Historic District. The building faces Monument Square in the center of downtown Portland. Completed in 1910, the Fidelity Trust Company Building is known as

Portland's first skyscraper, and sits across Preble Street from the similarly notable Time and Temperature Building. Behind the Fidelity Building is a small off-street parking area with landscaping, and a drive-through window for an existing ground-floor bank.. This open space offers clear visibility of the rear façade from Preble Street, where the proposed stairwell would be visible.

An existing stairwell extends from the northeastern wall of the building, cantilevered over the adjacent library structure. Through this development proposal, the existing stairwell will be removed and replaced so that all ingress and egress will be located on the property of 465 Congress Street (CBL: 027 A015001).

The proposed stairwell was reviewed by Portland Historic Preservation program staff, and received approval from the Historic Preservation Board on November 16, 2022. The applicant received a Certificate of Appropriateness on November 21, 2022.

The structure is located in the B-3 Downtown Business zone and is within the boundaries of the Downtown Entertainment Overlay Zone, the Pedestrian Activities District Overlay, and the Congress Street Historic District. The area immediately surrounding 465 Congress Street represents the high-density mixed-use character of Downtown Portland with buildings ranging from around four stories to ten stories. Although the design and styles of these structures vary, they all contribute to the diverse character of the downtown, representing different eras of architecture. The B-3 zone follows Congress Street and expands moving East, while becoming narrower towards the West. Downhill to the north is the Bayside neighborhood, while to the south is the Old Port neighborhood and historic district.



Figure 2: 465 Congress Street as Viewed from Monument Square

V. PROPOSED DEVELOPMENT

The proposed Major Site Plan application would facilitate the redevelopment of existing unused commercial office space on the second through tenth floors, which would involve a change of use from commercial to residential. As proposed, 465 Congress Street will convert 76,980 square feet of currently vacant office space into 63 apartment units for rent, while the ground floor of the building, constituting approximately 7,200 square feet, would remain occupied by a branch of the M&T Bank. The existing parking and circulation area at the rear of the building would continue to serve the existing bank, while no off-street parking would be provided for residents.

The residential units will be a mixture of one-bedroom units, two-bedroom units, and studio units according to preliminary floor plates provided by the applicant. .

In order to meet Article 18.2.3, which requires that projects proposing 10 or more new residential units provide a minimum of 25% of all units as workforce housing, the applicant proposes to provide an in-lieu-fee corresponding to 15.75 workforce units. The required fee-in-lieu amount as originally assessed in the Land Use Code was \$150,000 per unit. As this figure is adjusted annually, the 2023 rate is \$172,485 per unit, for a total of \$2,716,638.75

No off-street vehicular parking is required for this project and none is proposed; however, two bicycle parking spaces will be provided.



Figure 3: Existing Building & Rendering of Proposed Stairway as Approved by the Historic Preservation Board

VI. RIGHT, TITLE, & INTEREST, and FINANCIAL & TECHNICAL CAPACITY

The owner of the property is CTR Congress LLC, a Delaware-based limited liability company.

Connecticut River Capital LLC. Principal Jason Raichle submitted a Financial Capacity Letter (dated February 27, 2023) on behalf of CTR Congress LLC. stating the team has the necessary financial capacity for this project.

The Applicant's team includes Gorrill Palmer Consulting Engineers, Archetype Architects, Owen Haskell Inc., and Ducas Construction. CTR Congress LLC., the ownership group of 465 Congress Street, is a joint venture between Connecticut River Capital LLC. and Alta Properties LLC. These groups have extensive experience in Portland including over 20 Major Site Plan projects. This experience indicates that the applicants have demonstrated adequate technical capacity.

VII. ZONING ANALYSIS

465 Congress Street is located in the B-3 Downtown Business zone, the Downtown Entertainment Overlay Zone (DEOZ), and the Pedestrian Activities District overlay zone, as well as the Congress Street Historic District. The proposed mixed-use redevelopment featuring an activated ground level commercial with residential units on upper floors aligns with the intended purpose of the B-3 zone. The B-3 zone allows a

variety of uses including residential housing, medical clinics, schools, commercial retail, restaurants, and hotels as well as additional uses described in Table 6-C. The B-3 zone has permissive dimensional standards, described in Table 7-E, with no minimum lot area requirement, nor front, rear, or side setback requirements. Height is governed by the Downtown Height Overlay map. The maximum permitted height for this parcel is up to 210 feet. The existing building to be redeveloped meets all applicable zoning dimensional requirements.

Staff have conducted an analysis of applicable overlay zone and workforce housing (IZ) standards, shown below:

A. DOWNTOWN ENTERTAINMENT OVERLAY STANDARDS (Section 8.2.5)

The proposed development has been reviewed by Staff for conformance with the relevant review standards of Portland's Land Use Code. Staff comments are listed below.

1. Separate Business Entities

The proposed project includes one ground floor space used for commercial activity described as a bank with office space. As the site is not intended to have two or more entertainment businesses operating on site, this standard is not applicable.

B. PEDESTRIAN ACTIVITIES DISTRICT OVERLAY (Section 8.8.1)

The proposed development has been reviewed by Staff for conformance with the relevant review standards of Portland's Land Use Code. Staff comments are listed below.

1. Permitted Uses

Being within the PAD Overlay, at least 75% of the proposed street-level of the structure must be occupied by the proposed bank (general services), while the minimum floor area of the ground floor space must be 75% of the frontage multiplied by a depth of 20 feet.

With street frontage of 96 feet along Congress Street, and a total general services frontage of 82 feet, approximately 85% of street frontage is occupied by the ground-floor bank. 100% of the street frontage along Preble Street is occupied by the bank. Therefore, the building as designed meets the intent of this standard.

C. WORKFORCE HOUSING STANDARDS (Section 18.2.3)

The proposed development has been reviewed by Staff for conformance with the relevant review standards of Portland's Land Use Code. Staff comments are listed below.

1. Ensuring Workforce Housing

Per section 18.2.3 C.2.: At least 25% of the units of this project shall meet the definition of workforce housing units for sale or for rent. Per section 18.2.3 C.6.: As an alternative to providing workforce housing units, projects may pay a fee-in-lieu of some or all of the units. With 63 units provided on site, the applicant has opted to pay an inlieu fee for 15.75 workforce units in to the City of Portland Housing Trust Fund. The required fee-in-lieu amount was originally assessed at \$150,000 per unit, and is adjusted annually. The 2023 rate is \$172,485 per unit, and the corresponding cost for providing 15.75 units is \$2,716,638.75. Should the applicant choose to

provide some or all of their required workforce housing units on-site, the applicant and the City would need to enter into an Affordable Housing Agreement (AHA) for those units.

VIII. DEVELOPMENT REVIEW

A. SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6.

1. Transportation Standards (Section 14.6.1)

A. *Impact on surrounding street systems*

With no added off-street parking, and the removal of one parking space to facilitate the creation of one ADA space, the project will not have an impact on the vehicular parking. As a 63-unit residential development, the circulation on surrounding streets is anticipated to be impacted primarily by pick-up and drop-off along Congress and Preble streets. The surrounding sidewalk and street network, heavily trafficked and at the center of Portland's urban core, has the capacity to accommodate the additional traffic from this development.

B. *Access and circulation*

The development site features two private entrances for tenants of the residential portion of the building. These will be accessed from the northeast corner of the site from Congress Street, and from the added stairway at the rear of the building adjacent to the car loop.

Two separate entrances will be maintained as existing to the ground floor bank.

At the rear of the site there is a car loop that services an existing ground floor bank. A sidewalk crosses the landscaped island in the center of the car loop, connecting the sidewalk to a rear entrance to the bank business, as well as connecting to the proposed stairway addition.

C. *Public transit access*

The location of this building in the dense urban core of Portland provides extensive access to public transportation. Monument Square, immediately adjacent to the site, serves as the core of the GPMetro bus system, with routes converging at nearby bus stops including GPMetro Routes 1, 2, 4, 5, 7, 8, 9a, and 9b. South Portland Bus routes that converge in the area include Routes 21, 24A, and 24B. Additionally, the Metro Breeze Express Route, and Lakes Region Bus converge near 465 Congress Street. The existing bus stops near this site have upgraded bus shelters, therefore the applicant will not need to provide bus shelters.



Figure 4: Transit Routes near 465 Congress St. (Area Highlighted)

D. Parking

There are currently four off-street parking spaces on the site, with no bicycle parking. There is no off-street vehicular parking requirements required for a change of use in the B-3, no added vehicular parking is proposed. One space is proposed to be removed and striped to act as an access aisle for one added ADA parking space.

Per Land Use Code Table 19-A, two bicycle parking spaces are required for every five units (2 spaces/5 units).

The proposed site plan includes two Bicycle Parking spaces, though 13 are required. Additionally, Staff suggested that the proposed ADA space be reconfigured such that the access aisle be moved closer to the building entrance. These updates to plans are forthcoming.

E. Transportation Demand Management (TDM)

As a change of use in the B-3 zone, the proposed project is exempt from providing parking. However, based on Land Use Code Section 14.6.1.E, any mixed-use development totaling more than 50,000 sf is required to provide a Transportation Demand Management plan.

The applicant is aware of this standard and a TDM is forthcoming.

2. Environmental Quality Standards (Section 14.6.2)**A. Preservation of significant natural features**

There are no Significant Natural Features located on or near the site.

B. Landscape preservation

One existing tree in the location of the proposed stairwell is proposed to be removed and replaced on site. All existing trees within the rear parking and circulation area are proposed to be preserved.

Parks Department staff have provided recommended tree species for the replaced tree.

C. Site landscaping and buffers

There are no changes proposed to the landscaped area located behind the building. Multi-family residential developments are required to provide a minimum of one street tree per unit. Where the planting of street trees on-site is not feasible, an applicant may fulfill their street tree requirement through an established street tree alternative, listed in Ch. 14, Article 14.6.2.C(4).

Based upon there being 63 proposed dwelling units, the applicant is required to provide a minimum of 63 street trees, or a permitted alternative. There are seven existing street trees, and the applicant is proposing to pay a fee in-lieu, assessed at \$400 per tree (Technical Manual Sec. 4.3.8), for the remaining 56 required trees. Staff have drafted a condition of approval requiring that the applicant provide a fee of \$22,400 to satisfy this requirement.

D. Water quality/storm water management/erosion control

With limited changes to the site, most of the stormwater management features will be maintained as currently exists on the site and building. This redevelopment will not result in 1,000 square feet of new impervious surfaces, thus it falls below Chapter 500 requirements.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)**A. Consistency with City Master Plans**

The City of Portland's Comprehensive Plan encourages new housing development and the development of a diverse array of housing types, particularly in locations that offer convenient access to services and amenities. As it is located in a mixed-use zone, this redevelopment project provides increased housing opportunities, including workforce housing in the urban core of Downtown Portland. Added dwelling units downtown contributes to the City's vision of complete neighborhoods, where residents have access to basic necessities of life, including housing, schools, food, open space, and other amenities and services within walking and biking distance.

B. Public safety and fire prevention

Emergency service vehicles will have access to the building via the frontage on Congress and Preble Streets, and through the car loop at the rear of the property.

The Fire Department has no site plan concerns regarding this proposal.

C. Availability and capacity of public utilities

No new utility services will be needed to service the proposed redevelopment aside from those that already service the building. The applicant has noted in response to staff review comments that they plan to provide documentation that the existing building sewer lateral is not defective.

The applicant has filed a wastewater Capacity application, with this information forthcoming. The applicant has also provided ability to serve confirmation from the Portland Water District.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

As a redevelopment of an existing building, this project will not have additional massing, ventilation, or wind impact.

B. Shadows

Shadow impact analysis requirements do not apply to buildings in the B-3 zone. Additionally, in this case, the applicant is proposing to redevelop an existing building, with no changes to the building's massing.

C. Snow and ice loading

The applicant has stated that as the building has a flat roof, snow and ice are not anticipated to fall on or otherwise negatively impact adjacent properties. The owner will be responsible for the maintenance and management of snow removal from the car loop and landscaped area at the rear of the site.

D. View corridors

The property at 465 Congress Street is not located within an established view corridor, and therefore, this standard is not applicable.

E. Historic resources

The proposed project is located within the Congress Street historic District and went through a board-level Historic Preservation Review (HPBR-002148-2022). The Historic Preservation Board reviewed and approved the application at 465 Congress Street. As proposed, the developers are

focusing mostly on interior renovation, with the most significant external change being the ten-story stairwell addition to the rear of the structure.

F. Exterior lighting

The applicant has noted that there is existing street lighting on Preble Street, as well as pedestrian-scale pole lights on the sidewalk near the adjacent Slab Restaurant. Building-mounted security lights are proposed at the residential doors at the rear of the building.

Although the proposed site has limited exterior space, a Photometric Plan will need to be submitted which demonstrates that the proposed exterior lighting complies with the City's site lighting standards listed in Section 12 of the City's Technical Manual.

G. Noise and vibration

The applicant has stated the proposed HVAC system will be in line with relevant state and federal emissions requirements. Additionally, the system will be sited on the roof of the building, screened from view and located away from abutting properties.

H. Signage and wayfinding

Signage and wayfinding standards are not applicable to this development as tenant signage will be permitted by future application separate from this Planning Board action.

I. Zoning-related design standards

The proposed project is located within the Congress Street historic District and went through Historic Preservation Review (HPR-002148-2022). The Historic Preservation Board reviewed and approved the application at 465 Congress Street.

IX. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting, as required as part of this application, on May 11th, 2023 with one member of the public in attendance. The applicant has provided minutes of this neighborhood meeting.

No public comment have been received by the Planning Department as of May 15, 2023.

X. STAFF RECOMMENDATION

The proposed project meets the applicable standards of Portland's Land Use Code. Subject to the proposed motions and conditions of approval listed below, the Planning Department staff recommends that the Planning Board approve PL-002411-2023 to redevelop the existing building at 465 Congress Street into a 63-unit residential building.

XI. PROPOSED MOTIONS

A. INCLUSIONARY ZONING CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on May 23, 2023 for application PL-002411-2023 at 465 Congress Street relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing, the

Planning Board, **[finds/does not find]** the proposed conditional use for workforce housing meets the standards of Section 18.2.3 with the following conditions, to be met prior to issuance of a Certificate of Occupancy:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. Should the applicant choose to satisfy a portion or all of their inclusionary zoning requirement through the provision of on-site workforce housing units, the applicant and the City shall enter into an Affordable Housing Agreement (AHA) for all on-site workforce housing units.

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

2. Should the applicant enter into an Affordable Housing Agreement with the City, the Affordable Housing Agreement (AHA) shall be filed as covenant to the 465 Congress Street property's deed with the Cumberland County Registry of Deeds.
3. Should the applicant choose to satisfy their inclusionary zoning requirement through a fee in-lieu of providing on-site workforce housing units, the applicant shall pay into the City's Jill C. Duson Housing Trust Fund at a rate of \$172,485 per required workforce unit, for a total contribution of \$2,716,638.75 based upon the required 15.75 workforce housing units.

B. 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 May 23, 2023 for application PL-002411-2023 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the site plan standards of the Land Use Code subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The site plan set shall be finalized to the satisfaction of the Planning Authority and the Department of Public Works and include a lighting and photometrics plan, as well as updates to the parking configuration per staff comments.
2. The site plan set shall be finalized to the satisfaction of the Planning Authority and the Department of Public Works and include 13 bicycle parking spaces.
3. The applicant shall submit ability to serve confirmation from utility providers.
4. The applicant shall submit a Transportation Demand Management (TDM) plan developed in accordance with Section 17 of the City of Portland Technical Manual for review and approval by the Planning Authority.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

5. The applicant shall contribute to the tree fund in the amount of \$400 per tree for 56 trees for a total of \$22,400.

XII. ATTACHMENTS

Report Attachments:

- A. 465 Congress Street – Staff Review Comments
- B. Historic Preservation Certificate of Appropriateness (HPBR-002148-2022)

Applicant's Submittal:

1. Cover Letter
2. Right, Title, & Interest
3. Major Site Plan Checklist
4. Zoning Analysis Table
5. Financial Capacity
6. Technical Capacity
7. Agent Authorization Letter
8. Conformity With Land Use Ordinance
9. Site Design
10. Neighborhood Meeting Certification
11. Staff Review Comment Response Letter
12. Portland Water District

Applicant Plans:

- Plan 1. Cover Page
- Plan 2. General Notes
- Plan 3. Boundary & Existing Conditions Survey
- Plan 4. Existing Conditions & Removals Plan
- Plan 5. Site Layout Plan
- Plan 6. Construction Management Plan
- Plan 7. Site & Misc. Details Plan
- Plan 8. Basement & First Floor Plans
- Plan 9. Mezzanine & Second Floor Plans
- Plan 10. Third & Fourth Floor Plans
- Plan 11. Fifth & Sixth Floor Plans
- Plan 12. Seventh & Eight Floor Plans
- Plan 13. Ninth & Tenth Floor Plans
- Plan 14. New Lobby Stairs
- Plan 15. New Exterior Stairs
- Plan 16. Stair Renderings
- Plan 17. New Stair Elevations

Public Comment:

- Pc1. Ian Stevenson



Review Criteria:

The proposed change-of-use and associated site improvements located at 465 Congress Street (PL-002411-2023) was reviewed against Section 14.6 of the City of Portland Land Use Code and the City of Portland Technical Manual. Additionally, the application was reviewed against Sections 8.2 and 8.8, pertaining to the Downtown Entertainment Overlay and Pedestrian Activities District Overlay, respectively.

Please find below, comments from Planning & Urban Development Department staff and site plan peer-reviewers.

PLANNING

- Please provide ability to serve information.
- Please provide location of snow storage on site plans.
- Please provide Right, Title, and Interest for the subject property
- Please provide neighborhood meeting details in addition to what was submitted. Staff specifically request attendance information such as the number of public attendees.
- Staff recommend relocating the proposed ADA space and existing concrete pad and generator so that the ADA space is closer to the building entrance. Alternatively staff would suggest that the hatched access aisle provided for the handicapped space be switched to the other side of the accessible space, next to the dumpster and generator, instead of placing the handicapped space right next to those features. There will be a need to access the generator, so the hatched area could help keep space for access too.
- Please provide info on the use and emptying of the dumpster – if it's a front access lift-type dumpster, the truck will need to come in against the flow of traffic.

ZONING

- Zoning is on board with the Transit proximate development and uses exemption overriding footnote 1 for historic parking in Table 19-B. The reduction in parking spots will not be an issue with Zoning.
- Please provide a Transportation Demand Management Plan to access this parking exemption.

TRANSPORTATION

- Will new utility services be needed for the proposed renovations (specifically life and safety requirements)?
- Visibility from the proposed accessible parking space is limited due to the proposed trash enclosure. Relocate to the west side of the parking area.
- The applicant shall remove and reconstruct the existing sidewalk and driveway and replace the granite curb along Preble Street pictures below. The concrete sidewalk shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy and the granite curb installed per the current City standards. The applicant shall update the plans and provide spot grades and slopes for the proposed sidewalk. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.



LANDSCAPING & ENVIRONMENTAL QUALITY

- The proposed location for a replacement tree is a fairly small planting area. I would just request applicant to provide an intended replacement species for that space. (or a preferred species with some alternates) Some examples that might work well in a tighter condition like that, on a slope, and with a western aspect could include:
Amelanchier species
Ostrya virginiana
Gleditsia triacanthos var. inermis

WATER RESOURCES

- The Applicant shall submit a wastewater capacity application to DPW water resources for review and approval.
- The applicant shall provide documentation that the existing building sewer lateral is not defective. If found defective it shall be rehabilitated in accordance with city code 24-42 as part of this project prior to reuse.
- The applicant is encouraged to consider implementing a stormwater detention system (subsurface detention, green roof system, blue roof system, ect.) to mitigate stormwater runoff from the building's existing roof drain draining directly into the City's combined sewer system. This property is served by a combined sewer system which produces the highest volume of combined sewer



overflow discharge into Back Cove on an annual basis as a result of the system-wide stormwater capacity limitations.

Planning and Urban Development Historic Preservation Program



November 21, 2022

Jason Raichle
CTR Congress, LLC
465 Congress Street
Portland, Maine 04101

Re: 465 Congress Street, Stair Addition

HPBR-002148-2022

Dear Mr. Raichle,

On November 16, 2022, the Historic Preservation Board approved your application for a Certificate of Appropriateness for construction of a new ten-story stair tower addition at 465 Congress Street (5-o, Basset and Turk absent.) Approval was based on the application materials reviewed by the Historic Preservation Board at the public hearing on November 16, 2022, and is subject to the following conditions of approval:

- Masonry cleaning methods and materials, and samples of mortar, stone, and brick for any necessary repairs or pointing are to be reviewed and approved by HP staff prior to proceeding with work.
- Windows in the addition are to be the second option presented, with proportions more vertically oriented to be similar to the windows in the original building.
- If structurally possible, the proposed canopy over the rear entrance is to be self-supporting, without cables supporting it from above. If support from above is structurally necessary, cables or rods are to be sized and positioned to minimize visual interference.
- Final details for the addition windows, including the depth of installation and relationship to wall cladding are to be submitted to HP staff for review and approval.
- Final details for the interfaces between the addition and the existing building are to be submitted to HP staff for review and approval, including panel seams, flashing, etc.
- New signs will require a separate sign permit application.

All work shall be carried out as shown on the materials reviewed by the Historic Preservation Board on November 16, 2022, except as to comply with the conditions above. Changes to the approved plans or specifications, and any additional work that may be undertaken must be reviewed and approved by this office prior to construction, alteration, or demolition. If, during the course of completing the approved work, conditions are encountered which prevent completing the approved work, or which require additional or alternative work, you must apply for and receive a Certificate of Appropriateness or Non-Applicability PRIOR to undertaking additional or alternative work.

This Certificate is granted upon condition that the work authorized herein is commenced within twelve (12) months after the date of issuance. If the work authorized by this Certificate is not commenced within twelve (12) months after the date of issuance or if such work is suspended in significant part for a period of one year after the time the work is commenced, such Certificate shall expire and be of no further effect; provided that, for cause, one or more extensions of time for periods not exceeding ninety (90) days each may be allowed in writing by the Department.

Sincerely,

A handwritten signature in black ink that reads "Robert Wiener". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Robert Wiener
Historic Preservation Compliance Coordinator

Cc: Katherine Lermond, Archetype Architects
Evan Schueckler, Historic Preservation Program Manager

March 20, 2023

Ms. Christine Grimando -Director
City of Portland Planning & Urban Development
389 Congress Street, 4th Floor
Portland, ME 04101

Subject: 465 Congress Street - Major Site Plan Application
Change of Use development – Former United Bank & Trust Bldg.
Applicant – CTR Congress LLC

Dear Christine:

On behalf of CTR Congress LLC, Gorrill Palmer is submitting application materials for a Major Site Plan Application, for building renovations and change of use at 465 Congress Street. The proposal is to complete interior renovations to create up to 63 market rate apartments on floors 2-10 of the existing building. These floors were historically commercial office space. The original building was constructed in 1908 and contains 84,180 SF per City GIS records. The existing bank use on the ground floor will remain. According to the boundary survey by Owen Haskell the site is 19,477 SF (0.447 acres) in size. 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 August 24, 2022. Archetype has also made several appearances before the Historic Preservation Committee, who have now granted an approval to the proposal¹.

Existing Conditions

The existing site is located at 465 Congress Street and contains an existing 10 story structure and shared vehicular access route off Preble Street. The Preble Street access includes shared access to the abutting property, five parking spaces, and a multi-lane bank drive thru that exits back onto Preble Street. Preble Street is one-way directional towards Congress Street at this location. The site is located in the B-3 zone as identified to the right.

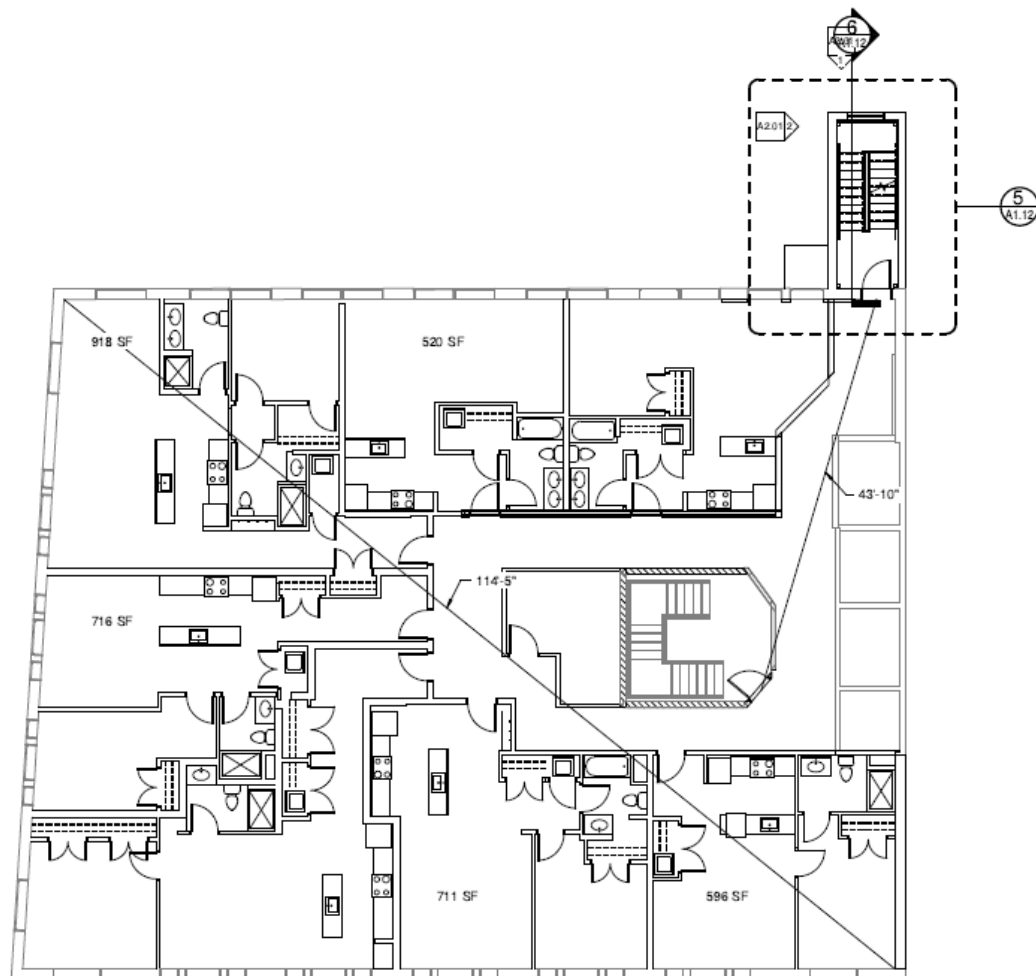


Fig 1 (Zoning Excerpt) B-3

¹ See HPBR-002148-2022, approved on November 16, 2022



According to City records, underground utilities in Preble and Congress Streets include water, gas, and sewer. Underground power and communications lines are located in Preble Street. The proposed change of use involves only one significant exterior change and that is a new stairwell on the northwest corner of the building. An existing partial stair on the outside of the building will be demolished and the new full building height stairwell will be constructed to serve the residential units. The site plan identifies this area of proposed activity. The stairwell construction will require coordination with the City and adjacent library foundations/walls. All other improvements consist of interior renovations and fit up for the residential units. Each floor is expected to have 7 units to consist of a floor plate preliminarily laid out as follows:



1 | THIRD THRU EIGHTH FLOOR
1/8" = 1'-0"

Fig 2 Typical Floor Plan

Traffic/parking

The site has been previously developed for commercial land use with very limited onsite parking available. Tenants of the building will be required to secure parking in nearby parking facilities including, but not limited to, the Portland Public Market Garage, the Elm Street parking garage, the Brown Street parking



garage, or One City Center Parking Garage. Bank visitors will use nearby on-street parking or the garages as is typical for the downtown area. The project is not expected to generate new traffic above the former use traffic generated by the building occupants. The owner is coordinating with the abutting landowners for the continuation of access and related use benefitting their sites.

Utilities

The building project contains the following existing utilities:

- The building is sprinkled and contains a 4" domestic water service off Congress Street and a 6" Fire service off the new 12" water main in Preble Street. The Fire Dept connection is located at the rear of the building.
- It is believed the building's sewer exits into Preble Street and ties into the City sewer in the street. A video examination of the existing sewer will be performed to verify its condition for continued use.



Figure 3 – Streetview - Rear

- The building will be served by Natural gas coming from Preble Street evidenced by the gas meter assembly shown in the image above.
- There is underground power and communications in Preble Street. The design team is currently coordinating with CMP and the communications providers on these services.

Consistency with Master Plan

On Portland's Future Land Use Plan, 465 Congress Street remains located 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 on 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 the change of use with ground level retail and residential above. We believe the proposed uses go hand in hand as complimentary uses to the surrounding businesses and land use an envisioned in the Comprehensive plan and current zoning. In accordance with the Major Site plan General Document Checklist, we offer the following abbreviated information along with the relevant sections uploaded to EPlan:



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
3. **Evidence of Right, Title, and Interest.** The site is owned by CTR Congress LLC per Deed recorded at the CCRD Book 35700, page 260, a copy of which is attached to this submission document.
4. **Zoning Assessment** – see attached. Located in B-3 zone and Downtown Entertainment (DEOZ)
5. **Site plan Standards Assessment** – see attached and information below.
6. **Summary of Existing and/or proposed easements or covenants** – not applicable
7. **Waiver Request** – none requested.
8. **Evidence of financial and Technical Capacity** – The applicant has retained Archetype PA, Gorrill Palmer Consulting Engineers, and Ducas Construction to assist with the design and construction of the proposed project. A letter from Connecticut River Capital indicating adequate financial capacity accompanies this application.

Transportation

9. **Impact on Surrounding Street system** – no impact. Redevelopment of an existing high rise building with no new onsite parking provided. The site use is not expected to create or aggravate any existing conditions or safety concerns on Congress Street. The site access conditions are consistent with the neighboring sites on both sides of the street.
10. **Access and Circulation** – The site and building are accessible from at least three sides with ample access for emergency vehicles and site tenants. The elevator will be sized to allow for stretcher and emergency personnel. The building entrances off the Congress Street sidewalk are flush to existing grade. The new stairwell will have an exit door onto the existing concrete sidewalk at the rear of the building. The existing ramps and steps off the rear vehicular drive/ATM access, will remain unchanged.
11. **Public transit** – the location benefits from nearby proximity to the METRO Route 1 service route as well as the METRO transfer opportunities at Monument Square.
12. **Off-Street Parking** – No vehicular parking for residential tenants will be provided onsite. Two Dero Bike Hitches will be provided on the site. The site is fully paved or otherwise is building.
13. **Transportation Demand Management** – Not applicable

Environmental

14. **Preservation of Significant Natural Features** – Not applicable



15. **Landscape Preservation** – Several existing trees within a small-landscaped area will remain off Preble Street. A single tree and some shrubs will be removed in the area of the proposed stairwell and this area will have now landscaping treatment installed following completion of the construction.



Figure 4 Streetview from Preble Street

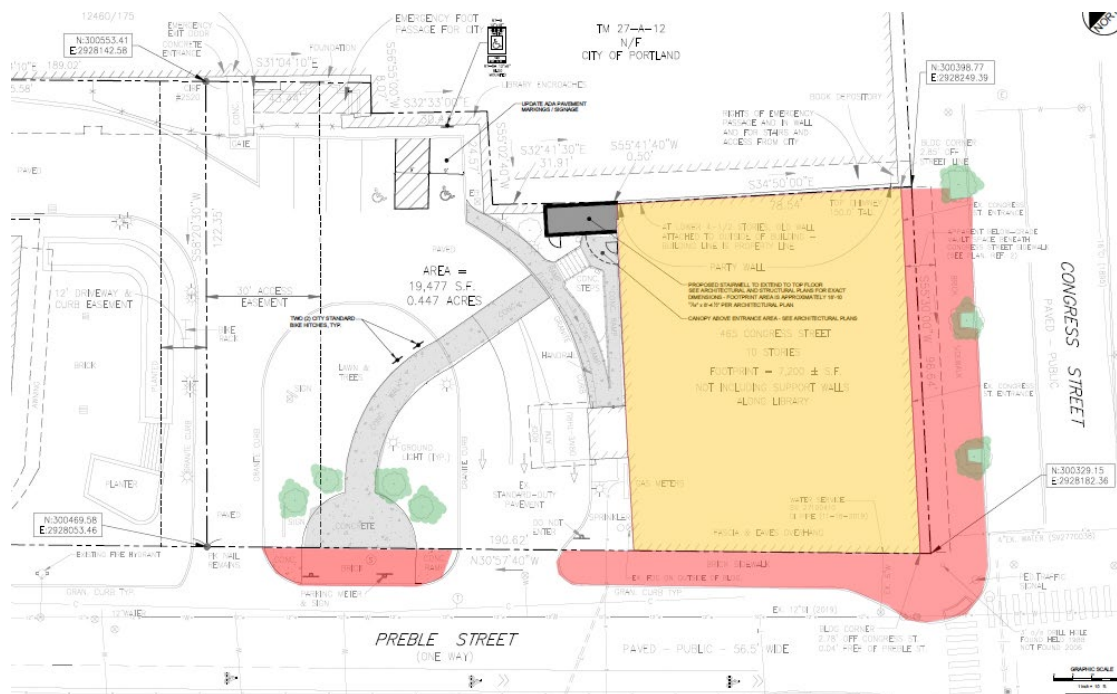
16. **Site landscaping and Buffers** – Not applicable
17. **Water Quality, Stormwater Management and Erosion control** – The site is nearly fully developed with building and pavement/concrete in the current condition. There is no expected change in overall site drainage. It is believed the existing roof contains one or more roof drains that tie into the City's drain or sewer lines in the street. 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

18. **Consistency with City Master Plans** – See Above
19. **Public Safety and Fire Prevention** – The building has a full sprinkler system and Fire Department Connection along the Preble Street Façade.
20. **Availability and Adequacy of Public Utilities** – see above. We believe the building's existing utility services are adequate for the proposed change of use.

Site Design

21. **Massing, Ventilations and Wind Impact** – not applicable – See Archetype renderings for further information on the building.
22. **Shadows** – Not applicable
23. **Snow and Ice Loading** – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties.
24. **View Corridors** – Not applicable





Approved for Historic Preservation
Certificate of Appropriateness
11/21/22

Date:

Existing



Proposed



Fig 6 – Rendering from Parking lot



Fig 7 – Rendering from access driveway



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: Jason Raichle, CTR Congress LLC
Katherine Lermond, Archetype

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\IP Applications\Local\2023.03.20 app_465 Congress_site plan_Cover Letter.docx

DLN: 1001940059793

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS, THAT **5 Monument Square, LLC**, a Maine limited liability company, doing business in Portland, Maine, FOR CONSIDERATION PAID, grants to **CTR Congress LLC**, a Delaware limited liability company, whose mailing address is 85 Mechanic Street, Suite 140, Lebanon, N.H. 03766, WITH WARRANTY COVENANTS, the following described real property located in Portland, Cumberland County, State of Maine:

SEE "EXHIBIT A" ATTACHED HERETO AND MADE A PART HEREOF.

Subject to the matters set forth in said EXHIBIT A.

IN WITNESS WHEREOF, 5 Monument Square, LLC has caused this instrument to be executed by Joseph L. Soley, its duly authorized Sole Member, this 6th day of June, 2019.

WITNESS:

5 MONUMENT SQUARE, LLC

Robert E. Stevens

By: [Signature]
Joseph L. Soley, its Sole Member

STATE OF MAINE
CUMBERLAND COUNTY, ss.

June 6, 2019

Personally appeared the above-named Joseph L. Soley, Sole Member of 5 Monument Square, LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said 5 Monument Square, LLC.

Before me,

Robert E. Stevens
Attorney-at-Law / Notary Public

Print Name: Robert E. Stevens
My commission expires: _____

EXHIBIT A

A certain lot or parcel of land, together with the buildings and improvements thereon, situated on the northerly side of Congress Street and the easterly side of Preble Street in the Monument Square area of the City of Portland, County of Cumberland, State of Maine, and further bounded and described as follows:

Beginning at the intersection of the easterly side of Preble Street with the northerly side of Congress Street;

Thence from said point of beginning and by said Congress Street N 55°30'E, 96.64 feet to land of the City of Portland, the Portland Public Library;

Thence by said City of Portland land on the following described courses and distances, which basically follow building faces of the buildings herein conveyed, and party walls with said Portland Public Library building;

N 34°50'W, 78.54 feet;

Thence N 55°41'40"E, 0.50 feet;

Thence N 32°41'30"W, 31.91 feet;

Thence N 55°02'40"E, 24.57 feet;

Thence N 32°33'W, 30.43 feet;

Thence N 56°55'E, 8.07 feet;

Thence N 31°04'10"W, 43.44 feet to land conveyed by deed of near or even date to Congress Canal LLC;

Thence S 58°20'30"W, 122.35 feet to Preble Street;

Thence by said Preble Street S 30°57'40"E, 190.62 feet to the point of beginning.

Said above described courses are magnetic 1973.

Reference is made to the following surveys:

1. "ALTA/ACSM Land Title Survey on Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine" made for record owner October Corporation by Owen Haskell, Inc., dated August 23, 2006.
2. "ALTA/ACSM Land Title Survey on Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine" made for record owner GRE Congress Canal LLC dated January 10, 2007 prepared by Owen Haskell, Inc.

The parcel described above is conveyed TOGETHER WITH all of Grantor's right, title and interest in and to any easement appurtenant thereto, including without limitation the following, and is conveyed SUBJECT TO the terms, conditions and restrictions contained therein:

1. Rights, easements, terms and conditions set forth in that certain deed from Marcy, Inc. to the City of Portland dated October 17, 1977, and recorded in the Cumberland County Registry of Deeds in Book 4118, Page 175, as modified by deed to Ram & Co., dated August 17, 1981 and recorded in said Registry of Deeds in Book 4842, Page 131, and by Agreement to Modify Easement by and between the City of Portland and October Corporation, dated April 16, 1996 and recorded in said Registry of Deeds in Book 12460, Page 175.
2. Common law party wall rights.
3. Rights, easements, terms and conditions set forth in that certain deed from Crown Life Insurance Company to October Corporation dated June 12, 1995, and recorded in the Cumberland County Registry of Deeds in Book 11974, Page 39, as modified by Agreement between the City of Portland and October Corporation dated April 16, 1996 and recorded in said Registry of Deeds in Book 12460, Page 168 and in Quitclaim Deed from City of Portland to October Corporation, dated April 12, 1996 and recorded in said Registry of Deeds in Book 12460, Page 172.
4. Terms and conditions of Lease of air space by and between the City of Portland and August Corporation, dated February 27, 1998, a memorandum of which is recorded in the Cumberland County Registry of Deeds in Book 13712, Page 165, as affected by Assignment and Assumption Agreement with Respect to Leases and Licenses by and between August Corporation and August Holdings, LLC, dated December 30, 1999, recorded in said Registry of Deeds in Book 15254, Page 66, as further affected by Assignment and Assumption Agreement with Respect to Leases and Licenses by and between August Holdings, LLC and October Corporation dated January 3, 2000, recorded in said Registry of Deeds in Book 15259, Page 300; Memorandum of Assignments of Lease by and between October Corporation and City of Portland dated July 2001, recorded in said Registry of Deeds in Book 16520, Page 1, as affected by Assignment and Assumption of Skywalk Lease by and between October Corporation and GRE Congress Canal LLC, dated August 24, 2006, recorded in said Registry of Deeds in Book 24299, Page 62, as further affected by Assignment and Assumption of Skywalk Lease by and between GRE Congress Canal LLC and Atlantic National Holdings LLC dated May 15, 2008, recorded in said Registry of Deeds in Book 26103, Page 328.
5. Rights, easements, terms and conditions set forth in Easement Deed between the City of Portland and October Corporation, dated April 11, 1997 and recorded in said Registry of Deeds in Book 13028, Page 74.
6. Terms and conditions of that certain State of Maine Department of Environmental Protection Site Location Order, dated March 12, 1992 and recorded in said Registry of Deeds in Book 10001, Page 133 and that certain Transfer and

Findings of Facts and Order dated September 7, 1993 and recorded in said Registry of Deeds in Book 10965, Page 83.

- 7. Terms and conditions of that certain Department of Environmental Protection Order dated January 13, 1999 and recorded with an Affidavit dated May 26, 2006 and recorded in said Registry of Deeds in Book 24001, Page 217.**
- 8. Easement Agreement between GRE Congress Canal LLC and Atlantic National Holdings, LLC dated June 2, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26103, Page 335.**
- 9. Such state of facts depicted on (i) an unrecorded plan entitled "ALTA/ACSM Land Title Survey, Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine made for Record Owner October Corporation" by Owen Haskell, Inc. dated August 23, 2006, and (ii) an unrecorded plan entitled "ALTA/ACSM Land Title Survey, Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine made for GRE Congress Canal LLC" by Owen Haskell, Inc. dated January 10, 2007.**
- 10. Rights, easements, terms and conditions set forth in a Warranty Deed from L.E. Springer, Inc. to 5 Monument Square, LLC dated August 14, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30955, Page 313.**

O:\Soley, Joseph (83699)\5 Monument Square, LLC (356)\Sale documents\Exhibit A to Deed.docx

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN GENERAL DOCUMENT AND DRAWINGS CHECKLIST Please submit each document as a separate PDF file. Please confirm by electronically checking the boxes in the left-hand column. ** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW ** At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.		
GENERAL APPLICATION DOCUMENTS		
☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
Yes	☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	NA	Site Plan Standards Assessment (see Section 14.6 of the land use code) Summary of project compliance with site plan standards of the land use code
Yes	☒	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	☒	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	NA	Technical Capability Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN STANDARDS AND SUBMISSION CHECKLIST

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

TRANSPORTATION

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

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

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

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

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

All Projects:

	Required	Proposed
Lot Size	-	19,477 SF
Area Per Dwelling Unit	-	
Minimum Street Frontage	15 ft	96.64 ft
Front Yard Minimum		
Front Yard Maximum	5 ft	2.85ft.
Rear Yard		
Yard Right		
Yard Left		
Side Street Setback		
Step Back		
Maximum Lot Coverage	100%	90%<100%
Minimum Lot Coverage		
Maximum Height	210 ft	135 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):			



February 27, 2023

To whom it may concern,

CTR Congress LLC, the ownership group of 465 Congress Street, is a joint venture between Connecticut River Capital LLC and Alta Properties LLC, both of which are seasoned commercial real estate investment and development firms. Combined, the firms have successful track records spanning several decades and have developed or invested in properties totaling more than 4 million square feet, including several development and redevelopment projects in recent years, each of which were on a scale equal to or exceeding that of the 465 Congress Street residential conversion.

The principals of Connecticut River Capital and Alta Properties and the investors in 465 Congress Street represent a total net worth of more than \$1 billion, and the ownership group has the experience and the financial means to complete this project. Please feel free to contact me with any questions about the development team.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Raichle", written in a cursive style.

Jason Raichle
Principal, Connecticut River Capital LLC,
for CTR Congress LLC

TECHNICAL CAPABILITY

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

<i>Civil Engineer</i>	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 707 Sable Oaks Drive South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
<i>Architect</i>	Katherine Lermond Archetype Architects Union Wharf Portland, ME 04101 katherine@archetypepa.com
<i>Surveyor</i>	Owen Haskell Inc Sam Glidden 390 US Route One Suite 10 Falmouth, ME 04105 sglidden@owenhaskell.com
<i>Construction Management</i>	Ducas Construction Patrick Ducas 40 Center Street – Suite 1 Scarborough, Maine 04074 patrickd@ducasconstruction.com

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



February 27, 2023

RE: Agent Authorization

CTR Congress LLC

Change of use at 465 Congress Street, Portland Maine

To City of Portland Planning Authority,

CTR Congress LLC authorizes Gorrill Palmer Consulting Engineers to act as an Agent in the production and submission of applications, response letters and related communications related to all local permit applications.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason Raichle", with a stylized, flowing script.

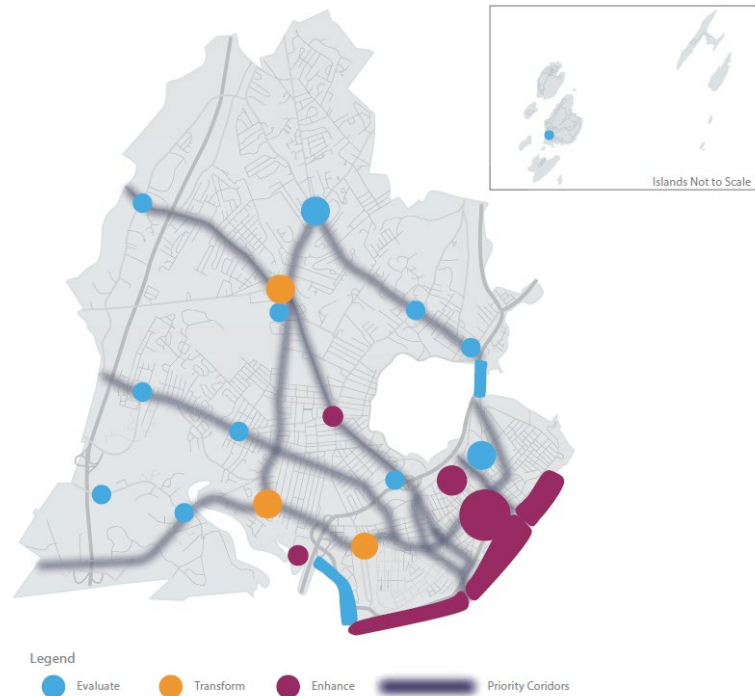
Jason Raichle, Duly Authorized
CTR Congress LLC

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

14.6.3.A Consistency with City

Master Plans – On Portland's Future Land Use Plan, 465 Congress Street is 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 on 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 the change of use with ground level retail and residential above. We believe the proposed uses go hand in hand as complimentary uses to the surrounding businesses and land use an envisioned in the Comprehensive plan and current zoning.

Priority Nodes & Corridors



14.6.3 (B) Public Safety and Fire Prevention – The building has a full sprinkler system and Fire Department Connection along the Preble Street Façade. Access to the building is readily available from three sides. Street and security lighting is in place around the building, thus providing for public safety. We are not aware of any policing issues in the vicinity of the building.

14.6.3 (C) Availability and Adequacy of Public Utilities – The building project contains the following existing utilities:

- The building is sprinkled and contains a 4" domestic water service off Congress Street and a 6" Fire service off the new 12" water main in Preble Street. The Fire Dept connection is located at the rear of the building.
- It is believed the building's sewer exits into Preble Street and ties into the City sewer in the street. A video examination of the existing sewer will be performed to verify its condition for continued use.



Figure 3 – Streetview – Rear

- The building will be served by Natural gas coming from Preble Street as evidenced by the gas meter assembly shown in the image above.
- There is underground power and communications in Preble Street. The design team is currently coordinating with CMP and the communications providers on these services.

ENVIRONMENTAL

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

14.6.2 (B) Landscape Preservation – Several existing trees within a small-landscaped area will remain off Preble Street. A single tree and some shrubs will be removed in the area of the proposed stairwell and this area will have new landscaping treatment installed following completion of the construction.

14.6.2 (C) Site landscaping and Buffers – Not applicable

14.6.2 (D) Water Quality, Stormwater Management and Erosion control – The site is nearly fully developed with building and pavement/concrete in the current condition. There is no expected change in overall site drainage. It is believed the existing roof contains one or more roof drains that tie into the City's drain or sewer lines in the street. 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.

TRANSPORTATION

14.6.1(A) **Impact on Surrounding Street system** – no impact. Redevelopment of an existing building with no new onsite parking provided. The site use is not expected to create or aggravate any existing conditions or result in safety concern on Preble or Congress Street. The site access conditions are consistent with the neighboring sites on both sides of the street.

14.6.1(B) **Access and Circulation** – The building is accessible from entrances on two sides (front and rear) with ample access for emergency vehicles and site tenants. The elevator will be sized to allow for a stretcher and emergency personnel. The building entrances off the Congress Street sidewalk are flush to existing grade. The existing rear entrance requires a ramp system that will remain in place. There are also steps in place to the rear entrance, which will serve as the primary residential entrance.

14.6.1(C) **Public transit** – the location benefits from nearby proximity to the METRO Route 1 service route as well as the METRO transfer opportunities at Monument Square.

14.6.1(D) **Off-Street Parking** – No parking is provided onsite. Two Dero Bike Hitches will be provided on the site. The site is fully paved or otherwise is building.



Route 1 METRO Route - Congress

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

Transportation Demand Management – Not applicable

SITE DESIGN

14.6.4 (A) Massing, Ventilations and Wind Impact – not applicable – See Archetype 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 – The site has undergone HP review and approval.



14.6.4 (F) Exterior Lighting – There is existing street lighting on Preble Street and some pedestrian scale pole lights on the sidewalk near the Slab Restaurant. Building mounted security light(s) will be provided at the residential doors at the rear of the building.

14.6.4 (G) Noise and Vibration – Not applicable- any existing roof top equipment is screened and dampened as necessary to satisfy City noise and vibration standards. There is no ground mounted equipment associated with the site.

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

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.



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

I, Stephen Bushey, of Gorrill Palmer, hereby certify that a Neighborhood Meeting was held on Thursday, May 11, 2023 at 5:00 P.M. via Zoom Videoconference for the proposed mixed used development at 465 Congress Street in Portland, ME.

I also certify that on April 28, 2023 (which is at least ten (10) days prior to the Neighborhood Meeting) invitations were mailed to the following:

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

Signed,

A handwritten signature in black ink, appearing to read 'Stephen Bushey', written over a horizontal line.

Stephen Bushey, Sr. Associate

May 12, 2023

Date

Attached to this certification are:

1. Copy of the Invitation Sent
2. Meeting Minutes

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\G Abutters\2023.05.12 certification_neighborhood-meeting

April 28, 2023

Dear Neighbor:

Please join us for a Neighborhood Meeting via Zoom to discuss the proposed change of use and conversion to residential units on floors 2-10 at 465 Congress Street, in Portland, ME. The Planning Authority project ID is PL-002411-2023. The proposed project includes the conversion of space into 63 market rate apartments. A new full height stairwell will be constructed on the northwest corner of the building. The existing bank use on the ground level will remain. The Historic Preservation Board has approved the proposal (see HPBR-002148-2022). Pursuant to the City of Portland's COVID guidelines, this meeting is to be held by video conference.

Meeting Location: Join Zoom Meeting

<https://us02web.zoom.us/j/84730385304?pwd=UkRSWSs4RUcxK3krOUZjV2JLTGpldz09>

Meeting ID: 847 3038 5304

Passcode: 000057

One tap mobile

+13017158592,,84730385304#,,,*000057# US (Washington DC)

+13052241968,,84730385304#,,,*000057# US

Meeting ID: 847 3038 5304

Passcode: 000057

Find your local number: <https://us02web.zoom.us/j/84730385304?pwd=UkRSWSs4RUcxK3krOUZjV2JLTGpldz09>

Meeting Date: May 11, 2023

Meeting Time: 5:00 PM – 5:45 PM

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. We will take attendance and submit a sign-in sheet to the Planning Board. The meeting will last no more than 30 – 45 minutes. If you have any questions, please feel free to contact Stephen Bushey 207.772.2515 x286.

Sincerely,

GORRILL PALMER

Stephen Bushey, PE
Senior Associate
sbushey@gorrillpalmer.com

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

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\G.Abutters\Neighborhood meeting notice 2023.04.28

NEIGHBORHOOD MEETING MINUTES

Project: 465 Congress Street - Change of use
CTR Congress, LLC

Date: May 11, 2023 – 5:00 PM to 5:20 PM

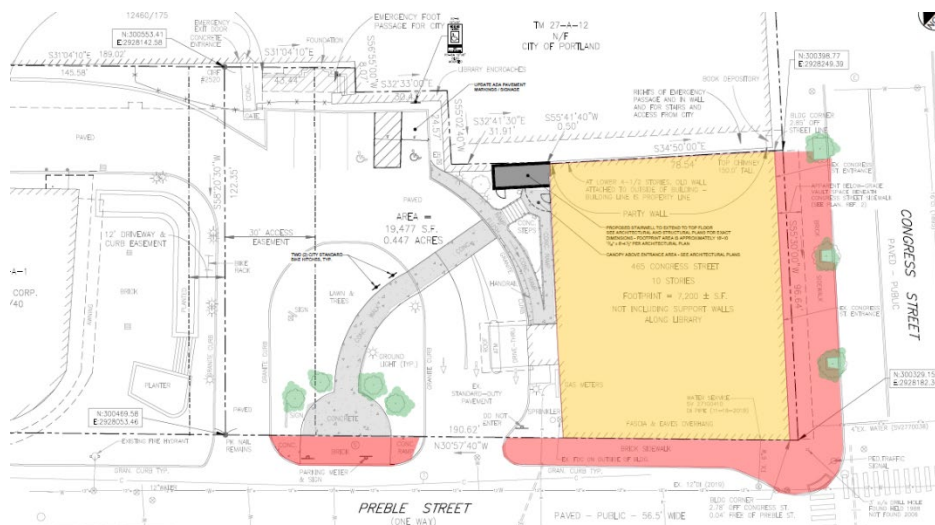
Location: Zoom Video Conference

Attendees: Steve Bushey - Gorrill Palmer
Jason Raichle CTR Congress, LLC (Applicant)
Ed Gardner – Gardner Real Estate

In accordance with the City of Portland Planning Board Requirements, a Neighborhood Meeting was held to discuss the proposed development at 465 Congress Street in Portland, ME. The meeting was held on Thursday, May 11, 2023, at 5:00 PM via Zoom Conferencing. Steve Bushey, PE, representative from Gorrill Palmer and Jason Raichle, Applicant were available via Zoom from 5:00 PM–5:25 PM.

Steve Bushey started the meeting and gave a brief overview to discuss the Major Site Plan development and where the project is headed.

Steve proceeded to describe the regulatory aspects of the permitting procedures and how it works with the City Planning Department. The project involves a change of use for the conversion of floors 2-10 of an existing office building to 63 market rate residential units. The exterior site work is limited to the construction of a new full building height stair tower on the northwest corner of the building. Steve presented the site plan and building elevations to the attendees.

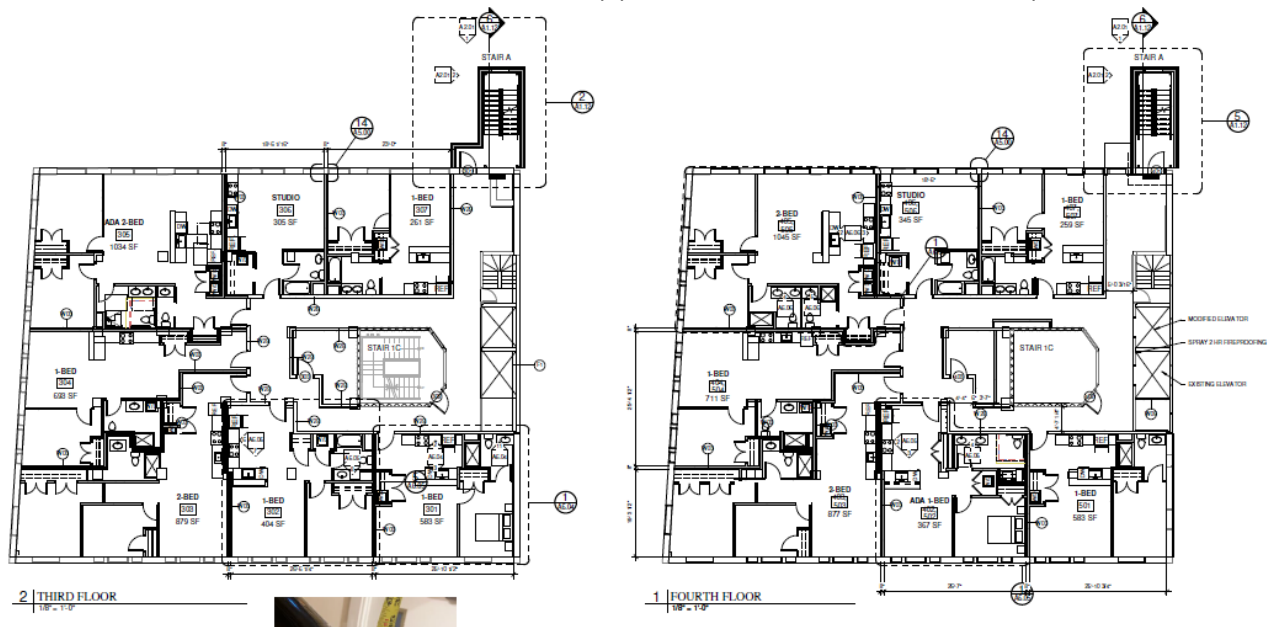




Questions from Public

Ed Gardner asked about the interior renovations and general background of the building. he also asked about the status of the ground level bank tenant.

The group reviewed the renderings by Archetype and SRB indicated that the project has received Historic Preservation review and approval. The Bank tenant is expected to remain.



Steve thanked everyone and adjourned the meeting at 5:20 p.m.

Attendees: List Above

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\G Abutters\min_meeting_465 Congress 2023.05.11.docx



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

May 18, 2023

Mr. Austin Torres Davis, Planner

Planning & Urban Development Department
 389 Congress Street
 Portland, Maine 04101

**Subject: Major Site Plan, Master Development Plan Amendment
 Project ID – PL-002411-2023
 465 Congress Street
 CTR Congress LLC, Applicant
 Letter of Response #1– Reply to staff comments.**

Dear Austin:

On behalf of **CTR Congress LLC (Applicant)**, our office is pleased to provide the following information related to the updated Final Plan submission to be considered by the Planning Board at the May 23, 2023, Public Hearing. For ease of review, we have repeated all of the Planning report comments/next steps from the staff review in *italics* and provide our responses in **bold** as follows:

General Comments from Planning & Urban Development Department

1. Please provide the ability to serve information.

Response: A copy of the correspondence from the Portland Water District affirming their ability to continue to serve the building has been uploaded to Eplan and also accompanies this letter. We await a wastewater capacity authorization from DPW. The electrical service to the building requires no specific upgrades that we are aware of, however some internal panel work for unit submetering etc. may be undertaken.

2. Please provide location of snow storage on site plans.

Response: Snow will be routinely removed from the site and not stockpiled due to the limited availability of area for storage beyond the small number of landscaped areas.

3. Please provide Right, Title, and Interest for the subject property.

Response: A copy of the deed that is recorded in CCRD Book 3570, page 260 is attached to this letter and was previously uploaded to Eplan.



4. *Please provide neighborhood meeting details in addition to what was submitted. Staff specifically request attendance information such as the number of public attendees.*

Response: The meeting minutes indicate there was only one member of the public to attend, who was Ed Gardner of Gardner Realty Group. The owner and the writer were the only other attendees. A copy of the minutes accompanies this letter.

5. *Staff recommend relocating the proposed ADA space and existing concrete pad and generator so that the ADA space is closer to the building entrance. Alternatively, staff would suggest that the hatched access aisle provided for the handicapped space be switched to the other side of the accessible space, next to the dumpster and generator; instead of placing the handicapped space right next to those features. There will be a need to access the generator; so the hatched area could help keep space for access too.*

Response: We agree with the suggestion to realign the ADA hatched zone and will complete that plan update when the final plans, containing all the conditions of approval, are uploaded for stamping, prior to the submission of a building permit application.

6. *Please provide info on the use and emptying of the dumpster – if it's a front access lift-type dumpster; the truck will need to come in against the flow of traffic.*

Response: The solid waste vendor will be required to use an end access truck to avoid the need for any vehicle movements running against the clockwise flow of access currently onsite.

Zoning Comments

7. *Zoning is on board with the Transit proximate development and uses exemption overriding footnote 1 for historic parking in Table 19-B. The reduction in parking spots will not be an issue with Zoning.*

Response: We appreciate this finding.

8. *Please provide a Transportation Demand Management Plan to access this parking exemption.*

Response: We are amenable to a condition of approval stipulating the submission of a Transportation Demand Management Plan prior to the request for a certificate of occupancy. We'd appreciate the opportunity to consider the framework of a TDM plan with the applicant's team and that may require time as they assemble their building management structure during the course of construction. We believe this sort of COA has been previously allowed by the City.



Transportation

9. Will new utility services be needed for the proposed renovations (specifically life and safety requirements)?

Response: No new utilities are required for the development as the existing utilities are sufficient for the intended residential conversion and reuse.

10. Visibility from the proposed accessible parking space is limited due to the proposed trash enclosure. Relocate to the west side of the parking area.

Response: The ADA parking space alignment will be modified as outlined in comment #5 above.

11. The applicant shall remove and reconstruct the existing sidewalk and driveway and replace the granite curb along Preble Street pictures below. The concrete sidewalk shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy and the granite curb installed per the current City standards. The applicant shall update the plans and provide spot grades and slopes for the proposed sidewalk. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards.

Response: We agree with these comments and will complete the plan update when the final plans, containing all the conditions of approval, are uploaded for stamping, prior to the submission of a building permit application.

Landscaping and Environmental Quality

12. The proposed location for a replacement tree is a fairly small planting area. I would just request applicant to provide an intended replacement species for that space. (or a preferred species with some alternates) Some examples that might work well in a tighter condition like that, on a slope, and with a western aspect could include:

Amelanchier species

Ostrya virginiana

Geditsia triacanthos var. inermis

Response: We agree with these comments and will complete the plan update when the final plans, containing all the conditions of approval, are uploaded for stamping, prior to the submission of a building permit application.



Water Resources

13. The Applicant shall submit a wastewater capacity application to DPW water resources for review and approval.

Response: A wastewater Capacity application has been filed with Brad Roland of DPW and we await his reply.

14. The applicant shall provide documentation that the existing building sewer lateral is not defective. If found defective it shall be rehabilitated in accordance with city code 24-42 as part of this project prior to reuse.

Response: This is a good recommendation and we have advised the Construction Manager, Ducas Construction, to have the existing sewer lateral out to the street connection, video inspected. The results of this survey will be provided to the water resources department prior to the submission of a building permit application.

15. The applicant is encouraged to consider implementing a stormwater detention system (subsurface detention, green roof system, blue roof system, ect.) to mitigate stormwater runoff from the building's existing roof drain draining directly into the City's combined sewer system. This property is served by a combined sewer system which produces the highest volume of combined sewer overflow discharge into Back Cove on an annual basis as a result of the system-wide stormwater capacity limitations.

Response: We are aware of the City's interest in reducing combined flows into the City's municipal sewer collection systems and have suggested to the design team to consider potential opportunities for rainwater collection and reuse and/or runoff reduction strategies. This may include, but is not limited to, some green roof infrastructure and/or roof drainage collection for irrigation or greywater reuse. In light of the City's fees for water, sewer, and stormwater, these strategies merit consideration, above the basic issue of combined sewer overflow benefits. We respectfully acknowledge the staff comment and look forward to further design consideration as construction documents are completed. Currently, the design team does not have any specifics strategies to offer without the benefit of a full economic analysis if implemented.



We look forward to the Planning Board public hearing and a possible approval action on May 23rd. We appreciate the City's willingness to allow the project to go straight to a public hearing, while recognizing the nature of the proposal, limited issues and previous HP review and action on the work. If you have any further questions, please contact this office.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments:

c: Jason Raichle, CTR Congress LLC
Katherine Lermond – Archetype

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\IP Applications\Local\LOR#1 2023.05.18

DLN: 1001940059793

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS, THAT **5 Monument Square, LLC**, a Maine limited liability company, doing business in Portland, Maine, FOR CONSIDERATION PAID, grants to **CTR Congress LLC**, a Delaware limited liability company, whose mailing address is 85 Mechanic Street, Suite 140, Lebanon, N.H. 03766, WITH WARRANTY COVENANTS, the following described real property located in Portland, Cumberland County, State of Maine:

SEE "EXHIBIT A" ATTACHED HERETO AND MADE A PART HEREOF.

Subject to the matters set forth in said EXHIBIT A.

IN WITNESS WHEREOF, 5 Monument Square, LLC has caused this instrument to be executed by Joseph L. Soley, its duly authorized Sole Member, this 6th day of June, 2019.

WITNESS:

5 MONUMENT SQUARE, LLC

Robert E. Stevens

By: Joseph L. Soley, its Sole Member

STATE OF MAINE
CUMBERLAND COUNTY, ss.

June 6, 2019

Personally appeared the above-named Joseph L. Soley, Sole Member of 5 Monument Square, LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said 5 Monument Square, LLC.

Before me,

Robert E. Stevens
Attorney-at-Law / Notary Public

Print Name: Robert E. Stevens
My commission expires: _____

EXHIBIT A

A certain lot or parcel of land, together with the buildings and improvements thereon, situated on the northerly side of Congress Street and the easterly side of Preble Street in the Monument Square area of the City of Portland, County of Cumberland, State of Maine, and further bounded and described as follows:

Beginning at the intersection of the easterly side of Preble Street with the northerly side of Congress Street;

Thence from said point of beginning and by said Congress Street N 55°30'E, 96.64 feet to land of the City of Portland, the Portland Public Library;

Thence by said City of Portland land on the following described courses and distances, which basically follow building faces of the buildings herein conveyed, and party walls with said Portland Public Library building;

N 34°50'W, 78.54 feet;

Thence N 55°41'40"E, 0.50 feet;

Thence N 32°41'30"W, 31.91 feet;

Thence N 55°02'40"E, 24.57 feet;

Thence N 32°33'W, 30.43 feet;

Thence N 56°55'E, 8.07 feet;

Thence N 31°04'10"W, 43.44 feet to land conveyed by deed of near or even date to Congress Canal LLC;

Thence S 58°20'30"W, 122.35 feet to Preble Street;

Thence by said Preble Street S 30°57'40"E, 190.62 feet to the point of beginning.

Said above described courses are magnetic 1973.

Reference is made to the following surveys:

1. "ALTA/ACSM Land Title Survey on Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine" made for record owner October Corporation by Owen Haskell, Inc., dated August 23, 2006.
2. "ALTA/ACSM Land Title Survey on Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine" made for record owner GRE Congress Canal LLC dated January 10, 2007 prepared by Owen Haskell, Inc.

The parcel described above is conveyed TOGETHER WITH all of Grantor's right, title and interest in and to any easement appurtenant thereto, including without limitation the following, and is conveyed SUBJECT TO the terms, conditions and restrictions contained therein:

1. Rights, easements, terms and conditions set forth in that certain deed from Marcy, Inc. to the City of Portland dated October 17, 1977, and recorded in the Cumberland County Registry of Deeds in Book 4118, Page 175, as modified by deed to Ram & Co., dated August 17, 1981 and recorded in said Registry of Deeds in Book 4842, Page 131, and by Agreement to Modify Easement by and between the City of Portland and October Corporation, dated April 16, 1996 and recorded in said Registry of Deeds in Book 12460, Page 175.
2. Common law party wall rights.
3. Rights, easements, terms and conditions set forth in that certain deed from Crown Life Insurance Company to October Corporation dated June 12, 1995, and recorded in the Cumberland County Registry of Deeds in Book 11974, Page 39, as modified by Agreement between the City of Portland and October Corporation dated April 16, 1996 and recorded in said Registry of Deeds in Book 12460, Page 168 and in Quitclaim Deed from City of Portland to October Corporation, dated April 12, 1996 and recorded in said Registry of Deeds in Book 12460, Page 172.
4. Terms and conditions of Lease of air space by and between the City of Portland and August Corporation, dated February 27, 1998, a memorandum of which is recorded in the Cumberland County Registry of Deeds in Book 13712, Page 165, as affected by Assignment and Assumption Agreement with Respect to Leases and Licenses by and between August Corporation and August Holdings, LLC, dated December 30, 1999, recorded in said Registry of Deeds in Book 15254, Page 66, as further affected by Assignment and Assumption Agreement with Respect to Leases and Licenses by and between August Holdings, LLC and October Corporation dated January 3, 2000, recorded in said Registry of Deeds in Book 15259, Page 300; Memorandum of Assignments of Lease by and between October Corporation and City of Portland dated July 2001, recorded in said Registry of Deeds in Book 16520, Page 1, as affected by Assignment and Assumption of Skywalk Lease by and between October Corporation and GRE Congress Canal LLC, dated August 24, 2006, recorded in said Registry of Deeds in Book 24299, Page 62, as further affected by Assignment and Assumption of Skywalk Lease by and between GRE Congress Canal LLC and Atlantic National Holdings LLC dated May 15, 2008, recorded in said Registry of Deeds in Book 26103, Page 328.
5. Rights, easements, terms and conditions set forth in Easement Deed between the City of Portland and October Corporation, dated April 11, 1997 and recorded in said Registry of Deeds in Book 13028, Page 74.
6. Terms and conditions of that certain State of Maine Department of Environmental Protection Site Location Order, dated March 12, 1992 and recorded in said Registry of Deeds in Book 10001, Page 133 and that certain Transfer and

Findings of Facts and Order dated September 7, 1993 and recorded in said Registry of Deeds in Book 10965, Page 83.

- 7. Terms and conditions of that certain Department of Environmental Protection Order dated January 13, 1999 and recorded with an Affidavit dated May 26, 2006 and recorded in said Registry of Deeds in Book 24001, Page 217.**
- 8. Easement Agreement between GRE Congress Canal LLC and Atlantic National Holdings, LLC dated June 2, 2008 and recorded in the Cumberland County Registry of Deeds in Book 26103, Page 335.**
- 9. Such state of facts depicted on (i) an unrecorded plan entitled "ALTA/ACSM Land Title Survey, Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine made for Record Owner October Corporation" by Owen Haskell, Inc. dated August 23, 2006, and (ii) an unrecorded plan entitled "ALTA/ACSM Land Title Survey, Congress Street, Cumberland Avenue, Preble Street & Elm Street, Portland, Maine made for GRE Congress Canal LLC" by Owen Haskell, Inc. dated January 10, 2007.**
- 10. Rights, easements, terms and conditions set forth in a Warranty Deed from L.E. Springer, Inc. to 5 Monument Square, LLC dated August 14, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30955, Page 313.**

O:\Soley, Joseph (83699)\5 Monument Square, LLC (356)\Sale documents\Exhibit A to Deed.docx

NEIGHBORHOOD MEETING MINUTES

Project: 465 Congress Street - Change of use
CTR Congress, LLC

Date: May 11, 2023 – 5:00 PM to 5:20 PM

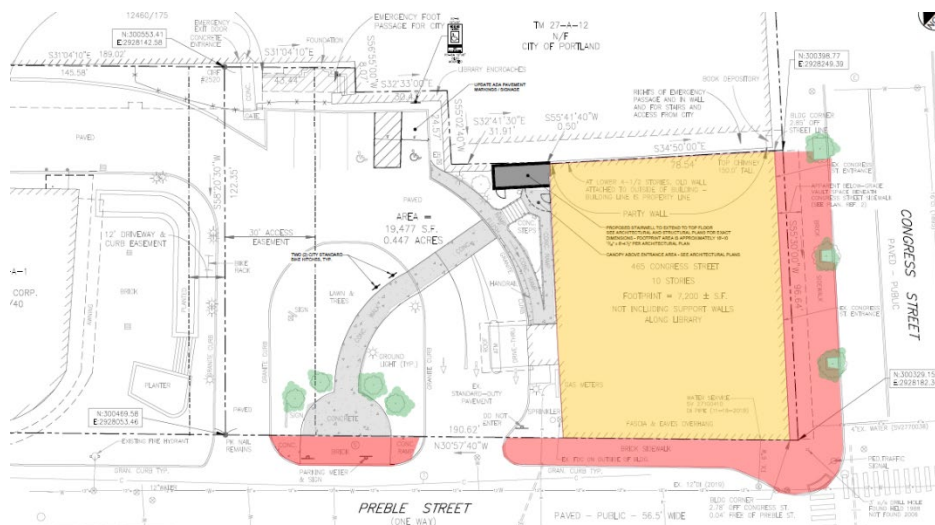
Location: Zoom Video Conference

Attendees: Steve Bushey - Gorrill Palmer
Jason Raichle CTR Congress, LLC (Applicant)
Ed Gardner – Gardner Real Estate

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Steve Bushey started the meeting and gave a brief overview to discuss the Major Site Plan development and where the project is headed.

Steve proceeded to describe the regulatory aspects of the permitting procedures and how it works with the City Planning Department. The project involves a change of use for the conversion of floors 2-10 of an existing office building to 63 market rate residential units. The exterior site work is limited to the construction of a new full building height stair tower on the northwest corner of the building. Steve presented the site plan and building elevations to the attendees.

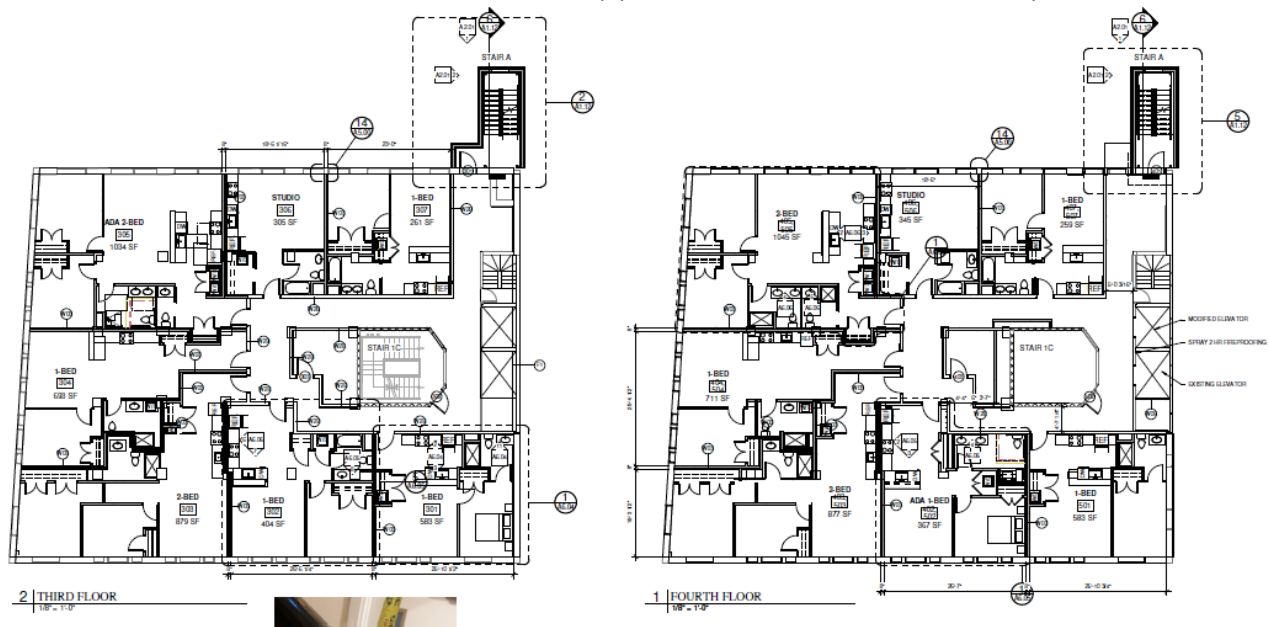




Questions from Public

Ed Gardner asked about the interior renovations and general background of the building. he also asked about the status of the ground level bank tenant.

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Steve thanked everyone and adjourned the meeting at 5:20 p.m.

Attendees: List Above

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\G Abutters\min_meeting_465 Congress 2023.05.11.docx

From: [AMaP MEANS](#)
To: [Steve Bushey](#)
Cc: [Celina Azevedo](#)
Subject: 270427-465 Congress Street, PO - Change of Use Approval
Date: Wednesday, May 3, 2023 1:35:06 PM

Mr. Bushey,

Based on the information provided, the existing **4-inch** domestic service with **3-inch** meter should be able to handle the water demand at the site. If you experience any water supply or pressure issues please contact Portland Water District to increase the service size to the building.

PLEASE NOTE: The following conditions apply to your project:

1. As part of this approval, the Owner has confirmed their understanding that Portland Water District acknowledges all occupants of a multi-unit building as customers of the District. As such, all tenants of the building must be able to access the water meter. The method of access to the meter by the tenants is at the discretion of the owner of the building, provided that the tenants can freely access the meter in accordance with the Portland Water District Terms & Conditions.
2. You have indicated that this project will require water service to provide private fire protection to the site. According to our records this site is currently served with a **8-inch** fire service. 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 they can design the fire protection system to best fit the noted conditions. If additional information is required, or to request a hydrant flow test, please contact MEANS at MEANS@pwd.org or 207-774-5961 x3199.

If you have any questions please feel free to reach out.

Thanks,

Portland Water District
225 Douglass Street, PO Box 3553
Portland, ME 04104
Phone: 207-774-5961 x3199
E-mail: means@pwd.org
<https://www.pwd.org/>

Portland Water District NOTICE & DISCLAIMER Confidentiality Notice:

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED AND CONFIDENTIAL. Please notify the sender if you have received this message in error. Recipients should be aware that replies to this message may not be considered confidential under the Maine Freedom of Access law, 1 M.R.S.A. §402, and may therefore be subject to public disclosure upon request.

From: [AMaP MEANS](#)
To: [Steve Bushey](#)
Cc: [Celina Azevedo](#)
Subject: 270427-465 Congress Street, PO - Change of Use Approval
Date: Wednesday, May 3, 2023 1:35:06 PM

Mr. Bushey,

Based on the information provided, the existing **4-inch** domestic service with **3-inch** meter should be able to handle the water demand at the site. If you experience any water supply or pressure issues please contact Portland Water District to increase the service size to the building.

PLEASE NOTE: The following conditions apply to your project:

1. As part of this approval, the Owner has confirmed their understanding that Portland Water District acknowledges all occupants of a multi-unit building as customers of the District. As such, all tenants of the building must be able to access the water meter. The method of access to the meter by the tenants is at the discretion of the owner of the building, provided that the tenants can freely access the meter in accordance with the Portland Water District Terms & Conditions.
2. You have indicated that this project will require water service to provide private fire protection to the site. According to our records this site is currently served with a **8-inch** fire service. 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 they can design the fire protection system to best fit the noted conditions. If additional information is required, or to request a hydrant flow test, please contact MEANS at MEANS@pwd.org or 207-774-5961 x3199.

If you have any questions please feel free to reach out.

Thanks,

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 Please consider the environment before printing this email

May 16, 2023

Chair Stanley and members of the Planning Board:

Founded in 1964, Greater Portland Landmarks is a non-profit advocacy organization that works toward the preservation and revitalization of greater Portland's built environment. Our goal is to save greater Portland's historic places through preservation and adaptive use while promoting creative new architecture that enhances historic neighborhoods. We appreciate the opportunity to comment on projects that impact the historic character of the city.

We are writing in support of the proposal to redevelop the building at 465 Congress Street and convert vacant office space on floors 2-10 into 63 market-rate residential units. We supported the applicant's proposal for a certificate of appropriateness from the Historic Preservation Board when it appeared there back in November 2022. As we expressed at the time, the proposed adaptive use of this important landmark in downtown Portland necessitates adding a stair tower. Not only is the prospective project going to reactivate this iconic building and make a historic property again a vibrant piece of the city's built environment, but it will add much-needed housing. This project thus showcases the ways in which historic preservation can play an important role in solving some of the city's pressing problems. While the stair tower will necessarily interrupt the historic envelope of the building, the architect has done an admirable job in minimizing its intrusion through its placement and overall massing. At the same time, the choice of materials reflects that this element is modern and of its own time, thus preserving the integrity of the building's overall historic fabric and authenticity. In addition, the applicant has graciously responded to board comments and worked with staff to arrive at the proposed solution. *The New York Times* recently published an expose on the challenges of adaptive office towers to housing but also the promise of these existing buildings in solving a desperate challenge in the twenty-first century. 465 Congress is a prime example of this conundrum, and the proposed intervention is an appropriate solution. For all these reasons—the design itself, the reactivation of this important landmark, the addition of housing, and the applicant's good citizenship—we urge you to approve this application.

Sincerely,



C. Ian Stevenson, PhD
Director of Advocacy

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\2 - CAD\DWG\4061-COVER.dwg 3/17/2023 4:26 PM

PROJECT PARCEL SITE		
ZONING: B3 DOWNTOWN ZONING DISTRICT		
PORTLAND TAX ASSESSOR'S MAP AND LOT NUMBERS		
MAP	BLOCK	LOT
027	A	015 001

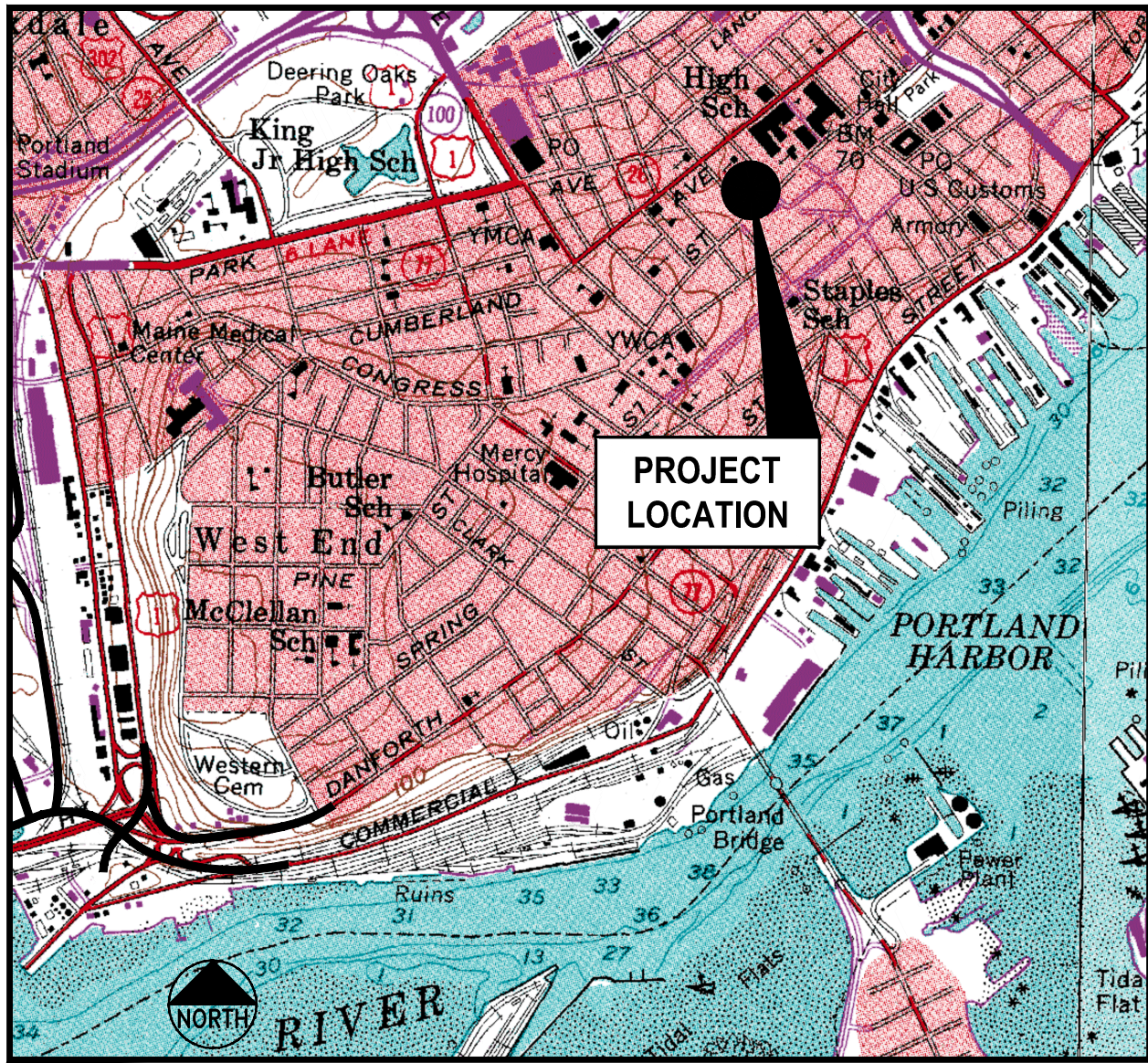
OWNER / APPLICANT:
CTR CONGRESS LLC
85 MECHANIC STREET, SUITE 140
LEBANON, NEW HAMPSHIRE 03766
ATTN: JASON RAICHLE

C.C.R.D. BOOK 35700, PAGE 260

REFERENCE PLANS:

1. *BOUNDARY SURVEY AT #465 CONGRESS STREET, PORTLAND, MAINE, MADE FOR CONNECTICUT RIVER CAPITAL, 85 MECHANIC ST., SUITE 140, LEBANON, NH*, BY OWEN HASKELL, INC., JOB NO. 2021-003 P, DATED SEPT. 9, 2022.

SITE DEVELOPMENT PLANS FOR PROPOSED MIXED-USE BUILDING INCLUDING 63 RESIDENTIAL UNITS ON FLOORS 2 - 10 465 CONGRESS STREET PORTLAND, MAINE PERMIT PLAN SUBMISSION MARCH 20, 2023



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 OH)
C-2.0	EXISTING CONDITIONS & REMOVALS PLAN
C-3.0	SITE LAYOUT PLAN
C-3.1	CONSTRUCTION MANAGEMENT PLAN
C-4.0	SITE & MISCELLANEOUS DETAILS

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

MAJOR SITE PLAN APPLICATION
(CHANGE OF USE)

BUILDING AND DEMOLITION
PERMITS

STREET OPENING PERMIT

HISTORIC PRESERVATION REVIEW

GOVERNING BODY

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL
389 CONGRESS STREET
PORTLAND, MAINE 04101
207.874.8719
CONTACT: CHRISTINE GRIMANDO

CITY OF PORTLAND CODE ENFORCEMENT OFFICE
CITY HALL
389 CONGRESS STREET
PORTLAND, MAINE 04101
207.874.8703

CITY OF PORTLAND PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8801

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL
389 CONGRESS STREET
PORTLAND, MAINE 04101
207.874.8719

STATUS

ANTICIPATED SUBMITTAL: JANUARY 3, 2023

TO BE FILED PRIOR TO CONSTRUCTION BY CONTRACTOR

TO BE FILED PRIOR TO CONSTRUCTION
BY CONTRACTOR

PREVIOUSLY APPROVED - NOVEMBER 16, 2022 PERMIT #HPBR-002148-2022
(SEE CONDITIONS OF APPROVAL ON SHEET C-1.1)

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

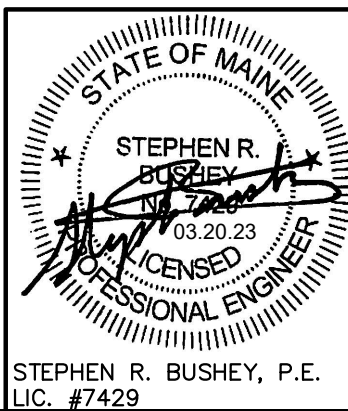
CIVIL ENGINEER:
Gorrill Palmer Consulting Engineers
707 SABLE OAKS DRIVE, SUITE 30
SOUTH PORTLAND, MAINE 04106
207.772.2515
ATTN: STEVE BUSHEY
sbushey@gorrillpalmer.com

SURVEYOR:
Owen Haskell, Inc.
390 U.S. ROUTE ONE, UNIT 10
FALMOUTH, ME 04105
207.774.0424
ATTN: SAM GLIDDEN
sglidden@owen-haskell.com

ARCHITECT:
ARCHETYPE PA
48 UNION WHARF
PORTLAND, ME 04101
207.772.6022
ATTN: KATHERINE LERMOND
katherine@archetypepa.com

CONSTRUCTION MANAGER:
DUCAS CONSTRUCTION
40 CENTER STREET, SUITE 1
SCARBOROUGH, ME 04074
207.303.0634

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.



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

Rev.	Date	Revision

Rev.	Date	Revision
2	2023.03.20	RESUBMITTED TO CITY OF PORTLAND
1	2023.01.03	SUBMITTED TO CITY OF PORTLAND FOR PERMITTING

Design: SRB	Draft: CDD	Date: NOV. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 4061
File Name: 4061-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.		



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PALMER**

707 Sable Oaks Drive, Suite 30
South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
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Drawing Name:	COVER SHEET
Project:	PROPOSED MIXED-USE BUILDING 465 CONGRESS STREET, PORTLAND, MAINE
Client:	ARCHETYPE PA 48 UNION WHARF, PORTLAND, MAINE 04101

Drawing No.
C-1.0

U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\2 - CAD.DWG 4061-GEN NOTES.dwg 3/17/2023 4:27 PM

GENERAL NOTES

- 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.
- THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & STRUCTURAL 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.
- 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.
- 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.
- 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.
- ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO 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.
- 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.
- 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

- 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.
- 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

- BITUMINOUS CONCRETE CURB, SLIPFORM CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.001, 703.07 AND 609.04.
- ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.
- EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.
- 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:

- SEE EXISTING CONDITIONS FOR BENCHMARK INFORMATION.
- SEE SHEET C-3.0 (SITE LAYOUT PLAN) FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
- 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	95%

AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE

*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.

- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
- 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.
- PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

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

- 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. MODIFICATION OF ANY APPROVED SITE PLAN OR ALTERATION OF A PARCEL WHICH WAS THE SUBJECT OF SITE PLAN APPROVAL AFTER MAY 20, 1974, SHALL REQUIRE THE PRIOR APPROVAL OF A REVISED SITE PLAN BY THE PLANNING BOARD OR PLANNING AUTHORITY PURSUANT TO THE TERMS OF CHAPTER 14, LAND USE, OF THE PORTLAND CITY CODE.
- 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 INSPECTION DIVISION.
- 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.
- PERFORMANCE GUARANTEE AND INSPECTION FEES: A PERFORMANCE GUARANTEE COVERING THE SITE IMPROVEMENTS, INSPECTION FEE PAYMENT OF 2.0% OF THE GUARANTEE AMOUNT AND SEVEN (7) FINAL SETS OF PLANS MUST BE SUBMITTED TO AND APPROVED BY THE PLANNING DIVISION AND PUBLIC SERVICES DEPARTMENT PRIOR TO THE RELEASE OF A BUILDING PERMIT, STREET OPENING PERMIT OR CERTIFICATE OF OCCUPANCY FOR SITE PLANS. IF YOU NEED TO MAKE ANY MODIFICATIONS TO THE APPROVED PLANS, YOU MUST SUBMIT A REVISED SITE PLAN APPLICATION FOR STAFF REVIEW AND APPROVAL.
- DEFECT GUARANTEE: A DEFECT GUARANTEE, CONSISTING OF 10% OF THE PERFORMANCE GUARANTEE, MUST BE POSTED BEFORE THE PERFORMANCE GUARANTEE WILL BE RELEASED.
- PRECONSTRUCTION MEETING: PRIOR TO THE RELEASE OF A BUILDING PERMIT OR SITE CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE. THIS MEETING WILL BE HELD WITH THE CONTRACTOR, DEVELOPMENT REVIEW COORDINATOR, PUBLIC SERVICE'S 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. THE SITE/BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A MUTUALLY AGREEABLE TIME FOR THE PRE-CONSTRUCTION MEETING (IF APPLICABLE).
- DEPARTMENT OF PUBLIC SERVICES PERMITS: IF WORK WILL OCCUR WITHIN THE PUBLIC RIGHT-OF-WAY SUCH AS UTILITIES, CURB, SIDEWALK AND DRIVEWAY CONSTRUCTION, A STREET OPENING PERMIT(S) IS REQUIRED FOR YOUR SITE. PLEASE CONTACT CAROL MERRITT AT 874-8300, EXT. 8828. (ONLY EXCAVATORS LICENSED BY THE CITY OF PORTLAND ARE ELIGIBLE.)
- AS-BUILT FINAL PLANS: FINAL SETS OF AS-BUILT PLANS SHALL BE SUBMITTED DIGITALLY TO THE PLANNING DIVISION, ON A CD OR DVD, IN AUTOCAD FORMAT (*.DWG), RELEASE AUTOCAD 2005 OR GREATER.

- STORMWATER MANAGEMENT: THAT THE DEVELOPER/ CONTRACTOR/ SUBCONTRACTOR MUST COMPLY WITH CONDITIONS OF THE CONSTRUCTION STORMWATER MANAGEMENT PLAN AND SEDIMENT & EROSION CONTROL PLAN BASED ON CITY STANDARDS AND STATE GUIDELINES.

UTILITY NOTES - NOTES BELOW APPLY IN THE EVENT THAT ANY UTILITY REPLACEMENT OR IMPROVEMENTS ARE REQUIRED

- 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.
- 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.
- 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.
- 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.
- 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.
- THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY, PROJECT ARCHITECTS AND MEP DESIGNERS.
- 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.
- ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OR WORK TO FINISH GRADE.
- ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
- 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.
- 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.
- 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:

- PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL SEDIMENT BARRIERS AND THE CONSTRUCTION ENTRANCE ASSOCIATED WITH THE PROJECT.
- SEDIMENT BARRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED AS NEEDED.
- THE CONTRACTOR SHALL REPAIR AND ADD STONE TO ANY CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD. SWEEPING OF THE ADJACENT ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR ON AN AS NEEDED BASIS, BUT AT A MINIMUM ONCE A WEEK.
- LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.
- 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.
- PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PROJECT COMPLETION.
- 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.
- 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'.

HISTORIC PRESERVATION BOARD CONDITIONS OF APPROVAL:

- MASONRY CLEANING METHODS AND MATERIALS, AND SAMPLES OF MORTAR, STONE AND BRICK FOR ANY NECESSARY REPAIRS OR POINTING, ARE TO BE REVIEWED AND APPROVED BY HP STAFF PRIOR TO PROCEEDING WITH WORK.
- WINDOWS IN THE ADDITION ARE TO BE THE SECOND OPTION PRESENTED, WITH PROPORTIONS MORE VERTICALLY ORIENTED TO BE SIMILAR TO THE WINDOWS IN THE ORIGINAL BUILDING.
- IF STRUCTURALLY POSSIBLE, THE PROPOSED CANOPY OVER THE REAR ENTRANCE IS TO BE SELF-SUPPORTING, WITHOUT CABLES SUPPORTING IT FROM ABOVE. IF SUPPORT FROM ABOVE IS STRUCTURALLY NECESSARY, CABLES OR RODS ARE TO BE SIZED AND POSITIONED TO MINIMIZE VISUAL INTERFERENCE.
- FINAL DETAILS FOR THE ADDITION WINDOWS, INCLUDING THE DEPTH OF INSTALLATION AND RELATIONSHIP TO WALL CLADDING ARE TO BE SUBMITTED TO HP STAFF FOR REVIEW AND APPROVAL.
- FINAL DETAILS FOR THE INTERFACES BETWEEN THE ADDITION AND THE EXISTING BUILDING ARE TO BE SUBMITTED TO HP STAFF FOR REVIEW AND APPROVAL, INCLUDING PANEL SEAMS, FLASHING, ETC.
- NEW SIGNS WILL REQUIRE A SEPARATE SIGN PERMIT APPLICATION.
- ALL WORK SHALL BE CARRIED OUT AS SHOWN ON THE MATERIALS REVIEWED BY THE HISTORIC PRESERVATION BOARD ON NOVEMBER 16, 2022, EXCEPT AS TO COMPLY WITH THE CONDITIONS ABOVE. CHANGES TO THE APPROVED PLANS OR SPECIFICATIONS, AND ANY ADDITIONAL WORK THAT MAY BE UNDERTAKEN MUST BE REVIEWED AND APPROVED BY THIS OFFICE PRIOR TO CONSTRUCTION, ALTERATION, OR DEMOLITION. IF, DURING THE COURSE OF COMPLETING THE APPROVED WORK, CONDITIONS ARE ENCOUNTERED WHICH PREVENT COMPLETING THE APPROVED WORK, OR WHICH REQUIRE ADDITIONAL OR ALTERNATIVE WORK, YOU MUST APPLY FOR AND RECEIVE A CERTIFICATE OF APPROPRIATENESS OR NON-APPLICABILITY **PRIOR** TO UNDERTAKING ADDITIONAL OR ALTERNATIVE WORK.
- THE CERTIFICATE IS GRANTED UPON CONDITION THAT THE WORK AUTHORIZED HEREIN IS COMMENCED WITHIN TWELVE (12) MONTHS AFTER THE DATE OF ISSUANCE. IF THE WORK AUTHORIZED BY THE CERTIFICATE IS NOT COMMENCED WITHIN TWELVE (12) MONTHS AFTER THE DATE OF ISSUANCE OR IF SUCH WORK IS SUSPENDED IN SIGNIFICANT PART FOR A PERIOD OF ONE YEAR AFTER THE TIME THE WORK IS COMMENCED, SUCH CERTIFICATE SHALL EXPIRE AND BE OF NO FURTHER EFFECT; PROVIDED THAT, FOR CAUSE, ONE OR MORE EXTENSIONS OF TIME FOR PERIODS NOT EXCEEDING NINETY (90) DAYS EACH, MAY BE ALLOWED IN WRITING BY THE DEPARTMENT.

EXISTING

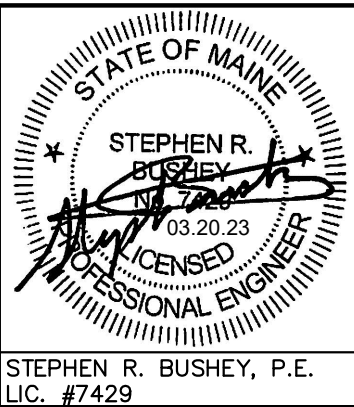
- IRON PIPE OR ROD FND
- MONUMENT FOUND
- GAS VALVE
- WATER VALVE
- HYDRANT
- UTILITY POLE
- LIGHT POLE
- COMMUNICATION MANHOLE
- DRAINAGE MANHOLE
- ELECTRIC MANHOLE
- SEWER MANHOLE
- CATCH BASIN
- SIGN

- FENCE
- EDGE OF PAVEMENT
- CURB
- OHW
- OVERHEAD WIRES
- UGE
- UNDERGROUND ELECTRIC
- TELEPHONE
- W
- WATER LINE
- G
- GAS LINE
- SS
- SANITARY SEWER
- SD
- STORM DRAIN
- 15
- 1' CONTOUR
- 15.23
- SPOT ELEVATION
- TREE
- TREE LINE OR LIMIT OF CLEARING
- BUILDING
- CONCRETE
- RETAINING WALL

PROPOSED

- BARRIER FREE SYMBOL
- SIGN
- FENCE - CHAINLINK
- BUILDING / BUILDING ACCESS
- BIKE HITCH

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



Rev.	Date	Revision

Rev.	Date	Revision
2	2023.03.20	RESUBMITTED TO CITY OF PORTLAND
1	2023.01.03	SUBMITTED TO CITY OF PORTLAND FOR PERMITTING

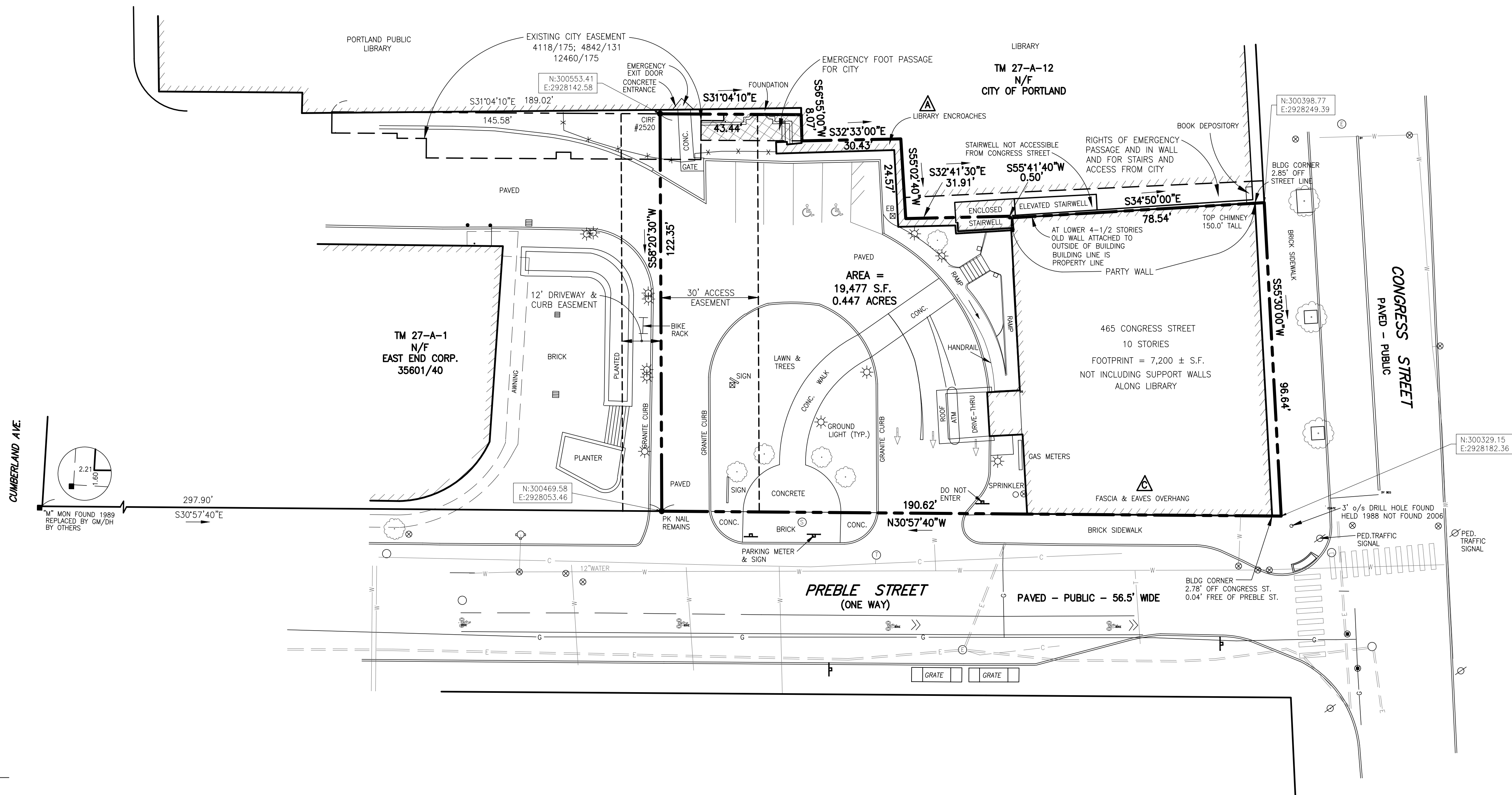
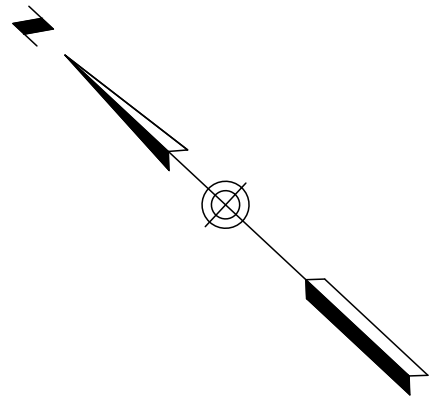
Design: SRB	Draft: CDD	Date: NOV. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 4061
File Name: 4061-GEN NOTES.dwg		
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Relationships. Responsiveness. Results.

Drawing Name:	GENERAL NOTES & LEGEND
Project:	PROPOSED MIXED-USE BUILDING 465 CONGRESS STREET, PORTLAND, MAINE
Client:	ARCHETYPE PA 48 UNION WHARF, PORTLAND, MAINE 04101

Drawing No.
C-1.1



LEGEND

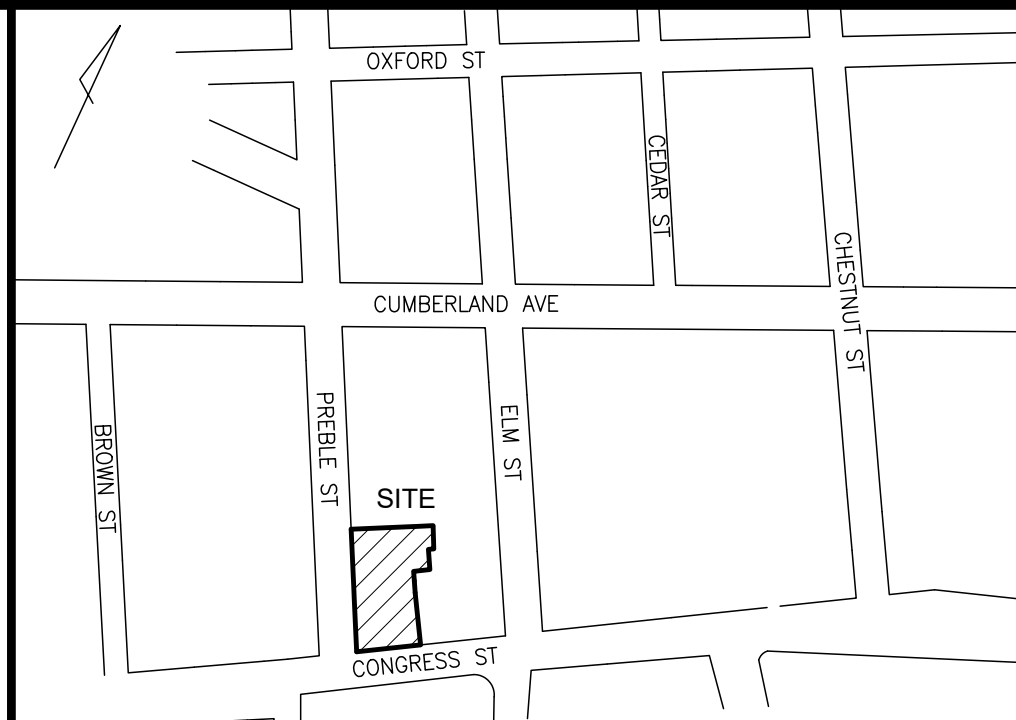
- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- GAS VALVE
- SIGN
- CATCH BASIN
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- DECIDUOUS TREE
- CURB
- OHW — OVERHEAD WIRES
- E — UNDERGROUND POWER
- C — COMMUNICATION LINE
- W — WATER LINE
- G — GAS LINE
- T — TELEPHONE
- IPF/IRF IRON PIPE OR ROD FOUND
- N/F NOW OR FORMERLY
- 000/000 DEED BOOK / PAGE
- CONC. CONCRETE
- △ POSSIBLE ENCROACHMENT

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY 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.

POSSIBLE ENCROACHMENTS

- △ CITY OF PORTLAND PUBLIC LIBRARY ONTO PREMISES
- △ FASCIA & EAVES OVERHANG INTO STREET



LOCATION MAP

N.T.S.

PLAN REFERENCES

- STANDARD BOUNDARY SURVEY ON CONGRESS & PREBLE STREET, PORTLAND, MAINE FOR MONUMENT SQUARE ASSOC. DATED APRIL 24, 1989, REVISED 4-27-95 BY OWEN HASKELL, INC.
- LAND TITLE SURVEY ON CUMBERLAND AVENUE AND PREBLE STREET, PORTLAND, MAINE FOR AUGUST CORPORATION DATED JULY 6, 1995 BY OWEN HASKELL, INC.
- PLAN OF LAND AT CONGRESS AND ELM STREETS IN PORTLAND, MAINE FOR THE CITY OF PORTLAND DATED FEB. 17, 1997 BY OWEN HASKELL, INC.
- STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY ON CUMBERLAND AVE., PREBLE ST. & ELM ST., PORTLAND, MAINE MADE FOR AUGUST CORPORATION DATED OCT. 25, 1996 REVISED THRU 5-28-97 BY OWEN HASKELL, INC.
- LAND TITLE SURVEY ON CUMBERLAND AVENUE & PREBLE STREET, PORTLAND, MAINE FOR AUGUST CORPORATION JULY 20, 1995 REVISED 9-5-95 OWEN HASKELL, INC. JOB NO. 95125P.
- ALTA/ACSM LAND TITLE SURVEY ON CONGRESS STREET, CUMBERLAND AVENUE, PREBLE STREET & ELM STREET, PORTLAND, MAINE MADE FOR RECORD OWNER OCTOBER CORPORATION AUGUST 23, 2006 BY OWEN HASKELL, INC. JOB NO. 2006-134P.
- ALTA/ACSM LAND TITLE SURVEY ON CONGRESS STREET, CUMBERLAND AVENUE, PREBLE STREET & ELM STREET, PORTLAND, MAINE MADE FOR RECORD OWNER GRE CONGRESS CANAL LLC DATED JAN. 10, 2007 BY OWEN HASKELL, INC. JOB NO. 2006-134P.
- ALTA/NSPS LAND TITLE SURVEY, #465 CONGRESS STREET, PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR CONNECTICUT RIVER CAPITAL JANUARY 22, 2019 REVISED JUNE 4, 2019 BY OWEN HASKELL, INC.

GENERAL NOTES

- OWNER OF RECORD: CTR CONGRESS LLC, 85 MECHANIC STREET, SUITE 140, LEBANON, NH 03766; CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 35700 PAGE 260
- LOCUS IS SHOWN AS LOTS 14, 15 AND 16 BLOCK A ON CITY OF PORTLAND'S PROPERTY MAP 27.
- BEARINGS ARE MAGNETIC 1973 PER PLAN REFERENCE 7.
- STREET LINES DETERMINED FROM CITY OF PORTLAND ENGINEERING DEPARTMENT RECORDS AS SHOWN ON PLAN REFERENCE 1.
- THE LINE OF THE BUILDING AT 465 CONGRESS STREET WAS SURVEYED BY THIS FIRM IN 1973 AND 1977, DUE TO THE LOCATION OF THE LIBRARY THIS LINE HAS NOT BEEN RE-SURVEYED. ACCESS TO THE AREA BETWEEN THE BUILDINGS IS BLOCKED.
- COORDINATES ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83.

CERTIFICATE

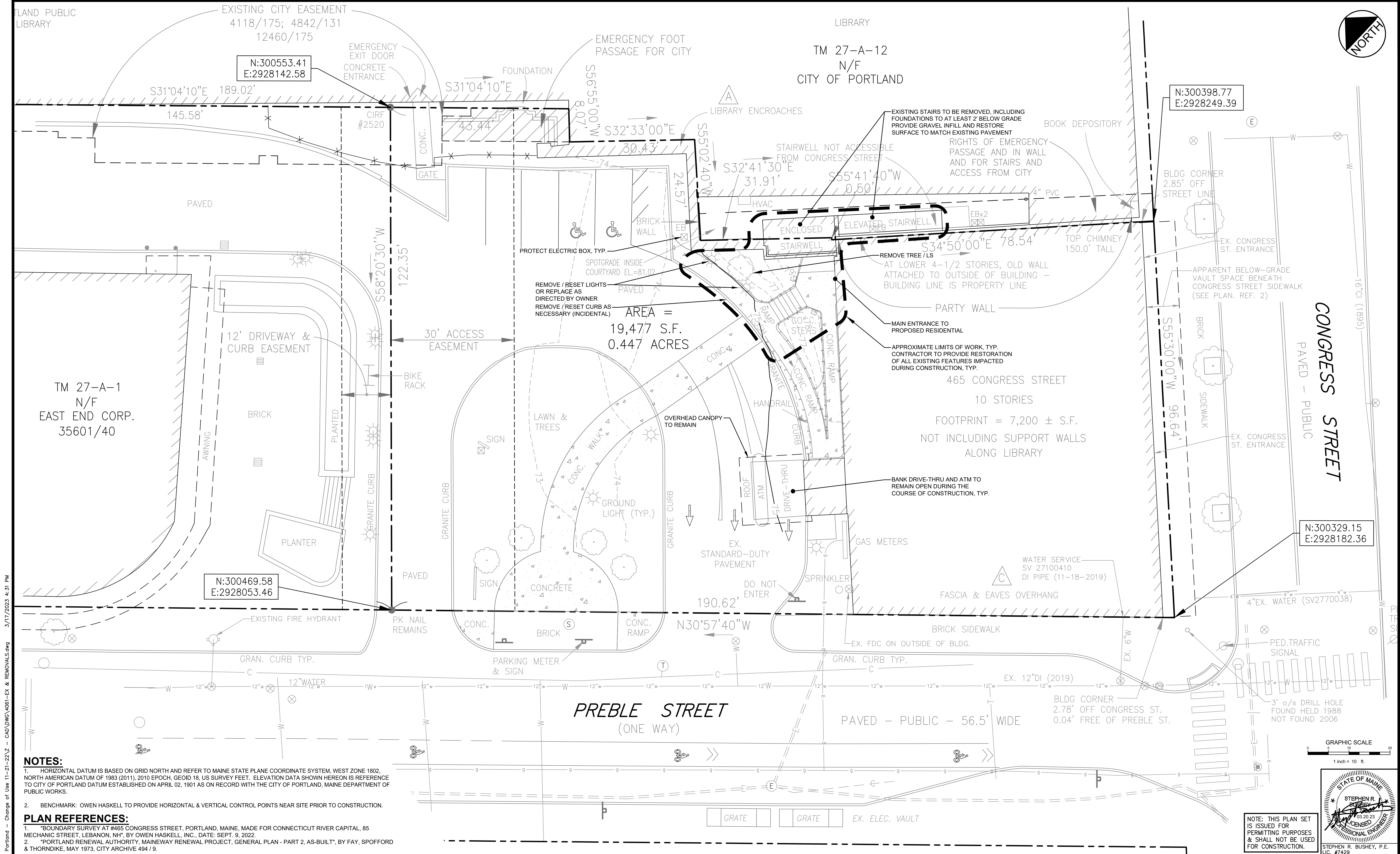
OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

SAMUEL D. GLIDDEN, PLS #2520

DATE

Boundary Survey
At
#465 Congress Street, Portland, Maine
Made for
Connecticut River Capital
85 Mechanic St., Suite 140, Lebanon, NH

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424
DRAWN BY: JCS/JLW DATE: SEPT. 9, 2022 JOB NO. 2021-003 P
CHECKED BY: SDG SCALE: 1" = 20' DRWG. NO. 1



NOTES:

1. HORIZONTAL DATUM IS BASED ON GRID NORTH AND REFER TO MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, NORTH AMERICAN DATUM OF 1983 (2011), 2010 EPOCH, GEOID 18, US SURVEY FEET. ELEVATION DATA SHOWN HEREON IS REFERENCE TO CITY OF PORTLAND DATUM ESTABLISHED ON APRIL 02, 1901 AS ON RECORD WITH THE CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS.

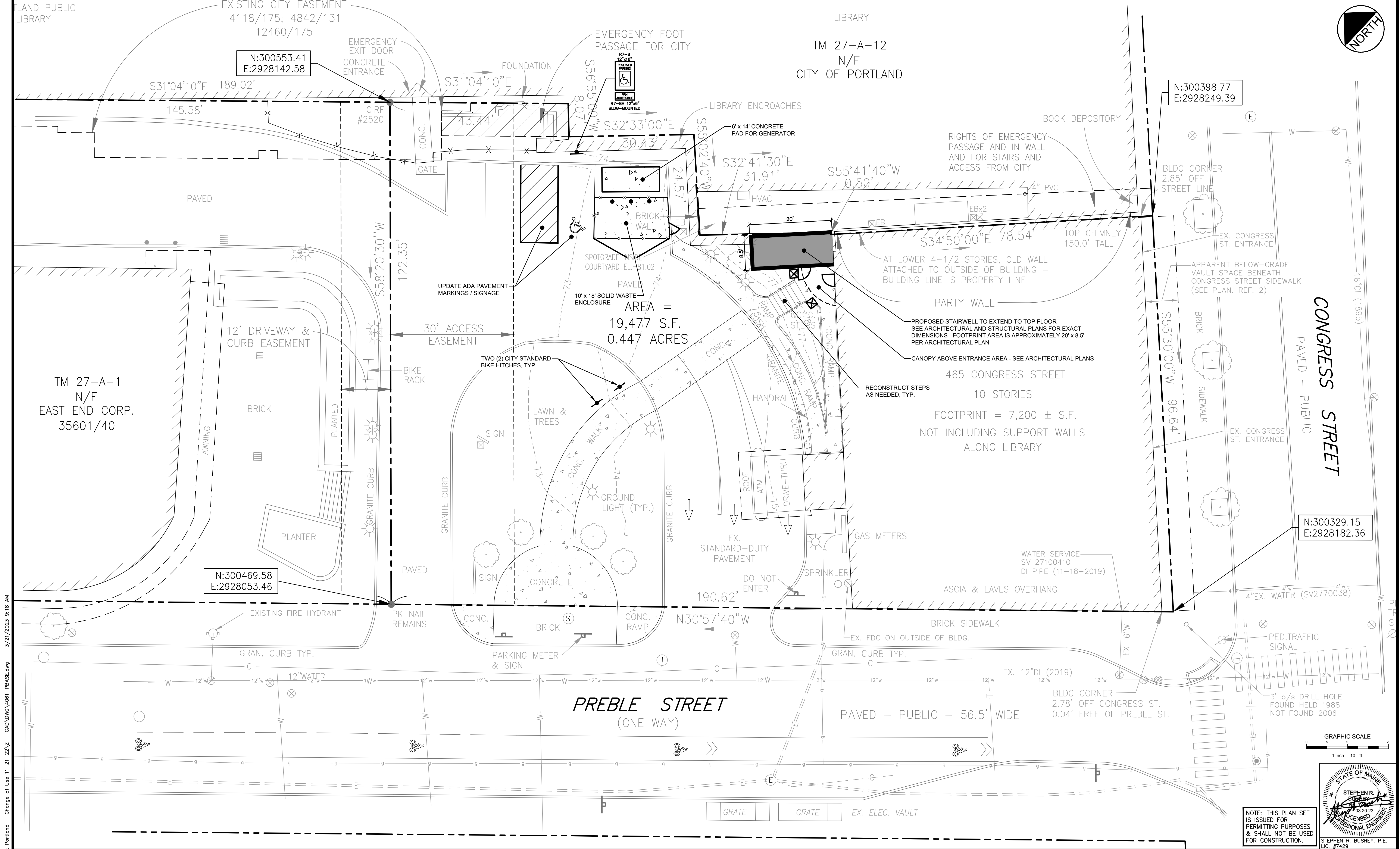
2. BENCHMARK: OWEN HASKELL TO PROVIDE HORIZONTAL & VERTICAL CONTROL POINTS NEAR SITE PRIOR TO CONSTRUCTION.

PLAN REFERENCES:

1. "BOUNDARY SURVEY AT #465 CONGRESS STREET, PORTLAND, MAINE, MADE FOR CONNECTICUT RIVER CAPITAL, 85 MECHANIC STREET, LEBANON, NH", BY OWEN HASKELL, INC., DATE: SEPT. 9, 2022.

2. "PORTLAND RENEWAL AUTHORITY, MAINWAY RENEWAL PROJECT, GENERAL PLAN - PART 2, AS-BUILT", BY FAY, SPOFFORD & THORNDIKE, MAY 1973, CITY ARCHIVE 494 / 9.

Rev.	Date	Revision	Design: SRB Checked: SRB File Name: 4061-EX & REMOVALS.dwg	Draft: CDD Scale: AS NOTED Job No.: 4061	Date: NOV. 2022	 GORRILL PALMER	607 Sable Oaks Drive, Suite 30 South Portland, Me 04106 207.772.2515 / www.gorrillpalmer.com Relationships. Responsiveness. Results.	Drawing Name:	EXISTING CONDITIONS & REMOVALS PLAN	Drawing No.	C-2.0
			2 2023.03.20 RESUBMITTED TO CITY OF PORTLAND					Project:	PROPOSED MIXED-USE BUILDING 465 CONGRESS STREET, PORTLAND, MAINE		
			1 2023.01.03 SUBMITTED TO CITY OF PORTLAND FOR PERMITTING					Client:	ARCHETYPE PA 48 UNION WHARF, PORTLAND, MAINE 04101		



U:\4061 - 465 Congress St Portland - Change of Use 11-21-22\2 - CAD\DWG\4061-PBASE.dwg 3/21/2023 9:18 AM

Rev.	Date	Revision
1	2023.01.03	SUBMITTED TO CITY OF PORTLAND FOR PERMITTING
2	2023.03.20	RESUBMITTED TO CITY OF PORTLAND

Rev.	Date	Revision
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Design: SRB	Draft: CDD	Date: NOV. 2022
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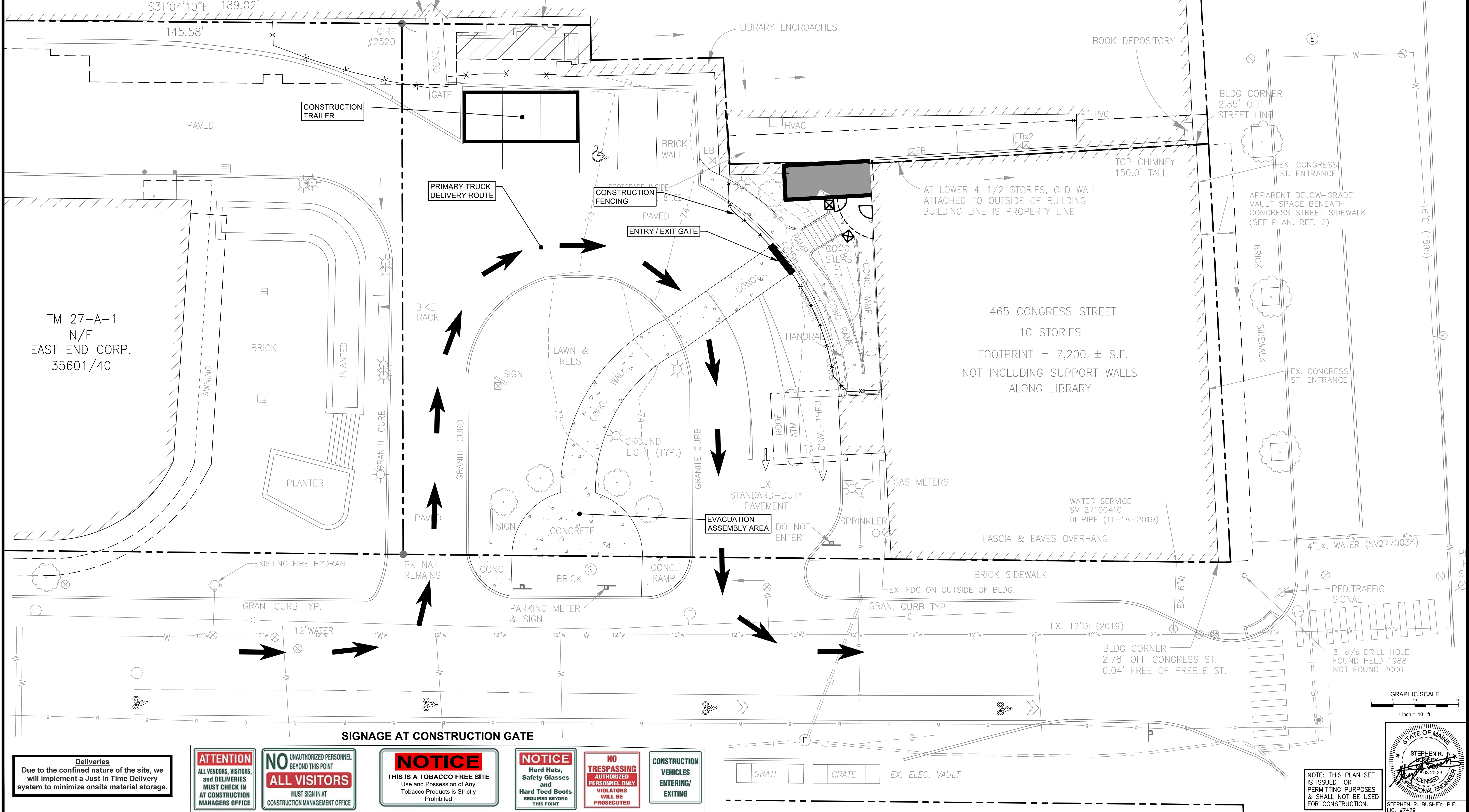
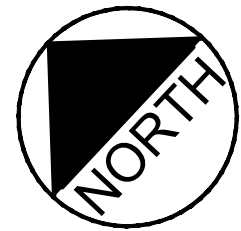
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Project:	PROPOSED MIXED-USE BUILDING 465 CONGRESS STREET, PORTLAND, MAINE
Client:	ARCHETYPE PA 48 UNION WHARF, PORTLAND, MAINE 04101

Drawing No.	C-3.0
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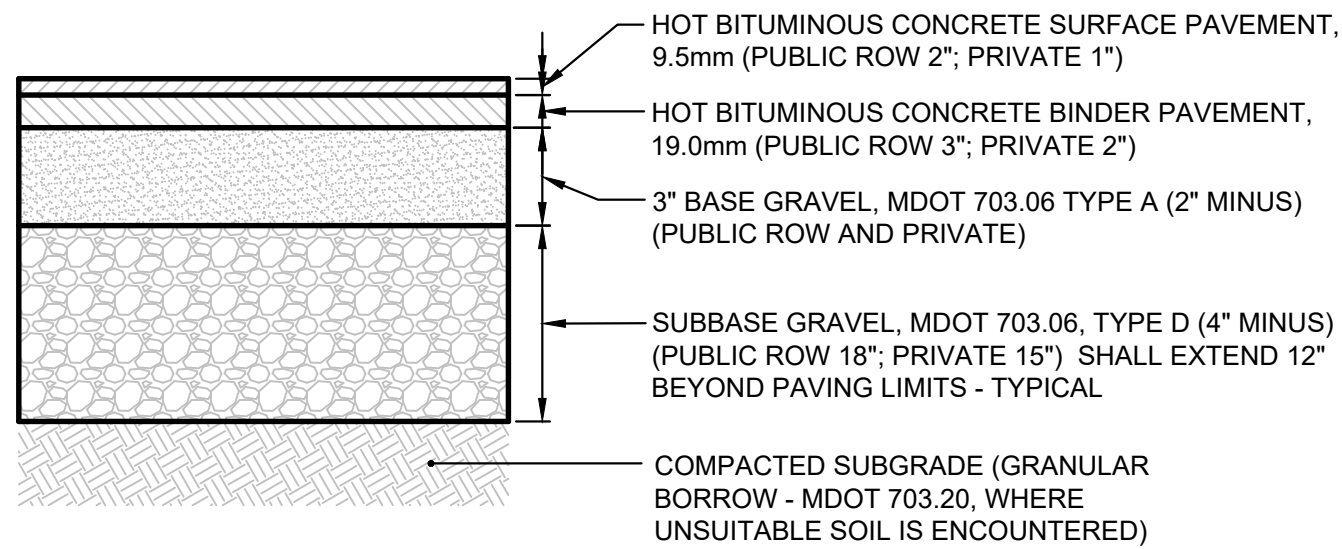
LAND PUBLIC
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CITY OF PORTLAND



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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 PREBLE STREET WITH THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY EXCAVATION.

(A) BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S.

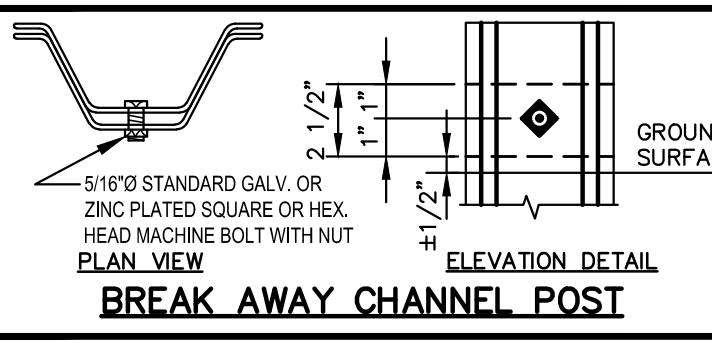
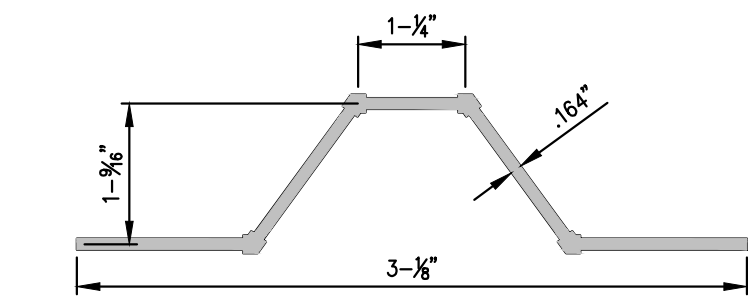
LENGTH: AS REQUIRED

WEIGHT PER LINEAR FOOT: 2.50 LBS. MIN.

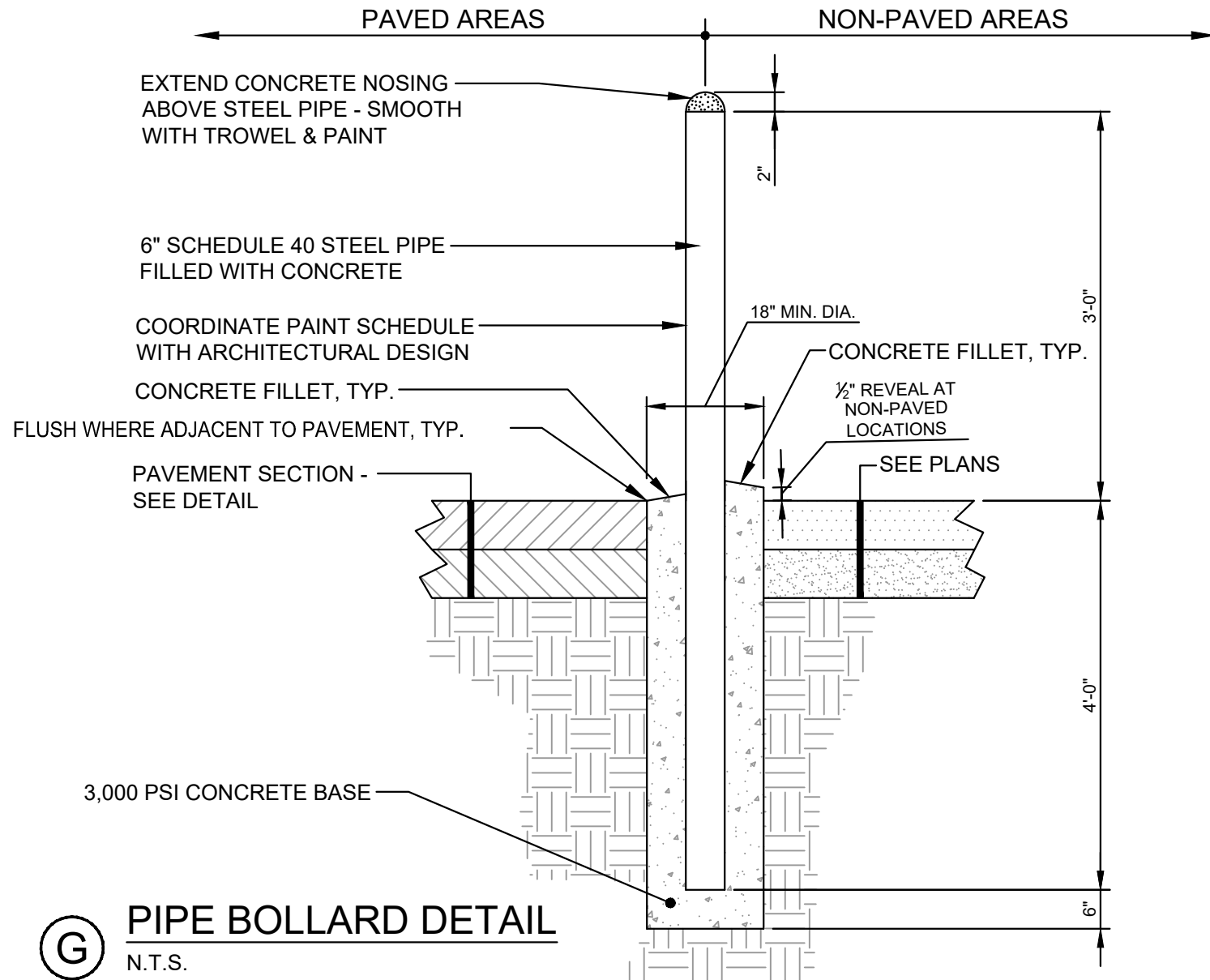
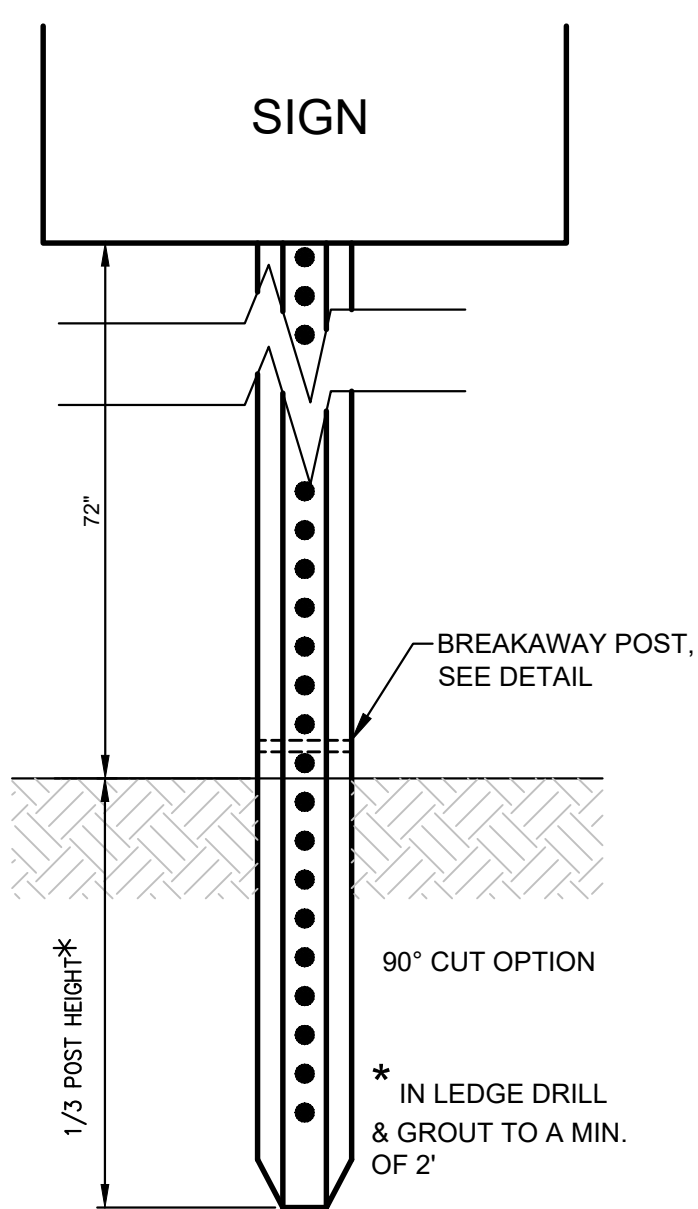
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH

STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASSTMS A-576 (GRADE 1070 - 1080)

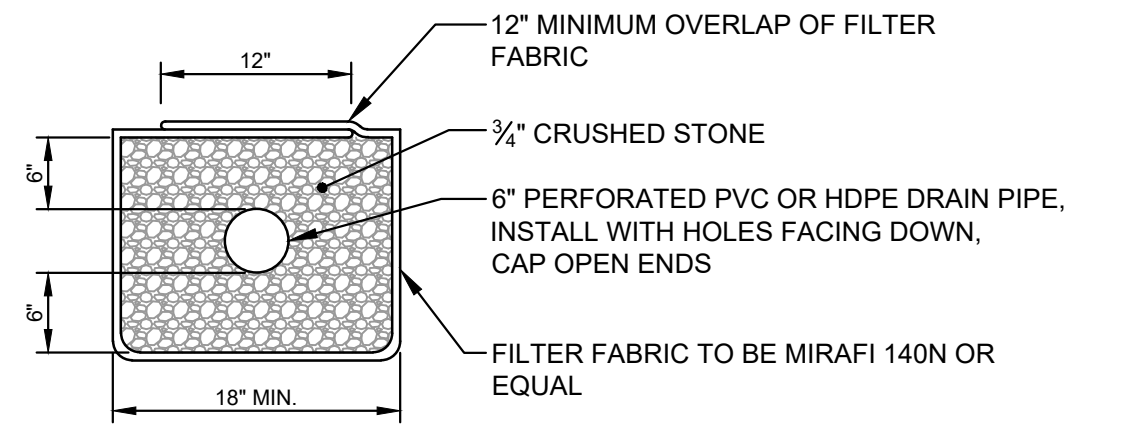
FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.



(D) U-CHANNEL METAL SIGN POST
N.T.S.

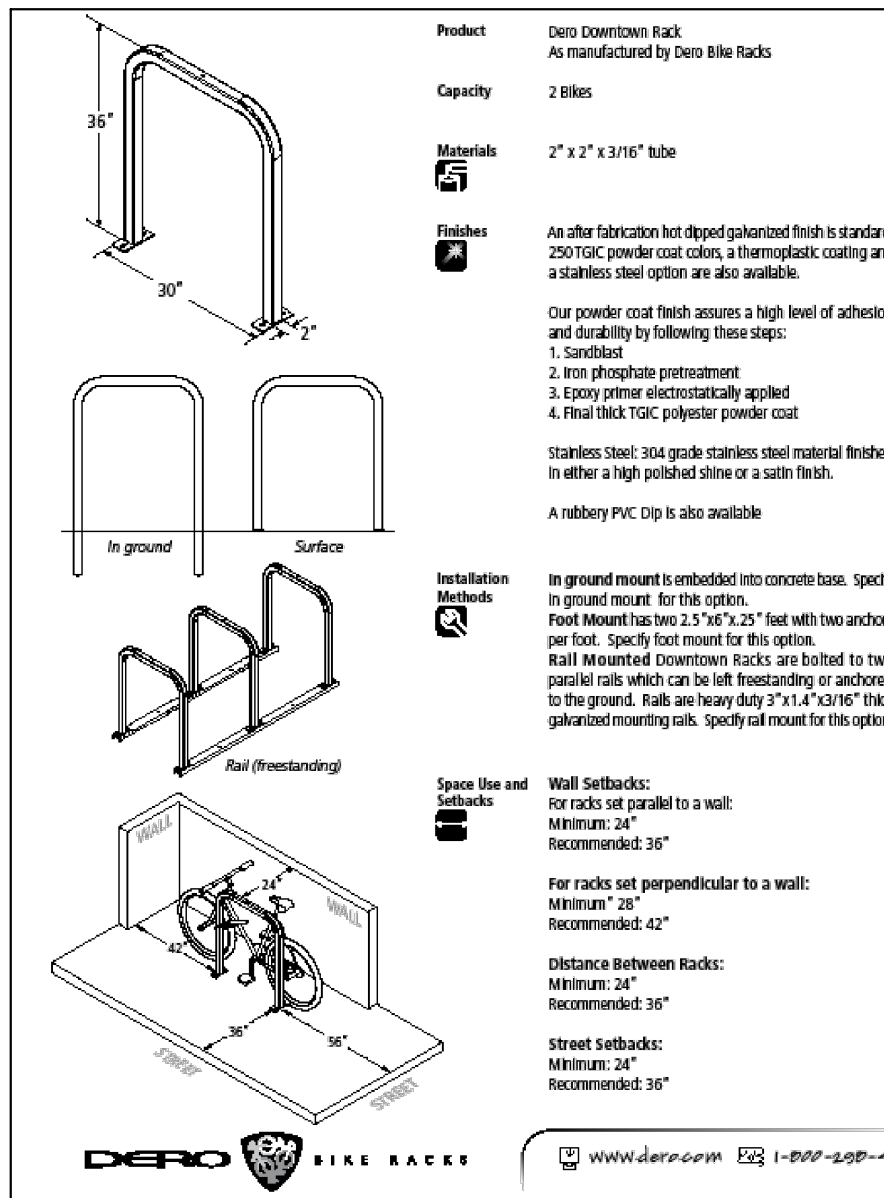


(G) PIPE BOLLARD DETAIL
N.T.S.

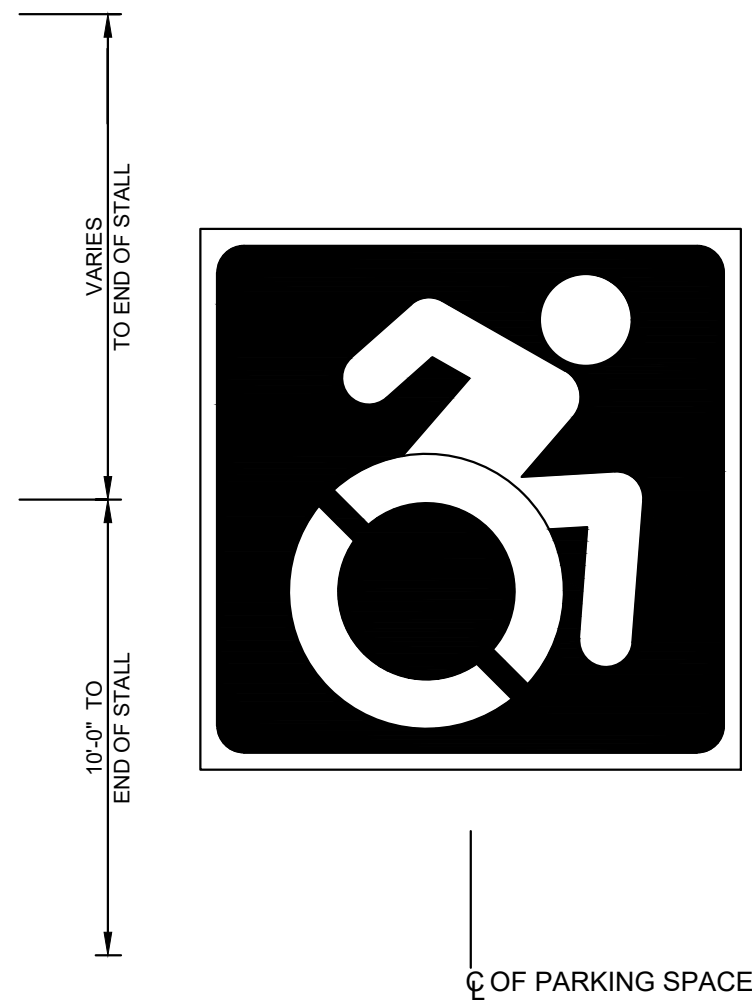


NOTE: LOCATIONS AS NOTED ON PLANS - COORDINATE WITH ARCHITECTURAL AND / OR STRUCTURAL PLANS.

(J) TYPICAL FOUNDATION DRAIN DETAIL
N.T.S.



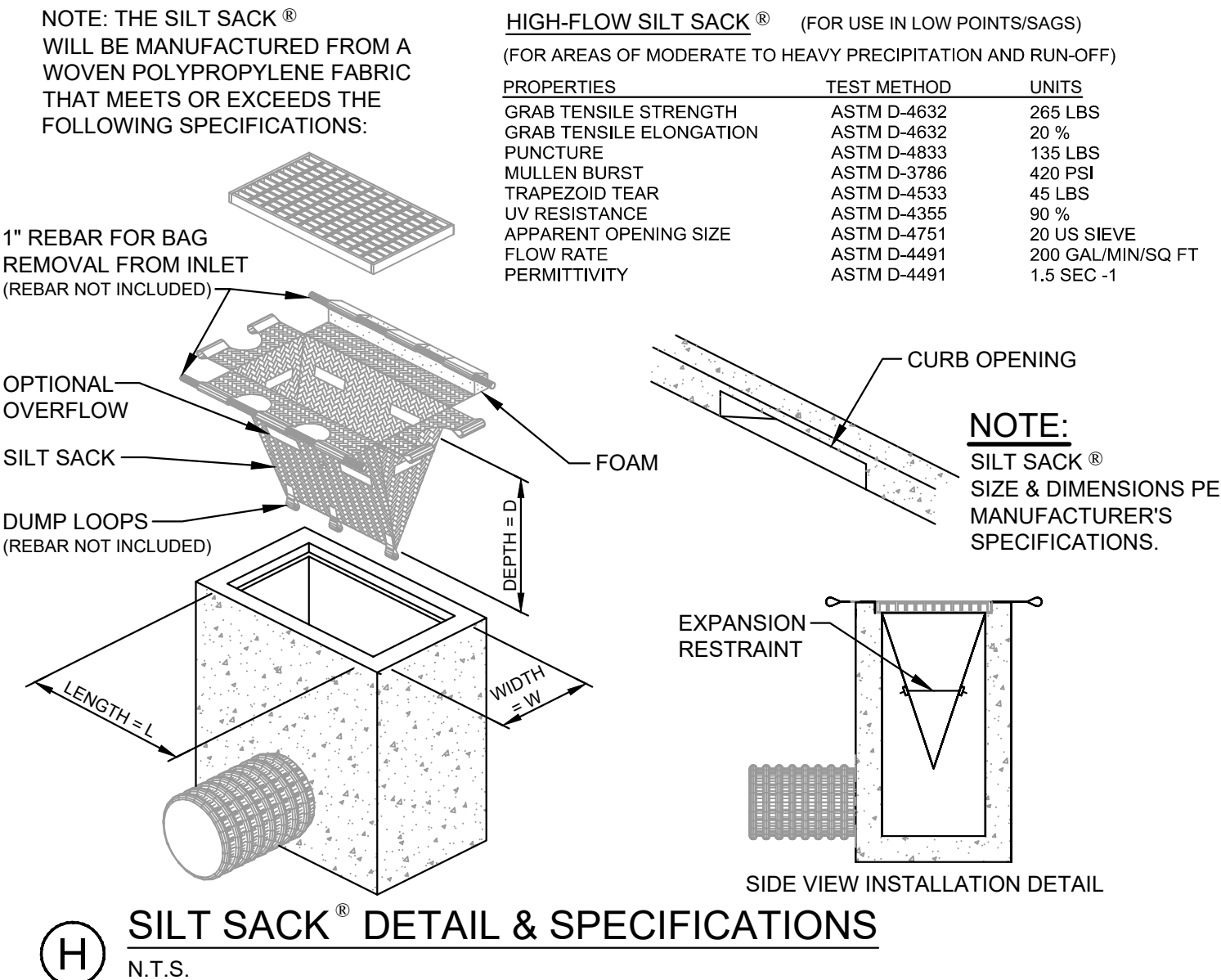
(B) BICYCLE RACK SPECIFICATION - DOWNTOWN RACK
N.T.S.



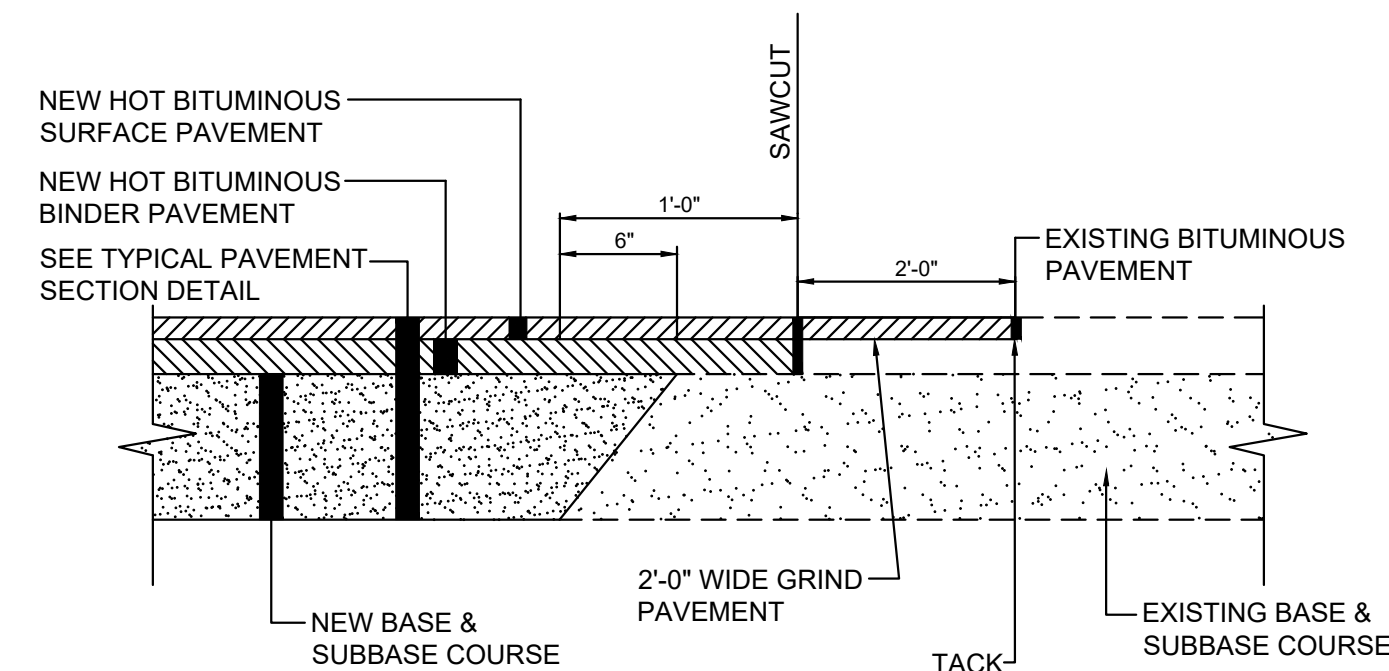
(E) INTERNATIONAL BARRIER FREE SYMBOL
N.T.S.

NOTE:

1. BARRIER FREE STALLS SHALL BE DELINEATED WITH THIS SYMBOL IN WHITE MARKING ON NON-SKID BLUE BACKGROUND.
2. CONTRACTOR SHALL COORDINATE WITH THE MUNICIPALITY FOR CURRENT INTERNATIONAL SYMBOL OF ACCESS PAINTING STENCIL.



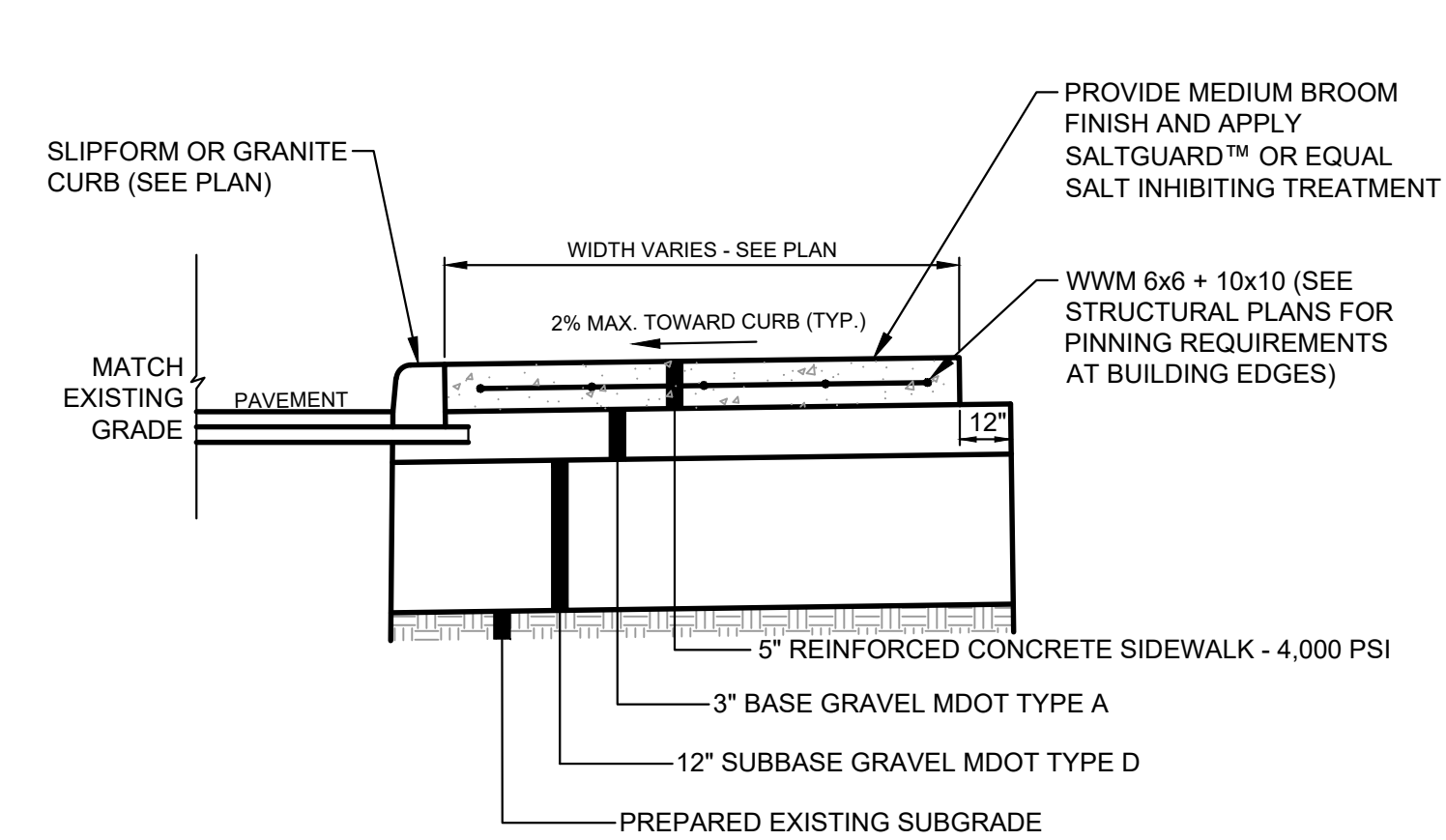
(H) SILT SACK® DETAIL & SPECIFICATIONS
N.T.S.



NOTES:

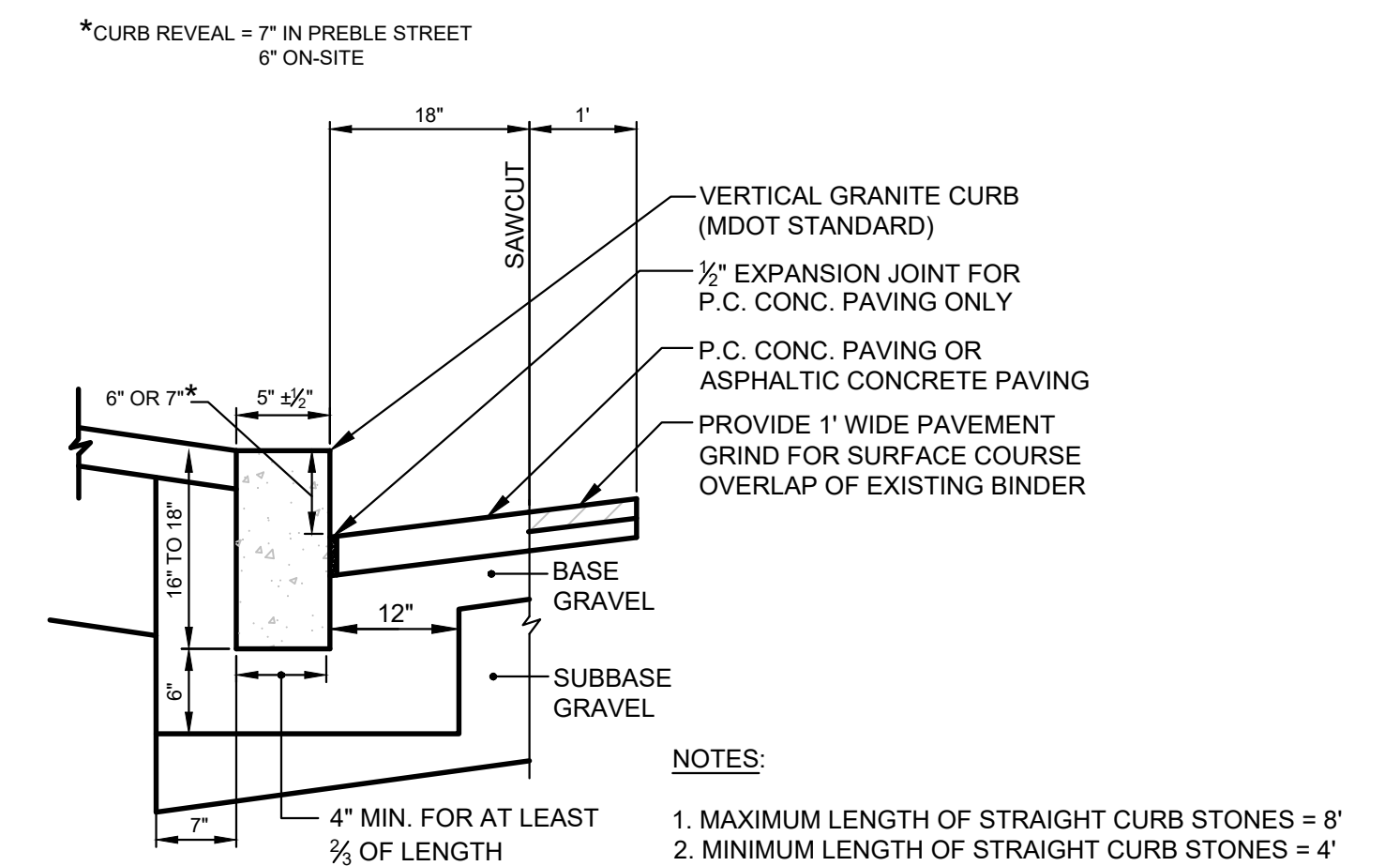
1. USE THIS DETAIL FOR THE RADIUS FILLET AT THE DRIVEWAY ENTRANCE TO THE PUBLIC STREETS OR TO MATCH PARKING LOT/DRIVE PAVEMENTS WHERE WIDENING OF EXISTING PAVEMENT AREA IS REQUIRED.
2. WHERE SURFACE PAVEMENT HAS NOT BEEN INSTALLED, THE 2'-0" WIDE GRIND IS NOT REQUIRED.

(C) PAVEMENT SAWCUT DETAIL
N.T.S.



NOTE: INSTALL CONSTRUCTION JOINTS AT 12' SPACING.

(F) CONCRETE SIDEWALK DETAIL
N.T.S.

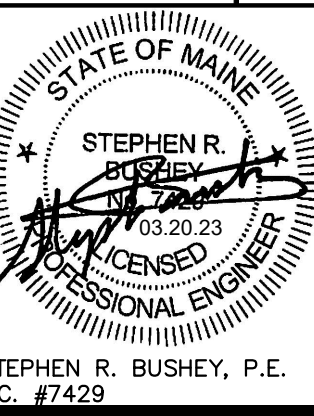


(I) VERTICAL GRANITE CURB DETAIL
N.T.S.

NOTES:

1. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
2. MINIMUM LENGTH OF STRAIGHT CURB STONES = 4'
3. CIRCULAR CURB REQUIRED FOR RADIUS LESS THAN 50'
4. GROUT OR CAULK ALL CURB JOINTS OVER 1/2" IN WIDTH. INSTALL STRIP OF FILTER FABRIC BEHIND EACH CURB JOINT.

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



Rev.	Date	Revision

Rev.	Date	Revision
2	2023.03.20	RESUBMITTED TO CITY OF PORTLAND
1	2023.01.03	SUBMITTED TO CITY OF PORTLAND FOR PERMITTING

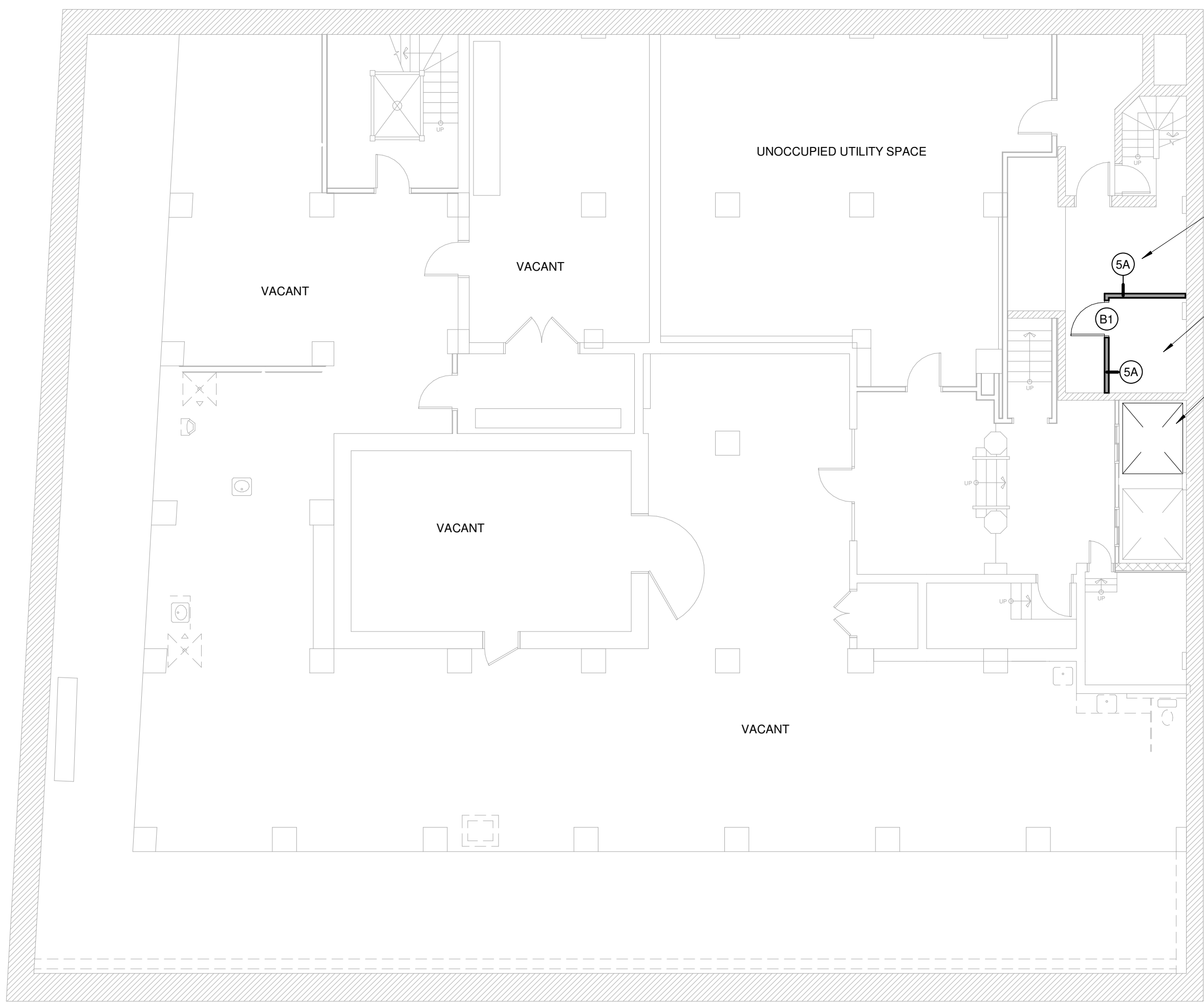
Design: SRB	Draft: CDD	Date: NOV. 2022
Checked: SRB	Scale: AS NOTED	Job No.: 4061
File Name: 4061-DETAILS.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Me 04106
207.772.2515 / www.gorrillpalmer.com
Relationships. Responsiveness. Results.

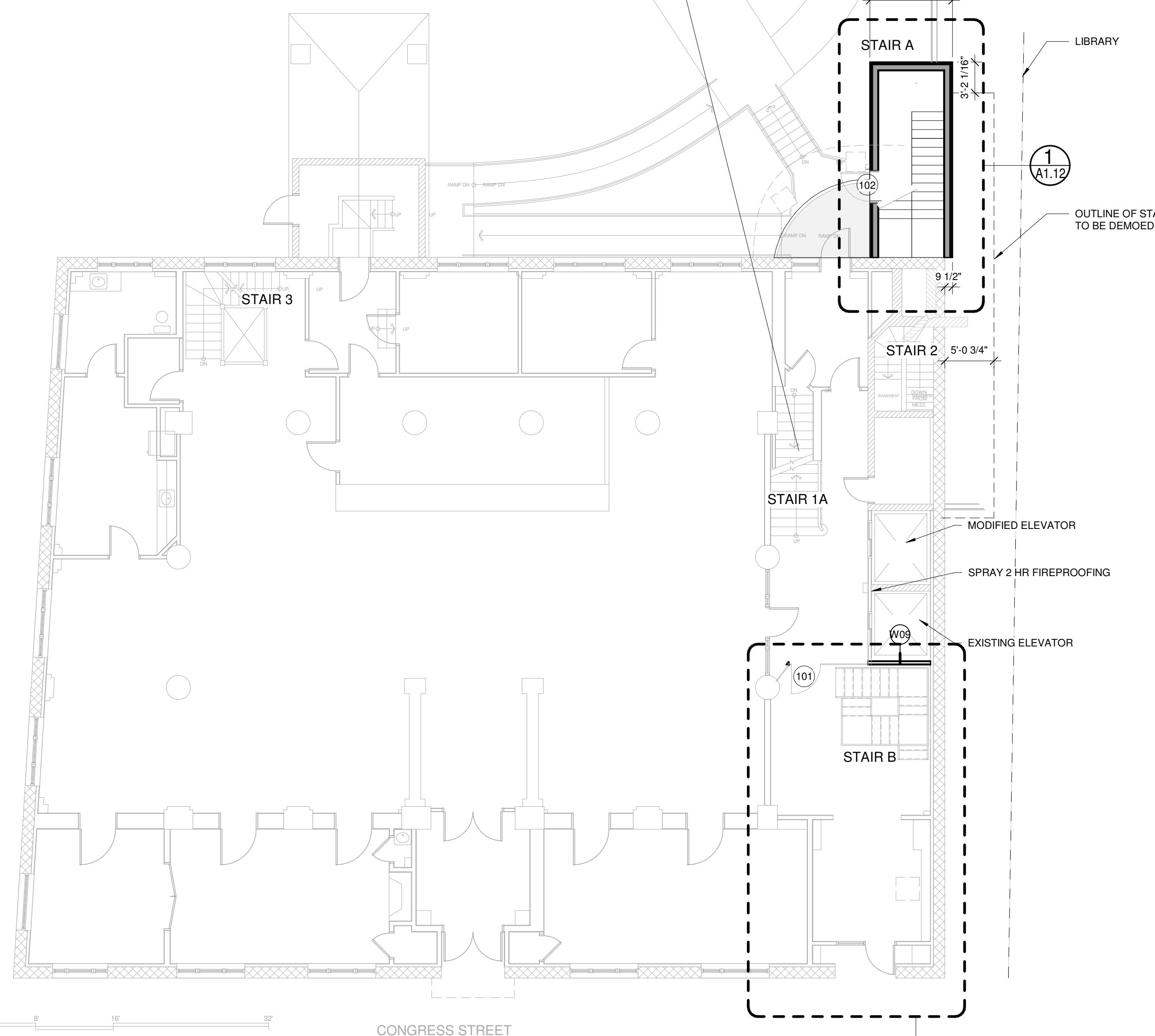
Drawing Name:	SITE & MISCELLANEOUS DETAILS
Project:	PROPOSED MIXED-USE BUILDING 465 CONGRESS STREET, PORTLAND, MAINE
Client:	ARCHETYPE PA 48 UNION WHARF, PORTLAND, MAINE 04101

Drawing No.
C-4.0

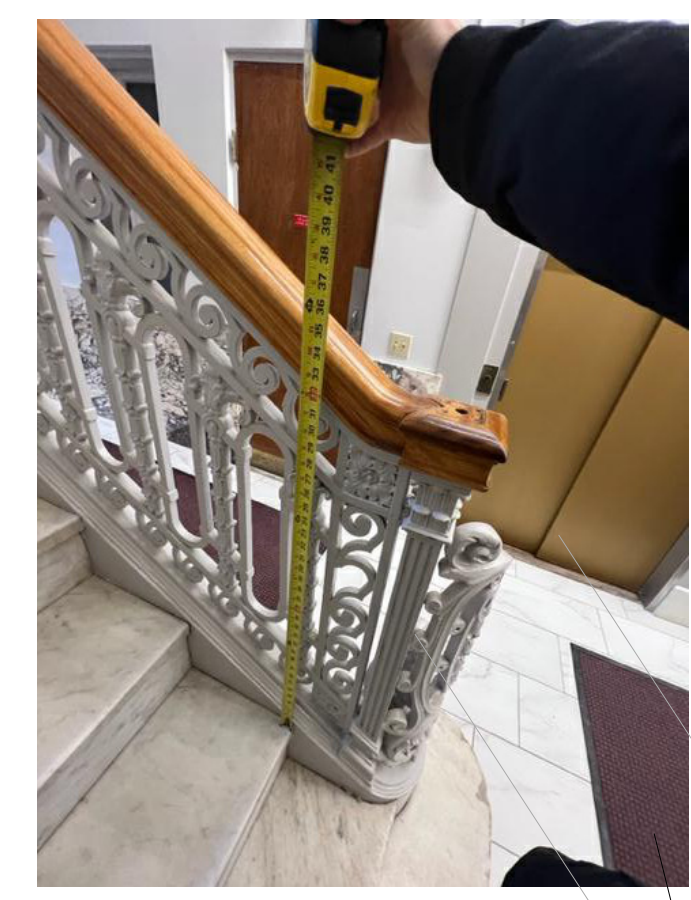


1 | BASEMENT
1/8" = 1'-0"

- EXISTING EQUIPMENT FOR REMOVED FREIGHT ELEVATOR REMOVE PORTIONS NECESSARY TO INSTALL RATED WALL
- EXISTING EQUIPMENT FOR MIDDLE ELEVATOR, NEEDS 3' OF CLEARNACE FROM NEW WALLS
- OTIS MODERNIZING EXISTING 2500 LB ELEVATOR

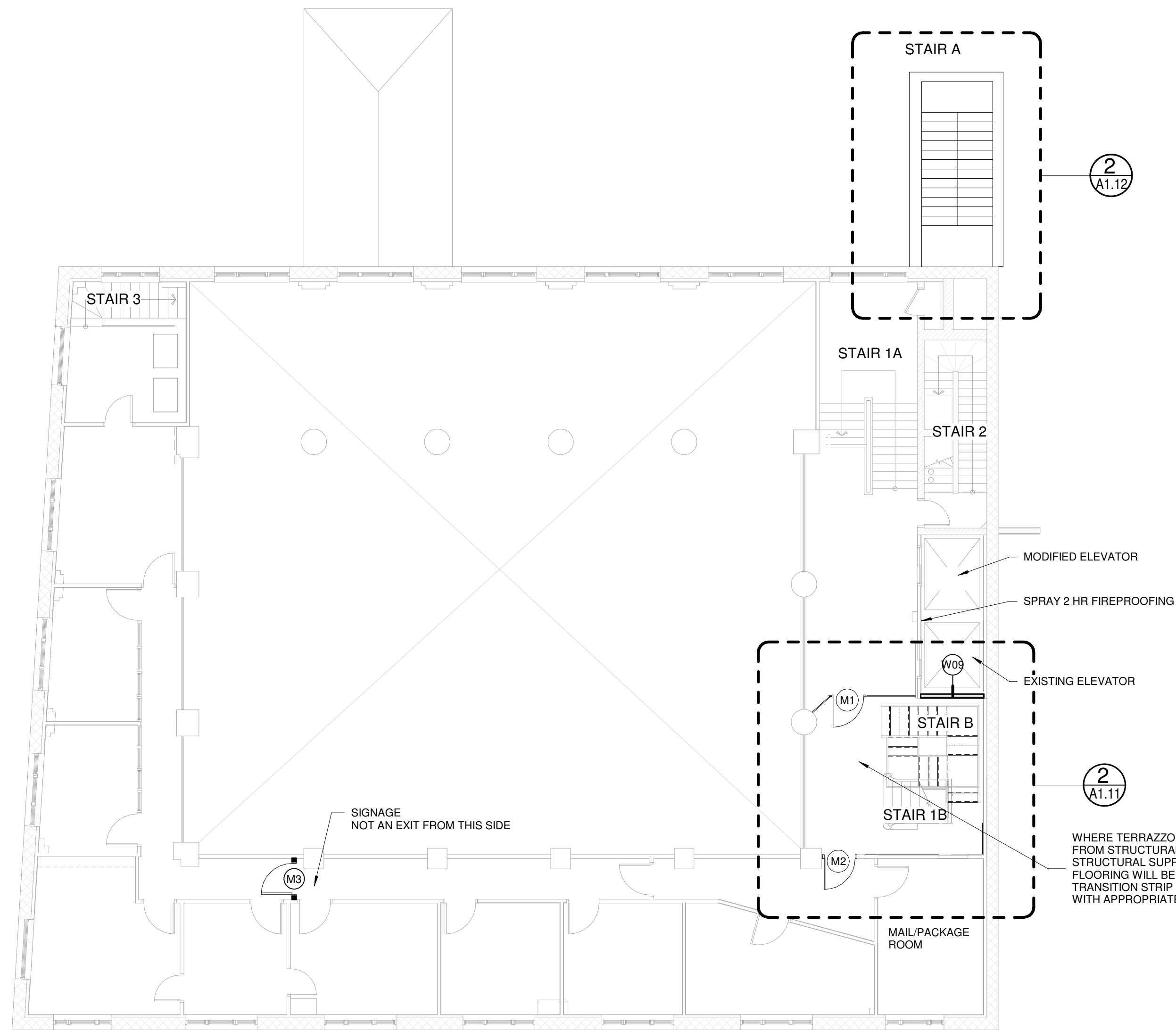


2 | FIRST FLOOR
1/8" = 1'-0"

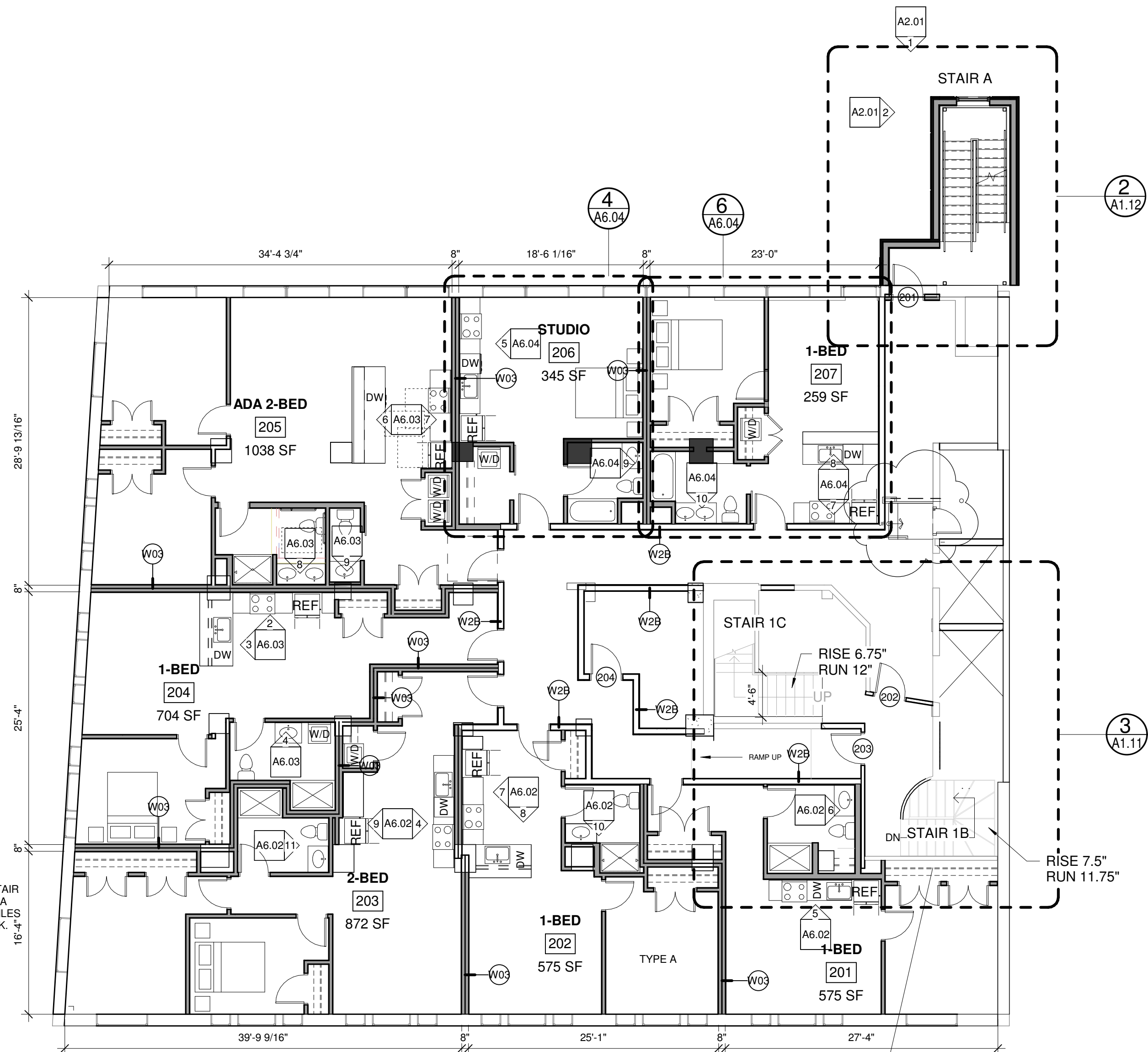


EXISTING GUARDRAIL ON STAIR 1A

ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 ARCHETYPE@ARCHETYPEPA.COM		Prepared For: Connecticut River Capital LLC
Project: 465 CONGRESS STREET Address City, State		Consultant: ARCHETYPE ARCHITECTS
Date: 1-25-2023	Scale: 1/8" = 1'-0"	Revisions:
BASEMENT & FIRST FLOOR PLANS		A1.00



1 | MEZZANINE.
1/8" = 1'-0"

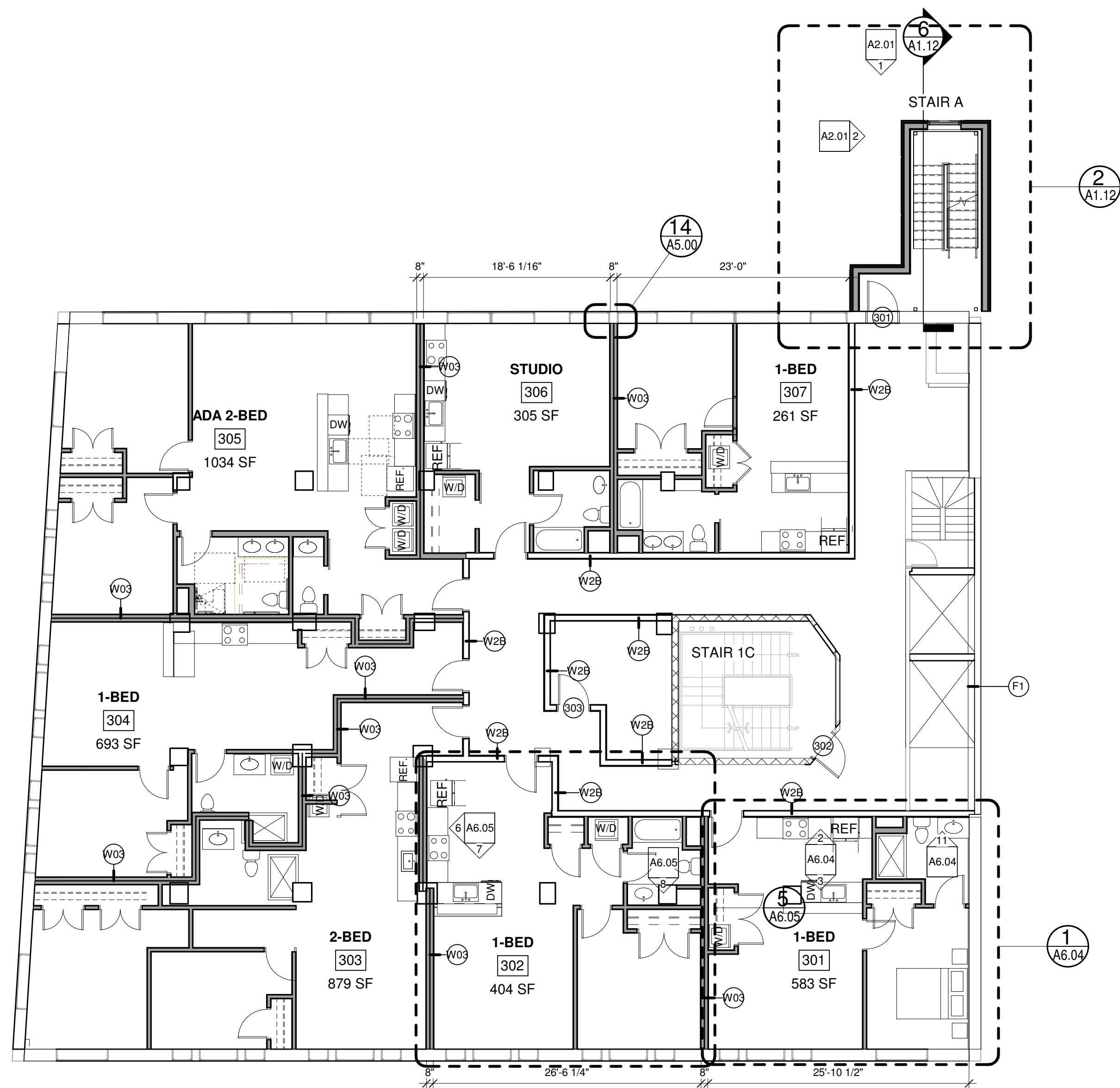


2 | SECOND FLOOR
1/8" = 1'-0"



EXISTING GUARDRAIL ON STAIR 1B

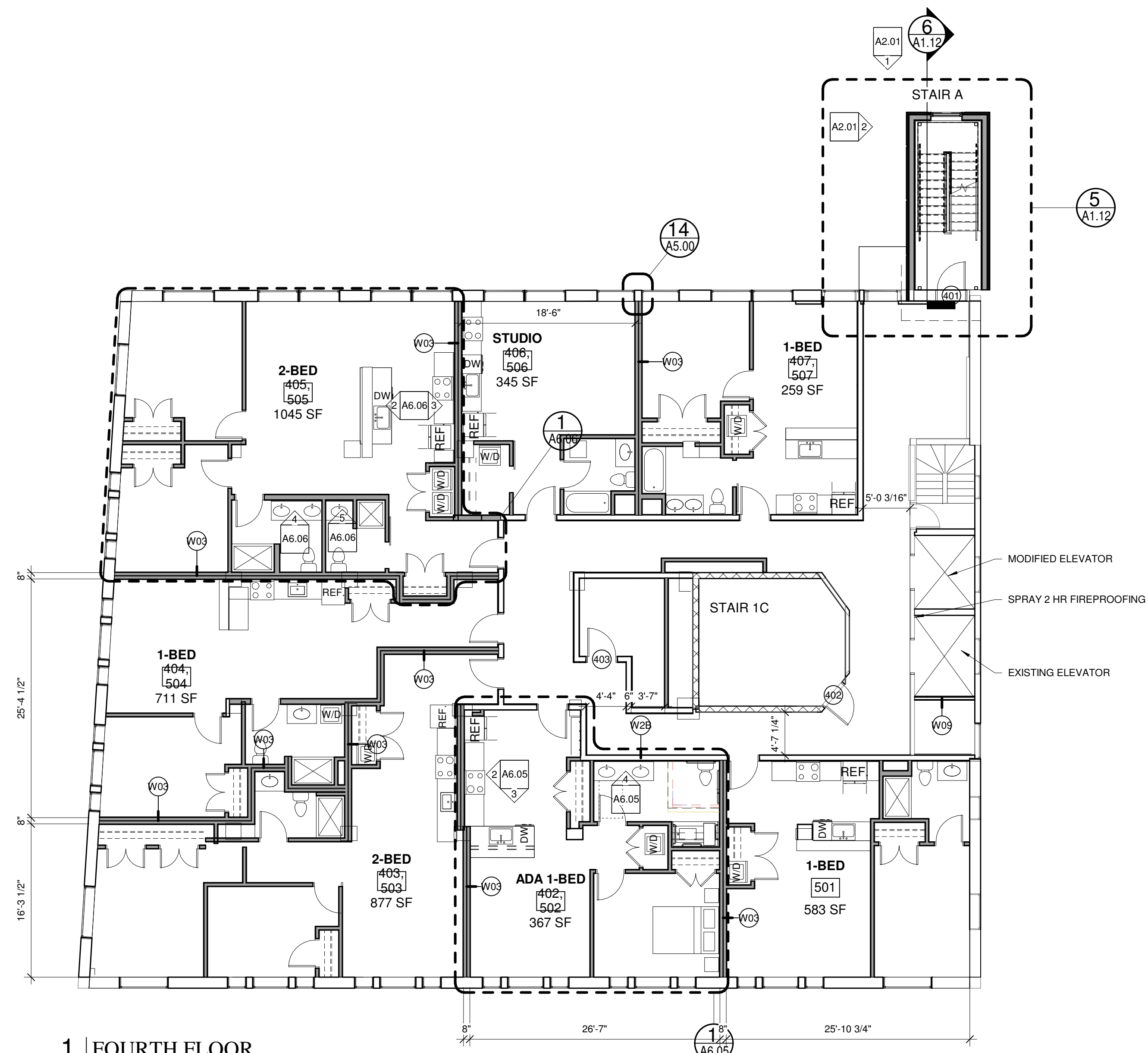
A1.01		MEZZANINE & SECOND FLOOR PLANS		Date: 1-25-2023		Scale: 1/8" = 1'-0"		Revisions:		Project: 465 CONGRESS STREET		Architect: ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 772-6022 ARCHETYPE@ARCHETYPEPA.COM		Consultant:		Prepared For: Connecticut River Capital LLC	
								1 Date 1 Revision 1									



2 | THIRD FLOOR
1/8" = 1'-0"

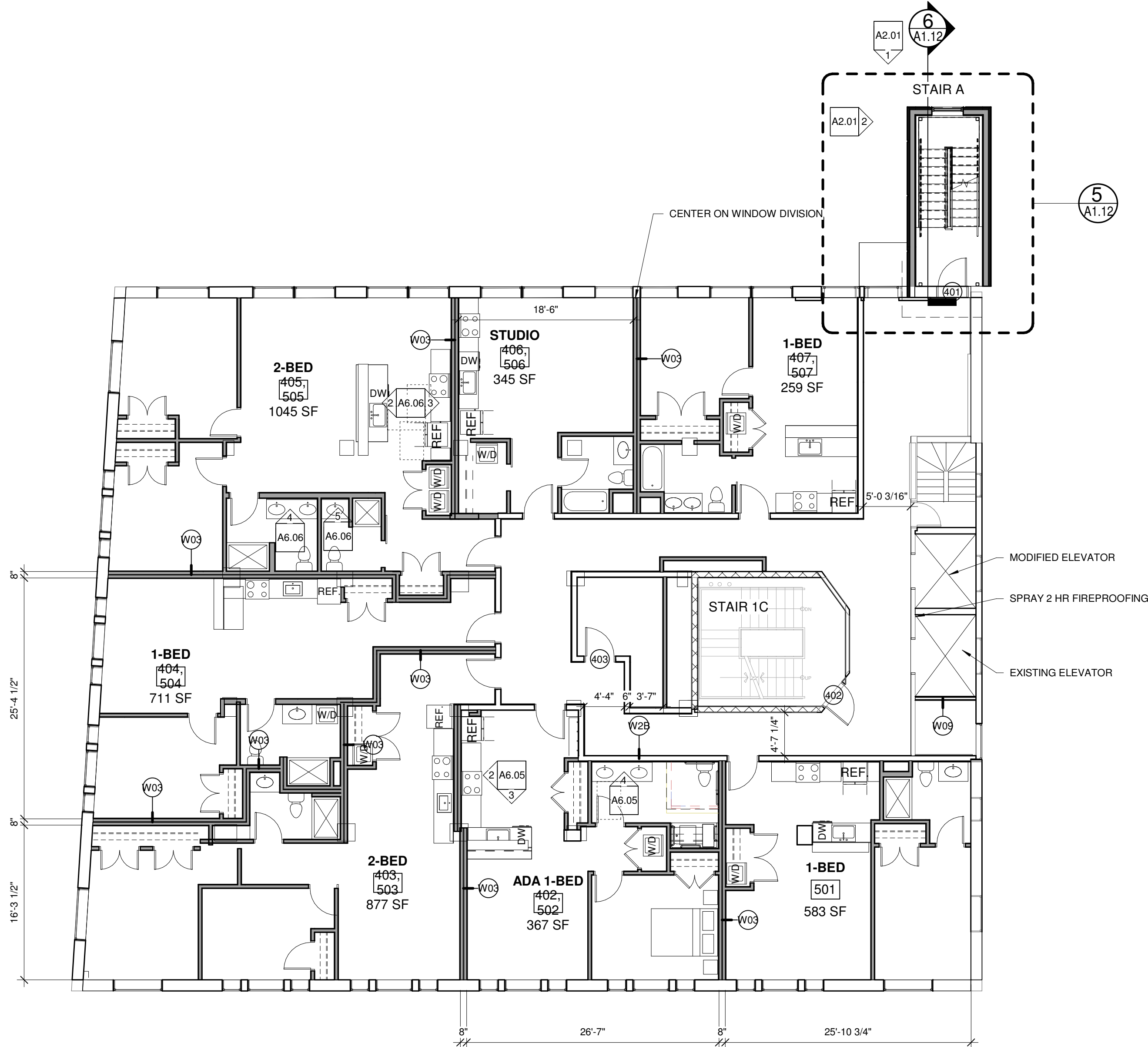


EXISTING GUARDRAIL ON
STAIR 1C

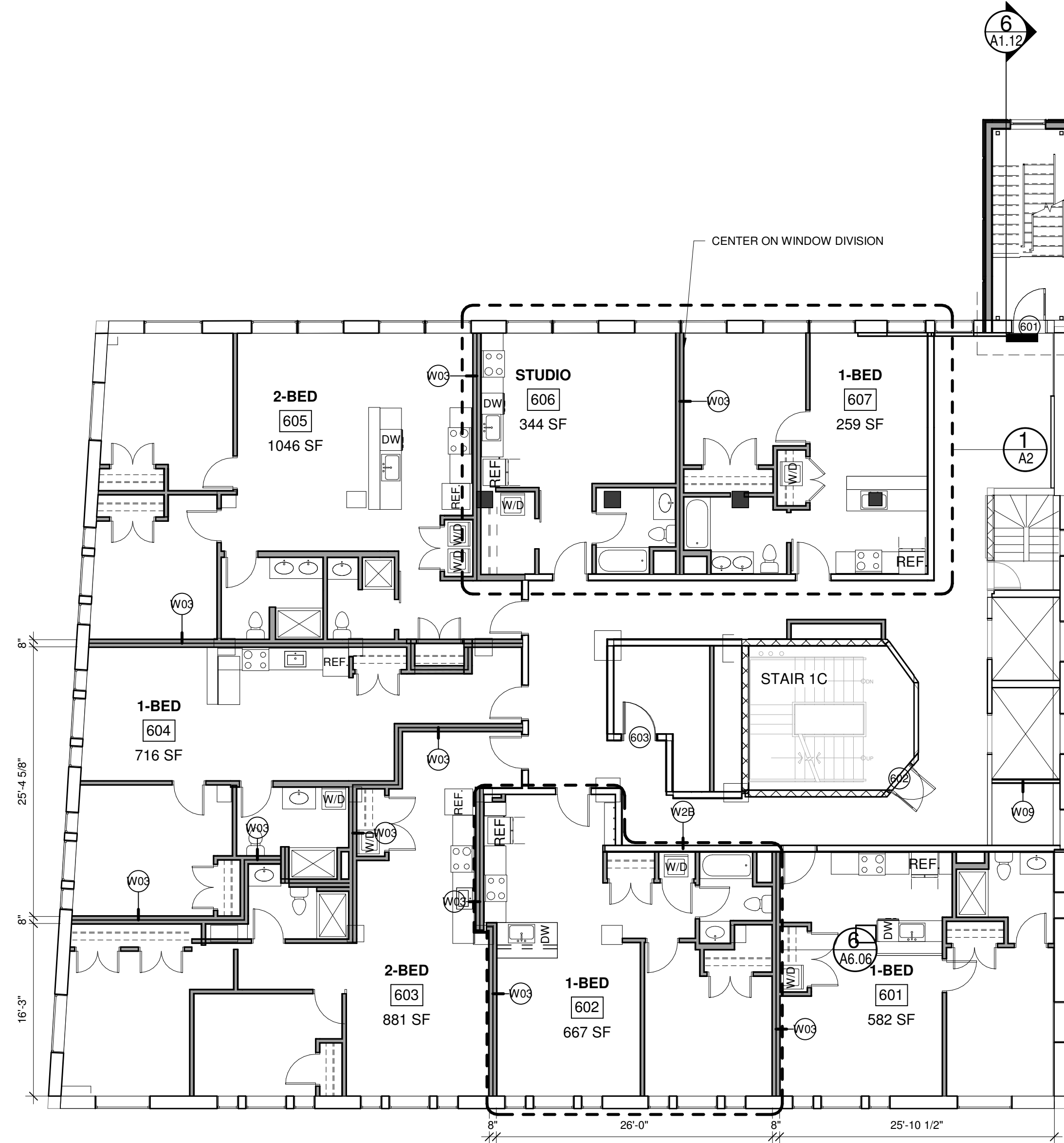


1 | FOURTH FLOOR
1/8" = 1'-0"

THIRD & FOURTH FLOOR PLANS		Date: 1-25-2023	Scale: 1/8" = 1'-0"	Revisions:	Project: 465 CONGRESS STREET Address City, State	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 ARCHETYPE@ARCHETYPEPA.COM	Consultant:	Prepared For: Connecticut River Capital LLC	A1.02

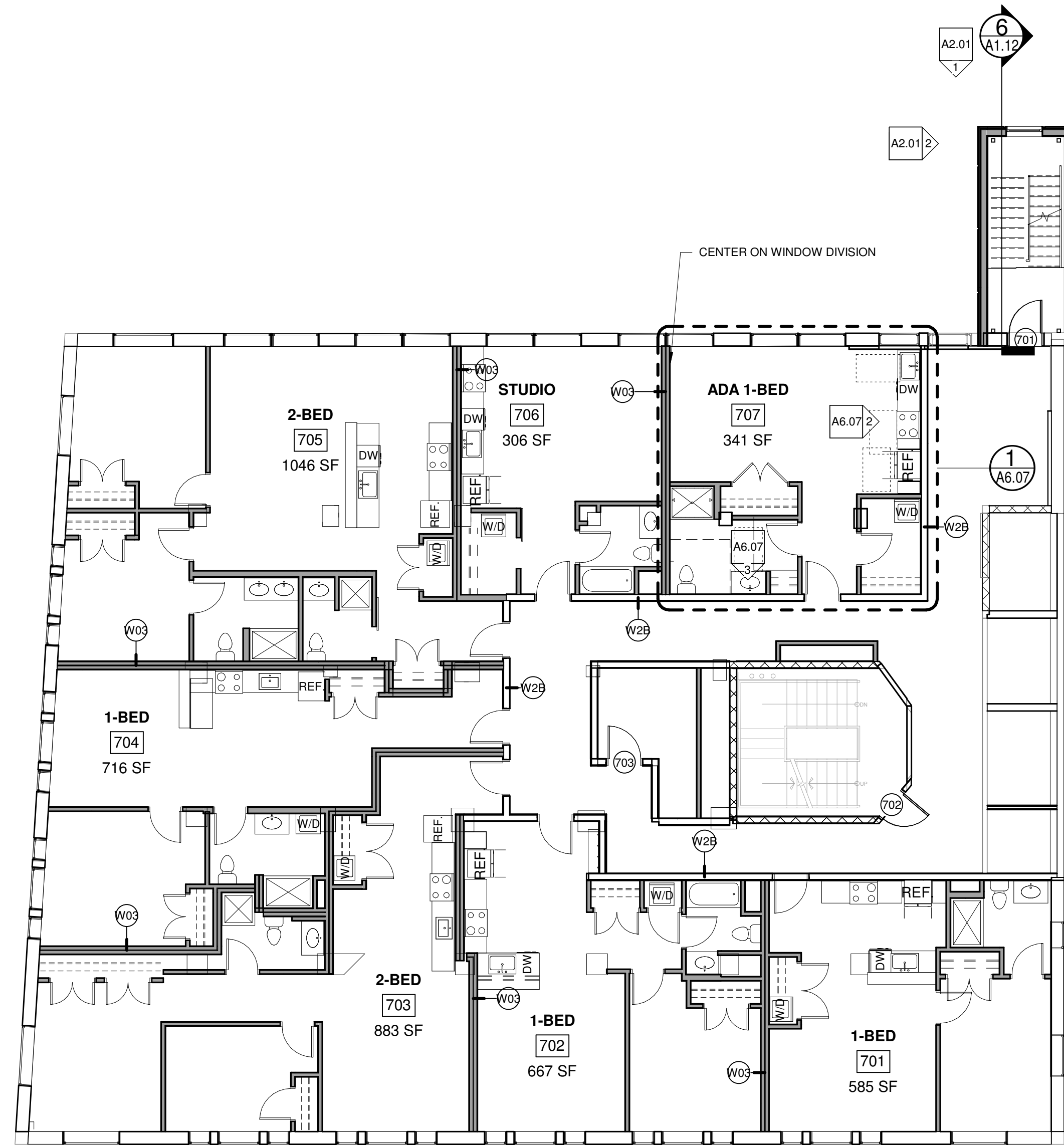


1 | FIFTH FLOOR
1/8" = 1'-0"

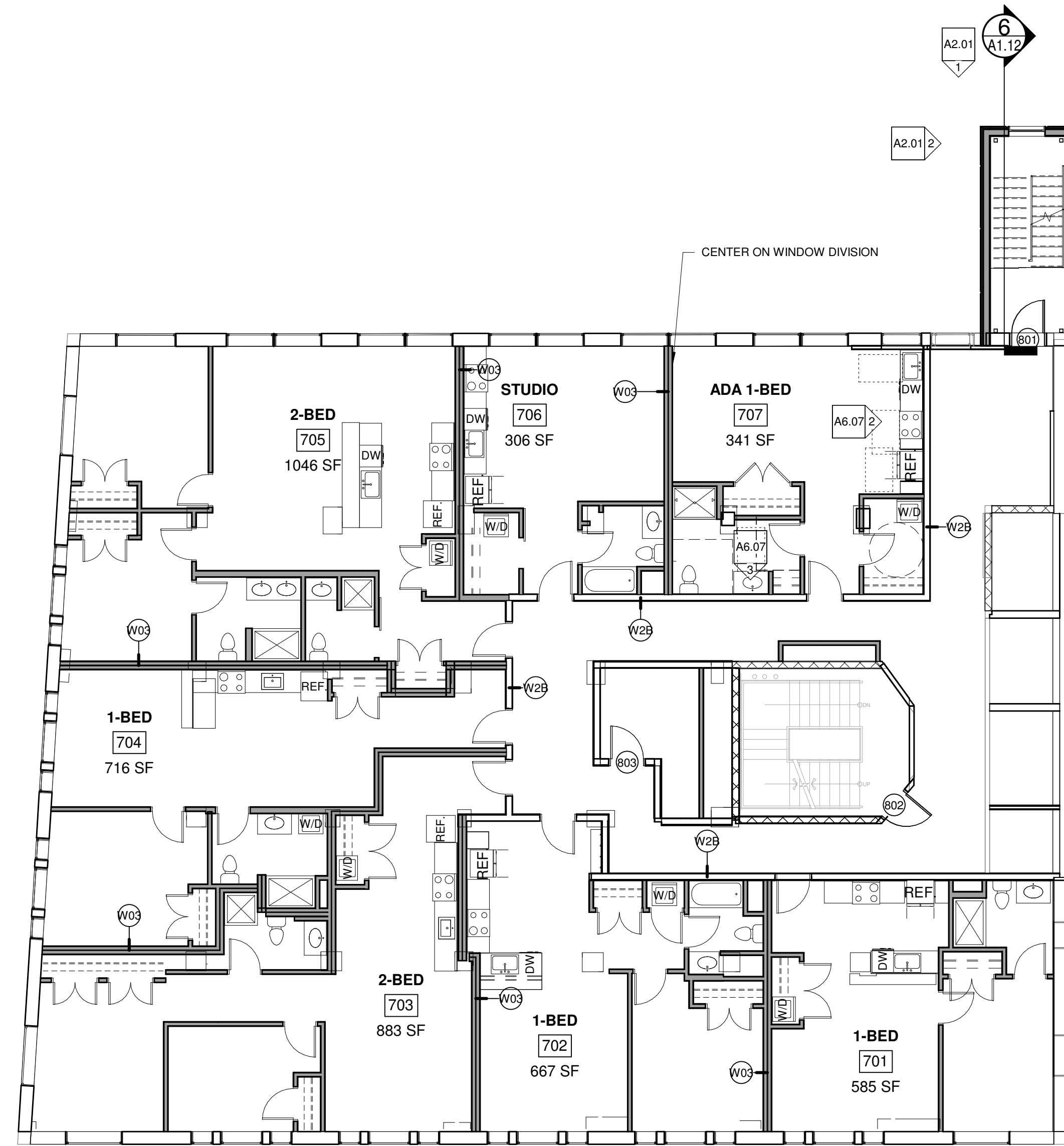


2 | SIXTH FLOOR PLAN
1/8" = 1'-0"

Prepared For:		Connecticut River Capital LLC	
Consultant:		ARCHETYPE architects	
Architect:		465 CONGRESS STREET	
Project:		STREET	
Revisions:		FIFTH & SIXTH FLOOR PLANS	
Date:	1-25-2023	Scale:	1/8" = 1'-0"
A1.03			

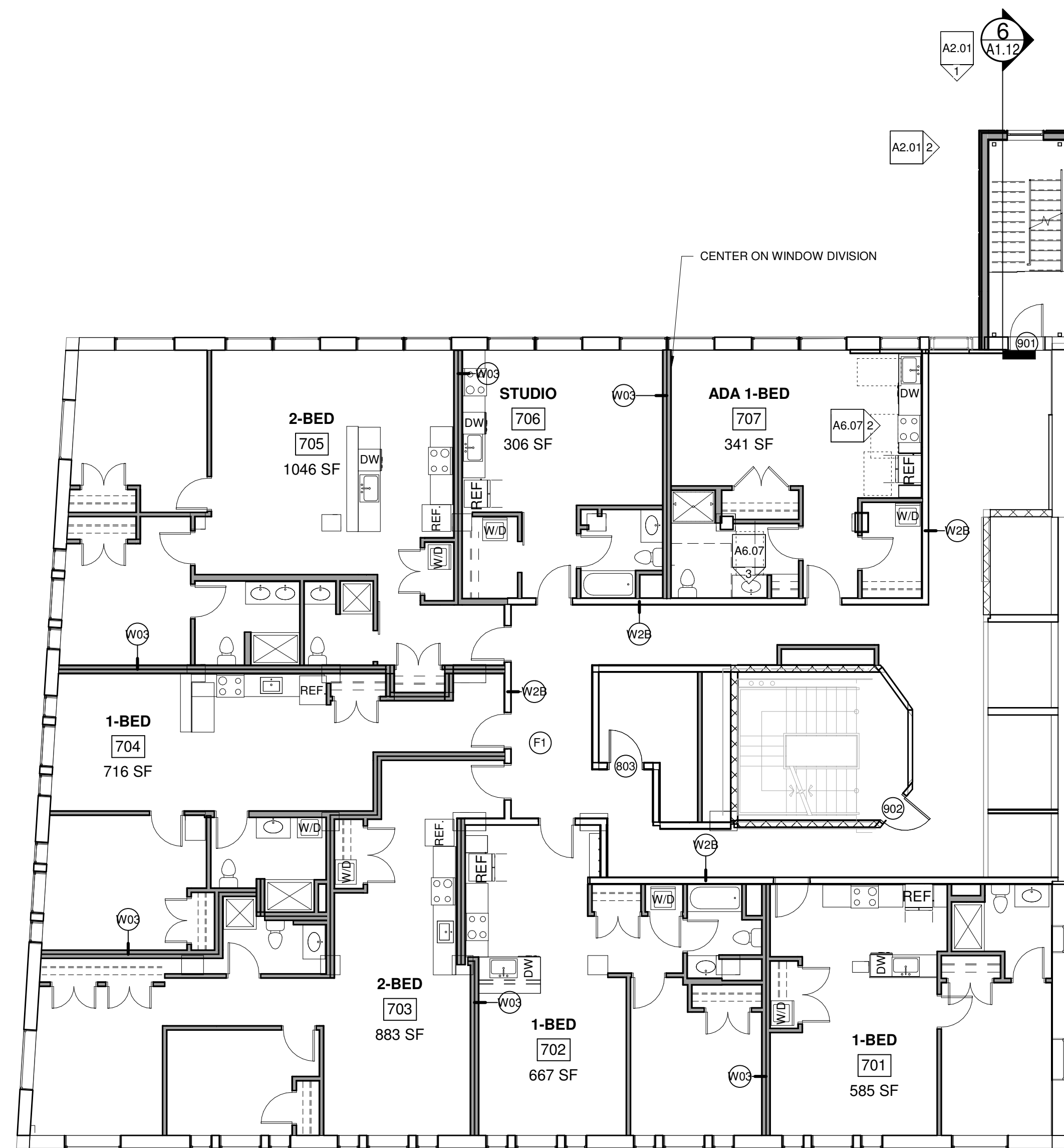


1 | SEVENTH FLOOR
1/8" = 1'-0"

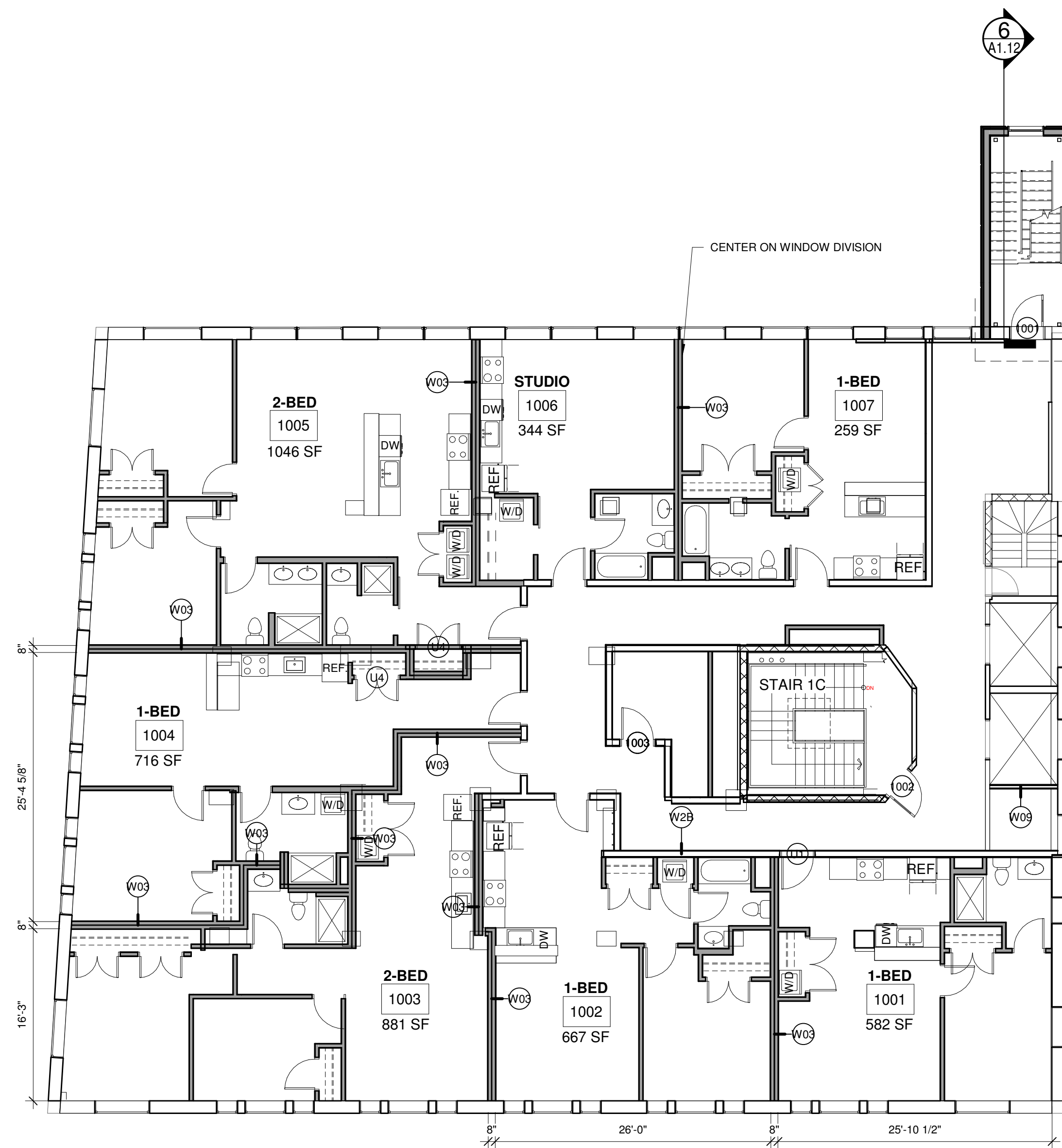


2 | EIGHTH FLOOR
1/8" = 1'-0"

Date: 1-25-2023 Scale: 1/8" = 1'-0"		Revisions:	Project: 465 CONGRESS STREET Address City, State	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 ARCHETYPE@ARCHETYPEDA.COM	Consultant:	Prepared For: Connecticut River Capital LLC
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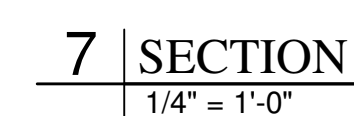
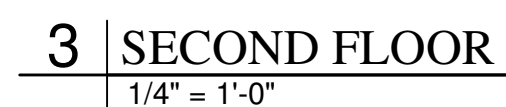
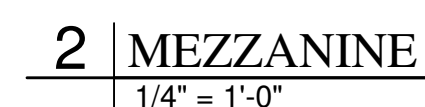
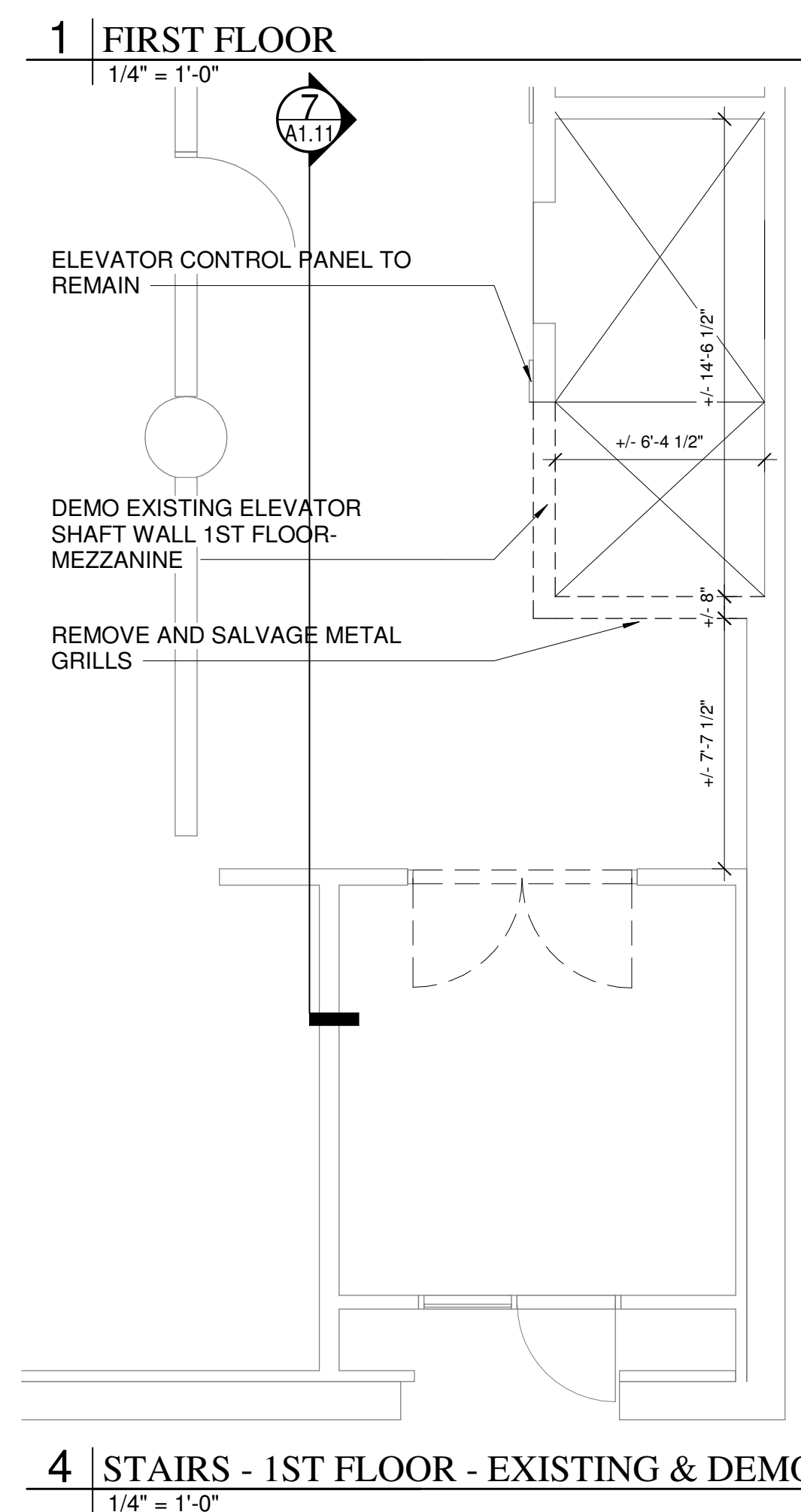


1 | NINTH FLOOR PLAN
1/8" = 1'-0"

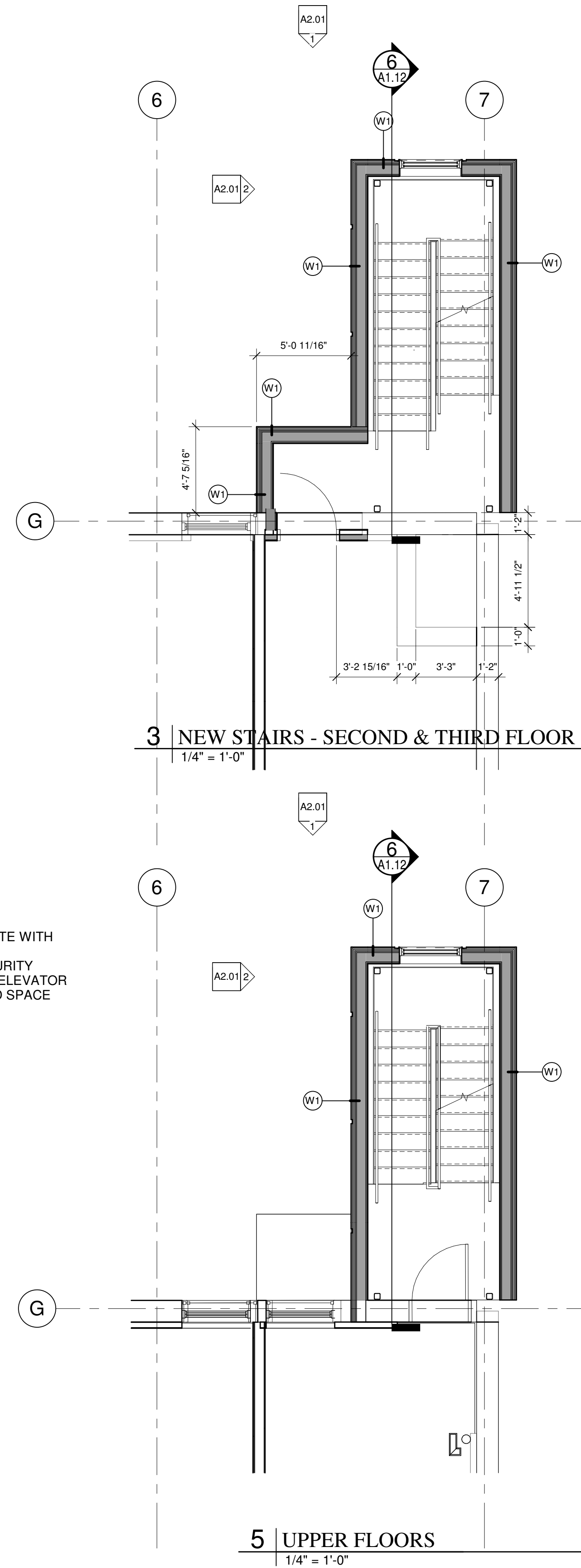
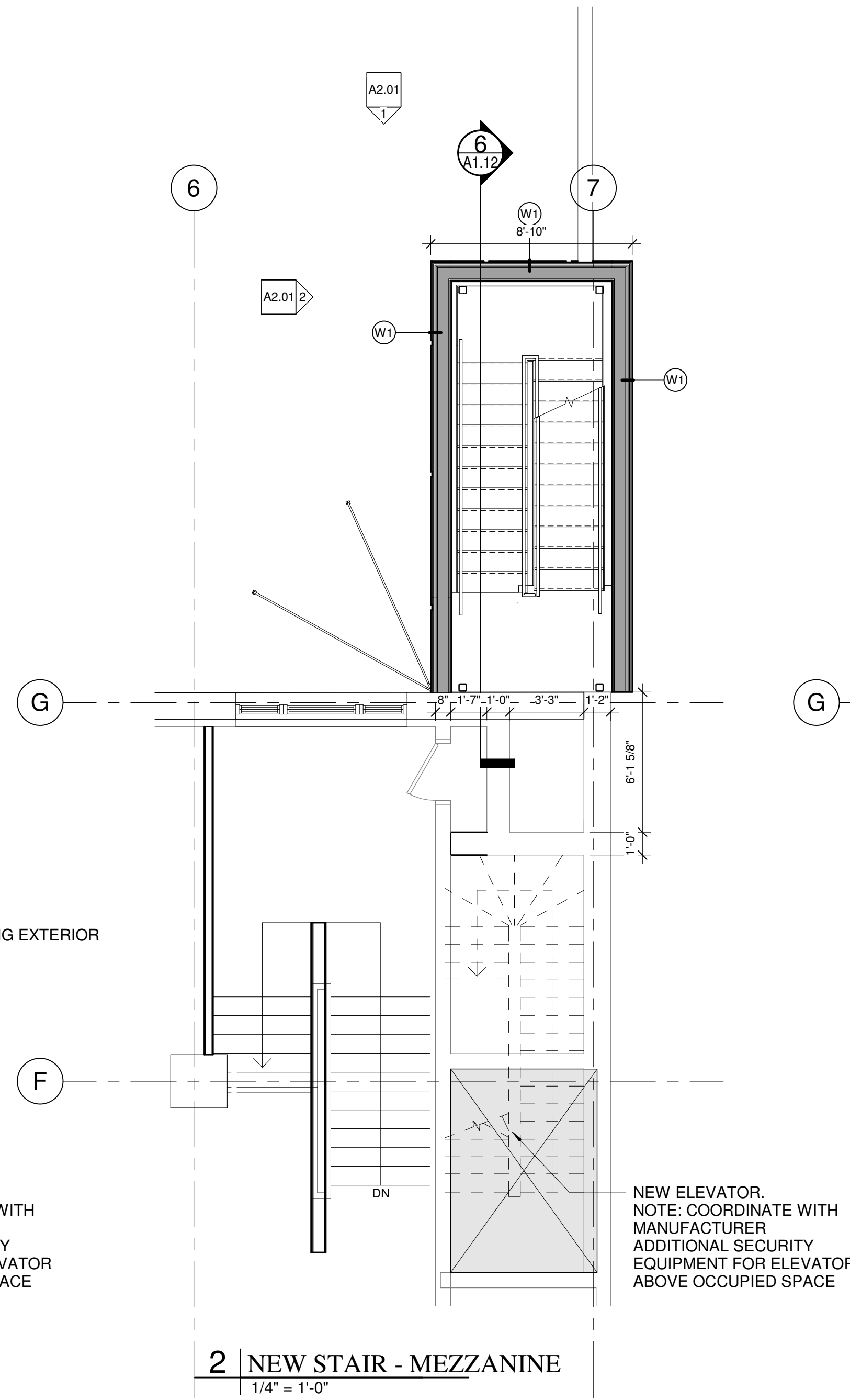
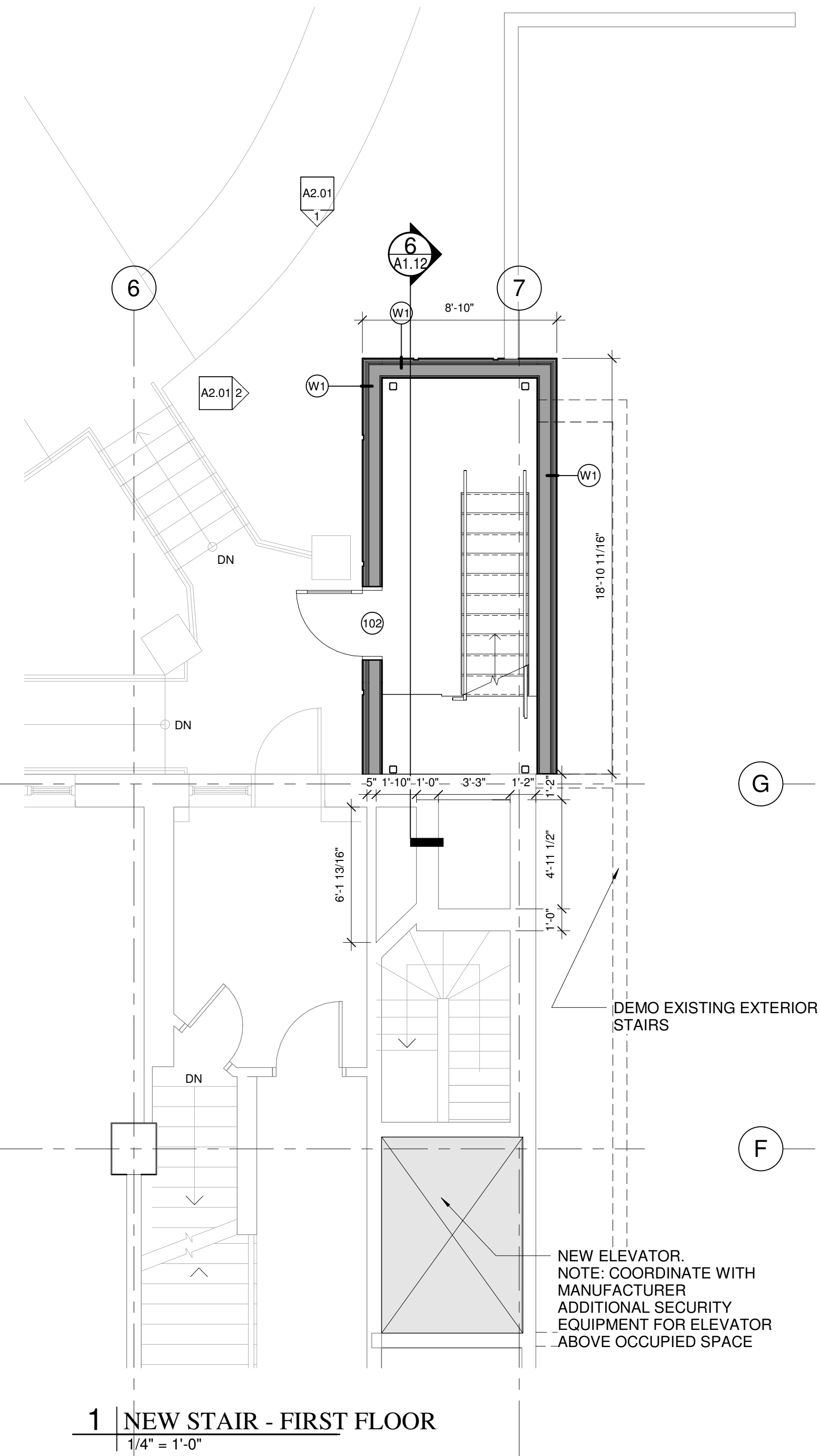
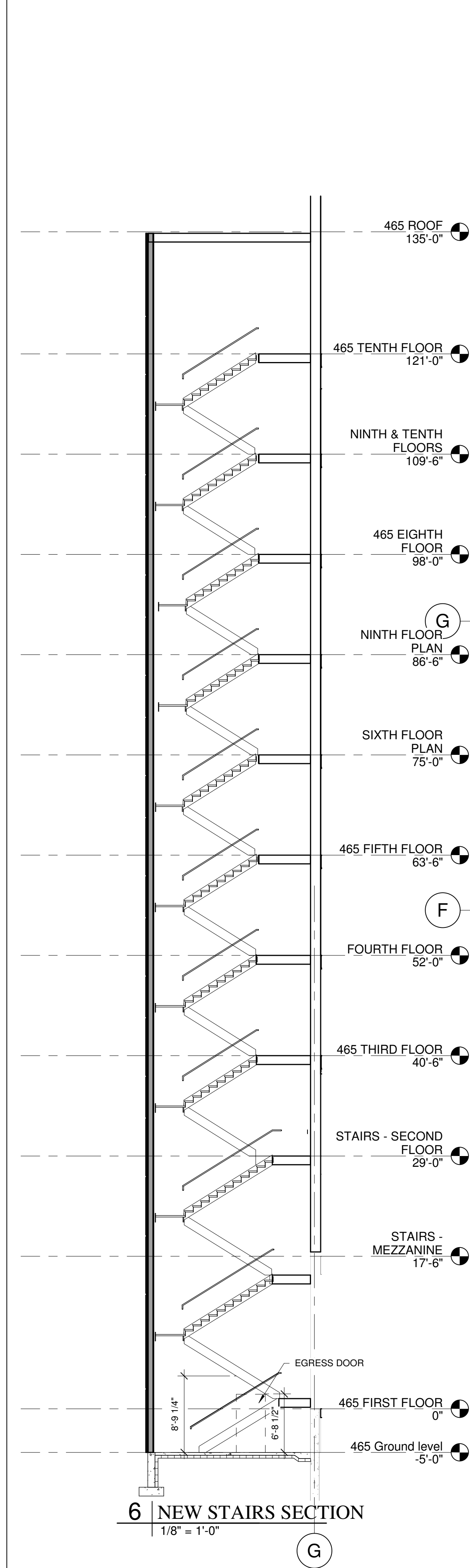


2 | TENTH FLOOR PLAN
1/8" = 1'-0"

Date: 1-25-2023	Scale: 1/8" = 1'-0"	NINTH & TENTH FLOOR PLANS		Revisions:	Project: 465 CONGRESS STREET Address City, State	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 ARCHETYPE@ARCHETYPEDA.COM	Consultant:	Prepared For: Connecticut River Capital LLC	A1.05



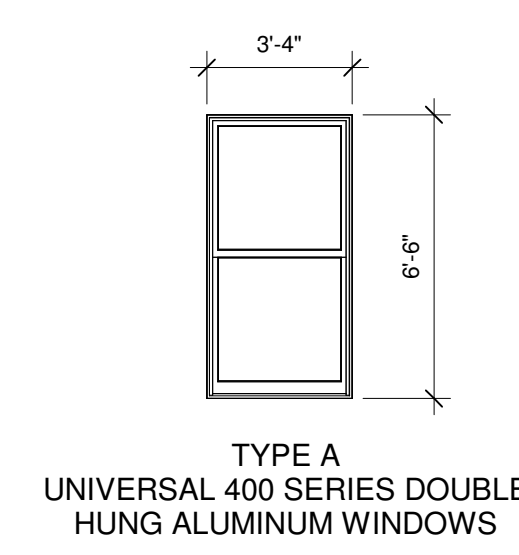
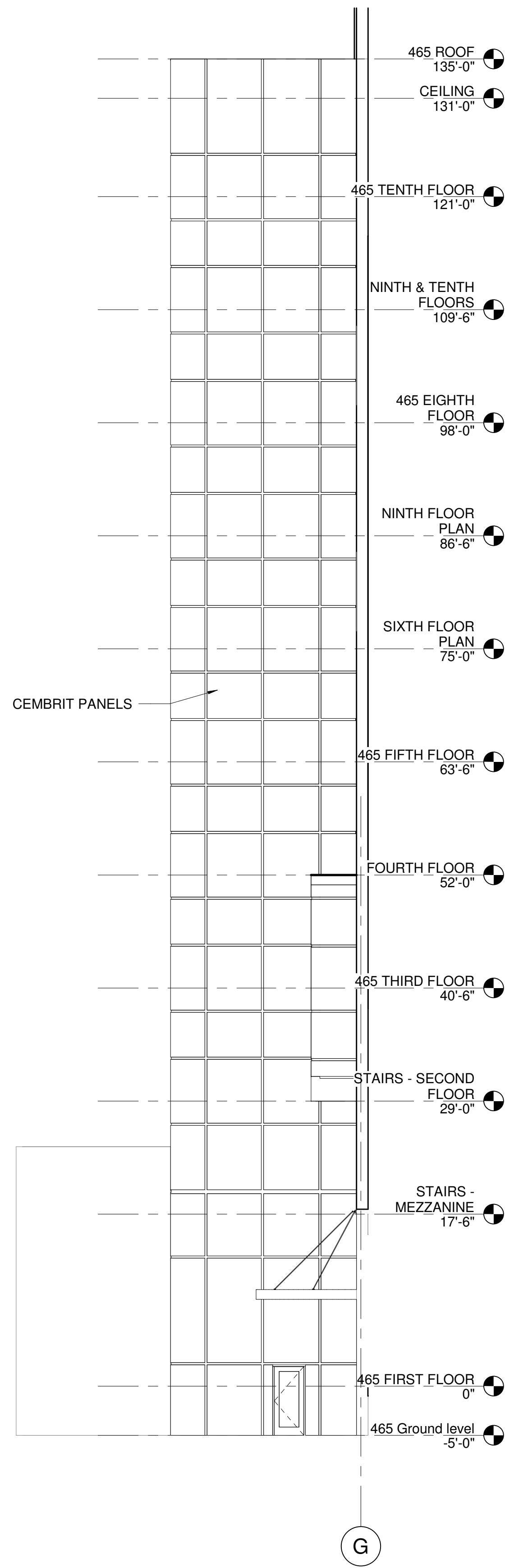
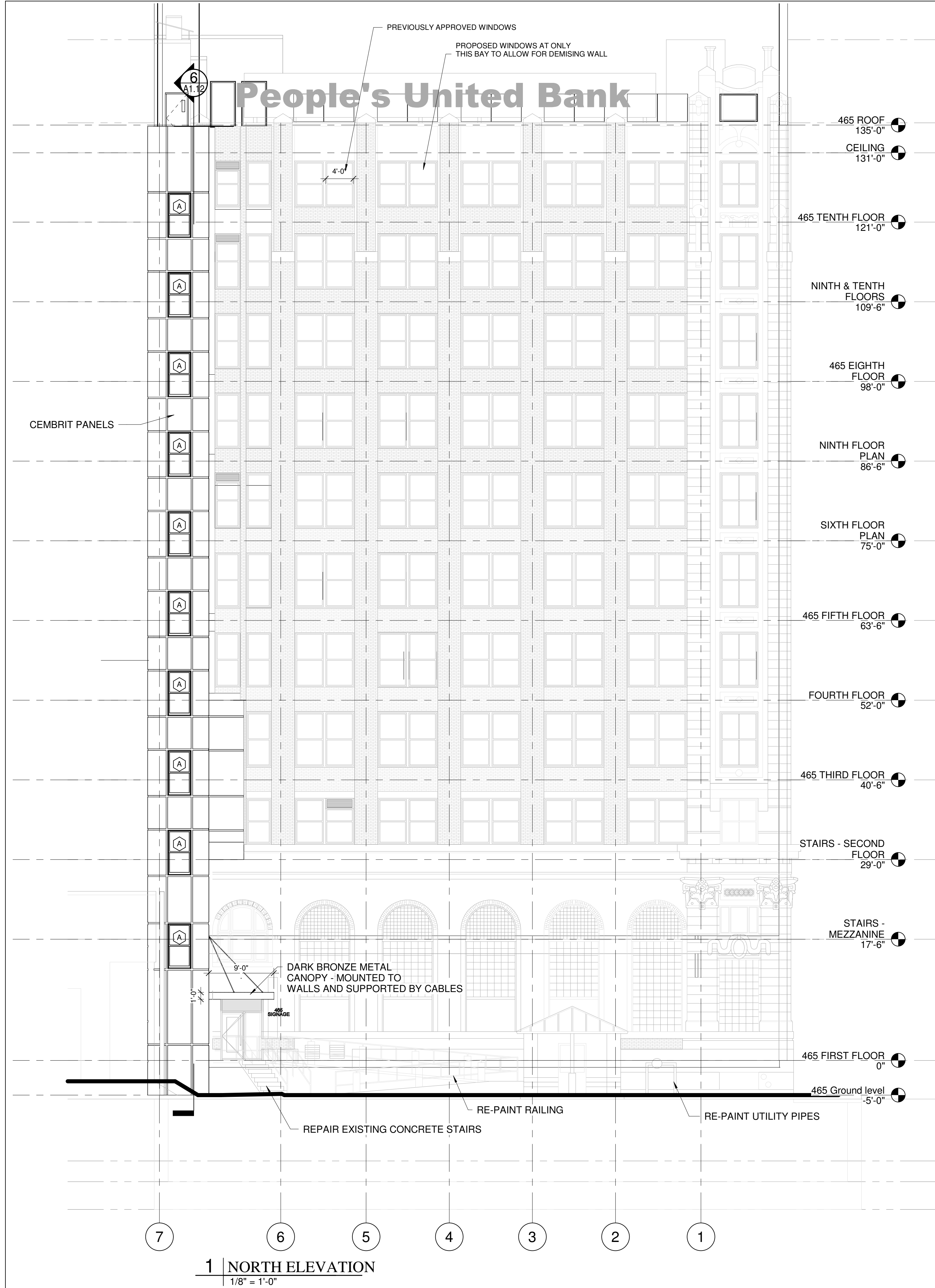
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A1.12		Date: 1-25-2023		Scale: As indicated	NEW EXTERIOR STAIRS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Date: 1-25-2023		Scale:	Revisions:	Project: 465 CONGRES STREET	Architect: ARCHETYPE ARCHITECTS 48 Union Wharf Portland, Maine 04101 207.772.6022 ARCHETYPE@ARCHETYPEPA.COM	Consultant:	Prepared For: Connecticut River Capital LLC	
A1.14		STAIR RENDERINGS						



TYPE A
UNIVERSAL 400 SERIES DOUBLE
HUNG ALUMINUM WINDOWS

WINDOW LEGEND
1/4" = 1'-0"

A2.01		Date: 1-25-2023		Scale: As indicated	NEW STAIRS ELEVATIONS		Revisions:		Project: 465 CONGRES STREET		Architect:  48 Union Wharf Portland, Maine 04101 (207) 772-6022; ARCHETYPE@ARCHETYPEPA.COM		Consultant: <	
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Planning Board Report

Planning and Urban Development Department



Riverton Park Redevelopment and Rehabilitation
2 Riverton Drive
Major Site Plan Application (PL-002319-2022, CU-002325-2023)
Portland Housing Authority, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Sean King, Urban Designer
Public Hearing Date:	May 23, 2023	Date:	May 19, 2023

I. INTRODUCTION

The Portland Housing Development Corporation (PHDC) & Portland Housing Authority (PHA) have submitted a Major Site Plan, Conditional Use and Inclusionary Zoning Conditional Use application to redevelop PHA's Riverton Park community, with a proposal to construct a new 4-story multifamily building with 59 residential units, retail, clinic and office space; a new Neighborhood Center building with social services, office and meeting spaces for residents; a new maintenance building; rehabilitation of the 123 existing 2-story residential townhomes; and site work improvements throughout the property.



Figure 1: Vicinity Map (applicant's property outlined)

This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Conditional Uses Standard, Section 6.5.1; Site Plan Standards, Section 14.6; and Inclusionary Zoning Conditional Use Standards, Section 18.2.3.

The Planning and Urban Development Department mailed 99 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the May 12, 2023 and May 13, 2023 editions of the *Portland Press Herald*.

Applicant: Tyler Plante, Portland Housing Development Corporation
Applicant: Matthew Phillips, Carroll Associates
Representatives: Keegan Carmichael, CWS Architects
Architect: Andy Johnston, Atlantic Resources Consultants;
Engineer: Randy Loubier, Owen Haskell Inc

II. REQUIRED REVIEWS

<i>Review</i>	<i>Applicable Standards</i>
Site Plan Review Standards	Section 14.6
Inclusionary zoning conditional use	Section 18.2.3

General conditional use	Section 6.5.2
Supplemental use-specific conditional use	Section 6.5.6.F (Place of Assembly)
Design Standards	City of Portland Design Manual, section (d) B-2 ; (h) Planned Residential Unit Developments (PRUDS) in the R-5a Residential Zone

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Request: To reduce drive aisle width from 24 feet to 22 feet. Staff Recommendation: City's Consulting Traffic Engineer supports specific waiver request	Technical Manual, Section 1.10.3: Drive aisle and parking lot layout shall provide a minimum drive aisle of 24 feet.
Request: To increase the amount of compact parking spaces (18 proposed at 25% of total) in new Building 1 parking lot. Staff Recommendation: City's Consulting Traffic Engineer supports specific waiver request	Technical Manual, Section 1.10.2.1: Parking lots with greater than 5 spaces may be comprised of up to 20% compact parking spaces.
Request: To reduce the amount of granite curb within the right-of-way. Staff Recommendation: Department of Public Works staff is supportive of the concrete curb installation	Technical Manual, Section 1: Granite curb (I-12) shall be installed in right-of-way.

III. PROJECT DATA

Existing Zoning	B-2 Community Business; R-5a Residential
Property Size	17.72 acres
Existing Use	Residential (Planned Residential Unit Developments)
Proposed Use	- Residential (Multi-family dwellings), Institutional (Clinics), Commercial / Service (General offices <5,000sf & Retail <5,000 SF) in the B-2 Commercial Business Zone. - Institutional (Place of Assembly >10,000 SF) in the R-5a Residential Zone.

	<i>Existing</i>	<i>Proposed</i>	<i>Required</i>	<i>Net Change</i>
Dwelling Units	141 units	182 units	n/a	+41 units
Building Footprint	80,845 SF (14,935 SF Demolished)	32,733 SF	n/a	+17,798 SF
Building Floor Area	158,755 SF	227,478 SF	n/a	+68,723 SF
Off-street parking spaces	194	228	207	+34
Bicycle parking	0	82	35	+82
EV Charging Stations	0	16	16	+16

IV. BACKGROUND

Built in 1972, the Riverton Park property includes 25 existing townhouse apartment style buildings with 141 residential units and several administrative offices that serve residents.

On June 22, 2022, the City Council approved a zoning map amendment to rezone the Riverton Park campus and surrounding parcels from R-5 Residential into two zones (R-5a and B-2) along with a text amendment to the R-5a zone to allow Places of Assembly uses greater than 10,000 square feet in size, as a conditional use.

V. EXISTING CONDITIONS AND SURROUNDING AREA

The proposed redevelopment and rehabilitation application are within the Riverton Park development (Chart 327, Block B, Lot 12, 2 Riverton Drive), with Riverton Drive providing public street access between the site and Forest Avenue. The Riverton Park property is 17.72 acres and abuts the Terrace Pond Apartments to the West. Businesses within the area include a grocery store, a gas station, auto repair, convenience stores, and breweries. Riverton Trolley Park is located across Riverside Street. To the east, inbound Forest Avenue extends toward Portland's peninsula, and the remaining section of outbound Forest Avenue continues into Westbrook. Nearby, Riverside Street includes a mixture of light, medium, and heavy industrial zones and the newly constructed Homeless Service Center.

VI. PROPOSED DEVELOPMENT

The applicant has provided an Overall Development Scheme (Plan 31) to illustrate the entire scope of the project. The newly proposed mixed-use building, located in the B-2 zone, would include 59 residential units, PHA Management offices, a new Greater Portland Health (GPH) clinic, two small neighborhood retail bays and associated site improvements. The applicant would replace the twenty-four affordable units being demolished and maintain the same bedroom count to be constructed within the new Building 1. In addition, fifty-one percent of net new units would be affordable (17 of 35 net new units) distributed within the new Building 1.



Figure 2: Rendering of Building 1

The new neighborhood center, located in the R-5a zone, would include spaces for the Boys & Girls Club (B&GC), PHA study center, teen center, a multipurpose recreational gymnasium, community kitchen, food

and clothing pantry, conference room, resident service coordination (RSC) office, and community policing liaison office. According to the applicant, the building's design and programming were based on extensive conversations and multiple meetings with residents and service partners over the past four years.



Figure 3: Rendering of Neighborhood Center

The rehabilitation of 21 residential buildings with 123 affordable residential units would include exterior upgrades to the roofs, windows, and accessible entries and interior upgrades for insulation, boiler replacement, new ventilation systems, and new fixtures. The applicant would create new accessible units and improve building accessibility.

The total redevelopment and rehabilitation would contain eight studio units, 13 1BR units, 36 2BR units, 69 3BR units, 30 4BR units, 20 5BR units, and 6 6BR units with all apartments being for rent. According to the Affordable Housing Tax Increment Financing (AHTIF) and HOME application, the development would preserve all of the existing larger units and would set aside 19 apartments for families and individuals experiencing homelessness. Ninety percent of all Riverton Park apartments (165 of 182 units) would be affordable for households earning at or below 50 percent and 60 percent of the Area Median Income (AMI); and 10 percent would be market-rate rentals.

The applicant would construct a new maintenance garage building to replace the existing administration building that would be demolished. Additional site improvements include the replacement of curbing, sidewalks and pathways; improvements to pedestrian and bicycle infrastructure; the replacement of obsolete utility lines; improvements to site accessibility for persons with disabilities; resurface paved areas; regrade to direct drainage away from buildings; enhancement of site landscaping; the addition of community gardens at each townhouse apartment building grouping; and improvements to site lighting. New open space would include a new recreational field, playground area, performance stage and seating areas and rehabilitate the existing basketball court.



Figure 4: Overall Development Scheme (blue outlines B-2 Community Business zone, red outlines PRUD in R-5a Residential zone)

VII. PREVIOUS WORKSHOPS

The Planning Board held a workshop on March 28, 2023. During Board clarifying questions, the Board requested clarification on a number of items including the configuration and layout of Building 1, clarification on emergency vehicular access at the proposed fire lane and pedestrian plaza, and the replacement of residential units to match bedroom mix within the new Building 1. Furthermore, the Board requested clarification of recreation and playground amenities to function for families with variety for many age groups and ability levels.

During deliberation, the Board recommended that the applicant incorporate fencing and an enhanced landscape buffer at the proposed play field to minimize interaction with the Building 1 parking lot.

VIII. RIGHT, TITLE, & INTEREST

The applicant submitted a deed transferring the Riverton Park parcel from F.D. Rich Housing Corp. to the Portland Housing Authority dated August 9, 1972 (Attachment 3-3.4).

IX. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter of financial capacity to self-certify Portland Housing Development Corporation (PHDC) to secure financing to complete the redevelopment and rehabilitation of Riverton Park. PHDC seeks to utilize Low Income Housing Tax Credits (LIHTC) and has submitted an application to

MaineHousing for a 4% LIHTC allocation to assist with funding of the project. MaineHousing has agreed to act as the construction lender and would provide permanent financing for this redevelopment.

The Riverton Park Community currently operates as Public Housing, and utilizes funds by HUD's Section 18 Demolition & Disposition program. Riverton Park will convert to a Section 8 Project Based Voucher (PBV) funding platform at construction loan closing. (Attachment 9).

The applicant has assembled a highly qualified team of professionals for the preparation of this project, with significant experience with this type of project. All representatives of the applicant have proven experience working on projects located in the City of Portland.

X. ZONING ANALYSIS

The subject property is located in the B-2 Community Business zone and R-5a Residential zone.

The proposed redevelopment includes 59 residential units, offices and retail in the B-2 Community Business zone, which are listed as permitted uses within the B-2 zone per Article 6, Table 6-C.

The proposed rehabilitation includes a maintenance building and renovations to 21 existing townhouse apartment buildings in the R-5a Residential zone that is permitted by Land Use Code Table 6-A. The proposed Neighborhood Center is considered a place of assembly greater than 10,000 sf which is a conditional use per Article 6, Table 6-C, requiring review by the Planning Board under Section 6.5.2.

B-2 dimensional standards under Table 7-E below:

<i>B-2 Community Business</i>	<i>Permitted</i>	<i>Proposed</i>
Lot Area (min.)	N/A	1.52 acres
Lot area per dwelling unit (min.)	1,000 sq. feet	1,122 sq. feet
Street Frontage (min.)	20 feet	>20 feet
Front Setback (max.)	10 feet	>10 feet ¹
Rear Setback (min.)	10 feet	>10 feet
Side Setback (min.)	N/A	N/A
Stepbacks (above 35 feet when property line abuts a residential zone)	Side: 5 feet Rear: 15 feet	>5 feet >15 feet
Length of building wall at maximum setback (min.)	N/A	N/A
Length of undifferentiated blank wall along publicly accessible way (max.)	N/A	N/A
Floor area (max.)	N/A	N/A
Structure Height	50 feet ²	49 feet
Lot coverage (max.)	N/A	N/A
Impervious surface ratio (max.)	Residential: None Other uses: 80%	<80%

¹ Where setbacks exceed 10 feet, a continuous, attractive, and pedestrian-scaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by the City arborist, and a combination of landscaping no less than four feet deep, ornamental brick or stone walls, or ornamental fencing listed under Land Use Code Section 7.5.5.F.

² Structure height (max.) is 50 ft. if first floor is in commercial use under Land Use Code Table 7-E.

R-5a PRUD dimensional standards under Table 7-B below:

R-5a Residential Zone	Permitted	PRUD Dimensional Bonus Applied¹	Proposed
Street Frontage (min.)	50 feet	N/A	>50 feet
Lot Width (min.)	65 feet	N/A	>65 feet
Front Setback (min.)	25 feet	10 feet	>10 feet ²
Rear Setback (min.)	25 feet	10 feet	>20 feet
Right Side Setback (min.)	14-16 feet (varies)	10 feet	>16 feet
Left Side Setback (min.)	14-16 feet (varies)	10 feet	>16 feet
Stepbacks	N/A	N/A	N/A
Lot Coverage (max.)	30%	N/A	>30%
Lot Area (min.)	2 acres	N/A	16.20 acres
Net land area per dwelling unit (min.)	1,600 sq. feet.	N/A	5,737 sq. feet.
Units per building (max)	N/A	N/A	N/A
Average number of units per building (max.)	N/A	N/A	N/A
Structure Height (max.)	55 feet	N/A	<55 feet
Building length (max.)	N/A	N/A	N/A
Length of accessory garage structure (max.)	N/A	N/A	N/A
Bldg setback from external subdivision property lines (min.) Bldg. length >100 ft.	35 feet	N/A	>35 feet
Distance between detached PRUD dwelling units (min.)	N/A	N/A	N/A
Common recreation open space area (min.)	200 sq.feet./D.U	N/A	>200 sq. feet / D.U.

The Riverton Park redevelopment project provides more than 50% of the units as low-income or workforce units for rent or for sale and therefore is eligible to utilize dimensional bonuses available to PRUD developments under Section 18.2.4.B of the City's Land Use Code. Staff analyzed the proposal and found that the project meets the affordability requirement and may utilize affordable housing dimensional bonuses, listed below:

1. Minimum lot area per dwelling unit is reduced by 50%.
2. Maximum number of units and maximum length of buildings do not apply but may be set through site plan review.
3. Minimum building setbacks may be reduced to 10 feet.
4. The PRUD may cross public rights of way provided that the right of way does not count towards the minimum lot size nor towards any open space requirements.

¹ Planned Residential Unit Developments (PRUD) developments with more than 50% of the units as low-income or workforce units for rent or for sale may utilize dimensional bonuses and changes listed under Land Use Code Section 18.2.4.B.

² Planned Residential Unit Developments (PRUD) may cross public rights of way provided that the right of way does not count towards the minimum lot size nor towards any open space requirements under Land Use Code Section 18.2.4.B.

5. Minimum recreation open space area is reduced to 200 square feet per dwelling unit of common area designated for recreational purposes by the residents. Minimum contiguous size and setbacks do not apply and shall be set through site plan review.
6. The Planning Board's Design Manual, design standards, and guidelines with respect to PRUDs shall apply in full to PRUDs utilizing this subsection.

XI. GENERAL CONDITIONAL USE – PLACE OF ASSEMBLY >10,000 SF (Section 6.5.2)

As required under Section 6.5.1.A of the City's Land Use Code, the Zoning Board of Appeals shall review all conditional use applications, with the exception that the Planning Board shall review all conditional use applications reviewed associated with projects that are otherwise before the Planning Board. The ordinance under Section 6.5.2 requires the review authority shall find the following standards satisfied:

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

The City's Consulting Traffic Engineer has reviewed the application materials to find minimal increase in vehicular traffic generated with the majority of use for Riverton Park residents.

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

City staff finds the proposed Neighborhood Center will not create unsanitary or harmful conditions based upon the building's internal program to include recreation, office and meeting space, and trash collection associated with communal kitchen around regular hours of operations from 8AM to 6 PM. Furthermore, all proposed underground utilities for sewage disposal would connect to City's system and stormwater management for compliance with current standards as reviewed by the City's Consulting Stormwater Reviewer.

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

City staff finds the proposed Neighborhood Center will not create substantial impact on surrounding properties based upon sufficient landscape screening from adjacent properties, satisfactory strategies for on-site waste storage and removal, and loading and deliveries provided at dedicated 15-minute parking spaces to not occupy Riverton Drive on-street parking.

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

The proposed Neighborhood Center is a place of assembly for the residents at Riverton Park, and subject to the Institutional Uses conditional use standards, listed under Section 6.5.6.F.

XII. SUPPLEMENTAL CONDITIONAL USE – PLACE OF ASSEMBLY >10,000 SF (Section 6.5.6.F)

As required under Section 6.5.6 of the City's Land Use Code, in addition to the general conditional use standards, the following applicable standards shall apply to specific conditional use:

F. Institutional uses (excluding preschools):

- 1. The Planning Board shall be the review authority.*
- 2. In the case of expansion of existing institutional uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas.*

City staff finds the proposed Neighborhood Center demonstrates a reasonable placement on the existing site with no significant physical encroachment into established residential areas.

- 3. The proposed use shall not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or July 15, 1985 in the IR-1 and IR-2 zones, or thereafter.*

City staff finds this is not applicable as the proposed Neighborhood Center is within the R-5a Residential zone.

- 4. In the case of a use or use expansion which constitutes a combination of the conditional institutional uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative.*

City staff finds the applicable minimum lot size is being met.

XIII. INCLUSIONARY ZONING CONDITIONAL USE (Section 18.2.3)

As required by Section 18.2.3 of the City's Land Use Code, the City's Inclusionary Zoning Ordinance, residential developments with ten or more units are required to provide a minimum of twenty-five percent of the dwelling units as Workforce Housing units for sale or for rent. The ordinance under Section 18.2.3 C (5) also requires that the number of bedrooms across all IZ units be a minimum of 10% of the total number of bedrooms within the development. This project proposes 41 net new residential units, which triggers IZ conditional use review.

In order to satisfy IZ requirements, the applicant is required to provide a minimum of 11 workforce housing units (25% at 80% AMI) pursuant to the Inclusionary Zoning requirements (Section 18.2.3). The term of affordability for the workforce units provided shall be defined as set forth in Table 18-B. As the number of workforce housing units being provided totals 25% of the total number of dwelling units being proposed, the minimum term of affordability would be thirty years.

As stated previously, four existing buildings with a total of 24 residential units are proposed to be demolished under this application. These 24 units would be replaced as part of the new Building 1 mixed-

use building, which would also include 18 affordable units (at or below 100% AMI) and 17 market rate units. All dwelling units are proposed for rent under the affordable housing requirement.

The Affordable Housing Agreement will outline the details of the affordability restrictions placed on the Workforce Units and will be filed as a covenant to the property deed with the Cumberland County Registry of Deeds before a Certificate of Occupancy may be issued.

XIV. SITE PLAN REVIEW STANDARDS (Section 14.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

The proposed redevelopment is located off of Riverton Drive, a local street, which connects to Forest Avenue, a principle arterial and priority corridor identified in the City's Comprehensive Plan.

The applicant has proposed public right-of-way improvements to include new curbing, sidewalk, drainage, a raised pedestrian crossing across Riverton Drive at the new Neighborhood Center, street trees and municipal lighting.

The application included a new trip generation and was reviewed by the City's Consulting Traffic Engineer. The City's Consulting Traffic Engineer finds a traffic movement permit is not required based on the proposed 82 vehicle trips generated at peak PM hour. However, the City's Consulting Traffic Engineer requests the applicant perform a traffic safety evaluation to review crash data upon certificate of occupancy over a three-year period at the Forest Avenue and Riverton Drive intersection to identify any correctable patterns. If traffic safety problems are identified, the applicant shall implement improvements to mitigate the identified safety problem as a condition of approval.

B. Access and circulation

The site circulation plan for Building 1 includes a new driveway for accessing the rear parking lot. Emergency access is provided south of Building 1 across a concrete paver plaza and raised concrete apron at Riverton Drive. The application also includes new pathways to each unit and sidewalk throughout the development.

Additionally, the applicant is requesting a waiver of the following technical manual standard related to required curbing within a public right-of-way.

Technical Manual Section 1, Figure I-12 – Granite curb

The applicant is requesting to use granite curb at corners and driveways only, and slip-form concrete curb in all other locations within the right-of-way. Section 1 (Figure I-1 & I-17) of the City's Technical Manual requires installation of granite curb within the right-of-way. The applicant has provided additional justification for waiving the standard explaining:

Cost savings as applicant is proposing to reconstruct all curbs and sidewalks within right-of-way. The Department of Public Works staff supports the concrete curb detail within the right-of-way.

C. Public transit access

METRO transit routes near the site include the Greater Portland METRO Local service Route 2 and the Lakes Region Bus route. The nearest transit stops to the applicant's site are along Forest Avenue near the intersection of Riverton Drive and Forest Avenue. The development at 1884 Forest Avenue included a new METRO shelter on Forest Avenue near its intersection with Riverton Drive, and easily accessible to residents of the development. Therefore, this standard is not applicable.

D. Parking

In general, a residential development is required to provide one parking space per dwelling unit unless a project is eligible for parking exceptions as listed in Table 19-B of the Land Use Code, no exceptions are being sought for this application. The redevelopment project in the B-2 zone meets the minimum parking requirement for 71 parking stalls based on the proposed uses. A proposed parking lot with 6 spaces for employees is located at the Neighborhood Center, the City's Consulting Traffic Engineer has reviewed the turning template and finds vehicle maneuvering within this area to be sufficient with the proposed striping to remain unobstructed. Additionally, a reduction of 10 parking spaces is proposed as part of the rehabilitation project for existing buildings within the R-5a PRUD.

The applicant is also requesting a waiver of the following technical manual standards related to off-street parking design:

Technical Manual Section 1.10.3 – Parking lot drive aisle width

The applicant is requesting to reduce the minimum drive aisle width from the required 24 feet to 22 feet, a two-foot reduction. Section 1.10.3 of the City's Technical Manual requires a minimum drive aisle width of 24 feet. The applicant has provided additional justification for waiving the standard explaining:

Due to the low speed, low volume of traffic, user (staff) and familiarity of users we feel that the reduced parking lot aisle width is an acceptable request. We are looking to maximize landscape + snow storage areas while adding a sidewalk. The City's Consulting Traffic Engineers supports the proposed waiver request due to the expectation of low turnover spaces for the 5 parking stalls dedicated for PHA.

Technical Manual Section 1.10.2.1 – Compact parking spaces

The applicant is requesting to provide more than 20% compact spaces (applicant propose 18 compact parking spaces). Section 1.10.2.1 of the City's Technical Manual states parking lots with greater than five spaces may be comprised of up to 20% compact parking spaces. The applicant has provided additional justification for waiving the standard explaining:

Due to the changing dynamic of vehicle size, general greater acceptance of use of smaller parking stalls, and familiarity of residents with the parking configuration this reduction appears to be warranted. The City's Consulting Traffic Engineers supports the proposed waiver request to allow compact parking spaces greater than 20% of total parking spaces given the low turnover nature of vehicles.

In addition, on-street parking spaces remain within the public right-of-way on a first come basis, which are to be available to the public.

E. Transportation demand management (TDM)

Mixed-use developments exceeding 50,000 square feet or more of floor area are required to submit a TDM. The applicant has submitted a TDM plan to promote additional affordable housing, safe

connection to transit with new sidewalks, shared mobility improvements for loading zones and bicycle repair stations, and expansion of community and recreational spaces on site. City staff has reviewed and find it in compliance with this standard.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

The site is currently developed with several forested edges along the property boundaries along with several wetlands that are considered significant due to period of establishment. The contiguity of wetlands is proposed to be preserved to the greatest extent, and the development includes minimal disturbance with proposed grading and site improvements.

B. Landscape preservation

The applicant has provided a revised demolition plan that includes a tree removal schedule and replacement of trees greater than 16" Diameter at breast height (DBH) throughout the site that City Staff find to meet this standard.

C. Site landscaping and buffers

The applicant submitted revised planting plans (Plans 25-26) to include locations and quantities for tree, shrub, groundcover and the select preservation of existing trees. Existing trees loosely buffer all sides of the property. The City's Parks department is supportive of the revised landscape plans that include native planting and buffers on site.

The creation of 59 residential units requires either planting a total of 59 street trees or an acceptable alternative under Technical Manual section 4.6.4. The applicant has provided approximately 12 new street trees within or directly adjacent to the right-of-way, and acceptable street tree alternative for 16 new street trees visible from the right-of-way within twenty feet of the property line. The remaining 31 new street trees are located on private property along Riverton Drive within 20 feet of the right of way as an acceptable street tree alternative for compliance with this standard.

D. Water quality/storm water management/erosion control

The applicant has submitted a Stormwater Management Report and Erosion and Sedimentation Control Report, which has been reviewed by the City's Consulting Stormwater Reviewer for compliance with this standard. A draft condition of approval is being recommended which would require the applicant provide evidence of a NRPA permit by rule for the City's record.

Water Resources has requested the installation of grease traps for the proposed communal kitchen located in the Neighborhood Center.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

Portland's Plan 2030 Comprehensive Plan goals and policies (state and local) relevant to the proposed development aligns with these vision statements and goals, by creating a new opportunity for an affordable, and well-connected new housing development accessible to public transit supporting the Plans goal of *increasing, preserving, and modifying the overall supply of housing city-wide*.

B. Public safety and fire prevention

Based on the City's Fire Marshall review of the revised application materials, the proposed plan meets this standard.

C. Availability and capacity of public utilities

The applicant provided ability to serve letters for the City's wastewater division and natural gas provider. The applicant shall provide ability to serve letters from respective electrical utility and water district providers.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The proposed 4-story Building 1 and Neighborhood Center are set back significantly from abutting properties and therefore, the bulk, location and/or height of the proposed structures will not adversely impact abutting structures or property. The applicant's plans provide landscape buffers and preservation of several existing trees to mitigate visual and wind impacts.

B. Shadows

A shadow study has not been submitted, as any shadows cast by the buildings at the site will not affect adjacent properties or City-owned parkland.

C. Snow and ice loading

The applicant plans indicate snow and ice storage throughout the redevelopment and reconfiguration of existing parking lots that City staff find in compliance with this standard.

D. View corridors

There are no designated view corridors within the project vicinity. This standard is not applicable.

E. Historic resources

The proposed development is not located in or within 100 feet of a historic district or historic landmark. This standard is not applicable.

F. Exterior lighting

The applicant has submitted a photometric lighting plan and proposed lighting fixture cut sheets that City staff find in compliance with this standard and meets Technical Manual, Section 12 site lighting standards. In addition, existing municipal lighting will remain within right-of-way.

G. Noise and vibration

The proposed HVAC and/or other equipment for noise and vibration would be mostly internal to each unit and common space. Building 1 outdoor mechanical units would include interior energy recovery ventilators (ERV), the Neighborhood Center would include interior EVR and heat pumps, and rehabilitated townhouse apartments would include mechanical units internal to each unit to reduce unwanted outside noise.

H. Signage and wayfinding

The applicant plans indicate new wayfinding signage reviewed by City's Consulting Traffic Engineer in compliance with this standard.

I. Zoning-related design standards

The redevelopment project for Building 1 is subject to design standards under Section (d) B-2 Community Business zone & (i) Multi-family of the City's Design Manual. The rehabilitation project for the new neighborhood center, maintenance building and associated site is subject to design standards under Section (h) PRUD in the R-5a Residential Zone design standards of the City's Design Manual. The applicant has submitted renderings, elevations and floor plans with accompanying architectural narratives that identify the programming of each building to support the residents of Riverton Park. The City's Urban Designer generally finds the proposed building types, placement and materiality to be consistent with the PRUD design standards that support the neighborhood character the applicant has submitted.

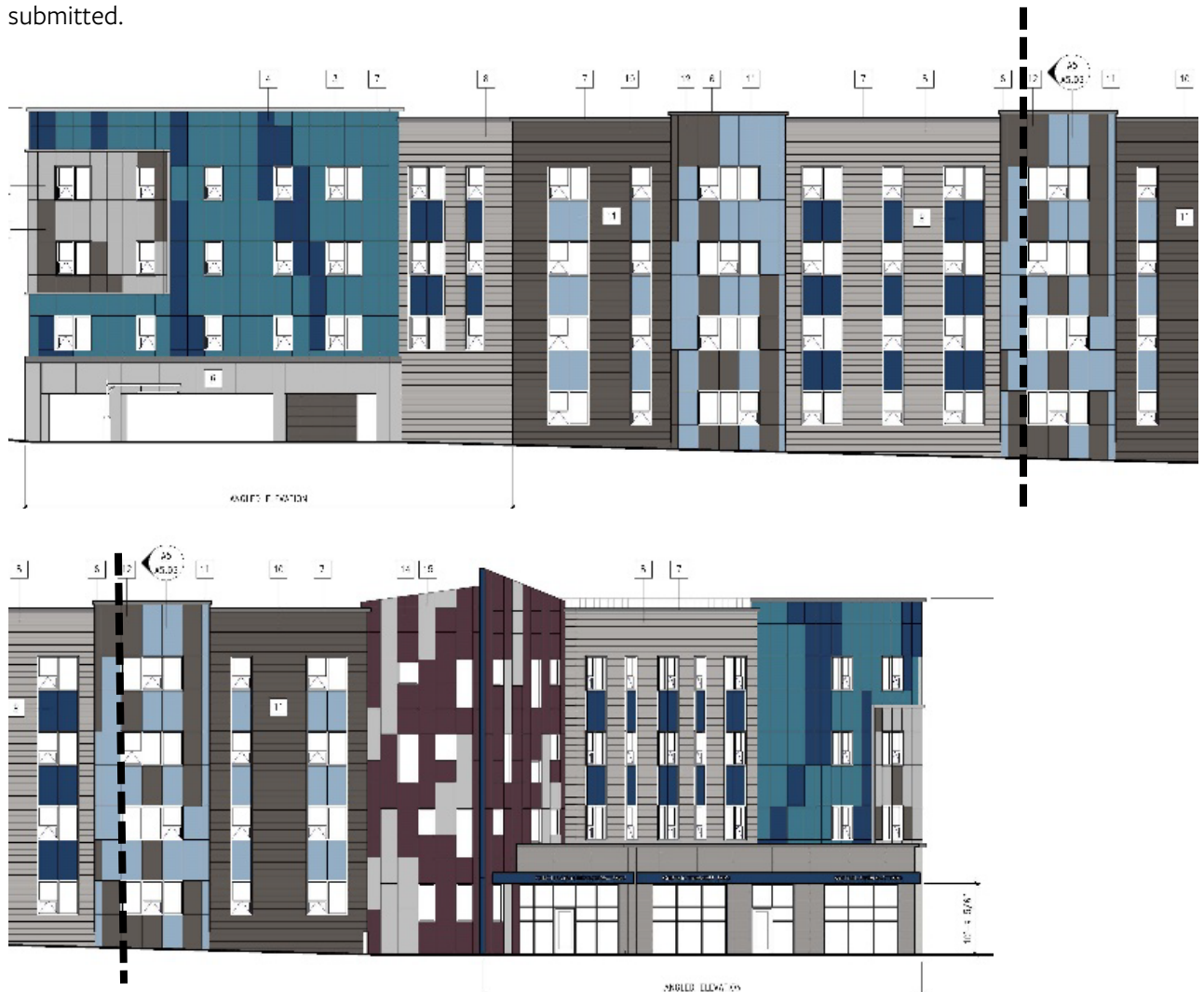


Figure 5: Building 1 front elevation (dashed line indicates matchline)

XV. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant held a neighborhood meeting on Wednesday, February 22, 2023 (Attachment FF). Invitations for the in-person meeting were sent to properties within 500 feet of the proposed development and residents on the "interested parties" list. Attendees of the meeting inquired about the relocation of existing residents during phased construction and PHA's goal to return residents to subsequent renovation phase, vacant on-site townhouse apartments or newly renovated residential units.

XVI. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing held on May 23, 2023 for application PL-002319-2022 relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and testimony presented at the Planning Board public hearing:

1. Parking Lot Drive Aisle Width

The Planning Board [finds/does not find] based upon the Consulting Traffic Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 1.10.3, which requires parking lot layouts provide a minimum drive aisle width of 24 feet, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board [waives/does not waive] Technical Manual Section 1.10.3 to allow a reduced drive aisle width of 22 feet.

2. Compact Parking Spaces

The Planning Board [finds/does not find] based upon the Consulting Traffic Engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 1.10.2.1, which allows up to 20% of parking spaces within any parking lot of five or more spaces to be compact parking spaces, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board [waives/does not waive] Technical Manual Section 1.10.2.1 to allow 25% compact parking spaces for Building 1.

3. Granite Curbing

The Planning Board [finds/does not find] based upon the Department of Public Work's review, that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 1, Figure I-12, which requires the use of granite curbing, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board [waives/does not waive] Technical Manual Section 1, , Figure I-12 to allow granite curbing at corners and driveways only, and slip-form concrete curbing in all other locations within the right-of-way.

B. CONDITIONAL USE – INCLUSIONARY ZONING

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 May 23, 2023 for application # PL-002319-2022 relevant to Portland's Inclusionary Zoning Conditional Use Standards and other regulations, and the testimony presented at the Planning Board public hearing, the Planning Board, [finds/does not find] the proposed conditional use for workforce housing meets the standards of Section 18.2 with the following conditions:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The Applicant and the City shall enter into an Affordable Housing Agreement (AHA) for workforce housing units to reflect the addition of 41 residential units.

PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

2. The Affordable Housing Agreement (AHA) shall be filed as covenant to the 2 Riverton Drive property's deed with the Cumberland County Registry of Deeds.

C. CONDITIONAL USE – PLACE OF ASSEMBLY

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 May 23, 2023 for application # PL-002319-2022 relevant to the Land Use Code Section 6.5.2 and Section 6.5.6(F) and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the conditional use standards of the Land Use Code.

D. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on May 23, 2023 for application # PL-002319-2022 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the 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 update the site plan to indicate the location of grease traps for the community kitchen at the Neighborhood Center for review and approval by the Department of Public Works.
2. The applicant shall provide a letter from the Portland Water District and Central Maine Power demonstrating their ability to serve this development.
3. The applicant shall provide final design of stormwater and sewer connection into City sewer manhole structures for Department of Public Works review and approval.
4. The applicant shall provide proposed utility easements for Department of Public Works review and approval.
5. The applicant shall provide NRPA permit by rule record to the Planning Authority.

PRIOR TO RELEASE OF PERFORMANCE GAURANTEE

6. The applicant shall perform a traffic safety evaluation at the Forest Avenue/Riverton Street intersection. This evaluation shall include a review of crash data for the most recent three-year period and identify if there are any correctable patterns. If problems are identified, the applicant shall implement improvements to mitigate the identified safety problems and submit for review and approval by the Department of Public Works and the Planning Authority.

XVII. ATTACHMENTS

REPORT ATTACHMENTS

- Att. 1 City Council order 259-21_22
- Att. 2 Wastewater capacity authorization 04-11-2023
- Att. 3 Consulting Traffic Engineer comments 05-18-2023
- Att. 4 Public Works comments 05-17-2023
- Att. 5 Urban Designer memo 05-19-2023

APPLICANT SUBMITTAL

- A. Project description
- B. Response letter design review-04-26-2023
- C. Response letter workshop-04-26-2023
- D. Response letter-03-22-2023
- E. Notice
- F. Major Site Plan checklist
- G. Conditional Use checklist
- H. Right, Title & Interest
- I. Deed document
- J. Deed document
- K. Deed document
- L. Deed document
- M. Evidence of State or Federal approvals
- N. B-2 Zoning analysis
- O. R-5a Zoning analysis
- P. Zoning provisions
- Q. Site Plan standards
- R. Conditional use standards
- S. Easements
- T. Easements
- U. Easements
- V. Easements
- W. Waivers
- X. Waivers
- Y. Financial capacity
- Z. Technical capacity
- AA. Impact on Surrounding Street System
- BB. Access and circulation
- CC. Public transit
- DD. Off-street parking
- EE. TDM Plan
- FF. Trip generation
- GG. Preservation of significant natural features
- HH. Landscape preservation
- II. Site landscaping and buffers

JJ. Stormwater report
KK. Erosion and sediment control report
LL. Impervious area by zone
MM. Consistency with City master plans
NN. Public safety and fire prevention
OO. Public utilities
PP. Public utilities ability to serve
QQ. Massing ventilation wind
RR. Shadow
SS. Shadow study
TT. Snow and ice loading
UU. Exterior lighting
VV. Lighting cut sheets
WW. Noise and vibration
XX. Signage and wayfinding
YY. Zone related design standards
ZZ. Geotechnical report
AAA. Turning movements 2
BBB. Turning movements
CCC. Turning movements Neighborhood Center
DDD. Construction management plan
EEE. Occupant loads
FFF. Neighborhood meeting notice
GGG. Neighborhood meeting certificate
HHH. Certificate of Notice of public meeting
III. Trip generation letter-05-17-2023
JJJ. Response letter of outstanding concerns

PLANS AND DRAWINGS

Plan 1. Cover
Plan 2. Survey
Plan 3. Survey
Plan 4. Demolition Plan
Plan 5. Demolition Plan
Plan 6. Demolition Plan
Plan 7. Site Plan
Plan 8. Site Plan
Plan 9. Site Plan
Plan 10. Grading and Drainage Plan
Plan 11. Grading and Drainage Plan
Plan 12. Grading and Drainage Plan
Plan 13. Utility Plan
Plan 14. Utility Plan
Plan 15. Utility Plan
Plan 16. Erosion Control Plan
Plan 17. Erosion Control Plan
Plan 18. Erosion Control Plan

Plan 19. Erosion Control Notes
Plan 20. Erosion Control Details
Plan 21. Site Civil Details
Plan 22. Site Civil Details
Plan 23. Site Civil Details
Plan 24. Site Civil Details
Plan 25. Landscape Master Plan
Plan 26. Landscape Plan Enlargement
Plan 27. Landscape Details
Plan 28. Landscape Details
Plan 29. Landscape Details
Plan 30. Photometric Plan
Plan 31. Master Plan
Plan 32. Building 1 First Floor Plan
Plan 33. Building 1 Second Floor Plan
Plan 34. Building 1 Third Floor Plan
Plan 35. Building 1 Fourth Floor Plan
Plan 36. Building 1 Roof Plan
Plan 37. Building 1 Elevations
Plan 38. Building 1 Elevations
Plan 39. Building 1 Elevations
Plan 40. Building 1 Signage
Plan 41. Building 1 Signage
Plan 42. Building 1 site axonometric
Plan 43. Building 1 site axonometric
Plan 44. Building 1 perspective
Plan 45. Building 1 perspective
Plan 46. Maintenance building Floor Plan
Plan 47. Maintenance building Elevations
Plan 48. Neighborhood Center First Plan
Plan 49. Neighborhood Center Roof Plan
Plan 50. Neighborhood Center Elevations
Plan 51. Neighborhood Center Signage
Plan 52. Neighborhood Center Exterior Elevations
Plan 53. Townhome rehabilitation First Floor Plan Building 6
Plan 54. Townhome rehabilitation Second Floor Plan Building 6
Plan 55. Townhome rehabilitation First Floor Plan Building 22
Plan 56. Townhome rehabilitation Second Floor Plan Building 22
Plan 57. Townhome rehabilitation Exterior Building 5
Plan 58. Townhome rehabilitation Exterior Building 5
Plan 59. Townhome rehabilitation Exterior Building 10
Plan 60. Townhome rehabilitation Exterior Building 10
Plan 61. Townhome rehabilitation Exterior Building 18
Plan 62. Townhome rehabilitation Exterior Building 18
Plan 63. Townhome rehabilitation Exterior Building 21
Plan 64. Townhome rehabilitation Exterior Building 21
Plan 65. Townhome rehabilitation Exterior Building 22

- Plan 66. Townhome rehabilitation Exterior Building 22
- Plan 67. Rehabilitation building signage
- Plan 68. Rehabilitation elevations
- Plan 69. Rehabilitation elevations
- Plan 70. Exterior Renderings
- Plan 71. Rehabilitation Locations site plan

Order 259-21/22

Motion to postpone to June 22, 2022: 9-0 on 6/2/2022

Passage: 9-0 on June 22, 2022

Effective 7/22/2022

KATE SNYDER (MAYOR)
ANNA TREVORROW (1)
VICTORIA L. PELLETIER (2)
TAE Y. CHONG (3)
ANDREW ZARRO (4)

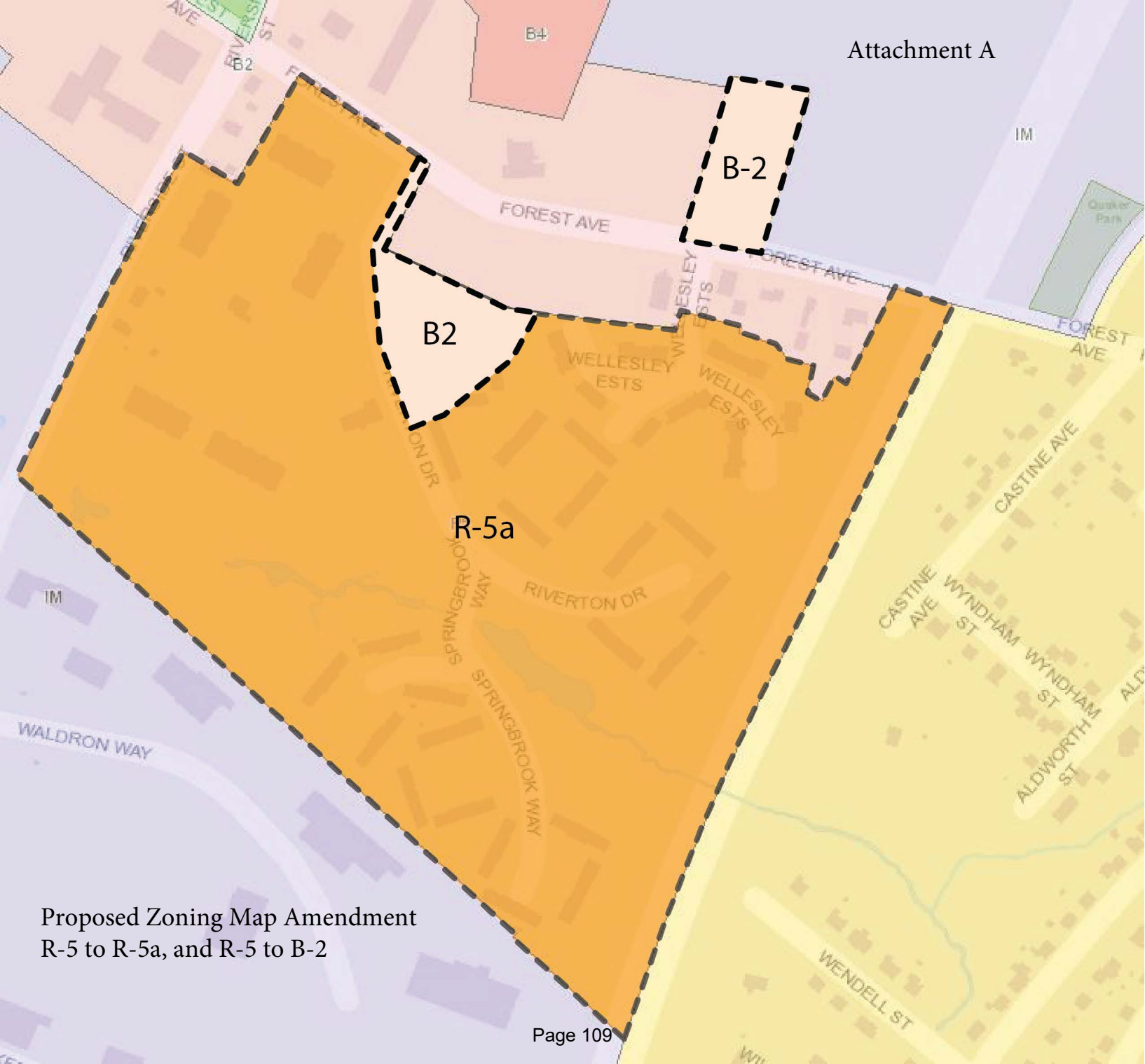
**CITY OF PORTLAND
IN THE CITY COUNCIL**

MARK DION (5)
APRIL D. FOURNIER(A/L)
PIOUS ALI (A/L)
ROBERTO RODRÍGUEZ (A/L)

**AMENDMENT TO ZONING MAP
RE: RIVERTON PARK CAMPUS AND SURROUNDING PARCELS
FROM R-5 RESIDENTIAL TO R-5A AND B-2**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE
IN CITY COUNCIL ASSEMBLED AS FOLLOWS:**

That the Zoning Map of the City of Portland, dated December 2000, as amended and on file in the Department of Planning and Urban Development, and incorporated by reference into the Zoning Ordinance by §14-49, be and hereby is amended by adopting the attached map change amendment and specifically rezoning property on the Riverton Park campus and surrounding parcels from R-5 Residential to R-5a and B-2as shown in the bordered areas in the map attached hereto on the following page.



Proposed Zoning Map Amendment
R-5 to R-5a, and R-5 to B-2

Department of Public Works

Mike Murray

Acting Director



Date: April 11, 2023

Re: Wastewater Capacity Authorization

Address: 2 Riverton Drive

Applicant: Portland Housing Authority

Planner: Sean King

Estimate of Anticipated Wastewater Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow to Remain				
The estimated current average daily flow to pump station was calculated based on the number of units, the current resident occupancy rate (80% occupied), the current number of employees and an infiltration allowance.				37,275
Vacant				
Proposed Flow				
The estimated future average daily flow to pump station was calculated based on a 12.6% increase in resident population, the increased number of units, maintaining the current resident occupancy rate (80% occupied), the increased number of employees and an infiltration allowance				41,068
Net Change				+ 3,793
*Values based on provided calculations from Andrew Johnston, PE.				

Comments:

The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers and pump station from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

If the City can be of further assistance, please contact me at all 874-8840 or

brad@portlandmaine.gov

Sincerely,

A handwritten signature in dark ink that reads "Bradley A. Roland".

Bradley A. Roland, P.E., Senior Project Engineer

2 Riverton Drive - Final Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Thu, May 18, 2023 at 12:53 PM

To: Sean King <sking@portlandmaine.gov>

Cc: Jeremiah Bartlett <jbartlett@portlandmaine.gov>, Janine Ba <janineba@portlandmaine.gov>

Hi Sean – I have reviewed the revised application materials and offer the following Final traffic review comments.

- The proposed project is expected to add 59 new affordable and market rate apartments. Additionally, the project will include PHA Management offices, a new GPH Clinic, two small neighborhood retail stores and a Neighborhood Center. The applicant shall provide an estimate of traffic generation for the project and details on each of the new proposed program elements (from an existing/proposed traffic generation perspective). Because some of the units have several bedrooms, the trip generation estimate should consider this.

Status: The applicant shall provide an estimate of the increase in peak hour traffic volumes with the proposed project considering all program elements. It should be based in ITE data and should account for bedrooms and other land use components noted above.

Final Status: The applicant has conducted the requested trip generation estimate and concludes about 82 new vehicles can be expected during the PM peak hour. Based on this estimate a Traffic Movement Permit is not required. However, given this level of new traffic, it is suggested that a condition of approval include the following:

- **A traffic safety evaluation shall be performed at the Forest Avenue/Riverton Street intersection. This evaluation shall include a review of crash data for the most recent three-year period and identify if there are any correctible patterns. If problems are identified, the applicant shall implement improvements to mitigate the identified safety problems.**
- DPW should provide an opinion on the requirement for a sidewalk entering the site from Forest Avenue on both sides of a public street. Currently a sidewalk is only provided on the south side.

Final Status: Refer to DPW comments.

- DPW should provide comments as it relates to the raised crosswalk construction detail.

Final Status: Refer to DPW comments.

- The 6-space parking area near the Neighborhood Center is constrained. Vehicle turning templates shall be provided.

Status: The vehicle maneuvers depicted on the turning template graphic cannot be accomplished if the parking lot is full. Modification to the lot is suggested.

Final Status: I have reviewed the information and given use of the painted area next to the building, turning maneuvers can be performed and accordingly, I find conditions to be acceptable. I would note that this conclusion is based on the painted area being unobstructed and used for maneuvering.

- Detectible warning panels shall be provided for all pedestrian crossings of a public street, including the raised crosswalks.

Final Status: The plans have been revised and I have no further comment.

- I support a waiver from the technical manual for aisle width for the 5 PHA parking spaces where an aisle width of 22 feet is proposed. I would expect these spaces to be low turnover spaces. One of the spaces is for a service vehicle. The applicant should note the type of vehicle expected to park in that space.

Final Status: The applicant has noted use of the spaces and I have no further comment.

- Given the low turnover nature of the vehicles parking, I support the request for a slightly higher percentage of compact parking spaces. The proposed spaces will meet standard parking stall length (18 feet) and be 8 feet wide.

Final Status: I have no further comment.

Please contact me if you have any questions.

Best regards,

Tom Errico, P.E.

NE TRAFFIC ENG. DIRECTOR

T +1 207.347.4354

M +1 207.400.0719

thomas.errico@tylin.com

TYLin

[12 Northbrook Drive](#)

Building A, Suite One

Falmouth, ME 04105, United States

TYLin.com



PL-002319-2022 2 Riverton Dr DPW Comments

Janine Ba <janineba@portlandmaine.gov>

Wed, May 17, 2023 at 9:37 AM

To: Sean King <sking@portlandmaine.gov>

Cc: Keith Gray <kgray@portlandmaine.gov>, Justin Pellerin <jrp@portlandmaine.gov>, Benjamin Pearson <bnp@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>, Tom Errico <thomas.errico@tylin.com>

Sean,

Below are DPW's comments for PL-002319-2022 2 Riverton Drive. Let me know if you have any questions.

Project Number: PL-002319-2022

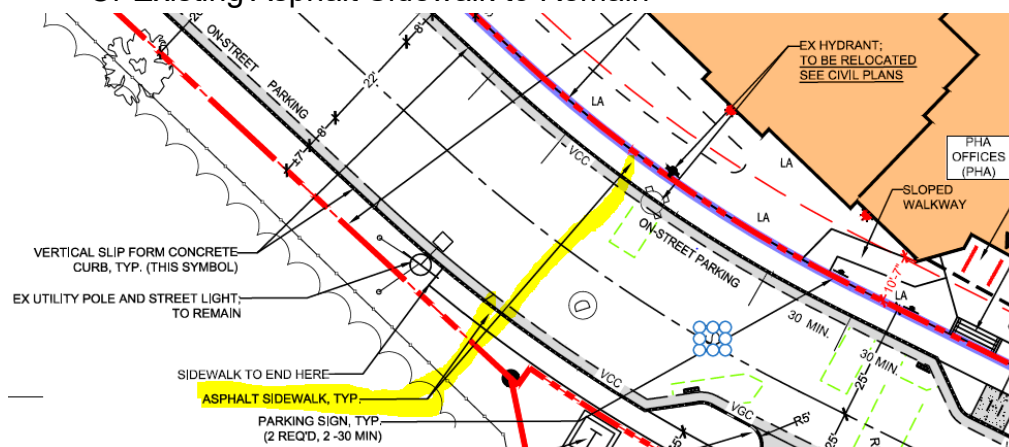
2 Riverton Drive

DPW Development Review Comments

05/17/2023

- DPW Transportation

- As previously noted it is not clear if all the asphalt sidewalk is being replaced or will remain in place. There is no distinction between proposed asphalt sidewalk or existing. The applicant shall update the plans to have two construction notes for the sidewalk within the ROW.
 - Construct Asphalt Sidewalk
 - Remove and Reconstruct Existing Asphalt Sidewalk.
 - Or Existing Asphalt Sidewalk to Remain



- Where the applicant is removing and reconstructing the existing sidewalk and driveway, the sidewalk and driveway shall be reconstructed in accordance with the City's Sidewalk and Driveway Apron Material Policy, and made compliant per the City's Technical Manual Section 1 and the current standard details. The applicant shall update the plans and provide spot grades and slopes for the proposed sidewalk. The sidewalk material shall be continued through the driveway aprons at grade with the proposed sidewalk and not in excess of 2% cross-slope per the current City standards. Accessible ramps at driveways are not compliant.

- DPW Water Resources

- Insufficient design information has been provided for the proposed private sewer connections into City sewer manhole structures for DPW approval at this time. Final DPW review and acceptance of private sewer connections into City's system should be added as

a condition of approval to be met prior to the issuance of a building permit. New manholes and connection location adjustments may be needed. The applicant should submit a plan to DPW for review and approval which shows both proposed and existing inverts at the existing manhole connection locations, the material type and condition of the existing structures and information to verify pipe connection angles are compatible with the existing structure configurations.

- Development and execution of proposed utility easements DPW has previously requested should be added as a condition of approval to be met prior to issuance of a building permit.
- The applicant should request a waiver of technical manual 8.2.1 for work activities being completed within the 100' buffer zone of the perennial stream running through the site.
- F-Basin field inlets not permitted to be used in City streets. All catch basins being used within the City right of way must meet design standards listed in section 2 of the technical manual.
- Two new catch basins being proposed in Riverton Dr appear to be in conflict with the existing sewer force main in the street.
- Private stormwater connections into City catch basin structures are not permitted per section 2 of the technical manual. Private connections must be made in accordance with section 2 of the technical manual.
- DPW suggests that final approval of all stormwater and sewer design being proposed in the right of way be added as a condition of approval to be approved by DPW prior to the issuance of a building permit.

--
Janine Ba
Project Engineer
City of Portland Department of Public Works
[212 Canco Rd. Suite B](#)
[Portland, ME 04103](#)
janineba@portlandmaine.gov
207-874-8463

Design Review

Planning and Urban Development Department



Subject: 2 Riverton Drive
Zone: B2, R-5a
Date of Review: Friday, May 19, 2023
Reviewer(s): Sean King (Urban Designer), Zachary Powell (Senior Planner), Maya Balassa (Planner)
Project ID: PL-002319-2022

I. INTRODUCTION

The development project at 2 Riverton Drive is subject to the site design review standards, Land Use Code section 14.6.4.I Design standards.

The proposed Redevelopment and Rehabilitation project is located in the existing PRUD Riverton Park in the Riverton neighborhood. A new four-story building with residential units, office and retail use is proposed in the B2 zone and subject to the design standards of the City of Portland *Design Manual* – ***(d) B-2 Commercial Business Zone, Appendix 2*** and ***(i) Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts and emergency shelters***. A new place of assembly is proposed in the R-5a zone and is subject to the design standards of the City of Portland *Design Manual* – ***(h) Planned Residential Unit Development (PRUDs) in the R-5a***.

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, **red** text denotes standards not met and require resubmission.

(d) B-2 STANDARDS - Building 1

- d. *Windows: In the B-1, B-1b, B-2, B-2b zones windows shall be required along the street frontage of a building. Windows shall be transparent (with visible transmittance (VT) of .7 or greater) and installed at a height to allow views into the building by passerby.*

Staff comment: Staff finds the overall arrangement of windows along the building facades and activated storefront windows, oriented toward the public sidewalk, creates a strong presence along Riverton Drive. Staff has reviewed resubmitted plans to find the landscape screening along Building 1 with expansive blank facades to be appropriate.

- e. *Façade character: In the B-1, B-1b, B-2, B-2b zones, active and public portions of the buildings (e.g. doors, windows, entries retail displays) shall be oriented to and, where possible, be located adjacent to the public sidewalk to create an active presence along the sidewalk.*

Staff comment: Staff finds the building design includes a variety of architectural façade elements that respond to the recessed and projected planes along the façade to create a strong presence along the street. Staff has reviewed resubmitted plans to find the landscape screening to abutting properties is sufficient.

- f. *Building design: B-1, B-1b, B-2 and B-2b commercial buildings shall be designed to be compatible with their residential and commercial neighbors.*

Staff comment: Staff finds the proposed building design is an appropriate scale to create a visual presence for the redevelopment of Riverton Park and along the Forest Ave B-2 commercial business zone. The applicant has designed the building to include a projection for the retail uses to the south that serves as a step down to the neighboring residential uses.

- g. *Building materials: Façade materials of buildings located in the B-1, B-1b, B-2 and B-2b zones shall be compatible with those materials of surrounding residential and commercial use.*

Staff comment: Staff find the building design of a consistent material with variation in color provides a unified materiality between residential, community service, and retail uses for the site that is compatible with the surrounding area.

- i. *Landscaping and buffers: In the B-1, B-1b, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line.*

Staff comment: Staff finds the alignment of street trees to create a street wall edge and landscaping along the front building façade is appropriate. Staff has reviewed resubmitted plans to find the addition of landscape along Riverton Drive where the front setback exceed 10 feet creates a clearly defined street edge to be appropriate. The applicant continues to buffer abutting properties with evergreen shrubs that staff finds to meet this design standard.

(d) B-2 GUIDELINES

Please refer to [Appendix 2](#) of this manual, The B-1, B-1b, B-2, B-2b Design Guidelines, for applicable design guidelines for the B-1 and B-2 zones. In addition, the following design guidelines shall also apply:

- 1) Buildings located in the B-2 zone are specifically encouraged to adhere to the design guidelines contained in *the B-1, B-1b, B-2, B-2b Design Guidelines (Appendix 2)* of this section concerning the creation and preservation of an urban street wall.
- 2) In the B-1b and B-2 zones, buildings are specifically encouraged to adhere to the guidelines contained in *the B-1, B-1b, B-2, B-2b Design Guidelines (Appendix 2)* of this section concerning building entrances.

B-2 STANDARDS (Appendix 2 of the Design Manual) - Building 1

1. Building location and form

Urban street wall: Buildings shall be located near the street so as to create an urban street wall.

Staff comment: The proposed Building 1 is 4-stories with 59-residential units with multiple ground-level uses to service residents of the Riverton Park community. Staff finds the proposed building location along Riverton Drive (classified as a local street) is appropriate given the arrangement of existing buildings to remain and residential character of the Riverton Park community. Staff finds the ground-level retail uses and primary building entry is appropriate to identify public building access along Riverton Drive.

2. *Building function*

Variety of uses: An urban street and business district requires a substantial intensity and variety of uses.

Staff comment: The proposed Building 1 includes ground-floor retail uses directly accessible from the public right-of-way. Staff finds the irregular lot configuration provides additional pedestrian building access points along the ground-floor that the applicant shall explore, notably the building access along the south façade to GPH clinic. Staff has reviewed resubmitted plans to find the expansion of the pedestrian plaza towards Riverton Drive creates a clear distinction of pedestrian use to deter motorists while allowing for the emergency access lane.

3. *Orientation of buildings and their entrances to the street*

Building entrances: Major building entries shall be designed and located to provide the primary building access oriented to the public street and sidewalk.

Staff comment: Staff finds that major building entries are oriented towards the public street and sidewalk, are scaled as recessed building elements with angled building forms and are articulated with overhead canopies that are illuminated for clear visibility.

4. *Windows*

Windows: Windows shall be located in all building facades visible from the public way, especially on building facades along the major public street.

Staff comment: Staff finds the overall arrangement of windows along the building facades visible from the public way to be appropriate.

5. *Building character, detail, scale and graphic qualities*

Façade character: Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community.

Staff comment: Staff finds the building design includes a variety of architectural façade elements that respond to the recessed and projected planes along the façade to create a strong presence along the street. The applicant has proposed a flat roof form with multiple vertical extensions and angles to reduce the scale of the building.

7. *Development relationship to street*

Building facade: Building facades and site amenities shall form a cohesive wall of enclosure along a street.

Staff comment: Staff finds the proposed building design is an appropriate scale to create a visual presence for the redevelopment of Riverton Park and along the Forest Ave B-2 commercial business zone. The applicant has designed the building to include a projection for the retail uses to the south that serves as a step down to the neighboring residential uses. The building utilizes a flat roof, with vertical projections at the corner that serve to break up the massing of the building.

8. *Parking lots*

Parking lots shall be screened from view of the public way.

Staff comment: Staff finds that parking lots include landscape screening from view of the public way that is appropriate.

Parking lots shall be screened from neighboring properties.

Staff comment: Staff finds that parking lots include landscape screening from neighboring properties that is appropriate.

Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Staff comment: Staff finds crosswalks at entrance driveways and surface material change at the emergency access lane to be appropriate to direct pedestrians to building entrances.

Street trees shall be planted along property frontage 25 feet on center.

Staff comment: Staff finds the addition of street trees along property frontage to be appropriate.

9. *Transit connections*

Development proposed along established transit corridors must design uninterrupted access from the proposed development to the transit stop.

Staff comment: The applicant has proposed to replace existing sidewalk in kind and maintain pedestrian connection to bus service on Forest Ave.

(i) MULTIPLE-FAMILY STANDARDS - Building 1

Multiple-family shall meet the following standards:

a. Proposed structures and related site improvements shall meet the following standards:

1. *The exterior design of the proposed structure, shall be designed to complement and enhance the nearest residential neighborhood.*

Staff comment: Staff finds this standard to be met under B-2 Commercial Business design review.

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

Staff comment: Staff finds this standard to be met under B-2 Commercial Business design review.

3. *Open space on the site for all multiple-family development shall be integrated into the development site.*

Staff comment: Staff has observed the applicants open space program to include shared plaza space, landscape buffers along property boundaries and close proximity to the shared recreational lawn and other outdoor amenities of the Riverton Park community.

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.*

Staff comment: Staff finds the development provides ample windows and internal storage throughout and within 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.*

Staff comment: Staff finds the surface parking lots and driveways include landscape to screen vehicles from adjacent properties that is appropriate.

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.*

Staff comment: Not applicable

(h) Planned Residential Unit Development (PRUDs) in the R-5a Residential Zones – Neighborhood Center & PRUD rehabilitation.

- (1) STANDARDS.*** *Planned residential unit developments (PRUDs) in the R-3, R-5 or R-5a residential zones and manufactured housing parks in any zone shall meet the following standards.*

Standard (1) a. Design relationship to the site

Staff comment: The proposed rehabilitation preserves the existing roadways, placement of existing apartment buildings while creating extensive site and new building program to expand community services, accessibility and recreational enhancements at Riverton Park. Existing parking lots within the PRUD to be reconfigured to include perimeter accessible sidewalks to connect residents to each residential unit. The applicant proposes a new single-story Neighborhood Center located within proximity to the street with an extended overhead canopy and accessible pedestrian walkways. Staff has reviewed resubmitted plans to find the transitional tree plantings at the forested edge to be appropriate.

Standard (1) b. Internal design character and relationship to the surrounding neighborhood

Staff comment: The proposed rehabilitation unifies the PRUD with consistent exterior façade materials in color variation that contributes to a more cohesive design character. The replacement of roof material and articulation of building entry canopies provides clear visibility for safe passage. The proposed façade material by color at each division of the building plane along with entrance canopies provide sufficient variation.

Standard (1) c. Recreation and open space

1. External buffers:

Staff comments: Staff finds the existing vegetation within the R-5a PRUD to provide sufficient external buffers from neighboring properties, in addition the applicant has proposed several tree groupings where gaps in the existing tree canopy exist between neighboring properties.

2. Internal buffers:

Staff comments: Staff finds the proposed street tree canopy along public roadways and within the reconfigured parking lots enhances the pedestrian experience. Staff has reviewed resubmitted plans to find the additional recreational lawn areas and tree plantings along the emergency access lane to be appropriate.

3. Passive recreational open space:

Staff comments: The applicant has provided a variety of passive open space to include community gardens, seating areas adjacent to public plazas, and pathways to connect residents to apartment circles to meet this design standard.

4. Active recreational open space:

Staff comments: The applicant has provided sufficient active recreational open space to include resurfacing of basketball court and designation of playground and lawn areas.

5. Private open spaces:

Staff comments: Staff finds the rehabilitation of front entry stoops meets this design standard.

Commissioners

Kristin Blum, Chair
 Monique Mutumwinka, Vice Chair
 Christian MilNeil, Commissioner
 Shirley Peterson, Commissioner
 Thomas Valteau, Commissioner
 Joan White, Commissioner
 Robert Dunfey, Commissioner

**Brian Frost**

Executive Director
 14 Baxter Blvd.
 Portland, Maine 04101
 Office: 207-773-4753
 Fax: 207-761-5886
 www.porthouse.org

December 20, 2022

Christine Grimando, Director of Planning & Urban Development
 Kevin Kraft, Deputy Director of Planning & Urban Development
 City of Portland
 389 Congress Street, 4th Floor
 Portland, Maine 04101

RE: Project Description
Riverton Park Redevelopment & Rehabilitation
2 Riverton Drive, Portland, ME 04103
Tax Map 327-B-012

Dear Christine and Kevin,

On behalf of Applicant, Riverton Park, LP c/o Portland Housing Development Corporation (PHDC), and Owner, Portland Housing Authority (PHA), we are pleased to submit this Major Site Plan and Conditional Use application for new development and renovation of affordable housing at Riverton Park.

The Riverton Park Redevelopment & Rehabilitation project is a bold opportunity for the City to help preserve 123 existing affordable rental homes and add 59 new affordable and market-rate apartments. It will create a new Neighborhood Center to expand on-site resident services that better meet the needs of low-income families. It envisions a new Greater Portland Health Center to improve the health and wellbeing of the Riverton community. The project will improve pedestrian and bike infrastructure, social gathering spaces, recreational facilities, and accessibility for persons with disabilities at Riverton Park.

The applicant seeks approvals for Major Site Plan, a Planned Residential Unit Development (PRUD) in the R-5a zone, and Conditional Use for Places of Assembly greater than 10,000 sq. ft in the R-5a zone.

Riverton Park in Context: Existing Site, Conditions & Challenges

The site is located at 2 Riverton Drive in the Riverton neighborhood along outer Forest Avenue. It is currently zoned R-5A and B-2 following Map and Text Amendment approval earlier this year. Built in 1972, Riverton Park contains 25 residential buildings with 141 townhome apartments and a small administration building. The existing improvements are general located in six cul-de-sacs. Riverton Drive is the sole road into the ±17.72-acre property. The property is served by various utilities via Riverton Drive, Springbrook Way and Pinewood Drive. There is METRO bus stop along Forest Ave just paces from Riverton Drive.

This occupied Public Housing community faces a long backlog of capital improvements due to chronic HUD underfunding, normal wear-and-tear from large families, and five-decades without a significant renovation. Major building systems, including building exteriors and mechanical, have reached the end of their useful life and necessitate replacement. Finishes, fixtures and millwork in units are old and worn. Accessibility upgrades are needed to better accommodate those with disabilities. Frequent maintenance

issues contribute to high property operating expenses. Though reasonably maintained by dedicated maintenance staff, only renovation will ensure these homes remain healthy, safe, accessible, energy-efficient and affordable for the long-term.

Riverton Park serves many low-income and immigrant families. Nearly a dozen languages are spoken. PHA has developed close partnerships with Boys & Girls Club (B&GC), Opportunity Alliance, Greater Portland Health Center (GPH), and many more to offer on-site services. However, there is insufficient space for resident service delivery. For instance, while there are over 300 youth under 18 years living at Riverton Park today, the after-school program spaces are extremely undersized. There is also no active outdoor field or indoor recreational space at the property. As a result, service providers cannot always serve everyone seeking to participate. The small GPH clinic currently operating at Riverton Park cannot attend to all persons seeking preventative and basic medical care due to lack of capacity. There is no dedicated pantry for distributing food and clothing donations, on which many of our families rely.

This Public Housing community was built during urban renewal as an isolated, cul-de-sac community on the outskirts of Portland. Riverton Park has been underserved and underinvested in for decades. PHA hears from our partners and residents daily that more educational, healthcare, economic and youth development services will help families secure their basic needs and boost self-sufficiency. It is clear substantial investment in more community spaces at Riverton Park is warranted.

When envisioning major changes to Riverton Park, PHA and our highly experienced team of design and construction professionals contemplate all features and factors of the property. Notable among them are the numerous steep slopes, forests and wetlands that reduce the site's developable land by over 5 acres. The property's irregular shape and surrounding uses, such as Route 95, are also minded. As an affordable housing project utilizing private and public dollars, efficient use of limited funds is imperative, especially during these times of rapidly escalating construction costs. The project as currently proposed is the maximum scope of work achievable – any additional scope incurred risks financial infeasibility.

The project we propose below centers our residents and considers potential impacts to them. PHA is committed to evaluating resident needs, notifying tenants in advance about all plans and relocations, securing temporary housing options, paying for reasonable moving expenses and temporary housing, accommodating special needs, minimizing impacts to families, and complying with all applicable relocation laws and regulations. During construction, PHA will temporarily house as many families in on-site in vacant units as possible. All tenants will have the right to occupy a home at Riverton Park following completion.

Proposed Development Program

The Riverton Park Redevelopment & Rehabilitation project aims to preserve and expand Portland's stock of affordable homes, enhance resident services, and better connect Riverton Park with surrounding neighborhoods. The project program includes:

- A. Demolition of 4 existing buildings with 24 units closest to Forest Avenue, and redevelopment with a single, 4-story multifamily building with 59 units ("Building 1"). Its ground-floor will house PHA Management offices, a new GPH clinic, and two small neighborhood retail bays. This building aims to achieve Passive House Certification, the world's most energy-efficient building standard.
- B. Rehabilitation of 21 residential buildings with approximately 123 two-story residential townhomes. The proposed scope of work will resolve all existing building issues noted above. The rehabilitation scope includes but not limited to: upgrade building envelopes; install continuous

exterior insulation; replace roofs and windows; replace old boilers; install new ventilation system; create new accessible units; improve sitework and handicap ramps; renovate unit interiors with new finishes, flooring, fixtures, cabinets and paint; convert all gas ranges to electric; install new energy-efficient and water-efficient fixtures; and replace front stoops and add rear stoops.

- C. Demolition of the existing administration building, and redevelopment with a significantly larger new Neighborhood Center for resident services in the same location. This will house spaces for the B&GC, PHA Study Center, and Teen Center. It will also include a Multipurpose Recreational Gymnasium, Community Kitchen, Food & Clothing Pantry, Conference Room, Resident Service Coordination (RSC) office, and community policing liaison office. Its design and programming have been based on extensive conversations and multiple meetings with residents and service partners over the past four years.
- D. New construction of a Maintenance Building. PHA Facilities currently operate out of an undersized maintenance shop within the existing admin building that is slated for demolition.
- E. Site work improvements throughout the property include but not limited to: replace curbing, sidewalks and pathways; improve pedestrian and bicycle infrastructure; replace obsolete utility lines; improve site accessibility for persons with disabilities; repave parking lots; improve water drainage away from buildings; enhance landscaping; add community gardens; and improve site lighting. To promote active lifestyles, a new recreational field and playground are proposed as well as rehabilitation of the existing basketball court. To promote social interaction and community solidarity, an outdoor plaza with a performance stage and seating areas is located between the Neighborhood Center and Building 1.

The new Building 1 (Item A) will be located in the B-2 zone. Items B-D will be located within the R-5A zone.

Ninety percent (90%) of all Riverton Park apartments will be affordable for households earning at or below 50% and 60% of Area Median Income (AMI) (165 of 182 units); and 10% will be market-rate rentals. Fifty-one percent (51%) of net new units will be affordable (17 of 35 net new units). There will be no differentiation in apartment size or interior finishes between the market-rate and affordable homes.

The project will contain 8 studios, 13 1BR units, 36 2BR units, 69 3BR units, 30 4BR units, 20 5BR units, and 6 6BR units. No larger units for families will be lost due to demolition – the new construction will replace all existing bedrooms sizes and add new, smaller ones to diversify offerings. We anticipate 19 apartments will be set aside for families and individuals experiencing homelessness and residing in a Portland shelter as part of an Affordable Housing Tax Increment Financing (AHTIF) and HOME funding application.

The redevelopment and rehabilitation of Riverton Park will strengthen City efforts to alleviate severe affordable housing shortages regionally and improve quality of life for Riverton Park families. We welcome the opportunity to discuss plans with Planning Staff and the Planning Board, and look forward to working closely with you as this important project advances. Please contact us if you have questions or need additional information.

Sincerely,



Tyler Plante
Development Officer
PHA & PHDC

11. Impact on Surrounding Street Systems

14.6 SITE PLAN REVIEW STANDARDS The reviewing authority shall not approve a site plan application unless the development proposal meets applicable standards of the City of Portland Technical Manual and the City of Portland Design Manual and the criteria below.

A. Impact on surrounding street systems

The provisions for vehicular loading and unloading, parking, and vehicular and pedestrian circulation on the site and onto adjacent public streets and ways and the incremental volume of traffic will not:

1. *Create or aggravate any significant hazard to safety on the surrounding street network.*

Response: We do not anticipate the proposed project to create or aggravate any significant hazards to safety in the surrounding street systems. Please see Exhibit #15 Transportation Demand Management Report.

2. *Substantially increase congestion on any street which is already at a level of service below Level "D" without mitigation proportionate to the level of impact.*

Response: To the best of our knowledge the adjacent streets are not operating at a Level 'D' or below. We do not anticipate any significant increase in traffic volume or congestion as a result of this project. Please see Exhibit #15 Transportation Demand Management Report.







April 26, 2023

Ms. Christine Grimando, Director of Planning & Urban Development
Mr. Sean King, Urban Designer
City of Portland Planning Department
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Design Review
Riverton Park Redevelopment and Rehabilitation
2 Riverton Drive, Portland ME 04103
PL-002319-2022 + CU-002325-2023**

Dear Christine and Sean,

On behalf of Applicant, Riverton Park, LP c/o Portland Housing Development Corporation (PHDC), and Owner, Portland Housing Authority (PHA), we are pleased to submit this response letter to the Design Review, dated 04/04/2023. Below are the comments taken from the Staff Review (*in italics*) along with responses from the applicant (**in bold**).

I. INTRODUCTION

The development project at 2 Riverton Drive is subject to the site design review standards, Land Use Code section 14.7.5 Design.

The proposed Redevelopment and Rehabilitation project is located in the existing PRUD Riverton Park in the Riverton neighborhood. A new four-story building with residential units, office and retail use is proposed in the B2 zone and subject to the design standards of the City of Portland Design Manual – (d) B-2 Commercial Business Zone, Appendix 2 and (i) Two-family, special needs independent living units, multiple-family, lodging houses, bed and breakfasts and emergency shelters. A new place of assembly is proposed in the R-5a zone and is subject to the design standards of the City of Portland Design Manual – (h) Planned Residential Unit Development (PRUDs) in the R-5a.

II. DESIGN REVIEW COMMENTS: *bold text denotes recent updates met; red text denotes standards not met to require resubmission.*

(d) B-2 STANDARDS - Building 1

a. Urban street wall: *In the B-1, B-1b and B-2b zone it shall be required that buildings shall be located to create and preserve an urban street wall.*

Staff comment: *Not applicable*

b. Mixed Uses: *In B-1b zone buildings shall be multi-storied with mixed uses.*

Staff comment: *Not applicable*

c. Building entrances: In the B-1 and B-2b zone building entrances shall be oriented toward, located adjacent to, and directly accessible from, a sidewalk in a public right-of-way.

Staff comment: Not applicable.

d. Windows: In the B-1, B-1b, B-2, B-2b zones windows shall be required along the street frontage of a building. Windows shall be transparent (with visible transmittance (VT) of .7 or greater) and installed at a height to allow views into the building by passerby.

Staff comment: Staff finds the overall arrangement of windows along the building facades and activated storefront windows, oriented toward the public sidewalk, creates a strong presence along Riverton Drive. Applicant shall provide storefront window schedule or specifications to observe VT design standard. Staff has reviewed the ground-floor pattern of windows at the front elevation and finds the lack of windows at the mechanical room program to be appropriate and recommends additional landscape screening to address the blank façade at the ground level. Staff recommends additional windows for the retail use along the angled side elevation (D3 – elevation 4) that face the pedestrian plaza to further activate the portion of Building 1 facing the residential neighborhood.

Response: The Landscape Plan has been updated to show additional screening of the blank façade facing Riverton Drive.

Additional windows at the retail space facing the plaza are not possible. The building façade is retaining a 3'-4' height sloping lawn that is to serve as a seating area for the plaza/stage space. It is not the desire of the applicant or future retailer to have windows at this location.

Storefront glazing will be specified with a visible transmittance (VT) of $\geq .7$.

Complete elevations and specifications will be submitted with the building permit application.

e. Façade character: In the B-1, B-1b, B-2, B-2b zones, active and public portions of the buildings (e.g. doors, windows, entries retail displays) shall be oriented to and, where possible, be located adjacent to the public sidewalk to create an active presence along the sidewalk.

Staff comment: Staff finds the building design includes a variety of architectural façade elements that respond to the recessed and projected planes along the façade to create a strong presence along the street. Staff finds the large openings between support columns at ground-level along the north elevation (A3 – elevation 1) facing Forest Avenue creates a negative visual impact with parked car headlights to/from abutting property. Staff recommends additional screening elements (ie. integrated into the building between column supports or new landscape fence along property boundary) at the ground-floor parking level.

Response: Evergreen shrubs to match the abutting development are proposed along the eastern property line. Within a short time, this should be a dense buffer. It is also a mandate of the applicant that they do not want to create hiding spots so additional layers of varied heights planting are not desirable. This community has a higher crime rate than others and surveillance cameras need to be able to see this area.

f. Building design: B-1, B-1b, B-2 and B-2b commercial buildings shall be designed to be compatible with their residential and commercial neighbors.

Staff comment: Staff finds the proposed building design is an appropriate scale to create a visual presence for the redevelopment of Riverton Park and along the Forest Ave B-2 commercial business zone.

The applicant has designed the building to include a projection for the retail uses to the south that serves as a step down to the neighboring residential uses.

g. Building materials: Façade materials of buildings located in the B-1, B-1b, B-2 and B-2b zones shall be compatible with those materials of surrounding residential and commercial use.

Staff comment: Staff find the building design of a consistent material with variation in color provides a unified materiality between residential, community service, and retail uses for the site that is compatible with the surrounding area.

h. Building scale: In the B-1 and B-1b zones building scale must relate and be compatible with surrounding residential structures.

Staff comment: Not applicable

i. Landscaping and buffers: In the B-1, B-1b, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line.

Staff comment: Staff finds the alignment of street trees to create a street wall edge and landscaping along the front building façade is appropriate. Staff is recommending the applicant provide additional landscape to enhance the pedestrian experience along Riverton Drive where the front setback exceed 10 feet, specifically street trees and shrub planting to screen the proposed surface parking along Riverton Drive. In addition, staff recommends a densely planted landscape buffer (layered height and species) or new fencing at property boundaries to screen neighboring commercial uses.

Staff recommends the applicant relocate the transformer that is visible from Riverton Drive either to the rear of the building or provide a densely vegetated screen along the angled front elevation (E3 – elevation 2) where no windows are proposed at the ground-level.

Response: An additional row of shrubs has been added to the landscaped pedestrian edge along Riverton Drive.

A shrub bed has been added along Riverton Drive to help buffer the surface parking.

The transformer will be shifted, as feasible, to be located further into the front yard, while still adhering to CMP standards for proximity to driveway and setbacks for landscape buffering. By shifting the location, the shrubs beds will help to screen it from Riverton Drive better.

(d) B-2 GUIDELINES

Please refer to Appendix 2 of this manual, The B-1, B-1b, B-2, B-2b Design Guidelines, for applicable design guidelines for the B-1 and B-2 zones. In addition, the following design guidelines shall also apply:

1) Buildings located in the B-2 zone are specifically encouraged to adhere to the design guidelines contained in the B-1, B-1b, B-2, B-2b Design Guidelines (Appendix 2) of this section concerning the creation and preservation of an urban street wall.

2) In the B-1b and B-2 zones, buildings are specifically encouraged to adhere to the guidelines contained in the B-1, B-1b, B-2, B-2b Design Guidelines (Appendix 2) of this section concerning building entrances.

B-2 STANDARDS (Appendix 2 of the Design Manual) - Building 1

1. Building location and form

Urban street wall: Buildings shall be located near the street so as to create an urban street wall.

Staff comment: *The proposed Building 1 is 4-stories with 59-residential units with multiple ground-level uses to service residents of the Riverton Park community. Staff finds the proposed building location along Riverton Drive (classified as a local street) is appropriate given the arrangement of existing buildings to remain and residential character of the Riverton Park community. Staff finds the ground-level retail uses and primary building entry is appropriate to identify public building access along Riverton Drive.*

Additional design review comments can be found in i. Landscaping and buffers in B-2 Standards.

Response: The applicant feels it has prepared an appropriately robust landscape plan. It is also a mandate of the applicant that they do not want to create hiding spots so additional layers of varied heights planting are not desirable.

Building 1 sitework and landscaping has been designed to promote Crime Prevention Through Environmental Design (CPTED) principals. Applicant will not incorporate features that would significantly impede potential surveillance around Building 1. Given scarce funding for affordable housing projects, Riverton Park design must maintain a reasonable landscaping schedule that promotes judicious stewardship of public funds. We believe our current design is appropriately robust, meets all City standards and maintains the project's financial feasibility.

2. Building function

Variety of uses: An urban street and business district requires a substantial intensity and variety of uses.

Staff comment: *The proposed Building 1 includes ground-floor retail uses directly accessible from the public right-of-way. Staff finds the irregular lot configuration provides additional pedestrian building access points along the ground-floor that the applicant shall explore, notably the building access along the south façade to GPH clinic. **Staff recommends an enhanced pedestrian experience that extends the proposed plaza east to provide a unified surface treatment as a cohesive open space element that also discourages personal vehicles.***

Response: The concrete paver surface of the plaza will be enlarged and extend to the right-of-way. This expansion of the pedestrian scale + pedestrian friendly paving material will clearly identify this area as a non-vehicular zone in-conjunction with two “Fire Lane” signs facing Riverton Drive. The area will also be under video surveillance with a license plate reader so offenders can be identified and dealt with properly.

3. Orientation of buildings and their entrances to the street

Building entrances: Major building entries shall be designed and located to provide the primary building access oriented to the public street and sidewalk.

Staff comment: *Staff finds that major building entries are oriented towards the public street and sidewalk, are scaled as recessed building elements with angled building forms and are articulated with overhead canopies that are illuminated for clear visibility.*

4. Windows

Windows: Windows shall be located in all building facades visible from the public way, especially on building facades along the major public street.

Staff comment: Staff finds the overall arrangement of windows along the building facades visible from the public way to be appropriate. *Applicant shall provide storefront window schedule or specifications to observe VT design standard. Additional design review comments can be found in d. Windows in B-2 Standards.*

Response: Storefront glazing will be specified with a visible transmittance (VT) of ≥ 7 . Complete elevations and specifications will be submitted with the building permit application.

5. Building character, detail, scale and graphic qualities

Façade character: Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community.

Staff comment: Staff finds the building design includes a variety of architectural façade elements that respond to the recessed and projected planes along the façade to create a strong presence along the street. The applicant has proposed a flat roof form with multiple vertical extensions and angles to reduce the scale of the building. *Additional design review comments can be found in e. Façade Character in B-2 Standards.*

Response: No response needed.

6. Signage and building entrances

Building entrances and building signage in the B-1, B-1 and B-2b zones will be designed and constructed at the pedestrian scale

Staff comment: Not applicable

7. Development relationship to street

Building facade: Building facades and site amenities shall form a cohesive wall of enclosure along a street.

Staff comment: Staff finds the proposed building design is an appropriate scale to create a visual presence for the redevelopment of Riverton Park and along the Forest Ave B-2 commercial business zone. The applicant has designed the building to include a projection for the retail uses to the south that serves as a step down to the neighboring residential uses. The building utilizes a flat roof, with vertical projections at the corner that serve to break up the massing of the building.

8. Parking lots

Parking lots shall be screened from view of the public way.

Staff comment: *Staff recommends the applicant provide additional landscape treatments to enhance the pedestrian experience along Riverton Drive. Additional design review comments can be found in i. Landscaping and buffers in B-2 Standards.*

Response: The applicant feels it has prepared an appropriately robust landscape plan.

Additional shrubs have been added along Riverton Drive to enhance the pedestrian edge treatment and also to help buffer the surface parking.

Parking lots shall be screened from neighboring properties.

Staff comment: *Staff recommends a densely planted landscape buffer (layered height and species) or new fencing at property boundaries to screen neighboring commercial uses.*

Response: Response: The applicant has prepared a robust and appropriate landscape plan to work in conjunction with the existing fence and buffering on the adjacent property. It is also a mandate of the applicant that they do not want to create hiding spots so additional layers of varied heights planting are not desirable.

Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Staff comment: *Staff is recommending the applicant include paved walkways around the perimeter of the parking lot to allow residents a clear pedestrian route to the adjacent gas station and market.*

Response: No perimeter walkways leading to the adjacent retail development will be included as part of this project. No formal pedestrian connection to the adjacent development is proposed; rather it is an emergency access connection (and easement) through a locked gate, that was part of the retail approval.

The emergency access area between the parking lot to the gas station gate will be revised from an asphalt surface to instead be grass pavers in an effort to reduce runoff, soften the visual appearance and downplay the connection from a vehicular standpoint, see C3.1.

Street trees shall be planted along property frontage 25 feet on center.

Staff comment: *Applicant shall include additional street trees along frontage to align with the trees across the parking lot drive aisle.*

Response: The applicant feels it has prepared an appropriately robust landscape plan. There is no room available for additional street trees. The project does propose approximately 200 new trees.

9. Transit connections

Development proposed along established transit corridors must design uninterrupted access from the proposed development to the transit stop.

Staff comment: *The applicant has proposed to replace existing sidewalk in kind and maintain pedestrian connection to bus service on Forest Ave.*

(i) MULTIPLE-FAMILY STANDARDS - Building 1

Multiple-family shall meet the following standards:

a. Proposed structures and related site improvements shall meet the following standards:

1. The exterior design of the proposed structure, shall be designed to complement and enhance the nearest residential neighborhood.

Staff comment: Staff finds this standard to be met under B-2 Commercial Business design review.

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

Staff comment: Staff finds this standard to be met under B-2 Commercial Business design review.

3. Open space on the site for all multiple-family development shall be integrated into the development site.

Staff comment: Staff has observed the applicants open space program to include shared plaza space, landscape buffers along property boundaries and close proximity to the shared recreational lawn and other outdoor amenities of the Riverton Park community.

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.

Staff comment: Staff finds the development provides ample windows and internal storage throughout and within 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.

Staff comment: Staff finds has reviewed this standard under B-2 Commercial Business design review with the following recommendation: **Staff recommends a densely planted landscape buffer (layered height and species) or new fencing at property boundaries to screen neighboring commercial uses.**

Response: The applicant feels it has prepared an appropriately robust landscape plan. Evergreen landscaping to match the abutting development is proposed. Within a short time, this should be a dense buffer. It is also the opinion of the applicant that they do not want to create dark hiding spots. This community already has a high crime rate than others and surveillance cameras will be installed.

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.

Staff comment: Not applicable

(h) Planned Residential Unit Development (PRUDs) in the R-5a Residential Zones – Neighborhood Center & PRUD rehabilitation.

(1) STANDARDS. Planned residential unit developments (PRUDs) in the R-3, R-5 or R-5a residential zones and manufactured housing parks in any zone shall meet the following standards.

Standard (1) a. Design relationship to the site

Staff comment: The proposed rehabilitation preserves the existing roadways, placement of existing apartment buildings while creating extensive site and new building program to expand community services, accessibility and recreational enhancements at Riverton Park. Existing parking lots within the PRUD to be reconfigured to include perimeter accessible sidewalks to connect residents to each residential unit. The applicant proposes a new single-story Neighborhood Center located within proximity to the street with an extended overhead canopy and accessible pedestrian walkways. **Staff recommends**

the additional plantings along the existing forest edge to transition the new development and provide soil stability for the proposed stormwater area steep grades.

Response: Additional trees and shrub beds have been added to this area to help transition from the new building to the existing wooded area.

Standard (1) b. Internal design character and relationship to the surrounding neighborhood

Staff comment: The proposed rehabilitation unifies the PRUD with consistent exterior façade materials in color variation that contributes to a more cohesive design character. The replacement of roof material and articulation of building entry canopies provides clear visibility for safe passage. The proposed façade material by color at each division of the building plane along with entrance canopies provide sufficient variation.

Standard (1) c. Recreation and open space

1. External buffers:

Staff comments: Staff finds the existing vegetation within the R-5a PRUD to provide sufficient external buffers from neighboring properties, in addition the applicant has proposed several tree groupings where gaps in the existing tree canopy exist between neighboring properties.

2. Internal buffers:

Staff comments: Staff finds the proposed street tree canopy along public roadways and within the reconfigured parking lots enhances the pedestrian experience. The applicant has proposed additional recreational program with lawn areas accessible to residents, *staff recommends a planting area between the emergency access drive and lawn area to buffer recreational space from paved drive. In addition, staff recommends a pathway loop to border the recreational lawn area and provide connection to the climbing wall feature.*

Response: No trees have been proposed along the fire lane adjacent to Building 1 as the Fire Department requested that vertical obstructions be removed from the area unless they are for safety (i.e.: site lighting). No shrub beds have been proposed between the fire lane and field as they would be a barrier for pedestrian permeability and get destroyed by snow from plowing.

A grass pathway has been included on the north side of the field and between the bio-retention cells. Fencing has been added to the ends of the field to help contain and define the play area.

3. Passive recreational open space:

Staff comments: The applicant has provided a variety of passive open space to include community gardens, seating areas adjacent to public plazas, and pathways to connect residents to apartment circles to meet this design standard.

4. Active recreational open space:

Staff comments: The applicant has provided sufficient active recreational open space to include resurfacing of basketball court and designation of playground and lawn areas. *Staff requests more details for the proposed playground element that provides a mix of age-appropriate elements that cater to the residential families at Riverton Park.*

Response: Plans for playground next to Neighborhood Center have not been finalized. PHA expects playground to include a variety of play structures, incorporating traditional and natural play features,

to serve a variety of ages and many youths living at Riverton Park. PHA will assess the feasibility of salvaging and relocating the existing playground near Circle 6. PHA also envisions adding new play features, such as a climbing feature, boulders, etc. Benches, picnic tables and tenant gardens will also be installed in the designated playground area. PHA has a sizable budget to cover playground costs.

5. Private open spaces:

Staff comments: *Staff finds the rehabilitation of front entry stoops meets this design standard.*

12. Access and Circulation

14.6 SITE PLAN REVIEW STANDARDS The reviewing authority shall not approve a site plan application unless the development proposal meets applicable standards of the City of Portland Technical Manual and the City of Portland Design Manual and the criteria below.

B. Access and circulation

1. In general

a. All development subject to this article shall provide safe and reasonable access and internal circulation for all users of the site and shall comply with the transportation systems and street design standards of the Technical Manual.

Response: Driveway widths, parking stall size, and parking lot aisles will all comply with City standards unless specifically noted and a waiver requested. A waiver is being asked to allow the use of slip-form concrete curb in lieu of granite curb within the City right-of-way except at driveways and corners.

b. Continuous internal walkways shall be provided between existing or planned public sidewalks adjacent to the site, transit stops and street crossings, and building entrances on the site.

Response: Sidewalks exist along all the surrounding City streets on at least one side and usually both. Internal sidewalks will connect the parking areas to the adjacent buildings and to existing City sidewalks. Sidewalks within the City right-of-way will be redone as part of this project.

c. Points of access and egress shall be located to avoid conflicts with turning movements and traffic flows.

Response: Access to Circles 2-6 will continue to be from existing driveways off of City streets. Access to Building 1, the Neighborhood Center and the maintenance garage will be new driveways from City streets and will be in compliance with the standards in the Technical Manual.

d. The site must have stacking capacity for vehicles waiting to use these service features without impeding onsite vehicular circulation or creating hazards to vehicular circulation on adjoining streets.

Response: The individual Circles' parking lots do provide for stacking capacity at the street intersections. Access to the Neighborhood Center and the maintenance garage parking areas will have smaller stacking capacity but vehicle turnover will not be high due to the fact the bulk of the parking in these lots will be for employees only. The Neighborhood Center bus loop has some temporary parking but the volume of traffic on Riverton Drive is low so should not be a problem. Access to Building 1 will also have smaller stacking capacity than Circles 2-6 but that is typical of urban design. Dedicated parking for the PHA Property Management Offices and Greater Portland Health Clinic, temporary on-street parking for the retail as well as the vast number of general public on-street parking spaces will help to alleviate any queuing issues. The volume of traffic within the project is low and slow speed so circulation to/from the facilities and residential areas will not create or worsen traffic or flow on the adjacent streets.

2. Loading and servicing.

All developments served by delivery or other service vehicles shall provide access that permits safe turning and backing for all vehicles that would service the development. Loading and servicing access shall not impede vehicle circulation, bicycle or pedestrian movements, or parking.

Response: Although no frequent delivery vehicles are anticipated, all circles have been designed to accommodate larger delivery/emergency type vehicles through turning circles or can accommodate safe backing movements as well as dedicated "service only" parking spaces to eliminate serving access for Resident Service providers and PHA Maintenance vehicles. It is anticipated that any delivery/emergency type vehicles visiting the Neighborhood Center will use the front bus loop and the temporary parking. Weekly private trash pickup can and will continue to be able to safely service all dumpsters.

3. Curb and sidewalks

a. All development shall provide curb and sidewalks along all frontages, installed to specifications as described in the transportation systems and street design standards of the Technical Manual.

Response: Sidewalks exist along all the surrounding City streets on at least one side and usually both. New curbing is proposed along all City Streets. New sidewalks are proposed at all existing sidewalk locations and where it is physically possible to connect the project to Forest Ave on the applicant's parcel.

A waiver is being asked to allow the use of slip-form concrete curb in lieu of granite curb within the right-of-ways. All sidewalks will be City standard asphalt.

b. Where sidewalks already exist but are in substandard condition, they shall be repaired or replaced in conformance with Chapter 25 of the City of Portland Code of Ordinances and the transportation systems and street design standards of the Technical Manual.

Response: All sidewalks and curbing within the project (including within City rights-of-ways) will be replaced, at a great expense to the applicant, as part of this project. That is one of the reasons a waiver of granite curb is being requested.

c. An applicant may request a waiver from sidewalk installation requirements if they meet two or more applicable waiver criteria as listed below:

Response: Not applicable. No waiver of sidewalk installation is being requested.

i. There is no reasonable expectation for pedestrian usage coming from, going to, and traversing the site.

ii. There is no sidewalk in existence or expected within 1000 feet and the construction of sidewalks does not contribute to the development of pedestrian oriented infrastructure.

iii. A safe alternative walking route is reasonably available, for example, by way of a sidewalk on the other side of the street that is lightly traveled.

iv. The reconstruction of the street is specifically identified and approved in the first or second year of the current Capital Improvement Program (CIP) or has been funded through an earlier CIP or through other sources.

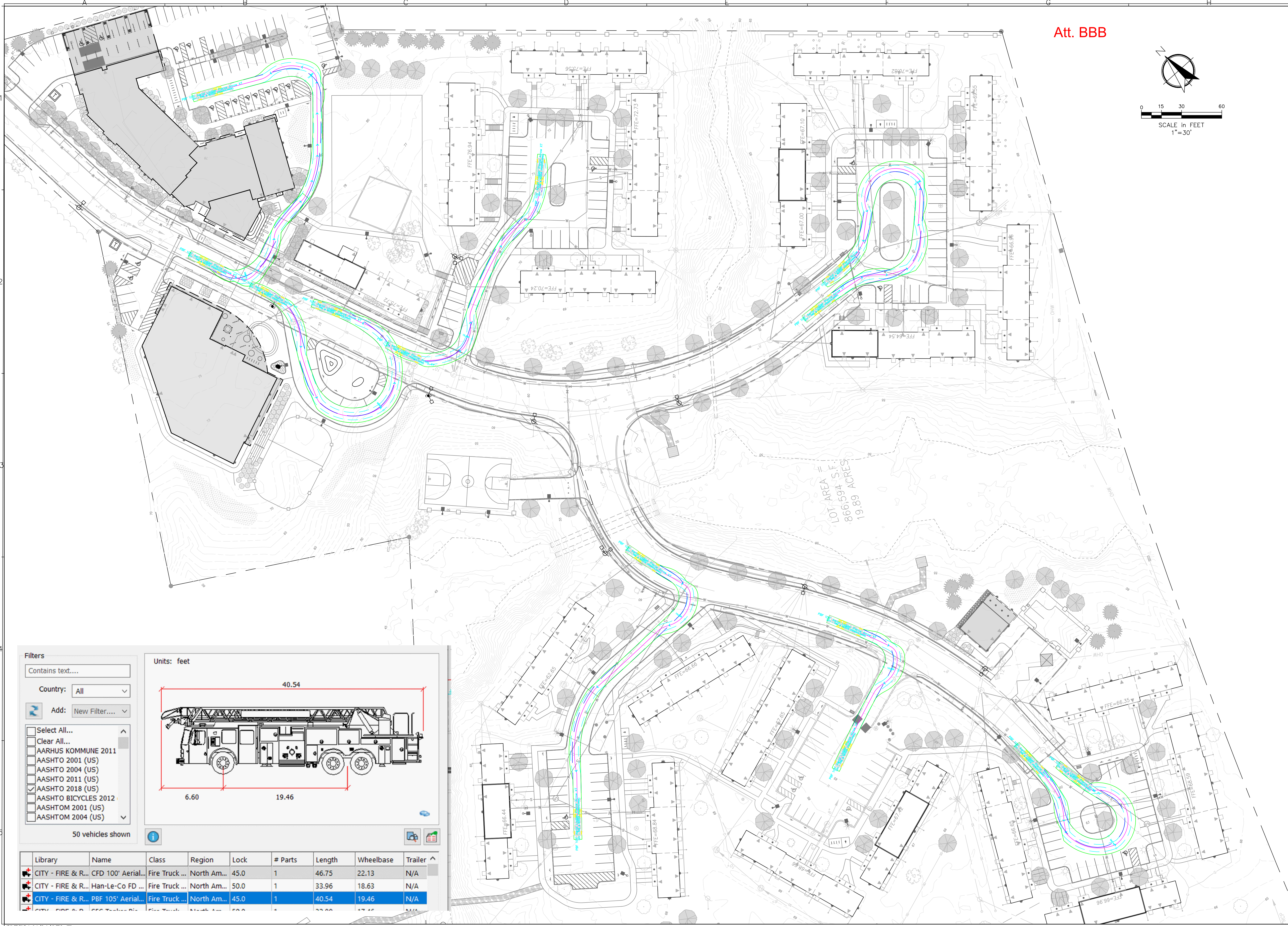
v. The street has been constructed or reconstructed without sidewalks within the last 24 months.

vi. Strict adherence to the sidewalk requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value.

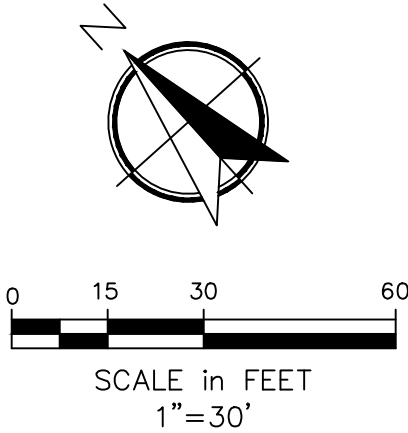
d. An applicant may request a waiver from curb installation requirements if they meet two or more applicable waiver criteria as listed below:

Response: A waiver is being asked to allow the use of slip-form concrete curb in lieu of granite curb within the right-of-ways. See Exhibit 8 Waivers.

- i. The cost to construct the curbing, including any applicable street opening fees, is in excess of 5% of the overall project cost.
- ii. The reconstruction of the street is specifically identified and approved in the first or second year of the current CIP or has been funded through an earlier CIP or through other sources.
- iii. The street has been rehabilitated without curbing in the last 60 months.
- iv. Strict adherence to the curb requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value.
- v. Runoff from the development site or within the street does not require curbing for stormwater management.



Att. BBB



Filters

Contains text....

Country: All

Add: New Filter....

Select All... Clear All...

- AARHUS KOMMUNE 2011
- AASHTO 2001 (US)
- AASHTO 2004 (US)
- AASHTO 2011 (US)
- AASHTO 2018 (US)
- AASHTO BICYCLES 2012
- AASHTOM 2001 (US)
- AASHTOM 2004 (US)

50 vehicles shown

Units: feet

40.54

6.60 19.46

Library	Name	Class	Region	Lock	# Parts	Length	Wheelbase	Trailer
CITY - FIRE & R...	CFD 100' Aerial...	Fire Truck ...	North Am...	45.0	1	46.75	22.13	N/A
CITY - FIRE & R...	Han-Le-Co FD ...	Fire Truck ...	North Am...	50.0	1	33.96	18.63	N/A
CITY - FIRE & R...	PBF 105' Aerial...	Fire Truck ...	North Am...	45.0	1	40.54	19.46	N/A
CITY - FIRE & R...	CFD 100' Aerial...	Fire Truck ...	North Am...	45.0	1	46.75	22.13	N/A

CWS ARCHITECTS
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CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

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207.772.1552 V. F. 207.772.0712

OWNER

RIVERTON PARK, LP

14 BAYVIEW BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

AUTOTURN
FIGURE

CWS PROJECT NUMBER: 15.021

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022

DRAWING NUMBER

CX.1

SCALE: AS SHOWN

DATE: 1/12/2019



March 22, 2023

Revised April 26, 2023

Ms. Christine Grimando, Director of Planning & Urban Development
Mr. Sean King, Urban Designer
City of Portland Planning Department
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Staff Review Comments
Riverton Park Redevelopment and Rehabilitation
2 Riverton Drive, Portland ME 04103
PL-002319-2022 + CU-002325-2023**

Dear Christine and Sean,

On behalf of Applicant, Riverton Park, LP c/o Portland Housing Development Corporation (PHDC), and Owner, Portland Housing Authority (PHA), we are pleased to submit this response letter to the Staff Review Comments, dated 03/14/2023. Below are the comments taken from the Staff Review (*in italics*) along with original responses from the applicant (**dated 3/22/2023 in bold**) and **updated responses in red**. This submission contains responses and additional exhibits. Updated plans will be forthcoming shortly after comments and decision are made at the Workshop on March 28, 2023.

Preamble: Creating a vibrant, safe, equitable and thriving community at Riverton Park – a challenged 1970’s-era affordable family housing property – requires bold change. Developed far from downtown amenities and social services, this sprawling low-income family neighborhood has been underserved and isolated for decades. The backbone of the Riverton Park Redevelopment and Rehabilitation project is the addition of a new 59-unit multifamily Building 1 and Neighborhood Center for services, which add density and vibrancy towards Forest Avenue. This plan also proposes rehabilitating 123 existing townhomes. Overall, Riverton Park will have 182 homes, 165 of which will be affordable for households earning at or below 60% of Area Median Income, at a time when Portland desperately needs more affordable homes.

Our plan helps the Riverton Park community transition to a successful future by developing new spaces for social service and retail, enlarging the healthcare clinic, improving pedestrian infrastructure and creating new green open spaces. Unlike the existing suburban-style layout, the new Building 1 and Neighborhood Center will together help engender a new ‘town center’ from the inside out. This ‘town center’ will become the heart of Riverton Park with public mixed-uses – social activity, retail, community services, recreation, residential and health care – closest to its entrance. To achieve this ambitious long-term investment in Riverton Park, we thank the City Planning Board, Planning staff and involved City departments for their support for the vital redevelopment of this community.

SITE REVIEW

- *The applicant shall provide a construction management plan.*

Response: Provided as Exhibit #32 in the application. A final construction management plan will be submitted for review as part of the pre-construction process.

In general, the project will proceed on a circle-by-circle basis. The contractor will occupy an entire cul-de-sac while renovating or redeveloping it, then proceed to the next. The sequencing, schedule and duration have not been determined. Proceeding circle-by-circle will promote site management and controls, improve contractor efficiency, minimize traffic and parking impacts, and demarcate construction areas with fencing to separate it from residential uses, thereby improving safety for all. **The Riverton Park Redevelopment and Rehabilitation construction schedule has not yet been finalized. There is intricate sequencing, phasing and coordination in this multifaceted project regarding sitework, utility replacement and resident relocation (among others) that must be carefully and holistically considered to ensure for the safety of all, avoid cumulative impacts on residents, and prevent unsafe vehicle and pedestrian movements. Similar to the numerous past affordable housing projects both the Applicant (PHA & PHDC) and Contractor (Zachau Construction) have completed in the City of Portland, PHA proposes that the Site Plan approval letter name as a "Standard Condition of Approval" the submission of a full Construction Management Plan that conforms to all CM Plan requirements and is approved by the City before commencing work. The Applicant will aim to have the CM Plan submitted this summer or early-fall, and likely prior to Building Permit submission in late-2023 or early-2024. Since not all details regarding schedule, sequencing and phasing have been finalized at this time, PHA is concerned submitting a CM Plan now might require future amendments that could cost this critical affordable housing project time and cost City staff extra review hassle. In our opinion, it is more streamlined to submit the CM Plan once, correctly. The Applicant and Contractor have the experience and expertise to see this through once a firm plan for schedule, scope, sequencing and relocation is in place, which will be soon.**

- *The applicant shall submit ability to serve for utility service.*

Response: The site is existing and all utilities are already available. Capacity letters have been re-sent to Portland Water District (Change of Use), and City of Portland Wastewater Division. Applicant has commenced discussions with CMP about upgrading service for new construction. Responses will be provided upon receipt. See attached Exhibit 22 Public Utility Letters.

Attached is updated Exhibit 22 Public Utility Letters, with confirmation letters from the City's Wastewater Department and Portland Water District.

- The applicant shall provide allocation of bedroom types specific to Building 1.

Response: See attached breakdown of existing and proposed residential bedroom/unit mixes.

CURRENT UNIT MIX	Current Townhomes	PROPOSED UNIT MIX	Post-Rehab Townhomes	New Bldg 1	Total
0BR	0	0BR	0	8	8
1BR	0	1BR	0	13	13
2BR	21	2BR	20	16	36
3BR	68	3BR	47	22	69
4BR	26	4BR	30	0	30
5BR	20	5BR	20	0	20
6BR	6	6BR	6	0	6
TOTAL RESIDENTIAL UNITS	141	TOTAL RESIDENTIAL UNITS	123	59	182
Resident Service Unit	9	Resident Service Unit	2	0	2
TOTAL UNITS	150	TOTAL UNITS	125	59	184

- City staff encourages the applicant to provide phasing plan for resident's relocation.

Response: The project sequencing, schedule and duration have not been determined and therefore a final relocation schedule is not available at this time.

PHA meets with all households one-on-one before commencing construction, in addition to numerous resident meetings. PHA has a full-time Resident Transition Specialist (RTS) on staff that oversees all resident moves, coordinates with residents to address their relocation needs, and manages all relocation compliance, among many other coordination with affected residents. The RTS collaborates closely with the whole RP team, including the Property Manager, Contractor, Developer, Resident Services Coordinator, Maintenance, Portland Public Schools, Movers and other vendors and service organizations in an effort to minimize disruption to residents' lives. During the project, PHA will house as many existing families in on-site vacant units as possible. PHA expects some residents will need to relocate off-site while demolition and redevelopment of their apartments occur, either to another PHA property or by using a Tenant Protection Voucher to rent from another landlord. The RTS will assist families with locating and securing any off-site housing. All residents will have the right to occupy a home at Riverton Park following completion. PHA's Relocation Plan detailing PHA's relocation process and procedures was provided to Sean King on 2/9/22.

DESIGN REVIEW

- Site renovations demarcates green areas on C1.0 Master Plan, applicant shall indicate the proposed open space program to meet design standards for recreation and open space for PRUDs in R-5a Residential zone.

Response: Total square footage of indicated open space (26,736 SF) and square footage per dwelling unit (217 SF/DU) will be added to the Space and Bulk table on sheet C3.1 Site Plan. Open space program elements shall include: recreational field and play area behind buildings 5+6, community garden area, play area (elements TBD) and basketball court at Neighborhood Center, and numerous other unprogrammed open spaces with the other circles at the property. Also see response regarding Open Space programming in the Landscaping and Environmental Quality Section of the Response Letter. **The proposed rock-climbing feature will be relocated from the field area to the Neighborhood Center and incorporated into the playground space. Playground amenities are TBD.**

- *The front setback exceeds 10-feet at Riverton Drive and City staff finds the surface parking does not meet LUC 7.5.5.F to allow for a continuous attractive pedestrian edge treatment, specifically at north end of Building 1. Staff recommends shifting the northern wing of the building to align with the curvature of Riverton Drive, maintaining a consistent setback with the southern portions of the building, and removing the proposed surface parking fronting Riverton Drive.*

Response: The 10-foot building setback is appropriate for more urban sites where the B2 zone would typically be used. On this more suburban site, more shoulder room is appropriate. The current design aptly fits in an irregularly shaped parcel. Additionally, providing a 10' setback at this location would result in monolithic, curved wall plane void of variations, not conducive to the character of the more suburban neighborhood and local development character. Upon turning into Riverton Drive, the additional shoulder room helps create longer views to the Neighborhood Center – a major focal point. Building 1 was designed with regular 120° angles to improve construction efficiency and provide cost savings that are necessary for an affordable housing project with a very tight budget to remain financially feasible. See previously submitted Exhibit 5.1 Zoning Provisions for allowable provision and justification.

- *Applicant shall provide secondary entries for residents along Riverton Drive, or provide a response to indicate why residential unit entry or shared entries at the building corners is not achievable.*

Response: For a multi-tenant building, each public use (retail and office) has entry access off Riverton Drive. The health-care office use's entry is not as public due to anonymity concerns by the clinic operator to protect tenant's privacy and comfort in using the facility. The multi-story residential apartment use requires limited accessible access and security and has a prominent entry facing Riverton Drive. Secondary entrances and exits are provided around the building's first floor. Given the site's suburban character, curved street, irregular parcel layout and the varying uses (i.e. residential, retail, healthcare, Property Management offices) in Building 1, this is appropriate in our opinion.

- *Applicant to provide storefront window schedule or specification to observe .7 visible transmittance (VT).*

Response: The design will specify .7 visible transmittance (VT) at glazed retail storefront systems.

- *Staff recommends investigation of shifting Building 1 upper floors above retail towards Riverton Drive to create greater visibility to the street. Alternatively, the applicant shall consider rooftop residential amenity above Retail portion of the building.*

Response: Extending the residential use over the retail spaces is not feasible. The site offers extensive outdoor spaces for resident use. The applicant will consider a residential roof-top use or green roof above retail if feasible.

ZONING

- *The proposed development is split into two zones. Each zone has different dimensional requirements.*

Response: Space and Bulk zoning standards are indicated in tables on sheet C3.1 Site Plan.

- *Proposing to use section 18.2.4 for density bonuses, height and setback reductions in the B2 zone and subsection (B) for the R5A PRUD standards. Article 3 defines low-income units as: Low-income housing unit for rent. A dwelling unit for which: A. The rent is affordable to a household earning 80% or less of Area Median Income (AMI) as defined by the United States Department of Housing and Urban Development (HUD). B. The unit is rented to a household earning 80% or less of AMI.*

New Mixed-Use Building (B2):

- *There are 59 proposed dwelling units in the building. Will a minimum of 80% of the units be rented to a household earning 80% or less of the AMI? As proposed, Building 1 will create 59 residential units (the applicant has calculated the affordable units based on the net unit increase - 17 of 35 units). Currently at*

the proposed Building 1 site, 4 buildings with 28 residential units are proposed to be demolished. It is not clear if all 28 existing residential units are classified as affordable and if all these units are to be replaced within Building 1.

Response: 48 of 59 units (81%) in Building 1 will serve households earning at or below 60% of AMI. One correction to the question above: 24 units are proposed for demolition at Circle 1, not 28. All 24 of them are 3BR units and currently affordable. These 24 3BR units will be replaced with an equivalent number of new affordable 3BR units for households earning at or below 60% of AMI.

• The maximum height in the B-2 is 45' but can go up to 70' under section 18.2.4 if 75 or more of the units in the building are low-income housing units. The proposed height is 52'7". This is well below the 70' allowed, but the average grade for the building should be provided and the height should be measured to the roof beam.

Response: Based on finished floor elevations of the most extreme cases, the average grade is 79.375', this would result in an adjusted building of 52-4". This will be illustrated on the building elevations in future building documentation. At least 75% of the units meet the low-income housing criteria.

• The impervious ratio for the proposed redevelopment has been calculated to include Building 1, roadway, Neighborhood Center and associated site improvements, City staff is requesting the impervious ratio be divided by each zone (B2, R-5a).

Response: Impervious surface calculations will be calculated separately for each zone. See attached impervious breakdown by zone in Exhibit 19.3.

R5A zone:

• 1. The proposed Neighborhood Center is located in the R5A part of the property. Since it is not a residential building does it need to meet the R5A setbacks including the 25' minimum setback for the front and rear yards? Right now, it is meeting the 10' front setback allowed under section 18.2.4(B) for PRUDS.

Response: It is our understanding that the Neighborhood Center is allowed as a conditional use in the R5A PRUD. The reduced setbacks under a PRUD and per 18.2.4 (B)(3) Density and Dimensional Bonuses and Reduction, "where more than 50% of the units are low-income or workforce units for rent...3. Minimum building setbacks may be reduced to 10 feet." This applies to the entire portion of the project being considered as a PRUD.

Conditional use for Neighborhood Center:

• #6 Conditional Standards document needs to address the specific criteria in section 6.5.6(F) that apply to Neighborhood Center. Applicant shall submit additional documents to meet conditional standards.

Response: The specific criteria in 6.5.6(f) has been addressed and is attached in the updated Exhibit 6.2.

TRAFFIC CONSULTANT

• *The proposed project is expected to add 59 new affordable and market rate apartments. Additionally, the project will include PHA Management offices, a new GPH Clinic, two small neighborhood retail stores and a Neighborhood Center. The applicant shall provide an estimate of traffic generation for the project and details on each of the new proposed program elements (from an existing/proposed traffic generation perspective). Because some of the units have several bedrooms, the trip generation estimate should consider this.*

Response: Unit/bedroom/occupancy counts for all buildings on the property for use in the traffic generations calculations are provided below and in attached Exhibit 33 Occupant Loads.

For Building 1 – the total occupancy bases on IBC 2015 table 1004.1.2 factors is 395 people.

	Mercantile M	Business B	Parking S-2	Residential R-2	Totals
Area	1,583	5,096	3,739	63,525	73,943
Factor	60	100	-	200	360
occupancy	26	51	-	318	395 occupants

For Neighborhood Center

See Exhibit 33, Riverton Park Neighborhood Center Occupant Loads for occupant load calculations. Maximum occupant load will be 790 people bases on IBC 2015 table 1004.1.2 factors, but the Average occupancy will be 82 people based on projected program use.

For Residential Rehabilitation

See Exhibit 33, Riverton Park Rehabilitation Occupant Loads for occupant load calculations. The existing occupant load of the residential buildings is 1,182. Maximum occupant load of the rehabilitated residential buildings will be 837 people bases on IBC 2015 table 1004.1.2 factors. The reduction in occupant load is attributable to two factors: removal of four buildings, and conversion of seven units currently used for residential services back to residential use.

The spreadsheet over estimates the traffic generation using the number of *dwelling units* instead of the number of *bedrooms*. The dwelling unit method is backed up by more studies (6-10) while the bedroom method only has 2 studies and is missing the key PM peak hour of the (street) time period. Overall, the trips generated per bedroom will be higher. The “Net New Trips” produced by Building 1 will be similar, and the existing units that are being rehabbed will be shown to be generating more traffic. The “Net New Trips” are the trips generated by the proposed Building 1 minus the trips that the demolished Building was generating.

If the City wants the calculations done by bedroom, those can be provided, but it is in our opinion that the trips per dwelling unit method shown in the spreadsheet is more accurate.

See attached Exhibit 15.1 Trip Generation.

• *The 6-space parking area near the Neighborhood Center is constrained. Vehicle turning templates shall be provided.*

Response: Vehicle turning templates for this parking area are attached. See attached Exhibit 31.

• *Detectible warning panels shall be provided for all pedestrian crossings of a public street, including the raised crosswalks.*

Response: The detail and plans have been updated to show detectable warning panels at crossings of public streets.

- *I support a waiver from the technical manual for aisle width for the 5 PHA parking spaces where an aisle width of 22 feet is proposed. I would expect these spaces to be low turnover spaces. One of the spaces is for a service vehicle. The applicant should note the type of vehicle expected to park in that space.*

Response: Spaces labeled “PHA Staff” are for PHA staff’s personal vehicles. These will be low-turnover spaces. The space labeled “Service” could be occupied by a resident service provider, vendor/contractor, or a PHA Maintenance staff driving a PHA vehicle (light duty truck or van).

- *Given the low turnover nature of the vehicles parking, I support the request for a slightly higher percentage of compact parking spaces. The proposed spaces will meet standard parking stall length (18 feet) and be 8 feet wide.*

Response: No response needed.

DEPARTMENT OF PUBLIC WORKS - TRANSPORTATION

- *DPW-Observe condition of existing roadway, possible recommendation to overlay roadway the entire public portion.*

Response: PHA has been requesting an update from the City of Portland on the schedule for rehabilitation of Riverton Drive and Springbrook Way for several years. It was initially stated that this work was on the City of Portland pavement rehabilitation schedule. However, no further information has been forthcoming. PHA would welcome any effort by the City to bring forward the overdue maintenance of these public streets, which are in very poor condition.

- *Traffic-Project may warrant new sidewalk along north side of Riverton Drive to connect Neighborhood Center to Forest Avenue. Consideration for periodic crosswalks throughout PRUD.*

Response: It appears from the survey plans that there is insufficient right-of-way to construct a connecting sidewalk on the north side of Riverton Drive to Forest Avenue. In addition, one or more utility poles would need to be re-located to facilitate this work. Riverton Park has no frontage along the north side of this section of Riverton Drive. Further discussion of this item should be deferred until the City of Portland can obtain additional land and/or the required easements to allow this connection to be constructed.

- *Traffic-Applciant to clarify program for the project related to publicly-accessed uses for retail, office, clinic, and community center.*

Response: Neighborhood Center use will be primarily for Riverton Park residents, with a particular focus on housing after-school and youth development programs for the 300+ youth of Riverton Park. Usage and reservations by the Riverton community and public will be considered on a case-by-case basis.

In Building 1, PHA management office, Greater Portland Health clinic and retail spaces will be publicly available and accessible.

- *The applicant shall revise the proposed concrete curb detail. Also show how the adjacent pavement will be repaired. See detail below:*

Response: The applicant had requested a change from the city standard curbing from granite to concrete slipform curbing in order to keep the costs of replacement curbing within reason (the applicant is proposing to replace the curbing on the city owned streets in the project area at the cost

of the project). The detail proposed for the slipform curbing is the same as that which was accepted by the city on the recent Washington Gardens project (Pembroke and Churchill Streets are city owned streets where the curb and sidewalk was upgraded by PHA to present a serviceable condition through the property). It is unclear from the detail provided, but this appears to be an 18" precast concrete curb, with a 6" reveal. This would offer little or no cost benefit over granite and would limit the available resources for installation. The applicant requests the replacement curbing remain as proposed and as previously approved by DPW at Washington Gardens.

The curbing detail has been revised to show a sawcut line 2ft out into the street, with new pavement in this area to provide a base for the proposed curbing. This is shown on the site plan as a pavement rehabilitation line. The existing pavement will be milled one foot out from the sawcut line to provide a smooth transition between the existing and new work.

- *Based on the current condition of the roadway pavement, once it is cut for the curb and utility installation the surrounding pavement may fail. How does the applicant plan to repair the adjacent pavement?*

Response: See response to previous comment.

- *What is planned for additional lighting around the proposed improvement? Is the existing system sufficient?*

Response: See previously submitted sheet L3.0 Photometric Master Plan and Exhibits 26+26.1.

- *Utility plan shows a new water main but does not show the trench repair. The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the [Rules and Regulations for Excavation Activity](#). Update the plans to show these repairs.*

Response: The utility plan shows replacement of the water main as an alternate to the base bid contract for the project. The pavement repair lines around the new water main are not shown on the plan sheets for clarity (these would overlap several other lines currently showing on the drawing). However, a pavement repair detail is included with the water main trench detail on Sheet C7.6 of the plan set. This shows the trench dimensions and repair section.

- *The minimum radius for a City curb extension is 20 feet. Revise the plans sheets to reflect this requirement.*

Response: The plans will be revised to meet the standard.

- *DPW is supportive of raised crosswalk construction detail.*

Response: No response required.

- *The City's Technical Manual has been recently updated and approved. After reviewing the proposed details for this project it is clear that not all the changes are reflected in the plans and proposed details. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update or add a note to each of the proposed details that states the City standard detail (figure # and name) shall be followed.*

Response: We have updated our detail sheets to reference the City's new Technical Manual details where applicable and provided these for further review.

DEPARTMENT OF PUBLIC WORKS – WATER RESOURCES

• *All work within public right of ways shall be completed in accordance with City of Portland Technical standards. The applicant should include COP technical manual details in the plan set.*

Response: The updated detail sheets reference the City of Portland Technical Manual details. These are provided for further review.

• *100' stream setbacks are required for perennial streams as stated in section 8 of the City's technical manual. These setbacks shall be shown on each grading and drainage plan sheet. A waiver from Tech Manual section 8.2.1 will be required for activities located within the 100' stream buffer zone.*

Response: The 100ft stream setbacks are shown on the revised grading and drainage plan sheets.

• *A double row of erosion and sediment control barriers should be utilized for construction disturbances adjacent to wetland and stream buffers.*

Response: The plans have been updated to show a double row of silt fence adjacent to natural resources.

• *Stream and wetland setbacks shall be shown on grading and drainage plan C4.1 and C4.3 for further review.*

Response: Wetland and stream setbacks are shown on the updated grading and drainage sheets.

• *Private Building sewer laterals less than 8" in diameter shall be connected to the main sanitary sewer line by the use of wyes, tee/gyes, Inserta-Tees or similar approved methods as determined by the Department of Public Works per technical manual section 2.6.7 and as depicted on tech manual details II-16, II-17.*

Response: The sewer services for the new building have been upgraded to 8" diameter and are proposed to connect at existing sewer manholes.

• *It is acknowledged that the applicant has been in discussions with DPW water resources regarding an upcoming rehabilitation of the City pump-station which services this neighborhood. The applicant will still be required to submit a wastewater capacity application to DPW water resources engineering for review and authorization.*

Response: A capacity request letter has been sent to DPW Engineering for review and a copy is attached as Exhibit 22.

• *The applicant shall complete a condition assessment of the existing sewer manholes proposed to be modified to ensure structural condition is adequate to accommodate the proposed connections.*

Response: The applicant's engineer will inspect and report on the structural condition of the existing manholes and amend the drawings and details as necessary based on this information.

• *Inverts of the existing City sewers and storm drains shall be added to the plans in order for DPW to review all impacts of the proposed work.*

Response: The existing rims and inverts of the sewer manholes and storm drain structures are shown on the survey plans included with this submission.

• *The applicant is proposing to install a bio-retention cell over the City's 18" Riverton Dr storm drain outfall line located to just northerly of the existing basketball court. DPW finds this problematic from a long term O&M perspective. The outfall line shall be relocated away from this disturbance and the applicant shall grant the City a 30' wide drainage easement for this line.*

Response: The installation of the bioretention cell does not significantly alter the grades in the area of the existing storm drain and does not restrict the ability of the city to access this area to repair and/or

replace the storm drain. In the current condition this is a lawn area, with adjacent pine trees that transitions to a steep grass bank and woodland. Under the proposed condition, the existing trees will be cleared, provided better access to the pipe than currently exists. However, should the city wish to replace this pipe, based on their condition survey and/or re-locate it to a preferred location, the applicant would be willing to discuss this, provided that the new location does not conflict with any proposed future uses of their property.

- *The City is in the process of assessing the conditions of this storm drain outfall line and outlet area. The City may request upgrades to this infrastructure as part of this project based on the results of the condition assessments.*

Response: The applicant would be willing to allow the city access to repair or replace this pipe as part of an easement agreement, as discussed in the comments below.

- *The applicant shall submit further design information and details for the proposed stormwater rip-rap outfall protection for several proposed stormwater outfalls discharging stormwater in the direction of the stream cutting through the site. The outlet protection shall be designed in accordance with the Maine DEP ESC BMP design manual.*

https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_engineers.pdf

Response: The riprap apron detail on Sheet C-7.2 has been updated to add intermediate storm drain pipe sizes (8" and 10"), and updated to reflect the specifications in Maine Erosion And Sediment Control BMPs, Manual for Designers and Engineers – 10/2016, Pipe Outlet Protection. It should be noted that this manual call for riprap stone with a D50 of 5" for the 12" pipe apron. This is a highly unusual gradation and may not be commonly available (4" and 6" are standard riprap sizes).

- *DPW is requesting that the following easements be granted by the applicant to the City of Portland for the following City owned infrastructure:*

- o *Existing City Sewage Pump Station at the corner of Springbrook Way and Riverton Drive.*
- o *Inlet and outlet areas of recently replaced twin 60" stream culverts crossing Springbrook Way near Riverton Drive.*
- o *Inlet and outlet of recently replaced 36" culvert crossing Riverton Drive near Springbrook Way.*
- o *30' wide easements for all existing City of Portland storm drain outfall lines running across PHA property towards the stream.*

- *See attachments to this comment letter for further clarification on the requested easements.*

- o **Proposed Pump Station Easement**

- o *The City will provide an easement figure, deed description and language for the proposed pump station easement for PHA review.*

- o **Proposed Culvert Easements**

- o *The City will provide an easement figure (and CAD file) and a template easement document for the Springbrook Way and Riverton Dr culverts areas. The applicant will be required to write a deed description and provide easement language utilizing the City's easement template for City review.*

- o **Existing Storm Drain outfall easements**

- o *The applicant will be required to draft an easement figure, write an legal easement deed description and provide easement language for these easement areas for City review and approval.*

Response: The applicant is willing to discuss the provision of these easements with the city. However, since it is the city that is requesting the easements and requiring that they be prepared in accordance with the City's easement template documents, it would be far more efficient and practical for the city (grantee) to prepare the easement documents for review by PHA (grantor) in each case. This is the normal procedure when a party requests an easement over land owned by another party.

- *Additional information is needed regarding the proposed community kitchen to determine what grease control equipment will be required. External buried equipment may be needed for the kitchen and/or retail spaces (if food oriented) which requires a junction manhole where the discharge connects to the sanitary sewer. Grease control requirements and technical specification compliance can be assessed during the building permit phase.*

Response: For the Community Kitchen in the Neighborhood Center, further information and details will be provided as the design advances. Should an external grease trap be required, the sewer system will be designed to bring a separate kitchen waste line out of the building to this structure and on into the city sewer via a junction manhole.

Retail spaces in Building 1 will not be food-oriented.

STORMWATER

- *The Applicant is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Section 5 regulations for stormwater management. The applicant provided a comprehensive stormwater management analysis for the proposed project evaluating the areas defined as redevelopment. o Redevelopment Standard – The applicant has evaluated the project for the redevelopment standard and is providing for 70% treatment of the redeveloped area in compliance with MaineDEP Standards and 65% treatment of the redevelopment impervious area in compliance with City of Portland standards. o I'd like the Applicant to clarify the scope of work around the rehabilitation of the units and areas that have not been included as part of the stormwater management plan calculations. Per MaineDEP standards, if a redevelopment project includes 3.5 acres of "new structure" which includes buildings, pavement, etc., a Site Location of Development permit is required. This includes new buildings constructed where previous buildings were demolished – my understanding of the scope for most of these buildings is that they are not being demolished, and just renovated, but I want to clarify. The Applicant is proposing for drip strips along these buildings, which is an improvement, and if SLOD was required would be used towards any treatment requirements. The minor grading shown in the parking areas associated with repaving and resetting curb would be considered maintenance and not redevelopment.*

Response: The buildings outside the areas included in the stormwater management calculations will not be demolished, but will be re-furbished in a similar manner to the recent project at Washington Gardens. This work will include exterior envelope (roof, window and siding upgrades, and interior renovations.

- *The Applicant has noted that a NRPA permit by rule will be required for work in proximity to wetlands. A copy of the PBR should be provided for the record.*

Response: A copy of the PBR will be provided for the record when it is filed.

- *The Applicant has provided a discussion of proposed utility improvements. Confirmation of utility ability to serve should be provided.*

Response: Capacity letters have been re-sent to Portland Water District (Change of Use), and City of Portland Wastewater Division. Copies are attached for record. Responses will be provided when these are received. See Exhibit 22.

- *The Applicant has provided information on maintenance of stormwater systems proposed on the site. A final stormwater maintenance agreement will be required.*

Response: Agreed.

LANDSCAPING & ENVIRONMENTAL QUALITY

- *PER CHAPTER 4 OF THE TECHNICAL MANUAL, "the tree survey shall clearly indicate forest type and the location, size and species of all existing trees 10" diameter at breast height (DBH) or greater on the site and in the right-of-way, and all feature mature trees on the site and in the right-of-way. For sites with a high density of existing trees, the survey shall identify all existing shade and ornamental trees that may have been part of a prior landscape scheme for the site and the location, average size and species of groves of trees, and individual trees greater than 16" DBH. Without tree size information on the survey, the City cannot determine whether tree removals are being appropriately offset by new trees planted on site."*

- o The applicant shall survey existing trees within the development limit of work to identify caliper size of tree removals and preservation of significant trees to remain. The wooded area adjacent to the existing administrative building requires more detailed tree survey than what is currently provided.*

Response: The site is a very large and, in some cases, densely wooded site. To survey every tree 10" or greater is a costly and timely undertaking. The proposed project is not removing more trees than is necessary to accommodate any of the needed buildings/program. The project is also proposing to plant approximately 200 new trees so proposed tree removals seem to easily be offset by newly planted trees. If necessary, the applicant will request a waiver of this standard. We are happy to discuss this further at the workshop.

Individual trees slated to be removed have been field identified for species and approximate DBH size. Trees in densely wooded areas (at Neighborhood Center and Maintenance Garage) have been identified for species and trees 16" and greater have been quantified as agreed upon at the review call on 4/7/2023. Both tree removal and tree replacement schedules have been added to the Demolition Plans, see C2.1-C2.3.

- o The applicant shall provide reasoning for tree removals, see City reviewer comments on plan sheets C2.1 and 2.3. Several existing trees are indicated on submitted plans to be preserved, City staff observes potential conflict with proposed athletic field. The applicant shall provide clarification to existing pine tree removal on C2.1*

Response: If trees are shown for removal on the Demolition Plan it is due to at least one (or in many cases) two of the following: change in surrounding grade/earthwork, removal or installation of new utilities, change in surface material (box cutting), in poor health/condition, or too close to a building.

Both tree removal and tree replacement schedules have been added to the Demolition Plans, see C2.1-C2.3.

- o For some tree removals in naturalized edge areas away from structures, consider leaving a portion of trunk as habitat snag for tree species that are not known to have invasive disease or insect risks associated with them (eg: emerald ash borer, etc) .*

Response: This will be considered.

- *The applicant shall consider removal of existing White Ash tree on sheet C2.3 due to poor condition due to signs of Emerald ash borer insect.*

Response: The ash tree will be indicated for removal on the Demolition Plan.

- *The applicant shall provide removal of invasive plants along north property line (adjacent to the Shell gas station and a recently built parking lot) prior to new proposed plantings.*

Response: The invasive plants along the property line will be included in the Demolition Plan.

- *The applicant shall clarify open space program for green spaces shown on C1.0 Master Plan. Consideration for shade and sun exposure for any areas where community gardens are being proposed. Some locations identified for community gardens are likely to be shaded by adjacent buildings. City staff recommend where grades allow, consider connecting programmed outdoor spaces with pedestrian pathways, see notes on C1.0.*

Response: Importantly, the design of this project creates a large, open green space where there was previously none in between Building 1 and Circle 2. This will be flexible grassy space that can be used for a variety of recreational uses and activities.

PHA expects to construct community gardens adjacent to the Neighborhood Center in the area labeled “open space.”

For the rest of the site, the 1970’s layout of buildings in a suburban, cul-de-sac manner leaves lots of small “pockets” of open space. There are many other informal green spaces beyond what is indicated on the plans. An upside of this design is it creates lots of green spaces around family apartments for gathering spaces, active and passive recreation, connection to nature, and other activities. The project does not propose to materially change these spaces. Pathways will not be added to connect these areas beyond what is proposed. In collaboration with those tenants who will be living in each circle following renovation, PHA may site a small number of garden beds in those spaces labeled as “Open Space” given appropriate light/shade conditions, appropriate topography, appropriate distance from buildings and tenant “private” spaces like front and rear patios, and tenant interest, among other factors.

- *The applicant shall identify the nature and purpose of the path extension projecting west from Circle 4.*

Response: Portland Trails aims to develop a trail system in the Riverton neighborhood. Portland Trails has been developing relationships and partnerships throughout the community, particularly with recent immigrant families, to the trail system and the transportation options in their neighborhoods. Portland Trails and PHA have discussed a path from Circle 4 as a potential addition to Riverton’s trail network, creating a pedestrian connection from Riverton Park to Riverside Drive. PHA is aware that Riverton Park tenants occasionally cut through adjacent properties along Waldron Way.

~~The new City shelter on Riverside is a wildcard for this path. Before any final decision on the Circle 4 path to Riverside is made, the shelter’s impact (if any) on the neighborhood and Riverton Park must be assessed and studied thoroughly. It would not be acceptable to add a trail if it significantly affects the safety and security of Riverton Park families. PHA will communicate with City Planning staff if we and Portland Trails plan to proceed with the creation of this path in the future.~~

The path has been removed from the plans and project.

- *The applicant shall clarify the purpose of the 20’ driveway extending to the basketball court. City staff has maintenance concerns and suggest narrowing, if appropriate, to a pedestrian path width.*

Response: PHA agrees that a 20’ driveway is excessive and agrees to narrow this to a pedestrian width, which is more appropriate, inviting and reduces impervious surface amounts.

Neighborhood Center:

- *The applicant shall provide more naturalized transitional planting between established woodland and site development area; City staff suggests native trees with various species selection and heights.*

Response: The Landscape Plan will be revised to show transitional plantings.

- *The applicant shall identify existing tree species and caliper size that exceed 10" DBH within wooded area adjacent to proposed development area.*

Response: See previous comment regarding this in the first bullet of this section.

Existing trees (16" DBH and greater) in the densely wooded area behind the Neighborhood Center that will be removed have been quantified as agreed upon at the review call on 4/7/2023. Tree removal schedules have been added to the Demolition Plans, see C2.1-C2.3.

- *City staff recommend an increase of plant material in the area between the new neighborhood center, play area and slope retention in the steeply graded areas proposed.*

Response: The Landscape Plan will be revised to show additional plantings (combination of trees and shrubs) in this area. The majority of this area is graded at 2:1 or greater so tree establishment can be problematic.

Additional trees and shrub beds have been added to this area.

Building 1:

- *City staff recommend a new pathway connection (ie, bridge or other means of pedestrian connection) between the recreation field and the climbing area/structure.*

Response: No bridge will be provided. Grass walking surfaces are provided adjacent.

The bio-retention area has been divided into two cells to allow for a grass path through the area. The rock-climbing feature will be relocated and incorporated into the play area at the Neighborhood Center.

- *City staff recommend a new pathway from Building 1 parking area to the climbing play feature. The applicant shall provide a new pathway loop to connect existing apartment buildings to new recreation field, climbing area and Building 1 parking area.*

Response: The pedestrian access way / emergency fire lane and pathway are two easy ways to connect to the climbing feature and recreation field from Building 1. No path is needed, in our opinion. The rock-climbing feature will be relocated and incorporated into the play area at the Neighborhood Center.

Planting Schedule:

- *Platanus x acerifolia "Exclamation" is a great tree but is not well suited to a 5' wide parking median. Consider a tree with a less prominent trunk and root crown for that location. See notes on L1.0.*

Response: The trees in the parking median will be changed to another species with a mature size not as large.

- *Clumping forms of Betula nigra are very short lived due to their proclivity for splitting at the base. The City arborists and horticulturist advise swapping it for a standard form that will ultimately achieve an irregular and natural look and be longer-lasting.*

Response: Single stem trees will be used instead of the multi-stem.

• *Prunus sargentii* 'Pink Flair' is a relatively high maintenance tree requiring regular pruning to remove crossing branches and control its spreading/reaching habit. It is best located in open spaces and not against paths/driveways or buildings.

Response: A more upright and controlled cultivar of *Prunus sargentii* ('First Blush' or 'Columnaris') will be used instead.

• *Tilia americana* is a great tree but is prone to dripping honeydew and being covered in sooty mold. Consequently, it is a nuisance when planted near parking lots and should be located away from surfaces that must be cleaned.

Response: The Landscape Plan will be updated to only use this tree in open spaces away from parking lots and walkways.

General Landscape Plan comments (Sheets L1.0+L1.1)

Response: All comments, on the plans, regarding specific species alternatives have been taken into consideration; based on site constraints and personal experiences many of the species revisions will appear on the forthcoming submission.

Comments that came out of the Planning Board Workshop.

Fencing at play field.

Response: 4' height chain link fencing has been added to the ends of the field to contain and define while still allowing for permeability of users.

Access through/around bio-retention area.

Response: The bio-retention area has been broken into two cells to allow for a grass path between allowing for pedestrian connections to the adjacent observation slope.

Differentiation of materials at Building 1 plaza to discourage vehicles.

Response: The concrete paver surface of the plaza will be enlarged and extend to the right-of-way. This expansion of the pedestrian scale + pedestrian friendly paving material will clearly identify this area as a non-vehicular zone in-conjunction with two "Fire Lane" signs facing Riverton Drive. The area will also be under video surveillance with a license plate reader so offenders can be identified and dealt with properly.

Building 1 accent corner.

Response: The primary building entry design feature has been revised to enhance (widen) the vertical accent strip. See annotated A3.00 and updated Riverton Park Circle One Building and Neighborhood Center renderings

13. Public Transit Access

14.6 SITE PLAN REVIEW STANDARDS The reviewing authority shall not approve a site plan application unless the development proposal meets applicable standards of the City of Portland Technical Manual and the City of Portland Design Manual and the criteria below.

C. Public transit access

1. All residential development consisting of 20 or more dwelling units and all commercial and institutional developments of at least 20,000 square feet gross floor area shall provide a transit shelter adjacent to or within the public right-of-way along its frontage when the following criteria are met:

- a. The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map.
- b. The nearest existing transit shelter on the route is more than ¼ mile from the site, measured along rights-of-way.

Response: There are no Metro stops within Riverton Park. There are both in-bound and out-bound Metro stops located adjacent to the project entrance on Forest Ave. The in-bound stop, just east of Riverton Drive, will be a new shelter that was part of the adjacent gas station / retail development. There are no Metro stops within Riverton Park.

2. Transit facilities shall be connected to the public sidewalk system.

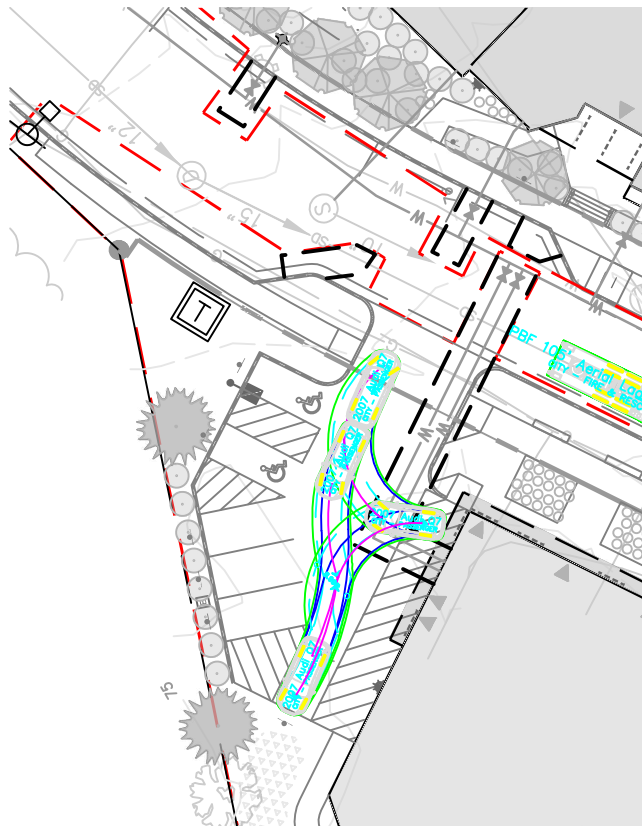
Response: Sidewalks within Riverton Park currently connect out to Forest Ave and the bus shelter. These connections will remain and be improved.

3. All or some of this standard may be waived if the review authority determines one or more of the following:

- a. That some or all of the required improvements cannot reasonably be made due to site constraints and/or insufficient right of way width.
- b. That the development is not anticipated to generate public transit usage due to particular characteristics of the development or proposed use.

Response: Not applicable.







March 22, 2023

Ms. Christine Grimando, Director of Planning & Urban Development
Mr. Sean King, Urban Designer
City of Portland Planning Department
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Staff Review Comments
Riverton Park Redevelopment and Rehabilitation
2 Riverton Drive, Portland ME 04103
PL-002319-2022 + CU-002325-2023**

Dear Christine and Sean,

On behalf of Applicant, Riverton Park, LP c/o Portland Housing Development Corporation (PHDC), and Owner, Portland Housing Authority (PHA), we are pleased to submit this response letter to the Staff Review Comments, dated 03/14/2023. Below are the comments taken from the Staff Review (*in italics*) along with responses from the applicant (**in bold**). This submission contains responses and additional exhibits. Updated plans will be forthcoming shortly after comments and decision are made at the Workshop on March 28, 2023.

Preamble: Creating a vibrant, safe, equitable and thriving community at Riverton Park – a challenged 1970's-era affordable family housing property – requires bold change. Developed far from downtown amenities and social services, this sprawling low-income family neighborhood has been underserved and isolated for decades. The backbone of the Riverton Park Redevelopment and Rehabilitation project is the addition of a new 59-unit multifamily Building 1 and Neighborhood Center for services, which add density and vibrancy towards Forest Avenue. This plan also proposes rehabilitating 123 existing townhomes. Overall, Riverton Park will have 182 homes, 165 of which will be affordable for households earning at or below 60% of Area Median Income, at a time when Portland desperately needs more affordable homes.

Our plan helps the Riverton Park community transition to a successful future by developing new spaces for social service and retail, enlarging the healthcare clinic, improving pedestrian infrastructure and creating new green open spaces. Unlike the existing suburban-style layout, the new Building 1 and Neighborhood Center will together help engender a new 'town center' from the inside out. This 'town center' will become the heart of Riverton Park with public mixed-uses – social activity, retail, community services, recreation, residential and health care – closest to its entrance. To achieve this ambitious long-term investment in Riverton Park, we thank the City Planning Board, Planning staff and involved City departments for their support for the vital redevelopment of this community.

SITE REVIEW

- *The applicant shall provide a construction management plan.*

Response: Provided as Exhibit #32 in the application. A final construction management plan will be submitted for review as part of the pre-construction process.

In general, the project will proceed on a circle-by-circle basis. The contractor will occupy an entire cul-de-sac while renovating or redeveloping it, then proceed to the next. The sequencing, schedule and duration have not been determined. Proceeding circle-by-circle will promote site management and controls, improve contractor efficiency, minimize traffic and parking impacts, and demarcate construction areas with fencing to separate it from residential uses, thereby improving safety for all.

- *The applicant shall submit ability to serve for utility service.*

Response: The site is existing and all utilities are already available. Capacity letters have been re-sent to Portland Water District (Change of Use), and City of Portland Wastewater Division. Applicant has commenced discussions with CMP about upgrading service for new construction. Responses will be provided upon receipt. See attached Exhibit 22 Public Utility Letters.

- *The applicant shall provide allocation of bedroom types specific to Building 1.*

Response: See attached breakdown of existing and proposed residential bedroom/unit mixes.

CURRENT UNIT MIX	Current Townhomes
0BR	0
1BR	0
2BR	21
3BR	68
4BR	26
5BR	20
6BR	6
TOTAL RESIDENTIAL UNITS	141
Resident Service Unit	9
TOTAL UNITS	150

PROPOSED UNIT MIX	Post-Rehab Townhomes	New Bldg 1	Total
0BR	0	8	8
1BR	0	13	13
2BR	20	16	36
3BR	47	22	69
4BR	30	0	30
5BR	20	0	20
6BR	6	0	6
TOTAL RESIDENTIAL UNITS	123	59	182
Resident Service Unit	2	0	2
TOTAL UNITS	125	59	184

- *City staff encourages the applicant to provide phasing plan for resident's relocation.*

Response: The project sequencing, schedule and duration have not been determined and therefore a final relocation schedule is not available at this time.

PHA meets with all households one-on-one before commencing construction, in addition to numerous resident meetings. PHA has a full-time Resident Transition Specialist (RTS) on staff that oversees all resident moves, coordinates with residents to address their relocation needs, and manages all relocation compliance, among many other coordination with affected residents. The RTS collaborates closely with the whole RP team, including the Property Manager, Contractor, Developer, Resident Services Coordinator, Maintenance, Portland Public Schools, Movers and other vendors and service organizations in an effort to minimize disruption to residents' lives. During the project, PHA will house as many existing families in on-site vacant units as possible. PHA expects some residents will need to relocate off-site while demolition and redevelopment of their apartments occur, either to another PHA property or by using a Tenant Protection Voucher to rent from another landlord. The RTS will assist families with locating and securing any off-site housing. All residents will have the right to occupy a home at Riverton Park following completion. PHA's Relocation Plan detailing PHA's relocation process and procedures was provided to Sean King on 2/9/22.

DESIGN REVIEW

• *Site renovations demarcates green areas on C1.0 Master Plan, applicant shall indicate the proposed open space program to meet design standards for recreation and open space for PRUDs in R-5a Residential zone.*

Response: Total square footage of indicated open space (26,736 SF) and square footage per dwelling unit (217 SF/DU) will be added to the Space and Bulk table on sheet C3.1 Site Plan. Open space program elements shall include: recreational field and play area with a potential rock-climbing area behind buildings 5+6, community garden area, play area and basketball court at Neighborhood Center, and numerous other unprogrammed open spaces with the other circles at the property.

Also see response regarding Open Space programming in the Landscaping and Environmental Quality Section of the Response Letter.

• *The front setback exceeds 10-feet at Riverton Drive and City staff finds the surface parking does not meet LUC 7.5.5.F to allow for a continuous attractive pedestrian edge treatment, specifically at north end of Building 1. Staff recommends shifting the northern wing of the building to align with the curvature of Riverton Drive, maintaining a consistent setback with the southern portions of the building, and removing the proposed surface parking fronting Riverton Drive.*

Response: The 10-foot building setback is appropriate for more urban sites where the B2 zone would typically be used. On this more suburban site, more shoulder room is appropriate. The current design aptly fits in an irregularly shaped parcel. Additionally, providing a 10' setback at this location would result in monolithic, curved wall plane void of variations, not conducive to the character of the more suburban neighborhood and local development character. Upon turning into Riverton Drive, the additional shoulder room helps create longer views to the Neighborhood Center – a major focal point. Building 1 was designed with regular 120° angles to improve construction efficiency and provide cost savings that are necessary for an affordable housing project with a very tight budget to remain financially feasible. See previously submitted Exhibit 5.1 Zoning Provisions for allowable provision and justification.

• *Applicant shall provide secondary entries for residents along Riverton Drive, or provide a response to indicate why residential unit entry or shared entries at the building corners is not achievable.*

Response: For a multi-tenant building, each public use (retail and office) has entry access off Riverton Drive. The health-care office use's entry is not as public due to anonymity concerns by the clinic operator to protect tenant's privacy and comfort in using the facility. The multi-story residential apartment use requires limited accessible access and security and has a prominent entry facing Riverton Drive. Secondary entrances and exits are provided around the building's first floor. Given the site's suburban character, curved street, irregular parcel layout and the varying uses (i.e. residential, retail, healthcare, Property Management offices) in Building 1, this is appropriate in our opinion.

• *Applicant to provide storefront window schedule or specification to observe .7 visible transmittance (VT).*

Response: The design will specify .7 visible transmittance (VT) at glazed retail storefront systems.

• *Staff recommends investigation of shifting Building 1 upper floors above retail towards Riverton Drive to create greater visibility to the street. Alternatively, the applicant shall consider rooftop residential amenity above Retail portion of the building.*

Response: Extending the residential use over the retail spaces is not feasible. The site offers extensive outdoor spaces for resident use. The applicant will consider a residential roof-top use or green roof above retail if feasible.

ZONING

- *The proposed development is split into two zones. Each zone has different dimensional requirements.*

Response: Space and Bulk zoning standards are indicated in tables on sheet C3.1 Site Plan.

- *Proposing to use section 18.2.4 for density bonuses, height and setback reductions in the B2 zone and subsection (B) for the R5A PRUD standards. Article 3 defines low-income units as: Low-income housing unit for rent. A dwelling unit for which: A. The rent is affordable to a household earning 80% or less of Area Median Income (AMI) as defined by the United States Department of Housing and Urban Development (HUD). B. The unit is rented to a household earning 80% or less of AMI.*

New Mixed-Use Building (B2):

- *There are 59 proposed dwelling units in the building. Will a minimum of 80% of the units be rented to a household earning 80% or less of the AMI? As proposed, Building 1 will create 59 residential units (the applicant has calculated the affordable units based on the net unit increase - 17 of 35 units). Currently at the proposed Building 1 site, 4 buildings with 28 residential units are proposed to be demolished. It is not clear if all 28 existing residential units are classified as affordable and if all these units are to be replaced within Building 1.*

Response: 48 of 59 units (81%) in Building 1 will serve households earning at or below 60% of AMI.

One correction to the question above: 24 units are proposed for demolition at Circle 1, not 28. All 24 of them are 3BR units and currently affordable. These 24 3BR units will be replaced with an equivalent number of new affordable 3BR units for households earning at or below 60% of AMI.

- *The maximum height in the B-2 is 45' but can go up to 70' under section 18.2.4 if 75 or more of the units in the building are low-income housing units. The proposed height is 52'7". This is well below the 70' allowed, but the average grade for the building should be provided and the height should be measured to the roof beam.*

Response: Based on finished floor elevations of the most extreme cases, the average grade is 79.375', this would result in an adjusted building of 52'-4". This will be illustrated on the building elevations in future building documentation. At least 75% of the units meet the low-income housing criteria.

- *The impervious ratio for the proposed redevelopment has been calculated to include Building 1, roadway, Neighborhood Center and associated site improvements, City staff is requesting the impervious ratio be divided by each zone (B2, R-5a).*

Response: Impervious surface calculations will be calculated separately for each zone. See attached impervious breakdown by zone in Exhibit 19.3.

R5A zone:

- *1. The proposed Neighborhood Center is located in the R5A part of the property. Since it is not a residential building does it need to meet the R5A setbacks including the 25' minimum setback for the front and rear yards? Right now, it is meeting the 10' front setback allowed under section 18.2.4(B) for PRUDS.*

Response: It is our understanding that the Neighborhood Center is allowed as a conditional use in the R5A PRUD. The reduced setbacks under a PRUD and per 18.2.4 (B)(3) Density and Dimensional Bonuses and Reduction, "where more than 50% of the units are low-income or workforce units for rent...3. Minimum building setbacks may be reduced to 10 feet." This applies to the entire portion of the project being considered as a PRUD.

Conditional use for Neighborhood Center:

• #6 Conditional Standards document needs to address the specific criteria in section 6.5.6(F) that apply to Neighborhood Center. Applicant shall submit additional documents to meet conditional standards.

Response: The specific criteria in 6.5.6(f) has been addressed and is attached in the updated Exhibit 6.2.

TRAFFIC CONSULTANT

• The proposed project is expected to add 59 new affordable and market rate apartments. Additionally, the project will include PHA Management offices, a new GPH Clinic, two small neighborhood retail stores and a Neighborhood Center. The applicant shall provide an estimate of traffic generation for the project and details on each of the new proposed program elements (from an existing/proposed traffic generation perspective). Because some of the units have several bedrooms, the trip generation estimate should consider this.

Response: Unit/bedroom/occupancy counts for all buildings on the property for use in the traffic generations calculations are provided below and in attached Exhibit 33 Occupant Loads.

For Building 1 – the total occupancy bases on IBC 2015 table 1004.1.2 factors is 395 people.

	Mercantile M	Business B	Parking S-2	Residential R-2	Totals
Area	1,583	5,096	3,739	63,525	73,943
Factor	60	100	-	200	360
occupancy	26	51	-	318	395 occupants

For Neighborhood Center

See Exhibit 33, Riverton Park Neighborhood Center Occupant Loads for occupant load calculations. Maximum occupant load will be 790 people bases on IBC 2015 table 1004.1.2 factors, but the Average occupancy will be 82 people based on projected program use.

For Residential Rehabilitation

See Exhibit 33, Riverton Park Rehabilitation Occupant Loads for occupant load calculations. The existing occupant load of the residential buildings is 1,182. Maximum occupant load of the rehabilitated residential buildings will be 837 people bases on IBC 2015 table 1004.1.2 factors. The reduction in occupant load is attributable to two factors: removal of four buildings, and conversion of seven units currently used for residential services back to residential use.

The spreadsheet over estimates the traffic generation using the number of *dwelling units* instead of the number of *bedrooms*. The dwelling unit method is backed up by more studies (6-10) while the bedroom method only has 2 studies and is missing the key PM peak hour of the (street) time period. Overall, the trips generated per bedroom will be higher. The “Net New Trips” produced by Building 1 will be similar, and the existing units that are being rehabbed will be shown to be generating more traffic. The “Net New Trips” are the trips generated by the proposed Building 1 minus the trips that the demolished Building was generating.

If the City wants the calculations done by bedroom, those can be provided, but it is in our opinion that the trips per dwelling unit method shown in the spreadsheet is more accurate.

See attached Exhibit 15.1 Trip Generation.

- *The 6-space parking area near the Neighborhood Center is constrained. Vehicle turning templates shall be provided.*

Response: Vehicle turning templates for this parking area are attached. See attached Exhibit 31.

- *Detectible warning panels shall be provided for all pedestrian crossings of a public street, including the raised crosswalks.*

Response: The detail and plans have been updated to show detectible warning panels at crossings of public streets.

- *I support a waiver from the technical manual for aisle width for the 5 PHA parking spaces where an aisle width of 22 feet is proposed. I would expect these spaces to be low turnover spaces. One of the spaces is for a service vehicle. The applicant should note the type of vehicle expected to park in that space.*

Response: Spaces labeled “PHA Staff” are for PHA staff’s personal vehicles. These will be low-turnover spaces. The space labeled “Service” could be occupied by a resident service provider, vendor/contractor, or a PHA Maintenance staff driving a PHA vehicle (light duty truck or van).

- *Given the low turnover nature of the vehicles parking, I support the request for a slightly higher percentage of compact parking spaces. The proposed spaces will meet standard parking stall length (18 feet) and be 8 feet wide.*

Response: No response needed.

DEPARTMENT OF PUBLIC WORKS - TRANSPORTATION

- *DPW-Observe condition of existing roadway, possible recommendation to overlay roadway the entire public portion.*

Response: PHA has been requesting an update from the City of Portland on the schedule for rehabilitation of Riverton Drive and Springbrook Way for several years. It was initially stated that this work was on the City of Portland pavement rehabilitation schedule. However, no further information has been forthcoming. PHA would welcome any effort by the City to bring forward the overdue maintenance of these public streets, which are in very poor condition.

- *Traffic-Project may warrant new sidewalk along north side of Riverton Drive to connect Neighborhood Center to Forest Avenue. Consideration for periodic crosswalks throughout PRUD.*

Response: It appears from the survey plans that there is insufficient right-of-way to construct a connecting sidewalk on the north side of Riverton Drive to Forest Avenue. In addition, one or more utility poles would need to be re-located to facilitate this work. Riverton Park has no frontage along the north side of this section of Riverton Drive. Further discussion of this item should be deferred until the City of Portland can obtain additional land and/or the required easements to allow this connection to be constructed.

- *Traffic-Applicant to clarify program for the project related to publicly-accessed uses for retail, office, clinic, and community center.*

Response: Neighborhood Center use will be primarily for Riverton Park residents, with a particular focus on housing after-school and youth development programs for the 300+ youth of Riverton Park. Usage and reservations by the Riverton community and public will be considered on a case-by-case basis.

In Building 1, PHA management office, Greater Portland Health clinic and retail spaces will be publicly available and accessible.

• *The applicant shall revise the proposed concrete curb detail. Also show how the adjacent pavement will be repaired. See detail below:*

Response: The applicant had requested a change from the city standard curbing from granite to concrete slipform curbing in order to keep the costs of replacement curbing within reason (the applicant is proposing to replace the curbing on the city owned streets in the project area at the cost of the project). The detail proposed for the slipform curbing is the same as that which was accepted by the city on the recent Washington Gardens project (Pembroke and Churchill Streets are city owned streets where the curb and sidewalk was upgraded by PHA to present a serviceable condition through the property). It is unclear from the detail provided, but this appears to be an 18" precast concrete curb, with a 6" reveal. This would offer little or no cost benefit over granite and would limit the available resources for installation. The applicant requests the replacement curbing remain as proposed and as previously approved by DPW at Washington Gardens.

The curbing detail has been revised to show a sawcut line 2ft out into the street, with new pavement in this area to provide a base for the proposed curbing. This is shown on the site plan as a pavement rehabilitation line. The existing pavement will be milled one foot out from the sawcut line to provide a smooth transition between the existing and new work.

• *Based on the current condition of the roadway pavement, once it is cut for the curb and utility installation the surrounding pavement may fail. How does the applicant plan to repair the adjacent pavement?*

Response: See response to previous comment.

• *What is planned for additional lighting around the proposed improvement? Is the existing system sufficient?*

Response: See previously submitted sheet L3.0 Photometric Master Plan and Exhibits 26+26.1.

• *Utility plan shows a new water main but does not show the trench repair. The proposed trenches shall be repaired per the Minor Excavation Pavement Repair Details (prior to paving the finished surface) found in the [Rules and Regulations for Excavation Activity](#). Update the plans to show these repairs.*

Response: The utility plan shows replacement of the water main as an alternate to the base bid contract for the project. The pavement repair lines around the new water main are not shown on the plan sheets for clarity (these would overlap several other lines currently showing on the drawing). However, a pavement repair detail is included with the water main trench detail on Sheet C7.6 of the plan set. This shows the trench dimensions and repair section.

• *The minimum radius for a City curb extension is 20 feet. Revise the plans sheets to reflect this requirement.*

Response: The plans will be revised to meet the standard.

• *DPW is supportive of raised crosswalk construction detail.*

Response: No response required.

• *The City's Technical Manual has been recently updated and approved. After reviewing the proposed details for this project it is clear that not all the changes are reflected in the plans and proposed details. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update or add a note to each of the proposed details that states the City standard detail (figure # and name) shall be followed.*

Response: We have updated our detail sheets to reference the City's new Technical Manual details where applicable and provided these for further review.

DEPARTMENT OF PUBLIC WORKS – WATER RESOURCES

• *All work within public right of ways shall be completed in accordance with City of Portland Technical standards. The applicant should include COP technical manual details in the plan set.*

Response: The updated detail sheets reference the City of Portland Technical Manual details. These are provided for further review.

• *100' stream setbacks are required for perennial streams as stated in section 8 of the City's technical manual. These setbacks shall be shown on each grading and drainage plan sheet. A waiver from Tech Manual section 8.2.1 will be required for activities located within the 100' stream buffer zone.*

Response: The 100ft stream setbacks are shown on the revised grading and drainage plan sheets.

• *A double row of erosion and sediment control barriers should be utilized for construction disturbances adjacent to wetland and stream buffers.*

Response: The plans have been updated to show a double row of silt fence adjacent to natural resources.

• *Stream and wetland setbacks shall be shown on grading and drainage plan C4.1 and C4.3 for further review.*

Response: Wetland and stream setbacks are shown on the updated grading and drainage sheets.

• *Private Building sewer laterals less than 8" in diameter shall be connected to the main sanitary sewer line by the use of wyes, tee/gyes, Inserta-Tees or similar approved methods as determined by the Department of Public Works per technical manual section 2.6.7 and as depicted on tech manual details II-16, II-17.*

Response: The sewer services for the new building have been upgraded to 8" diameter and are proposed to connect at existing sewer manholes.

• *It is acknowledged that the applicant has been in discussions with DPW water resources regarding an upcoming rehabilitation of the City pump-station which services this neighborhood. The applicant will still be required to submit a wastewater capacity application to DPW water resources engineering for review and authorization.*

Response: A capacity request letter has been sent to DPW Engineering for review and a copy is attached as Exhibit 22.

• *The applicant shall complete a condition assessment of the existing sewer manholes proposed to be modified to ensure structural condition is adequate to accommodate the proposed connections.*

Response: The applicant's engineer will inspect and report on the structural condition of the existing manholes and amend the drawings and details as necessary based on this information.

• *Inverts of the existing City sewers and storm drains shall be added to the plans in order for DPW to review all impacts of the proposed work.*

Response: The existing rims and inverts of the sewer manholes and storm drain structures are shown on the survey plans included with this submission.

• *The applicant is proposing to install a bio-retention cell over the City's 18" Riverton Dr storm drain outfall line located to just northerly of the existing basketball court. DPW finds this problematic from a long term O&M perspective. The outfall line shall be relocated away from this disturbance and the applicant shall grant the City a 30' wide drainage easement for this line.*

Response: The installation of the bioretention cell does not significantly alter the grades in the area of the existing storm drain and does not restrict the ability of the city to access this area to repair and/or replace the storm drain. In the current condition this is a lawn area, with adjacent pine trees that transitions to a steep grass bank and woodland. Under the proposed condition, the existing trees will be cleared, provided better access to the pipe than currently exists. However, should the city wish to replace this pipe, based on their condition survey and/or re-locate it to a preferred location, the applicant would be willing to discuss this, provided that the new location does not conflict with any proposed future uses of their property.

- *The City is in the process of assessing the conditions of this storm drain outfall line and outlet area. The City may request upgrades to this infrastructure as part of this project based on the results of the condition assessments.*

Response: The applicant would be willing to allow the city access to repair or replace this pipe as part of an easement agreement, as discussed in the comments below.

- *The applicant shall submit further design information and details for the proposed stormwater rip-rap outfall protection for several proposed stormwater outfalls discharging stormwater in the direction of the stream cutting through the site. The outlet protection shall be designed in accordance with the Maine DEP ESC BMP design manual.*

https://www.maine.gov/dep/land/erosion/escbmps/esc_bmp_engineers.pdf

Response: The riprap apron detail on Sheet C-7.2 has been updated to add intermediate storm drain pipe sizes (8" and 10"), and updated to reflect the specifications in Maine Erosion And Sediment Control BMPs, Manual for Designers and Engineers – 10/2016, Pipe Outlet Protection. It should be noted that this manual call for riprap stone with a D50 of 5" for the 12" pipe apron. This is a highly unusual gradation and may not be commonly available (4" and 6" are standard riprap sizes).

- *DPW is requesting that the following easements be granted by the applicant to the City of Portland for the following City owned infrastructure:*

- o Existing City Sewage Pump Station at the corner of Springbrook Way and Riverton Drive.*
- o Inlet and outlet areas of recently replaced twin 60" stream culverts crossing Springbrook Way near Riverton Drive.*
- o Inlet and outlet of recently replaced 36" culvert crossing Riverton Drive near Springbrook Way.*
- o 30' wide easements for all existing City of Portland storm drain outfall lines running across PHA property towards the stream.*

- *See attachments to this comment letter for further clarification on the requested easements.*

- o **Proposed Pump Station Easement***

- o The City will provide an easement figure, deed description and language for the proposed pump station easement for PHA review.*

- o **Proposed Culvert Easements***

- o The City will provide an easement figure (and CAD file) and a template easement document for the Springbrook Way and Riverton Dr culverts areas. The applicant will be required to write a deed description and provide easement language utilizing the City's easement template for City review.*

o Existing Storm Drain outfall easements

- o The applicant will be required to draft an easement figure, write an legal easement deed description and provide easement language for these easement areas for City review and approval.*

Response: The applicant is willing to discuss the provision of these easements with the city. However, since it is the city that is requesting the easements and requiring that they be prepared in accordance with the City's easement template documents, it would be far more efficient and practical for the city (grantee) to prepare the easement documents for review by PHA (grantor) in each case. This is the normal procedure when a party requests an easement over land owned by another party.

• Additional information is needed regarding the proposed community kitchen to determine what grease control equipment will be required. External buried equipment may be needed for the kitchen and/or retail spaces (if food oriented) which requires a junction manhole where the discharge connects to the sanitary sewer. Grease control requirements and technical specification compliance can be assessed during the building permit phase.

Response: For the Community Kitchen in the Neighborhood Center, further information and details will be provided as the design advances. Should an external grease trap be required, the sewer system will be designed to bring a separate kitchen waste line out of the building to this structure and on into the city sewer via a junction manhole.

Retail spaces in Building 1 will not be food-oriented.

STORMWATER

• The Applicant is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Section 5 regulations for stormwater management. The applicant provided a comprehensive stormwater management analysis for the proposed project evaluating the areas defined as redevelopment. o Redevelopment Standard – The applicant has evaluated the project for the redevelopment standard and is providing for 70% treatment of the redeveloped area in compliance with MaineDEP Standards and 65% treatment of the redevelopment impervious area in compliance with City of Portland standards. o I'd like the Applicant to clarify the scope of work around the rehabilitation of the units and areas that have not been included as part of the stormwater management plan calculations. Per MaineDEP standards, if a redevelopment project includes 3.5 acres of "new structure" which includes buildings, pavement, etc., a Site Location of Development permit is required. This includes new buildings constructed where previous buildings were demolished – my understanding of the scope for most of these buildings is that they are not being demolished, and just renovated, but I want to clarify. The Applicant is proposing for drip strips along these buildings, which is an improvement, and if SLOD was required would be used towards any treatment requirements. The minor grading shown in the parking areas associated with repaving and resetting curb would be considered maintenance and not redevelopment.

Response: The buildings outside the areas included in the stormwater management calculations will not be demolished, but will be re-furbished in a similar manner to the recent project at Washington Gardens. This work will include exterior envelope (roof, window and siding upgrades, and interior renovations.

• The Applicant has noted that a NRPA permit by rule will be required for work in proximity to wetlands. A copy of the PBR should be provided for the record.

Response: A copy of the PBR will be provided for the record when it is filed.

- *The Applicant has provided a discussion of proposed utility improvements. Confirmation of utility ability to serve should be provided.*

Response: Capacity letters have been re-sent to Portland Water District (Change of Use), and City of Portland Wastewater Division. Copies are attached for record. Responses will be provided when these are received. See Exhibit 22.

- *The Applicant has provided information on maintenance of stormwater systems proposed on the site. A final stormwater maintenance agreement will be required.*

Response: Agreed.

LANDSCAPING & ENVIRONMENTAL QUALITY

- *PER CHAPTER 4 OF THE TECHNICAL MANUAL, "the tree survey shall clearly indicate forest type and the location, size and species of all existing trees 10" diameter at breast height (DBH) or greater on the site and in the right-of-way, and all feature mature trees on the site and in the right-of-way. For sites with a high density of existing trees, the survey shall identify all existing shade and ornamental trees that may have been part of a prior landscape scheme for the site and the location, average size and species of groves of trees, and individual trees greater than 16" DBH. Without tree size information on the survey, the City cannot determine whether tree removals are being appropriately offset by new trees planted on site."*

- o The applicant shall survey existing trees within the development limit of work to identify caliper size of tree removals and preservation of significant trees to remain. The wooded area adjacent to the existing administrative building requires more detailed tree survey than what is currently provided.*

Response: The site is a very large and, in some cases, densely wooded site. To survey every tree 10" or greater is a costly and timely undertaking. The proposed project is not removing more trees than is necessary to accommodate any of the needed buildings/program. The project is also proposing to plant in excess of 200 new trees so proposed tree removals seem to easily be offset by newly planted trees. If necessary, the applicant will request a waiver of this standard. We are happy to discuss this further at the workshop.

- o The applicant shall provide reasoning for tree removals, see City reviewer comments on plan sheets C2.1 and 2.3. Several existing trees are indicated on submitted plans to be preserved, City staff observes potential conflict with proposed athletic field. The applicant shall provide clarification to existing pine tree removal on C2.1*

Response: If trees are shown for removal on the Demolition Plan it is due to at least one (or in many cases) two of the following: change in surrounding grade/earthwork, removal/installation of new utilities, change in surface material, in poor health/condition, or too close to a building.

- o For some tree removals in naturalized edge areas away from structures, consider leaving a portion of trunk as habitat snag for tree species that are not known to have invasive disease or insect risks associated with them (eg: emerald ash borer, etc) .*

Response: This will be considered.

- *The applicant shall consider removal of existing White Ash tree on sheet C2.3 due to poor condition due to signs of Emerald ash borer insect.*

Response: The ash tree will be indicated for removal on the Demolition Plan.

- *The applicant shall provide removal of invasive plants along north property line (adjacent to the Shell gas station and a recently built parking lot) prior to new proposed plantings.*

Response: The invasive plants along the property line will be included in the Demolition Plan.

- *The applicant shall clarify open space program for green spaces shown on C1.0 Master Plan. Consideration for shade and sun exposure for any areas where community gardens are being proposed. Some locations identified for community gardens are likely to be shaded by adjacent buildings. City staff recommend where grades allow, consider connecting programmed outdoor spaces with pedestrian pathways, see notes on C1.0.*

Response: Importantly, the design of this project creates a large, open green space where there was previously none in between Building 1 and Circle 2. This will be flexible grassy space that can be used for a variety of recreational uses and activities.

PHA expects to construct community gardens adjacent to the Neighborhood Center in the area labeled “open space.”

For the rest of the site, the 1970’s layout of buildings in a suburban, cul-de-sac manner leaves lots of small “pockets” of open space. There are many other informal green spaces beyond what is indicated on the plans. An upside of this design is it creates lots of green spaces around family apartments for gathering spaces, active and passive recreation, connection to nature, and other activities. The project does not propose to materially change these spaces. Pathways will not be added to connect these areas beyond what is proposed. In collaboration with those tenants who will be living in each circle following renovation, PHA may site a small number of garden beds in those spaces labeled as “Open Space” given appropriate light/shade conditions, appropriate topography, appropriate distance from buildings and tenant “private” spaces like front and rear patios, and tenant interest, among other factors.

- *The applicant shall identify the nature and purpose of the path extension projecting west from Circle 4.*

Response: Portland Trails aims to develop a trail system in the Riverton neighborhood. Portland Trails has been developing relationships and partnerships throughout the community, particularly with recent immigrant families, to the trail system and the transportation options in their neighborhoods. Portland Trails and PHA have discussed a path from Circle 4 as a potential addition to Riverton’s trail network, creating a pedestrian connection from Riverton Park to Riverside Drive. PHA is aware that Riverton Park tenants occasionally cut through adjacent properties along Waldron Way.

The new City shelter on Riverside is a wildcard for this path. Before any final decision on the Circle 4 path to Riverside is made, the shelter’s impact (if any) on the neighborhood and Riverton Park must be assessed and studied thoroughly. It would not be acceptable to add a trail if it significantly affects the safety and security of Riverton Park families. PHA will communicate with City Planning staff if we and Portland Trails plan to proceed with the creation of this path in the future.

- *The applicant shall clarify the purpose of the 20’ driveway extending to the basketball court. City staff has maintenance concerns and suggest narrowing, if appropriate, to a pedestrian path width.*

Response: PHA agrees that a 20’ driveway is excessive and agrees to narrow this to a pedestrian width, which is more appropriate, inviting and reduces impervious surface amounts.

Neighborhood Center:

- *The applicant shall provide more naturalized transitional planting between established woodland and site development area; City staff suggests native trees with various species selection and heights.*

Response: The Landscape Plan will be revised to show some transitional plantings.

- *The applicant shall identify existing tree species and caliper size that exceed 10" DBH within wooded area adjacent to proposed development area.*

Response: See previous comment regarding this in the first bullet of this section.

- *City staff recommend an increase of plant material in the area between the new neighborhood center, play area and slope retention in the steeply graded areas proposed.*

Response: The Landscape Plan will be revised to show additional plantings (combination of trees and shrubs) in this area. The majority of this area is graded at 2:1 or greater so tree establishment can be problematic.

Building 1:

- *City staff recommend a new pathway connection (ie, bridge or other means of pedestrian connection) between the recreation field and the climbing area/structure.*

Response: No bridge will be provided. Grass walking surfaces are provided adjacent.

- *City staff recommend a new pathway from Building 1 parking area to the climbing play feature. The applicant shall provide a new pathway loop to connect existing apartment buildings to new recreation field, climbing area and Building 1 parking area.*

Response: The pedestrian access way / emergency fire lane and pathway are two easy ways to connect to the climbing feature and recreation field from Building 1. No path is needed, in our opinion.

Planting Schedule:

- *Platanus x acerifolia "Exclamation" is a great tree but is not well suited to a 5' wide parking median. Consider a tree with a less prominent trunk and root crown for that location. See notes on L1.0.*

Response: The trees in the parking median will be changed to another species with a mature size not as large.

- *Clumping forms of Betula nigra are very short lived due to their proclivity for splitting at the base. The City arborists and horticulturist advise swapping it for a standard form that will ultimately achieve an irregular and natural look and be longer-lasting.*

Response: Single stem trees will be used instead of the multi-stem.

- *Prunus sargentii 'Pink Flair' is a relatively high maintenance tree requiring regular pruning to remove crossing branches and control its spreading/reaching habit. It is best located in open spaces and not against paths/driveways or buildings.*

Response: A more upright and controlled cultivar of Prunus sargentii ('First Blush' or 'Columnaris') will be used instead.

- *Tilia americana is a great tree but is prone to dripping honeydew and being covered in sooty mold. Consequently, it is a nuisance when planted near parking lots and should be located away from surfaces that must be cleaned.*

Response: The Landscape Plan will be updated to only use this tree in open spaces away from parking lots and walkways.

General Landscape Plan comments (Sheets L1.0+L1.1)

All comments, on the plans, regarding specific species alternatives have been taken into consideration and based on site constraints and personal experiences some of the species revisions will appear on the forthcoming submission.

14. Off-Street Parking

14.6 SITE PLAN REVIEW STANDARDS The reviewing authority shall not approve a site plan application unless the development proposal meets applicable standards of the City of Portland Technical Manual and the City of Portland Design Manual and the criteria below.

D. Off-street parking

1. Vehicular parking

- a. All developments shall provide off-street parking in accordance with the parking requirements of this Land Use Code.

Response: All off-street parking spaces meet City standards in terms of size, type, location, orientation and quantity. Within the Land Use Code, Table 19-B provides for a categorical exception to off-street parking minimums (no-off street parking is required within 1/4 mile of fixed route transit service) which this project qualifies for with the Metro bus stops on Forest Ave.

- b. Where a parking study is required, the City encourages Transportation Demand Management (TDM) strategies to be employed.

Response: No parking study is required; however, a TDM report has been prepared. See Exhibit 15.

- c. Developments proposing to exceed minimum parking requirements by 10% or more must demonstrate through a parking study that the amount of parking is appropriate for the proposed use of the site.

Response: Not applicable.

- d. Parking spaces and aisles shall meet applicable dimensional standards as detailed in the transportation systems and street design standards of the Technical Manual.

Response: Parking stalls, access aisles and driveway width all meet the City standard, or a waiver is requested.

2. Bicycle parking

- a. All development shall provide secure bicycle parking in accordance with the parking requirements of this Land Use Code and the transportation systems and street design standards of the Technical Manual.

Response: No increase in dwelling units will occur at Circles 2-6; however, parking for a minimum of 8 bikes will be provided at each Circle through open-air bike parking. At each circle a bike repair station is being proposed adjacent to the open-air bike parking.

Bike parking at the Neighborhood Center is provided for 12 bikes. Bike parking at Building 1 is provided for 20 bikes and a bike repair station will provided.

- b. Waiver: The review authority may reduce the required number of bicycle parking spaces if it is determined, based on evidence submitted by the applicant, that the proposed development is expected to generate reduced demand for bicycle parking due to particular site characteristics or proposed uses.

Response: Not applicable. Proposed bike parking exceeds required net total standards.

3. Snow storage

- a. All developments shall include areas for snow storage or provide an acceptable snow removal plan.

Response: For Circles 2-6 snow storage is located along the edges of all parking areas, in end islands and/or center islands.

Snow storage for the Neighborhood Center, Circle 1 Building and the maintenance garage is located along the edges of parking areas and in end islands. These areas are admittedly tighter on storage spaces and the owner understands that there are times when snow storage will exceed capacity and it will need to be removed and hauled off-site.

- b. Snow storage areas may not encroach on areas designed to meet minimum parking requirements or on pedestrian walkways and shall not be located where they would adversely impact the functionality of stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile.

Response: Snow storage is separate from these areas and/or landscapes have been designed with selected vegetation to handle the snow load.

4. Electric Vehicle (EV) charging

- a. All development shall adhere to applicable EV standards as provided in Section 1 of the Technical Manual.

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

Response: Electric vehicle (EV) charging stations are being proposed as following:

Building 1:

Within parking lot – 7 EV Dual-Plug Charging Stations to serve 14 vehicles

Neighborhood Center:

Within parking lot – 1 EV Dual-Plug Charging Stations to serve 2 vehicles

Maintenance Garage:

Within parking lot – 1 EV Dual-Plug Charging Stations to serve 2 vehicles

Circles 2-6 (Rehab only):

Not required for rehab.

Construction Management Plan

Project:	Riverton Park Redevelopment & Renovation
Address:	2 Riverton Drive, Portland, Maine 04103
Applicant / Developer:	Portland Housing Development Corporation
General Contractor:	Zachau Construction
Architect:	CWS Architects
Civil Engineer:	Atlantic Resources Consultants

The Riverton Park Construction Management Plans shall depict the overall planning, coordination, and control of a construction site, including phases as applicable, from beginning to completion. The City's goal for a construction management plan is to support a safe construction site and protect the public safety, accessibility (including preserving accessible pedestrian, bicycle, and vehicular modes of transport throughout the city), and welfare during construction. In addition, the construction management plan shall minimize construction impacts in their duration and magnitude to the surrounding area and develop an effective communication process for resolving concerns and conflicts.

The Construction Management Plan will be submitted as part of the Site Plan Review and it shall address the construction logistics for a project. The Construction Management Plan shall include the following submissions: 1) a construction management site plan; 2) a construction schedule (time frame); and 3) a written narrative addressing the categories below.

A. Construction Management Principles

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

PHDC and Zachau Construction shall submit a Construction Management Plan at or prior to the preconstruction meeting by the GC. It will provide a comprehensive logistics and safety program for the construction project, which will be reviewed and approved as part of the site plan review process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan or require a condition of approval that states an applicant shall coordinate a project's construction schedule with the timing of nearby construction activity, in order to avoid cumulative impacts on a neighborhood. Such a condition may involve a delay in commencement of construction, if necessary.

The following details define the intended approach to the successful management of the project construction and the construction management plan will address the general conditions contained below.

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

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

Other permits, as applicable, include

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

PHDC and Zachau Construction will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager will work closely with adjacent abutters, businesses, nearby construction sites, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. The final construction management plan shall provide for the following:

1. Contact Person and contact information for the PHDC and Zachau Construction and who is available 24 hours
2. Construction Signage posted on the site with Contact Information for Contractor
3. Describe any additional communication strategies
4. All construction site signage is temporary and shall be removed at project completion.

E. Construction Schedule

1. The contractor shall submit a schedule or timeline for the construction project, including any Phasing.
2. Hours of Construction. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit (Attachment 1) and Section 25-129. Noise, dust and debris (Attachment 2).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
4. Material Deliveries: Schedule and designated location for delivery of materials and boxed goods.

F. Security & Public Safety

1. The Construction Management Plan will depict all proposed fencing or other barriers and access gates (with knox locking devices) with the intent of separating pedestrian and vehicle circulation from the construction site.
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. An overall construction of 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. Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction activity including delivery vehicles close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
2. Sewer and Stormwater: Sewer and stormwater water 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. Projects are required to submit a satisfactory 'maintenance of traffic' (MOT) plan prior to any site plan, subdivision, or street opening permit approval. MOT plans may be required for projects that have impacts on local streets.

Maintenance of Traffic (MOT) plans shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, applicants may be allowed to close a street and/or detour a mode of traffic when absolutely necessary for safety. MOT plans shall

employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic
- Traffic Control signs shall not be placed where they are an obstruction to bicycles or pedestrians.
- In some situations, flaggers may be required.
- Police details may be required at lighted intersections and may be requested by the City's transportation engineer or his designee.

All existing modes of travel in work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. 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 of bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Regular trash and debris removal
2. Street cleaning and damage controls
3. Dust controls- The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).
4. Noise: The construction shall comply with Portland's requirements under Section 17- 18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris Attachment 2).
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
 - 1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
 - 2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or sight lines with the piles of snow.

- 3) Clear all walks & ramps with the work zone
- 4) Sand or Salt as needed
- 5) Clear all basin or drainage to help snow melt
- 6) This would include Monday-Friday Sat/Sunday/Holidays

I. Erosion Control and Preservation of Trees

1. Zachau Construction shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan prior to the pre-construction meeting for inspection by the City. The contractor shall regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection or the U.S. Environmental Protection Agency upon request.
2. Zachau Construction shall maintain all tree and landscaping preservation measures as depicted on the landscaping plan (Exhibit) within the area of construction.
3. The storage of materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Construction Management Plan shall depict location of the material staging areas, the location on onsite temporary construction trailers, the location on onsite truck delivery holding areas, the location onsite truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. An open storage area shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The delivery holding area shall be shown on the plan and shall not be blocked during construction. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of the trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queueing on public streets.
3. Delivery Truck Holding Areas Off-Site: In the event that adequate on-site area for holding of trucks is not available, an off-site marshalling area will be utilized for trucking. The designated off-site location will be identified in the construction management plan.

K. Parking During Construction

1. Construction Parking: Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided. The parking arrangements shall be included in the construction management plan.
2. Parking: Where existing facilities are remaining in operation during construction, the construction management plan shall identify how the parking for employees and others shall be managed.
3. Truck Routes and Volumes: The Construction Management Plan shall address the designated truck routes and expected truck volumes.

L. Dewatering Plans

A basic dewatering plan for any construction work is required. 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.

For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared 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 approved 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

For construction work that will take place over a long period (e.g. 12 months or more), involve major demolition / deep excavation/ piling and/or special construction techniques, or are located near sensitive uses (e.g. medical care facilities, schools), the Construction Management Plan should provide details and demonstrate that all appropriate special measures have been taken to avoid, minimize, or possibly compensate for potential impacts. This may include taking baseline measurements before construction, such as arranging to photograph the foundations of nearby properties upon consent of the owners, in order to assess any future impacts of vibration, noise, etc.

NOTICE FROM CITY OF PORTLAND PLANNING DIVISION

Att. E

IN THE VICINITY OF 2 RIVERTON DR

To residents and property owners: Riverton Park, LP, Portland Housing Development Corporation (PHDC) and Portland Housing Authority, co-applicants, have submitted a Major Site Plan and Conditional Use application to redevelop and rehabilitate the Riverton Park housing development located at 2 Riverton Drive. The project will involve the demolition of four existing buildings with 24 residential units, rehabilitation of 21 residential building with 123 two-story residential townhomes, and development of a new four-story mixed-use building with ground-level offices, health clinic and two retail bays along with 59 residential units. The project will further involve demolition of the existing administration building, and the construction of a new Neighborhood Center and Maintenance Building. Other site improvements include enhancements to site utility infrastructure, replacement of curbing, sidewalks and pathways, repaving of parking areas, development of new open space areas, replacement of recreational facilities, and improvements to site lighting. The subject property totals 17.72 acres and is located in the B-2 Community Business and R-5A Residential zones.

In accordance with the Portland Land Use Ordinance, notices of receipt of a Major Site Plan application must be sent to property owners within 500 ft. of the subject property (or 1,000 ft. if the project is a subdivision or map amendment for a site located within an Industrial Zone). You will be notified of future Planning Board meetings by receiving notices from the Planning Division prior to any workshops or public hearings.

A project and plan summary is available for viewing on the Citizen Self Service Portal (<https://css.portlandmaine.gov/>), by referencing Plan Number PL-002319-2022. Written comments should be submitted to planningboard@portlandmaine.gov. If you have any questions regarding the proposal, please contact Sean King, Urban Designer, by phone at 207-874-8901 or e-mail at sking@portlandmaine.gov.

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Riverton Park Redevelopment

Transportation Demand Management Plan



Att. EE

November 7, 2022

Cushman Transportation Consulting, LLC (CTC) provides this Transportation Demand Management (TDM) Plan for the Portland Housing Authority (PHA) and Portland Housing Development Corporation's (PHDC) redevelopment and renovation of the Riverton Park mixed-use site. CTC specializes in TDM and transportation equity efforts locally and the firm's work is also informed by TDM and mobility justice research and programs across North America.

TDM Plan Summary

The Riverton Park TDM Plan centers the transportation needs and barriers of residents working multiple jobs and varied shifts and carrying significant family caregiving responsibilities – as well as juggling other challenges, such as fewer financial resources, limited English proficiency, physical disabilities, and managing large households, among others. The plan also names the specific difficulties presented by the site's more suburban location and the funding and capacity limitations of PHA, a public affordable housing agency. Nevertheless, the plan works to encourage as many multimodal trips to and from the site as possible, reduce parking demand, and benefit the local transportation system. This includes offering significant on-site amenities; providing leases exclusive of parking for market rate units; and supporting transportation alternatives such as walking, bicycling and using public transportation. It also entails monitoring and reporting on individual TDM trend indicators, *see examples at right*.

Site Overview

Riverton Park is located on a 17.72-acre parcel at 2 Riverton Drive, off of outer Forest Avenue. This mixed-use project is a key further infill opportunity to produce more affordable housing in the City of Portland for people who are employed locally, have children, are disabled, and/or are retired. The project includes the rehabilitation of 123 existing residential units, motor vehicle and bicycle parking areas. In addition, it involves the construction of a new Neighborhood Center, four-story multi-use building with 59 new residences (Building 1), and a separate maintenance building. As currently proposed, over 90% of the dwelling units will be for affordable housing, with the remainder being market-rate. PHA will continue to manage the property long-term.

- **Residential housing:** a total of approximately 180,000 square feet and 182 dwelling units:
 - 123 renovated units in 21 two-story townhouse buildings and 59 new units in a four-story multi-use building
 - 141 units for people with a total household income not exceeding 50% of Area Median Income (AMI) and 24 units dedicated to those with up to 60% of AMI. Seventeen (17) market rate units.
- **Community spaces:** Approximately 18,000 total square feet: Neighborhood Center, Greater Portland Health Clinic, Head Start pre-school, Boys & Girls Club, community policing center, small retail
- **Maintenance Building** – Small building with garage and workshop for repairs and storage
- **Parking:** 231 off-street surface parking spaces, as currently proposed

COVID-19 Note Regarding TDM Efforts: Site occupancy is forecast for 2025 or 2026 and, while COVID-19 variants continue to be disruptive, we have learned much in the past two and half years regarding managing the virus' impact on daily life. Transportation alternatives that were deemed less viable during the early wave of the pandemic – such as transit and carpooling – are anticipated to continue to make significant recoveries in the next year or so, with marketing and other efforts. COVID-related parking demand increases due to driving alone are also expected to decline. In addition, TDM efforts will likely be supported by long-term cultural changes in telework, teleservices, and walking and bicycle commuting.

TDM Trend Indicators

The plan sets individual TDM trend indicators for monitoring after Riverton Park is fully occupied (more on page 20). These markers will be reassessed after the first year of full occupancy. Examples of indicators include:

- METRO Riverton Park stop data
- Number of children riding school-sponsored transportation
- Quarterly bike rack utilization survey
- Maximum 1.3 parking ratio

TDM Coordination

Until Certificate of Occupancy:

Tyler Plante, Development Officer
Portland Housing Authority (PHA)
tplante@porthouse.org, 207-221-8028

Following Certificate of Occupancy:

PHA Property Manager for Riverton Park

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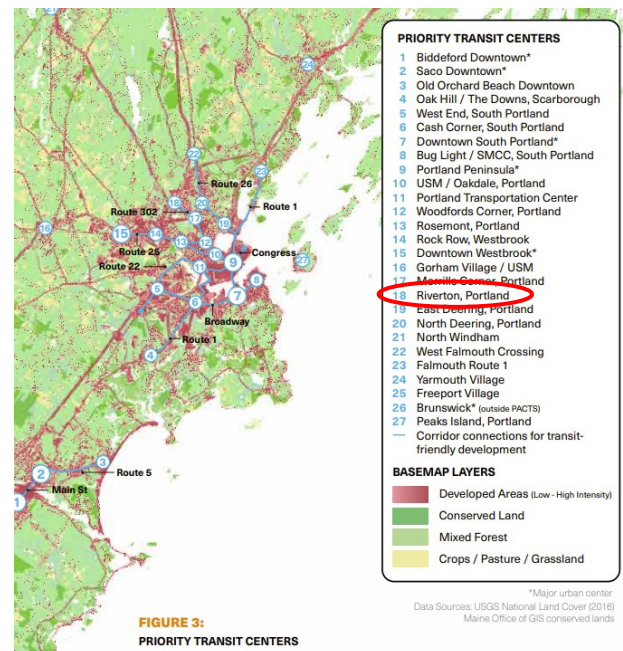
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A. Property Description & Transportation Context

Located in Portland's Riverton Neighborhood, near the Portland/Westbrook city line, Riverton Park is just off busy Forest Avenue (U.S. Route 302), a block from where it intersects with Riverside Street. Route 302 is a Priority Transit Corridor of the Portland Area Comprehensive Transportation System (PACTS) and Riverton is a priority Transit Center (see graphic at right). The Forest Avenue-Riverside Street intersection is also a "Priority Node" according to *Portland's Plan 2030* (2017 Comprehensive Plan). The development sits close to the terminus of METRO Route 2 that runs between Pride's Corner and downtown Portland and at the beginning of Route 3 to downtown Westbrook and the Maine Mall.

Riverton Park has been rezoned as R-5a Residential and B-2 Community Business along with a text amendment to the R-5a Residential zone to allow Places of Assembly as a conditional use. The map amendment also includes the rezoning of the R-5a Residential zone north of Forest Avenue into B-2 Community Business. These new designations of the full redevelopment area fit in well with the uses identified by the City and adopted in the recent ReCode effort:



R-5a To provide for moderate-density residential development in off-peninsula locations that can provide a unique residential living experience with a high degree of natural site amenities; and to provide areas of the city in the general proximity of the peninsula that have the capability for adequate municipal services, including traffic corridors with adequate traffic capacity, that can appropriately accommodate a more intensive use of land than other lower-density zoned land and be compatible with surrounding neighborhoods; and to increase affordable housing opportunities in off-peninsula locations by providing a moderate-density zone.

B-2 To provide appropriate locations for the development and operation of community centers offering a mixture of commercial uses, housing, and services serving the adjoining neighborhoods and the larger community. The variety, sites, and intensity of the permitted commercial uses in the B-2 zone are intended to be greater than those permitted in the B-1/B-1b zones. 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 major shopping centers and along arterial streets. Such establishments should be readily accessible by automobile, by pedestrians and by bicycle. Development in the B-2 zone should relate to the surrounding neighborhoods by design, orientation, and circulation patterns. The zone should provide locations for moderate to high-density housing in urban neighborhoods along arterials.

Consisting of approximately 17.70 acres, about 2.8 acres of Riverton Park are wetlands (1.34 AC) or slopes exceeding 25% (1.46 AC). The remaining 14.90 acres of the site are theoretically (re)developable. However, the most feasible, flat and accessible locations have already been built upon and all developable areas are irregularly shaped. Following the proposed project, conservatively, this will result in a residential density of no less than 12.36 units per acre. The front of the site closest to Forest Ave will have the highest residential density. In terms of encouraging less driving, this is a very beneficial improvement to the existing land use pattern. For comparison, see the following table from Portland and South Portland's *One Climate Future* plan. Furthermore – and perhaps counter intuitively – research has shown that the greatest VMT reductions can actually happen at the level of lowest density. (Holtzclaw, 1994)

How does density relate to how much we drive?

Research has shown that people who live in denser areas drive fewer miles, on average, resulting in lower vehicle miles traveled (VMT) per capita in areas with higher densities (persons per square mile, or ppsm). For reference, much of Portland's East End reaches densities over 10,000 ppsm, while Ferry Village (South Portland), Thornton Heights (South Portland), and North Deering (Portland) fall in the 2,000 – 3,999 ppsm range.

Table 3. Vehicle miles traveled (VMT) forecasts by Census Tract Density

Persons per Square Mile (ppsm)	Approximate dwelling units per acre	2005 VMT	VMT Compared to < 500 ppsm	2035 VMT	VMT Compared to < 500 ppsm
0-499	< 0.6	11,422	0.0%	13,798	0.0%
500-1,999	0.6-2.5	10,083	-11.7%	12,196	-11.6%
2,000-3,999	2.5-5	9,345	-18.2%	11,345	-17.8%
4,000-9,999	5-12	7,986	-30.1%	9,792	-29.1%
10,000+	> 12	4,437	-61.2%	5,651	-59.0%

Table adapted from Cambridge Systematics. (2013).⁸² Dwelling units per acre conversions are gross densities estimated at roughly 50% residential land per tract.

One Climate Future: charting a course for Portland and South Portland, 2021





From a U.S. census data perspective, the existing neighborhood context does not show strong current multimodal use. However, recent site visits demonstrate that - despite the current car-dominated infrastructure - local people do walk, bicycle, and take public transportation regularly on Forest Avenue. And perhaps surprisingly, with the more suburban feel of this location, the site has a:

- Compact Neighborhood Score of 7.4 out of 10. This scoring is based on a natural logarithm of household density, provided through the Housing + Transportation Affordability (HTA) Index using census data
- Job Access Score of 8.2 out of 10. This is based on employment location and the variety of employment types, similarly provided through the HTA
- Housing + Transportation Index rate of 38% - that is, housing (19%) and transportation (19%) costs combined are 38% of household income. This meets the definition of affordability, which is considered to be combined housing and transportation costs equaling 45% or less of income. For comparison, the average Cumberland County household spends 52% of income on housing and transportation and the average Maine household spends 58% - both of which are well over what is considered within one's means.





Residential Housing at Riverton Park

Infill redevelopment of any kind contributes to single-occupancy automobile trip reduction. Drive alone trips are reduced further in the case of affordable Portland-based housing, which is closest to the largest pool of jobs in the state and most supported by transit, bicycle and pedestrian networks – as compared to other municipalities.

In direct support of increasing housing stock and people's ability to afford to live in Portland, 77% of units will be designated for people with a total household income not exceeding 50% percent of Area Median Income (AMI) and 13% of units will be dedicated to those earning up to 60% of AMI. The remaining 10% of units will be market rate. This ensures that almost all of the dwelling units remain permanently affordable for future residents.

A total of approximately 180,000 square feet in residential housing – 182 dwelling units - are proposed for Riverton Park. This will consist of 123 renovated units in 21 two-story townhouse buildings and 59 new units in a four-story multi-use building. PHA will continue its long-term management of the site.

Focused on serving Portland families, the breakdown of dwelling units by number of bedrooms will be:

- 8 studios
- 13 one-bedrooms
- 38 two-bedrooms
- 71 three-bedrooms
- 26 four-bedrooms
- 20 five-bedrooms
- 6 six-bedrooms

Redevelopment of residential sites like Riverton Park also provide real opportunity to help meet the City's general goals for population growth. In Portland's comprehensive plan, analysis showed the number of people both living and working in the city decreased between 2002 and 2014. The Comprehensive Plan "supports the principle that all who work in Portland should have the option of living in Portland." The city set a 10-year population goal of 75% of its approximate daytime population of 96,000.





Site Amenities

As a mixed-use site, Riverton Park currently offers a significant number of services and amenities, that will expand even further as part of the redevelopment. These features encourage the use of alternate transportation and telework/teleservices and discourage unnecessary vehicle trips. They include:

- bicycle parking and bike repair stations
- package delivery and storage locations
- laundry facilities
- Neighborhood Center bus loop with weather awning for students
- indoor and outdoor recreation areas, including recreation field, basketball court, playground and walking paths
- community gardens
- other community spaces that tenants can reserve, including a community room, community kitchen, and recreation hall
- two new small retail spaces
- TDM kiosk with diverse transportation options information and contact information for the site
- new fulltime Resident Service Coordinator to assist residents with:
 - applying for reduced fare transit passes
 - accessing transportation-related benefits through various state and local programs, such as transportation coaching and bus passes for families who are working or going to school
 - connecting with employers and encouraging employers to provide transit passes
 - exploring opportunities for informal carpooling among residents
- hardwired infrastructure for broadband and wireless internet; PHA is also exploring the possibility of free basic internet access in all units and community areas
- weekly Portland Public Library Bookmobile stop





- Head Start pre-school, all-ages Study Center, Portland Adult Education classes, and expanded Boys & Girls Club, as well as other PHA partnerships with local non-profit service providers and City agencies
- new and expanded Greater Portland Health Clinic space to serve the greater Riverton neighborhood
- new food and clothing pantry
- community policing office

The site's TDM efforts will be further supported by new immediately-adjacent features, such as:

- the Queen Bee Mart convenience store currently under construction at the top of Riverton Drive
- the bus shelter being constructed as part of the same project, which is the primary Riverton Park bus stop (photos below)

Finally, behavioral research illuminates an additional and significant reason for vehicle trip reduction with increased housing development. When people move from one specific residence to another, this disrupts their habitual daily living and travel patterns. This provides a key opportunity and critical juncture at which to help them understand their transportation choices and the benefits of using public transportation, walking and bicycling, carpooling and telecommuting. (Kirkman, 2019; Thøgersen, 2012; Verplanken, Walker, Davis & Jurasek, 2008; Bamberg, 2006; Fujii, Gärling & Kitamura, 2001)

...One of the more interesting studies found in reviewing the literature was a 2003 German social science experiment conducted by three researchers (Bamberg, Rolle and Weber) where an individualized marketing intervention was used at a time of what they called a "changed decision" context, meaning immediately after relocation. The research found that if, when in a new situation, people received personally relevant and persuasive information, they were more likely to use it for making new behavioral decisions.

Portland Oregon SmartTrips Welcome Program, Tools of Change Landmark Case Study, 2012



Parking

In its efforts to maximize the amount of buildable housing at Riverton Park - and given the limitations due to wetlands, slope and irregularly shaped parcels - PHA will continue to provide off-street parking. However, it is limiting the supply by providing fewer spaces than previously required under the City's former land use ordinance (pre-*ReCode*). In addition, the development will reduce its overall off-street parking-to-dwelling-unit ratio. The current ratio is 1.37; that is, 194 off-street spaces for 141 units. After project completion this ratio will be 1.26, or 231 spaces for 182 units. This further supports the recently amended *ReCode*, Article 19, Table 19-A: Off-Street Parking Minimums, which lowers the requirement for motor vehicle parking to one space per dwelling unit for all zones, for single, two- and multi-family units. Projected parking demand for the fully redeveloped project is anticipated to be even lower than this (see more in Section C - Site Transportation Projections & TDM Trend Indicators starting on page 20).

The provision of this TDM Plan is also offered to assist with general parking reduction. In addition, it reinforces the goals of the *ReCode*'s Table 19-B: Categorical Exceptions to Off-Street Parking Minimums, "No off-street parking shall be required within $\frac{1}{4}$ mile of fixed route transit service. New uses or changes of use of more than 10,000 SF taking advantage of this exception shall be required to provide a Transportation Demand Management Plan if they use this provision in lieu of parking requirements."

In terms of on-street parking, all of the development's streets are city-owned and managed. There are approximately 43-49 year-round public on-street spaces. From April to November there are a total of approximately 87-98 on-street spots, when parking is permitted on both sides of Riverton Drive.

Strategic parking management is another important strategy to discourage drive-alone trips and encourage the use of alternate transportation. Off-street parking for residents will be managed by PHA and all residential leases at Riverton Park will be exclusive of parking. Market rate units are proposed to be charged a rate per parking space, subject to change due to governmental financing regulations and restrictions. Under the affordable housing financing regulations, tenants with limited incomes are not permitted to be charged for parking. However, simply unbundling parking from market-rate tenant leases is of benefit to site TDM efforts.





Resident Demographics

PHA anticipates Riverton Park will continue to attract a variety of tenants, including people employed locally, who are caregivers, who are disabled, and/or are retired. Robust existing demographic data that PHA has collected for people who currently live in the community assists greatly with Riverton Park's TDM and other efforts. This data can be extrapolated generally regarding the future use of the site. In addition, PHA staff have developed strong relationships over the years with residents. Community engagement with people living in Riverton Park and the sharing of their lived experience also helps inform this planning process.

Families: Of particular note, Riverton Park does a great job offering housing and building community for local families. For example, currently:

- One quarter of households consist of 6-13 people and half of households have 3-5 members
- 73% of households are headed by women
- There are over 300 youth and teens living at Riverton Park (58% of all residents) and the under-18 population is expected to grow in the future

This redevelopment process is adding more apartments and expanded amenities to further support them.

Income: In general, current residents represent diverse and traditionally underserved populations. For example, regarding household income:

- 50% of households are currently "extremely low income" by the standards of the U.S. Department of Housing and Urban Development; that is, they make 30% or less of Area Median Income (AMI) – for reference, this is a family of five living on a total annual income of \$32,350





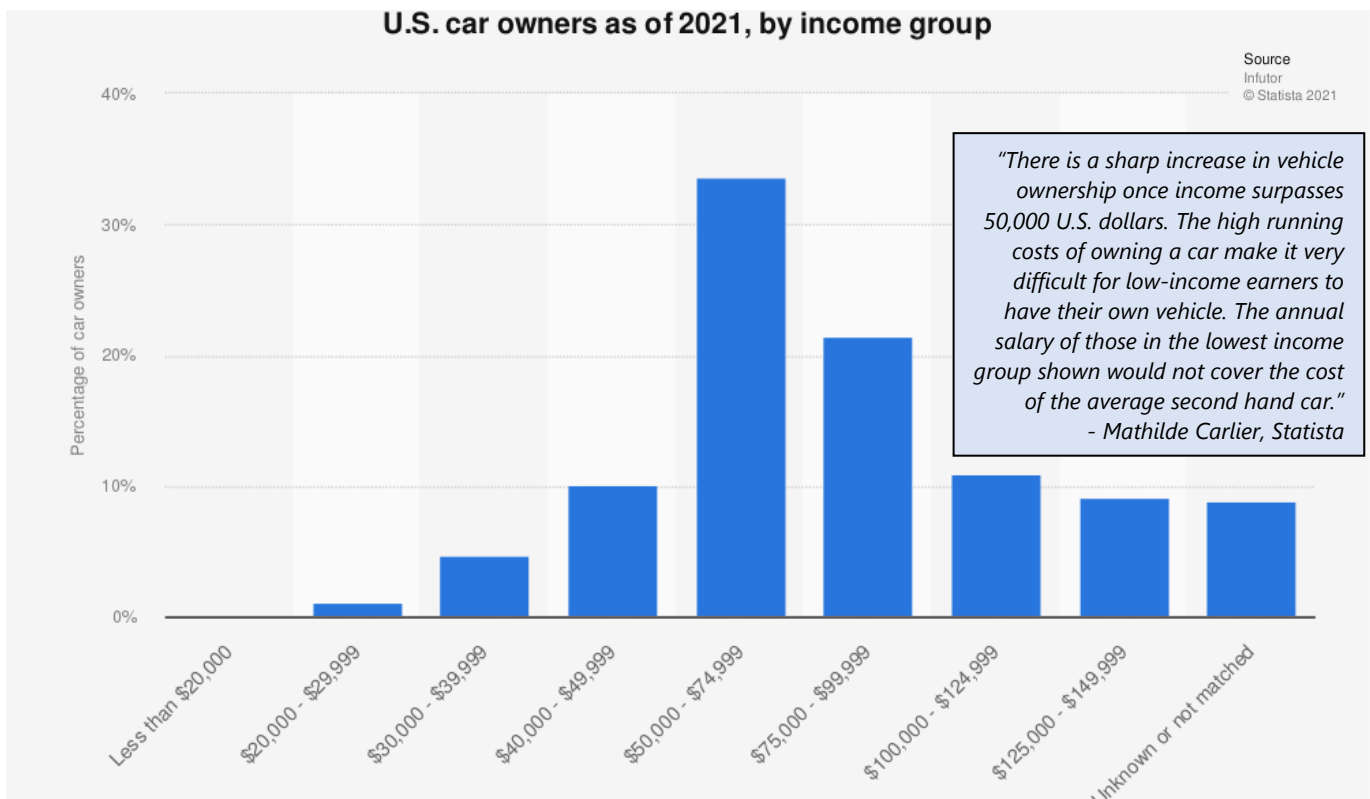
The above site-specific demographic data, informal tenant sharing with PHA staff, and national demographic data offer the following particular insights regarding transportation behavior at Riverton Park:

- *Caregiving & Encumbered Travel:*
 - When people – more often women - are in a caregiving role and stage of life – a larger percentage of their travel is trip chaining (combining multiple destinations in one trip) and/or "encumbered travel", that is traveling with children or something else heavy and difficult to maneuver. They generally are not as able to do what they need to for their families via transit, biking, or carpooling with other households. On the other hand, their use of private vehicles is generally not for drive-alone trips.
 - In addition, with the new regional UMO electronic transit passes, families have to purchase an individual pass for all adults and children over the age of five. Moreover, reduced fare passes can be difficult to acquire with language barriers and the need to provide photos and identification, etc. A family pass option would be a priority for Riverton Park residents.
- *Varied Occupations and Work Shifts:* From anecdotal sharing by current residents with Riverton Park property management staff, it can be a challenge for lower-income earners to use public transit or carpool, because they often need to travel quickly between multiple jobs - and/or they work off-peak shifts outside of public transportation run times. Even if only working one job, people living in a more suburban context such as Riverton Park often need to transfer between transit routes to access their place of employment. Alternately, they need to travel to work sites that aren't necessarily served by public transportation. On the flip side, varied tenant occupations and timing of work shifts also mean that drive alone travel is often outside the peak weekday morning and late-afternoon commute hours.
- *Safety Concerns about Cold Temperatures:* Residents originally from tropical regions of the world express concerns about the health and safety of being outdoors traveling in colder weather. It is



also more difficult for people with fewer resources and/or larger families to adequately outfit their households with the clothing necessary to be safe and comfortable in cold and wet conditions.

- *Transit Pass Subsidy:* Based on the above caregiving and work contexts, only a handful of current households operate without a private vehicle and instead regularly use transit, carpool, bike or walk. However, there was interest in and regular use of a transit pass subsidy offered by PHA in the past, before the advent of the electronic UMO pass and subsequent difficulties local service organizations have had purchasing bulk passes for their clients.
- *Youth Travel:* Unlike adult workers and caregivers, young people are more likely to use transit, bike and walk. The Portland Public Schools provides bus transportation for elementary school students and middle school students who live more than two miles campus. Of multimodal benefit to youths at Riverton Park, Talbot Community School is just one mile away and Lincoln Middle is only 2.6 miles – which makes both also within walking and bicycling distance for students and families. All high school students receive a METRO bus pass and they are well served to attend any of the three Portland high schools. Some Riverton Park youth also attend Waynflete and are picked up by a Waynflete bus. Post-secondary education opportunities such as at the University of Southern Maine, University of New England, Maine College of Art and Portland Adult Education are also readily accessible from the site by bicycle and via public transportation. Overall, from a transportation behavior perspective, this familiarity with different ways of getting around will facilitate these tenants' participation in the Riverton Park TDM program.
- *Incomes and Private Vehicle Ownership:* Despite the above stated need for workers and caregivers to have access to private vehicles, the number of vehicles a household can support is generally lower for people with more limited incomes (see following graph).



Larger Transportation Setting

Riverton Park and its TDM initiatives support a number of housing and transportation goals from several recent and historically important Portland (and regional) planning efforts. These include:

- *A Time of Change: Portland Transportation Plan* (1993)
- *Green Spaces Blue Edges* (2001)
- *Housing, Sustaining Portland's Future* (2002)
- *Sustainable Portland* (2009)
- *Comprehensive Plan, Portland's Plan 2030* (2017)
- *Getting There from Here: an active transportation plan* for the region (Greater Portland Council of Governments (GPCOG) and PACTS, 2018)
- *Cultural Plan Update* (2018)
- *Transit Tomorrow* (PACTS and GPCOG, 2021)
- *One Climate Future: charting a course for Portland and South Portland* (2021)
- *Connect 2045* (update to PACTS Long-Range Transportation Plan, expected 2022)
- *Transit Together* (GPCOG, expected 2022)

For example, the development of this site addresses several of the Future Land Use principles outlined in *Portland's Plan*, described further as:

- One Portland – “all areas can expect appropriate City services and amenities”
- Priority Nodes and Corridors – “areas that would be appropriate for new development to provide needed housing, business and services proximate to transit”
- Complete Neighborhoods – “where all residents regardless of age, ability, or income have access to the basic necessities of daily life - high quality and affordable housing, schools and other civic functions, food, open space, other amenities and services - within a walkable, bikeable distance”
- Connect the Chain – “physically integrated transportation systems and open spaces”



LOCAL GOALS

WE WILL:

Increase, preserve, and modify the overall supply of housing city-wide to meet the needs, preferences and financial capabilities of all Portland residents.

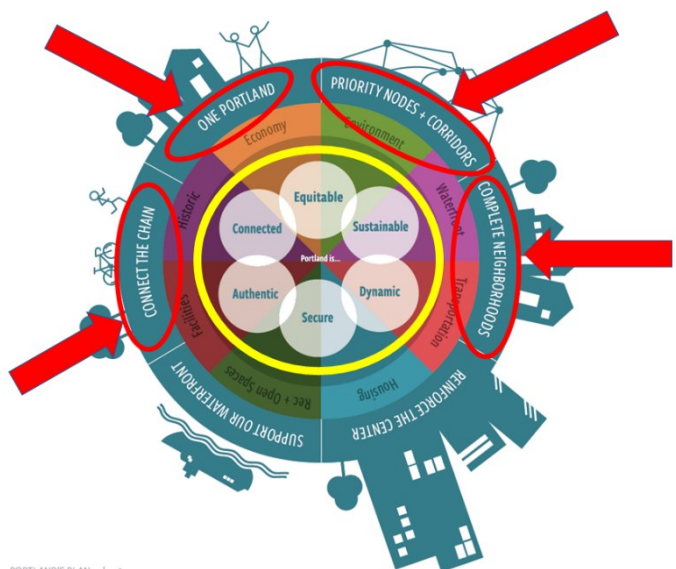
Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods.

Pursue policies to enable people who work in Portland to have the option to live in Portland.

Collaborate with surrounding communities on regional housing solutions.

Encourage quality, sustainable design in new housing development.

Portland's Plan 2030 (2017 Comprehensive Plan)



PORTLAND'S PLAN | 3



In addition, TDM efforts are part of several aspects of Portland and South Portland's *One Climate Future* plan – including #2 of its Six Big Moves, "Connecting people to places, to opportunity". Two key pieces of this are:

- The overarching multimodal target the plan has set: "By 2035, 26% of trips in the cities will use public transit or active transportation (up from 12% today)."
- As well as the milestone: "Housing stock meets workforce demand within the cities by 2035".



Connect people to places, to opportunity.

We will create connected neighborhoods—where it is easy to push a stroller to the park, roll a wheelchair to the grocery store, ride your bike to school, and take the bus to a new job opportunity. To reach this goal, we will implement safer street designs, build out our network of bikeways, and radically expand our public transit system, while making travel on transit more accessible and seamless. Supported by land use policy, we will cluster a mix of housing and businesses near transit, and increase housing in the cities to bring people closer to jobs. And we will ensure that the people who most rely on public transit systems, due to income, disability, or otherwise, are part of the decision-making teams connecting our homes, businesses, open spaces, and community resources.

Key milestones:

- a** By 2035, 26% of trips in the cities will use public transit or active transportation (up from 12% today).
- b** Housing stock meets workforce demand within the cities by 2035.

Looking to read more?
Check out these strategies, in particular:

- TLU 1.1** Public Transit Networks
- TLU 1.2** Inclusive Transit-Oriented Development
- TLU 1.3** Bike Accessibility
- TLU 1.4** Complete Streets
- TLU 1.5** Employer Transit Partnerships
- TLU 1.7** Land Use for a Smaller Carbon Footprint
- CR 2.4** Transportation Access



The above commute multimodal goal is achievable as an average across the Portland and South Portland landscape. However, the following table breaks out Journey to Work travel data specifically for Riverton Park's US Census Block Group and shows the challenges present in the existing neighborhood context, in terms of meeting anything approaching that goal at the site level. That is, the average commute multimodal rate across both municipalities is currently 12%, whereas the rate for the Riverton Park area is approximately 5%.

2016-2020 - Journey to Work Data for Riverton Park Census Block Group	
Mode of Travel	Rate (% of Total Trips to Work)
Drive to Work (includes any carpooling)	94.53% or higher
Walk	2.17% to 5.62%
Work from Home	0.06% or less
Bicycle	0.05% or less
Transit	0.03% or less

Data source: Policy Map, utilizing 2016-2020 American Community Survey/US Census data



Bicycle & Pedestrian Access

An important consideration of the data in the previous table and the multimodal goal mentioned above, however, is that these numbers reference trips to the workplace. Work travel generally represents only about 30% of total vehicle trips. In addition, a greater percentage of non-commute-related trips are typically taken by walking and bicycling. Therefore, U.S. census data – a.k.a. Journey to Work data – does not paint a complete picture of the amount of walking and bicycling that occurs on a daily basis in the Riverton neighborhood.



Similarly, and as mentioned in Section A, Riverton Park's location has a Compact Neighborhood Score (CNS) of 7.4 out of 10. The CNS is a measure of walkability. None of the nearby streets are multi-lane motor vehicle corridors and there is a relatively robust sidewalk and crossing network along Forest Avenue and on side roads. Moreover, the City has worked consistently to improve these conditions over the years. For example, the Department of Public Works prioritized the installation of a mid-block Rectangular Rapid Flashing Beacon crossing from Riverton Park to the bus stop on the north side of Forest Avenue. In addition, the city is exploring a possible pedestrian connection from the new Queen Bee Mart to one of the adjacent Riverton Park cul de sacs, enabling a shorter walk for residents who otherwise would need to use Riverton Drive.

Riverton Park sits in close proximity to the following existing and proposed bicycle and pedestrian facilities and programming:

- Forest Avenue bicycle lanes and sidewalks
- Portland Walkways designated and prioritized Safe Route to School (Portland Public Health, Public Works, and Planning Division)
- Portland Trails' next phase of its "Neighborhoods Project" is centered in the Riverton neighborhood. The goal is to help create safe, welcoming, and community-oriented trails and outdoor spaces for residents. "It's a recognition that simply having trail access is not enough - people need to feel comfortable and safe to use the trails in their neighborhoods. Next month, we'll be hiring an Inclusion Coordinator who will bring capacities outside of our current staff team, and guide us into how we can enhance the outdoor spaces in Riverton to be more relevant to the many different people that live there." (*Portland Trails Newsletter*, June 2022) In a more recent update from Portland Trails (PT), staff shared that PT will be collaborating with In Her Presence (IHP) in this work, including a number of women and families actively involved with IHP, many of whom live in Riverton.
- Planned on-road bikeways on Riverside Street and Warren Avenue (from the *Portland Bicycle & Pedestrian Network* map on following page)
- Planned sections of the Portland Neighborhood Byway network – e.g., Harris-Newton-Wirt-Verrill





Significant area amenities and recreational facilities also provide people with a full-service living environment. This further encourages individuals to walk or bike instead of choosing to drive. Those features within walking and bicycling distance of Riverton Park include:

- Markets and convenience stores such as the Hannaford, 7-Eleven and new Queen Bee Mart (under construction) – all within a 1 block radius of the entrance to Riverton Park
- Services such as the Hannaford pharmacy, the Riverton Branch of the Portland Public Library, cPort Credit Union, garden supply store, insurance services, local fitness center with exercise classes, etc.
- Recreational spaces such as the Presumpscot River Trail (along both the east and west sides of the river, south of Forest Avenue), Riverton Trolley Park, and Sebago to the Sea Trail; small boat launch at Presumpscot River and Forest Avenue; Spare Time bowling alley; Riverside Golf Course with winter access for sledding, ice skating and skiing; Talbot Community School campus playground, basketball court and fields and trail; Riverton Community Center Pool, etc.
- Food and beverage locations such as Tortilla Flat, Allagash and Foundation breweries, Dunkin Donuts, Corsetti's, Noble Barbeque, etc.





Public Transportation Access

Despite the more suburban context of the site, Riverton Park does have multiple transit service options for residents and visitors, as described in the following table:

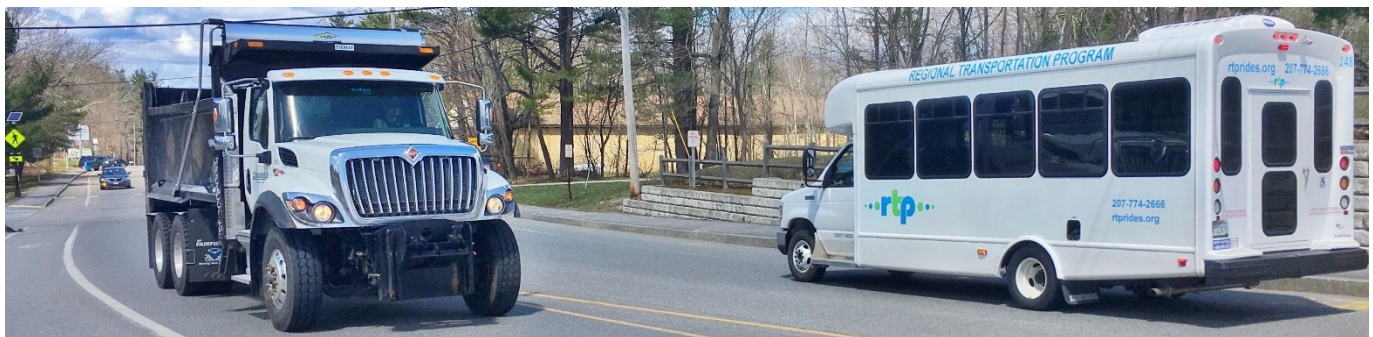
METRO Route 2 service on Forest Avenue/US Route 302, between Pride’s Corner in Westbrook and downtown Portland		
	Service Span	Frequencies
Weekdays	6:10am-10:40pm	Every 30 minutes until 7:30pm, then hourly
Saturdays	6:50am-9:40pm	Hourly
Sundays	8:50am-3:20pm	Hourly
Transfers	Other METRO Routes: Route 2 also connects with all other local and express routes and area transit providers, via downtown points and the METRO Route 9A/9B	
	Lakes Region Explorer: At Pride’s Corner, residents can connect with the Regional Transportation Program (RTP) Lakes Region Explorer with Route 302 service to Windham, Raymond, Casco, Naples and Bridgton	
METRO Route 3 with service to downtown Westbrook and the Maine Mall		
	Service Span	Frequencies
Weekdays	6:25am-10:15pm	45 minutes until 7pm, then roughly hourly
Saturdays	6:35am-10:10pm	Hourly
Sundays	9:15am-5:30pm	90 minutes
Transfers	METRO Husky Line: in Westbrook, riders can transfer to the METRO Husky Line with express service to Gorham	
	BSOOB Transit: at the Maine Mall, riders can connect with Biddeford Saco Old Orchard Beach (BSOOB) Transit – with service to Scarborough, Old Orchard Beach, Saco and Biddeford	



To increase transit frequencies to downtown Portland, PHA will also explore the possibility of Riverton Park residents being able to utilize the shuttle that will be run between the new City Shelter on Riverside Street and downtown.

As mentioned previously, in terms of supportive transit infrastructure, a bus shelter is being constructed as part of the new Queen Bee Mart, for the bus stop immediately adjacent to the entrance to Riverton Drive. METRO, RTP and BSOOB provide real-time arrival information for riders, through their websites and various smartphone apps. All local and express buses are also equipped with bicycle racks with space for 2-3 bikes. In addition, the above transit providers offer free Wi-Fi access and some buses have in-seat USB ports.

METRO, Biddeford Saco Old Orchard Beach Transit, and South Portland Bus Service all use the new electronic fare system, DiriGo Pass, by UMO Mobility. The Moving Maine Network, Greater Portland Council of Governments, and local service organizations have been in dialogue with area transit providers regarding barriers to using the pass that have come to light. Those affected include families, and people who are low-income, disabled and/or have limited English language proficiency. For example, as mentioned in the Occupant Demographics section above, families have to purchase an individual pass for all children over the age of five and reduced fare passes can be difficult to acquire with language barriers and the need for photos and identification, etc. Benefits of the electronic system that do encourage ridership include that the DiriGo Pass is available via either a smartphone application or smart card - and the system caps fares so that riders never pay more than a certain amount each day and each month; once they hit the cap, they ride free for the rest of that time period.



Shared Mobility Access

With the end of UhaulCarshare service in Portland in February 2020, PHA and other developers have been exploring new carshare possibilities for diverse sites across the city. A promising opportunity may be with Mobility Development, a nonprofit that helps set up equity-focused, all-electric carsharing programs. For example, they have a new program in Boston called Good2Go. Mobility Development has recently entered into a contract with the U.S. Department of Energy to start more partnerships with affordable housing providers, and it seems to think that Portland could be a promising market. If a local organization, such as PHA, could feasibly partner with other developers to set up a carshare program at various locations, PHA would explore offering an off-street parking space to the carshare program, coordinate with the City to provide an on-street parking space to the carshare program, and/or potentially provide a discount for resident carshare vehicle use for the first year of a resident's tenancy.



In terms of ride-hailing, the use of transportation network companies (TNCs), such as Uber and Lyft, has grown substantially in recent years – although there have been setbacks to sharing rides and also driver availability during the pandemic. A TNC trip does not reduce traffic congestion, unless users are carpooling; however, it does reduce parking demand.

For the past decade, the City of Portland has persisted in exploring various bikeshare possibilities. The city has just launched a pilot bikeshare program in August 2022 via an agreement with Tandem Mobility, a company with national experience. The systems of bikes are located primarily on and just off the Peninsula (e.g., at University of Southern Maine). PHA will explore with the municipality whether bikeshare might eventually be an option for Riverton Park residents, if and when the system is expanded further. This would include encouragement for the city to consider cargo bikeshare options for area families.



**Portland
BIKESHARE**

The City of Portland & Tandem Mobility have teamed up to bring bike share to Portland Maine.

With 200 bikes at over 30 stations and affordable pricing, exploring Portland has never been easier!

Come Ride with Us!




B. Riverton Park TDM Coordination

Riverton Park's more suburban location and occupant demographics complicate the development's ability to reduce a significant number of vehicle trips. However, the housing authority is committed to lowering resident automobile trips as is possible, supporting multimodal access, and easing the development's parking demand through its site design and TDM efforts.

PHA has a long history of in-fill development and redevelopment projects and encouraging and supporting residents' mobility. Examples include bus pass subsidies, shared-use parking, and TDM implementation at sites like the Bayside Anchor project. PHA sees this TDM program as part of its larger sustainability and neighborhood development mission. The organization's Strategic Vision Plan sets an intention to "Establish better connections to neighborhoods and breaking down physical and social isolation."

Tyler Plante will serve as the Interim TDM Coordinator for the project development phase until the Certificate of Occupancy for the site is secured. His contact information is: Tyler Plante, Development Officer, Portland Housing Authority (PHA), tplante@porthouse.org, 207-221-8028.

The Riverton Park TDM Coordinator is responsible for:

- Ensuring strategic parking management and monitoring parking usage
- Coordinating tenant TDM policies and incentives
- Connecting tenants with nearby transportation resources
- Encouraging greater use of preferred modes – walking, bicycling, carpooling, taking the bus, and telecommuting/teleservices - through transportation kiosk and site-wide promotion
- Gathering TDM trend indicators data
- Filing annual reports and updating the plan with the City, as needed
- Exploration of additional TDM strategies, as needed



Following receipt of the Certificate of Occupancy, the Property Manager for Riverton Park will be the TDM Coordinator. Acknowledging that roles and responsibilities change over time in any position, PHA and the Property Manager will use the first year of TDM implementation to enumerate the TDM Coordinator's responsibilities in detail for any future staff to uphold the responsibility of the position. PHA will provide the TDM Coordinator with remuneration to support the work of leading the site's ongoing TDM efforts.

Day-to-day operations and monitoring of the TDM plan will be conducted in-house by the TDM Coordinator long-term. The TDM Plan and contact information for the TDM Coordinator and City transportation program will be posted at the TDM Kiosk in the community building, for resident education and access. PHA will notify the City within 60 days whenever there is a change in the TDM Coordinator. If necessary, PHA will retain the services of a TDM consultant to review initiatives, problem-solve and develop new strategies.

Highly successful TDM programs share three vital characteristics – they are:

1. Dynamic - piloting strategies, assessing impacts, and modifying tactics as needed;
2. Rigorously supported and monitored by local governing bodies, in this case, the City of Portland;
3. Managed by committed and enthusiastic staff who are responsible for overseeing, promoting, and sustaining the program.



C. Site Transportation Projections & TDM Trend Indicators

As mentioned on the initial summary page of the plan, Cushman Transportation Consulting, LLC specializes in TDM and transportation equity efforts locally. The firm's work is also informed by TDM and mobility justice research and programs across North America. This includes aspects of setting and managing TDM targets and/or trend indicators.



Context for Setting TDM Trend Indicators

As mentioned in the Occupant Demographics section, Riverton Park faces significant challenges to reducing motor vehicle trips and parking demand given:

- the site's suburban context and isolated parcel location, with limited access to a larger street grid
- the range of potential tenants and tenant needs, including that of caregiving travel
- residents' commutes to multiple jobs, night work shifts, and places of employment that do not have access to public transit
- financing (and ethical) restrictions to charging affordable housing tenants for parking
- current inflation and financial constraints and PHA's limited resources to offer ongoing subsidies

These are items that either cannot, or are unlikely to, change in the near or mid-term. They also operate independently of any site-based TDM efforts.

On the other hand, the following list of resident demographics and site characteristics are generally supportive of TDM initiatives.

- generally lower vehicle ownership rate of households with more limited financial resources
- school transit and public transportation use (and bicycling and walking) by the 300+ residents who are age 18 or younger
- substantial on-site services and near-site grocery and pharmacy options

To be very clear, however, lower household incomes are not something that this plan or any other public process should exacerbate or perpetuate further.

In view of the above contexts, Riverton Park is not a viable candidate for aggressive vehicle trip and parking reductions. In addition, and **based on extensive consultation with the City, this plan proposes TDM trend indicators as the most achievable and tangible gauge of program success** (more details about these on the following page), in contrast with the vehicle trip and parking reduction goals traditionally utilized under the city's original TDM ordinance. (Moreover, standard trip and parking counts done by a transportation firm to verify on-the-ground numbers and track reductions would cost PHA several thousand dollars per year; in a recent example for a comparable project, the quote given was for approximately \$6,000.)

Required Trip Generation and Parking Demand Assessments

Because trip generation and parking demand projections for the site are still required as part of the TDM Plan in the City's *Technical Manual*, the development team did subcontract with Barton & Laguidice for this work. The firm has utilized the latest data from the Institute for Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) and the ITE *Parking Generation Manual* (5th Edition).

TDM Trend Indicators

The TDM Plan sets the following TDM trend indicators:

- METRO Riverton Park stop data (available by request)
- School bus ridership count
- Late summer, winter, and spring surveys of bike rack utilization
- Property management records of tenant parking space usage
- GO MAINE membership (location-specific data available by request, with members kept anonymous)
- Number of PHA interactions with residents regarding transportation-related information and assistance
- Usage numbers for any future carshare and/or bikeshare installations



The following Table 3.1 shows the traffic assessment summary of projected *net new* trips to be generated at full occupancy of the redeveloped residential housing and community services at Riverton Park:

Table 3.1 ITE Trip Generation Summary			
	Net New Trips - Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
AM Weekday Peak Hour (Generator)	62 (107 total, when including existing uses)	28	32
PM Weekday Peak Hour (Generator)	86 (149 total)	43	40

In the subsequent Table 1.1, see the parking demand projection assessment for Riverton Park's complete redevelopment of housing and community service locations:

Table 1.1 ITE Parking Generation Calculations			
Land Use	Parking Demand for All Site Uses		
Time Period		Parking Demand	
Weekday		224 (190 specifically for residential uses)	
Saturday		171 (152 residential)	
Sunday		188 (184 residential)	

This indicates a maximum projected parking-space-per-dwelling-unit ratio of 1.04 for the residential site uses, which is lower than the parking ratio provided by on-site parking (1.26).

Specific TDM Trend Indicators

In light of the above detailed constraints and in lengthy consultation with the City, this plan sets the following individual TDM trend indicators for monitoring after Riverton Park is fully occupied. These markers will be reassessed for efficaciousness after the first year of full occupancy.

- METRO Riverton Park stop data (available by request)
- School bus ridership count
- Late summer, winter, and spring surveys of bike rack utilization
- Property management records of tenant parking space usage
- GO MAINE membership (location specific data available by request, with members kept anonymous)
- Number of PHA interactions with residents regarding transportation-related information and assistance
- Usage numbers for any future carshare and/or bikeshare installations





D. Trip and Parking Reduction Strategies

In the table beginning on the following page, PHA proposes a number of motor vehicle parking and trip reduction strategies for the Riverton Park TDM Plan that respond to the larger transportation context, current and likely new residents and their transportation needs, and the potential usefulness of various TDM efforts. These tactics are also put forward within the previously mentioned resident demographic contexts, current economic inflation and financing, and funding and capacity limitations of a public affordable housing agency.

A critical component for the success of the Riverton Park TDM Plan is a carefully thought-out promotion strategy that engages tenants from when they first move in regarding preferred modes of transportation, and provides easily accessible information and subsidies. As shared by Portland, Oregon's SmartTrips Welcome program, a residential move is a unique and powerful opportunity for experimentation and change. This also builds the site's TDM culture and the sense of multimodal travel as a social norm.

Finally, the region recently reexamined the need for a Transportation Management Association (TMA) to benefit sites like Riverton Park - and this is now a recommendation in the Portland Area Comprehensive Transportation System's *Transit Tomorrow Plan*. TMAs are public-private entities that assist sites with TDM implementation, outreach, and monitoring; advocate for improved transit; and act as brokers for services such as shuttles. PHA plans to support the development of a local TMA and participate as a member for its various locations operating under TDM plans.

...When a person changes residence, everything changes: the way to the store, the way to work, even the steps to the fridge.

This time of change offers a unique opportunity to create new neural pathways or reinforce old ones that haven't been used for a while and make these stronger than habitual pathways.

Andrew Pelsma, SmartTrips Program Specialist, Portland, Oregon

...To us, this represents a significant number of people with an immediate gap in knowledge about their local travel options.

Linda Ginenthal, SmartTrips Program Manager



Infrastructure	
Reduced Parking/ Remote Parking	<i>Reduced parking:</i> Riverton Park is limiting parking supply by providing fewer spaces than previously required under the City's former land use ordinance (pre- <i>ReCode</i>). In addition, the current off-street parking-to-unit ratio is 1.37 (194 off-street spaces for 141 units); upon project completion, this will be reduced to 1.26 (231 spaces for 182 units).
Affordable Housing	Far beyond the current City standard for workforce housing, 91% of Riverton Park's dwelling units will be considered affordable housing. 78% of units will be dedicated for people with a total household income not exceeding 50% percent of Area Median Income (AMI); 13% of units will be dedicated to those with up to 60% of AMI. Affordable housing units at a lower AMI generate fewer vehicle trips and less parking demand than higher AMI or market-rate housing units.
Transit & Other TDM Access	<i>TDM kiosk:</i> Bulletin board or monitor with slides will be placed in Community Neighborhood Center. Kiosk will include multimodal map with transit routes, bicycle routes and trails, and walk and bike distances/times; information on the Southern Maine Transit Tracker; listing of bicycle facilities on site; carshare locations and membership information, if applicable; information on GO MAINE ride-matching, rewards and Emergency Ride Home benefit for all alternate modes of transportation - materials regarding GO MAINE services and benefits are available from the state program (More at gomaine.org and by contacting the Go Maine Program Team, rides@gomaine.org , 1-800-280-RIDE, 254 Commercial Street, Suite 245, Portland, ME 04101; all TDM benefits available for residents; contact information for TDM Coordinator.
	<i>Bus turn-around and weather awning:</i> Construction of bus-turnaround at the Neighborhood Center will allow improved school bus access to the site and building awning will provide cover for waiting students.
	<i>Possible collaboration with City Shelter shuttle:</i> To increase transit frequencies to downtown Portland, PHA will explore the possibility of Riverton Park residents being able to utilize the shuttle that will be run between the new City Shelter on Riverside Street and downtown.
Pedestrian, Bicycle and Carpool Access	<i>Sidewalks/Paths:</i> Reconstruction and/or new construction of selected street sidewalk segments and paths through the site
	<i>ADA-accessible pedestrian amenities:</i> This will include, but not be limited to: new sidewalks, pathways and parking lots with improved grading that offer slopes/pitches that meet accessibility code where feasible or required; ramps and zero-step entries into units where feasible or required; and accessible routes to project amenities where feasible or required
	<i>Crosswalks:</i> Striping improvements, as required, for existing or proposed crosswalks to improve pedestrian safety, subject to City approval when in the municipal right of way
	<i>Lighting:</i> Street and building lighting to improve sidewalk illumination
	<i>Benches and weather awning protection</i> at Neighborhood Center
	<i>Bicycle parking near residential buildings:</i> A total of at least 88 spaces on bicycle racks on concrete pads spread across the development. This will entail approximately two-to-four racks in each cul-de-sac and also at the new multifamily Building 1, with associated lighting.
	<i>Off-street bicycle racks at the new Neighborhood Center:</i> At least 8 bicycle parking spaces on concrete pads will be placed in front of the Neighborhood Center.



Shared Mobility	<i>Bicycle repair stations:</i> Six bicycle repair stations will be located across the development in each housing cul de sac and in other visible locations
	<i>Flexible passenger loading curb space(s):</i> To facilitate resident and visitor pick-up, drop-off and carpooling
	<i>Explore Carshare:</i> PHA to explore possibility of partnering with other developers to set up a carshare program at various sites. If feasible, PHA will explore offering an off-street parking space to the carshare program, coordinate with the City to provide an on-street parking space to the carshare program, and/or potentially provide a discount for resident carshare vehicle use for the first year of a resident's tenancy.
	<i>Explore Bikeshare:</i> PHA to explore with the City the possible eventual expansion of Portland's electric bikeshare to Riverton Park and other off-peninsula sites, in coordination with City efforts. This would likely include encouragement for the City to consider cargo bikeshare options for families at Riverton Park.
On-Site/Adjacent-to-Site Amenities	<i>Community space:</i> Ample community spaces that tenants can reserve, including a community/conference room, community kitchen, recreation hall, etc. This encourages on-site community-building and facilitates group projects.
	<i>PHA Study Center for youth and teens:</i> Afterschool homework assistance, early evening teen time, and other youth development / social activities. In daytime, space may be used for adult groups, classes and other activities.
	<i>On-site Boys & Girls Club (ages 5-13):</i> Homework assistance, arts programming, recreational activities and daily snack
	<i>On-site Opportunity Alliance Head Start pre-school:</i> The non-profit organization serves Greater Portland families, including Riverton Park families, with children ages 3-5 who are income eligible. This on-site pre-school removes the need for transporting children to and from school for many Riverton Park families.
	<i>Greater Portland Health Clinic:</i> General health services available to Riverton Park residents and the public. New clinic will be substantially larger and able to increase capacity of health services provided to the Riverton community.
	<i>Broadband access:</i> Free and accessible WiFi will be made available at all community buildings. PHA is exploring the same service for all residential units as well. At a minimum, all units will have hardwired infrastructure for broadband and WiFi.
	<i>Laundry facilities:</i> On-site laundry space with washers and dryers available for all tenants
	<i>Convenience Store:</i> New Queen Bee Mart at the head of Riverton Drive will increase walking convenience to purchase simple grocery items like eggs and milk. Other grocery or pharmaceutical items can be purchased right across Forest Avenue at the Hannaford.
	<i>Other retail options:</i> Two new retail spaces will exist at the new multifamily Building 1, potentially enabling walking for other errands; each ~1,200 sq. ft.
	<i>Fitness/recreation areas:</i> The site will include indoor and outdoor recreation areas, which help reduce vehicle trips for these activities and improve residents' physical fitness for active transportation



Delivery Supportive Amenities	PHA will facilitate delivery services by providing an area for temporary storage for packages and other deliveries. For residents living in the new Building 1, there will be a centralized mail and package room on the 1st floor of the building. For residents of the townhomes/cul de sacs, there will be a centralized mail and package room at the Neighborhood Center.
General Contribution to Area Transportation Improvements	Per Chapter 14 of the City of Portland Code, the property is contributing to transportation impact fees for the net new residential units. These fees will assist with transportation improvements in Portland.
Incentives	
Parking Pricing/Incentives	<i>Unbundled parking:</i> Market rate tenants may be charged for parking via a separate lease from the unit rental, subject to change due to governmental financing regulations and restrictions.
Transit Subsidies	<i>Transit passes:</i> PHA will explore feasibility to provide transit subsidy for residents. A former PHA transit pass program became impossible to continue with the new Dirigo electronic pass program. METRO will need to cooperate with PHA to facilitate this effort. A family pass option will also be a priority for PHA residents.
Information	
Education for Travel Choice & Promotion of Alternate Modes	<i>Webpage:</i> Maintain active web page on property management website for residents and property management employees. Page to include same information as orientation packet below and also copy of TDM Plan on file with the City.
	<i>TDM orientation packets:</i> As part of the larger orientation after (re)occupancy of the site, new residents will be provided with orientation packets regarding the site's TDM program and access to site by various travel modes. Includes: (1) Residential Services Coordinator as a transportation resource person (2) Map of area, showing site, major streets, nearby landmarks and time to walk/bike to them, closest bus stops and walking times, recommended cycling and walking routes, carshare if applicable, etc. (3) Information about transit service frequency, fares, first and last runs, and schedules; phone numbers and web addresses for transit service providers and taxi companies. (4) How to reach major transportation terminals (bus and train stations, airport, ferry terminal, etc.) (5) Access arrangements for people with disabilities; (6) Availability of bicycle parking and bikeshare, if available; (7) Bicycle maintenance options and bicycle safety courses; (8) Encouragement for residents to become members of GO MAINE and access rewards system, carpool matching and Emergency Ride Home Benefit; (9) carshare information, if available, and automobile parking availability and price; (10) Info on TDM program and how to contact the TDM Coordinator.Coordinator.
	<i>New Resident TDM Engagement & Acknowledgement:</i> TDM Coordinator will engage with each new tenant household to share about the Riverton Park TDM program. They will be asked to sign an acknowledgement of the site TDM goals.
	<i>Residential Services Coordinator Assistance:</i> The redeveloped site will have full-time Residential Services Coordinator (RSC) who can assist residents with applying for reduced-fare transit passes and accessing transportation-related benefits through various state and local programs, such as transportation coaching and bus passes for families who are working or going to school. PHA will explore the possibility of engaging with the Greater Portland Council of Government's <i>Travel Helpers Training</i> program to train the RSC.



Education for Travel Choice & Promotion of Alternate Modes (continued)	<i>Transportation fairs/tabling:</i> Explore tabling event at least one time per year - likely tied to other Riverton Park events such as the pancake breakfasts and block parties - to engage residents in conversation about their transportation choices
	<i>Experiment with offering on-site bicycle safety class:</i> PHA will offer one annual class on either bicycle safety or maintenance through the Bicycle Coalition of Maine, Portland Police Department, or another organization
	<i>TDM Data Collection:</i> As PHA staff collect data on Trend Indicators such as bike rack utilization, these processes will also serve as an education and promotion tool in communicating with residents – <i>see more in Section E</i>



E. Plan for Monitoring, Data Collection and Reporting

Traditional TDM surveying processes (e.g., like those of employees at a large employer) would be a significant burden for Riverton Park residents – who are time constrained from carrying multiple job and diverse caregiving responsibilities, and many of whom also have limited English language proficiency. In addition, conducting surveys with people with language barriers requires a tremendous expenditure of staff capacity and hours for a public housing agency. For example, the City has recent experience with another TDM plan for a similar affordable housing site, where the agency is having to do one-on-one interviews with tenants with the assistance of an interpreter and also expending considerable time and cost to reach every household.

Data Collection

Given the surveying restraints above and in consultation with the City regarding this TDM Plan, the TDM Coordinator will collect quantitative data each year on the following individual trend indicators to help track and inform the site's TDM efforts:

- METRO Riverton Park stop data (available by request)
- School bus ridership count
- Late summer, winter, and spring surveys of bike rack utilization
- Property management records of tenant parking space usage
- GO MAINE membership (location specific data available by request, with members kept anonymous (contact GO MAINE Program Team, rides@gomaine.org, 1-800-280-RIDE, 254 Commercial Street, Suite 245, Portland, Maine 04101)
- Number of PHA interactions with residents regarding transportation-related information and assistance
- Usage numbers for any future carshare and/or bikeshare installations (available upon request of carshare or bikeshare operator)



This approach is much less burdensome to both residents and PHA and allows the housing authority more flexibility to meet the evolving transportation needs of Riverton Park's residents.

In addition, the Coordinator will share staff's broader perceptions of resident multimodal interests and needs, as well as the general utility of the site's TDM programming. The TDM Coordinator and PHA staff will also utilize this information to assess their efforts and plan for any TDM program modifications and improvements.

Note: the school bus and bike rack surveys will also assist PHA with its TDM education efforts. That is, the actions themselves help people take notice and think differently about their transportation behavior. Conversations with residents during the surveys can also provide a reminder of the TDM online/on-site information center and the TDM Coordinator for more information about options.

Annual Report

The TDM Coordinator will then produce an annual TDM Report to meet the City's monitoring requirements. This will be due every year on May 15, beginning within the first year after Certificate of Occupancy and full occupancy for all buildings. The City has created a reporting template for consistency of site reports and PHA will utilize the most recent version of this template when beginning its reporting process. For now, it is recommended that the report include:

- a. the above TDM trend indicators data;
- b. percent of units occupied;
- c. how the data directly relate to the site's TDM trends;
- d. overview of that year's TDM operations – including management, strategies, marketing, description of transportation-related interactions with residents, and any new infrastructure development;
- e. lessons learned and any changes in the TDM plan during the year;
- f. plans for the following year.



Room Number	Room Name	Area (GSF)	Area (NSF)	Use Group	Occupant Load Factor (IBC2015, Table 1004.1.2)	Max Occupancy	Average Occupancy
100	Vestibule	244.75	225.03	Assembly	15NSF/person	15	
101	Lobby	535.49	523.85	Assembly	15NSF/person	35	
102	Parcel	191.78	171.71	Assembly	15NSF/person	11	
103	Delivery/Distribution	253.12	235.75	Storage (Mercantile)	300GSF/person	1	
104	Food Pantry	787	724.05	Mercantile	60GSF/person	13	2
105	Vestibule	67.23	65.43	Assembly	15GSF/person	4	
106	Water	72.99	59.82	Mechanical Equip Rm	300GSF/person	1	
107	Community Police	405.7	372.31	Business	100GSF/person	4	3
108	Storage	17.25	13.29	Accessory Storage Areas	300GSF/person	1	
109	Janitor	18.21	14.17	Accessory Storage Areas	300GSF/person	1	
110	Unisex Toilets	521.61	487.02				
111	Teen/Study Center	967	910.53	Assembly	15NSF/person	60	15
112	Computer Room	169.91	153.17	Assembly	15NSF/person	10	
113	Art Room	383.4	353.77	Educational	20NSF/person	17	
114	Storage	56.07	50.4	Accessory Storage Areas	300GSF/person	1	
115	Teen Center Office	121	112.04	Business	100GSF/person	1	1
116	Library	64.65	60.16	Library, stack area	100GSF/person	1	
117	Conference/Programming	330.68	314.11	Assembly	15NSF/person	20	
118	Boys & Girls Club	1497.48	1425.38	Assembly	15NSF/person	95	50
119	Cubbies	146.26	141.51	Assembly (standing space)	5NSF/person	27	
120	Boys & Girls Office	113.84	105.48	Business	100GSF/person	1	1
121	PHA RCS Office	122.91	113.27	Business	100GSF/person	1	1
122	Boys & Girls Reception	158.16	145.33	Business	100GSF/person	1	1
123	Storage	116.25	103.62	Accessory Storage Areas	300GSF/person	1	
124	Community Kitchen	513.53	481.23	Educational, shop/voacation	50NSF/person	9	8
125	Janitor	23.35	18.53	Accessory Storage Areas	300GSF/person	1	
126	Women's RR	174.46	156.02				
127	Men's RR	162	142.88				
128	Staff RR	50.73	44.22				
129	Computer Room/Library	331.09	300.4	Assembly	15NSF/person	20	
130	Art Room	383.9	353.65	Educational	20NSF/person	17	
131	Music Room	249.17	224.07	Educational	20NSF/person	11	
132	Game Room	568.97	512.59	Assembly	15NSF/person	34	
133	Community Room/Gym	2753.64	2607.05	Assembly	7NSF/person	372	
134	Electric	72.99	59.82	Mechanical Equip Rm	300GSF/person	1	
200	Mechanical Mezzanine	1196.74	1090.12	Mechanical Equip Rm	300GSF/person	3	
Projected Average Daily Occupancy							82
Max Occupany based on IBC 2015 table 1004.1.2						790	

Riverton Park Rehabilitation
Portland, Maine
Occupant Loads

		Existing			Proposed			
		Total Gross SF	Occupant Load Factor	Occupant Load	Total Gross SF	Occupant Load Factor	Occupant Load	Comments
Circle 1					-			
	Building 1	6,002	200	31	-		0	Demolished
	Building 2	6,008	200	31	-		0	Demolished
	Building 3	5,992	200	30	-		0	Demolished
	Building 4	5,974	200	30	-		0	Demolished
	Building 5	6,063	20	250	6,391	200	32	Existing Service Row convert back to to residential
Circle 2								
	Building 6	7,662	200	39	7,662	200	39	No change to buidling area or occupant load
	Building 7	7,662	200	39	7,662	200	39	No change to buidling area or occupant load
	Building 8	6,061	200	31	6,061	200	31	No change to buidling area or occupant load
	Building 9	7,675	200	39	7,675	200	39	No change to buidling area or occupant load
Circle 3								
	Building 10	7,662	200	39	7,662	200	39	No change to buidling area or occupant load
	Building 11	6,067	200	31	6,067	200	31	No change to buidling area or occupant load
	Building 12	6,454	200	33	6,454	200	33	No change to buidling area or occupant load
	Building 13	6,513	200	33	6,513	200	33	No change to buidling area or occupant load
	Building 14	7,662 200 GSF / 20 NSF		148	7,662 200 GSF / 20 NSF		148	Existing Daycare at 102/104 Riverton Drive to remain
Circle 4								
	Building 15	6,513	200	33	6,513	200	33	No change to buidling area or occupant load
	Building 16	6,498	200	33	6,498	200	33	No change to buidling area or occupant load
	Building 17	6,464	200	33	6,464	200	33	No change to buidling area or occupant load
	Building 18	6,513	200	33	6,513	200	33	No change to buidling area or occupant load
Circle 5								
	Building 19	7,676	200	39	7,676	200	39	No change to buidling area or occupant load
	Building 20	6,060	200	31	6,060	200	31	No change to buidling area or occupant load
	Building 21	6,534 200 GSF / 100 NSF		38	6,534	200	33	Exist Laundry at 35 Springbrook Way convert back to 2-BR
Circle 6								
	Building 22	6,529	200	33	6,529	200	33	No change to buidling area or occupant load
	Building 23	6,533	200	33	6,533	200	33	No change to buidling area or occupant load
	Building 24	7,662	200	39	7,662	200	39	No change to buidling area or occupant load
	Building 25	6,475	200	33	6,475	200	33	No change to buidling area or occupant load
REHAB TOTALS		169,837		1182	232,583		837	

CITY OF PORTLAND
Planning & Urban Development Department

Att. F

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.**

EXHIBIT

GENERAL APPLICATION DOCUMENTS

1	Yes	NA	Project Description Cover letter with detailed project description
2.1	Yes	NA	Completed Checklist (this document)
3	Yes	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
4	Yes	NA	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
5	Yes	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
6	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
7	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
8	Yes	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
9	Yes	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
10	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.**

EXHIBIT

TRANSPORTATION

11	Yes NA	Impact on Surrounding Street Systems (14-14.6.1(A)) Describe incremental volume of traffic impacts and mitigation measures. If needed
12	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)
13	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
14	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
15	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

EXHIBIT

ENVIRONMENTAL		
16	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
17	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
18	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
19	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

EXHIBIT

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY		
20	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
21	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)
22	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		
23	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
24	Yes NA	Shadows (14-14.6.4(B)), if applicable Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
25	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

<u>EXHIBIT</u>	Yes	NA	
26			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
27			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
28			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
29			Zone-Related Design Standards (14-14.6.4(I)) Address any applicable design review standards by zone, including compliance with Design Manual

ADDITIONAL EXHIBITS

30	Yes	Geotechnical Report
31	Yes	Turning Movement Diagram : Aerial Ladder Truck + Bus
32	Yes	Construction Management Plan

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

Table 4 ITE Trip Generation Calculations for Rehabbed Units						
Land Use	Affordable Housing-Income Limits - LUC 223					
Time Period	Dwelling Units	Trip Generation Rate Trips/Dwelling Units	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	126	4.81	606	50% / 50%	303	303
AM Weekday Peak Hour (Street)	126	0.36	45	26% / 74%	12	33
PM Weekday Peak Hour (Street)	126	0.46	58	59% / 41%	34	24
AM Weekday Peak Hour (Generator)	126	0.36	45	26% / 74%	12	33
PM Weekday Peak Hour (Generator)	126	0.50	63	58% / 42%	37	26

Table 5 ITE Trip Generation Summary				
Land Use	Proposed and Rehabbed Total Trip Generation			
Time Period		Trips Generated	Enter	Exit
Weekday		1157	564	564
AM Weekday Peak Hour (Street)		87	34	51
PM Weekday Peak Hour (Street)		122	64	55
AM Weekday Peak Hour (Generator)		107	40	65
PM Weekday Peak Hour (Generator)		149	80	66



Neighborhood Meeting for the Riverton Park Redevelopment & Renovation Project

February 6, 2023

Dear Neighbor:

Portland Housing Authority and Portland Housing Development Corporation have submitted a Major Site Plan Development Application (PL-002319-2022) and Conditional Use Application (CU-002325-2023) to the City of Portland for the redevelopment and renovation of Riverton Park, located at 2 Riverton Drive.

Please join us for a Neighborhood Meeting to discuss our Riverton Park plans:

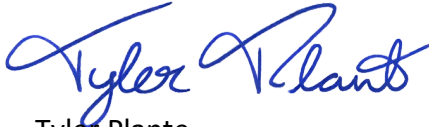
- Redevelopment plans for more affordable housing and resident services, including the construction of a new 4-story building with 59 residential units and a new Neighborhood Center.
- Renovation of 123 affordable townhome apartments.
- Conversion of Riverton Park from the Public Housing to the Section 8 Program.

Meeting Date:	Wednesday, February 22nd, 2023
Meeting Time:	5:00 PM
Meeting Location:	Riverton Park Community Room 2 Riverton Drive, Portland, ME 04103

A project and plan summary are available for viewing on the Citizen Self Service Portal (<https://css.portlandmaine.gov>) by referencing these Plan Numbers: for the Major Site Plan

Development Application (PL-002319-2022) and for the Conditional Use Application (CU-002325-2023). Interpreters available. If you have any questions, please call Tyler Plante at 207-221-8028.

Sincerely,



Tyler Plante
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 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
Planning & Urban Development Department

Att. G

**CONDITIONAL USE – PLANNING BOARD REVIEW
SUBMISSION CHECKLIST**

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

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

EXHIBIT

GENERAL APPLICATION DOCUMENTS

1 **Yes** N/A **Project Description**

- Cover letter with detailed project description

2.2 **Yes** N/A **Completed Checklist – Conditional Use** (this document)

3 **Yes** N/A **Evidence of Right, Title and Interest**

- Deeds, leases, or purchase and sales agreements

CONDITIONAL USE STANDARDS AND CRITERIA

11,
12,
14 **Yes** N/A **Traffic**

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

3,
16,
19,
22 **Yes** N/A **Environmental Impacts**

- Demonstrate that the proposed use will not create any unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter.

1,
14,
17,
18,
20 **Yes** N/A **Design and Operation**

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

6.2 **Yes** N/A **Use- and Zone-Specific Criteria**

- Address any use- or zone-specific standards in Sections 6.5.6 and 6.5.7 of the land use code.

16. Preservation of Significant Natural Features

The project site is a previously developed dense suburban site. It is comprised of six cul-de-sacs ("circles") that each contain 3-5 buildings that house 18-30 apartment units per circle, plus associated parking lots and associated site improvements/facilities. There are two public roads that run through the project: Riverton Drive and Springbrook Way. Pinewood Drive was vacated in 1997 and remains a private road. There are no known significant plant species, communities, or specimens within the site.

The only natural features to note on the site are a stream and associated wetland complex. It is a goal of the project to respect these systems as much as possible. There are a few locations where proposed items will encroach into a portion of the resource setback and will require a Permit-by-Rule (PBR) from the Maine Department of Environmental Protection (MDEP). They are: new maintenance garage facility, repaving of the existing basketball court, and trails/overlooks.

The new maintenance garage is being located where previous development has occurred. The existing basketball court will be repaved but remain in its current location and footprint. New trails and overlooks are being proposed for recreation, enjoyment of and interaction with nature. Exact trail and overlook locations are TBD. All individual projects will use current best management practices to minimize any impacts to the stream/wetland buffers.

Commissioners

Kristin Blum, Chair
Monique Mutumwinka, Vice Chair
Christian MilNeil, Commissioner
Shirley Peterson, Commissioner
Thomas Valleau, Commissioner
Joan White, Commissioner
Robert Dunfey, Commissioner



Brian Frost

Executive Director
14 Baxter Blvd.
Portland, Maine 04101
Office: 207-773-4753
Fax: 207-761-5886
www.porthouse.org

February 23, 2023

Planning & Urban Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

**RE: Neighborhood Meeting Certification
Riverton Park, 2 Riverton Drive
Major Site Plan Development, PL-002319-2022
Conditional Use Application, CU-002325-2023**

To whom it may concern:

I, Tyler Plante, Development Officer for Portland Housing Development Corporation (PHDC) and Portland Housing Authority (PHA), hereby certify that a neighborhood meeting was held on Wednesday February 22, 2022 at 5:00pm in Riverton Park's Community Room (2 Riverton Dr) for the proposed project located at 2 Riverton Drive.

I also certify that on 2/6/23, 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,

A handwritten signature in blue ink that reads "Tyler Plante".

Tyler Plante
2/23/2023

Attachments

1. Copy of the notice sent
2. Sign-in sheet
3. Record of feedback



Neighborhood Meeting for the Riverton Park Redevelopment & Renovation Project

February 6, 2023

Dear Neighbor:

Portland Housing Authority and Portland Housing Development Corporation have submitted a Major Site Plan Development Application (PL-002319-2022) and Conditional Use Application (CU-002325-2023) to the City of Portland for the redevelopment and renovation of Riverton Park, located at 2 Riverton Drive.

Please join us for a Neighborhood Meeting to discuss our Riverton Park plans:

- Redevelopment plans for more affordable housing and resident services, including the construction of a new 4-story building with 59 residential units and a new Neighborhood Center.
- Renovation of 123 affordable townhome apartments.
- Conversion of Riverton Park from the Public Housing to the Section 8 Program.

Meeting Date:	Wednesday, February 22nd, 2023
Meeting Time:	5:00 PM
Meeting Location:	Riverton Park Community Room 2 Riverton Drive, Portland, ME 04103

A project and plan summary are available for viewing on the Citizen Self Service Portal (<https://css.portlandmaine.gov>) by referencing these Plan Numbers: for the Major Site Plan

Development Application (PL-002319-2022) and for the Conditional Use Application (CU-002325-2023). Interpreters available. If you have any questions, please call Tyler Plante at 207-221-8028.

Sincerely,



Tyler Plante
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 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.

Attachment #2 - Sign-In Sheet

Neighborhood Meeting Sign-In Sheet

What: Riverton Park Neighborhood Meeting Notes for the Riverton Park Major Site Plan Development (PL-002319-2022) and Conditional Use Application (CU-002325-2023)
When: Wed 2/22/23 at 5:00pm
Where: Riverton Park's Community Room (2 Riverton Drive)

Members of the Public in Attendance:

Name
Jennifer MacArthur
Scott Sinski

Owner, Developer and Consultant Team in Attendance:

Name and Title
Tyler Plante, PHA + PHDC, Development Officer
Rebecca Bagley, CWS Architects
Matthew Phillips, Carroll Associates
Cora Lanclos, PHA

Attachment #3 - Record of Feedback

Commissioners

Kristin Blum, Chair
Monique Mutumwinka, Vice Chair
Christian MilNeil, Commissioner
Shirley Peterson, Commissioner
Thomas Valleau, Commissioner
Joan White, Commissioner
Robert Dunfey, Commissioner



Brian Frost

Executive Director
14 Baxter Blvd.
Portland, Maine 04101
Office: 207-773-4753
Fax: 207-761-5886
www.porthouse.org

NEIGHBORHOOD MEETING NOTES

What: Riverton Park Neighborhood Meeting Notes
When: Wed 2/22/22 at 5:00pm
Where: Riverton Park Community Room (2 Riverton Drive)

PRESENTERS:

Tyler Plante, Development Officer at PHA & PHDC
Cora Lanclos, Director of Property Management at PHA
Becky Bagley, Architect at CWS Architects
Matt Phillips, Landscape Architect at Carroll Associates Landscape Architects

START TIME

Meeting commenced at 5:00 pm.

NOTES

- Introductions
 - PHA, CWS Architect and Carroll Associates staff introduced themselves.
 - Jennifer MacArthur and Scott Siriski of cPort Credit Union spoke to their firm's interest engaging with and providing their banking services to underserved communities and staying up-to-date on local housing projects. They mentioned they have a branch on Riverside Industrial Parkway approximately ½ mile away.
- Matt Phillips and Becky Bagley presented on the proposed redevelopment and renovation project. First, there will be the construction of the new "Building 1" with 59 residential apartments containing ground-floor space for PHA offices and a new GPH clinic. Four buildings in Circle 1 will be demolished. The existing Management Office building will also be demolished, and in its place PHA will construct a new Neighborhood Center with space for resident services. Connecting Building 1 and the Neighborhood Center will be a plaza and raised speed table to slow traffic and improve pedestrian safety. Five remaining cul-de-sacs will be renovated with envelope replacement, new flooring, new bathrooms, new kitchens, new ventilation system, new lighting fixtures, painting, upgraded new front entrances and awnings, new rear unit patios, new exterior lighting, new pathways/sidewalks, new benches, improved landscaping around units, and improved reconfigured parking lots among other upgrades. There will be new recreational spaces, including a playing field and playground adjacent to the Neighborhood Center. Plans remain tentative and subject to change.
- Tyler Plante and Cora Lanclos discussed how the project will receive funding and approvals from the City of Portland, HUD, and MaineHousing. The goals of the project – increasing resident service and community spaces, improving housing quality, increasing the number of affordable

homes, improving accessibility, improving recreational and play areas, improving connectivity internally and to surrounding neighborhoods – were discussed.

- Jennifer MacArthur of cPort inquired about resident relocations.
 - PHA noted that RP residents in the first circle will likely relocate off-site, either relocating to another PHA property or receiving a voucher. All RP residents have the right to return to a renovated or newly built home at RP. Many RP residents in subsequent renovation phases will likely be able to relocate into vacant on-site apartments or newly renovated apartments. For many households, they may only be required to move once. No permanent involuntary displacement of any residents will occur. PHA will coordinate moves and movers, and pay for all relocation services. PHA has a full-time staff person to oversee moves and be point-of-contact for residents. PHA mentioned we just successfully completed the Washington Gardens renovation project where around 80 households were relocated during the course of the project, and that the relocations went very smoothly thanks to our emphasis on communication and teamwork.
- Jennifer MacArthur of cPort followed up by asking if PHA considers proximity to schools when relocating households with children.
 - PHA confirmed that we coordinate closely with Portland Public Schools and our residents to help keep children in the same school during any off-site relocations.
- PHA and cPort discussed possible financial services for residents, such as adult financial management classes and financial information at Riverton Park. cPort staff and PHA staff shared contact information and keep in touch.

END TIME

Meeting concluded at 5:26 pm.

NEW NEIGHBORHOOD CENTER

NEW 4-STORY BUILDING

PLAYGROUND

B-BALL

OPEN SPACE, REC FIELD AND PLAYGROUND

CIRCLE 2

CIRCLE 3

CIRCLE 4

CIRCLE 5

CIRCLE 6

OVER-LOOK

OVER-LOOK

NEW MAINTENANCE GARAGE

Wadron Way

Springbrook Way

Riverton Rd

Wellesley Estates

302

SCALE: 1/4" = 10'

DATE: 1/12/2019

REVISIONS

NO.	DESCRIPTION	DATE
1	FOR PERMITS (L.P. APPROVED)	01/11/2019
2	FOR PERMITS (L.P. APPROVED)	01/11/2019
3	FOR PERMITS (L.P. APPROVED)	01/11/2019
4	FOR PERMITS (L.P. APPROVED)	01/11/2019
5	FOR PERMITS (L.P. APPROVED)	01/11/2019

DRAWING NUMBER: C1.0

SCALE: AS SHOWN

DATE: 1/12/2019

REVISIONS DRAWING PROJECT OWNER

MASTER PLAN 02/22/2023

RIVERTON PARK REDEVELOPMENT AND REHABILITATION

APPLICANT: RIVERTON PARK, LP

DESIGNER: CARROLL ASSOCIATES LANDSCAPE ARCHITECTS

DATE: 01/11/2019

PROJECT NUMBER: 15-001

SCALE: 1/4" = 10'

DATE: 1/12/2019

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MASTER PLAN 02/22/2023

RIVERTON PARK RE

Riverton Park Visuals Shared During Neighborhood Meeting



Riverton Park Visuals Shared During Neighborhood Meeting



Riverton 17 Riverton Drive
CBL 327 B012001; 19.8649 acres
Project ME 3-8

Title is vested in Portland Housing Authority by virtue of a Warranty Deed from F. D. Rich Housing Corp. dated August 9, 1972 and recorded in Book 3280, Page 329 and in a Deed from Cynthia J. Mack, Charlotte S. Greenbelt and Leah A. Weiss to Portland Housing Corp. dated December 20, 1979 and recorded in Book 4549, Page 293.

SUBJECT TO:

1. Covenant set forth in deed from Arthur A. Serunian, Jr. to Shell Oil Co., dated September 15, 1967, as recorded in Book 3012, Page 817, insofar as it may be applicable to the premise herein conveyed, in which deed the said Arthur A. Serunian, Jr., as Grantor, covenanted with the Grantee, its successors and assigns, that no gasoline, lubricants or other petroleum products for motor vehicles shall be advertised, stored, sold, or distributed on or from any other property then owned by the Grantor within a radius of 1,000 foot of the promises therein conveyed, to which deed reference is hereby made for the full particulars thereof.
2. A power line easement as conveyed to Central Maine Power Co., et al, dated September 2, 1971 as recorded in Book 3199, Page 607.
3. Reservation of right of F. D. Rich Housing Corp., its successors and/or assigns, to change the course of a certain permanent drainage easement benefitting the insured premises and described in that deed from F. D. Rich Housing Corp. to Portland Housing Authority dated August 9, 1972 and recorded in Book 3280, Page 329, so long as such change in course shall adequately provide for the drainage of surface water from the Land across land now or formerly owned by F. D. Rich Housing Corp. to Riverside Street.
4. Declaration of Trust of Portland Housing Authority with respect to Project No. ME 3-8, dated October 19, 1972 and recorded in Book 3314, Page 217.
5. Easements granted by Portland Housing Authority to New England Telephone and Telegraph Company dated March 13, 1979 and recorded in Book 4398, Page 280.
6. Easements granted by Portland Housing Authority to New England Telephone and Telegraph Company, dated April 25, 1979 and recorded in Book 4418, Page 197.
7. Declaration of Trust (Grant Projects) between Portland Housing Authority and the United States of America, Secretary of Housing and Urban Development dated October 12 1988 and recorded in Book 8541, Page 1.
8. A Declaration of Trust (Modernization Grant Projects) between the Portland Housing Authority and the United States of America, Secretary of Housing and Urban Development, dated March 11, 1992 and recorded in Book 10432, Page 93.

9. A UCC-1 Financing Statement from Portland Housing Authority to Bank of America recorded on June 11, 2013 in Book 30722, Page 1, as continued by UCC-# filing recorded on June 4, 2018 in Book 34883, Page 252.
10. A UCC-1 Financing Statement from Portland Housing Authority to Banc of America Leasing & Capital, LLC recorded on June 11, 2013 in Book 30722, Page 174 , as continued by UCC-3 filing recorded on June 4, 2018 in Book 34883, Page 250.
11. A UCC-1 Financing Statement from Portland Housing Authority to Bank of America National Association recorded on February 22, 2016 in Book 32928, Page 312.

17. Landscape Preservation

The project is fortunate to have significant wooded buffers around the perimeter and through the middle portions of the site. These buffers, for the most part, are to remain. When development occurs adjacent, the areas will be marked in the field for extents of clearing to ensure significant stands remain. Or significant individual trees will be marked for preservation in more open areas. In a few areas where the buffers are punctured for development purposes and become thin, they will be supplement as necessary to preserve the privacy of the neighborhood.

Commissioners

Kristin Blum, Chair
Monique Mutumwinka, Vice Chair
Christian MilNeil, Commissioner
Shirley Peterson, Commissioner
Thomas Valteau, Commissioner
Joan White, Commissioner
Robert Dunfey, Commissioner



Brian Frost

Executive Director
14 Baxter Blvd.
Portland, Maine 04101
Office: 207-773-4753
Fax: 207-761-5886
www.porthouse.org

May 15, 2023

Planning & Urban Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Notice of Public Meeting Certification
Riverton Park, 2 Riverton Drive
Major Site Plan Development, PL-002319-2022
Conditional Use Application, CU-002325-2023

To whom it may concern:

I, Tyler Plante, Development Officer for Portland Housing Development Corporation (PHDC) and Portland Housing Authority (PHA), hereby certify that a notice of neighborhood meeting sign was posted from 5/15/23 to 5/24/23 prior to the public workshop held on 5/23/23 for the proposed project PL-002319-2022 and CU-002325-2023 located at 2 Riverton Drive.



Photo documentation of sign in situ:

Note that it is the applicant's responsibility to remove the notice of public meeting sign within three days following the date of the meeting.

Signed,

Tyler Plante
PHA and PHDC

Know all Men by these Presents

That F. D. RICH HOUSING CORP., formerly known as F. D. Rich Modular Housing Corp.,
a corporation organized and existing under the laws of the State of Delaware
with an office ~~and~~ located at Stamford
in the County of Fairfield and State of Connecticut
in consideration of one dollar and other valuable considerations,

paid by the PORTLAND HOUSING AUTHORITY, a public body duly created and organized pursuant to the laws of the State of Maine, with an office at 211 Cumberland Avenue, Portland, Maine,
the receipt whereof it does hereby acknowledge, does hereby
give, grant, bargain, sell and convey unto the said PORTLAND HOUSING AUTHORITY,
its successors - - - - - ~~and~~ assigns forever,

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

Beginning at a point on the southwesterly side of said Forest Avenue, which point is 386.56 feet southeasterly, on a course of S 39°-06'-30" E, from the intersection of the southwesterly side line of Forest Avenue with the southeasterly side line of Riverside Street and 50.21 feet northwesterly along Forest Avenue from an iron pin at the most northerly corner of land of the Cornerstone Masonic Corporation; thence S 45°-35' W, along land of this Grantor 188.75 feet to a point; thence S 11°-35' W, 230 feet to a point; thence S 47° W, 360 feet to a point; thence S 45° E, 242 feet to a point; thence S 56°-07'-30" W, 413.61 feet to a point; and land conveyed by Neal D. Lunt to Mary J. Field, et al, by deed dated October 30, 1905 and recorded in the Cumberland County Registry of Deeds, Book 776, Page 165; thence S 30°-53'-30" E, along said Field land, part of which is now or formerly owned by Charles Kaatz, 885.13 feet to a monument at the Westerly corner of land conveyed by Ellie K. Hawes to Maine Turnpike Authority by deed dated October 5, 1954 and recorded in said Registry of Deeds, in Book 2195, Page 453; thence northeasterly along said Maine Turnpike Authority land 750.40 feet to a monument; thence N 42°-41'-30" E, along said Turnpike land, 226.06 feet to an iron pin and the southwesterly side line of land conveyed by Joseph Hawkes to Alexander Bailey by deed dated February 26, 1868, recorded in said Registry of Deeds, in Book 360, Page 337, and now or formerly owned by Walter F. Hawkes; thence N 31°-13'-30" W, along said Hawkes land 656.92 feet to a monument; thence N 47°-52' E, along said Hawkes land 108.53 feet to an iron pin and land of Cornerstone Masonic Corporation; thence N 66°-56'-30" W, along said corporation land 75.27 feet to an iron pin; thence N 47°-17'-30" W, 295.21 feet to a monument at the northwesterly corner of said corporation land; thence N 45°-35' E, along said corporation land 168.81 feet to the said iron pin on the southwesterly side of Forest Avenue at the most northerly corner of said corporation land; thence northwesterly along said Forest Avenue 50.21 feet to the point of beginning.

The above described parcel contains 19.86 acres of land and is part of the premises conveyed to F. D. Rich Construction Co., Inc. by Arthur A. Serunian, Jr., by a Warranty Deed, dated November 28, 1969, as recorded in said Registry of Deeds in Book 3112, Page 252.

Said premises are hereby conveyed subject to a covenant set forth in a deed from Arthur A. Serunian, Jr., to Shell Oil Co., dated September 15, 1967, as recorded in said Registry of Deeds, in Book 3012, Page 817, insofar as it may be applicable to the premises herein conveyed, in which deed the said Arthur A. Serunian, Jr., as Grantor, covenanted with the Grantee, its successors and assigns, that no gasoline, lubricants or other petroleum products for motor vehicles shall be advertised, stored, sold, or distributed on or from any other property then owned by the Grantor within a radius of 1,000 feet of the premises therein conveyed, to which deed reference is hereby made for the full particulars thereof.

Said premises are also conveyed subject to a power line easement as conveyed by this Grantor to Central Maine Power Co., et al, dated September 2, 1971 as recorded in said Registry of Deeds, in Book 3199, Page 607.

Also hereby conveying all rights, easements, privileges, and appurtenances belonging to the premises hereinabove described, together with a permanent drainage easement for the drainage of surface water from the premises herein conveyed across the adjoining land of this Grantor through and along a gully that runs northwesterly from the northwesterly side line of said premises to a 48" road culvert across Riverside Street that is located about 100 feet north-easterly along Riverside Street from a monument at the northwesterly corner of this Grantor's property and about 950 feet along Riverside Street from the southwesterly side line of Forest Avenue. Provided, however, that the Grantor reserves the right to change the course of said drainage easement, in whole or in part through conduits or otherwise, so long as such change in course shall adequately provide for the drainage of surface water from the premises herein conveyed across this Grantor's adjoining land to Riverside Street.

The premises herein conveyed being the same premises as conveyed to this Grantor by F. D. Rich Construction Co., Inc., by a Warranty Deed, dated April 1, 1971, as recorded in said Registry of Deeds in Book 3165, Page 785.

To Have and to Hold the aforegranted and bargained premises with ³³¹
all the privileges and appurtenances thereof to the said PORTLAND HOUSING
AUTHORITY, its successors - - - - -

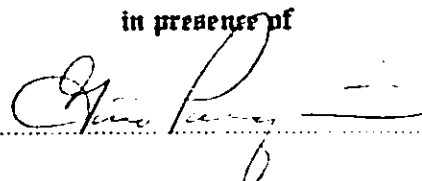
~~And~~ and assigns, to it and their use and behoof forever.

And does COVENANT with the said Grantee, its successors ~~there~~
and assigns, that it is lawfully seized in fee of the premises that they
are free of all encumbrances: except as aforesaid,

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 and assigns will
WARRANT and DEFEND the same to the said Grantee, its ^{successors} ~~there~~ and
assigns forever, against the lawful claims and demands of all persons, except
as aforesaid - - - - -

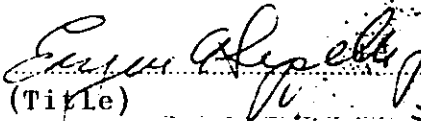
In Witness Whereof, the said F. D. RICH HOUSING CORP. - -
- - has caused this instrument to be sealed with its corporate seal and signed
in its corporate name by EUGENE A. SAPPOLI, JR. - -
- - - - - , its VICE-PRES.
thereunto duly authorized, this 9th day of AUGUST
in the year one thousand nine hundred and seventy-two.

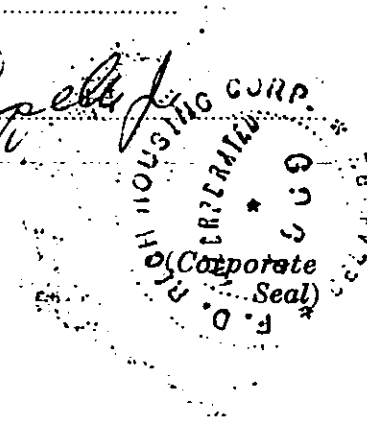
Signed, Sealed and Delivered
in presence of



F. D. RICH HOUSING CORP.

By


(Title)



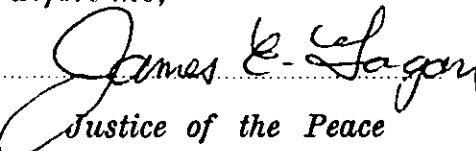
State of Maine,
Cumberland

} ss.

AUGUST 9th 1972

Then personally appeared the above named EUGENE A. SAPPOLI
VICE - PRESIDENT of said Grantor
Corporation as aforesaid, and acknowledged the foregoing instrument to be his free
act and deed in his said capacity, and the free act and deed of said corporation.

Before me,


Justice of the Peace

~~Notary Public~~

Register

AUG 10 1972
Book 3280 Page 329

18. Site Landscaping and Buffers

The goal behind the proposed Landscape Plan was to provide an attractive, low maintenance, landscape for year-round interest. This is accomplished through the use of street, shade, evergreen and ornamental trees, and shrubs/perennials.

We have concentrated on providing softening and buffering of the new buildings, specifically at the lower levels and at entry/exit points. We have tried to accomplish this through the use of layering. Street, shade and ornamental trees at the streets and outer edges of the parking areas; and large shrubs, evergreen and ornamental trees directly adjacent to the building.

Regarding street tree planting: the project is adhering to the standards for the new developments (Building 1, Neighborhood Center, and Maintenance Garage) while retaining existing trees (where possible) and supplementing the rehabilitations of Circles 2-6 with new trees.

The dumpsters at the individual circles will be screened by a combination of solid stockade type fence in the enclosures and/or vegetation.

The immediate surrounding properties are mostly residential with some commercial and industrial so this existing multi-family residential use as well as the proposed retail, PHA Property Management Office, Greater Portland Health Clinic and Neighborhood Center uses are compatible. Gaps in the perimeter buffers will be planted to provide buffers/privacy to the subject property as well as the abutters.

May 17, 2023

Tyler Plante, Development Officer
Portland Housing Development Corporation
14 Baxter Boulevard,
Portland, ME 04101

RE: Riverton Park Net New Trip Generation

Dear Tyler;

The purpose of this letter is to provide a “Net New” trip summary for the peak hour traffic volumes generated by the proposed apartments, resident service spaces and retail facilities at Riverton Park in response to the City of Portland’s consultant traffic engineer’s trip generation comments. See comment below.

“The applicant shall provide an estimate of the increase in peak hour traffic volumes with the proposed project considering all program elements (PHA Management offices, a new GPH Clinic, two small neighborhood retail stores, Neighborhood Center and Apartment units to be renovated). It should be based in ITE data and should account for bedrooms and other land use components noted above.”

Proposed Land Uses

The proposed Building 1 contains a total of 119 bedrooms, a 2,300square-foot (sf) clinic, 2,600sf of office space, and 2,350sf of retail space. Additionally, the existing community center will be expanded from 2,935sf to 12,000sf. The community center will be primarily for, and used by the 312 Riverton Park youth and teens. Approximately 6,500sf of the community center will be available on occasion to outside parties for non-commercial events.

While the renovations occurring within Circles 2 through Circle 6 are not estimated to generate any new trips, there are existing spaces in the buildings on Circle 2 and Circle 5 which will be redeveloped to add additional bedrooms to Riverton Park. In total, 15 new bedrooms will be added to Circle 2 and 1 new bedroom will be added to Circle 1. The number of bedrooms in the other existing buildings are expected to remain the same.

Site Trip Generation

Trip generation for the project has been estimated based upon the eleventh edition of the Institute of Transportation Engineer’s (ITE) Trip Generation Manual (TGM).

In this analysis, proposed trip generation calculations were performed for Building 1, the expanded recreation center, and the re-developed bedrooms in Circles 2 and 5. Existing trip generation calculations were performed for the existing residential building (72 bedrooms) on Circle 1 and the existing 2,935sf recreational community center. Following the proposed and existing trip generation

Riverton Park Trip Generation Letter

calculations we will calculate the “Net New” trips (proposed minus existing) in order to determine the number of trips that the development will produce.

Site trip estimates for the Riverton Park project are based upon the following land use codes (LUC): LUC #223 – Affordable Housing-Income Limits which is described in the ITE publication as: *all multifamily housing that is rented at below market rate*; LUC #495 – Recreational Community Center which is described as: *a stand-alone public facility similar to and including YMCAs that often include classes and clubs for adults and children*, LUC #630 – Clinic which is described as: *a facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care*; LUC #712 – Small Office Building which is described as: *an office space that typically houses one tenant with less or equal 10,000sf*, and LUC #822 – Strip Retail Plaza (<40k), described as: *an integrated group of commercial establishments that is planned, owned and managed as a unit*.

Proposed

The trip generation calculations for the proposed Building 1, recreational center expansion and bedrooms in Circle 2 and 5 are depicted below in Table 1.1 through Table 1.7.

Table 1.1 ITE Trip Generation Calculations - Building #1						
Land Use	Affordable Housing-Income Limits - LUC 223					
Time Period	Bedrooms	Trip Generation Rate Trips/Bedroom	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	N/A					
AM Weekday Peak Hour (Street)	119	0.45	54	37% / 63%	20	34
PM Weekday Peak Hour (Street)*	119	0.27	32	59% / 41%	19	13
AM Weekday Peak Hour (Generator)	119	0.45	54	26% / 74%	14	40
PM Weekday Peak Hour (Generator)	119	0.27	32	59% / 41%	19	13

ITE does not provide trip gen rates for PM peak hour of (street). Assumed similar to PM peak hour of (generator).

Riverton Park Trip Generation Letter

Table 1.2 ITE Trip Generation Calculations - Building 1						
Land Use	Clinic - LUC 630					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.3	37.60	86	50% / 50%	43	43
AM Weekday Peak Hour (Street)	2.3	2.75	6	81% / 19%	5	1
PM Weekday Peak Hour (Street)	2.3	3.69	8	30% / 70%	2	6
AM Weekday Peak Hour (Generator)	2.3	3.44	8	60% / 40%	5	3
PM Weekday Peak Hour (Generator)	2.3	4.22	10	46% / 54%	5	5

Table 1.3 ITE Trip Generation Calculations - Building 1						
Land Use	Small Office Building - LUC 712					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.6	14.39	37	50% / 50%	19	18
AM Weekday Peak Hour (Street)	2.6	1.67	4	82% / 18%	3	1
PM Weekday Peak Hour (Street)	2.6	2.16	6	34% / 66%	2	4
AM Weekday Peak Hour (Generator)	2.6	2.61	7	60% / 40%	4	3
PM Weekday Peak Hour (Generator)	2.6	3.15	8	42% / 58%	3	5

Table 1.4 ITE Trip Generation Calculations - Building 1						
Land Use	Strip Retail Plaza (<40k) - LUC 822					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.35	54.45	128	50% / 50%	64	64
AM Weekday Peak Hour (Street)	2.35	2.36	6	60% / 40%	4	2
PM Weekday Peak Hour (Street)	2.35	6.59	15	50% / 50%	8	7
AM Weekday Peak Hour (Generator)	2.35	7.60	18	50% / 50%	9	9
PM Weekday Peak Hour (Generator)	2.35	13.24	31	54% / 46%	17	14

Riverton Park Trip Generation Letter

Table 1.5 ITE Trip Generation Calculations - Resident Use Only						
Land Use	Recreational Community Center - LUC 495					
Time Period	Members (1000s)	Trip Generation Rate Trips/1000 Members	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday*						
AM Weekday Peak Hour (Street)	0.312	18.35	6	55% / 45%	3	3
PM Weekday Peak Hour (Street)	0.312	23.06	7	44% / 56%	3	4
AM Weekday Peak Hour (Generator)	0.312	26.07	8	26% / 74%	2	6
PM Weekday Peak Hour (Generator)	0.312	23.14	7	39% / 61%	3	4

*ITE does not publish Weekend Daily trip generation

Table 1.6 ITE Trip Generation Calculations - Public Use						
Land Use	Recreational Community Center - LUC 495					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	6.5	28.82	187	50% / 50%	94	93
AM Weekday Peak Hour (Street)	6.5	1.91	12	66% / 34%	8	4
PM Weekday Peak Hour (Street)	6.5	2.50	16	47% / 53%	8	8
AM Weekday Peak Hour (Generator)	6.5	1.85	12	63% / 37%	8	4
PM Weekday Peak Hour (Generator)	6.5	2.53	16	47% / 53%	8	8

Table 1.7 ITE Trip Generation Summary			
Land Use	Proposed Development Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	438	220	218
AM Weekday Peak Hour (Street)	95	43	45
PM Weekday Peak Hour (Street)	88	42	42
AM Weekday Peak Hour (Generator)	114	42	65
PM Weekday Peak Hour (Generator)	108	55	49

Table 1.7, above, shows that the proposed development is expected to generate 114 trips during the AM peak hour of the generator (site) and 108 trips during the PM peak hour of the site. In the following section we will calculate the trips generated by the existing uses which will be demolished/replaced by the proposed development.

Riverton Park Trip Generation Letter

Existing

The trip generation calculations for the existing residential building on Circle 1 and the existing recreational center are shown below in Table 2.1 through Table 2.3.

Table 2.1 ITE Trip Generation Calculations						
Land Use	Affordable Housing-Income Limits - LUC 223					
Time Period	Bedrooms	Trip Generation Rate Trips/Bedroom	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	N/A					
AM Weekday Peak Hour (Street)	72	0.45	32	37% / 63%	12	20
PM Weekday Peak Hour (Street)*	72	0.27	19	59% / 41%	11	8
AM Weekday Peak Hour (Generator)	72	0.45	32	26% / 74%	8	24
PM Weekday Peak Hour (Generator)	72	0.27	19	59% / 41%	11	8

ITE does not provide trip gen rates for PM peak hour of (street). Assumed similar to PM peak hour of (generator).

Table 2.2 ITE Trip Generation Calculations						
Land Use	Recreational Community Center - LUC 495					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.935	28.82	85	50% / 50%	43	42
AM Weekday Peak Hour (Street)	2.935	1.91	6	66% / 34%	4	2
PM Weekday Peak Hour (Street)	2.935	2.50	7	47% / 53%	3	4
AM Weekday Peak Hour (Generator)	2.935	1.85	5	63% / 37%	3	2
PM Weekday Peak Hour (Generator)	2.935	2.53	7	47% / 53%	3	4

Table 2.3 ITE Trip Generation Summary			
Land Use	Existing Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	N/A		
AM Weekday Peak Hour (Street)	38	16	22
PM Weekday Peak Hour (Street)	26	14	12
AM Weekday Peak Hour (Generator)	37	11	26
PM Weekday Peak Hour (Generator)	26	14	12

Riverton Park Trip Generation Letter

Table 2.3 shows that the existing residential building on Circle 1 and existing recreational center is estimated to generate a maximum of 38 trips during the AM peak hour of the (street) and 26 trips during the PM peak hour of the street and generator.

Net New Trips

Table 3, shown below, provides a summary of the net new trips produced by the proposed development.

Table 3 ITE Trip Generation Summary			
Land Use	Net New Trips - Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	N/A		
AM Weekday Peak Hour (Street)	57	27	23
PM Weekday Peak Hour (Street)	62	28	30
AM Weekday Peak Hour (Generator)	77	31	39
PM Weekday Peak Hour (Generator)	82	41	37

In total, when accounting for the existing development that will be demolished and replaced with the proposed development, the Riverton Park project is expected to generate 57 trips during the AM peak hour of the (street), and 67 trips during the PM peak hour of the street. During the peak hours of the generator, the proposed development is forecasted to generate 77 net new trips in the AM peak hour and a maximum of 82 net new trips during the PM peak hour.

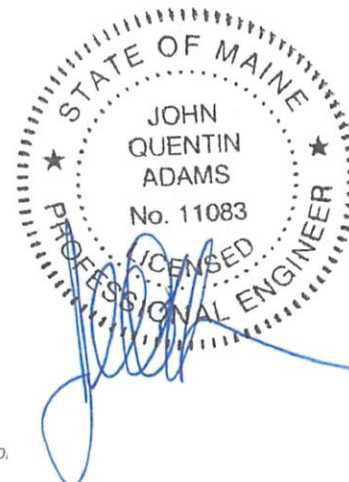
Summary

It is anticipated that the proposed project will generate a maximum of **82** net new trips during the PM peak hour of the (generator), and therefore remain below the 100 trip threshold required to trigger a MaineDOT Traffic Movement Permit application.

Best regards,

Jacob Sirois
Engineer 1
Barton & Loguidice

John Q. Adams, P.E., PTOE
Associate, Senior Transportation Engineer
Barton & Loguidice



181 (101)

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Know all Men by these Presents,

That We, CYNTHIA J. MACK, of Portland in the County of Cumberland and State of Maine, CHARLOTTE S. GREENBLATT, of Bath in the County of Sagadahoc and said State of Maine, and LEAH A. WEISS, of Cedarhurst in the County of Nassau and State of New York,

in consideration of One Dollar (\$1.00) and other valuable consideration,

paid by PORTLAND HOUSING AUTHORITY, a body corporate and politic, existing under the laws of the State of Maine and having a principal office in said Portland,

and whose mailing address is 211 Cumberland Avenue, Portland, Maine

the receipt whereof we do hereby acknowledge, do hereby remise,

release, bargain, sell and convey and forever quit-claim unto the said Portland Housing Authority, its successors and assigns, forever.

~~Not to be assigned or conveyed~~

a certain lot or parcel of land, westerly of the Maine Turnpike, in said Portland, being more particularly bounded and described as follows:

Beginning at a point on the westerly side of land of the Maine Turnpike Authority at the most easterly corner of land of the grantors situated at the rear of 613-639 Riverside Street, said point also being the most southerly corner of land of the grantee; thence from said point along common property line of the grantors and grantee North 30° 53' 30" West a distance of one hundred and fifty (150) feet to a point; thence South 59° 06' 30" West a distance of ten (10) feet to a point; thence South 30° 53' 30" East a distance of one hundred fifty-four and four-tenths (154.4) feet, more or less, to the westerly side of land of the Maine Turnpike Authority; thence along said Maine Turnpike Authority line a distance of ten and nine-tenths (10.9) feet, more or less, measured on the arc having a radius of 5879.58 feet to the point of beginning.

The described parcel of land has an area of 1,521.75 square feet.

To have and to hold, the same, together with all the privileges and appurtenances thereunto belonging, to the said Portland Housing Authority, its successors

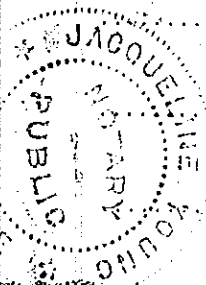
~~heirs~~ and assigns forever.

And we do covenant with the said grantee, its successors ~~heirs~~ and assigns, that we 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 us.

In Witness Whereof, the said Cynthia J. Mack and Charles H. Mack, husband of the said Cynthia J. Mack, Charlotte S. Greenblatt and Isear Greenblatt, ~~and~~ husband of the said Charlotte S. Greenblatt, and Leah A. Weiss and Irving Weiss, husband of the said Leah A. Weiss, ~~wife~~ ~~xxxxxxx~~

joining in this deed as Grantors, and relinquishing and conveying all rights by descent and all other rights in the above described premises, have hereunto set our hands and seals this 20th day of December in the year of our Lord one thousand nine hundred and seventy-nine.

Signed, Sealed and Delivered
in presence of



Jacqueline Young

x Cynthia J. Mack
x Charles H. Mack
Charlotte S. Greenblatt
Isear W. Greenblatt
Leah A. Weiss
Irving Weiss

State of Maine,
Cumberland

} ss.

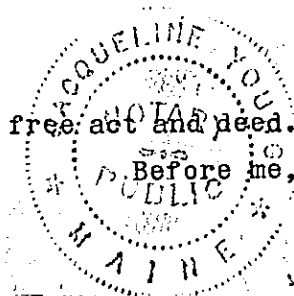
December 20, 19 79.

Personally appeared the above named Cynthia J. Mack

ment to be her

free act and deed.

and acknowledged the above instru-



Jacqueline Young
Justice of the Peace.
Notary Public.
Attorney at Law.

STATE OF MAINE

CUMBERLAND, ss.

REGISTRY OF DEEDS

Received at 4 H - M P M on JAN 3 1980 and recorded in

Book 1516 Page 293 ATTEST

Edward J. Buntine Register

RIVERTON PARK IMPROVEMENTS

STORMWATER MANAGEMENT REPORT

Prepared for:
Portland Housing Authority
Portland, Maine

Prepared by:
 **Atlantic Resource Consultants**
Engineering Strategies and Solutions

December 2022



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PROJECT SUMMARY

Atlantic Resource Consultants (ARC) has prepared the following stormwater management report for improvements to the Portland Housing Authority site at Riverton Park in the City of Portland, Maine. The project site is located on Riverton Drive, which extends from the south side of Forest Avenue approximately 1,000 feet west of the Maine Turnpike overpass. The total site area is just under twenty acres and is home to a residential community consisting of six “circles”, each of which houses multi-family residential housing units and the associated access, parking and utility infrastructure. There are two public streets within the existing development. Riverton Drive is the main access street that connects to Forest Avenue and serves three circles. Springbrook Way extends off Riverton Drive to serve the remaining three circles.

The project comprises maintenance and rehabilitation of the multi-family residential buildings, paved areas, utility and drainage infrastructure in five of the six “circles” at the facility. Major redevelopment is proposed at the location of existing Circle 1 to construct a new 4-story mixed use residential and commercial building with a footprint area of 20,000sf+/-, and the associated access, parking utility and stormwater infrastructure. Redevelopment is also proposed at the existing Community Center site, which will be expanded to construct a new building with a footprint area of approximately 13,000sf, and associated site improvements. A third area of redevelopment is proposed towards the south end of the site on Springbrook Way. The existing playground area will be demolished to construct a new maintenance facility at this location, including a 1,700sf+/- garage building and the associated parking and storage areas.

The combined area of redevelopment will include approximately 1.82 ac of impervious area and a total of approximately 3 acres of redeveloped area.

The target start of construction is summer of 2023, once permit approvals have been received. The project will be phased to minimize the disruption to residents during the construction.

EXISTING CONDITIONS

The project site is described as Lot 12, Block B of Tax Map 327 on the City of Portland tax maps and is located on the south side of Forest Avenue approximately 1,000 feet west of the Turnpike. Access to the facility is provided via Riverton Drive, and Springbrook Way, both of which are city streets.

The site was originally developed circa 1971 and provides multi-family housing units in a series of six “circles” throughout the property. Each circle has a central parking area, with pedestrian sidewalks leading to each unit. The facility is served by a private water distribution network that is connected to the Portland Water District public system at the entrance to the site. A gravity sewer system drains to a central pump station that is owned and operated by the City of Portland. A six-inch force main conveys sewage off-site to Forest Avenue, where it discharges to the municipal gravity system. Underground gas and overhead three-phase power services are provided within the on-site city streets and are served from Forest Avenue.

There is a shallow central valley that runs approximately east-west through the center of the property. A stream and associated wetland area convey surface runoff from both on-site and off-site areas through the site before discharging to the Presumpscot River approximately 1,800 feet to the west. The existing topography of the site slopes gently towards the central valley and drainage feature from all directions. An existing piped storm drain system extends through the property and discharges at several locations to the main and tributary drainageways. There are currently no stormwater treatment or detention Best Management Practices (BMPs) at the site.

Predominant surface soil types are mapped by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Windsor loamy sands, and Scantic and Buxton series silt loams. However, test pits and borings undertaken on the site in the areas mapped as Windsor soils contradict this mapping. It appears from these site-specific investigations that soils in this area are more consistent with the Buxton/Lamoine series map unit. These soils are finer grained and hence more poorly drained than the generalized NRCS mapping would suggest. Similarly, the on-site investigations do not appear to identify the Scantic series silt loams, mapped in a belt crossing the center of the site. The more accurate, site-specific soils mapping has been used in runoff modeling for the site, with all soils within the redevelopment areas assumed to be Buxton/Lamoine series silt loams, which are classified as Hydrologic Type C.

Natural resource mapping on the site was undertaken in March of 2022, to support the proposed development planning for the property. A jurisdictional stream and associated wetland were identified in the central valley that runs through the project site. There will be no impacts to on-site streams or freshwater wetlands.

Receiving Waters

The developed area of the site drains to an unnamed tributary of the Presumpscot River which drains to Casco Bay.

Historical Flooding

The site is not located within a Flood Zone as indicated on the FEMA Flood Insurance Rate Map for the City of Portland (Community Panel Number 230051 0006 C), dated December 8, 1998.

Alterations to Natural Drainageways

The project will not result in any alteration of natural drainageways.

STORMWATER MANAGEMENT

The proposed rehabilitation and maintenance improvements to “Circles” 2-6 are limited to building maintenance work, replacement of existing failing utility and storm drain infrastructure, replacement of curbing, minor re-grading of deteriorated/inaccessible walkways, paved parking and landscaped areas, and the installation of new drip edges to protect replacement building siding. In all cases the existing drainage patterns and runoff patterns will be maintained and the work will result in a reduction in the overall impervious area at the site. This scope of work is considered “routine maintenance”.

There are two areas of the site where the proposed work meets the definition of “redevelopment” under State of Maine Stormwater Law.

The primary area of redevelopment includes Circle 1 and the existing Community Building and Maintenance facility towards the north end of the site. The four existing multi-family units in Circle 1 will be demolished to construct a the new 20,000sf (footprint) mixed-used residential building and the associated access, parking, utility and stormwater infrastructure. The existing Community Building and Maintenance Garage will be demolished to construct a new 13,000sf Community Building and the associated parking, access and open space community garden and playground area.

A secondary, smaller area of redevelopment is located towards the south end of Springbrook Way. The existing dumpster pad, lawn area and playground will be demolished to construct a new Maintenance Garage and the associated parking and storage areas.

Redevelopment pollutant ranking calculations have been undertaken for these areas under the pre-development post-development conditions, in accordance with the requirements of State of Maine Chapter 500 Stormwater Law. The pre-development pollutant ranking per acre is calculated to be 2.06. This value increases to 2.59 in the post-development condition, an increase of 0.53. A difference in the pollutant ranking per acre of between 0 and 1 requires treatment of 60% of the developed area. This project proposes treatment of 70% of the redeveloped area.

Section 5 of the City of Portland Technical Manual requires treatment of 50% of the redeveloped impervious area. This project proposes treatment of 65.5% of the redeveloped impervious.

Water quality treatment in all redeveloped areas will be provided by low impact development BMPs. The roof of the new Maintenance Garage will utilize a roof dripline filter, while the associated parking and landscaping will drain to a new bioretention cell. Several additional bioretention cells are proposed to treat the parking lot runoff from the new multi-use residential building in Circle 1, the roof and paved areas associated with the new Community Building redevelopment. All stormwater BMP's have been designed to provide stormwater quality and quantity control in accordance with State of Maine Chapter 500 Stormwater Law standards. Stormwater BMP designs and details can be found in the accompanying project plan set.

Proposed BMPs

Stormwater runoff from the redeveloped areas of the project will be captured and treated in a series of new Best Management Practices (BMPs). These include six bioretention cells, and one roof dripline filter.

- **Bioretention Cells** – Bioretention cells consist of shallow depressions filled with filter soil media and planted with a variety of grasses and shrubs. These are designed to enhance the general landscape design for the site. Runoff directed to the BMPs is detained temporarily and passes slowly through the soil media and the root zone of the planted material before draining into an underdrain system that discharges to an outlet culvert. The soil media and root zone activity provide water quality treatment for the runoff by removing suspended particles, and through uptake and binding of dissolved pollutants and nutrients. Although primarily designed for quality treatment, these BMPs also provide significant detention storage and hence a reduction in the peak runoff rate to downstream receiving areas. The slow discharge through the underdrain system and via infiltration to the underlying soils provides extended base flows and protects downstream receiving waters from erosive peak flows after storm events. In each case, dedicated overflow discharge structures are provided to allow excess flows to pass through the system without causing damage, during severe storm events.
- **Roof Dripline Filters** - The roof dripline filters consist of a cover layer of pea stone underlain by a filtration layer of fine sandy material. Flow entering the drip strip lands on the cover layer and drains through the filter media into the soil below. The drip strip filters also provide a degree of runoff detention through storage in the stone backfill material.

METHODOLOGY AND MODELING ASSUMPTIONS

Runoff and routing calculations have been performed for the watershed areas affected by the proposed redevelopment under predevelopment and postdevelopment condition scenarios. Time of concentration and runoff curve number calculations have been performed using the method described in Natural Resource Conservation Service (NRCS) Technical Release 55 (TR-55) – Urban Hydrology for Small Watersheds. The TR-20 based HydroCAD modeling software has been utilized to perform the more complex runoff and routing calculations, some of which are beyond the scope of the TR-55 method. Time of concentration calculations have been amended where the value given by the TR-55 method is less than six minutes (0.1hr). In these cases, a standard minimum value of six minutes has been used to keep this parameter within the acceptable working range of the model and prevent computational errors. Design rainfall events have been modeled using the SCS Type III Hydrograph for 24-hour duration storms. The rainfall depth for each return period is taken from Maine Department of Environmental Protection Chapter 500 Stormwater Management, Appendix H (Cumberland County SE). The rainfall depth values for standard design storm frequencies are shown in the table below.

TABLE 1 - 24-Hr Rainfall Depths for Cumberland County SE at Design Storm Frequencies			
<i>Maine Chapter 500: Stormwater Management, Appendix H</i>			
Frequency	2-Year	10-Year	25-Year
Rainfall Depth	3.1 in	4.6 in	5.8 in

Predominant surface soil types are mapped by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Windsor loamy sands, and Scantic and Buxton series silt loams. However, test pits and borings undertaken on the site in the areas mapped as Windsor soils contradict this mapping. It appears from these site-specific investigations that soils in this area are more consistent with the Buxton/Lamoine series map unit. These soils are finer grained and hence more poorly drained than the generalized NRCS mapping would suggest. Similarly, the on-site investigations do not appear to identify the Scantic series silt loams, mapped in a belt crossing the center of the site. The more accurate, site-specific soils mapping has been used in runoff modeling for the site, with all soils within the redevelopment areas assumed to be Buxton/Lamoine series silt loams, which are classified as Hydrologic Type C.

NRCS Code 378, the Stormwater Management for Maine: Best Management Practices (MDEP, 2016) and the Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (October 2016) have been used as guidelines in the design of the stormwater system.

STORMWATER QUANTITY ANALYSIS

Pre-development Conditions

Under the predevelopment condition, the primary area of redevelopment is represented by a single subcatchment area. The majority of Subcatchment 101 drains via the existing storm drain system to an eighteen-inch diameter outfall, located between the existing Maintenance Garage and the basketball court. This discharges to the drainageway and stream that runs through the property and is tributary to the Presumpscot River. The remainder of the area drains via overland flow to the property boundary, and hence to the same drainageway.

The secondary area of redevelopment is similarly represented by a single subcatchment area. Runoff flows overland from Subcatchment 102 in a northerly direction to a low point adjacent to the wetland surrounding the main drainageway that runs through the property, and hence onward via the wetland and stream to the Presumpscot River. A summary of the pre-development subcatchment characteristics is given in the table below.

PRE-DEVELOPMENT WATERSHED CHARACTERISTICS			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
101	4.43	83	14.5
102	0.28	77	6

Full details of predevelopment subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment D of this report. A Predevelopment Conditions Watershed Plan is included in Attachment B of this report.

Post-development Conditions

Under the post-development conditions, each of the main pre-development subcatchments is divided to model the effect of localized storage and treatment BMPs. The outflow from these is combined with runoff from uncaptured areas at the same analysis point used in the pre-development model. In this way the total peak runoff from each of the analyzed areas can be directly compared on the pre-development and post-development conditions.

In Area 1, subcatchments 11 through 15 are captured by filtration BMP's. Subcatchment 10 drains directly to the piped storm drain system discharges via the existing eighteen-inch culvert towards the central drainageway. Subcatchment 16 conveys runoff overland across the southwesterly property boundary into the same tributary system to the Presumpscot River.

In Area 2, subcatchments 20 and 21 are captured by treatment BMPs that discharge to the same low point uses as an analysis point in the predevelopment condition.

A full listing of the postdevelopment areas is shown in the following table. Full details of the postdevelopment subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment D of this report. A Postdevelopment Conditions Watershed Plan is included in Attachment B of this report.

POST-DEVELOPMENT WATERSHED CHARACTERISTICS – AREA 1			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
10	1.89	90	12.0
11	0.34	91	6.0
12	0.40	87	6.0
13	0.54	85	6.0
14	0.42	92	6.0
15	0.07	94	6.0
16	0.80	75	13.3
TOTAL AREA	4.46		
POST-DEVELOPMENT WATERSHED CHARACTERISTICS – AREA 2			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
20	0.27	81	6.0
21	0.04	98	6.0
TOTAL AREA	0.31		

Water Quantity Analysis Summary

The table below summarizes the peak runoff values for predevelopment and postdevelopment conditions during each of the analyzed design storm events. The analysis demonstrates that there will be no increase in peak runoff at either point of analysis during the 2-yr, 10-yr and 25-yr design storm events.

PRE-DEVELOPMENT AND POST-DEVELOPMENT PEAK RUNOFF VALUES				
Storm Return Period	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev
	Peak Q at Design Point 1 (cfs)		Peak Q at Design Point 2 (cfs)	
2-Year	6.32	4.58	0.36	0.14
10-Year	11.47	9.73	0.73	0.51
25-Year	15.70	15.62	1.06	0.84

STORMWATER QUALITY ANALYSIS

Redevelopment Standards

The proposed rehabilitation and maintenance improvements to “Circles” 2-6 are limited to building maintenance work, replacement of existing failing utility and storm drain infrastructure, replacement of curbing, minor re-grading of deteriorated/inaccessible walkways, paved parking and landscaped areas, and the installation of new drip edges to protect replacement building siding. In all cases the existing drainage patterns and runoff patterns will be maintained and the work will result in a reduction in the overall impervious area at the site. This scope of work is considered “routine maintenance”.

There are two areas of the site where the proposed work meets the definition of “redevelopment” under State of Maine Stormwater Law.

The primary area of redevelopment includes Circle 1 and the existing Community Building and Maintenance facility towards the north end of the site. The four existing multi-family units in Circle 1 will be demolished to construct a the new 20,000sf (footprint) mixed-used residential building and the associated access, parking, utility and stormwater infrastructure. The existing Community Building and Maintenance Garage will be demolished to construct a new 13,000sf Community Building and the associated parking, access and open space community garden and playground area.

A secondary, smaller area of redevelopment is located towards the south end of Springbrook Way. The existing dumpster pad, lawn area and playground will be demolished to construct a new Maintenance Garage and the associated parking and storage areas.

Redevelopment pollutant ranking calculations have been undertaken for these areas under the pre-development post-development conditions, in accordance with the requirements of State of Maine Chapter 500 Stormwater Law. The pre-development pollutant ranking per acre is calculated to be 2.06. This value increases to 2.59 in the post-development condition, an increase of 0.53. A difference in the pollutant ranking per acre of between 0 and 1 requires treatment of 60% of the developed area. This project proposes treatment of 66% of the redeveloped area.

Redevelopment treatment calculations and treatment maps can be found in Attachment A of this report.

Water Quality Treatment Measures

Water quality treatment BMPs have been designed to capture and treat runoff from the redeveloped areas of the site, with the highest priority given to treating contributing paved parking lots, which have the highest pollutant ranking.

The primary redevelopment area will include five bioretention cells, designed in accordance with the latest version of the Maine Department of Environmental Protection BMPs Technical Design Manual. The following table shows BMP sizing calculations.

The secondary redevelopment area will include one bioretention cell and one roof dripline filter, designed in accordance with the latest version of the Maine Department of Environmental Protection BMPs Technical Design Manual. The following table summarizing the BMP sizing calculations.

Riverton Park Water Quality Treatment Summary								
Subcatchment Area	Impervious Area	Landscaped Area	Developed Area	Water Quality Volume Required	Water Quality Volume Provided	BMP	Min. Area Req'd	Area Prov'd
TREATED AREAS								
11	10556	4415	14971	1027	1425	Bio Cell 11	871	995
12	9336	8127	17463	1049	2432	Bio Cell 12	897	1705
13	10998	12643	23641	1338	1920	Bio Cell 13	1149	1321
14	13528	4901	18429	1291	2327	Bio Cell 14	1094	1621
15	2433	444	2877	218	444	Bio Cell 15	184	307
20	3370	8380	11750	560	798	Bio Cell 20	487	555
21	1828	0	1828	152	369	Drip Edge	N/A	
TOTAL TREATED	52049	38910	90959					
UNTREATED AREAS								
10* (within re-development area)	26203	6862	33065					
16* (within re-development area)	0	4861	4861					
Untreated Area Not in Model	1214	246	1460					
TOTAL UNTREATED	27417	11969	39386					
TREATMENT %	65.50%	76.48%	69.78%					

1. WQV is calculated as 1" over the contributing impervious area plus 0.4" over the contributing landscaped area

2. Minimum area requirements are calculated as 7% contributing impervious area plus 3% contributing landscaped area for bioretention cell and 5% contributing impervious area plus 2% contributing landscaped area for underdrained soil filter.

3. Note that Subcatchment 10 has 28,216sf of existing impervious associated with Riverton Drive and existing unit roofs that are not within the re-development area. An additional 20,954sf of existing grass lawn in Subcatchment 10 is not within the re-development area. Subcatchment 16 has 5947sf of existing impervious and 6294sf of existing grass lawn not within the re-development area.

SOIL EROSION AND SEDIMENT CONTROL

A comprehensive Soil Erosion and Sediment Control (SESC) narrative has been prepared that includes Best Management Practices (BMPs) associated with the proposed construction activities. The location of SESC BMPs is shown on the accompanying plans. These are further described on the details and notes sheets in the accompanying plan set.

The Erosion and Sediment Control Report outlines the required construction measures and techniques that will reduce potential degradation of the water quality at downstream locations. Temporary erosion control measures will be incorporated during construction, and long-term surface stabilization practices have been designed as part of the site development, thus minimizing the potential for erosion and sediment transport. These measures include the constructed BMPs for filtration of runoff from smaller storm events, riprap, permanent seeding and other vegetative stabilization measures. Detailed information on the specific erosion and sedimentation control practices that are to be used on the site are provided on the following plan sheet, which will be included as part of the construction documents for the project.

STORMWATER MAINTENANCE PLAN

The effectiveness of water quality management provisions and other components of the stormwater management system are dependent on their design, upkeep, and maintenance to assure they meet their intended function over an extended period of time. It is critical that the stormwater management facilities are regularly inspected, and that maintenance is performed on an as-needed basis.

After construction is complete, Portland Housing Authority will own and maintain the entire stormwater system. A Stormwater Management Inspection and Maintenance Manual has been prepared specifically for the project and is included in Attachment F of this section.

CONCLUSIONS

The stormwater management system designed for this project will mitigate impacts of development on stormwater runoff peak discharge rates and provide treatment of non-point source pollutants in the runoff in accordance with Maine's Stormwater Management Act and Regulations. Based on the analysis described herein, it is expected that runoff from the proposed development will not cause adverse impacts to downstream properties.

Limitations

This analysis is based on the information available to the engineer on site conditions and has been conducted using standard industry software designed to analyze *comparative* changes in land cover conditions. The accuracy of the runoff and routing calculations is limited by the methodology used in the software and the results should be viewed as suitable for comparative studies only.

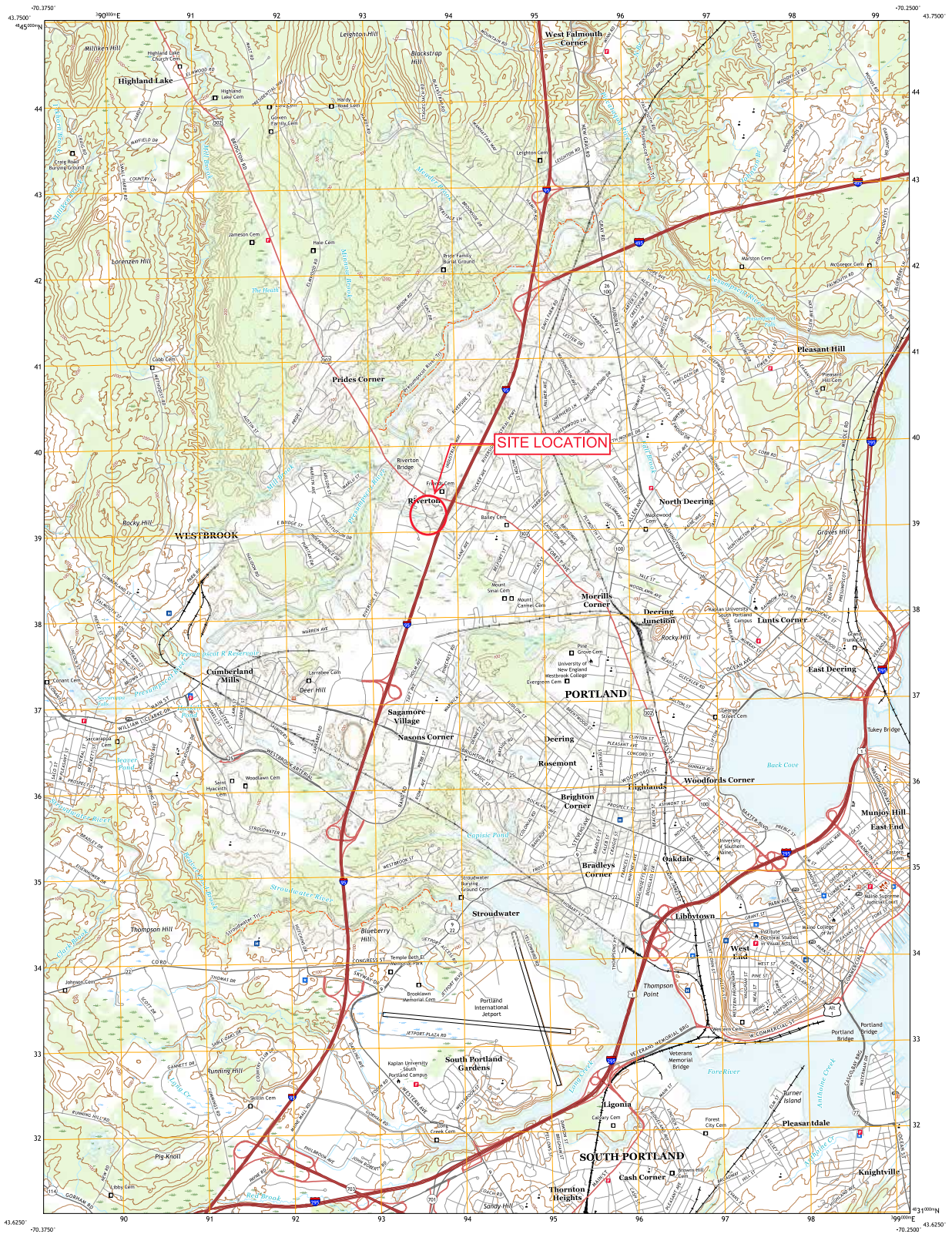
References

1. NRCS TR-378
2. Stormwater Management for Maine BMPs Design Manual
3. Maine Erosion and Sediment Control Best Management Practices (BMPs): Manual for Designers and Engineers (October 2016)

FIGURES AND ATTACHMENTS

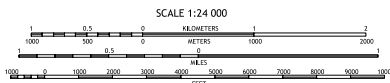
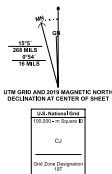
1. Figure 1 USGS Location Map
2. Figure 2 FEMA Flood Map
3. Attachment A Redevelopment Treatment Maps and Calculations
4. Attachment B Pre-development & Post-development Watershed Maps
5. Attachment C Water Quality Calculations
6. Attachment D TR-20 Computations (HydroCAD)
 - i. Pre-development Model
 - ii. Post-development Model
7. Attachment E Soil Evaluation Report
8. Attachment F Stormwater Operations and Maintenance Manual

FIGURES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1:50,000-meter Arc Length Transverse Mercator, Zone 18T
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery: U.S. NADP, September 2018
Roads: U.S. Census Bureau, 2017
Names: U.S. Census Bureau, 2017
Hydrography: National Hydrography Dataset, 2015 - 2019
Contours: National Elevation Dataset, 2005 - 2012
Boundaries: MDT2000, various, see metadata file 2018 - 2019
Wetlands: FWS National Wetlands Inventory 2001 - 2004



ROAD CLASSIFICATION

Expressway
Secondary Hwy
Local Road
Interstate
US Route
State Road

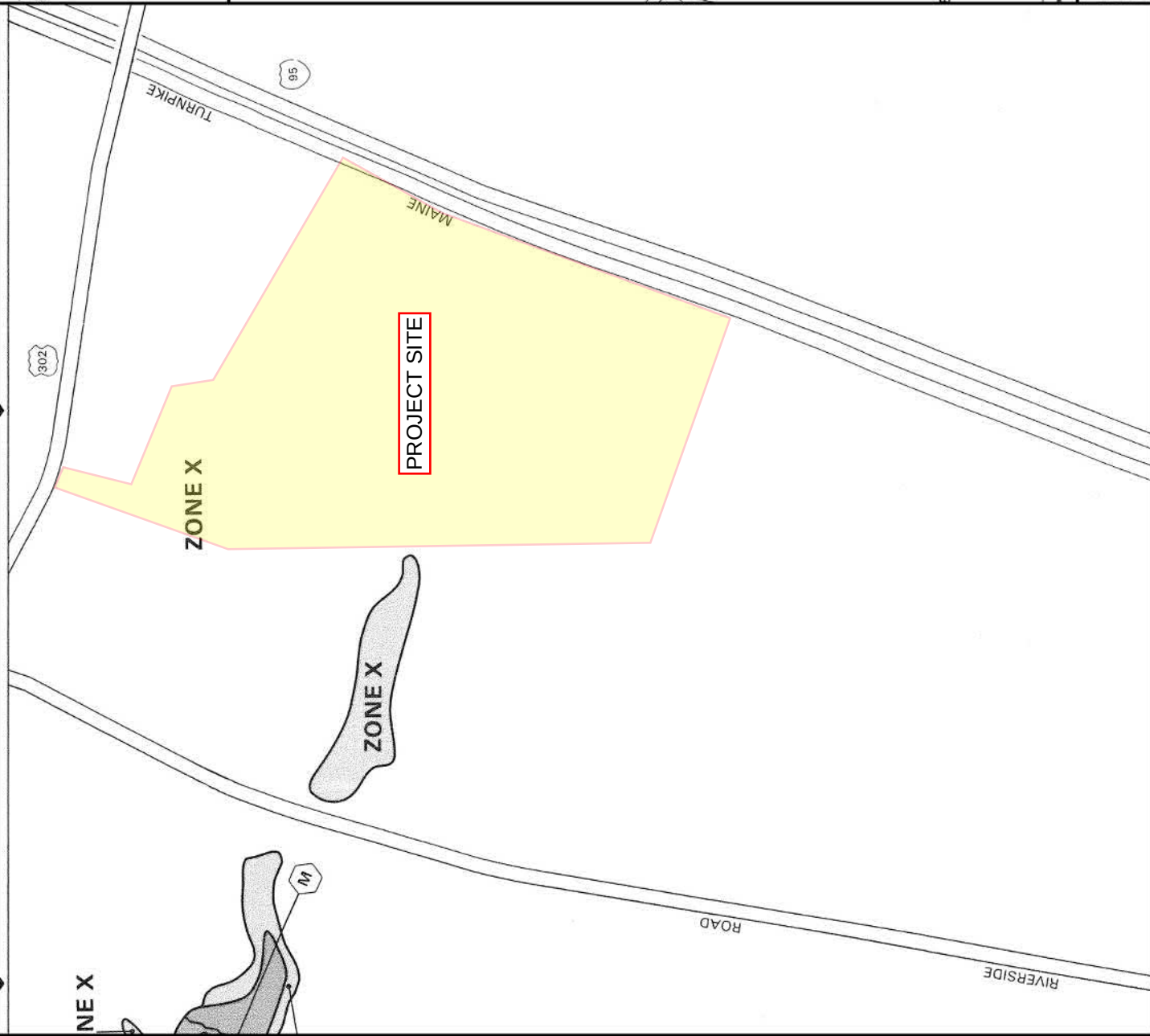
1 North Windham
2 Cumberland Center
3 Yarmouth
4 Gorham
5 Portland East
6 Old Orchard Beach
7 Falmouth Neck
8 Cape Elizabeth

PORTLAND WEST, ME
2021

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.



APPROXIMATE SCALE



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND,
MAINE
CUMBERLAND COUNTY

PANEL 6 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0006 C

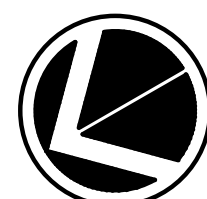
MAP REVISED:
DECEMBER 8, 1998



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>.

ATTACHMENT A - REDEVELOPMENT TREATMENT MAPS & CALCULATIONS

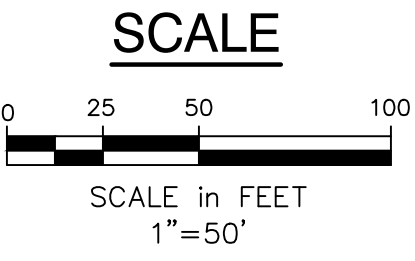


NORTH

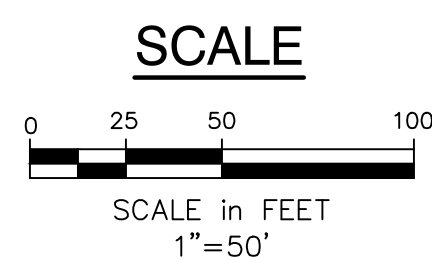


	POLLUTANT RANK 5
	POLLUTANT RANK 4
	POLLUTANT RANK 3
	POLLUTANT RANK 2
	POLLUTANT RANK 1
	POLLUTANT RANK 0

Pre-Development Redevelopment Area Information			
Cover	Area (sf)	Area (acre)	Pollutant Ranking
Roads (idlig), High use parking lots	18198	0.42	5
Other Roads, Medium use parking lots	3899	0.09	4
Other parking/drives, Flat asphalt roofs, Industrial Rooftops	0	0.00	3
Other rooftops, Grassed areas mowed > 2/yr, Walkways	91567	2.10	2
Non-grass landscaped areas, Stormwater storage	0	0.00	1
Forest/meadow	27227	0.63	0
	140891	3.23	6.65
TOTAL AREA (ACRES)		3.234	
TOTAL AREA (S.F.)		140,891	
EXISTING POLLUTANT IMPACT RATING			6.65
EXISTING IMPACT RATING PER ACRE			2.06



PHA RIVERTON PARK IMPROVEMENTS EXISTING REDEVELOPMENT ASSESSMENT			Atlantic Resource Consultants 541 US Route One Freeport, ME 04032 Tel: 207.869.9050	
PORTLAND HOUSING AUTHORITY 14 BAXTER BOULEVARD PORTLAND, MAINE 04101			DRAWN: VMW DESIGNED: ADJ CHECKED: ADJ FILE NAME: SHEET: R-1	
P.E. ANDREW D. JOHNSTON LIC. #9994			DATE: DECEMBER 2022 SCALE: 1" = 50' JOB NO. 19-033	
REV	DATE	DESCRIPTION	REVISIONS	



Post-Development Redevelopment Area Information			
Cover	Area (sf)	Area (acre)	Pollutant Ranking
Roads (1 ding), High use parking lots	33610	0.77	5
Other Roads, Medium use parking lots	3478	0.08	4
Other parking/drives, flat asphalt roofs, industrial Rooftops	0	0.00	3
Other rooftops, Grassed areas mowed > 2/yr, Walkways	79376	1.82	2
Non-grass landscaped areas, Stormwater storage	24116	0.55	1
Forest/meadow	319	0.01	0
	140899	3.23	8.38
	TOTAL AREA (ACRES)	3.235	
	TOTAL AREA (S.F.)	140,899	
	POST POLLUTANT IMPACT RATING		8.38
	POST DEVELOPMENT IMPACT RATING PER ACRE		2.59
	PRE-DEVELOPMENT IMPACT RATING PER ACRE		2.06
	RANKED IMPACT CHANGE DUE TO DEVELOPMENT		0.53

Per Chapter 500 a ranked impact change of 0.90 equates to 60% developed area treatment

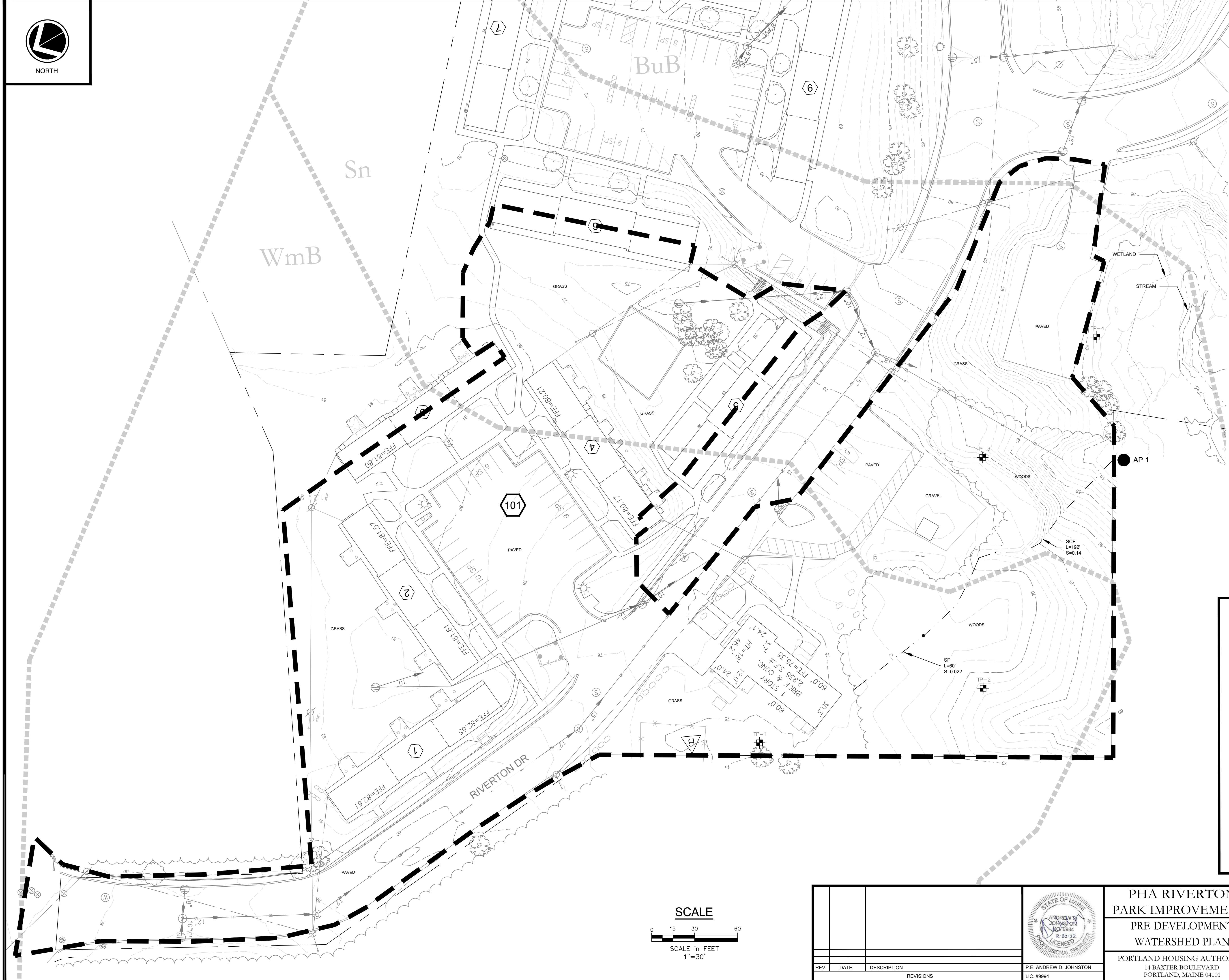
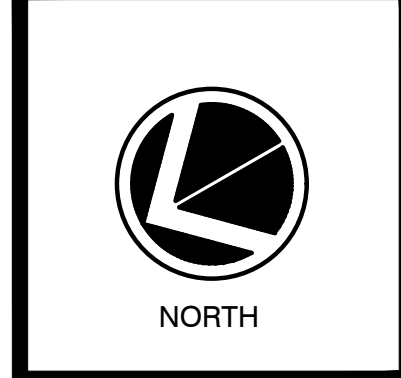
See Chapter 500 Table 3 below.

Table 3
Treatment Levels for Redevelopment Projects

Ranked Impact Change Due to Redevelopment	Percentage of Developed Area that Must be Treated
0.0 or less	0% (Stormwater projects) 50% (Site projects)
> 0.0 to ≤ 1.0	60%
> 1.0 to ≤ 2.0	70%
> 2.0 to ≤ 3.0	80%
> 3.0	Same treatment level as for new development

[illegible]

ATTACHMENT B – WATERSHED MAPS



PRE-DEVELOPMENT WATERSHED CHARACTERISTICS			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
101	4.43	83	14.5
102	0.28	77	6

NRCS SOILS LEGEND		
SYMBOL	NAME	HSG
BuB	Lamoine silt loam	C/D
Sn	Scantic silt loam	D
WmB	Windsor loamy sand	A

TEST PIT SOILS LEGEND		
TEST PIT	NAME	HSG
TP-1	Buxton Mud	C
TP-2	Buxton Mud	C
TP-3	Buxton	C
TP-4	Filled Land	C

* Note that on-site soil test pit and boring investigations indicate that areas mapped as Windsor series loamy sands on the NRCS Web Soil Survey are more accurately depicted as Buxton/Lamoine Series silt loams - see test pit logs from Hampton Associates and boring logs from RW Gillespie. The site-specific soil mapping (Buxton/Lamoine) has been used to model stormwater runoff from these areas.

999

R

SF

SCF

CF

CC

AP

1P

TP-1

SOIL BOUNDARY

WATERSHED BOUNDARY

WATERSHED FLOW PATH (TC)

REACH FLOW PATH

SUBCATCHMENT

REACH

SHEET FLOW

SHALLOW CONCENTRATED FLOW

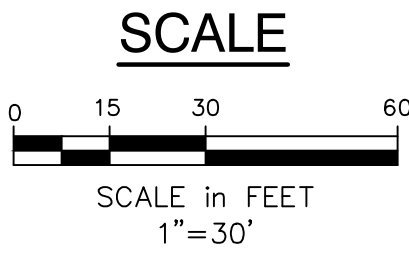
CHANNEL FLOW

CIRCULAR CHANNEL

POINT OF ANALYSIS

POND

SOIL TEST PIT



REV	DATE	DESCRIPTION
REVISIONS		

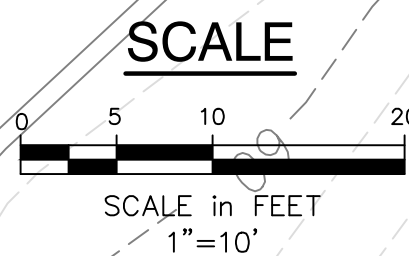
P.E. ANDREW D. JOHNSTON
LIC. #9994

**PHA RIVERTON
PARK IMPROVEMENTS
PRE-DEVELOPMENT
WATERSHED PLAN**

PORTLAND HOUSING AUTHORITY
14 BAXTER BOULEVARD
PORTLAND, MAINE 04101

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

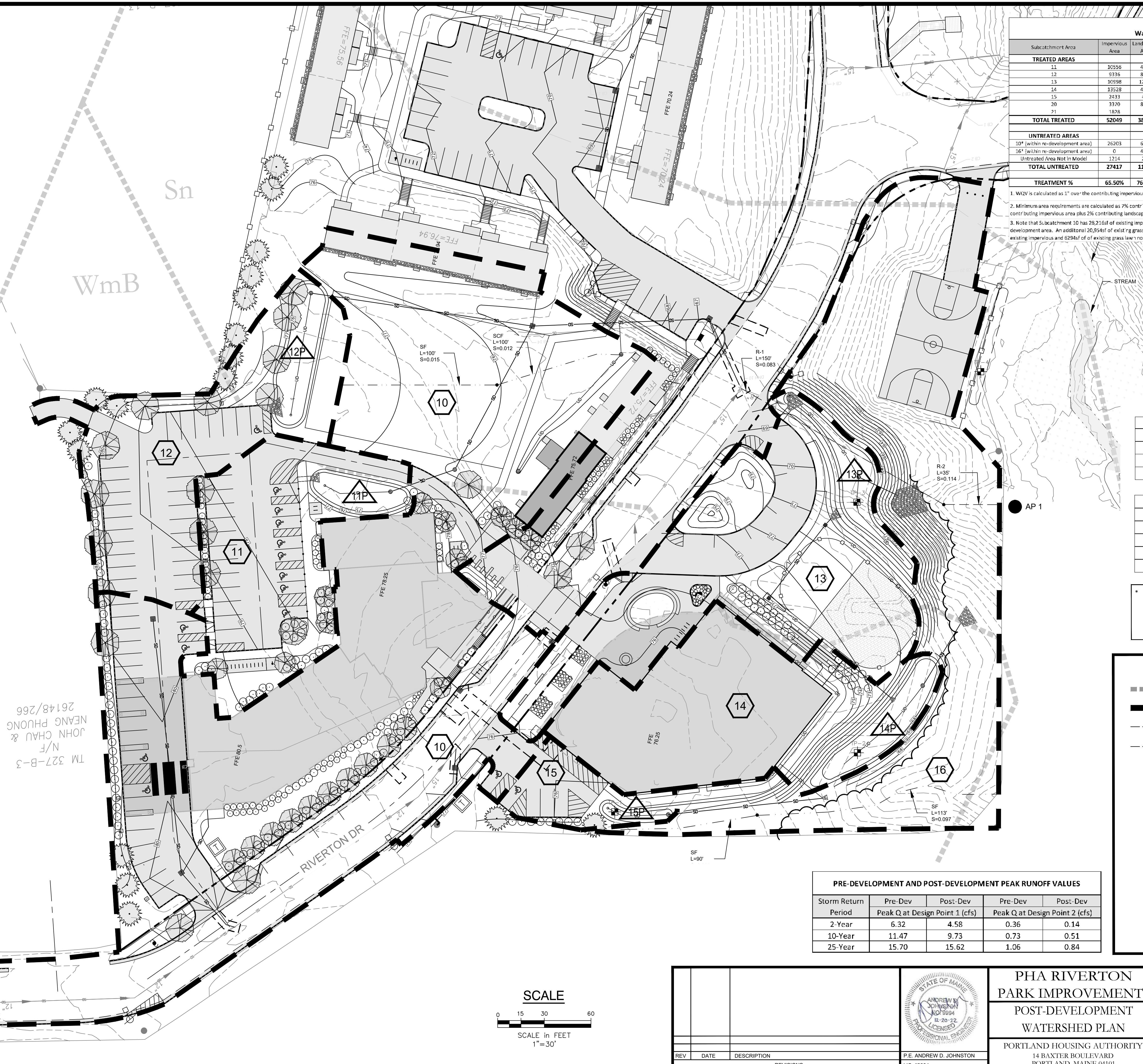
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DESIGNED: ADJ	SCALE: 1" = 30'
CHECKED: ADJ	JOB NO. 19-033
FILE NAME:	
SHEET: D-100A	



* Note that on-site soil test pit and boring investigations indicate that areas mapped as Windsor series loamy sands on the NRCS Web Soil Survey are more accurately depicted as Buxton/Lamoine Series silt loams - see test pit logs from Hampton Associates and boring logs from RW Gillespie. The site-specific soil mapping (Buxton/Lamoine) has been used to model stormwater runoff from these areas.

	SOIL BOUNDARY
	WATERSHED BOUNDARY
	WATERSHED FLOW PATH (TC)
	REACH FLOW PATH
	SUBCATCHMENT
	REACH
	SHEET FLOW
	SHALLOW CONCENTRATED FLOW
	CHANNEL FLOW
	CIRCULAR CHANNEL
 AP	POINT OF ANALYSIS
	POND
 TP-1	SOIL TEST PIT

				PHA RIVERTON PARK IMPROVEMENTS		 Atlantic Resource Consultants 541 US Route One Freeport, ME 04032 Tel: 207.869.9050
				PRE-DEVELOPMENT		
				WATERSHED PLAN		
				PORTLAND HOUSING AUTHORITY 14 BAXTER BOULEVARD PORTLAND, MAINE 04101		
REV	DATE	DESCRIPTION	P.E. ANDREW D. JOHNSTON			
REVISIONS			LIC. #9594	DRAWN: ZWG DATE: DECEMBER 2022 DESIGNED: ADJ SCALE: 1" = 10' CHECKED: ADJ JOB NO. 19-033 FILE NAME: SHEET: D-100B		



Subcatchment Area	Impervious Area	Landscaped Area	Developed Area	Water Quality Volume Required	Water Quality Volume Provided	BMP	Min. Area Req'd	Area Provided
TREATED AREAS								
11	10556	4415	14971	1027	1425	Bio Cell 11	871	991
12	9336	3117	17463	1040	2432	Bio Cell 12	897	170
13	10598	12643	23641	1338	1920	Bio Cell 13	1149	133
14	13528	4901	18425	1291	2327	Bio Cell 14	1034	162
15	2433	444	2877	218	464	Bio Cell 15	184	30
20	3370	8380	11750	560	758	Bio Cell 20	487	551
21	1878	0	1878	157	369	Drip Edge	N/A	
TOTAL TREATED	52049	38910	90559					
UNTREATED AREAS								
10* (within re-development area)	26203	6862	33065					
16* (within re-development area)	0	4861	4861					
Untreated Area Not in Model	1214	0	1214					
TOTAL UNTREATED	27417	11969	39386					
TREATMENT %	65.50%	76.48%	69.78%					

1. WQV is calculated as 1" over the contributing impervious area plus 0.4" over the contributing landscaped area.
2. Minimum area requirements are calculated as 7% contributing impervious area plus 3% contributing landscaped area for bioretention cell and 5% contributing impervious area plus 2% contributing landscaped area for underdrained soil filter.
3. Note that Subcatchment 10 has 28,216sf of existing impervious associated with Riverfront Drive and existing unit roofs that are not within the re-development area. An additional 20,954sf of existing grass lawn in Subcatchment 10 is not within the re-development area. Subcatchment 16 has 59,947sf of existing impervious and 62,943sf of existing grass lawn not within the re-development area.

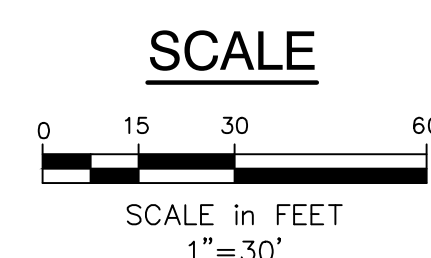
POST-DEVELOPMENT WATERSHED CHARACTERISTICS - AREA 1			
SUBCATCHMENT	AREA (ac)	CN	Tc (min)
10	1.89	90	12
11	0.34	91	6
12	0.40	87	6
13	0.54	85	6
14	0.42	92	6
15	0.07	94	6
16	0.80	76	13.3
TOTAL AREA	4.46		

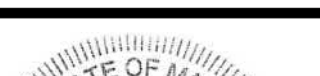
NRCS SOILS LEGEND		
SYMBOL	NAME	HSG
BuB	Lamoine silt loam	C/D
Sn	Scantic silt loam	D
WmB	Windsor loamy sand	A

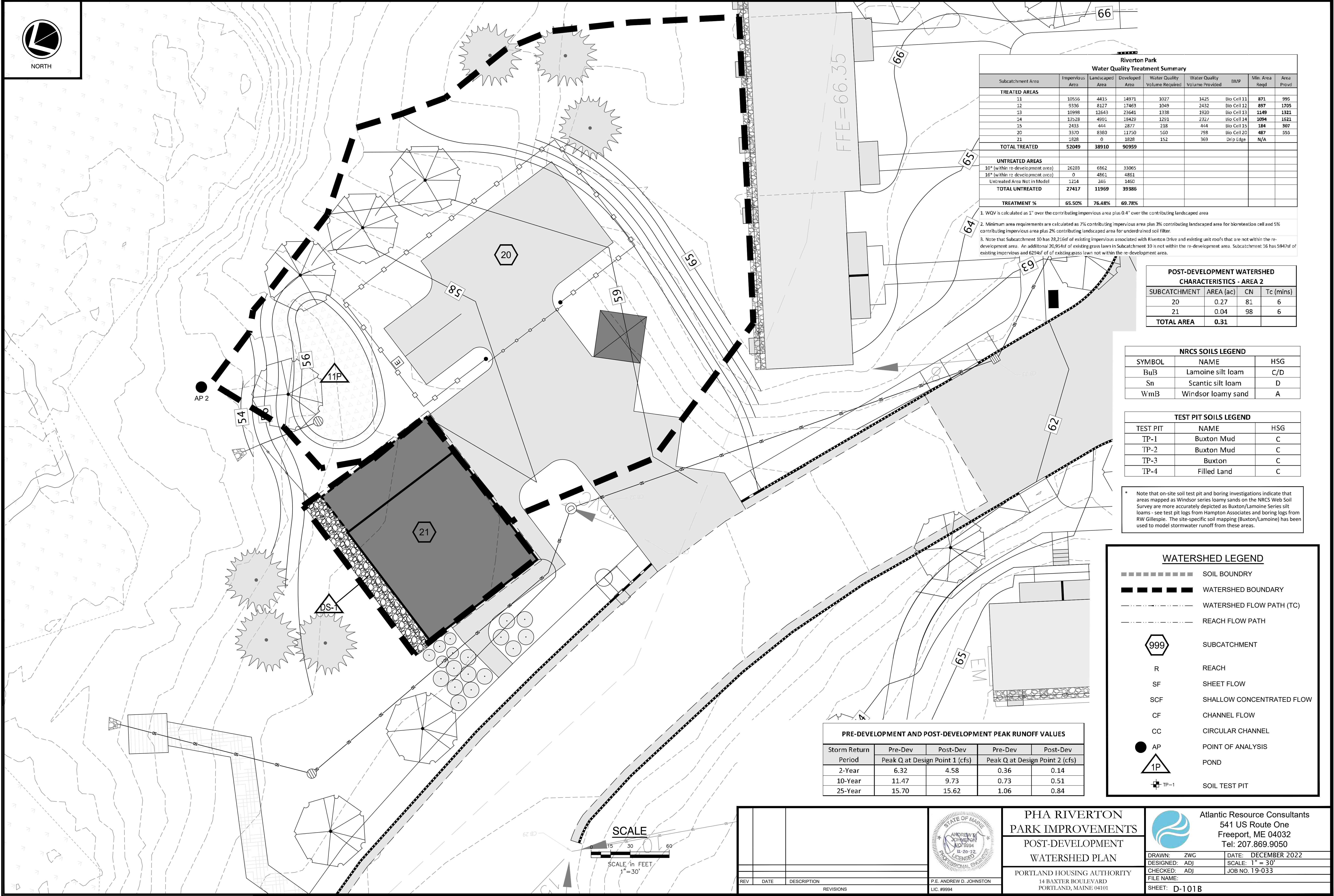
TEST PIT SOILS LEGEND		
TEST PIT	NAME	HSG
TP-1	Buxton Mud	C
TP-2	Buxton Mud	C
TP-3	Buxton	C
TP-4	Filled Land	C

* Note that on-site soil test pit and boring investigations indicate that areas mapped as Windsor series loamy sands on the NRCS Web Soil Survey are more accurately depicted as Buxton/Lamoine Series silt loams - see test pit logs from Hampton Associates and boring logs from RW Gillespie. The site-specific soil mapping (Buxton/Lamoine) has been used to model stormwater runoff from these areas.

Pre-Development and Post-Development Peak Runoff Values				
Storm Return Period	Pre-Dev Peak Q at Design Point 1 (cfs)	Post-Dev Peak Q at Design Point 1 (cfs)	Pre-Dev Peak Q at Design Point 2 (cfs)	Post-Dev Peak Q at Design Point 2 (cfs)
2-Year	6.32	4.58	0.36	0.14
10-Year	11.47	9.73	0.73	0.51
25-Year	15.70	15.62	1.06	0.84



				PHA RIVERTON PARK IMPROVEMENTS POST-DEVELOPMENT WATERSHED PLAN	 Atlantic Resource Consultants 541 US Route One Freeport, ME 04032 Tel: 207.869.9050
			PORTLAND HOUSING AUTHORITY 14 BAXTER BOULEVARD PORTLAND, MAINE 04101	DRAWN: ZWG DATE: DECEMBER 2022 DESIGNED: ADJ SCALE: 1" = 30' CHECKED: ADJ JOB NO. 19-033	FILE NAME: SHEET: D-101A
REV	DATE	DESCRIPTION			
		REVISIONS	P.E. ANDREW D. JOHNSTON		
			LIC. #9994		



Riverton Park Water Quality Treatment Summary								
Subcatchment Area	Impervious Area	Landscaped Area	Developed Area	Water Quality Volume Required	Water Quality Volume Provided	BMP	Min. Area Req'd	Area Prov'd
TREATED AREAS								
11	10556	4415	14971	1027	1425	Bio Cell 11	871	995
12	9336	8127	17463	1049	2432	Bio Cell 12	897	1705
13	10998	12643	23641	1338	1920	Bio Cell 13	1149	1321
14	13528	4901	18429	1291	2327	Bio Cell 14	1094	1621
15	2433	444	2877	218	414	Bio Cell 15	184	307
20	3370	6380	11750	550	798	Bio Cell 20	487	555
21	1828	0	1828	152	369	Drip Edge	N/A	
TOTAL TREATED	52049	38910	90959					
UNTREATED AREAS								
10* (within re-development area)	26203	6862	33065					
16* (within re-development area)	0	4861	4861					
Untreated Area Not in Model	1214	245	1450					
TOTAL UNTREATED	27417	11969	39386					
TREATMENT %	65.50%	76.48%	69.78%					

1. WQV is calculated as 1" over the contributing impervious area plus 0.4" over the contributing landscaped area
2. Minimum area requirements are calculated as 7% contributing impervious area plus 3% contributing landscaped area for bioretention cell and 5% contributing impervious area plus 2% contributing landscaped area for underdrained soil filter.
3. Note that Subcatchment 10 has 28,216sf of existing impervious associated with Riverton Drive and existing unit roofs that are not within the re-development area. An additional 20,954sf of existing grass lawn in Subcatchment 10 is not within the re-development area. Subcatchment 16 has 5947sf of existing impervious and 6294sf of existing grass lawn not within the re-development area.

POST-DEVELOPMENT WATERSHED CHARACTERISTICS - AREA 2			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
20	0.27	81	6
21	0.04	98	6
TOTAL AREA	0.31		

NRCS SOILS LEGEND		
SYMBOL	NAME	HSG
BuB	Lamoine silt loam	C/D
Sn	Scantic silt loam	D
WmB	Windsor loamy sand	A

TEST PIT SOILS LEGEND		
TEST PIT	NAME	HSG
TP-1	Buxton Mud	C
TP-2	Buxton Mud	C
TP-3	Buxton	C
TP-4	Filled Land	C

* Note that on-site soil test pit and boring investigations indicate that areas mapped as Windsor series loamy sands on the NRCS Web Soil Survey are more accurately depicted as Buxton/Lamoine Series silt loams - see test pit logs from Hampton Associates and boring logs from RW Gillespie. The site-specific soil mapping (Buxton/Lamoine) has been used to model stormwater runoff from these areas.

PRE-DEVELOPMENT AND POST-DEVELOPMENT PEAK RUNOFF VALUES				
Storm Return Period	Pre-Dev Peak Q at Design Point 1 (cfs)	Post-Dev Peak Q at Design Point 1 (cfs)	Pre-Dev Peak Q at Design Point 2 (cfs)	Post-Dev Peak Q at Design Point 2 (cfs)
2-Year	6.32	4.58	0.36	0.14
10-Year	11.47	9.73	0.73	0.51
25-Year	15.70	15.62	1.06	0.84

SOIL BOUNDARY

WATERSHED BOUNDARY

WATERSHED FLOW PATH (TC)

REACH FLOW PATH

999

R

SF

SCF

CF

CC

AP

1P

TP-1

SUBCATCHMENT

REACH

SHEET FLOW

SHALLOW CONCENTRATED FLOW

CHANNEL FLOW

CIRCULAR CHANNEL

POINT OF ANALYSIS

POND

SOIL TEST PIT

REV

DATE

DESCRIPTION

REVISIONS

STATE OF MAINE

ANDREW D. JOHNSTON

12-20-12

REGISTERED PROFESSIONAL ENGINEER

P.E. ANDREW D. JOHNSTON

LIC. #9994

PHA RIVERTON

PARK IMPROVEMENTS

POST-DEVELOPMENT

WATERSHED PLAN

PORTLAND HOUSING AUTHORITY

14 BAXTER BOULEVARD

PORTLAND, MAINE 04101

Atlantic Resource Consultants

541 US Route One

Freeport, ME 04032

Tel: 207.869.9050

DRAWN: ZWG

DESIGNED: ADJ

CHECKED: ADJ

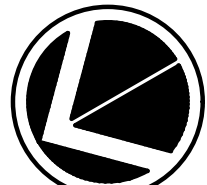
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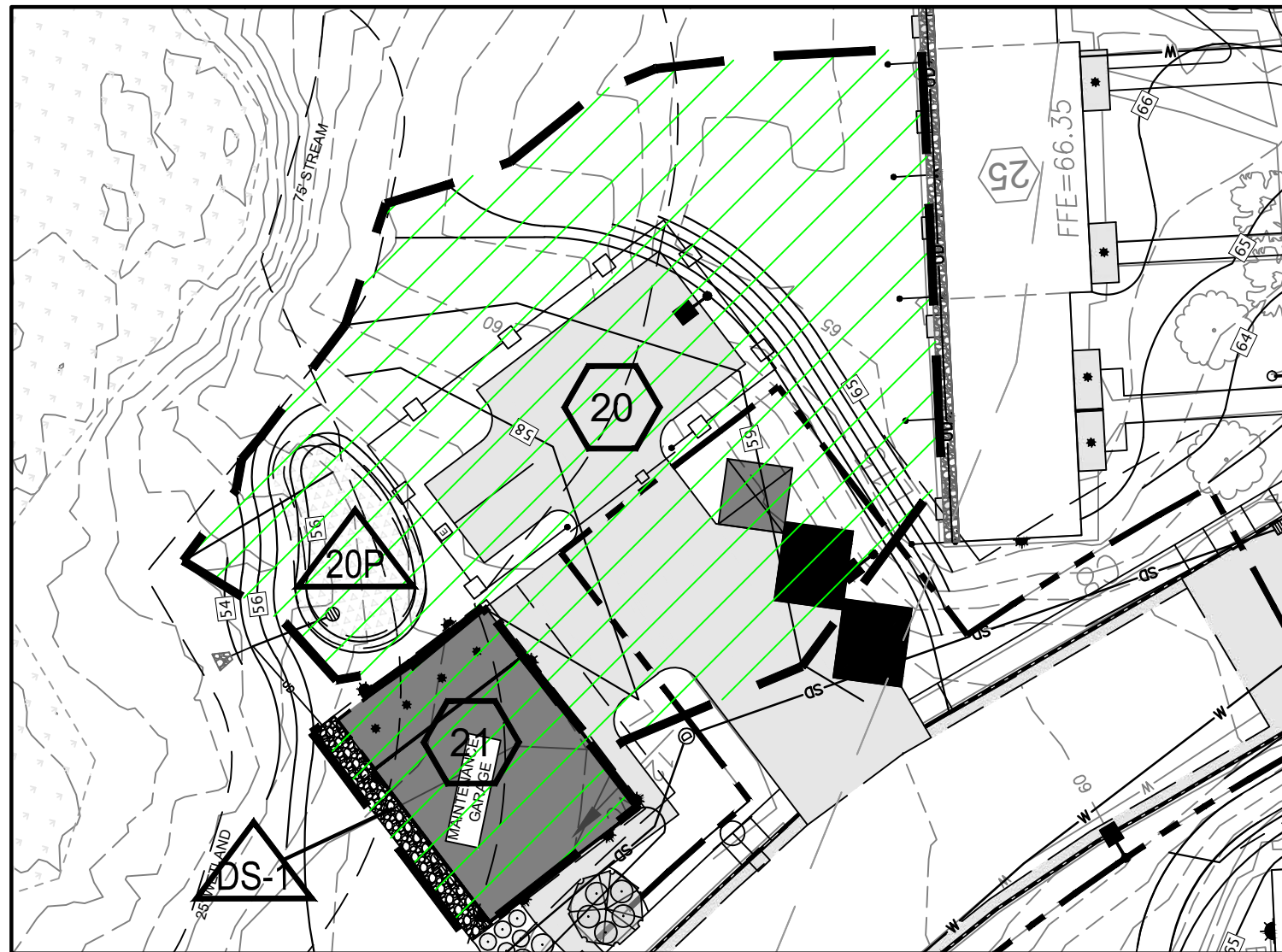
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JOB NO: 19-033



NORTH



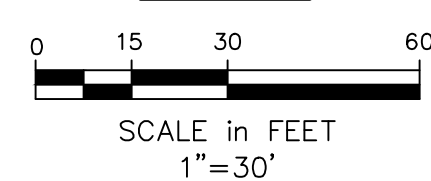
Riverton Park Water Quality Treatment Summary									
Subcatchment Area	Impervious Area	Landscaped Area	Developed Area	Water Quality Volume Required	Water Quality Volume Provided	SWP	Min. Area Req'd	Area Provided	
TREATED AREAS									
11	16555	4435	14971	1077	1425	Bio Cell 11	871	995	
12	9336	827	17463	1049	2432	Bio Cell 12	897	1705	
13	10998	12649	23641	1338	1920	Bio Cell 13	1149	1321	
14	13535	4901	19425	1295	2317	Bio Cell 14	1604	1621	
15	2433	444	7877	218	444	Bio Cell 15	154	397	
20	3370	8482	11740	360	798	Bio Cell 20	487	555	
21	1828	0	1429	252	869	Driv. Edge	N/A		
TOTAL TREATED	52049	38910	90959						
UNTREATED AREAS									
12* (not in re-development area)	21203	6802	33065						
13* (not in re-development area)	0	4851	4851						
Untreated Area Not in Model	1214	245	1450						
TOTAL UNTREATED	27417	11969	39386						
TREATMENT %	65.50%	76.48%	69.78%						

- WQV is calculated as 1" over the contributing impervious area plus 0.4" over the contributing landscaped area.
- Minimum area requirements are calculated as 7% contributing impervious area plus 3% contributing landscaped area for bioretention cell and 5% contributing impervious area plus 2% contributing landscaped area for undisturbed soil filter.
- Note: Just Subcatchment 10 has 28,215sf of existing impervious associated with Riverton Drive and existing unit roofs that are not within the re-development area. An additional 20,954sf of existing grass lawn in Subcatchment 30 is not within the re-development area. Subcatchment 16 has 39,473sf of existing impervious and 6294sf of existing grass lawn not within the re-development area.

SOILS LEGEND		
TEST PIT	NAME	HSG
TP-1	Buxton Mud	C
TP-2	Buxton Mud	C
TP-3	Buxton	C
TP-4	Filled Land	C

WATERSHED LEGEND	
	SOIL BOUNDARY
	REDEVELOPMENT BOUNDARY
	WATERSHED FLOW PATH (TC)
	REACH FLOW PATH
	SUBCATCHMENT
	POINT OF ANALYSIS
	POND
	SOIL TEST PIT
	CAPTURED AND TREATED AREA
	UNTREATED AREA
	UNTREATED AREA NOT IN MODEL
	AREAS MODELED BUT NOT WITHIN RE-DEVELOPMENT AREA

SCALE



<table><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>	REV	DATE	DESCRIPTION											PHA RIVERTON PARK IMPROVEMENTS WATER QUALITY TREATMENT PLAN PORTLAND HOUSING AUTHORITY 14 BAXTER BOULEVARD PORTLAND, MAINE 04101	Atlantic Resource Consultants 541 US Route One Freeport, ME 04032 Tel: 207.869.9050
REV	DATE	DESCRIPTION													

DRAWN: ADJ	DATE: DECEMBER 2022
DESIGNED: ADJ	SCALE: 1" = 30'
CHECKED: ADJ	JOB NO: 19-033
FILE NAME:	
SHEET: D-102	

ATTACHMENT C - WATER QUALITY CALCULATIONS

- Stormwater Area Summary
- WQ Calculation Summary
- BMP Orifice Sizing Calculations
- Stage Storage Tables

Riverton Park Stormwater Areas Summary

PRE-DEVELOPMENT WATERSHED CHARACTERISTICS				
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)	
101	4.43	83	14.5	
102	0.28	77	6	

POST-DEVELOPMENT WATERSHED CHARACTERISTICS - AREA 1			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
10	1.89	90	12
11	0.34	91	6
12	0.40	87	6
13	0.54	85	6
14	0.42	92	6
15	0.07	94	6
16	0.80	76	13.3
TOTAL AREA	4.46		

POST-DEVELOPMENT WATERSHED CHARACTERISTICS - AREA 2			
SUBCATCHMENT	AREA (ac)	CN	Tc (mins)
20	0.27	81	6
21	0.04	98	6
TOTAL AREA	0.31		

PRE-DEVELOPMENT AND POST-DEVELOPMENT PEAK RUNOFF VALUES					
Storm Return Period	Pre-Dev Peak Q at Design Point 1 (cfs)	Post-Dev Peak Q at Design Point 1 (cfs)	Pre-Dev Peak Q at Design Point 2 (cfs)	Post-Dev Peak Q at Design Point 2 (cfs)	
2-Year	6.32	4.58	0.36	0.14	
10-Year	11.47	9.73	0.73	0.51	
25-Year	15.70	15.62	1.06	0.84	

Riverton Park Water Quality Treatment Summary								
Subcatchment Area	Impervious Area	Landscaped Area	Developed Area	Water Quality Volume Required	Water Quality Volume Provided	BMP	Min. Area Req'd	Area Provd
TREATED AREAS								
11	10556	4415	14971	1027	1425	Bio Cell 11	871	995
12	9336	8127	17463	1049	2432	Bio Cell 12	897	1705
13	10998	12643	23641	1338	1920	Bio Cell 13	1149	1321
14	13528	4901	18429	1291	2327	Bio Cell 14	1094	1621
15	2433	444	2877	218	444	Bio Cell 15	184	307
20	3370	8380	11750	560	798	Bio Cell 20	487	555
21	1828	0	1828	152	369	Drip Edge	N/A	
TOTAL TREATED	52049	38910	90959					
UNTREATED AREAS								
10* (within re-development area)	26203	6862	33065					
16* (within re-development area)	0	4861	4861					
Untreated Area Not in Model	1214	246	1460					
TOTAL UNTREATED	27417	11969	39386					
TREATMENT %	65.50%	76.48%	69.78%					

1. WQV is calculated as 1" over the contributing impervious area plus 0.4" over the contributing landscaped area

2. Minimum area requirements are calculated as 7% contributing impervious area plus 3% contributing landscaped area for bioretention cell and 5% contributing impervious area plus 2% contributing landscaped area for underdrained soil filter.

Orifice Sizing 11P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		0.8371
x= Filter surface area in square feet	995	
Y=Orifice diameter (inches)		13/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

Orifice Sizing 12P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		1.0724
x= Filter surface area in square feet	1705	
Y=Orifice diameter (inches)		1 1/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

Orifice Sizing 13P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		0.9536
x= Filter surface area in square feet	1321	
Y=Orifice diameter (inches)		15/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

Orifice Sizing 14P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		1.0477
x= Filter surface area in square feet	1621	
Y=Orifice diameter (inches)		1 1/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

Orifice Sizing 15P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		0.4874
x= Filter surface area in square feet	307	
Y=Orifice diameter (inches)		8/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

Orifice Sizing 20P		Units
<u>Calculate Orifice from Filter Area</u>		
Y=0.035x ^{0.4599} (decimal)		0.6400
x= Filter surface area in square feet	555	
Y=Orifice diameter (inches)		10/16
<u>Calculate Orifice from Water Quality Volume</u>		
Y=0.0137x ^{0.5372}		0
x= Water quality volume in cubic feet		
Y=Orifice diameter (inches)		0

19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Stage-Area-Storage for Pond 11P: BIO-11

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
72.50	995	0	75.20	1,053	1,095
72.55	995	20	75.25	1,068	1,148
72.60	995	40	75.30	1,083	1,202
72.65	995	60	75.35	1,097	1,257
72.70	995	80	75.40	1,112	1,312
72.75	995	100	75.45	1,126	1,368
72.80	995	119	75.50	1,141	1,425
72.85	995	139	75.55	1,156	1,482
72.90	995	159	75.60	1,170	1,540
72.95	995	179	75.65	1,185	1,599
73.00	995	199	75.70	1,199	1,659
73.05	995	219	75.75	1,214	1,719
73.10	995	239	75.80	1,229	1,780
73.15	995	259	75.85	1,243	1,842
73.20	995	279	75.90	1,258	1,904
73.25	995	299	75.95	1,272	1,968
73.30	995	318	76.00	1,287	2,032
73.35	995	338			
73.40	995	358			
73.45	995	378			
73.50	995	398			
73.55	995	414			
73.60	995	431			
73.65	995	447			
73.70	995	464			
73.75	995	480			
73.80	995	497			
73.85	995	513			
73.90	995	529			
73.95	995	546			
74.00	995	562			
74.05	995	579			
74.10	995	595			
74.15	995	611			
74.20	995	628			
74.25	995	644			
74.30	995	661			
74.35	995	677			
74.40	995	694			
74.45	995	710			
74.50	995	726			
74.55	995	743			
74.60	995	759			
74.65	995	776			
74.70	995	792			
74.75	995	808			
74.80	995	825			
74.85	995	841			
74.90	995	858			
74.95	995	874			
75.00	995	891			
75.05	1,010	941			
75.10	1,024	991			
75.15	1,039	1,043			

19-033 Riverton Park POST-DEV-1

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Stage-Area-Storage for Pond 12P: BIO-12

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
73.50	1,705	0	76.20	1,791	1,876
73.55	1,705	34	76.25	1,812	1,966
73.60	1,705	68	76.30	1,833	2,057
73.65	1,705	102	76.35	1,855	2,149
73.70	1,705	136	76.40	1,876	2,242
73.75	1,705	171	76.45	1,898	2,337
73.80	1,705	205	76.50	1,919	2,432
73.85	1,705	239	76.55	1,940	2,528
73.90	1,705	273	76.60	1,962	2,626
73.95	1,705	307	76.65	1,983	2,725
74.00	1,705	341	76.70	2,005	2,824
74.05	1,705	375	76.75	2,026	2,925
74.10	1,705	409	76.80	2,047	3,027
74.15	1,705	443	76.85	2,069	3,130
74.20	1,705	477	76.90	2,090	3,234
74.25	1,705	512	76.95	2,112	3,339
74.30	1,705	546	77.00	2,133	3,445
74.35	1,705	580	77.05	2,155	3,552
74.40	1,705	614	77.10	2,177	3,660
74.45	1,705	648	77.15	2,200	3,770
74.50	1,705	682	77.20	2,222	3,880
74.55	1,705	710	77.25	2,244	3,992
74.60	1,705	738			
74.65	1,705	766			
74.70	1,705	795			
74.75	1,705	823			
74.80	1,705	851			
74.85	1,705	879			
74.90	1,705	907			
74.95	1,705	935			
75.00	1,705	963			
75.05	1,705	991			
75.10	1,705	1,020			
75.15	1,705	1,048			
75.20	1,705	1,076			
75.25	1,705	1,104			
75.30	1,705	1,132			
75.35	1,705	1,160			
75.40	1,705	1,188			
75.45	1,705	1,217			
75.50	1,705	1,245			
75.55	1,705	1,273			
75.60	1,705	1,301			
75.65	1,705	1,329			
75.70	1,705	1,357			
75.75	1,705	1,385			
75.80	1,705	1,413			
75.85	1,705	1,442			
75.90	1,705	1,470			
75.95	1,705	1,498			
76.00	1,705	1,526			
76.05	1,726	1,612			
76.10	1,748	1,699			
76.15	1,769	1,787			

19-033 Riverton Park POST-DEV-1

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Stage-Area-Storage for Pond 13P: BIO-13

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
64.50	1,321	0	67.20	1,445	1,459
64.55	1,321	26	67.25	1,476	1,532
64.60	1,321	53	67.30	1,507	1,606
64.65	1,321	79	67.35	1,538	1,683
64.70	1,321	106	67.40	1,569	1,760
64.75	1,321	132	67.45	1,600	1,839
64.80	1,321	159	67.50	1,631	1,920
64.85	1,321	185	67.55	1,661	2,002
64.90	1,321	211	67.60	1,692	2,086
64.95	1,321	238	67.65	1,723	2,172
65.00	1,321	264	67.70	1,754	2,259
65.05	1,321	291	67.75	1,785	2,347
65.10	1,321	317	67.80	1,816	2,437
65.15	1,321	343	67.85	1,847	2,529
65.20	1,321	370	67.90	1,878	2,622
65.25	1,321	396	67.95	1,909	2,717
65.30	1,321	423	68.00	1,940	2,813
65.35	1,321	449			
65.40	1,321	476			
65.45	1,321	502			
65.50	1,321	528			
65.55	1,321	550			
65.60	1,321	572			
65.65	1,321	594			
65.70	1,321	616			
65.75	1,321	637			
65.80	1,321	659			
65.85	1,321	681			
65.90	1,321	703			
65.95	1,321	725			
66.00	1,321	746			
66.05	1,321	768			
66.10	1,321	790			
66.15	1,321	812			
66.20	1,321	834			
66.25	1,321	855			
66.30	1,321	877			
66.35	1,321	899			
66.40	1,321	921			
66.45	1,321	943			
66.50	1,321	964			
66.55	1,321	986			
66.60	1,321	1,008			
66.65	1,321	1,030			
66.70	1,321	1,052			
66.75	1,321	1,073			
66.80	1,321	1,095			
66.85	1,321	1,117			
66.90	1,321	1,139			
66.95	1,321	1,160			
67.00	1,321	1,182			
67.05	1,352	1,249			
67.10	1,383	1,317			
67.15	1,414	1,387			

19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Stage-Area-Storage for Pond 14P: BIO-14

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
65.50	1,621	0	68.20	1,725	1,785
65.55	1,621	32	68.25	1,752	1,872
65.60	1,621	65	68.30	1,778	1,961
65.65	1,621	97	68.35	1,804	2,050
65.70	1,621	130	68.40	1,830	2,141
65.75	1,621	162	68.45	1,856	2,233
65.80	1,621	195	68.50	1,882	2,327
65.85	1,621	227	68.55	1,908	2,421
65.90	1,621	259	68.60	1,934	2,517
65.95	1,621	292	68.65	1,960	2,615
66.00	1,621	324	68.70	1,986	2,713
66.05	1,621	357	68.75	2,013	2,813
66.10	1,621	389	68.80	2,039	2,915
66.15	1,621	421	68.85	2,065	3,017
66.20	1,621	454	68.90	2,091	3,121
66.25	1,621	486	68.95	2,117	3,226
66.30	1,621	519	69.00	2,143	3,333
66.35	1,621	551			
66.40	1,621	584			
66.45	1,621	616			
66.50	1,621	648			
66.55	1,621	675			
66.60	1,621	702			
66.65	1,621	729			
66.70	1,621	755			
66.75	1,621	782			
66.80	1,621	809			
66.85	1,621	836			
66.90	1,621	862			
66.95	1,621	889			
67.00	1,621	916			
67.05	1,621	943			
67.10	1,621	969			
67.15	1,621	996			
67.20	1,621	1,023			
67.25	1,621	1,050			
67.30	1,621	1,076			
67.35	1,621	1,103			
67.40	1,621	1,130			
67.45	1,621	1,157			
67.50	1,621	1,183			
67.55	1,621	1,210			
67.60	1,621	1,237			
67.65	1,621	1,264			
67.70	1,621	1,290			
67.75	1,621	1,317			
67.80	1,621	1,344			
67.85	1,621	1,371			
67.90	1,621	1,397			
67.95	1,621	1,424			
68.00	1,621	1,451			
68.05	1,647	1,532			
68.10	1,673	1,616			
68.15	1,699	1,700			

19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Stage-Area-Storage for Pond 15P: BIO-15

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
71.50	307	0	74.20	350	330
71.55	307	6	74.25	361	347
71.60	307	12	74.30	371	366
71.65	307	18	74.35	382	385
71.70	307	25	74.40	393	404
71.75	307	31	74.45	404	424
71.80	307	37	74.50	415	444
71.85	307	43	74.55	425	465
71.90	307	49	74.60	436	487
71.95	307	55	74.65	447	509
72.00	307	61	74.70	458	532
72.05	307	66	74.75	468	555
72.10	307	72	74.80	479	578
72.15	307	77	74.85	490	603
72.20	307	82	74.90	501	627
72.25	307	87	74.95	511	653
72.30	307	92	75.00	522	679
72.35	307	97			
72.40	307	102			
72.45	307	107			
72.50	307	112			
72.55	307	117			
72.60	307	122			
72.65	307	127			
72.70	307	132			
72.75	307	137			
72.80	307	142			
72.85	307	148			
72.90	307	153			
72.95	307	158			
73.00	307	163			
73.05	307	168			
73.10	307	173			
73.15	307	178			
73.20	307	183			
73.25	307	188			
73.30	307	193			
73.35	307	198			
73.40	307	203			
73.45	307	208			
73.50	307	213			
73.55	307	218			
73.60	307	223			
73.65	307	229			
73.70	307	234			
73.75	307	239			
73.80	307	244			
73.85	307	249			
73.90	307	254			
73.95	307	259			
74.00	307	264			
74.05	318	280			
74.10	328	296			
74.15	339	312			

19-033 Riverton Park POST-DEV-2

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Page 1

Stage-Area-Storage for Pond 20P: BIO-20

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
53.50	555	0	56.20	593	612
53.55	555	11	56.25	603	641
53.60	555	22	56.30	612	672
53.65	555	33	56.35	622	703
53.70	555	44	56.40	631	734
53.75	555	56	56.45	641	766
53.80	555	67	56.50	650	798
53.85	555	78	56.55	660	831
53.90	555	89	56.60	670	864
53.95	555	100	56.65	681	898
54.00	555	111	56.70	691	932
54.05	555	122	56.75	701	967
54.10	555	133	56.80	711	1,002
54.15	555	144	56.85	721	1,038
54.20	555	155	56.90	732	1,074
54.25	555	167	56.95	742	1,111
54.30	555	178	57.00	752	1,148
54.35	555	189			
54.40	555	200			
54.45	555	211			
54.50	555	222			
54.55	555	231			
54.60	555	240			
54.65	555	249			
54.70	555	259			
54.75	555	268			
54.80	555	277			
54.85	555	286			
54.90	555	295			
54.95	555	304			
55.00	555	314			
55.05	555	323			
55.10	555	332			
55.15	555	341			
55.20	555	350			
55.25	555	359			
55.30	555	369			
55.35	555	378			
55.40	555	387			
55.45	555	396			
55.50	555	405			
55.55	555	414			
55.60	555	423			
55.65	555	433			
55.70	555	442			
55.75	555	451			
55.80	555	460			
55.85	555	469			
55.90	555	478			
55.95	555	488			
56.00	555	497			
56.05	564	525			
56.10	574	553			
56.15	583	582			

19-033 Riverton Park POST-DEV-2

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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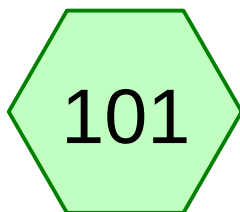
Page 2

Stage-Area-Storage for Pond DS-1: DRIP STRIP

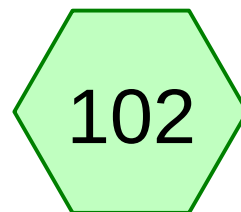
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
53.50	246	0	56.20	246	241
53.55	246	4	56.25	246	246
53.60	246	7	56.30	246	251
53.65	246	11	56.35	246	256
53.70	246	15	56.40	246	261
53.75	246	18	56.45	246	266
53.80	246	22	56.50	246	271
53.85	246	26	56.55	246	276
53.90	246	30	56.60	246	280
53.95	246	33	56.65	246	285
54.00	246	37	56.70	246	290
54.05	246	41	56.75	246	295
54.10	246	44	56.80	246	300
54.15	246	48	56.85	246	305
54.20	246	52	56.90	246	310
54.25	246	55	56.95	246	315
54.30	246	59	57.00	246	320
54.35	246	63	57.05	246	325
54.40	246	66	57.10	246	330
54.45	246	70	57.15	246	335
54.50	246	74	57.20	246	339
54.55	246	79	57.25	246	344
54.60	246	84	57.30	246	349
54.65	246	89	57.35	246	354
54.70	246	93	57.40	246	359
54.75	246	98	57.45	246	364
54.80	246	103	57.50	246	369
54.85	246	108			
54.90	246	113			
54.95	246	118			
55.00	246	123			
55.05	246	128			
55.10	246	133			
55.15	246	138			
55.20	246	143			
55.25	246	148			
55.30	246	153			
55.35	246	157			
55.40	246	162			
55.45	246	167			
55.50	246	172			
55.55	246	177			
55.60	246	182			
55.65	246	187			
55.70	246	192			
55.75	246	197			
55.80	246	202			
55.85	246	207			
55.90	246	212			
55.95	246	216			
56.00	246	221			
56.05	246	226			
56.10	246	231			
56.15	246	236			

ATTACHMENT D - HYDROCAD RUNOFF AND ROUTING CALCULATIONS

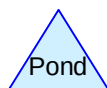
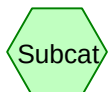
ATTACHMENT D (I) -PREDEVELOPMENT MODEL RESULTS



Subcatchment 101



Subcatchment 102



Routing Diagram for 19-033 Riverton Park PRE-DEV
Prepared by Atlantic Resource Consultants, Printed 12/21/2022
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19-033 Riverton Park PRE-DEV*Type III 24-hr 2-Yr Storm Rainfall=3.10"*

Prepared by Atlantic Resource Consultants

Printed 12/21/2022

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 101: Subcatchment 101

Runoff Area=192,792 sf 41.40% Impervious Runoff Depth=1.60"
Flow Length=252' Tc=14.5 min CN=84 Runoff=6.32 cfs 0.590 af

Subcatchment 102: Subcatchment 102

Runoff Area=12,153 sf 11.74% Impervious Runoff Depth=1.14"
Tc=6.0 min CN=77 Runoff=0.36 cfs 0.027 af

Total Runoff Area = 4.705 ac Runoff Volume = 0.616 af Average Runoff Depth = 1.57"
60.36% Pervious = 2.840 ac 39.64% Impervious = 1.865 ac

19-033 Riverton Park PRE-DEV

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 101: Subcatchment 101

Runoff = 6.32 cfs @ 12.21 hrs, Volume= 0.590 af, Depth= 1.60"

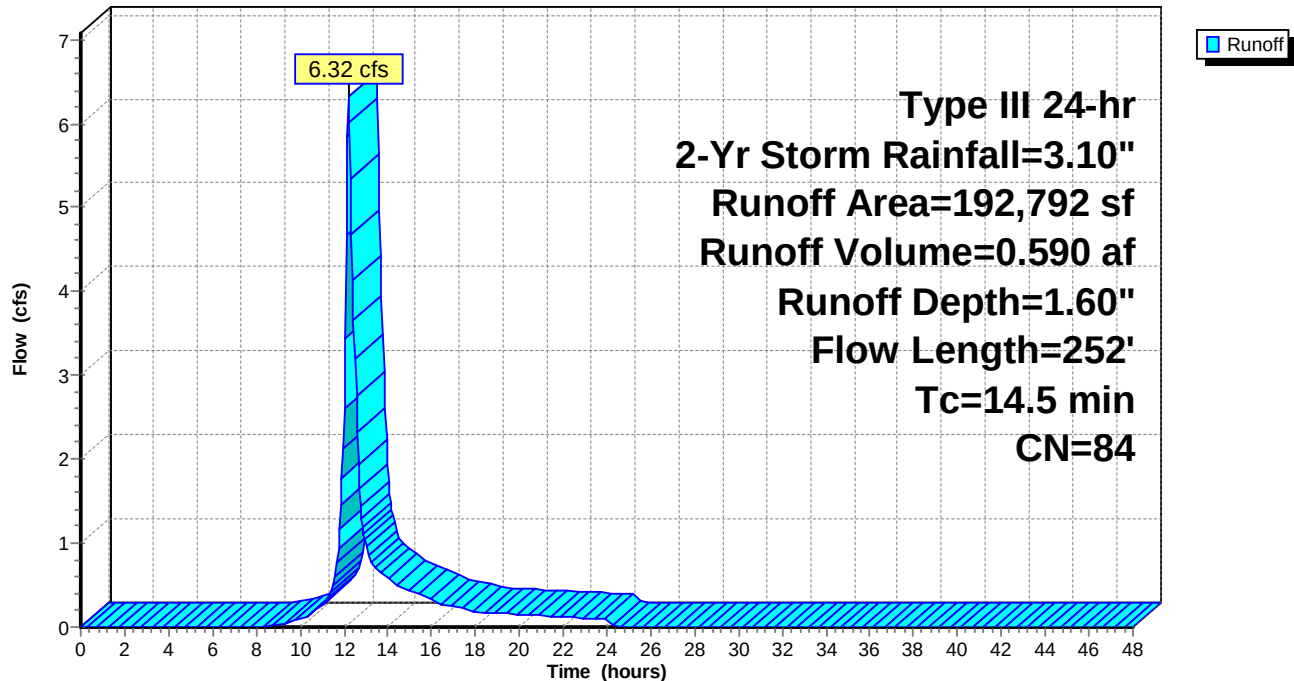
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	79,817	98	Impervious Roofs and Pavement
	2,578	96	Gravel surface, HSG C
	33,318	70	Woods, Good, HSG C
	77,079	74	>75% Grass cover, Good, HSG C
	192,792	84	Weighted Average
	112,975		58.60% Pervious Area
	79,817		41.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	60	0.0220	0.07		Sheet Flow, Woods
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	192	0.1400	6.02		Shallow Concentrated Flow, Woods/Grass
					Unpaved Kv= 16.1 fps
14.5	252	Total			

Subcatchment 101: Subcatchment 101

Hydrograph



Summary for Subcatchment 102: Subcatchment 102

Runoff = 0.36 cfs @ 12.10 hrs, Volume= 0.027 af, Depth= 1.14"

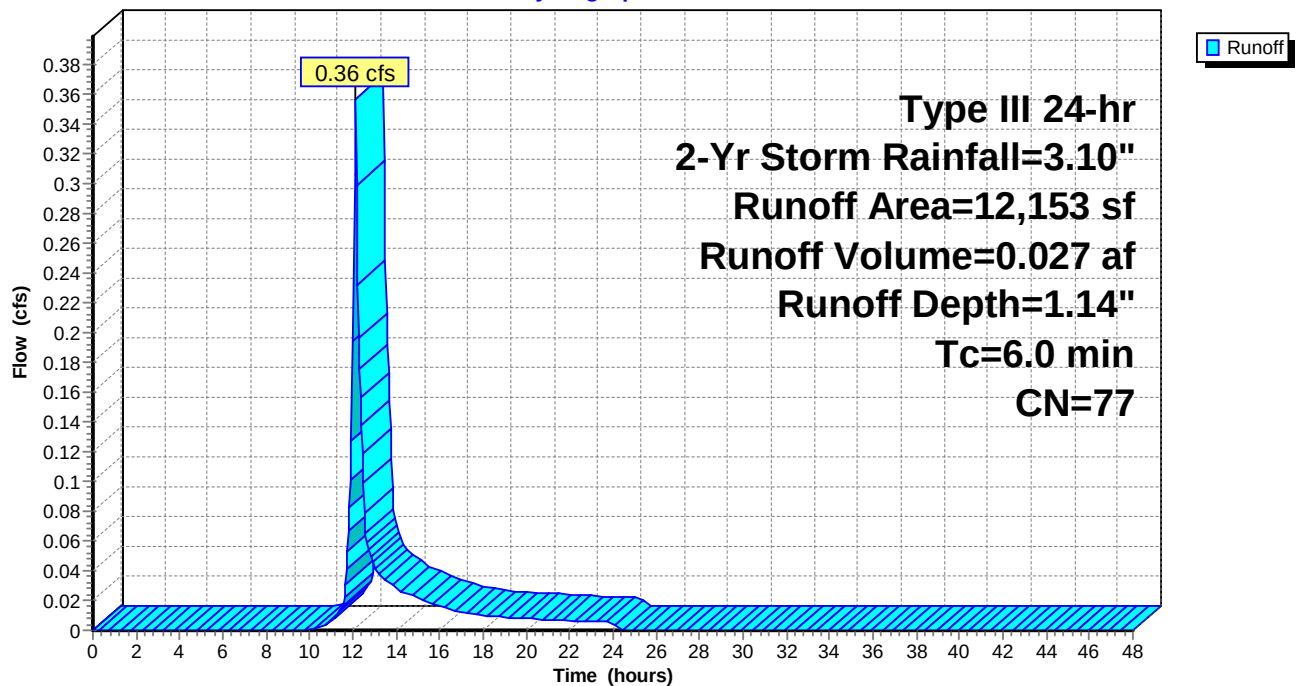
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	1,427	98	Impervious Roofs and Pavement
	10,726	74	>75% Grass cover, Good, HSG C
	12,153	77	Weighted Average
	10,726		88.26% Pervious Area
	1,427		11.74% Impervious Area

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

Subcatchment 102: Subcatchment 102

Hydrograph



19-033 Riverton Park PRE-DEV*Type III 24-hr 10-Yr Storm Rainfall=4.60"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 101: Subcatchment 101

Runoff Area=192,792 sf 41.40% Impervious Runoff Depth=2.91"
Flow Length=252' Tc=14.5 min CN=84 Runoff=11.47 cfs 1.072 af

Subcatchment 102: Subcatchment 102

Runoff Area=12,153 sf 11.74% Impervious Runoff Depth=2.29"
Tc=6.0 min CN=77 Runoff=0.73 cfs 0.053 af

Total Runoff Area = 4.705 ac Runoff Volume = 1.125 af Average Runoff Depth = 2.87"
60.36% Pervious = 2.840 ac 39.64% Impervious = 1.865 ac

Summary for Subcatchment 101: Subcatchment 101

Runoff = 11.47 cfs @ 12.20 hrs, Volume= 1.072 af, Depth= 2.91"

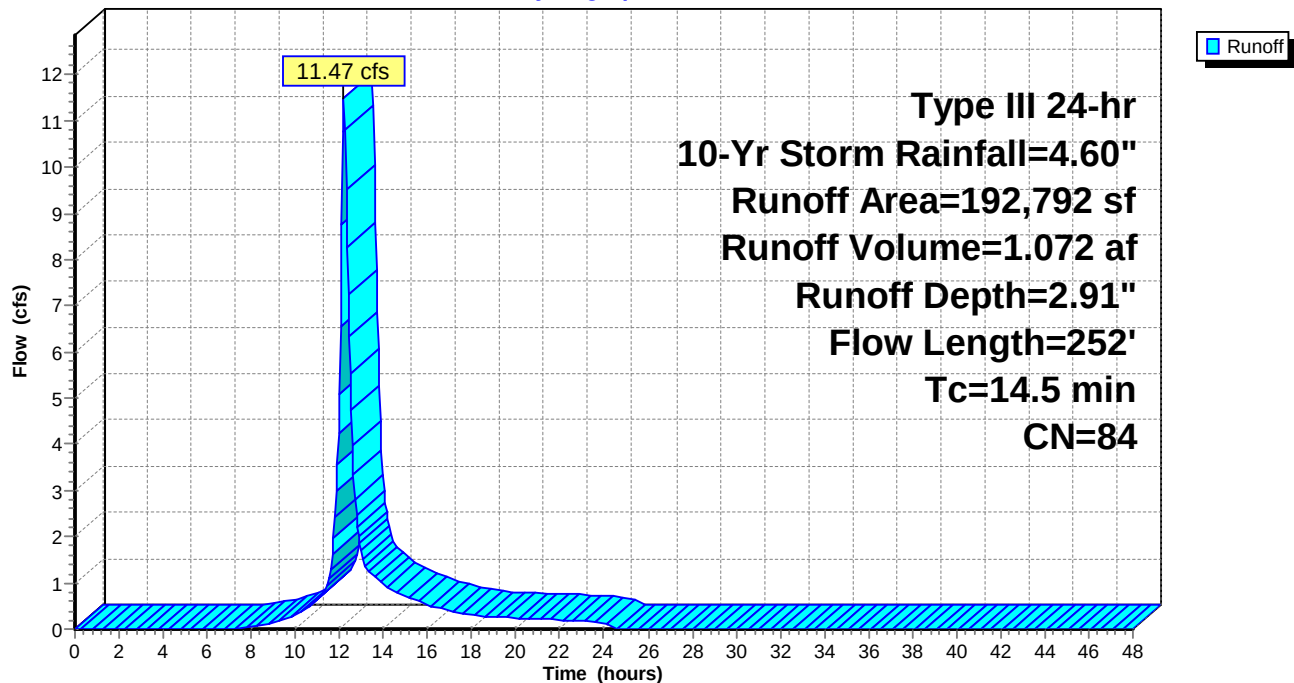
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	79,817	98	Impervious Roofs and Pavement
	2,578	96	Gravel surface, HSG C
	33,318	70	Woods, Good, HSG C
	77,079	74	>75% Grass cover, Good, HSG C
	192,792	84	Weighted Average
	112,975		58.60% Pervious Area
	79,817		41.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	60	0.0220	0.07		Sheet Flow, Woods
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	192	0.1400	6.02		Shallow Concentrated Flow, Woods/Grass
					Unpaved Kv= 16.1 fps
14.5	252	Total			

Subcatchment 101: Subcatchment 101

Hydrograph



Summary for Subcatchment 102: Subcatchment 102

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 0.053 af, Depth= 2.29"

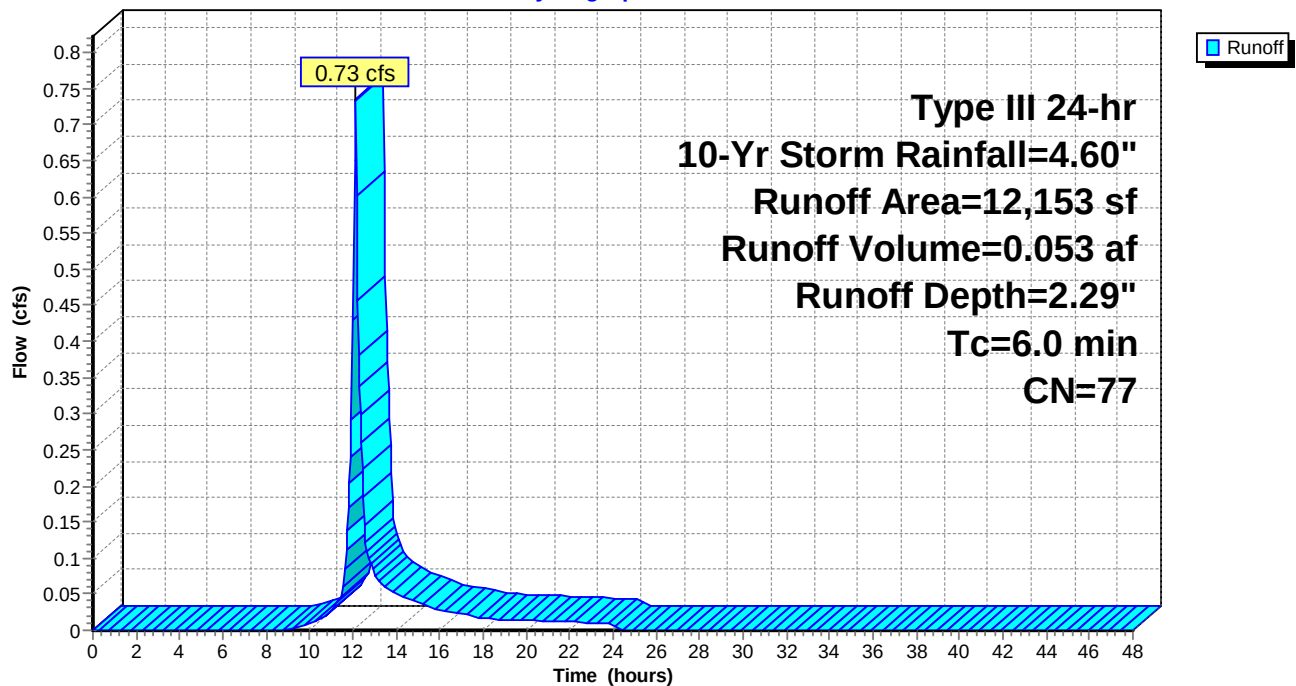
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	1,427	98	Impervious Roofs and Pavement
	10,726	74	>75% Grass cover, Good, HSG C
	12,153	77	Weighted Average
	10,726		88.26% Pervious Area
	1,427		11.74% Impervious Area

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

Subcatchment 102: Subcatchment 102

Hydrograph



19-033 Riverton Park PRE-DEV*Type III 24-hr 25-Yr Storm Rainfall=5.80"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 101: Subcatchment 101

Runoff Area=192,792 sf 41.40% Impervious Runoff Depth=4.01"
Flow Length=252' Tc=14.5 min CN=84 Runoff=15.70 cfs 1.479 af

Subcatchment 102: Subcatchment 102

Runoff Area=12,153 sf 11.74% Impervious Runoff Depth=3.31"
Tc=6.0 min CN=77 Runoff=1.06 cfs 0.077 af

Total Runoff Area = 4.705 ac Runoff Volume = 1.556 af Average Runoff Depth = 3.97"
60.36% Pervious = 2.840 ac 39.64% Impervious = 1.865 ac

Summary for Subcatchment 101: Subcatchment 101

Runoff = 15.70 cfs @ 12.20 hrs, Volume= 1.479 af, Depth= 4.01"

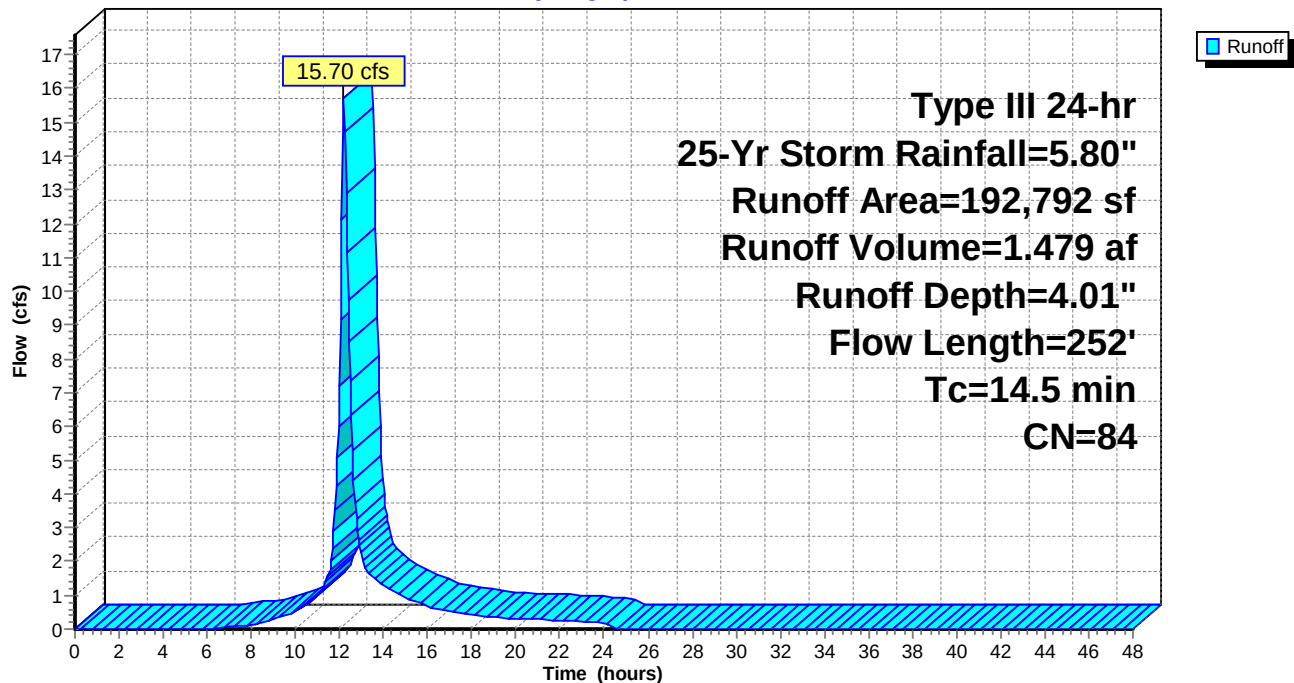
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Storm Rainfall=5.80"

	Area (sf)	CN	Description
*	79,817	98	Impervious Roofs and Pavement
	2,578	96	Gravel surface, HSG C
	33,318	70	Woods, Good, HSG C
	77,079	74	>75% Grass cover, Good, HSG C
	192,792	84	Weighted Average
	112,975		58.60% Pervious Area
	79,817		41.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	60	0.0220	0.07		Sheet Flow, Woods
					Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	192	0.1400	6.02		Shallow Concentrated Flow, Woods/Grass
					Unpaved Kv= 16.1 fps
14.5	252	Total			

Subcatchment 101: Subcatchment 101

Hydrograph



Summary for Subcatchment 102: Subcatchment 102

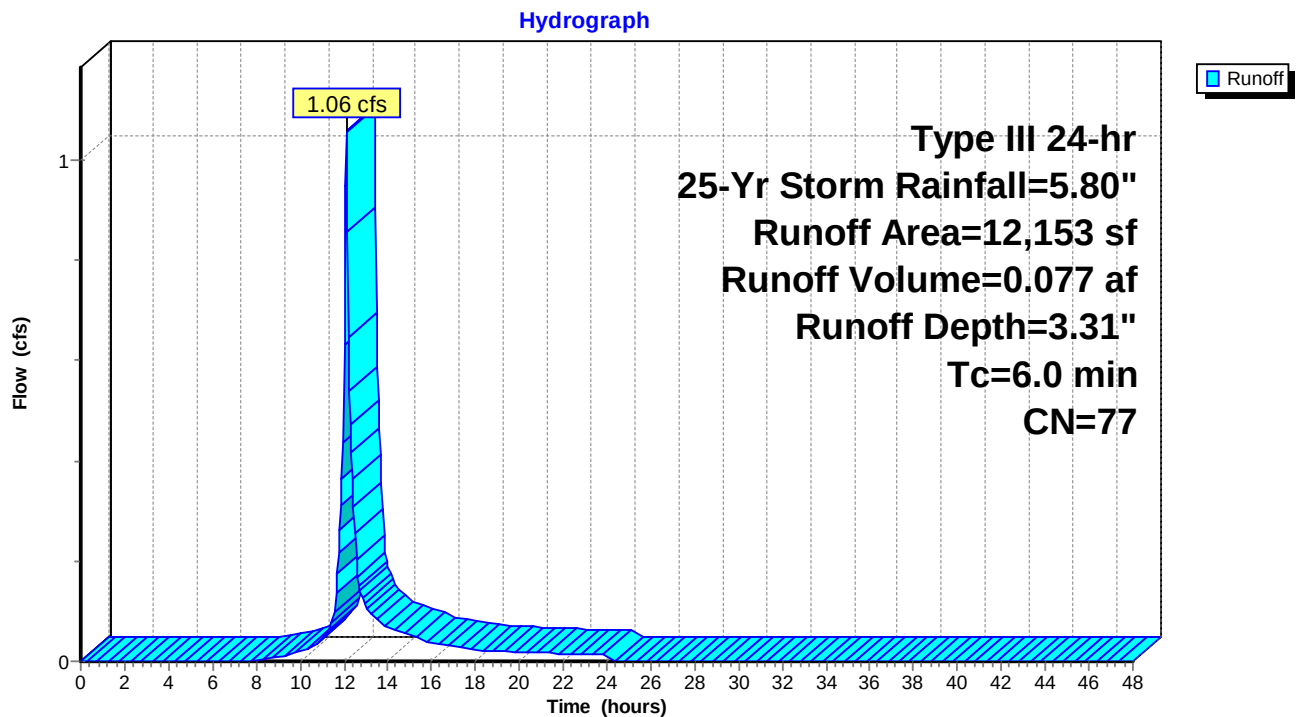
Runoff = 1.06 cfs @ 12.09 hrs, Volume= 0.077 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Yr Storm Rainfall=5.80"

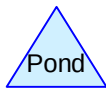
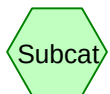
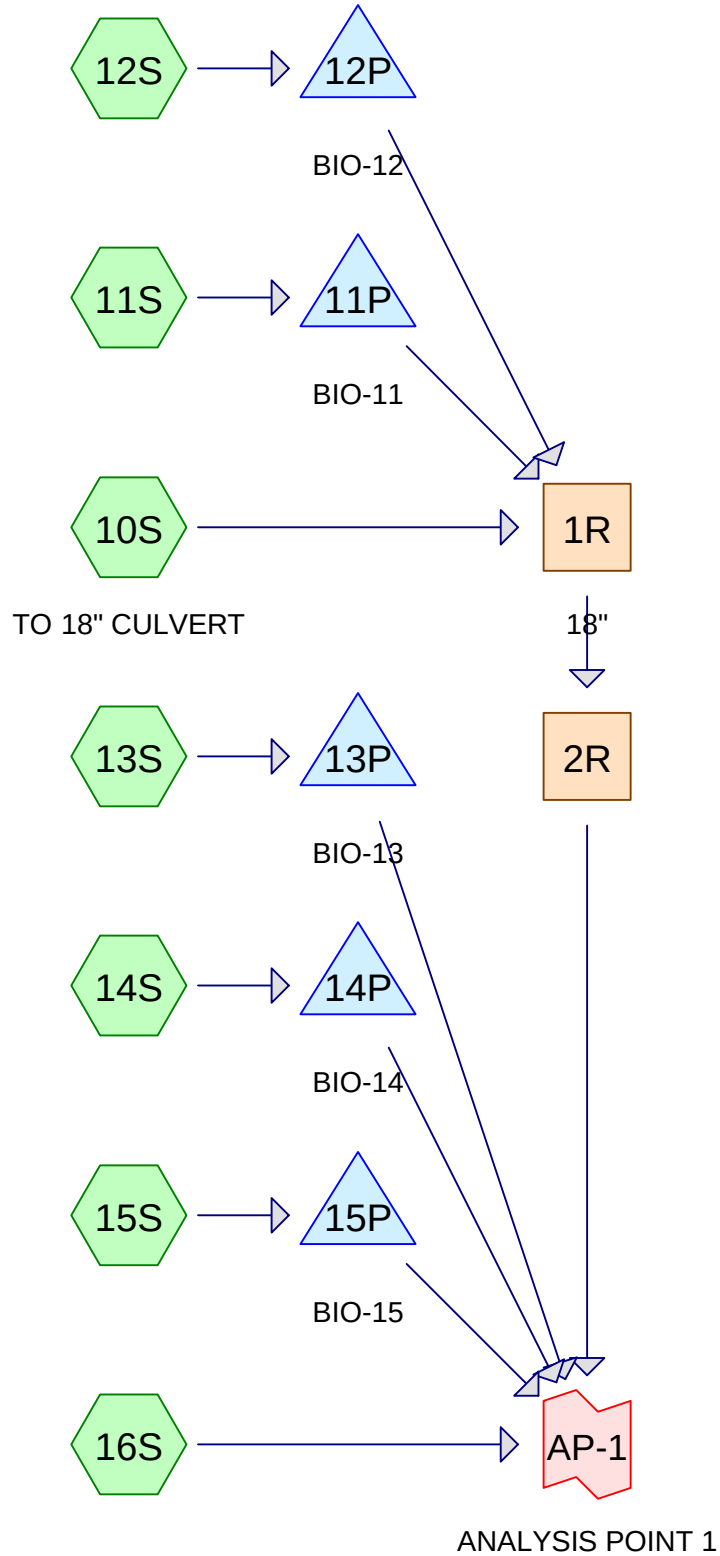
	Area (sf)	CN	Description
*	1,427	98	Impervious Roofs and Pavement
	10,726	74	>75% Grass cover, Good, HSG C
	12,153	77	Weighted Average
	10,726		88.26% Pervious Area
	1,427		11.74% Impervious Area

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

Subcatchment 102: Subcatchment 102



ATTACHMENT D (II) -POSTDEVELOPMENT MODEL RESULTS



Routing Diagram for 19-033 Riverton Park POST-DEV-1
 Prepared by Atlantic Resource Consultants, Printed 12/21/2022
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19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

Prepared by Atlantic Resource Consultants

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 10S: TO 18" CULVERT	Runoff Area=82,235 sf 66.17% Impervious Runoff Depth=2.08" Flow Length=185' Tc=12.0 min CN=90 Runoff=3.72 cfs 0.327 af
Subcatchment 11S:	Runoff Area=14,971 sf 70.51% Impervious Runoff Depth=2.16" Tc=6.0 min CN=91 Runoff=0.84 cfs 0.062 af
Subcatchment 12S:	Runoff Area=17,463 sf 53.46% Impervious Runoff Depth=1.83" Tc=6.0 min CN=87 Runoff=0.84 cfs 0.061 af
Subcatchment 13S:	Runoff Area=23,641 sf 46.52% Impervious Runoff Depth=1.67" Tc=6.0 min CN=85 Runoff=1.04 cfs 0.076 af
Subcatchment 14S:	Runoff Area=18,429 sf 73.41% Impervious Runoff Depth=2.26" Tc=6.0 min CN=92 Runoff=1.07 cfs 0.080 af
Subcatchment 15S:	Runoff Area=2,877 sf 84.57% Impervious Runoff Depth=2.45" Tc=6.0 min CN=94 Runoff=0.18 cfs 0.013 af
Subcatchment 16S:	Runoff Area=34,803 sf 17.09% Impervious Runoff Depth=1.08" Flow Length=248' Tc=13.3 min CN=76 Runoff=0.76 cfs 0.072 af
Reach 1R: 18"	Avg. Flow Depth=0.34' Max Vel=12.35 fps Inflow=3.80 cfs 0.450 af 18.0" Round Pipe n=0.012 L=150.0' S=0.0830 ' S Capacity=32.78 cfs Outflow=3.77 cfs 0.450 af
Reach 2R:	Avg. Flow Depth=0.19' Max Vel=2.01 fps Inflow=3.77 cfs 0.450 af n=0.080 L=35.0' S=0.1143 ' S Capacity=18.83 cfs Outflow=3.73 cfs 0.450 af
Pond 11P: BIO-11	Peak Elev=75.52' Storage=1,445 cf Inflow=0.84 cfs 0.062 af Outflow=0.08 cfs 0.062 af
Pond 12P: BIO-12	Peak Elev=76.02' Storage=1,566 cf Inflow=0.84 cfs 0.061 af Outflow=0.04 cfs 0.061 af
Pond 13P: BIO-13	Peak Elev=67.51' Storage=1,937 cf Inflow=1.04 cfs 0.076 af Outflow=0.06 cfs 0.076 af
Pond 14P: BIO-14	Peak Elev=68.41' Storage=2,153 cf Inflow=1.07 cfs 0.080 af Outflow=0.04 cfs 0.079 af
Pond 15P: BIO-15	Peak Elev=73.99' Storage=263 cf Inflow=0.18 cfs 0.013 af Outflow=0.02 cfs 0.013 af
Link AP-1: ANALYSIS POINT 1	Inflow=4.58 cfs 0.690 af Primary=4.58 cfs 0.690 af

Total Runoff Area = 4.463 ac Runoff Volume = 0.690 af Average Runoff Depth = 1.86"
44.85% Pervious = 2.002 ac 55.15% Impervious = 2.461 ac

19-033 Riverton Park POST-DEV-1

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 10S: TO 18" CULVERT

Runoff = 3.72 cfs @ 12.16 hrs, Volume= 0.327 af, Depth= 2.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

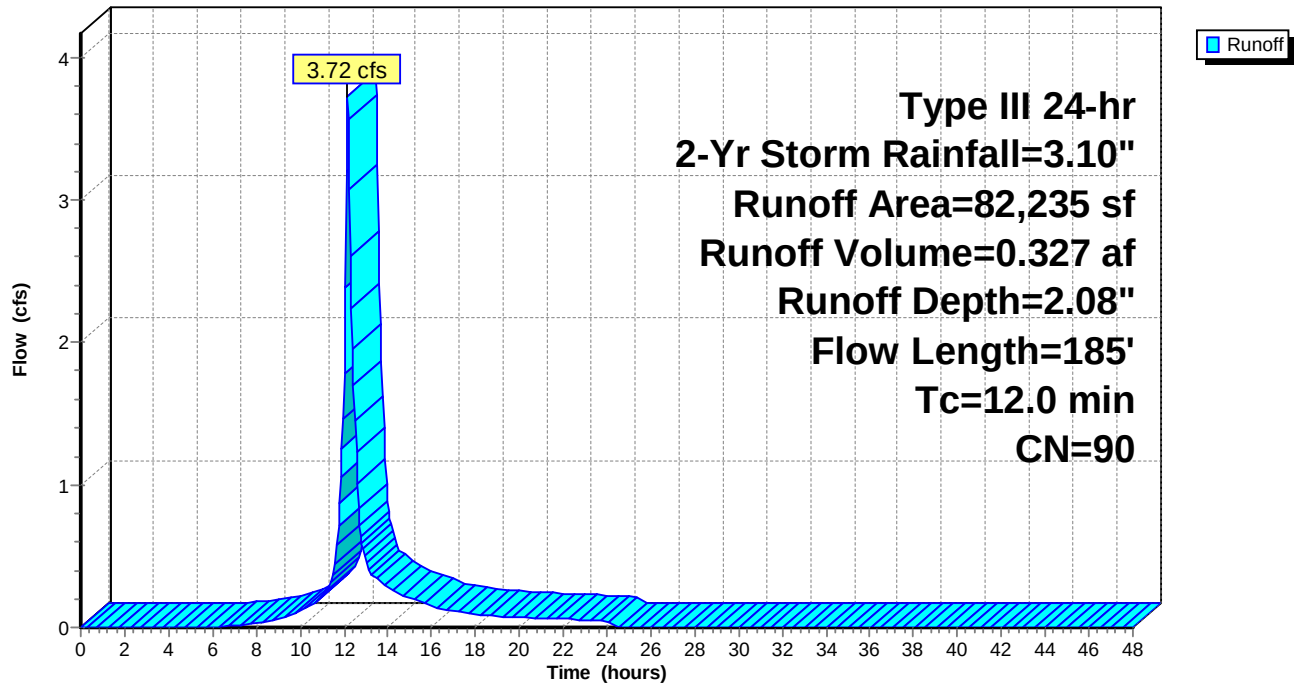
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	54,419	98	Impervious
	27,816	74	>75% Grass cover, Good, HSG C
	82,235	90	Weighted Average
	27,816		33.83% Pervious Area
	54,419		66.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.2	100	0.0150	0.15		Sheet Flow, Grass slope
					Grass: Short n= 0.150 P2= 3.10"
0.8	85	0.0120	1.76		Shallow Concentrated Flow, Grass
					Unpaved Kv= 16.1 fps
12.0	185	Total			

Subcatchment 10S: TO 18" CULVERT

Hydrograph



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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 11S:

Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.062 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

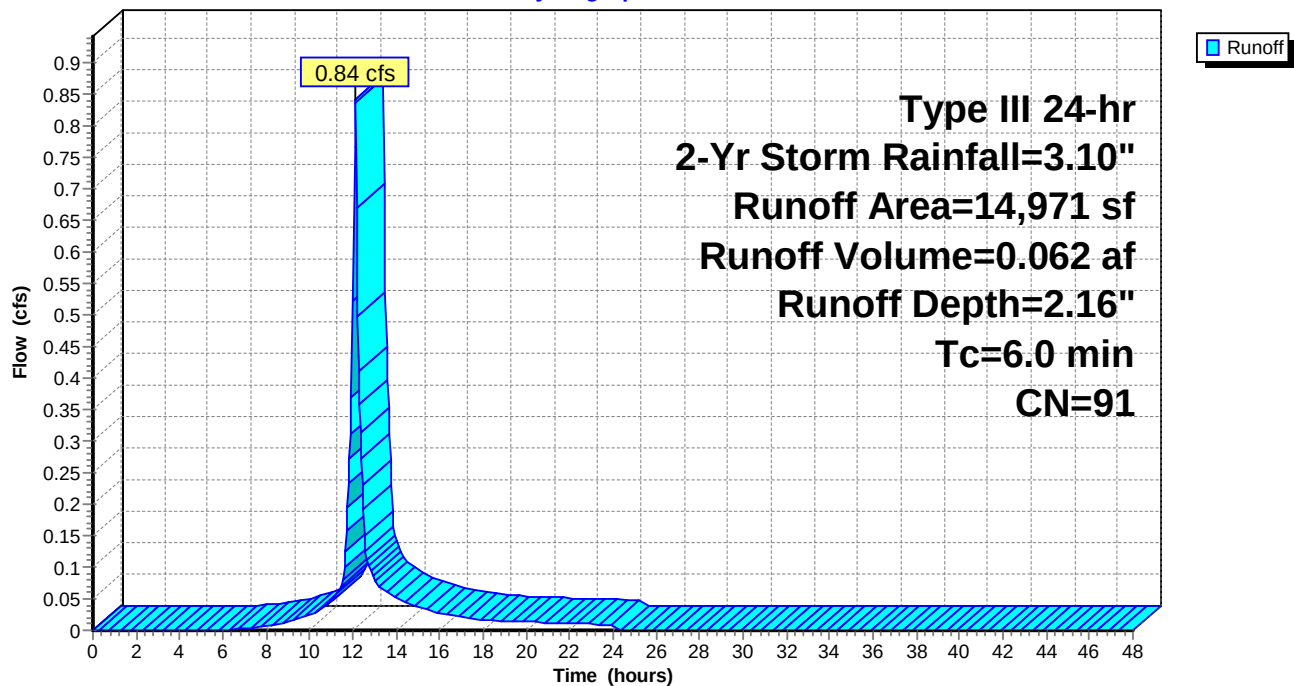
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	10,556	98	Impervious
	4,415	74	>75% Grass cover, Good, HSG C
	14,971	91	Weighted Average
	4,415		29.49% Pervious Area
	10,556		70.51% Impervious Area

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

Subcatchment 11S:

Hydrograph



19-033 Riverton Park POST-DEV-1

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 12S:

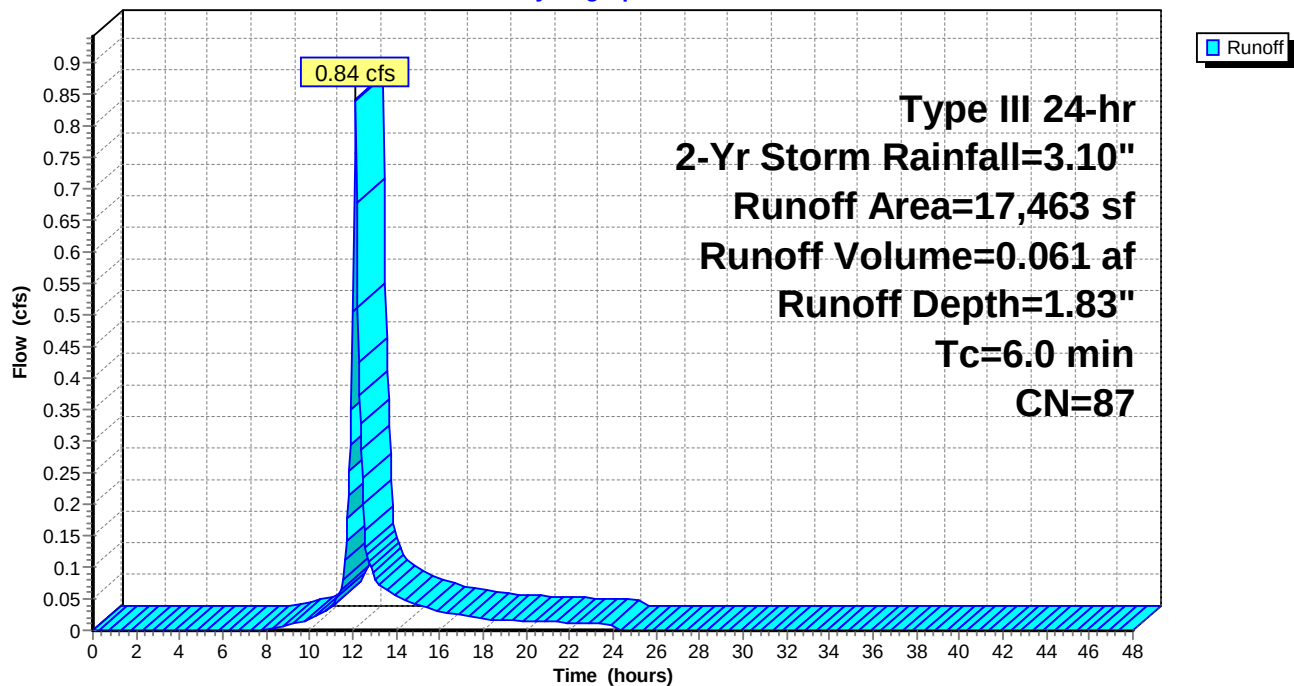
Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	9,336	98	Impervious
	8,127	74	>75% Grass cover, Good, HSG C
	17,463	87	Weighted Average
	8,127		46.54% Pervious Area
	9,336		53.46% Impervious Area

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

Subcatchment 12S:**Hydrograph**

19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 13S:

Runoff = 1.04 cfs @ 12.09 hrs, Volume= 0.076 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

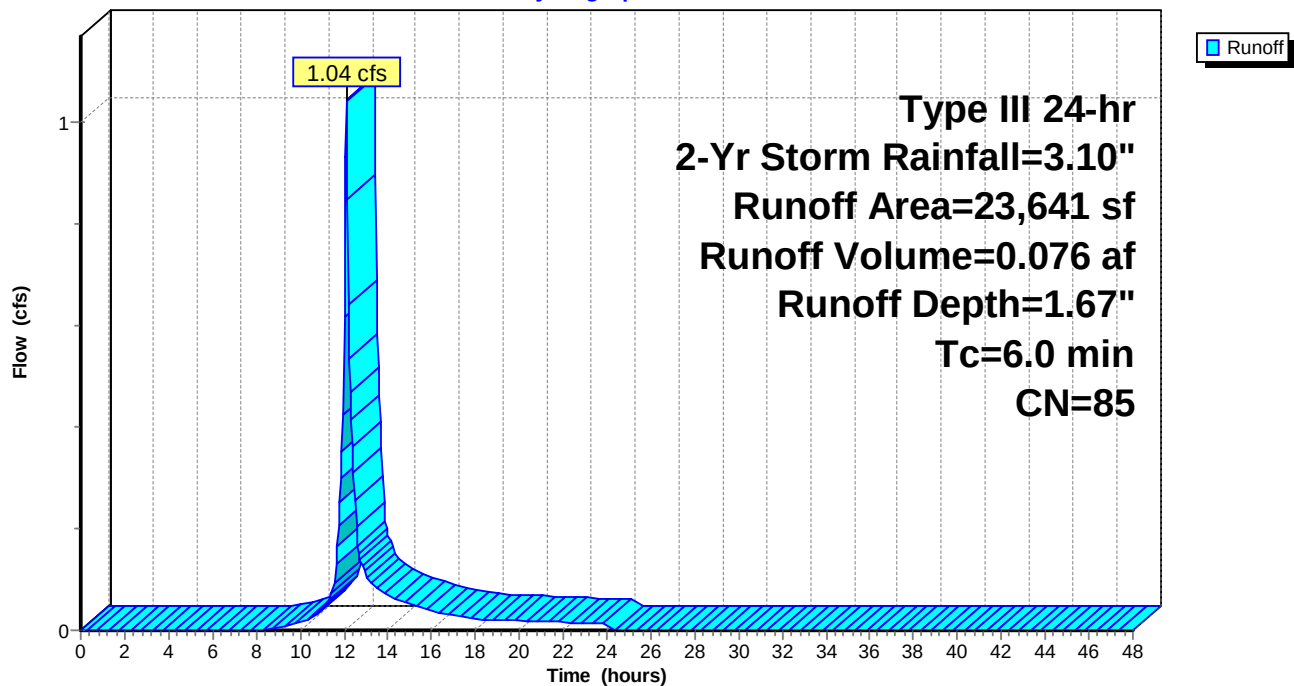
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	10,998	98	Impervious
	12,643	74	>75% Grass cover, Good, HSG C
	23,641	85	Weighted Average
	12,643		53.48% Pervious Area
	10,998		46.52% Impervious Area

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

Subcatchment 13S:

Hydrograph



19-033 Riverton Park POST-DEV-1

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 14S:

Runoff = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

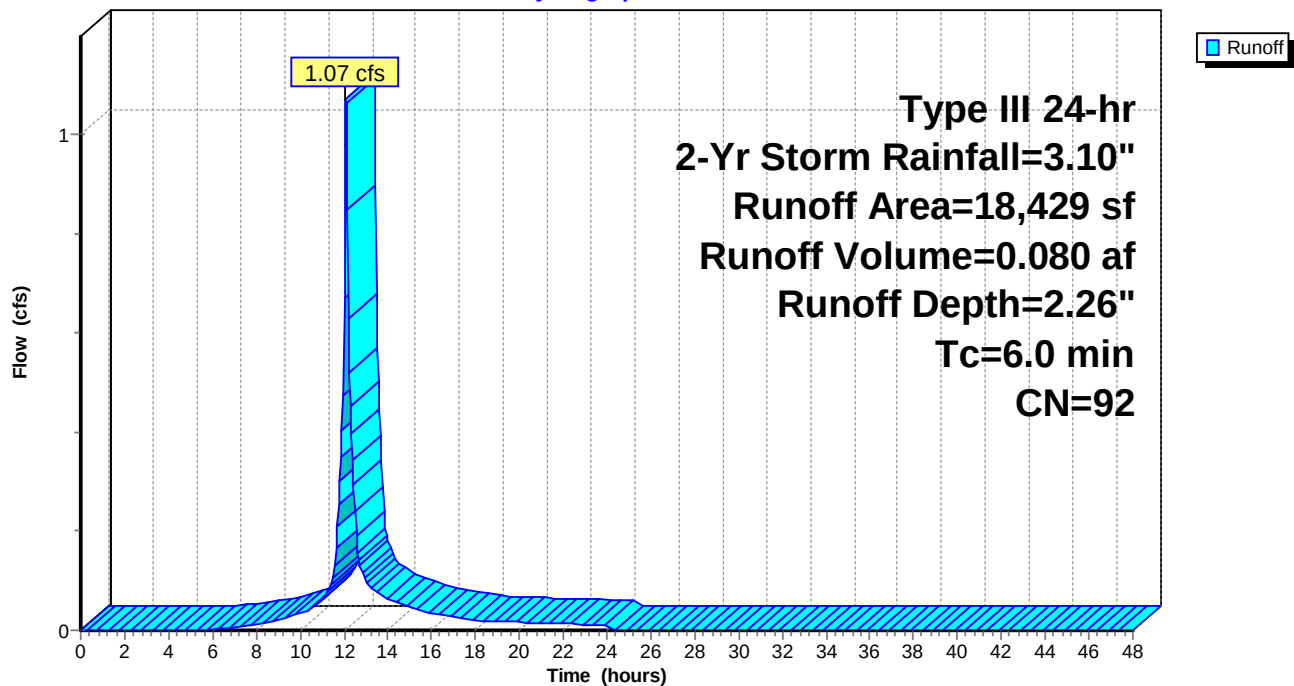
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	13,528	98	Impervious
	4,901	74	>75% Grass cover, Good, HSG C
	18,429	92	Weighted Average
	4,901		26.59% Pervious Area
	13,528		73.41% Impervious Area

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

Subcatchment 14S:

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 15S:

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.013 af, Depth= 2.45"

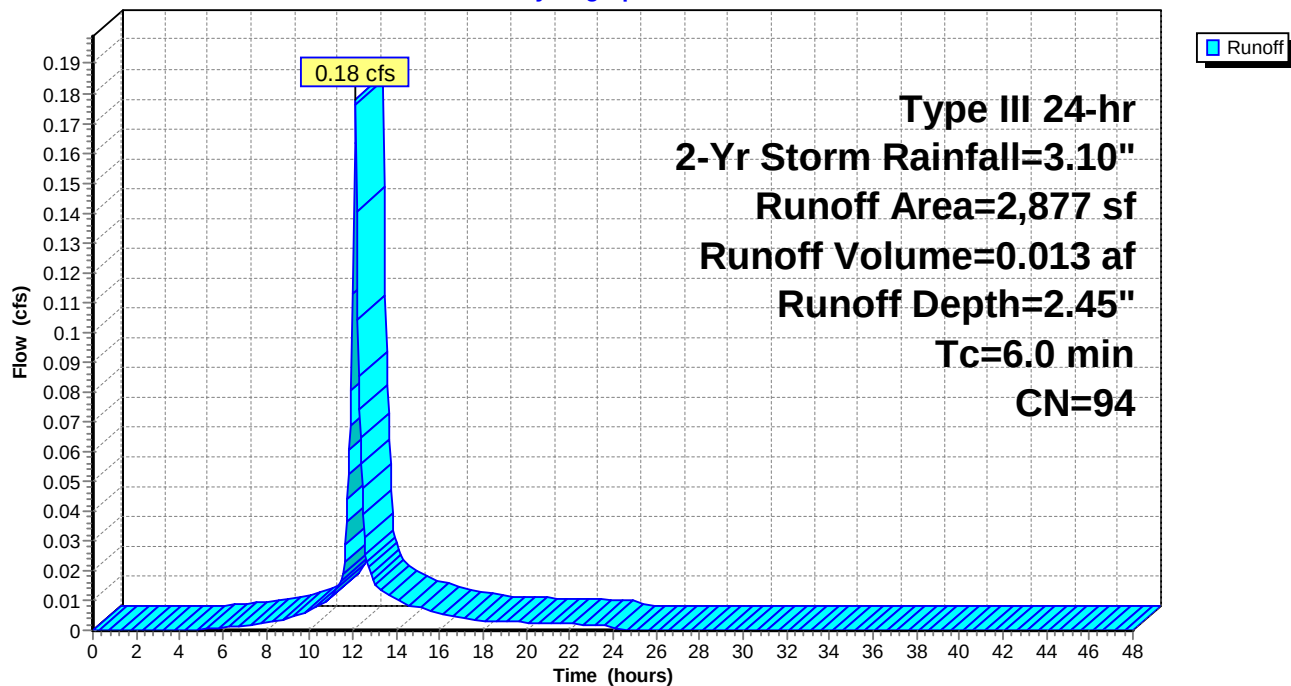
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	2,433	98	Impervious
	444	74	>75% Grass cover, Good, HSG C
	2,877	94	Weighted Average
	444		15.43% Pervious Area
	2,433		84.57% Impervious Area

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

Subcatchment 15S:

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

Prepared by Atlantic Resource Consultants

Printed 12/21/2022

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Summary for Subcatchment 16S:

Runoff = 0.76 cfs @ 12.20 hrs, Volume= 0.072 af, Depth= 1.08"

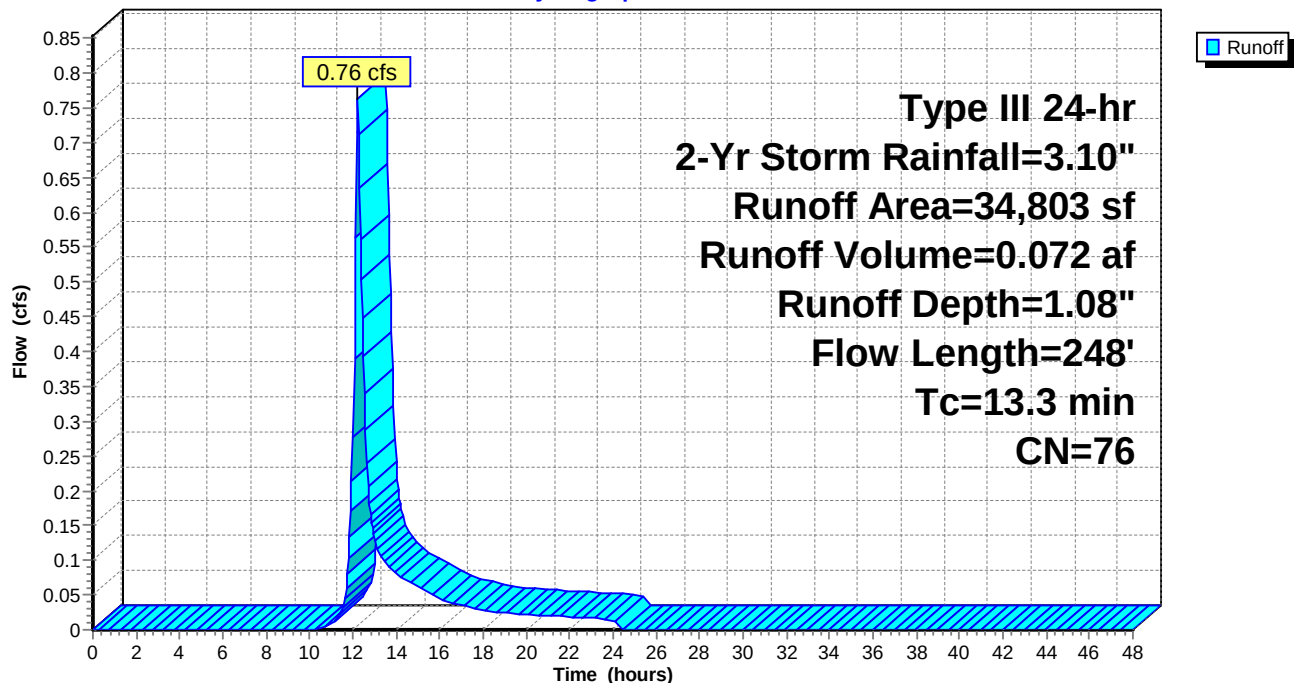
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	5,947	98	Impervious
	11,155	74	>75% Grass cover, Good, HSG C
	17,701	70	Woods, Good, HSG C
	34,803	76	Weighted Average
	28,856		82.91% Pervious Area
	5,947		17.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.8	90	0.0220	0.12		Sheet Flow, Grass
					Grass: Dense n= 0.240 P2= 3.10"
0.5	158	0.0970	5.01		Shallow Concentrated Flow, Gras/woods
					Unpaved Kv= 16.1 fps
13.3	248	Total			

Subcatchment 16S:

Hydrograph



19-033 Riverton Park POST-DEV-1

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Reach 1R: 18"

Inflow Area = 2.632 ac, 64.80% Impervious, Inflow Depth = 2.05" for 2-Yr Storm event
Inflow = 3.80 cfs @ 12.17 hrs, Volume= 0.450 af
Outflow = 3.77 cfs @ 12.17 hrs, Volume= 0.450 af, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Max. Velocity= 12.35 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 3.45 fps, Avg. Travel Time= 0.7 min

Peak Storage= 46 cf @ 12.17 hrs

Average Depth at Peak Storage= 0.34'

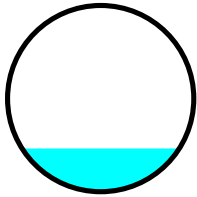
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 32.78 cfs

18.0" Round Pipe

n= 0.012 Corrugated PP, smooth interior

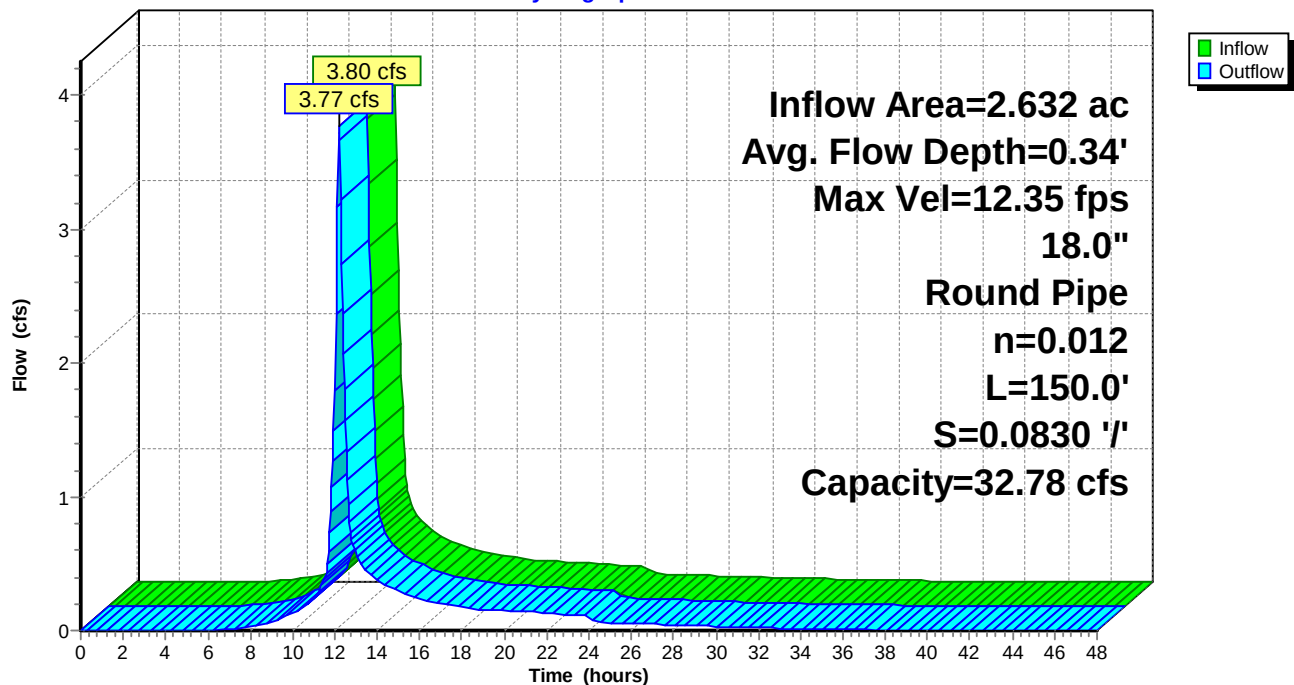
Length= 150.0' Slope= 0.0830 '/'

Inlet Invert= 64.45', Outlet Invert= 52.00'



Reach 1R: 18"

Hydrograph



19-033 Riverton Park POST-DEV-1

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Reach 2R:

Inflow Area = 2.632 ac, 64.80% Impervious, Inflow Depth = 2.05" for 2-Yr Storm event
Inflow = 3.77 cfs @ 12.17 hrs, Volume= 0.450 af
Outflow = 3.73 cfs @ 12.18 hrs, Volume= 0.450 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Max. Velocity= 2.01 fps, Min. Travel Time= 0.3 min

Avg. Velocity= 0.41 fps, Avg. Travel Time= 1.4 min

Peak Storage= 65 cf @ 12.17 hrs

Average Depth at Peak Storage= 0.19'

Bank-Full Depth= 0.50' Flow Area= 5.3 sf, Capacity= 18.83 cfs

9.00' x 0.50' deep channel, n= 0.080 Earth, long dense weeds

Side Slope Z-value= 3.0 '/' Top Width= 12.00'

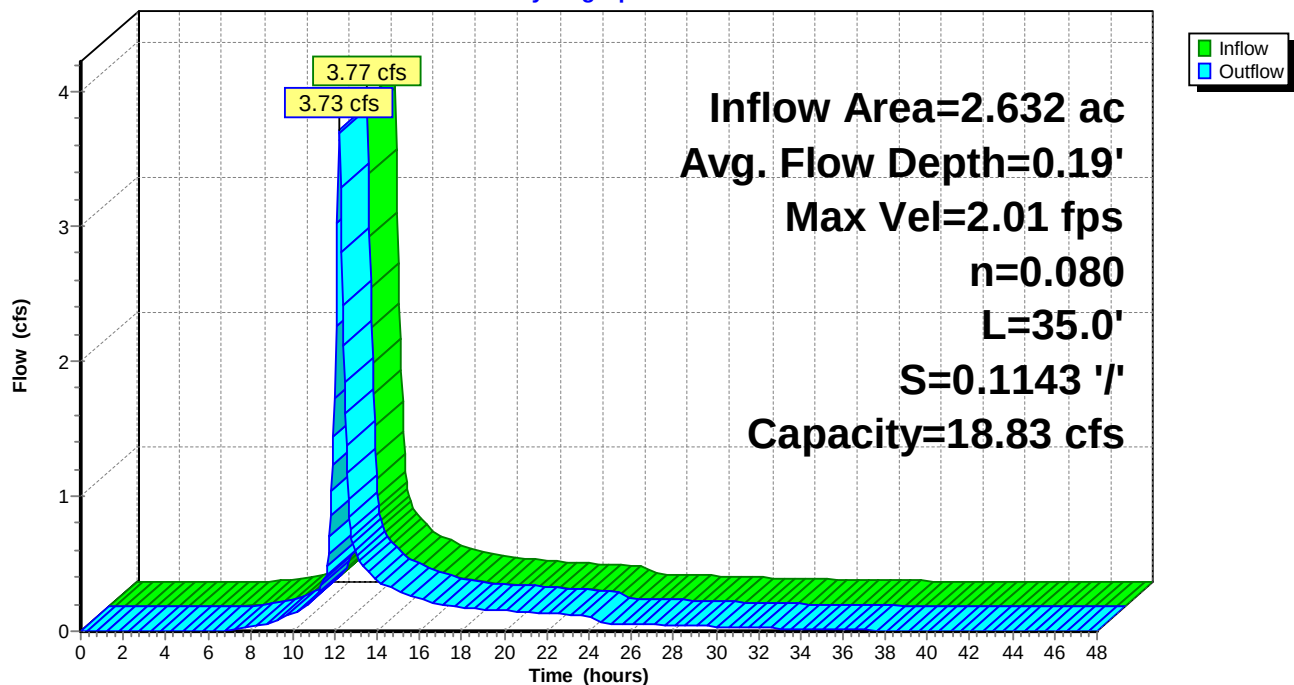
Length= 35.0' Slope= 0.1143 '/'

Inlet Invert= 52.00', Outlet Invert= 48.00'



Reach 2R:

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 11P: BIO-11

Inflow Area = 0.344 ac, 70.51% Impervious, Inflow Depth = 2.16" for 2-Yr Storm event
 Inflow = 0.84 cfs @ 12.09 hrs, Volume= 0.062 af
 Outflow = 0.08 cfs @ 13.03 hrs, Volume= 0.062 af, Atten= 91%, Lag= 56.5 min
 Primary = 0.08 cfs @ 13.03 hrs, Volume= 0.062 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 75.52' @ 13.03 hrs Surf.Area= 1,146 sf Storage= 1,445 cf

Plug-Flow detention time= 360.2 min calculated for 0.062 af (100% of inflow)
 Center-of-Mass det. time= 360.0 min (1,163.7 - 803.7)

Volume	Invert	Avail.Storage	Storage Description	
#1	72.50'	2,032 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
72.50	995	0.0	0	0
73.00	995	40.0	199	199
73.50	995	40.0	199	398
74.00	995	33.0	164	562
74.50	995	33.0	164	726
75.00	995	33.0	164	891
76.00	1,287	100.0	1,141	2,032

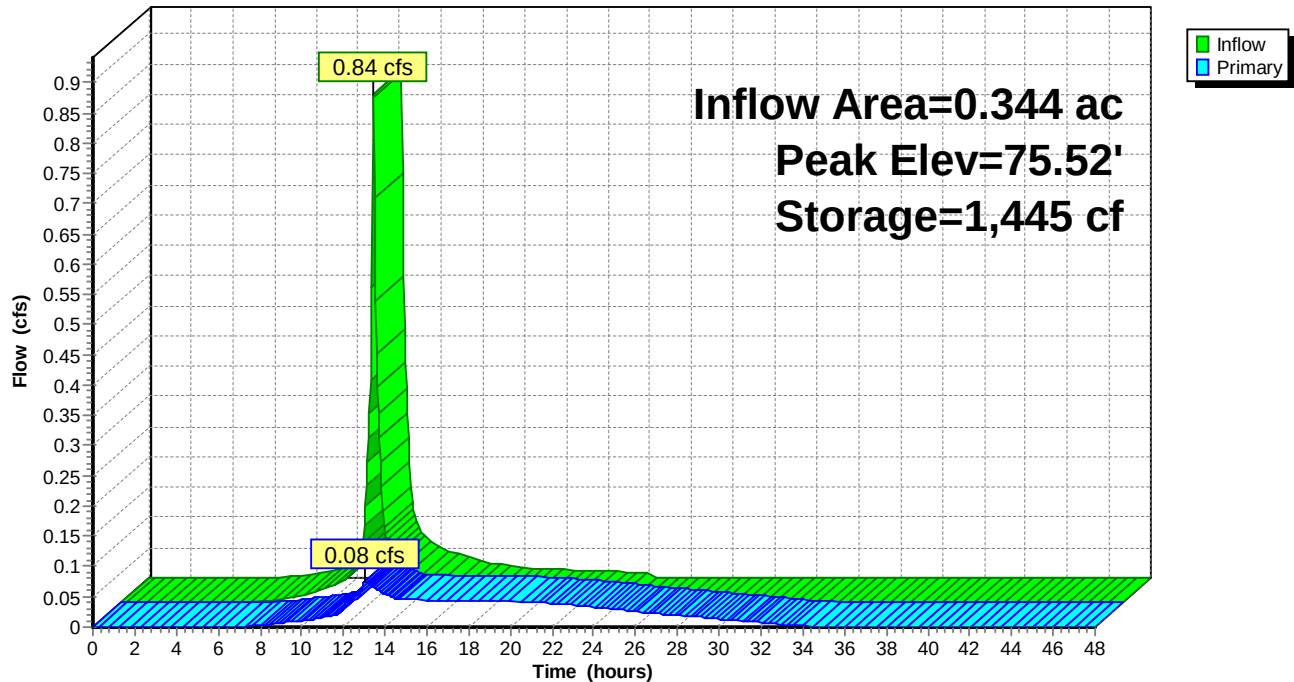
Device	Routing	Invert	Outlet Devices
#1	Primary	72.50'	8.0" Round Culvert L= 44.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 72.50' / 72.06' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf
#2	Device 1	72.50'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	75.50'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.07 cfs @ 13.03 hrs HW=75.52' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.07 cfs of 2.17 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.31 fps)
 ↑ **3=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.44 fps)

Pond 11P: BIO-11

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 12P: BIO-12

Inflow Area = 0.401 ac, 53.46% Impervious, Inflow Depth = 1.83" for 2-Yr Storm event
 Inflow = 0.84 cfs @ 12.09 hrs, Volume= 0.061 af
 Outflow = 0.04 cfs @ 14.97 hrs, Volume= 0.061 af, Atten= 95%, Lag= 172.5 min
 Primary = 0.04 cfs @ 14.97 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 76.02' @ 14.97 hrs Surf.Area= 1,715 sf Storage= 1,566 cf

Plug-Flow detention time= 490.5 min calculated for 0.061 af (100% of inflow)
 Center-of-Mass det. time= 489.4 min (1,309.6 - 820.2)

Volume	Invert	Avail.Storage	Storage Description	
#1	73.50'	3,992 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
73.50	1,705	0.0	0	0
74.00	1,705	40.0	341	341
74.50	1,705	40.0	341	682
75.00	1,705	33.0	281	963
75.50	1,705	33.0	281	1,245
76.00	1,705	33.0	281	1,526
77.00	2,133	100.0	1,919	3,445
77.25	2,244	100.0	547	3,992

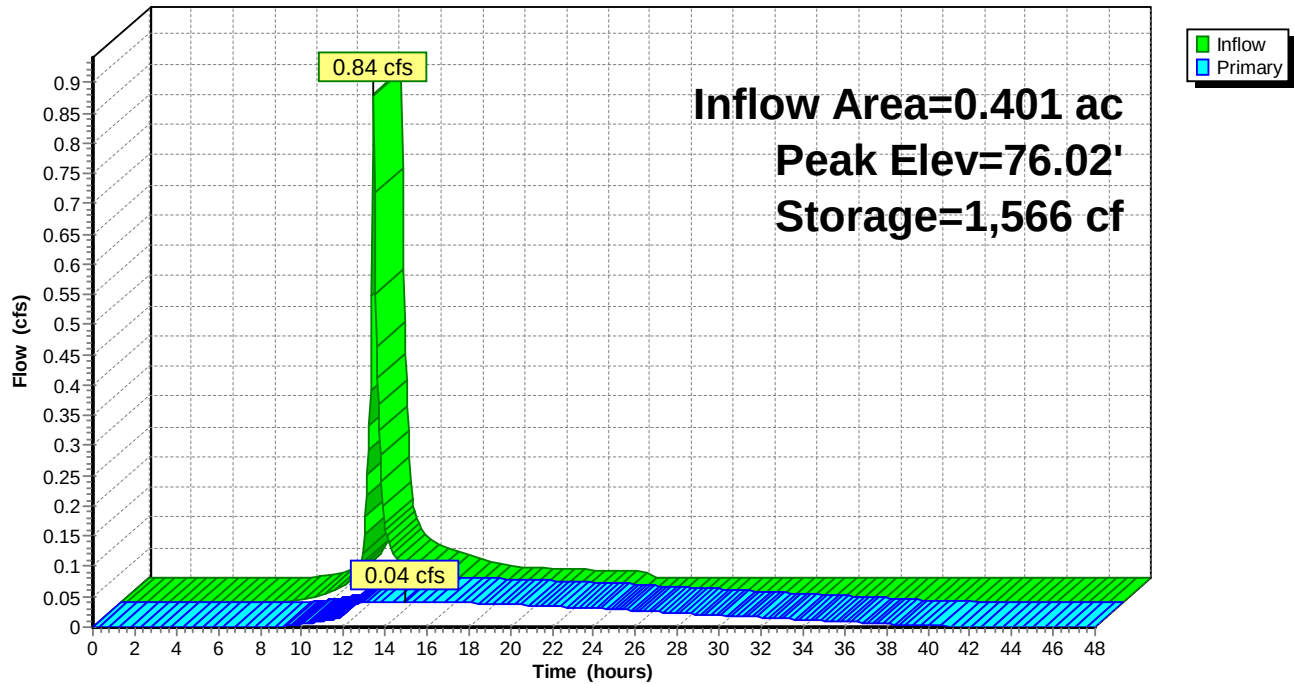
Device	Routing	Invert	Outlet Devices
#1	Primary	73.50'	8.0" Round Culvert L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 73.50' / 70.05' S= 0.0243 ' S= 0.0243 ' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf
#2	Device 1	73.50'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	76.50'	8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 14.97 hrs HW=76.02' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.04 cfs of 1.96 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.59 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Pond 12P: BIO-12

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 13P: BIO-13

Inflow Area = 0.543 ac, 46.52% Impervious, Inflow Depth = 1.67" for 2-Yr Storm event
 Inflow = 1.04 cfs @ 12.09 hrs, Volume= 0.076 af
 Outflow = 0.06 cfs @ 14.61 hrs, Volume= 0.076 af, Atten= 94%, Lag= 151.0 min
 Primary = 0.06 cfs @ 14.61 hrs, Volume= 0.076 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 67.51' @ 14.61 hrs Surf.Area= 1,637 sf Storage= 1,937 cf

Plug-Flow detention time= 502.9 min calculated for 0.076 af (100% of inflow)
 Center-of-Mass det. time= 503.2 min (1,330.8 - 827.5)

Volume	Invert	Avail.Storage	Storage Description	
#1	64.50'	2,813 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.50	1,321	0.0	0	0
65.00	1,321	40.0	264	264
65.50	1,321	40.0	264	528
66.00	1,321	33.0	218	746
66.50	1,321	33.0	218	964
67.00	1,321	33.0	218	1,182
68.00	1,940	100.0	1,631	2,813

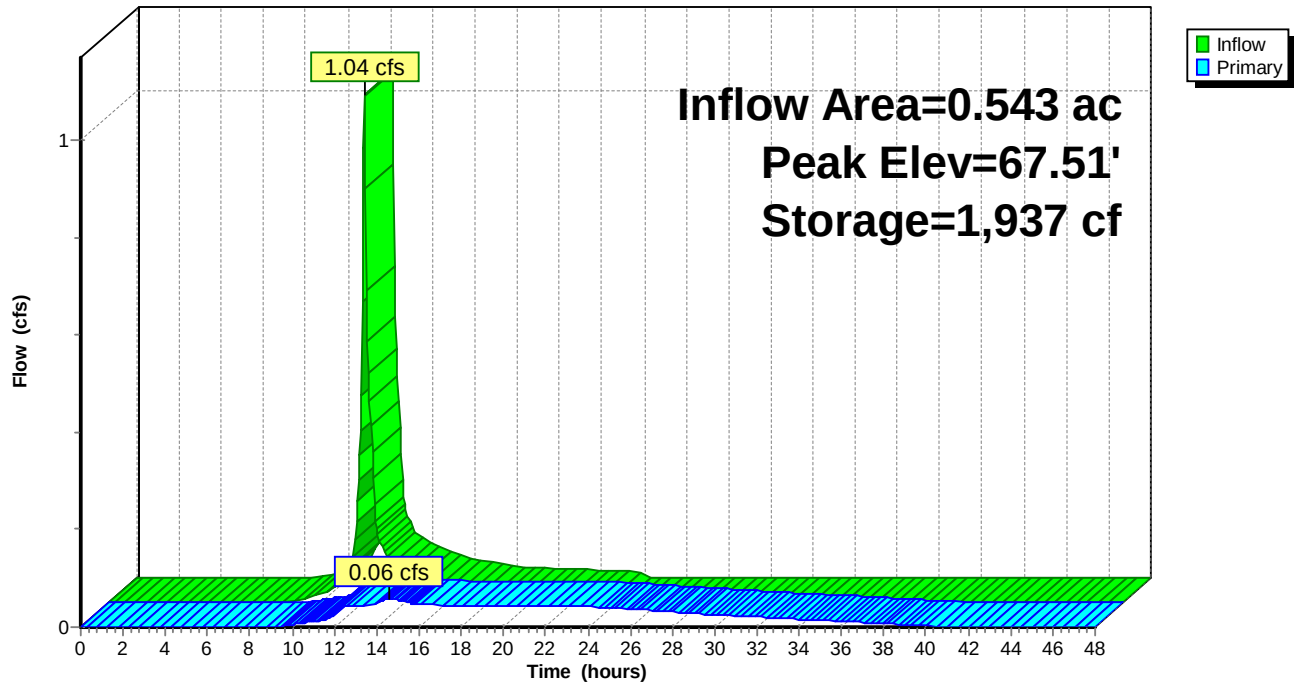
Device	Routing	Invert	Outlet Devices
#1	Primary	64.50'	10.0" Round Culvert L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 64.50' / 64.00' S= 0.0179 ' S= 0.0179 ' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.55 sf
#2	Device 1	64.50'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	67.50'	15.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.06 cfs @ 14.61 hrs HW=67.51' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.06 cfs of 3.34 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.30 fps)
 ↑ **3=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.33 fps)

Pond 13P: BIO-13

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 14P: BIO-14

Inflow Area = 0.423 ac, 73.41% Impervious, Inflow Depth = 2.26" for 2-Yr Storm event
 Inflow = 1.07 cfs @ 12.09 hrs, Volume= 0.080 af
 Outflow = 0.04 cfs @ 15.22 hrs, Volume= 0.079 af, Atten= 96%, Lag= 187.9 min
 Primary = 0.04 cfs @ 15.22 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 68.41' @ 15.22 hrs Surf.Area= 1,833 sf Storage= 2,153 cf

Plug-Flow detention time= 569.9 min calculated for 0.079 af (100% of inflow)
 Center-of-Mass det. time= 569.1 min (1,368.0 - 798.9)

Volume	Invert	Avail.Storage	Storage Description	
#1	65.50'	3,333 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.50	1,621	0.0	0	0
66.00	1,621	40.0	324	324
66.50	1,621	40.0	324	648
67.00	1,621	33.0	267	916
67.50	1,621	33.0	267	1,183
68.00	1,621	33.0	267	1,451
69.00	2,143	100.0	1,882	3,333

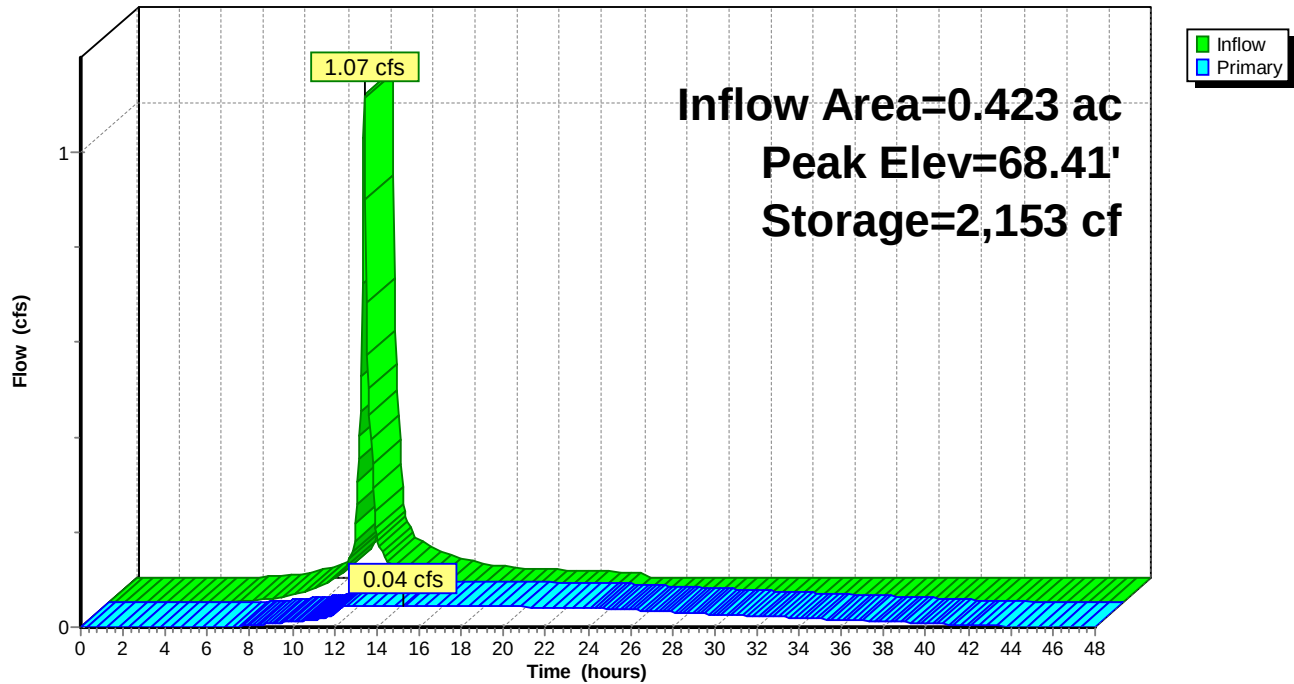
Device	Routing	Invert	Outlet Devices
#1	Primary	65.50'	10.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 65.50' / 65.00' S= 0.0167 ' S= 0.0167 ' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.55 sf
#2	Device 1	65.50'	1.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	68.50'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.04 cfs @ 15.22 hrs HW=68.41' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.04 cfs of 3.27 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.15 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Pond 14P: BIO-14

Hydrograph



19-033 Riverton Park POST-DEV-1

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 15P: BIO-15

Inflow Area = 0.066 ac, 84.57% Impervious, Inflow Depth = 2.45" for 2-Yr Storm event
 Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.013 af
 Outflow = 0.02 cfs @ 12.76 hrs, Volume= 0.013 af, Atten= 89%, Lag= 40.6 min
 Primary = 0.02 cfs @ 12.76 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 73.99' @ 12.76 hrs Surf.Area= 307 sf Storage= 263 cf

Plug-Flow detention time= 153.1 min calculated for 0.013 af (100% of inflow)
 Center-of-Mass det. time= 152.5 min (940.7 - 788.2)

Volume	Invert	Avail.Storage	Storage Description	
#1	71.50'	679 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
71.50	307	0.0	0	0
72.00	307	40.0	61	61
72.50	307	33.0	51	112
73.00	307	33.0	51	163
73.50	307	33.0	51	213
74.00	307	33.0	51	264
75.00	522	100.0	415	679

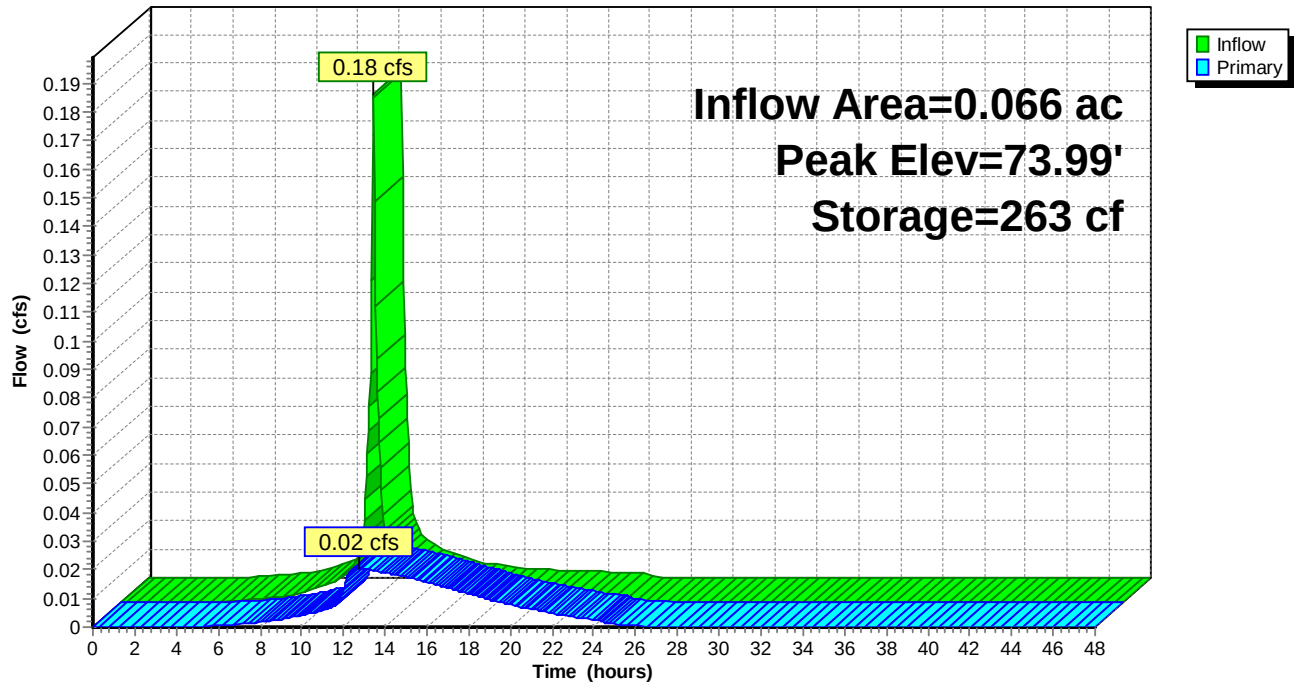
Device	Routing	Invert	Outlet Devices
#1	Primary	71.50'	10.0" Round Culvert L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 71.50' / 70.00' S= 0.0150 ' /' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.55 sf
#2	Device 1	71.50'	0.7" Vert. Orifice/Grate C= 0.600
#3	Device 1	74.50'	8.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 12.76 hrs HW=73.99' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.02 cfs of 2.99 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.02 cfs @ 7.56 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Pond 15P: BIO-15

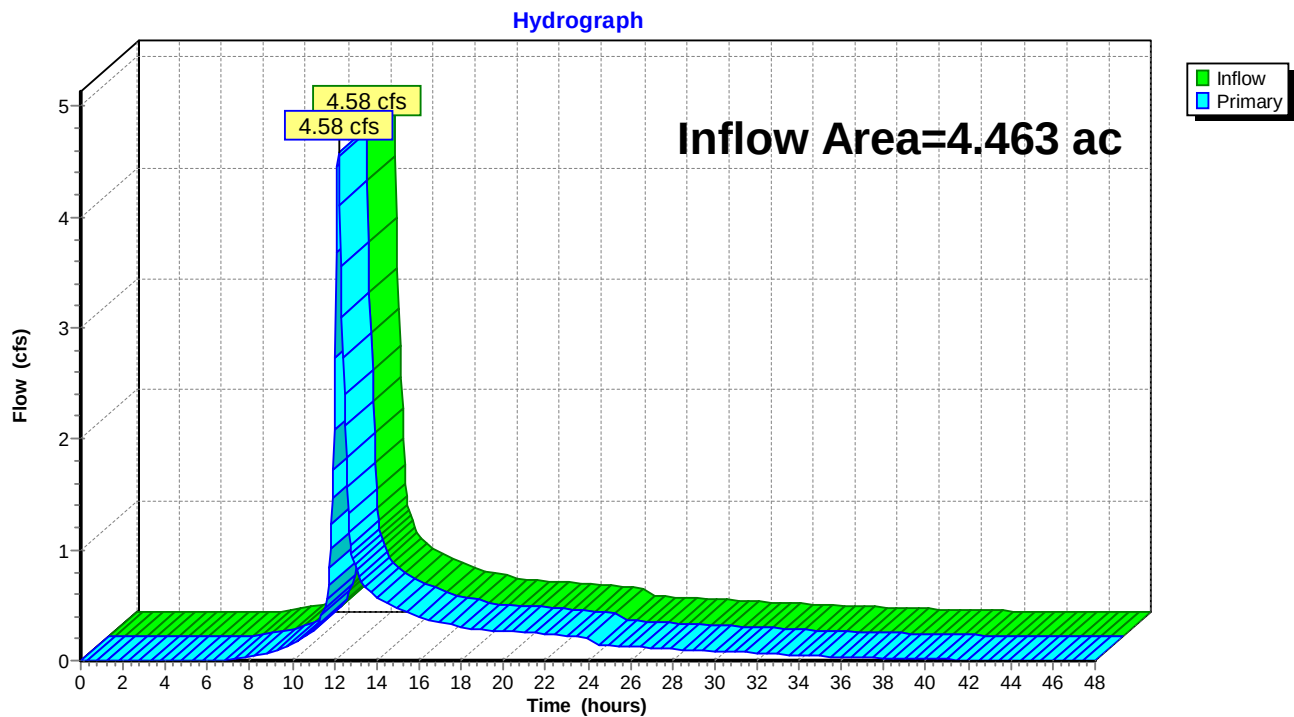
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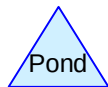
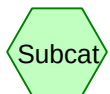
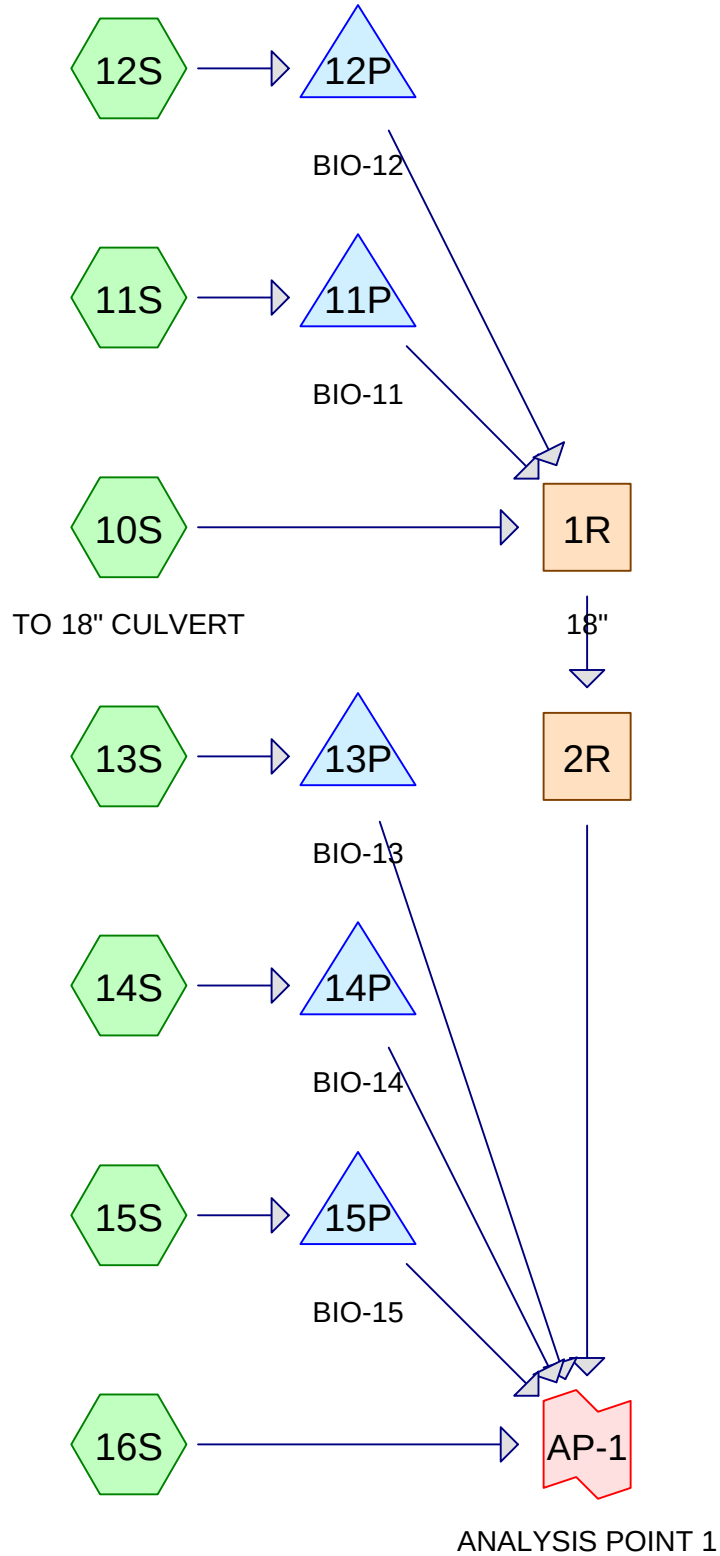


Summary for Link AP-1: ANALYSIS POINT 1

Inflow Area = 4.463 ac, 55.15% Impervious, Inflow Depth > 1.86" for 2-Yr Storm event
Inflow = 4.58 cfs @ 12.18 hrs, Volume= 0.690 af
Primary = 4.58 cfs @ 12.18 hrs, Volume= 0.690 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link AP-1: ANALYSIS POINT 1



Routing Diagram for 19-033 Riverton Park POST-DEV-1
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19-033 Riverton Park POST-DEV-1

Type III 24-hr 10-Yr Storm Rainfall=4.60"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 10S: TO 18" CULVERT	Runoff Area=82,235 sf 66.17% Impervious Runoff Depth=3.49" Flow Length=185' Tc=12.0 min CN=90 Runoff=6.14 cfs 0.549 af
Subcatchment 11S:	Runoff Area=14,971 sf 70.51% Impervious Runoff Depth=3.59" Tc=6.0 min CN=91 Runoff=1.36 cfs 0.103 af
Subcatchment 12S:	Runoff Area=17,463 sf 53.46% Impervious Runoff Depth=3.19" Tc=6.0 min CN=87 Runoff=1.45 cfs 0.107 af
Subcatchment 13S:	Runoff Area=23,641 sf 46.52% Impervious Runoff Depth=3.00" Tc=6.0 min CN=85 Runoff=1.86 cfs 0.136 af
Subcatchment 14S:	Runoff Area=18,429 sf 73.41% Impervious Runoff Depth=3.70" Tc=6.0 min CN=92 Runoff=1.71 cfs 0.130 af
Subcatchment 15S:	Runoff Area=2,877 sf 84.57% Impervious Runoff Depth=3.91" Tc=6.0 min CN=94 Runoff=0.28 cfs 0.022 af
Subcatchment 16S:	Runoff Area=34,803 sf 17.09% Impervious Runoff Depth=2.21" Flow Length=248' Tc=13.3 min CN=76 Runoff=1.62 cfs 0.147 af
Reach 1R: 18"	Avg. Flow Depth=0.47' Max Vel=14.67 fps Inflow=7.03 cfs 0.758 af 18.0" Round Pipe n=0.012 L=150.0' S=0.0830 '/' Capacity=32.78 cfs Outflow=6.92 cfs 0.758 af
Reach 2R:	Avg. Flow Depth=0.28' Max Vel=2.52 fps Inflow=6.92 cfs 0.758 af n=0.080 L=35.0' S=0.1143 '/' Capacity=18.83 cfs Outflow=6.90 cfs 0.758 af
Pond 11P: BIO-11	Peak Elev=75.69' Storage=1,642 cf Inflow=1.36 cfs 0.103 af Outflow=0.87 cfs 0.103 af
Pond 12P: BIO-12	Peak Elev=76.56' Storage=2,555 cf Inflow=1.45 cfs 0.107 af Outflow=0.16 cfs 0.106 af
Pond 13P: BIO-13	Peak Elev=67.67' Storage=2,213 cf Inflow=1.86 cfs 0.136 af Outflow=0.98 cfs 0.136 af
Pond 14P: BIO-14	Peak Elev=68.65' Storage=2,614 cf Inflow=1.71 cfs 0.130 af Outflow=0.64 cfs 0.130 af
Pond 15P: BIO-15	Peak Elev=74.51' Storage=449 cf Inflow=0.28 cfs 0.022 af Outflow=0.03 cfs 0.022 af
Link AP-1: ANALYSIS POINT 1	Inflow=9.73 cfs 1.193 af Primary=9.73 cfs 1.193 af

Total Runoff Area = 4.463 ac Runoff Volume = 1.194 af Average Runoff Depth = 3.21"
44.85% Pervious = 2.002 ac 55.15% Impervious = 2.461 ac

19-033 Riverton Park POST-DEV-1

Type III 24-hr 25-Yr Storm Rainfall=5.80"

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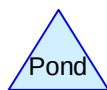
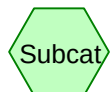
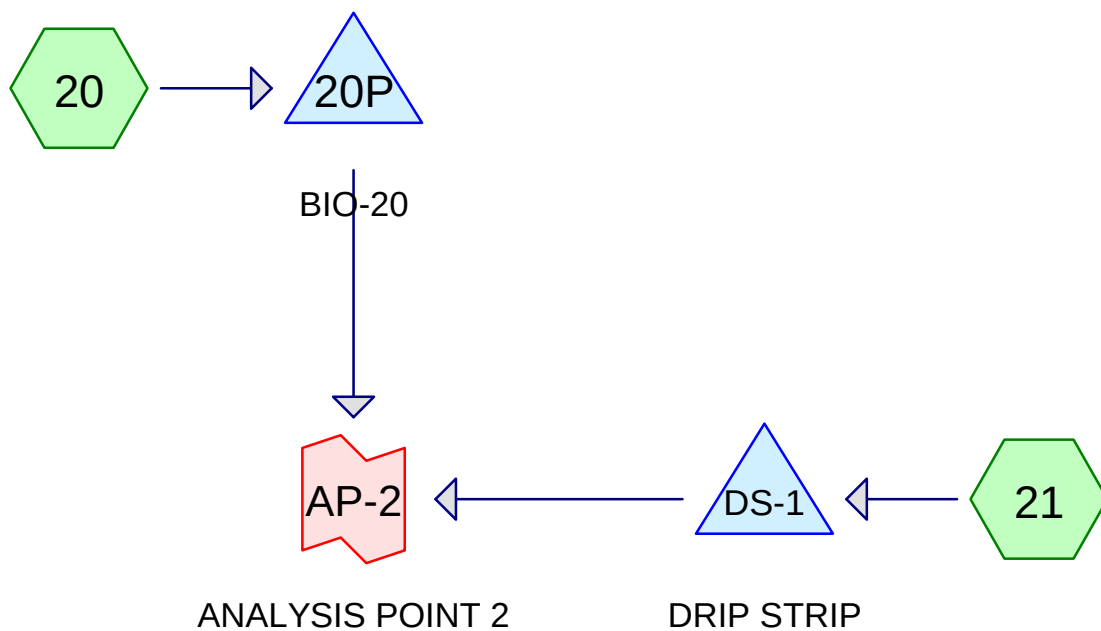
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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: TO 18" CULVERT	Runoff Area=82,235 sf 66.17% Impervious Runoff Depth=4.65" Flow Length=185' Tc=12.0 min CN=90 Runoff=8.07 cfs 0.732 af
Subcatchment 11S:	Runoff Area=14,971 sf 70.51% Impervious Runoff Depth=4.76" Tc=6.0 min CN=91 Runoff=1.78 cfs 0.136 af
Subcatchment 12S:	Runoff Area=17,463 sf 53.46% Impervious Runoff Depth=4.33" Tc=6.0 min CN=87 Runoff=1.94 cfs 0.145 af
Subcatchment 13S:	Runoff Area=23,641 sf 46.52% Impervious Runoff Depth=4.11" Tc=6.0 min CN=85 Runoff=2.52 cfs 0.186 af
Subcatchment 14S:	Runoff Area=18,429 sf 73.41% Impervious Runoff Depth=4.87" Tc=6.0 min CN=92 Runoff=2.22 cfs 0.172 af
Subcatchment 15S:	Runoff Area=2,877 sf 84.57% Impervious Runoff Depth=5.10" Tc=6.0 min CN=94 Runoff=0.36 cfs 0.028 af
Subcatchment 16S:	Runoff Area=34,803 sf 17.09% Impervious Runoff Depth=3.21" Flow Length=248' Tc=13.3 min CN=76 Runoff=2.36 cfs 0.214 af
Reach 1R: 18"	Avg. Flow Depth=0.56' Max Vel=16.13 fps Inflow=9.72 cfs 1.012 af 18.0" Round Pipe n=0.012 L=150.0' S=0.0830 ' S Capacity=32.78 cfs Outflow=9.68 cfs 1.012 af
Reach 2R:	Avg. Flow Depth=0.34' Max Vel=2.83 fps Inflow=9.68 cfs 1.012 af n=0.080 L=35.0' S=0.1143 ' S Capacity=18.83 cfs Outflow=9.63 cfs 1.012 af
Pond 11P: BIO-11	Peak Elev=75.78' Storage=1,755 cf Inflow=1.78 cfs 0.136 af Outflow=1.57 cfs 0.136 af
Pond 12P: BIO-12	Peak Elev=76.71' Storage=2,843 cf Inflow=1.94 cfs 0.145 af Outflow=0.70 cfs 0.144 af
Pond 13P: BIO-13	Peak Elev=67.80' Storage=2,431 cf Inflow=2.52 cfs 0.186 af Outflow=2.12 cfs 0.186 af
Pond 14P: BIO-14	Peak Elev=68.77' Storage=2,854 cf Inflow=2.22 cfs 0.172 af Outflow=1.49 cfs 0.171 af
Pond 15P: BIO-15	Peak Elev=74.58' Storage=476 cf Inflow=0.36 cfs 0.028 af Outflow=0.17 cfs 0.028 af
Link AP-1: ANALYSIS POINT 1	Inflow=15.62 cfs 1.611 af Primary=15.62 cfs 1.611 af

Total Runoff Area = 4.463 ac Runoff Volume = 1.612 af Average Runoff Depth = 4.33"
44.85% Pervious = 2.002 ac 55.15% Impervious = 2.461 ac



Routing Diagram for 19-033 Riverton Park POST-DEV-2
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19-033 Riverton Park POST-DEV-2

Type III 24-hr 2-Yr Storm Rainfall=3.10"

Prepared by Atlantic Resource Consultants

Printed 12/21/2022

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Page 2

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 20: Runoff Area=11,750 sf 28.68% Impervious Runoff Depth=1.39"
Tc=6.0 min CN=81 Runoff=0.43 cfs 0.031 af

Subcatchment 21: Runoff Area=1,828 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.010 af

Pond 20P: BIO-20 Peak Elev=56.45' Storage=763 cf Inflow=0.43 cfs 0.031 af
Outflow=0.02 cfs 0.031 af

Pond DS-1: DRIP STRIP Peak Elev=53.69' Storage=14 cf Inflow=0.12 cfs 0.010 af
Primary=0.12 cfs 0.010 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.010 af

Link AP-2: ANALYSIS POINT 2 Inflow=0.14 cfs 0.041 af
Primary=0.14 cfs 0.041 af

Total Runoff Area = 0.312 ac Runoff Volume = 0.041 af Average Runoff Depth = 1.59"
61.72% Pervious = 0.192 ac 38.28% Impervious = 0.119 ac

19-033 Riverton Park POST-DEV-2

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 20:

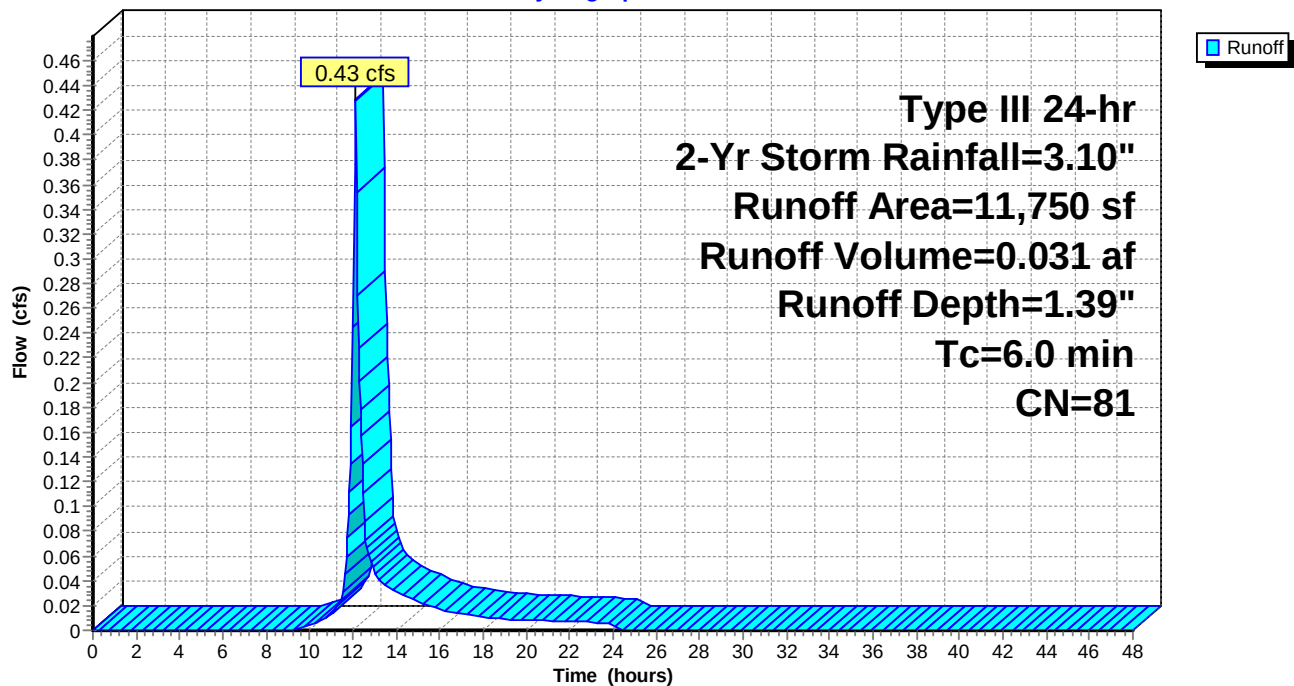
Runoff = 0.43 cfs @ 12.10 hrs, Volume= 0.031 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	3,370	98	Impervious
	8,380	74	>75% Grass cover, Good, HSG C
	11,750	81	Weighted Average
	8,380		71.32% Pervious Area
	3,370		28.68% Impervious Area

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

Subcatchment 20:**Hydrograph**

19-033 Riverton Park POST-DEV-2

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Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Subcatchment 21:

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.010 af, Depth= 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

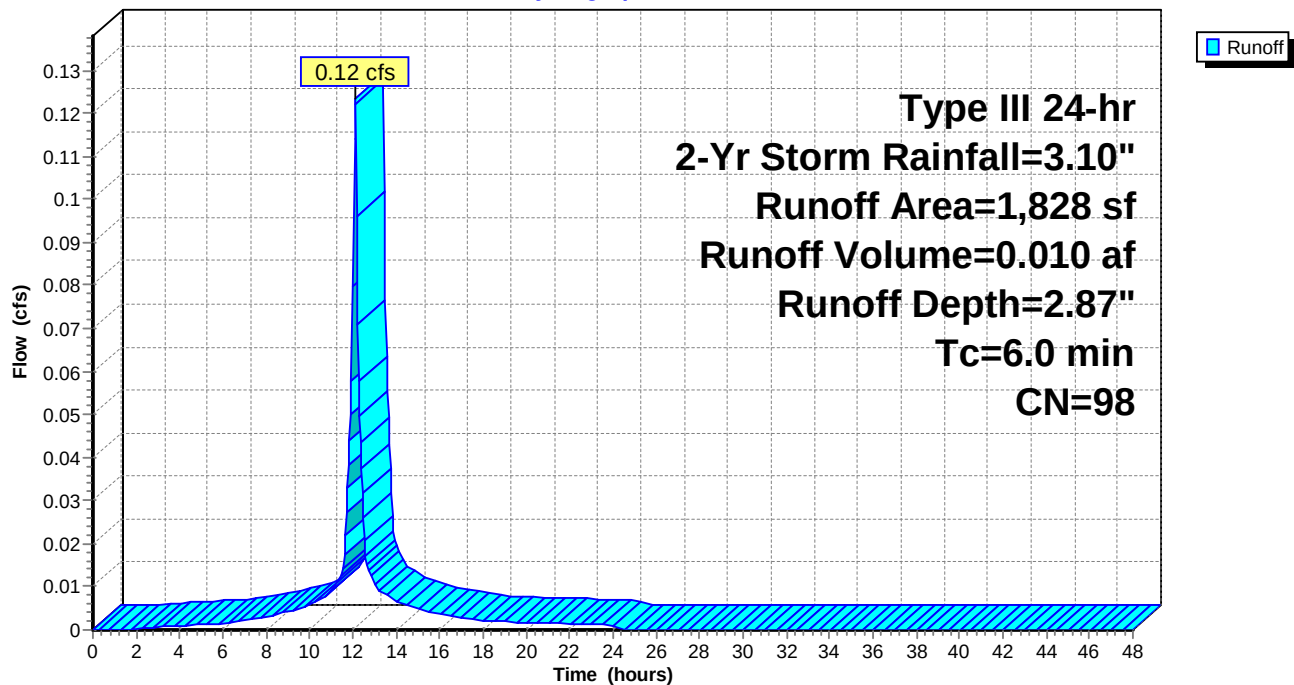
Type III 24-hr 2-Yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	1,582	98	Impervious
*	246	98	Drip Edge Surface, HSG C
	1,828	98	Weighted Average
	1,828		100.00% Impervious Area

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

Subcatchment 21:

Hydrograph



19-033 Riverton Park POST-DEV-2

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond 20P: BIO-20

Inflow Area = 0.270 ac, 28.68% Impervious, Inflow Depth = 1.39" for 2-Yr Storm event
 Inflow = 0.43 cfs @ 12.10 hrs, Volume= 0.031 af
 Outflow = 0.02 cfs @ 15.26 hrs, Volume= 0.031 af, Atten= 95%, Lag= 190.1 min
 Primary = 0.02 cfs @ 15.26 hrs, Volume= 0.031 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 56.45' @ 15.26 hrs Surf.Area= 640 sf Storage= 763 cf

Plug-Flow detention time= 422.1 min calculated for 0.031 af (100% of inflow)
 Center-of-Mass det. time= 422.7 min (1,263.8 - 841.1)

Volume	Invert	Avail.Storage	Storage Description	
#1	53.50'	1,148 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.50	555	0.0	0	0
54.00	555	40.0	111	111
54.50	555	40.0	111	222
55.00	555	33.0	92	314
55.50	555	33.0	92	405
56.00	555	33.0	92	497
56.50	650	100.0	301	798
57.00	752	100.0	351	1,148

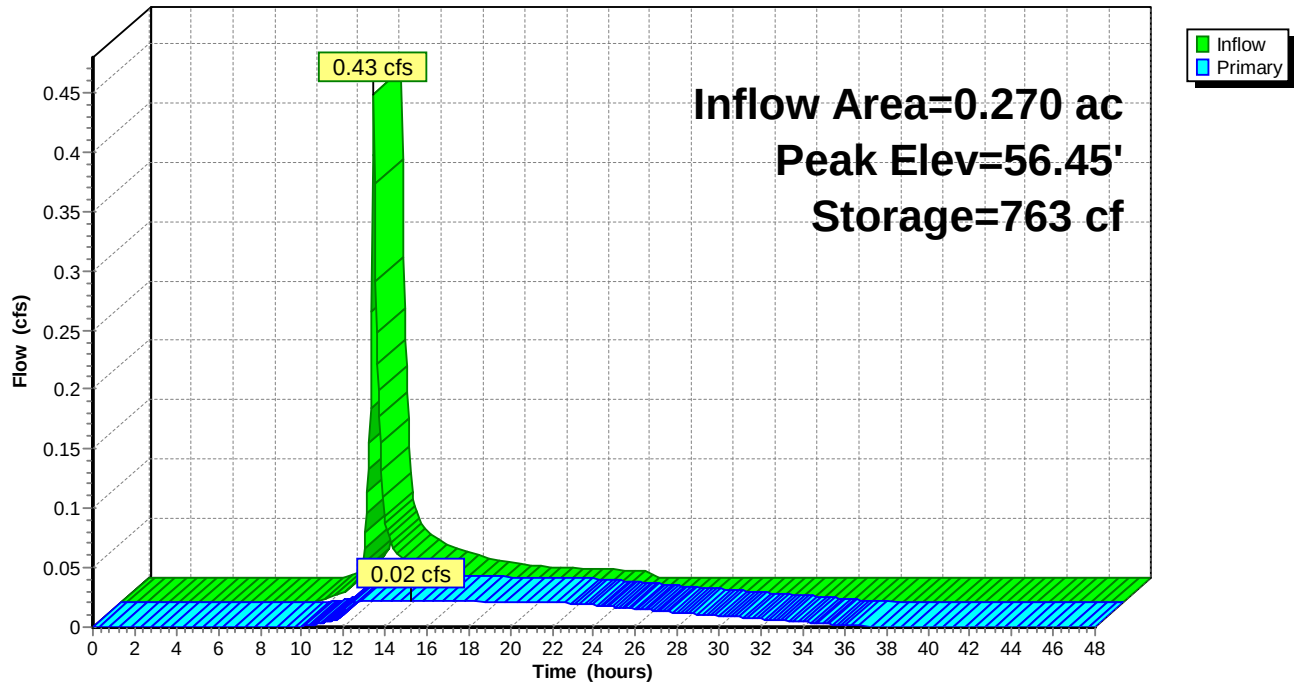
Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	8.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 53.30' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf
#2	Device 1	53.50'	0.7" Vert. Orifice/Grate C= 0.600
#3	Device 1	56.50'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 15.26 hrs HW=56.45' (Free Discharge)

↑ **1=Culvert** (Passes 0.02 cfs of 2.14 cfs potential flow)
 ↑ **2=Orifice/Grate** (Orifice Controls 0.02 cfs @ 8.22 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Pond 20P: BIO-20

Hydrograph



19-033 Riverton Park POST-DEV-2

Type III 24-hr 2-Yr Storm Rainfall=3.10"

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Summary for Pond DS-1: DRIP STRIP

Inflow Area = 0.042 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-Yr Storm event
 Inflow = 0.12 cfs @ 12.09 hrs, Volume = 0.010 af
 Outflow = 0.12 cfs @ 12.11 hrs, Volume = 0.010 af, Atten = 2%, Lag = 1.2 min
 Primary = 0.12 cfs @ 12.11 hrs, Volume = 0.010 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume = 0.000 af

Routing by Stor-Ind method, Time Span = 0.00-48.00 hrs, dt = 0.05 hrs

Peak Elev = 53.69' @ 12.11 hrs Surf.Area = 246 sf Storage = 14 cf

Plug-Flow detention time = 5.3 min calculated for 0.010 af (100% of inflow)

Center-of-Mass det. time = 5.2 min (762.3 - 757.1)

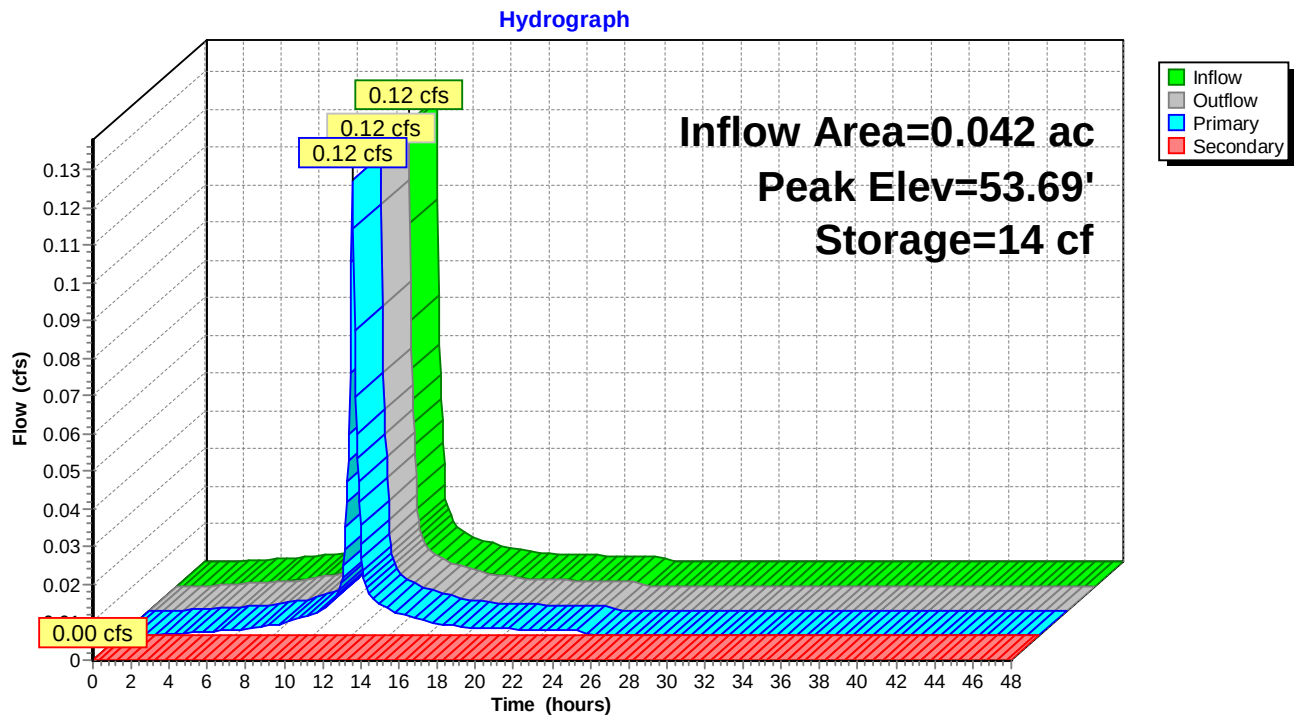
Volume	Invert	Avail.Storage	Storage Description
#1	53.50'	369 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.50	246	0.0	0	0
54.50	246	30.0	74	74
55.50	246	40.0	98	172
57.50	246	40.0	197	369

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	4.0" Round Culvert X 2.00 L = 20.0' CPP, projecting, no headwall, Ke = 0.900 Inlet / Outlet Invert = 53.50' / 53.30' S = 0.0100 ' S Cc = 0.900 n = 0.012, Flow Area = 0.09 sf
#2	Secondary	57.40'	28.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max = 0.12 cfs @ 12.11 hrs HW = 53.69' (Free Discharge)↑ **1=Culvert** (Inlet Controls 0.12 cfs @ 1.17 fps)**Secondary OutFlow** Max = 0.00 cfs @ 0.00 hrs HW = 53.50' (Free Discharge)↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

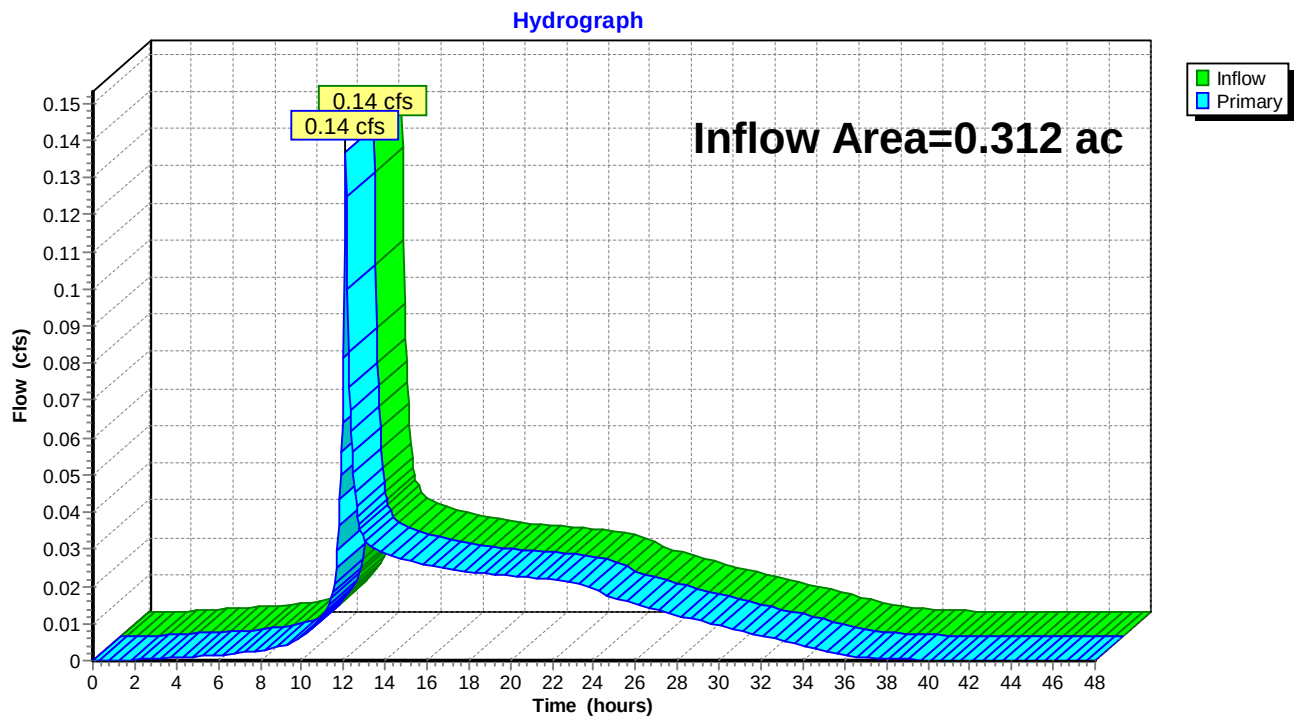
Pond DS-1: DRIP STRIP

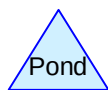
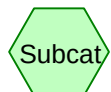
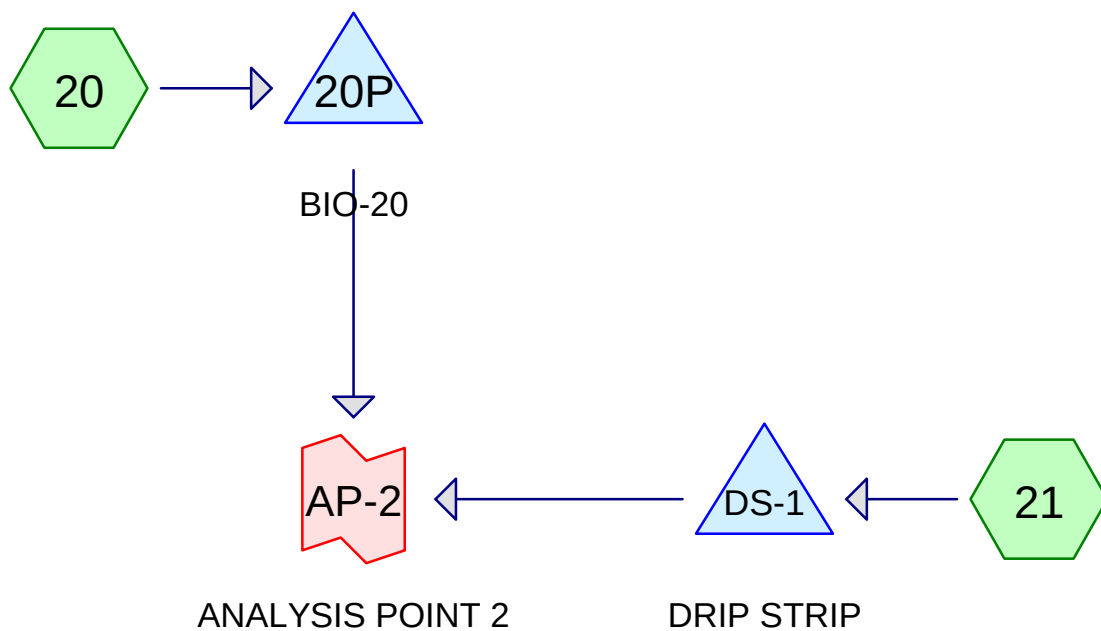


Summary for Link AP-2: ANALYSIS POINT 2

Inflow Area = 0.312 ac, 38.28% Impervious, Inflow Depth = 1.59" for 2-Yr Storm event
Inflow = 0.14 cfs @ 12.11 hrs, Volume= 0.041 af
Primary = 0.14 cfs @ 12.11 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link AP-2: ANALYSIS POINT 2



Routing Diagram for 19-033 Riverton Park POST-DEV-2
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19-033 Riverton Park POST-DEV-2

Type III 24-hr 10-Yr Storm Rainfall=4.60"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 20: Runoff Area=11,750 sf 28.68% Impervious Runoff Depth=2.63"
Tc=6.0 min CN=81 Runoff=0.82 cfs 0.059 af

Subcatchment 21: Runoff Area=1,828 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Pond 20P: BIO-20 Peak Elev=56.68' Storage=919 cf Inflow=0.82 cfs 0.059 af
Outflow=0.42 cfs 0.059 af

Pond DS-1: DRIP STRIP Peak Elev=53.74' Storage=18 cf Inflow=0.18 cfs 0.015 af
Primary=0.18 cfs 0.015 af Secondary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.015 af

Link AP-2: ANALYSIS POINT 2 Inflow=0.51 cfs 0.074 af
Primary=0.51 cfs 0.074 af

Total Runoff Area = 0.312 ac Runoff Volume = 0.074 af Average Runoff Depth = 2.87"
61.72% Pervious = 0.192 ac 38.28% Impervious = 0.119 ac

19-033 Riverton Park POST-DEV-2

Type III 24-hr 25-Yr Storm Rainfall=5.80"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 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 20: Runoff Area=11,750 sf 28.68% Impervious Runoff Depth=3.70"
Tc=6.0 min CN=81 Runoff=1.14 cfs 0.083 af

Subcatchment 21: Runoff Area=1,828 sf 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

Pond 20P: BIO-20 Peak Elev=56.96' Storage=1,119 cf Inflow=1.14 cfs 0.083 af
Outflow=0.67 cfs 0.083 af

Pond DS-1: DRIP STRIP Peak Elev=53.79' Storage=21 cf Inflow=0.23 cfs 0.019 af
Primary=0.23 cfs 0.019 af Secondary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.019 af

Link AP-2: ANALYSIS POINT 2 Inflow=0.84 cfs 0.103 af
Primary=0.84 cfs 0.103 af

Total Runoff Area = 0.312 ac Runoff Volume = 0.103 af Average Runoff Depth = 3.95"
61.72% Pervious = 0.192 ac 38.28% Impervious = 0.119 ac

ATTACHMENT E – SOIL EVALUATION REPORT



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

6204

August 3, 2020

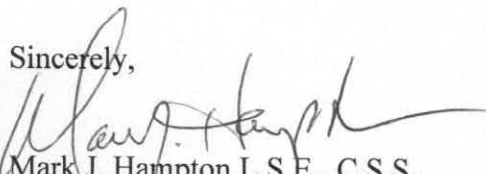
Mr. Erik Wiberg
R. W. Gillespie & Associates, Inc.
20 Pomerleau Street Suite 100
Biddeford, ME 04005

Re: Soil Evaluation, Proposed Stormwater Locations, Riverton Park, Portland, ME

Dear Erik,

I completed a soil evaluation for the proposed stormwater locations at Riverton Park Portland ME. The soil evaluation was conducted in accordance with Section 7.D.4 of the Stormwater Management Rules. I evaluated four backhoe excavated soil test pits at the staked locations. The soils found on the parcel consisted of fine sandy loam to silty clay loam soils. No seasonal high groundwater watertable was observed. The soil test pit log descriptions are attached.

If you have any questions or require additional information, please contact me.

Sincerely,

Mark J. Hampton L.S.E., C.S.S.
Licensed Site Evaluator #263
Certified Soil Scientist #216

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF
SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name: Riverton Park	Applicant Name: R. W. Gillespie & Associates, Inc.	Project Location (municipality): Portland
--------------------------------	---	--

Exploration Symbol # TP-1 ☒ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	fine sandy loam	friable	dark brown	
10	silt loam	friable	brown	
20				
30	silty clay loam	firm	olive gray	common distinct
40				
50				
60				
70				
80				
90				
100				

Limit of Excavation
no water observed

Soil Classification Profile <u>8</u> Condition <u>C</u>	Slope Percent <u>2</u>	Limiting Factor Depth <u>20</u>	☐ Groundwater ☒ Restrictive Layer ☐ Bedrock
Soil Series/Phase Name: <u>Buxton mud</u>	☐ Hydric ☒ Non-hydric	Hydrologic Soil Group <u>C</u>	

Exploration Symbol # TP-2 ☒ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	fine sandy loam	friable	dark brown	
10	fine sandy loam	friable	brown	
20				
30	silty clay loam	firm	olive gray	common distinct
40				
50				
60				
70				
80				
90				
100				

Limit of Excavation
no water observed

Soil Classification Profile <u>8</u> Condition <u>C</u>	Slope Percent <u>2</u>	Limiting Factor Depth <u>18</u>	☐ Groundwater ☒ Restrictive Layer ☐ Bedrock
Soil Series/Phase Name: <u>Buxton mud</u>	☐ Hydric ☒ Non-hydric	Hydrologic Soil Group <u>C</u>	

Exploration Symbol # TP-3 ☒ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	fine sandy loam	friable	dark brown	
10	fine sandy loam	friable	brown	
20				
30	silty clay loam	firm	gray	common distinct
40				
50				
60				
70				
80				
90				
100				

Limit of Excavation

Soil Classification Profile <u>8</u> Condition <u>C</u>	Slope Percent <u>4</u>	Limiting Factor Depth <u>24</u>	☐ Groundwater ☒ Restrictive Layer ☐ Bedrock
Soil Series/Phase Name: <u>Buxton</u>	☐ Hydric ☒ Non-hydric	Hydrologic Soil Group <u>C</u>	

Exploration Symbol # TP-4 ☒ Test Pit ☐ Boring ☐ Probe
 _____ " Organic horizon thickness Ground surface elev. _____
 _____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	sandy loam	friable	varies	
10	fill asphalt rocks			
20				
30				
40	fine sandy loam	friable	dark brown	
50	silty clay loam	firm	gray	common distinct
60				
70				
80				
90				
100				

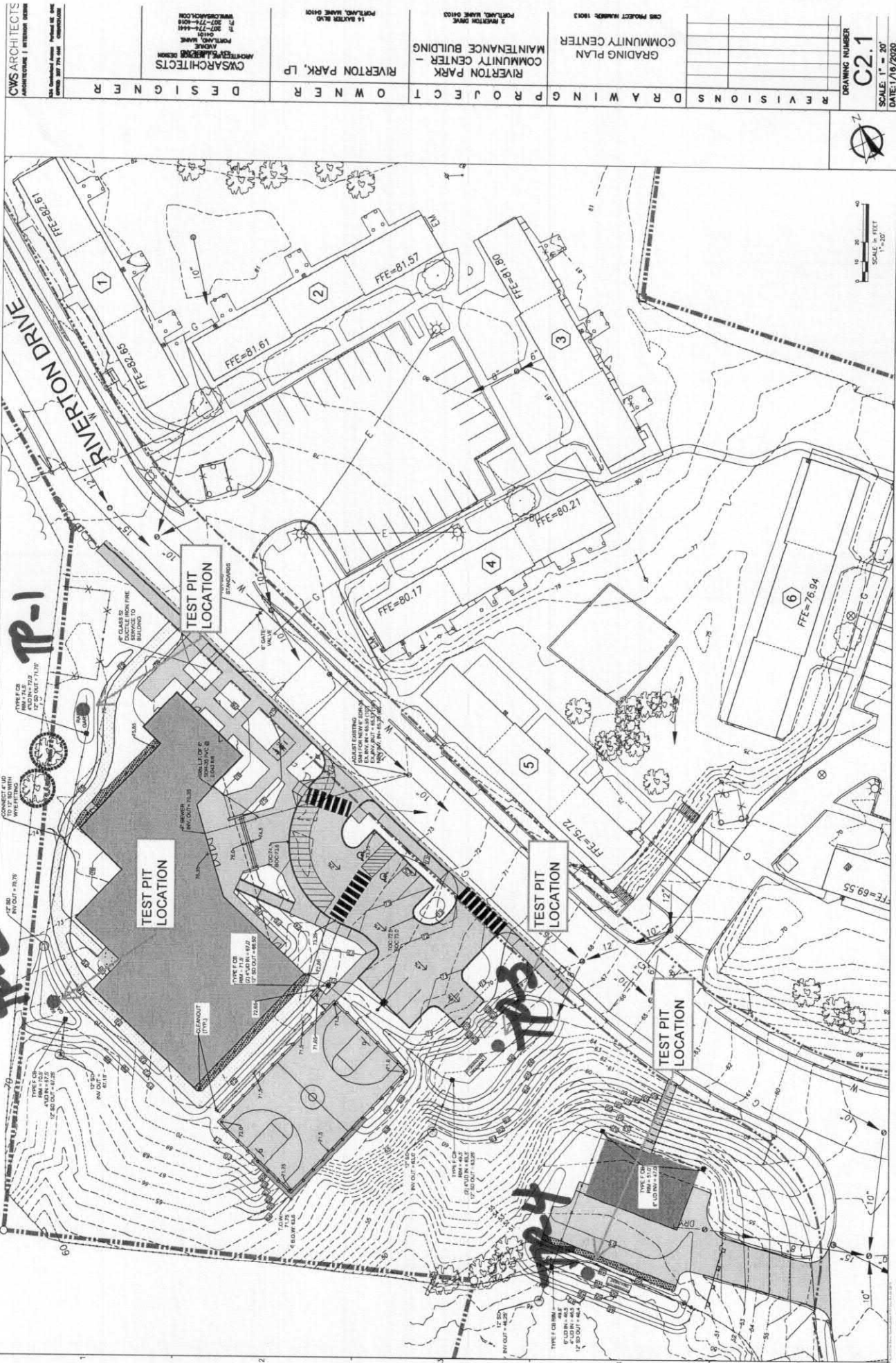
Limit of Excavation

Soil Classification Profile <u>8</u> Condition <u>C</u>	Slope Percent <u>4</u>	Limiting Factor Depth <u>24</u>	☐ Groundwater ☒ Restrictive Layer ☐ Bedrock
Soil Series/Phase Name: <u>Filled land</u>	☐ Hydric ☒ Non-hydric	Hydrologic Soil Group <u>C</u>	

INVESTIGATOR INFORMATION AND SIGNATURE

Signature <u>Mark J. Hampton</u>	Date July 30, 2020
Name Printed Mark J. Hampton	Cert/Lic/Reg. # 263/216
Title ☒ Licensed Site Evaluator ☒ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer	

affix professional seal



DRAWING NUMBER		C2.1		SCALE: 1" = 20'		DATE: 1/16/2020	
REVISIONS		DRAWING		PROJECT		OWNER	
GRADING PLAN		RIVERFRONT PARK COMMUNITY CENTER - MAINTENANCE BUILDING		PORTLAND, OREGON		PORTLAND, OREGON	
CMS PROJECT NUMBER: 19013		RIVERFRONT PARK COMMUNITY CENTER - MAINTENANCE BUILDING		PORTLAND, OREGON		PORTLAND, OREGON	
OWNER		RIVERFRONT PARK, LP		PORTLAND, OREGON		PORTLAND, OREGON	
DESIGNER		CVS ARCHITECTS		ARCHITECTS		PORTLAND, OREGON	
WWW.CVSARCHITECTS.COM		WWW.CVSARCHITECTS.COM		WWW.CVSARCHITECTS.COM		WWW.CVSARCHITECTS.COM	
CVS ARCHITECTS		CVS ARCHITECTS		CVS ARCHITECTS		CVS ARCHITECTS	

ATTACHMENT F - STORMWATER MAINTENANCE MANUAL

RIVERTON PARK

STORMWATER MAINTENANCE PLAN

Maintenance Responsibilities

During construction activities, the maintenance of all stormwater measures will be the direct responsibility of the Contractor. After acceptance by the Owner, the maintenance of all stormwater management facilities, the establishment of any contract services required to implement the program, and the keeping of records and maintenance log book will be the responsibility of Portland Housing Authority. The current contact for facilities maintenance at Portland Housing Authority is:

Richard Biggs, Director of Maintenance,
117 Anderson Street
Portland, Maine 0101
Phone: 207-221-8098
Email: rbiggs@porthouse.org

Notwithstanding any other schedule noted below, general inspections should be conducted quarterly. All post-construction inspections shall be undertaken by a person with post-construction inspection and maintenance documents shall be retained and made available for review by City of Portland upon request. Regular inspection and maintenance of stormwater management BMPs shall be undertaken as follows:

Ditches, Swales, and Riprap Aprons

Open swales and ditches shall be inspected on a monthly basis or after a major rainfall event to assure that debris and/or sediments do not reduce the effectiveness of the system. Debris shall be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth of vegetation for the stability of the structure and proper function. Maintenance shall include, but not be limited to, mowing, trimming and removal vegetation in the ditches as required to prevent vegetation from blocking or diverting storm flows, replacement of riprap channel lining to prevent scour of the channel invert, removing vegetation and debris from the culverts.

Vegetated ditches should be mowed at least three times during the growing season. Larger brush or trees must not be allowed to become established in the channel. Any areas where the vegetation fails will be subject to erosion and should be reseeded and mulched immediately.

Riprap ditches and aprons where stone is displaced should be replaced and chinked to assure stability. With time, additional riprap may be added. Vegetation growing through riprap and accumulated sediments and debris should be removed on a bi-annual basis.

Catch Basins

Catch basins should be inspected at a minimum on a bi-annual basis. One inspection should be undertaken as soon as possible after the last snow event of the winter/spring season. Sediment accumulation should be assessed by inspection or measured using a rod to determine the elevation below the outlet pipe. When sediment has accumulated to within one foot of the pipe invert, catch basin cleaning should be scheduled with a licensed contractor.

Drainage Pipes and Culverts

Culverts and piped drainage systems shall be inspected on an annual basis to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the pipe inlet and outlet. Sediment should be removed when its level

exceeds 20% of the pipe diameter. This may be accomplished by hydraulic flushing or any mechanical means; however, care should be taken to contain the sediment at the pipe outlet, and not flush the sediments into the detention/infiltration pond areas as this will reduce the ponds capacity and ability to infiltrate runoff and will hasten the time when the pond must be cleaned/rehabilitated.

Driveways, Walkways and Parking Lots

Accumulations of winter sand along paved surfaces shall be cleared at least once a year, preferably in the spring, to minimize transportation of sediment during rainfall events. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder.

Filtering Drip Strips

Inspections of the filtering drip strips shall be undertaken on a quarterly basis and following significant rainfall events.

The surface stone should be inspected for evidence of displacement, or erosion. Any accumulated debris, leaves, or loose vegetative matter should be removed from the surface to prevent clogging of the void space. The areas adjacent to the filtering drip strips should be inspected for erosion or bare soil that could migrate into the stone or filter media.

Evidence of standing water, or poorly draining media should be noted as this may indicate the need for replacement of the materials.

Bioretention Cells

Inspections of the bioretention cells and underdrained filter shall be conducted on a semi-annual basis and following significant rainfall events. Delayed or poor maintenance practices can result in loss of treatment capacity. Records should be kept of all maintenance operations to help plan future work and identify problem areas.

The basin embankments should be maintained to preserve their integrity including, but not limited to, vegetation maintenance (mowing, control of woody vegetation), rodent control, erosion control and repair, and outlet control structure maintenance and repair. The embankment should be inspected annually for erosion or destabilization of side slopes, embankment settling and other signs of overtrop structural failure.

Basin plantings and vegetation should be maintained on a quarterly basis. Regular maintenance activities should include cutting back shrub plantings where necessary to prevent excessive woody growth, removal of dead vegetation and re-planting to maintain good cover and root spread. Shrub or grass clippings should be removed to minimize the amount of organic material accumulation in the basin.

Sediment and debris should be removed from the sediment forebay at least annually, where applicable.

Bioretention cells and underdrained filters shall not be used for snow storage area. Snow storage should be sited so that snow melt flows to a pretreatment BMP before reaching the infiltration area.

Vehicular equipment used to maintain or rehabilitate the basins should work from the cell perimeter and not enter the basin floor area, as this would compact the soil surface and reduce infiltration.

The surface of the basins may clog with fine sediments over time. Maintenance of good plant or grass cover should minimize this; however, if ponded runoff does not infiltrate within 48 hours, rototilling the top of the soil bed may be required to reestablish the soils infiltration capacity.

Maine DEP Five-Year Recertification

The Maine DEP Chapter 500 Recertification requirement will apply to this project. This requires all inspection, and maintenance tasks to be completed and the five-year recertification form to be completed, certified and submitted to Maine DEP. For full details of the requirements see: <https://www.maine.gov/dep/land/stormwater/stormwaterbmps/five-year-recertification.html>.



May 18, 2023

Ms. Christine Grimando, Director of Planning & Urban Development
Mr. Sean King, Urban Designer
City of Portland Planning Department
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Response to Staff Review Outstanding Concerns
Riverton Park Redevelopment and Rehabilitation
2 Riverton Drive, Portland ME 04103
PL-002319-2022 + CU-002325-2023**

Dear Christine and Sean,

On behalf of applicant, Riverton Park, LP c/o Portland Housing Development Corporation (PHDC), and owner, Portland Housing Authority (PHA), we are pleased to submit this response letter to the additional Staff Review Comments, dated 05/11/2023 and a follow up, dated 5/17/2023 both received via email. Below are the comments taken from the review letter (*in italics*) along with responses from the applicant (**in bold**). This submission contains responses and additional exhibits.

Traffic consultant comments:

- *5/11/2023 The applicant shall provide an estimate of the increase in peak hour traffic volumes with the proposed project considering all program elements (PHA Management offices, a new GPH Clinic, two small neighborhood retail stores, Neighborhood Center and Apartment units to be renovated). It should be based in ITE data and should account for bedrooms and other land use components noted above. Please reach out to City's traffic consultant directly for additional feedback, Tom Errico T +1 207.347.4354, M +1 207.400.0719, thomas.errico@tylin.com*

Response: See Exhibit 15.2 Trip Generation prepared by Barton & Loguidice dated 5/17/2023 for increase in peak hour traffic volumes.

- *5/11/2023 For the Neighborhood Center parking lot, the vehicle maneuvers depicted on the turning template graphic cannot be accomplished if the parking lot is full. Modification to the lot is suggested. Consideration for a removal of a single parking stall to accommodate a car to turnaround.*

Response: The parking lot is only six vehicles in size and all are reserved (and signed) for PHA staff, the Portland Police Department Community Police Liaison and handicap parking – no general public parking. The few users of this parking lot will be familiar with its layout, the parking will be long term (low turnover) and the volume will be low.

5/11/2023 Tom Errico has reviewed the turning template for the NC parking lot based on information provided. A "K" turn movement would be sufficient with painted stripes shown, this assumes the painted stripes would remain free of obstructions. Could you please confirm?

Response: The striped areas within the parking lot will remain free and clear of obstructions to allow the parking lot to function properly and allow continued turning of vehicles within its confines.

Parking comments:

- *5/11/2023 Please provide the current number of off-street parking spaces at the site, and what the counts of the same will be after the proposed improvements are completed?*

Response: The requested information is shown on sheet C1.0 Master Plan. Existing off-street parking count is 195 and proposed off-street parking count is 228 which is a net gain of 33 parking spaces.

Existing tree inventory:

- *5/11/2023 City reviewers observed that existing tree tagging to indicate trees to be removed in the forested area at the future Neighborhood Center site was not provided. Can applicant perform prior to PB hearing, otherwise a condition of approval may need to be included within the Planning report.*

Response: Trees to be removed in the forested area at the future Neighborhood Center (16" and greater as agreed upon at the Zoom call on 4/7/2023) are shown on sheet C2.1 Demolition Plan as tags M.1 + M.2. No flagging was done in the field as it was not requested at the time.

As our Construction Management Plan is developed, we will include language about flagging the individual trees or areas of trees to be removed prior to construction. We will work with the City on specifics to be included as part of our building permit.

Open space comments:

- *5/11/2023 City reviewers are requesting the climbing wall be shown as relocated to the Neighborhood Center site.*

Response: Plans for the proposed playground next to Neighborhood Center have not been finalized. Applicant expects playground to include a variety of play structures, incorporating traditional and natural play features, to serve a variety of ages and sufficiently sized to meet the play needs of Riverton Park's youth. This is similar to the Applicant's approach at the Front Street redevelopment. As part of the Applicant's efforts to incorporate natural play features into the playground, a climbing structure will be included into the playground adjacent to the Neighborhood Center. The size, shape, material and location of this has not yet been finalized. To clarify, this will not be a vertical climbing "wall", which is infeasible as it would not be suitable for all ages, could create unsafe playing conditions, may require staff or parental

supervision (which would be administratively burdensome), and may generate liability concerns that escalate insurance costs.

- *5/11/2023 Applicant shall consider additional tree plantings between proposed fire lane and playing field.*

5/17/2023 Apologies for the delay, I spoke with Jason Grant who can support the addition of new trees adjacent to the 16' fire access lane. He noted that fire trucks would only utilize the fire lane for thru access and most likely set up ladder trucks on Riverton Dr and/or the parking lot behind Building 1. Location of new trees would need to be set back from fire lane to not impede significantly with fire truck access, I would recommend 8'-10' from the edge of the fire lane where possible.

Response: Trees have been added between the fire lane and the recreational field. They will be setback eight feet from the edge of fire lane to allow for through access of fire and emergency vehicles. See updated L1.0 Landscape Master Plan.

- *5/17/2023 DPW is requesting confirmation that all asphalt sidewalk, typ. labeled throughout the site plans will be new per detail G/C7.3*

Response: As shown on the Demolition Plans C2.1, 2.2 + 2.3 all sidewalks and curb within the right-of-way will be removed and replaced (with new) per detail G on sheet C7.3. All new sidewalks and walkways within the site will also be per detail G on sheet C7.3. All future plans will include the note "remove and reconstruct existing asphalt sidewalk" for work within the right-of-way.

All new sidewalks within the right-of-way will be constructed in accordance with the City's Sidewalk and Driveway Apron Material Policy, and made compliant per the City's Technical Manual Section 1 and the current standard details.

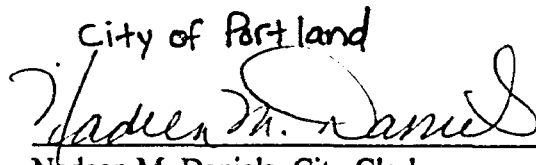
BK 13326 PG 019
055566

NOTICE

On September 3, 1997, the Portland City Council passed Order # 84, entitled **Order Excepting Streets From Deemed Vacation**. This Order contains a listing of paper streets subject to 23 M.R.S.A. §3032, and sets forth the City's action on each street in a subdivision that is covered by that statute. The list indicates whether the City elected to continue its public rights in a street, to allow the street to be vacated and terminate the public rights, or to do some combination of the two.

A certified copy of Portland City Council Order #84 is recorded in the Cumberland County Registry of Deeds in Book , Page

Dated: September 16, 1997

City of Portland

Nadeen M. Daniels, City Clerk

DEAL

DEAL

84
ORDER

**ORDER EXCEPTING STREETS FROM DEEMED
VACATION - SPONSORED BY ROBERT B. GANLEY,
CITY MANAGER.**

IN THE CITY COUNCIL

September 3, 19 97

Attest: Nadeen M. Daniels
Nadeen M. Daniels
Yeas Nays

A TRUE COPY. ATTEST
NADEEN M. DANIELS
CITY CLERK, PORTLAND, ME

Nadeen M. Daniels

DEPT

Councilor Harlow motioned to suspend the rules seconded
by Councilor Mavodones. Passed 9-0

Councilor Harlow motioned to take Order 84 out of order;
seconded by Councilor McDonough. Passed 9-0.

Councilor Harlow motioned to Amend Order 84, to change
Dudley Street to read continued/vacate continue 340 feet
from intersection of Lee Street; vacate remainder to Elmore
Street; Fern Street to read Continue, not Vacate, Rosedale

Continued.....

BK 13326P6020

Street to read Continue/Vacate, not Vacate; Second Street,
Peaks Island to read Continue, not Vacate;
seconded by Councilor McDonough. Passed 9-0.

Motion to Pass Order 84 as amended made by Councilor
Kane; seconded by Councilor Dawson. Passed 9-0.

SEAL

A TRUE COPY. ATTEST
NADIEEN M. DANIELS
CITY CLERK, PORTLAND, ME

Naddeen M. Daniels

BK13326P6021

BK 13326PG022

Order 84
Tab 15 9-3-97

City of Portland, Maine
IN THE CITY COUNCIL

ORDER EXCEPTING STREETS FROM DEEMED VACATION

ORDERED, pursuant to 23 M.R.S.A. §3032(2), the streets indicated on Attachment A are hereby excepted from the operation of 23 M.R.S.A. §3032(1) for a period of twenty (20) years.

SEAL

A TRUE COPY. ATTEST
NADEEN M. DANIELS
CITY CLERK, PORTLAND, ME

Nadeen M. Daniels

STREETEXCEPT.ORD.001
08.19.97

September 3, 1997

Street Vacation Project

Street	Subdivision Name	Book	Page	Staff Recommendation	Comments
East Kidder Street	Adams Farm	12	33	Continue/Accept	Accept that portion from Berkshire to Grafton
Grafton Street (Also South Grafton)	Adams Farm	12	33	Continue	
Penobscot Street	Arthur F. Maxfield	16	51	Vacate	
Shore Road, Cushings Island	Arthur & Anne S. Row	166	25	Continue	
King Street	Avalon Highlands	12	11	Continue	Partial
Tyler Street	Avalon Highlands	12	11	Continue	
Buttonwood Lane	Blackburnian Pines	142	68	Continue/Accept	Accept when improvements are completed.
Levia Street	Brighton Avenue Terrace	11	13	Continue	
Terrace Avenue	Brighton Avenue Terrace	11	13	Continue	
Lorenzo Street	Brighton Avenue Terrace	11	13	Continue	
Milo Street	Brighton Avenue Terrace Annex	11	61	Continue	
Schammel Street	Brighton Avenue Terrace Annex	11	61	Vacate	
Merline Avenue	Brighton Avenue Terrace Annex	11	61	Continue	
Philbrick Avenue	Brighton Avenue Terrace Annex	11	61	Continue	
Almon Avenue	Brighton Avenue Terrace Annex	11	61	Continue	
Hillcrest Avenue	Brighton Avenue Terrace Annex	11	61	Continue/Vacate	Vacate portion from the beginning of Dorothy B. Nevers property south to the Railroad.
Greenlawn Avenue	Brighton Avenue Terrace Annex	11	61	Continue	
Macy Street	Brighton Park	17	30	Continue	
Brookline Drive	Brighton Park	17	30	Continue/Vacate	Continue that portion that is not a park street; vacate remainder.
Barry Street	Brighton Park	17	30	Continue	
Sargent Road, Peaks Island	Carrie Jensen	33	37	Continue/Vacate	Continue between Tolman and Pleasant; vacate between Pleasant and Island
Unnamed 1, Peaks Island	Carrie Jensen	33	37	Continue	Runs parallel to Tolman Road
Third Street	Central Park	9	125-129	Continue/Vacate	Continue that portion which lies south of Broadway; vacate remainder.
Second Street	Central Park	9	125-129	Vacate	
Broadway	Central Park	9	125-129	Continue	
Fourth Street	Central Park	9	125-129	Vacate	
Lexington Avenue	Central Park	9	125-129	Continue	
Fifth Street	Central Park	9	125-129	Continue	
Wall Street	Central Park	9	125-129	Continue	
First Street	Central Park	9	125-129	Vacate	
Luke Street	Central Park	9	125-129	Continue	
Goodridge Avenue	Charles L. Goodridge Estate	33	50	Continue	AKA Goodrich according to tax maps.
Eleanor Street	Charles L. Goodridge Estate	33	50	Continue	
Frederick Street, Peaks Island	Charlotte R. Shaw	13	81	Continue	
Ottawa Avenue, Cushings Island	Chas. E. Howe	4	59	Continue	
Shore Road, Cushings Island	Chas. E. Howe	4	59	Continue	
Ainsworth Street	Congress Terrace	14	61	Vacate	
Osgood Street	Congress Terrace	14	61	Continue/Accept	
Caribou Street	Congress Terrace	14	61	Continue	
Phillips Street	Congress Terrace	14	61	Continue	
Chandler Street	Congress Terrace	14	61	Continue	
Fenway Street	Congress Terrace	14	61	Continue	
Hobart Street	Congress Terrace	14	61	Continue	
Westland Avenue	Congress Terrace	14	61	Continue	
Pamela Street	Crest View Acres-Section 5	59	22	Continue	
Crest View Drive	Crest View Acres-Section 5	59	22	Continue	
Corliss Road	C.B. Walton & Company	10	91	Continue/Vacate	Continue between Presump School and Sherwood Street; Vacate remainder
E Street	C.B. Walton & Company	10	91	Continue/Vacate	Continue between Presump School and Sherwood Street; Vacate remainder
Dalton Street	C.B. Walton & Company	10	91	Continue/Vacate	Continue up to F Street; Vacate from F Street to Presumpscot School
F Street	C.B. Walton & Company	10	91	Continue	
Lunt Street	C.B. Walton & Company	10	91	Vacate	
Proposed Street	C.L. Goodridge & J.A. Bueluc	8	99	Vacate	
Bartlett Street	Deering Center	9	23	Accept/Vacate	Accept from Hamblet to Fuller; Vacate from Fuller to Athletic Fields
Hale Street	Deering Center	9	23	Accept/continue	
Belden Street	Deering Terrace	12	6	Continue	
Epping Street	Deering Terrace	12	6	Continue	
Brandon Street	Deering Terrace	12	6	Continue	
Tifton Street	Deering Villa	11	71	Continue	
Roslyn Street	Deering Villa	11	71	Vacate	

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Street Vacation Project

Plymouth Street	Deering Villa Addition	13	27	Continue	
Brook Road	Deering Village-Extension B	65	13	Accept/Continue	Only 15' of Brook Road Remains Unaccepted
Slemons Road	Dorothy S. True Heirs	25	50	Continue	
Graham Terrace	Dorothy True et al	25	50	Continue	
Unnamed Street	Dorothy True et al	25	50	Vacate	
Ottawa Avenue, Cushings Island	Edward T. Gignoux	42	17	Continue	
Calumet Avenue, Cushings Island	Edward T. Gignoux	42	17	Continue	
Ernest Street, Peaks Island	Elizabeth Little John	12	86	Continue	
Herman Avenue, Peaks Island	Elizabeth Little John	12	86	Continue	From Daniel St to Cemetery
John Street, Peaks Island	Estate of Luther Sterling	516	210	Continue	
Lower A Street, Peaks Island	Estate of Luther Sterling	516	210	Continue	
Luther Street, Peaks Island	Estate of Luther Sterling	516	210	Continue	
Brook Lane, Peaks Island	Evergreen Landing	14	89	Continue	
Evergreen Avenue, Peaks Island	Evergreen Landing	15	29	Continue	
Tarbell Avenue	Forest Avenue Terrace	12	5	Continue	
Dover Avenue	Forest Avenue Terrace	12	5	Continue	
Beal Street	Forest Avenue Terrace	12	5	Continue	
Missouri Avenue	Forest Avenue Terrace	12	5	Continue	
Bailey Avenue	Forest Avenue Terrace	12	5	Continue	
Newell Avenue	Forest Avenue Terrace	12	5	Continue/Vacate	Continue from Milton to Tucker; vacate from Tucker to Riverside Industrial Parkway (SHORT STREET)
Kalley Street	Forest Avenue Terrace	12	5	Vacate	
Tucker Avenue	Forest Avenue Terrace	12	5	Continue	
Dudley Street	Forest Hills	15	34	Continue/Vacate	Continue 340 feet from intersection of Lee Street; vacate remainder to Elmore Street
Elmore Street	Forest Hills Extension	15	41	Vacate	
Lee Street	Forest Hills Extension	15	41	Continue	
Rosedale Street	Forest Hills Extension	15	41	Continue/Vacate	vacate between Lee Street towards Elmore Street and beyond.
Baxter Road	Forest Home Property	6	18	Vacate	
Percival Street	Forest Home Property	6	18	Continue/Vacate	Vacate that portion which is within the City Park Boundaries; continue remainder.
Goodale Street	Frost Villa Sites	14	25	Continue	
King Street	Frost Villa Sites	14	25	Continue	
Hemingway Street	Frost Villa Sites	14	25	Continue	
Nickerson Road	Frost Villa Sites	14	25	Continue	
Beaumont Street	Frost Villa Sites	14	25	Continue	
Spring Cove Avenue, Cushings Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Calumet Avenue, Cushings Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Shore Road Path, Cushings Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Ottawa Avenue, Cushings Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Shore Road, Cushing Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Shamrock Lane, Cushings Island	F.L. Olmsteads Layout of Cushing Island	4	56	Continue	
Sumac Street	Glen Oaks Section B	110	39	Accept/Continue	
Christy Road	Glen Oaks Section C	113	21	Accept/Continue	
Christy Road	Glen Oaks Section D	115	79	Accept/Continue	
Wessex Street	Glenwood	8	17	Continue	
Lomond Street	Glenwood	8	17	Continue	
Eaton Street	Greater Brighton	11	111	Continue	Park Street/Access
Ridley Street	Greater Brighton	11	111	Continue	Park Street/Access
Rockland Avenue	Greater Brighton	11	111	Continue	Park Street/Access
Brookline Street	Greater Brighton	11	111	Continue	Park Street/Access
Crescent Road, Peaks Island	Greenwood Gardens	33	33	Continue	
Garden Place, Peaks Island	Greenwood Gardens	33	33	Continue	
Garden Lane, Peaks Island	Greenwood Gardens	33	33	Continue	
Sbth Street	Half Acre Homes	13	2	Continue	
Homestead Avenue	Half Acre Homes	13	2	Continue	
Eighth Street	Half Acre Homes	13	2	Continue	
Barden Street	Half Acre Homes	13	2	Continue	
Ninth Street	Half Acre Homes	13	2	Continue	
Barclay Street	Harris Farms	14	19	Continue/Vacate	Vacate portion which lies between Harris Ave and Newton St; Continue remainder.
Hampton Street	Harris Farms	14	19	Continue	
Natick Street	Harris Farms	14	19	Continue	
Woodbury Street	Harris Farms	14	19	Continue	

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Street Vacation Project

Haskell Street	Harris Farms	14	19	Continue	
Dayton Street	Harris Farms	14	19	Continue	
Newton Street	Harris Farms	14	19	Continue	
Harris Avenue	Harris Farms	14	19	Continue	
Magnolia Street	Hawthorne Heights	12	35	Continue	
Rock Hill Street	Hawthorne Heights Addition	15	19	Continue	
Morrill Street	Hawthorne Heights Addition	15	19	Continue/Vacate	Continue from University to Milliken Brook; Vacate from Milliken Brook to Railroad Tracks
Magnolia Street	Hawthorne Heights Addition	15	19	Continue	
Princeton Street	Hawthorne Heights Addition	15	19	Continue	
Cambridge Street	Hawthorne Heights Extension	14	77	Continue	
Cornell Street	Hawthorne Heights Extension	14	77	Continue	
2nd Proposed Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Oak Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Onway Avenue, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Glenwood Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Hadlock Cove Road, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
1st Proposed Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Long Point, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Unnamed 2, Peaks Island	Henry M. Brackett Estate	9	57	Continue	East from high water mark to Torrington
Edwards Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Winding Way, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Unnamed 3, Peaks Island	Henry M. Brackett Estate	9	57	Vacate	East from Torrington to Hadlock Cove Road
Torrington Avenue, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
8th ME Avenue, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Unnamed 1, Peaks Island	Henry M. Brackett Estate	9	57	Continue	South from Torrington to high water mark
Streets surrounding Burial Ground, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
5th Proposed Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	Connects Onaway with Unamed 4
4th Proposed Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
3rd Proposed Street, Peaks Island	Henry M. Brackett Estate	9	57	Continue	
Unnamed 4, Peaks Island	Henry M. Brackett Estate	9	57	Continue	West and parallel with Onaway
Sunset Road, Peaks Island	Henry Trefethen	8	51	Continue	
Unnamed 1, Peaks Island	Henry Trefethen	8	51	Vacate	North from Sunset
Webb Street	Home Gardens	12	17	Accept/Continue	Accept down to #136; Continue remainder
Madeline Street	James P. Baxter	8	41	Vacate	Vacate from fence at recreation area to Leland Street.
Spar Cove Road, Peaks Island	John W. Trefethen Heirs	12	91	Continue	
Garden Road, Peaks Island	Josiah Sterling Estate	8	7 C	Continue	
Scott Street	J.B. Brown Estate	11	87	Continue	
Bath Street	J.M. Brown	10	65	Vacate	
Jose Street	J.M. Brown	10	65	Vacate	
Hooper Street	J.M. Brown	10	65	Continue	
Sewall Street	J.M. Brown	10	65	Vacate	vacation contingent upon receiving sewer easement from Concord trailways.
Cobb Avenue	Land of Lillian M. Parker	15	33	Continue/Vacate	Vacate unaccepted portion only.
Cummings Street	Land of L.W. Dyer	7	2	Vacate	Vacate portion between Hsley and Front Streets.
Park Avenue, Peaks Island	Land of New England Heating Co.	11	35	Continue	Also can be found in Book 8 Page 127
Moss Knoll Avenue, Peaks Island	Land of New England Heating Co.	11	35	Continue	Also can be found in Book 8 Page 127
Highland Avenue, Peaks Island	Land of New England Heating Co.	11	35	Continue	Also can be found in Book 8 Page 127
Arbutus Avenue, Peaks Island	Land of New England Heating Co.	11	35	Continue	Also can be found in Book 8 Page 127
Vermont Avenue, Peaks Island	Land of New England Heating Co.	11	35	Continue	Also can be found in Book 8 Page 127
Mason Street	Land of Richard G. Smith	13	29	Continue	
Broadway	Lexondale	11	15	Continue	
Farragut Street	Lexondale	11	15	Continue	
Luke Street	Lexondale	11	15	Continue	
Barden Street	Lexondale	11	15	Continue	
Alice Street	Lloyd B. Wolf	195	12	Continue	Also see Book 196 Pages 77 & 319
Hope Avenue	Lloyd B. Wolf	195	12	Continue	Also see Book 196 Pages 77 & 319
Proposed Street	Lot Plan of River View Point	45	38	Continue	Runs from the south of Little Street
Galvin Street	L.W. Dyer Plan	7	2	Continue	
Beechwood Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Maplewood Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Wildwood Avenue, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	

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Street Vacation Project

Anderson Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
West Beach Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Fort Gorges, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Birchwood Avenue, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Sonnenstrahl Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Diamond Avenue, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
City View Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Cliffstone Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Sandy Beach Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Elizabeth Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Old Pier Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Goldenrod Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Elmwood Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Fessenden Avenue, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Sorrento Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Rockledge Avenue, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Brianwood Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Hillside Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Ocean View Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Hazelwood Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
North Landing Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Oak Grove Road, Little Diamond Island	Maine Coast Realty Company	12	71	Continue	
Sullivan Street (Formerly Fairfield Street)	Marine Terrace	10	103	Continue	
Coburn Street	Marshall Plan	1	29	Vacate	
Prospect Street, Peaks Island	Mary A. Brackett	12	17	Continue	
Wylie Street, Peaks Island	Mary A. Brackett	12	17	Continue	
Epps Street, Peaks Island	Mary A. Brackett	12	17	Continue	
Forn Street	Meadow Park	12	44	Continue	
Meadow Street	Meadow Park	12	44	Vacate	
Blossom Street	Meadow Park	12	44	Vacate	
Trundy Street	Meadow Park	12	44	Continue	
Alfred Street	Modem Homes Corporation	16	56	Vacate	
Frye Street	Montclair	16	13	Continue/Vacate	Vacate from ROS Zone line to Canco Road.
Farnham Street	Mrs. C.S. Farnham	12	16	Continue	
Poplar Street	No Title	51	297	Continue	
Greene Street	No Title	3	10	Vacate	
Talbot Street	Oatnuts Park	9	103	Continue/Vacate	Continue up to lot line of George Fahey; vacate remainder
Tamarack Street	Oatnuts Park	9	103	Continue	
Magnolia Street	Oatnuts Park	9	103	Continue	
Mulberry Street	Oatnuts Park	9	103	Vacate	
Lilac Street	Oatnuts Park	9	103	Continue	
Yew Street	Oatnuts Park	9	103	Vacate	
Juniper Street	Oatnuts Park	9	103	Continue	
Ash Street	Oatnuts Park	9	103	Vacate	
Bingham Street	Oatnuts Park	9	103	Vacate	
Birch Street	Oatnuts Park	9	103	Vacate	
Fern Street	Oatnuts Park	9	103	Continue	
Hickory Street	Oatnuts Park	9	103	Vacate	
Lloyd Avenue	Ocean Park Homes	28	18	Continue/Vacate	Continue from Beginning of Vera Street to Fall Brook Branch Sewer; vacate remainder
Bismark Street	Ocean View Park	8	141	Continue	
Helene Street	Ocean View Park	8	141	Accept/continue	
Bayberry Lane, Peaks Island	Oceanside Project Section 2	92	39	Continue	
Whaleback Road, Peaks Island	Oceanside Project Section 2	92	39	Continue	Extends to Oceanside Section 1 and Seashore Ave B95 P37
Jewel Road, Peaks Island	Oceanside Project Section 2	92	39	Continue	
Reservoir Road, Peaks Island	Oceanside Project Section 2	92	39	Continue	
Hussey Road, Peaks Island	Oceanside Project Section 2	92	39	Continue	
Unnamed 1, Peaks Island	Oceanside Terrace	11	1	Continue	North from Maple to Spruce
Derby Road	Otis H. Perry Land Company	14	32	Continue	
Ilisley Street	Palm of L.W. Dyer	7	2	Continue	
Oceanview Terrace, Peaks Island	Phillip W. Edwards	11	128	Continue/Vacate	Continue South of Maple Street; Vacate North of Maple Street

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Pierce Street	Pierce Avenue Lots 4&5	194	63	Continue	
Epping Street	Pine Tree Terrace	30	29	Continue	
Lane Avenue	Pine Tree Terrace	30	29	Continue	
Wilkie Street	Pine Tree Terrace	30	29	Continue	
Pari Place	Pine Tree Terrace	30	29	Continue	
Wendell Street	Pine Tree Terrace	30	29	Continue	
Label Street	Pine Tree Terrace	30	29	Continue	
Euclid Avenue	Pine Tree Terrace	30	29	Continue	
Katahdin Street	Pinehurst	13	91	Vacate	
Almonte Street	Plan of Almonte	13	109	Continue	
Redlon Road	Plan of Brighton	11	109	Continue	
Pomeroy Street	Plan of Brighton	11	109	Continue	
Motley Street	Plan of Brighton	11	109	Continue	
Caroline Street	Plan of Brighton	11	109	Continue	
Riverview Street	Plan of Capisic Heights	12	75	Continue	
Glengarden Street	Plan of Glengarden Street	16	45	Continue	
View Street	Plan of Property Adjoining Riverton Park	10	141	Continue	
Prim Street	Plan of Property Adjoining Riverton Park	10	141	Continue	
Unnamed Street	Plan of Property of Fred S. Jordan	10	9	Vacate	Runs from Berkshire Road to Sherwood Street at Northern end.
Vine Street	Portland Gardens	12	23	Continue	
Dale Street	Portland Gardens	12	23	Continue	
Robin Street	Portland Gardens	12	23	Continue	
Poe Street	Portland Gardens	12	23	Continue	
Porter Street	Portland Gardens	12	23	Continue	
Bower Street	Portland Gardens	12	23	Continue/Vacate	Continue between Taft and Porter; vacate between Taft and Holm.
Gore Street	Portland Gardens	12	23	Vacate	
Taft Avenue	Portland Gardens	12	23	Continue	
Gaskill Street	Portland Gardens	12	23	Continue	
Kervin Street	Portland Gardens	12	23	Continue	Name changed from Gay to Kervin
Herron Street	Portland Gardens	12	23	Continue	
Ravina Street	Portland Gardens	12	23	Continue	
Jasper Street	Portland Gardens	12	23	Vacate	
Coolidge Avenue	Portland Highlands	16	10	Continue	
Davenport Avenue	Portland Highlands	16	10	Continue	
Oramel Avenue	Portland Highlands	16	10	Continue	
Skyfark Road	Portland Highlands	16	10	Continue	
Hennessy Drive	Portland Highlands	16	10	Continue	
Palmer Avenue	Portland Highlands	16	10	Continue	
Belfort Street	Portland Villa Sites	14	7	Continue	
Elbert Street	Portland Villa Sites	14	7	Continue	
Sarsfield Street	Portland Villa Sites	14	7	Continue/Vacate	vacate beyond Iffley only
Iffley Street	Portland Villa Sites	14	7	Continue	
Wirt Street	Portland Villa Sites	14	7	Continue	
Verrilli Street	Portland Villa Sites	14	7	Continue	
Alice Street	Presumscot River Place	141	42	Continue	
Arundel Road	Property of Fred S. Jordan	10	9	Continue/Vacate	Vacate portion between East Kidder St and the upper portion of Arundel Rd.
Berkshire Road	Property of Fred S. Jordan	10	9	Continue/Vacate	Vacate portion which abuts the properties of Vianka C. Vives and Anne Marino.
Hubbard Court	Property of Gardiner Ludwig	4	38	Vacate	
Greely Street	Property of Martin Curran Jr.	9	21	Continue/Vacate	Vacate from Davis to abutting property line only.
Harmon Road	P. Violette & J.A. Jacques	33	17	Accept/Continue	Accept up to Donald Street
Raymond Road	P. Violette & J.A. Jacques	33	17	Accept/Continue	
Evergreen Ledge, Peaks Island	Quincy M. Sterling	14	89	Continue	
Daggett Street	Ray Gardens	12	103	Continue	
Trapelo Street	Ray Gardens	12	103	Continue	
Ray Place	Ray Gardens	12	103	Continue	
Toronita Street	Ray Gardens	12	103	Continue	
Van Vechten Street	Ray Gardens	12	103	Continue	
Nottingham Avenue	Ray Gardens	12	103	Continue	
Marlborough Road	Ray Gardens	12	103	Continue	
Demarest Street	Ray Gardens	12	103	Continue	

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Whitcomb Avenue	Ray Gardens #2	12	98	Vacate	
Pine Grove Avenue	Ray Gardens #2	12	98	Continue	
Hunter Street	Riverton Home Sites	16	11	Continue/Vacate	Vacate from Grove to Fiske and beyond
Ingalls Street	Riverton Home Sites	16	11	Vacate	
Fiske Street	Riverton Home Sites	16	11	Continue/Vacate	vacate from Riverside to Tumpike
Rankin Street	Riverton Home Sites	16	11	Continue/Vacate	vacate everything beyond second house
Grove Street	Riverton Home Sites	16	11	Continue	
Pinewood Road	Riverton Park Housing Development			Vacate	No record of Plan; all abutting property owned by Portland Housing Authority
Sterling Street, Peaks Island	Robert F. Skillings	11	101	Continue	
Boulder Road, Peaks Island	Robert F. Skillings	11	101	Continue	
Centennial Street Rear, Peaks Island	Robert F. Skillings	11	101	Continue	
Ledgewood Street, Peaks Island	Robert F. Skillings	11	101	Continue	Extends East through Richard Grant, Book 192 Page 2
Bernard Road Ext.	Robert Napalitano/Bernard Road Extens	144	3	Continue	
Brimmer Street, Peaks Island	R. Skillings	8	101	Continue	
D Street, Peaks Island	Sam Trott	4	60	Continue	
B Street, Peaks Island	Sam Trott	4	60	Continue	
Unnamed 1, Peaks Island	Sam Trott	4	60	Continue	Foot Path from School to house and accross private property to Elizabeth Street.
C Street, Peaks Island	Sam Trott	4	60	Continue	
Calumet Avenue, Cushings Island	Sidney St. F. Thaxder	33	21	Continue	
Ottawa Avenue, Cushings Island	Sidney W. Thaxder	52	10	Continue	
Ocean Spray Road, Peaks Island	Skillings Farm	11	97	Continue	
Woodland Road, Peaks Island	Skillings Farm	11	97	Continue	
Tolman Road, Peaks Island	Skillings Farm	11	97	Continue	Runs into Woodbury Farm
Oaklawn Road, Peaks Island	Skillings Farm	11	97	Continue	
Echo Path, Peaks Island	Skillings Farm	11	97	Continue	
Belvidere Road, Peaks Island	Skillings Farm	11	97	Continue/Vacate	Vacate portion after Seneca Rd towards Tolman Rd and connecting to Seashore Ave.
Rockaway Road, Peaks Island	Skillings Farm	11	97	Continue	
Oshawa Road, Peaks Island	Skillings Farm	11	97	Continue	
Brooklet Place, Peaks Island	Skillings Farm	11	97	Continue	
Graystone Place, Peaks Island	Skillings Farm	11	97	Continue	
Juniper Road, Peaks Island	Skillings Farm	11	97	Continue	
Crystal Road, Peaks Island	Skillings Farm	11	97	Continue	
Golden Rod, Peaks Island	Skillings Farm	11	97	Continue	
Seneca Road, Peaks Island	Skillings Farm	11	97	Continue	
Wild Rose Path, Peaks Island	Skillings Farm	11	97	Continue	Crosses Brooklet
Wildwood Path, Peaks Island	Skillings Farm	11	97	Vacate	
St. James Street	Smith & Brown Property	112	51	Continue/Accept	Plan is attached to deed in B958 P84 in Registry;
Sandpiper Road, Peaks Island	Southgate	79	39	Continue	
Spring Cove Avenue, Cushings Island	Standish Meacham Jr.	59	62	Continue	
Morrill Street	Stevens Terrace	11	49	Continue/Vacate	Continue from University to Milliken Brook; Vacate from Milliken Brook to Railroad Tracks
Hawkes Street	Stevens Terrace	11	49	Continue	
Stuart Street	Stuart Street-Second Amended Plat	183	51	Continue	
City Point Road, Peaks Island	Susie C. McAloney	8	121	Continue	
Brewster Street	The Holmsteads	14	70	Continue	
Short Street	The Holmsteads	14	70	Continue	
Fisher Street	The Holmsteads	14	70	Continue	
Pennell Avenue	The Holmsteads	14	70	Continue	
Ottawa Avenue, Cushings Island	The Island Company	53	66	Continue	
Shore Road, Cushings Island	The Island Company	53	66	Continue	
Montana Street	The Pines-Section B	16	41	Continue	
Belfast Street	The Pines-Section B	16	41	Continue	
Beauregard	The Pines-Section B	16	41	Continue	
Virginia Street	The Pines-Section B	16	41	Continue	
Kentucky Avenue	The Pines-Section B	16	41	Continue	
Indiana Avenue	The Pines-Section B	16	41	Continue	
Montana Street	The Pines-Section C Revised	17	6	Continue	
Maine Avenue	The Pines-Section C Revised	17	6	Continue	
Penn Avenue	The Pines-Section C Revised	17	6	Continue	
Jersey Avenue	The Pines-Section C Revised	17	6	Continue	
Vermont Avenue	The Pines-Section C Revised	17	6	Continue	

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Virginia Street	The Pines-Section C Revised	17	6	Continue	
Tampa Street	The Pines-Section D Revised	17	7	Continue	
Kansas Avenue	The Pines-Section D Revised	17	7	Continue	
Utah Street	The Pines-Section D Revised	17	7	Continue	
Montana Street	The Pines-Section D Revised	17	7	Continue	
Racine Avenue	The Pines-Section D Revised	17	7	Continue	
Nevada Avenue	The Pines-Section D Revised	17	7	Continue	
Illinois Avenue	The Pines-Section D Revised	17	7	Continue	
Wyoming Avenue	The Pines-Section D Revised	17	7	Continue	
Florida Avenue	The Pines, Section A	16	29	Continue	
Dakota Street	The Pines, Section A	16	29	Continue	
Idaho Street	The Pines, Section A	16	29	Continue	
Burnside Avenue	The Pines, Section A	16	29	Continue	
Centennial Street Rear, Peaks Island	Thomas Trott	3	42	Continue	
Alice Street	Valley View Heights	47	6	Continue	
Centennial Street Rear, Peaks Island	Varde Place	90	15	Continue	
Varde Place, Peaks Island	Varde Place	90	15	Vacate	
Prentiss Street	Veranda Park	10	55	Continue	
Ash Street	Wadco Park	12	17	Vacate	
Gertrude Avenue	Wadco Park	12	17	Continue	
Greenville Street	Wadco Park	12	17	Vacate	
Wadco Street	Wadco Park	12	17	Vacate	
Loring Avenue	Wadco Park	12	17	Continue	
Thurlow Street	Wadco Park	12	17	Continue	
Lyon Street	Wadco Park	12	17	Vacate	
Topsham Street	Wadco Park	12	17	Continue	
Rye Road	Wadco Park	12	17	Continue	
Wingate Circle	Wadsworth Heights - Section B	124	65	Continue	
Booth Street	Warren Avenue Terrace	12	2	Vacate	
Saville Street	Warren Avenue Terrace	12	2	Continue	
Newcomb Street	Warren Avenue Terrace	12	2	Continue	
Cranston Street	Washington Avenue Gardens	14	46	Continue	
Pawtucket Street	Washington Avenue Gardens	14	46	Continue	
Providence Street	Washington Avenue Gardens	14	46	Continue	
Oakwood Avenue	Washington Park	10	123	Continue/Vacate	Continue 50' from Chesley Street; vacate remainder
Beachwood Avenue	Washington Park	10	123	Continue	
Joseph Avenue	Washington Terrace	13	72	Continue	
Anthony Avenue	Washington Terrace	13	72	Continue	
Veteran Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Upper Meridian Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Orchard Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Proposed Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Adams Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Welch Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Meridian Street, Peaks Island	Welch E. Hilborn Heirs	13	117	Continue	
Jackson Boulevard, Cushings Island	Whitehead Passage Subdivision	106	9	Continue	
Whitehead Avenue, Cushings Island	Whitehead Passage Subdivision	106	9	Continue	
Spring Cove Avenue, Cushings Island	Whitehead Passage Subdivision	106	9	Continue	
Unnamed 1, Cushings Island	Whitehead Passage Subdivision	106	9	Continue	
Beach Street, Peaks Island	William H. Sargent	9	7	Continue	Road between Whitehead Ave and Jackson Blvd. Also known as portion of Sargent Road
Windsor Terrace	Windsor Heights	10	83	Continue	
Chester Street	Windsor Heights	10	83	Continue	
Ocean Street, Peaks Island	Woodbury Farm	8	101	Continue	
Marriner Court, Peaks Island	Woodbury Farm	8	51	Continue	
Unnamed 1, Peaks Island	Woodbury Farm	8	51	Continue	North from Marriner below Ocean Street
Dedham Street	Woodfords Gardens	13	75	Continue	
Saugus Street	Woodfords Gardens	13	75	Continue	
Randolph Street	Woodfords Gardens	13	75	Continue	
Nallick Street	Woodfords Gardens	13	75	Continue	
Newell Avenue	Woodfords Gardens	13	75	Continue	

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Holbrook Street	Woodfords Gardens	13	75	Continue
Hingham Street	Woodfords Gardens	13	75	Continue
Harmony Road	Woodfords Gardens	13	75	Continue
Lynn Street	Woodfords Gardens	13	75	Continue
Braintree Street	Woodfords Gardens	13	75	Continue
Beverly Street	Woodfords Gardens	13	75	Continue
Melville Street	W.P. Goss Land	12	46	Continue
Unnamed 1, Peaks Island	W.S. Trefethen Estate	13	97	Vacate
Reed Avenue, Peaks Island	W.S. Trefethen Estate	13	97	Continue
Extension Prince Avenue, Peaks Island	W.S. Trefethen Estate	13	97	Continue
Unnamed 3, Peaks Island	W.S. Trefethen Estate	13	97	Continue
Unnamed 2, Peaks Island	W.S. Trefethen Estate	13	97	Continue
Seashore Avenue Extension, Peaks Island	W.S. Trefethen Homestead Land	6	33	Continue
Third Street, Peaks Island	W.S. Trefethen Homestead Land	6	33	Continue
Second Street, Peaks Island	W.S. Trefethen Homestead Land	6	33	Continue
B Street, Peaks Island	W.S. Trefethen Homestead Land	6	33	Continue

Parallel and south of Prince Avenue
Also part of Skilling Farm Book 11 Page 97

From Reed East to high tide mark
Connects Reed & Prince

* As approved by the Portland City Council on 9/3/97.

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CUYLERLAND COUNTY
John B. O'Brien

BK 113326 PG 030

SECTION 14 BASIC STANDARDS

SOIL EROSION AND SEDIMENTATION CONTROL

INTRODUCTION

Atlantic Resource Consultants, LLC (ARC) has prepared the following soil erosion and sediment control plan for the proposed renovations and improvements to the Portland Housing Authority Riverton Park complex.

The project comprises maintenance and rehabilitation of paved areas, utility and drainage infrastructure in five of the six “circles” of housing units at the facility. Major redevelopment is proposed at the location of existing Circle 1 to construct a new 4-story mixed use residential and commercial building, and the associated access, parking utility and stormwater infrastructure. Redevelopment is also proposed at the existing Community Center site, which will be expanded to construct a new building and associated site improvements. A third area of redevelopment is proposed towards the south end of the site on Springbrook Way. The existing playground area will be demolished to construct a new maintenance facility at this location.

The project site is located on Riverton Drive, which extends from the south side of Forest Avenue approximately 1,000 feet west of the Maine Turnpike overpass. The total site area is just under twenty acres. The project will be phased to minimize the disruption to residents during the construction.

SITE HISTORY AND EXISTING SITE CONDITIONS

The project site is described as Lot 12, Block B of Tax Map 327 on the City of Portland tax maps and is located on the south side of Forest Avenue approximately 1,000 feet west of the Turnpike. Access to the facility is provided via Riverton Drive, and Springbrook Way, both of which are city streets.

The site was originally developed circa 1971 and provides multi-family housing units in a series of six “circles” throughout the property. Each circle has a central parking area, with pedestrian sidewalks leading to each unit. The facility is served by a private water distribution network that is connected to the Portland Water District public system at the entrance to the site. A gravity sewer system drains to a central pump station that is owned and operated by the City of Portland. A six-inch force main conveys sewage off-site to Forest Avenue, where it discharges to the municipal gravity system. Underground gas and overhead three-phase power services are provided within the on-site city streets and are served from Forest Avenue.

There is a shallow central valley that runs approximately east-west through the center of the property. A stream and associated wetland area convey surface runoff from both on-site and off-site areas through the site before discharging to the Presumpscot River approximately 1,800 feet to the west. The existing topography of the site slopes gently towards the central valley and drainage feature from all directions. An existing piped storm drain system extends through the property and discharges at several locations to the main and tributary drainageways.

Predominant surface soil types are mapped by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Windsor loamy sands, and Scantic and Buxton series silt loams. However, test pits and borings undertaken on the site in the areas mapped as Windsor soils contradict this mapping. It appears from these site-specific investigations that soils in this area are more consistent with the Buxton series map unit. These soils are finer grained and hence more poorly drained than the generalized NRCS mapping would suggest.

Natural resource mapping on the site was undertaken in March of 2022, to support the proposed development planning for the property. A jurisdictional stream and associated wetland were identified in the central valley that runs through the project site. There will be no impacts to on-site streams or freshwater wetlands.

EXISTING EROSION PROBLEMS

There are no existing erosion problems evident at the site.

CRITICAL AREAS

The critical areas in the proximity of the site are the delineated freshwater wetlands, drainage channels and stream. Wetlands and streams were delineated by ARC in March 2022 and are shown on the drawings that accompany this submission.

SOIL EROSION AND SEDIMENTATION CONTROL PLAN AIMS AND OBJECTIVES

The primary goals of the Erosion and Sediment Control Plan for the project are to minimize exposure of native soil materials during construction, to prevent soil erosion and sediment transport to downstream areas, receiving waters and natural resources. Measures will also be taken to ensure sediment is not tracked onto adjacent streets and that stockpiles of imported construction materials are protected from potential contamination. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. The "K" value is frequently used with the universal soil loss equation. The higher values are indicative of the more erodible soils. The relative K values of the mapped soils within the development area of the site are as follows:

Soil Name	Soil Description	K Value
Windsor Series*	Loamy sand	0.15
Scantic Series	Silt loam	0.28
Buxton/Lamoine Series	Silt loam	0.37

* Note that on-site investigations indicate that area mapped as Windsor are more accurately depicted as Buxton Series silt loams

Based on a review of the K values, the onsite soils in the area exhibit moderate susceptibility to erosion. This is due to the predominantly fine-grained, silty nature of the native material.

The primary emphasis of the Erosion and Sedimentation Control Plan to be implemented for this project is as follows:

- Construction Schedule – Major earth moving activities at the site will be scheduled for the late Spring and early Summer and will be started when a suitable weather window has been identified. This will minimize the potential for exposure of bare soil to inclement weather.
- Temporary Measures – Planning the project to have erosion resistant measures in place with measures to prevent erosion from occurring. The plan includes measures to intercept and convey runoff to temporary sediment control devices as the construction of the project occurs.
- Stabilization of areas denuded to underlying parent material to minimize the period of soil exposure.
- Stabilization of drainage paths to avoid rill and gully erosion.
- The use of on-site measures to capture sediment (hay bales/silt fence, erosion berms, etc.) before it is conveyed to sediment sumps.

DESCRIPTION AND LOCATION OF LIMITS OF ALL PROPOSED EARTH MOVEMENTS

The proposed project will require some stripping and grubbing for the construction in the redevelopment areas. There will be some limited tree cutting at the western side of the redevelopment area associated with the expanded Community Center building, but the remainder of the proposed work will be within the existing development footprint at the site. The native silt loam soils are not suitable for re-use, except possibly within landscaped areas of the site and then only if protected from excess moisture. We anticipate that the development will result in some net overall export of material from the areas under the new buildings and parking lots. If replacement fill is required in these areas, imported granular material, meeting the Maine DOT specification for Granular Borrow will be used.

SOIL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES

Construction Schedule

The primary and most proactive Best Management Practice for soil erosion and sediment control at the site is careful planning and phasing of construction tasks. The major earthwork activities have been broken into manageable phases in order to efficiently accomplish the necessary work while minimizing the risks associated with exposure of native fine-grained soils. The installation of Best Management Practices is integrated into the individual phases to ensure that effective diversion, cover and perimeter control measures are in place to protect the work area, limit soil exposure times and prevent transport of sediment to downstream areas.

It is anticipated that work on the site will begin in the Summer of 2023. This will allow for the major earthwork associated with the new building construction to be undertaken in the mid-summer months, when the risk of inclement weather is significantly lower.

Scheduling of the field work will be critical to minimizing potential soil erosion impacts. The Contractor will be responsible for selecting an appropriate weather window in which to commence the work to minimize erosion and sediment transport risk.

Temporary Erosion/Sediment Control Measures

As part of the site development, the Contractor will be obligated to implement the following erosion and sediment control devices. These devices shall be installed as indicated on the plans or as described within this report. For further reference on these devices, see the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers, Maine DEP, October 2016*.

The following are planned as temporary erosion/sedimentation control measures during construction:

1. Crushed stone stabilized construction entrances will be placed at any construction access points from adjacent streets, and at interior locations shown on the phasing plans. The locations of the construction entrances shown on the drawings should be considered illustrative and will need to be adjusted as appropriate and located at any area where there is the potential for tracking of mud and debris onto existing roads or streets. Stone stabilized construction entrances will require the stone to be removed and replaced, as it becomes covered or filled with mud and material tracked by vehicles exiting the site.
2. Silt fence shall be installed down slope of any disturbed areas to trap runoff borne sediments. The silt fence shall be installed per the detail provided in the plan set and inspected immediately after each rainfall, and at least weekly in the absence of significant rainfall. The Contractor shall make repairs immediately if there are any signs of erosion or sedimentation below the fence line. If such erosion is observed, the Contractor shall take proactive action to identify the cause of the erosion and take action to avoid its reoccurrence. Proper placement of stakes and keying the bottom of the fabric into the ground is critical to the fence's effectiveness. If there are signs of

undercutting at the center or the edges or impounding of large volumes of water behind the fence, the barrier shall be replaced with a stone check dam and measures taken to avoid the concentration of flows not intended to be directed to the silt fence. Wood chips from clearing can be used in front of the silt fence to provide an extra margin of safety and security for the silt fence. This practice is encouraged, provided the chips are removed when the fence is removed. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be properly anchored a minimum of 6" per the plan detail and backfilled. Silt fence shall be installed along the downgradient side of construction work areas, with locations being adjusted along with the construction phasing areas. The Contractor may use erosion mix in place of single row silt fence barrier.

3. Twin rows of siltation fence with hay bales shall be installed at the foot of steep slopes and adjacent to protected natural resources (wetland areas).
4. Erosion Control Mix - Erosion control mix is a dense, processed mixture of intertwining shredded wood fragments and grit that will stabilize a site immediately without vegetation. This product may be used in place of silt fence to protect downstream areas not adjacent to natural resources. Erosion control mix consists primarily of organic material and may include: shredded bark, stump grindings, or partially composted wood products and shall be placed to form berms in accordance with the detail on the plan set. Care shall be taken to ensure berms are level and provide an even depth of protection throughout the length of the berm. The Contractor shall make repairs immediately if there are any signs of erosion or breaches in the berm, and supplement berms with additional material if settlement is observed.
5. Stone check dams, silt logs, or hay bale barriers will be installed at any evident concentrated flow discharge points during construction and earthwork operations.
6. All slopes steeper than 4:1 shall receive erosion control blankets, or temporary riprap stabilization. Where temporary riprap is used, slopes shall be stabilized with loam, seed and erosion control blanket, or sod when the riprap is removed for final stabilization. Slope stabilization fabric shall be a fully biodegradable double net, coir fiber blanket, anchored in accordance with manufacturers recommendations.
7. Areas of visible erosion and the temporary sediment sumps shall be stabilized with crushed stone. The size of the stone shall be determined by the Contractor's designated representative in consultation with the Owner.
8. Temporary sediment sumps and sediment basins will provide sedimentation control for stormwater runoff from disturbed areas during construction until stabilization has been achieved. The sides and floors of sediment basins shall be stabilized with geotextile fabric laid over prepared subgrade materials. Outlets shall be as shown on the construction drawings and shall include sand filters around all risers and outlet pipes.
9. Dirtbags™ will be required to be on site and available for construction dewatering. The Contractor will be required to provide four Dirtbags™ with one prepared for operation prior to commencing any trenching operations.
10. Silt logs may be used in areas where sheet flow drains off impervious surfaces to spread and filter the flow. Silt logs should be anchored in accordance with manufacturer recommendations.

Special Measures for Summer Construction

The summer period is generally optimum for construction in Maine, but it is also the period when intense short duration storms are most common, making denuded areas very susceptible to erosion, when dust control needs to be the most stringent, and when the potential to establish vegetation is often restricted by moisture deficit. Dust control is particularly critical at this site due to the excessively drained nature of the no-site soils and the proximity of neighbors to the site. During these periods, the Contractor must:

1. Implement a program to apply dust control measures on a daily basis except those days where precipitation is sufficient to suppress dust formation. This program shall extend to and include adjacent streets.
2. Spray any mulches with water after anchoring to dampen the soil and encourage early growth. Spraying may be required several times. Temporary seed may be required until the late summer seeding season.
3. Cover stockpiles of fine-grained materials, or excavated soils which are susceptible to erosion. To protect from the intense, short-duration storms which are more prevalent in the summer months.
4. Take additional steps needed, including watering, or covering excavated materials to control fugitive dust emissions to minimize reductions in visibility and the airborne disbursement of fine-grained soils. This is particularly important given the potential presence of soil contaminants, and the proximity of along the adjacent streets and properties.
5. These measures may also be required in the spring and fall during the drier periods of these seasons.

Special Measures for Winter Construction

The winter construction season runs from November 1st through April 15th, however little or no vegetation growth can be anticipated after October 15th. Additional stabilization measures should be provided in the Fall (by November 15th) in preparation for winter conditions and permanent seeding should occur at least 45 days before the first killing frost. More frequent site inspections and BMP maintenance should be scheduled at the site towards the end of winter in preparation for the Spring thaw. The following additional winter measures should be taken:

- **Overwinter Hay Mulch** should be applied at double the normal rate (150 pounds per 1000 square feet or 3 tons/acre) and should be anchored with netting (peg and twine) or a tackifier to prevent mulch displacement before freezing conditions. No soil should be visible through the mulch. Hay mulch cannot be applied over snow.
- **Dormant Seeding and Mulch** should be applied at 3 times the specified amount after the first killing frost. All dormant seeding beds should be covered with overwinter mulch or an anchored erosion control blanket.
- **Temporary vegetation** should be applied by October 1st (to prepare for winter conditions) with winter rye at 3 pounds per 1000 square feet and mulched with anchored hay at 75 pounds per 1000 square feet or with erosion control blanket. If the rye fails to grow at least three inches and have 75% coverage by November 1st, the area should be stabilized for overwinter protection.
- **Erosion control mix** is the best overwinter cover, but is not recommended for slopes steeper than 1:1 or in areas with flowing water.
- **Erosion Control Blankets** should be used on slopes where hay would be disturbed by wind or water. The matting should be installed, anchored and stapled in accordance with the manufacturer's recommendations. Full contact between the blanket and the soil is critical for an effective erosion control cover.
- **Riprap** should be properly sized and installed to ensure long-term stability. In the winter, newly constructed ditches and channels should be stabilized with riprap. Widening of the channel may be required to accommodate placement of stones. Angular riprap is preferred to round stone.
- **Sod** may be used for late-season stabilization (after October 1st), but it is not recommended for slopes steeper than 3:1 or in areas with groundwater seeps. Follow the supplier's instructions.

A brief Winter Construction Risk Analysis is included below:

Overwinter Construction Risk Analysis		
Subject	Risk	Mitigation
Increased precipitation with no vegetation uptake or evaporation	More surface runoff that can be directed to erosion control measures	Observation and frequent maintenance of BMPs, temporary dewatering deployment
Frozen Grounds	The soil loses its capacity to retain water and cause more surface runoff and potential erosion	Prompt cover and stabilization of exposed soils, maintenance of fill embankments and high traffic areas
Vegetative Ground Cover	Cannot be established outside of growing season.	Seed areas at least 45 days before first frost
Runoff Diversion	Snow or icing may clog diversion structures.	Observation, maintenance and clearing of snow from BMPs where practical
Sedimentation Basins	Can be overwhelmed by spring flows.	Install before ground is frozen, stabilize upstream areas prior to Spring thaw
Silt Fence	Difficult to install on frozen ground. Often fails during spring melt	Use erosion control mix berms if required during winter conditions
Erosion Control Blankets	Cannot be anchored on frozen ground	Install prior to frost, or replace with temporary riprap stabilization over winter
Hydro-seeding	Stabilizers are ineffective in cold temperatures	Install prior to winter
Vegetated Swales	Cannot be established outside of growing season	Establish and seed 45 days prior to first frost, stabilize with temporary riprap
Impervious Stabilization	Base gravel on driving/parking areas. Pavement cannot be installed in winter.	Install sacrificial surface where necessary, frequent winter maintenance of gravel surfaces
'Mud' Season	Spring thaw	Frequent preventative maintenance of BMPs, focus on stabilization prior to onset of thaw

Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

1. The drainage conveyance systems have been designed to intercept and convey the 25-year storm.
2. All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.), will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas where the finish grade slope is greater than 10 percent. Native topsoil shall be stockpiled and temporarily stabilized with seed and mulch and reused for final restoration when it is of sufficient quality.

3. Catch basins shall be provided with sediment sumps for all outlet pipes that are 12" in diameter or greater or where winter sand use is contemplated. A sediment collection bag shall be installed in all basins.

Timing and Sequence of Erosion/Sedimentation Control Measures

The following construction sequence shall be required to ensure the effectiveness of the erosion and sedimentation control measures is optimized.

Note that this project may be constructed in several phases to limit potential impacts to residents. The following construction sequence is required for each phase.

1. Install construction entrances.
2. Install safety and construction fence to secure the site for demolition.
3. Install all perimeter siltation fence and erosion control barriers. Particular attention shall be paid to areas upstream of protected natural resources and in the vicinity of the streams at the project site. Signs shall be erected periodically along these perimeter barriers indicating that the downstream areas are off limits to all construction activities.
4. Conduct site clearing and grubbing and/or demolition activities in accordance with project drawings and specifications.
5. Construct activities on the site to optimize the handling of materials and restrict the denuded areas to the time stipulated.
6. Stormwater BMPs may be excavated while construction is ongoing provided that no underdrain sand, filter soil material, or permanent outlet is installed. The excavations may be used as temporary sediment basins as long as protected, temporary outlets are installed per the project drawings
7. Construct and maintain stabilized pads for foundation and building and road construction. Do not allow subbase, or base gravels to be contaminated with fine material, silt, or construction debris
8. Maintain stabilized site access and working areas during building construction.
9. Install binder pavement and stabilized surface materials as soon as practical.
10. Grade, topsoil, seed and stabilize perimeter slopes as soon as possible after major earth moving activities are complete.
11. Maintain access roads, laydown pads and entrances while building work is completed.
12. Landscape (loam and seed) exterior areas of the site.
13. Install curbing and surface pavement materials.
14. Install underdrain sand and filter soil materials and permanent outlet structures in stormwater BMPs as soon as all upstream contributing areas are stabilized.
15. Install striping, signage, and miscellaneous site improvements.
16. Review and punch the site.
17. Remove any temporary erosion control measures.

PERMIT REQUIREMENTS

This project will require review and approval by Federal, State and Local Regulatory Authorities. Permit approvals from these bodies may include specific conditions related to soil erosion and sediment control in addition to the standards described below. The Owner and Contractor will be responsible for review of, and adherence to any and all specific permit conditions applicable to the project, and these will become part of the Contract Documents for the project.

The scale and nature of the project will require coverage under the Maine Pollutant Discharge Elimination System (MPDES) General Permit - Construction Activity. The following procedures will be required to meet the minimum regulatory standards associated with this permit:

Preconstruction Conference

Prior to any construction at the site, representatives of the Contractor, the Project Engineer, the Owner, Regulatory Agency Representatives and the City of Portland shall meet to discuss the scheduling of the site construction and the designation of the responsible parties for implementing the plan. The Contractor shall be responsible for scheduling the meeting. Prior to the meeting, the Contractor will prepare a detailed schedule and a marked-up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. The Contractor shall conduct a meeting with employees and sub-contractors to review the erosion control plan, the construction techniques which will be employed to implement the plan and provide a list of attendees and items discussed at the meeting to the Owner. Three copies of the schedule, the Contractor's meeting minutes, and marked-up site plan shall be provided to the Owner.

Inspection of Soil Erosion and Sediment Control Measures

The Contractor shall prepare a list and designate by name, address and telephone number all individuals who will be responsible for implementation, inspection, and maintenance of all erosion control measures identified within this section and as contained in the Erosion and Sedimentation Control Plan of the contract drawings. Specific responsibilities of the inspector(s) will include:

- A weekly certification stating compliance, any deviations, and corrective measures necessary to comply with the erosion control requirements of this section shall be prepared and signed by the inspector(s).

Inspection of the project work site shall include:

1. Identification of proper erosion control measure installation in accordance with the erosion control detail sheet or as specified in this section.
2. Determine whether each erosion control measure is properly operating. If not, identify damage to the control device and determine remedial measures.
3. Identify areas which appear vulnerable to erosion and determine additional erosion control measures which should be used to improve conditions.
4. Inspect areas of recent seeding to determine percent catch of grass. A minimum catch of 90 percent is required prior to removal of erosion control measures.
5. All erosion controls shall be removed within 30 days of permanent stabilization except for mulch and netting not detrimental to the project. Removals shall include but not be limited to all silt fence, hay bales, inlet protection, and stone check dams.
6. Accumulated silt/sediment should be removed when the depth of sediment reaches 50 percent of the barrier height. Accumulated silt/sediment should be removed from behind silt fencing when the depth of the sediment reaches 6 inches.
7. Silt sacks should be removed and replaced at least every three months and at any time where the weekly inspection reveals that siltation has significantly retarded the rate of flow through the silt sack.
8. If inspection of the site indicates a change should be made to the erosion control plan, to either improve effectiveness or correct a site-specific deficiency, the inspector shall immediately implement the corrective measure and notify the Owner of the change.

A summary of standard Erosion Control Inspections is given in the table below. It is anticipated that inspection and maintenance tasks will be adapted throughout the project to reflect field conditions and construction progress:

EROSION AND SEDIMENT CONTROL MEASURES AND ACTIVITY	INSPECTION FREQUENCY		
	Weekly	Before & After a Storm	After Construction
SEDIMENT BARRIERS			
Sediment barriers are installed prior to soil disturbances	X	X	
Silt fences are keyed in and tight	X	X	
Barriers are repaired and replaced as necessary	X	X	
Barriers are removed when the site is stabilized - Silt fence should be cut at the ground surface			X
TEMPORARY STABILIZATION			
Areas are stabilized if idle for 14 days or more	X	X	
Daily stabilization within 100 ft of a natural resource	X	X	
MULCH			
Seed and mulch within 7 days of final grading. Ground is not visible	X	X	
Erosion control mix is 4-6 inch thick	X	X	
Erosion control blankets or hay mulch are anchored	X	X	
VEGETATION			
Vegetation provides 90% soil cover	X		X
Loam or soil amendment were provided	X		X
New seeded areas are mulched and protected from vehicle, foot traffic and runoff	X	X	X
Areas that will remain unworked for more than 1 year are vegetated with grass	X		
SLOPES AND EMBANKMENTS			
Final graded slopes and embankments are stabilized	X	X	X
Diversions are provided for areas with rill erosion	X	X	X
Areas steeper than 2:1 are riprapped	X		
Stones are angular, durable and various in size	X		
Riprap is underlain with a gravel layer or filter fabric	X		
STORMWATER CHANNELS AND CULVERTS			
Ditches and swales are permanently stabilized– channels that will be riprapped have been over-excavated	X	X	X
Ditches are clear of obstructions, accumulated sediments or debris	X	X	X
Ditch lining/bottoms are free of erosion	X	X	X
Check dams are spaced correctly to slow flow velocity	X		
Underlying filter fabric or gravel is not visible	X	X	X
Culvert aprons and plunge pools are sized for expected flows volume and velocity	X		
Stones are angular, durable and various in size	X		
Culverts are sized to avoid upgradient flooding	X	X	
Culvert protection extends to the maximum flow elevation within the ditch	X	X	X
Culvert is embedded, not hanging	X	X	X
CATCH BASIN SYSTEMS			
Catch basins are built properly	X		
Accumulated sediments and debris are removed from sump, grate and collection area		X	X

EROSION AND SEDIMENT CONTROL MEASURES AND ACTIVITY	INSPECTION FREQUENCY		
	Weekly	Before & After a Storm	After Construction
Floating debris and floating oils are removed from trap			X
ROADWAYS AND PARKING SURFACES			
The gravel pad at the construction entrance is clear from sediments	X	X	
Roads are crowned		X	X
Cross drainage (culvert) is provided	X		
False ditches (from winter sand) are graded		X	X
BUFFERS			
Buffers are free of erosion or concentrated flows		X	X
The downgradient of spreaders and turnouts is stable		X	X
Level spreaders are on the contour			X
The number of spreaders and ditch turnouts is adequate for flow distribution		X	X
Any sediment accumulation is removed from within spreader or turnouts		X	X
STORMWATER BASINS AND TRAPS			
Embankments are free of settlement, slope erosion, internal piping, and downstream swamping		X	X
All flow control structure or orifices are operational and clear of debris or sediments		X	X
Any pre-treatment structure that collects sediment or hydrocarbons is clean or maintained		X	X
Vegetated filters and infiltration basins have adequate grass growth			X
Any impoundment or forebay is free of sediment		X	X
WINTER CONSTRUCTION (November 1st-April15th)			
Final graded areas are mulched daily at twice the normal rate with hay, and anchor (not on snow)	Daily		
A double row of sediment barrier is provided for all areas within 100 ft of a sensitive resource (use erosion control mix on frozen ground)	Daily		
Newly constructed ditches are riprapped	Daily		
Slopes greater than 8% are covered with an erosion control blanket or a 4-inch layer of erosion control mix	Daily		
HOUSEKEEPING PUNCH LIST			
All disturbed areas are permanently stabilized, and plantings are established (grass seeds have germinated with 90% vegetative cover)			X
All trash, sediments, debris or any solid waste have been removed from stormwater channels, catch basins, detention structures, discharge points, etc.			X
All ESC devices have been removed: (silt fence and posts, diversions and sediment structures, etc.)			X
All deliverables (certifications, survey information, as-built plans, reports, notice of termination (NOT), etc.) in accordance with all permit requirements have been submitted to town, Maine DEP, association, owner, etc.			X

Maintenance of Soil Erosion and Sediment Control Measures

The following general maintenance requirements shall apply to the installed erosion control BMPs. Additional maintenance may be required based on field conditions, or at the recommendation of the Project Engineer, Third Party Inspector, Owners Representative, or regulatory authorities:

1. Stabilized Construction Entrances - Stone stabilized construction entrances will require the stone to be removed and replaced, as it becomes covered or filled with mud and material tracked by vehicles exiting the site.
2. The surface of the Runoff Diversion Trench shall be inspected on a weekly basis and cleared of any accumulating surface debris that could reduce the capacity of the BMP to divert surface water. The outlets should be inspected to ensure that groundwater flows are being adequately conveyed around the construction area.
3. The upgradient (diversion) silt fence barrier shall be repaired or replaced immediately if any breaches are found, or there are signs of undercutting. Sediment and debris shall be removed from the upstream side of the barrier periodically. The downstream ends of the barrier should be checked for any erosion caused by concentrated flows running along the barrier. These areas should be repaired immediately with stone check dams to prevent further damage.
4. Inlets and outlets of bypass culverts shall be cleared of accumulating debris and any signs of erosion shall be repaired immediately with riprap.
5. Riprap plunge pool outlets shall be cleared of debris and monitored for sediment accumulation. If sediment reaches a depth of six inches, it shall be removed, and the plunge pool repaired or re-constructed.
6. Silt Fence Barriers - The Contractor shall make repairs immediately if there are any signs of erosion or sedimentation below the fence line. If such erosion is observed, the Contractor shall take proactive action to identify the cause of the erosion and take action to avoid its reoccurrence. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind the fence, the barrier shall be replaced with a stone check dam and measures taken to avoid the concentration of flows not intended to be directed to the silt fence.
7. Silt Fence Haybale Barriers - The Contractor shall maintain the silt fence as described above. Should the central haybale barrier deteriorate, or show signs of contamination, the material shall be removed and replaced.
8. Erosion Control Mix - The Contractor shall maintain erosion control berms to ensure they remain level and continue to provide an even depth of protection throughout the length of the berm. The Contractor shall make repairs immediately if there are any signs of erosion or breaches in the berm, and supplement berms with additional material if settlement is observed.
9. Stone check dams, silt logs, or hay bale barriers installed at concentrated flow discharge points shall be inspected and cleared of accumulated debris periodically. If sediment accumulation is observed, this shall be removed when it reaches a depth of not more than six inches.
10. Slopes stabilized with erosion control blankets, or temporary riprap stabilization shall be inspected and repaired if any signs of rill erosion or stone displacement are observed. Sloughing of slopes or evidence of slip, rotational or base failure shall be reported immediately to the project engineer for design of remedial actions.
11. Any open graded areas of visible erosion and the temporary sediment sumps shall be stabilized with crushed stone. The size of the stone shall be determined by the contractor's designated representative in consultation with the Owner.
12. Temporary sediment sumps and sediment basins shall be inspected on a weekly basis. Routine maintenance shall include the removal of debris around inlets and outlets, repair of any uneven areas on basin berms, repair of any observed rill erosion in embankments and replacement of bench and outlet control filter material when slow drainage is observed.

13. Anchoring of silt logs shall be checked on a weekly basis. These shall be removed and replaced when clogged with sediment.
14. Mulched areas shall be repaired when ground is visible through the mulch layer. Anchoring of erosion control blankets and hay mulch shall be repaired if any evidence of separation is observed.
15. Vegetated areas shall be over-seeded and stabilized where 90% cover is not achieved.

Reporting Requirements

In addition to the weekly certifications, the inspector(s) shall maintain written reports recording construction activities on site which include:

1. Dates when major grading activities occur in a particular areas of the site.
2. Dates when major construction activities cease in a particular area, either temporarily or permanently.
3. Dates when an area is stabilized.
4. Inspection of the project work site on a weekly basis and after each significant rainfall event (0.25 inch or more within any consecutive 24-hour period) during construction until permanent erosion control measures have been properly installed and the site has been stabilized.
5. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

Record Keeping

1. All certifications, inspection forms, and written reports prepared by the inspector(s) shall be filed with the Owner, and the Permit File contained on the project site, and available for inspection and review upon request. All written certifications, inspection forms, and written reports must be filed within one (1) week of the inspection date.
2. Inspections Reports and Logs must be made accessible to regulatory agency staff and a copy must be provided upon request.
3. Copies of all reports must be kept on file and available upon request for a period of at least three years from the completion of permanent stabilization.

CONSTRUCTION PROCUREMENT AND ADMINISTRATION

The project will be constructed by a General Contractor under contract to the Owner/Applicant. The Contractor will submit a detailed schedule for the completion of the work, broken into specific tasks, with anticipated milestones and completion dates, at the start of construction. The project schedule will be reviewed at regular bi-weekly project meetings, with updates and amendments to be recorded in the project file.

The work will be conducted in sections which will limit the amount of exposed area to those areas in which work is expected to be undertaken during the next 30 days. Exposed areas will be covered and stabilized as rapidly as practical. All areas will be permanently stabilized within 7 days of final grading and temporarily stabilized within 7 days of initial disturbance or before a predicted storm event of over ½" of rain. The area of denuded, non-stabilized construction shall be limited to the minimum area practicable. An area shall be considered to be denuded until the subbase gravel is installed in parking areas, or the areas of future loam and seed have been loamed, seeded, and mulched, or stabilized with erosion control blanket.

The Contractor must maintain an accurate set of record drawings indicating the date when an area is first denuded, the date of temporary stabilization, and the date of final stabilization. On October 1 of any calendar year, the Contractor shall submit a detailed plan for stabilizing the site for the winter and a description of what activities are planned during the winter.

The Contractor must install any added measures which may be necessary to control erosion/sedimentation and fugitive dust emissions from the site, with adjustments made dependent upon forecasted and actual site and weather conditions.

The Contractor has sole responsibility for complying with the erosion/sediment control report, including control of fugitive dust, and shall be responsible for any monetary penalties resulting from failure to comply with these standards.

Once construction has been completed, long-term maintenance of the stormwater management system will be the responsibility of the applicant. Operations & Maintenance items with a list of maintenance requirements and frequency are listed in the Stormwater Maintenance Plan produced for this project.

Attachments

Attachment A – Sample Erosion Control Compliance Certification and Inspection Forms

ATTACHMENT A

Sample Erosion Control Compliance Certification and Inspection Forms

Soil Erosion and Sedimentation Control WEEKLY INSPECTION REPORT

Sheet ____ of ____

Project Name: _____

File No. _____

Inspection Date: _____ Time: _____ Inspected by: _____

STAGE OF CONSTRUCTION

____ Pre-Construction Conference ____ Rough Grading ____ Finish Grading
____ Clearing and Grubbing ____ Building Construction ____ Final Stabilization

INSPECTION CHECKLIST

Yes No NA

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| ☐ | ☐ | ☐ | Have Soil Erosion and Sediment Control BMPs been installed in accordance with the plans and/or specifications? |
| ☐ | ☐ | ☐ | Are SESC measures operating effectively? |
| ☐ | ☐ | ☐ | Have all SESC control repairs and sediment removal been performed? |
| ☐ | ☐ | ☐ | Are properties and waterways downstream from development adequately protected from erosion and sediment deposition |
| ☐ | ☐ | ☐ | Are soil and mud kept off public roadways at intersections with site access roads? |
| ☐ | ☐ | ☐ | Have all exposed areas requiring temporary or permanent stabilization been stabilized? |
| ☐ | ☐ | ☐ | Are soil stock piles adequately stabilized with seeding and/or sediment trapping measures? |
| ☐ | ☐ | ☐ | Is there evidence of scouring velocities in runoff from construction areas? |
| ☐ | ☐ | ☐ | Are sediment basins installed and operating where needed? |
| ☐ | ☐ | ☐ | Are finished cut and fill slopes adequately stabilized? |
| ☐ | ☐ | ☐ | Are on-site channels, inlets and outlets adequately stabilized? |
| ☐ | ☐ | ☐ | Do all operational storm sewer inlets have adequate inlet protection? |
| ☐ | ☐ | ☐ | Are storm water conveyance channels adequately stabilized with channel lining and/or outlet protection? |
| ☐ | ☐ | ☐ | Are utility trenches stabilized properly? |
| ☐ | ☐ | ☐ | Is there evidence of siltation, or sediment transport in receiving waterways? |
| ☐ | ☐ | ☐ | Have all temporary control structures that are no longer needed been removed? |

Report Date _____

Sheet ____ of ____

Comments: _____

Verbal/Written notification given to:

Name	Organisation	Email Address	Sent

Report by: _____ Date: _____

POST-RAINFALL INSPECTION REPORT

Sheet ____ of ____

Project Name: _____

File No. _____

Inspection Date: _____ Time: _____ Inspected by: _____

Total Rainfall Received: _____ Duration Of Storm Event: _____

STAGE OF CONSTRUCTION

____ Pre-Construction Conference ____ Rough Grading ____ Finish Grading
____ Clearing and Grubbing ____ Building Construction ____ Final Stabilization

INSPECTION CHECKLIST

Yes No NA

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| ☐ | ☐ | ☐ | Have Soil Erosion and Sediment Control BMPs been installed in accordance with the plans and/or specifications? |
| ☐ | ☐ | ☐ | Are SESC measures operating effectively? |
| ☐ | ☐ | ☐ | Have all SESC control repairs and sediment removal been performed? |
| ☐ | ☐ | ☐ | Are properties and waterways downstream from development adequately protected from erosion and sediment deposition |
| ☐ | ☐ | ☐ | Are soil and mud kept off public roadways at intersections with site access roads? |
| ☐ | ☐ | ☐ | Have all exposed areas requiring temporary or permanent stabilization been stabilized? |
| ☐ | ☐ | ☐ | Are soil stock piles adequately stabilized with seeding and/or sediment trapping measures? |
| ☐ | ☐ | ☐ | Is there evidence of scouring velocities in runoff from construction areas? |
| ☐ | ☐ | ☐ | Are sediment basins installed and operating where needed? |
| ☐ | ☐ | ☐ | Are finished cut and fill slopes adequately stabilized? |
| ☐ | ☐ | ☐ | Are on-site channels, inlets and outlets adequately stabilized? |
| ☐ | ☐ | ☐ | Do all operational storm sewer inlets have adequate inlet protection? |
| ☐ | ☐ | ☐ | Are storm water conveyance channels adequately stabilized with channel lining and/or outlet protection? |
| ☐ | ☐ | ☐ | Are utility trenches stabilized properly? |
| ☐ | ☐ | ☐ | Is there evidence of siltation, or sediment transport in receiving waterways? |
| ☐ | ☐ | ☐ | Have all temporary control structures that are no longer needed been removed? |

Report Date _____

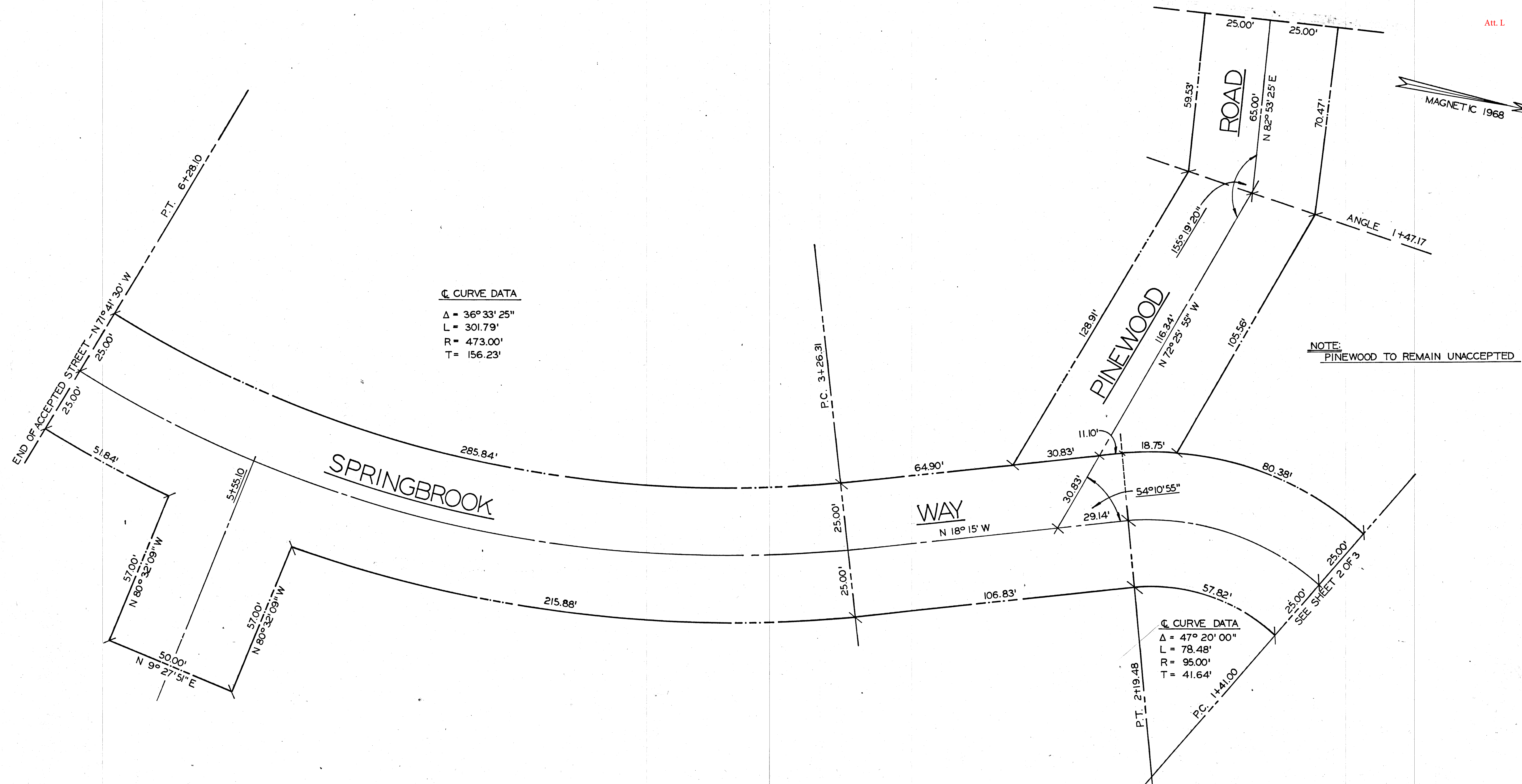
Sheet ____ of ____

Comments: _____

Verbal/Written notification given to:

Name	Organization	Email Address	Sent

Report by: _____ Date: _____



NOTES:

1. THIS PLAN COMPILED FROM FIELD SURVEY NOTES OF THE CITY OF PORTLAND PUBLIC WORKS DEPT.
2. STREET RIGHT-OF-WAY LINES DETERMINED FROM AS-BUILT ROADWAY LOCATIONS.
3. ALL STATIONING ALONG CENTER LINE.

SHEET 3 OF 3

CITY OF PORTLAND, MAINE
 DEPARTMENT OF PUBLIC WORKS

**PINEWOOD ROAD &
 SPRINGBROOK WAY**

DRAWN: C. HASKELL	REFERENCES:	SCALE:
TRACED: E. G. 11/5/73	L.B. 635	HORZ. 1"=20'
CHECKED: D. B. 11/6/73	T.B. 101	VERT. 1"=20'
DIRECTED:		
APPROVED:		
DATE: November 6, 1973	John P. O'Leary	493
	CITY ENGINEER	5

EXISTING REDEVELOPMENT AREA				
	Impervious Area (sf)	Impervious Area (acres)	Total Zone Area (within redevelopment)	Ratio (imp area/total area)
B-2	30363.9	0.697	1.475	47%
R-5A	18444.9	0.423	1.760	24%

PROPOSED REDEVELOPMENT AREA				
	Impervious Area (sf)	Impervious Area (acres)	Total Zone Area (within redevelopment)	Ratio (imp area/total area)
B-2	48358.6	1.110	1.475	75%
R-5A	40286.3	0.925	1.760	53%

4. Evidence of State or Federal Approvals

STATE LEVEL SITE PERMIT REQUIREMENTS

The area of site disturbance associated with the project exceeds one acre. This threshold triggers two State level permitting requirements:

- State of Maine Chapter 500 Stormwater Law applies to all projects disturbing greater than one acre of land. It is understood that the City of Portland has delegated review authority for Stormwater Law and that this permit will be reviewed through the city review process.
- Maine Pollutant Discharge Elimination System (MPDES) requires authorization for all construction projects disturbing one acre or more. A Notice of Intent (NOI) will be submitted to Maine Department of Environmental Protection (MDEP), requesting coverage under the MPDES Construction General Permit (2006). This form will be submitted at least 14 days prior to the start of construction.

Natural Resource Permitting

- The proposed project includes several activities adjacent to protected natural resources, specifically a freshwater wetland that contains 20,000 square feet of emergent marsh vegetation (also known as a Wetland of Special Significance (WOSS)) and a stream. The resources are associated with the large drainageway that runs through the center of the property. The referenced activities include the installation of roof dripline filters, minor site grading, installation of landscaping, stormwater outfall pipes, and two pathways. These activities are provided for within the Natural Resources Protection Act (NRPA) , Chapter 305 Permit by Rule, Sections 2 and 7. Chapter 305, Section 2 allows activities to occur within 75 feet of natural resources, but not within 25-feet. All proposed activities will meet the 25-foot setback requirements, except for the replacement of one stormwater outfall structure, which is located within 10 feet of the WOSS. Chapter 305, Section 7 states that the installation and/or replacement of an outfall pipe must utilize velocity reducing structures and/or rock aprons to prevent erosion and a vegetative filter strip of at least 25-feet long must be established and maintained between the outfall structure and the resource, but MDEP may waive the reduction in width if the waiver standards are met. It is our opinion that the project meets these standards and therefore all of the proposed activities qualify for coverage under a NRPA Permit-by-Rule application. This application will be submitted at least 14 days prior to the start of construction.

20. Consistency with City Master Plans

All portions of the proposed Site Plan have, to the best of our knowledge, have been designed to be consistent / compliant with City related Master Plans, the current Comprehensive Plan / Portland's Plan 2030, as well as with off premises infrastructure, including sewer and stormwater, streets, trails, pedestrian and bicycle network, environmental management or other public facilities.

The Project is consistent with and complements the following Goals as outlined in the Portland Plan 2030:

Policy Guide: Environment

7. Support Sustainable Land Use & Transportation Policies

- *“Continue to develop land use policies which support complete neighborhoods.”*

The project will provide Riverton Park with more affordable units, higher quality housing stock, community gathering places and plazas, community healthcare clinic, convenient resident service delivery spaces, recreation and green spaces, improved pedestrian infrastructure, and neighborhood retail opportunities. The project will allow more families to live close to services and transit (a METRO bus stop is located within 100 feet of the property along Forest Ave). Together, the Riverton Park Redevelopment and Rehabilitation project will support greater resident health and wellbeing, environmental sustainability, energy-efficiency, green energy production, community connectivity and walkability, youth development and education, entrepreneurialism, community services, accessibility, aging-in-place, and – last but certainly not least – affordability.

Policy Guide: Housing

3. Remove Housing Barriers

- *“Evaluate whether current zoning allows for new development consistent with historic patterns of form, density, and/or use, as well as whether it allows for priority growth areas.”* **Riverton Park currently contains multifamily rental apartments and associated services. The project proposes to modestly increase the overall number of rental units available to 182 units from 141, while also expanding services. The majority of these net new units and services will be in the area closest to the Forest Avenue corridor and the Forest/Riverside intersection, a priority growth node for evaluation in Portland's Plan 2030.**

4. Promote Sustainability

- *“Encourage energy efficiency in new construction and rehabilitation of our housing stock.”*
The rehabilitation will significantly improve the energy-efficiency of existing buildings

through new and upgraded windows, doors, roofing, continuous exterior insulation, air sealing, and mechanical/heating equipment. The new multifamily building, Building 1, will be significantly more efficient than a code-built building and aims to achieve Passive House certification, the world's leading standard in energy-efficient construction. The project will add rooftop solar photovoltaic (PV) panels to generate clean, renewable energy for the property. It will also include Electric Vehicle (EV) charging stations and low- or no-VOC materials.

8. Support Age-Friendly Housing Options

- *“Create, promote, and facilitate safe, affordable, and practical housing solutions that will meet the evolving needs of Portland residents as they age.”* The project will create approximately 19 accessible units for persons with a physical disability. At least 2% of units will serve persons with a sight- or hearing-impairment. To facilitate aging in place, the new multifamily building will be elevatorized and include a diversity of unit sizes, ranging from studios to three-bedroom units. Sitework will improve accessible routes throughout the site. Many resident services offered and community events at Riverton Park will be intergenerational and assist with aging-in-place. A full-time Resident Services Coordination (RSC) will also be available to assist older adults, including connecting them to local service providers as their needs evolve.

9. Adapt Affordable Housing

- *“Assess the capacity of existing affordable housing developments, many of which were built over four decades ago, to adapt to current best practices by improving energy efficiency and physical and social connections to surrounding neighborhoods.”*
The project will contribute to the physical revitalization of this deeply affordable multifamily community built in the early-70’s, which will significantly improve building energy-efficiency. The project will improve neighborhood connectivity to surrounding neighborhoods through the potential road extension of Pinewood Drive to Waldron Way. This will help reduce Riverton Park’s isolation caused by suburban-style cul-de-sacs in the short-term and, over the long-term, speculatively, help lay the foundation for potential street grid interventions.
- *“Pursue new opportunities for increased energy efficiency, increased densities, mixed incomes, and greater connectivity to surrounding neighborhoods.”* The project will increase energy-efficiency of the community (see “4. Promote Sustainability” above). The project will increase residential densities of the community to approximately 183 units from 141 units currently. The project will turn Riverton Park into a mixed-income community by increasing the number of affordable homes to 165 units while also adding 17 market-rate units. The project will improve connectivity to surrounding

neighborhoods through the potential road extension of Pinewood Drive to Waldron Way (see “9. Adapt Affordable Housing” above).

Policy Guide: Economy

2. Support Local Business Retention & Recruitment

- *“Pursue policies that create, nurture, and retain local businesses.”* A small neighborhood retail space is envisioned to encourage entrepreneurship among Riverton Park residents, offer additional services/amenities to this neighborhood, and/or incubate small local businesses.
- *“Support job creation and business growth through public initiatives, and private, institutional, and regional partnerships.”* PHA will draw on our extensive community partnerships to promote economic opportunities and/or small business incubation for the Riverton Park community, using the Community Center and neighborhood retail space to further these goals.

Policy Guide: Recreation & Open Space

4. Ensure Equity

- *“Pursue opportunities, in collaboration with partners, to create new open spaces in areas that are currently underserved.”* The project will create a new community plaza, recreation field, playground space, and basketball court at Riverton Park. Our on-site resident service partners will also utilize these spaces, including the Boys & Girls Club, Opportunity Alliance and others.
- *“Distribute community gardens, playgrounds, fields, public art, historic resources, and other program elements where the demand and need are greatest, and periodically assess demands and needs.”* The project proposes to create new community gardens, a new recreation field, a new community plaza, playground space, walking trails through forested areas, and upgrade the existing playground at Riverton Park.

Future Land Use

Priority Nodes & Corridors

“Priority nodes and corridors indicate areas that would be appropriate for new development to provide needed housing, businesses, and services proximate to transit, or areas that otherwise warrant some examination of potential for positive change in form and/or function.” The project is located off of Forest Avenue, a Priority Corridor, and very close to the Forest Avenue/Riverside Drive intersection, a Priority Node. A METRO Transit Stop is located on Forest Avenue within 100 feet of the Riverton property


ZONING ANALYSIS Relevant Zone(s) B-2 Community Business
All Projects:

	Required	Proposed
Lot Size	n/a	+/-1.52 ac
Area Per Dwelling Unit	1,000 (400*)	1122sf/du(59du)
Minimum Street Frontage	20 ft	+/-380 ft
Front Yard Minimum	0 ft	0 ft
Front Yard Maximum	10 ft	varies**
Rear Yard	10 ft	min.10 ft*
Yard Right	0 ft	min.10 ft*
Yard Left	0 ft	min.10 ft*
Side Street Setback	n/a	n/a
Step Back	side 5ft, rear 15ft	see arch plans
Maximum Lot Coverage	n/a	n/a
Minimum Lot Coverage	n/a	n/a
Maximum Height	45ft (70ft*)	52-7"
Open Space		
Maximum Impervious Area	***	<80%
Pavement Setback	n/a	
Floor Area Ratio		
Off Street Parking Spaces	resi: 1 ps/du	71 ps
Loading Bays	n/a	n/a
Other 1		
Other 2		
Other 3		

Bldg 1 - Off St Parking

59 residential

8 clinic

2 office

2 HC residential (B5)

71 PS

Retail : (2 - 30 min PS on street)

* 18.2.4 (B)density + dimensional bonuses and reductions** 7.5.5.F.3 (B+F)

Maximum front setbacks

*** Impervious surface (max)

residential: none

other: 80%

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	increase	70'	52'-7"
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):			

21. Public Safety and Fire Prevention

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

a. Physical Features – The placement and design of physical features shall maximize visibility to allow for surveillance opportunities to and from site features such as entrances and exits, walkways, assembly areas, corridors, stairways, windows, parking lots, landscaping, fences or walls, and any other physical attributes. **To the best extent possible the site has been designed to allow for clear sightlines and adequate surveillance. Due to the clustered configuration of Riverton Park buildings, the number of occupants and staff, and its adjacent location to two public streets (Riverton Drive and Springbrook Way), there are lots of “eyes” (i.e. casual surveillance) throughout this property. Sidewalks are set back from the perimeter of the building to allow for clear lines of sight for pedestrians and avoid blind corners. All pedestrian paths are clearly marked and will be lit with a combination of street lighting and building mounted lights. All entries and exits to the building are clearly marked, and these all egress into an open public area void of any hiding spots. For the existing townhome buildings, front porches will encourage interaction between neighbors and a sense of ownership. Common areas, such as the Neighborhood Center and the pedestrian plaza in front of the Circle 1 building, will encourage socializing and activity support. There will be clear sightlines to the basketball court from multiple directions.**

b. Lighting – The lighting of the site and building shall meet the City’s technical standards for site lighting, as detailed in Section 12 of this manual, and enable users to observe movement and activities on the site during the day and at night. Motion sensor activated lighting is permitted to provide adequate illumination of the site at night while still complying with applicable lighting curfew standards of Section 12 of the Technical Manual. Specifically, the lighting plan should satisfy the following criteria:

i. Create nighttime illumination of pedestrian travel paths and gathering areas, entrances and exits, and parking lots and garages by achieving the following: **The site lighting has been designed to meet the City standard.**

- Provide a clear view of an area from a distance and enable anyone moving in or immediately around it to be easily seen. **Provided. All spaces + entry/exit points of the site/building are clearly delineated and visible from the parking areas, building and streets. All access points to buildings will have canopy lighting in addition to general site lighting.**

- Deny potential hiding spaces adjacent to existing and proposed pedestrian travel routes. **Provided / accomplished. Any of these potential areas are lit.**
- Permit facial identification at a distance of at least 30' and create the perception of being identified. **Provided. Lighting to meet City standards should provide this.**

c. Mechanical Surveillance Systems – If necessary, mechanical surveillance systems such as CCTV may be installed to monitor areas not easily observed such as parking lots and garages. **Riverton Park currently has a security camera system that is approximately three years old. The redevelopment and rehabilitation project will upgrade and expand this system. New buildings will also have an updated security camera system to surveil public entries, egress points, building perimeter and general pedestrian circulation. Cameras may also be installed to monitor areas not easily observed such as parking lots and drive-under parking. Exact camera locations have yet to be determined. The property will continue to have a license plate reader, which has already assisted Portland Police Department in identifying perpetrators, and will help deter unwanted activity in the future.**

Access Management: Site plans shall be designed to provide visible pathways and to offer proper guidance for legitimate users to access the site and to discourage unauthorized use of the site. **All pathways are visible from the street and or buildings. Public entry points are clearly labeled well-lit and monitored by surveillance cameras. All exit egress points discharge into an open public space will have a night exit function preventing any re-entry from outside.**

a. Orientation and Wayfinding – The site shall be designed so that the layout, features and/or signage clearly guide the movement of vehicles and pedestrians along safe and predictable paths both during the daytime and nighttime. Specifically, the site plan shall satisfy the following criteria:

- Placement of signage, lighting fixtures, landmarks, and landscape design features shall clearly guide users to and from the facility. **Provided. Lighting is located at building points and along parking areas/walkways and other gathering locations. Landscaping is along edges and designed to stay low and prevent blocking of visibility. Building signage will be illuminated from dusk until dawn.**
- Site features shall be designed to avoid the creation of entrapment zones that afford users no opportunity to escape or retreat from an approaching hazard. **None provided. Entrapment zones have been prevented by building and site design layouts.**

b. Mechanical Access Control – If necessary, mechanical access control systems may be implemented such as assigning personnel at key building entry points or establishing other

procedures such as mechanical auto closing devices, key cards, gates and other locking devices. **Secure access to the building is provided to residents and staff only.**

Territorial Reinforcement: Proposed developments shall be designed to clearly delineate private, semi-private, and public space. **Provided. Sidewalks are public; parking lots and front stoops are semi-private; and resident front porches and rear stoops are private. Care has been taken to provide separation of public and private spaces through site design and signage; building entry delineation by lighting and signage; and porches and stoops by physical walls and material.**

FIRE HYDRANT STANDARDS

All development constructed within the limits of the City of Portland shall have a hydrant within five hundred (500') feet of all structures. **There are existing hydrants within the project boundary: two hydrants on Riverton Drive and two hydrants on Springbrook Way. Plus, one hydrant on Forest Avenue across from the project entrance.**

All hydrants, private and public, shall comply with city code Chapter 10 and Portland Water District standards. **To the best of our knowledge the hydrant meets District standards.**

Private hydrants shall be maintained by the property owner. A maintenance agreement, or other documentation if deemed acceptable by the Reviewing Authority, shall be required for all private hydrants. A follow-up will be conducted and a financial penalty will be levied for non-compliance. All compliances shall meet city code Chapter 10, which adopts by reference National Fire Protection Association (NFPA) #1 and #101. **Not applicable.**

6 ft. clear space shall be maintained around the circumference of fire hydrants, private or public, except as otherwise required or approved. **This standard will be met, see plans.**

SITE ACCESS STANDARDS

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 I5). **Not applicable.**

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. **Provided. Fire and emergency vehicles can access at least two sides of the new**

buildings. Circles 2-6 are existing and the rehab does not include new fire access. The existing level of access at the existing residential buildings slated for rehabilitation will be maintained.

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: **All new buildings will meet this standard. All buildings in Circles 2-6 are existing.**

- Building Height.
- Building Occupancy.
- Construction Type.
- Impediments to the Structures.
- Safety Features Provided.

Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure. **Provided for new buildings. Fire and emergency vehicles can gain access to within 50' of multiple doors of each building. All buildings in Circles 2-6 are existing and have front doors that are typically within 50' of the parking lot so access is good.**

Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access. **The only location on the site that has an overhead component that requires drive under is the Circle 1 building, which is 7'-4" clear. However, the rear of the building and parking lot can be accessed from the 12' wide access way between it and Building 5 or from the emergency access way from the adjacent 1884 Forest Avenue retail development. It is assumed that emergency access for ambulances will be through the main entrance, which is off the pedestrian plaza and has immediate access to the elevator.**

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

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

All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way. **Understood. See Architectural Plans.**

STANDARDS FOR EMERGENCY ACCESS LANES AND GATES

No inside turning radius shall be less than twenty-five (25') feet. **See Exhibit #32.**

No outside turning radius shall be less than one hundred (100') feet. **See Exhibit #32.**

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

At a meeting with Portland Fire on 12.2.2022 they approved a 12' wide access lane as depicted on the plans as long the ladder truck could maneuver it. See Exhibit #32.

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

Access lanes shall be engineered and maintained to support the weight of emergency vehicles during all weather conditions. **Provided on south sides of Circle 1 building, see Site Plan.**

Appropriate "No Parking" signs shall be posted in accordance with instructions from the Fire Department having jurisdiction, and a method of enforcing such provisions shall be provided. **Provided, see Site Plan.**

All gates shall be located a minimum of thirty (30') feet from the public right-of way and shall open inward to the site. **Not applicable.**

Fire department personnel shall have ready access to locking mechanisms on any gate restricting access to a fire lane. Proposed changes to access shall be preapproved by the Reviewing Authority. **Not applicable.**

The clear opening provided through all gates shall be two (2') feet wider than the traveled way. **Existing on adjacent property.**

Blockading of any emergency lane shall be done by gates which are secured by chain and padlock. Padlocks shall be a "Knox" lock. **Existing on adjacent property.**

Emergency lanes shall be maintained and made accessible for emergency use at all times. No parking of vehicles or other use that might obstruct the emergency access lane shall be permitted. An access maintenance agreement or other suitable document acceptable to the

Reviewing Authority shall be required (please refer to attached model access maintenance agreement at the end of this section).

The use of automatic gates such as the “Click2enter” systems requires prior approval from the Reviewing Authority. **Not applicable.**

ZONING ANALYSIS Relevant Zone(s) B-2 Community Business

All Projects:

	Required	Proposed
Lot Size	n/a	+/-1.52 ac
Area Per Dwelling Unit	1,000 (400*)	1122sf/du(59du)
Minimum Street Frontage	20 ft	+/-380 ft
Front Yard Minimum	0 ft	0 ft
Front Yard Maximum	10 ft	varies**
Rear Yard	10 ft	min.10 ft*
Yard Right	0 ft	min.10 ft*
Yard Left	0 ft	min.10 ft*
Side Street Setback	n/a	n/a
Step Back	side 5ft, rear 15ft	see arch plans
Maximum Lot Coverage	n/a	n/a
Minimum Lot Coverage	n/a	n/a
Maximum Height	45ft (70ft*)	52-7"
Open Space		
Maximum Impervious Area	***	<80%
Pavement Setback	n/a	
Floor Area Ratio		
Off Street Parking Spaces	resi: 1 ps/du	71 ps
Loading Bays	n/a	n/a
Other 1		
Other 2		
Other 3		

17.72 AC TOTAL LOT / 16.20AC R5A ZONE

* residential = min. 6,000 sf
places of assembly >10,000 sf = min. 1ac

** 18.2.4 (B)
density + dimensional bonuses and reductions

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		

17.72 AC TOTAL LOT / 16.20AC R5A ZONE

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height	increase	70'	52'-7"
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):			

22. Availability and Adequacy of Public Utilities

Water

The Riverton Park site is served by a private water distribution system that is connected to the Portland Water District system via a meter pit at the entrance to the site. The private system consists of 8" diameter mains that run along Riverton Drive and Springbrook Way, with branch mains and services extending to buildings in each of the "circles". Fire hydrants are located off the mains throughout the facility. The water system was constructed circa 1971 and few, if any issues have been reported with the mains. The branch mains that serve each "circle" have failed on a number of occasions and sections of these smaller pipes have been repaired and/or replaced over the years. The base project proposes replacement of all elements of the private system with the exception of the 8" mains in the street. This includes the branch mains, services to each of the buildings and the associated valves, fittings and appurtenances. A project alternate will include replacement of the mains and hydrants with new PVC or HDPE piping, if funding is available.

Sewer

The facility is served by a gravity sewer system that includes private service piping and manholes within each of the circles that drains to public gravity mains in the city streets. The gravity system drains to a central pump station adjacent to the drainage feature that runs through the property. This discharges, via a force main that runs along the west side of Riverton Drive and out onto Forest Avenue where it connects to the continuing gravity system in the street.

The project proposes replacement of all private sewer service piping and manholes, and new services for the proposed new buildings. No work is proposed on the public gravity system in the streets. It is understood that the city has plans to renovate the existing sewer pump station. This work will be designed to handle flows from the additional proposed residential units at the site. The applicant has been working with city staff to correlate flow estimates in advance of this work.

Power

Three phase electrical power is supplied to the site by Central Maine Power Company (CMP) via overhead lines on Riverton Drive. This system will remain in place, with some minor pole re-locations proposed in order to provide greater separation between the wires and the new Community Building. New transformers will be required to step down voltages appropriately for services to the new buildings. The applicant is working with CMP to coordinate these details.

Natural Gas

Natural Gas service to the site is provided by Until via mains in the streets and services to each of the current buildings. Minor modifications will be required to abandon some existing services and install new services where required to reflect the new layout. Major modifications to the gas system are not proposed.

5. Zoning Provisions

Land Use Code, Section 7.5.5 Setbacks, subsection Maximum front setbacks,

The applicant is requesting the Planning Authority and Planning Board to authorize use of a greater than 10' max. front setback for a portion of the new mixed-use building that fronts on Riverton Drive that is located in the B-2 zone.

Item B

The Planning Board or Planning Authority can approve a different front setback for irregularly shaped lots or lots with frontage greater than 40 feet in width provided the front setback is met to the maximum extent practicable.

Justification

The new Circle 1 building is proposed to be located on a section of the right-of-way that is a long broad curve. With the building being approximately 285' in length, the maximum 10' setback cannot be met over the entire length of the building. The building has been designed using standard construction angles that improve construction efficiency and do not create unusable interior spaces. The ground-floor retail component is located within the maximum 10' front setback to help activate the sidewalk and enhance the pedestrian experience in the central social node of Riverton Park. However, the main entry and residential wing are greater than 10' from the right-of-way. The Applicant and design team strongly believe that ground-floor residential units benefit from the greater separation from the street edge to provide more privacy, which make them better, more livable and more leasable units. The 'public' entries to first floor retail suites are within the max. 10' front setback.

The lot has greater than 40' of road frontage.

Item F

Where setbacks exceed 10, a continuous, attractive, and pedestrian scaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by the City arborist, and a combination of landscaping no less or stone walls, or ornamental fencing.

Justification

For the proposed section of the new building that is not within the max. 10' front setback the following is proposed to create a pedestrian scale edge:

- 12 street trees spaced 15' on-center
- 8' wide landscape bed

Wednesday 15th March 2023

Brad Roland, PE
City of Portland Department of Public Works
Engineering Department
212 Canco Road
Portland, Maine 04103
Via Email to: brad@portlandmaine.gov

RE: New Development Project – Riverton Drive, Portland, Maine

Dear Brad,

On behalf of our client, Portland Housing Authority, we are requesting confirmation that the City of Portland has the ability to serve the referenced project for sewage disposal.

The project consists of improvements to the existing PHA multi-family residential complex including:

- Renovation of existing multi-family buildings in several of the existing "circles".
- Demolition of four multi-family buildings and replacement with a new mixed use structure containing apartments, health care services, and retail use (Building 1 on the attached plan)
- Demolition of the existing Community Building to construct a new larger building with expanded facilities (Neighborhood Building on the attached plan)

A location map showing the site is attached for your information.

We developed existing and proposed sewer flow estimates to assist the city in planning for the proposed upgrades to the city owned and operated pump station that is located at the site. This indicates that the proposed project will produce an increase of approximately 3,800gpd of sewer flow at the site. A summary of these calculations is attached for your information.

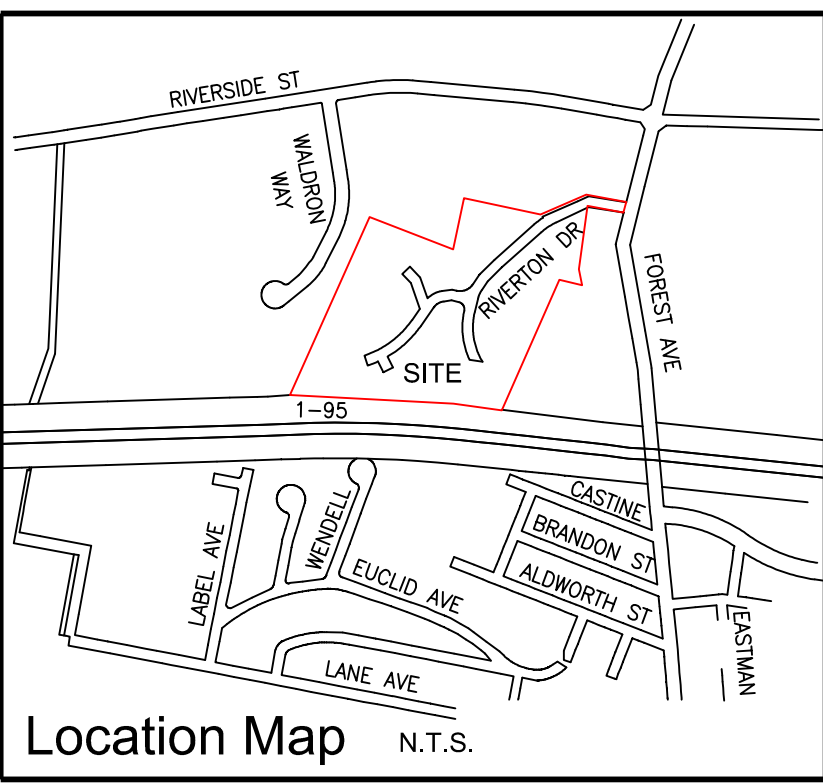
Please contact me with any questions you may have about the project, or the attached information.

Regards,



Atlantic Resource Consultants
Andrew Johnston, PE, LEED AP, CEng, CEnv, MCIWEM
Principal

Cc: Tyler Plante, Portland Housing Authority
File 19-033/Correspondence



Location Map N.T.S.

UNIT SUMMARY:			
DWELLING UNITS (DU)			
	EX DU	EX RESIDENT SERVICE UNITS	PROP DU
CIRCLE 1 :	24 DU	0 SU	59 DU
CIRCLE 2 :	24 DU	6 SU	29 DU
CIRCLE 3 :	28 DU	2 SU	28 DU
CIRCLE 4 :	24 DU	0 SU	24 DU
CIRCLE 5 :	17 DU	1 SU	18 DU
CIRCLE 6 :	24 DU	0 SU	24 DU
	141 DU	9 SU	182 DU

PARKING SUMMARY:		
OFF-STREET	EX	PROPOSED
BUILDING 1 :	25	72
CIRCLE 2 :	38	34
CIRCLE 3 :	38	33
CIRCLE 4 :	35	26
CIRCLE 5 :	25	25
CIRCLE 6 :	27	26
MAINTENANCE:	-	4
NEIGHBORHOOD CENTER:	6	11
	194	231
ON-STREET		
RIVERTON DR.	45-51 PS	
SPRINGBROOK WAY	34-39 PS	
PINEWOOD DR.	8 PS	
APRIL-NOV	±87-98 PS	
NOV-APRIL	±43-49 PS	
TOTAL AVAILABLE:	VARIES	

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

264 US Route One, Suite 100-2A
Scarborough, ME 04074
OFFICE: 207.774.4441 CWSARCH.COM

DRAFT

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

OWNER

RIVERTON PARK, LP
14 BAYTER BLVD
PORTLAND, MAINE 04101

APPLICANT

RIVERTON PARK, LP
14 BAYTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

AWIN

MASTER PLAN

CWS PROJECT NUMBER: 15.021

REVISIONS

1 FOR SCHEMATIC DESIGN/PRICING 01.17.2022

DRAWING NUMBER

C1.0

SCALE:

AS SHOWN

DATE:

1/12/2019

Riverton Sewer Flow Calculations

Current Site				
Unit Numbers	Building 1 - New Building	Circles - Existing Buildings	MSHA/HUD Assumed Household Size	Residents
0-Bed	0	0	1	0
1-Bed	0	0	1.5	0
2-Bed	0	21	3	63
3-Bed	0	68	4.5	306
4-Bed	0	26	6	156
5-Bed	0	20	7.5	150
6-Bed	0	6	9	54
Total Residents (assumes 100% occupancy)				729

Proposed Site				
Unit Numbers	Building 1 - New Building	Circles - Existing Buildings	MSHA/HUD Assumed Household Size	Residents
0-Bed	8	0	1	8
1-Bed	13	0	1.5	19.5
2-Bed	16	22	3	114
3-Bed	22	49	4.5	319.5
4-Bed	0	26	6	156
5-Bed	0	20	7.5	150
6-Bed	0	6	9	54
Total Residents (assumes 100% occupancy)				821

Increase in Resident Capacity = 12.62%

Actual Current Breakdown of Household Numbers

Residents per Household	Number of Units	Total Residents
1	6	6
2	19	38
3	23	69
4	21	84
5	21	105
6	12	72
7	3	21
8	1	8
9	2	18
10	5	50
11	1	11
12	1	12
TOTAL CURRENT RESIDENTS		494

115 Units Occupied - 81% Occupancy Rate

Estimated Current Average Daily Flow to Pump Station

Average daily sewer flow - Resident@70gpppd =

34580 gpd

Average daily sewer flow - 11.5FTE Staff@10gpppd =

115 gpd

Infiltration Allowance (500gpd/in/mile old pipe, 250gpd/in/mile new pipe)

Infiltration Rate- gpd/in/mile	Size	Miles	Total Infiltration(gpd)
500	6	0.261	782
500	8	0.158	631
500	10	0.234	1168
TOTAL INFILTRATION ALLOWANCE			2580

Total Estimated Current Daily Flow to Pump Station

37275 gpd

Estimated Future Average Daily Flow to Pump Station

Assume 12.6% increase in resident population= 556 residents

Average daily sewer flow - Resident@70gpppd =

38920 gpd

Average daily sewer flow - 16.5FTE Staff@10gpppd =

165 gpd

Infiltration Allowance (500gpd/in/mile old pipe, 250gpd/in/mile new pipe)

Infiltration Rate- gpd/in/mile	Size	Miles	Total Infiltration(gpd)
250	6	0.261	391
250	8	0.103	206
500	8	0.055	218
500	10	0.234	1168
TOTAL INFILTRATION ALLOWANCE			1983

Total Estimated Future Daily Flow at Pump Station

41068 gpd

NOTE: This is intended to be an estimate of actual flows to the Riverton Pump Station, developed from the Engineers best estimate of average daily flow rates

29th December 2022

AMAP Means Group, Portland Water District
225 Douglass Street
PO Box 3553
Portland, ME 04104-3553
Via Email to: means@pwd.org

RE: Riverton Park Community Improvements – Portland, Maine

Dear Means Group,

On behalf of our client, Portland Housing Authority (PHA), we are requesting confirmation that Portland Water District has the ability to serve the referenced project with water for domestic and fire protection use.

The project consists of improvements to the existing PHA multi-family residential complex including:

- Renovation of existing multi-family buildings in several of the existing “circles”.
- Demolition of four multi-family buildings and replacement with a new mixed use structure containing apartments, health care services, and retail use (Building 1 on the attached plan)
- Demolition of the existing Community Building to construct a new larger building with expanded facilities (Neighborhood Building on the attached plan)

The project is expected to generate an increase of approximately 13% in the residential capacity at the complex, as detailed on the attached spreadsheet. We anticipate an increase in domestic water demand at the site in line with the projected increase in population.

The existing facility is served by a private water system with connection to the PWD system at a meter pit, located in Riverton Drive. It is proposed that this will remain in place, with the extent of replacement and/or rehabilitation of the downstream private system yet to be finalized. We anticipate that the total number of private fire hydrants at the site will remain the same, although a number of these may be re-located to better serve the revised layout.

A location map showing the site is attached for your information.

Please feel free to contact me with any questions you may have about the project, or the attached information.

Regards,



Atlantic Resource Consultants
Andrew Johnston, PE, LEED AP, CEng, CEnv, MCIWEM
Principal

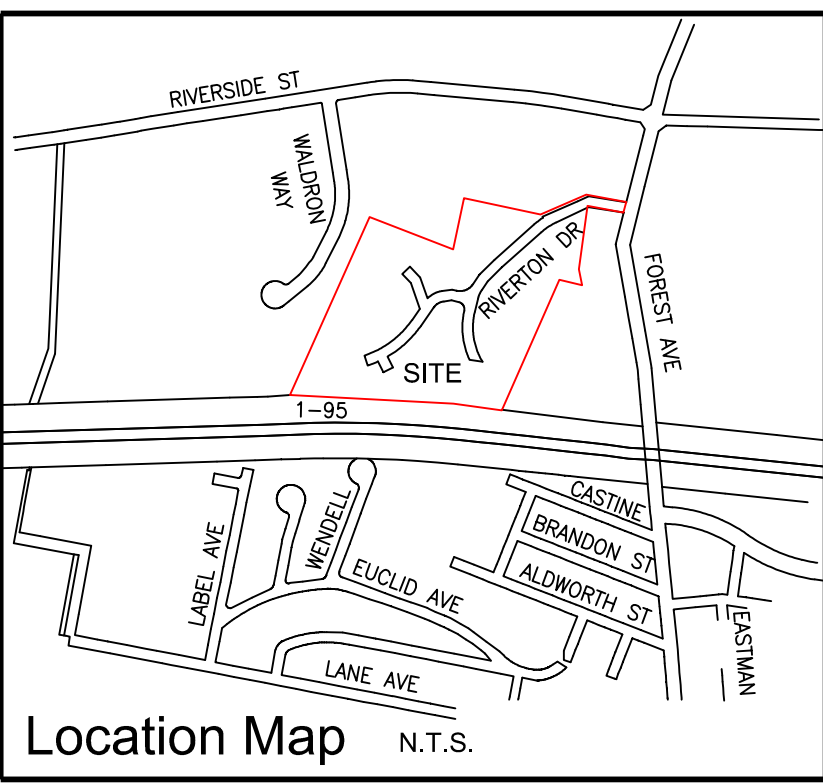
Cc: Tyler Plante, Portland Housing Authority
Matt Phillips, Carroll Associates
File 19-033/Correspondence

Riverton Park Improvements - Residential Summary

Current Site				
Unit Numbers	Building 1 - New Building	Circles - Existing Buildings	MSHA/HUD Assumed Household Size	Residents
0-Bed	0	0	1	0
1-Bed	0	0	1.5	0
2-Bed	0	21	3	63
3-Bed	0	68	4.5	306
4-Bed	0	26	6	156
5-Bed	0	20	7.5	150
6-Bed	0	6	9	54
Total Residents (assumes 100% occupancy)				729

Proposed Site				
Unit Numbers	Building 1 - New Building	Circles - Existing Buildings	MSHA/HUD Assumed Household Size	Residents
0-Bed	8	0	1	8
1-Bed	13	0	1.5	19.5
2-Bed	16	22	3	114
3-Bed	22	49	4.5	319.5
4-Bed	0	26	6	156
5-Bed	0	20	7.5	150
6-Bed	0	6	9	54
Total Residents (assumes 100% occupancy)				821

Increase in Resident Capacity = 12.62%



UNIT SUMMARY:			
DWELLING UNITS (DU)			
	EX DU	EX RESIDENT SERVICE UNITS	PROP DU
CIRCLE 1 :	24 DU	0 SU	59 DU
CIRCLE 2 :	24 DU	6 SU	29 DU
CIRCLE 3 :	28 DU	2 SU	28 DU
CIRCLE 4 :	24 DU	0 SU	24 DU
CIRCLE 5 :	17 DU	1 SU	18 DU
CIRCLE 6 :	24 DU	0 SU	24 DU
	141 DU	9 SU	182 DU

PARKING SUMMARY:		
OFF-STREET	EX	PROPOSED
BUILDING 1 :	25	72
CIRCLE 2 :	38	34
CIRCLE 3 :	38	33
CIRCLE 4 :	35	26
CIRCLE 5 :	25	25
CIRCLE 6 :	27	26
MAINTENANCE:	-	4
NEIGHBORHOOD CENTER:	6	11
	194	231
ON-STREET		
RIVERTON DR.	45-51 PS	
SPRINGBROOK WAY	34-39 PS	
PINEWOOD DR.	8 PS	
APRIL-NOV	±87-98 PS	
NOV-APRIL	±43-49 PS	
TOTAL AVAILABLE:	VARIES	

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

264 US Route One, Suite 100-2A
Scarborough, ME 04074
OFFICE: 207.774.4441 CWSARCH.COM

DRAFT

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

OWNER

RIVERTON PARK, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

APPLICANT

RIVERTON PARK, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

AWIN

MASTER PLAN

CWS PROJECT NUMBER: 15.021

REVISIONS

1 FOR SCHEMATIC DESIGN/PRICING 01.17.2022

DRAWING NUMBER

C1.0

SCALE:

AS SHOWN

DATE:

1/12/2019



April 20, 2020

Portland Housing Authority
Attn: Tyler Plante, Development Officer
14 Baxter Blvd Portland, Maine 04104

Subject: Riverton Park- Portland

Re: Ability to Serve

Dear Mr. Plante:

Thank you for your continued interest in using natural gas for the above referenced project.

This is to confirm that natural gas can continue to be made available from our distribution system to serve your proposed project.

There are no currently planned infrastructure improvements in the vicinity of this project. Any improvements to the existing distribution system necessary or to the existing services, as well as any potential design changes of the gas system within the project will be established as the design and scope of the project progresses. Once gas loads are provided, the evaluation can be completed.

If you have any further questions or require additional information, please contact me at 207-541-2536 or email at harmon@unitil.com.

Sincerely,

Bridget L. Harmon
Business Development Representative
Unitil Service Corporation
(O) 207-541-2536

ME GAS CUSTOMER ENERGY SOLUTIONS
376 Riverside Industrial Parkway
Portland, ME 04103

T 207-541-2508 www.unitil.com

6. Site Plan Standards Assessment

14.6 SITE PLAN REVIEW STANDARDS The reviewing authority shall not approve a site plan application unless the development proposal meets applicable standards of the City of Portland Technical Manual and the City of Portland Design Manual and the criteria below.

14.6.1 Transportation Standards

- A. *Impact on surrounding street systems* **Exhibit #11**
- B. *Access and circulation* **Exhibit #12**
- C. *Public transit access* **Exhibit #13**
- D. *Parking* **Exhibit #14**
- E. *Transportation Demand Management (TDM)* **Exhibit #15**

14.6.2 Environmental Quality Standards

- A. *Preservation of Significant Natural Features* **Exhibit #16**
- B. *Landscape Preservation* **Exhibit #17**
- C. *Site Landscaping and Buffers* **Exhibit #18**
- D. *Water Quality, Stormwater Management and Erosion Control* **Exhibit #19**

14.6.3 Public Infrastructure and Community Safety Standards

- A. *Consistency with City Master Plans* **Exhibit #20**
- B. *Public Safety and Fire Prevention* **Exhibit #21**
- C. *Public Utilities* **Exhibit #22**

14.6.4 Site Design Standards

- A. *Massing, Ventilation and Wind Impacts* **Exhibit #23**
- B. *Shadows* **Exhibit #24**
- C. *Snow and Ice Loading* **Exhibit #25**
- D. *View Corridors* **Not applicable**
- E. *Historic Resources* **Not applicable**
- F. *Exterior Lighting* **Exhibit #26**
- G. *Noises and Vibration* **Exhibit #27**
- H. *Signage and Wayfinding* **Exhibit #28**
- I. *Zone Related Design Standards* **Exhibit #29**

To the best of our knowledge this project meets the current Site Plan standards. See exhibits 11-29 for specifics regarding individual Site Plan sections.

23. Massing, Ventilations + Wind Impacts

There is no expected impact on adjacent structures or public spaces due to massing, ventilation, or wind from any existing or proposed Riverton Park structure. The building mass of existing townhome buildings will have no increase on the current footprint of the buildings, and thus massing, ventilation and wind impacts will remain unchanged. The Circle 1 building is one story above the existing tree line, but the site topography drops as you traverse south down Riverton Drive. Winter winds may come from the Northwest along Riverton Drive and therefore current wind patterns will not be affected. The scale of both the Neighborhood Center and Maintenance Building is far below the tree line and will have no effect on natural wind patterns currently present on site.

6. Conditional Use Standards

Conditional uses are listed in Article 6 of the land use code. To be permitted, an applicant must demonstrate that these uses comply with general, use-based, and (if applicable) zone-based conditional use standards contained in Section 6.5 of the land use code.

Section 6.5 specifies when the Planning Board is designated as the reviewing authority, rather than the Zoning Board of Appeals. This application is for Planning Board reviews only.

The standards for all conditional uses are as follows:

Category: PLACES OF ASSEMBLY (>10,000 SF) IN R-5A
Proposed: Neighborhood Center (NC)

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

Traffic

PHA anticipates regular hours from 8:00am to 6:00pm all weekdays. Services will start in the morning (before school) and end after dinner time. The community is large and has over 300 under-18 youth currently, so demand for additional space for resident services, after school programs, and youth development programs is great. With PHA Property Management offices and B2 commercial space across Riverton Drive and on Forest Ave, the hours will be similar to surrounding uses.

Hours of Operation

Hours will be to accommodate users. Services will start in the morning (before school) and end after dinner time. The community is large so demand for additional space for resident services is great. With B2 commercial space across Riverton Drive and on Forest Ave the hours will be similar to surrounding uses.

Pavement

Proposed pavement is not substantially greater than any of the surrounding uses. The parking areas for the adjacent residential areas (Circle 1 + 2) and retail center on Forest Ave are of similar scale and character. The NC fits in well to the surrounding area.

Parking Spaces

Proposed parking for the NC is minimal. The NC fits in well with the surrounding area. The NC will be primarily for RP residents, most of whom will not drive to the NC, which will help reduce traffic and vehicular trips. Proposed pedestrian upgrades will improve safety and walkability to the NC.

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

The NC and all associated utilities, stormwater and other systems are being designed to meet current standards, Best Management Practices and user comfort in mind. The NC will not cause or create any unsanitary or harmful conditions.

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

The design and operation of the proposed NC will not have a substantially greater effect / impact on surrounding properties than those associated with surrounding uses or allowable uses in the zone. The NC is being developed on a portion of the site where the PHA Property Management offices and parking lot are currently located. The proposed will expand mainly to the south, further into the property with existing buffers to remain or be planted where possible. Other allowable uses could have been proposed in this location with similar or greater impact. The NC fits in well to the surrounding area.

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

To the best of our knowledge, the proposed NC meets the current zone or use-specific standards.

Portland's Planning and Urban Development Department coordinates reviews for conditional use requests. All requests for conditional use shall be reviewed by the Planning Board for consistency with Portland's Comprehensive Plan.

Updated Section (below) as requested in City Review Memo dated 03/14/2023

Supplemental Use-Specific Conditional Use Standards

6.5.6(F) Institutional uses (excluding preschools)

1. The Planning Board shall be the review authority.

No response required.

2. In the case of expansion of existing institutional uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably

be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas.

Not applicable.

3. The proposed use shall not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or July 15, 1985 in the IR-1 and IR-2 zones, or thereafter.

Not applicable.

4. In the case of a use or use expansion which constitutes a combination of the conditional institutional uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative.

Not applicable.

5. In the case of community halls:

a. The structure shall have been in existence as of January 4, 2010.

Not applicable.

b. The structure shall have been built for institutional or other non-residential uses.

The proposed Neighborhood Center is for a place of assembly and non-residential uses.

c. The structure shall be operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes.

The proposed Neighborhood Center will be operated by Portland Housing Authority, a quasi-governmental entity with a not-for-profit purpose.

d. A parking management plan shall be submitted for review and approval by the Planning Board.

Parking for the NC is clearly depicted on sheet C3.1 Site Plan; it is a combination of a six-car lot to the north, a bus loop/drop-off with dedicated parking for five cars, and ample on-street parking. It is anticipated that most users of the Neighborhood Center will arrive on foot as Riverton Park residents, especially youth, will be primary users of the NC. Riverton Park residential units are within a close, walkable distance of the NC and the community is made more walkable and safer by proposed pedestrian upgrades. Parking is provided at all Circles at a minimum of 1 parking space per dwelling unit. If the above information does not suffice and a parking management plan is actually needed, this can be prepared and submitted at the next submission.

6. In the case of private club or fraternal organizations, any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall meet the minimum lot size requirement for places of assembly greater than 10,000 square feet.

Not applicable.

7. Post-secondary schools in the R-2 zone shall only be permitted on a collector or arterial road.

Not applicable.

8. In the case of a post-secondary school within the R-5 zone and not including the USM Overlay Zone, such school may build principal structures to a height of 55 feet if the following standards can be met:

Not applicable.

a. Minimum lot size: 10 acres which may include adjacent land owned by the institution on both sides of a public street.

Not applicable.

b. Minimum setback between buildings on-site: 20 feet.

Not applicable.

c. Minimum setback from external property boundary: 30 feet, except that parking garages over 35 feet in height must be located 50 feet from external property boundaries when adjacent to an adjoining residential use.

Not applicable.

d. The area between the structure and adjoining residential uses must be adequately screened with appropriate landscaping or other features to buffer the building and effects thereof (i.e. noise, light, etc.) from abutting properties.

Not applicable.



May 17, 2023

Tyler Plante, Development Officer
Portland Housing Development Corporation
14 Baxter Boulevard,
Portland, ME 04101

RE: Riverton Park Net New Trip Generation

Dear Tyler;

The purpose of this letter is to provide a “Net New” trip summary for the peak hour traffic volumes generated by the proposed apartments, resident service spaces and retail facilities at Riverton Park in response to the City of Portland’s consultant traffic engineer’s trip generation comments. See comment below.

“The applicant shall provide an estimate of the increase in peak hour traffic volumes with the proposed project considering all program elements (PHA Management offices, a new GPH Clinic, two small neighborhood retail stores, Neighborhood Center and Apartment units to be renovated). It should be based in ITE data and should account for bedrooms and other land use components noted above.”

Proposed Land Uses

The proposed Building 1 contains a total of 119 bedrooms, a 2,300square-foot (sf) clinic, 2,600sf of office space, and 2,350sf of retail space. Additionally, the existing community center will be expanded from 2,935sf to 12,000sf. The community center will be primarily for, and used by the 312 Riverton Park youth and teens. Approximately 6,500sf of the community center will be available on occasion to outside parties for non-commercial events.

While the renovations occurring within Circles 2 through Circle 6 are not estimated to generate any new trips, there are existing spaces in the buildings on Circle 2 and Circle 5 which will be redeveloped to add additional bedrooms to Riverton Park. In total, 15 new bedrooms will be added to Circle 2 and 1 new bedroom will be added to Circle 1. The number of bedrooms in the other existing buildings are expected to remain the same.

Site Trip Generation

Trip generation for the project has been estimated based upon the eleventh edition of the Institute of Transportation Engineer’s (ITE) Trip Generation Manual (TGM).

In this analysis, proposed trip generation calculations were performed for Building 1, the expanded recreation center, and the re-developed bedrooms in Circles 2 and 5. Existing trip generation calculations were performed for the existing residential building (72 bedrooms) on Circle 1 and the existing 2,935sf recreational community center. Following the proposed and existing trip generation

Riverton Park Trip Generation Letter

calculations we will calculate the “Net New” trips (proposed minus existing) in order to determine the number of trips that the development will produce.

Site trip estimates for the Riverton Park project are based upon the following land use codes (LUC): LUC #223 – Affordable Housing-Income Limits which is described in the ITE publication as: *all multifamily housing that is rented at below market rate*; LUC #495 – Recreational Community Center which is described as: *a stand-alone public facility similar to and including YMCAs that often include classes and clubs for adults and children*, LUC #630 – Clinic which is described as: *a facility that provides limited diagnostic and outpatient care but is unable to provide prolonged in-house medical and surgical care*; LUC #712 – Small Office Building which is described as: *an office space that typically houses one tenant with less or equal 10,000sf*, and LUC #822 – Strip Retail Plaza (<40k), described as: *an integrated group of commercial establishments that is planned, owned and managed as a unit*.

Proposed

The trip generation calculations for the proposed Building 1, recreational center expansion and bedrooms in Circle 2 and 5 are depicted below in Table 1.1 through Table 1.7.

Table 1.1 ITE Trip Generation Calculations - Building #1						
Land Use	Affordable Housing-Income Limits - LUC 223					
Time Period	Bedrooms	Trip Generation Rate Trips/Bedroom	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	N/A					
AM Weekday Peak Hour (Street)	119	0.45	54	37% / 63%	20	34
PM Weekday Peak Hour (Street)*	119	0.27	32	59% / 41%	19	13
AM Weekday Peak Hour (Generator)	119	0.45	54	26% / 74%	14	40
PM Weekday Peak Hour (Generator)	119	0.27	32	59% / 41%	19	13

ITE does not provide trip gen rates for PM peak hour of (street). Assumed similar to PM peak hour of (generator).

Riverton Park Trip Generation Letter

Table 1.2 ITE Trip Generation Calculations - Building 1						
Land Use	Clinic - LUC 630					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.3	37.60	86	50% / 50%	43	43
AM Weekday Peak Hour (Street)	2.3	2.75	6	81% / 19%	5	1
PM Weekday Peak Hour (Street)	2.3	3.69	8	30% / 70%	2	6
AM Weekday Peak Hour (Generator)	2.3	3.44	8	60% / 40%	5	3
PM Weekday Peak Hour (Generator)	2.3	4.22	10	46% / 54%	5	5

Table 1.3 ITE Trip Generation Calculations - Building 1						
Land Use	Small Office Building - LUC 712					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.6	14.39	37	50% / 50%	19	18
AM Weekday Peak Hour (Street)	2.6	1.67	4	82% / 18%	3	1
PM Weekday Peak Hour (Street)	2.6	2.16	6	34% / 66%	2	4
AM Weekday Peak Hour (Generator)	2.6	2.61	7	60% / 40%	4	3
PM Weekday Peak Hour (Generator)	2.6	3.15	8	42% / 58%	3	5

Table 1.4 ITE Trip Generation Calculations - Building 1						
Land Use	Strip Retail Plaza (<40k) - LUC 822					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.35	54.45	128	50% / 50%	64	64
AM Weekday Peak Hour (Street)	2.35	2.36	6	60% / 40%	4	2
PM Weekday Peak Hour (Street)	2.35	6.59	15	50% / 50%	8	7
AM Weekday Peak Hour (Generator)	2.35	7.60	18	50% / 50%	9	9
PM Weekday Peak Hour (Generator)	2.35	13.24	31	54% / 46%	17	14

Riverton Park Trip Generation Letter

Table 1.5 ITE Trip Generation Calculations - Resident Use Only						
Land Use	Recreational Community Center - LUC 495					
Time Period	Members (1000s)	Trip Generation Rate Trips/1000 Members	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday*						
AM Weekday Peak Hour (Street)	0.312	18.35	6	55% / 45%	3	3
PM Weekday Peak Hour (Street)	0.312	23.06	7	44% / 56%	3	4
AM Weekday Peak Hour (Generator)	0.312	26.07	8	26% / 74%	2	6
PM Weekday Peak Hour (Generator)	0.312	23.14	7	39% / 61%	3	4

*ITE does not publish Weekend Daily trip generation

Table 1.6 ITE Trip Generation Calculations - Public Use						
Land Use	Recreational Community Center - LUC 495					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	6.5	28.82	187	50% / 50%	94	93
AM Weekday Peak Hour (Street)	6.5	1.91	12	66% / 34%	8	4
PM Weekday Peak Hour (Street)	6.5	2.50	16	47% / 53%	8	8
AM Weekday Peak Hour (Generator)	6.5	1.85	12	63% / 37%	8	4
PM Weekday Peak Hour (Generator)	6.5	2.53	16	47% / 53%	8	8

Table 1.7 ITE Trip Generation Summary			
Land Use	Proposed Development Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	438	220	218
AM Weekday Peak Hour (Street)	95	43	45
PM Weekday Peak Hour (Street)	88	42	42
AM Weekday Peak Hour (Generator)	114	42	65
PM Weekday Peak Hour (Generator)	108	55	49

Table 1.7, above, shows that the proposed development is expected to generate 114 trips during the AM peak hour of the generator (site) and 108 trips during the PM peak hour of the site. In the following section we will calculate the trips generated by the existing uses which will be demolished/replaced by the proposed development.

Riverton Park Trip Generation Letter

Existing

The trip generation calculations for the existing residential building on Circle 1 and the existing recreational center are shown below in Table 2.1 through Table 2.3.

Table 2.1 ITE Trip Generation Calculations						
Land Use	Affordable Housing-Income Limits - LUC 223					
Time Period	Bedrooms	Trip Generation Rate Trips/Bedroom	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	N/A					
AM Weekday Peak Hour (Street)	72	0.45	32	37% / 63%	12	20
PM Weekday Peak Hour (Street)*	72	0.27	19	59% / 41%	11	8
AM Weekday Peak Hour (Generator)	72	0.45	32	26% / 74%	8	24
PM Weekday Peak Hour (Generator)	72	0.27	19	59% / 41%	11	8

ITE does not provide trip gen rates for PM peak hour of (street). Assumed similar to PM peak hour of (generator).

Table 2.2 ITE Trip Generation Calculations						
Land Use	Recreational Community Center - LUC 495					
Time Period	Square Footage (1 KSF)	Trip Generation Rate Trips/1 KSF	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	2.935	28.82	85	50% / 50%	43	42
AM Weekday Peak Hour (Street)	2.935	1.91	6	66% / 34%	4	2
PM Weekday Peak Hour (Street)	2.935	2.50	7	47% / 53%	3	4
AM Weekday Peak Hour (Generator)	2.935	1.85	5	63% / 37%	3	2
PM Weekday Peak Hour (Generator)	2.935	2.53	7	47% / 53%	3	4

Table 2.3 ITE Trip Generation Summary			
Land Use	Existing Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	N/A		
AM Weekday Peak Hour (Street)	38	16	22
PM Weekday Peak Hour (Street)	26	14	12
AM Weekday Peak Hour (Generator)	37	11	26
PM Weekday Peak Hour (Generator)	26	14	12

Riverton Park Trip Generation Letter

Table 2.3 shows that the existing residential building on Circle 1 and existing recreational center is estimated to generate a maximum of 38 trips during the AM peak hour of the (street) and 26 trips during the PM peak hour of the street and generator.

Net New Trips

Table 3, shown below, provides a summary of the net new trips produced by the proposed development.

Table 3 ITE Trip Generation Summary			
Land Use	Net New Trips - Trip Generation Summary		
Time Period	Trips Generated	Enter	Exit
Weekday	N/A		
AM Weekday Peak Hour (Street)	57	27	23
PM Weekday Peak Hour (Street)	62	28	30
AM Weekday Peak Hour (Generator)	77	31	39
PM Weekday Peak Hour (Generator)	82	41	37

In total, when accounting for the existing development that will be demolished and replaced with the proposed development, the Riverton Park project is expected to generate 57 trips during the AM peak hour of the (street), and 67 trips during the PM peak hour of the street. During the peak hours of the generator, the proposed development is forecasted to generate 77 net new trips in the AM peak hour and a maximum of 82 net new trips during the PM peak hour.

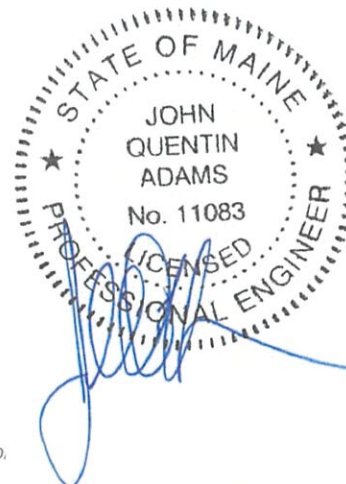
Summary

It is anticipated that the proposed project will generate a maximum of **82** net new trips during the PM peak hour of the (generator), and therefore remain below the 100 trip threshold required to trigger a MaineDOT Traffic Movement Permit application.

Best regards,

Jacob Sirois
Engineer 1
Barton & Loguidice

John Q. Adams, P.E., PTOE
Associate, Senior Transportation Engineer
Barton & Loguidice



24. Shadow Impacts

New structures are not expected to have any shading impact on adjacent structures or public spaces. The Circle 1 building is recessed into the site and with the drop in site topography, any shadow casting will have little to no impact on adjacent parcels. The Neighborhood Center's location and height will have little to no impact on any public spaces.

All existing structures will not have any change in the shadow patterns.

7. Existing & Proposed Easements

A.) Existing easements, encumbrances, and other burdens:

- See Title report in Exhibit A for list of existing encumbrances.
- A power line easement as conveyed to Central Maine Power Co., et al, dated September 2, 1971 as recorded in Book 3199, Page 607.
- Easements granted by Portland Housing Authority to New England Telephone and Telegraph Company dated March 13, 1979 and recorded in Book 4398, Page 280
- Easements granted by Portland Housing Authority to New England Telephone and Telegraph Company, dated April 25, 1979 and recorded in Book 4418, Page 197.

B.) Proposed easements, encumbrances, and other burdens:

- At closing, recorded affordability restrictions will ensure that 165 residential units at Riverton Park remain affordable for at least 90 years. These long-term affordability covenants are required for funding programs, including Low-Income Housing Tax Credits (LIHTC), HOME and Affordable Housing Tax Increment Financing (AHTIF). These will restrict these rental units to households earning at or below 50% and 60% of AMI. For more information on affordability restrictions and unit mix, see Exhibit #1 Project Description.
- Easements associated with utilities including CMP, Unitil, Portland Water District and/or Spectrum to serve new construction, if necessary.

4508

KNOW ALL MEN BY THESE PRESENTS, that F. D. Rich Housing Corporation, a Delaware corporation organized and existing by law and having a place of business in the City

of Portland in the County of Cumberland and State of Maine

in consideration of One Dollar and other valuable consideration (the sum being less than one hundred dollars) paid by CENTRAL MAINE POWER COMPANY, a Maine corporation and NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY, a New York corporation, the receipt whereof is hereby acknowledged, does hereby give, grant, bargain, sell and convey unto the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns, the right and easement to construct, erect, rebuild, operate, maintain and remove electric distribution and communication lines for the transmission of electricity and intelligence; together with the necessary poles, wires, cables, cross-arms, braces, anchors, guys and other electrical equipment and appurtenances connected therewith, over, along and across premises owned by the Grantor(s) in the City/Town of Portland

County of Cumberland and State of Maine, along the route as now staked out, extending in a southerly direction from pole #223 Forest Avenue ~~to~~ into Turnkey Housing line (so called) as shown on plan titled, "Family Turnkey Housing for Portland Housing Authority, Portland, Maine by Paul Sternback and Alton Rheaume, Architects, dated December 8, 1970, Scale 1" = 40'" and in all other streets and ways as in the future may be laid out on our land lying southerly of Forest Avenue, together with the right to bury and maintain anchors with guy attached thereto where necessary within a radius of fifteen (15) feet of afore mentioned poles.

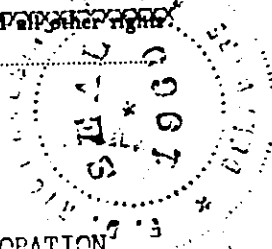
Also the right to cut down and keep trimmed and/or spray or treat with a chemical preparation of the Grantees' selection such trees, branches and underbrush as in the judgment of the Grantees, interfere with or endanger the proper operation and maintenance of the lines constructed along the above described location, together with the right to enter upon the Grantor's premises for any and all of the foregoing purposes.

It is understood and agreed that the rights and easements hereby conveyed are to be jointly owned by Central Maine Power Company and New England Telephone and Telegraph Company, their successors and assigns. If either Central Maine Power Company or New England Telephone and Telegraph Company, or the successors or assigns of either, shall relinquish or abandon the rights and easements hereby conveyed, the same shall become the sole property of the remaining company.

TO HAVE AND TO HOLD the above granted rights and easements to the said Central Maine Power Company and New England Telephone and Telegraph Company, their successors or assigns, to their own use and behoof forever.

IN WITNESS WHEREOF, the said F. D. Rich Housing Corporation has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Frank D. Rich Jr., its President, hereunto duly authorized.

~~and~~ ~~with the intent that the same~~
~~shall be a deed in fee simple and shall constitute a conveyance of the premises~~ () ~~shall be a deed in fee simple and shall constitute a conveyance of the premises~~
~~and shall be a deed in fee simple and shall constitute a conveyance of the premises~~
2ND day of SEPTEMBER, 1971.



SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF

Margaret C. Reddy
Edna J. Matys

F.D. RICH HOUSING CORPORATION
BY: Frank D. Rich Jr.
Its President

STATE OF MAINE,
County of Cumberland

Personally appeared the above named Frank D. Rich Jr. and acknowledged the foregoing instrument to be his free act and deed, ~~before me~~ in his said capacity and the free act and deed of said corporation before me,

James E. Gagnier
Justice of the Peace

STATE OF MAINE
CUMBERLAND, ss. NOV 10 1971
Received at 9 H A M on NOV 10 1971 and recorded in
Book 3199 Page 607 ATTEST A. L. H. Dugan Register

25. Snow and Ice Loading

All existing residential townhome buildings will undergo an envelope upgrade including new flat roofs over all entries to prevent ice and snow from entering into the residences.

The Circle 1 building will have a flat roof with internal drains and parapets to control snow drift.

The Neighborhood Center will have an entry canopy with internal roof drains and a flat roof with parapets.

Maintenance Garage will have a pitched roof with snow guard system.

6774

280

For in consideration of the sum of One Dollar (\$1.00) and other valuable considerations to me paid by New England Telephone and Telegraph Company, a corporation duly organized under the laws of the State of New York, the receipt of which is acknowledged, I hereby grant unto said Company, its successors and assigns, the right and easement to place and maintain a buried cable extending 170' in a southeasterly direction from Pole 1 to Pole 2, a buried cable extending 25' in a northwesterly direction from Pole 4 to Building #8, a buried cable extending 70' in a southeasterly direction from Pole 7 to Building #14, a buried cable extending 30' in a northerly direction from Pole 12 to Building #15, a buried cable extending 65' in a southwesterly direction from Pole 10 to Building #18, a buried cable extending 70' in an easterly direction from Pole 11 to Building #18, a buried cable extending 40' in a northwesterly direction from Pole 9 to Building #22, a buried cable extending 30' in an easterly direction from Pole 8 to Building #25, and a buried cable extending 180' in a northeasterly direction from Pole 3 to the rear of Building #6. All the above cables to be placed in the Riverton Turnkey Housing Project located off Forest Avenue in the City of Portland, County of Cumberland and State of Maine. Permission is hereby granted to enter this property for the above purposes.

Witness my hands and common seal this 13th day of March, 1979.

Witness:

Therese S. Hual

PORTLAND HOUSING AUTHORITY

BY:

Peter A. Howe
Its Executive Director

State of Maine

County of Cumberland

ss., March 13, 1979

Then personally appeared the above named Peter A. Howe - Executive Director of Portland Housing Authority and acknowledged the foregoing instrument to be his free act and deed, in his said capacity, and the free act and deed of said corporation, before me,

My Commission expires:

July 7, 1979

Therese S. Hual
~~Justice of the Peace/Notary Public~~

MAR 30 1979

REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE
Received at 12H56 MPM, and recorded in.

BOOK 4398 PAGE 280 Leah S. Thibault Deputy Register

26. Exterior Lighting

Street Lighting

There are existing City Street lights along Riverton Drive and Springbrook Way; which are to remain.

Circles 2-6

The existing parking lots light fixtures will be replaced with new retrofit LED heads. The base and pole will remain in most cases. If a few locations new base, pole + LED fixtures will supplement the existing parking lot lights for additional safety and convenience. Each building within the circles will be fully rehabbed and will include new building mounted lighting at front stoop and along the ends/back of buildings.

Circle 1 Building, Neighborhood Center and Maintenance Garage

These sites will have all new lighting: including pole and building mounted lights.

Site lighting summary (new lights)

- **Viper Strike (single + twin) by Beacon Lighting – Pole lights used throughout site**

See attached cut sheet of the lights and enclosed Photometric Plan.

Building lighting summary (new lights)

- **Sling Slender wall pack by Hubble Lighting – Rehab buildings: ends + rear**
- **Geopack Trapezoid wall pack by Hubble Lighting – New buildings**
- **Cypher Accent light by Architectural Area Lighting – Circle 1 Building**
- **Recessed Light by Prescolite – Rehab buildings: front stoops**
- **Drive edge lit by Beacon Lighting – Neighborhood Center + Maintenance Garage**
- **Co-Pilot Dome by Insight Lighting - Neighborhood Center**
- **Aqua Series Recessed Strip Light by Forum Lighting - Neighborhood Center + Circle 1 Building**

See attached cut sheet of the lights and enclosed Photometric Plan.

Form 248
5-65

10541

197

For and in consideration of the sum of One Dollar (\$1.00) and other valuable considerations to me/us paid by New England Telephone and Telegraph Company, a corporation duly organized under the laws of the State of New York, the receipt of which is hereby acknowledged, I/we hereby grant unto said Company, its successors and assigns, the right

and easement to place and maintain Pole 3 to be located at the rear of Building #5, Pole 13 to be located at the rear of Building #20, Pole 14 to be located at the rear of Building #23 along with the necessary cables, wires, guys anchors and other appurtenances necessary to maintain telephone service at Family Turnkey Housing-Riverton located in the City of Portland, County of Cumberland and State of Maine.

with permission to enter upon my/our property for the above purposes.

Witness my/our hands and common seal this 25th day of March April 19 79

Witnesses:

[Signature]

PORTLAND HOUSING AUTHORITY

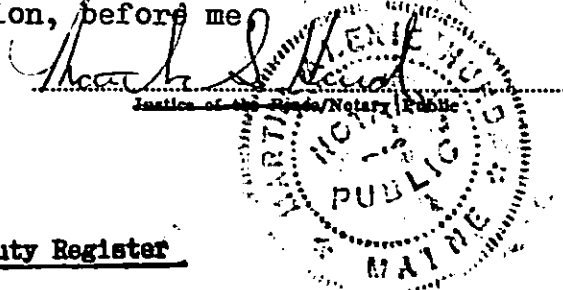
By: *[Signature]*
Its Executive Director

XXXX

State of Maine County of Cumberland ss., April 25, 19 79

Then personally appeared the above named Peter A. Howe-Executive Director of Portland Housing Authority and acknowledged the foregoing instrument to be his free act and deed, before me and the free act and deed of said corporation, before me

My Commission expires: 10/16/82



MAY 10 1979
REGISTRY OF DEEDS CUMBERLAND COUNTY, MAINE
Received at 10 H 30 A.M. and recorded in
BOOK 4418 PAGE 197 *[Signature]* Deputy Register

VIPER Area/Site

VIPER LUMINAIRE

MICROSTRIKE | STRIKE OPTICS

FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealership, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NX Lighting Controls™, wiSCAPE and 7-Pin with networked controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped



CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 1000 hour powder coat paint finish
- External hardware is corrosion resistant

OPTICS

- Micro Strike Optics (160, 320, 480, or 720 LED counts) maximize uniformity in applications and come standard with mid-power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 2
- Strike Optics (36, 72, 108, or 162 LED counts) provide best in class distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal losses at the house-side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Mounting patterns for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option (ASQU) or accessory for square and round poles
- All mounting hardware included

INSTALLATION (CONTINUED)

- Knuckle arm fitter option available for 2-3/8" OD tenon
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40°C to 40°C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options cannot be combined

CONTROLS

- Photo control, occupancy sensor programmable controls, and Zigbee wireless controls available for complete on/off and dimming control
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)

CONTROLS (CONTINUED)

- 0-10V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Lighting Controls™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with both Premium and Standard Qualified configurations. Please refer to the DLC website for specific product qualifications at <http://www.designlights.org>
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40°C ambient temperatures
- 1.5 G rated for ANSI C136.31 high vibration applications
- Fixture is IP65 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020.

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	5,000–80,000
Wattage Range	36–600
Efficacy Range (LPW)	92–155
Weight lbs. (kg)	13.7-30.9 (6.2-13.9)

VIPER Area/Site

VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

STRIKE OPTIC – ORDERING GUIDE

Example: VP-ST-1-36L-39-3K7-2-UNV-A-BLT

CATALOG #							
VP							
Series	Optic Platform	Size	Light Engine	CCT/CRI	Distribution	Optic Rotation	Voltage
VP Viper	ST Strike	1 Size 1	36L-39 ⁸ 5500 lumens 36L-55 ⁸ 7500 lumens 36L-85 10000 lumens 36L-105 12500 lumens 36L-120 14000 lumens 72L-115 15000 lumens 72L-145 18000 lumens 72L-180 21000 lumens 72L-210 24000 lumens 72L-240 27000 lumens 108L-215 ⁸ 27000 lumens 108L-250 30000 lumens 108L-280 33000 lumens 108L-325 36000 lumens 108L-365 40000 lumens 162L-320 40000 lumens 162L-365 ¹⁰ 44000 lumens 162L-405 48000 lumens 162L-445 52000 lumens 162L-485 55000 lumens 162L-545 ⁸ 60000 lumens CLO Custom Lumen Output ¹	AM monochromatic amber, 595nm 27K8 2700K, 80 CRI 3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 3K9 3000K, 90 CRI 35K8 3500K, 80 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 4K9 4000K, 90 CRI 5K7 5000K, 70 CRI 5K8 5000K, 80 CRI	FR Auto Front Row 2 Type 2 3 Type 3 4F Type 4 Forward 4W Type 4 Wide 5QN Type 5 Square Narrow 5QW Type 5 Square Wide 5QM Type 5 Square Medium 5W Type 5 Wide (Round) 5RW Type 5 Rectangular C Corner Optic TC Tennis Court Optic	BLANK No Rotation L Optic rotation left R Optic rotation right	UNV 120-277V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
		2 Size 2					
		3 Size 3					
		4 Size 4					

Mounting	Color	Options	Network Control Options
A Arm mount for square pole/flat surface A_ Arm mount for round pole ³ ASQU Universal arm mount for square pole A_U Universal arm mount for round pole ³ AAU Adjustable arm for pole mounting (universal drill pattern) AA_U Adjustable arm mount for round pole ³ ADU Decorative upswept Arm (universal drill pattern) AD_U Decorative upswept arm mount for round pole ³ MAF Mast arm fitter for 2-3/8" OD horizontal arm K Knuckle T Trunnion WB Wall Bracket, horizontal tenon with MAF WM Wall mount bracket with decorative upswept arm WA Wall mount bracket with adjustable arm	BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth LGT Light Grey Gloss Textured PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VG Verde Green Textured Color Option CC Custom Color	F Fusing E Battery Backup ^{1,2,7,8,9} 2PF Dual Power Feed 2DR Dual Driver TE Toolless Entry BC Backlight Control TB Terminal Block	NXWS16F NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4} NXWS40F NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{1,3,4} NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{3,4} WIR wiSCAPE® In-Fixture Module ^{3,4} WIRSC wiSCAPE® Module and Occupancy Sensor ^{3,4} Stand Alone Sensors BTS-14F Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens BTS-40F Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming® Photocell and 360° Lens BTSO-12F Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens 7PR 7-Pin Receptacle ⁴ 7PR-SC 7-Pin Receptacle with shorting cap ⁴ 3PR 3-Pin twist lock ⁴ 3PR-SC 3-Pin receptacle with shorting cap ⁴ 3PR-TL 3-Pin PCR with photocontrol ⁴ Programmed Controls ADD AutoDim Timer Based Dimming ⁴ ADT AutoDim Time of Day Dimming ⁴ Photocontrols PC Button Photocontrol ^{4,7}

1 – Items with a grey background can be done as a custom order. Contact brand representative for more information

2 – Battery temperature rating -20C to 55C

3 – Replace “_” with “3” for 3.5”-4.13” OD pole, “4” for 4.18”-5.25” OD pole, “5” for 5.5”-6.5” OD pole

4 – Networked Controls cannot be combined with other control options

5 – Not available with 2PF option

6 – Not available with 480V

7 – Not available with 347 or 480V

8 – Not available with Dual Driver option

9 – Only available in Size 1 housing, up to 105 Watts

10 – Some voltage restrictions may apply when combined with controls

VIPER Area/Site

VIPER LUMINAIRE

ORDERING GUIDE (CONTINUED)

CATALOG #

Accessory Type	Size	Option	Color	Current Control Solutions — Accessories (Sold Separately)
SHD Shield	1 Size 1 2 Size 2 3 Size 3 4 Size 4	HSS-90-B House Side Shield 90° Back HSS-90-F House Side Shield 90° Front HSS-90-S House Side Shield 90° Side HSS-270-BSS House Side Shield 270° Back/Side/Side HSS-270-FSS House Side Shield 270° Front/Side/Side HSS-270-FSB House Side Shield 270° Front/Side/Back HSS-360 House Side Shield 360° BC Back Light Control A Arm Mount for square pole/flat surface ASQU Universal Arm Mount for square pole AAU Adjustable Arm for pole mounting ADU Decorative upswept Arm RPA Round Pole Adapter MAF Mast Arm Fitter for 2-3/8" OD horizontal arm K Knuckle T Trunnion WB Wall Bracket (compatible with universal arm mounts)	BLS Black Gloss Smooth BLT Black Matte Textured DBS Dark Bronze Gloss Smooth DBT Dark Bronze Matte Textured GTT Graphite Matte Textured LGS Light Gray Gloss Smooth PSS Platinum Silver Smooth WHS White Gloss Smooth WHT White Matte Textured VGT Green Landscape Decorative LEG Legacy Colors Color Option CC Custom Color	NX Lighting Controls ☐ NXOFM-1R1D-UNV On-fixture Module (7-pin), On / Off / Dim, Daylight Sensor with NX Radio and Bluetooth® Radio, 120–480VAC wiSCAPE® Lighting Control ☐ WIR-RME-L On-fixture Module (7-pin or 5-pin), On / Off / Dim, Daylight Sensor with wiSCAPE Radio, 110–480VAC ☐ SCP-REMOTE Remote Control for SCP/_F option. Order at least one per project to program and control the occupancy sensor For additional information related to these accessories please visit currentlighting.com/beacon . Options provided for use with integrated sensor, please view specification sheet ordering information table for details.
MTG Mounting				
Accessory Type		Option		
MSC Miscellaneous		BIRD SPK Bird Spike		

CONTROLS

Control Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	On/Off Control	Programming	Pair with Sensor	Sensor Mounting Height
NXW	—	✓	✓	—	—	✓	✓	—	—
NXWS_F	NXSMP2	✓	✓	✓	✓	✓	✓	—	16ft, 40ft
BTSO12F	BTSMP-OMNI-O	—	—	✓	✓	✓	Bluetooth	—	12ft
BTS_F	BTSMP	—	—	✓	✓	✓	Bluetooth	—	14ft, 40ft
ADD	—	—	✓	—	—	✓	—	✓	—
ADT	—	—	✓	—	—	✓	—	✓	—
7PR	—	Paired with external control	Paired with external control	—	Paired with external control	Paired with external control	—	✓	—
7PR-SC	—	—	—	—	—	—	—	✓	—
3PR	—	—	—	—	—	Paired with external control	—	✓	—
3PR-SC	—	—	—	—	—	—	—	✓	—
3PR-TL	—	—	—	—	✓	✓	—	✓	—
WIR	—	✓	✓	—	✓	✓	Gateway	—	—
WIRSC	BTSMP	✓	✓	✓	✓	✓	Gateway	—	14ft, 40ft

VIPER Area/Site

VIPER LUMINAIRE

DELIVERED LUMENS

For delivered lumens, please see Lumens Data PDF on www.Currentlighting.com

PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.97	0.96	0.95	0.91	408,000
40°C / 104°F	0.99	0.96	0.95	0.94	0.89	356,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	—	0.841	—
3000K	0.977	0.861	0.647
3500K	—	0.900	—
4000K	1	0.926	0.699
5000K	1	0.937	0.791
Monochromatic Amber Multiplier			
Amber	0.250		

Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	0.9	0.81	0.62
3000K	0.933	0.853	0.659
3500K	0.959	0.894	0.711
4000K	1	0.9	0.732
5000K	1	0.9	0.732
Monochromatic Amber Multiplier			
Amber	0.255		

VIPER Area/Site

VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ELECTRICAL DATA: STRIKE

# OF LEDS	36				
NOMINAL WATTAGE	39	55	85	105	120
SYSTEM POWER (W)	39.6	56.8	83.6	108.2	120.9
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	0.33	0.46	0.71	0.88	0.96
208	0.19	0.26	0.41	0.50	0.55
240	0.16	0.23	0.35	0.44	0.48
277	0.14	0.20	0.31	0.38	0.42
347	0.11	0.16	0.24	0.30	0.33
480	0.08	0.11	0.18	0.22	0.24

# OF LEDS	72				
NOMINAL WATTAGE	115	145	180	210	240
SYSTEM POWER (W)	113.7	143.2	179.4	210.2	241.7
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	1.00	1.21	1.50	1.75	1.79
208	0.58	0.70	0.87	1.01	1.03
240	0.50	0.60	0.75	0.88	0.90
277	0.43	0.52	0.65	0.76	0.78
347	0.35	0.42	0.52	0.61	0.62
480	0.25	0.30	0.38	0.44	0.45

# OF LEDS	108				
NOMINAL WATTAGE	215	250	280	325	365
SYSTEM POWER (W)	214.8	250.8	278.3	324.7	362.6
INPUT VOLTAGE (V)	CURRENT (Amps)				
120	2.00	2.08	2.33	3.04	2.67
208	1.15	1.20	1.35	1.75	1.54
240	1.00	1.04	1.17	1.52	1.33
277	0.87	0.90	1.01	1.32	1.16
347	0.69	0.72	0.81	1.05	0.92
480	0.50	0.52	0.58	0.76	0.67

# OF LEDS	162					
NOMINAL WATTAGE	320	365	405	445	485	545
SYSTEM POWER (W)	322.1	362.6	403.6	445.1	487.1	543.9
INPUT VOLTAGE (V)	CURRENT (Amps)					
120	2.71	2.67	3.38	3.71	4.04	4.54
208	1.56	1.54	1.95	2.14	2.33	2.62
240	1.35	1.33	1.69	1.85	2.02	2.27
277	1.17	1.16	1.46	1.61	1.75	1.97
347	0.94	0.92	1.17	1.28	1.40	1.57
480	0.68	0.67	0.84	0.93	1.01	1.14

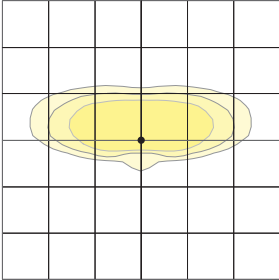
VIPER Area/Site

VIPER LUMINAIRE

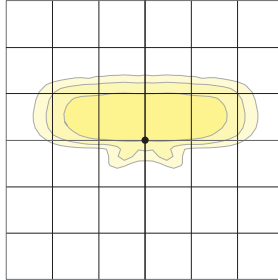
OPTIC STRIKE PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see website photometric test reports.

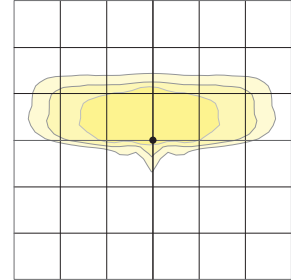
Type FR – Front Row/Auto Optic



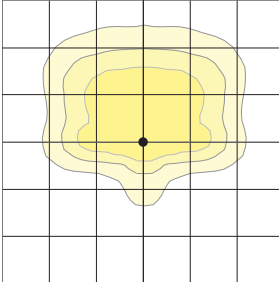
Type 2



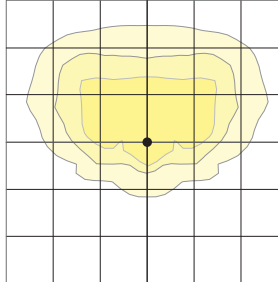
Type 3



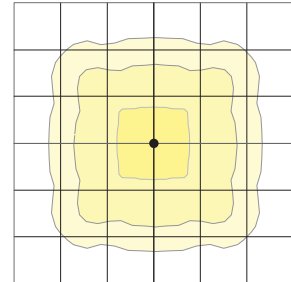
Type 4 Forward



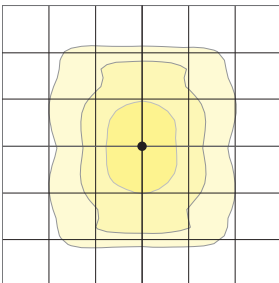
Type 4 Wide



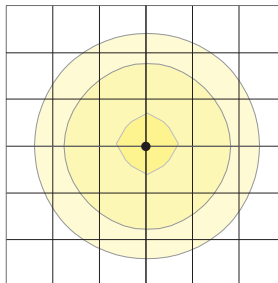
Type 5QM



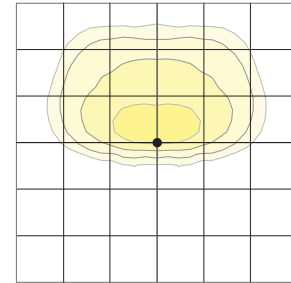
Type 5R (rectangular)



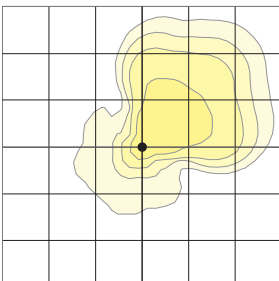
Type 5W (round wide)



Type TC



Type Corner



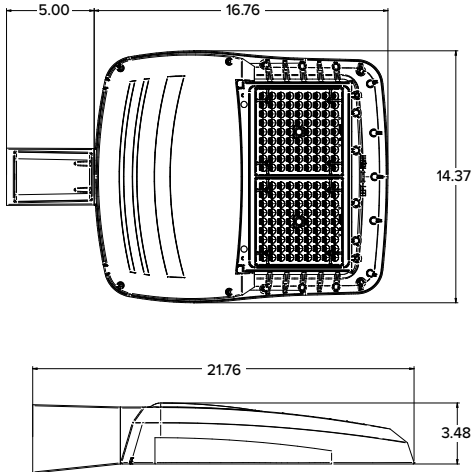
VIPER Area/Site

VIPER LUMINAIRE

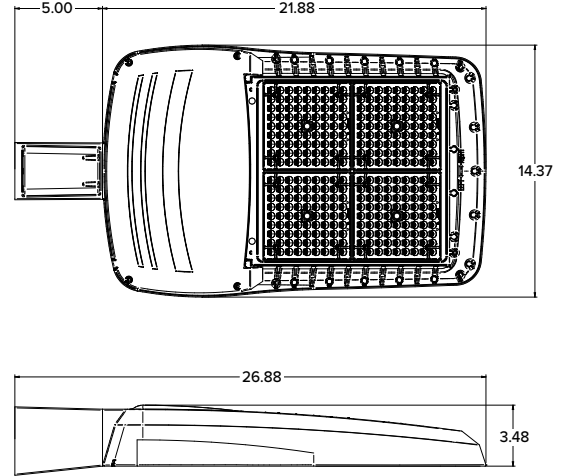
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS

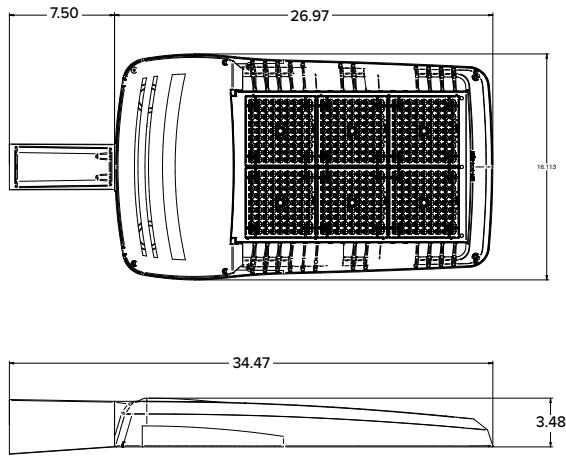
SIZE 1



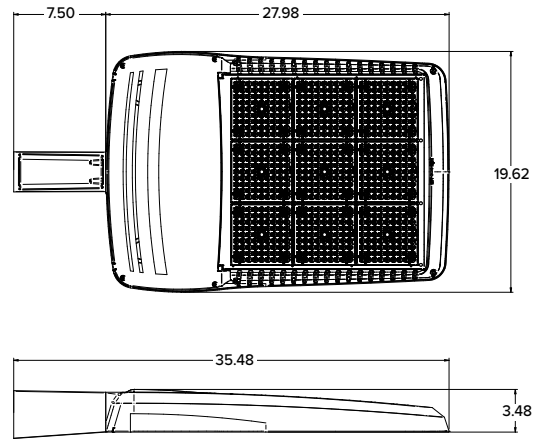
SIZE 2



SIZE 3



SIZE 4



	EPA				Config.
	VP1 (Size 1)	VP2 (Size 2)	VP3 (Size 3)	VP4 (Size 4)	
Single Fixture	0.454	0.555	0.655	0.698	
Two at 180	0.908	1.110	1.310	1.396	
Two at 90	0.583	0.711	0.857	0.948	
Three at 90	1.037	1.266	1.512	1.646	
Three at 120	0.943	1.155	1.392	1.680	
Four at 90	1.166	1.422	1.714	1.896	

	Weight	
	lbs	kgs
VP1 (Size 1)	13.7	6.2
VP2 (Size 2)	16.0	7.26
VP3 (Size 3)	25.9	11.7
VP4 (Size 4)	30.8	13.9

VIPER Area/Site

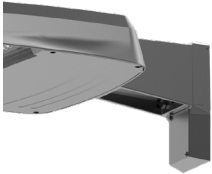
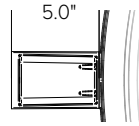
VIPER LUMINAIRE

MOUNTING



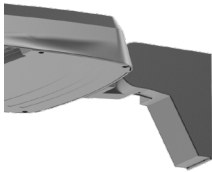
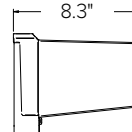
A-STRAIGHT ARM MOUNT

Fixture ships with integral arm for ease of installation. Compatible with Current Outdoor B3 drill pattern for ease of installation on square poles. For round poles add applicable suffix (2/3/4/5)



ASQU-UNIVERSAL ARM MOUNT

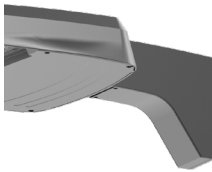
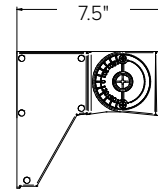
Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5)



AAU-ADJUSTABLE ARM FOR POLE MOUNTING

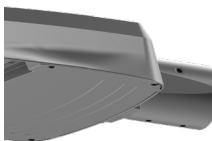
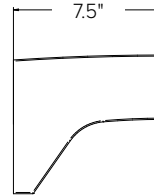
Rotatable arm mounts directly to pole. Compatible with drill patterns from 2.5" to 4.5" and Current drill pattern S2 and B3. For round poles add applicable suffix (2/3/4/5). Rotatable in 15° aiming angle increments. Micro Strike configurations have a 45° aiming limitation.

Strike configurations have a 30° aiming limitation.



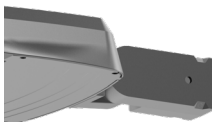
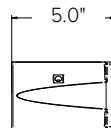
ADU-DECORATIVE UPSWEPT ARM

Upswept Arm compatible with drill patterns from 2.5" to 4.5" and Current drill pattern S2. For round poles add applicable suffix (2/3/4/5).



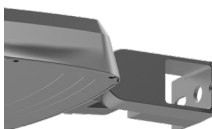
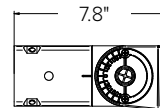
MAF-MAST ARM FITTER

Fits 2-3/8" OD horizontal tenons.



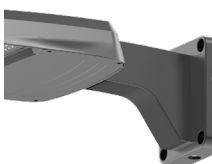
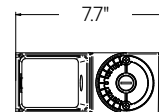
K-KNUCKLE

Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



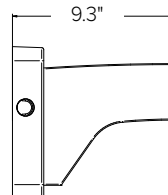
T-TRUNNION

Trunnion for surface and crossarm mounting using (1) 3/4" or (2) 1/2" size through bolts. Micro Strike configurations have a 45° aiming limitation. Strike configurations have a 30° aiming limitation.



WM-WALL MOUNT

Compatible with universal arm mount, adjustable arm mount, and decorative arm mount. The WA option uses the same wall bracket but replaces the decorative arm with an adjustable arm.



VIPER Area/Site

VIPER LUMINAIRE

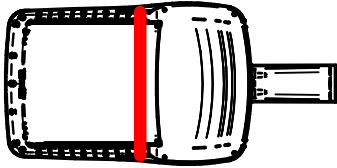
ADDITIONAL INFORMATION (CONTINUED)

HOUSE SIDE SHIELD FIELD INSTALL ACCESSORIES

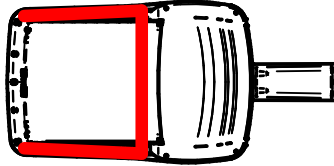
HSS has a depth of 5" for all Viper sizes

Not to be used with Occupancy Sensors as the shield may block the light to the sensor.

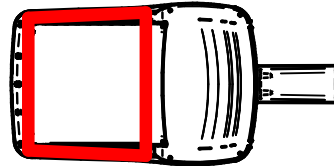
VPR2x HSS-90-B-xx



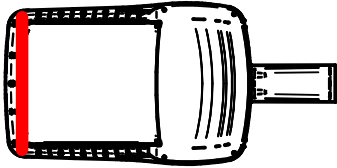
VPR2x HSS-270-BSS-xx



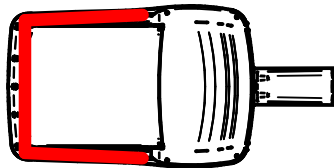
VPR2x HSS-360-xx



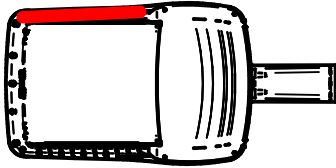
VPR2x HSS-90-F-xx



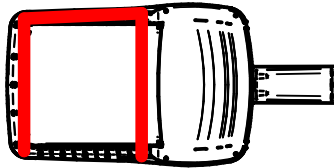
VPR2x HSS-270-FSS-xx



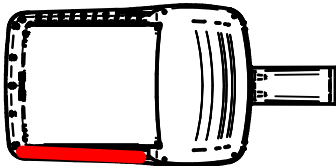
VPR2x HSS-90-S-xx



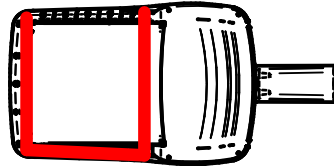
VPR2x HSS-270-FSB-xx



VPR2x HSS-90-S-xx



VPR2x HSS-270-FSB-xx



VIPER Area/Site

VIPER LUMINAIRE

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION (CONTINUED)

PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

SLING Series

SLENDER WALLPACK

tradeSELECT®

FEATURES

- Two sizes for a variety of applications
- Ranges from 21W to 80W with up to 8000 lumens
- SG1 Series replaces from 100W-150W HID; SG2 Series replaces from 150W-250W HID
- Comfort lens available as an option or accessory provides glare control and enhanced uniformity
- Knuckle and trunnion accessory mounting kits available for flood applications
- IP65 and certified to UL 1598 for use in wet locations up to 40°C ambient
- DLC (DesignLights Consortium Qualified - see www.designlights.org)



SPECIFICATIONS

HOUSING

- Rugged die-cast aluminum housing with corrosion resistant powder coat finish
- Heating dissipating fins provide superior thermal performance extending the life of the electronic components
- Impact resistant tempered glass offers zero uplight
- Comfort lens available as an option or accessory to reduce glare (7-10% lumen reduction) and provide better uniformity

OPTICS

- 3000K, 4000K and 5000K CCT nominal with 70 CRI
- Smaller SG1 housing has 2 LEDs, larger SG2 housing has 3 LEDs

INSTALLATION

- Side hinge allows for easy installation and wiring
- Side movement avoids damage to the lens and helps prevent injury common in drop down hinge designs
- Mounts to 4" junction box and includes a gasket to help seal electrical connections
- Four 1/2" threaded conduits hubs for surface conduit provided

ELECTRICAL

- 120-277V, 50/60Hz electronic drivers
- 347V and 480V available in large SG2 housing
- 10KA surge protection included

OPTIONS/CONTROLS

- Button photocontrol for dusk to dawn energy savings. Stock versions include 120V-277V PC with a cover which provides a choice to engage photocontrol or not. PC is installed in top hub
- Occupancy sensor available for on/off and dimming control in larger SG2 housing
- Battery backup options available in larger SG2 housing rated for either 0° C or -30° C. Performance exceeds NEC requirement providing 1 fc minimum over 10'x10' at 11' mounting height

CERTIFICATIONS

- Listed to UL1598 for use in wet location, listed for -40°C to 40°C applications
- Complies with IDA standards with zero uplight for 3000K and warmer CCT's
- IP65

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	2263-8079
Wattage Range	21-80
Efficacy Range (LPW)	101-113
Weights lbs. (kg)	4.3-11 (2.0-5.0)

SLING SERIES

SLENDER WALLPACK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: SG1-20-3K7-FT-UNV-DBT-PCU-CS

CATALOG #

ORDERING INFORMATION

Housing	CCT/CRI	Distribution	Voltage	Color/Finish	Control Options	Options
SG1-10 Size 1, 10W	3K7 3000K, 70 CRI	FT Fwd Throw	UNV 120V-277V	BLT Black Matte Textured	PCU Universal Button Photocontrol (120-277V)	CS Comfort Lens
SG1-20 Size 1, 20W	4K7 4000K, 70 CRI		120 120V	BLS Black Gloss Smooth	SCP ^{1,2,3} Occupancy Sensor Programmable (Dim)	E ^{1,2} Battery 0°C
SG1-30 Size 1, 30W	5K7 5000K, 70 CRI		277 277V	DBT Dark Bronze Matte Textured	Specify MTG HT for OCC Sensor	EH ^{1,2} Battery w/ heater -20°
SG1-40 Size 1, 40W			UHV 347V-480V	DBS Dark Brone Gloss Smooth	8F Up to 8'	
SG2-50 Size 2, 50W				GTT Graphite Matte Textured	20F Up to 20'	
SG2-80 Size 2, 80W				LGS Light Grey Gloss Smooth		
				PSS Platinum Silver Smooth		
				WHT White Matte Textured		
				WHS White Gloss Smooth		
				VGT Verde Green Textured		
				Color Option		
				CC Custom Color		

Notes:

- Available in SG2 only, UHV available in SG2-50 only
- Sensor controls & battery backup can not be used with flood accessory or kit or for inverted/up mounting, 120-227V only for SCO/SCP, 120 or 277 only for SWP, SWPM, E & EH
- Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only

STOCK ORDERING INFORMATION

Catalog Number	CCT/CRI	Wattage	Mounting Height	Color	Color	Delivered Lumens	LPW	Weight lbs. (kg)
SG1-10-PCU	5000K/70	11W	8-12ft	120-277V	Dark Bronze	1349	122	4.3 (2.0)
SG1-10-4K-PCU	4000K/70	11W	8-12ft	120-277V	Dark Bronze	1424	129	4.3 (2.0)
SG1-20-PCU	5000K/70	21W	8-12ft	120-277V	Dark Bronze	2263	108	4.3 (2.0)
SG1-20-4K-PCU	4000K/70	21W	8-12ft	120-277V	Dark Bronze	2310	110	4.3 (2.0)
SG1-30-PCU	5000K/70	29W	10-15ft	120-277V	Dark Bronze	3270	113	4.3 (2.0)
SG1-30-4K-PCU	4000K/70	29W	10-15ft	120-277V	Dark Bronze	3060	105	4.3 (2.0)
SG1-40-PCU	5000K/70	38W	10-15ft	120-277V	Dark Bronze	4008	105	4.3 (2.0)
SG1-40-4K-PCU	4000K/70	38W	10-15ft	120-277V	Dark Bronze	4070	106	4.3 (2.0)
SG2-50-PCU	5000K/70	51W	12-18ft	120-277V	Dark Bronze	5548	110	11 (5.0)
SG2-50-4K-PCU	4000K/70	51W	12-18ft	120-277V	Dark Bronze	5526	109	11 (5.0)
SG2-80-PCU	5000K/70	80W	15-25ft	120-277V	Dark Bronze	8061	101	11 (5.0)
SG2-80-4K-PCU	4000K/70	80W	15-25ft	120-277V	Dark Bronze	8079	101	11 (5.0)

SLING SERIES

SLENDER WALLPACK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

OPTIONS AND ACCESSORIES

	Catalog Number	Description	Weight lbs. (kg)
☐	SG1-YOKE	SG1 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
☐	SG1-KNUCKLE	SG1 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
☐	SG2-YOKE	SG2 Series Yoke/Floodlight mount kit, includes visor	2.0 (1.0)
☐	SG2-KNUCKLE	SG2 Series Knuckle/Floodlight mount kit, includes visor	2.0 (1.0)
☐	SCP-REMOTE*	Remote control for SCP option. Order at least one per project to program and control fixtures	1 (.45)

SLING SERIES

SLENDER WALLPACK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PERFORMANCE DATA

Description	# of LEDs	Drive Current	System Watts	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
SG1-10	2	140mA	11	1349	122	1	0	0	1424	129	1	0	0	1003	91	1	0	0
SG1-20	2	250mA	21	2449	115	1	0	0	2310	110	1	0	0	2054	95	1	0	0
SG1-30	2	350mA	29	3332	117	2	0	0	3060	106	1	0	0	2913	100	1	0	0
SG-40	2	450mA	38	4008	105	2	0	0	4070	106	2	0	0	3845	100	2	0	0
SG2-50-UHV	3	350mA	44	4633	106	2	0	0	4609	105	2	0	0	3895	90	2	0	0
SG2-50	3	415mA	51	5548	109	2	0	0	5526	107	2	0	0	4700	92	2	0	0
SG2-80	3	650mA	80	7851	98	2	0	1	8079	103	2	0	1	6721	86	2	0	1

*347 and 480 VAC input Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment application and inherent performance balances of the electrical components.

ELECTRICAL DATA

Catalog number	# of Drivers	Input Voltage	Current (AMPS)	System Power
SG1-10	1	120	0.09	11.0
	1	277	0.04	11.0
SG1-20	1	120	0.18	21.0
	1	277	0.08	21.0
SG1-30	1	120	0.24	28.9
	1	277	0.10	28.9
SG2-40	1	120	0.32	38.3
	1	277	0.14	38.3
SG-50-UHV	1	347	0.13	43.5
	1	480	0.18	43.5
SG2-50	1	120	0.42	50.6
	1	277	0.18	50.6
SG2-80	1	120	0.68	79.8
	1	277	0.29	79.8

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	TM-21-11' L96 60,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>791,000
40°C / 104°F	0.99	0.98	0.96	0.96	0.94	>635,000

1. Projected per IESNA TM-21-11 * (Nichia 219B, 700mA, 85°C Ts, 10,000hrs) Data references the extrapolated performance projections for the base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08

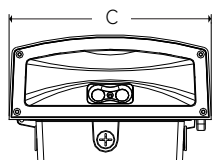
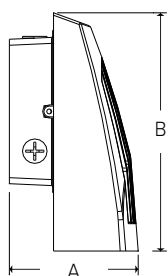
LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.96

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

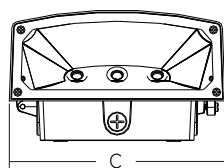
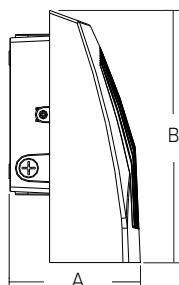
DIMENSIONS

SG1



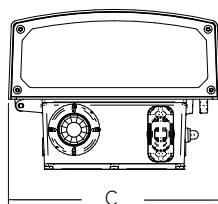
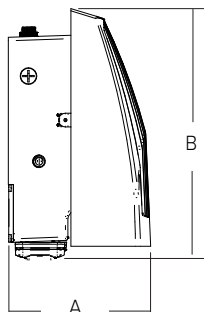
A	B	C	Weight
4.19" (107mm)	7.80" (198mm)	6.61" (168mm)	4.4lbs (2kg)

SG2



A	B	C	Weight
5.80" (147mm)	11.14" (283mm)	9.52" (242mm)	11lbs (5kg)

SG2 with occupancy sensor and battery options



A	B	C	Weight
7.26" (184mm)	13.64" (342mm)	9.52" (242mm)	11lbs (5kg)

PHOTOMETRY

SG1-10-4K7

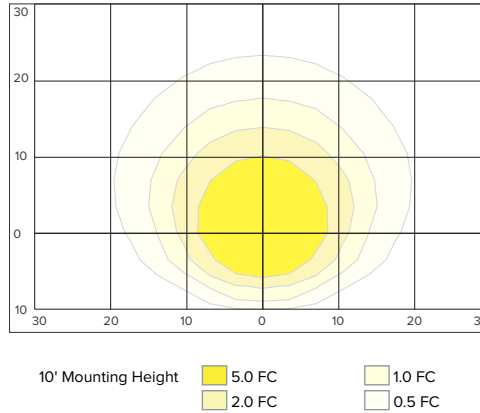
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	1424
Watts	11.4
Efficacy	125
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	996.6	70.0
Downward House Side	427.8	30.0
Downward Total	1424.4	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	1424.4	100.0

ISOMETRIC FOOTCANDLE



SG1-20-4K7

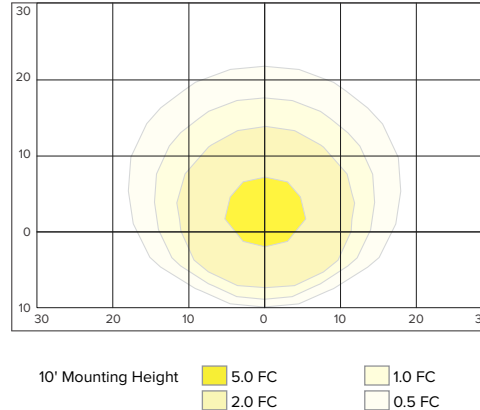
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	2310
Watts	20.9
Efficacy	111
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1618	70.0
Downward House Side	692.1	30
Downward Total	2310	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	2310.3	100.0

ISOMETRIC FOOTCANDLE



SG1-30

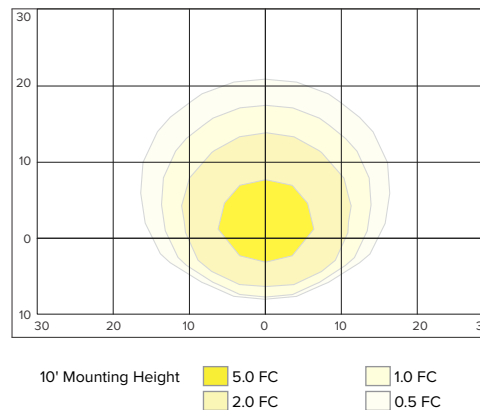
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	3060
Watts	29.1
Efficacy	105
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2619.4	70.9
Downward House Side	890.4	29.1
Downward Total	3059.8	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	3059.8	100.0

ISOMETRIC FOOTCANDLE



SLING SERIES

SLENDER WALLPACK

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PHOTOMETRY

SG1-40-4K7

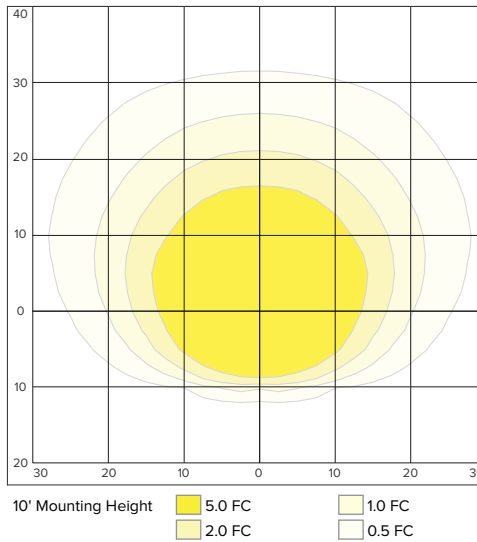
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	4070
Watts	38.1
Efficacy	107
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2857.7	70.2
Downward House Side	1215.5	29.8
Downward Total	4070.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	4070.2	100.0

ISOMETRIC FOOTCANDLE



SG2-50-4K7

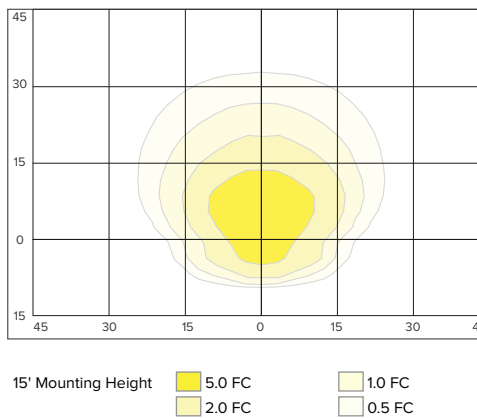
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	5525.7
Watts	51.7
Efficacy	107
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4611.8	83.5
Downward House Side	913.9	16.5
Downward Total	5525.7	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	5525.7	100.0

ISOMETRIC FOOTCANDLE



SG2-80-4K7

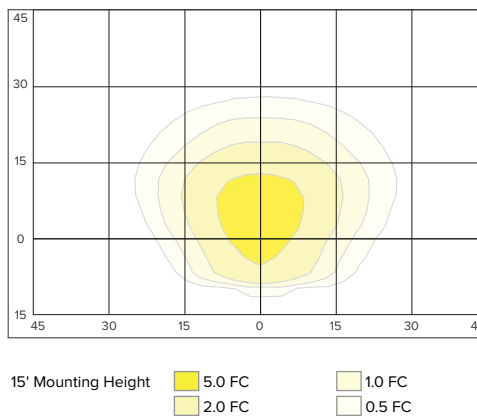
LUMINAIRE DATA

Description	4000 Kelvin, 70 CRI
Distribution Type	Forward Throw
Delivered Lumens	8453
Watts	78.5
Efficacy	108
Mounting	Wall

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6677.7	79.0
Downward House Side	1775.5	21.0
Downward Total	8453.2	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	8453.2	100.0

ISOMETRIC FOOTCANDLE



SLING SERIES

SLENDER WALLPACK

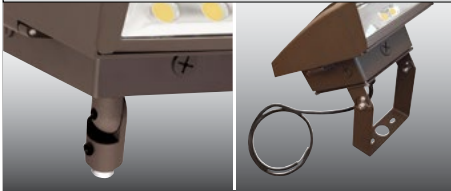
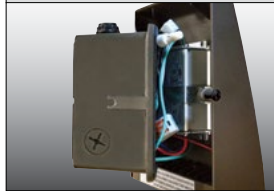
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION

Shipping Information

Catalog Number	G.W(kg)/ CTN	Carton Dimensions			Carton Qty. per Master Pack	Pallet Qty.
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)		
SG1	4.35lbs (2kg)	9.5 (24)	8.25 (21)	5.25 (13)	6	98
SG2	11lbs (5kg)	14 (36)	11.5 (29)	8 (20)	2	64

Accessories and Services

Visor	Mounting Options	Photocontrol	Hinged Housing Door
			
Visor accessory included with mounting accessory kits	Flood mounting accessories - 1/2" threaded knuckle or yoke (includes grommet and 3' SO cord)	Photocontrol option available for energy-saving dusk-to-dawn operation	Side hinged for easy installation and wiring access, single screw secures housing closure

GEOPAK Series 1

SIZE 1 - TRP1/QSP1/RD11

FEATURES

- GeoPak Series consists of three compact Geometric wall-pack shapes in four popular finishes
- 24 mid-power LEDs create 3115 lumens in AC and 1628 lumens in emergency mode
- Environmentally friendly, long-life Lithium Iron Phosphate battery
- Standard Battery Temperature Range: 0°C to 40°C, Optional Heater: -30°C to 40°C
- Zero uplight distributions



RELATED PRODUCTS

- [RD12 GeoPak](#)
[TRP2 GeoPak](#)
[QSP2 GeoPak](#)



SPECIFICATIONS

CONSTRUCTION

- Housing is made from die-cast aluminum with a hinged back-plate for ease of installation and maintenance
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating.
- Wet Location Listed to UL924 and UL1598 Standard

OPTICS

- 24 mid power LEDs delivering up to 3,000 lumens
- Up to 118 lumens per watt
- Type III and IV distributions for a wide variety of applications
- Zero uplight (UO), dark sky, neighbor friendly

INSTALLATION

- Universal plate for mounting to standard 3 1/2" and 4" square electrical boxes. All connections are made from connections at the rear of the unit
- Optional back-box accessory available for surface conduit application.

ELECTRICAL

- 120-277 and 347-480V operation, 50/60Hz
- 0-10V dimming driver standard. Dimming leads are extended from the product.
- 10kA surge protector
- Photocell and occupancy sensor options available for complete on/off and dimming control
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application
- Ambient operating temperature -40°C to 40°C
- Button photocontrol is suitable for 120-277V operation
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.

CERTIFICATIONS

- Drivers IP66 and RoHS compliant
- Listed to UL1598 and CSAC22.2#250.0-24 for wet location

WARRANTY

- 5 year limited warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	1720-2896
Wattage Range	15-25
Efficacy Range (LPW)	107-131
Weights lbs. (kg)	10.5-11.5 (4.8-5.2)

GEOPAK SERIES 1

SIZE 1 - TRP1/QSP1/RD11

ORDERING GUIDE

Example: TRP2-24L30-3K7-2-UNV-DBT

CATALOG #

ORDERING INFORMATION

Series	# LEDs	Wattage	CCT/CRI	Distribution	Voltage
TRP1 Trapezoid	24L 24 LEDs	15 15 watts	3K7 3000K, 70 CRI	3 TYPE III	UNV 120-277V
RD11 Radius		20 20 watts	4K7 4000K, 70 CRI	4W TYPE IV	120 120V
QSP1 Qtr-sphere		25 25 watts	5K7 5000K, 70 CRI		208 208V
			3K8 3000K, 80 CRI		240 240V
			4K8 4000K, 80 CRI		277 277V
			5K8 5000K, 80 CRI		347 347V
					480 480V

Color	Control Options Network	Options
BLT Black Matte Textured	PC Button Photocontrol	F⁴ Fusing (only available with STD fixture configuration, 120-277V only)
BLS Black Gloss Smooth	SCP^{2,3} Programmable occupancy sensor, factory default is 10% light output	E¹ Battery pack (0°C)
DBT Dark Bronze Matte Textured	Spec SCP/SCO & SWPM Mount Height	EH¹ Battery pack (-30°C) with heater
DBS Dark Brone Gloss Smooth	-8F Up to 8ft mount height	
GTT Graphite Matte Textured	-20F Up to 20ft mount height	
LGS Light Grey Gloss Smooth		
PSS Platinum Silver Smooth		
WHT White Matte Textured		
WHS White Gloss Smooth		
VG Verde Green Textured		
Color Option		
CC Custom Color		

Notes:

- 1 Voltage specific (120 or 277V only)
- 2 Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only
- 3 PCU option not applicable, included in sensor
- 4 Must specify input voltage (120, 208, 240 or 277)

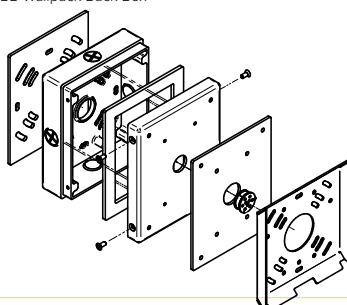
ACCESSORIES (ORDERED SEPARATELY)

Catalog Number	Description
☐ SCP-REMOTE*	Remote control for SCP option. Order at least one per
☐ WP-BB-XXX	Accessory for conduit entry, replace "xxx" with color option

Notes:

- * Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings.

WB-BB Wallpack Back Box



GEOPAK SERIES 1

SIZE 1 - TRP1/QSP1/RD11

PERFORMANCE DATA

Description	Drive Current	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
24L	350 mA	15	3	1888	127	0	0	1	1879	126	0	0	1	1807	121	0	0	1
	350 mA	15	4W	1797	121	0	0	1	1789	120	0	0	1	1720	115	0	0	1
	500 mA	20	3	2607	131	1	0	1	2594	130	1	0	1	2495	125	1	0	1
	500 mA	20	4W	2481	125	1	0	1	2469	124	1	0	1	2374	119	1	0	1
	600 mA	25	3	2896	113	1	0	1	2884	112	1	0	1	2773	110	1	0	1
	600 mA	25	4W	2756	107	1	0	1	2754	107	1	0	1	2640	108	1	0	1

ELECTRICAL DATA

INPUT POWER CONSUMPTION

System Watts	Input Voltage (V)	System Power (W)	Current (Amps)
15W	120	14.9	0.125
	277		0.053
	347		0.043
	480		0.031
20W	120	20.6	0.172
	277		0.074
	347		0.059
	480		0.043
25W	120	25.3	0.216
	277		0.091
	347		0.073
	480		0.053

Battery backup units consume additional power during charging (maximum 32.2 watts for E, 50.7 watts for EH)

INPUT POWER CONSUMPTION

Ambient Temperature	OPERATING HOURS					
	0	25,000	50,000	TM-21-11* L96 60,000	100,000	L70 (Hours)
25C	1	0.97	0.95	0.94	0.91	4,25,000
40C	0.99	0.96	0.94	0.93	0.9	3,70,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0C	32F	1.03
10C	50F	1.01
20C	68F	1
25C	77F	1
30C	86F	0.99
40C	104F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

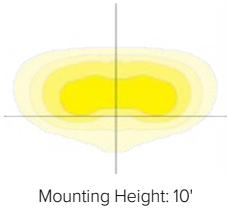
GEOPAK SERIES 1

SIZE 1 - TRP1/QSP1/RD11

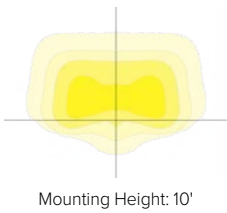
PHOTOMETRY

The following diagrams represent the general distribution options offered for this product. For detailed information on specific product configurations, see [website photometric test reports](#).

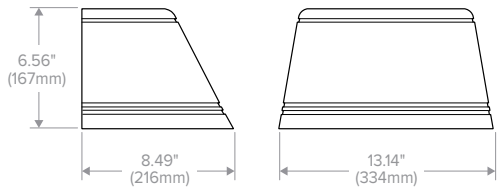
Type III



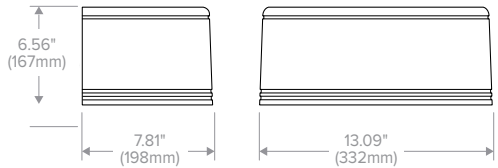
Type IV (Forward throw)



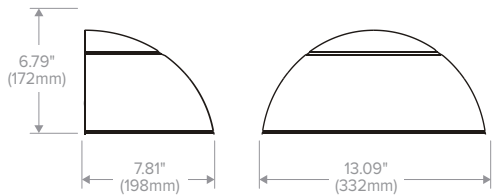
DIMENSIONS



Trapezoid
(TRP1)



Round
(RD11)



Quartersphere
(QSP1)

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

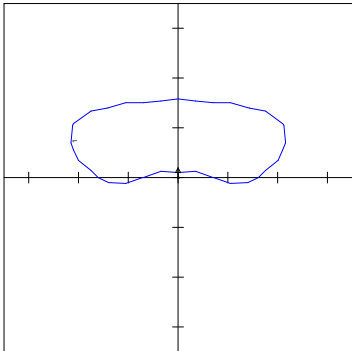
GEOPAK SERIES 1

SIZE 1 - TRP1/QSP1/RD11

ADDITIONAL INFORMATION

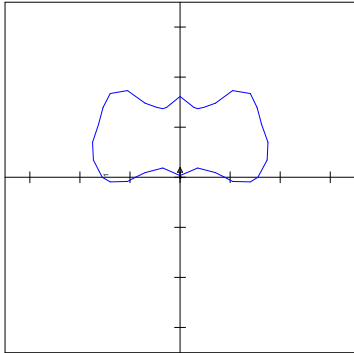
GEOPAK - BATTERY BACK UP

Type 3 Emergency Mode



13W battery when powered covers 20' throw to either side of fixture and 15' throw forward at a 10' mounting height.

Type 4 Emergency Mode



13W battery when powered covers 18' throw to either side of fixture and 15' throw forward at a 10' mounting height.

Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions.
Diagrams for illustration purposes only, please consult factory for application layout.

USE OF TRADEMARKS AND TRADE NAMES

All product and company names, logos and product identifies are trademarks [™] or registered trademarks [®] of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.

FEATURES

- Integral Battery Backup Option
- 360° Light Distribution
- RGBW or Static White Luminous Front Option
- Multiple Fascia Options and Finishes
- 4G Vibration Tested



CONTROL TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Main housing shroud is made of fabricated 5052-H32 aluminum alloy
- Housing mounting interface has a stamped silicone gasket
- Luminaire housing is free of any visible heat fins, hardware or fasteners
- Bracketry and hardware is stainless steel
- Luminaire finish consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish
- Luminaire finish meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance

LED/OPTICS

- LEDs are mounted to a metal printed circuit board assembly (MCPCB) with a uniform conformal coating over the panel surface and electrical features
- Optical lenses is clear injection molded PMMA acrylic
- Optical array is recessed in order to shield each LED optic across the length of the aperture
- Optical array is sealed for IP66 rating
- Secondary lens is impact resistant 5/32" tempered glass

INSTALLATION

- JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box
- Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates

INSTALLATION (CONTINUED)

- Fixture attaches by two Allen-head hidden fasteners for tamper resistance
- Optional mounting arrangements utilize a die-cast mounting adaptor to allow for surface conduit and through branch wiring
- Housing is able to hang freely in an open service position for inspection of internal wire connections. Once in service position, the housing shall be able to be removed for service by lifting the assembly up off the rear mounting plate and disconnecting the wiring plugs
- Driver assembly is mounted to a prewired internal tray with quick disconnects for removal

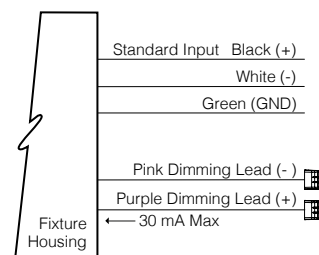
ELECTRICAL

- Drivers are in direct contact with the die-cast aluminum housing across the entire surface area of the widest face for maximum thermal transfer
- "Thermal Shield", primary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaires have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J. Surge protection device shall be wired in series
- Drivers are 0-10V dimming control with a dimming range of 100%-10%. Drivers are U.L. listed. All luminaires shall accept 120-277 volt input and have integral surge protection. "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components

CYPHER™



Cypher Small



ELECTRICAL (CONTINUED)

- Integral battery backup provides emergency path of egress lighting for the required 90 minutes for -20°C ambient environments
- Luminaire are capable of operating at 100% brightness in a 40°C environment. Both driver and optical array shall have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C

CONTROLS

- Button photocontrol for dusk to dawn energy savings
- PC12 for 120V, PC20 for 208V, PC24 for 240V, PC27 for 277V
- Photocell is factory installed inside the housing with a fully gasketed sensor on the side wall. For multiple fixture mountings, one fixture is supplied with a photocell to operate the others. Photocell adapter shall include an internal twist lock receptacle. Photocell by others

continued on page 3

KEY DATA	
LUMEN RANGE	1,353–2,752
WATTAGE RANGE	17–26
EFFICACY RANGE (LPW)	75–116
WEIGHT	Refer to page 5

ORDERING GUIDE

Example: CY1-15-3K7-1-2D-UNV-BLS-F-RGBW-FPP-PCU-SF

CATALOG #

Series-Output (Base)	CCT-CRI	Model (Light Engine) ¹	Main Distribution (Down)	Secondary Distribution (Up/Sides)	Voltage
CY1-15 15W, 1500 nominal lumens	27K8 2700K, 80CRI	1 DownLight Only	1 IES Type I	1 IES Type I	UNV 120-277V
CY1-25 25W, 2500 nominal lumens	3K7 3000K, 70CRI	2 50/50 Down/Up, Down/Up distributions must match	2 IES Type II	2 IES Type II	
	3K8 3000K, 80CRI	3 90/10 Down/Up	3 IES Type III	3 IES Type III	
	4K7 4000K, 70CRI	4 25/25/25/25 Spit, Down/Up/Side Distributions must match	4 IES Type IV	4 IES Type IV	
	4K8 4000K, 80CRI	5 70/10/10/10 Spit, Top/Side distributions must match	SP 15° Spot/Column	SP 15° Spot/Column	
	5K7 5000K, 70CRI		WG 60° Wall Graze	WG 60° Wall Graze	
			1D Type 1 Diffused	PB ² Pencil Beam	
			2D Type 2 Diffused	1D Type 1 Diffused	
			3D Type 3 Diffused	2D Type 2 Diffused	
			4D Type 4 Diffused	3D Type 3 Diffused	
				4D Type 4 Diffused	

Base Housing Finish	Fascia Form ¹	Luminous Front ⁴	Fascia Panel ⁵	Control Options	Options
BLS Black Gloss Smooth	F Flat	Blank Standard None	FPP Full Panel Painted	PCU Universal Button Photocell (120-277V)	EM ⁷ Battery Backup Unit -20° C
BLT Black Matte Textured	R Radius/Curved	RGBW RGBW Luminous Front	FPS Full Panel Stainless Steel		SF Single Fuse (120, 277)
DBS Dark Bronze Gloss Smooth	T Triangle/Wedge	LFSW Static White Luminous Front	FPC Full Panel Copper		DF Double Fuse (208, 240)
DBT Dark Bronze Matte Textured	E Rounded/Edge		OPP ⁶ Open Panel Painted		SCB Surface Conduit Box
GTT Graphite Matte Textured	C Circle/Curved		OPS ⁶ Open Panel Stainless Steel		
LGS Light Gray Gloss Smooth	CB Cylinder Balanced		OPC ⁶ Open Panel Copper		
LGT Light Gray Matte Textured	CT Cylinder Tall		4PP ⁶ 4-Square Panel Painted		
PSS Platinum Silver Gloss Smooth	CBM ⁸ Custom Building Material Mount Ghost Fascia		4PS ⁶ 4-Square Panel Stainless Steel		
VGT Verde Green Matte Textured			4PC 4-Square Panel Copper		
WHS White Gloss Smooth			PPP Perforated Panel Painted		
WHT White Matte Textured			PPS Perforated Panel Stainless Steel		
Color Options			PPC Perforated Panel Copper		
CC ³ Custom Color					

Notes:

- Consult factory for custom distributions. See Distribution Matrix on page 4 restrictions
- PB distribution is available for 90/10 and 70/10/10/10 models only. Not all combinations are recommended. See Distribution Matrix on page 2 for restrictions.
- Consult factory for custom color, marine and corrosive finish
- RGBW and LFSW luminous fronts are only available with open, four square and perforated fascia panels
- Flat and Radius Fascia forms only. Painted panels by default match base housing finish/color. Consult factory for custom panel finishes.
- Luminous front is required to select the Open Panel and 4-Square Panel fascia panels.
- Battery Backup not available with Triangle and Rounded Edge Fascia Forms.
- Custom Building Material Mount Ghost Fascia option allows the Cypher to blend seamlessly into the building architecture by matching the finish of the architectural background. See page 5 for dimensions and contact factory for additional information.

SPECIFICATIONS (CONTINUED)

CONTROL (CONTINUED)

- Each fixture comes equipment with a dual control driver that supports Bluetooth® operation of individual fixtures or DMX control of an entire system of fixtures.

Bluetooth®:

- Free Bluetooth® Apps are available for Apple iOS and Google Android mobile devices and are downloadable via the Internet at Apple App Store or Google Play.
- Modular wiring harness in the service area provides user access to the dimming circuitry via DMX.

DMX:

- Fully DMX/RDM Compatible
- Utilizes 4 DMX Channels per fixture

DMX MAP

- Start Address – Red
- Start Address +1 – Green
- Start Address +2 – Blue
- Start Address +3 – White

DMX Addressing is performed by using a compatible RDM handheld unit or via the Bluetooth® App.

- Performed by using a compatible RDM handheld unit or via the Bluetooth® App

DMX WIRING COLOR CODE

- Red Wire – DMX +
- Brown Wire – DMX-
- Yellow Wire – Shield/Ground
- DMX termination must be achieved by adding a DMX terminator to the last fixture in a Daisy-Chain. Fixture does not auto terminate.
- Kim Lighting is proud to offer the Pharos Architectural Controls DMX Controllers and Touch screens. See Pharos Spec Sheet for more details.

See the [Pharos® Spec Sheet](#) for more details.

MOBILE APP:

- Mobile App specification in additional information section.
- Mobile App. dimming range from 0% to 100% through the use of Current RGBW app (available on IOS and Android).
- Color selection and adjustment.
- Camera function for color matching.
- Intensity slider for dimming/ramping up.
- Save and rename up to 10 presets.
- Group and rename fixtures.
- Fixture is password protected, refer to instructions to set unique password.

CERTIFICATIONS

- Luminaire is listed with UL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250
- IP66 rated assembly
- IDA approved, 3000K and warmer CCTs only
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- ANSI C136.31-2010 4G Vibration tested and compliant
- Complies with "Americans with Disabilities Act" or "ADA" on select versions for low mounting height applications (fixtures extend maximum of 4 inches from wall for mounting heights of 80 inches or less)
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/06/2020

WARRANTY

- 5 year warranty



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DISTRIBUTION MATRIX

FASCIA FORM	DISTRIBUTION				
	Down Only 1	50 Down/50 Up 2	90 Down/10 Up 3	25/25/25/25 Split 4	70 Down 10/10/10 Split 5
Window/Options Flat* F	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Window/Options Radius Curve R	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Cylinder Balanced CB	SP/WG	SP/WG SP/WG	SP/WG/PB SP/WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB SP/WG
Cylinder Tall CT	I, II, III, IV, SP, WG	SP/WG SP/WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG
Triangle Wedge* T	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Rounded Edge* E	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG		
Circle/ Curved C	SP, WG	SP, WG SP, WG	SP/WG/PB SP, WG		
Ghost CBM	I, II, III, IV, SP, WG	I, II, III, IV, SP, WG	SP/WG/PB I, II, III, IV, SP, WG	SP/WG SP/WG SP/WG	SP/WG/PB SP/WG/PB I, II, III, IV, SP, WG

* ADA compliant for use in low mounting height applications (80 inches or less)

2 Down/Up distributions must match

4 Down/Up/Side distributions must match

5 Top/Side distributions must match

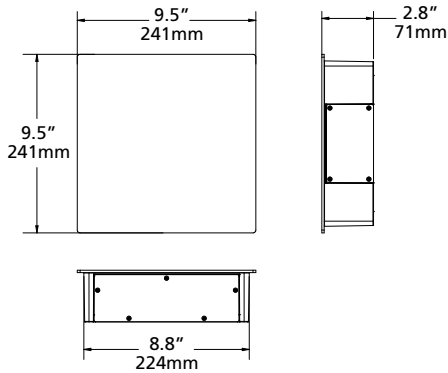
Contact factory for custom distributions

Dimensions available on page 5

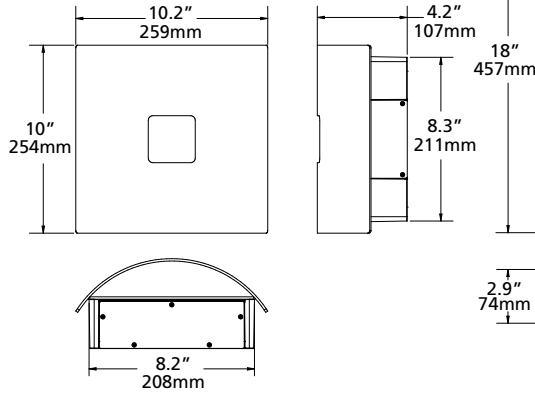
DIMENSIONS

F - FLAT

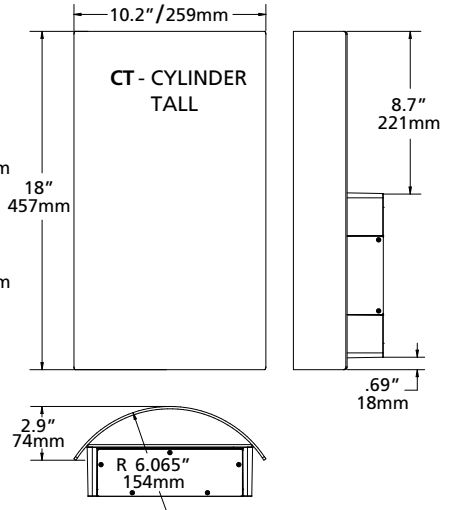
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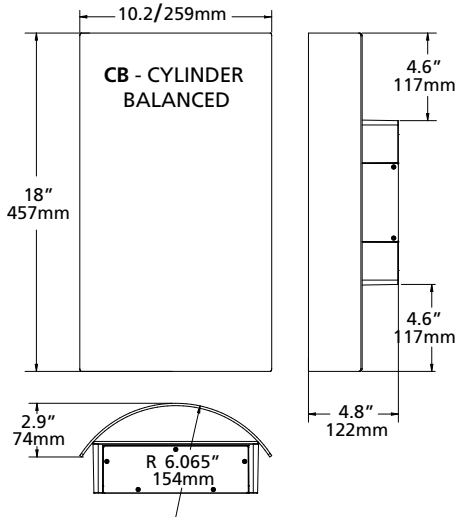
R - RADIUS/CURVED



CT - CYLINDER TALL

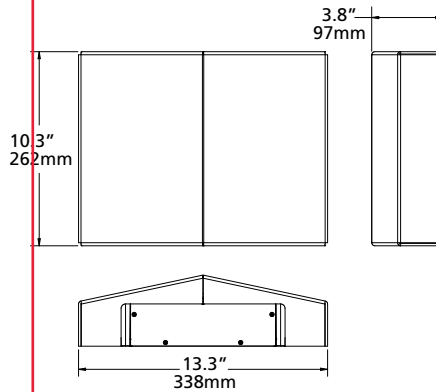


CB - CYLINDER BALANCED



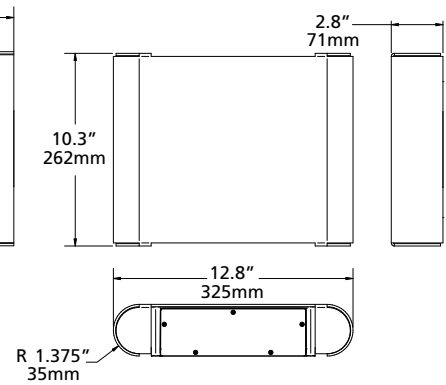
T - TRIANGLE/WEDGE

ADA approved.

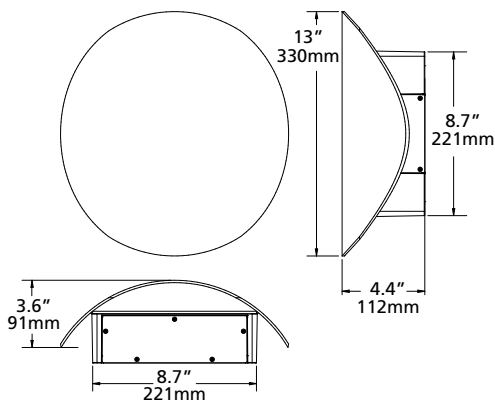


E - ROUNDED EDGE

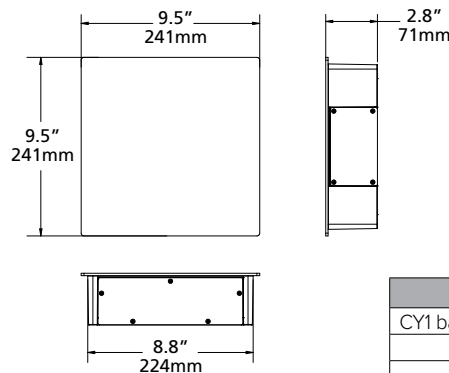
ADA approved.



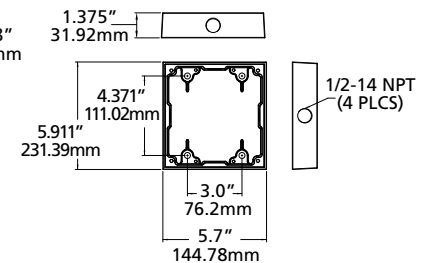
C - CIRCLE/CURVED



CBM - CUSTOM BUILD MATERIAL MOUNT GHOST FASCIA



SCB - SURFACE CONDUIT BOX



CY1 WEIGHT		FIXTURE + FASCIA WEIGHT	
CY1 base fixture	6.5 lb		
F	2 lb	CY1 + F	8.5 lb
R	2 lb	CY1 + R	8.5 lb
CB	3 lb	CY1 + CB	9.5 lb
CT	3 lb	CY1 + CT	9.5 lb
T	3 lb	CY1 + T	9.5 lb
E	3 lb	CY1 + E	9.5 lb
C	2 lb	CY1 + C	8.5 lb

DELIVERED LUMENS

Nominal Output (Lm)	System Watts	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
			Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)	Lumen	Bug Rating			Efficacy (Lm/W)
				B	U	G			B	U	G			B	U	G	
1,500	17	Type 1	1825	0	0	0	107	1928	0	0	0	113	1923	0	0	0	113
		Type 2	1638	0	0	0	96	1730	0	0	0	102	1726	0	0	0	102
		Type 3	1661	0	0	1	98	1755	0	0	1	103	1750	0	0	1	100
		Type 4	1668	0	0	0	98	1762	0	0	0	104	1757	0	0	0	103
		Wall Graze	1871	1	0	0	110	1976	1	0	0	116	1971	1	0	0	114
		Spot/Column	1701	2	0	0	100	1797	2	0	0	106	1792	2	0	0	103
		Type 1 Diffused	1547	1	0	0	91	1634	1	0	0	96	1629	1	0	0	96
		Type 2 Diffused	1493	1	0	0	88	1577	1	0	0	93	1573	1	0	1	93
		Type 3 Diffused	1353	1	0	0	80	1429	1	0	0	84	1425	1	0	0	84
2,500	26	Type 4 Diffused	1521	1	0	0	89	1607	1	0	0	95	1602	1	0	1	94
		Type 1	2390	0	0	0	92	2524	0	0	0	97	2517	0	0	0	96
		Type 2	2120	1	0	1	82	2239	1	0	1	86	2233	1	0	1	85
		Type 3	2117	1	0	1	80	2236	1	0	1	85	2229	1	0	1	85
		Type 4	2201	1	0	1	85	2325	1	0	1	89	2319	1	0	1	88
		Wall Graze	2605	2	0	0	100	2752	2	0	0	106	2744	2	0	0	104
		Spot/Column	2346	2	0	0	90	2478	2	0	0	95	2471	2	0	0	94
		Type 1 Diffused	2225	1	0	1	86	2350	1	0	1	90	2344	1	0	1	89
		Type 2 Diffused	1958	1	0	1	75	2068	1	0	1	80	2062	1	0	1	79
		Type 3 Diffused	1946	1	0	1	75	2056	1	0	1	79	2050	1	0	1	78
		Type 4 Diffused	2016	1	0	1	78	2129	1	0	1	82	2123	1	0	1	80

ELECTRICAL CHARACTERISTICS

LUMEN PACKAGE	SYSTEM WATTAGE (W)	LINE VOLTAGE		INPUT				MIN. POWER FACTOR	MAX THD (%)	DIMMING RANGE	SOURCE/SINK CURRENT (mA)		ABSOLUTE VOLTAGE RANGE ON 0-10V (+) PURPLE	
		VAC	HZ	120	208	240	277				MIN.	MAX.	MIN.	MAX.
1,500	17	120	50/60	0.1			0.1	>0.9	20	10% to 100%	0 mA	1 mA	0V	10V
2,500	26			0.2			0.1							

TM-21 LIFETIME CALCULATION (500mA)

LUMEN PACKAGE	AMBIENT ENVIRONMENT °C	PROJECTED LUMEN MAINTENANCE (KHRS)					REPORTED L70
		15	25	50	60 (TM-21)	100	
2,500	25	98%	97%	94%	92%	87%	>60Khrs.
	40	95%	93%	89%	87%	80%	

LBSE-SQD

EDGE-LIT SQUARE FIXED CCT
DIRECT J-BOX MOUNT DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

FEATURES

- 4", 6", and 8" aperture, delivering 750-1750 lumens
- Low surface profile of 1/2"
- Quick snap installation with no housing required
- Installs directly to most 3-1/2" and 4" J-Boxes
- Fixed CCT (3000K or 3500K, 80+ CRI) options
- Universal 120-277V, ideal for commercial applications
- All models standard with 0-10V/Triac/ELV dimming

LITEBOX®
edge-lit



SERVICE PROGRAMS



SPECIFICATIONS

CONSTRUCTION

- Durable cast aluminum low profile trim with 1/2" surface profile
- Suitable for New Construction or remodel, IC or Non-IC applications
- Eliminates the need for a recessed housing, ideal for areas with limited plenum space
- Optional non-conductive Decorative Color Trim accessories available in White, Black, Silver, and Brushed Oil Rubbed Bronze

OPTICS

- Utilizes the latest Edge-Lit LED technology
- Integral diffuse polycarbonate lens provides uniform light distribution
- Light distribution is free of distracting bright spots
- Visually comfortable with low glare

ELECTRICAL

- Edge-Lit LED array with 3 SDCM color consistency
- Long LED life: Maintains 80% of lumen output at 54,000 hours of operation, L80 at >54,000 hours (TM-21)
- Available in Fixed CCT in 3000K or 3500K, 80+ CRI
- High efficiency integral driver with universal 120V-277V, 50/60Hz
- All models have flicker-free dimming with 120-277V 0-10V Dim to Off or 120V Triac or ELV phase cut to 5%
- See Additional Information section for a list of recommended dimmers
- EMI: Meets Class A (<24dba) noise rating, FCC CFR 47 Part 15 Class B, ≥0.9 Power Factor, <20% THD

INSTALLATION

- Installs directly to most common 3-1/2" or 4" octagonal and round junction boxes with a minimum 1-1/2" depth including fire rated (by others)
- Metal plate mounts to the J-Box and accepts snap-in spring clips for a secure fit

CERTIFICATIONS

- cETLus listed to UL1598
- Can be used in direct contact with insulation (IC Rated)
- Suitable for wet locations, covered ceiling
- Suitable for use in clothes closets when installed in accordance to N.E.C. 410.16
- ENERGY STAR® certified

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	753-1804
Wattage Range	10.1-20.0
Efficacy Range (LPW)	75-90
Reported Life (Hours)	L80 / >54,000
Input Current (mA)	87-167 (120V)

LBSE-SQD

EDGE-LIT SQUARE FIXED CCT
DIRECT J-BOX MOUNT DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	



ORDERING GUIDE

Example: LBSE-4SQD-35K8-WH

CATALOG #

HOUSING

LBSE			
Model/CCT Configuration	Aperture/Shape/Function	CCT/CRI	Trim Color
LBSE Edge-Lit Surface, Fixed CCT, 120-277V with 0-10V/Triac/ELV dimming	4SQD 4" Square, Direct J-Box Mount, 750 Lumens 6SQD 6" Square, Direct J-Box Mount, 1100 Lumens 8SQD 8" Square, Direct J-Box Mount, 1750 Lumens	30K8 3000K, 80+ CRI 35K8 3500K, 80+ CRI	WH White

Accessories

- ☐ **LBSE-4SQD-T-WH** Trim Accessory, 4" Square, White
- ☐ **LBSE-4SQD-T-BL** Trim Accessory, 4" Square, Black
- ☐ **LBSE-4SQD-T-BBZ** Trim Accessory, 4" Square, Brushed Oil Rubbed Bronze
- ☐ **LBSE-4SQD-T-SVR** Trim Accessory, 4" Square, Silver

- ☐ **LBSE-6SQD-T-WH** Trim Accessory, 6" Square, White
- ☐ **LBSE-6SQD-T-BL** Trim Accessory, 6" Square, Black
- ☐ **LBSE-6SQD-T-BBZ** Trim Accessory, 6" Square, Brushed Oil Rubbed Bronze
- ☐ **LBSE-6SQD-T-SVR** Trim Accessory, 6" Square, Silver

- ☐ **LBSE-8SQD-T-WH** Trim Accessory, 8" Square, White
- ☐ **LBSE-8SQD-T-BL** Trim Accessory, 8" Square, Black
- ☐ **LBSE-8SQD-T-BBZ** Trim Accessory, 8" Square, Brushed Oil Rubbed Bronze
- ☐ **LBSE-8SQD-T-SVR** Trim Accessory, 8" Square, Silver

- ☐ **LBSES-C-12** Extension Cable, LBSE/LBSES, 12"
- ☐ **LBSES-C-24** Extension Cable, LBSE/LBSES, 24"

LBSE-SQD

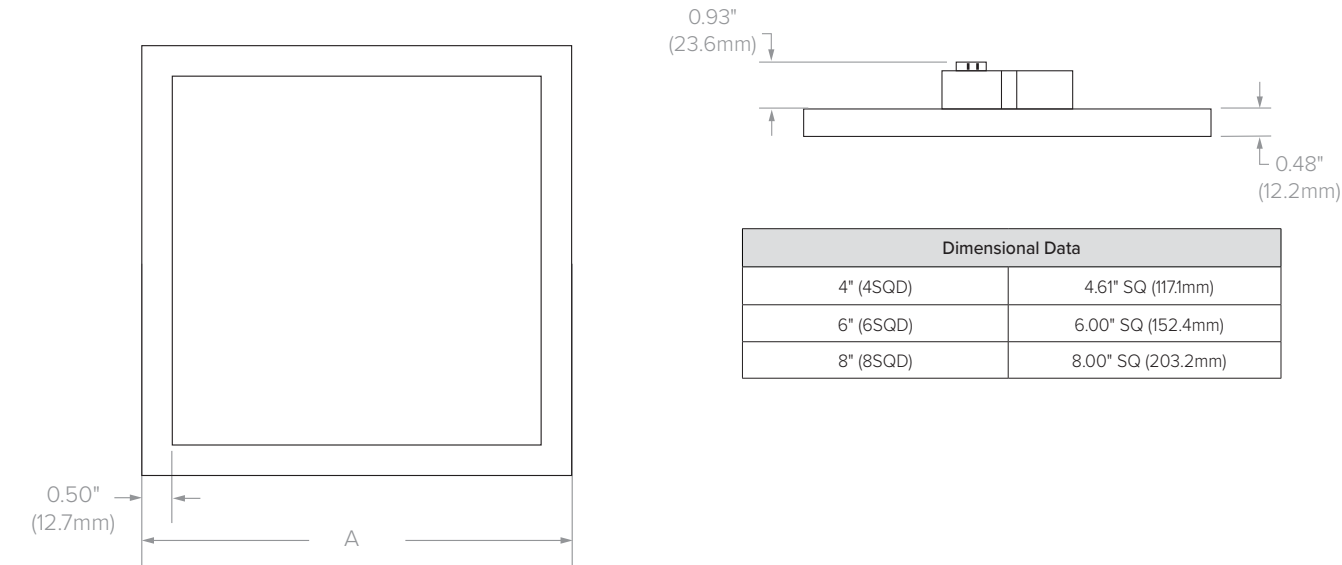
EDGE-LIT SQUARE FIXED CCT
DIRECT J-BOX MOUNT DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PERFORMANCE DATA TABLE

Nominal Aperture	Nominal Lumens	Cat #	CCT	CRI	Delivered Lumens	Watts	LPW
4"	750	LBSE-4SQD-30K8-WH	3000K	80	753	10.1	75
		LBSE-4SQD-35K8-WH	3500K		813	10.1	81
6"	1100	LBSE-6SQD-30K8-WH	3000K	80	1048	13.0	81
		LBSE-6SQD-35K8-WH	3500K		1133	13.0	87
8"	1750	LBSE-8SQD-30K8-WH	3000K	80	1669	20.0	83
		LBSE-8SQD-35K8-WH	3500K		1804	20.0	90

DIMENSIONS



LBSE-SQD

EDGE-LIT SQUARE FIXED CCT
DIRECT J-BOX MOUNT DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PHOTOMETRY

LBSE-4SQD-30K8-WH

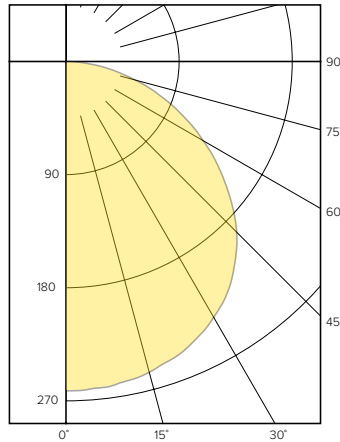
LUMINAIRE DATA

Test No.	R20.00830-01
Description	4" Downlight, 3000K, 80 CRI
Delivered Lumens	753
Watts	10.1W
Efficacy	75
Mounting	Surface
Spacing Criterion	1.3

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	324	43.1
0-60	585	77.7
0-90	753	100.0
0-180	753	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	243
5	242
15	237
25	226
35	208
45	178
55	138
65	95
75	53
85	15
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	27716
55°	26516
65°	24877
75°	22480
85°	18739

*Candela/Square Meter

LBSE-6SQD-30K8-WH

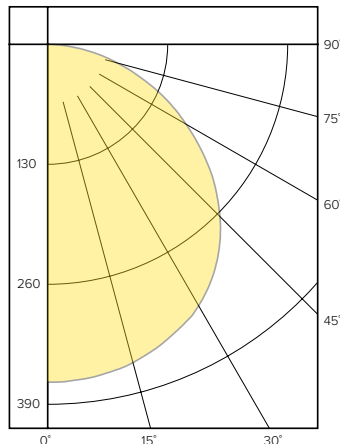
LUMINAIRE DATA

Test No.	R20.00831-01
Description	6" Downlight, 3000K, 80 CRI
Delivered Lumens	1049
Watts	13.0W
Efficacy	81
Mounting	Surface
Spacing Criterion	1.3

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	454	43.3
0-60	816	77.8
0-90	1049	100.0
0-180	1049	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	342
5	341
15	334
25	317
35	390
45	247
55	192
65	133
75	73
85	21
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	21628
55°	20705
65°	19465
75°	17458
85°	14623

*Candela/Square Meter

LBSE-8SQD-30K8-WH

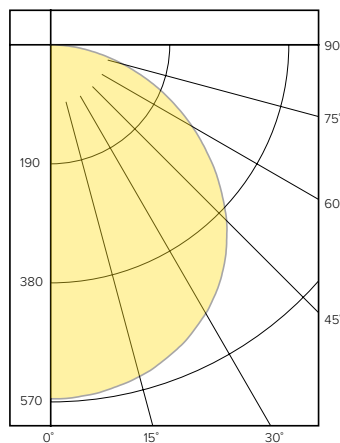
LUMINAIRE DATA

Test No.	R20.00833-01
Description	8" Downlight, 3000K, 80 CRI
Delivered Lumens	1669
Watts	20W
Efficacy	83
Mounting	Surface
Spacing Criterion	1.3

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	798	43.7
0-60	1422	77.9
0-90	1826	100.0
0-180	1826	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	556
5	554
15	539
25	509
35	460
45	390
55	302
65	209
75	118
85	35
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	17452
55°	16637
65°	15666
75°	14412
85°	12839

*Candela/Square Meter

LBSE-SQD

EDGE-LIT SQUARE FIXED CCT
DIRECT J-BOX MOUNT DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information at www.currentlighting.com/prescolite.

J-Box Compatibility

LITEBOX® Edge-Lit Direct J-Box Mount downlights are compatible with many standard 3-1/2" and 4" octagonal and round J-Boxes with a 1-1/2" minimum depth. Fire rated J-Boxes may also be used.



SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

FEATURES

- For ceiling mount and parking garage applications from an 8–15 foot mounting height
- Edge-lit flat lens for optimal visual comfort and uniformity across the lens
- Two optical distributions specifically design for parking garage and canopy applications are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65 and 3G vibration rated
- Occupancy sensor available for complete on/off and dimming operation



See Certification Specifications

SPECIFICATIONS

HOUSING

- Die-cast aluminum housing ensures long electrical component life and luminaire performance
- Corrosion resistant powder coat finish both protects and provides architectural appearance
- One piece molded silicone gasket ensures weather proof seal
- Thermally isolated driver mounted to dedicated bracket reduces operating temperatures and increases driver life and reliability

OPTICS

- Edge-lit acrylic light guide provides blended non-pixelated light for unprecedented visual comfort
- Choice of multiple light outputs with lumen range of 2000–6000
- Two distribution types: Type 5 Square Wide, Type 5 Concentrated
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

ELECTRICAL

- 120V–277V 50/60Hz available
- 0–10V dimming drivers are RoHS compliant
- Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 24" standard

INSTALLATION

- Standard quick mount plate over standard 4" junction box or octagonal junction box and allows for simplified fixture installation
- Standard luminaire accepts a rigid or 3/4" NPT stem for pendant mounting via wet location j-box (by others)
- Optional bird deterrent shroud available for field installation

OPTIONS/CONTROLS

- Standalone occupancy sensor available for on/off or dimming operation
- Uplight option provides approximately 800 lumens and consumes only 8 additional watts
- Vandal resistant wire guard available as an option for factory installation or as an accessory for field installation
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application



RELATED PRODUCTS

- [Drive Edge-Lit SRT2](#)
[Orbeon](#)
[Viper Small](#)

CERTIFICATIONS

- Listed to UL1598 for use in wet location, listed for -40°C to 40°C applications
- IDA approved with zero uplift for 3000K and warmer CCTs
- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 04/23/2020. See Buy American Solutions
- IP65

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

KEY DATA	
Lumen Range	2000–6800
Wattage Range	15–55W
Efficacy Range (LPW)	99–118
Reported Life (Hours)	50K
Weight lbs. (kg)	8 (3.6)

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

ORDERING GUIDE

Example: SRT1-35-3K7-5QW-UNV-BLT-WG

CATALOG #

Series	Engine	CCT	Distribution	Voltage	Color/Finish	Options
SRT1 Edge-Lit Parking Garage Size 1	15 15W Nominal 2000 lm 20 20W Nominal 2500 lm 35 35W Nominal 4500 lm 55 55W Nominal 6500 lm	3K7 3000K, 70 CRI 3K8 3000K, 80 CRI 35K8 3500K, 80 CRI 4K7 4000K, 70 CRI 4K8 4000K, 80 CRI 5K7 5000K, 70 CRI	5QW Type 5 Square Wide 5C Type 5 Concentrated	UNV 120V- 277V 120 120V 208 208V 240 240V 277 277V	BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured Color Option CC Custom Colors	WG Wire Guard UD Uplight Module ³ F Single Fuse (120, 277) ¹ LD3 36" Lead Length ² LD6 72" Lead Length ² LD9 108" Lead Length ² SP10K 10kA Surge Protection ³ LMB Less Mounting Bracket CD Continuous Dimming ⁴

Control Options	
<u>NX Standalone</u>	
NXOS12F	NX Distributed Intelligence™, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
<u>Sensor Controls</u>	
SCP-8F	Remote control programmable line voltage sensor (8-12' recommended mounting height) ⁴
SCP-20F	Remote control programmable line voltage sensor (12-20' recommended mounting height) ⁴

Accessories (Order Separately)

- ☐ **SRT1-WG** Wire Guard
- ☐ **SRT-MB** Mounting bracket for pre-installation
- ☐ **SRT1-BS-XXX** Bird deterrent shroud for SRT1 version, not available with uplight
- ☐ **SCP-REMOTE** Remote control for SCP option; order at least on per project to program and control

Notes:

- 1 Must specify voltage
- 2 Standard wire lead length 24"
- 3 SP10K or NXOS12F not available with uplight (UD)
- 4 120V or 277V only

PERFORMANCE DATA

Nominal Watts	Nominal Lumens	Distribution	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
15	2500	5C	2470	146.61	1	0	1	2459	145.91	1	0	1	2364	140.30	1	0	1
		5QW	2378	141.15	1	0	1	2367	140.48	1	0	1	2276	135.07	1	0	1
20	3000	5C	3093	136.86	1	0	1	3078	136.21	1	0	1	2960	130.97	1	0	1
		5QW	2974	131.60	1	0	1	2960	130.97	1	0	1	2846	125.93	1	0	1
35	4500	5C	4757	131.05	2	0	1	4734	130.42	2	0	1	4552	125.41	2	0	1
		5QW	4574	126.01	2	0	1	4552	125.41	2	0	1	4377	120.58	2	0	1
55	6500	5C	6814	127.13	2	0	1	6782	126.52	2	0	1	6521	121.66	2	0	1
		5QW	6552	122.24	3	0	1	6521	121.66	3	0	1	6270	116.98	3	0	1

ELECTRICAL DATA

Nominal Watts	System Watts	Line Voltage		AMPS AC				Dimming Range	Absolute Voltage Range on 0-10V (+)	
		VAC	HZ	120	208	240	277		VAC	HZ
15	16.9	120-277	50/60	0.14	0.08	0.07	0.06	10% to 100%	0V	10V
20	21.6	120-277	50/60	0.18	0.10	0.09	0.08	10% to 100%	0V	10V
35	34.6	120-277	50/61	0.29	0.17	0.14	0.12	10% to 100%	0V	10V
55	54.9	120-277	50/62	0.46	0.26	0.23	0.20	10% to 100%	0V	10V

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

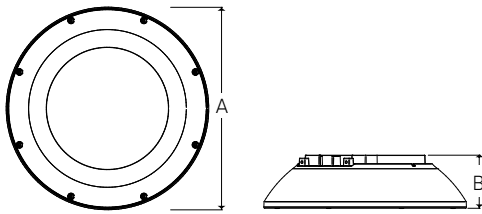
PROJECTED LUMEN MAINTENANCE

Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L ₇₀ (Hours)
25°C / 77°F	1.00	0.98	0.96	0.95	0.89	278,000
40°C / 104°F	0.99	0.98	0.96	0.94	0.88	264,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

DIMENSIONS



A	B	Weight
12" (304mm)	3.1" (78mm)	8lbs (3.6kg)

ADDITIONAL INFORMATION

FINISH OPTIONS



Wire Guard

An optional wire guard can be specified at the factory or as an accessory for field installation.



Bird Deterrent

An optional bird shroud deterrent can be specified at the factory or as an accessory for field installation.

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

ADDITIONAL INFORMATION (CONT'D)

MOUNTING



Surface Mount

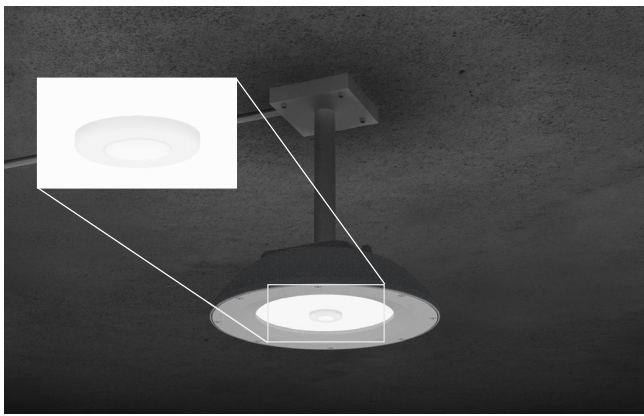
Mounting plate with "quick mount" hanger for one person simple installation.



Pendant Mount

Standard 3/4" threaded entry for pendant applications.

CONTROLS



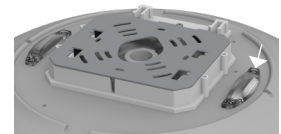
Standalone Controls

Optional passive infrared sensors are available for basic occupancy and daylight sensing. Programmable via remote or Bluetooth® phone app.

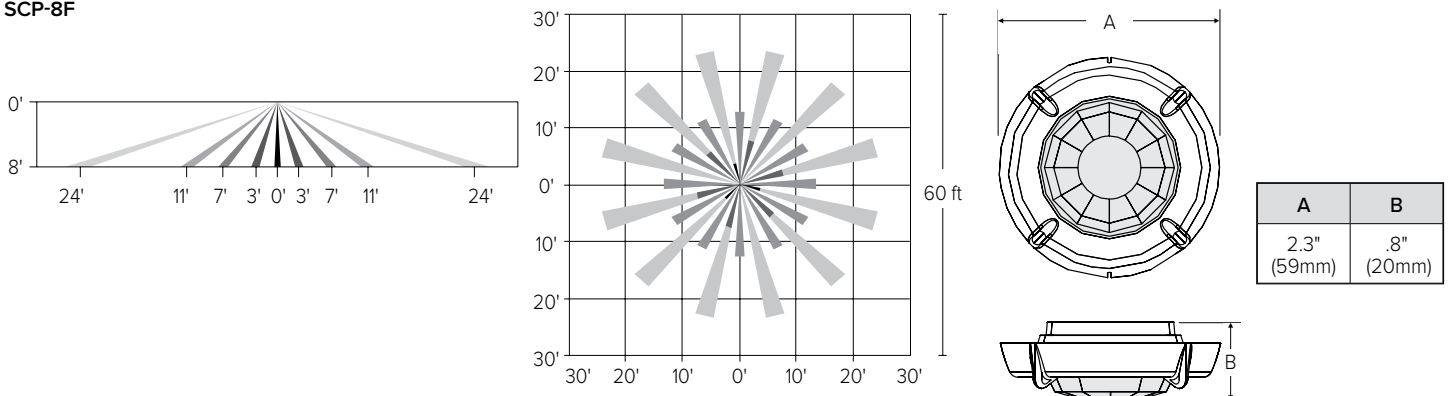


Uplight

Optional uplight module provides 800 lumens of indirect illumination for improved visual quality while eliminating cave effect.



SCP-8F



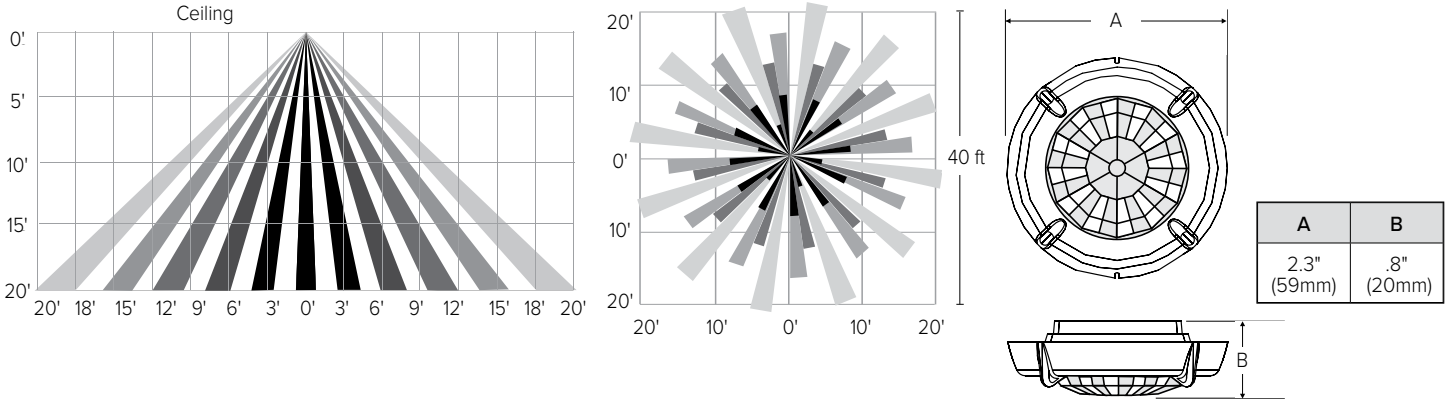
SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

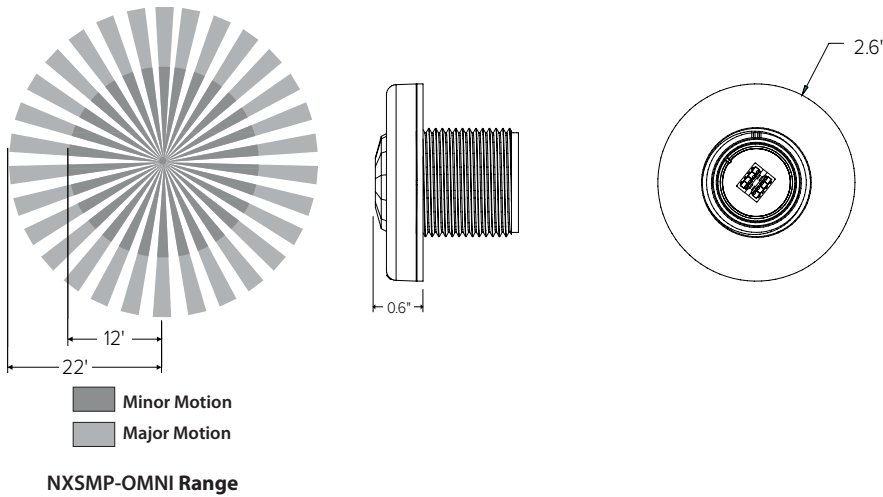
ADDITIONAL INFORMATION (CONT'D)

CONTROLS (CONT'D)

SCP-20F



NXOS12F



USE OF TRADEMARKS AND TRADE NAMES

All product and company names, logos and product identifies are trademarks ™ or registered trademarks ® of Hubbell Lighting, Inc. or their respective owners. Use of them does not necessarily imply any affiliation with or endorsement by such respective owners.

Aquas Series

2, 3, 4, 6 Rec

The Aquas series by FORUM is a line of extruded aluminum rectilinear luminaires approved for wet location, allowing for design consistency throughout wet and dry locations. Aquas features standard aperture sizes of 2, 3, 4, and 6". Multiple mounting configurations are available including rigid stem, surface as well as wall mounted. Aquas is available in Black, White, Silver, and custom colors and features a premium design, fit and finish.

Ordering

AQR — F — — — LED — — — X — — — — — — — —											
DISTRIBUTION		PROFILE	OUTPUT		SHIELDING	LENGTH	VOLTAGE	FINISH	OPTION 1	OPTION 2	OPTION 3
	32 2 3⁄8" width 3 3⁄4" height	65 650 lm/ft 6.5 input watts/ft*	27 2700k temp 93.5% Special order option	SAT Satin Lens	2 2'	120V	WH White	F Fusing	SW Separate Switch		
	42 2 3⁄8" width 4 3⁄4" height	95 950 lm/ft 9.5 input watts/ft*	30 3000k temp 95.2%	WOL White Opal Lens	3 3'	277V	SV Silver	EC Emergency Circuit	90 CRI 90 CRI		
	33 2 15⁄16" width 3 3⁄4" height				4 4'	UNV Universal	BK Black	EMLED LED battery pk			
	43 2 15⁄16" width 4 3⁄4" height	* Assumes 4000k w/ satin lens	35 3500k temp 96.8%		5 5'		CC Custom Color	DIMMING OPTIONS (CHOOSE 1)			
	34 4 1⁄2" width 3 3⁄4" height	Lumen Multiplier = % of 4000K	40 4000k temp 100%		6 6'		Provide custom color RAL#:	D10V 0-10V dimming 1% power class	DLA2 Lutron Hi-lume 1% 2-wire LED driver (120V forward phase only)		
	44 4 1⁄2" width 4 3⁄4" height	Consult factory for limitations	50 5000k temp 103%		7 7'			DLEH5 Lutron Hi-lume 1%-H EcoSystem LED driver with soft-On, Fade-to-Black	DLE55 Lutron 5-Series EcoSystem LED driver		
	36 6" width 3 3⁄4" height	Custom Output			8 8'			DALI Digitally Addressable Lighting Interface	DIM Dimming		
	46 6" width 4 3⁄4" height				Spec. run length:				Please specify dimming manufacturer/model (if required)		
					Standard run length in even foot increments.						
					Individual units cannot be joined in field to create runs.						
									CONTROLS OPTIONS (CHOOSE 1)		
									ODL Wattstopper occupancy and dimming, 8-15'AFF	ODM Wattstopper occupancy and dimming, 15-30'AFF	
								LLIL Lutron-Limelight wireless, internal. 8-15ft AFF	LLIM Lutron-Limelight wireless, internal. >15-30ft AFF		
								LLIH Lutron-Limelight wireless, internal. >30-40ft AFF	LLXL Lutron-Limelight wireless, external. 8-15ft AFF		
								LLXM Lutron-Limelight wireless, external. >15-30ft AFF	LLXH Lutron-Limelight wireless, external. >30-40ft AFF		

- 60 option available with 40 Fixture Length only
- 90 option available with 60 Fixture Length only
- A2 option available with 80 Fixture Length only
- 10ft aircraft cables with gripples and hourglass sleeves pre-installed. Canopy kits ordered separately
- G2 option available with 60 Fixture Length and 90 Lumen Output options only
- 10ft Power Cord included. 300V 18AWG, 5-Conductor wire
- Powercord not required for G2 mounting option



Customer Name	Date
Project Name	
Catalog Number	

CONTROLS & SENSORS

Ordering Code	Description
ODL	Wattstopper occupancy and dimming, 8-15' AFF
ODM	Wattstopper occupancy and dimming, 15-30' AFF
LLIL	Luton-Limelight wireless, internal. 8-15ft AFF
LLIM	Luton-Limelight wireless, internal. >15-30ft AFF
LLIH	Luton-Limelight wireless, internal. >30-40ft AFF
LLXL	Luton-Limelight wireless, external. 8-15ft AFF
LLXM	Luton-Limelight wireless, external. >15-30ft AFF
LLXH	Luton-Limelight wireless, external. >30-40ft AFF

DIMMING OPTIONS

Ordering Code	Description
D10V	0-10V Dimming, 1% power class
DLA2	Lutron Hi-lume 1% 2-1ire LED driver (120V forward phase only)
DLEH5	Lutron Hi-lume 1% H EcoSystem LED driver with soft-On, Fade-to-Black
DLE55	Lutron 5-Series EcoSystem LED driver
DALI	Digitally Addressable Lighting Interface
DIM	Custom Dimming. Please specify dimming manufacturer/model

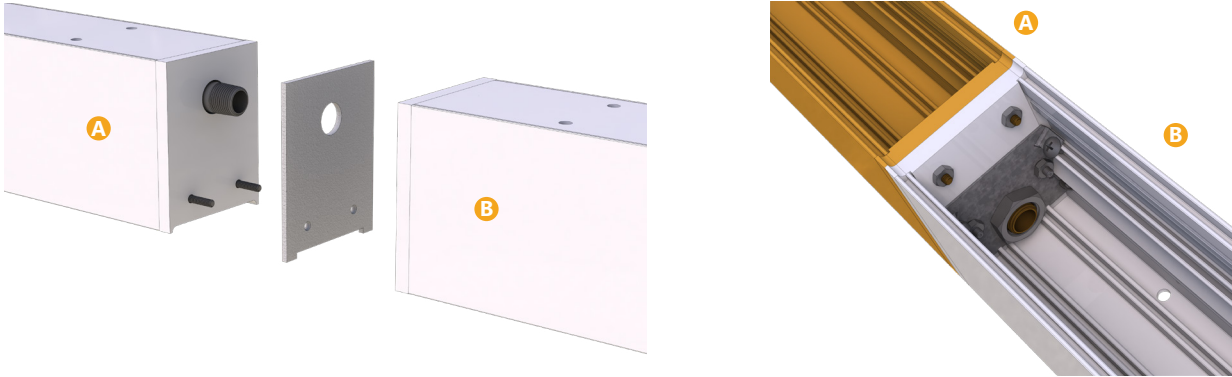
LUMEN MULTIPLICATION TABLE

Ordering Code	Description



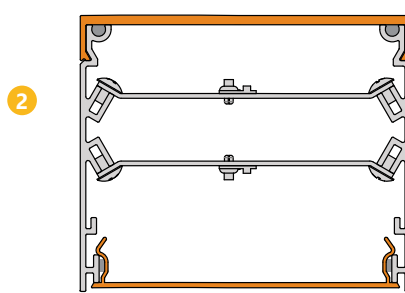
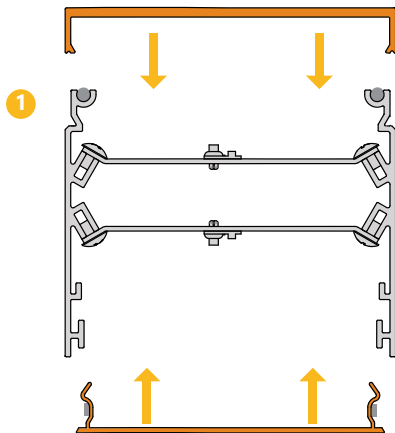
Components and Assembly

JOINING HARDWARE



Shielding Options

LENS DETAIL



Satin frosted, white opal, and clear acrylic lenses are snap in.





Aquas Series

2, 3, 4, 6 REC



Customer Name	Date
Project Name	
Catalog Number	

Drawings

AQUAS2 REC RGBW

AQUAS3 REC RGBW

AQUAS4 REC RGBW

AQUAS6 REC RGBW

2"W

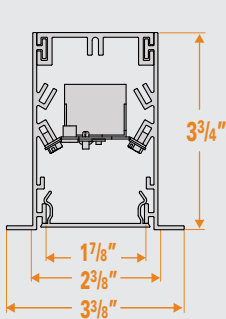
3"W

4"W

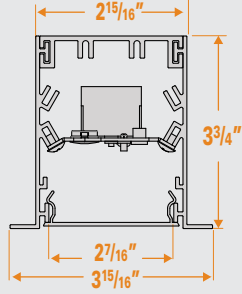
6"W

3"H

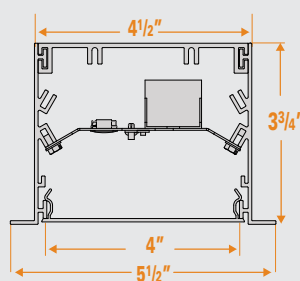
Profile: 32
Options: AQR



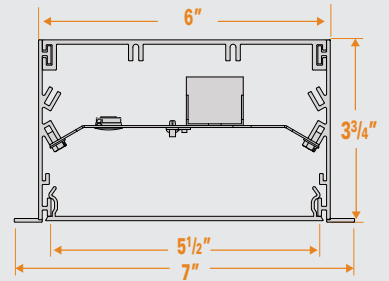
Profile: 33
AQR



Profile: 34
AQR

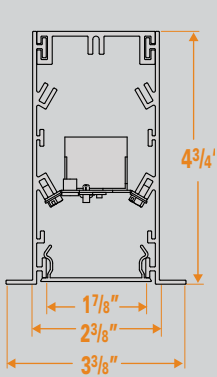


Profile: 36
AQR

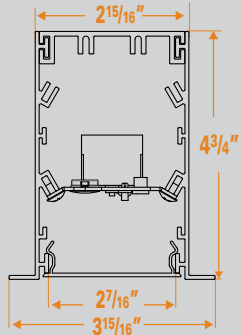


4"H

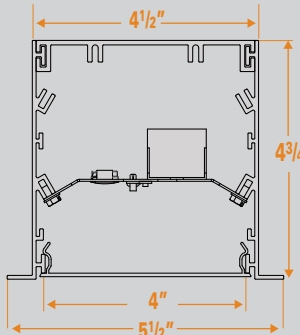
Profile: 42
AQR



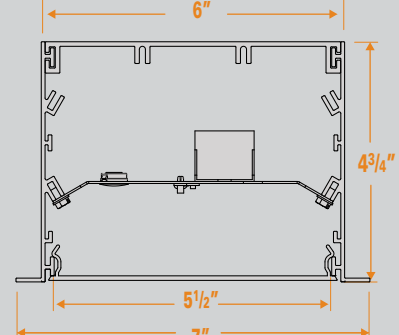
Profile: 43
AQR



Profile: 44
AQR



Profile: 46
AQR





Aqua Series

2, 3, 4, 6 REC



Customer Name	Date
Project Name	
Catalog Number	

CONSTRUCTION

Housing:	Extruded aluminum, machined endcaps
Lens:	Satin, clear frosted, and white opal lenses.
Optical Assembly:	.040" aluminum in a pre-paint white finish. Fully wired unit remains completely accessible from below.
Paint:	Black, White, Silver, Custom Color
Weight:	

OPTICAL SYSTEM

Lumens:	430-1710 lm/ft
Distribution:	
Efficacy:	
Wattage:	6.5 - 9.5 watts/ft
CCT:	2700k, 3000K, 3500K, 4000K, 5000K
CRI (Min):	90CRI
R9 (Min):	
Color Consistency:	
Luminance Uniformity:	

ELECTRICAL

Input Voltage:	120V, 277V, Universal Voltage
Input Frequency:	50/60Hz
Power Factor (PF):	
Total Harmonic Distortion (THD):	
Thermal Protection:	
Temperature / Humidity:	
Transient Protection:	
Electronic Vibration Testing:	

CONTROLS

Dimming:	0-10V 1% power class; Lutron Hi-lume 1% 2-wire LED driver; Lutron Hi-lume 1%-H EcoSystem LED driver with soft-On Fade-to-Black; Lutron 5-Series EcoSystem LED driver; Digitally Addressable Lighting Interface; Custom Dimming
-----------------	--

AMBIENT TEMPERATURE

Product ID	Operating Temperature
LEL:	

LUMEN MAINTENANCE

Projected L85 per IES TM-21 at max 35°C

50,000 HR

MOUNTING

- Recessed Hard Ceiling
- Recessed Tegular Ceiling

RATINGS

- Wet Rated

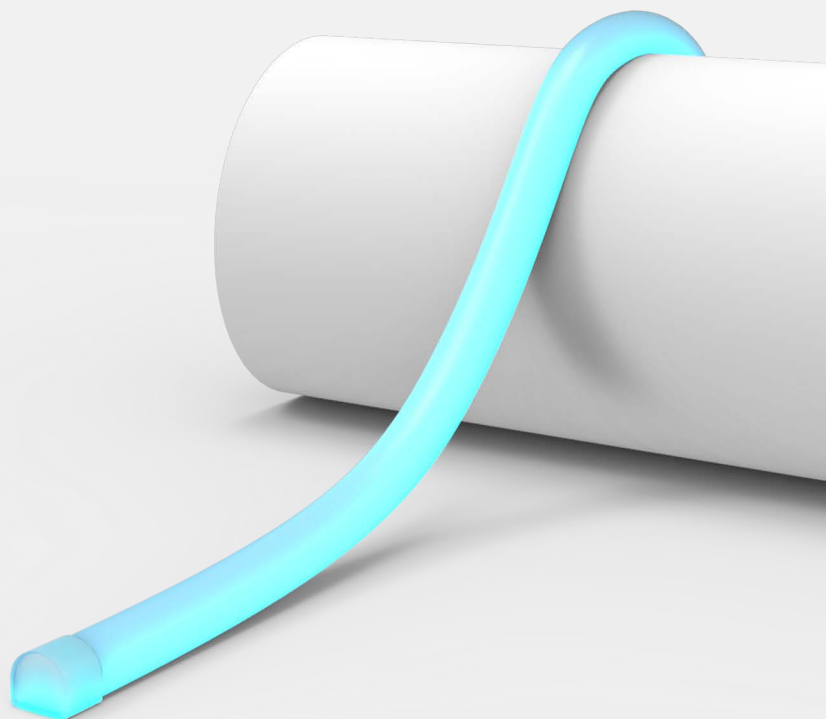
For Product or Technical Questions:

E: INFO@FORUMLIGHTING.COM
T: +1 412 781 5970

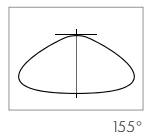
PROJECT: TYPE: CATALOG #: CPD - SO - RGBW - 155 - PB - 15 - WH -

PROFILE

OUTPUT	5.0W/FT
PERFORMANCE	UP TO 51.7 LM/W
DISTRIBUTION	155°
CCT	RGB+W
VOLTAGE	24V DC
POWER SUPPLY	REMOTE 120, 277V
CONTROL	DMX
BEND DIRECTION	VERTICAL
MIN CUTTING LENGTH	2.4 IN INCREMENTS
LENGTH	15.0 FT (4.5 M)
HOUSING	WHITE SILICONE EXTRUSION
MOUNTING	SURFACE MOUNT
END CAPS	MOULDED SILICONE
TEMPERATURE	-20°C - 60°C
WARRANTY	3 YEAR LIMITED
CERTIFICATION	UL, ROHS, IP67



DISTRIBUTION



155°

MOUNTING



POLYCARBONATE BRACKET (INCLUDED)



POLYCARBONATE TRACK (OPTIONAL)

DOME FIELD TRIMMABLE SEALANT KIT - OPTIONAL


LEFT
STARTER FEED

RIGHT
STARTER FEED

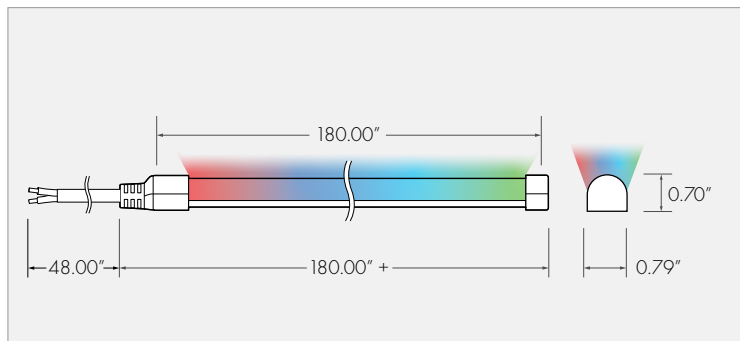
BOTTOM
STARTER FEED


END CAP

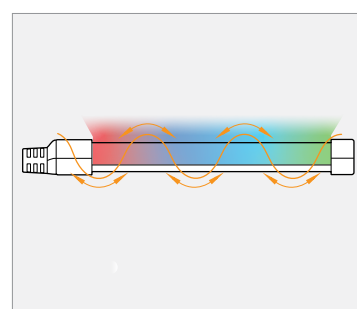
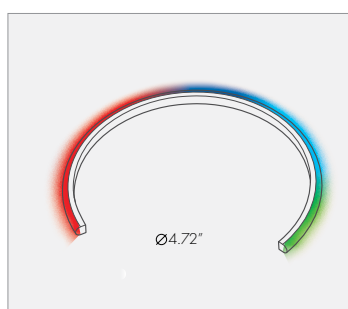


RTV GLUE

PROFILE



BEND DIAMETER + DIRECTION



PROJECT: TYPE: CATALOG #: CPD - SO - RGBW - 155 - PB - 15 - WH -

SPECIFICATION

CPD	SO	RGBW	155	PB	15		WH	separate options with dashes
1	2	3	4	5	6	7	8	9
1 FIXTURE			3 CCT			6 FIXTURE LENGTH		8 FINISH
CO-PILOT DOME CPD			RGB+W RGBW Contact factory for Active White			15.0' 15		WHITE WH
2 WATTAGE			4 DISTRIBUTION			7 CONTROL		9 OPTIONS
STANDARD OUTPUT SO 5.0 W/FT			155° 155			DMX FIXTURE RESOLUTION DMXFX DMX SYSTEM RESOLUTION DMXSY Default factory setting is System Resolution with default channels 1-4 Control options require a DMX Distribution & Programming Kit and must be ordered separately See below for details		DOME FIELD TRIMMABLE DFK SEALANT KIT For on-site power feed or trimming modifications. POLYCARBONATE TRACK KIT PTK Includes five 3ft. polycarbonate tracks. Recommended for ceiling mounts.
			5 MOUNTING					
			POLYCARBONATE BRACKET PB 9 pcs/15.0' Polycarbonate track kit (under OPTIONS) recommended for ceiling mounts					

POWER SUPPLY & CONTROL ORDER OPTIONS

[Go to DMX Guide >](#)

REMOTE POWER SUPPLY OPTIONS - 120V - 277V, IP67 - REQUIRED

CONTRA EXTERIOR LOW POWER, 96W OUTPUT CEL-DMX/DCU
Above wattage is based on 75% of the Power Supply's total wattage capacity
For specific and case by case requirements, please contact factory for assistance

DMX DISTRIBUTION & PROGRAMMING KIT - REQUIRED

DMX/RDM DISTRIBUTION KIT (4 OUTPUTS) - IP67 CDS-RDM
DMX/rdm Distribution Kit consists of four outputs
Each output is limited to (1) run per output - up to 32 fixtures max
Four terminators are included for end of line termination

CONTROL - OPTIONAL

REMOTE DMX/RDM ADDRESSING AND MONITORING TOOL DMXCAT
DMXCAT Remote Addressing and Monitoring Tool uses Bluetooth LE technology for communication with the smartphone/applications (up to 50' range)
Each output is limited to (1) run per output - up to 32 fixtures max
Allows for on-site fixture resolution and addressing

PROJECT: TYPE: CATALOG #: CPD - SO - RGBW - 155 - PB - 15 - WH -

PERFORMANCE

	LUMENS/FT	WATTS/FT	LUMENS/WATT	BEAM ANGLE
RGB+W	274	5.3	51.7	155

WIRING

MAX FIXTURE LENGTH

MAX LENGTH/POWER SUPPLY (FEET)

15.0 FT

MIN CUT LENGTH (INCHES)

2.40 IN

REMOTE DISTANCE LIMITS

*Non-compliance with recommended remote wiring distances may void warranty

WIRE GAUGE

MAX DISTANCE

22 AWG	25.0 FT
20 AWG	40.0 FT
18 AWG	60.0 FT
16 AWG	100.0 FT
14 AWG	150.0 FT
12 AWG	200.0 FT

PROJECT:

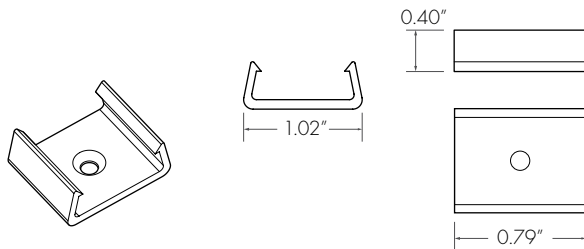
TYPE:

CATALOG #: CPD - SO - RGBW - 155 - PB - 15 -

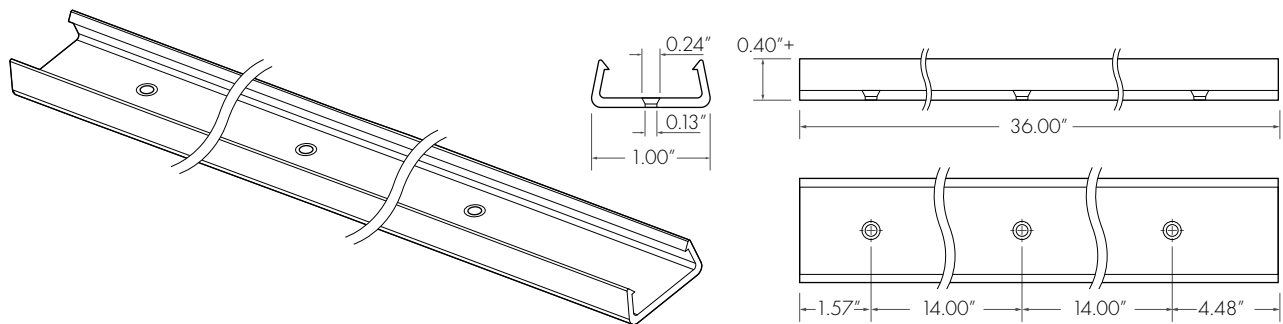
- WH -

MOUNTING DIMENSIONS

POLYCARBONATE BRACKET (PB) - INCLUDED



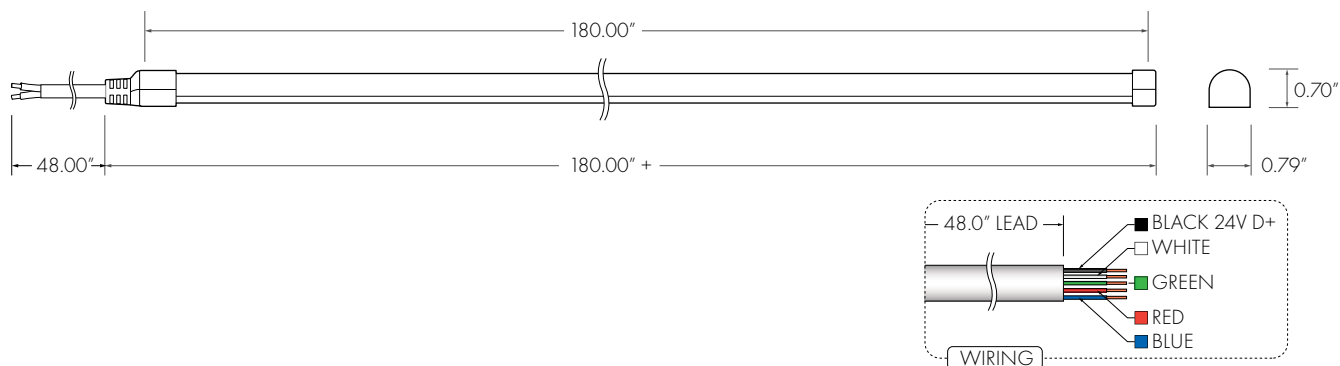
POLYCARBONATE TRACK KIT (PTK) - OPTIONAL



PROJECT: TYPE: CATALOG #: CPD - SO - RGBW - 155 - PB - 15 - WH -

DIMENSIONS

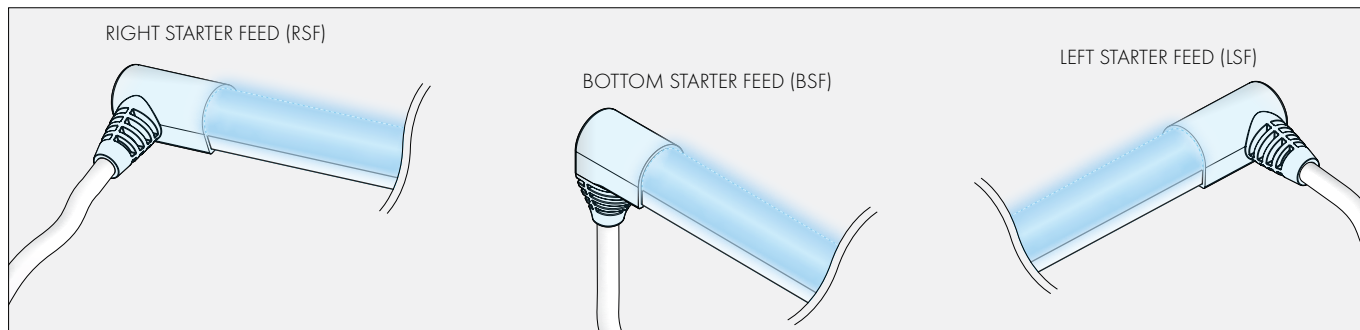
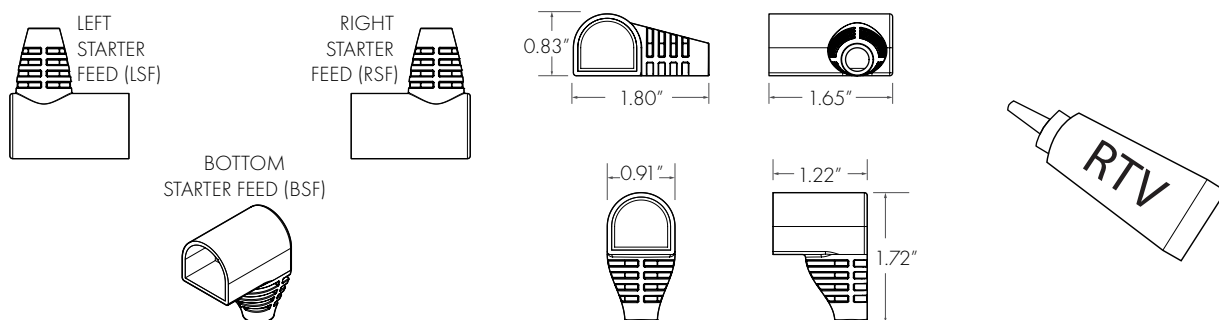
PROFILE



STARTER FEED AND END CAP DIMENSIONS



DOME FIELD TRIMMABLE SEALANT KIT



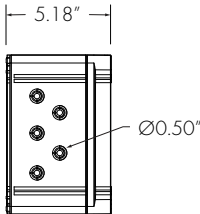
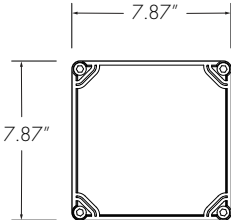
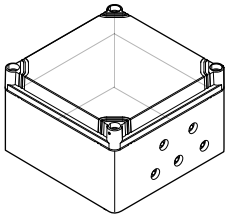
PROJECT:

TYPE:

CATALOG #: CPD - SO - RGBW - 155 - PB - 15 - - WH -

POWER SUPPLY

CONTRA EXTERIOR LOW POWER SUPPLY - CEL-DIM OR CEL-DMX/DCU



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 Local Street Cross Section (I-1) and Granite Curb (I-17) (partial waiver)	Granite curb in right-of-way	Requesting to use granite curb at corners and driveways only and slip-form concrete curb in all other locations within the right-of-way	Cost savings as applicant is proposing to reconstruct all curbs and sidewalks within right-of-way
Technical Manual Section 1.14.2 Parking Lot and Parking Space Design Circle 1 Building	Parking lots with greater than 10 spaces may be comprised of up to 20% compact parking spaces.	Requesting to use more than 20% compact spaces. The applicant is proposing to use 18 compact spaces out of the 71 in the parking lot (+/-25%)	Due to the changing dynamic of vehicle size, general greater acceptance of use of smaller parking stalls, and familiarity of residents with the parking configuration this reduction appears to be warranted.
Technical Manual Section 1.14.3 Parking Lot and Parking Space Design Circle 2 driveway @ Building 5	Parking lot layout shall conform to Figures I-28 thru I-32	Requesting aisle width to be less than 24' wide (22' proposed) at the 5 parking spaces @ Building 5 driveway	Due to the low speed, low volume of traffic, user (staff) and familiarity of users we feel that the reduced parking lot aisle width is an acceptable request. We are looking to maximize landscape + snow storage areas while adding a

27. Noise + Vibration

Riverton Park entails four building types each with different mechanical treatments appropriate to their uses.

- Circle 1 Building outdoor mechanical units includes interior ERV's to provide ventilation to each unit and common areas.
- The Neighborhood Center includes interior ERV's to provide fresh air throughout the building, and heat pumps for both heat and air conditioning.
- All residential townhome buildings have mechanical units that are, and will continue to be internal to reduce any unwanted outside noise.

Once specific units has been determined, cut sheets of make/mode indicating sound level of units (in compliance with City noise level ordinance) and plan view showing units/location will be submitted.

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 Local Street Cross Section (I-1) and Granite Curb (I-17) (partial waiver)	Granite curb in right-of-way	Requesting to use granite curb at corners and driveways only and slip-form concrete curb in all other locations within the right-of-way	Cost savings as applicant is proposing to reconstruct all curbs and sidewalks within right-of-way
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28. Signage and Wayfinding

For the existing residential townhome buildings, all building signage will have a building and street number on them. All existing public street signs are to remain.

The Circle 1 building will have building mounted signage above the front entry as well as the retail entry. All building signage will be in accordance with the City of Portland design standards Section 20. Interior PHA Management Office signage will be interior surface mounted in the entry vestibule and lobby. Greater Portland Health clinic signage will be surface applied on glass entry vestibule, which is on the south end of the building adjacent to the parking lot.

The Neighborhood Center building mounted signage will be on the south end of the building just off the covered entry canopy. Food Pantry signage will be mounted on the covered entry to the north of the building. Boys & Girls Club, and PHA Study Center signage will be interior surface mounted in the entry vestibule and lobby. Community Police signage will be glass mounted on the inside surface of the door to prevent vandalism.

All building mounted signage sheets have been attached for review.

The Riverton Park property entry sign at the corner of Forest Ave and Riverton Drive will be replaced in its current location and within its approximate current footprint.

See the following sheets for signage details + locations:

<u>Circle 1 Building:</u>	A3.00-A3.02 Exterior Elevations
	A3.50 + A3.51 Signage Details
<u>Neighborhood Center:</u>	A3.00 Exterior Elevations
	A3.50 Building Signage
<u>Maintenance Building:</u>	A3.10 Exterior Elevations
<u>Rehab:</u>	A3.00 Building Signage
	A3.02+A3.09 Exterior Elevations

9. Financial Capacity

Portland Housing Development Corporation (PHDC), the development arm of the Portland Housing Authority (PHA), self-certifies it has the financial capacity and experience to secure financing and complete the redevelopment and rehabilitation of Riverton Park. Assembly of Riverton Park financing is in the early stages and will be completed within the development timeline thanks to Portland Housing's deep existing relationships, strong balance sheet and consistent track record of excellent affordable housing development.

A.) Pre-Development

PHDC self-finances pre-development expenses with unrestricted funds and is reimbursed at construction loan closing.

B.) Low Income Housing Tax Credit

In the past eight years, PHDC has been awarded eight Low Income Housing Tax Credits (LIHTC) awards for Solterra Apartments, Washington Gardens, Front Street Phases 1 and 2, 331 Cumberland Ave, Equinox Apartment, Winter Landings and Harbor Terrace. These include both 9% and 4% LIHTC deals. Our organization is experienced in and knowledgeable of the competitive nature of the LIHTC funding rounds and securing syndication of housing tax credits.

Riverton Park was submitted to MaineHousing for a 4% LIHTC allocation, and the application is currently pending. The tax credits will generate equity to fund redevelopment. A tax credit investor will be identified after notice of an award.

C.) Construction Financing

MaineHousing will provide most or all construction financing for the Riverton Park project. MaineHousing has agreed to act as construction lender during preliminary discussions. In addition to construction financing, MaineHousing will also issue tax-exempt bonds required to utilize 4% LIHTCs. Should additional construction financing be needed, PHDC has several relationships with banks and would select a bank partner to fill in any remaining construction loan gap. Typical terms are expected for construction financing through MaineHousing and/or a bank, including interest-only payments at a market-based interest rate typical of such loans.

D.) Permanent Financing

MaineHousing has preliminarily agreed to provide permanent financing at a reasonable rate and typical market terms. Loan size may be modified based upon prevailing interest rates and terms at the time of closing. Currently, an application to the City's Housing and Economic Development department for an award of HOME funds and Affordable Housing Tax Increment Financing (AHTIF) is pending. Additional financing may be sought from the Federal Home Loan Bank of Boston's Affordable Housing Program (AHP).

E.) Operating Subsidy

Riverton Park currently operates as Public Housing. Using HUD's Section 18 Demolition & Disposition program, the project will convert to a Section 8 Project Based Voucher (PBV) funding platform at construction loan closing. Following Section 18 conversion, we expect approximately 141 units at Riverton Park will benefit from PBVs, guaranteeing that most Riverton Park households continue to pay no more than 30% of their income towards housing costs.

F.) Staff Experience and Capacity

PHDC staff have over 40 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.

29. Zone Related Design Standards

The proposed redevelopment and rehabilitation of Riverton Park shall comply with the following Zone Related Design Standards as outlined in the City's Design Manual:

- **(D.) B-2 Commercial Business Zones**
 - **(H.) Planned Residential Unit Development (PRUDS) in the R5-A Residential Zone**
 - **(Appendix) Development in the B-1, B-1b, B-2, B-2b shall meet the following guidelines in order to meet the Site Plan Standards**
-

(D.) B-2 Commercial Business Zones

(1) **STANDARDS.** Development located in the B-1, B-1b, B-2, and B-2b zones shall meet the following additional standards.

a. Urban Street Wall: In the B-1, B-1b, and B-2b zone it shall be required that buildings shall be located to create and preserve an urban street wall.

Building 1: The retail entrance is located within the required max. 10' front setback. The remainder of the front façade is located outside of the max. 10' front setback as allowed by provisions 7.5.5.F.3 (B+F) maximum front setbacks. Where the front façade is outside of the max. 10' front setback an urban wall will be created by a continuous pedestrian scaled edge treatment outlined in the above provision.

b. Mixed Uses: In B-1b zone buildings shall be multi-storied with mixed uses.
Not applicable

c. Building Entrances: In the B-1 and B-2b zone building entrances shall be oriented toward, located adjacent to, and directly accessible from, a sidewalk in a public right-of-way.

All building entrances are oriented to, located adjacent and are directly accessible to a sidewalk at the right-of-way.

The residential main entry is set back from pedestrian paths to create a delineation of public/private space, whereas the retail entry is within 10'-0" of the setback per zoning regulations for foot traffic. The main entry façade design provides hierarchy to the entry in relation to the rest of the building. A Separate entry to the health clinic is provided at the rear of the building directly adjacent to reserved parking, and secluded from heavy trafficked pedestrian plaza to provide privacy to patients. Further discussion regarding building entry coordination with the pedestrian plaza is provided under section E. Façade Character.

d. Windows: In the B-1, B-1b, B-2, and B-2b zones windows shall be required along the street frontage of a building. Windows shall be transparent (with a visible

transmittance (VT) of .7 or greater) and installed at a height to allow views into the building by passersby.

Main entry and retail windows are full height storefront glazing for ample visibility from street. Residential windows on first floor (while clear glazed) have a landscape buffer for resident privacy.

e. Facade Character: In the B-1, B-1b, B-2, B-2b zones, active and public portions of buildings (e.g. doors, windows, entries, retail displays) shall be oriented to and, where possible, be located adjacent to the public sidewalk to create an active presence along the sidewalk.

The façade is marked with canopies and a change in material and form on the Riverton drive elevation. The Circle 1 building form is bookended with similar materials allowing visual concentration on the entry as a focal point.

1. Where building facades situated along a public way have no interactive use or function, such facades shall be designed to provide sufficient architectural and graphic amenities to provide visual interest along the street and relate the building, and its use, to passersby.

Building signage is limited to the canopies at the main entry and retail portions of a building. Signage will be a powder coated raised metal lettering 12" in height, in a contrasting color to the canopy, which allows for visibility from across the street as well as the pedestrian and vehicle approach of the front entry. The text height is 10'-10" from grade allowing not only visibility but a tamperproof location as well. The adjacent pedestrian plaza provides additional activity along Riverton Drive where the south volume of the building receded from the street.

f. Building Design: B-1, B-1b, B-2, and B-2b commercial buildings shall be designed to be compatible with their residential and commercial neighbors. In the B-1 and B-1b zones building scale, roof pitch, and fenestration shall be designed to complement surrounding residential structures.

The circle 1 building is designed with exterior colors and materials will all be consistent with the Neighborhood Center and resident rehab buildings.

g. Building Materials: Facade materials of buildings located in the B-1, B-1b, B-2, and B-2b zones shall be compatible with those materials of surrounding residential and commercial uses.

The entire site will be undergoing an envelope upgrade. As a result, all exteriors will have fiber cement siding with a similar color scheme. The Circle 1 building and Neighborhood Center will have similar color aspects, but be unique application of the same materials.

h. Building Scale: In the B-1 and B-1b zones building scale must relate and be compatible with surrounding residential structures.

The Circle 1 building will be 4 stories, but the drop in site elevation will mask the scale of the building, as it will appear to align with the existing tree line. The roof height of the Circle 1 building will be consistent with the mixed-use project along Forest Ave (adjacent parcel). All building heights comply with the B-2 zoning requirements.

i. Landscaping and buffers: In the B-1, B- 1b, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line.

Landscape buffers and fence will screen the parking lot from the adjacent properties. A continuous landscape edge treatment will occur at the front right-of-way line to provide screening and a street edge.

GUIDELINES.

Please refer to Appendix 2 of this manual, The B-1, B-1b, B-2, B-2b Design Guidelines, for applicable design guidelines for the B-1 and B-2 zones. In addition, the following design guidelines shall also apply:

1) Buildings located in the B-2 zone are specifically encouraged to adhere to the design guidelines contained in *the B-1, B-1b, B-2, B-2b Design Guidelines* (Appendix 2) of this section concerning the creation and preservation of an urban street wall.

The building will be located so the retail entrances are located within the max. 10' front setback and the remainder of the front façade will implement the provisions to allow a great setback but create an urban wall through plantings and fence.

2) In the B-1b and B-2 zones, buildings are specifically encouraged to adhere to the guidelines contained in *the B-1, B-1b, B-2, B-2b Design Guidelines* (Appendix 2) of this section concerning building entrances.

The retail and residential portions of the building comply with all B-2 standards including signage and canopy constraints. The building footprint extrudes toward the front setback for compliance with retail standards, but then steps back to adhere to the CPTED (crime prevention through environmental design) constraints by creating a buffer between public and private spaces.

(H.) Planned Residential Unit Development (PRUDS) in the R5-A Residential Zone

(1) **STANDARDS.** Planned residential unit developments (PRUDS) in the R-3, R-5 or R-5A residential zones and manufactured housing parks in any zone shall meet the following standards:

a. Design relationship to site: The layout and design of buildings, roadways, parking areas, open space, recreation amenities, landscaping, drainage facilities and control mechanisms and other site improvements are organized to complement and accentuate the natural topography, vegetation, streams, water features, and other existing features of the site, and the solar orientation provides natural light within dwelling units, in outdoor open space and in recreation areas.

Both the Neighborhood Center and Maintenance Garage building along with their associated site improvements have been designed to harmoniously fit onto the site and are compatible with the surroundings. All other buildings are existing and only being rehabilitated.

b. Internal design character and relationship to surrounding neighborhood: The design and layout of the development and buildings exhibit a cohesive design character and complement existing development in the surrounding neighborhood by virtue of such features as architectural style, height, scale and massing, character of exterior facades and roofs, circulation, open space, landscaping, and the transition of scale and massing with the surrounding neighborhood. Buildings with more than two (2) dwelling units or greater than forty (40) feet in length shall provide variation in roof and facade character through changes in facade setback, roof configuration, and projecting or recessed building elements.

There are 21 existing residential buildings to undergo a deep energy retrofit. The existing roof slopes are being simplified to allow for photovoltaic array installations and the facades will be updated to match the new neighborhood character. This will solidify a cohesive neighborhood aesthetic, including relating to the new Circle 1 Building and Neighborhood Center.

c. Recreation and open space: All open spaces on the site shall be integrated into the development and designated on the site plan. Each development shall have the following features:

1. External buffers: An effective and permanent screening from neighboring properties and roadways;

The majority of the project site is fortunate to benefit from existing, significant wooded buffers and fencing. Where the buffers are lacking, they will be supplemented.

2. Internal buffers: Areas planted, maintained and located in such a manner as to provide privacy between units and buildings and paved areas and screening of parking, utilities, roadways, waste collection facilities and storage facilities;

Both the Neighborhood Center and Maintenance Garage building will have buffers + screening to sensitive areas. The existing buildings only being rehabilitated are not required to meet this standard.

Although building, identity and site design both seek to improve existing individual dwelling privacy considerations between units.

3. Passive recreational open space: Open spaces, designated and improved with such features as gardens, picnic areas, walking trails; benches and lawn and seating areas;

The full project will benefit from numerous common open spaces including: community gardens, trails and gathering/event spaces.

4. Active recreational open space: Open spaces designated and improved for active recreational use with facilities such as tennis courts, basketball courts, multipurpose game fields, swimming pools, and children's playgrounds; and **the full project will benefit from numerous common open spaces including: basketball court, recreational field, and playgrounds/area.**

5. Private open spaces: Open spaces designated for the individualized use of unit owners such as yards, decks and patios;

The full project will benefit from numerous private open spaces including: yard spaces, front stoops and semi-enclosed back yards.

Appendix: Development in the B-1, B-1b, B-2, B-2b shall meet the following guidelines in order to meet the Site Plan Standards

1. Building Location and Form

Buildings shall be located near the street so as to create an urban street wall.

An urban street wall is created by a pattern of buildings which line the street in a consistent manner, thereby establishing a desirable spatial relationship between the building in the commercial district and the major object. Location is one of several related factors defining the street environment.

Building 1: The retail entrance is located within the required max. 10' front setback. The remainder of the front façade is located outside of the max. 10' front setback as allowed by provisions 7.5.5.F.3 (B+F) maximum front setbacks. Where the front façade is outside of the max. 10' front setback an urban wall will be created by a continuous pedestrian scaled edge treatment outlined in the above provision.

Building Form, including height, bulk, and massing, contribute to the development of a street

wall.

The desired condition is to have the building frame and enclose the street, which is achieved by providing building height that is proportionate to the width of the adjoining major street. A ratio of building height to street width of one-to-two creates a strong "room-like" street, while a one-to-three ratio provides good street definition and proportion. Shorter buildings of one story facing broad streets will not achieve the desired relationship.

With the Circle 1 building and the Neighborhood Center being constructed, the new plaza between the two buildings will create a meeting place similar to a downtown space. Given that the 21 existing rehabs will not have any expansion of the building footprints the adjacent exterior character will be limited to Riverton Drive. While the 21 existing residential rehabs are in the adjacent R5-A zone. The first rehab building, Building 5 abuts the plaza and addresses Riverton Drive with site and building elements intended to address the streetscape similar to the B-2 zone, while addressing the Crime Prevention Through Environmental Design guidelines.

In the B-2b zone, buildings adjacent to streets should approach 1:2 height to street width, with a minimum of 1:3.

For a fifty-foot street right-of-way, therefore, a minimum height of 15' is required, with 25' height preferred. An eighty-foot right-of-way requires about 27' to achieve the 1:3 proportion., with 40'-height preferred. Obviously, buildings located as close as possible to the street right-of way will provide better definition and proportion than buildings set further back.

The retail portion, meets the B-2 max. setback of 10'-0" from property line. Building height above grade at the north end is 49'-1" from the pedestrian right of way and 16'-11" above grade at the south end abutting the pedestrian plaza reinforcing the planned pedestrian activity zone.

See Site Diagram 1 – Section A-A

See Site Diagram 2 – Section B-B

See Site Diagram 3 Section C-C

2. Building Function

An urban street and business district requires a substantial intensity and variety of uses.

It is beneficial to have mixed uses within portions of buildings situated near the street. For example, a retail first floor might have office or residential on the second or third floors. This provides both the scale of building height desired, as well as the economic vitality of the business district.

Building 1: will be comprised of ground floor retail, medical clinic, office space and residential. In addition to the ground floor mixed use, Circle 1 building and the Neighborhood Center also creates a pedestrian plaza for gathering and a place for the resident mailboxes. This plaza

encourages foot traffic which will create a more walkable site and encourage community engagement. A separate entry to the health clinic is provided at the rear of the building directly adjacent to reserved parking, and secluded from heavy trafficked pedestrian plaza to provide privacy to patients. Further discussion regarding building entry coordination with the pedestrian plaza is provided under section E. Façade Character.

3. Orientation of Buildings and their Entrances to the Street

Major building entries shall be designed and located to provide the primary building access oriented to the public street and sidewalk.

Doorways should be prominent and obvious in appearance, so as to attract the users toward the entry. Major entry features should primarily address the street, with entry courts, display windows, signage, lights, walkways, and vestibules, as appropriate. Major entries should be adjacent to, or very close to, the street and public sidewalk.

All building entrances are oriented to, located adjacent and are directly accessible to a sidewalk at the right-of-way.

Entrances are also clearly marked with signage, and will be construction out of storefront for public visibility and community interaction. Retail storefront is within 10 feet of property line and the main building entry is set back slightly for a delineation of public/private space with a landscape buffer.

4. Windows

Windows shall be located in all building facades visible from the public way, especially on building facades along the major public street.

Retail uses with store fronts are the most desirable feature for locations adjacent to the public sidewalk; and active, transparent (minimum visible transmittance (VT) of .7 or greater), and interesting windows contribute the maximum value. Limitations on transparency, such as dark or reflective glass, or interior coverings, should be avoided. Where uses (such as office) are not conducive to transparent viewing from the public way, windows can still convey a sense of activity and presence along the street. Even these more private windows can convey occupancy and habitation when lighted from within, as during evening hours, even if the interior is screened from view.

The retail space is being designed as an open space which will be a fit out for a future tenant. Clear visibility from the street and canopy lighting will create a destination along Riverton Drive. The residential portion of the building will have a vegetative buffer in compliance with CPTED standards, and have window shades for resident privacy at night.

5. Building Character, Detail, Scale, and Graphic Qualities

Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community.

Awnings, canopies, and flags may be utilized to highlight entryways and to further identify the activity and identity of a use.

Canopies along with recessed lighting and signage mark the main entry as well as the retail space.

Facade lighting may be used to highlight entryways or to provide visual interest along an otherwise, blank façade.

Exterior sconces clearly mark pedestrian paths, and wall pack lights which illuminate the entire perimeter of the building, with zoning-defined light level limits.

Building scale, roof pitch, architectural detail, and fenestration shall be designed to complement and be compatible with surrounding residential and commercial buildings.

All the buildings on site will be either new construction or have an envelope upgrade if existing. The materials and color schemes will complement each other and create a sense cohesion throughout the site.

6. Signage and Building Entrances

Building entrances and building signage in the B-1, B-1b, and B-2b zones will be designed and constructed at the pedestrian scale.

Building signage location and size of signage was selected with pedestrian needs in mind. Signage is large enough to be seen from far away, yet still nearly align with the horizon for easy pedestrian visibility.

7. Development Relationship to Street

Building facades and site amenities shall form a cohesive wall of enclosure along a street.

Where buildings are not located at the street line, site amenities, including masonry walls, fences, and landscaping, shall be placed along the street to provide a sense of enclosure or definition.

The retail space entry is located within 10' of the right-of-way line. The remainder of the building is >10' from the right-of-way line but will still have the urban street wall feel as a result of the required pedestrian edge treatment outlined in 7.5.5.F.3 (F)

8. Parking Lots

Parking Lots shall be screened from view of the public way.

Landscaping or fencing shall be used to screen parking lots from public ways and residential neighbors. Where parking is located within the front yard (or side yard of a corner lot), a landscaped buffer or fence shall be placed along the street line to distinguish the private space from the public space and to help define the street wall.

The bulk of the parking lot will be screened from the public way by the building. Any portion of it not screened by the building will be buffered through plantings or fencing.

Parking lots shall be screened from neighboring properties.

A densely planted landscape buffer or fencing shall be installed to protect neighboring properties from the impacts associated with the parking lot and the use it serves.

The parking lot will share a common buffer with the adjacent retail development along Forest Avenue. A combination of landscape and fencing along with the adjacent screening treatment will provide a respectable/efficient buffer.

Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Crosswalks will be located as necessary to help identify building entrances.

Street trees shall be planted along property street frontage 25ft. on center.

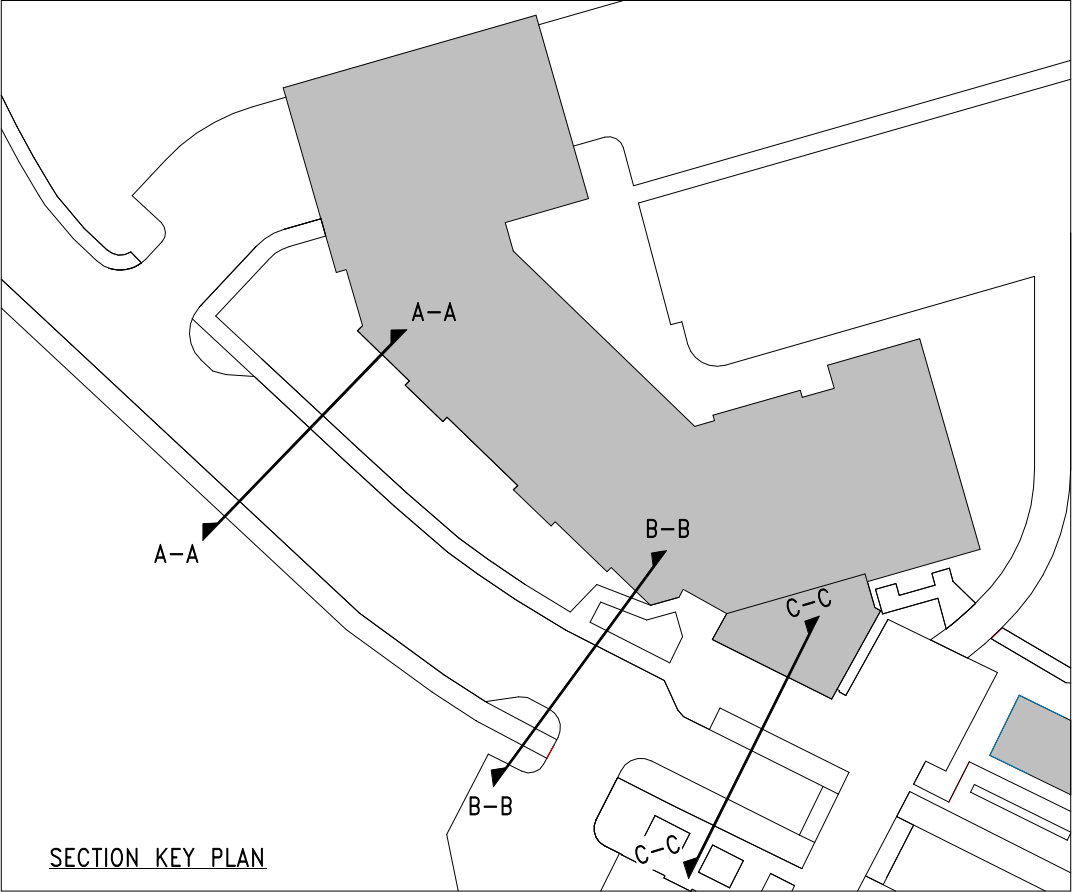
This requirement or greater is proposed along the building frontage. Where the front façade is >10' from the front setback line trees will be planted 15' on center to meet the standard outlined in provision 7.5.5.F.3 (F)

9. Transit Connections

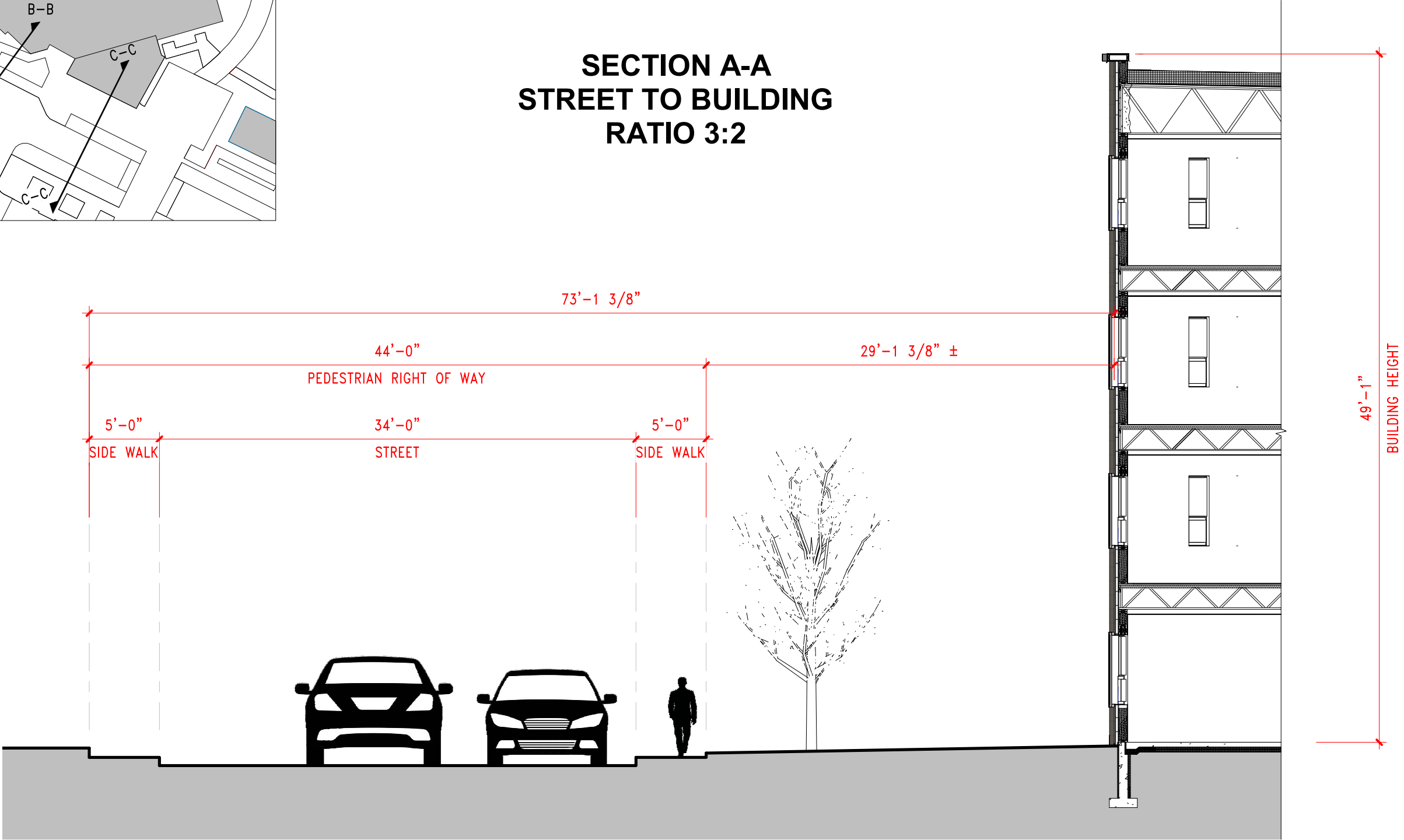
Development proposed along established transit corridors must design uninterrupted access from the proposed development to the transit stop.

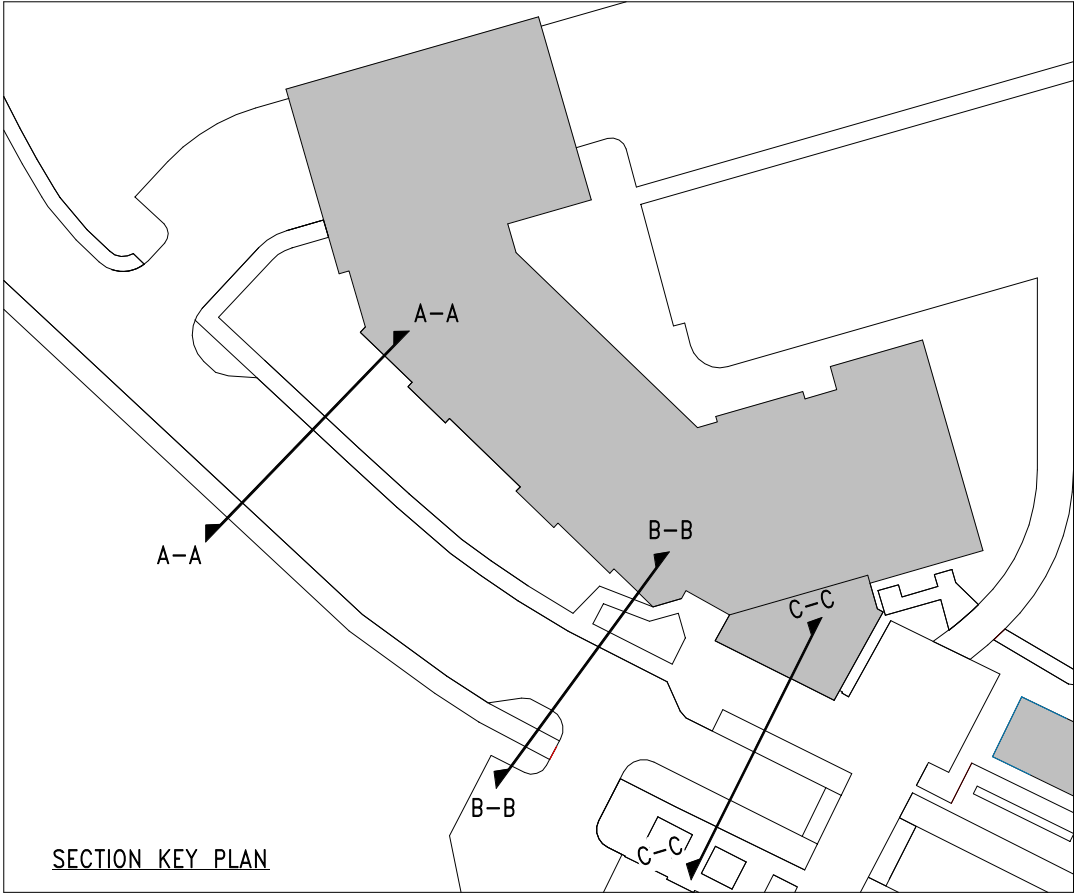
An easement to place a transit shelter may be requested for development located along a transit corridor.

A sidewalk from Building 1 and the greater site out to the new bus shelter/stop on Forest Ave currently exists and will be maintained/improved.

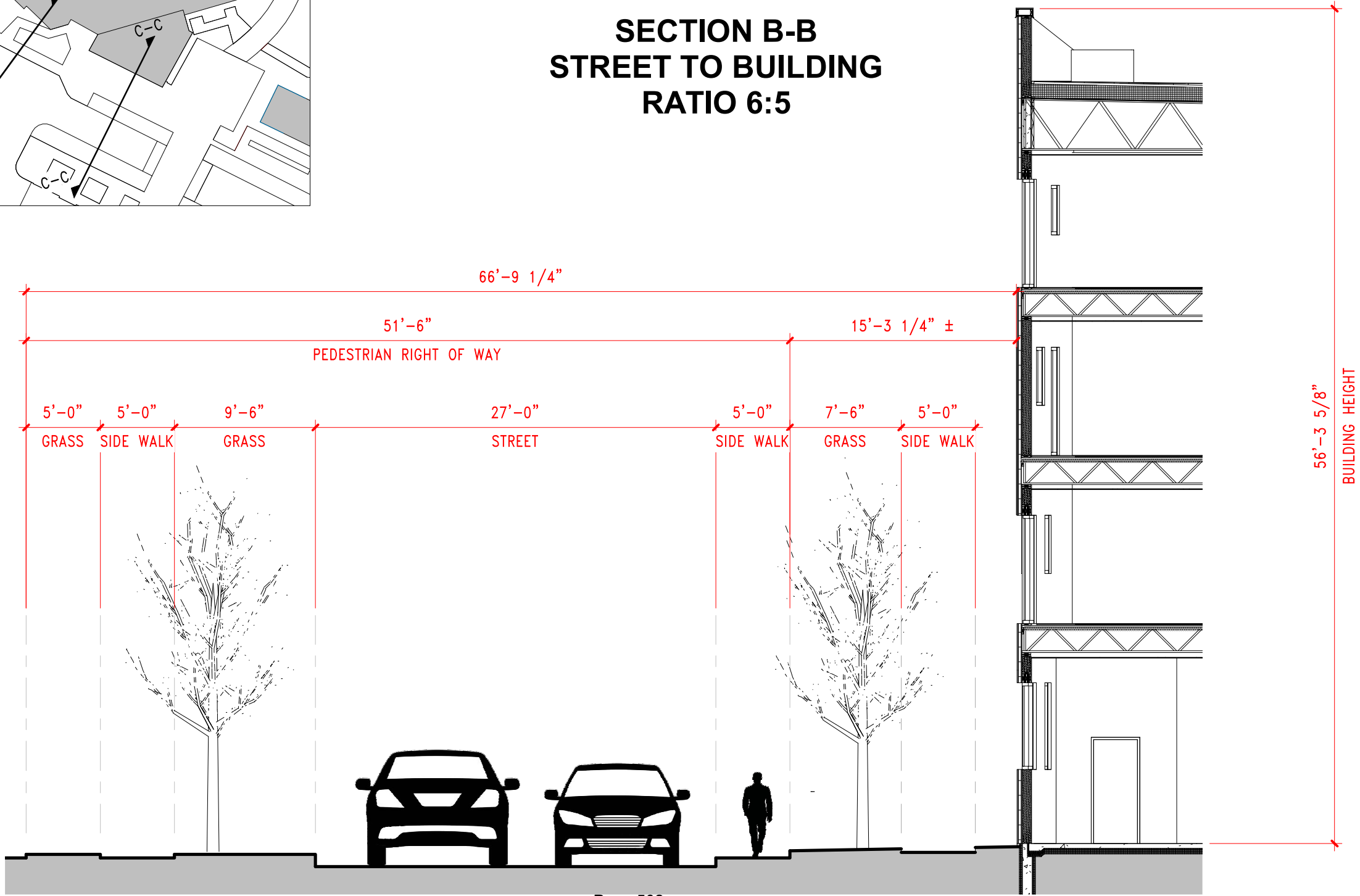


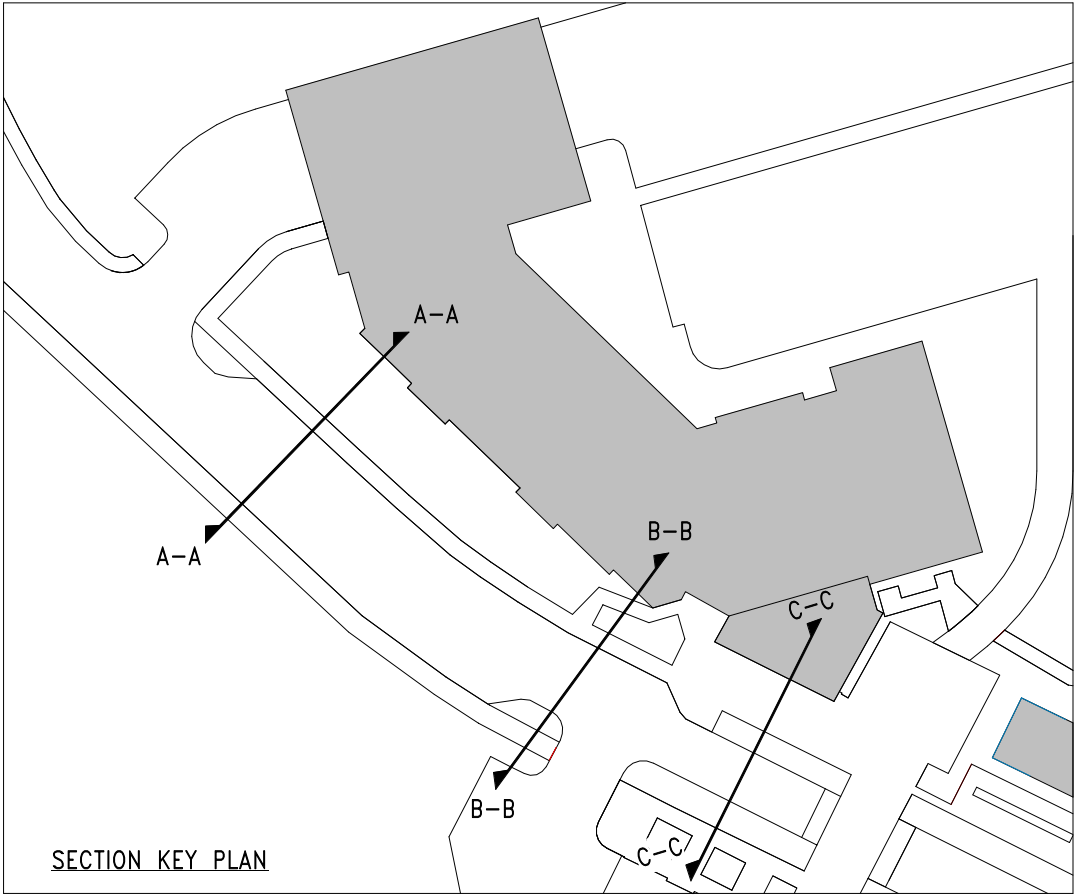
**SECTION A-A
STREET TO BUILDING
RATIO 3:2**



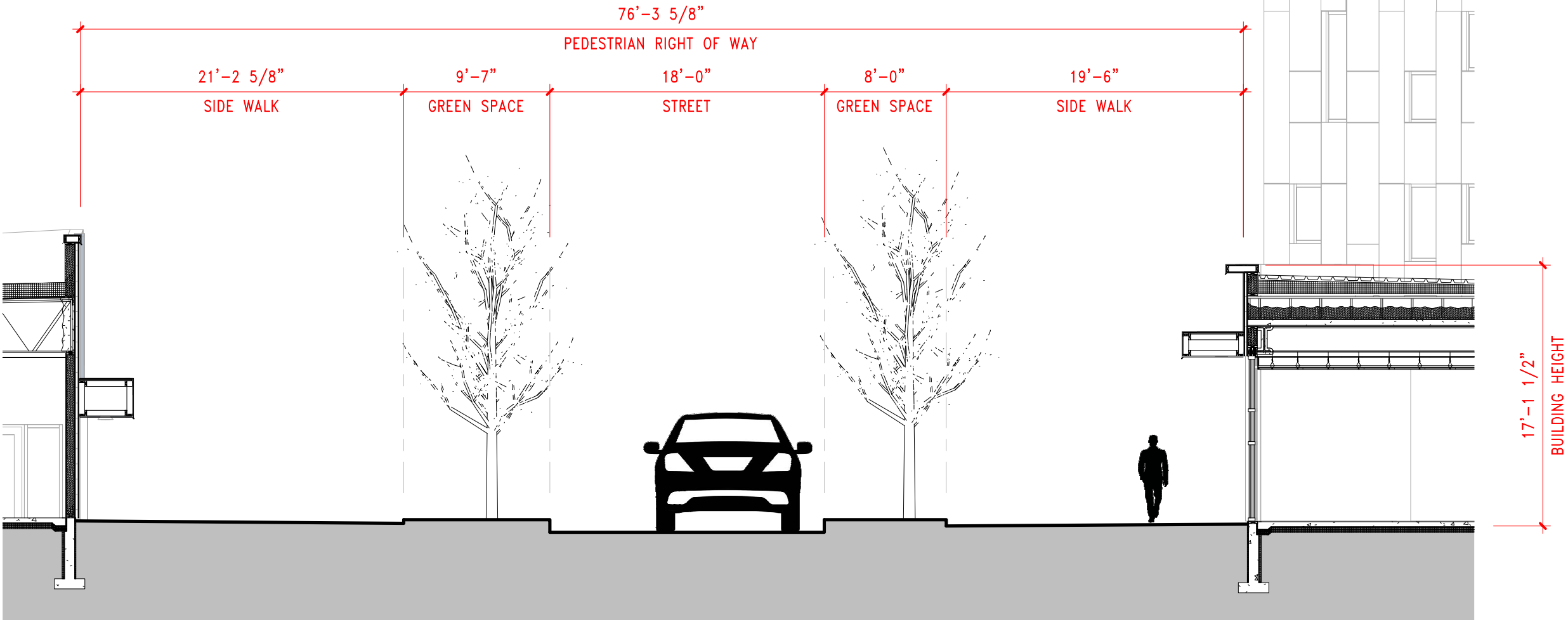


**SECTION B-B
STREET TO BUILDING
RATIO 6:5**





**SECTION C-C
STREET TO BUILDING
RATIO 5:1**



10. Technical Capacity

The applicant has assembled a highly qualified team of professionals for the preparation of this project. All members of this team have significant experience with this type of project and many have worked together on other similar projects. The project is being designed by a multi-disciplinary team of design professionals. All members of the design team have proven experience working on projects located in the City of Portland.

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Contact: Bryan Frost, Deputy Director

Riverton Park, LP

C/O Portland Housing Development Corporation **Applicant**

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Some examples of similar type projects that the full design team (or many members) have worked together on in the recent past:

Washington Gardens
577 Washington Avenue
Portland

Harbor Terrace Rehabilitation
284 Danforth Street
Portland

Solterra
58 Boyd Street
Portland

George Rheault <george.rheault@gmail.com>

11:48 AM (1 hour ago)

to Planning Board, Christine Grimando, jmy, Abigail Reed, Sean King

Since our City's elite has ensured that new housing initiatives will only be tolerated in places that do not disturb Portland's existing virtually all-white, affluent single-family residential zones, I have little faith that the pro-segregationist Planning Board will ensure this proposed PHA redevelopment will result in quality housing opportunities.

Here are some questions that should get some intensive examination as part of the initial site plan review:

- 1.) What is the precise distance between the new gas station island (8 or more pumps) and the proposed playing field? Is this distance sufficient to address concerns about proximity to pollution that have been raised by countless public health studies examining environmental justice and low-income communities (including well-documented highly elevated levels of childhood asthma)? See attached photos for context. No affluent white parent in Portland would EVER tolerate the siting of a new playing field so close to a petrol facility.
- 2.) What tree save measures were taken by the City when the next-door newly-built gas station/convenience store property was developed? It seems very hypocritical that a major clear-cutting was allowed steps away from the PHA property but now city staff are harassing the PHA applicant and raising the costs of this development merely to save a handful of trees that will do little to protect the inhabitants of this development from pollution.
- 3.) Now that the Homeless Services Center is almost up and running, the pedestrian traffic on Forest Avenue at the entrance to Riverton Park will greatly increase. What is being done to anticipate and address those conflicts and why is a new outlet to Waldron Way not still on the table in order to relieve Riverton Park from continuing to be a glorified cul-de-sac?
- 4.) Have city staff done a "before" and "after" analysis of the precise change in bedroom count and actual inhabitable square footage between the existing conditions of Riverton Park and how it will look once the renovations are completed? While there will be an expansion in unit count, will there actually be much of an expansion of genuine living space, especially once common areas like hallways, stairwells, etc. are backed out? The claims that this is a "bold" housing opportunity should be carefully evaluated and assessed especially if the increase, after close inspection, turns out to be very mild or almost a wash.





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RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION

2 RIVERTON DRIVE
PORTLAND, ME
TAX MAP 327, BLOCK B, LOT 12

neighborhood center perspective



circle 1 building perspective



buildings 1 & 5 perspective

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			A1.40 FORTH FLOOR PLAN
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	C4.2	GRADING & DRAINAGE PLAN: CIRCLES 2+3	
	C4.3	GRADING & DRAINAGE PLAN: CIRCLES 4,5+6	
	C5.1	UTILITY PLAN: CIRCLE 1	
	C5.2	UTILITY PLAN: CIRCLES 2+3	
	C5.3	UTILITY PLAN: CIRCLES 4,5+6	
NEIGHBORHOOD CENTER	C6.1	EROSION CONTROL: CIRCLE 1	A1.10 FIRST FLOOR PLAN
	C6.2	EROSION CONTROL: CIRCLES 2+3	A1.30 ROOF PLAN
	C6.3	EROSION CONTROL: CIRCLES 4,5+6	A3.00 EXTERIOR ELEVATIONS
			A3.50 BUILDING SIGNAGE
			A3.60 EXTERIOR RENDERING
MAINTENANCE BUILDING	C7.1	EROSION CONTROL NOTES	
	C7.2	EROSION CONTROL DETAILS	
	C7.3	SITE/CIVIL DETAILS 1	
	C7.4	SITE/CIVIL DETAILS 2	
	C7.5	SITE/CIVIL DETAILS 3	
	C7.6	SITE/CIVIL DETAILS 4	
	L1.0	LANDSCAPE MASTER PLAN	
	L1.1	LANDSCAPE PLAN: ENLARGEMENTS	
	L2.0	LANDSCAPE DETAILS	
	L2.1	LANDSCAPE DETAILS	
REHAB BUILDINGS CIRCLES 2,3,4,5+6	L2.2	LANDSCAPE DETAILS	
	L3.0	PHOTOMETRIC MASTER PLAN	
			G1.00 UNIT LOCATIONS SITE PLAN
			A1.06.1 FIRST FLOOR NEW WORK PLAN BUILDING 6
			A1.06.2 SECOND FLOOR NEW WORK PLAN BUILDING 6
			A1.22.1 FIRST FLOOR NEW WORK PLAN BUILDING 22
			A1.22.2 SECOND FLOOR NEW WORK PLAN BUILDING 22
			A2.05.1 FIRST FLOOR REFLECTED CEILING PLAN BUILDING 5
			A2.05.2 SECOND FLOOR REFLECTED CEILING PLAN BUILDING 5
			A2.10.1 FIRST FLOOR REFLECTED CEILING PLAN BUILDING 10
REHAB BUILDINGS CIRCLES 2,3,4,5+6			A2.10.2 SECOND FLOOR REFLECTED CEILING PLAN BUILDING 10
			A2.18.1 FIRST FLOOR REFLECTED CEILING PLAN BUILDING 18
			A2.18.2 SECOND FLOOR REFLECTED CEILING PLAN BUILDING 18
			A2.21.1 FIRST FLOOR REFLECTED CEILING PLAN BUILDING 21
			A2.21.2 SECOND FLOOR REFLECTED CEILING PLAN BUILDING 21
			A2.22.1 FIRST FLOOR REFLECTED CEILING PLAN BUILDING 22
			A2.22.2 SECOND FLOOR REFLECTED CEILING PLAN BUILDING 22
			A3.00 BUILDING SIGNAGE
			A3.02 EXTERIOR ELEVATIONS
			A3.09 EXTERIOR ELEVATIONS
REHAB BUILDINGS CIRCLES 2,3,4,5+6			A3.50 EXTERIOR RENDERING

ISSUED FOR: MAJOR SITE PLAN REVIEW
CONDITIONAL USE REVIEW

ISSUE DATE: DECEMBER 22, 2022

Legend

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- ELEC/GAS METER
- TELEPHONE BOX
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE
- LIGHT POLE
- SATELLITE DISH
- BUILDING NUMBER
- CAPPED IRON ROD TO BE SET
- DECIDUOUS TREE
- CONIFEROUS TREE
- CHAIN LINK FENCE
- CURB
- CHW
- OVERHEAD WIRES
- 70
- 1' CONTOUR

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
L1	S04°59'08"E	168.30	L16	N88°25'39"W	50.00	C1	298.88	86.07	S13°24'09"E	85.77
L2	S21°39'09"E	250.05	L17	N34°59'09"W	64.50	C2	126.00	45.08	S46°14'11"E	44.84
L3	S24°39'09"E	63.54	L18	N89°10'04"W	18.04	C3	315.00	175.74	S72°28'08"E	173.47
L4	S35°59'09"E	49.52	L19	N89°10'04"W	110.87	C4	365.00	197.16	N72°58'37"W	194.77
L5	S56°29'09"E	64.00	L20	S66°09'16"W	59.53	C5	34.32	53.34	S77°58'49"W	48.13
L6	S66°29'09"E	64.38	L21	N23°50'44"W	50.00	C6	70.60	21.83	S11°19'07"E	56.20
L7	S28°27'21"W	56.07	L22	N68°09'16"E	70.47	C7	498.00	215.87	S22°44'03"E	214.19
L8	N88°27'09"W	39.00	L23	S89°10'04"E	105.57	C8	498.00	51.85	S01°24'42"E	51.82
L9	S33°22'21"W	35.82	L24	N12°20'51"W	46.16	C9	448.00	285.84	N16°42'27"W	281.02
L10	S12°20'51"W	36.84	L25	N35°27'21"E	20.91	C10	120.00	80.38	N06°50'50"W	78.88
L11	N34°59'09"W	29.14	L26	N35°59'09"W	54.48	C11	74.52	90.32	N01°15'50"W	84.89
L12	S34°59'09"E	77.69	L27	N24°39'09"W	89.84	C12	348.88	53.16	N17°17'13"W	53.11
L13	N82°43'42"E	57.00	L28	N21°39'09"W	23.35	C13	120.00	18.76	N36°30'51"W	18.74
L14	S07°16'19"E	50.00	L29	S77°04'43"W	4.36					
L15	S82°43'42"W	57.00	L30	N05°09'09"W	12.00					

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.

Zoning Information

NONE PROVIDED

Legal Description

A CERTAIN LOT OR PARCEL OF LAND, WITH THE BUILDINGS THEREON, SITUATED ON THE SOUTHWESTERLY SIDE OF FOREST AVENUE IN THE CITY OF PORTLAND, COUNTY OF CUMBERLAND AND STATE OF MAINE, BEING BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHWESTERLY SIDE OF SAID FOREST AVENUE, WHICH POINT IS 386.56 FEET SOUTHEASTERLY, ON A CURVE OF S 39° 06' 30" E, FROM THE INTERSECTION OF THE SOUTHWESTERLY SIDE LINE OF FOREST AVENUE WITH THE SOUTHEASTERLY SIDE LINE OF RIVERSIDE STREET AND 50.21 FEET NORTHWESTERLY ALONG FOREST AVENUE FROM AN IRON PIN AT THE MOST NORTHERLY CORNER OF LAND OF THE CORNERSTONE MASONIC CORPORATION; THENCE S 45° 35' W, ALONG LAND OF THIS GRANTOR 188.75 FEET TO A POINT; THENCE S 11° 35' W, 230 FEET TO A POINT; THENCE S 47° W, 360 FEET TO A POINT; THENCE S 43° E, 242 FEET TO A POINT; THENCE S 56° 07' 30" W, 413.61 FEET TO A POINT; AND LAND CONVEYED BY NEAL D. LUNT TO MARY J. FIELD ET AL BY DEED DATED OCTOBER 30, 1905 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, BOOK 776, PAGE 165; THENCE S 30° 53' 30" E, ALONG SAID FIELD LAND, PART OF WHICH IS NOW OR FORMERLY OWNED BY CHARLES KAATZ, 885.13 FEET TO A MONUMENT AT THE WESTERLY CORNER OF LAND CONVEYED BY ELLIE K. HAWES TO MAINE TURNPIKE AUTHORITY BY DEED DATED OCTOBER 5, 1954 AND RECORDED IN SAID REGISTRY OF DEEDS, IN BOOK 2195, PAGE 453; THENCE NORTHEASTERLY ALONG SAID MAINE TURNPIKE AUTHORITY LAND 750.40 FEET TO A MONUMENT; THENCE N 42° 41' 30" E, ALONG SAID TURNPIKE LAND, 226.06 FEET TO AN IRON PIN AND THE SOUTHWESTERLY SIDE LINE OF LAND CONVEYED BY JOSEPH HAWKES TO ALEXANDER BAILEY BY DEED DATED FEBRUARY 26, 1868, RECORDED IN SAID REGISTRY OF DEEDS, IN BOOK 360, PAGE 337, AND NOW OR FORMERLY OWNED BY WALTER F. HAWKES; THENCE N 31° 13' 30" W, ALONG SAID HAWKES LAND 656.92 FEET TO A MONUMENT; THENCE N 47° 52' E, ALONG SAID HAWKES LAND 108.55 FEET TO AN IRON PIN AND LAND OF CORNERSTONE MASONIC CORPORATION; THENCE N 66° 56' 30" W, ALONG SAID CORPORATION LAND 75.27 FEET TO AN IRON PIN; THENCE N 47° 17' 30" W, 295.21 FEET TO A MONUMENT AT THE NORTHWESTERLY CORNER OF SAID CORPORATION LAND; THENCE N 45° 35' E, ALONG SAID CORPORATION LAND 168.81 FEET TO THE SAID IRON PIN ON THE SOUTHWESTERLY SIDE OF FOREST AVENUE AT THE MOST NORTHERLY CORNER OF SAID CORPORATION LAND; THENCE NORTHWESTERLY ALONG SAID FOREST AVENUE 50.21 FEET TO THE POINT OF BEGINNING.

Plan References

- "PLAN OF LAND IN PORTLAND, MAINE FOR F.D. RICH COMPANY" DEC. 31, 1968, REV. 3 3-9-70 BY OWEN HASKELL, INC.
- "SITE PLAN, FAMILY TURNKEY HOUSING FOR PORTLAND HOUSING AUTHORITY, PORTLAND, MAINE" JAN. 14, 1971 BY LEASURE, TUTTLE & LEE ARCHITECTS & ENGINEERS.
- "CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS, RIVERTON DRIVE, PINEWOOD ROAD & SPRINGBROOK WAY" NOVEMBER 6, 1973.
- "AMENDED SUBDIVISION PLAN ON FOREST AVENUE, PORTLAND, MAINE MADE FOR OWNER: WELLESLEY ESTATES, LLC" OCT. 8, 2002 REV. 4 7-15-03 BY OWEN HASKELL, INC.
- "RECORDING PLAT OF: SAWYER INDUSTRIAL PARK, RIVERSIDE STREET, PORTLAND, MAINE DEVELOPED BY: SAWYER GROUP OF COMPANIES" MARCH 6, 1989 BY SEABO TECHNICS, INC. RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 178, PAGE 50.
- "EXISTING CONDITIONS PLAN OF: TRITON FOODMART / GAS STATION, 1884 FOREST AVENUE, PORTLAND, MAINE FOR: JOHN CHAU, SHEET 2 OF 9" AUGUST 2011 REV. D 3/2/12 BY SEABO TECHNICS.

General Notes

- OWNER OF RECORD: PORTLAND HOUSING AUTHORITY, 14 BAXTER BOULEVARD, PORTLAND, MAINE C.C.R.D. BOOK 3280 PAGE 329 C.C.R.D. BOOK 4549 PAGE 293
- LOCUS IS SHOWN AS LOT 12 BLOCK B ON TAX MAP 327.
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD 83 PER POST PROCESS GPS OBSERVATIONS.
- ELEVATIONS BASED ON NGVD 29 PER POST PROCESS GPS OBSERVATIONS.
- NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.
- NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.
- AT THE TIME OF THE SURVEY NEW GAS LINES WERE BEING INSTALLED, THE GAS LINES SHOWN HEREON REPRESENT THE LOCATION OF THE ORIGINAL GAS LINES.
- STATE OF MAINE LIDAR DATA WAS USED TO GENERATE CONTOURS WITHIN THE GULLIES.
- THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT.
- PINEWOOD DRIVE WAS OFFICIALLY VACATED BY THE CITY OF PORTLAND IN DEED BOOK 13326, PAGE 19. FEE OWNERSHIP IS WITH PORTLAND HOUSING AUTHORITY.

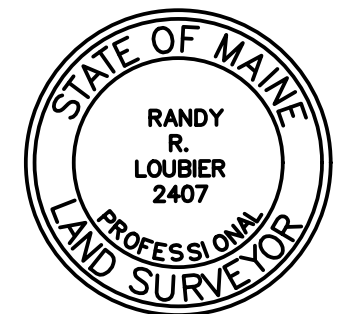
ALTA / NSPS Land Title Survey

Riverton Park
Forest Avenue
Portland, Cumberland County, Maine
Made For
Portland Housing Authority
14 Baxter Boulevard, Portland, Maine

Surveyor's Certification

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 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, 6(A), 11, 13, 14, 16, 17, 19 AND 21 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON APRIL 23, 2019 AND FEBRUARY 25, 2022.

Randy R. Louber
RANDY R. LOUBER
PROFESSIONAL LAND SURVEYOR NO. 2407
DATE OF PLAT OR MAP: APRIL 30, 2019
DATE OF LAST REVISION: SEPT. 6, 2022



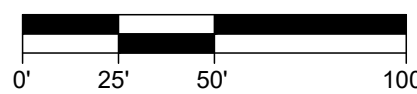
OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, ME 04105 207-774-0424

DRAWN BY: RS/JLW FIELD BOOK: FILE JOB NO. 2019-042 P
CHECKED BY: RRL SCALE: 1" = 50' DRWG. NO. 1

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X, AREAS OF MINIMAL FLOODING, ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0006C, WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 8, 1998.

SCALE: 1" = 50'



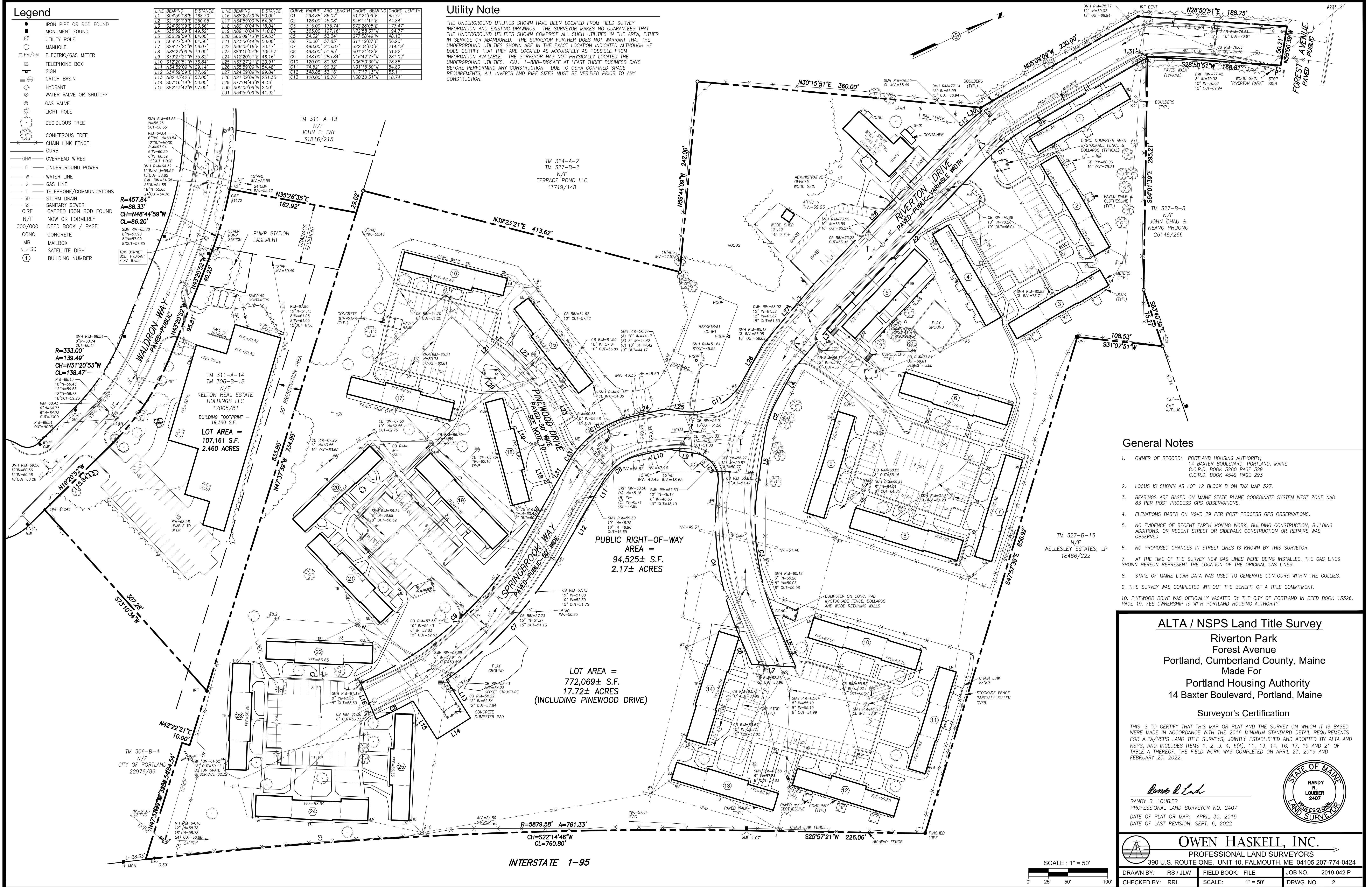
Legend

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- UTILITY POLE
- MANHOLE
- ELECTRIC/GAS METER
- TELEPHONE BOX
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- CHAIN LINK FENCE
- CURB
- OVERHEAD WIRES
- UNDERGROUND POWER
- WATER LINE
- GAS LINE
- TELEPHONE/COMMUNICATIONS
- STORM DRAIN
- SANITARY SEWER
- CAPPED IRON ROD FOUND
- NOW OR FORMERLY DEED BOOK / PAGE
- CONCRETE
- MAILBOX
- SATELLITE DISH
- BUILDING NUMBER

LINE BEARING	DISTANCE	LINE BEARING	DISTANCE	CURVE RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
L1 S04°58'08" N168.30'		L16 N86°25'30" W50.00'		C1 288.88	86.07'	S13°24'09" E85.77'	
L2 S24°39'09" W64.80'		L17 N34°59'09" W64.80'		C2 126.00	45.08'	S46°14'11" E44.84'	
L3 S24°39'09" W64.80'		L18 N89°10'04" W18.04'		C3 315.00	175.74'	S72°28'08" E173.47'	
L4 S35°59'09" W93.56'		L19 N89°10'04" W110.87'		C4 365.00	197.16'	N72°58'37" W194.77'	
L5 S44°59'09" W105.57'		L20 S66°09'16" W59.53'		C5 34.32	13.34'	S77°58'49" W46.13'	
L6 S86°29'09" W56.38'		L21 N23°50'44" W50.00'		C6 70.00	57.83'	S11°19'07" E56.20'	
L7 S26°27'21" W64.80'		L22 N66°09'16" E70.47'		C7 498.00	215.87'	S22°34'03" E214.19'	
L8 N68°27'09" W39.00'		L23 S89°10'04" E105.57'		C8 498.00	51.80'	S01°24'42" E51.82'	
L9 N12°20'51" W46.16'		L24 N12°20'51" W46.16'		C9 448.00	285.84'	N16°42'27" W281.02'	
L10 S12°20'51" W36.84'		L25 N33°27'21" E20.91'		C10 120.00	80.38'	N06°50'30" W78.88'	
L11 N34°59'09" W29.14'		L26 N33°59'09" W44.80'		C11 74.52	30.32'	N01°15'50" W84.89'	
L12 S44°59'09" W105.57'		L27 N24°39'09" W99.84'		C12 348.89	53.16'	N17°17'13" W53.11'	
L13 N82°42'42" E57.00'		L28 N21°39'09" W251.35'		C13 120.00	18.76'	N30°30'31" W18.74'	
L14 S07°16'19" E50.00'		L29 S77°04'43" W4.36'					
L15 S62°43'19" W56.00'		L30 N05°09'09" W4.00'					
		L31 N34°59'09" W41.92'					

Utility Note

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- ELEVATIONS BASED ON NGVD 29 PER POST PROCESS GPS OBSERVATIONS.
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- NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.
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- STATE OF MAINE LIDAR DATA WAS USED TO GENERATE CONTOURS WITHIN THE GULLIES.
- THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT.
- PIKEWOOD DRIVE WAS OFFICIALLY VACATED BY THE CITY OF PORTLAND IN DEED BOOK 13326, PAGE 19. FEE OWNERSHIP IS WITH PORTLAND HOUSING AUTHORITY.

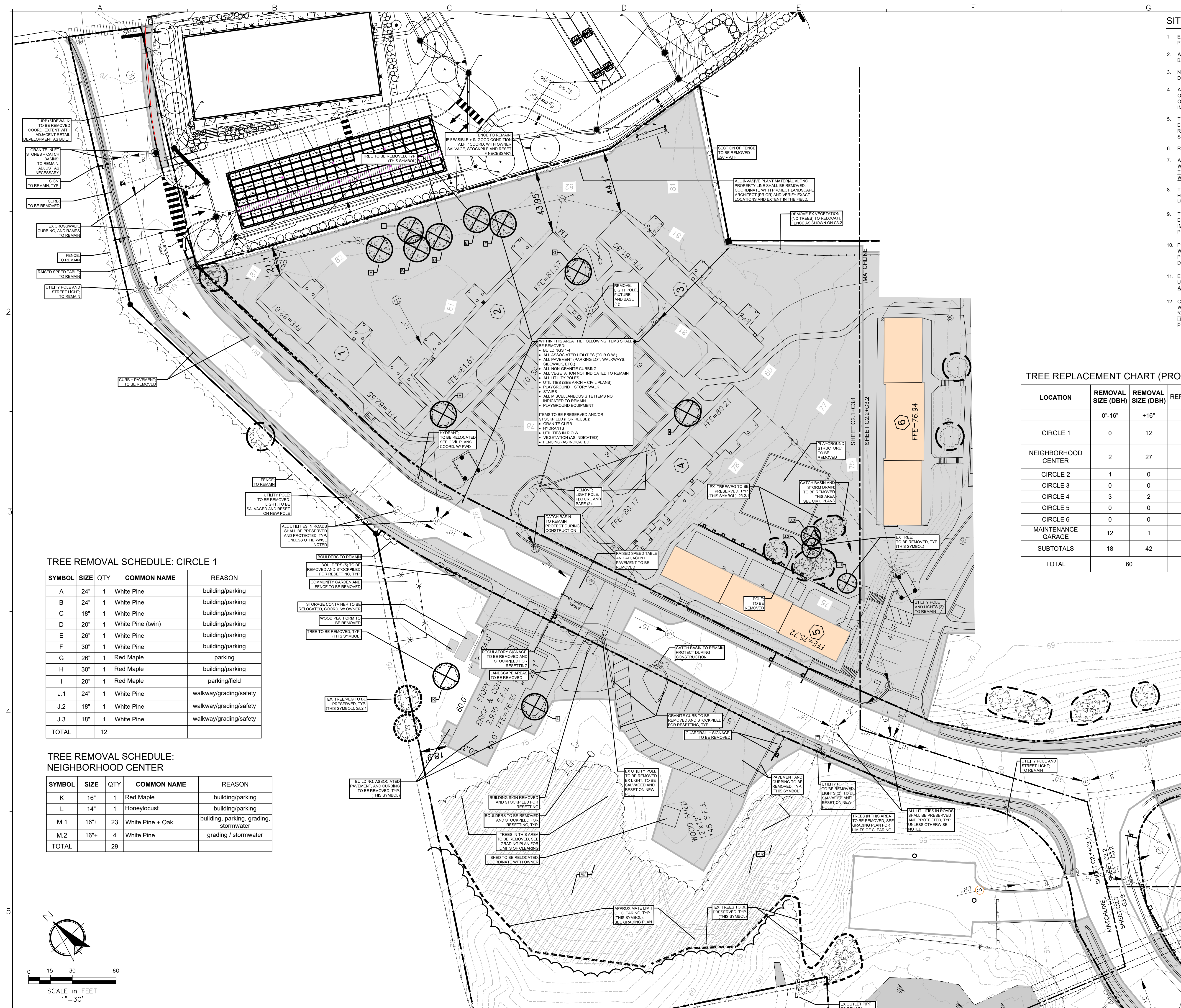
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Randy R. Loubier
RANDY R. LOUBIER
PROFESSIONAL LAND SURVEYOR NO. 2407
DATE OF PLAT OR MAP: APRIL 30, 2019
DATE OF LAST REVISION: SEPT. 6, 2022

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, ME 04105 207-774-0424
DRAWN BY: RS/JLW FIELD BOOK: FILE JOB NO. 2019-042 P
CHECKED BY: RRL SCALE: 1"=50' DRWG. NO. 2



TREE REMOVAL SCHEDULE: CIRCLE 1

SYMBOL	SIZE	QTY	COMMON NAME	REASON
A	24"	1	White Pine	building/parking
B	24"	1	White Pine	building/parking
C	18"	1	White Pine	building/parking
D	20"	1	White Pine (twin)	building/parking
E	26"	1	White Pine	building/parking
F	30"	1	White Pine	building/parking
G	26"	1	Red Maple	parking
H	30"	1	Red Maple	building/parking
I	20"	1	Red Maple	parking/field
J.1	24"	1	White Pine	walkway/grading/safety
J.2	18"	1	White Pine	walkway/grading/safety
J.3	18"	1	White Pine	walkway/grading/safety
TOTAL		12		

TREE REMOVAL SCHEDULE: NEIGHBORHOOD CENTER

SYMBOL	SIZE	QTY	COMMON NAME	REASON
K	16"	1	Red Maple	building/parking
L	14"	1	Honeylocust	building/parking
M.1	16"+	23	White Pine + Oak	building, parking, grading, stormwater
M.2	16"+	4	White Pine	grading / stormwater
TOTAL		29		

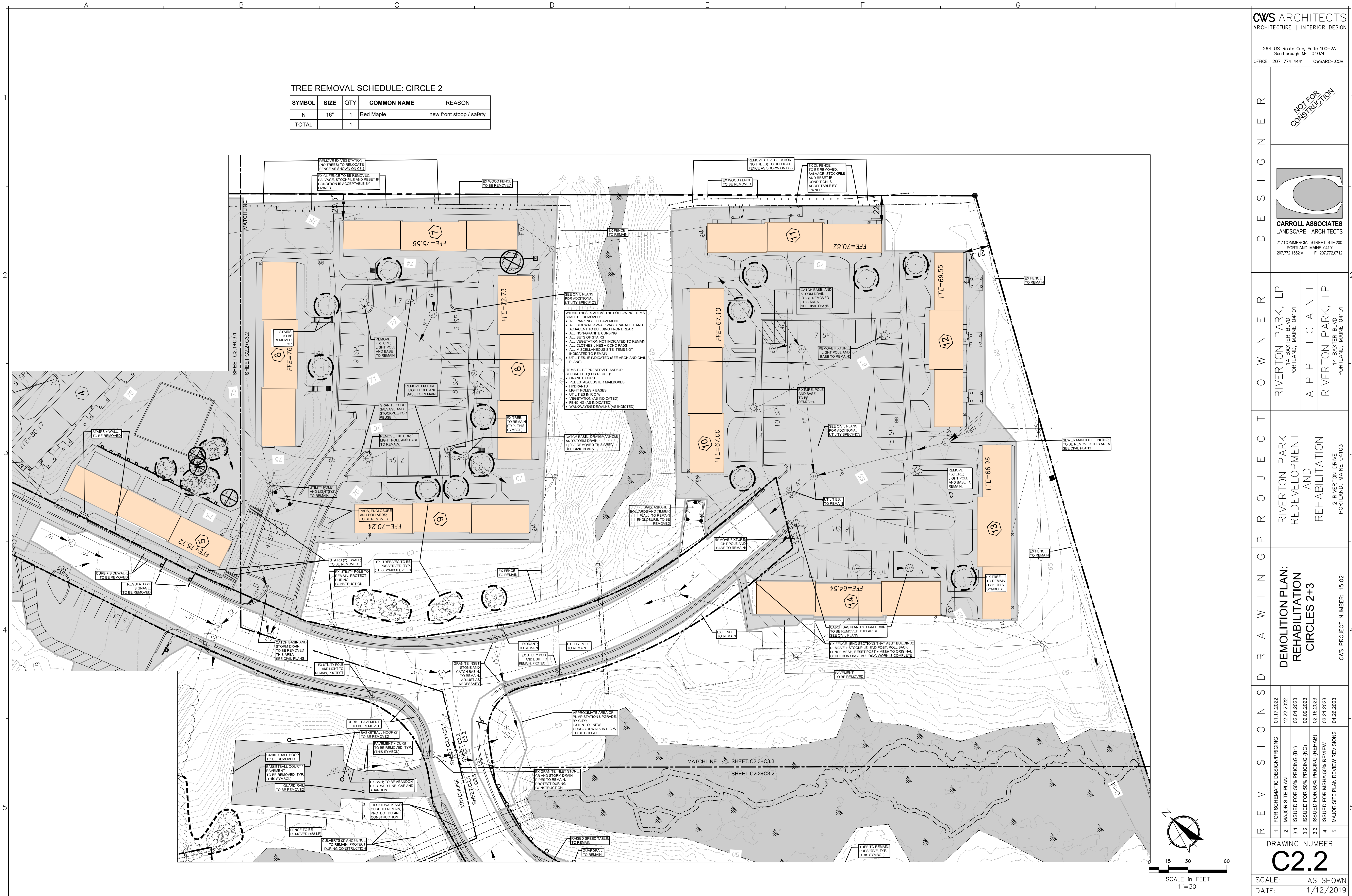
SITE PREP + DEMOLITION NOTES

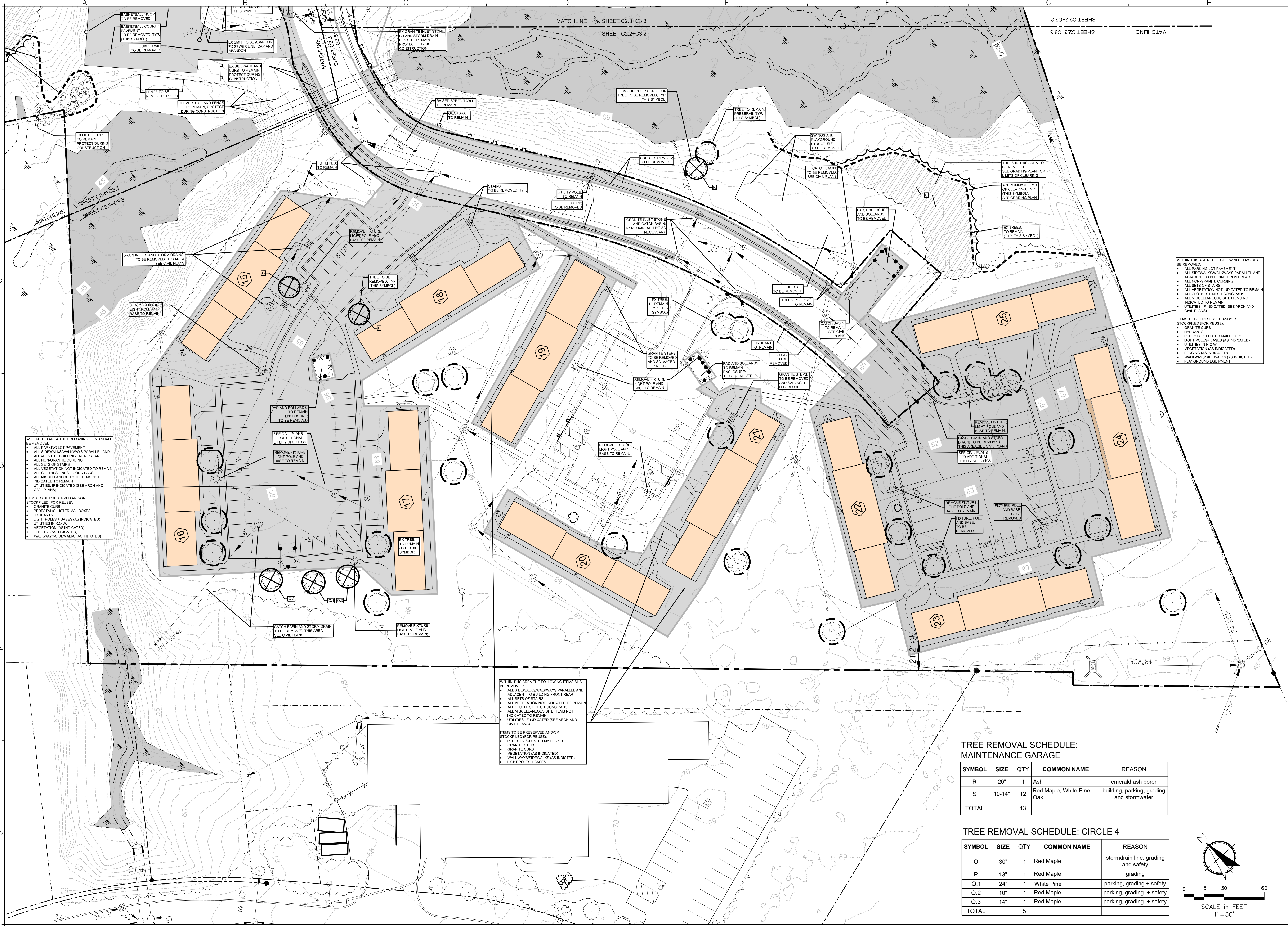
- EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE ONLY. CALL DIG-SAFE PRIOR TO BEGINNING WORK (1-800-225-4977).
- ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITHIN APPROVED FENCING OR BARRIERS AT THE EXISTING DRIP LINE. SEE DETAIL ON SHEET L2.1
- NO EQUIPMENT OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED DRIP LINE AREA OF PRESERVED TREES
- ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE. IF SIGNS OF STRESS ARE IDENTIFIED IT SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY AND TREE CARE SHALL BE INITIATED.
- THE CONTRACTOR IS ADVISED THAT ANY UNFORESEEN SUBSURFACE CONDITIONS ENCOUNTERED DURING THE COURSE OF WORK SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY AND ANY UNAUTHORIZED REMOVALS SHALL BE DONE SO AT NO EXTRA EXPENSE TO THE OWNER.
- REFER TO THE CIVIL PLANS FOR ADDITIONAL SPECIFICS AND DETAILS.
- ANY GRANITE CURB REMOVED FROM THE PUBLIC RIGHT-OF-WAY AND NOT REUSED WITHIN THE RIGHT-OF-WAY IS TO REMAIN THE PROPERTY OF THE CITY AND SHALL BE TRANSPORTED BY THE DEVELOPER TO A LOCATION DESIGNATED BY THE PUBLIC WORKS DEPT.
- THE CONTRACTOR SHALL OBTAIN NECESSARY DEMOLITION AND REMOVAL PERMITS FROM THE CITY OF SOUTH PORTLAND, MAINE AND COORDINATE WITH NECESSARY UTILITIES, INCLUDING CABLE, ELECTRIC, WATER, SEWER.
- THE CONTRACTOR SHALL PROVIDE AND SET UP NECESSARY ENVIRONMENTAL AND ENGINEERING CONTROLS TO CONTAIN POTENTIALLY HAZARDOUS DUSTS FROM IMPACTING THE PUBLIC, WORKERS AT THE SITE, OR OCCUPANTS OF ADJACENT PROPERTIES.
- PROPERLY TRANSPORT AND DISPOSE OF ALL DEMOLITION DEBRIS IN ACCORDANCE WITH STATE OF MAINE AND FEDERAL GUIDELINES, AND PROVIDE DOCUMENTATION OF PROPER HANDLING, TRANSPORT, AND DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS TO THE ENGINEER FOLLOWING THE COMPLETION OF DEMOLITION ACTIVITIES.
- EXISTING UTILITIES, VEGETATION AND OTHER SITE IMPROVEMENT SHALL REMAIN UNLESS NOTED FOR REMOVAL OR OTHERWISE. SEE SITE PLAN, CIVIL AND ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL BE AWARE OF SPECIAL CONSTRUCTION REQUIREMENTS WHEN WORKING WITHIN AND ADJACENT TO THE PORTLAND PIPELINE EASEMENT. REFER TO "CONSTRUCTION PRACTICES: TO BE OBSERVED WHEN ON OR NEAR PORTLAND PIPE LINE CORPORATION RIGHT-OF-WAY" (FIGURE 7-1, DATED MARCH 2021) AND CIVIL PLANS

TREE REPLACEMENT CHART (PROJECT WIDE)

LOCATION	REMOVAL SIZE (DBH)	REMOVAL SIZE (DBH)	REQ'D REPLACEMENT @ 1:1	REQ'D REPLACEMENT @ 2:1	REQ'D (NEW) BY USE	PROPOSED
CIRCLE 1	0"-16"	+16"	0	24	MULTI-FAMILY RESIDENTIAL 35 (1:1 NEW DU)	
NEIGHBORHOOD CENTER	2	27	2	54	0	
CIRCLE 2	1	0	1	0	0	
CIRCLE 3	0	0	0	0	0	
CIRCLE 4	3	2	3	4	0	
CIRCLE 5	0	0	0	0	0	
CIRCLE 6	0	0	0	0	0	
MAINTENANCE GARAGE	12	1	12	2	0	
SUBTOTALS	18	42	18	84	35	
TOTAL		60		137		205

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
3.2	ISSUED FOR 50% PRICING (NC)	02.09.2023
3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023





WITHIN THIS AREA THE FOLLOWING ITEMS SHALL BE REMOVED:

- ALL PARKING LOT PAVEMENT
- ALL SIDEWALKS/WALKWAYS PARALLEL AND ADJACENT TO BUILDING FRONT/REAR
- ALL NON-GRANITE CURBING
- ALL SETS OF STAIRS
- ALL VEGETATION NOT INDICATED TO REMAIN
- ALL CLOTHES LINES + CONC PADS
- ALL MISCELLANEOUS SITE ITEMS NOT INDICATED TO REMAIN
- UTILITIES, IF INDICATED (SEE ARCH AND CIVIL PLANS)

ITEMS TO BE PRESERVED AND/OR STOCKPILED (FOR REUSE):

- GRANITE CURB
- PEDESTAL CLUSTER MAILBOXES
- HYDRANTS
- LIGHT POLES + BASES (AS INDICATED)
- UTILITIES IN R.O.W.
- VEGETATION (AS INDICATED)
- FENCING (AS INDICATED)
- WALKWAYS/SIDEWALKS (AS INDICATED)

WITHIN THIS AREA THE FOLLOWING ITEMS SHALL BE REMOVED:

- ALL SIDEWALKS/WALKWAYS PARALLEL AND ADJACENT TO BUILDING FRONT/REAR
- ALL SETS OF STAIRS
- ALL VEGETATION NOT INDICATED TO REMAIN
- ALL CLOTHES LINES + CONC PADS
- ALL MISCELLANEOUS SITE ITEMS NOT INDICATED TO REMAIN
- UTILITIES, IF INDICATED (SEE ARCH AND CIVIL PLANS)

ITEMS TO BE PRESERVED AND/OR STOCKPILED (FOR REUSE):

- PEDESTAL CLUSTER MAILBOXES
- GRANITE CURB
- VEGETATION (AS INDICATED)
- WALKWAYS/SIDEWALKS (AS INDICATED)
- LIGHT POLES + BASES

WITHIN THIS AREA THE FOLLOWING ITEMS SHALL BE REMOVED:

- ALL PARKING LOT PAVEMENT
- ALL SIDEWALKS/WALKWAYS PARALLEL AND ADJACENT TO BUILDING FRONT/REAR
- ALL NON-GRANITE CURBING
- ALL SETS OF STAIRS
- ALL VEGETATION NOT INDICATED TO REMAIN
- ALL CLOTHES LINES + CONC PADS
- ALL MISCELLANEOUS SITE ITEMS NOT INDICATED TO REMAIN
- UTILITIES, IF INDICATED (SEE ARCH AND CIVIL PLANS)

ITEMS TO BE PRESERVED AND/OR STOCKPILED (FOR REUSE):

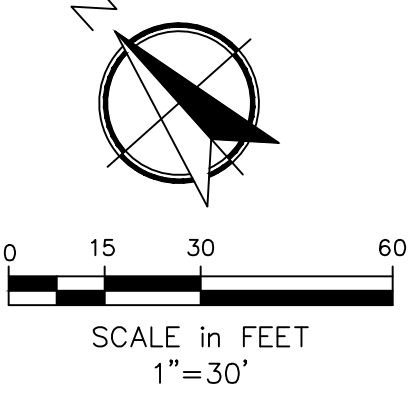
- GRANITE CURB
- HYDRANTS
- PEDESTAL CLUSTER MAILBOXES
- LIGHT POLES + BASES (AS INDICATED)
- UTILITIES IN R.O.W.
- VEGETATION (AS INDICATED)
- FENCING (AS INDICATED)
- WALKWAYS/SIDEWALKS (AS INDICATED)
- PLAYGROUND EQUIPMENT

TREE REMOVAL SCHEDULE: MAINTENANCE GARAGE

SYMBOL	SIZE	QTY	COMMON NAME	REASON
R	20"	1	Ash	emerald ash borer
S	10-14"	12	Red Maple, White Pine, Oak	building, parking, grading and stormwater
TOTAL		13		

TREE REMOVAL SCHEDULE: CIRCLE 4

SYMBOL	SIZE	QTY	COMMON NAME	REASON
O	30"	1	Red Maple	stormdrain line, grading and safety
P	13"	1	Red Maple	grading
Q.1	24"	1	White Pine	parking, grading + safety
Q.2	10"	1	Red Maple	parking, grading + safety
Q.3	14"	1	Red Maple	parking, grading + safety
TOTAL		5		



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DESIGNER

NOT FOR CONSTRUCTION

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

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207.772.1552 V. F. 207.772.0712

OWNER

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

APPLICANT

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

REVISIONS

1 FOR SCHEMATIC DESIGN/PRICING 01.17.2022

2 MAJOR SITE PLAN 12.22.2022

3.1 ISSUED FOR 50% PRICING (B1) 02.01.2023

3.2 ISSUED FOR 50% PRICING (NC) 02.09.2023

3.3 ISSUED FOR 50% PRICING (REHAB) 02.16.2023

4 ISSUED FOR ASHA 50% REVIEW 03.21.2023

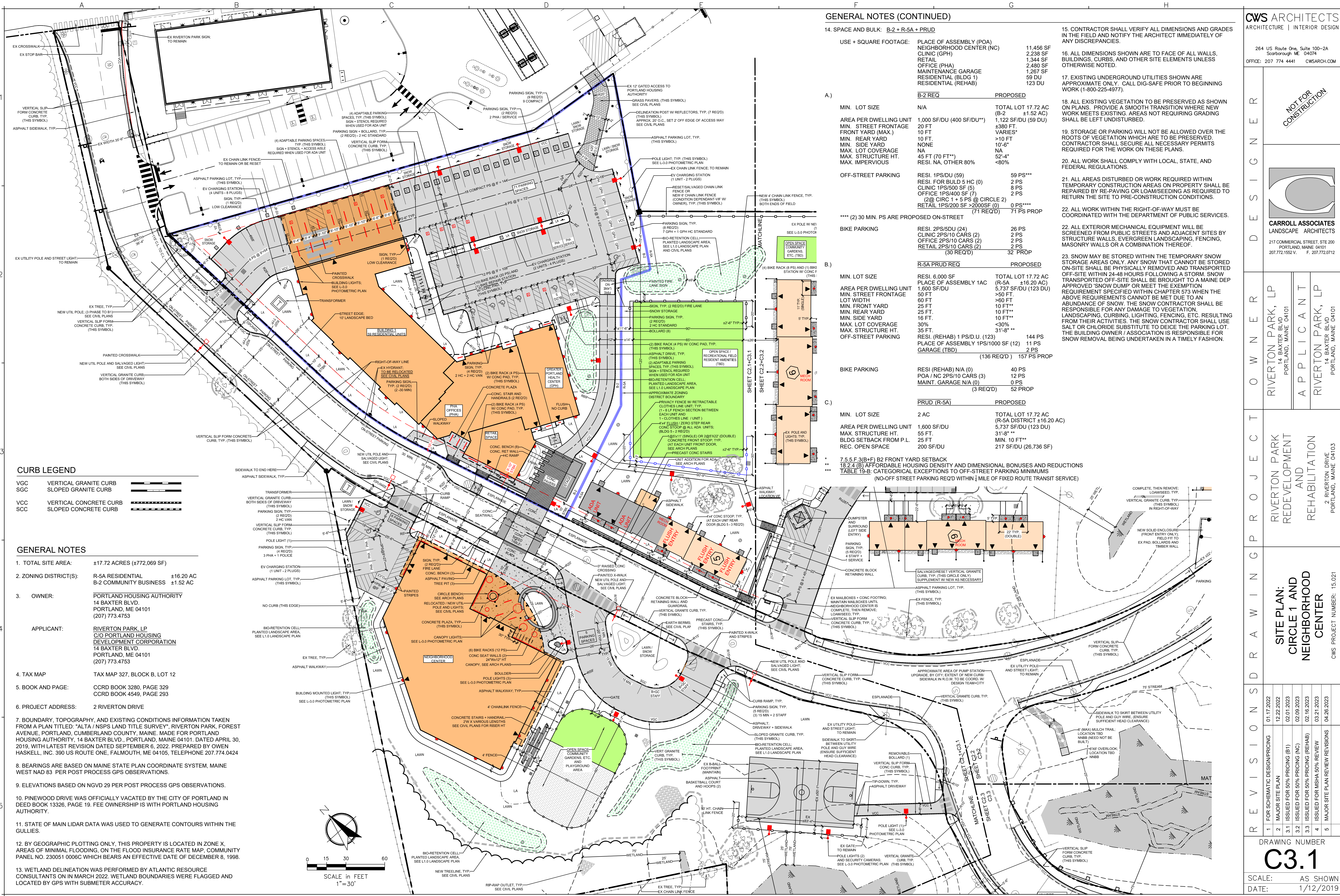
5 MAJOR SITE PLAN REVIEW REVISIONS 04.26.2023

DRAWING NUMBER

C2.3

SCALE: AS SHOWN

DATE: 1/12/2019



CURB LEGEND

VGC	VERTICAL GRANITE CURB
SGC	SLOPED GRANITE CURB
VCC	VERTICAL CONCRETE CURB
SCC	SLOPED CONCRETE CURB

GENERAL NOTES

- TOTAL SITE AREA: ±17.72 ACRES (±772,069 SF)
- ZONING DISTRICT(S): R-5A RESIDENTIAL ±16.20 AC
B-2 COMMUNITY BUSINESS ±1.52 AC
- OWNER: PORTLAND HOUSING AUTHORITY
14 BAXTER BLVD.
PORTLAND, ME 04101
(207) 773.4753
- APPLICANT: RIVERTON PARK, LP
C/O PORTLAND HOUSING DEVELOPMENT CORPORATION
14 BAXTER BLVD.
PORTLAND, ME 04101
(207) 773.4753
- TAX MAP: TAX MAP 327, BLOCK B, LOT 12
- BOOK AND PAGE: CCRD BOOK 3280, PAGE 329
CCRD BOOK 4549, PAGE 293
- PROJECT ADDRESS: 2 RIVERTON DRIVE
- BOUNDARY, TOPOGRAPHY, AND EXISTING CONDITIONS INFORMATION TAKEN FROM A PLAN TITLED: "ALTA / NSPS LAND TITLE SURVEY", RIVERTON PARK, FOREST AVENUE, PORTLAND, CUMBERLAND COUNTY, MAINE, MADE FOR PORTLAND HOUSING AUTHORITY, 14 BAXTER BLVD., PORTLAND, MAINE 04101, DATED APRIL 30, 2019, WITH LATEST REVISION DATED SEPTEMBER 6, 2022. PREPARED BY OWEN HASKELL, INC. 390 US ROUTE ONE, FALMOUTH, ME 04105, TELEPHONE 207.774.0424
- BEARINGS ARE BASED ON MAINE STATE PLAN COORDINATE SYSTEM, MAINE WEST NAD 83 PER POST PROCESS GPS OBSERVATIONS.
- ELEVATIONS BASED ON NGVD 29 PER POST PROCESS GPS OBSERVATIONS.
- PINEWOOD DRIVE WAS OFFICIALLY VACATED BY THE CITY OF PORTLAND IN DEED BOOK 13326, PAGE 19. FEE OWNERSHIP IS WITH PORTLAND HOUSING AUTHORITY.
- STATE OF MAIN LIDAR DATA WAS USED TO GENERATE CONTOURS WITHIN THE GULLIES.
- BY GEOGRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X, AREAS OF MINIMAL FLOODING, ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 230051 0006C WHICH BEARS AN EFFECTIVE DATE OF DECEMBER 8, 1998.
- WETLAND DELINEATION WAS PERFORMED BY ATLANTIC RESOURCE CONSULTANTS ON IN MARCH 2022. WETLAND BOUNDARIES WERE FLAGGED AND LOCATED BY GPS WITH SUBMETER ACCURACY.

GENERAL NOTES (CONTINUED)

14. SPACE AND BULK: B-2 + R-5A + PRUD			
USE + SQUARE FOOTAGE:		PLACE OF ASSEMBLY (POA)	
		NEIGHBORHOOD CENTER (NC)	11,456 SF
		CLINIC (GPH)	2,238 SF
		RETAIL	1,344 SF
		OFFICE (PHA)	2,480 SF
		MAINTENANCE GARAGE	1,267 SF
		RESIDENTIAL (BLDG 1)	59 DU
		RESIDENTIAL (REHAB)	123 DU
15. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES IN THE FIELD AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.			
16. ALL DIMENSIONS SHOWN ARE TO FACE OF ALL WALLS, BUILDINGS, CURBS, AND OTHER SITE ELEMENTS UNLESS OTHERWISE NOTED.			
17. EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE ONLY. CALL DIG-SAFE PRIOR TO BEGINNING WORK (1-800-225-4977).			
18. ALL EXISTING VEGETATION TO BE PRESERVED AS SHOWN ON PLANS. PROVIDE A SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING. AREAS NOT REQUIRING GRADING SHALL BE LEFT UNDISTURBED.			
19. STORAGE OR PARKING WILL NOT BE ALLOWED OVER THE ROOTS OF VEGETATION WHICH ARE TO BE PRESERVED. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS REQUIRED FOR THE WORK ON THESE PLANS.			
20. ALL WORK SHALL COMPLY WITH LOCAL, STATE, AND FEDERAL REGULATIONS.			
21. ALL AREAS DISTURBED OR WORK REQUIRED WITHIN TEMPORARY CONSTRUCTION AREAS ON PROPERTY SHALL BE REPAIRED BY RE-PAVING OR LOAM/SEEDING AS REQUIRED TO RETURN THE SITE TO PRE-CONSTRUCTION CONDITIONS.			
22. ALL WORK WITHIN THE RIGHT-OF-WAY MUST BE COORDINATED WITH THE DEPARTMENT OF PUBLIC SERVICES.			
22. ALL EXTERIOR MECHANICAL EQUIPMENT WILL BE SCREENED FROM PUBLIC STREETS AND ADJACENT SITES BY STRUCTURE WALLS, EVERGREEN LANDSCAPING, FENCING, MASONRY WALLS OR A COMBINATION THEREOF.			
23. SNOW MAY BE STORED WITHIN THE TEMPORARY SNOW STORAGE AREAS ONLY. ANY SNOW THAT CANNOT BE STORED ON-SITE SHALL BE PHYSICALLY REMOVED AND TRANSPORTED OFF-SITE WITHIN 24-48 HOURS FOLLOWING A STORM. SNOW TRANSPORTED OFF-SITE SHALL BE BROUGHT TO A MAINE DEP APPROVED "SNOW DUMP" OR MEET THE EXEMPTION REQUIREMENT SPECIFIED WITHIN CHAPTER 573 WHEN THE ABOVE REQUIREMENTS CANNOT BE MET DUE TO AN ABUNDANCE OF SNOW. THE SNOW CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO VEGETATION, LANDSCAPING, CURBS, LIGHTING, FENCING, ETC. RESULTING FROM THEIR ACTIVITIES. THE SNOW CONTRACTOR SHALL USE SALT OR CHLORIDE SUBSTITUTE TO DEICE THE PARKING LOT. THE BUILDING OWNER / ASSOCIATION IS RESPONSIBLE FOR SNOW REMOVAL BEING UNDERTAKEN IN A TIMELY FASHION.			
A.)		B-2 REQ	PROPOSED
MIN. LOT SIZE		N/A	TOTAL LOT 17.72 AC (B-2 ±1.52 AC)
AREA PER DWELLING UNIT		1,000 SF/DU (400 SF/DU**)	1,122 SF/DU (59 DU)
MIN. STREET FRONTAGE		20 FT	4380 FT
MIN. REAR YARD		10 FT	VARIABLE*
MIN. SIDE YARD		10 FT	>10 FT
MIN. LOT COVERAGE		NONE	10-6"
MAX. LOT COVERAGE		NA	NA
MAX. STRUCTURE HT.		45 FT (70 FT**)	52'-4"
MAX. IMPERVIOUS		RESI. NA, OTHER 80%	<80%
OFF-STREET PARKING		RESI. 1PS/DU (59)	59 PS***
		RESI. FOR BLDG 5 HC (0)	2 PS
		CLINIC 2PS/500 SF (5)	8 PS
		OFFICE 2PS/100 SF (7)	2 PS
		RETAIL 1PS/200 SF >2000SF (0)	0 PS****
**** (2) 30 MIN. PS ARE PROPOSED ON-STREET		(71 REQ'D)	71 PS PROP
BIKE PARKING		RESI. 2PS/500 SF (24)	26 PS
		CLINIC 2PS/100 SF (5)	2 PS
		OFFICE 2PS/100 SF (7)	2 PS
		RETAIL 2PS/100 SF (2)	2 PS
		(30 REQ'D)	32 PS PROP
B.)		R-5A PRUD REQ	PROPOSED
MIN. LOT SIZE		RESI. 6,000 SF	TOTAL LOT 17.72 AC (R-5A ±16.20 AC)
AREA PER DWELLING UNIT		PLACE OF ASSEMBLY 1AC	5,737 SF/DU (123 DU)
MIN. STREET FRONTAGE		1,600 SF/DU	>50 FT
LOT WIDTH		60 FT	>60 FT
MIN. FRONT YARD		25 FT	10 FT**
MIN. REAR YARD		25 FT	10 FT**
MIN. SIDE YARD		16 FT	10 FT**
MAX. LOT COVERAGE		30%	<30%
MAX. STRUCTURE HT.		35 FT	31'-8" **
OFF-STREET PARKING		RESI. (REHAB) 1PS/DU (123)	144 PS
		PLACE OF ASSEMBLY 1PS/1000 SF (12)	11 PS
		GARAGE (TBD)	2 PS
		(136 REQ'D)	157 PS PROP
BIKE PARKING		RESI (REHAB) N/A (0)	40 PS
		POA / NC 2PS/100 CARS (3)	12 PS
		MAINT. GARAGE N/A (0)	0 PS
		(3 REQ'D)	52 PS PROP
C.)		PRUD (R-5A)	PROPOSED
MIN. LOT SIZE		2 AC	TOTAL LOT 17.72 AC (R-5A DISTRICT ±16.20 AC)
AREA PER DWELLING UNIT		1,600 SF/DU	5,737 SF/DU (123 DU)
MAX. STRUCTURE HT.		55 FT	31'-8"
BLDG SETBACK FROM P.L.		25 FT	MIN 10 FT**
REC. OPEN SPACE		200 SF/DU	217 SF/DU (26,736 SF)
7.5.5.F.3(B+F) B2 FRONT YARD SETBACK			
18.2.4 (B) AFFORDABLE HOUSING DENSITY AND DIMENSIONAL BONUSES AND REDUCTIONS			
TABLE 19-B: CATEGORICAL EXCEPTIONS TO OFF-STREET PARKING MINIMUMS			
(NO-OFF STREET PARKING REQ'D WITHIN 1/4 MILE OF FIXED ROUTE TRANSIT SERVICE)			

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RIVERTON PARK, LP
14 BAXTER BLVD.
PORTLAND, MAINE 04101
APPLICANT
RIVERTON PARK, LP
14 BAXTER BLVD.
PORTLAND, MAINE 04101

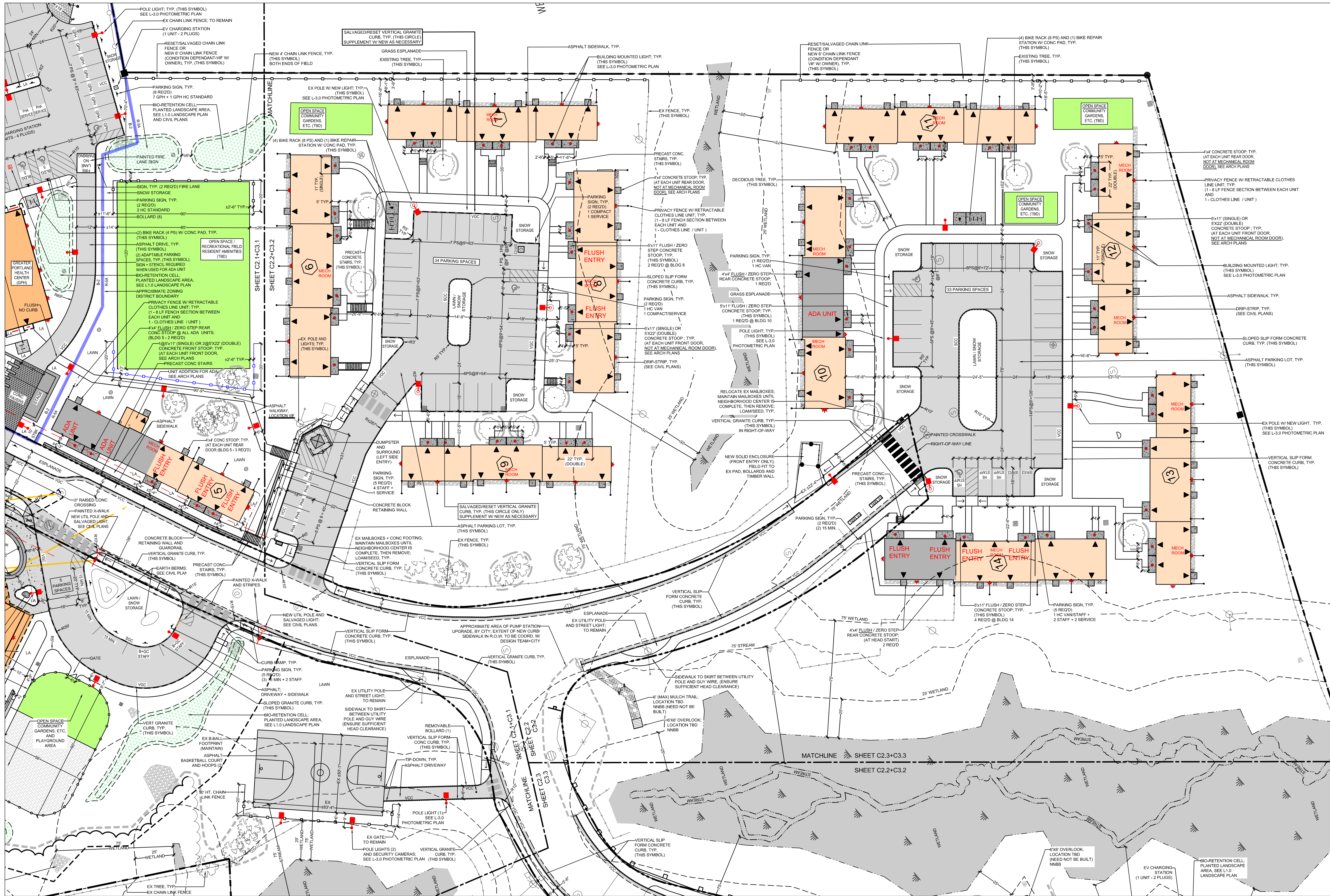
RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04101
CWS PROJECT NUMBER: 15.021

SITE PLAN:
CIRCLE 1 AND
NEIGHBORHOOD
CENTER

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
3.2	ISSUED FOR 50% PRICING (NC)	02.09.2023
3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER
C3.1
SCALE: AS SHOWN
DATE: 1/12/2019

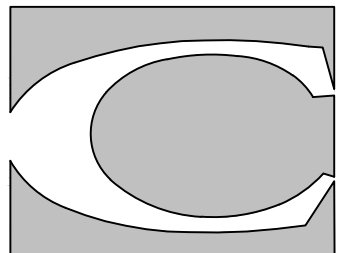
CURB LEGEND		
VGC	VERTICAL GRANITE CURB	
SGC	SLOPED GRANITE CURB	
VCC	VERTICAL CONCRETE CURB	
SCC	SLOPED CONCRETE CURB	



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RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101
APPLICANT
RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

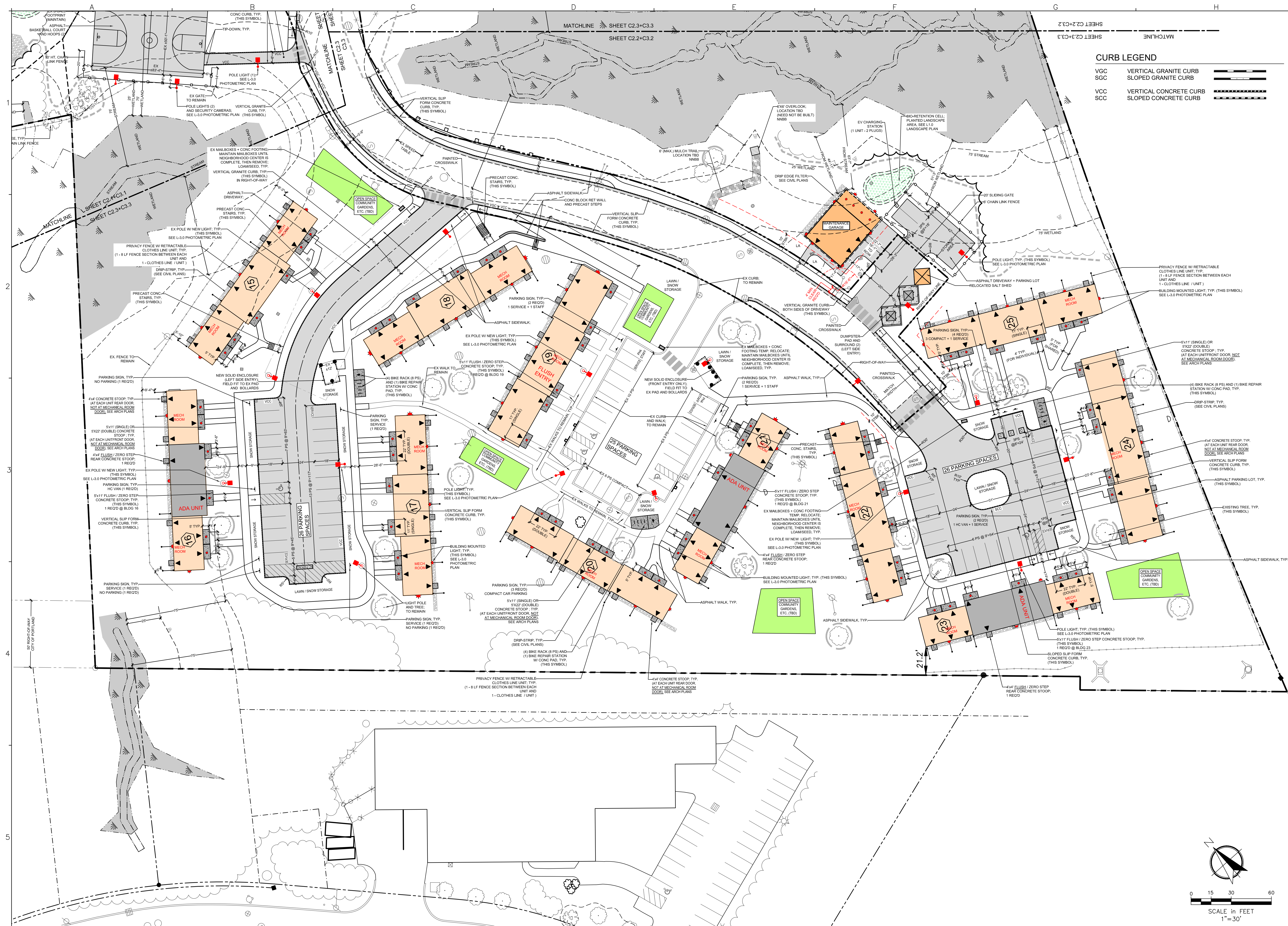
SITE PLAN:
REHABILITATION
CIRCLES 2+3
CWS PROJECT NUMBER: 15.021

REVISION	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3.1	02.01.2023	ISSUED FOR 50% PRICING (B1)
3.2	02.09.2023	ISSUED FOR 50% PRICING (NC)
3.3	02.16.2023	ISSUED FOR 50% PRICING (REHAB)
4	03.21.2023	ISSUED FOR ASHA 50% REVIEW
5	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

DRAWING NUMBER

C3.2

SCALE: AS SHOWN
DATE: 1/12/2019



CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

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CARROLL ASSOCIATES
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207.772.1552 V. F. 207.772.0712

OWNER

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

APPLICANT

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

SITE PLAN:
REHABILITATION
CIRCLES 4-5-6 AND
MAINTENANCE GARAGE

CWS PROJECT NUMBER: 15.021

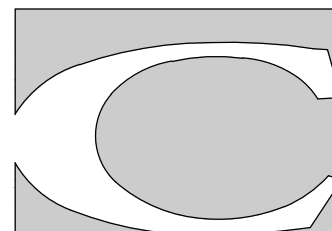
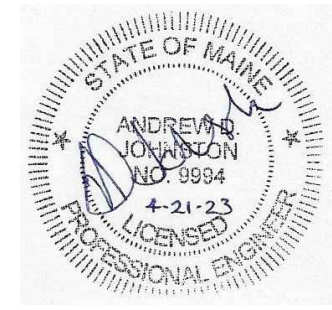
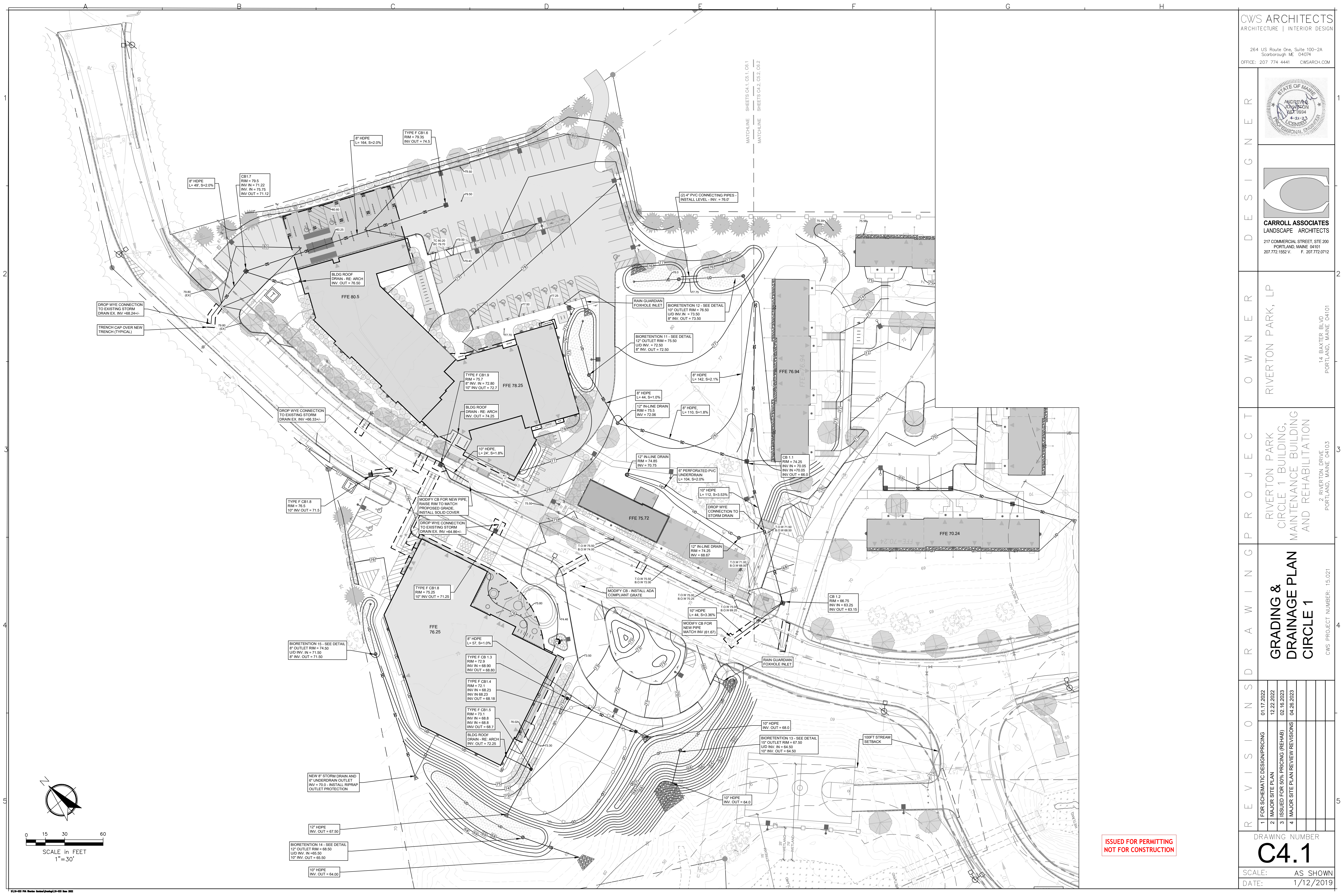
1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
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3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
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3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER

C3.3

SCALE: AS SHOWN

DATE: 1/12/2019



CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
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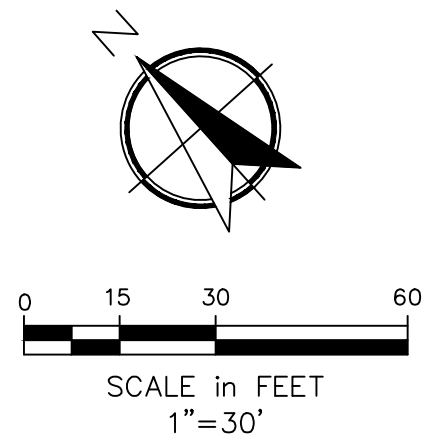
RIVERTON PARK, LP
14 BAXTER BLVD.
PORTLAND, MAINE 04101

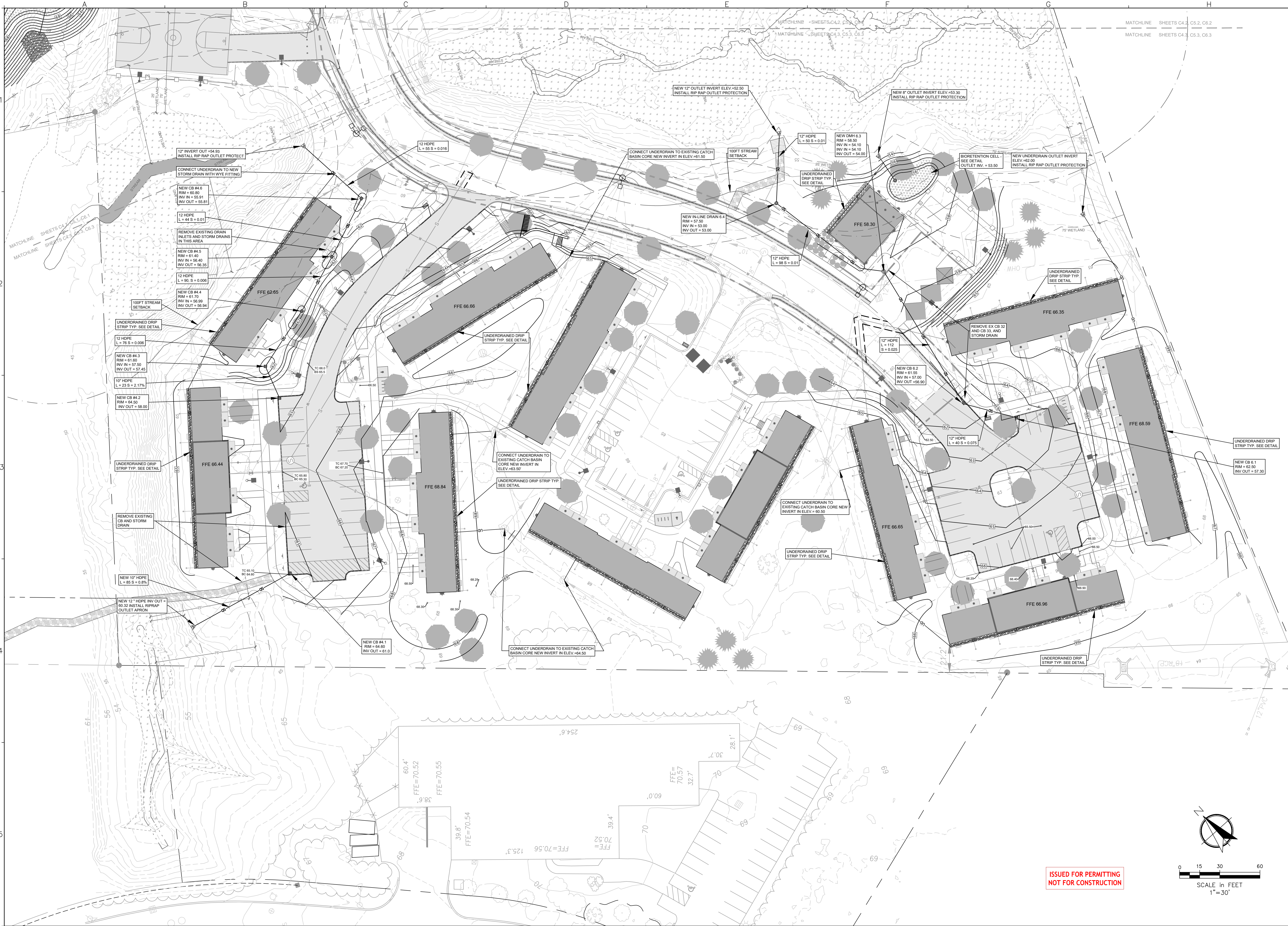
RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

GRADING &
DRAINAGE PLAN
CIRCLE 1
CWS PROJECT NUMBER: 15.021

REVISIONS	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3	02.16.2023	ISSUED FOR 50% PRICING (RE-HAB)
4	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION





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207.772.1552 V. F. 207.772.0712

DESIGNER

OWNER

RIVERTON PARK, LP
14 BAYTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

AWINING

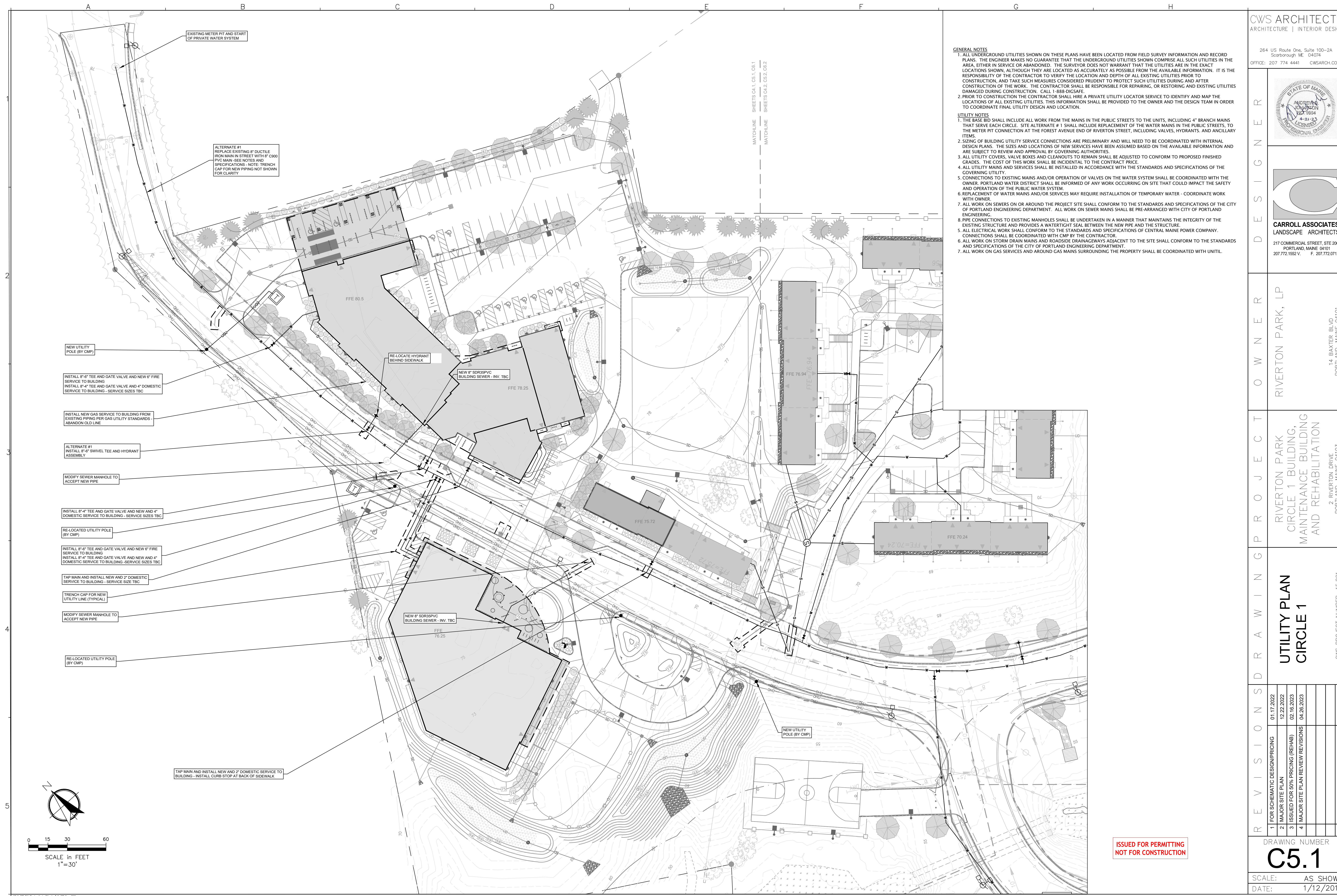
GRADING &
DRAINAGE PLAN
CIRCLES 4,5+6

CWS PROJECT NUMBER: 15.021

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3	ISSUED FOR 50% PRICING (REHAB)	02.15.2023
4	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER
C4.3

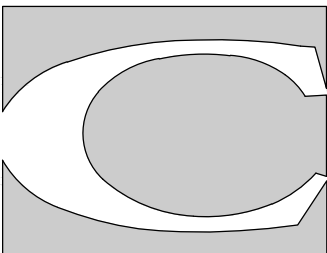
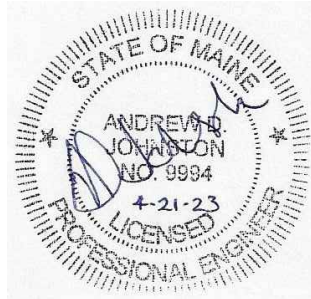
SCALE: AS SHOWN
DATE: 1/12/2019



- GENERAL NOTES**
1. ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND RECORD PLANS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UTILITIES ARE IN THE EXACT LOCATIONS SHOWN, ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE AVAILABLE INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND TAKE SUCH MEASURES CONSIDERED PRUDENT TO PROTECT SUCH UTILITIES DURING AND AFTER CONSTRUCTION OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, OR RESTORING AND EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. CALL 1-888-DIGSAFE.
 2. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL HIRE A PRIVATE UTILITY LOCATOR SERVICE TO IDENTIFY AND MAP THE LOCATIONS OF ALL EXISTING UTILITIES. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER AND THE DESIGN TEAM IN ORDER TO COORDINATE FINAL UTILITY DESIGN AND LOCATION.
- UTILITY NOTES**
1. THE BASE BID SHALL INCLUDE ALL WORK FROM THE MAINS IN THE PUBLIC STREETS TO THE UNITS, INCLUDING 4" BRANCH MAINS THAT SERVE EACH CIRCLE. SITE ALTERNATE # 1 SHALL INCLUDE REPLACEMENT OF THE WATER MAINS IN THE PUBLIC STREETS, TO THE METER PIT CONNECTION AT THE FOREST AVENUE END OF RIVERTON STREET, INCLUDING VALVES, HYDRANTS, AND ANCILLARY ITEMS.
 2. SIZING OF BUILDING UTILITY SERVICE CONNECTIONS ARE PRELIMINARY AND WILL NEED TO BE COORDINATED WITH INTERNAL DESIGN PLANS. THE SIZES AND LOCATIONS OF NEW SERVICES HAVE BEEN ASSUMED BASED ON THE AVAILABLE INFORMATION AND ARE SUBJECT TO REVIEW AND APPROVAL BY GOVERNING AUTHORITIES.
 3. ALL UTILITY COVERS, VALVE BOXES AND CLEANOUTS TO REMAIN SHALL BE ADJUSTED TO CONFORM TO PROPOSED FINISHED GRADES. THE COST OF THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT PRICE.
 4. ALL UTILITY MAINS AND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE GOVERNING UTILITY.
 5. CONNECTIONS TO EXISTING MAINS AND/OR OPERATION OF VALVES ON THE WATER SYSTEM SHALL BE COORDINATED WITH THE OWNER. PORTLAND WATER DISTRICT SHALL BE INFORMED OF ANY WORK OCCURRING ON SITE THAT COULD IMPACT THE SAFETY AND OPERATION OF THE PUBLIC WATER SYSTEM.
 6. REPLACEMENT OF WATER MAINS AND/OR SERVICES MAY REQUIRE INSTALLATION OF TEMPORARY WATER - COORDINATE WORK WITH OWNER.
 7. ALL WORK ON SEWERS ON OR AROUND THE PROJECT SITE SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND ENGINEERING DEPARTMENT. ALL WORK ON SEWER MAINS SHALL BE PRE-ARRANGED WITH CITY OF PORTLAND ENGINEERING.
 8. PIPE CONNECTIONS TO EXISTING MANHOLES SHALL BE UNDERTAKEN IN A MANNER THAT MAINTAINS THE INTEGRITY OF THE EXISTING STRUCTURE AND PROVIDES A WATERTIGHT SEAL BETWEEN THE NEW PIPE AND THE STRUCTURE.
 9. ALL ELECTRICAL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF CENTRAL MAINE POWER COMPANY. CONNECTIONS SHALL BE COORDINATED WITH CMP BY THE CONTRACTOR.
 6. ALL WORK ON STORM DRAIN MAINS AND ROADSIDE DRAINAGEWAYS ADJACENT TO THE SITE SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF PORTLAND ENGINEERING DEPARTMENT.
 7. ALL WORK ON GAS SERVICES AND AROUND GAS MAINS SURROUNDING THE PROPERTY SHALL BE COORDINATED WITH UNITIL.

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RIVERTON PARK, LP
14 BAYTER BLVD
PORTLAND, MAINE 04101

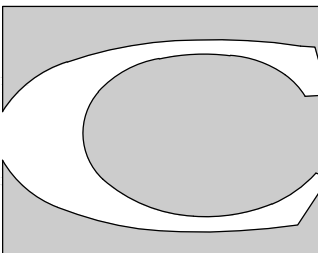
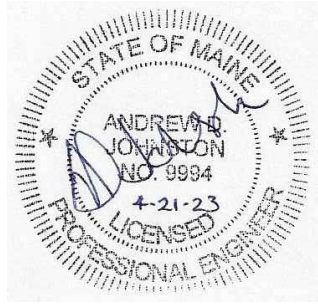
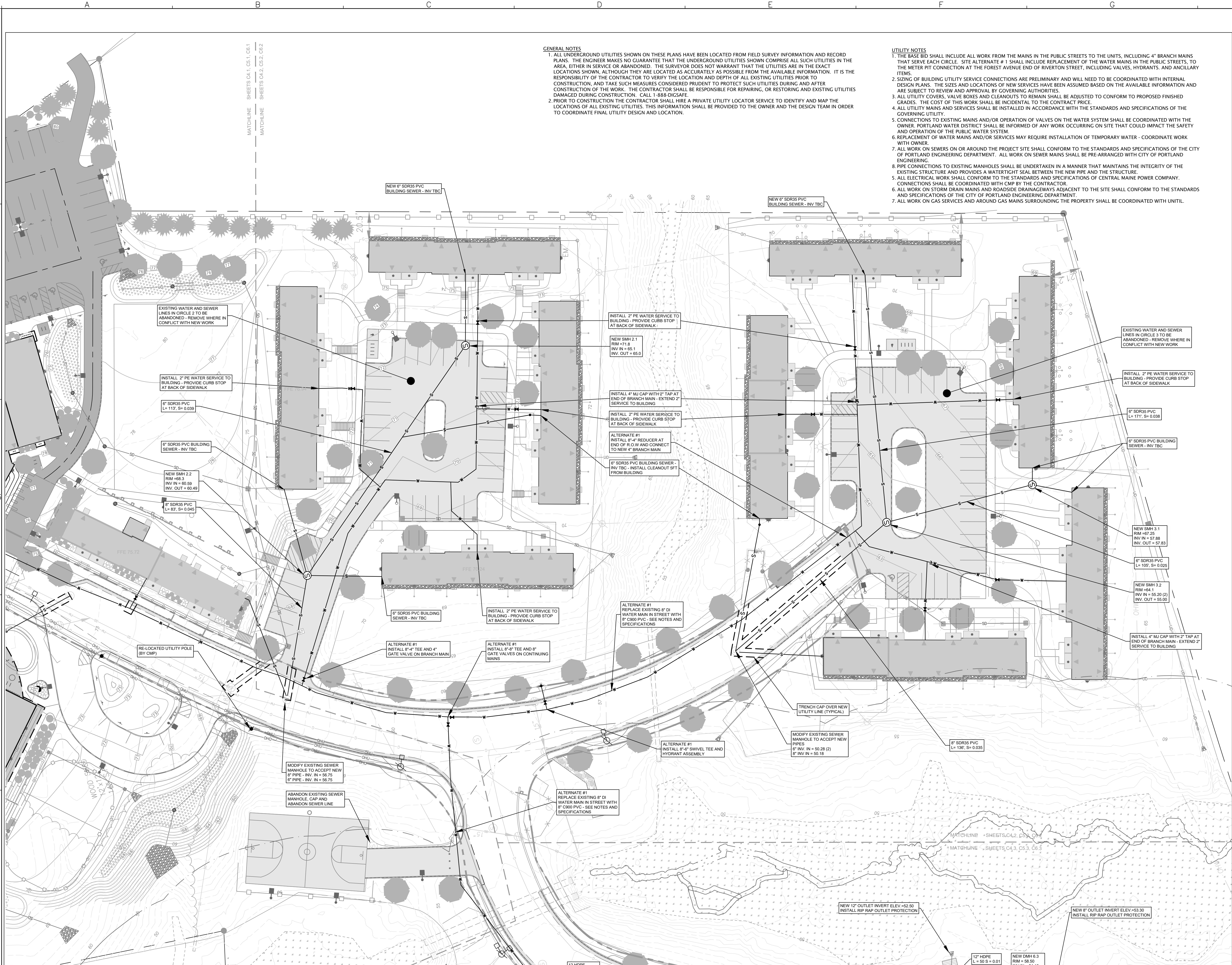
RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

UTILITY PLAN
CIRCLE 1
CWS PROJECT NUMBER: 15.021

REVISION	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3	02.16.2023	ISSUED FOR 50% PRICING (REHAB)
4	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

DRAWING NUMBER
C5.1
SCALE: AS SHOWN
DATE: 1/12/2019

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



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RIVERTON PARK, LP

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

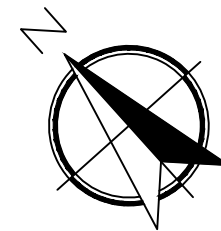
UTILITY PLAN
CIRCLES 2+3

REVISIONS	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3	02.16.2023	ISSUED FOR 50% PRICING (RE#48)
4	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

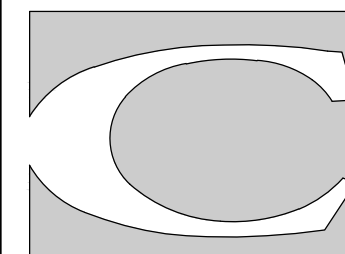
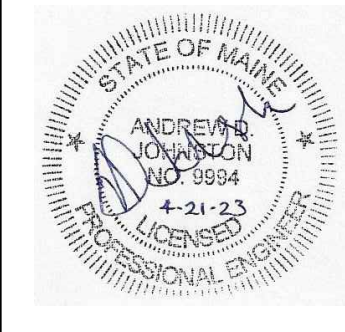
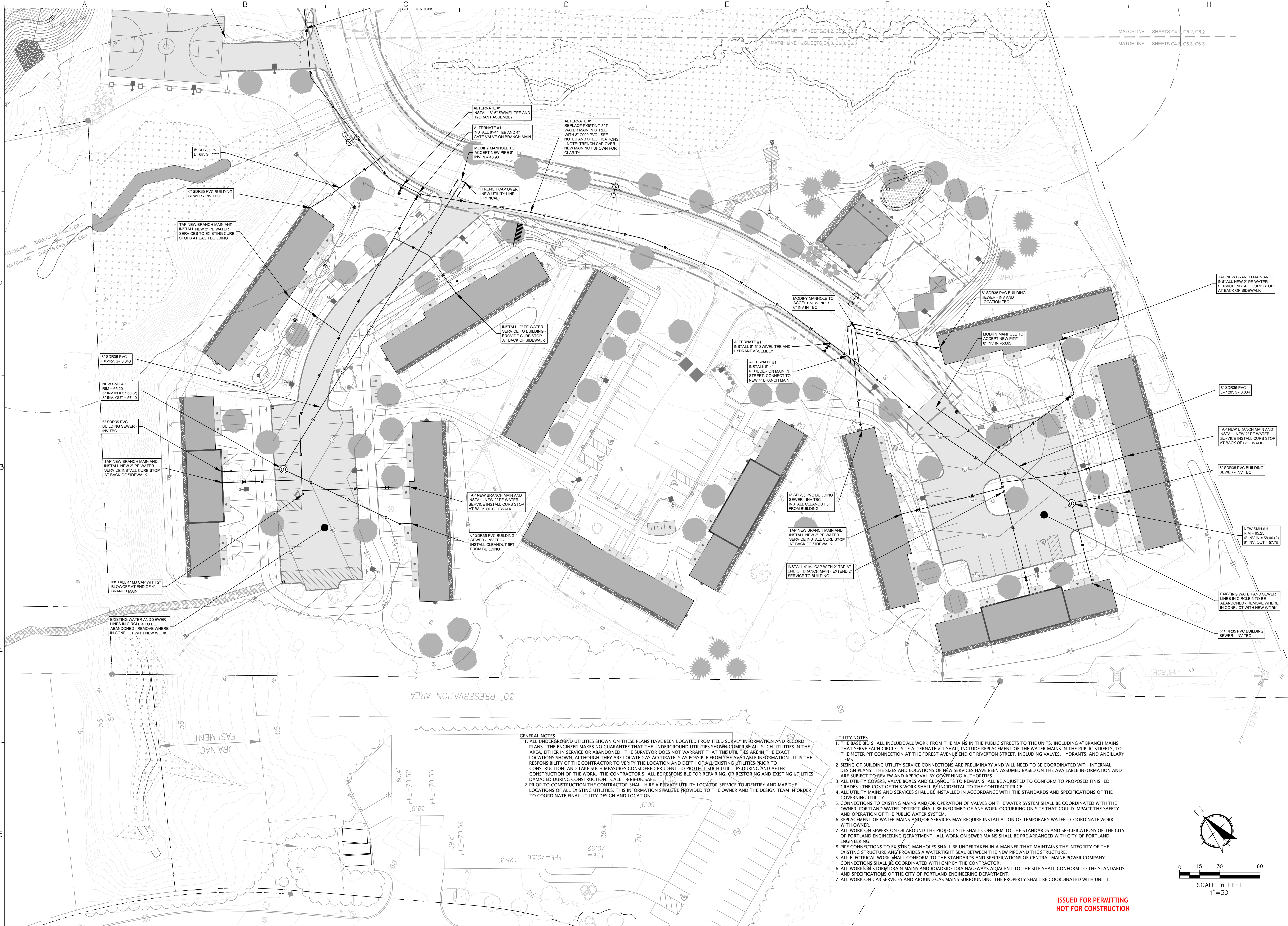
DRAWING NUMBER

C5.2

SCALE: AS SHOWN
DATE: 1/12/2019



0 15 30 60
SCALE in FEET
1"=30'



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RIVERTON PARK, LP

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

UTILITY PLAN
CIRCLES 4,5+6

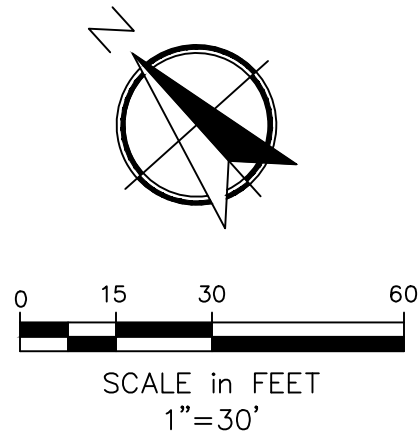
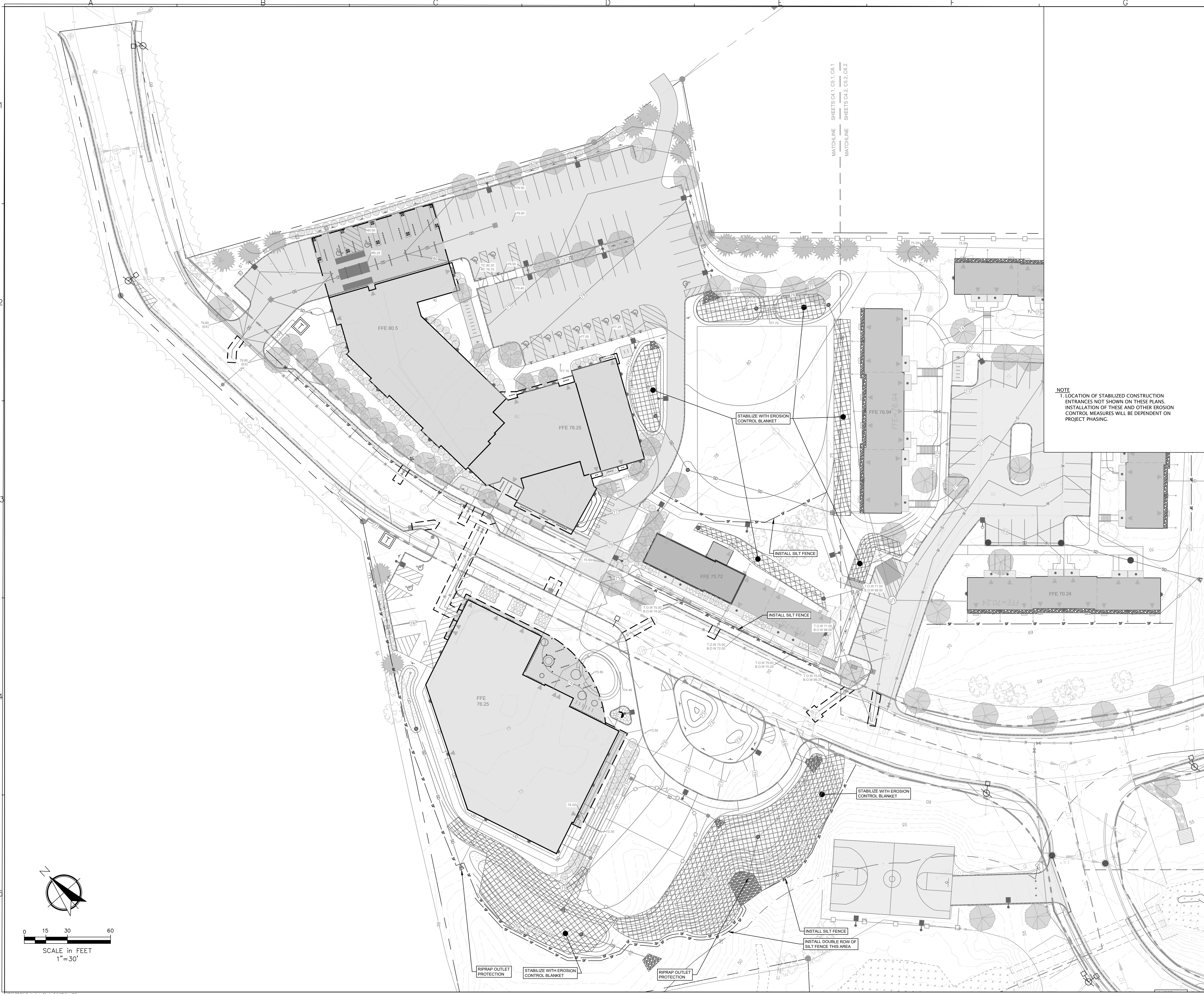
CWS PROJECT NUMBER: 15.021

REVISION	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3	02.16.2023	ISSUED FOR 50% PRICING (RE#48)
4	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

DRAWING NUMBER
C5.3

SCALE: AS SHOWN
DATE: 1/12/2019

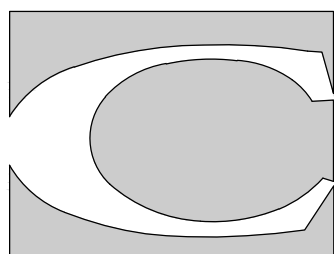
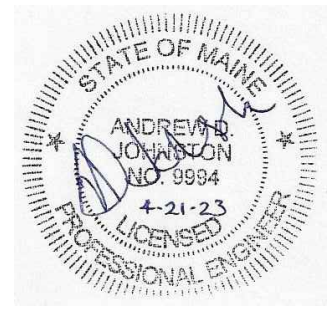
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R E V I S I O N S D R A W I N G P R O J E C T O W N E R D E S I G N E R

RIVERTON PARK, LP

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

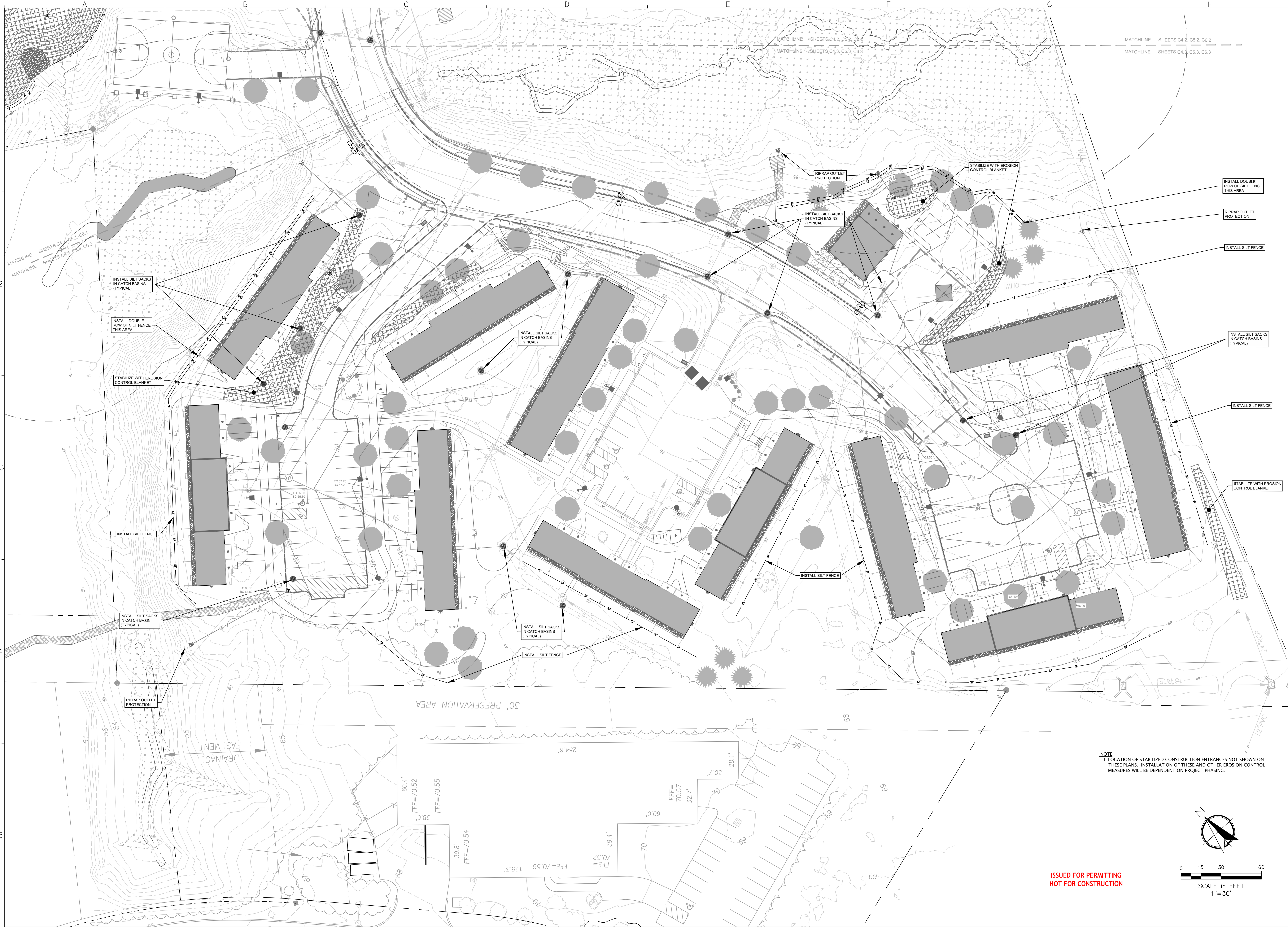
**EROSION
CONTROL PLAN
CIRCLE 1**
CWS PROJECT NUMBER: 15.021

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3	ISSUED FOR 50% PRICING (REHAB)	02.18.2023
4	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER

C6.1

SCALE: AS SHOWN
DATE: 1/12/2019



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LICENSED PROFESSIONAL ENGINEER

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DESIGNER

RIVERTON PARK, LP
14 BAYTER BLVD
PORTLAND, MAINE 04101

OWNER

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

PROJECT

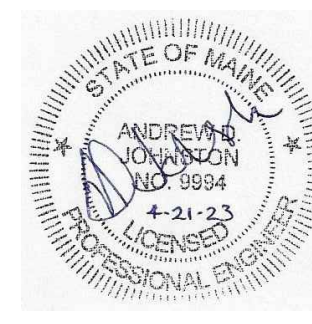
EROSION
CONTROL PLAN
CIRCLES 4,5+6
CWS PROJECT NUMBER: 15.021

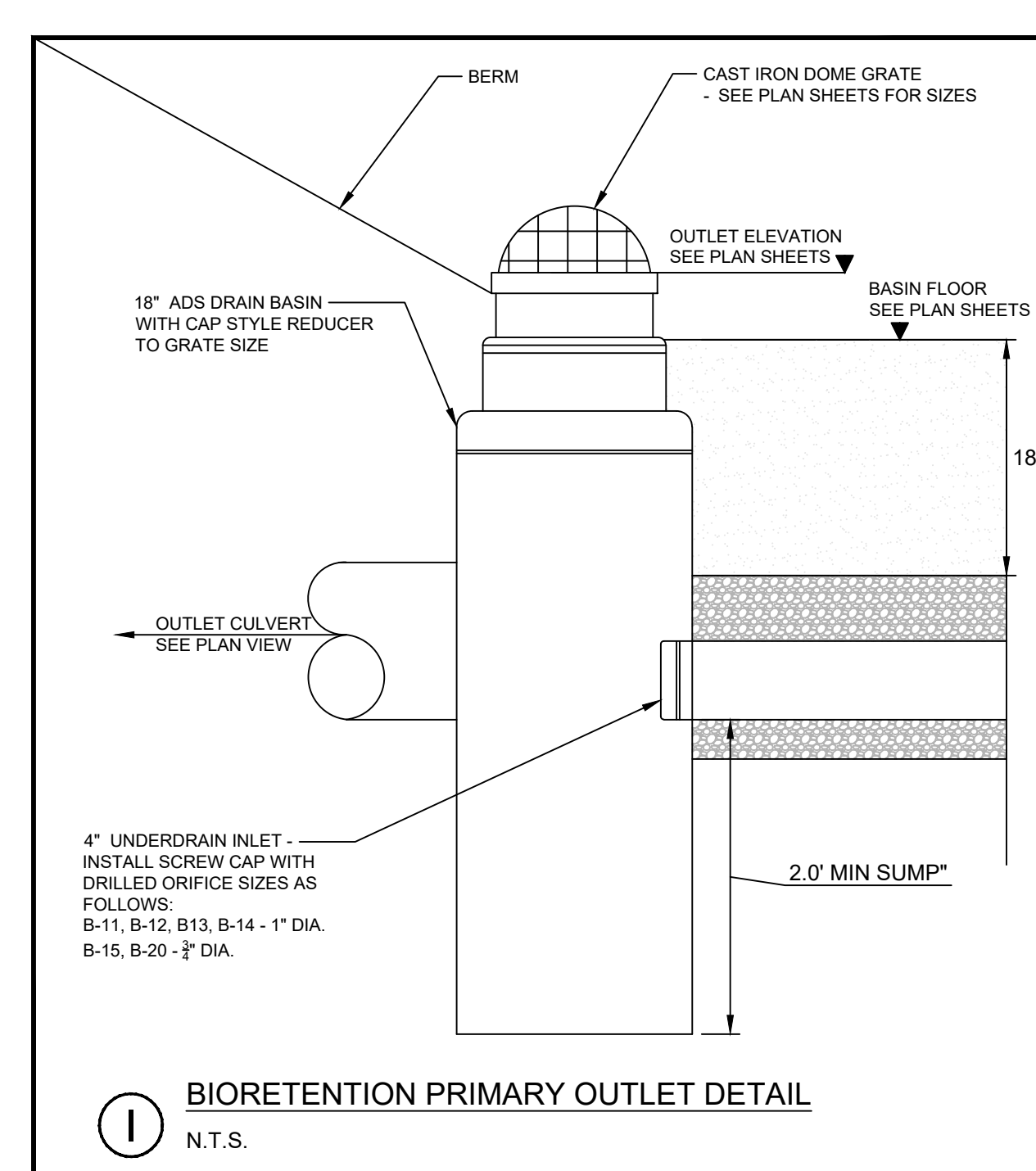
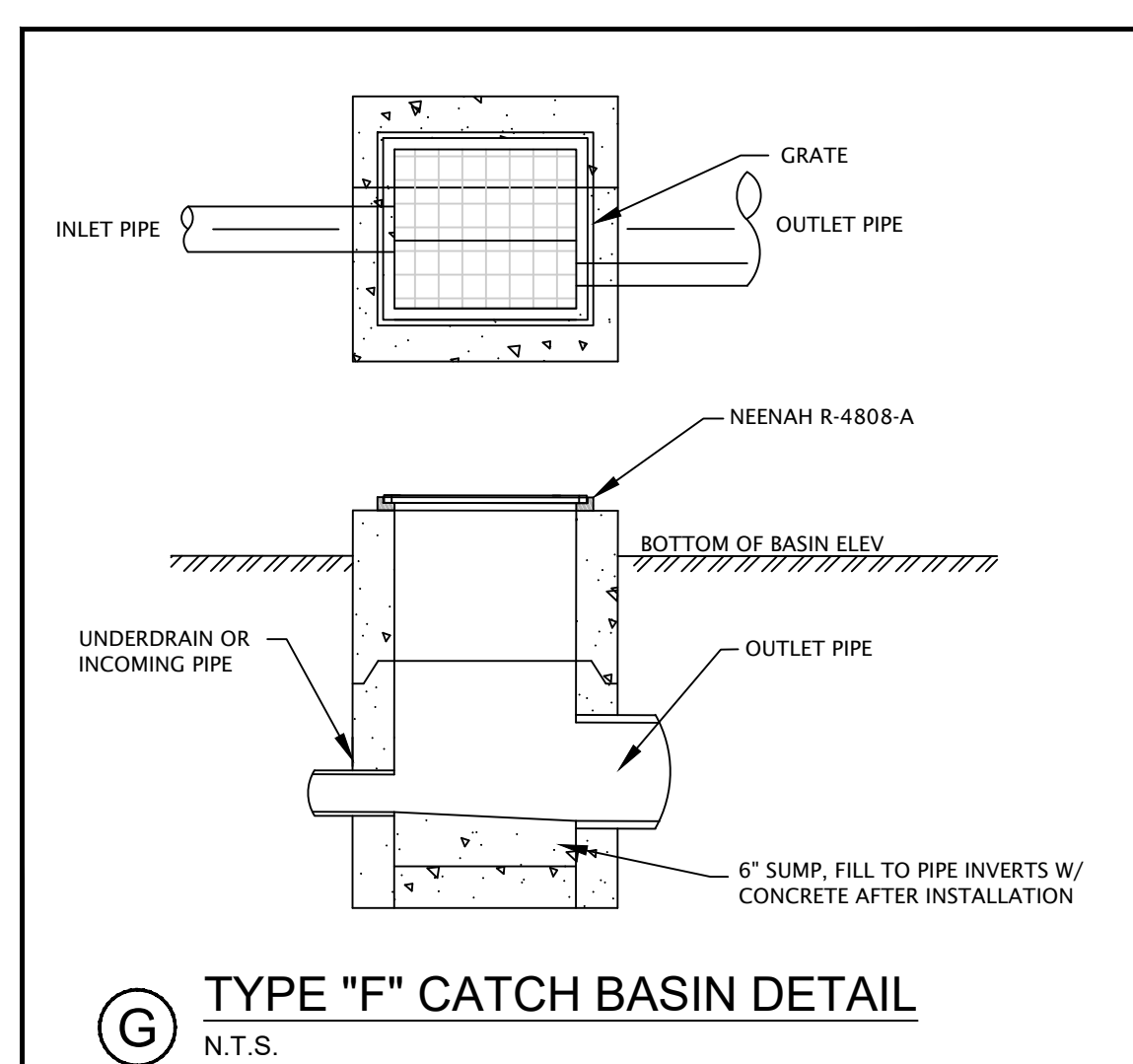
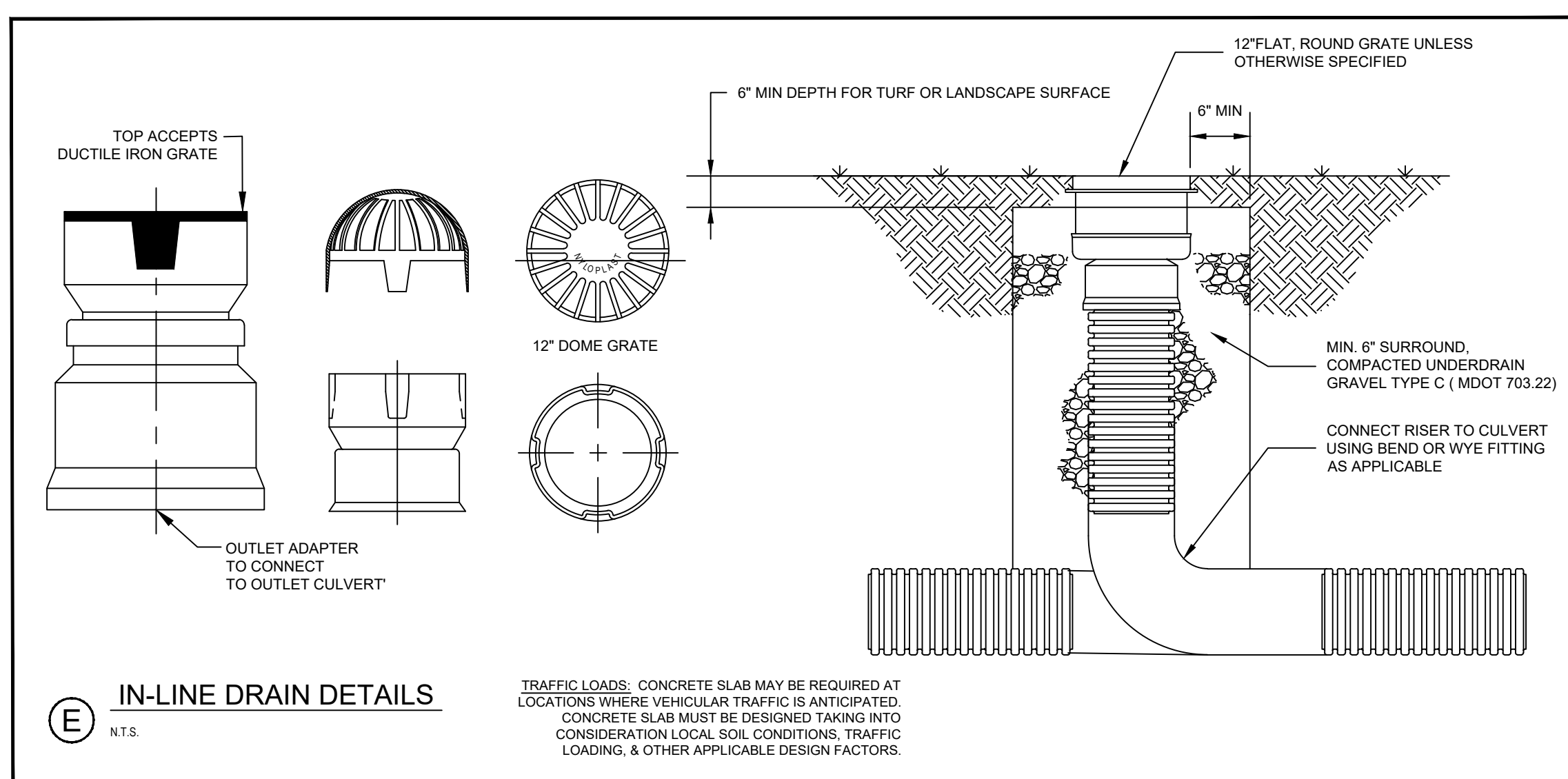
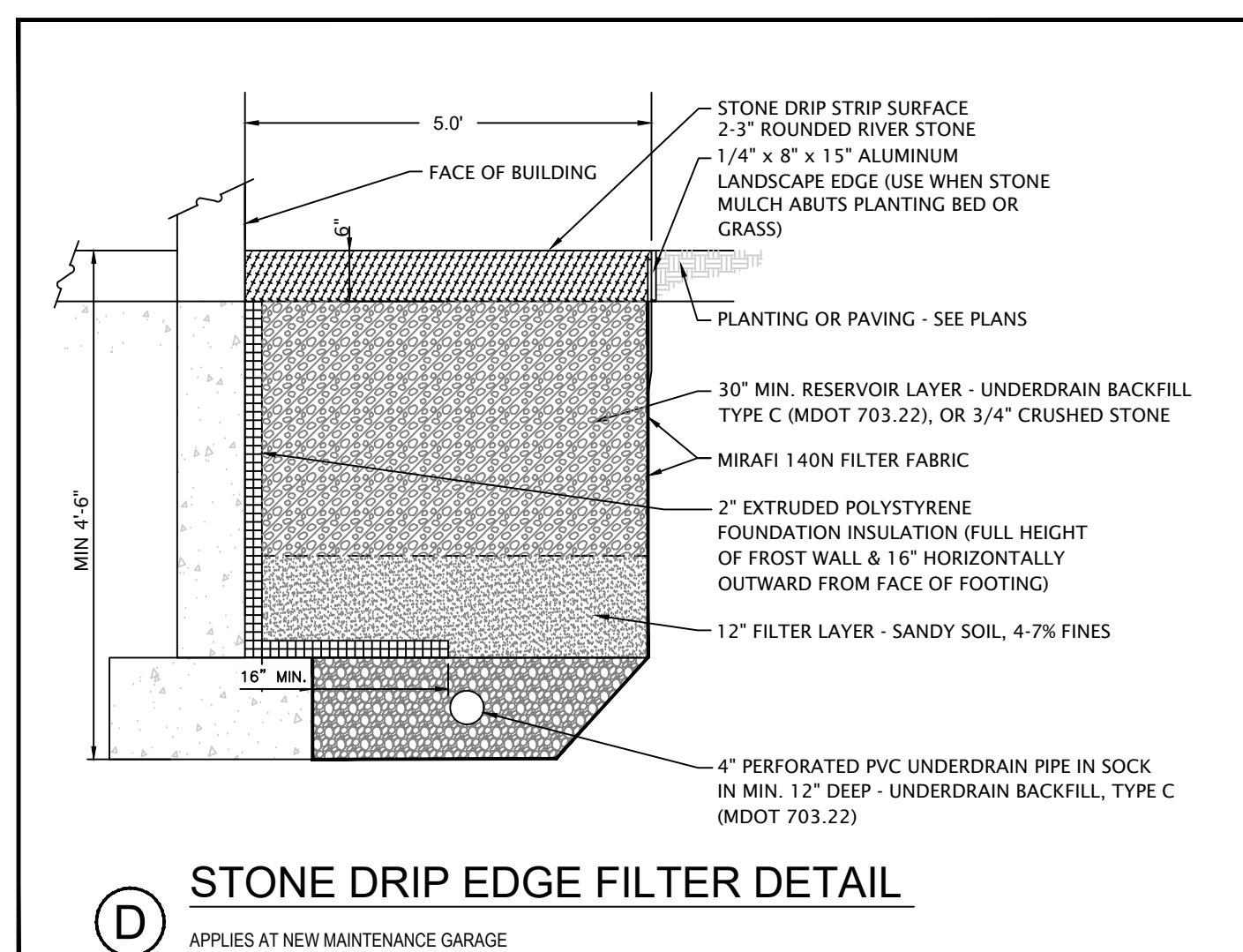
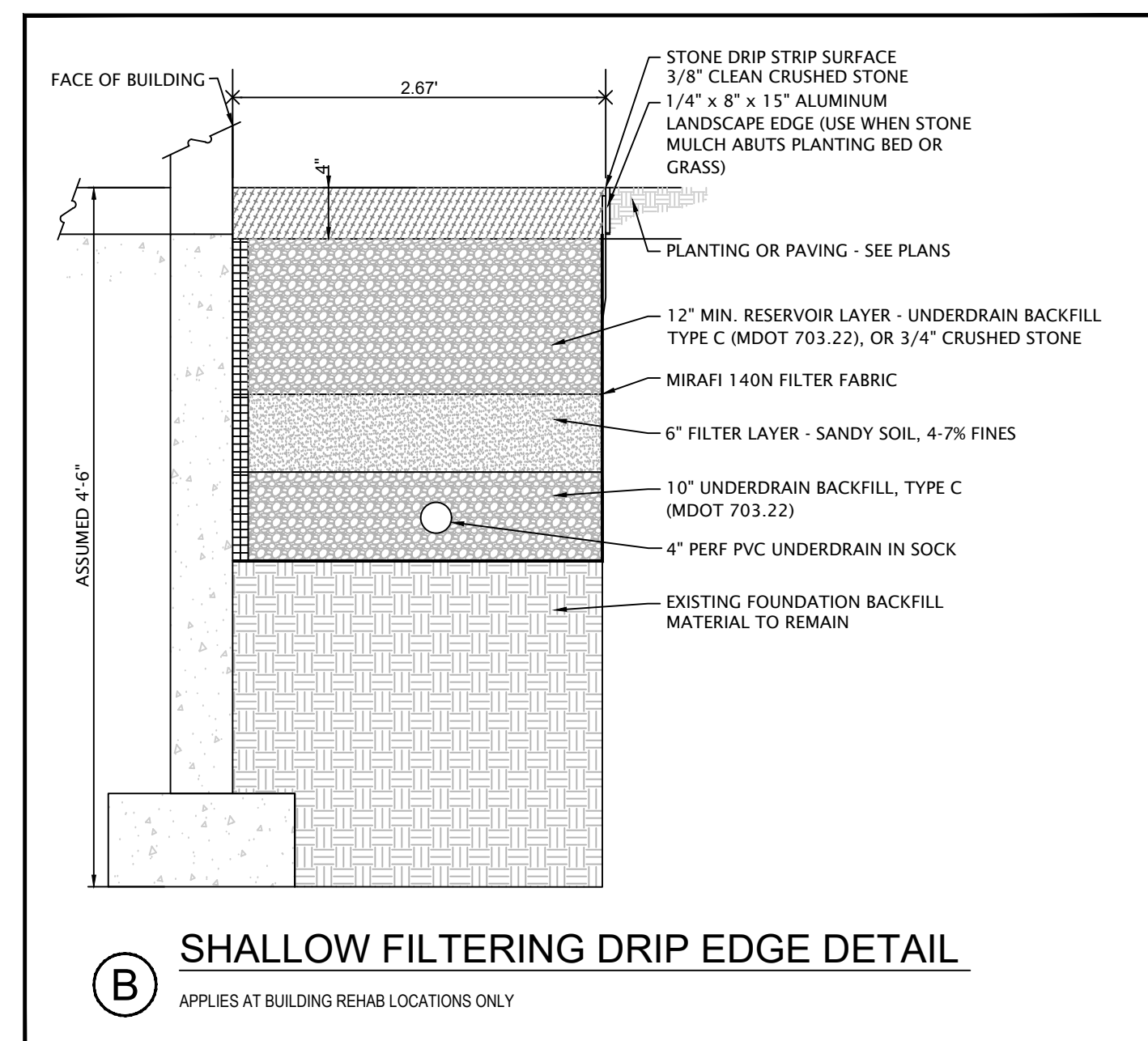
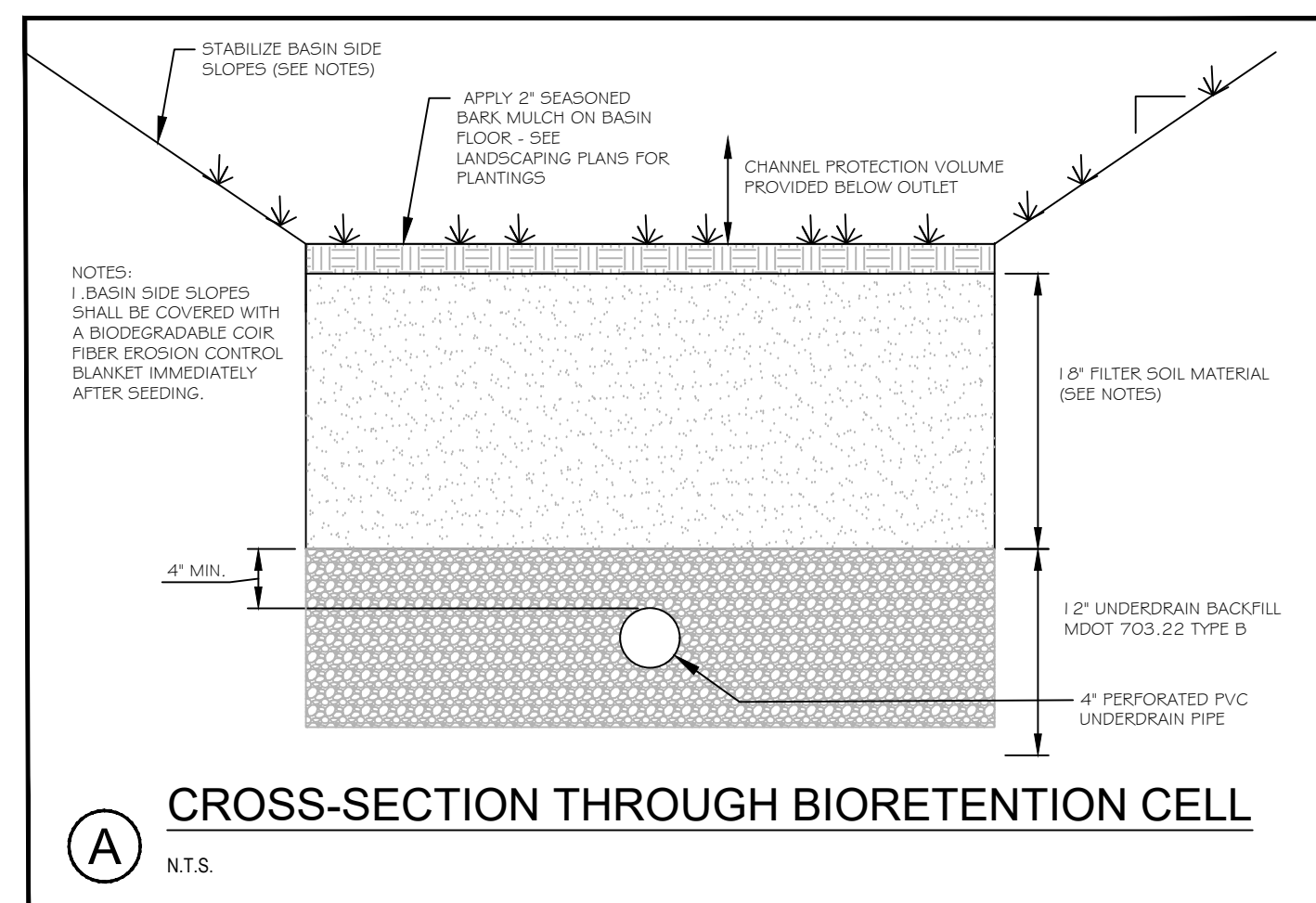
DRAWING

1 FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2 MAJOR SITE PLAN	12.22.2022
3 ISSUED FOR 50% PRICING (RE+AB)	02.16.2023
4 MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

REVISION

DRAWING NUMBER	C6.3
SCALE:	AS SHOWN
DATE:	1/12/2019

A. <u>SOIL EROSION AND SEDIMENT CONTROL NOTES</u>										CWS ARCHITECTS ARCHITECTURE INTERIOR DESIGN									
TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, SILTATION FENCE, EROSION CONTROL MIX, STONE CHECK DAMS, HAY BALE BARRIERS, CATCH BASIN SEDIMENT COLLECTION BAGS, EROSION CONTROL BLANKET, AND TEMPORARY SEEDING AND MULCHING AS REQUIRED. PERMANENT DEVICES INCLUDE THE USE OF RIP RAP AT EXPOSED STORM DRAIN AND CULVERT INLETS AND OUTLETS, AND PERMANENT VEGETATION.										264 US Route One, Suite 100-2A Scarborough, ME 04074 OFFICE: 207 774 4441 CWSARCH.COM									
A. <u>GENERAL</u>																			
1. IT IS ANTICIPATED THAT CONSTRUCTION MAY BEGIN AS SOON AS POSSIBLE FOLLOWING RECEIPT OF NECESSARY PERMITS.										DESIGNER 									



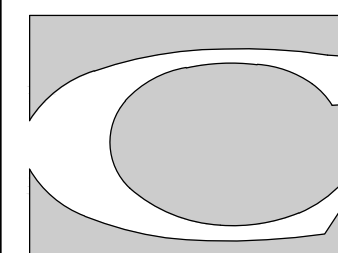
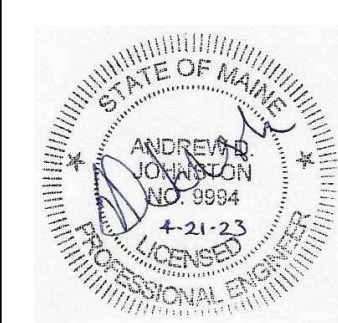
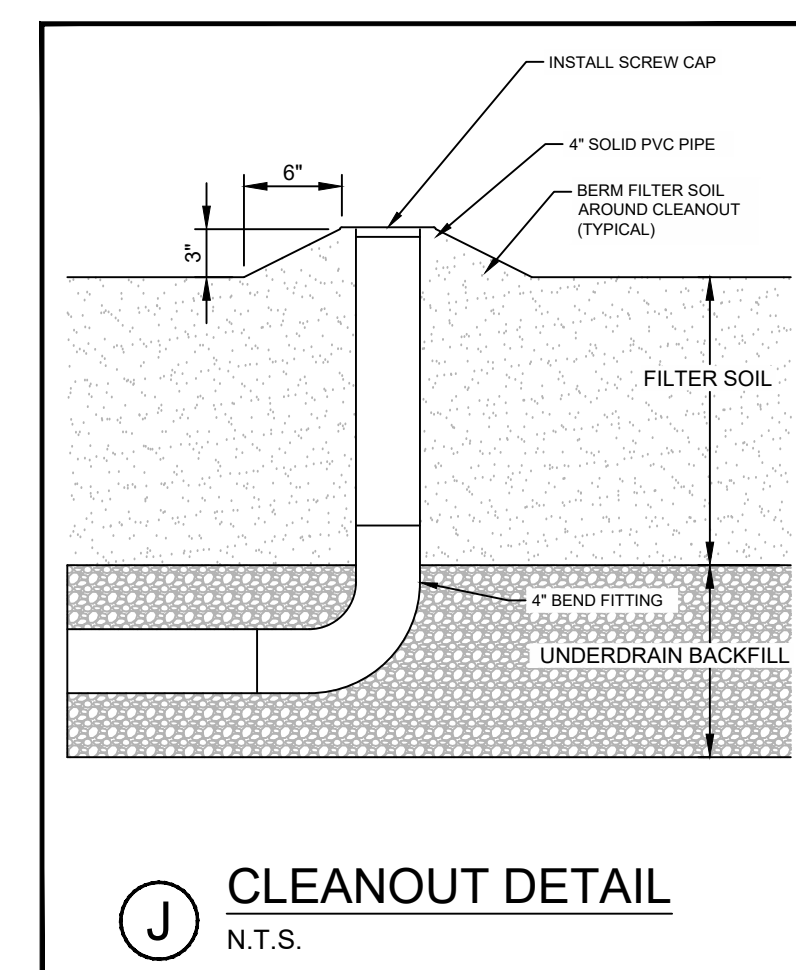
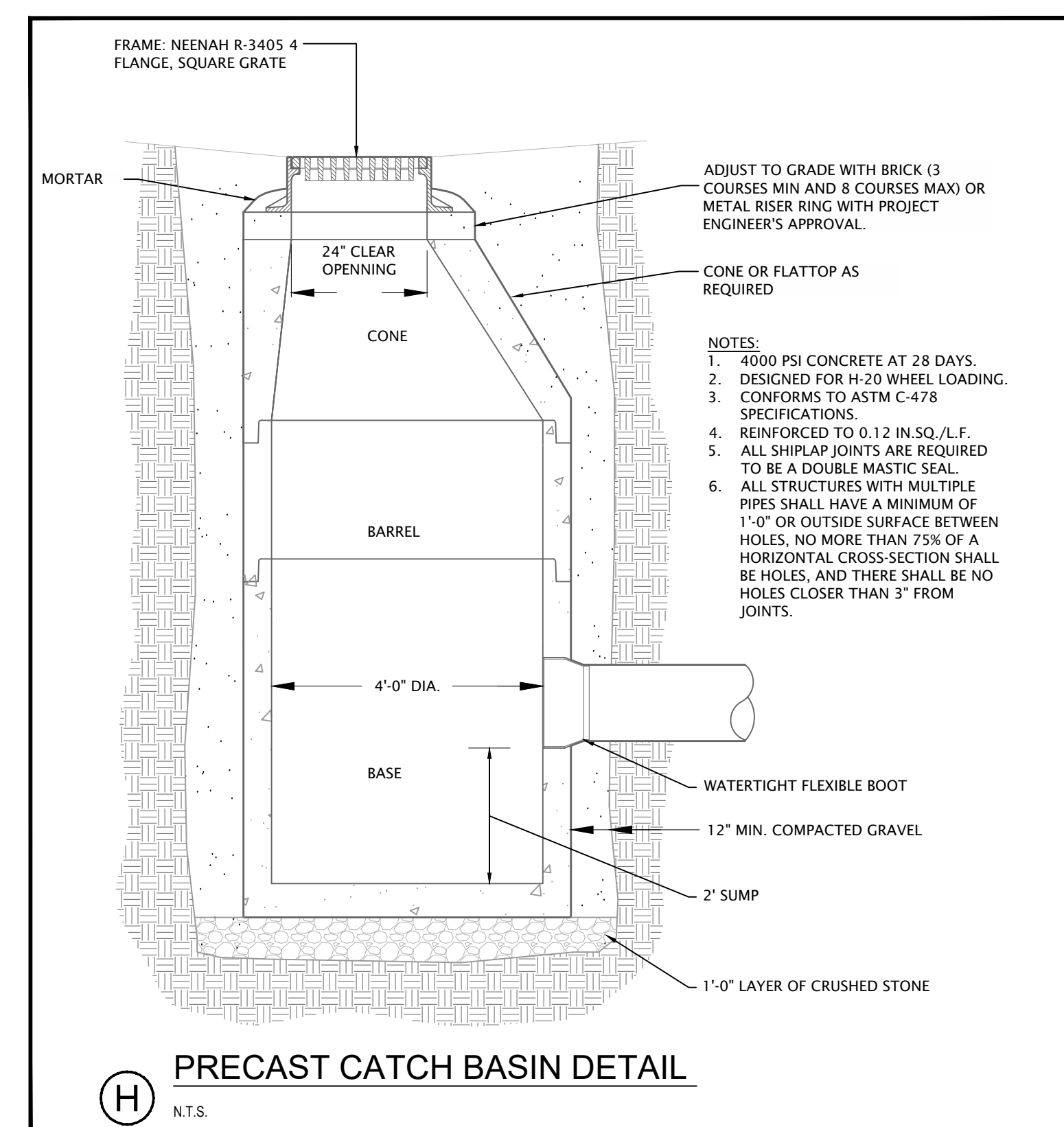
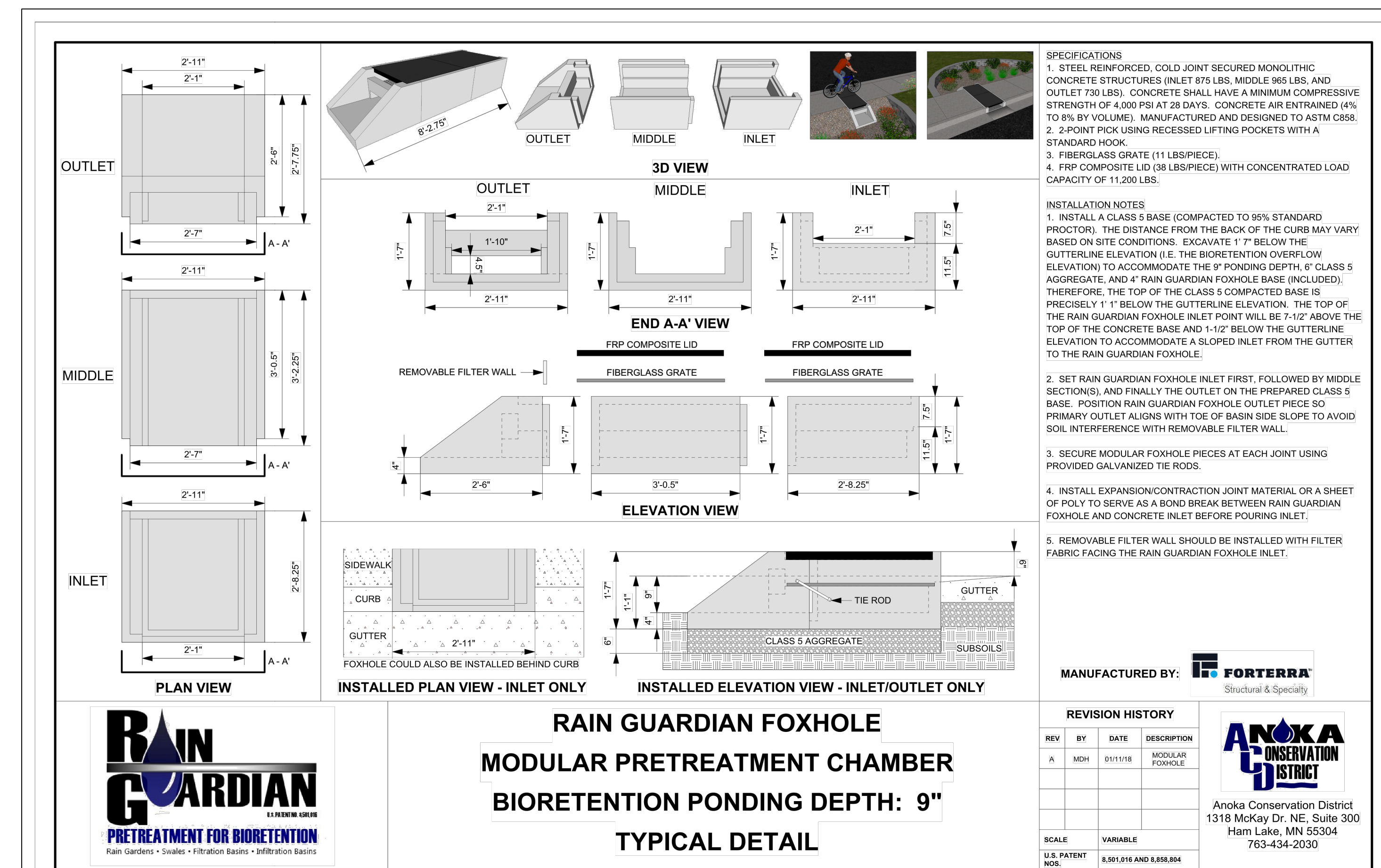
CONSTRUCTION OVERSIGHT
THE APPLICANT WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO SUPERVISE THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTING ENGINEER WILL BE REQUIRED TO MEET WITH THE CONTRACTOR AND THE CONTRACTOR, ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS OF THE DATE THAT THE WORK HAS BEEN COMPLETED. THE ACCOMPANYING INSPECTOR'S NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH DATE. THE LOG WILL INCLUDE TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON SITE.

BASIC STANDARDS - EROSION CONTROL MEASURES
MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, EROSION SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. EROSION LOGS MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE.

BIORETENTION AND UNDERDRAINED FILTER NOTES

- F. FILTER SOIL MATERIAL FOR UNDERDRAINED SOIL FILTERS AND BIORETENTION AREAS SHALL COMPRISE A SILTY SAND OR SOIL MIXTURE COMBINED WITH AN ORGANIC SOIL AMENDMENT MATERIAL TO 20%-25% BY VOLUME. THE RESULTING MIXTURE SHALL HAVE BETWEEN 80% AND 90% PASSING THE #200 SIEVE, AND A CLAY CONTENT OF LESS THAN 2%.
- G. FILTER MEDIA SHALL BE PLACED IN 12" GLYCH LISTS USING LOG EQUIPMENT OR BY HAND. LOG EQUIPMENT SHALL EXERT A GROUND PRESSURE OF LESS THAN 5 PSI.
- H. SPECIFICATION FROM THE MANUFACTURER. MATERIAL SHALL BE GRADED TO PROVIDE AN EVEN SURFACE, SEEDED AND COVERED WITH EROSION CONTROL BLANKET.
- I. UNDERDRAINED GRAVELS SHALL MEET THE SPECIFICATION REQUIREMENTS GIVE IN MDOT SPECIFICATION 703.22.
- J. FILTER MEDIA SHALL NOT BE INSTALLED UNTIL ALL UPSTREAM CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- K. IMPERMEABLE LINER SHALL BE INSTALLED UNDER ALL UNDERDRAINED FILTERS SHALL BE A 30MIL IMPERMEABLE LINER.

Table 7.1.2 - Sandy Loam to Fine Sandy Loam Specifications		Table 7.1.3 - Loamy Coarse Sand Specifications	
Seive #	% Passing by Weight	Seive #	% Passing by Weight
No. 4	75-95	No. 10	85-100
No. 10	60-90	No. 200	70-100
No. 40	35-85	No. 60	15-40
No. 200	20-70	No. 200	8-15
200 (clay size)	<2.0	200 (clay size)	<2.0



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RIVERTON PARK, LP

RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

14 BAXTER BLVD
PORTLAND, MAINE 04101

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

CWS PROJECT NUMBER: 15.021

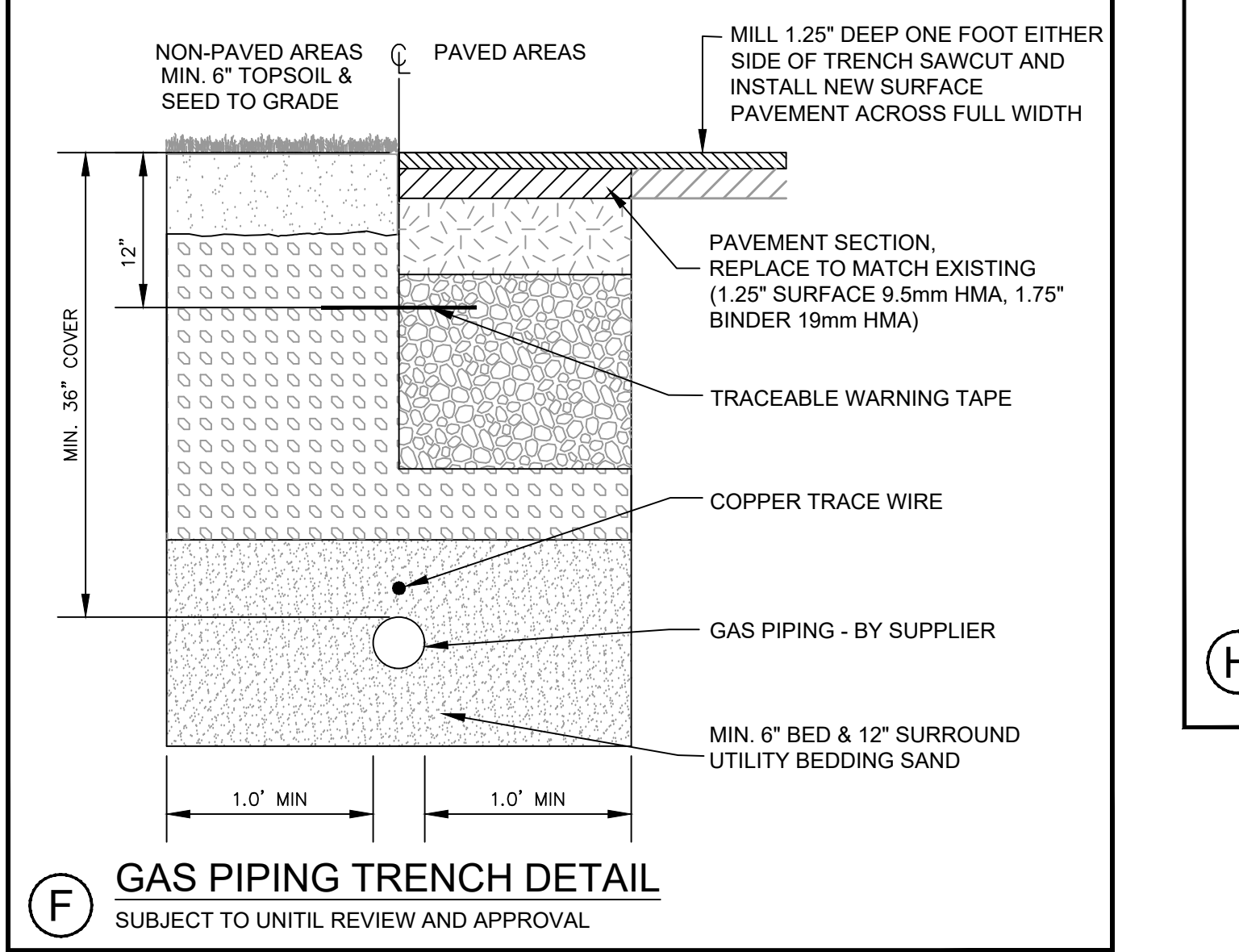
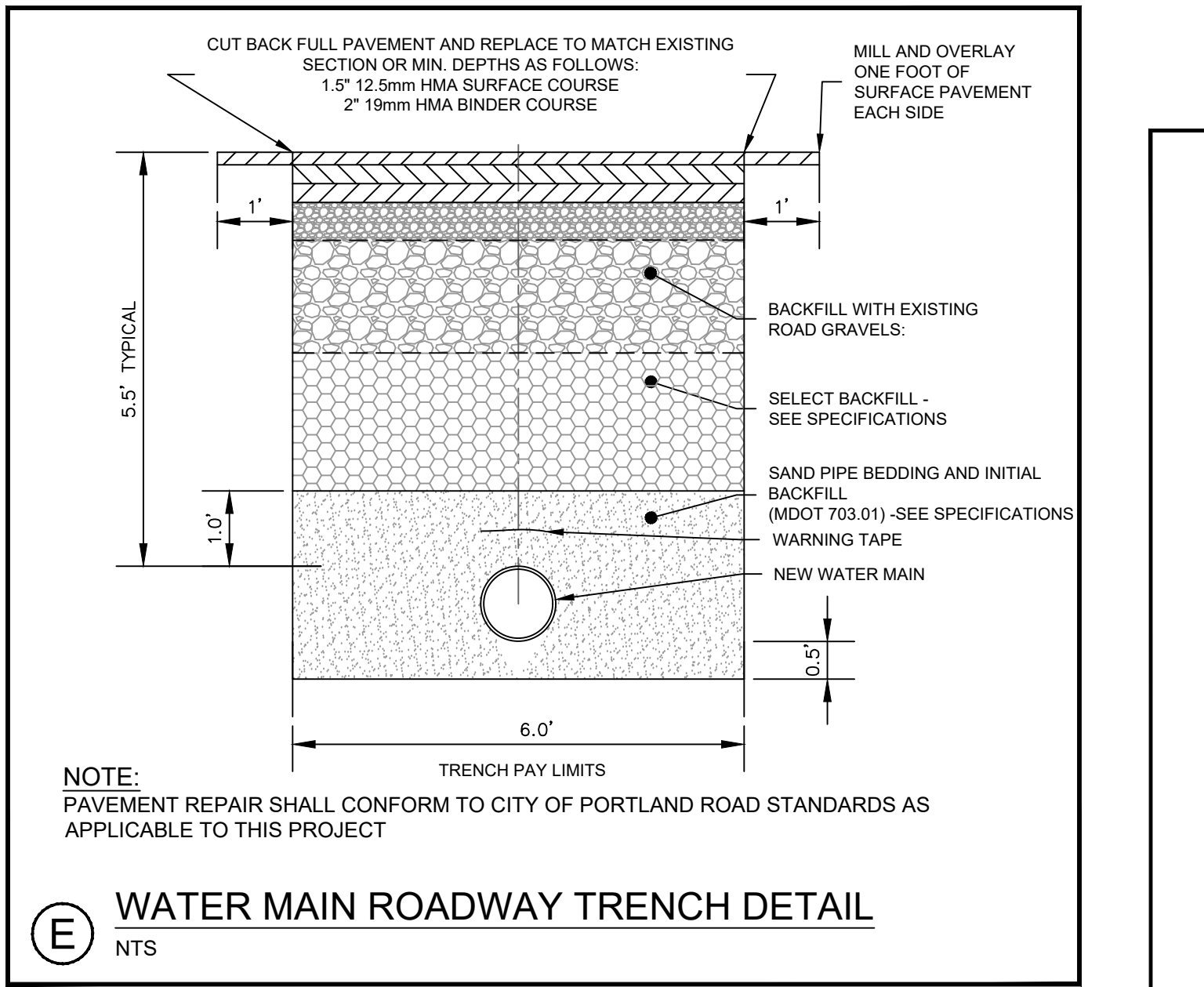
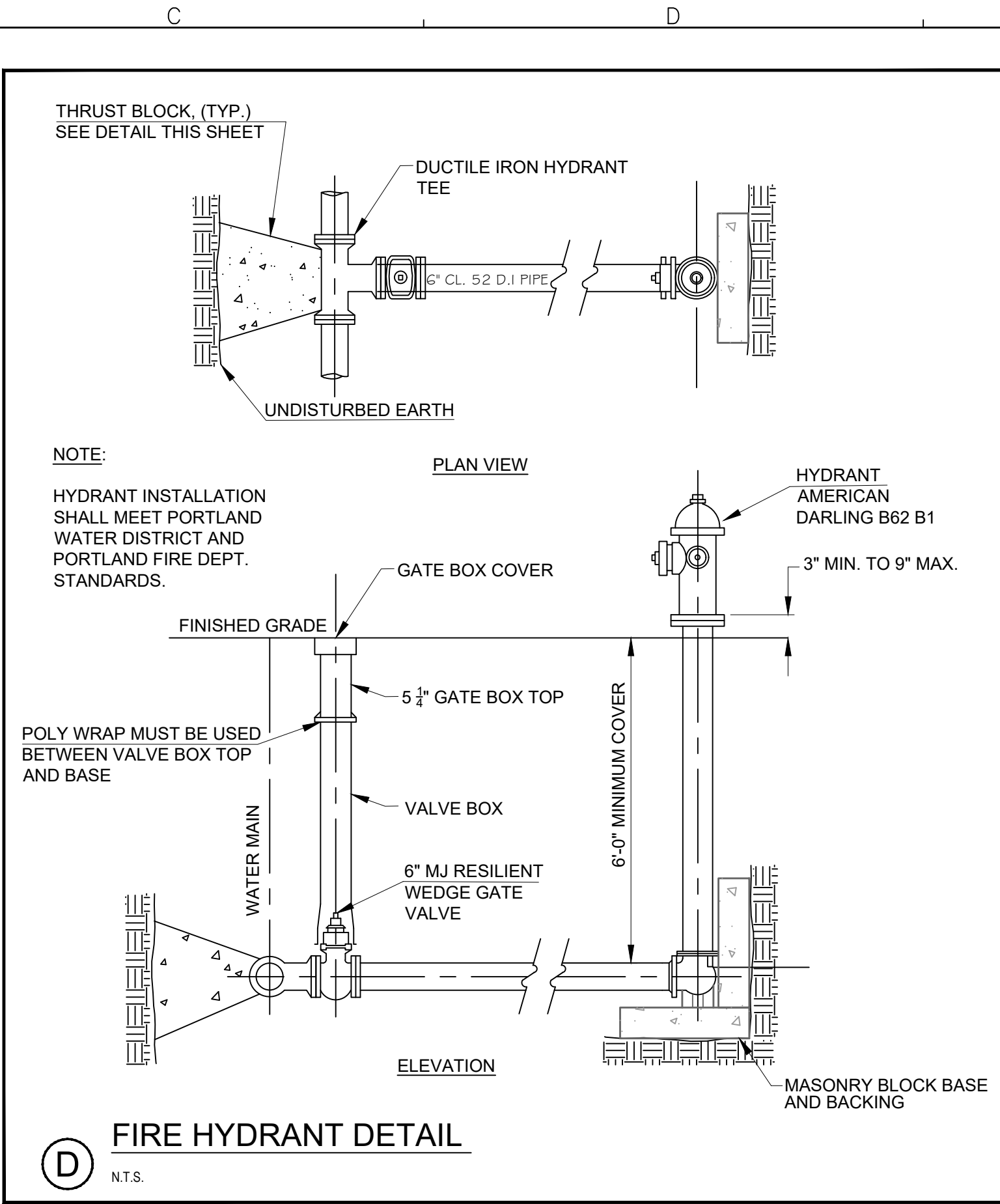
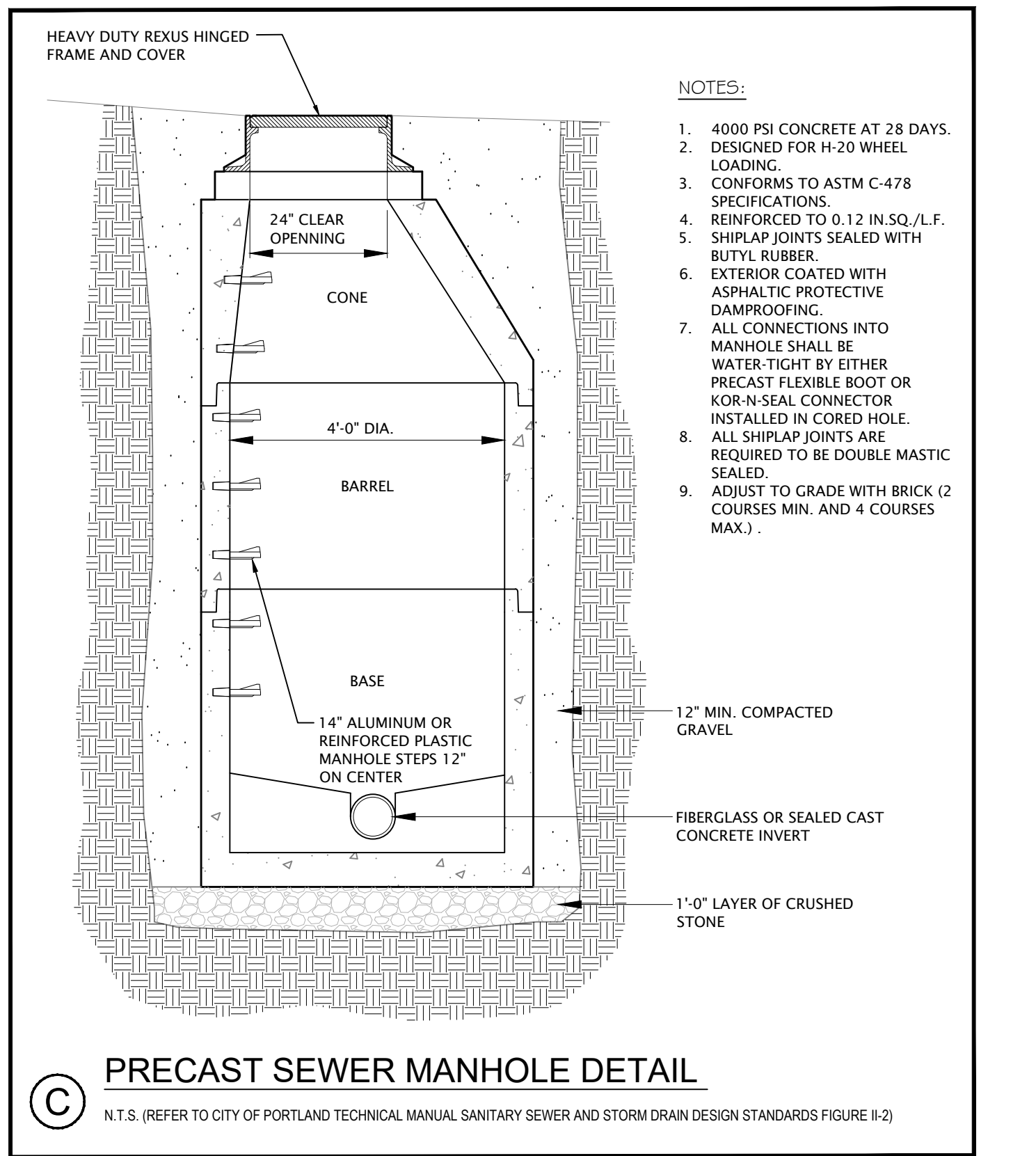
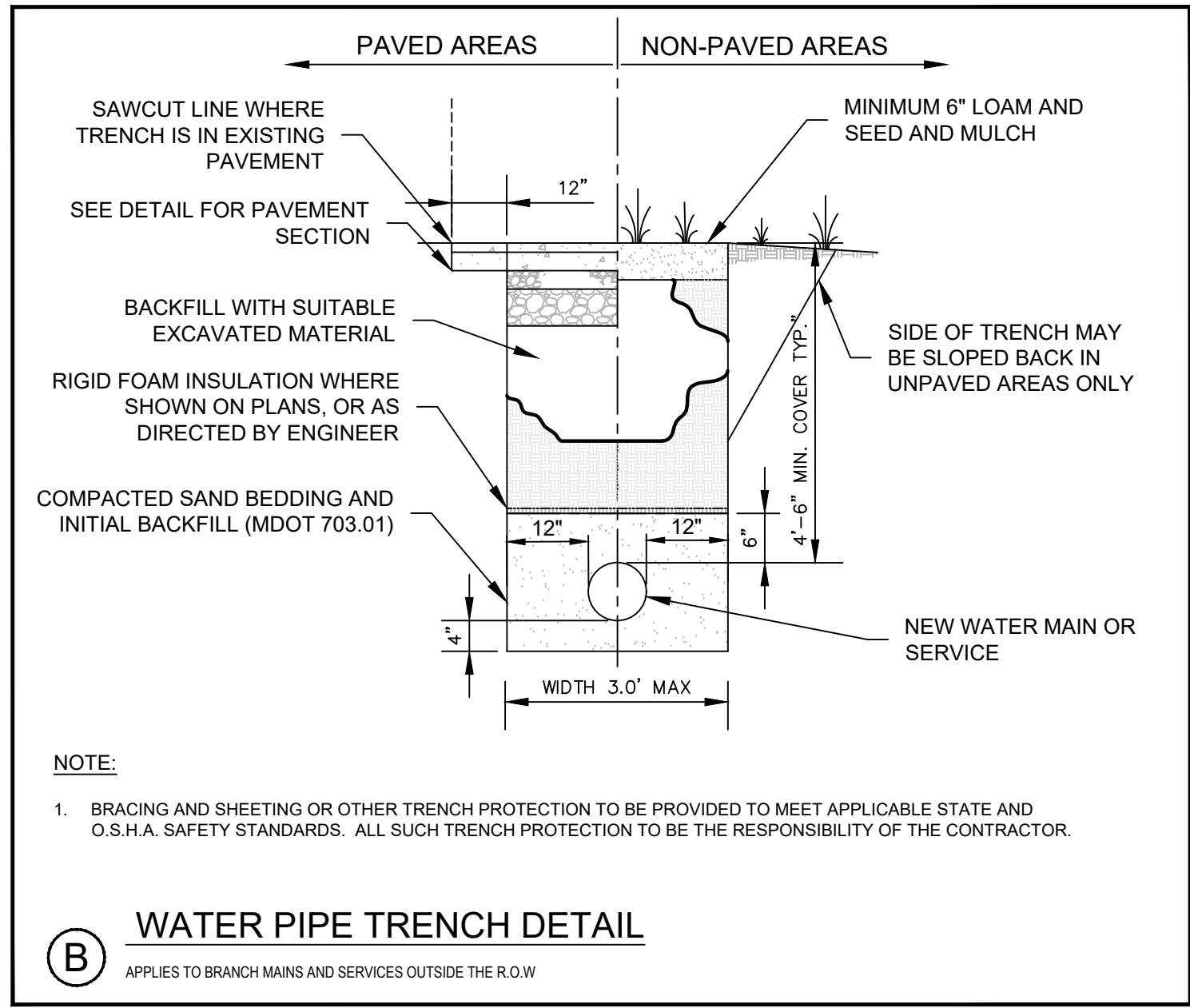
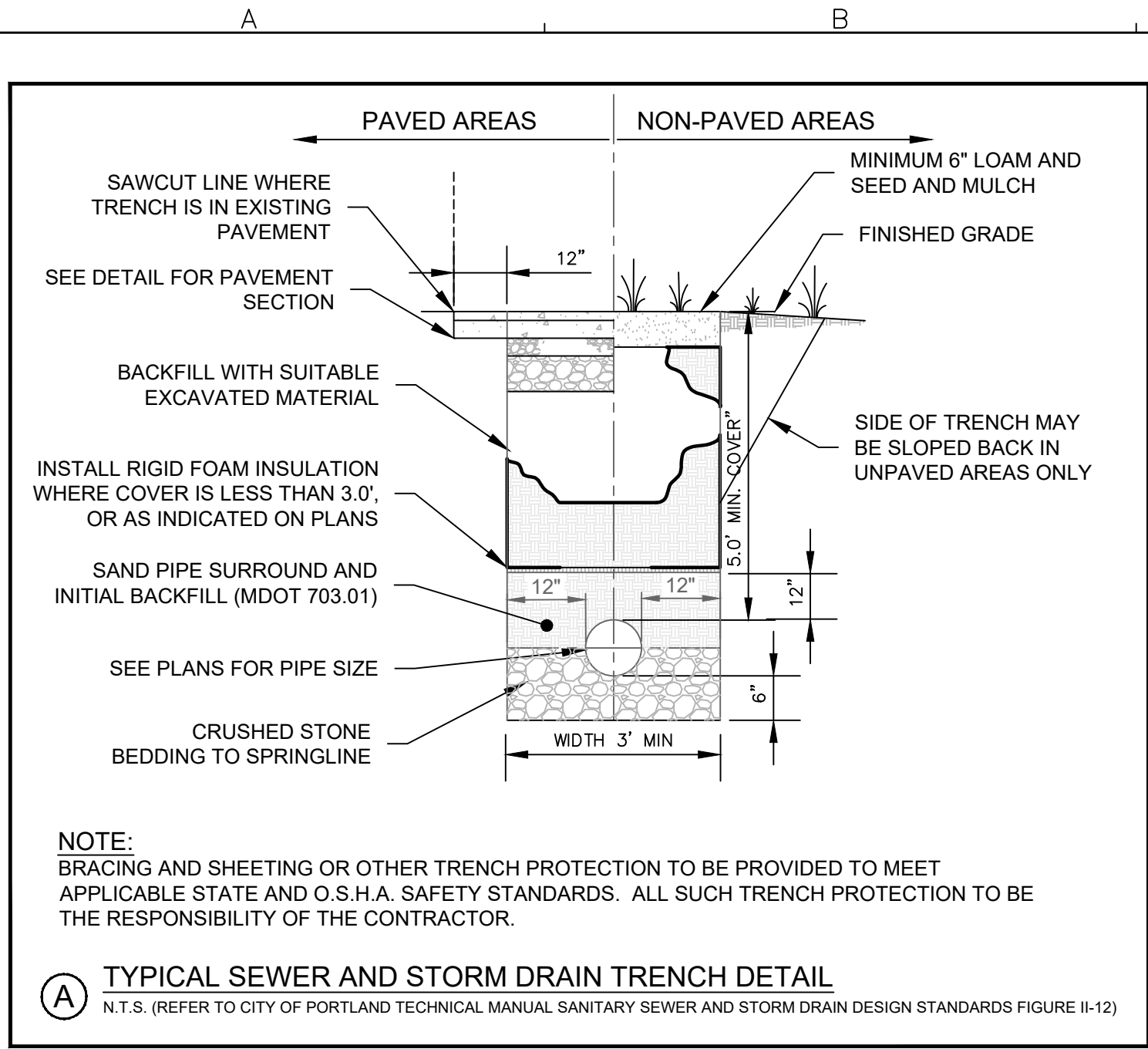
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SITE/CIVIL
DETAILS 3

R E V I S I O N S		
1	FOR SCHEMATIC DESIGN PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER

C7.5

SCALE:	AS SHOWN
DATE:	1/12/2019



(HORIZONTAL) BEARING AREA OF THRUST BLOCKS IN SQUARE FEET										(VERTICAL) VOLUME OF THRUST BLOCK IN CUBIC YARDS			
FITTING SIZE	TEE, WYE, DEAD END AND HYDRANT	STRADDLE BLOCK	90° BEND FLANGED CROSS	TEE PLUGGED ON RUN	A-1	A-2	45° BEND	22-1/2° BEND	11-1/4° BEND	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	1.0	1.6	1.4	1.9	1.4	1.0	---	---	---	---	---	---	---
6	2.1	3.7	3.0	4.3	3.0	1.6	1.0	---	---	1.3	---	---	---
8	3.6	6.5	5.3	7.6	5.4	2.9	1.5	1.0	2.3	1.1	---	---	---

NOTES:
1. ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 PSI AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION:
BEARING AREA = (TEST PRESSURE / 150) x (2000 / SOIL BEARING STRESS) x (TABLE VALUE)
2. ABOVE VOLUMES BASED ON TEST PRESSURE OF 150 PSI AND THE WEIGHT OF CONCRETE = 4050 POUNDS PER CUBIC YARD. TO COMPUTE FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION:
VOLUME = (TEST PRESSURE / 150) x (TABLE VALUE)

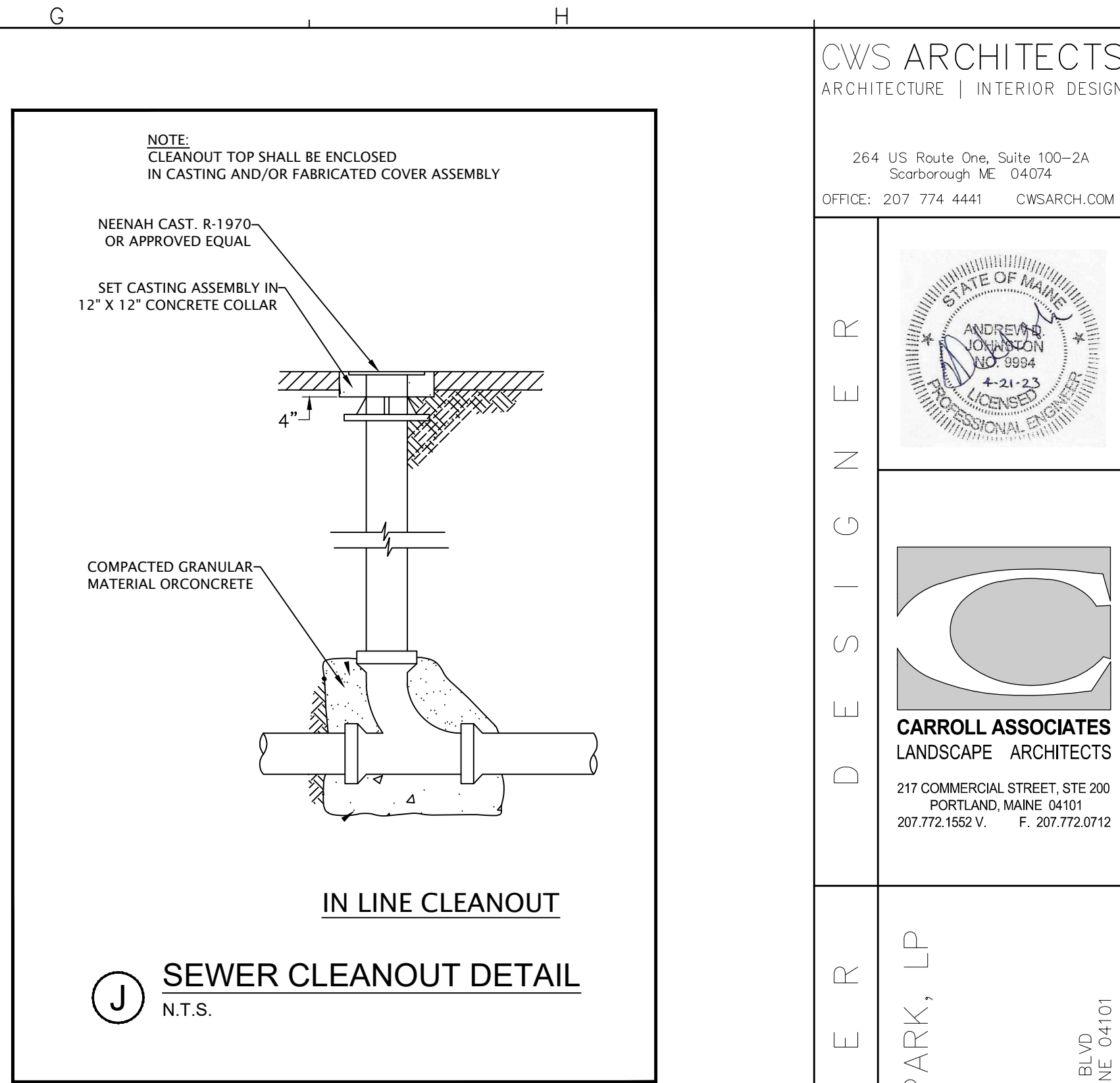
TEE CROSS STRADDLE BLOCK BEND

CROSS TEE WYE VERTICAL BEND

RODS FOR VERTICAL BENDS

FITTING SIZE	ROD SIZE	EMBEDMENT
12" AND LESS	#6	30"
14"-16"	#8	36"

(G) THRUST BLOCKING DETAIL
N.T.S.



THRUST RESTRAINT REQUIREMENTS

All tees, Bends, Reducers and End Caps should be restrained using thrust blocks, mega-lugs, mechanical joint fittings, field-lok gaskets, fusion joints, a combination of these methods, or other restraint fittings as specifically approved by The Engineer for use on the project. A certain number of joints before and after a restrained fitting may also require joint restraints as set forth in Tables below. Below Tables establish values for the minimum length of pipe ("L") within which other joints must be restrained. Values in feet are based on 150 PSI line pressure, 24" cover, Sandy-Clay type soil and a safety factor of 2. For other line pressures, multiply the "L" values by the actual pressure and divide by 150.

Pipe-Pipe Restraints for IPS & DPS pipe... minimum restrained length ("L") in feet												
Pipe Size	Pipe OD IPS	Pipe OD DPS	Bends				Step Reduction			Dead End	Gate Valve	
			11	22	45	90	1	2	3			
4"	4.5	4.8	2	5	11	24	17	24	37	54	28	
6"	6.63	6.9	4	7	16	35	36	48	64	76	37	
8"	8.63	9.05	5	10	18	46	40	66	76	90	46	
10"	10.75	11.1	6	11	23	54	43	67	90	115	58	
12"	12.75	13.2	6	12	25	64	46	72	100	134	67	
14"		15.3	7	13	29	70	48	74	103	156	74	
16"		17.4	7	16	32	78	50	77	106	175	88	
18"		19.5	8	17	35	83	53	84	108	194	97	
20"		21.6	10	18	38	91	55	96	110	214	107	
24"		25.8	11	22	44	106	76	108	137	251	126	

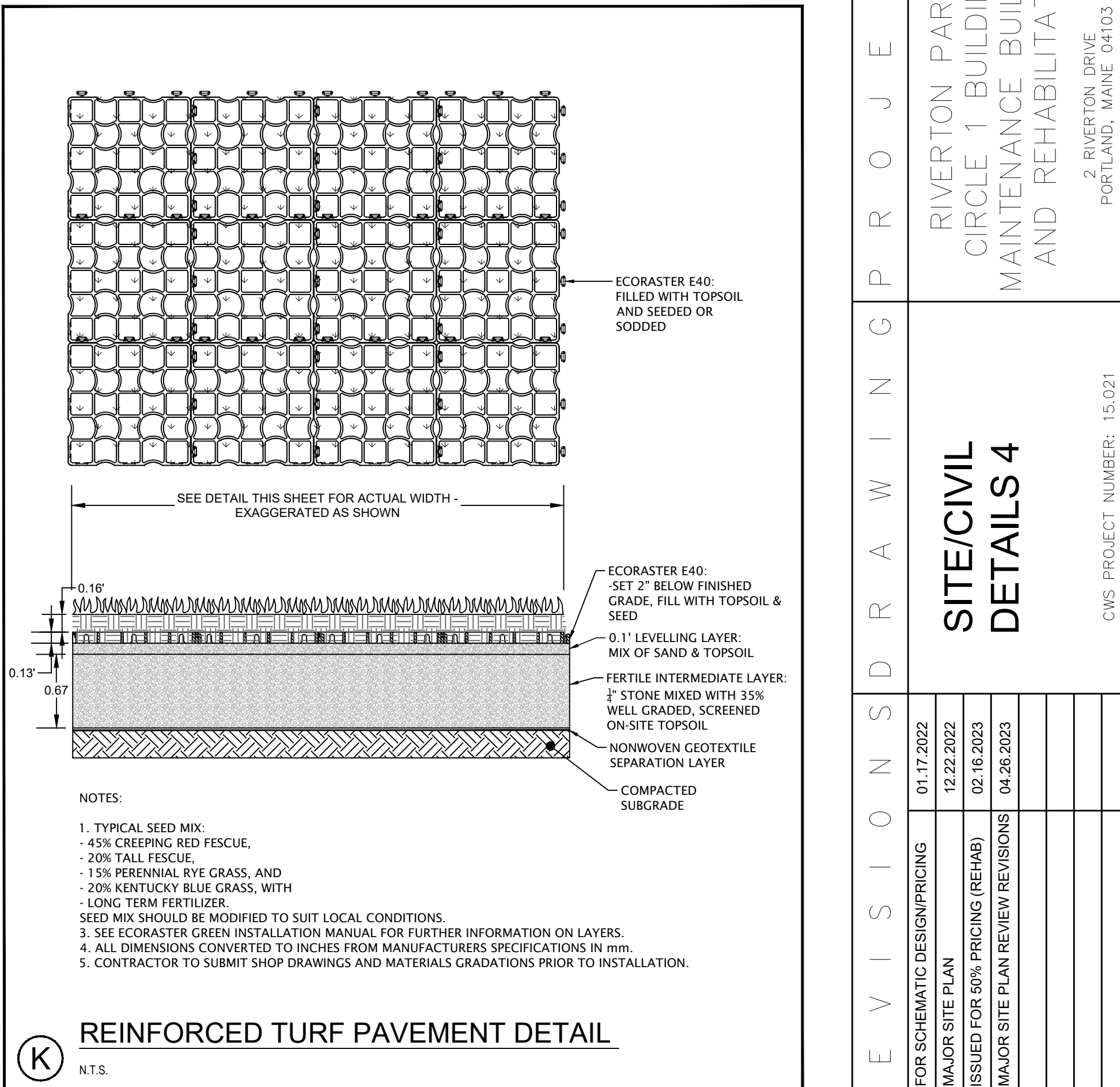
Based on 150 PSI pressure and 20 - foot length of pipe (for shorter pipe lengths, use table above)

Pipe-Pipe Restraints												
Table below shows the number of adjacent joints to restrain...based on 20 foot length												
Pipe Size	Pipe OD IPS	Pipe OD DPS	Bends				Step Reduction			Dead End	Gate Valve	
			11	22	45	90	1	2	3			
4"	4.5	4.8	0	0	0	1	0	1	1	2	1	
6"	6.63	6.9	0	0	0	1	1	2	3	3	1	
8"	8.63	9.05	0	0	0	2	1	3	3	4	2	
10"	10.75	11.1	0	0	1	2	2	3	4	5	2	
12"	12.75	13.2	0	0	1	3	2	3	4	6	3	
14"		15.3	0	0	1	3	2	3	5	7	3	
16"		17.4	0	0	1	3	2	3	5	8	4	
18"		19.5	0	0	1	4	2	4	5	9	4	
20"		21.6	0	0	1	4	2	4	5	10	5	
24"		25.8	0	1	2	5	3	5	6	12	6	

Bend: Requires restraints on both ends. Other joints on both sides may require restraints (See Tables).
Reducers: Must be restrained on both ends. Additional joints on the larger end are required. (See Tables)
Standard Tee: Requires restraint on branch side only. Use 90-degree bend for additional joints. (See Tables)
Reducing Tee: Requires restraints on all three sides. (See Tables)
Dead End: Adjacent joint restraints are required on upstream joints. (See Tables)

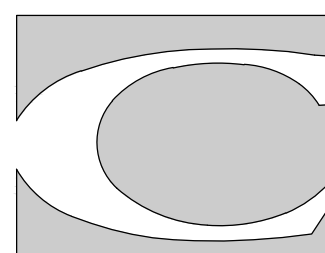
(H) WATER MAIN THRUST RESTRAINT REQUIREMENTS

THESE STANDARDS APPLY IN ADDITION TO THRUST BLOCKING



CWS ARCHITECTS
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DESIGNER
RIVERTON PARK, LP
14 BAYVIEW BLVD
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PROJECT
RIVERTON PARK
CIRCLE 1 BUILDING,
MAINTENANCE BUILDING
AND REHABILITATION

SITE/CIVIL
DETAILS 4
CWS PROJECT NUMBER: 15.021

REVISIONS	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN
3	02.16.2023	ISSUED FOR 50% PRICING (REV#48)
4	04.26.2023	MAJOR SITE PLAN REVIEW REVISIONS

DRAWING NUMBER
C7.6
SCALE: AS SHOWN
DATE: 1/12/2019



PLANTING NOTES

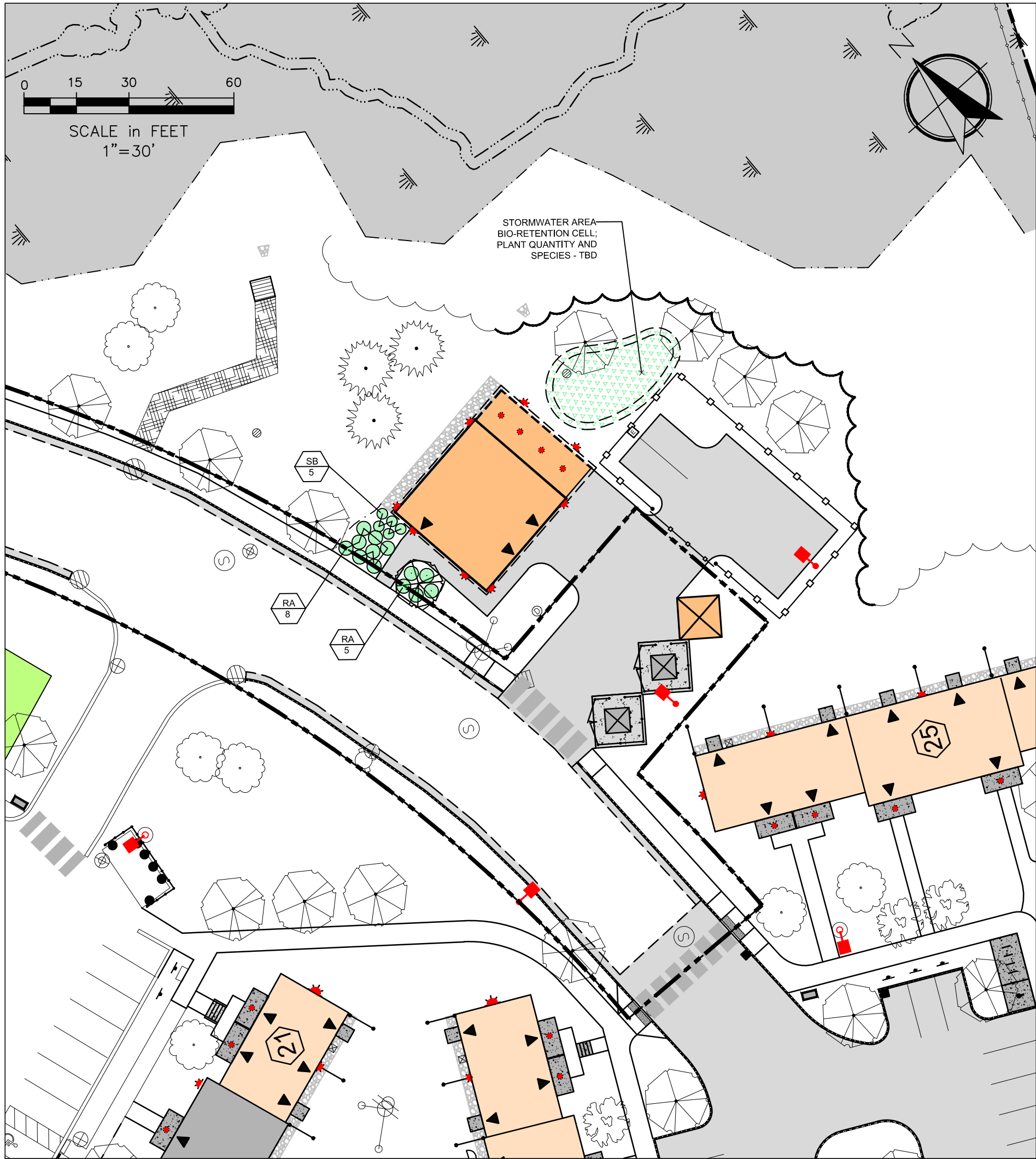
- CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF WATERING AND MAINTENANCE.
- CONTRACTOR SHALL SUPPLY PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE WORK SHOWN ON THE PLAN. ANY DISCREPANCY BETWEEN THE QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED ON THE PLAN SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL REMUNERATION. ANY DISCREPANCIES SHALL BE CLARIFIED WITH THE LANDSCAPE ARCHITECT PRIOR TO ORDERING PLANT MATERIAL.
- ALL MATERIALS SHALL CONFORM TO SPECIFICATIONS OF THE AMERICAN STANDARDS FOR NURSERY STOCK (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSEYMEN.
- ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS THE ORIGINAL GRADES BEFORE DIGGING.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AT THE NURSERY AND AT THE SITE.
- ALL PLANT BEDS SHALL MEET MINIMUM TOPSOIL REQUIREMENTS (SEE SPECIFICATIONS).
- NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRUBBING, BED PREPARATION, AND FINISH GRADING HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- ALL PLANT BEDS AND TREE WELLS SHALL HAVE A MINIMUM OF 3" OF UNIFORMLY DISTRIBUTED, DARK, SHREDDED BARK MULCH.
- CONTRACTOR SHALL SUBMIT SOIL SAMPLE AND TEST OF TOPSOIL TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. SOIL ADJUSTURE SHALL BE ADDED TO EXISTING SOIL (BY CONTRACTOR) IF DEEMED NECESSARY BY SOIL TEST RESULTS.
- ROUGH GRADING AND BED PREPARATION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANT INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO REQUIRED SITE VISIT.
- ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. ALL ROOT WRAPPING AND CONTAINER MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING.
- ALL BROAD LEAF EVERGREEN PLANTS SHALL BE SPRAYED WITH AN ANTI-DESSICANT AT THE BEGINNING OF THEIR FIRST WINTER.
- ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL STAKE TREES IF DEEMED NECESSARY BY LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE LOAM FILL AS PER THE CONTRACT SPECIFICATIONS.
- ALL PLANTS SHALL BE WATERED BY THE CONTRACTOR, AS NECESSARY TO INSURE HEALTH UNTIL FINAL ACCEPTANCE.
- THE LANDSCAPE CONTRACTOR SHALL REFER TO THE PLANT LIST AND PLANTING SPECIFICATIONS FOR SEASONAL REQUIREMENTS AND OTHER RESTRICTIONS RELATED TO THE TIME AND SEASON OF PLANTING.
- PLANTING SOIL MIX: 1 PART COMPOST, 8 PARTS TOPSOIL, 3 PARTS HUMUS, TOPSOIL: FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS GREATER THAN 1" IN ANY DIMENSION, PH RANGE 5.0-7.0, AND SHALL CONTAIN NOT LESS THAN 6% ORGANIC MATTER BY WEIGHT. SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, AND HAVE THE FOLLOWING MECHANICAL ANALYSIS:
TEXTURAL CLASS % OF TOTAL WEIGHT AVERAGE %
SAND (0.05-2.0 MM) 45 TO 75% 60%
SILT (0.002-0.05 MM) 15 TO 35% 25%
CLAY (< 0.002 MM) 5 TO 25% 15%

PLANTING SCHEDULE

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
1	AC	Amelanchier canadensis	Shadbush	8-10' ht.	B+B, MULTI STEM	X
10	AF	Acer x freemanii 'Sienna Glen'	Maple Hybrid	2"-2.5" cal.	B+B	X
10	AL	Amelanchier laevis 'Cumulus' or 'Spring Flurry'	Allegheny Serviceberry	2"-2.5" cal.	B+B, TREE FORM	X
25	AR	Acer rubrum 'Karpick' or 'Bowhall'	Red Maple	2"-2.5" cal.	B+B, ALL MATCHING	X
6	BN	Betula nigra 'Heritage'	River Birch	2"-2.5" cal.	B+B, SINGLE STEM TREE FORM	X
13	CC	Carpinus caroliniana 'Palisade' or 'Uxbridge'	American Hornbeam	2"-2.5" cal.	B+B, ALL MATCHING	X
5	CK	Cladrastis kentukea	Yellowwood	2"-2.5" cal.	B+B	
9	GT	Gleditsia triacanthos 'Street Keeper'	Honeylocust	2"-2.5" cal.	B+B	
15	LT	Liriodendron tulipifera 'Little Volunteer'	Tulip Tree	2"-2.5" cal.	B+B	
7	MA	Maackia amurensis 'Starburst'	Maackia	2"-2.5" cal.	B+B	
15	NS	Nyssa sylvatica 'Firestarter'	Tupelo	2"-2.5" cal.	B+B	X
9	OV	Ostrya virginiana 'Autumn Treasure'	Hop-Hornbeam	2"-2.5" cal.	B+B	X
3	PA	Platanus x acerfolia 'Exclamation'	Planetree	2"-2.5" cal.	B+B	
14	PG	Picea glauca	White Spruce	8'-10' ht.	B+B	X
25	PS	Prunus sargentii 'First Blush' or 'Columnaris'	Sargent Cherry	2"-2.5" cal.	B+B, ALL MATCHING	
15	PSF	Pinus strobus 'Fastigiata'	White Pine	8'-10' ht.	B+B	X
9	QB	Quercus bicolor	Swamp White Oak	2"-2.5" cal.	B+B	X
2	TA	Tilia americana 'McSentry'	Basswood	2"-2.5" cal.	B+B	X
8	UA	Ulmus americana 'Princeton'	American Elm	2"-2.5" cal.	B+B	X
6	ZS	Zelkova serrata 'Musashino'	Zelkova	2"-2.5" cal.	B+B	



1 LANDSCAPE PLAN: NEIGHBORHOOD CENTER, CIRCLE 1 AND BUILDING 5
SCALE: NTS



2 LANDSCAPE PLAN: MAINTENANCE GARAGE
SCALE: NTS

SHRUBS, GRASSES + PERENNIALS	QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
	27	AM	<i>Aronia melanocarpa</i> 'Morton'	Black Chokeberry	24" / #5		X
	38	DL	<i>Diervilla lonicera</i>	Northern Bush Honeysuckle	24" / #5		X
	25	FM	<i>Fothergilla</i> 'Mt. Airy'	Bottlebrush Bush	2.5'-3' / #7		
	8	JE	<i>Juniperus virginiana</i> 'Emerald Sentinel'	Eastern Red Cedar	4-5' HT	matching	X
	30	JV	<i>Juniperus virginiana</i> 'Grey Owl'	Juniper	2.5'-3' / #5		X
	7	KL	<i>Kalmia latifolia</i> 'Snowdrift'	Mountain Laurel	2.5'-3' / #7		X
	46	MD	<i>Microbiota decussata</i> 'Prides'	Siberian Carpet Cypress	#5		
	15	MP1	<i>Myrica pensylvanica</i>	Northern Bayberry	3-4' / #7		X
	64	MP2	<i>Myrica pensylvanica</i> 'Bobee'	Northern Bayberry	2'-2.5' / #5		X
	9	PV	<i>Panicum virgatum</i> 'Northwind'	Switchgrass	#3		X
	69	RA	<i>Rhus aromatica</i> 'Gro-Low'	Fragrant Sumac	2'-2.5' / #5		

SHRUBS	QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
	0	AM	<i>Aronia melanocarpa</i>	Black Chokeberry	#5	CONT	X
	0	AZ	<i>Azalea viscosum</i>	Swamp Azalea	#7	CONT	X
	0	CO	<i>Cephalanthus occidentalis</i> 'Sugar Shack'	Buttonbush	#7	CONT	X
	0	CR	<i>Cornus sericea</i> 'Farrow'	Red Twig Dogwood	3-4' HT	B+B	X
	0	CS	<i>Clethra alnifolia</i>	Summersweet	#5	B+B	X
	0	IVJ	<i>Ilex verticillata</i> 'Jim Dandy'	Winterberry (male)	#5	CONT	X
	0	IVR	<i>Ilex verticillata</i> 'Red Sprite'	Winterberry (female)	#5	CONT	X
	0	PV	<i>Panicum virgatum</i>	Switch Grass	#3	CONT	X
	0	VC	<i>Viburnum cassinoides</i>	Withered Viburnum	3-4' HT	B+B	X
	0	DC	<i>Deschampsia cespitosa</i>	Tufted Hair Grass	#2	container	X

PERENNIALS + GRASSES	QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
	0	ED	<i>Eupatorium dubium</i> 'Little Joe'	Joe-Pye Weed	#2	container	X
	0	EP	<i>Echinacea purpurea</i> 'Magnus'	Coneflower	#2	container	X
	0	IV	<i>Iris versicolor</i>	Blue Flag Iris	#2	container	X
	0	LS	<i>Liatris spicata</i>	Blazing Star	#2	container	X
	0	MF	<i>Monarda fistulosa</i>	Wild Bergamot	#2	container	X
	0	PV	<i>Panicum virgatum</i> 'Northwind'	Switchgrass	#2	container	X
	0	S	-	Erosion Control / Restoration Mix by New England Wetland Plants, Inc. or approved equal	35 lbs/acre (1250 sf/lbs)	seed	X

CWS ARCHITECTS
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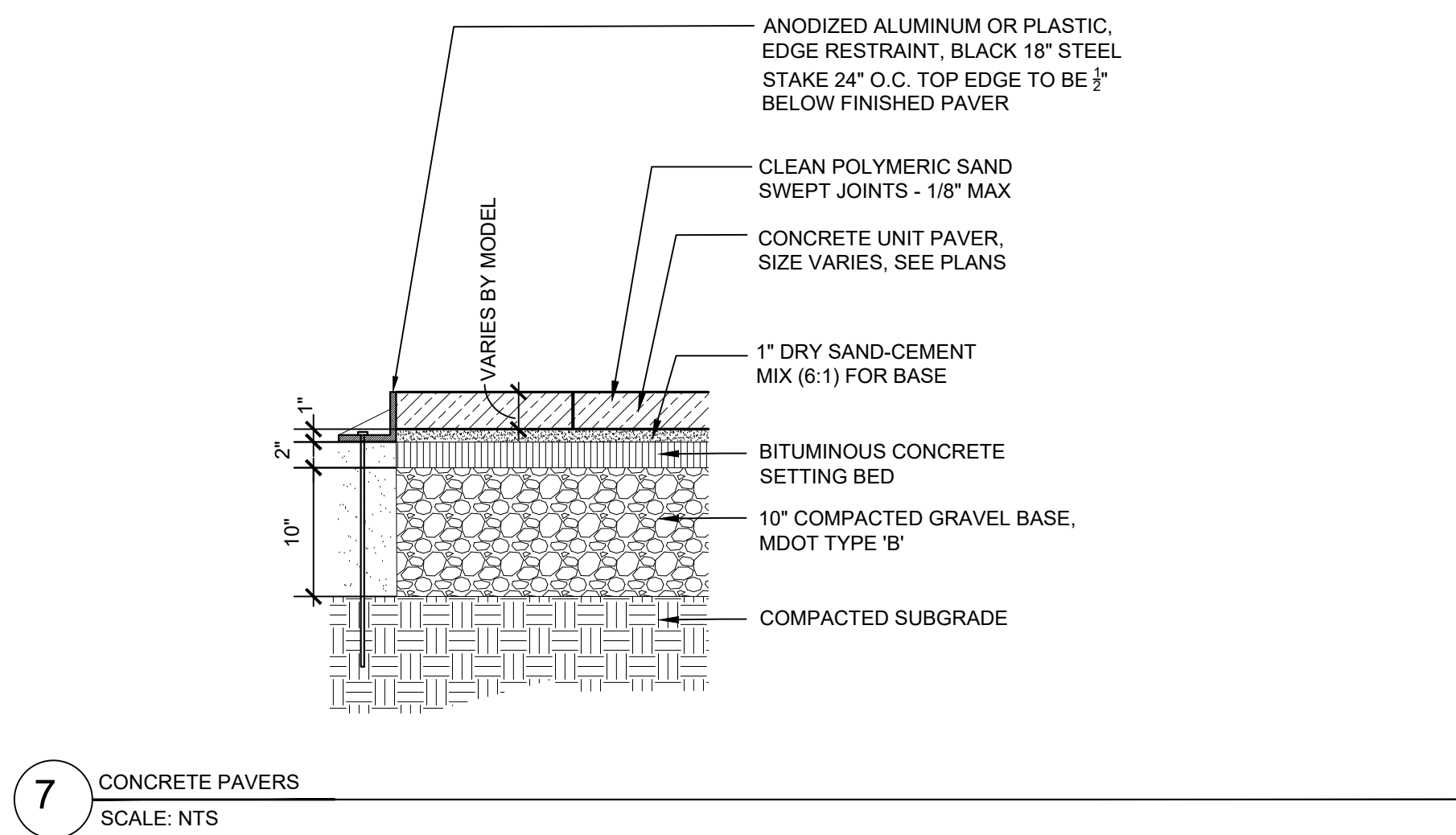
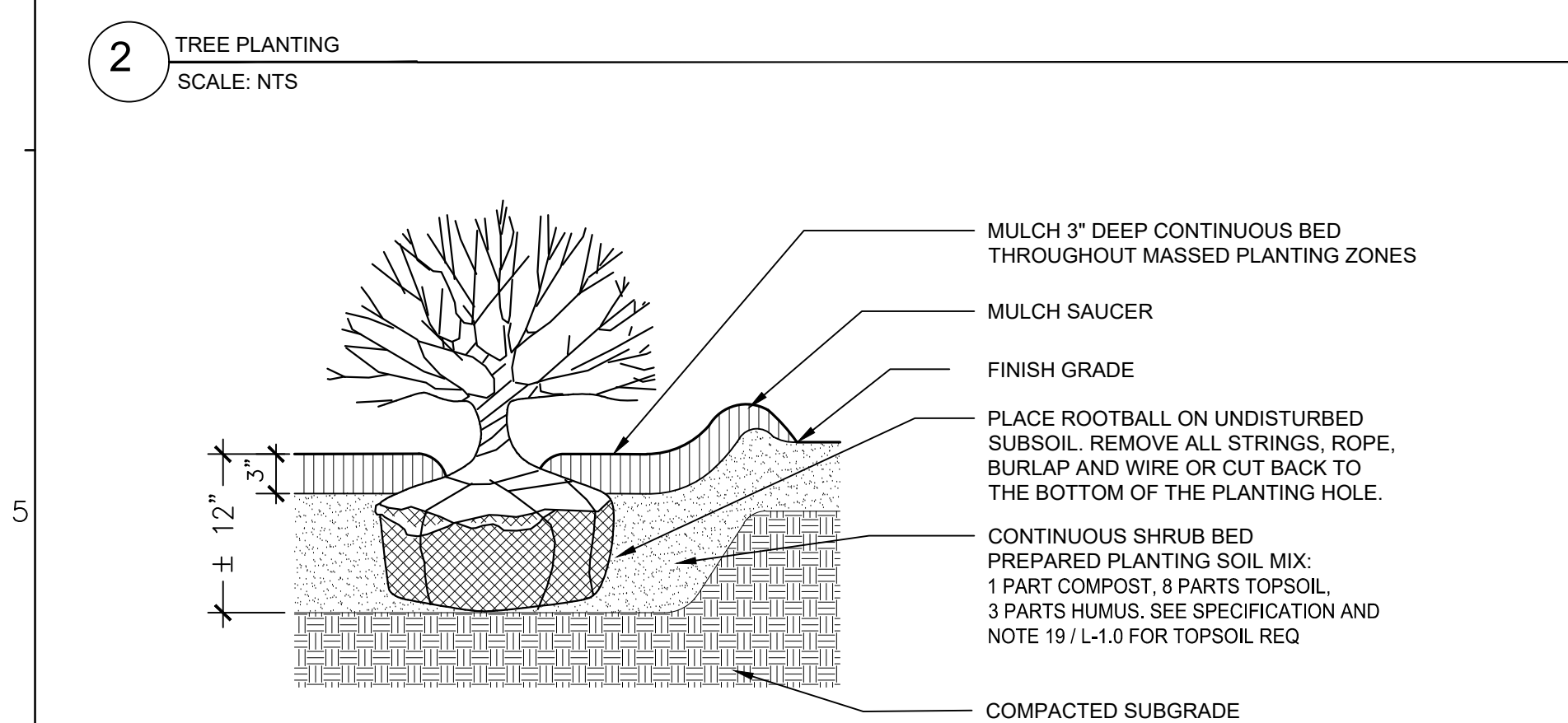
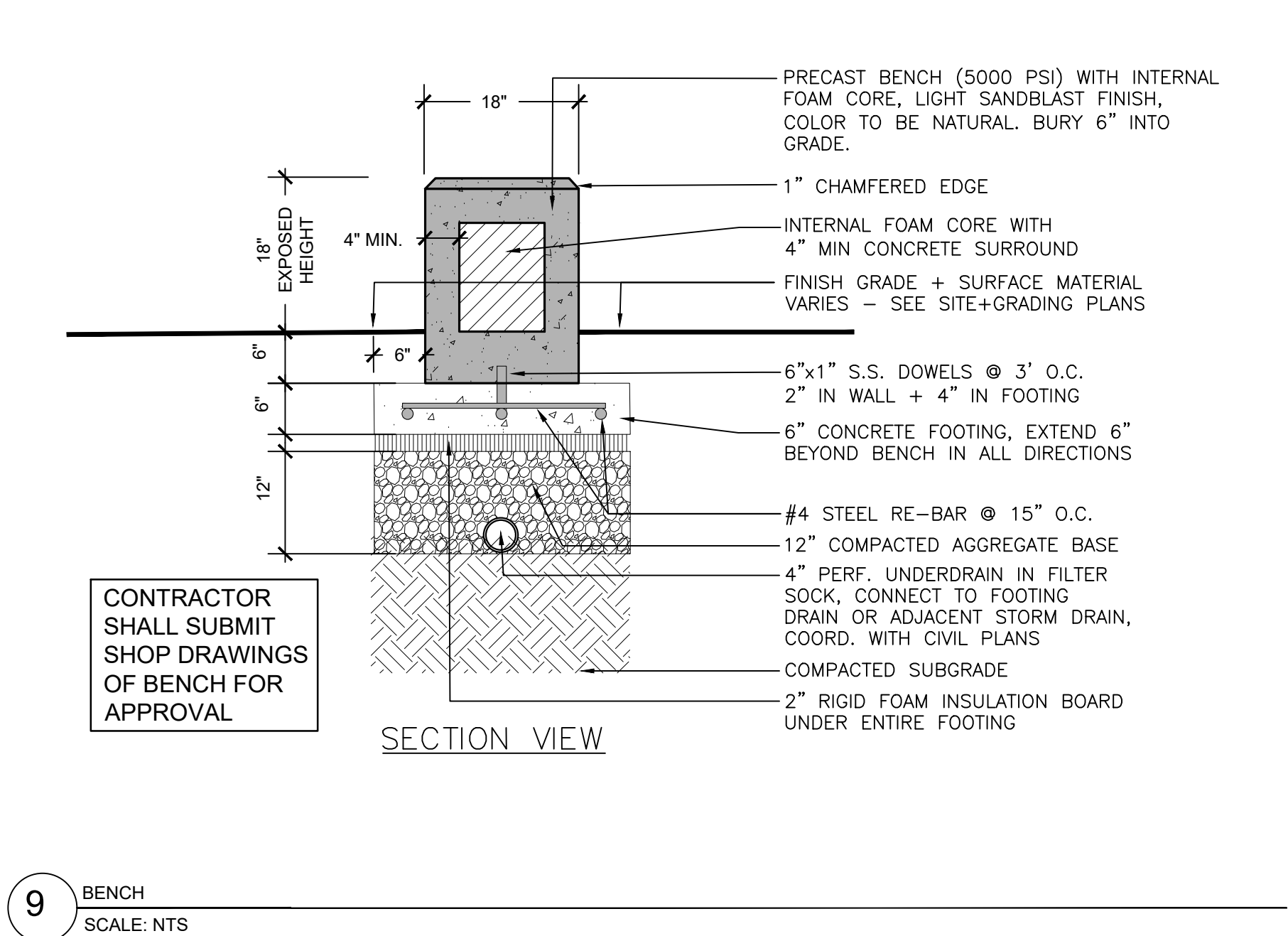
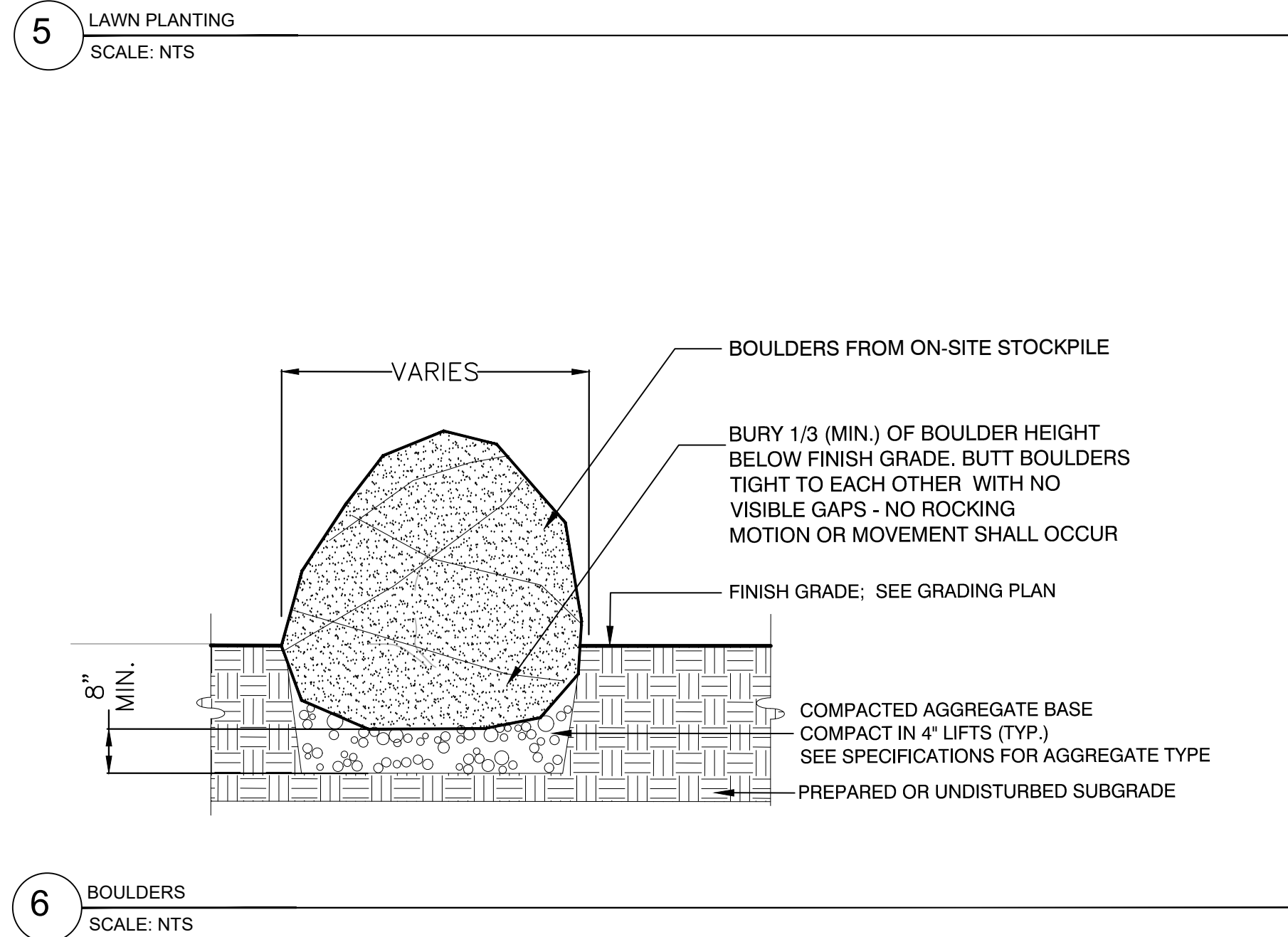
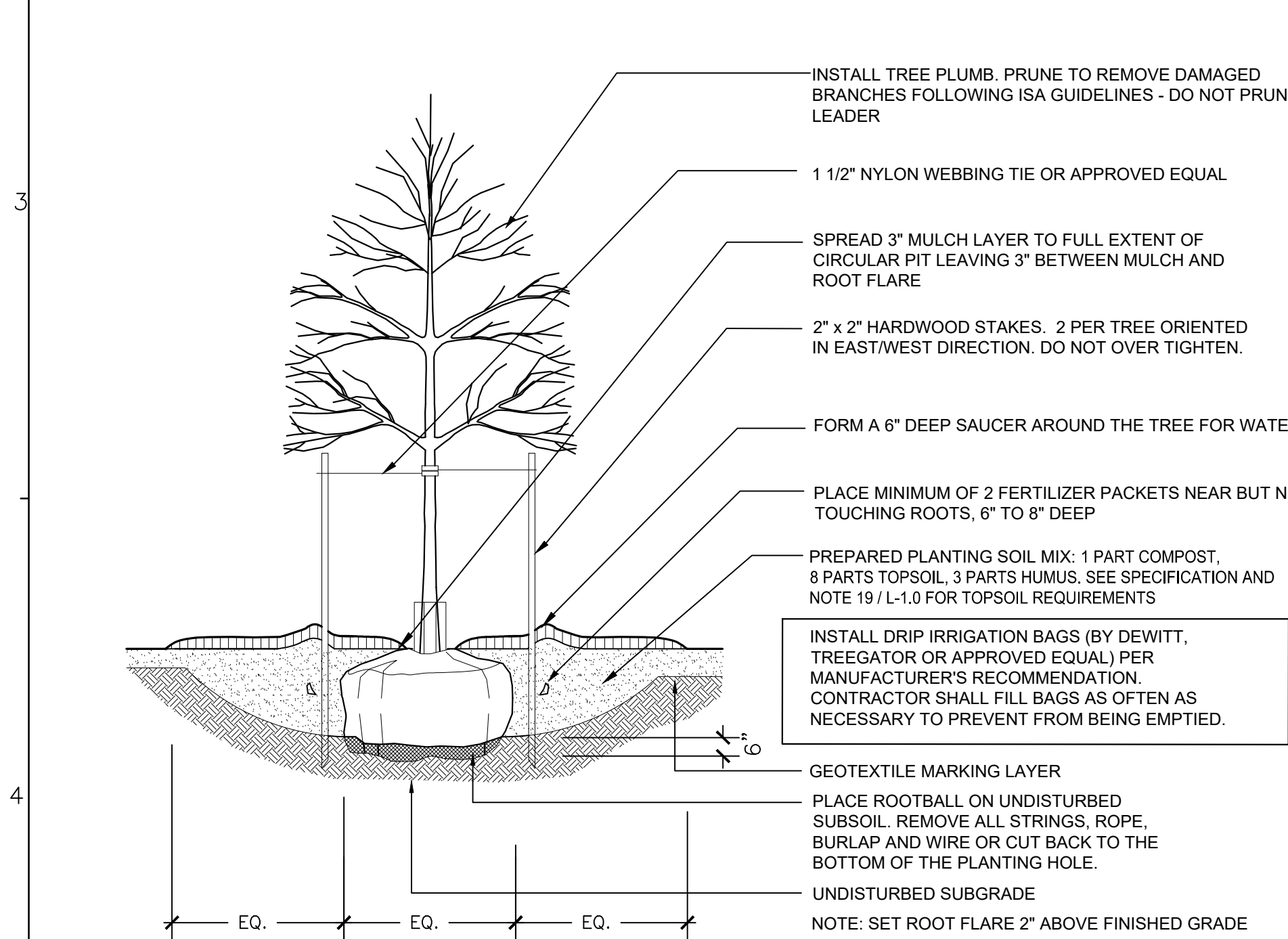
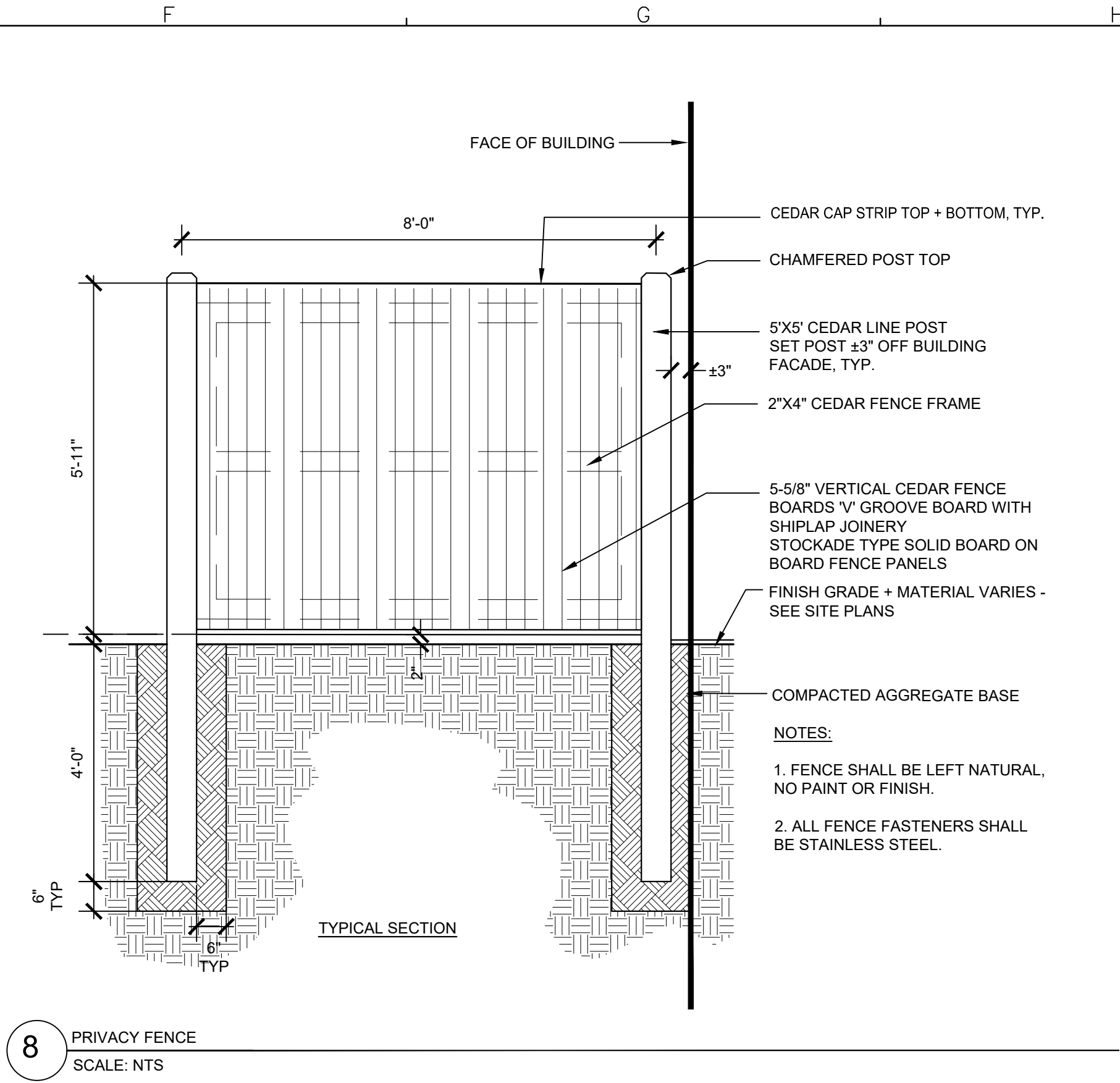
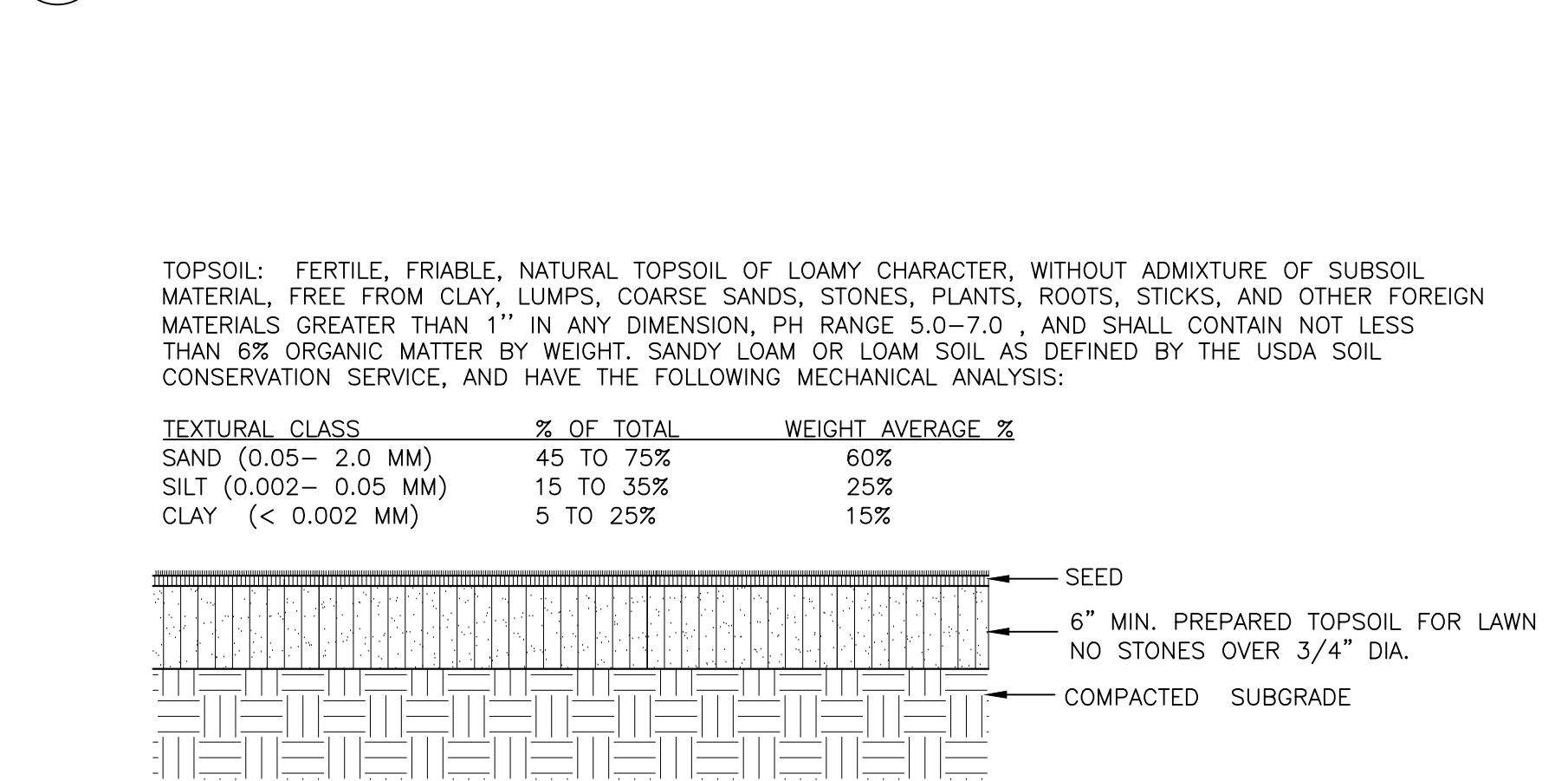
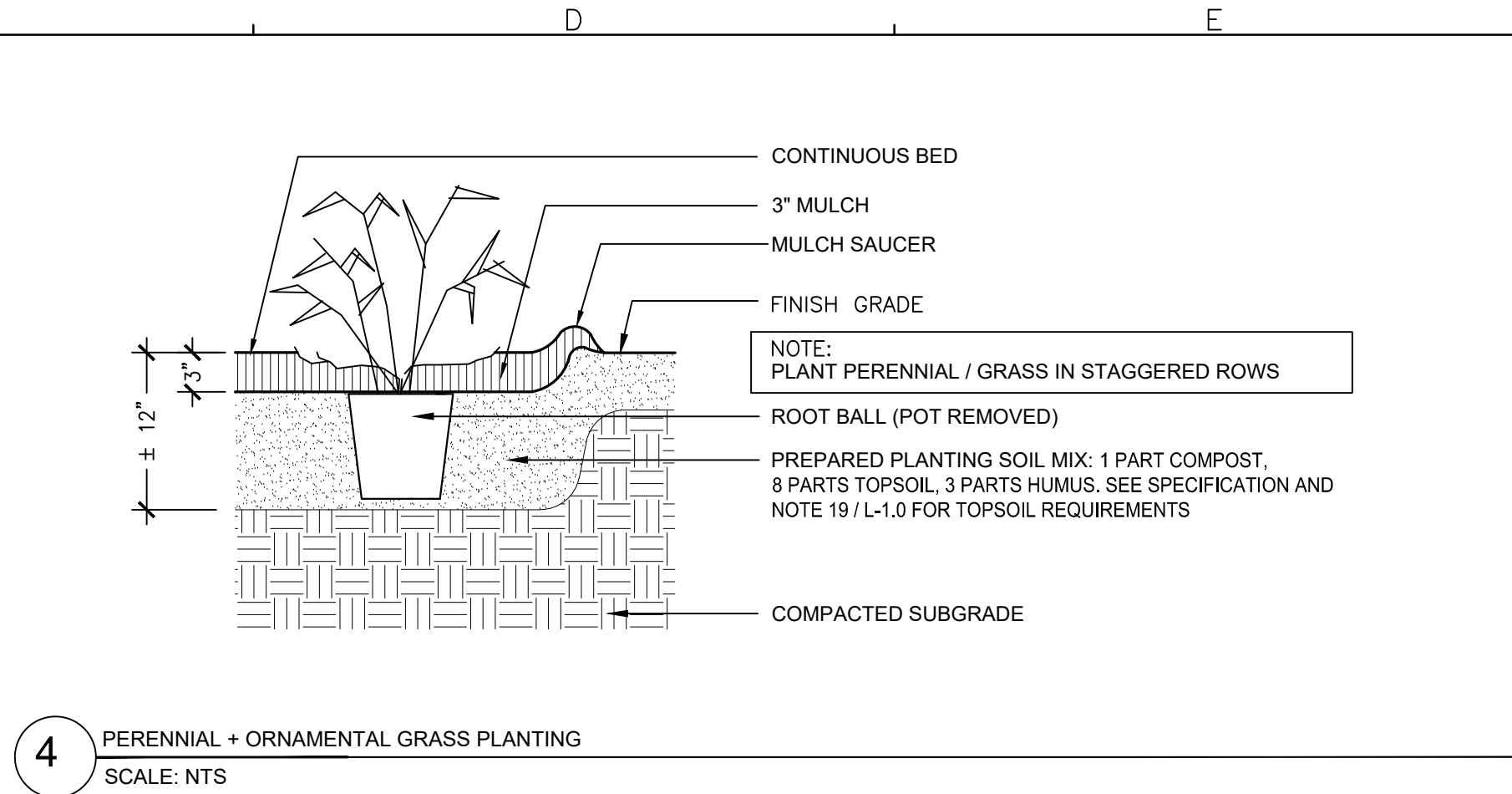
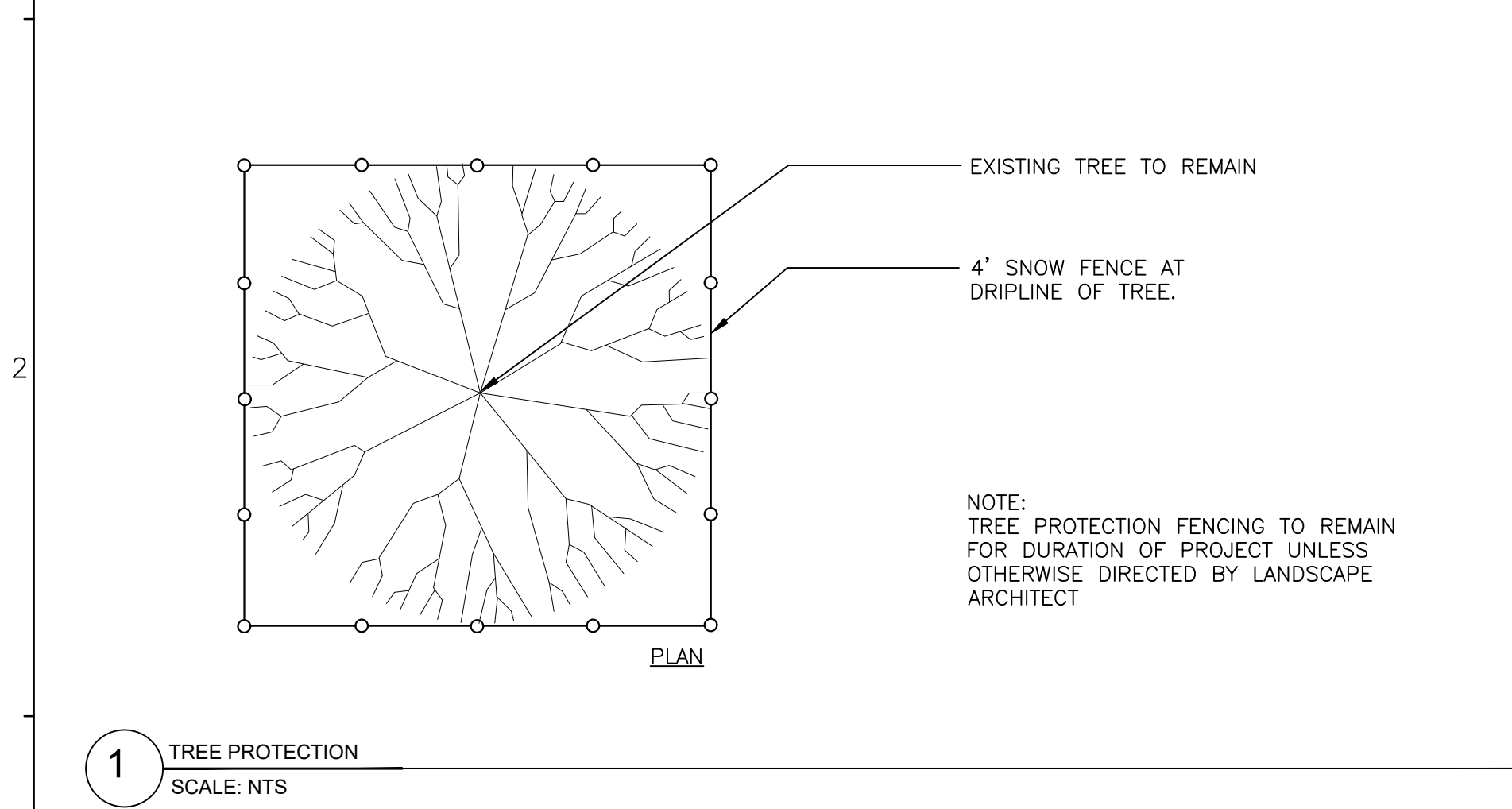
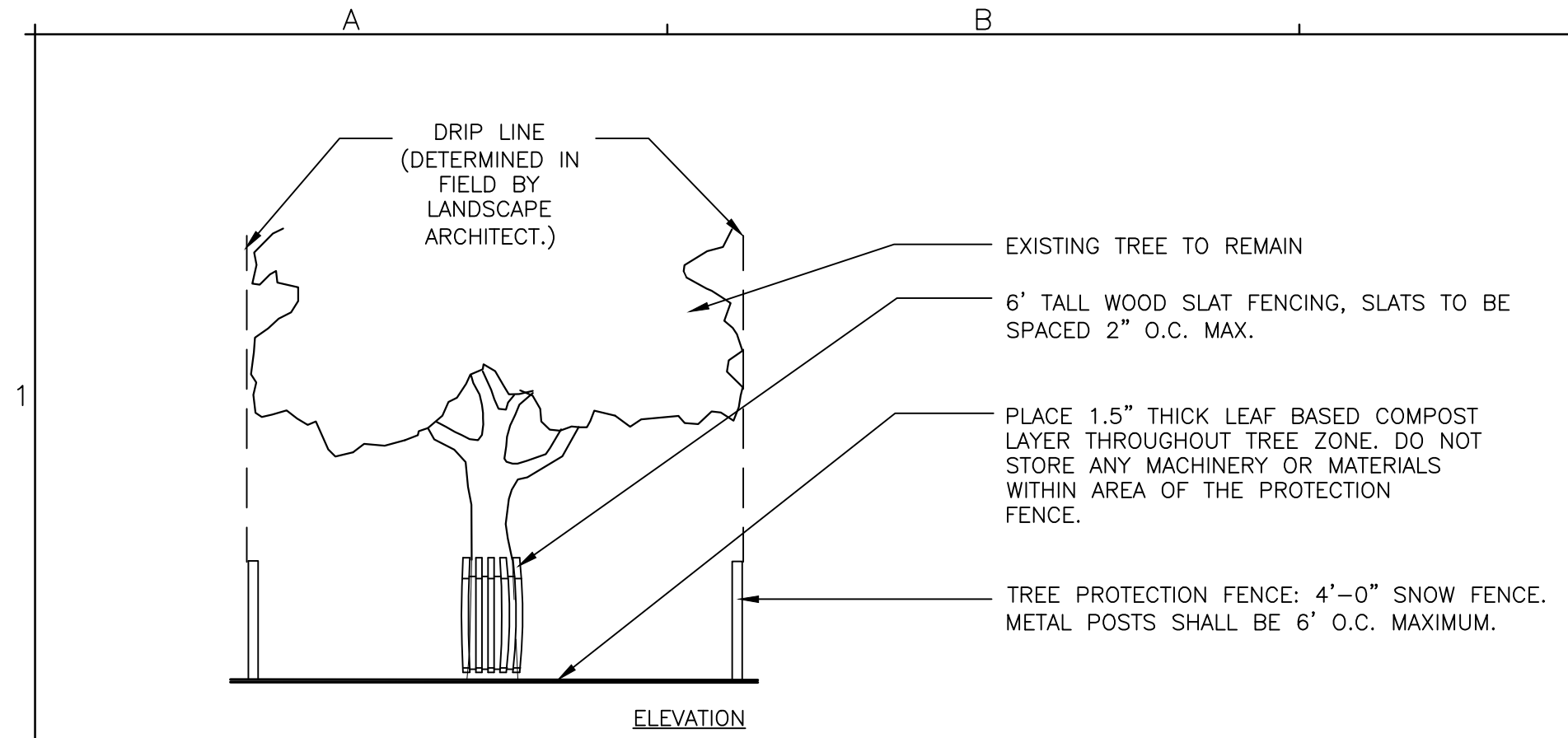
R E V I S I O N S D R A W I N G P R O J E C T O W N E R

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101
APPLICANT
RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

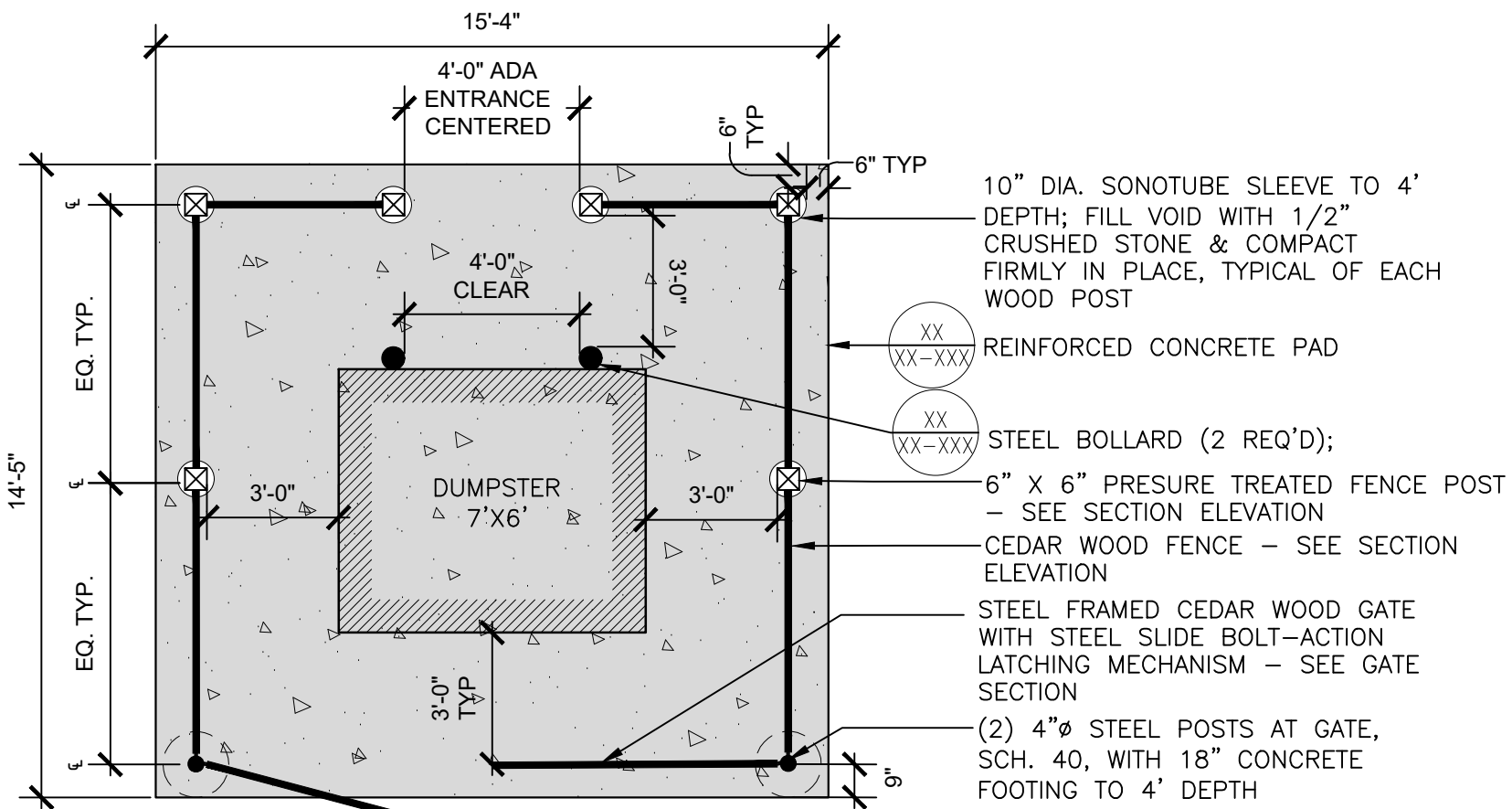
LANDSCAPE PLAN:
ENLARGEMENTS
CWS PROJECT NUMBER: 15.021

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
3.2	ISSUED FOR 50% PRICING (NC)	02.09.2023
3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

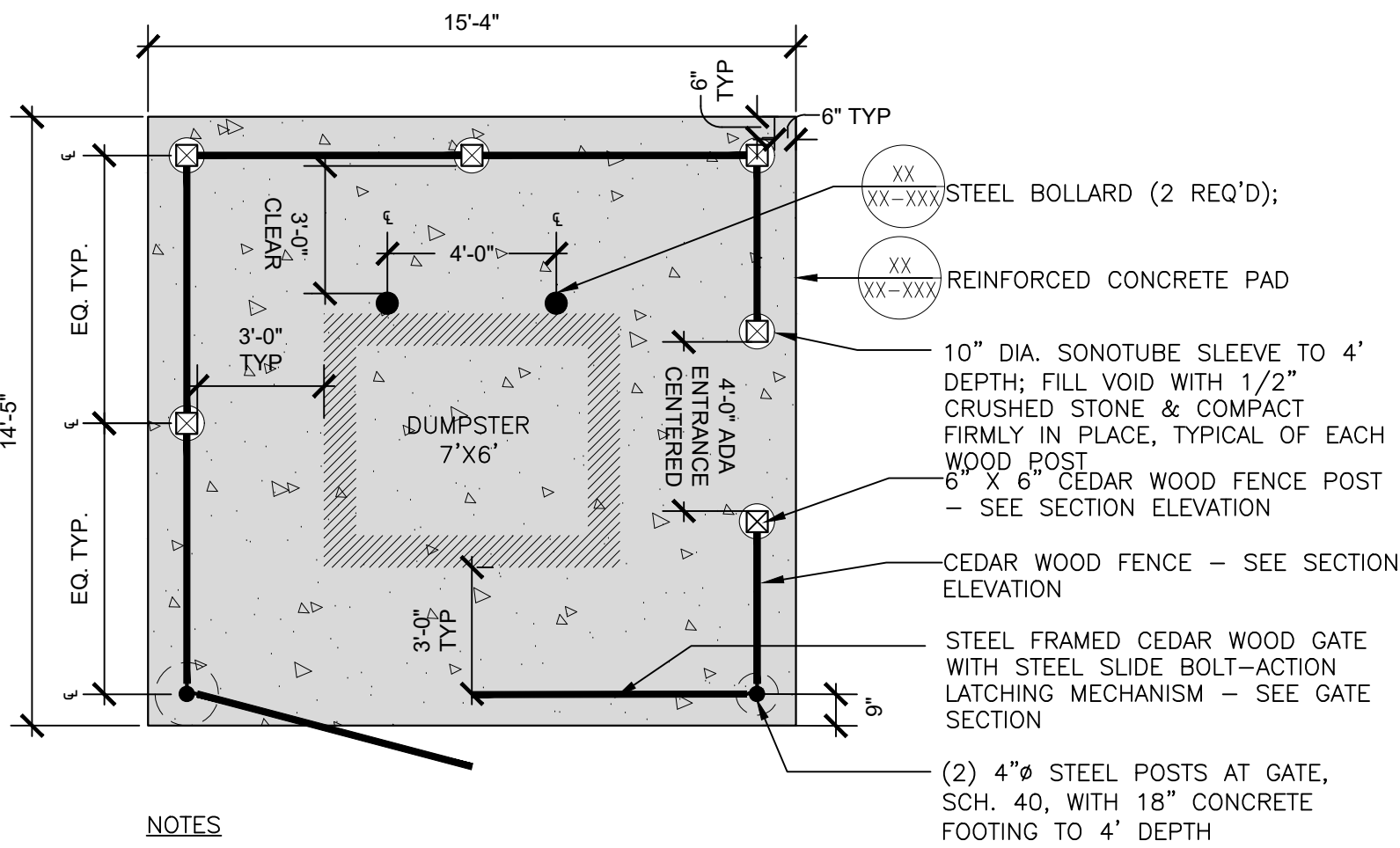
DRAWING NUMBER
L1.1
SCALE: AS SHOWN
DATE: 1/12/2019



REVISION	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN

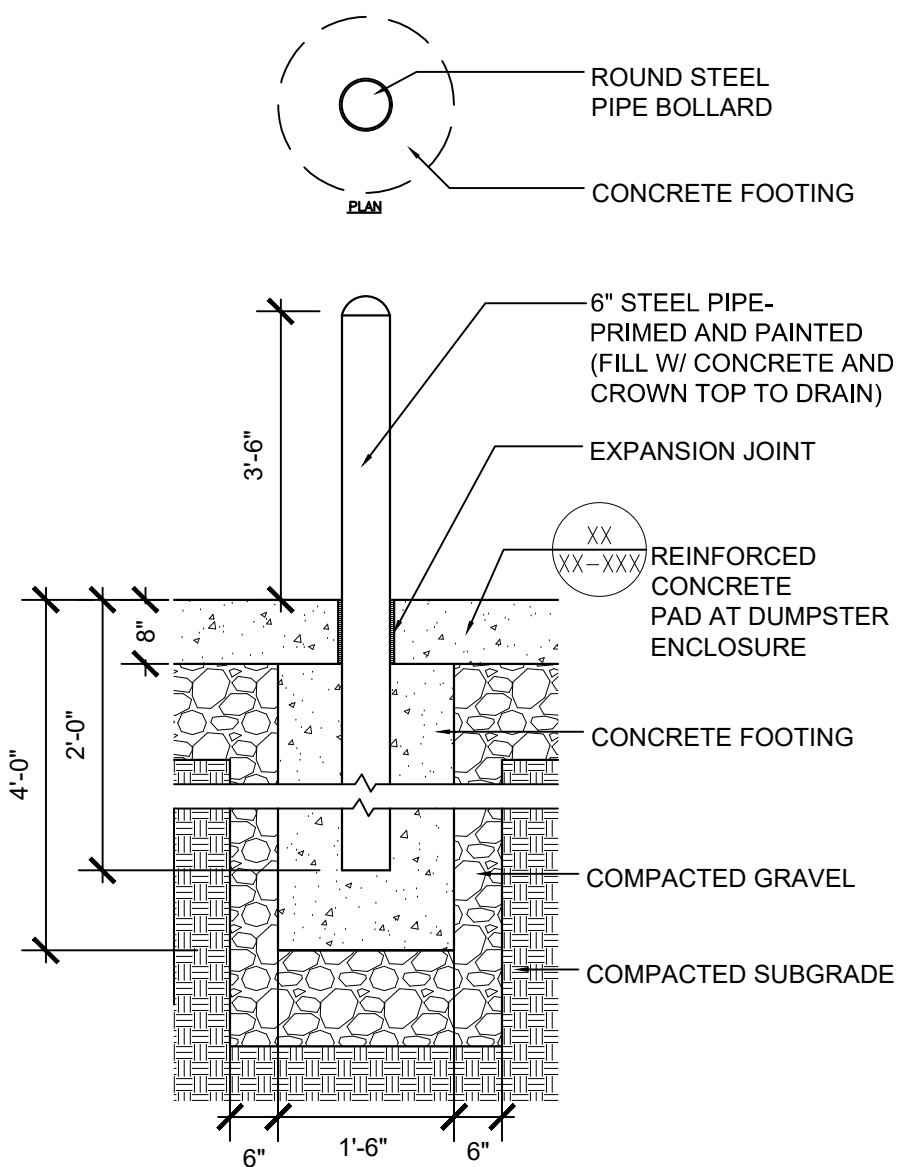


- NOTES
1. ALL WOOD SHALL BE NORTHERN WHITE CEDAR CHILMARK CEDAR WOOD FENCE BY WALPOLE WOODWORKERS (OR APPROVED EQUAL; STAIN COLOR T.B.D. FROM STANDARD COLOR CHART
 2. ALL NAILS, SCREWS AND BRACKETS TO BE GALVANIZED

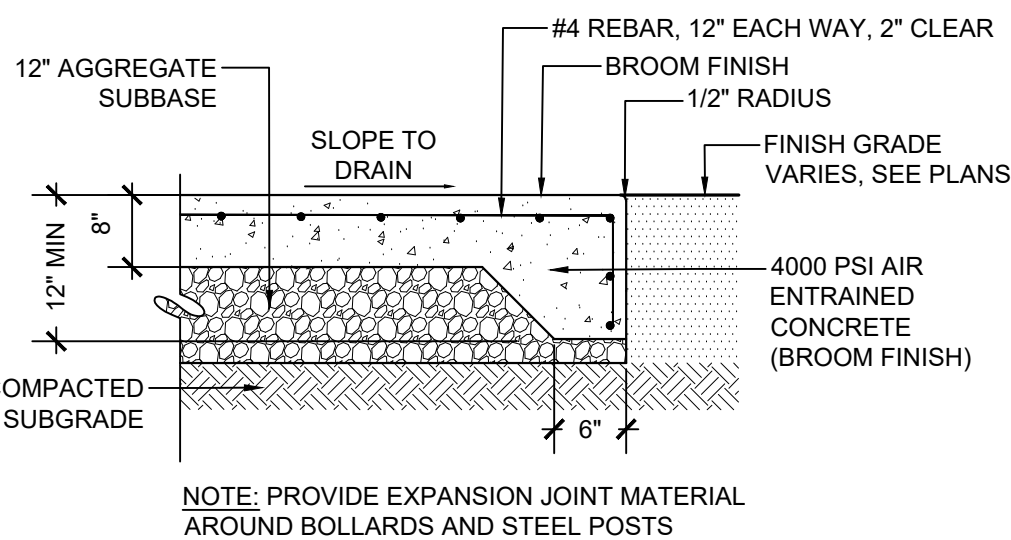


- NOTES
1. ALL WOOD SHALL BE NORTHERN WHITE CEDAR CHILMARK CEDAR WOOD FENCE BY WALPOLE WOODWORKERS (OR APPROVED EQUAL; STAIN COLOR T.B.D. FROM STANDARD COLOR CHART
 2. ALL NAILS, SCREWS AND BRACKETS TO BE GALVANIZED

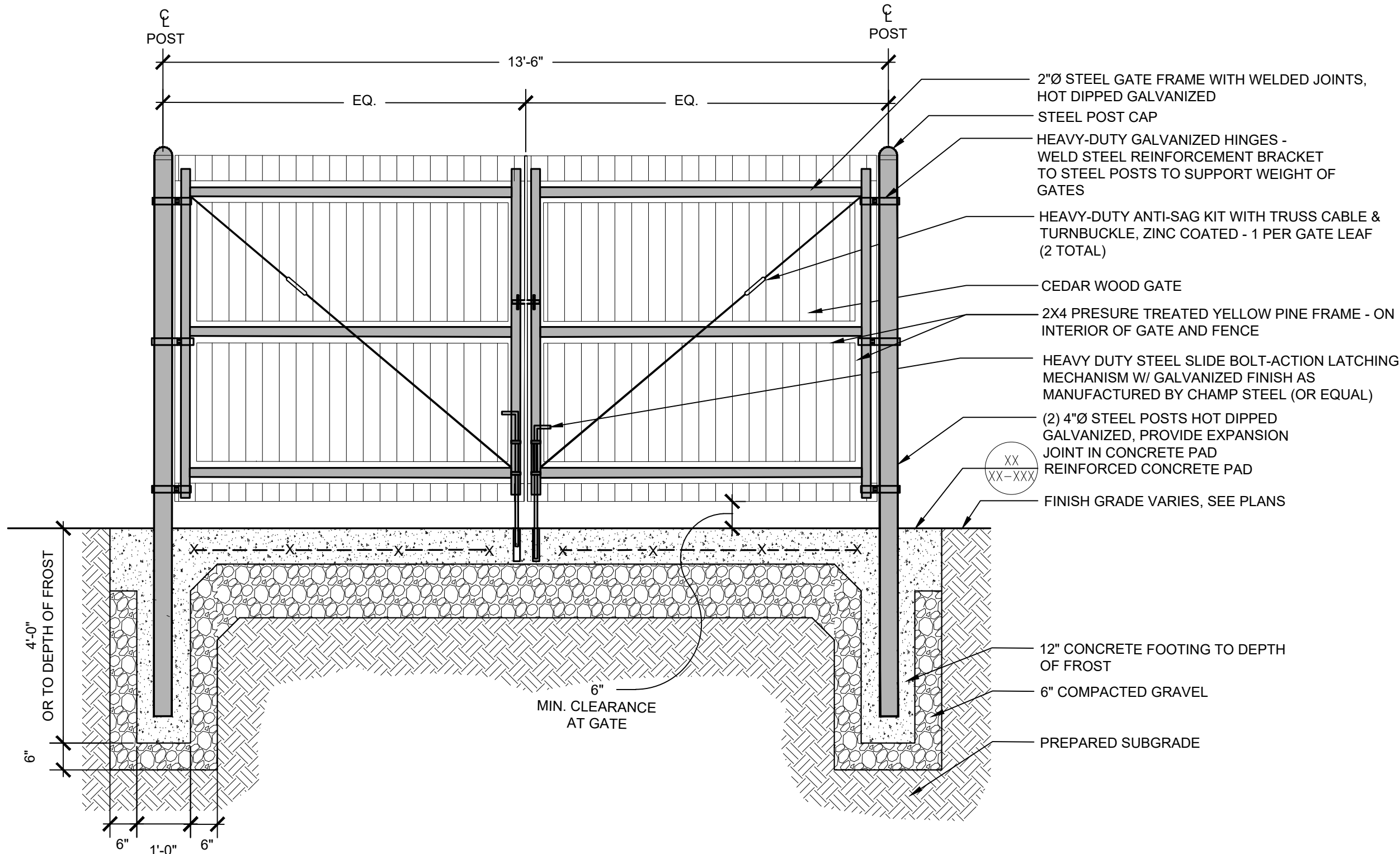
1 DUMPSTER ENCLOSURE + GATE
SCALE: NTS



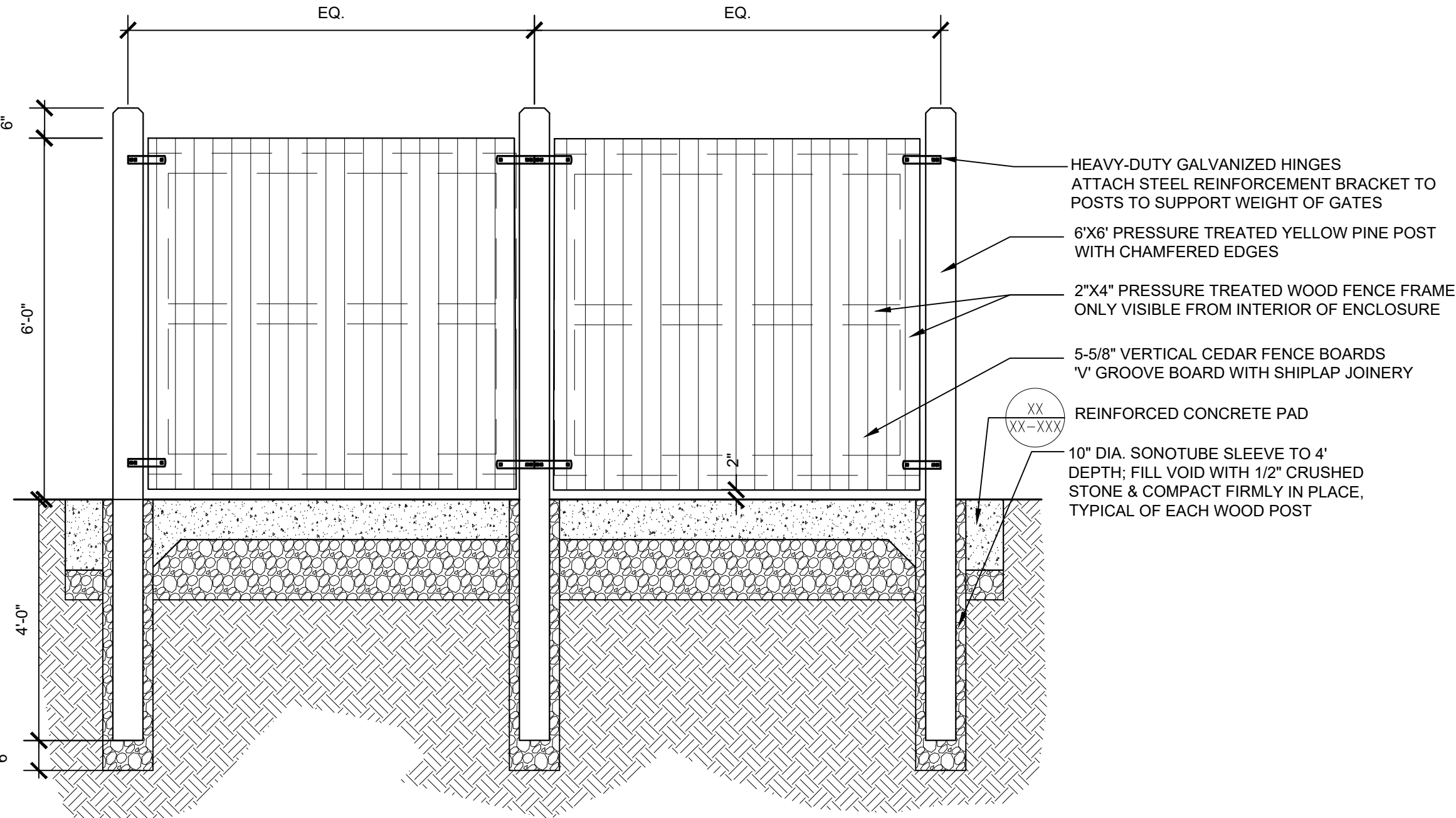
2 DUMPSTER BOLLARD
SCALE: NTS



3 DUMPSTER PAD
SCALE: NTS

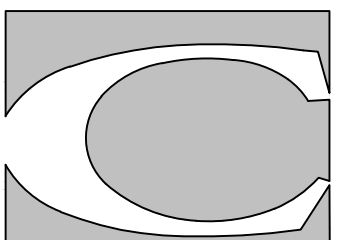


4 DUMPSTER SURROUND
SCALE: NTS



- NOTES
1. ALL WOOD SHALL BE NORTHERN WHITE CEDAR CHILMARK CEDAR WOOD FENCE BY WALPOLE WOODWORKERS (OR APPROVED EQUAL; STAIN COLOR T.B.D. FROM STANDARD COLOR CHART
 2. ALL NAILS, SCREWS AND BRACKETS TO BE GALVANIZED

NOT FOR
CONSTRUCTION



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RIVERTON PARK, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101
APPLICANT
RIVERTON PARK, LP
14 BAXTER BLVD
PORTLAND, MAINE 04101

RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

LANDSCAPE DETAILS

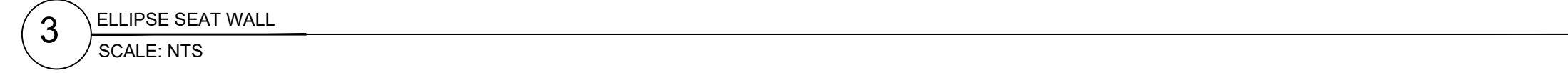
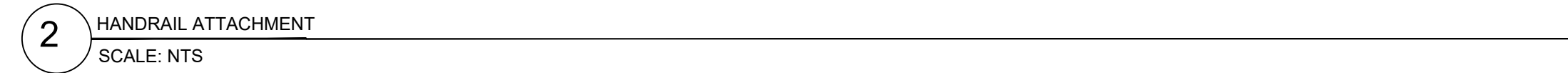
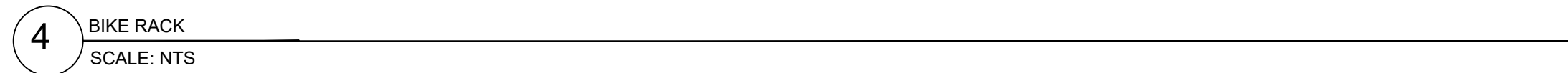
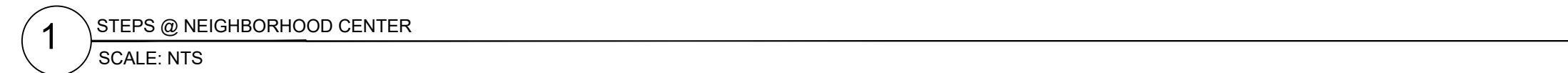
CWS PROJECT NUMBER: 15.021

REVISIONS	DATE	DESCRIPTION
1	01.17.2022	FOR SCHEMATIC DESIGN/PRICING
2	12.22.2022	MAJOR SITE PLAN

DRAWING NUMBER

L2.1

SCALE: AS SHOWN
DATE: 1/12/2019

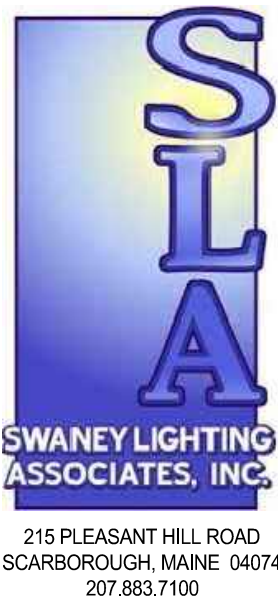


LIGHTING SCHEDULE										
QTY	SYM	LABEL	DESCRIPTION	MANUFACTURER	LAMP	POLE HT	POLE	BASE REVEAL	MOUNTING HEIGHT	NOTES
10		EX1	EX UNKNOWN CITY / CMP LIGHT	UNKNOWN	ESTIMATED 31 WATTS	N/A	-	-	ESTIMATED +/-26'	-
2		L2	AQUA SERIES RECESSED SERIES STRIP LIGHT	FORUM LIGHTING	27 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K
22		L4	AQUA SERIES RECESSED SERIES STRIP LIGHT	FORUM LIGHTING	27 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K
32		L6	AQUA SERIES RECESSED SERIES STRIP LIGHT	FORUM LIGHTING	41 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K
8		S1A	VIPER STRIKE	BEACON LIGHTING	55 WATT LED	VARIES	4" ROUND	VARIES*	VARIES, SEE PLAN	3000K, *SEE PLANS FOR BASE REVEAL
8		S1B	VIPER STRIKE	BEACON LIGHTING	55 WATT LED	VARIES	4" ROUND	VARIES*	VARIES, SEE PLAN	3000K, *SEE PLANS FOR BASE REVEAL
3		S1C	VIPER STRIKE	BEACON LIGHTING	55 WATT LED	VARIES	4" ROUND	VARIES*	VARIES, SEE PLAN	3000K, *SEE PLANS FOR BASE REVEAL
2		S2	TWIN VIPER STRIKE	BEACON LIGHTING	55 WATT LED	14"	5" ROUND	24"	16'	3000K
3		S3	VIPER STRIKE	BEACON LIGHTING	39 WATT LED	VARIES	4" ROUND	VARIES*	VARIES, SEE PLAN	3000K, *SEE PLANS FOR BASE REVEAL
3		S4	VIPER STRIKE	BEACON LIGHTING	39 WATT LED	VARIES	4" ROUND	VARIES*	VARIES, SEE PLAN	3000K, *SEE PLANS FOR BASE REVEAL
4		S5	VIPER STRIKE	BEACON LIGHTING	55 WATT LED	10"	4" ROUND	24"	12'	3000K
9		SRA	VIPER STRIKE RETROFIT HEAD	BEACON LIGHTING	55 WATT LED	EX	EX	EX	ESTIMATED +/-18'	NEW FIXTURE ON EX POLE, 3000K
6		SRB	VIPER STRIKE RETROFIT HEAD	BEACON LIGHTING	55 WATT LED	EX	EX	EX	ESTIMATED +/-18'	NEW FIXTURE ON EX POLE, 3000K
125		R	6" SQUARE LITEBOX	PRESCOLITE	13 WATT LED	N/A	N/A	N/A	8'-0"	3000K, TRIM COLOR TBD, ADD DAYLIGHT SENSOR
4		R2	DRIVE SRT1 EDGE-LIT	BEACON LIGHTING	22 WATT LED	N/A	N/A	N/A	11'-0"	3000K
6		R3	CO-PILOT DOME	INSIGHT LIGHTING	5 WATT LED/FT	N/A	N/A	N/A	12'-0"	-
LIGHTING SCHEDULE										
QTY	SYM	LABEL	DESCRIPTION	MANUFACTURER	LAMP	POLE HT	POLE	BASE REVEAL	MOUNTING HEIGHT	NOTES
69		W1A	SLING SLENDER WALL PACK	HUBBLE LIGHTING	20 WATT LED	N/A	N/A	N/A	10'-0"	3000K
22		W1B	SLING SLENDER WALL PACK	HUBBLE LIGHTING	40 WATT LED	N/A	N/A	N/A	18'-0"	3000K
7		W1C	SLING SLENDER WALL PACK	HUBBLE LIGHTING	10 WATT LED	N/A	N/A	N/A	10'-0"	3000K
4		W3A	GEOPACK TRAPEZOID WALLPACK	HUBBLE LIGHTING	15 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K
22		W3B	GEOPACK TRAPEZOID WALLPACK	HUBBLE LIGHTING	20 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K
13		W4B	CY1 CYPHER ACCENT SCALE	ARCHITECTURAL AREA LIGHTING	25 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K

QTY	SYM	LABEL	DESCRIPTION	MANUFACTURER	LAMP	POLE HT	POLE	BASE REVEAL	MOUNTING HEIGHT	NOTES	DESCRIPTION	LOCATION / BUILDING
69		W1A	SLING SLENDER WALL PACK	HUBBLE LIGHTING	20 WATT LED	N/A	N/A	N/A	10'-0"	3000K	SG1-20-3K7-FT	REHAB: BUILDINGS
22		W1B	SLING SLENDER WALL PACK	HUBBLE LIGHTING	40 WATT LED	N/A	N/A	N/A	18'-0"	3000K	SG1-40-3K	REHAB: BUILDINGS
7		W1C	SLING SLENDER WALL PACK	HUBBLE LIGHTING	10 WATT LED	N/A	N/A	N/A	10'-0"	3000K	SG1-10-3K	REHAB: BUILDINGS
4		W3A	GEOPACK TRAPEZOID WALLPACK	HUBBLE LIGHTING	15 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K	GEO1-24L-15-3K7-3-UNV-DBT	CIRCLE 1 BUILDING NEIGHBORHOOD CENTER MAINTENANCE GARAGE
22		W3B	GEOPACK TRAPEZOID WALLPACK	HUBBLE LIGHTING	20 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K	GEO1-24L-20-3K7-4-UNV-DBT	CIRCLE 1 BUILDING NEIGHBORHOOD CENTER MAINTENANCE GARAGE
13		W4B	CY1 CYPHER ACCENT SCALE	ARCHITECTURAL AREA LIGHTING	25 WATT LED	N/A	N/A	N/A	VARIES, SEE PLAN	3000K	CY1-25-3K7-1-4-R	CIRCLE 1 BUILDING



- LIGHTING 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.
 8. EXISTING LIGHT FIXTURES INCLUDED IN CALCULATION ARE ESTIMATED ONLY. ACTUAL LIGHT OUTPUT AND LIGHT LEVELS WILL VARY.



Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
SITE	0.45	26.8	0.0	N.A.	N.A.

CWS ARCHITECTS
ARCHITECTURE | INTERIOR DESIGN

264 US Route One, Suite 100-2A
Scarborough, ME 04074
OFFICE: 207.774.4441 CWSARCH.COM

NOT FOR CONSTRUCTION

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

APPLICANT
RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

RIVERTON PARK REDEVELOPMENT AND REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

PHOTOMETRIC MASTER PLAN
CWS PROJECT NUMBER: 15.021

1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
3.2	ISSUED FOR 50% PRICING (NC)	02.09.2023
3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

DRAWING NUMBER
L3.0

SCALE: AS SHOWN
DATE: 1/12/2019



UNIT SUMMARY:

	EX DU	EX RESIDENT SERVICE UNITS	PROP DU
CIRCLE 1 :	24 DU	0 SU	59 DU
CIRCLE 2 :	24 DU	6 SU	29 DU
CIRCLE 3 :	28 DU	2 SU	28 DU
CIRCLE 4 :	24 DU	0 SU	24 DU
CIRCLE 5 :	17 DU	1 SU	18 DU
CIRCLE 6 :	24 DU	0 SU	24 DU
	141 DU	9 SU	182 DU

PARKING SUMMARY:

OFF-STREET	EX	PROPOSED
BUILDING 1 :	25	71
CIRCLE 2 :	38	34
CIRCLE 3 :	38	33
CIRCLE 4 :	35	26
CIRCLE 5 :	25	25
CIRCLE 6 :	27	26
MAINTENANCE :	-	2
NEIGHBORHOOD CENTER :	6	11
	194	228

ON-STREET	
RIVERTON DR.	45-51 PS
SPRINGBROOK WAY	34-39 PS
APRIL-NOV	±79-90 PS
NOV-APRIL	±40-45 PS
TOTAL AVAILABLE:	VARIES

CWS ARCHITECTS
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Scarborough, ME 04074
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NOT FOR CONSTRUCTION

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

DESIGNER

OWNER
RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

APPLICANT
RIVERTON PARK, LP
14 BAYTER BLVD.
PORTLAND, MAINE 04101

PROJECT
RIVERTON PARK
REDEVELOPMENT
AND
REHABILITATION
2 RIVERTON DRIVE
PORTLAND, MAINE 04103

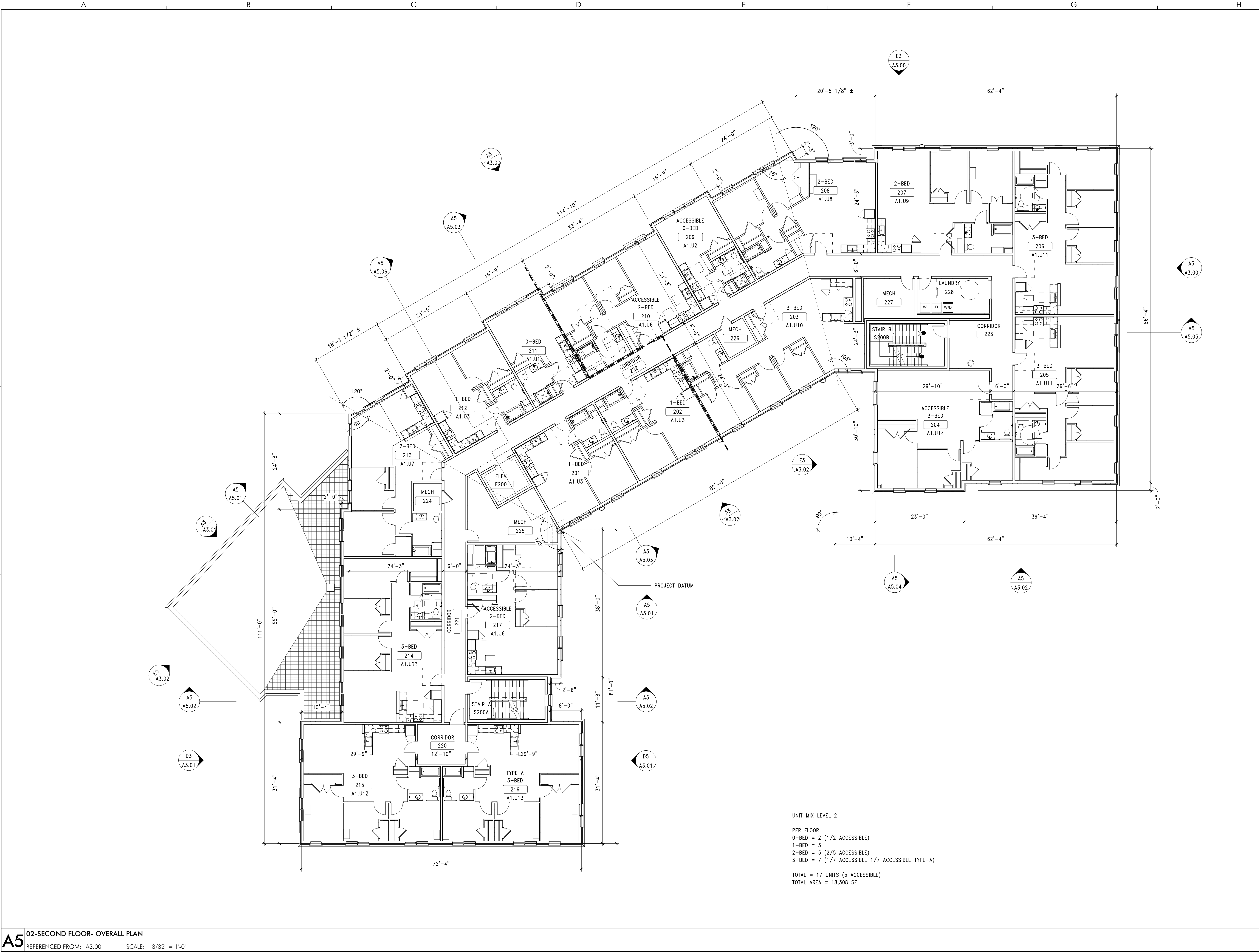
MASTER PLAN

CWS PROJECT NUMBER: 15.021

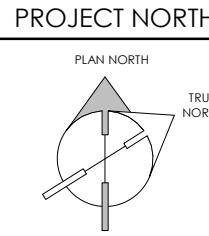
1	FOR SCHEMATIC DESIGN/PRICING	01.17.2022
2	MAJOR SITE PLAN	12.22.2022
3.1	ISSUED FOR 50% PRICING (B1)	02.01.2023
3.2	ISSUED FOR 50% PRICING (NC)	02.09.2023
3.3	ISSUED FOR 50% PRICING (REHAB)	02.16.2023
4	ISSUED FOR ASHA 50% REVIEW	03.21.2023
5	MAJOR SITE PLAN REVIEW REVISIONS	04.26.2023

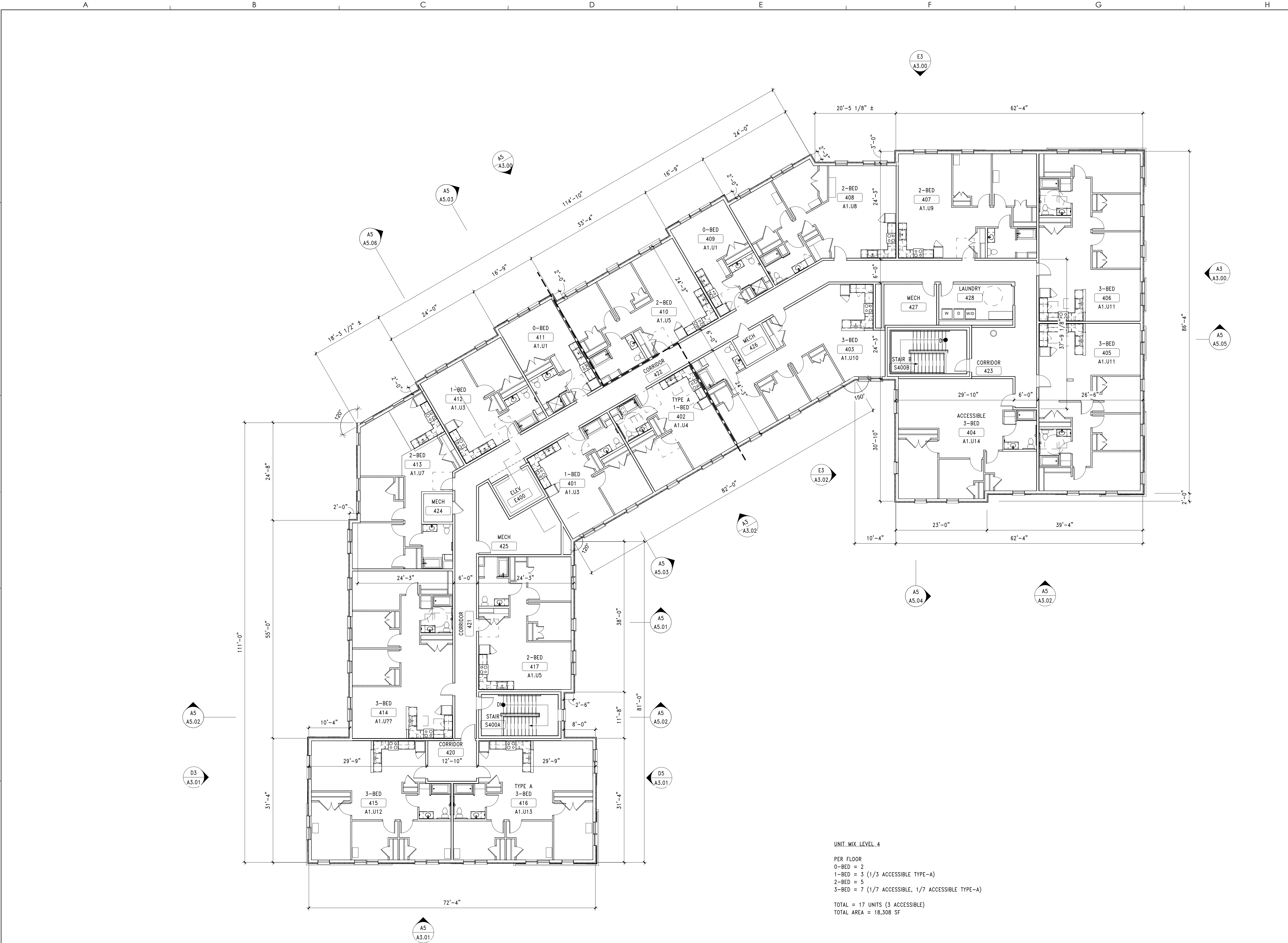
DRAWING NUMBER
C1.0

SCALE: AS SHOWN
DATE: 1/12/2019



A5 02-SECOND FLOOR- OVERALL PLAN
REFERENCED FROM: A3.00 SCALE: 3/32" = 1'-0"





UNIT MIX LEVEL 4

PER FLOOR

0-BED = 2

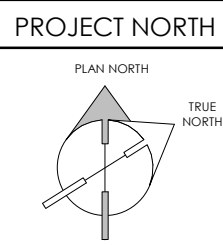
1-BED = 3 (1/3 ACCESSIBLE TYPE-A)

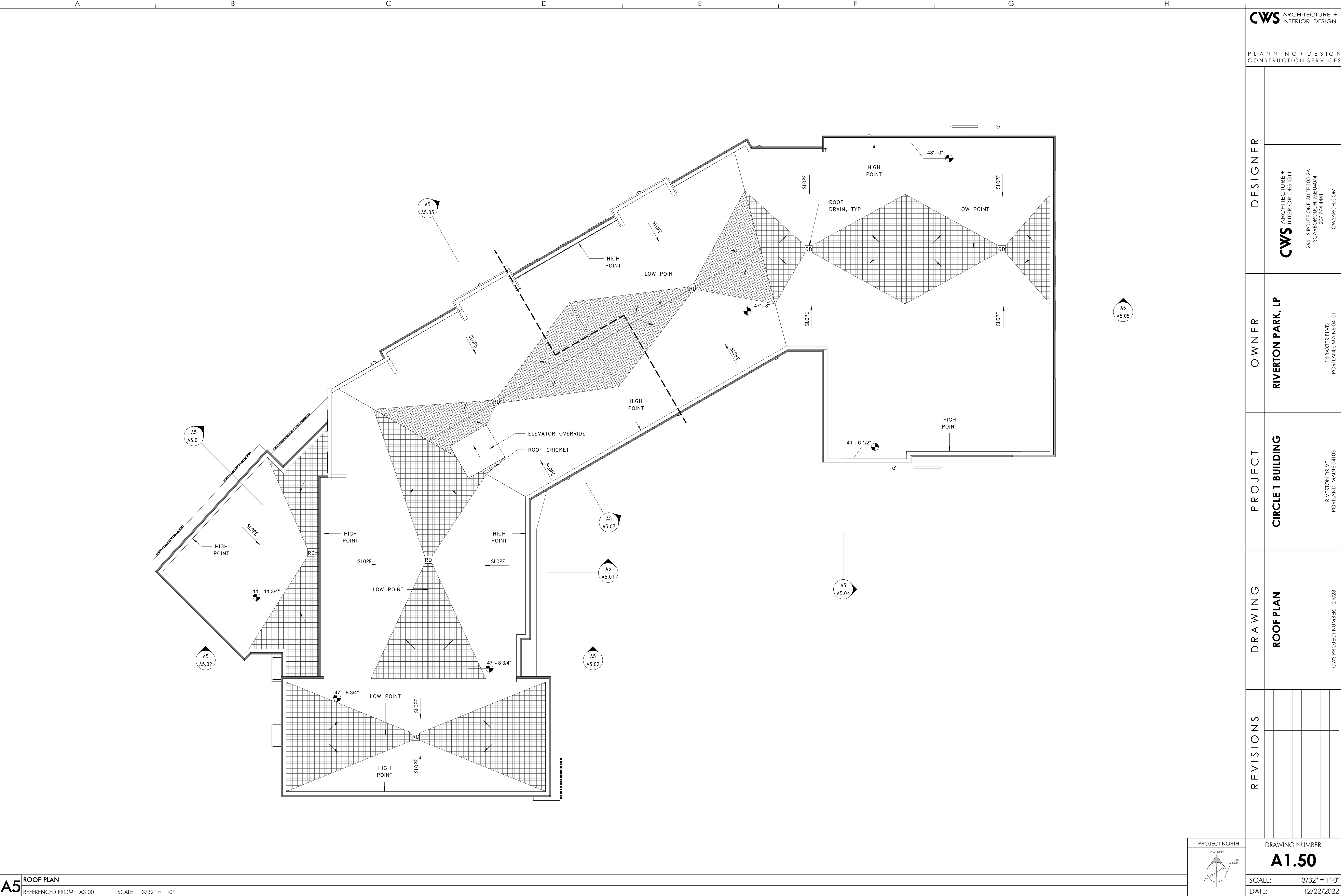
2-BED = 5

3-BED = 7 (1/7 ACCESSIBLE, 1/7 ACCESSIBLE TYPE-A)

TOTAL = 17 UNITS (3 ACCESSIBLE)

TOTAL AREA = 18,308 SF





DESIGNER

CWS
ARCHITECTURE +
INTERIOR DESIGN

264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
207.774.4441
CWSARCH.COM

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD.
PORTLAND, MAINE 04101

PROJECT

CIRCLE 1 BUILDING

RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

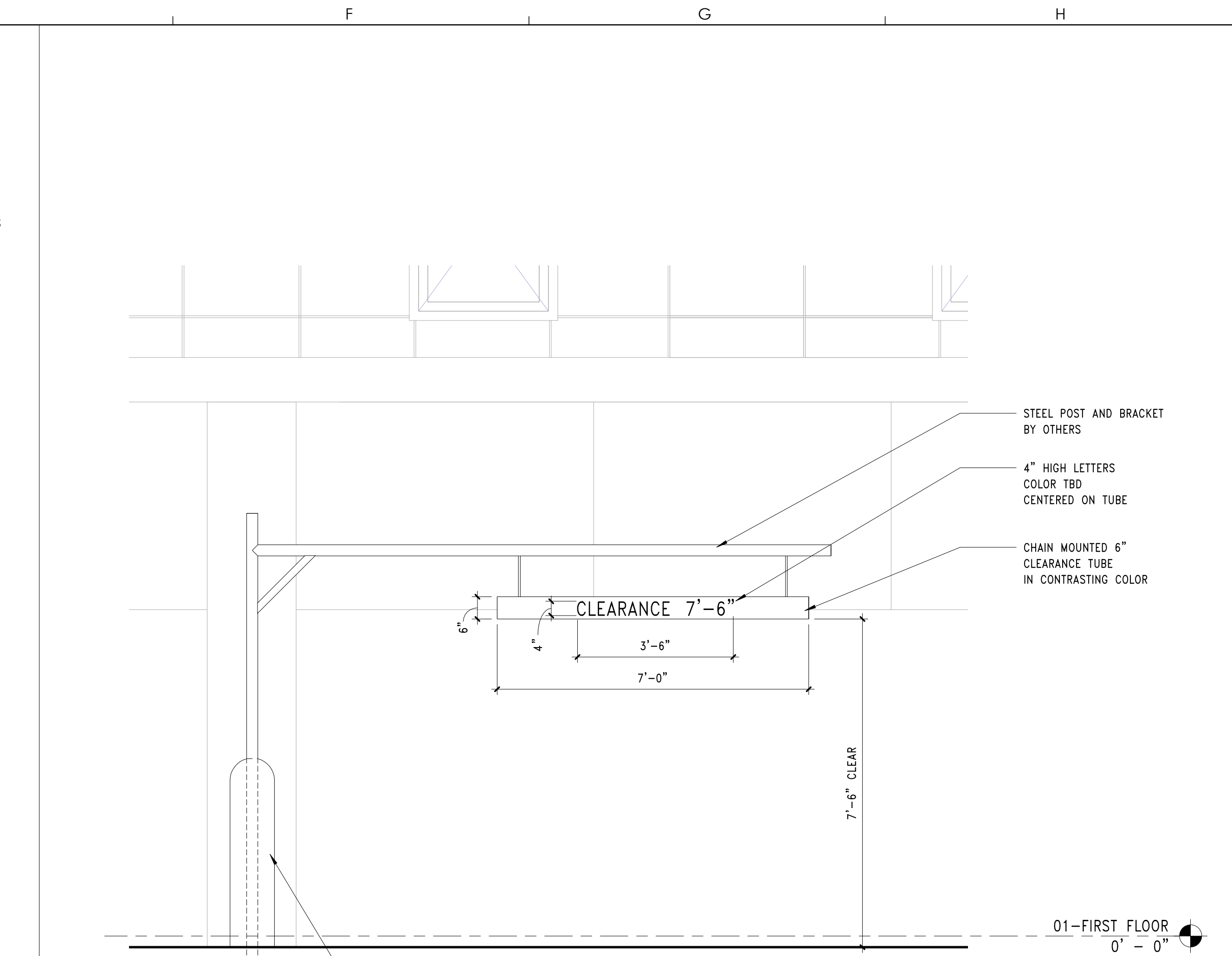
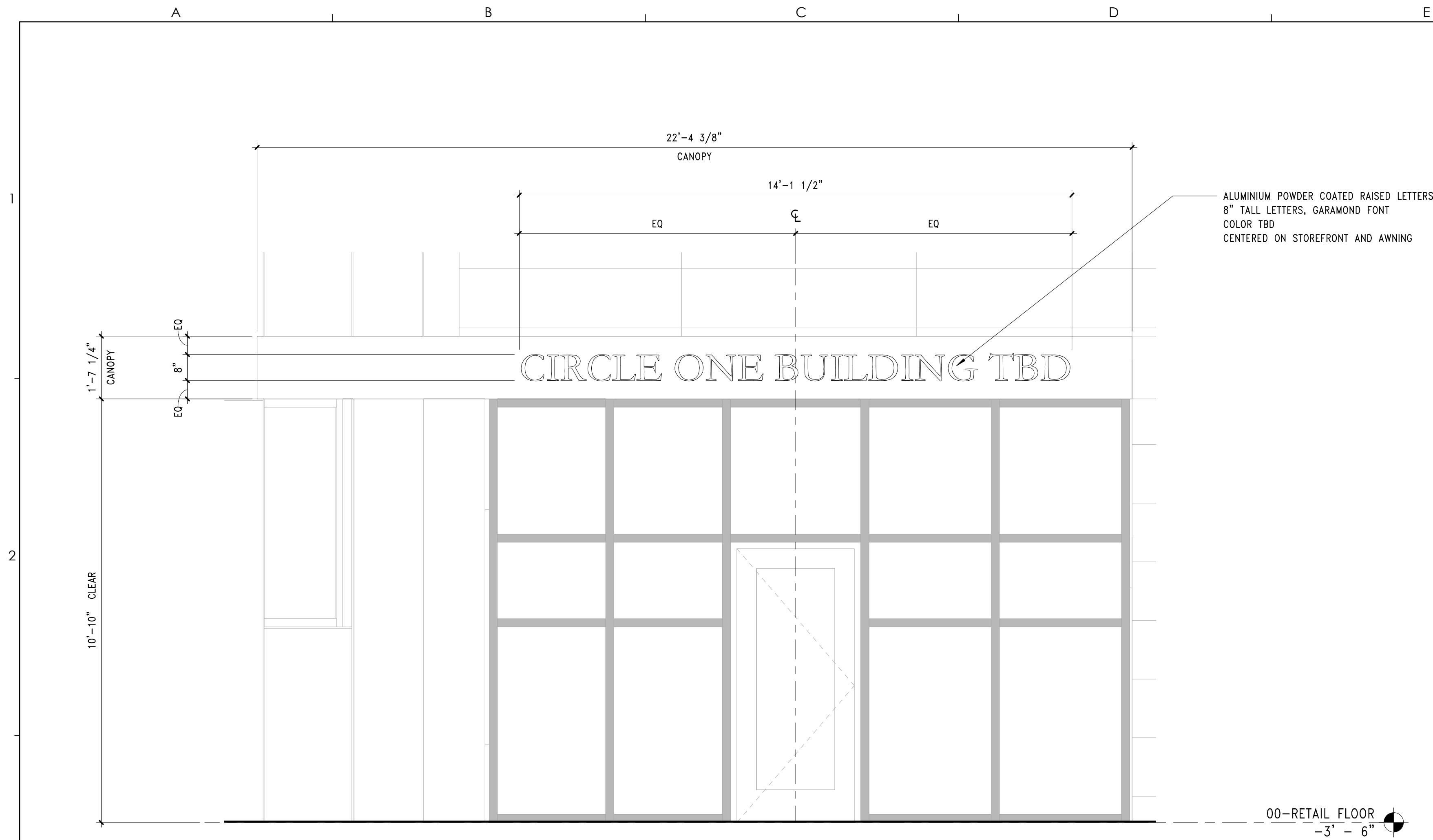
ROOF PLAN

CWS PROJECT NUMBER: 21023

REVISIONS

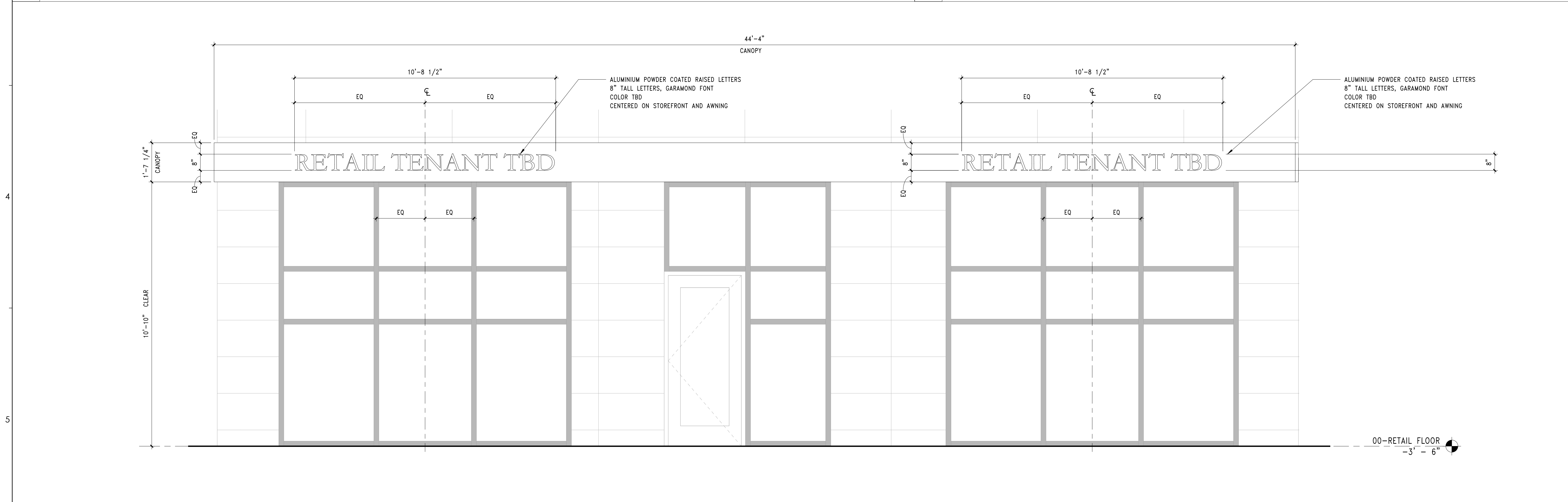
PROJECT NORTH
PLAN NORTH
TRUE NORTH

DRAWING NUMBER
A1.50
SCALE: 3/32" = 1'-0"
DATE: 12/22/2022



A3	BUILDING ENTRY SIGNAGE	
	REFERENCED FROM: A1.10A	SCALE: 1/2" = 1'-0"

E3	GARAGE ENTRY APPROACH SIGNAGE	
	REFERENCED FROM: A1.10B	SCALE: 1/2" = 1'-0"



A5	RETAIL CANOPY SIGNAGE	
	REFERENCED FROM: A1.10A	SCALE: 1/2" = 1'-0"

 CWS ARCHITECTURE + INTERIOR DESIGN					
PLANNING + DESIGN CONSTRUCTION SERVICES					
REVISIONS		DRAWING	PROJECT	OWNER	DESIGNER
		SIGNAGE DETAILS	CIRCLE 1 BUILDING	RIVERTON PARK, LP	 264 US ROUTE ONE SUITE 100-2A SCARBOROUGH, ME 04274 207 774 4441 CWSARCH.COM
		CWS PROJECT NUMBER: 21023	RIVERTON DRIVE PORTLAND, MAINE 04103	14 BAXTER BLVD PORTLAND, MAINE 04101	
DRAWING NUMBER					
A3.50					
SCALE:		1/2" = 1'-0"			
DATE:		12/22/2022			



DESIGNER

CWS
ARCHITECTURE +
INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
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OWNER

RIVERTON PARK, LP
14 BAXTER BLVD.
PORTLAND, MAINE 04101

PROJECT

CIRCLE 1 BUILDING
RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

SITE AXON NORTH
CWS PROJECT NUMBER: 21023

REVISIONS

DRAWING NUMBER

A3.60

SCALE:

DATE: 12/22/2022

MAJOR SITE PLAN



A

B

C

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REVISIONS

DRAWING NUMBER

A3.62

SCALE:

DATE:

12/22/2022 1:35:30 PM

DRAWING

BUILDING 1 PERSPECTIVES

CWS PROJECT NUMBER: 21023

PROJECT

CIRCLE 1 BUILDING

RIVERTON DRIVE
PORTLAND, MAINE 04103

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD.
PORTLAND, MAINE 04101

DESIGNER

CWS

ARCHITECTURE +
INTERIOR DESIGN

264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
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CWS

ARCHITECTURE +
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CONSTRUCTION SERVICES

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OWNER

RIVERTON PARK, LP

14 BAXTER BLVD.
PORTLAND, MAINE 04101

PROJECT

CIRCLE 1 BUILDING

RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

BUILDING 1 PERSPECTIVES

CWS PROJECT NUMBER: 21023

REVISIONS

DRAWING NUMBER

A3.63

SCALE:

DATE:

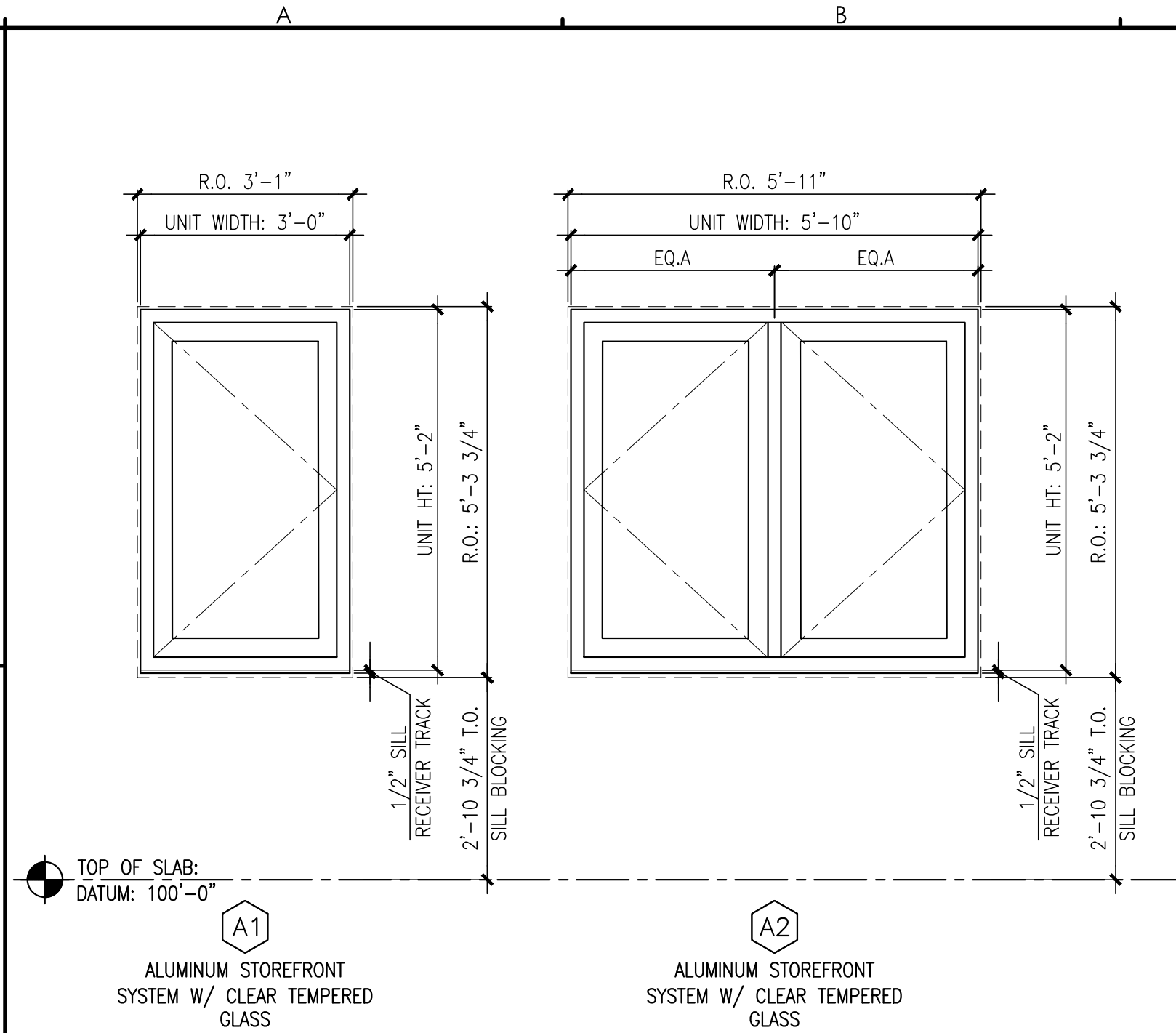
12/22/2022

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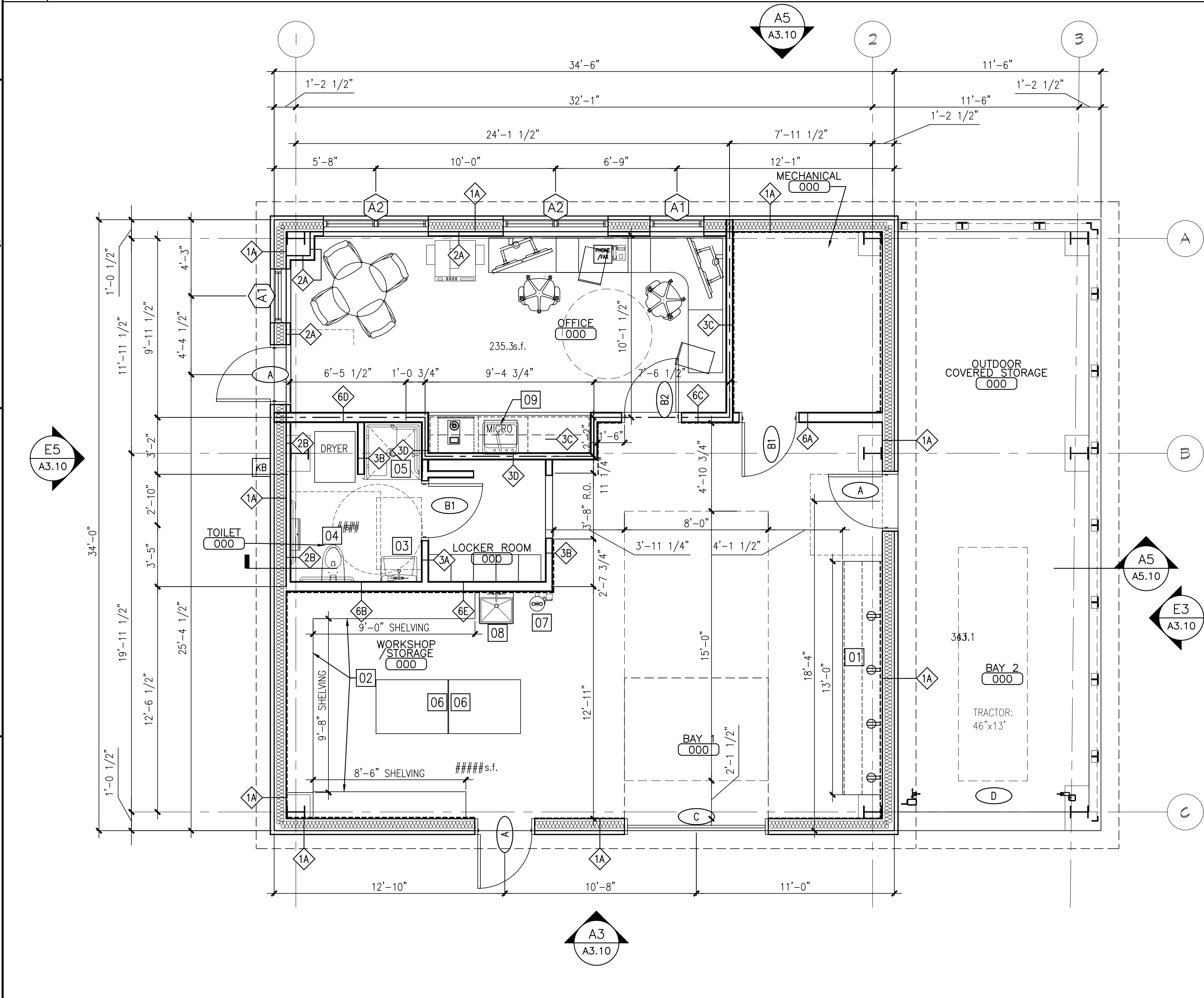
MAJOR SITE PLAN

C:\Users\Keeagan.Carmichael\Documents\21023_Circle One Building_R21_CD\TRIAL_KCarmichael\SPY2.rvt

Page 553



A2 ALUMINUM STOREFRONT ELEVATIONS
REFERENCED FROM: A1.10 SCALE: 3/8" = 1'-0"

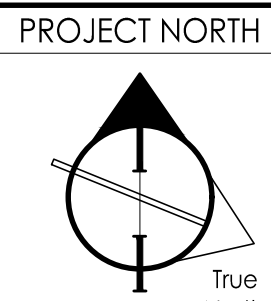


NOTE:
----- DASHED LINE INDICATES EXTENT OF 3/4"
PLYWOOD SHEATHING INSTALLED FROM
2'-0" AFF TO 10'-0" AFF

A5 ALUMINUM STOREFRONT ELEVATIONS
REFERENCED FROM: G0.00 SCALE: 1/4" = 1'-0"

REVISED BUILDING AREAS:		ORIGINAL BUILDING AREAS:	
INTERIOR (CONDITIONED):	1,173 SF	1,326 SF	
COVERED EXTERIOR:	374 SF	714 SF	
TOTAL:	1,547 SF	2,040 SF	

- 01 BASE CABINETS WITH NO DOORS, (3) 12" DEEP WALL SHELVES 24" ABOVE WOOD BLOCK WORK SURFACE.
- 02 (5) 16" HEAVY DUTY WIRE SHELVING ON HEAVY DUTY ADJUSTABLE STANDARDS
- 03 ADA ACCESSIBLE WALL-HUNG SINK
- 04 ADA ACCESSIBLE WALL-HUNG TOILET WITH GRAB-BARS
- 05 ADA ACCESSIBLE SHOWER UNIT WITH GRAB BARS AND FOLD-DOWN SEAT
- 06 WORK BENCH ISLAND: OPEN SHELVES BELOW, HEAVY DUTY LOCKABLE CASTERS, WOOD BLOCK TOP
- 07 EYE WASH STATION
- 08 UTILITY SINK
- 09 UTILITY SINK WOOD WALL AND BASE CABINETS WITH SOLID SURFACE COUNTERTOP



DRAWING NUMBER
A1.10
SCALE: AS NOTED
DATE: 12/22/2022

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

CWS ARCHITECTURE + INTERIOR DESIGN

264 US ROUTE ONE SUITE 100-2A
SCARBOROUGH, MAINE 04074 207.774.4441
WWW.CWSARCH.COM

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
MAINTENANCE BUILDING

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

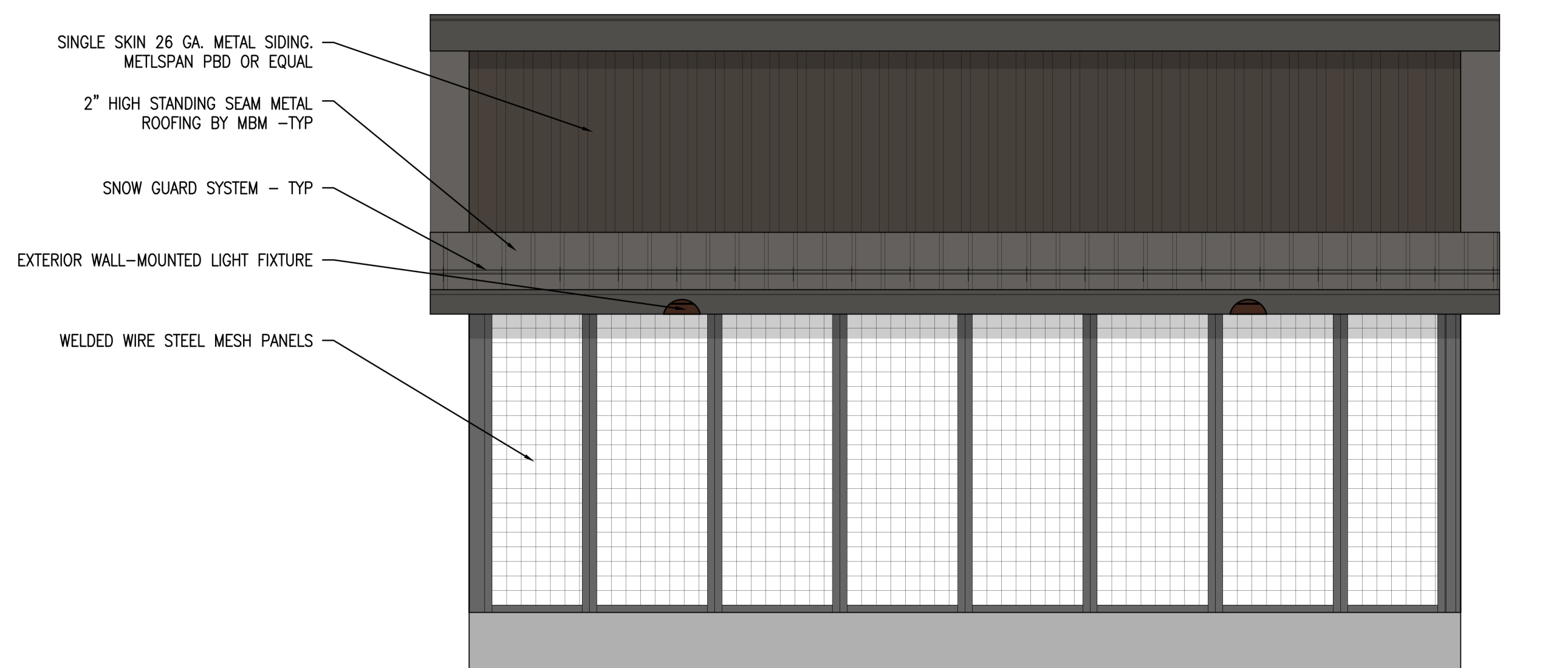
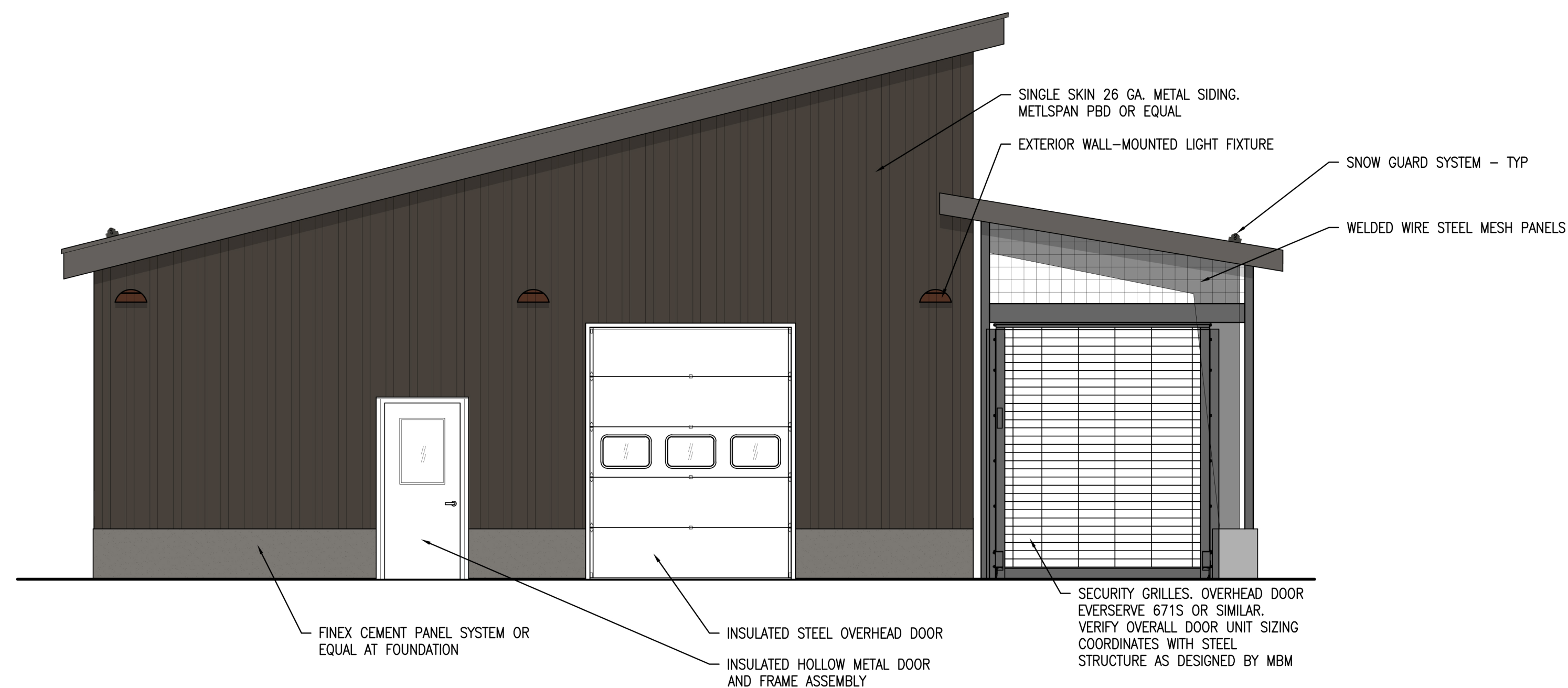
DRAWING

FLOOR PLAN

CWS PROJECT NUMBER: 19013

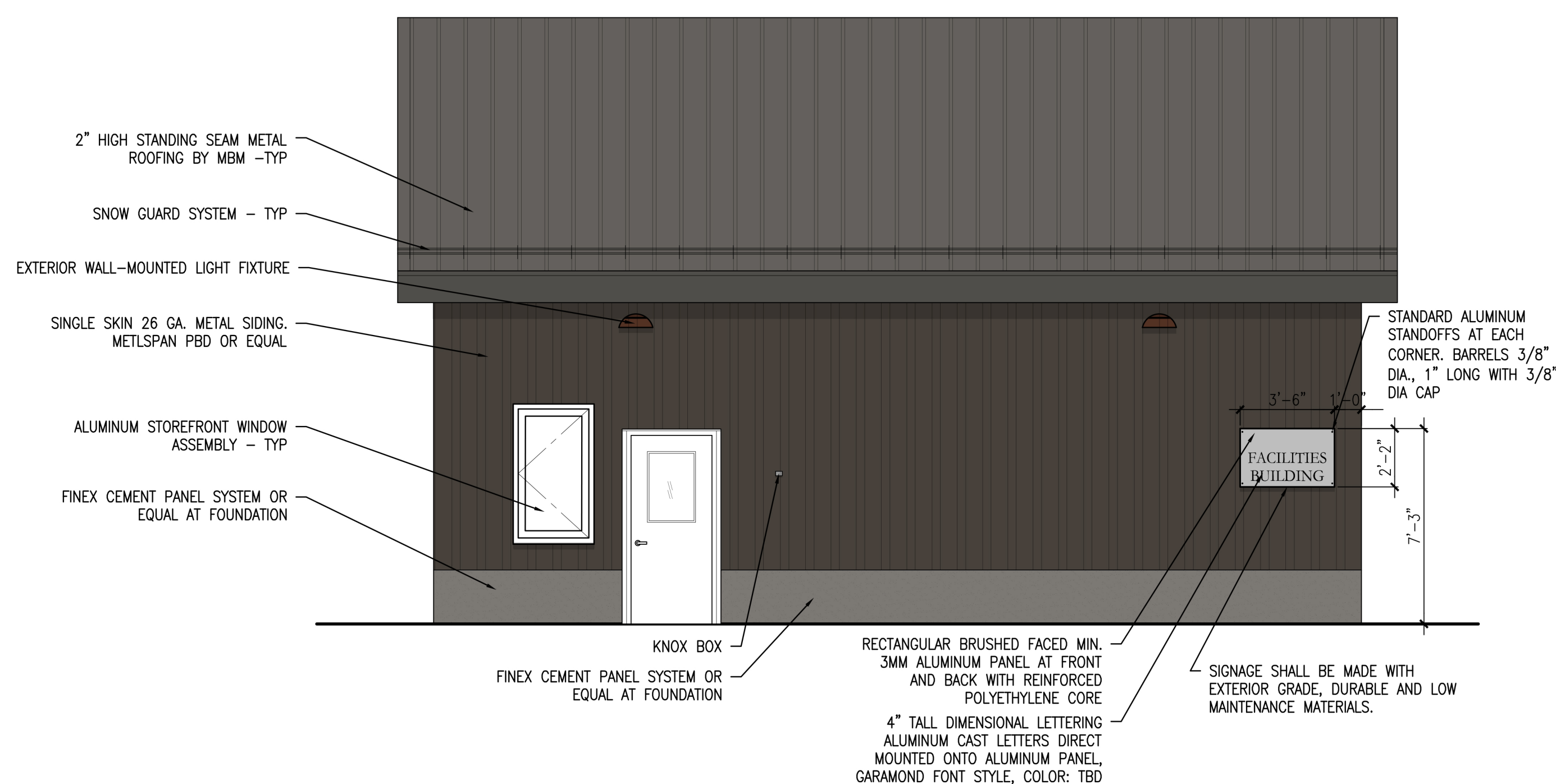
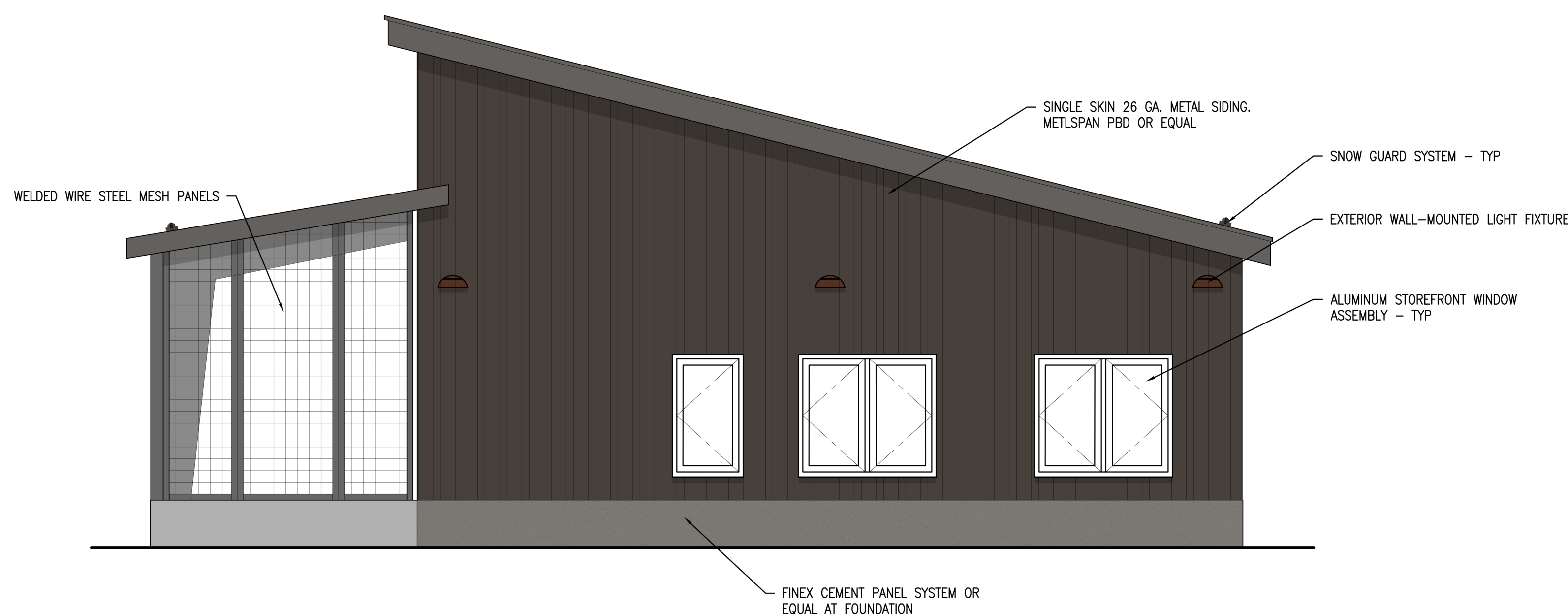
REVISIONS

G5 FLOOR PLAN NOTES



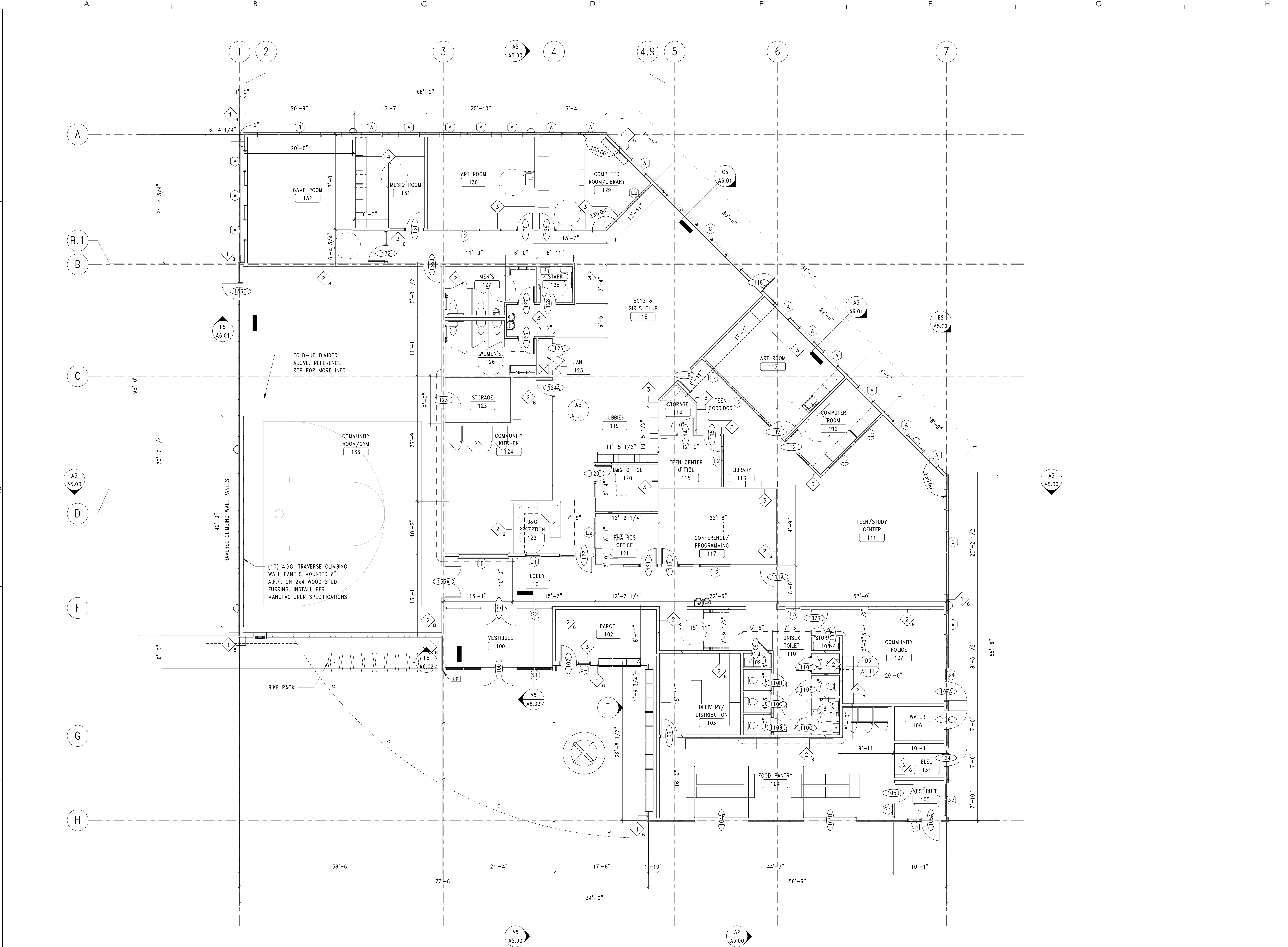
FRONT AND LEFT SIDE ELEVATIONS

REFERENCED FROM: SCALE: 1/4" = 1'-0"



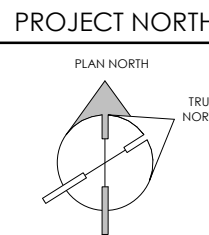
BACK AND RIGHT SIDE ELEVATIONS

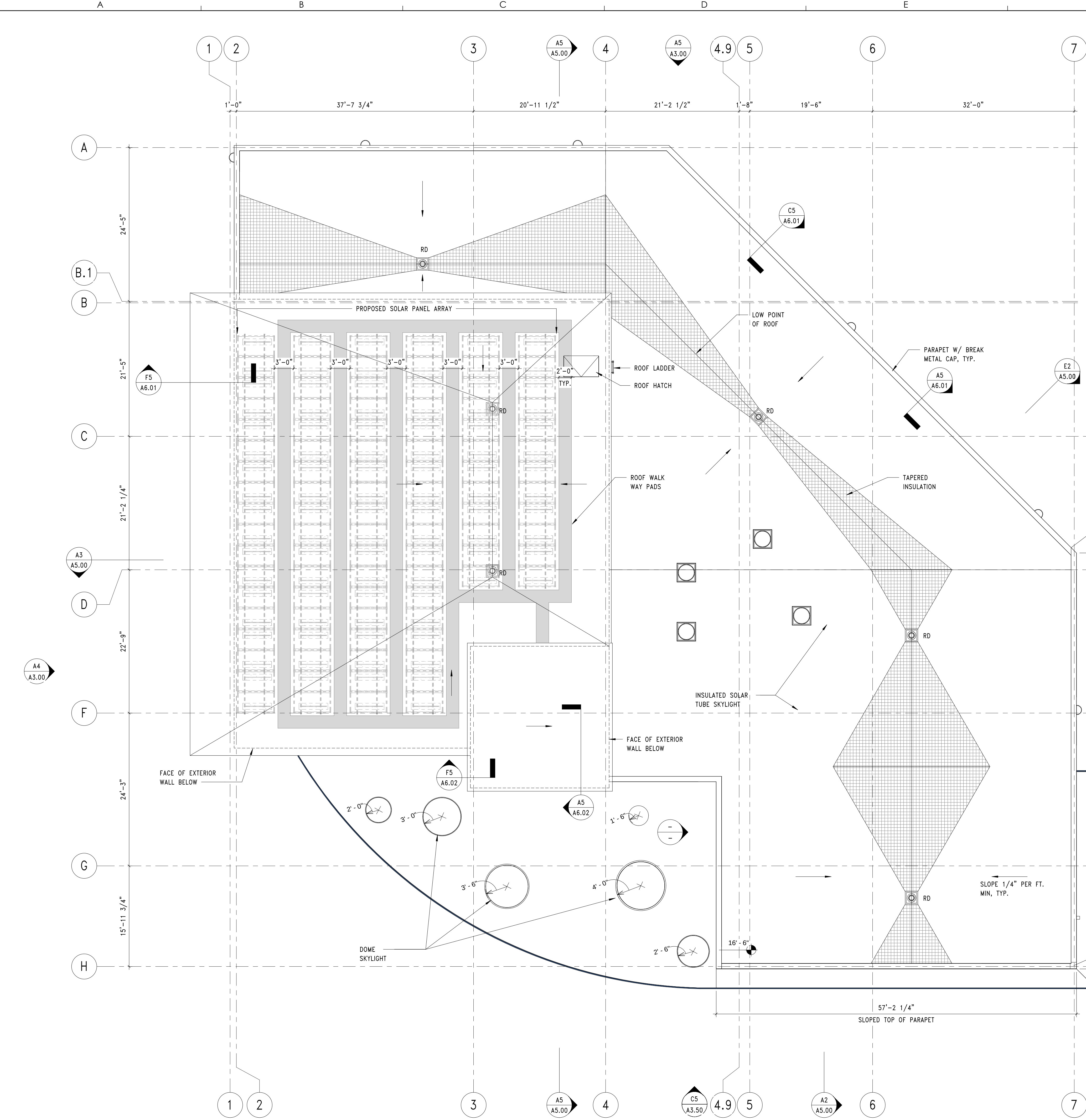
REFERENCED FROM: SCALE: 1/4" = 1'-0"



A5 01-FIRST FLOOR
REFERENCED FROM: A3.00 SCALE: 1/8" = 1'-0"

C:\Users\Bilal\OneDrive\Documents\19013_RP COMMUNITY CENTER_CENTRAL_B8naRk\JM1





ROOF DRAIN SIZING:

Leader / Pipe Size (in.)	Hourly Rainfall (in.)								
	1	1.5	2	3	4	5	6	7	8
	Sq. Ft. Covered Per Drain								
2	2,880	1,920	1,440	960	720	575	480	410	360
4	18,400	12,700	9,200	6,130	4,600	3,680	3,070	2,630	2,300
5	34,600	23,050	17,300	11,530	8,650	6,920	5,765	4,945	4,325
6	54,000	36,000	27,000	18,000	13,500	10,800	9,000	7,715	6,750
8	116,000	77,400	58,000	38,660	29,000	23,200	19,315	16,570	14,500

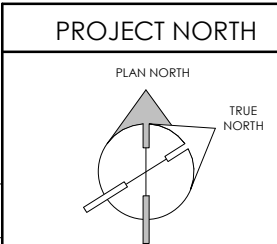
ROOF DRAIN CALCULATION:

MAIN ROOF AREA: 8,250 SF
SOLAR ARRAY ROOF AREA: 4,483 SF

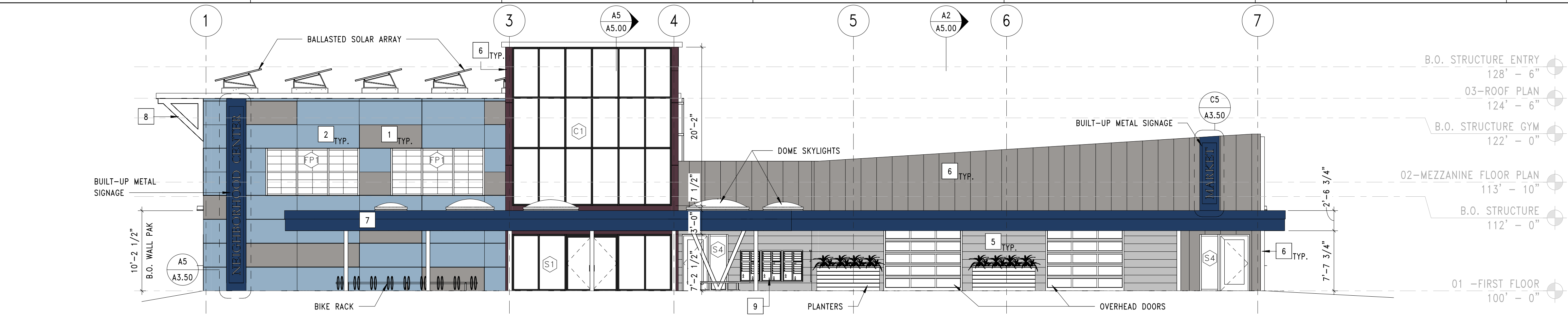
PER IBC 2015: HOURLY RAINFALL FOR PORTLAND, ME = 2.5"
ROOF DRAIN PIPE SIZE = 3"
AREA OF ROOF SERVED BY 1 DRAIN = 3,520

MAIN ROOF AREA: 8,250 SF / 3,520 = 2.3 OR 3 ROOF DRAINS
SOLAR ARRAY ROOF AREA: 4,483 SF / 3,520 = 1.3 OR 2 ROOF DRAINS

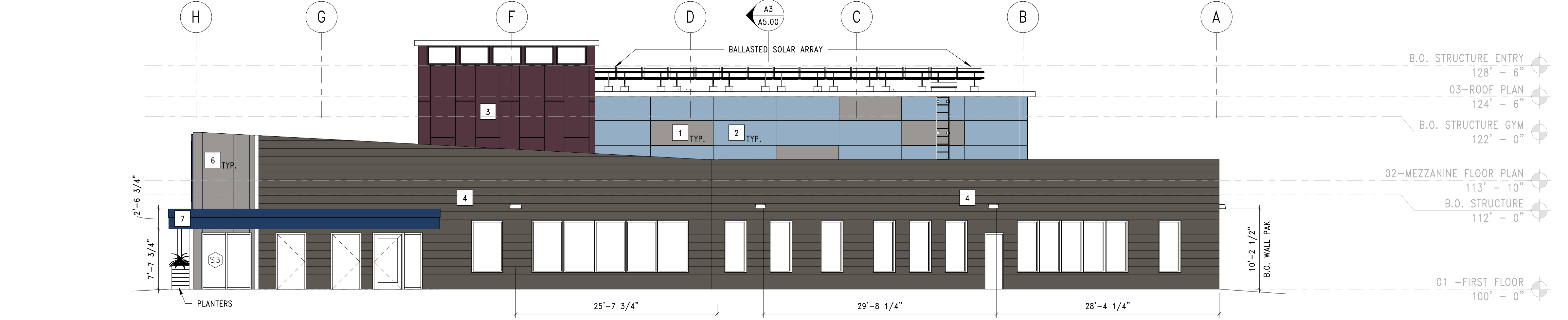
ROOF DRAIN CALCULATION
REFERENCED FROM: SCALE: 1/8" = 1'-0"



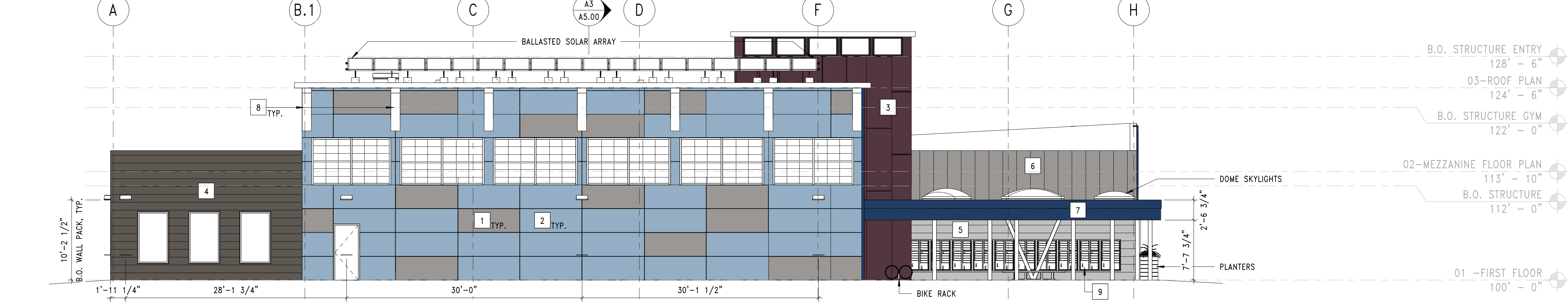
REVISIONS									



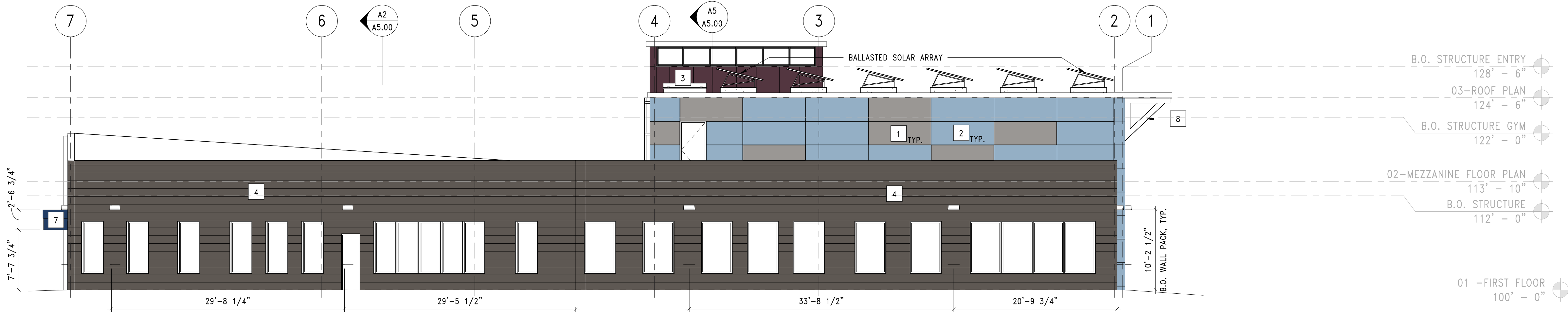
A2 EAST ELEVATION
REFERENCED FROM: A1.20 SCALE: 1/8" = 1'-0"



A3 NORTH ELEVATION
REFERENCED FROM: A1.20 SCALE: 1/8" = 1'-0"



A4 SOUTH ELEVATION
REFERENCED FROM: A1.20 SCALE: 1/8" = 1'-0"



A5 WEST ELEVATION
REFERENCED FROM: A1.20 SCALE: 1/8" = 1'-0"

EXTERIOR FINISH MATERIAL LEGEND			
CODE	MATERIAL	COLOR AND FINISH	PATTERN LEGEND
1	FIBER CEMENT PANEL	COLOR: TBD STANDARD COLOR 1	
2	FIBER CEMENT PANEL	COLOR: TBD STANDARD COLOR 2	
3	FIBER CEMENT PANEL	COLOR: FIELD PAINTED	
4	FIBER CEMENT PLANK LAP SIDING	COLOR: TBD STANDARD COLOR 3	
5	FIBER CEMENT PLANK LAP SIDING	COLOR: TBD STANDARD COLOR 4	
6	FIBER CEMENT VERTICAL SIDING	COLOR: TBD STANDARD COLOR 5	
7	BREAK METAL FASCIA	COLOR: TBD	
8	BUILT WOOD EAVE SUPPORT	COLOR: TBD	
9	MAILBOXES	COLOR: TBD	

G5 EXTERIOR MATERIALS LEGEND
REFERENCED FROM: SCALE: 1/8" = 1'-0"

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

CWS ARCHITECTURE +
INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
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CWSARCH.COM

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD.
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
NEIGHBORHOOD CENTER

RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

EXTERIOR ELEVATIONS

REVISIONS

NO.	DESCRIPTION	DATE

DRAWING NUMBER

A3.00

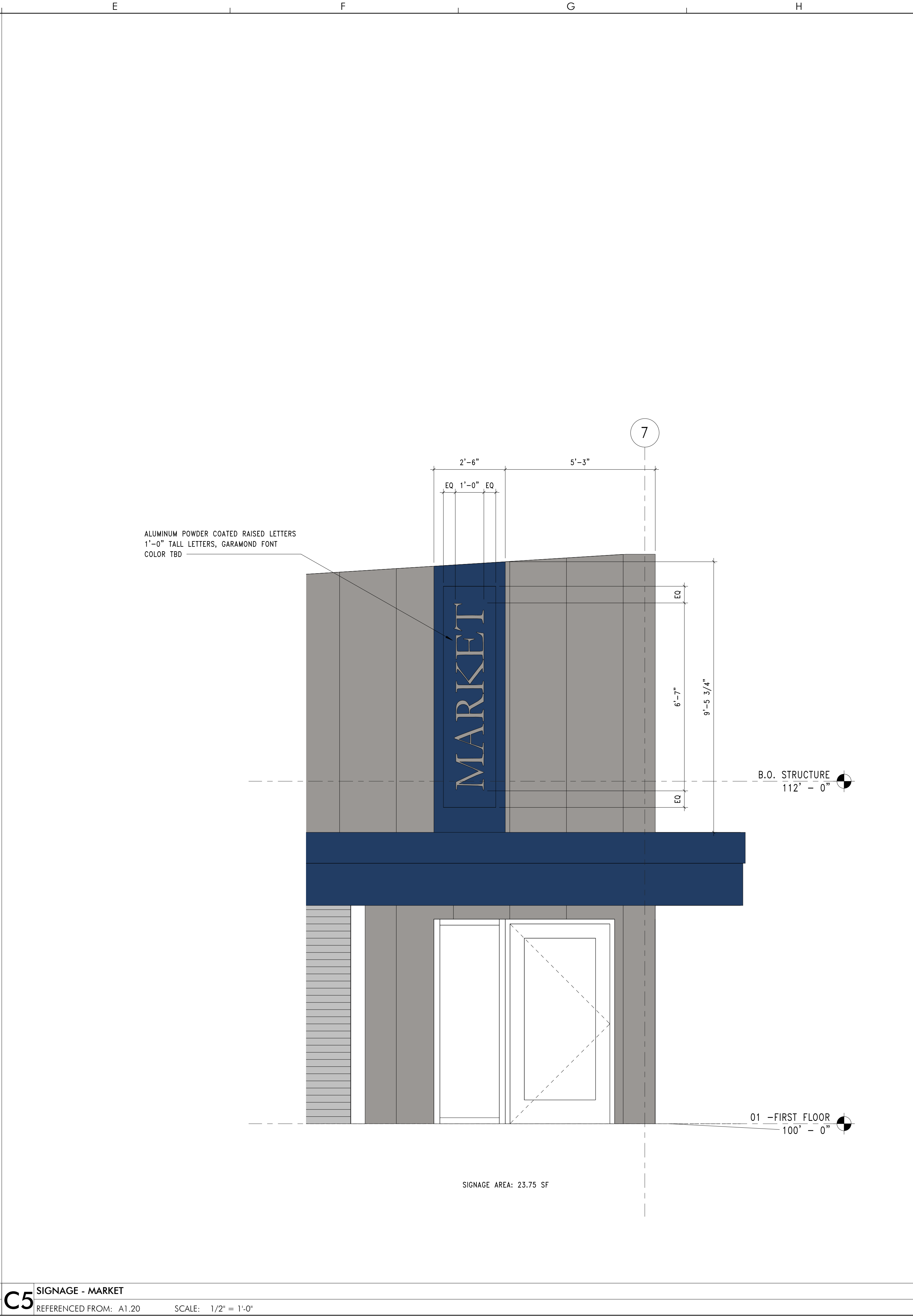
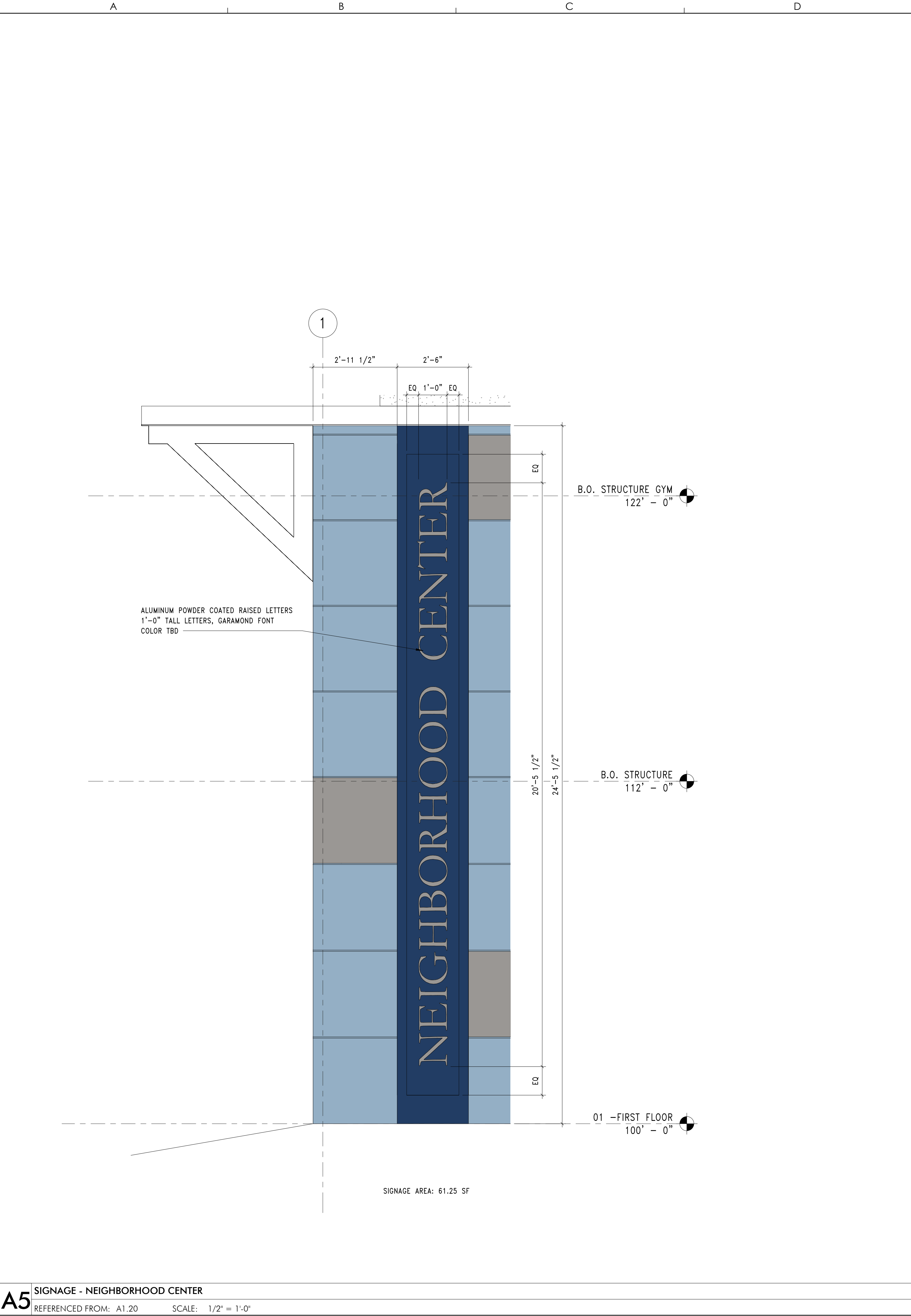
SCALE:

1/8" = 1'-0"

DATE:

12/22/2022

MAJOR SITE PLAN



CWS ARCHITECTURE + INTERIOR DESIGN		PLANNING + DESIGN CONSTRUCTION SERVICES	
DESIGNER			1
	CWS ARCHITECTURE + INTERIOR DESIGN 264 US ROUTE ONE, SUITE 100-2A SCARBOROUGH, ME 04074 207 774 4441 CWSARCH.COM		2
OWNER	RIVERTON PARK, LP 14 BAXTER BLVD PORTLAND, MAINE 04101		2
PROJECT	RIVERTON PARK NEIGHBORHOOD CENTER RIVERTON DRIVE PORTLAND, MAINE 04103		3
DRAWING	BUILDING SIGNAGE CWS PROJECT NUMBER: PROJECT NUMBER		4
REVISIONS			5
DRAWING NUMBER A3.50			
SCALE:		1/2" = 1'-0"	
DATE:		12/22/2022	



DESIGNER

CWS ARCHITECTURE + INTERIOR DESIGN
264 US ROUTE ONE, SUITE 100-2A
SCARBOROUGH, ME 04074
207.774.4441
CWSARCH.COM

OWNER

RIVERTON PARK, LP
14 BAXTER BLVD.
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
NEIGHBORHOOD CENTER
RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

EXTERIOR RENDERING
CWS PROJECT NUMBER: PROJECT NUMBER

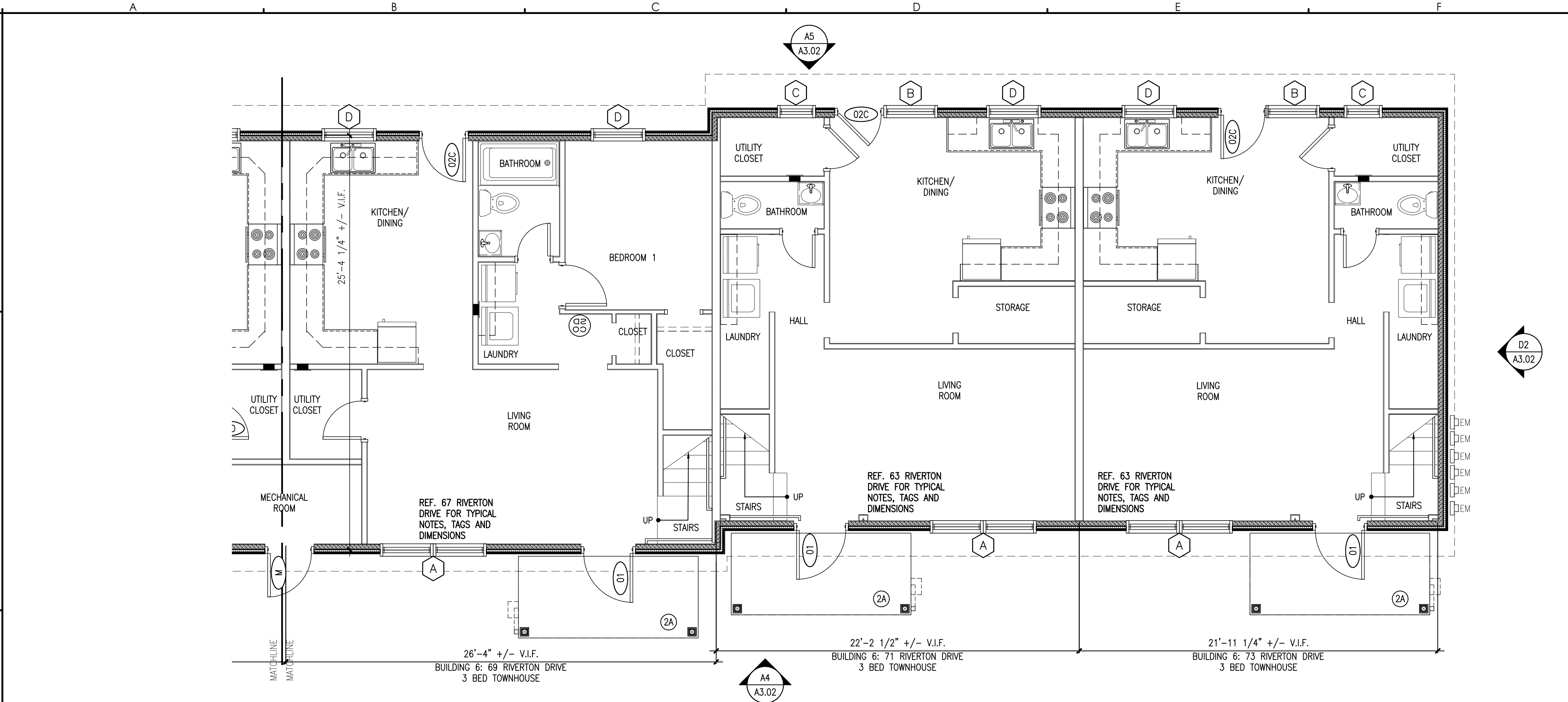
REVISIONS

DRAWING NUMBER

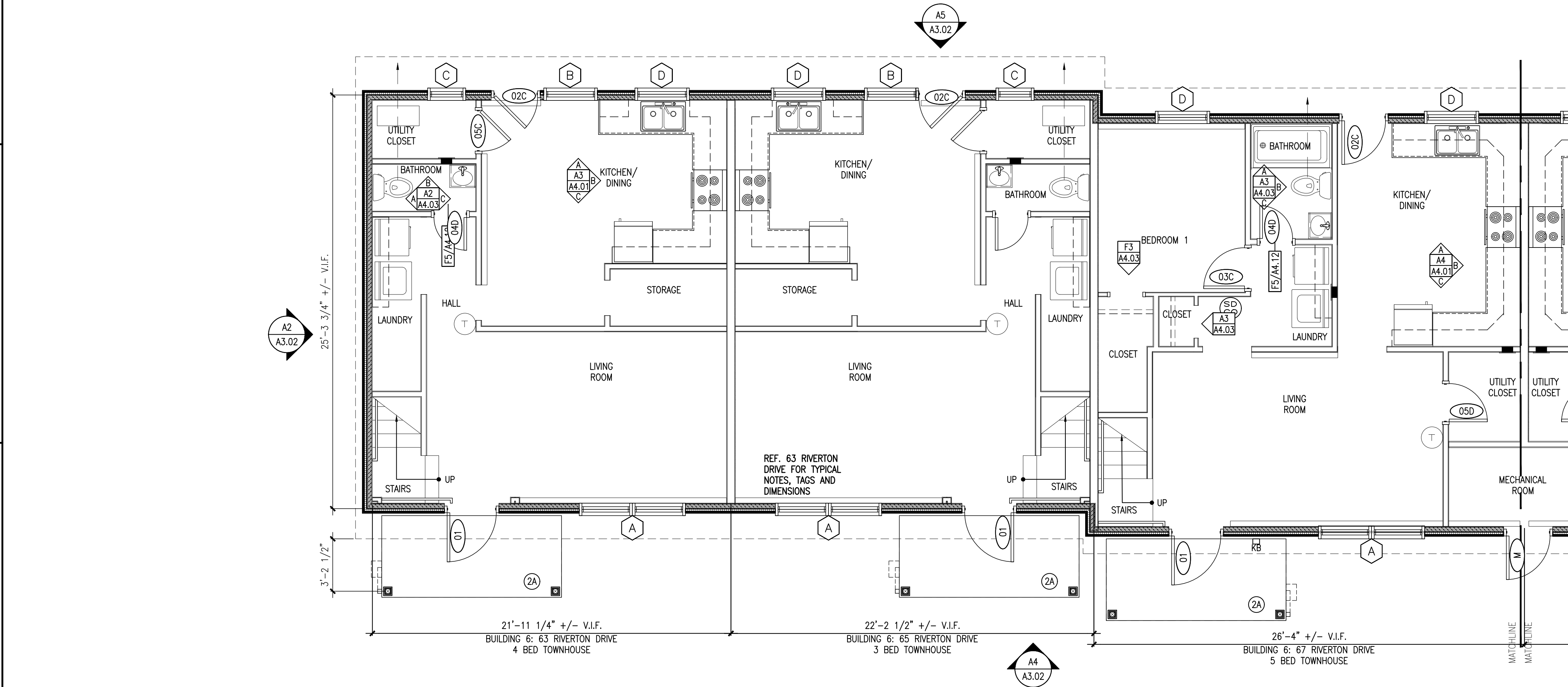
A3.60

SCALE:

DATE: 12/22/2022



A3 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 6 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 6 SCALE: 1/4"=1'-0"

NEW WORK PLAN NOTES

1. REFERENCE SHEET A7.10 FOR COVERED ENTRY STOOP DETAILS

2. REFERENCE SHEET A7.20 FOR COVERED BIKE STORAGE / ELECTRICAL METER ENCLOSURE DETAILS (ADD ALTERNATE No. 1, NOT CURRENTLY SHOWN ON BUILDING PLANS)

KEYED PLAN NOTES

① EXTEND/MODIFY WIRING FOR NEW APPLIANCE LOCATION(S)

②A EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.10

②B EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.11

EXISTING EXTERIOR WOOD STUD WALL ASSEMBLY WITH NEW INSULATION, SHEATHING, AND EXTERIOR FINISH SCOPE. REFERENCE WALL SECTIONS FOR MORE INFO

NEW EXTERIOR INFILL WALL ASSEMBLY

EXISTING INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

EXISTING 1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

NEW WORK PLAN LEGEND

TYPICAL FLOOR / CEILING INFILL ASSEMBLY

1-HOUR FIRE-RATED, SIMILAR TO UL DESIGN NO. L519

FINISHED FLOORING MATERIAL AS INDICATED PER SCHEDULE

11/32" UNDERLAYMENT, GLED AND NAILED - REFER TO UNDERLAYMENT NOTES

PLYWOOD SUBFLOOR - THICKNESS TO MATCH EXISTING

2X JOIST FRAMING - SIZING TO MATCH EXISTING

3 1/2" SOUND BATTIS STAPLED AT UPPER REGION OF JOIST CAVITY.

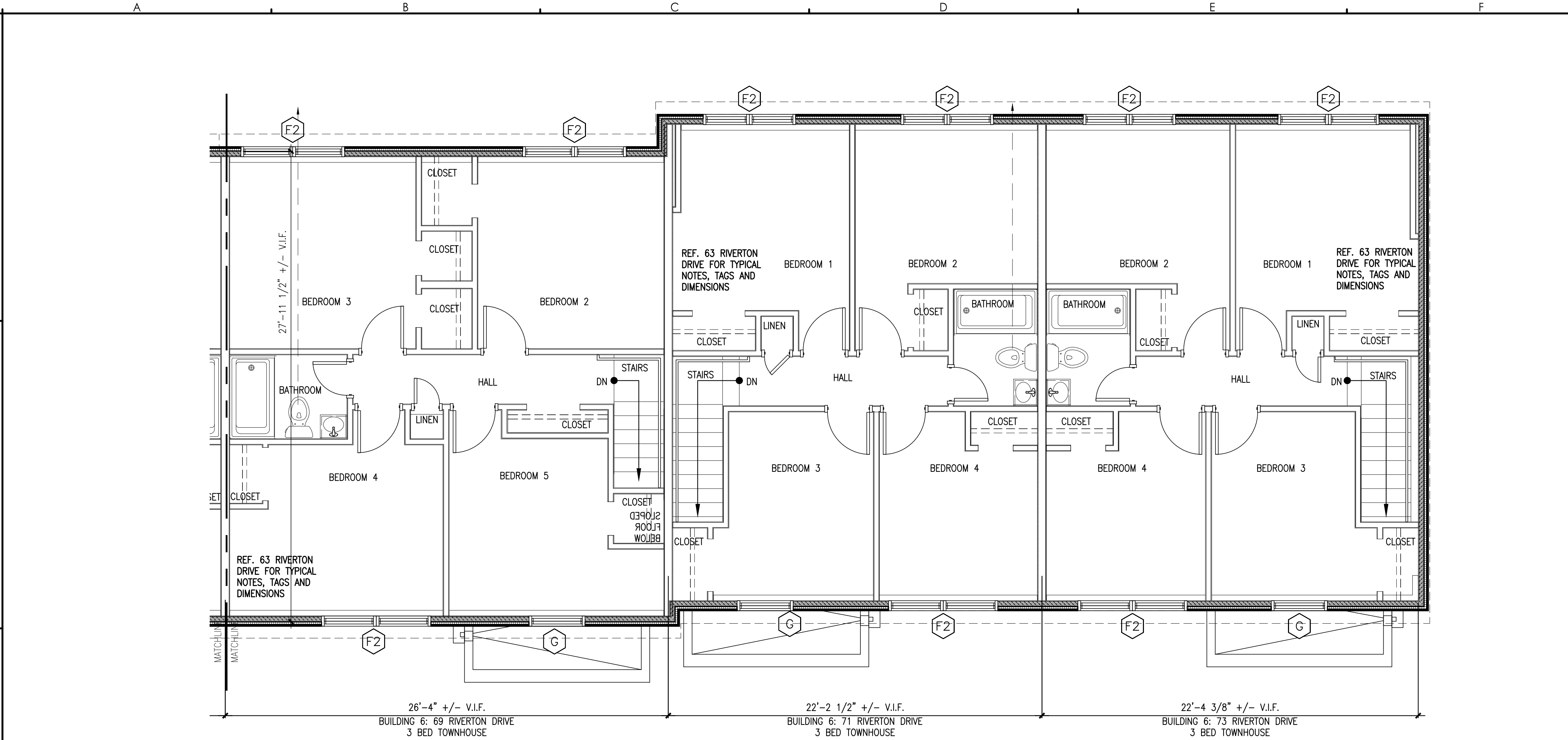
RESILIENT SOUND CLIPS @ 48" O.C.

7/8" DRYWALL FURRING CHANNEL (HEMMED EDGE) @ 24" O.C.

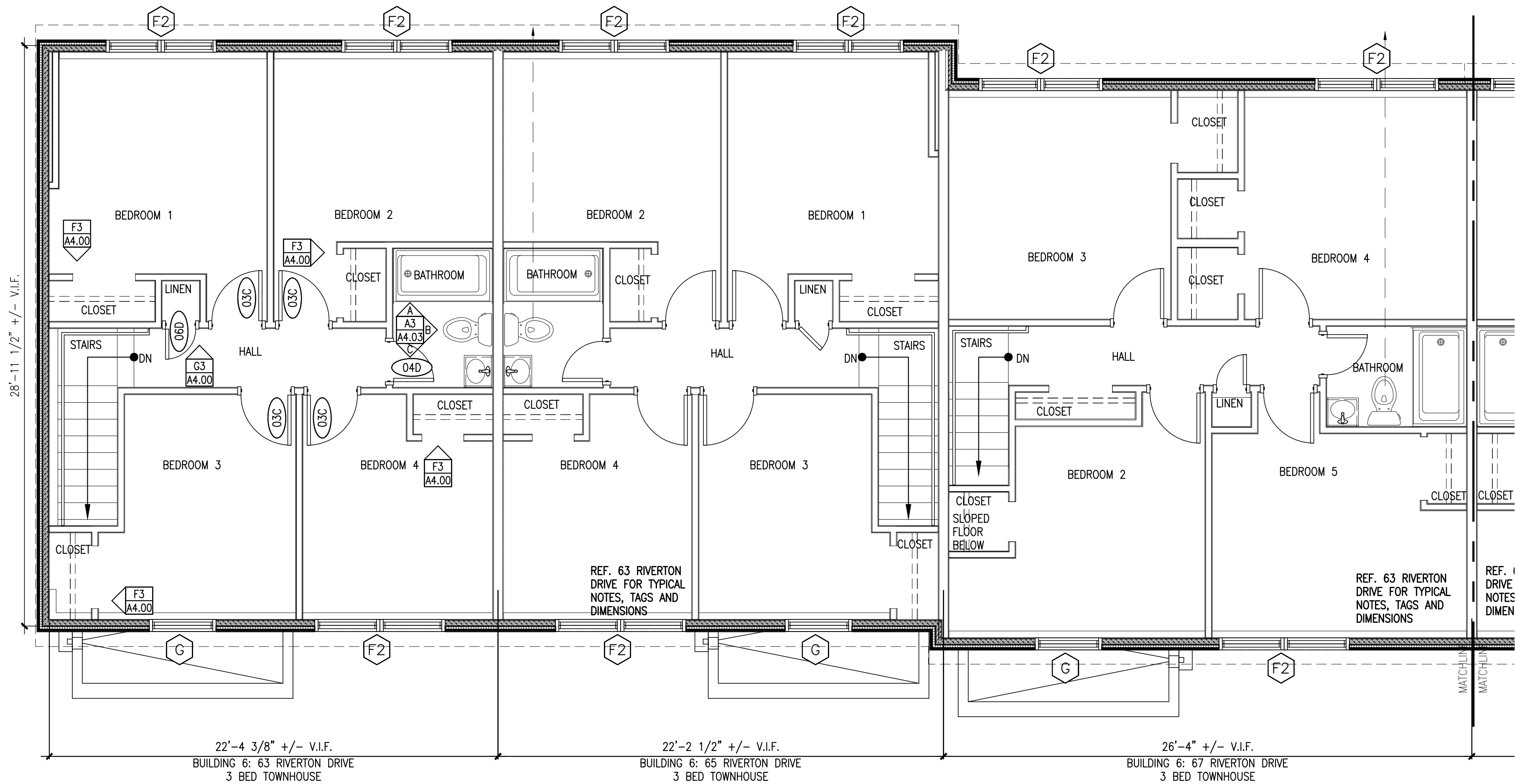
(1) LAYER 5/8" TYPE "X" GWB CEILING

G5 NEW WORK NOTES & BUILDING 6 UNIT MATRIX (TBD)

REFERENCED FROM: SCALE: NTS



A3 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 6 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 6 SCALE: 1/4"=1'-0"

NEW WORK PLAN LEGEND

TYPICAL FLOOR / CEILING INFILL ASSEMBLY:
1-HOUR FIRE-RATED, SIMILAR TO UL DESIGN NO. L519

- FINISHED FLOORING MATERIAL AS INDICATED PER SCHEDULE
- 11/32" UNDERLAYMENT, GLED AND NAILED - REFER TO UNDERLAYMENT NOTES
- PLYWOOD SUBFLOOR - THICKNESS TO MATCH EXISTING
- 2X JOIST FRAMING - SIZING TO MATCH EXISTING
- 3 1/2" SOUND BATTIS STAPLED AT UPPER REGION OF JOIST CAVITY.
- RESILIENT SOUND CLIPS @ 48" O.C.
- 7/8" DRYWALL FURRING CHANNEL (HEMMED EDGE) @ 24" O.C.
- (1) LAYER 5/8" TYPE "X" GWB CEILING

EXISTING EXTERIOR WOOD STUD WALL ASSEMBLY WITH NEW INSULATION, SHEATHING, AND EXTERIOR FINISH SCOPE. REFERENCE WALL SECTIONS FOR MORE INFO

NEW EXTERIOR INFILL WALL ASSEMBLY:

EXISTING INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

EXISTING 1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

NEW WORK PLAN NOTES

1. REFERENCE SHEET A7.10 FOR COVERED ENTRY STOOP DETAILS

2. REFERENCE SHEET A7.20 FOR COVERED BIKE STORAGE / ELECTRICAL METER ENCLOSURE DETAILS (ADD ALTERNATE No. 1, NOT CURRENTLY SHOWN ON BUILDING PLANS)

KEYED PLAN NOTES

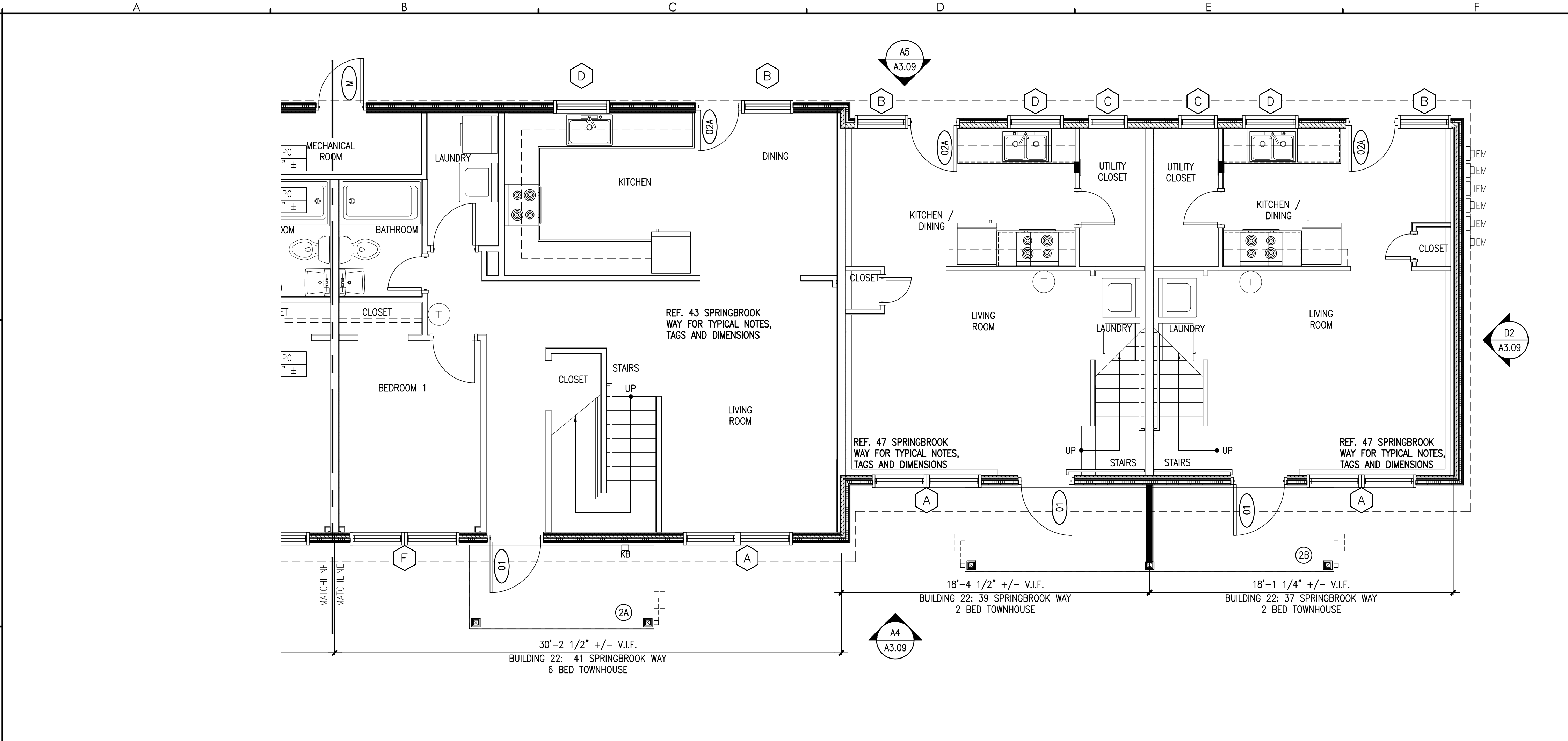
① EXTEND/MODIFY WIRING FOR NEW APPLIANCE LOCATION(S)

②A EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.10

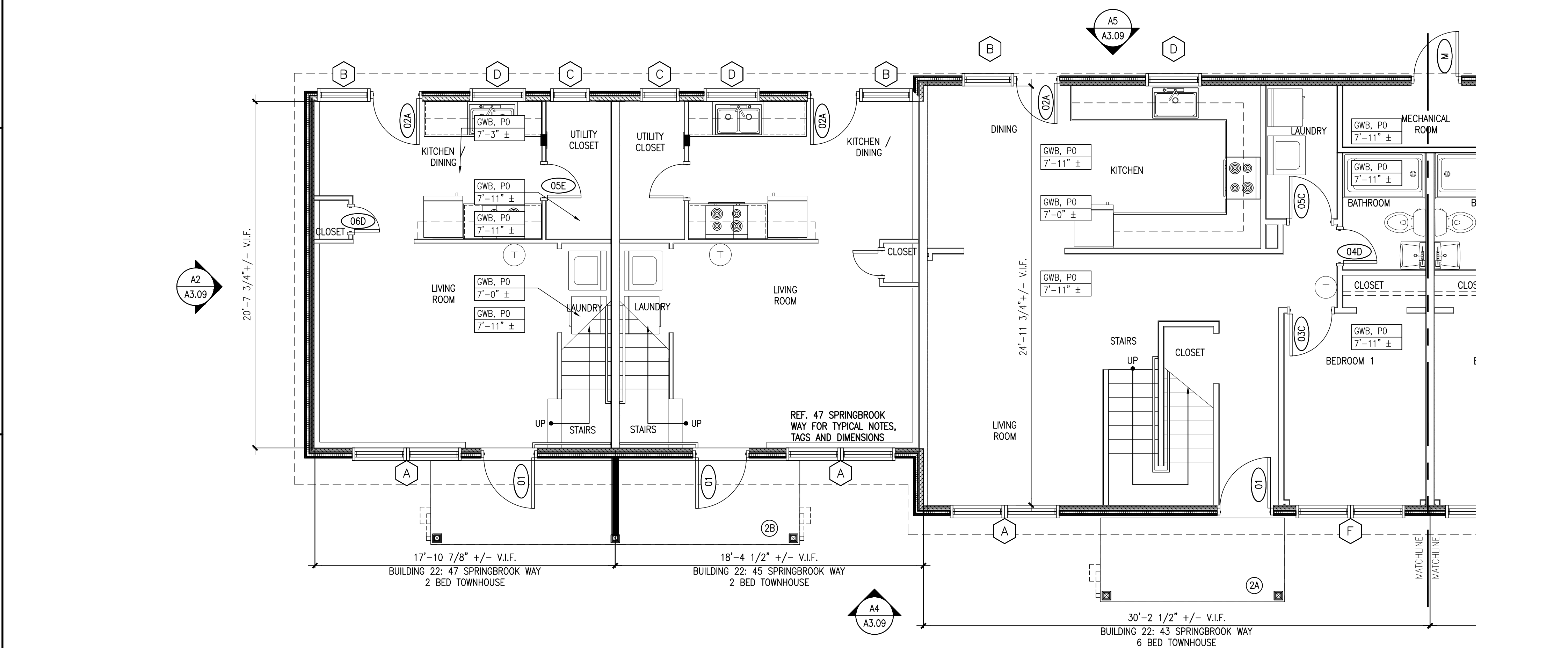
②B EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.11

G5 NEW WORK NOTES & BUILDING 6 UNIT MATRIX (TBD)

REFERENCED FROM: SCALE: NTS



A3 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"

NEW WORK PLAN NOTES

1. REFERENCE SHEET A7.10 FOR COVERED ENTRY STOOP DETAILS

2. REFERENCE SHEET A7.20 FOR COVERED BIKE STORAGE / ELECTRICAL METER ENCLOSURE DETAILS (ADD ALTERNATE No. 1, NOT CURRENTLY SHOWN ON BUILDING PLANS)

KEYED PLAN NOTES

1 EXTEND/MODIFY WIRING FOR NEW APPLIANCE LOCATION(S)

2A EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.10

2B EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.11

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EXISTING 1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

NEW WORK PLAN LEGEND

TYPICAL FLOOR / CEILING INFILL ASSEMBLY

1-HOUR FIRE-RATED, SIMILAR TO UL DESIGN NO. L519

FINISHED FLOORING MATERIAL AS INDICATED PER SCHEDULE

11/32" UNDERLAYMENT, GLUED AND NAILED - REFER TO UNDERLAYMENT NOTES

PLYWOOD SUBFLOOR - THICKNESS TO MATCH EXISTING

2X JOIST FRAMING - SIZING TO MATCH EXISTING

3 1/2" SOUND BATS STAPLED AT UPPER REGION OF JOIST

CANISTER SOUND CLIPS @ 48" O.C.

RESISTANT SOUND CLIPS @ 48" O.C.

7/8" DRYWALL FLUORING CHANNEL (HEMMED EDGE) @ 24" O.C.

(1) LAYER 5/8" TYPE "X" GWB CEILING

G5 NEW WORK NOTES & BUILDING 22 UNIT MATRIX (TBD)

REFERENCED FROM: SCALE: NTS

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

CWS ARCHITECTURE + INTERIOR DESIGN

264 US ROUTE ONE SUITE 100-2A
SCARBOROUGH, MAINE 04074 207.774.4441
WWW.CWSARCH.COM

OWNER

RIVERTON PARK, LP

PROJECT

RIVERTON PARK
REHABILITATION

DRAWING

FIRST FLOOR
NEW WORK PLAN
BUILDING 22

REVISIONS

NO.	DESCRIPTION	DATE

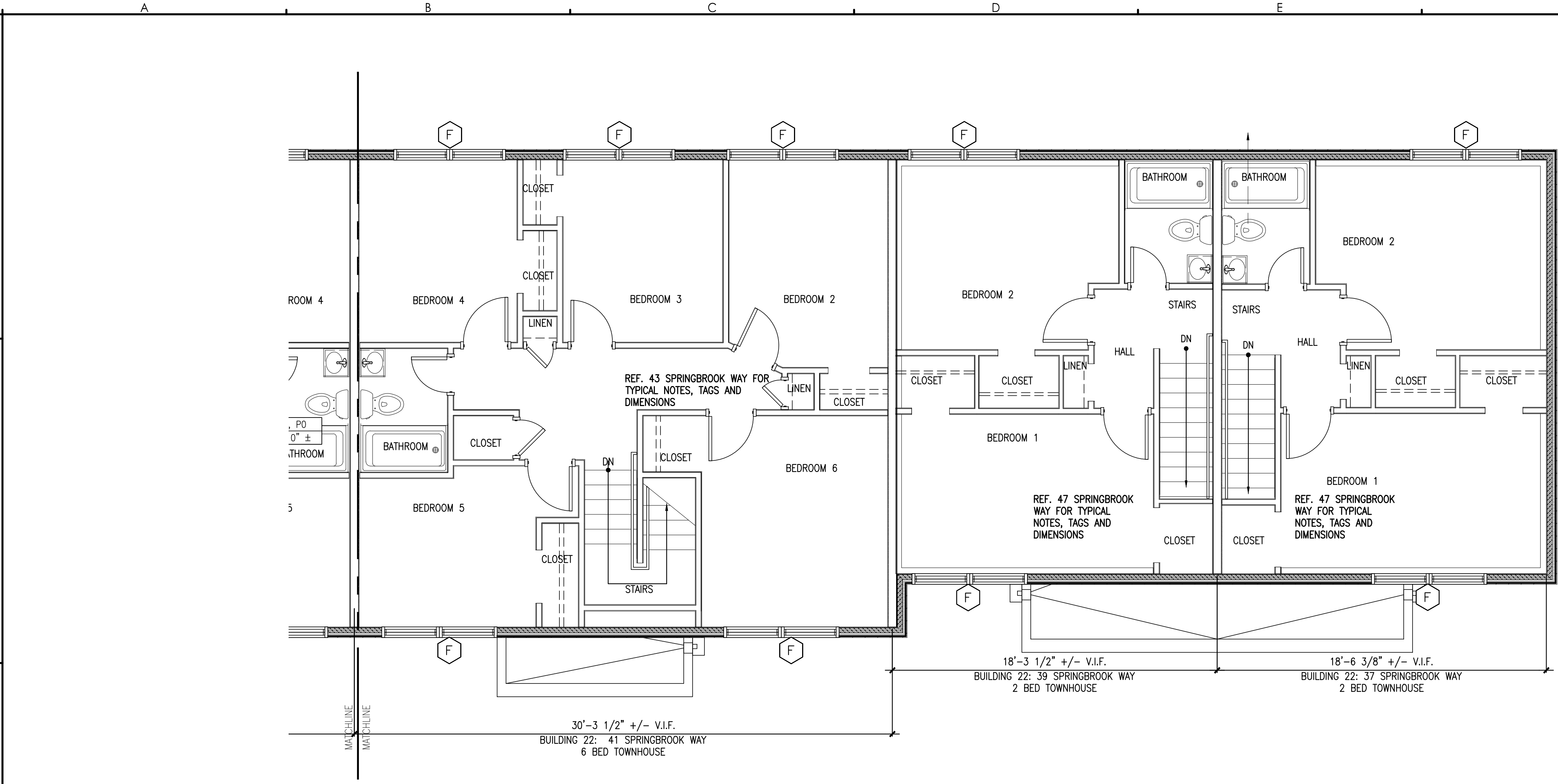
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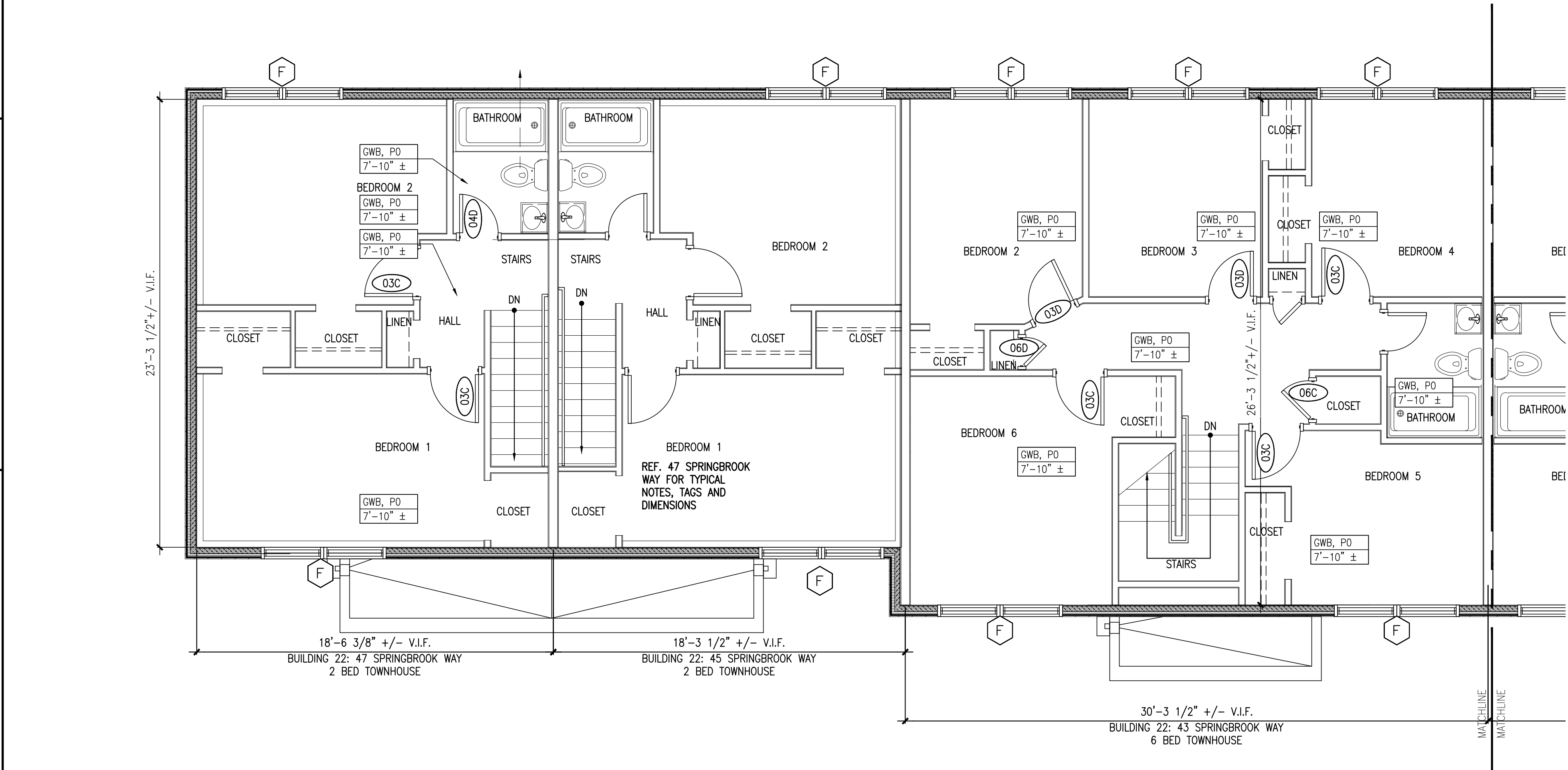
SCALE: AS NOTED

DATE: 12/22/2022

ISSUED FOR: MAJOR SITE PLAN



A3 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"

NEW WORK PLAN NOTES

1. REFERENCE SHEET A7.10 FOR COVERED ENTRY STOOP DETAILS

2. REFERENCE SHEET A7.20 FOR COVERED BIKE STORAGE / ELECTRICAL METER ENCLOSURE DETAILS (ADD ALTERNATE No. 1, NOT CURRENTLY SHOWN ON BUILDING PLANS)

KEYED PLAN NOTES

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②B EXTERIOR STRUCTURAL CONCRETE STOOP AND WOOD-FRAMED DOOR HOOD - REFERENCE A7.11

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EXISTING 1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

INTERIOR NON-RATED WOOD STUD AND GWB PARTITION

1-HOUR FIRE-RATED INTERIOR WOOD STUD AND GWB PARTITION

NEW WORK PLAN LEGEND

TYPICAL FLOOR / CEILING INFILL ASSEMBLY

1-HOUR FIRE-RATED, SIMILAR TO UL DESIGN NO. L519

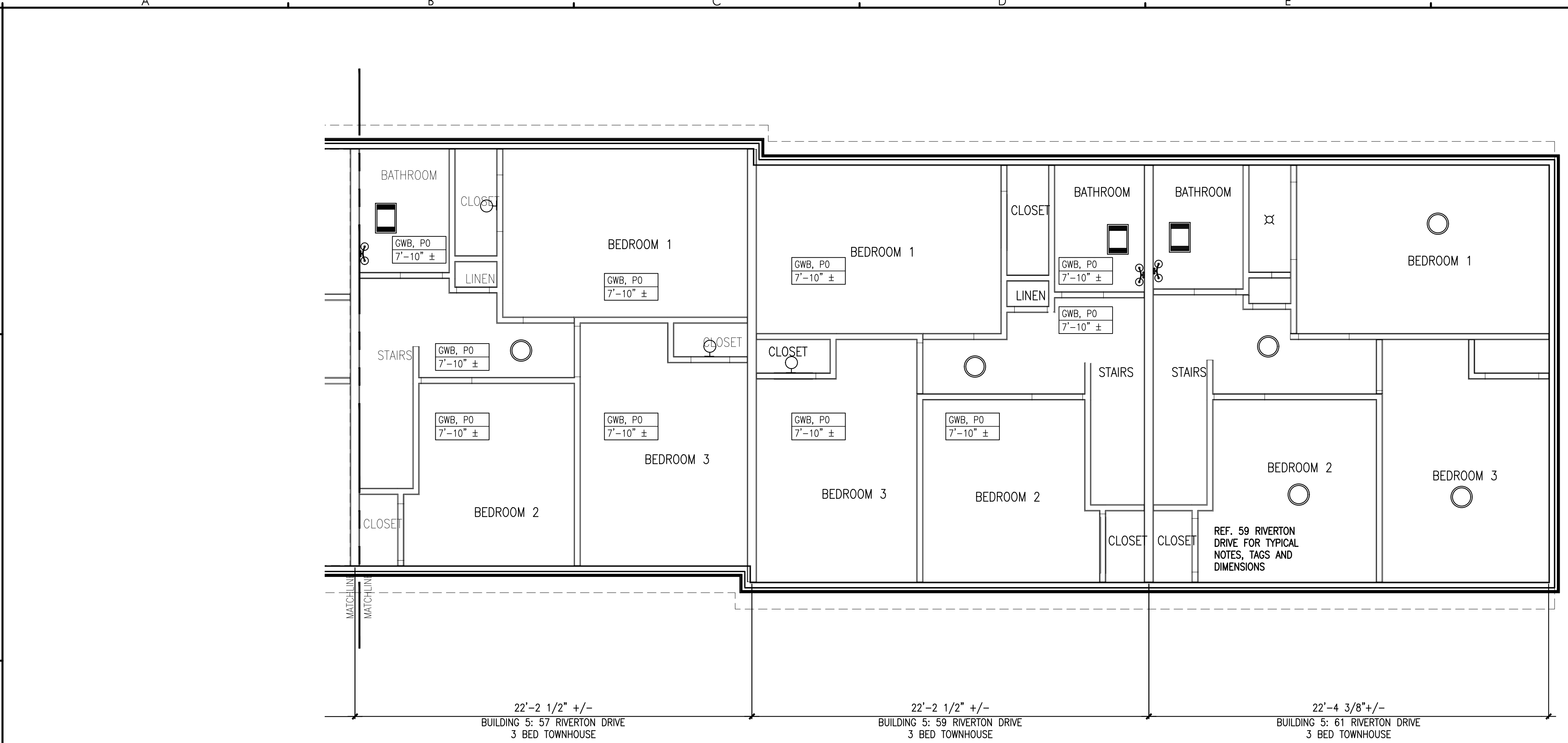
- FINISHED FLOORING MATERIAL AS INDICATED PER SCHEDULE
- 11/32" UNDERLAYMENT, GLUED AND NAILED - REFER TO UNDERLAYMENT NOTES
- 2X JOIST FRAMING - THICKNESS TO MATCH EXISTING
- 3 1/2" SOUND BATS STAPLED AT UPPER REGION OF JOIST
- CANISTER SOUND CLIPS @ 48" O.C.
- 7/8" DRYWALL, FLAME CHANNEL
- (1) LAYER 5/8" TYPE "X" GWB CEILING

1-HOUR FIRE RATED CEILING ASSEMBLY

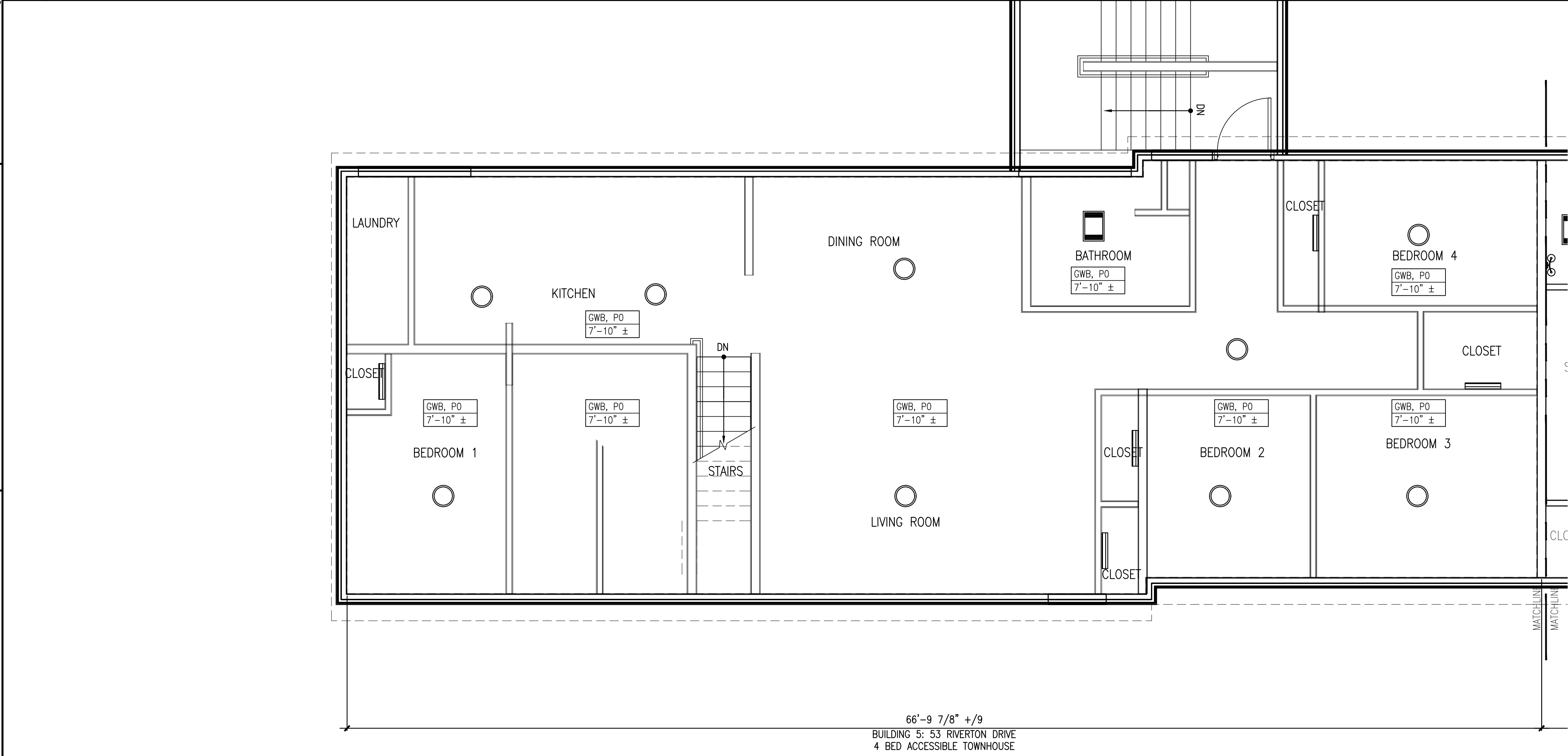
SIMILAR TO UL DESIGN NO. L519

G5 NEW WORK NOTES & BUILDING 22 UNIT MATRIX (TBD)

REFERENCED FROM: SCALE: NTS



A3 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 5 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 5 SCALE: 1/4"=1'-0"

REFLECTED CEILING PLAN NOTES AND LEGEND:

CO

NEW CARBON MONOXIDE DETECTOR

SD CO

NEW CARBON MONOXIDE AND SMOKE DETECTOR

SD

NEW SMOKE DETECTOR

SD

EXISTING SMOKE DETECTOR

F

NEW FIRE ALARM STROBE

F

EXISTING FIRE ALARM STROBE

A

EXISTING ACCESS PANEL

A

NEW ACCESS PANEL

BATHROOM FAN/LIGHT COMBO

O

SURFACE-MOUNTED LIGHT

WALL-MOUNTED STAIRWELL LIGHT

DECORATIVE VANITY LIGHT

CLOSET WALL-MOUNTED LIGHT

EXTERIOR WALL-MOUNTED LIGHT

EXTERIOR RECESSED MOUNTED LIGHT

GWB CEILINGS AND SOFFITS. PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.

BEADED VINYL SOFFIT

VINYL SOFFIT - VENTED, 3 1/3"

NOTES:

1. INTERIOR FIXTURE LEGEND FOR DESIGN INTENT ONLY. COORDINATE WITH ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES AND CIRCUITING. ANY LIGHT FIXTURE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO LIGHT FIXTURE INSTALLATION.

2. MECHANICAL SUBCONTRACTOR TO VERIFY SIZE AND LOCATION OF ANY MECHANICAL REGISTERS WITH ARCHITECT PRIOR TO CONSTRUCTION. LIGHTING LOCATIONS SHALL TAKE PRECEDENCE.

3. REFERENCE FLOOR CEILING ASSEMBLIES FOR FIRE RATED ASSEMBLIES AT NEW RECONFIGURED FLATS.

4. PATCH AND REPAIR EXISTING GWB CEILINGS AS REQUIRED PER NEW LIGHT FIXTURE LOCATIONS.

G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

CWS ARCHITECTURE + INTERIOR DESIGN

264 US ROUTE ONE SUITE 100-2A
SCARBOROUGH, MAINE 04074 207.774.4441
WWW.CWSARCH.COM

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

SECOND FLOOR
REFLECTED CEILING PLAN
BUILDING 5

CWS PROJECT NUMBER: 19013

REVISIONS

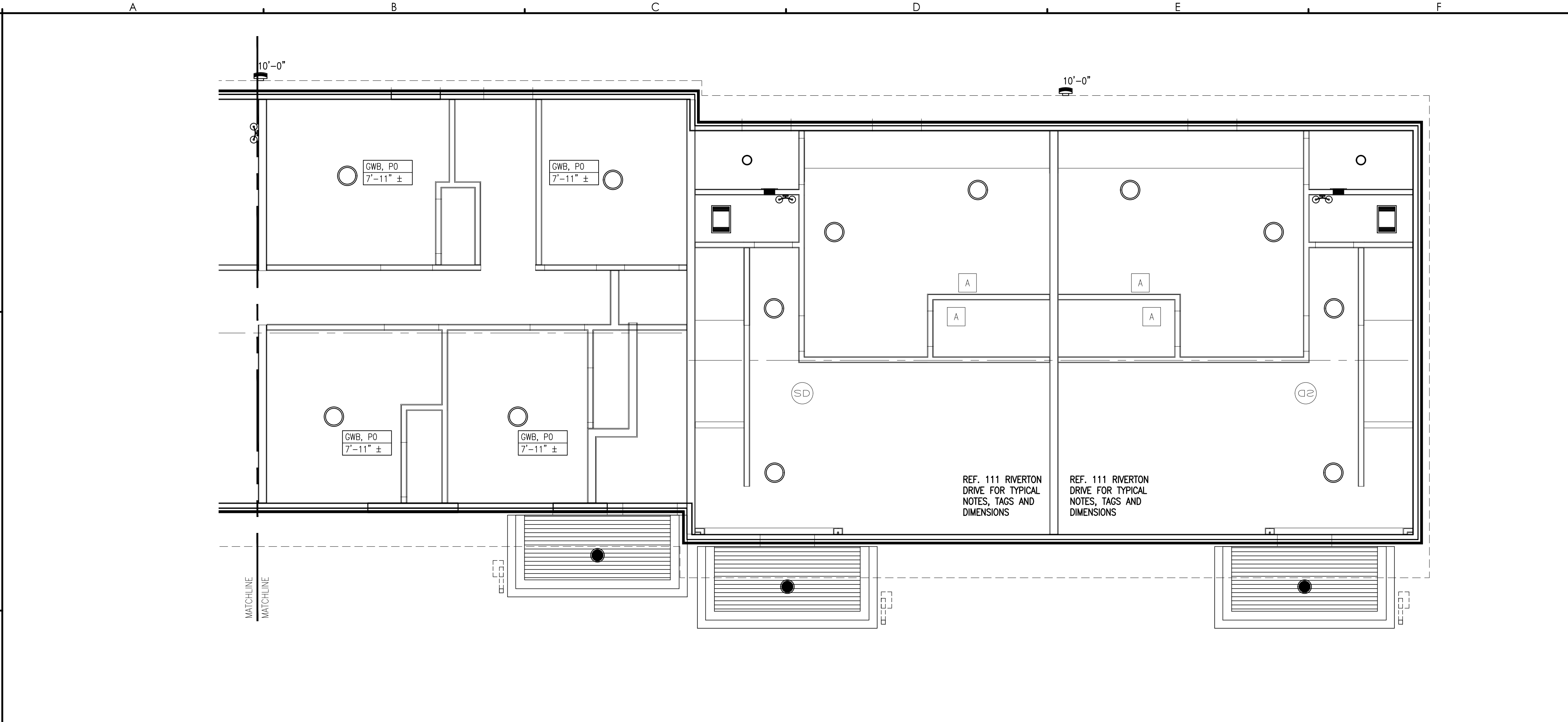
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A2.05.2

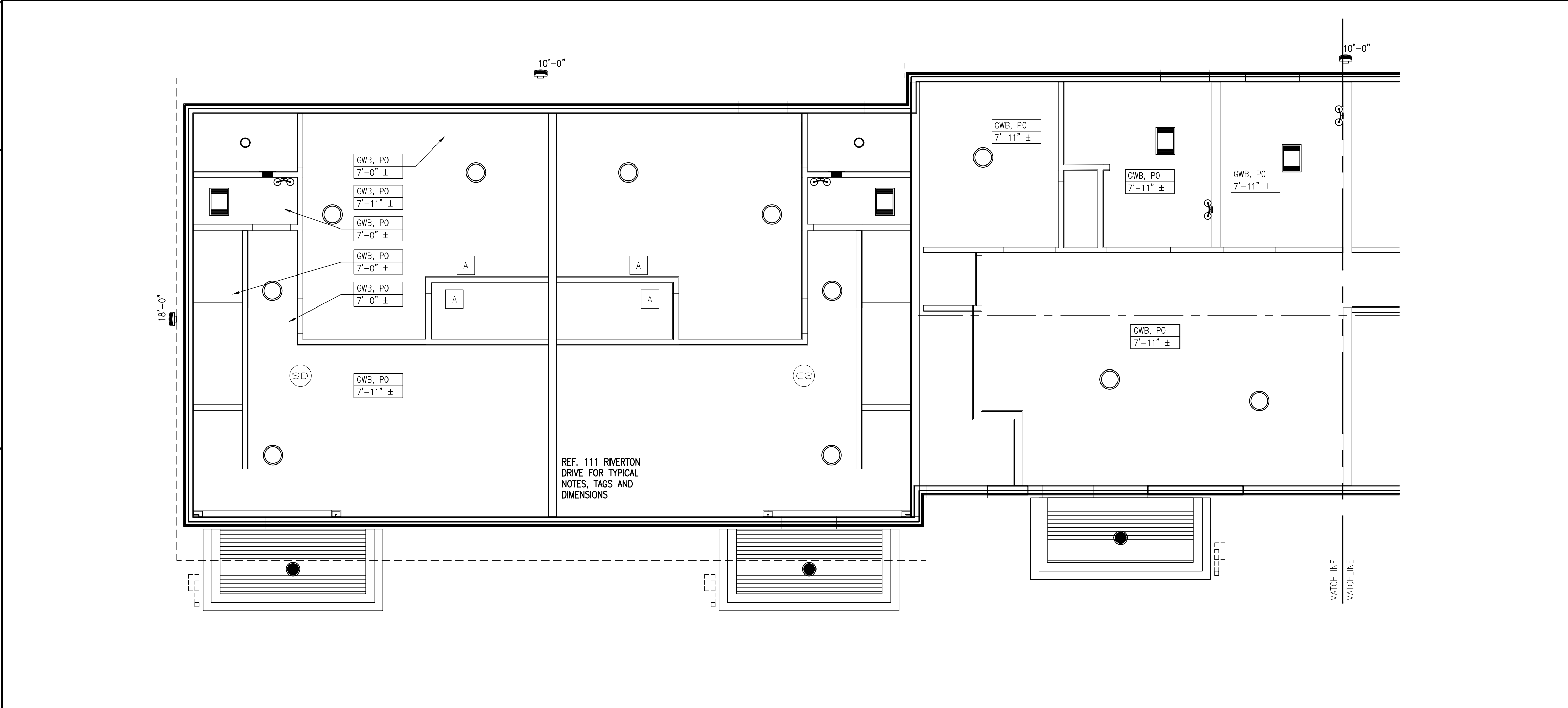
SCALE: AS NOTED
DATE: 12/22/2022

ISSUED FOR: MAJOR SITE PLAN

Page 566



A3 ENLARGED PARTIAL FIRST FLOOR REFLECTED CEILING PLAN
REFERENCED FROM: BUILDING 10 SCALE: 1/4"=1'-0"

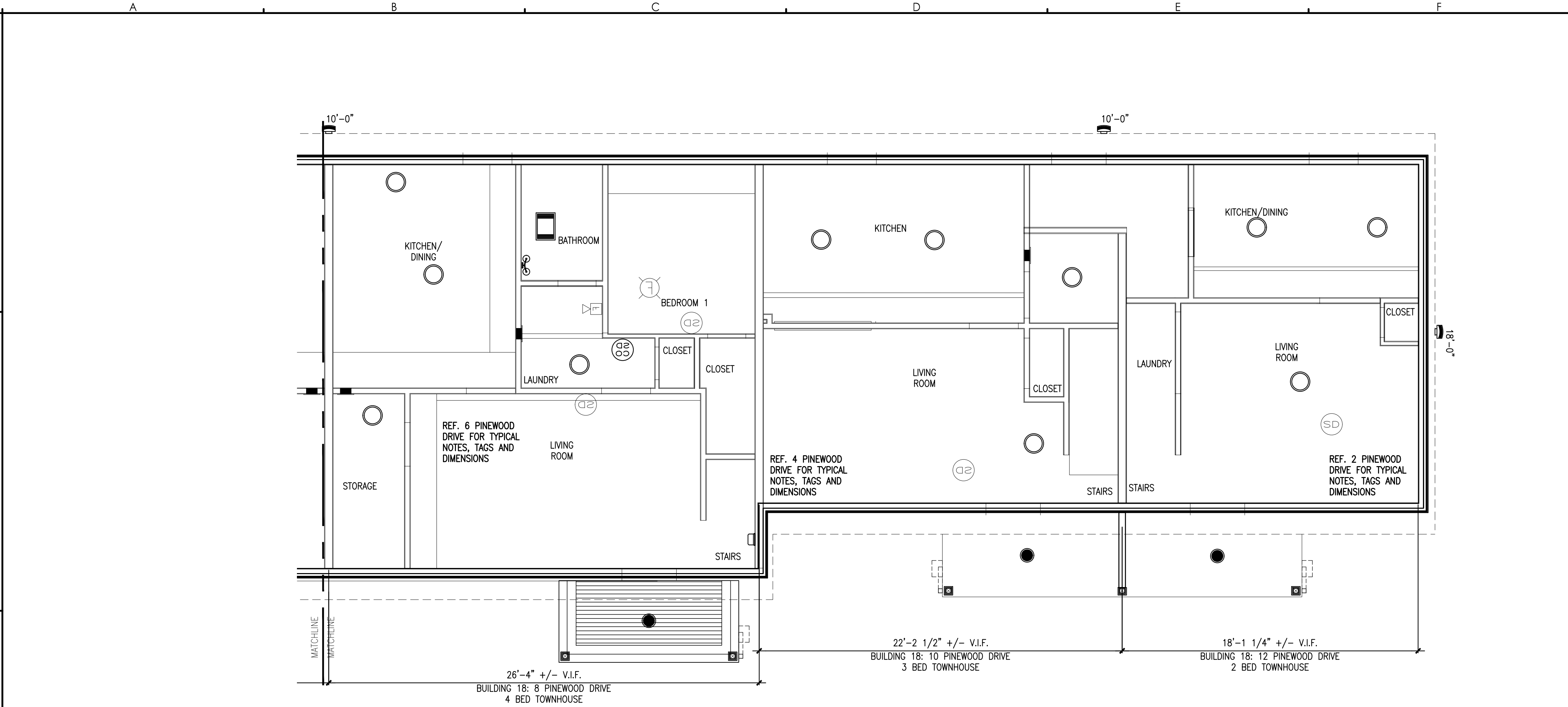


A5 ENLARGED PARTIAL FIRST FLOOR REFLECTED CEILING PLAN
REFERENCED FROM: BUILDING 10 SCALE: 1/4"=1'-0"

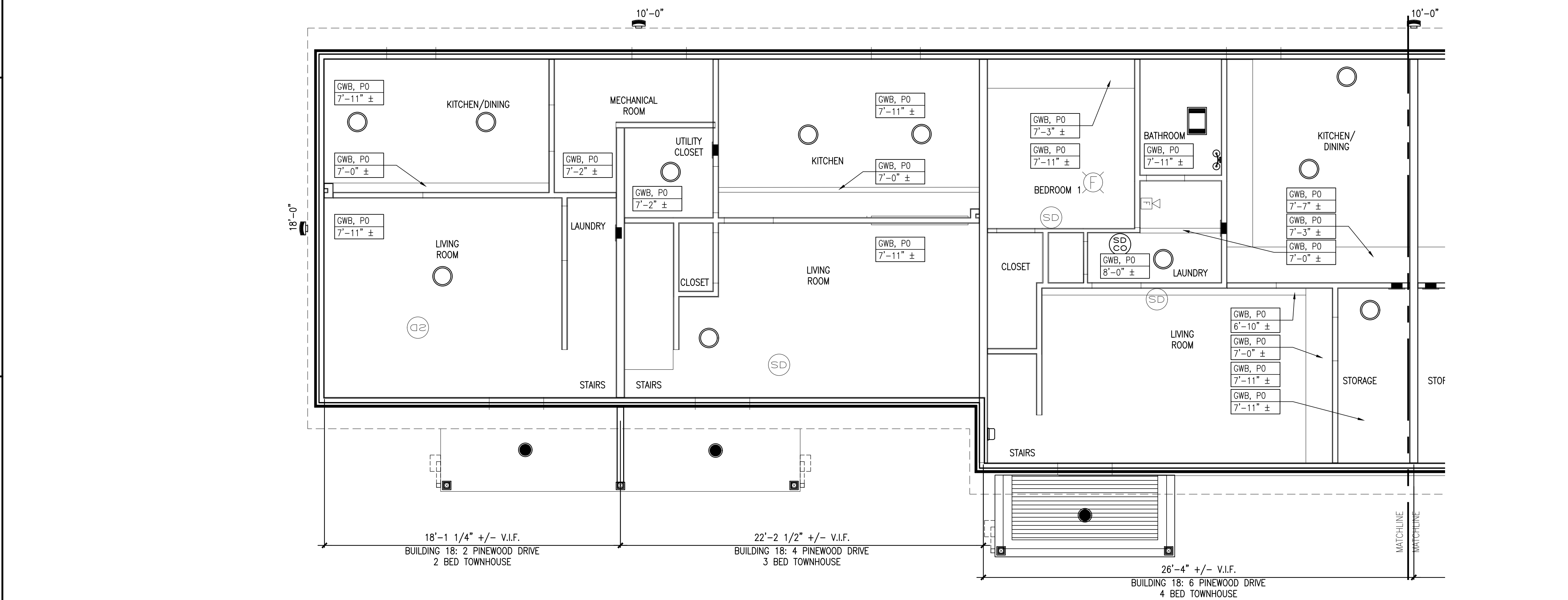
REFLECTED CEILING PLAN NOTES AND LEGEND:	
	NEW CARBON MONOXIDE DETECTOR
	NEW CARBON MONOXIDE AND SMOKE DETECTOR
	NEW SMOKE DETECTOR
	EXISTING SMOKE DETECTOR
	NEW FIRE ALARM STROBE
	EXISTING FIRE ALARM STROBE
	EXISTING ACCESS PANEL
	NEW ACCESS PANEL
	BATHROOM FAN/LIGHT COMBO
	SURFACE-MOUNTED LIGHT
	WALL-MOUNTED STAIRWELL LIGHT
	DECORATIVE VANITY LIGHT
	CLOSET WALL-MOUNTED LIGHT
	EXTERIOR WALL-MOUNTED LIGHT
	EXTERIOR RECESSED MOUNTED LIGHT
	GWB CEILINGS AND SOFFITS, PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.
	BEADED VINYL SOFFIT
	VINYL SOFFIT - VENTED, 3 1/3"

- NOTES:
1. INTERIOR FIXTURE LEGEND FOR DESIGN INTENT ONLY. COORDINATE WITH ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES AND CIRCUITING. ANY LIGHT FIXTURE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO LIGHT FIXTURE INSTALLATION.
 2. MECHANICAL SUBCONTRACTOR TO VERIFY SIZE AND LOCATION OF ANY MECHANICAL REGISTERS WITH ARCHITECT PRIOR TO CONSTRUCTION. LIGHTING LOCATIONS SHALL TAKE PRECEDENCE.
 3. REFERENCE FLOOR CEILING ASSEMBLIES FOR FIRE RATED ASSEMBLIES AT NEW RECONFIGURED FLATS.
 4. PATCH AND REPAIR EXISTING GWB CEILINGS AS REQUIRED PER NEW LIGHT FIXTURE LOCATIONS.

G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"



A3 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 18 SCALE: 1/4"=1'-0"

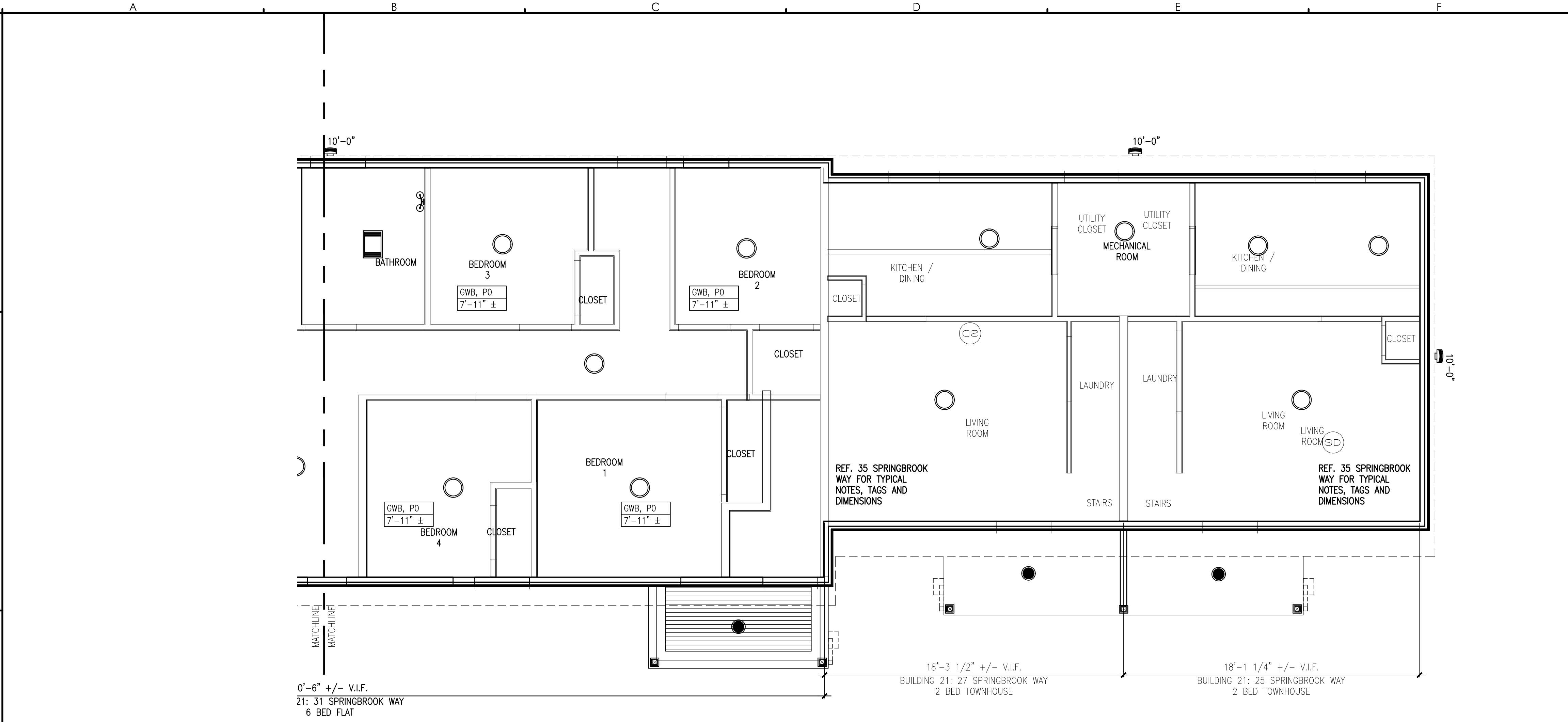


A5 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 18 SCALE: 1/4"=1'-0"

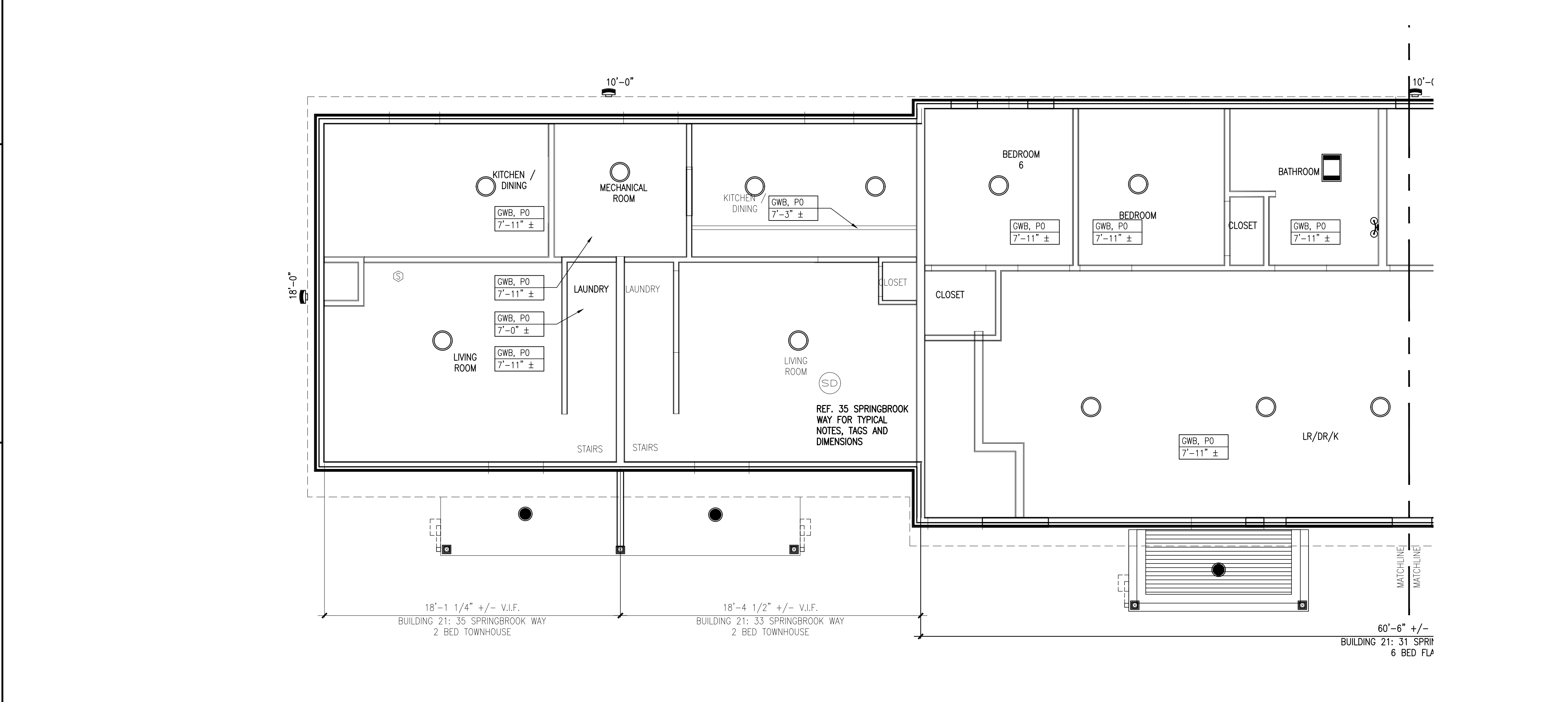
REFLECTED CEILING PLAN NOTES AND LEGEND:	
	NEW CARBON MONOXIDE DETECTOR
	NEW CARBON MONOXIDE AND SMOKE DETECTOR
	NEW SMOKE DETECTOR
	EXISTING SMOKE DETECTOR
	NEW FIRE ALARM STROBE
	EXISTING FIRE ALARM STROBE
	EXISTING ACCESS PANEL
	NEW ACCESS PANEL
	BATHROOM FAN/LIGHT COMBO
	SURFACE-MOUNTED LIGHT
	WALL-MOUNTED STAIRWELL LIGHT
	DECORATIVE VANITY LIGHT
	CLOSET WALL-MOUNTED LIGHT
	EXTERIOR WALL-MOUNTED LIGHT
	EXTERIOR RECESSED MOUNTED LIGHT
	GWB CEILINGS AND SOFFITS, PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.
	BEADED VINYL SOFFIT
	VINYL SOFFIT - VENTED, 3 1/3"

- NOTES:**
- INTERIOR FIXTURE LEGEND FOR DESIGN INTENT ONLY. COORDINATE WITH ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES AND CIRCUITING. ANY LIGHT FIXTURE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO LIGHT FIXTURE INSTALLATION.
 - MECHANICAL SUBCONTRACTOR TO VERIFY SIZE AND LOCATION OF ANY MECHANICAL REGISTERS WITH ARCHITECT PRIOR TO CONSTRUCTION. LIGHTING LOCATIONS SHALL TAKE PRECEDENCE.
 - REFERENCE FLOOR CEILING ASSEMBLIES FOR FIRE RATED ASSEMBLIES AT NEW RECONFIGURED FLATS.
 - PATCH AND REPAIR EXISTING GWB CEILINGS AS REQUIRED PER NEW LIGHT FIXTURE LOCATIONS.

G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"



A3 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 21 SCALE: 1/4"=1'-0"

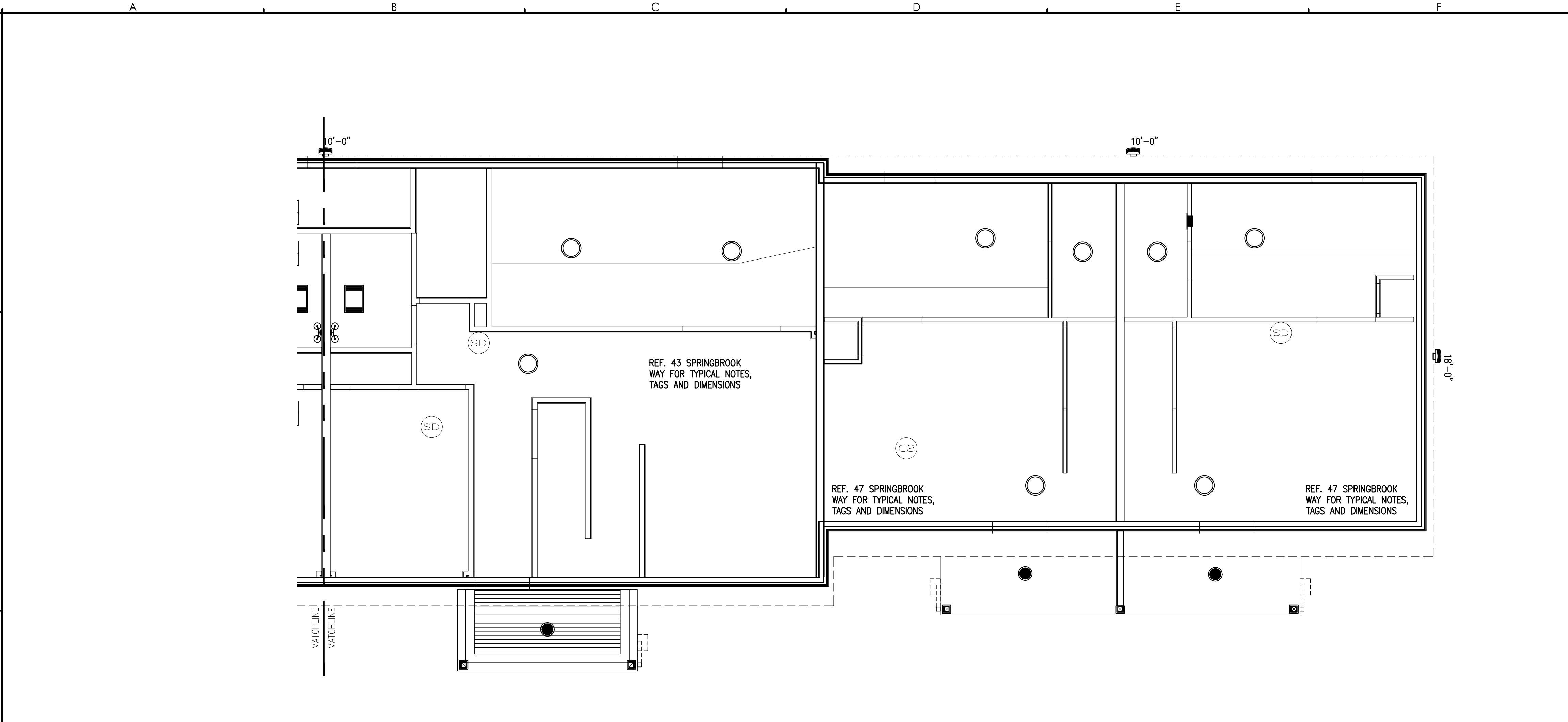


A5 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 21 SCALE: 1/4"=1'-0"

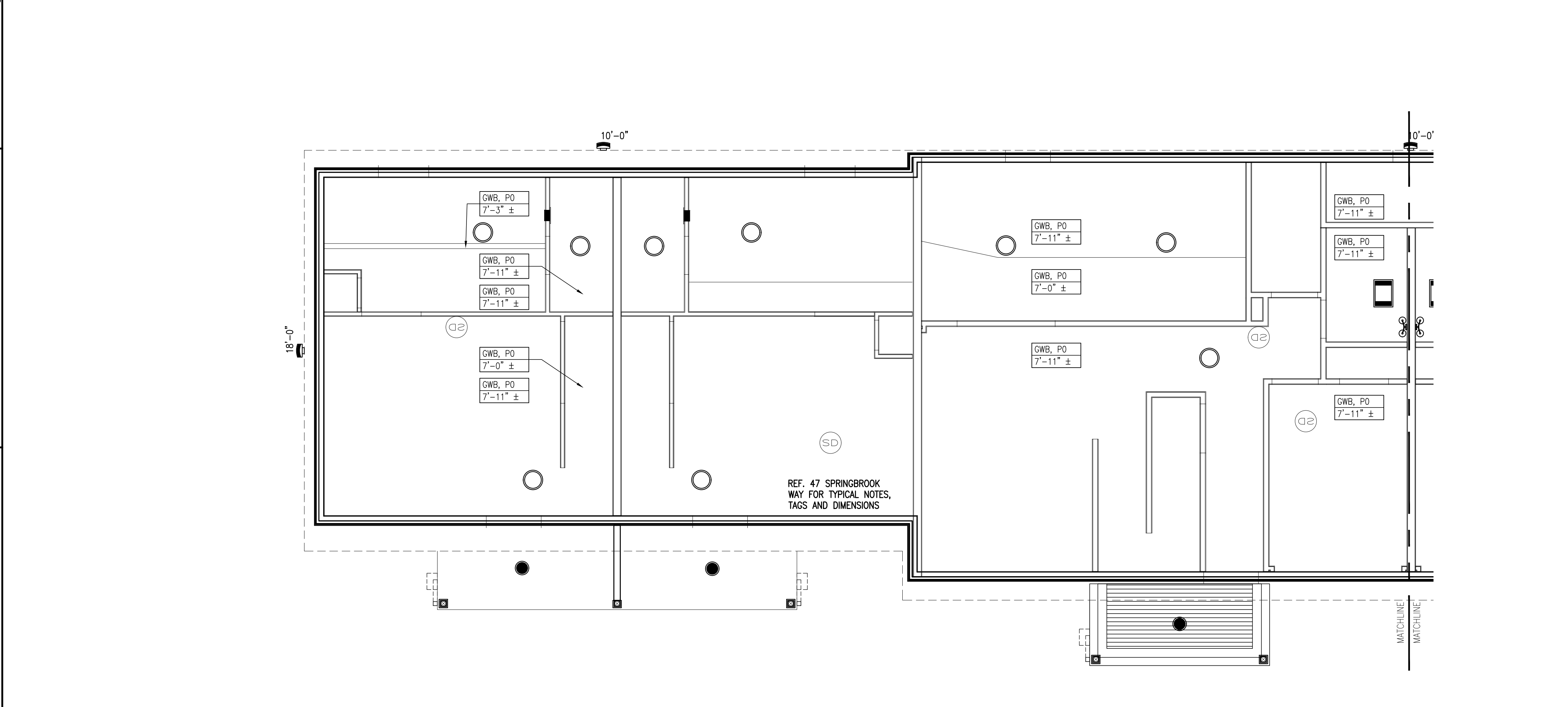
REFLECTED CEILING PLAN NOTES AND LEGEND:	
	NEW CARBON MONOXIDE DETECTOR
	NEW CARBON MONOXIDE AND SMOKE DETECTOR
	NEW SMOKE DETECTOR
	EXISTING SMOKE DETECTOR
	NEW FIRE ALARM STROBE
	EXISTING FIRE ALARM STROBE
	EXISTING ACCESS PANEL
	NEW ACCESS PANEL
	BATHROOM FAN/LIGHT COMBO
	SURFACE-MOUNTED LIGHT
	WALL-MOUNTED STAIRWELL LIGHT
	DECORATIVE VANITY LIGHT
	CLOSET WALL-MOUNTED LIGHT
	EXTERIOR WALL-MOUNTED LIGHT
	EXTERIOR RECESSED MOUNTED LIGHT
	GWB CEILINGS AND SOFFITS. PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.
	BEADED VINYL SOFFIT
	VINYL SOFFIT - VENTED, 3 1/3"

- NOTES:**
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 4. PATCH AND REPAIR EXISTING GWB CEILINGS AS REQUIRED PER NEW LIGHT FIXTURE LOCATIONS.

G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"



A3 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"

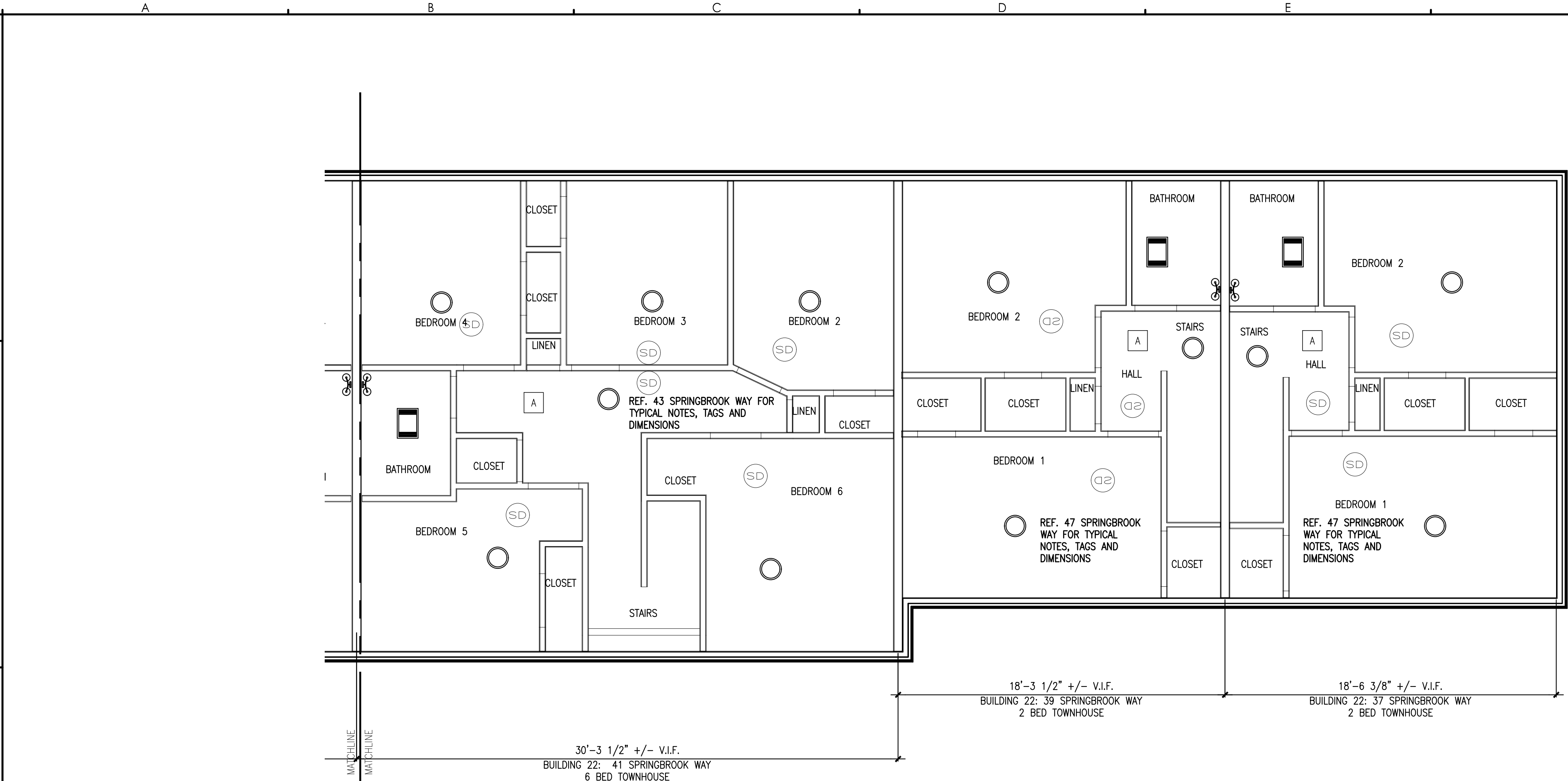


A5 ENLARGED PARTIAL FIRST FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"

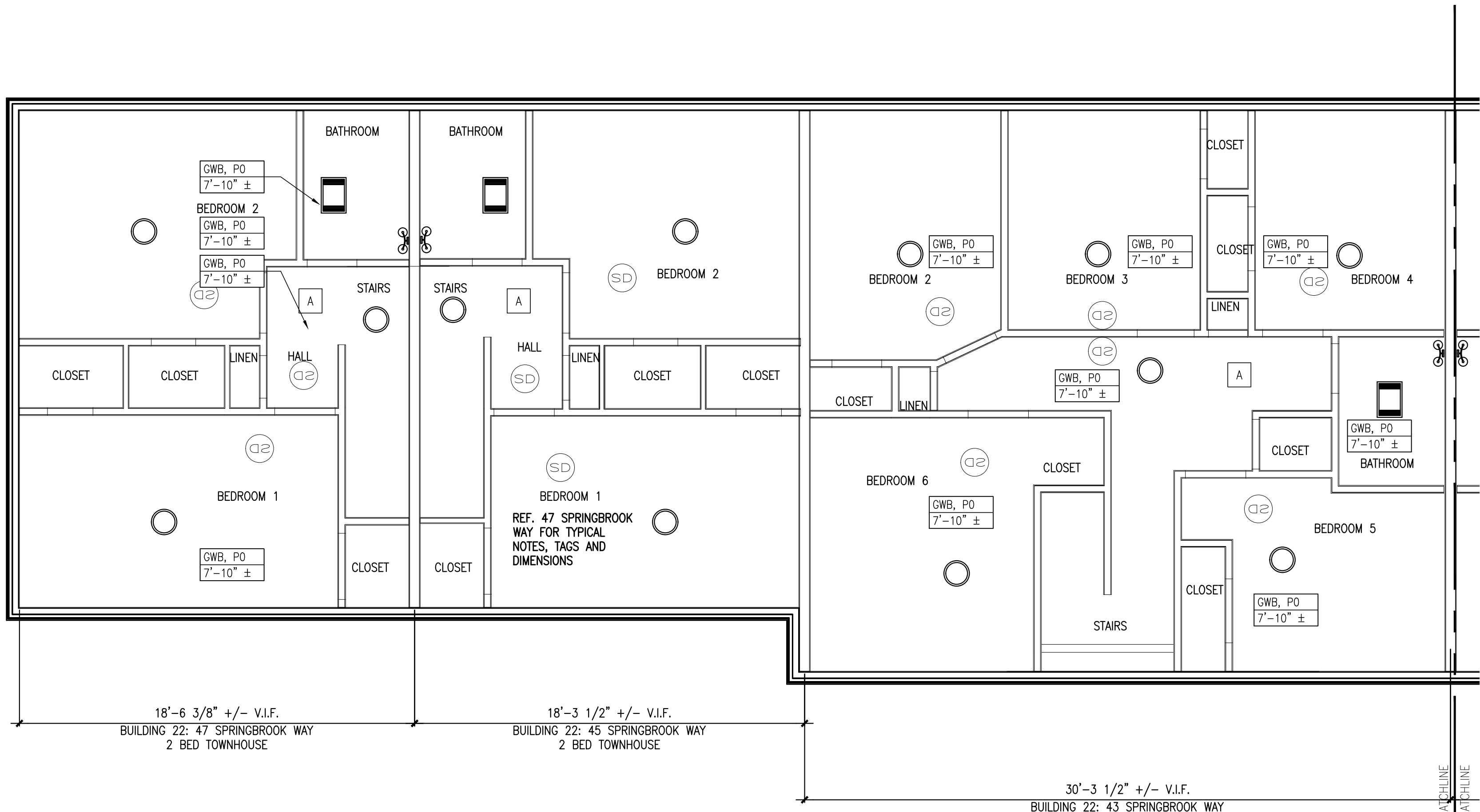
REFLECTED CEILING PLAN NOTES AND LEGEND:	
	NEW CARBON MONOXIDE DETECTOR
	NEW CARBON MONOXIDE AND SMOKE DETECTOR
	NEW SMOKE DETECTOR
	EXISTING SMOKE DETECTOR
	NEW FIRE ALARM STROBE
	EXISTING FIRE ALARM STROBE
	EXISTING ACCESS PANEL
	NEW ACCESS PANEL
	BATHROOM FAN/LIGHT COMBO
	SURFACE-MOUNTED LIGHT
	WALL-MOUNTED STAIRWELL LIGHT
	DECORATIVE VANITY LIGHT
	CLOSET WALL-MOUNTED LIGHT
	EXTERIOR WALL-MOUNTED LIGHT
	EXTERIOR RECESSED MOUNTED LIGHT
	GWB CEILINGS AND SOFFITS. PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.
	BEADED VINYL SOFFIT
	VINYL SOFFIT - VENTED, 3 1/3"

- NOTES:**
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G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"



A3 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"



A5 ENLARGED PARTIAL SECOND FLOOR PLAN
REFERENCED FROM: BUILDING 22 SCALE: 1/4"=1'-0"

REFLECTED CEILING PLAN NOTES AND LEGEND:

- NEW CARBON MONOXIDE DETECTOR
- NEW CARBON MONOXIDE AND SMOKE DETECTOR
- NEW SMOKE DETECTOR
- EXISTING SMOKE DETECTOR
- NEW FIRE ALARM STROBE
- EXISTING FIRE ALARM STROBE
- EXISTING ACCESS PANEL
- NEW ACCESS PANEL
- BATHROOM FAN/LIGHT COMBO
- SURFACE-MOUNTED LIGHT
- WALL-MOUNTED STAIRWELL LIGHT
- DECORATIVE VANITY LIGHT
- CLOSET WALL-MOUNTED LIGHT
- EXTERIOR WALL-MOUNTED LIGHT
- EXTERIOR RECESSED MOUNTED LIGHT
- GWB CEILINGS AND SOFFITS. PATCH AND REPAIR EXISTING GWB CEILINGS TO MATCH EXISTING.
- BEADED VINYL SOFFIT
- VINYL SOFFIT - VENTED, 3 1/3"

NOTES:

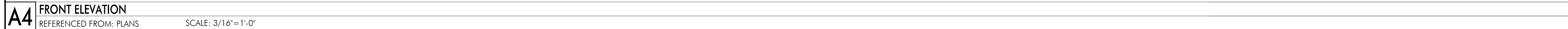
- INTERIOR FIXTURE LEGEND FOR DESIGN INTENT ONLY. COORDINATE WITH ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES AND CIRCUITING. ANY LIGHT FIXTURE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF AND COORDINATED WITH ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO LIGHT FIXTURE INSTALLATION.
- MECHANICAL SUBCONTRACTOR TO VERIFY SIZE AND LOCATION OF ANY MECHANICAL REGISTERS WITH ARCHITECT PRIOR TO CONSTRUCTION. LIGHTING LOCATIONS SHALL TAKE PRECEDENCE.
- REFERENCE FLOOR CEILING ASSEMBLIES FOR FIRE RATED ASSEMBLIES AT NEW RECONFIGURED FLATS.
- PATCH AND REPAIR EXISTING GWB CEILINGS AS REQUIRED PER NEW LIGHT FIXTURE LOCATIONS.

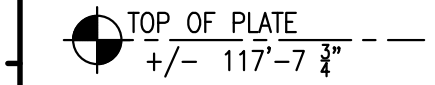
G5 REFLECTED CEILING PLAN NOTES
REFERENCED FROM: SCALE: 1/4"=1'-0"



ERIOR MATERIALS LEGEND

DERIVED FROM: SCALE: N/A





02 SECOND FLOOR
+/- 109'-8 $\frac{3}{4}$ "

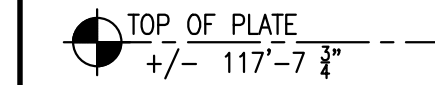
01 - FIRST FLOOR
101'-0"

A2	LEFT SIDE ELEVATION
	REFERENCED FROM: PLANS

SCALE: 3/16"=1'-0"



SCALE: 3/16"=1'-0"

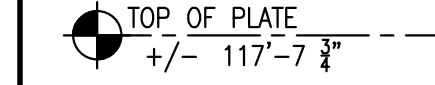


02 SECOND FLOOR
+/- 109'-8 $\frac{3}{4}$ "

01 - FIRST FLOOR
101'-0"

A4 FRONT ELEVATION

SCALE: 3/16"=1'-0"



02-SECOND FLOOR
+/-109'-8 $\frac{3}{4}$ "

01_FIRST FLOOR
101'-0"

A5 REAR BUILDING ELEVATION

SCALE: 3/16"=1'-0"

A

B

C

D

E

F

G

H

1

2

3

4

5



REVISIONS

DRAWING NUMBER

A3.50

SCALE: AS NOTED

DATE: 12/22/2022

DRAWING

EXTERIOR RENDERING

CWS PROJECT NUMBER: 19013

PROJECT

RIVERTON PARK REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

OWNER

RIVERTON PARK, LP

14 BAXTER BLVD
PORTLAND, MAINE 04101

DESIGNER

CWS

ARCHITECTURE +
INTERIOR DESIGN

264 US ROUTE ONE SUITE 100-2A
SCARBOROUGH, MAINE 04074 207.774.4441
WWW.CWSARCH.COM

PLANNING + DESIGN
CONSTRUCTION SERVICES

CWS

ARCHITECTURE +
INTERIOR DESIGN

ISSUED FOR: MAJOR SITE PLAN

Page 578



LOT AREA =
866,594 S.F.
19.89 ACRES

CIRCLE 1 UNIT KEY			
NON-ACCESSIBLE	ACCESSIBLE	BEDROOM	
7	1	0 BEDROOM	
11	2	1 BEDROOM	
12	4	2 BEDROOM	
15	7	3 BEDROOM	
45	14	TOTAL	

REHAB UNIT KEY			
NON-ACCESSIBLE	ACCESSIBLE	BEDROOM	
20	0	2 BEDROOM	
47	0	3 BEDROOM	
28	2	4 BEDROOM	
18	2	5 BEDROOM	
4	2	6 BEDROOM	
117	6	TOTAL	

SITE UNIT KEY			
NON-ACCESSIBLE	ACCESSIBLE	TOTAL	AREA
45	14	59	BUILDING 1
117	6	123	REHAB
162	20	182	TOTAL

CWS ARCHITECTURE + INTERIOR DESIGN

PLANNING + DESIGN
CONSTRUCTION SERVICES

DESIGNER

CWS ARCHITECTURE + INTERIOR DESIGN

264 US ROUTE ONE SUITE 100-2A
SCARBOROUGH, MAINE 04074 207.774.4441
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OWNER

RIVERTON PARK, LP

14 BAXTER BLVD
PORTLAND, MAINE 04101

PROJECT

RIVERTON PARK
REHABILITATION

2 RIVERTON DRIVE
PORTLAND, MAINE 04103

DRAWING

UNIT LOCATIONS SITE
PLAN

CWS PROJECT NUMBER: 19013

REVISIONS

MSHA PRE-APP UPDATE	07/01/2022				
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DRAWING NUMBER
G1.00

SCALE: NA
DATE: 12/22/2022

ISSUED FOR: MAJOR SITE PLAN