

1. Legal Ad

Documents: [PB LEGAL AD 6-14-16.PDF](#)

2. Agenda

Documents: [PB AGENDA 6-14-16 \(UPDATED 6-14\).PDF](#)

3. 772 Stevens Avenue

3.I. Report And Attachments

Documents: [STEVENS AVE. - 772 \(REPORT AND ATTACHMENT\).PDF](#)

3.II. Applicants Submittal

Documents: [STEVENS AVE. - 772 \(APPLICANTS SUBMITTAL\).PDF](#)

3.III. Plans

Documents: [STEVENS AVE. - 772 \(PLANS\).PDF](#)

4. 360 Spring Street

4.I. Report

Documents: [SPRING ST. - 360 \(REPORT\).PDF](#)

4.II. Report Attachments

Documents: [SPRING ST. - 360 \(REPORT ATTACHMENTS\).PDF](#)

4.III. Applicants Submittal

Documents: [SPRING ST. - 360 \(APPLICANTS SUBMITTAL\).PDF](#)

4.IV. Public Comment

Documents: [SPRING ST. - 360 \(PUBLIC COMMENT\).PDF](#)

4.V. Plans

Documents: [SPRING ST. - 360 \(PLANS\).PDF](#)

5. 605 Stevens Avenue

5.I. Report

Documents: [STEVENS AVE. - 605 \(REPORT\).PDF](#)

5.I.i. Addendum Memo

Documents: [ADDENDUM MEMO TO PB RPT 6.13.2016.PDF](#)

5.II. Report Attachments

Documents: [STEVENS AVE. - 605 \(REPORT ATTACHMENTS\).PDF](#)

5.III. Public Comments

Documents: [STEVENS AVE. - 605 \(PUBLIC COMMENTS\).PDF](#)

5.III.i. Additional Public Comment

Documents: [STEVENS AVE. - 605 \(ADDITIONAL PUBLIC COMMENT\).PDF](#)

5.IV. Applicants Submittal

Documents: [STEVENS AVE. - 605 \(APPLICANTS SUBMITTAL - A-H\).PDF](#)

5.V. Plans

Documents: [STEVENS AVE. - 605 \(PLANS\).PDF](#)

5.VI. Exhibit B Architectural Info.

Documents: [STEVENS AVE. - 605 \(EXHIBIT B ARCHITECTURAL INFO.\).PDF](#)

5.VII. Exhibit B Architectural Info. 2

Documents: [EXH. B-16 MASSING REL BAXTER WOODS.PDF](#)

6. Waterfront Marketplace At Ocean Gateway

6.I. Report And Attachments

Documents: [COMMERCIAL ST. MARKET PLACE \(REPORT AND ATTACHMENTS\).PDF](#)

LEGAL ADVERTISEMENT PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on Tuesday, June 14, 2016, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken at this meeting.**

There is no Workshop portion of this meeting

Public Hearing – 6:00 p.m.

- i. Master Development Plan; 605 Stevens Avenue; Seacoast at Baxter Woods Associates, LLC., Applicant. (estimated time 6:00 -7:00 p.m.) The Planning Board will hold a public hearing on a proposed master development plan which presents four phases of development with a total of 249 units of senior housing, including the Planning Board approval of the conversion of the former Motherhouse convent into 88 units. The additional 161 units are proposed in 5 new four- and five-story buildings. The site is located in the R-5 and R-5A zones.
- ii. Conditional Use Application for expansion into Stevens Avenue Armory; 772 Stevens Avenue; University of New England (UNE), Applicant. (estimated time 7:00-8:00) The Planning Board will hold a public hearing for the conditional use application for the expansion and renovation of the front portion of the former Stevens Avenue Armory for the University educational programming. The proposed renovation and uses include offices, classrooms, a simulation center, a large meeting space, and study rooms. The proposed use of the Armory triggers a conditional use review of an institutional expansion in the R-5 zone.
- iii. Level III Site Plan Application; Campus Upgrades; 360 Spring Street; Waynflete School, Applicant. (estimated time 8:00-9:00) The Planning Board will hold a public hearing on the proposed demolition of the current gymnasium, construction of a new gymnasium, the renovation and expansion of the Lower School, and the development of playgrounds, gardens and associated site features. The site is located in the R-4 zone with the Waynflete School Overlay Zone and the West End Historic District.
- iv. Waterfront Marketplace at Ocean Gateway; Thames Street (between Maine State Pier and the Ocean Gateway Terminal, City of Portland, Applicant. (estimated time 9:00-9:30) The Planning Board will hold a public hearing to review a conditional use application from the city's Department of Parks, Recreation, and Facilities and the Economic Development Department for the Waterfront Marketplace at Ocean Gateway. The marketplace would consist of both fixed market stalls and street artist tables and would occupy property held by the city south of Thames Street between the Maine State Pier and the Ocean Gateway Terminal. The marketplace would function as a conditional retail passenger support service use in the Eastern Waterfront Port Zone.

ELIZABETH BOEPPLE, CHAIR - PORTLAND PLANNING BOARD

CITY OF PORTLAND, MAINE

PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Kristien Nichols
Maggie Stanley
Lisa Whited

PLEASE NOTE: THE ORDER OF THE PUBLIC HEARING ITEMS HAS CHANGED

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on Tuesday, June 14, 2016, Council Chambers, 2nd Floor, City Hall, 389 Congress Street. **Public comments will be taken at the public hearing.**

There is no Workshop portion of this meeting

PUBLIC HEARING – 6:00 p.m.

- 1. ROLL CALL AND DECLARATION OF QUORUM**
- 2. COMMUNICATIONS AND REPORTS**
- 3. REPORT OF ATTENDANCE AT THE FOLLOWING MEETING HELD ON MAY 24, 2016:**

Workshop: Dundon, Eaton, Morrisette, Nichols, Stanley and Whited present. Boepple absent.

Public Hearing: Dundon, Eaton, Morrisette, Nichols, Stanley and Whited present. Boepple absent.

4. REPORT OF DECISIONS AT THE MEETING HELD ON MAY 24, 2016:

- i. Subdivision Review and Conditional Use Review for Ensuring Affordable Housing; 62 India Street; India/Newbury Residences, LLC., Applicant. Morrisette moved and Nichols seconded a motion to waive the driveway width technical standard to allow a narrower access as shown on the plan and to waive the street tree planting requirement to allow a \$3,200 contribution for 16 trees. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the subdivision plan with six conditions of approval. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the inclusionary zoning conditional use application with one condition of approval. Vote: 6-0, Boepple absent.
- ii. Level III Site Plan, AC Hotel, 158 Fore Street, Ara Aftandilian of Portland Norwich Group, Applicant. Morrisette moved and Nichols seconded a motion to waive the technical standard for driveway separation from the intersection from 150 feet to allow 120 feet. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the Traffic Movement Permit. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the site plan with 12 conditions of approval. Vote: 6-0, Boepple absent.

- iii. Level III Site Plan; 121 Center Street; Tedlum Associates, LLC, and the Asylum, Inc., Applicants. Morrisette moved and Nichols seconded a motion to waive the street tree requirement along Center Street to allow the installation of a street tree approved by Jeff Tarling, City Arborist. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the traffic movement permit with one condition of approval. Vote: 6-0, Boepple absent. Morrisette moved and Nichols seconded a motion to approve the site plan with 10 conditions of approval. Vote: 6-0, Boepple absent.
- iv. Text Amendment Food Trucks, City of Portland, Applicant Morrisette moved and Nichols seconded a motion to recommend adoption of the proposed amendments to the land use code regarding food trucks. Vote: 6-0, Boepple absent.

6. NEW BUSINESS

- i. Conditional Use Application for expansion into Stevens Avenue Armory; 772 Stevens Avenue; University of New England (UNE), Applicant. (estimated time 7:00-8:00) The Planning Board will hold a public hearing for the conditional use application for the expansion and renovation of the front portion of the former Stevens Avenue Armory for the University educational programming. The proposed renovation and uses include offices, classrooms, a simulation center, a large meeting space, and study rooms. The proposed use of the Armory triggers a conditional use review of an institutional expansion in the R-5 zone.
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- iii. Master Development Plan; 605 Stevens Avenue; Seacoast at Baxter Woods Associates, LLC., Applicant. (estimated time 6:00 -7:00 p.m.) The Planning Board will hold a public hearing on a proposed master development plan which presents four phases of development with a total of 249 units of senior housing, including the Planning Board approval of the conversion of the former Motherhouse convent into 88 units. The additional 161 units are proposed in 5 new four- and five- story buildings. The site is located in the R-5 and R-5A zones.
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PORTLAND PLANNING BOARD

PLANNING BOARD REPORT PORTLAND, MAINE



University of New England
772 Stevens Avenue
Conditional Use
2016-111
University of New England, Applicant

Submitted to: Portland Planning Board: Public Hearing Date: June 14, 2016	Prepared by: Shukria Wiar, Planner Date: June 10, 2016
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I. INTRODUCTION

The University of New England (UNE) has requested a Level III conditional use review and approval to convert the former armory on Stevens Avenue to office spaces, classrooms, and a simulation center for the University. The site is zoned Residential R-5. The University is proposing to relocate offices and classroom spaces for existing programs from the main campus to the former armory property. There are also minor changes proposed to the exterior of the structures and to the site. The proposed institutional use and associated works will be reviewed by the Planning Board as a Conditional Use in the R-5 zone for conformance with the Land Use Code Section 14-118 (R-5 Conditional Uses) and 14-474 (Conditional Uses). There is also a Level II application associated with the conversion, which will be reviewed by the Planning Authority (staff).

Applicant Name	Alan Thibeault of University of New England
Agent Representative	Tom Saucier of Site Design Associates

II. REQUIRED REVIEWS

<i>Applicant's Proposal</i>	<i>Applicable Standards</i>
Armory to Offices and Classroom Spaces	Level II Site Plan (To be reviewed by the Planning Authority)
Institutional Use	Level III Conditional Use in the R-5 zone (§14-118)

III. SUMMARY OF FINDINGS:

Total Land Area of Main Campus:

14 acres on main campus; 19 acres for the Pike Industrial parcel

Zone:

R-5 Residential

Existing Use:

Institutional, Armory

Proposed Use:

Institutional, University

Lot Size:

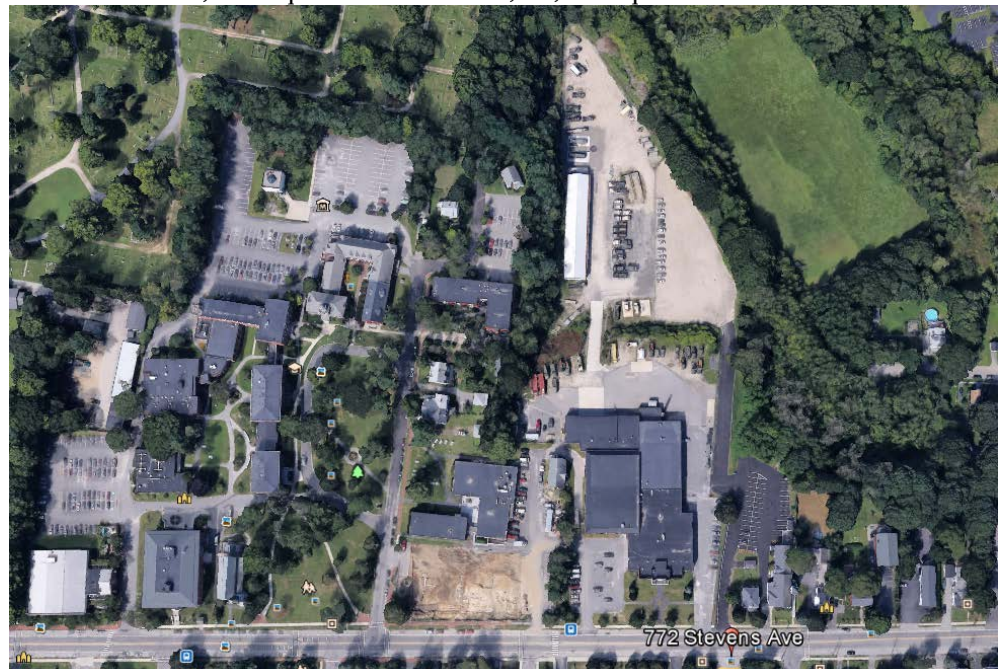
8.60 Acres

Building Area:

53,954 square foot for UNE; 12,500 sq ft for MEARNG

IV. SITE DESCRIPTION:

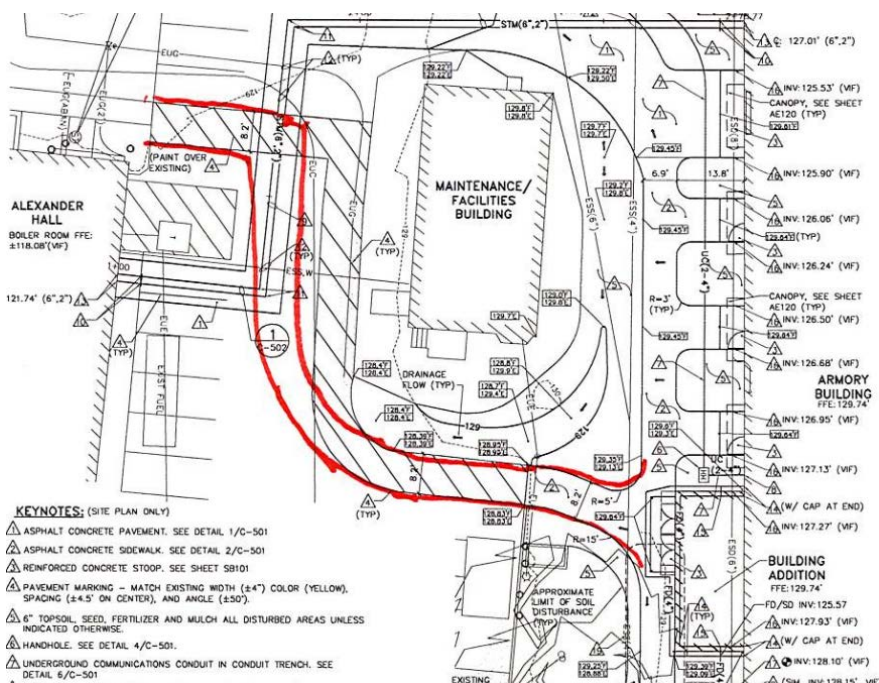
The University of New England campus is located at 716 Stevens Avenue on approximately 50 acres site. The former Stevens Avenue Armory is located just north of the campus. The University bought the Armory in June of 2015. The main campus site is abutted to the north by the Armory, to the south by College Street and University property, to the east by Stevens Avenue, and to the West by existing UNE



structures. The Armory property is abutted to a church on the north and is not within 100 feet of the Westbrook College Historic District.

V. PROPOSED DEVELOPMENT

The applicant proposes to utilize the former armory as office and classroom spaces, and a simulation center. The renovated facility will also contain meeting spaces, study rooms, as well as the traditional support area including restrooms, locker areas, kitchen, mechanical spaces and storage area. The University will have site and façade improvements as well. The main entrance and the entrance to the north will be improved. The south entrance will have a building addition, a stairs tower, to meet Life Safety requirements. As part of the site improvements, the University is adding walkways on the site to the parking lots and the main campus; walkways will be from the rear parking lot on the site to the side entrance to the building, as well as from the new building addition entrance on the south side of the building to the main campus. By adding the latter walkway, there will be five parking spaces that will be displaced from the OHC parking lot on the main campus. See diagram below:



The facility will be used by the existing campus community and not intended to serve new programs. According to the applicant, “[t]he offices will accommodate the University's current and expanding on-line academic offerings. These on-line programs do not require students to attend the campus, thus there will be no increase in the student population associated with this renovation”.

The building will operate similar to the other facilities on campus, opening at 7am and closing at 11pm, with a concentrated occupancy between 8am and 7pm. The study rooms will most likely be available to students after hours via card access.

Parking on Site

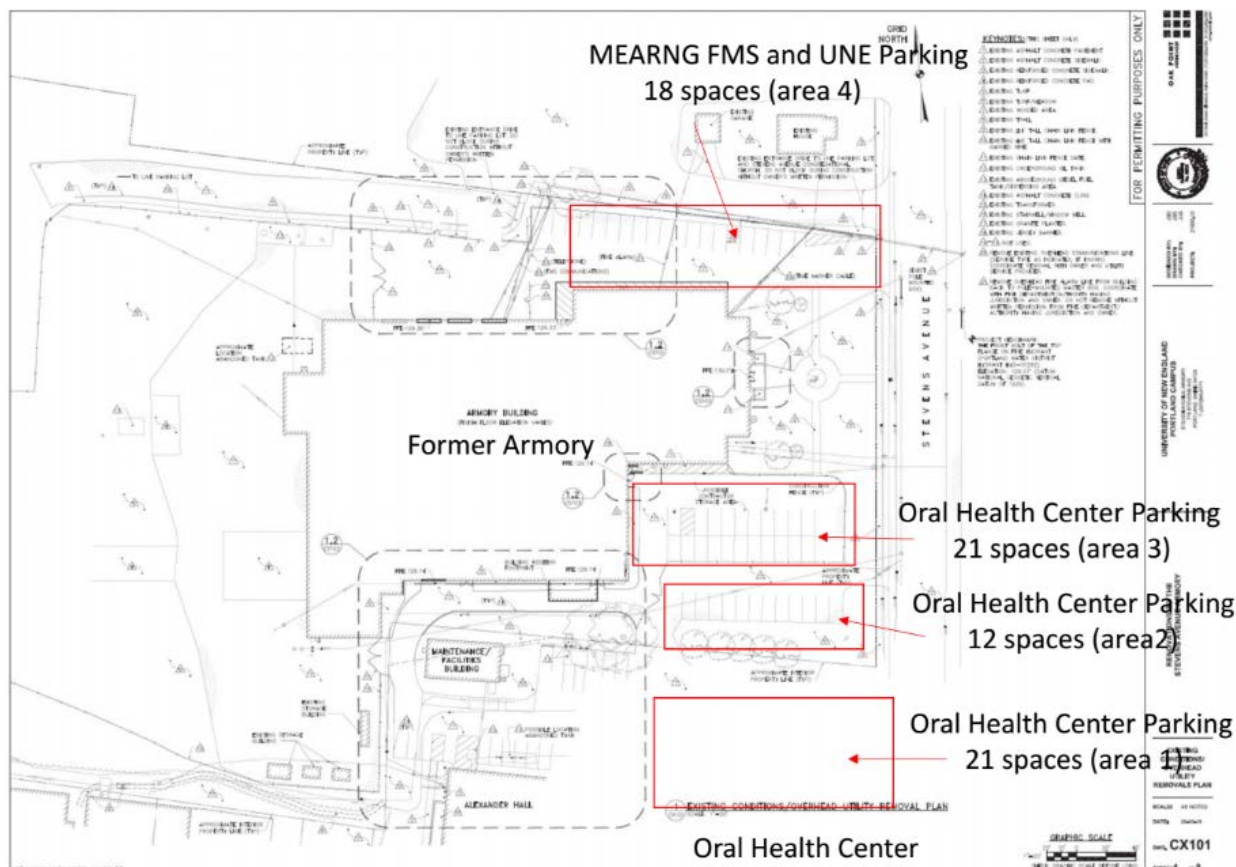
The new renovated facility will result in approximately thirty-eight (38) new employees. The parking for these additional new employees will be at the Bishop Street Parking Lot. According to the applicant, there are 160 spaces still available at the lot.

The parking lots along Stevens Avenue on the site will also be improved. As part of the approval for the Oral Health Center (OHC) in 2012, the University leased the twelve (12) parking spaces along the property line on the armory site. These spaces were allocated to the OHC patients. With the purchase of the Armory, the remaining twenty-one (21) spaces in this former Armory lot will also be designated to patient parking, resulting in more than adequate capacity for the OHC. Since there five parking spaces being lost to the proposed walkway on the south side entrance, the net gain is sixteen (16) spaces in total for OHC patients.

The Maine Army National Guard (MEARNG) will continue to occupy the rear portion of the building, approximately 12,500 square feet, and will not be renovated. This MEARNG will be to continue to service the southern Maine regional armories fleets of vehicles. The MEARNG will have about twelve (12) employees and the University has dedicated parking spaces for their personnel vehicles; of the approximately eighteen (18)

existing spaces northerly of the armory, twelve will be utilized by the guard. The MEARNG also utilizes half of the rear of the site for the storage of vehicles for their operation; this is a secured area that is fenced in. The hours of operation are from 7:00 AM-3:30 PM, Monday through Friday.

Based on the information above, the University will have a net increase in parking supply of twenty (22) spaces as part of this renovation. The diagram below shows that parking in relation to this project, please refer to Attachment K for the full report:



VI. BACKGROUND OF PLANNING BOARD REVIEW AND APPROVALS:

The following provides a summary of Planning Board reviews of the Westbrook College Campus from 2001 to today.

2001 Planning Authority

In 2001, UNE requested modifications to an approved site plans. The revision includes the redesign of parking areas around the art gallery to the rear of the campus.

2008 Planning Board Review

In 2008, UNE requested to establish a new College of Pharmacy on its Westbrook College Campus on Stevens Avenue. The program is a professional six-year degree program with years one and two on the University Campus in Biddeford and years three, four and five on the Westbrook College Campus. The sixth year is off-site. The program accommodated 100 students per class with approximately 40 full time faculty members. The establishment of the pharmacy program brought 300 additional students (100 students per year over a three year period) and faculty to the Westbrook College Campus. According to the Planning Board report, the proposal generated considerable public interest.

2012 Planning Board Review

In 2012, UNE requested to establish the College of Dental Medicine, also on its Westbrook College Campus on Stevens Avenue. The program is a professional four-year degree program with years one through three on the Westbrook College Campus and year four will be out on rotations in other parts of the State. The program accommodated forty-six (46) students per class per year for a total of 138 additional students and faculty. The proposal included two parking lots, one adjacent to the proposed Patient Care Center and the other was the remote lot at the end of Bishop Street, in order to address a projected growth in the student population. The student population was expected to grow annually from 818 students enrolled for the 2011-12 academic year to 1,189 in 2016-17.

2015 Planning Authority

In 2015, Planning Authority approved a Level I Site Alteration application for the Alumni Hall Renovation in its Westbrook College Campus. The project involves renovations to the existing Alumni Hall and Annex and associated site work.

VII. STAFF REVIEW

This project is subject to conditional use and site plan review. Staff review includes the following subsections:

1. ZONING, RIGHT TITLE AND INTEREST, AND NEIGHBORHOOD MEETING

A. Zoning

CONDITIONAL USE REVIEW

Because this project is considered an institutional expansion in the R-5 zone, it is subject to the conditional use standards of Sections 14-118 and 14-474. The applicant has submitted an analysis of how the proposal meets the R5 Conditional Use Standards (Attachment F and H) as follows:

Sec. 14-118. Conditional uses

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

(b) Institutional: Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article, or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school;
2. a. Long-term and extended care facilities; b. Intermediate care facility for thirteen (13) or more persons;
3. Places of assembly;
4. Reserved;
5. Hospital;
6. College, university, trade school.

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

- a. In the case of expansion of existing such 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; and

Staff Comments: The property is located on a lot other than the location of the principal use or the main Westbrook College Campus. The applicant submitted a letter that outlines why the proposed uses cannot be reasonably accommodated within existing buildings on the main campus, which states that the University purchased the former armory so that it could better deliver the existing programs currently being offered on campus, see Attachment H for a detailed explanation.

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

Staff Comments: The renovations to the armory building and accompanying improvements will not cause the displacement or conversion of any residential units. The use of the Armory site historically has been "institutional" in nature and the Planning Office's opinion is that the Stevens Avenue Armory is a legal non-conforming institutional use within the R-5 Zone.

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

Staff Comments: The lot size for University's main campus is about 14 acres; the total with the Armory and Bishop Street Parking Lot is approximately 50 acres. The armory's lot is 8.60 acres. The minimum lot size in the R-5 zone for a school is two acres; therefore this standard is being met.

Sec. 14-474:

The following standards 14-474 apply to all conditional uses:

2. *Standards. The Board shall, after review of required materials, authorize issuance of a conditional use permit, upon a showing that the proposed use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other allowable uses in the same zoning district. The Board shall find that this standard is satisfied if it finds that:*

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

Staff comment: The University has submitted an updated parking demand plan, as well as a Transportation Demand Management (TDM) Plan. The TDM plan is not taking this project into consideration. The UNE subsidizes the free use of the Metro to all its students and staff. According to the parking assessment, this program averaged 573 riders per month, including the summer months, in the last three years. The following are mitigation options proposed by the applicant to decrease the parking demand on its Portland Campus, please refer to Attachment I for the full TDM Plan:

1. Parking lot on Bishop Street for students/staff/faculty: A shuttle bus is used to transport parkers to the campus. There is a secure, heated shelter, equipped with free wifi at each end of the route, to encourage its usage. The shuttle runs continuously from 7am to 7pm during

- the academic year, so wait and travel times are minimal. Links to Portland Metro maps and schedules as well as hard copies in areas convenient to students/staff/faculty
2. Shuttle Service being provided between the Portland and Biddeford campus. Links to the intercampus Shuttle maps and schedules, as well as hard copies in areas convenient to students/staff/faculty.
 3. On-line access to information regarding carpooling/rideshare and vanpooling. UNE has a parking permit/fee program for parking lots on the primary campus; however, in order to encourage use of satellite lots, such as located behind the Maine State National Guard Armory, no fee is charged. Additionally, no fee is charged to park on the main campus when carpooling.
 4. Educational and promotional services, including incentive program announcements, via e-mail and social media to students/staff/faculty regarding the advantages of use of alternative modes of transportation to/from the campus. UNE has recently installed electric vehicle charging stations at the parking lot on Bishop Street, allowing users to charge their vehicles at no cost, providing further incentive to utilize this lot. UNE notified students/staff and faculty of its availability and periodically raffled off new bicycles at the lot as an incentive to use this alternative mode of transportation. Other promotions included free coffee and doughnuts to users of the lot.
 5. Employee recognition for efforts to reduce traffic impact and/or parking demand via email and web posting.
 6. Providing information regarding new parking strategies, alternative modes, etc.

The application states that there will be an additional thirty-eight (38) UNE employees added to the campus at the Armory site. The parking demand study estimated that the increase in staffing will result in a parking demand of thirty-two (32) spaces. Tom Errico, Consultant Traffic Engineer, has reviewed the plans and finds the renovation project acceptable with the following comments:

- *As noted by the applicant, by acquiring the Armory site – with the proposed improvements, UNE will be increasing the supply of on-site campus parking by 22 spaces. The added spaces in front of the Armory are designated for Oral Patients and 6 spaces to the north of the Armory. The application notes that an additional 38 UNE employees will be added to the campus at the Armory site. The applicant has estimated that this increase in staffing will result in a parking demand of 32 spaces. I concur with this estimate. The applicant has noted that parking for these employees will be at the Bishop Street Lot, which I find acceptable. It is my recommendation that UNE work with these employees to ensure that they park at the Bishop Street Lot. UNE shall provide documentation on usage – through employee surveys 6 months after occupancy. Further actions and strategies will be developed through the refinement of the existing TDM Plan as discussed below.*
- *Signage shall be provided along the proposed painted walkway noting that parking is prohibited. Vehicle encroachment should be discouraged.*
- *The applicant has submitted the previously developed TDM Plan. The TDM Plan needs to be enhanced to provide specific monitoring/survey information and target/goals for proposed strategies. It is my suggestion that this effort take place during the future Master Plan process, when specific details on future campus conditions are known. As noted above, the applicant should seek immediate methods for encouraging new staff to park in the Bishop Street Lot.*

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

Staff comment: The proposal would not create 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.

Staff comment: Staff has requested that there be additional landscaping along on Stevens Avenue to reduce the impact of the surface parking lot on the surrounding properties.



Section 14-474 (d) states:

(d) Conditions on conditional use permits. The board of appeals may impose such reasonable conditions upon the premises benefited by a conditional use as may be necessary to prevent or minimize adverse effects therefrom upon other property in the neighborhood. Such conditions shall be expressly set forth in the resolution authorizing the conditional use permit and in the permit. Violation of such conditions shall be a violation of this article.

Staff Comment: Planning staff recommends conditions of approval pertaining to parking and landscaping. These conditions are proposed in the motions.

B. Right, Title or Interest:

The applicant submitted a warranty deed for the property (see Attachment E).

C. Neighborhood Meeting:

This proposal is subject to Level II site plan and conditional use review (for an institutional use in the R-5 zone). Section 14-32 (c) of the City Code requires only applicants for Level III site plan review or subdivisions of five or more units or lots to host a neighborhood meeting. Because this proposal includes converting the armory for office and classroom space as a Level II site plan and it is exempt from this requirement.

VIII. PROPOSED MOTIONS

A. CONDITIONAL USE

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on June 14, 2016 for application #2016-111 (Conditional Use), relevant to Portland's Conditional Use Standards and other regulations, and the testimony presented at the Planning Board hearing:

The Planning Board finds that the proposed conditional use for an institutional use at 772 Stevens Avenue in the R-5 zone [**does/does not**] meet the standards of § 14-474 and the standards of §14-118 for the R-5 zone, subject to the following condition:

1. The University shall work with the proposed new employees to ensure that they only utilize the Bishop Street Lot for parking. The University shall also provide documentation on usage, through employee surveys, six months after certificate of occupancy. Further actions and strategies shall be developed through the refinement of the existing TDM Plan (as conditioned below); and
2. Signage shall be provided along the proposed painted walkways noting that parking is prohibited and vehicle encroachment shall be discouraged, prior the certificate of occupancy; and
3. As part of a future Master Plan, to be submitted in September of 2016, the TDM Plan shall be enhanced to provide specific monitoring/survey information and target/goals for proposed strategies; and
4. The final site plan shall show landscaping, per City Arborist's recommendation, at the southerly surface parking lot to reduce the impact of the surface parking lot on the surrounding properties.

ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Traffic Review, Tom Errico, dated 06.09.2016

APPLICANT'S SUBMITTAL

- A. Cover Letter
- B. Cond Use Application Form
- C. Letter of Agent
- D. Location Map
- E. Deed
- F. Conditional Use Narrative
- G. Traffic and Parking
- H. City of Portland Mail - Armory Renovation
- I. UNE_Portland_TDM 052516 _2_
- J. University of New England Parking 052616 _2_

- K. Response to staff comments dated 06.08.2016
K1. Parking Areas

PLANS

- Plan1 Boundary Survey
- Plan2 Civil Notes, Legend, and Erosion Control Details
- Plan3 Existing Conditions, Overhead Utility Removals Plan
- Plan4 Overall Site/Pedestrian Circulation Plan
- Plan5 North Entrance Plans
- Plan6 Building Addition Plans
- Plan7 East Entrance Plans
- Plan8 Site Details



Shukria Wiar <shukriaw@portlandmaine.gov>

UNE - Armory Renovations Conditional Use Application - Final Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Jun 9, 2016 at 11:22 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: David Margolis-Pineo <dmp@portlandmaine.gov>, Katherine Earley <kas@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>

Shukria – I have reviewed the project application materials and I find it to be acceptable with the following comments.

- As noted by the applicant, by acquiring the Armory site – with the proposed improvements, UNE will be increasing the supply of on-site campus parking by 22 spaces. The added spaces in front of the Armory are designated for Oral Patients and 6 spaces to the north of the Armory. The application notes that an additional 38 UNE employees will be added to the campus at the Armory site. The applicant has estimated that this increase in staffing will result in a parking demand of 32 spaces. I concur with this estimate. The applicant has noted that parking for these employees will be at the Bishop Street Lot, which I find acceptable. It is my recommendation that UNE work with these employees to ensure that they park at the Bishop Street Lot. UNE shall provide documentation on usage – through employee surveys 6 months after occupancy. Further actions and strategies will be developed through the refinement of the existing TDM Plan as discussed below.
- Signage shall be provided along the proposed painted walkway noting that parking is prohibited. Vehicle encroachment should be discouraged.
- The applicant has submitted the previously developed TDM Plan. The TDM Plan needs to be enhanced to provide specific monitoring/survey information and target/goals for proposed strategies. It is my suggestion that this effort take place during the future Master Plan process, when specific details on future campus conditions are known. As noted above, the applicant should seek immediate methods for encouraging new staff to park in the Bishop Street Lot.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

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Site Design Associates

Consulting Engineering and Land Planning

May 6, 2016

Mr. Tuck O'Brien
Planning Director
Planning Division
389 Congress St., Fourth Floor
Portland, ME 04101

**RE: University of New England
Stevens Avenue Armory
772 Stevens Avenue
Conditional Use Application**

Dear Tuck:

On behalf of University of New England (UNE), Site Design Associates (SDA) is pleased to submit one original paper copy and one CD containing the files of the Conditional Use Application for the referenced project. We have enclosed a check in the amount of \$100 for the following Conditional Use fee:

This submission contains the following information:

- Conditional Use Application
- Letter of Agent Authorization
- Location Map
- Deed
- Conditional Use Narrative
- Stamped Standard Boundary Survey

A Level 2 Site Plan application will be submitted under separate cover.

The University of New England has acquired the former Stevens Avenue Armory and proposes to renovate the front portion of it to compliment the academic programming on its Portland Campus. The Maine Army National Guard, MEARNG, will continue to occupy the rear portion of the building, which will not be renovated at this time. This is an opened ended lease and will require the MEARNG to find or construct another appropriate facility for its fleet services to relocate to. This MEARNG presence will be to continue to service the southern Maine regional armories fleets of vehicles.

The MEARNG had previously used the front portion of the building for training of the National Guard personnel. The space contained offices, classrooms, and a drill hall/large meeting space, as well as the traditional support areas including restrooms,

locker rooms, kitchen, mechanical spaces and storage areas. The facility was occupied most days from 7am throughout the evening, and was heavily utilized on training weekends. The MEARNG had rented space in the former Armory for Fire Department training and a soccer club had offices and an indoor soccer training facility in the drill hall for several years. Additionally, the MEARNG would rent the drill hall space for craft fairs and other similar events that attracted large audiences. The facility has also been utilized by Lincoln Middle School and the University of New England to house classes there during year long periods of renovations.

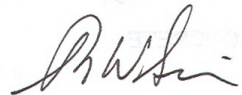
The renovated facility will contain offices, classrooms, a simulation center, a large meeting space, and study rooms, as well as the traditional support areas including restrooms, locker areas, kitchen, mechanical spaces and storage areas. The renovated facility will be utilized by the existing campus community. Classes, including the Simulation Center, will be relocated to this facility from other buildings on campus, and are not intended to serve new programs. The offices will accommodate the University's current and expanding on-line academic offerings. These on-line programs do not require students to attend the campus, thus there will be no increase in the student population associated with this renovation. The anticipated expansion of on line programs will result in a potential staffing increase of approximately 38 persons.

In reviewing the Code of Ordinances, Chapter 14, Land Use, Article III, *Division 6, R-5 Residential Zone Section 14-117, Permitted Uses*, the former Stevens Avenue Armory use as a training center for the Maine Army National Guard Reserves is not identified as a permitted use. The Armory use is also not specifically identified as a conditional use in *Section 14-118*. The use of the Armory site historically has been "institutional" in nature, and we understand that the Planning Office opinion is that the Stevens Avenue Armory is a legal non-conforming institutional use within the R-5 Zone.

Per *Section 14-118.b.6* it is clear that a University use is considered a permitted Conditional Use in the R5 Zone. Therefore, we are submitting this *Conditional Use for Planning Board Review, Development Review Application*, to the Planning Board to request that the former Stevens Avenue Armory property use be changed to Institutional, College/University use under the R5 Zone.

We are in hopes that you can place this application on the next available Planning Board agenda. Please contact Alan Thibeault or me with any questions or comments concerning these

Sincerely,
Site Design Associates



Tom Saucier, P.E.
President

cc: Alan Thibeault, Assistant Vice President for Planning

Portland, Maine



Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐

Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒

Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐

I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.


Applicant Signature:

5/8/16
Date:

I have provided digital copies and sent them on:

5/8/16
Date:

NOTE:

All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Conditional Use for Planning Board Review Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Conditional Use where the Planning Board is listed as the reviewing authority rather than the Zoning Board of Appeals. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

A. Conditional Use: Standards and Criteria – Section 14-474 and Zone Related Criteria

Conditional uses are listed in the Zoning Ordinance for each zone and these proposed uses must address the criteria contained in Section 14-474 in the written application. In addition to the criteria in Section 14-474, each application must address any applicable conditional use standards contained in the applicable zone and the proposed specific use. The Zoning Ordinance 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.

Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- 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.

B. Site Plan Application: Please submit the Conditional Use Application in addition to the applicable Site Plan Application.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: University of New England - Stevens Ave. Armory Renovation

PROPOSED DEVELOPMENT ADDRESS:

772 Stevens Ave

ASSESSOR'S CHART/BLOCK/LOT (s): 145-B-18

Applicable Zone: R5

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Alan Thibeault Business Name, if applicable: University of New England Address: 11 Hills Beach Road City/State : Biddeford, ME Zip Code: 04005	Applicant Contact Information Work # 602-2253 Home# Cell # Fax# e-mail: athibeault@une.edu
Owner – (if different from Applicant) Name: Same as applicant Address: City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Billing Information Name: Same as applicant Address: City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

RIGHT, TITLE OR INTEREST:

Owner - Deed Attached

(Please identify the status provide documentary evidence, attached to this application, of the applicant's right, title, or interest in the subject property (ex: deed, option or contract to purchase or lease the property.)

VICINITY MAP: (Please attach a map showing the subject parcel and abutting parcels, labeled as to ownership and/or current use.)

EXISTING USE: Describe the existing use of the subject property.

Prior Use - Institutional (Armory);

PROPOSED USE: Describe the proposed use of the subject property

Proposed Use - Insitutional, College/University

TYPE OF CONDITIONAL USE PROPOSED (Refer To Specific Provisions Of Land Use Code Authorizing The Proposed Conditional Use).

College, University - Chapter 14-118.b.6.

SITE PLAN: Submit a separate site plan application for the proposal that provides a site plan for the property, showing existing and proposed improvements, which meets the submission requirements of the applicable level of site plan review.

CONDITIONAL USE STANDARDS AND CONDITIONS – 14-474

Address the following criteria in your written application and any applicable conditional use standards contained in the zoning code for the specific use. Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- 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.

CONDITIONAL USE AUTHORIZED BY: SECTION 14- 118.b.6.

Address any specific conditional use standards for the specific use contained in the zoning code in the written submission.

APPLICATION FEES:

(Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

☒ Conditional Use Review (\$100.00)

(Please submit a separate application for the applicable site plan review. Fees and charges are listed within the application)

The City invoices separately for the following:

- Notices (\$.75 each)
- Legal Ad (% of total Ad)
- Planning Review (\$40.00 hour)
- Legal Review (\$75.00 hour)

Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the Electronic Plan and Document Submittal page of the City's website at
<http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.
3. The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:

Applicant Checklist	Planner Checklist	# of Copies	
X		1	Application form that is completed and signed.
X		1	Cover letter stating the nature of the project.
X		1	Evidence of right, title and interest.
X		1	Written Submittals that address the conditional use standards of Sec. 14-474.
X		1	Written submittals that address any applicable standards of review contained in the zoning code for the specific use.
X		1	A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet and containing the information required for the applicable level of site plan review.
X		1	An accompanying site plan application, as applicable.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Conditional Use Review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 5-6-16
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UNIVERSITY OF
NEW ENGLAND

Biddeford Campus
11 Hills Beach Road
Biddeford, ME 04005
(207) 283-0171 T

Portland Campus
716 Stevens Avenue
Portland, ME 04103
(207) 797-7261 T

May 4, 2016

Mr. Tom Saucier
Site Design Associates
23 Whitney Way
Topsham, Maine 04086

TO WHOM IT MAY CONCERN:

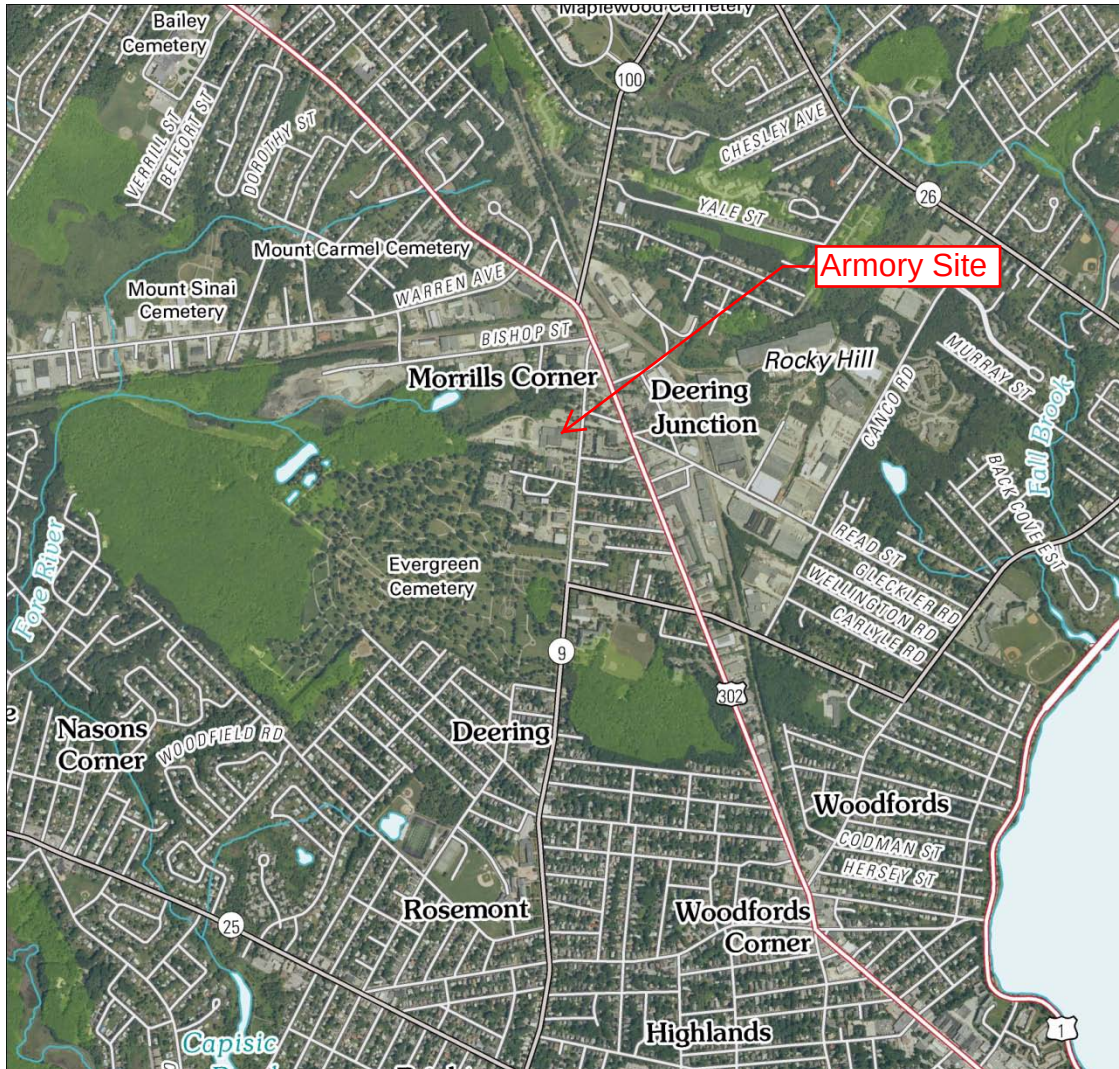
This letter authorizes Tom Saucier to serve as an agent for University of New England for the purpose of permitting the proposed renovations to the former Stevens Avenue Armory, located at 772 Stevens Avenue, on the University of New England's Portland campus.

Sincerely,

A handwritten signature in black ink, reading "Alan Thibeault", is written over a light gray rectangular background.

Alan Thibeault
Assistant Vice President for Planning

University of New England
Conditional Use Application
772 Stevens Avenue, Portland, Maine



USGS Map 2011
7.5x7.5 Quadrangle

QUITCLAIM DEED

THE STATE OF MAINE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT successor in interest to the **STATE OF MAINE**, acting by and through the Acting Adjutant General pursuant to 37-B M.R.S.A. § 264, (the "Grantor"), FOR CONSIDERATION PAID, grants to the **UNIVERSITY OF NEW ENGLAND**, a Maine non-profit corporation, whose mailing address is 716 Stevens Avenue Portland, ME 04103 (the "Grantee"), certain real property, together with any improvements thereon, located at 760-780 Stevens Avenue, in the City of Portland, County of Cumberland and State of Maine, more particularly describes as follows:

A certain lot or parcel of land with the buildings thereon situated on the westerly side of Stevens Avenue in the City of Portland in said County of Cumberland and State of Maine, being the same premises conveyed by Elizur B. Forbes to Portland and Forest Avenue Rail Road Company by deed dated March 22, 1864, and recorded in Cumberland County Registry of Deeds in Book 326, Page 212, in which deed said premises were bounded as follows:

"A certain parcel of land fronting on the principal street at Stevens's Plains in Westbrook aforesaid, bounded as follows; beginning on said street at the southeast corner of land formerly of Jeremiah Beedle, now of Woodbury Polleys; thence running North sixty-four and a half degrees West five hundred seven and a half feet; thence North twenty-five and a half degrees East, thirty three feet; thence North sixty-three degrees West one hundred twenty-five feet; thence South seventy-five degrees forty-five minutes West seven hundred twenty feet; thence South sixty-four degrees east nine hundred ten and a half feet; thence North twenty and a quarter degrees east one hundred forty and a half feet; thence South sixty-six and a half degrees east, three hundred twenty four feet to the street or Stevens's Plains road before mentioned; thence North (by the line of the Street) nineteen degrees and three quarters east, two hundred ninety feet to the place of beginning - estimated to contain about nine and one quarter acres."

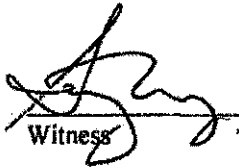
Meaning and intending to convey the same premises delineated on the Plan of Property in Portland, Maine made for the Adjutant General, Augusta, Maine prepared by H.I. & E.C. Jordan dated August 22, 1958.

For Grantor's source of title see: Warranty Deed from Portland Rail Road Company to the State of Maine dated October 14, 1940 and recorded at the York County Registry of Deeds in Book 1619, Page 299.

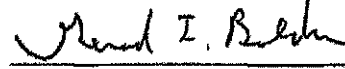
MAINE REAL ESTATE TAX PAID

By his signature hereon, the Acting Adjutant General certifies that the premises being conveyed in compliance with 37-B MRSA § 264, Section 6, Subsection 5 constitutes the Portland Armory, that he has designated an officer to inspect the premises, that he has determined the property to be unfit for military use, and has condemned the premises and furthermore that the premises are not being sold for less than appraised value as determined by a person licensed as a real estate appraiser under Title 32, chapter 123 and that the State of Maine Department of Defense, Veterans and Emergency Management is the successor in interest to the State Military Defense Commission of the State of Maine.

IN WITNESS WHEREOF, the State of Maine has caused this instrument to be executed in its name by Brigadier General Gerard F. Bolduc in his capacity as the Acting Adjutant General of the Maine National Guard, pursuant to 37-B M.R.S.A. § 264, this 11 day of June, 2015.

 JA.
Witness

STATE OF MAINE

By: 

Gerard F. Bolduc
Brigadier General, The Acting Adjutant General

State of Maine
County of Kennebec, ss

June 11, 2015

The personally appeared the above-named Brigadier General Gerard F. Bolduc, The Acting Adjutant General of the Maine National Guard, and acknowledged the foregoing instrument to be his free act and deed and, pursuant to authorization of the Maine Legislature as found in 37-B M.R.S.A. § 264, the free act and deed of the State of Maine.

Before me,



Notary Public/Attorney-at-Law

Commission Expires:

Print Name: STACY M. BRADBURY

Under authority of
37-B MRSA 390-C.
ATTORNEY AT LAW

Received
Recorded Register of Deeds
Jun 17, 2015 08:54:11A
Cumberland County
Nancy A. Lane

Conditional Use Narrative

Overview

In review of the Code of Ordinances, Chapter 14, Land Use, Article III, *Division 6, R-5 Residential Zone Section 14-117, Permitted Uses*, the former Stevens Avenue Armory use as a training center for the Maine Army National Guard Reserves is not identified as a permitted use.. The Armory use is also not specifically identified as a conditional use in *Section 14-118*. The use of the Armory site historically has been “institutional” in nature, and we understand that the Planning Office opinion is that the Stevens Avenue Armory is a legal non-conforming institutional use within the R-5 Zone.

As per *Section 14-118.b.6* it is clear that a University use is considered a permitted Conditional Use in the R5 Zone. Therefore, we submit this *Conditional Use for Planning Board Review, Development Review Application*, to the Planning Board to request that the former Stevens Avenue Armory property use be changed to Institutional, College/University use under the R5 Zone.

Conditional Use Standards – Section 114.118(b)6.

Section 114.118 (b) 6.a. The proposed use will be located within the lot on which the principal use is located.

Section 114.118 (b) 6.b. The proposed use will not cause any displacement or conversion of residential uses.

Section 114.118 (b) 6.c. Minimum lot size standards are met.

Section 114.118 (b) 6.d.,e.,f., g. Not applicable.

Conclusion

Section 14-474.

Standards.

The Board shall, after review of required materials, authorize issuance of a conditional use permit, upon a showing that the proposed use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other allowable uses in the same zoning district. The Board shall find that this standard is satisfied if it finds that:

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

The proposed use of the existing facility will result in a minimal increase in trip generation and parking requirements. See attached traffic study by Eaton Traffic Engineering. The site is abutted to the south and west by UNE owned property, to the north by the Stevens Avenue Congregational Church, where UNE leases additional parking spaces, and to the east by Stevens Avenue and the Park Danforth parking lot and development. The hours of operation are similar to the adjacent university use, opening at 7am and closing at 11pm, with a concentrated occupancy between 8am and 7pm. The paved area will not be expanded, and the site characteristics are generally similar to the surrounding uses.

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, which include schools, colleges/universities, and hospitals.

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

No unsanitary conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter will be created. With very minimal site work, dust will not be an issue. There will be no loading dock/receiving area at this facility, and trash will be transported across the adjacent parking lot to the dumpster behind Alexander Hall. The existing sewer connection will remain in service. No new emissions are proposed, and lighting will remain as existing.

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.

As previously noted, the site is abutted by university uses to the west and south, the large Park Danforth residential development to the east, and the congregational church and parking to the north.

The building will operate similar to the other facilities on campus, opening at 7am and closing at 11pm, with a concentrated occupancy between 8am and 7pm. The study rooms will most likely be available to students after hours via card access. There will be no loading dock/receiving area at this facility, and trash will be transported across the adjacent parking lot to the dumpster behind Alexander Hall. The MEARNNG fleet service area will continue to be serviced as they are now. So, from hours of operation to activity level, there is no significant change from the previous or as compared to the ongoing surrounding uses, and the anticipated operation will not have a substantially greater impact on surrounding properties as compared to other allowable uses within the zone.

Any impacts due to the proposed conditional use would not differ substantially from impacts which would normally occur from an allowable use in the R-5 zone. In fact, given that the facility will be incorporated into an existing college campus, any impacts due to the proposed use at this site would be much less than those which could occur in other R-5 zones.

It is apparent that the proposed use meets the applicable conditional use standards outlined in the ordinance.



EATON TRAFFIC ENGINEERING
67 Winter Street Suite 1 • Topsham • Maine • 04086
Tel 207.725.9805 Cell 207.841.4200

To: Tom Saucier, PE, Site Design Associates

Fm: Bill Eaton, PE, Eaton Traffic Engineering

Re: Traffic and Parking Impact – Re-Use of National Guard Building for UNE Portland On-Line Graduate and Professional Studies

Dt: May 2, 2016

Per your request I have evaluated the potential traffic and parking demands associated with the re-use of the Army National Guard facility on Stevens Avenue by the University of New England. The facility will be used primarily to support the academic programming and students currently on campus. There will be classroom, meeting and study space created in the building. The classrooms will replace smaller classrooms currently used on campus. With the pedagogical trend pushing towards highly active learning environments, the smaller classrooms with lecture based, maximum capacity seating, do not support this type of learning. Larger spaces, with flexible furnishings and multiple points of media display are required, and thus will be incorporated into this renovation. The University's Simulation Center, currently housed across campus, will also be consolidated and relocated into the facility. Additionally, the facility will be home for the University's expanding College of Graduate and Professional Studies.

This newest College of the University will be an on-line operation, i.e. students will not be attending class on campus. In past traffic studies for the University, the primary trip generation variable used has been student enrollment; this variable directly relates student population to traffic demand, and indirectly incorporates the traffic demand associated with faculty, support and administrative staff (as student enrollment varies, so does faculty and staff). As the academic areas of the renovated National Guard building will support those programs already in operation on campus, there will be no increase in traffic or parking demand. In the case of the College of Graduate and Professional Studies, the faculty and support and administrative staff will increase by 38 persons from March 2016 through February 2017, but on-campus student enrollment will not.

Accordingly, use of trip generation estimation data from the publication Trip Generation (Institute of Transportation Engineers) for land use code 550 “University/College” will not yield valid results because it reflects a data base for traditional institutions where all (or nearly all) instruction takes place on campus. In essence, the area of the former National Guard building that will house the College of Graduate and Professional Studies, will become an office facility, where employees (faculty and staff) make up the majority of peak hour traffic associated with the facility, along with occasional visitation by others during the non-peak periods. Using land use code 710 “General Office Building” (Trip Generation), the traffic generation associated with the proposed College of Graduate and Professional Studies is estimated to be 126 trips daily (63 enter, 63 exit), with 18 trips (16 enter, 2 exit) during the AM peak hour, and 18 trips (3 enter, 15 exit) during the PM peak hour. Overall, this incremental increase in trip generation to the UNE Portland campus is minimal in terms of impact, and is below the threshold for a traffic study requirement, per the city technical standards.

With regard to parking, the parking demand estimation process associated with UNE historically used (and reasonably confirmed by observation at the Biddeford Campus) has been one space for each full time faculty and staff person, and one-half space per student. This is a composite variable approach and should not be construed as directly applicable to either students or staff. For the academic portion of the building, there is no increase in faculty or students, thus no additional parking would be required. With the College of Graduate and Professional Studies expanding, there will be a need for additional parking. In this case, the College of Graduate and Professional Studies will operate from 8 AM through 9 PM daily (weekdays), the application of one space for each faculty and staff member would yield a peak parking demand for 38 spaces. However, assuming that the facility behaves more like an office than a traditional campus facility, using the peak parking demand for an office facility per the publication Parking Generation (Institute of Transportation Engineers) would indicate a peak demand of 0.83 spaces per employee (faculty and staff), thus peak parking demand would be 32 spaces, and would probably occur in early to mid afternoon (when all faculty shifts would be present. This parking is available at the Bishop Street Intermodal Transportation Facility (which is served by a campus shuttle each 15 minutes of the normal school day). Thus there should be no negative impact on parking supply for the students and staff of the University.



Shukria Wiar <shukriaw@portlandmaine.gov>

Armory Renovation

Alan Thibeault <athibeault@une.edu>

Tue, May 24, 2016 at 10:55 AM

To: Shukria Wiar <shukriaw@portlandmaine.gov>

Cc: Tom Saucier <tsaucier@sitedesignassociates.biz>

Shukria, the university purchased the former armory so we could better deliver our existing programs currently being offered on campus.

- Our simulation center is located on three floors and doesn't function well because of this, and it cannot handle the volume of students currently trying to utilize it. The new Simulation Center will allow for an improved delivery of our programs to all of the health professions on campus.
- We do not have a space large enough for our different majors to meet together, and the former drill hall would allow for this interdisciplinary teaching to occur.
- Our on line program has outgrown its current space and needs relief. So, we are unable to meet these needs without using the former armory.
- Our current classrooms were designed for maximum capacity, lecture style pedagogy. Today's pedagogy is focused on active learning and group work. We cannot accommodate this in the existing classrooms, without decreasing the seat counts. The new classrooms in the former armory will allow us to increase the sf per seat, required by the active learning style of teaching. We can then go back to our other classrooms and retrofit them to accommodate the active learning.

As the armory was institutional in its use, we will not be encroaching into any established residential areas.

I am a bit confused by your second standard...the Stevens Avenue Congregational Church is the abutting property. Additionally, we went through a site plan review of this property when we put the parking in at the rear of the site and worked with the SACC to gain access through their parking lot. We have an easement with them from this work. At no time during that site plan review and approval, or in our discussions with the SACC then, or afterwards, has there been any discussion about a need for additional screening.

I appreciate Tom's thoughts on parking, but in our opinion, parking is not an issue. We have plenty of parking on campus, including Bishop Street to accommodate all of our needs. The "perceived" problem, is that there is public parking on Stevens Ave that our students, faculty and staff use. This issue was addressed in the adjoining neighborhoods, and the concerns from the neighbors went away in these areas. Now people are expressing concern that UNE community members are parking in public spaces on Stevens Ave., which they have a legal right to park in...not sure how that is an issue. Our Bishop Street parcel can handle hundreds of cars, and on any given day there are only a 100-150 vehicles parked there.

The MEARNG FMS has about 12 employees. They work 7-3:30 M-F. We have dedicated parking spaces for their personnel vehicles, that are not considered in our "on campus" parking counts. The FMS also utilizes half of the rear of the site for their storage of vehicles being maintained...this is a "secure" area according to the Department of Defense, thus is contained within a fenced compound.

I look forward to meeting with you tomorrow.

AT

On May 23, 2016, at 9:30 AM, Shukria Wiar <shukriaw@portlandmaine.gov> wrote:

Hello Alan:

I was going through the application for the conditional use and helpful if you can go through some of the standards which I have included below:

1. 14-118 (b) 6 (a): In the case of expansion of existing such 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; and
2. 14-118 (b) 6 (d)(1v): 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.

[Quoted text hidden]

[Quoted text hidden]



University of New England Portland Campus – Transportation Demand Management (TDM) Plan Updated 05/25/16

Introduction

The University of New England (UNE) Portland Campus is located at 716 Stevens Avenue, in Portland, Maine, just northerly of Evergreen Cemetery. There are no residential students on the Portland, so UNE Portland is essentially a commuter campus. Since the inception of the College of Dental Medicine, the only growth at the university is in our On-line course offerings. This popular program has resulted in a modest growth in faculty and staff, but brings no students to the campus.

The Portland Campus of UNE is well located in terms of access to multiple modes of transportation. Stevens Avenue is an arterial street in the City of Portland with good access in all directions from the Campus, including the Maine Turnpike (I-95) via Riverside Street, Warren Avenue and Bishop Street, and I-295 access from nearby Forest Avenue. Mass transit service is provided via the Portland Metro Route 3 which connects downtown Portland with North Deering via Stevens Avenue, and Route 2 which connects downtown Portland to the Riverton area and Westbrook via Forest Avenue. There 2 Metro bus stops on the UNE campus (one with a shelter) for Metro Route 3. Bus stops on Forest Avenue in the vicinity of UNE are generally less than 1000 feet from the Campus. UNE subsidizes the free use of Metro for all students and staff. Over the past three years. ridership averages 573 rides per month, including the summer monthes.

As a university, UNE transportation demand is typical of other institutions of higher education. Faculty, staff and a majority of students begin arriving at the site during the morning peak period (7:00 – 9:00 AM) and departing the site during the evening peak period (4:00 – 6:00 PM). Because of various class schedules these peak periods are not as concentrated as would be associated with other land uses such as offices or retail, where work hours are more rigid.

There are several academic schedules that are followed on the UNE's Portland Campus. These include the traditional schedule that allows the individual student to select their classes, which allows for a great diversity in the comings and goings of the students. Another schedule starts the entire program at 8am and concludes at 5pm. These students tend to arrive before the main campus lots are full and then depart the campus after the peak parking demand times. There is also a smaller evening population that begins to arrive on campus in the late afternoon/early evening, which is after the peak parking demand has subsided. These various schedules result in no significant times of arrival and departure that would significantly impact the traffic flow in the community, nor overwhelm the shuttle service.

Pedestrian travel is facilitated by an extensive systems of sidewalks in the area, which are important not only to UNE, but to other nearby educational facilities such as McAuley High School, Longfellow Elementary School and Deering High School. Finally, Stevens Avenue is a designated bicycle route in the City of Portland, and the UNE Campus provides bicycle racks, at a ratio of 1 bike space for every 20 UNE community members, and access to lockers and showers in the Finley Recreation Center.

While UNE has made a significant effort to allow students to get their degree required course offerings on one campus, there are several programs that have very specific and highly specialized facility requirements. Because these specialized facilities are generally not fully utilized, and are extremely expensive to create and operate, UNE has required students to travel between campuses to minimize the need to duplicate these facilities. Examples of this include the Biddeford Campus's Gross Anatomy Lab, where the College of Dental Medicine students travel to Biddeford to utilize this space and the Portland Campus's Simulation Center, where the College of Osteopathic Medicine students travel to Portland to utilize the Simulation Center.

In an effort to minimize the impact of this requirement to travel between campuses, in 2014 UNE initiated a shuttle bus service that connects its Portland and Biddeford Campuses that is utilized by students, faculty and staff to commute between the campuses. This Intercampus Shuttle makes 4 round trip circuits per day, during the academic year. Ridership varies significantly between days of the week, as there are only a few mandatory classes offered on the opposite

campus from the primary campus. On these days 60+/- students may travel on this bus service, minimizing the traffic impacts of students being required to be on both campuses. This Intercampus Shuttle is also utilized to transport UNE community members to special events on the opposite campus from their primary campus. The Intercampus Shuttle terminus is at UNE's Bishop Street Intermodal Facility; thus it affords easy access to parking. The Intercampus Shuttle also makes stops at two Park and Rides to maximize the mass transportation opportunities presented to the UNE community.

While there are options available to access the campus (bus, bicycle, walking) the majority of students and staff arrive by private vehicle. Parking demand on the UNE campus usually peaks at about 10:00 AM and begins to subside at approximately 1:00 – 2:00 PM. UNE has taken actions to reduce parking demand through use of free Metro tickets, Intercampus Shuttle and the encouragement of carpools and bicycling, but the primary focus of this TDM plan will be clearly to address the issue of parking in terms of reducing parking demand where possible and providing adequate supplies as necessary.

TDM Coordinator

The TDM Coordinator for UNE is Alan Thibeault, Assistant Vice President for Planning. The Coordinator will be responsible for directing the efforts of staff and outside consultants to implement and monitor efforts to reduce parking (and traffic) demand, as well as provided a campus planning framework to expand parking supply through direct construction of new facilities on or adjacent to the campus, use of possible satellite parking facilities (with some type of vanpool or shuttle service) and/or rental of surplus available spaces in the vicinity of the campus.

Student/Staff/Faculty Survey

UNE has developed several student/staff/faculty surveys to monitor modal choice, arrival and departure times, home zip code analysis, and parking usage. For example, these surveys assist

the University in selecting the most appropriate scheduling of the Intercampus Shuttle and aided in determining the pickup and drop off locations.

With regard to carpool/rideshare opportunities, UNE makes use of the GoMaine website for both its Biddeford and Portland campuses. This program is overseen by Alethea Cariddi, Sustainability Coordinator for UNE.

Parking/Trip Reduction Target

UNE obtained a Traffic Movement Permit from the MDOT as part of the expansion of the Campus for the College of Pharmacy. No significant traffic impacts were projected for the immediate vicinity of UNE and no direct mitigation action was required. UNE did make a contribution (as part of a city impact fee program) to improvements to Morrill's Corner (Forest Avenue @ Allen Avenue/Stevens Avenue/Bishop Street) as a condition of the City's approval of the expansion. As noted in previous sections, UNE has encouraged the use of Metro, Intercampus Shuttle and carpool/rideshare for its population, but most students/staff/faculty currently travel to/from the campus by private automobile. Accordingly, UNE's primary emphasis in terms of TDM actions will be to expand parking supply and try to reduce demand while addressing needs to minimize parking on public streets in the vicinity of the campus.

Education

The TDM Coordinator shall provide provisions for informing students/staff/faculty of the following:

- Links to Portland Metro maps and schedules as well as hard copies in areas convenient to students/staff/faculty
- Links to the intercampus Shuttle maps and schedules, as well as hard copies in areas convenient to students/staff/faculty
- On-line access to information regarding carpooling/rideshare and vanpooling

- Educational and promotional services, including incentive program announcements, via e-mail and social media to students/staff/faculty regarding the advantages of use of alternative modes of transportation to/from the campus
- Employee recognition for efforts to reduce traffic impact and/or parking demand via e-mail and web posting
- Providing information regarding new parking strategies, alternative modes, etc.

Monitoring

The TDM Coordinator shall monitor the effectiveness of the TDM plan through providing for on-line contact with students/staff/faculty as well as through more traditional means such as direct comments to staff, correspondence, etc. In addition, the semiannual surveys of parking usage and use of alternative modes of travel (typically on an annual basis) supplemented by direct observation (for example the counting of empty parking spaces on campus during peak parking demand periods, review of Portland metro ticket usage, use of bicycle racks, etc.). These studies, surveys and observations will be utilized to continually monitor progress and make adjustments and refinements as deemed appropriate.

Infrastructure

The primary focus of UNE, as noted earlier in this document, is upon both increasing parking supply in the vicinity of the campus, and reducing parking demand through increased use of mass transportation. UNE staff are continually reviewing alternatives to locate accessible potential parking areas in the vicinity of the site, while continuing to encourage carpool/vanpool usage through communications with their students/staff and faculty on the UNE website. Carpoolers are not required to purchase parking permits and are provided with some of the most convenient parking spaces on each campus.

UNE has recently purchased the former Stevens Avenue Armory, which immediately contributed approximately 42 parking spaces to its main campus parking space inventory. Additionally, when the Maine Army National Guard, MEARNNG, Fleet Maintenance Services vacates the

premises, a significant amount of additional parking will become available in the heart of the campus. This reallocation of parking spaces from the MEARNG to UNE will also afford a more direct connection between some of the more remote parking spaces currently existing on campus.

As part of its Master Planning efforts, UNE created the Bishop Street Intermodal Transportation Facility in 2012. While it is only 0.4-mile from the academic core of the campus, a shuttle bus is used to transport parkers to the campus. There is a secure, heated shelter, equipped with free wifi at each end of the route, to encourage its usage. The shuttle runs continuously from 7am to 7pm during the academic year, so wait and travel times are minimal. The Intermodal Transportation Facility, ITF, is enclosed by a chain link fence, with card access for after hour egress. Parking lot security is enhanced by CCTV, which is live fed to the University's Security Dispatch Office. UNE community members are not required to purchase a parking permit to park in this lot, while parking permits are required to be purchased to park on the main campus.

When the ITF was first opened, the average peak vehicle count was 37 vehicles. Shortly thereafter, the City instituted a residential parking permit and one-hour parking restrictions on many of the side streets proximal to the campus. This in effect reduced the availability of the on-street parking in the vicinity of the UNE campus, and minimized neighborhood concerns in these areas. The current average peak vehicle count at the ITF is 108 vehicles.

The ITF facility has potential capacity for a 1,000 +/- parking spaces, but averages 108 vehicles a day during the academic year, due to the availability of free on street parking immediately adjacent to the campus, on Stevens avenue. While UNE encourages its community members to utilize the ITF, many opt to take advantage of the free and convenient on street parking.

UNE also rents parking spaces from the Stevens Avenue Congregational Church. While there is adequate parking capacity at the ITF, these spaces are found to be more "convenient" to the UNE community, so UNE plans to continue this rental agreement.

Incentives

UNE has a parking permit/fee program for parking lots on the primary campus; however, in order to encourage use of satellite lots, such as located behind the Maine State National Guard Armory, no fee is charged. Additionally, no fee is charged to park on the main campus when carpooling.

In inaugurating the ITF, UNE notified students/staff and faculty of its availability and periodically raffled off new bicycles at the lot as an incentive to use this alternative mode of transportation. Other promotions included free coffee and doughnuts to users of the lot.

UNE has recently installed electric vehicle charging stations at the ITF, allowing users to charge their vehicles at no cost, providing further incentive to utilize this lot.

As noted earlier in this document, UNE fully pays the cost of Metro bus tickets for UNE students/staff and faculty, and UNE does not charge for the use of the Intercampus Shuttle. As an incentive for the Intercampus Shuttle, riders were provided with coupons for a free coffee after utilizing the shuttle ten times. An additional incentive was the raffling off of an iPad to a random rider, after qualifying by riding a minimum amount of times.

UNE will continue this policy of providing free transit service to students/staff and faculty and evaluate other incentives to increase usage of alternative travel modes to hopefully reduce parking demand.

The University is exploring options for incentivizing the UNE Community to more fully utilize the ITF. This will include additional promotional information, including maps and advantages of utilizing this service vs walking the length of Stevens Avenue.



University of New England
Parking Assessment
May 2016

The Site Plan approval for the University of New England's Oral Health Center, OHC contained a Parking Demand Calculation performed by Eaton Traffic Engineering that indicates the proposed OHC would require a total of 124 parking spaces. The proposed facility would be sited in a location that would displace another 23 spaces, increasing the total demand to 147.

The parking demand for the patients was estimated at 31 spaces, and there were 33 existing parking spaces, at the north end of the site which were to be dedicated for patient parking. As the clinic and associated academic program were expected to grow over the first few years, only 21 of these spaces were originally designated by signage. The remaining 12 spaces rented by UNE in the former Armory lot. With the purchase of the Armory, the remaining 21 spaces in this former Armory lot were also designated to patient parking, resulting in more than adequate capacity for the OHC.

The 17-18 existing spaces northerly of the armory are currently utilized by the guard.

The University's Master Planning efforts included the creation of an Intermodal Transportation Facility at the University's property on Bishop Street. When the lot was originally opened in 2012, a total of 268 parking spaces of the 300 permitted were striped. The additional 109 spaces required for the Oral Health Center, to accommodate the faculty, staff and students were thus provided for at the Bishop Street Intermodal Transportation Facility.

As noted in the trip generation report prepared by Eaton Traffic Engineering, the additional staff at the renovated armory will result in a parking generation of 32 spaces. Based upon recent counts, 160 spaces are available at the Bishop Street IMF, which is more than adequate to provide the additional parking required.

THIS SURVEY PLAN IS UNLAWFULLY VALID IF AUTHENTIC EMBOSSED SEAL AND SIGNATURE OF CERTIFYING PROFESSIONAL APPEAR ON THE FACE OF THIS SURVEY PLAN.

NO CERTIFICATION IS MADE TO THE EXISTENCE OR NONEXISTENCE OF HAZARDOUS SUBSTANCES, ENVIRONMENTALLY SENSITIVE AREAS, UNDERGROUND UTILITIES, UNDERGROUND STRUCTURES, ZONING REGULATIONS OR REAL ESTATE TITLE.

HORIZONTAL DATUM BASED UPON 1983 N.A.D. MAINE STATE PLANE GRID WEST ZONE. VERTICAL DATUM BASED UPON 1988 NORTH AMERICAN VERTICAL DATUM.

ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF I CERTIFY TO THE CLIENT THAT THIS SURVEY PLAN, MADE TO THE NORMAL STANDARD OF CONFORMS TO THE MAINE BOARD OF LICENSURE FOR LAND SURVEYOR STANDARDS CATEGORY I, CONDITION III, EXCEPTING FROM THESE STANDARDS DEED DESCRIPTION AND SURVEY REPORT.

THE PROPERTY SURVEYED IS DESCRIBED IN A DEED TO THE STATE OF MAINE FROM THE CUMBERLAND COUNTY POWER AND LIGHT COMPANY DATED 10-14-40 AND IS RECORDED IN THE CUMBERLAND REGISTRY OF DEEDS IN BOOK 1607, PAGE 418.

THE PROPERTY IS DEPICTED ON THE CITY ASSESSOR'S MAP 145 BLOCK B AS LOT 18.

THE PROPERTY SURVEYED IS BENEFITED BY A SEWER LINE EASEMENT AS DESCRIBED IN A DEED FROM WESTBROOK COLLEGE TO THE STATE OF MAINE DATED 11-15-93 AND RECORDED IN DEED BOOK 11094, PAGE 270.

AN UNDERGROUND STEAM LINE FOR HEATING PURPOSES CROSSES THE SURVEYED PROPERTY. IT IS RECOMMENDED THAT A WRITTEN EASEMENT BE ESTABLISHED FOR THIS SYSTEM.

REFERENCE IS MADE TO COLLEGE STREET LINE DATED DECEMBER 18, 1975 BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT.

REFERENCE IS MADE TO PLAN OF STEVENS PLAINS AVENUE CITY OF DEERING FROM FOREST AVENUE TO PLEASANT STREET AS RELOCATED BY H.W. FOSTER JULY 1896 RECORDED IN CUMBERLAND COUNTY COMMISSIONERS RECORDS VOLUME 16 PAGE 951.

REFERENCE IS MADE TO PLAN OF LAND IN PORTLAND, MAINE FOR WESTBROOK COLLEGE DATED 8-20-74 BY OWEN HASKELL, INC.

REFERENCE IS MADE TO PLAN OF A SURVEY FOR FRED E. BRIGGS DATED MAY 1913 BY E.C. JORDAN & CO. AND RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 12 PAGE 68.

REFERENCE IS MADE TO PLAN SHOWING WESTBROOK COLLEGE PROPERTY LINES DATED OCTOBER 26, 1981 BY WELLS ENGINEERING INC.

REFERENCE IS MADE TO PLAN OF (MORRILLS) CAR BARN LOT DEERING, ME. P.R.R. BY HSLCY & CUMMINGS IN PORTLAND, MAINE. ON FILE AT THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT IN FILE 798/14.

INFORMATION IN PARENTHESES IS ON FILE AT A PUBLIC REPOSITORY.

THE PROPERTY IS DEPICTED ON THE CITY ASSESSOR'S MAP 145-B-18 (K65E).

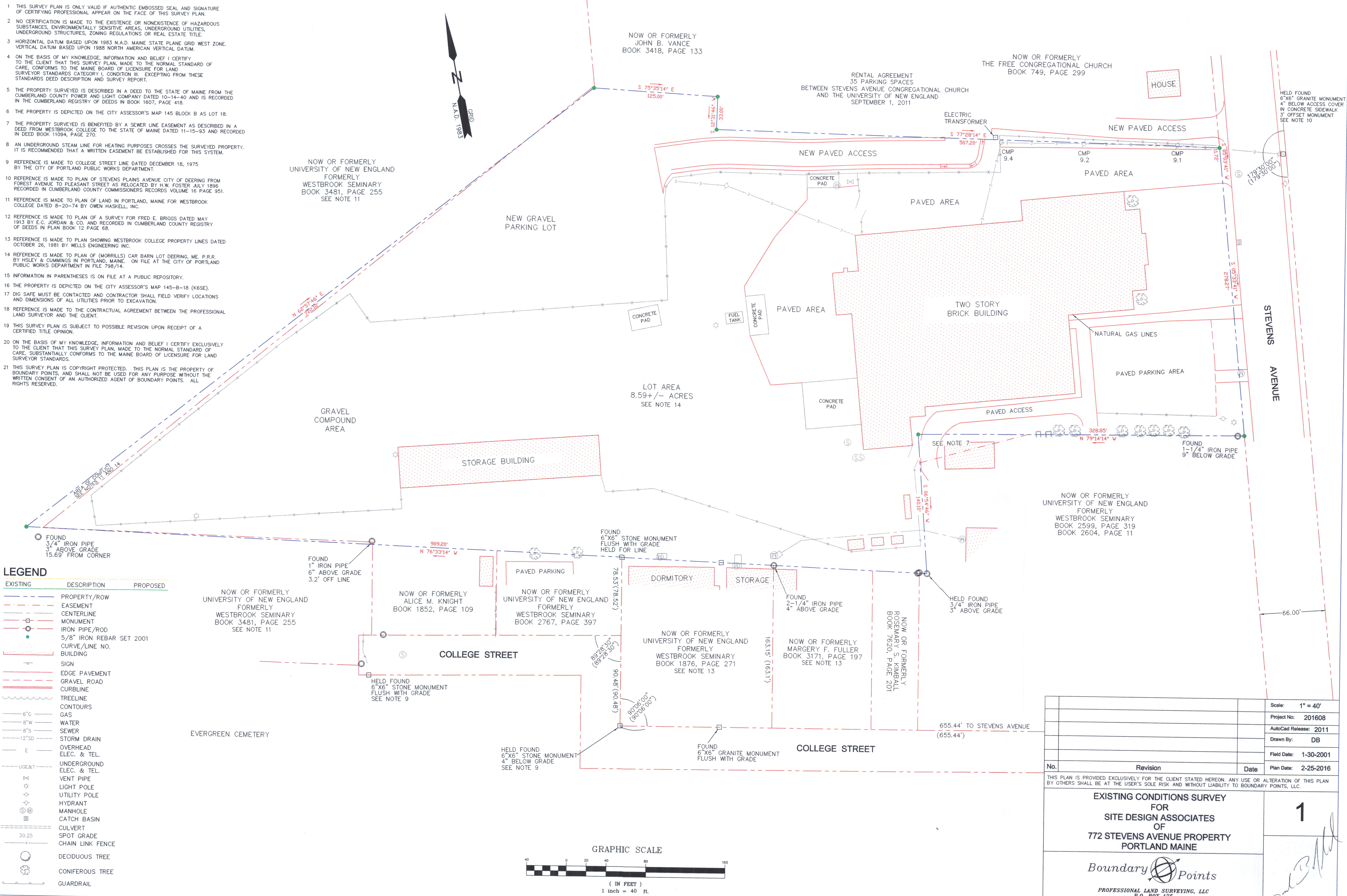
DIG SAFE MUST BE CONTACTED AND CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL UTILITIES PRIOR TO EXCAVATION.

REFERENCE IS MADE TO THE CONTRACTUAL AGREEMENT BETWEEN THE PROFESSIONAL LAND SURVEYOR AND THE CLIENT.

THIS SURVEY PLAN IS SUBJECT TO POSSIBLE REVISION UPON RECEIPT OF A CERTIFIED TITLE OPINION.

ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF I CERTIFY EXCLUSIVELY TO THE CLIENT THAT THIS SURVEY PLAN, MADE TO THE NORMAL STANDARD OF CARE, SUBSTANTIALLY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR LAND SURVEYOR STANDARDS.

THIS SURVEY PLAN IS COPYRIGHT PROTECTED. THIS PLAN IS THE PROPERTY OF BOUNDARY POINT, INC. AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED AGENT OF BOUNDARY POINTS. ALL RIGHTS RESERVED.



			Scale: 1" = 40'
			Project No: 201608
			AutoCad Release: 2011
			Drawn By: DB
			Field Date: 1-30-2001
No.	Revision	Date	Plan Date: 2-25-2016

THIS PLAN IS PROVIDED EXCLUSIVELY FOR THE CLIENT STATED HEREON. ANY USE OR ALTERATION OF THIS PLAN BY OTHERS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO BOUNDARY POINTS, LLC.

EXISTING CONDITIONS SURVEY FOR SITE DESIGN ASSOCIATES OF 772 STEVENS AVENUE PROPERTY PORTLAND MAINE	1
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Boundary  Points

PROFESSIONAL LAND SURVEYING, LLC
P.O. BOX 175
CUMBERLAND MAINE 04021-0175
207-854-1015

© 2016, BOUNDARY POINTS

CIVIL NOTES:

1. SEE SHEET G-002 FOR ABBREVIATIONS.
2. EXISTING UNDERGROUND UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY AND ARE BASED ON FIELD RECONNAISSANCE AND PLAN REFERENCES. PRIOR TO COMMENCING EXCAVATION OPERATIONS ON THE SITE, DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES IN THE WORK UTILIZING A PRIVATE UTILITY LOCATING SERVICE, CONTACT "OK TO DIG" AT 1-866-658-6344, AND CONTACT "DIGSAFE" AT 1-888-344-7233 TO OBTAIN A "DIGSAFE" PERMIT. REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND THE EXACT UTILITY LOCATIONS TO THE OWNER PRIOR TO DISTURBING AREAS SURROUNDING THE UNDERGROUND UTILITIES.
3. INFORMATION SHOWN HEREON IS BASED ON THE FOLLOWING:
- a. TOPOGRAPHIC SURVEY AND UNDERGROUND UTILITY LOCATION PLAN PROVIDED BY SITE DESIGN ASSOCIATES, INC, 23 WHITNEY WAY, TOPSHAM, ME IN MARCH, 2016
 - b. CAMPUS MAPS PROVIDED BY THE UNIVERSITY OF NEW ENGLAND IN DECEMBER, 2015
 - c. SITE RECONNAISSANCE PERFORMED BY OAK POINT ASSOCIATES IN WINTER, 2015 AND SPRING 2016.
 - d. FINISH FLOOR MEASUREMENTS PERFORMED BY OAK POINT ASSOCIATES IN FEBRUARY AND APRIL, 2016
 - e. WATER SERVICE INFORMATION PROVIDED BY PORTLAND WATER DISTRICT IN DECEMBER, 2015 AND FEBRUARY 2016.
 - f. THE FOLLOWING PLAN REFERENCES
 - i. "ADDITIONS AND ALTERATIONS TO BUILDING AT 770 STEVENS AVENUE, NEW ARMORY", BY THE OFFICE OF JOHN P. THOMAS ARCHITECTS, PORTLAND, MAINE. DATED DECEMBER 31, 1940
 - ii. "REBUILDING ARMORY, STEVENS AVE, PORTLAND, ME", BY JOHN HOWARD STEVENS, PORTLAND, MAINE. DATE UNKNOWN
 - iii. "VEHICLE STORAGE, DEPARTMENT OF ADJ. GEN., STEVENS AVE, PORTLAND, ME". DATED DECEMBER 18, 1947 (AUTHOR UNKNOWN).
 - iv. "COLLEGE CENTER AND DORMITORY BUILDING, WESTBROOK JUNIOR COLLEGE, PORTLAND MAINE", BY WADSWORTH AND BOSTON, PORTLAND, MAINE. DATED MARCH 12, 1962.
 - v. "LATRINE AND LOCKER ROOM ADDITION, STEVENS AVE. ARMORY, PORTLAND" BY BOOTHBAY ENGINEERING SERVICES, INC, BOOTHBAY HARBOR, MAINE. DATED JANUARY 29, 1976, LAST REVISED MAY 5, 1976.
 - vi. "ELECTRICAL SERVICE REVISION, MAINE NATIONAL GUARD ARMORY, STEVENS AVE, PORTLAND" BY VERNON T. SWAIN CONSULTING ENGINEER, AUGUSTA, MAINE. DATED MAY 16, 1977.
 - vii. "PROPOSED WASH PAD, O.M.S #1, STEVENS AVE. PORTLAND", DATED AUGUST, 1977 (AUTHOR UNKNOWN).
 - viii. "WESTBROOK COLLEGE, UNDERGROUND STEAM: MCDUGALL HALL TO ALEXANDER HALL", BY FELS COMPANY ENGINEERS, PORTLAND, MAINE. DATED DECEMBER 28, 1981.
 - ix. "MAINE NATIONAL GUARD ORGANIZATIONAL MAINTENANCE SHOP #1 SPILL CONTAINMENT", BY HARRIMAN ASSOCIATES, AUBURN, MAINE. DATED AUGUST 19, 1993.
 - x. "FMS #1 HEATING SYSTEM UPGRADE", BY CORD/JA CAPITAL PROJECTS GROUP, CAMDEN, MAINE. DATED NOVEMBER 4, 2011
4. THE PROJECT BENCHMARK IS THE FRONT BOLT OF THE TOP FLANGE OF A FIRE HYDRANT LOCATED ON THE EAST SIDE OF STEVENS AVENUE (PORTLAND WATER DISTRICT HYDRANT HYD-01292). ELEVATION: 129.57' (DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929).
5. RESTORE, REPAIR OR REPLACE SURFACES, SITE FEATURES AND LANDSCAPING THAT ARE DAMAGED BY CONSTRUCTION/CONTRACTOR OPERATIONS TO THEIR ORIGINAL CONDITION, AS APPROVED BY THE OWNER, AT NO ADDITIONAL COST TO THE OWNER.
6. DO NOT DIRECT VEHICLE OR EQUIPMENT EXHAUST TOWARDS THE BUILDINGS OR TREE PROTECTION AREAS.
7. HAND EXCAVATE WITHIN DRIPLINE OF TREES AND WITHIN 3' OF EXISTING UNDERGROUND UTILITIES AND EXISTING FOUNDATION WALLS INDICATED TO REMAIN.
8. DO NOT PLACE, PUT OR DUMP ANY CONSTRUCTION MATERIALS OR DEMOLITION DEBRIS IN AREAS THAT COULD ADVERSELY IMPACT THE SURROUNDING AREAS OR WASH INTO THE EXISTING SEWER/STORM DRAIN SYSTEM.
9. COLLECT AND STORE ALL WASTE MATERIALS IN SECURELY LIDDED RECEPCTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER. DO NOT BURY CONSTRUCTION WASTE MATERIALS ON SITE.
10. STORE ALL MATERIALS KEPT ON SITE IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINER AND IF POSSIBLE UNDER A ROOF OR OTHER ENCLOSURE. STORE ONLY SUFFICIENT AMOUNTS OF MATERIALS TO COMPLETE THE JOB.
11. DISPOSE OF SURPLUS MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STATE AND FEDERAL CODES.
12. MONITOR ALL CONSTRUCTION RELATED EQUIPMENT AND VEHICLES FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE LEAKAGE.
13. DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER FROM CONCRETE TRUCKS IN A CONTAINED AREA ON SITE.

EROSION CONTROL NOTES:

1. DURING CONSTRUCTION AND THEREAFTER, IMPLEMENT EROSION CONTROL MEASURES AS INDICATED AND SPECIFIED. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS," PUBLISHED BY BUREAU OF LAND AND WATER QUALITY AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, DATED MARCH 2015, OR MOST RECENT EDITION.
2. PURSUANT TO THE MAINE EROSION AND SEDIMENTATION CONTROL LAW, PROVIDE AND MAINTAIN EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS, AND PROVIDE ADDITIONAL MEASURES AS NECESSARY AND APPLICABLE TO CONTROL EROSION AND SEDIMENTATION FROM THE PROJECT SITE.
3. LIMIT AREAS OF EXPOSED SOILS TO THOSE AREAS THAT WILL ACTIVELY BE WORKED. TEMPORARILY STABILIZE ANY AREA OF DISTURBED SOIL THAT REMAINS UNWORKED FOR MORE THAN 14 DAYS USING TEMPORARY MULCHING (IF THE SOIL WILL BE PERMANENTLY STABILIZED WITHIN 30 DAYS) OR TEMPORARY SEEDING AND MULCHING (IF THE SOIL WILL NOT BE PERMANENTLY STABILIZED WITHIN 30 DAYS). PERMANENTLY STABILIZE ANY AREA OF DISTURBED SOIL BROUGHT TO FINAL GRADE WITHIN 7 DAYS. DISTURBED SOILS DO NOT INCLUDE COMPACTED STRUCTURAL FILLS USED FOR ROADS, PARKING LOTS, AND BUILDING FOUNDATIONS.
4. PROVIDE INLET PROTECTION FOR EACH CATCH BASIN ON THE SAME DAY THAT BACKFILL IS PLACED AROUND THE CATCH BASIN.
5. GROUNDWATER IS NOT ANTICIPATED TO BE ENCOUNTERED DURING EXCAVATION. HOWEVER, IF DEWATERING OF EXCAVATIONS ARE NECESSARY, UTILIZE BAG-TYPE DEWATERING FILTERS OR OTHER APPROVED METHODS. LOCATE DEWATERING SEDIMENT FILTERS AT LEAST 75' FROM ANY CATCH BASIN INLET.
6. INSPECT DISTURBED AND IMPERVIOUS AREAS AND EROSION CONTROL MEASURES, AT LEAST ONCE A WEEK AND BEFORE AND AFTER EACH STORM EVENT GREATER THAN 0.5 INCH, PRIOR TO COMPLETION OF PERMANENT STABILIZATION. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) STANDARDS SHALL CONDUCT THE INSPECTION. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE MODIFIED OR IF ADDITIONAL BMPs ARE NECESSARY, IMPLEMENTATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES SHALL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
7. PROTECT ALL STABILIZED AREAS FROM EROSION AND IMMEDIATELY REPAIR/REVEGETATE ERODED AREAS.
8. MAINTAIN ALL EROSION CONTROL MEASURES FOR THE LIFE OF THE PROJECT AND UNTIL PERMANENT STABILIZATION OF THE ENTIRE SITE IS ESTABLISHED. PERMANENT STABILIZATION SHALL CONSIST OF AT LEAST 90--PERCENT VEGETATION, PAVEMENT, GRAVEL BASE, OR RIPRAP.
9. PROVIDE PLANTING SOIL, SEED, FERTILIZER AND MULCH ON ALL DISTURBED AREAS NOT OTHERWISE SPECIFIED. PERMANENT SEEDING SHALL BE ACCOMPLISHED FROM APRIL 1 TO MAY 30 AND AUGUST 15 TO OCTOBER 30 UNLESS LATER DATES ARE APPROVED BY THE OWNER/ARCHITECT. WATER ALL VEGETATED AREAS AS NECESSARY TO ESTABLISH A VIGOROUS TURF.
10. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES WITHIN 30 DAYS AFTER THE TRIBUTARY AREA HAS BEEN PERMANENTLY STABILIZED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

CIVIL LEGEND

147.978

145.957

EXISTING GRADE SPOT ELEVATION

FINISHED GRADE SPOT ELEVATION

EXISTING PROPERTY LINE

////

////

EXISTING BUILDING LINE

=====

=====

BUILDING LINE

-----124-----

-----124-----

EXISTING ELEVATION CONTOUR LINE

=====124=====

=====124=====

ELEVATION CONTOUR LINE

REMOVALS (REMOVALS DRAWING ONLY)

---x---x---x---

---x---x---x---

EXISTING FENCE

---EOE/C---

---EOE/C---

EXISTING OVERHEAD ELECTRIC/COMMUNICATIONS LINE

---EOE---

---EOE---

EXISTING OVERHEAD ELECTRIC LINE

---EOFA---

---EOFA---

EXISTING OVERHEAD FIRE ALARM LINE

---EOU---

---EOU---

EXISTING OVERHEAD UTILITY LINE

---ESS(6")---

---ESS(6")---

EXISTING SANITARY SEWER LINE

---ESD(10")---

---ESD(10")---

EXISTING STORM DRAIN LINE

---EW(8")---

---EW(8")---

EXISTING WATER LINE

---EW(4"DOM)---

---EW(4"DOM)---

EXISTING WATER LINE (DOMESTIC/POTABLE)

---EW(6"FIRE)---

---EW(6"FIRE)---

EXISTING WATER LINE (FIRE PROTECTION)

---EUG(2")---

---EUG(2")---

EXISTING UNDERGROUND GAS LINE

---ESTM(4",2")---

---ESTM(4",2")---

EXISTING UNDERGROUND STEAM/CONDENSATE LINES

---EFO---

---EFO---

EXISTING UNDERGROUND FUEL OIL LINE

---EUE(2-5")---

---EUE(2-5")---

EXISTING UNDERGROUND ELECTRIC LINE(S)

---EUC(2-4")---

---EUC(2-4")---

EXISTING UNDERGROUND COMMUNICATIONS LINE(S)

UNDERGROUND ELECTRIC/COMMUNICATIONS LINE(S)

UNDERGROUND ELECTRIC LINE(S)

UNDERGROUND COMMUNICATIONS LINE(S)

FOUNDATION DRAIN LINE

STORM DRAIN LINE(S)

UNDERGROUND STEAM/CONDENSATE LINES

SEDIMENT CONTROL WATTLE

EXISTING FLAG POLE

EXISTING TRANSFORMER

EXISTING BOLLARD

EXISTING LIGHT

EXISTING UTILITY POLE

EXISTING GUY WIRE

EXISTING FIRE HYDRANT

EXISTING STEAM MANHOLE

EXISTING MANHOLE

EXISTING SEWER MANHOLE

EXISTING CATCH BASIN

EXISTING TREE/SHRUB

POINT OF CONNECTION TO EXISTING UTILITY

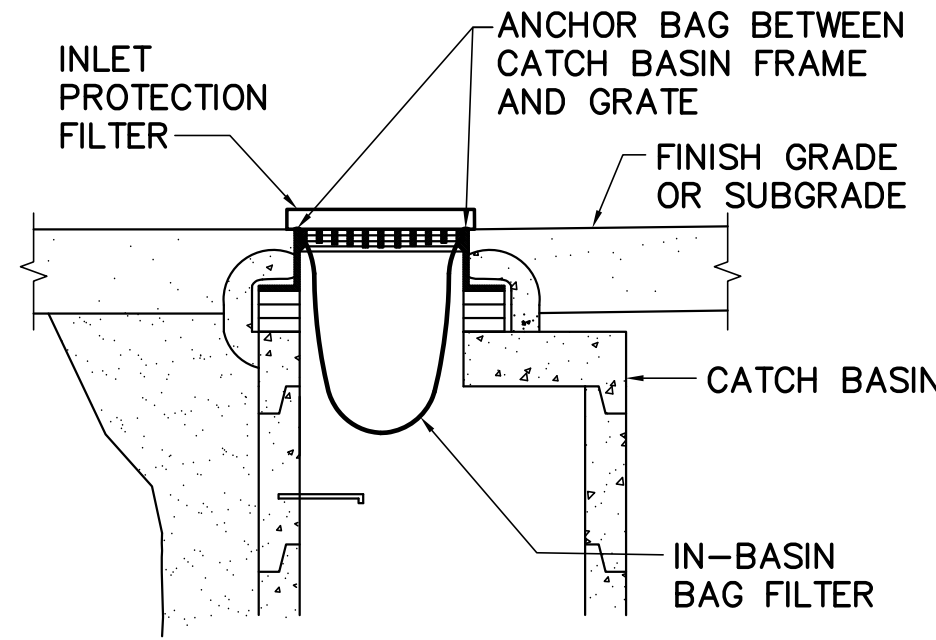
DRAINAGE FLOW

HANDHOLE

PLUG OR CAP

EXISTING PAVED SURFACES TO BE REMOVED/NEW PAVED SURFACES

EXISTING TURF TO BE REMOVED/NEW TURF

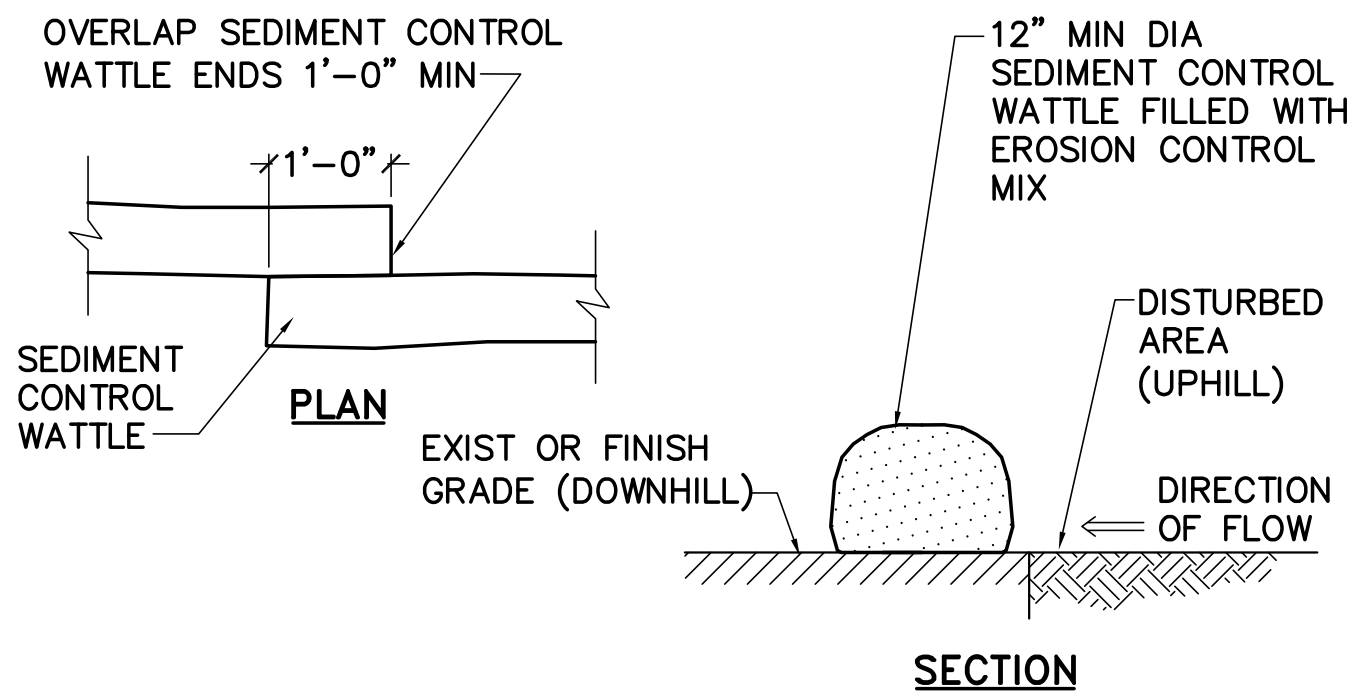


INLET PROTECTION NOTES:

1. IN-BASIN BAG FILTERS SHALL BE "SILT-CATCH" BY DGI INDUSTRIES OR APPROVED EQUAL. INSTALL ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. INLET PROTECTION FILTER SHALL BE "SEDIGUARD" BY EARTH SUPPORT SYSTEMS OR APPROVED EQUAL. INSTALL ACCORDING TO MANUFACTURERS INSTRUCTIONS.
3. PROVIDE INLET PROTECTION IN EXISTING OR NEWLY PAVED AREAS WITH NON-STABILIZED TRIBUTARY WATERSHEDS.
4. REMOVE ACCUMULATED SEDIMENTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
5. REMOVE WITHIN 30 DAYS OF FINAL STABILIZATION OF TRIBUTARY AREA.

CATCH BASIN INLET PROTECTION DETAIL

CS103 C-001 NOT TO SCALE



SEDIMENT CONTROL WATTLE NOTES:

1. MANUFACTURE SEDIMENT CONTROL WATTLES FOR THE PURPOSE OF TEMPORARY SEDIMENT CONTROL AND INSTALL ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
2. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE THIRD THE WATTLE HEIGHT.
3. SEDIMENT CONTROL WATTLES SHALL REMAIN IN PLACE UNTIL ALL AREAS ARE STABILIZED.
4. SECURE SEDIMENT CONTROL WATTLES IN PLACE TO PREVENT MOVEMENT AND UNDERMINING OF WATTLE.
5. EROSION CONTROL MIX SHALL CONSIST OF AT LEAST 80% WELL GRADED ORGANIC MATERIAL INCLUDING SHREDDED OR COMPOSTED BARK OR STUMP GRINDINGS. EROSION CONTROL MIX SHALL CONFORM TO MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARDS.
6. REMOVE WITHIN 30 DAYS OF FINAL STABILIZATION OF TRIBUTARY AREA.

TYP SEDIMENT CONTROL WATTLE DETAIL

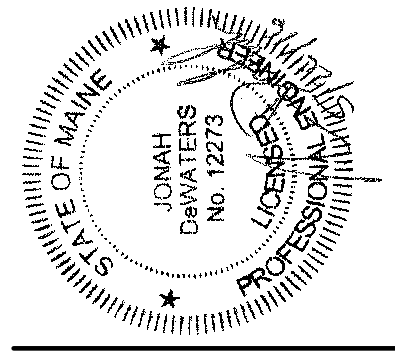
CS101.CS102.CS103 C-001 NOT TO SCALE

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DRAWN BY: JSD
CHECKED BY: JLG
PROJECT: 21502.10

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718 STEVENS AVE
PORTLAND, MAINE 04103
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RENOVATIONS TO THE
STEVENS AVENUE ARMORY

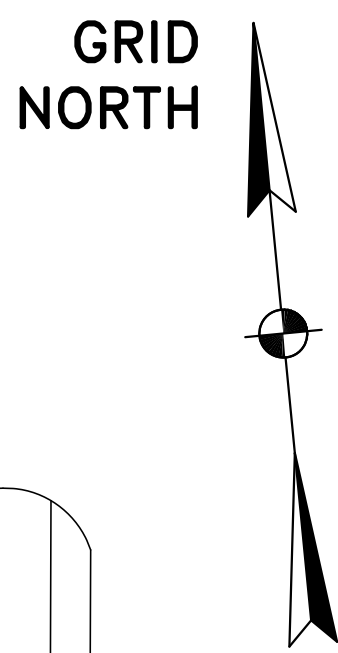
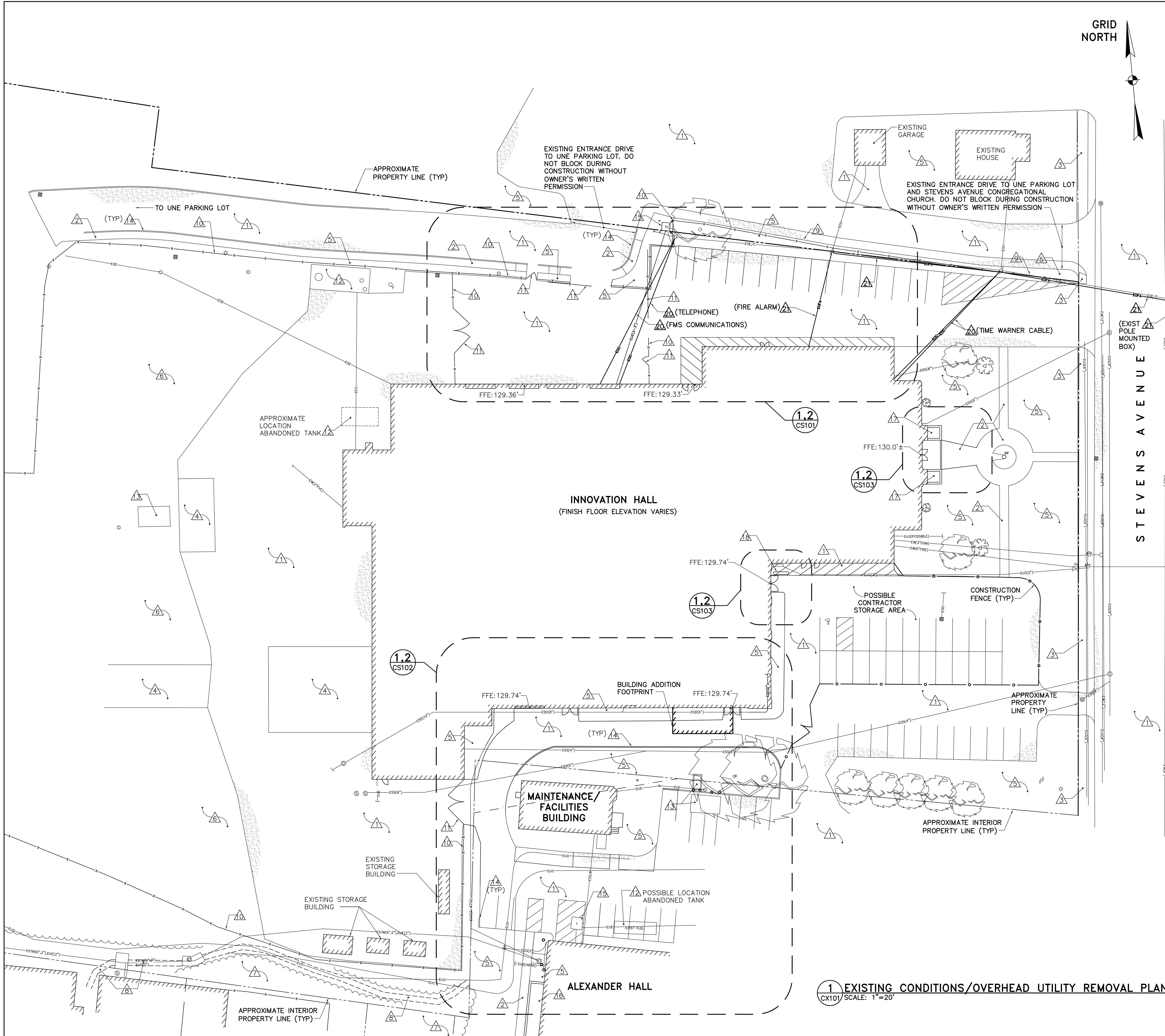
CIVIL NOTES,
LEGEND
AND EROSION
CONTROL
DETAILS

SCALE: AS NOTED

DATE: 05-03-16

DWG. C-001

SHEET: 3 OF 10



KEYNOTES: (THIS SHEET ONLY)

- △ EXISTING ASPHALT CONCRETE PAVEMENT.
- △ EXISTING ASPHALT CONCRETE SIDEWALK.
- △ EXISTING REINFORCED CONCRETE SIDEWALK.
- △ EXISTING REINFORCED CONCRETE PAD.
- △ EXISTING TURF.
- △ EXISTING TURF/MEADOW.
- △ EXISTING WOODED AREA.
- △ EXISTING TRAIL.
- △ EXISTING ±4' TALL CHAIN LINK FENCE.
- △ EXISTING ±8' TALL CHAIN LINK FENCE WITH BARBED WIRE.
- △ EXISTING CHAIN LINK FENCE GATE.
- △ EXISTING UNDERGROUND OIL TANK.
- △ EXISTING ABOVEGROUND DIESEL FUEL TANK/DISPENSING AREA.
- △ EXISTING ASPHALT CONCRETE CURB.
- △ EXISTING TRANSFORMER.
- △ EXISTING STAIRWELL/WINDOW WELL.
- △ EXISTING GRANITE PLANTER.
- △ EXISTING JERSEY BARRIER.
- △ NOT USED.
- △ REMOVE EXISTING OVERHEAD COMMUNICATIONS LINE (SERVICE TYPE AS INDICATED, IF KNOWN). COORDINATE REMOVAL WITH OWNER AND UTILITY SERVICE PROVIDER.
- △ REMOVE OVERHEAD FIRE ALARM LINE FROM BUILDING BACK TO POLE-MOUNTED MASTER BOX. COORDINATE WITH FIRE DEPARTMENT/AUTHORITY HAVING JURISDICTION AND OWNER. DO NOT REMOVE WITHOUT WRITTEN PERMISSION FROM FIRE DEPARTMENT/AUTHORITY HAVING JURISDICTION AND OWNER.

PROJECT BENCHMARK:
THE FRONT BOLT OF THE TOP
FLANGE ON FIRE HYDRANT
(PORTLAND WATER DISTRICT
HYDRANT HYD-01292).
ELEVATION: 129.57' (DATUM:
NATIONAL GEODETIC VERTICAL
DATUM OF 1929).

1	5/26/16	QUALITY CONTROL REVIEW AND RESPOND TO CITY COMMENTS	JSD	BY
NO.	DATE	DESCRIPTION		

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DRAWN BY: JLG
CHECKED BY:
PROJECT: 21502.10

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RENOVATIONS TO THE
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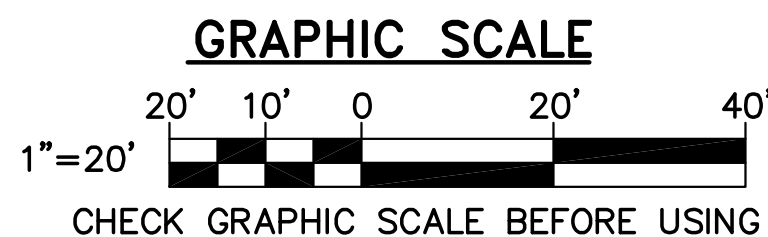
EXISTING
CONDITIONS/
OVERHEAD
UTILITY
REMOVALS PLAN

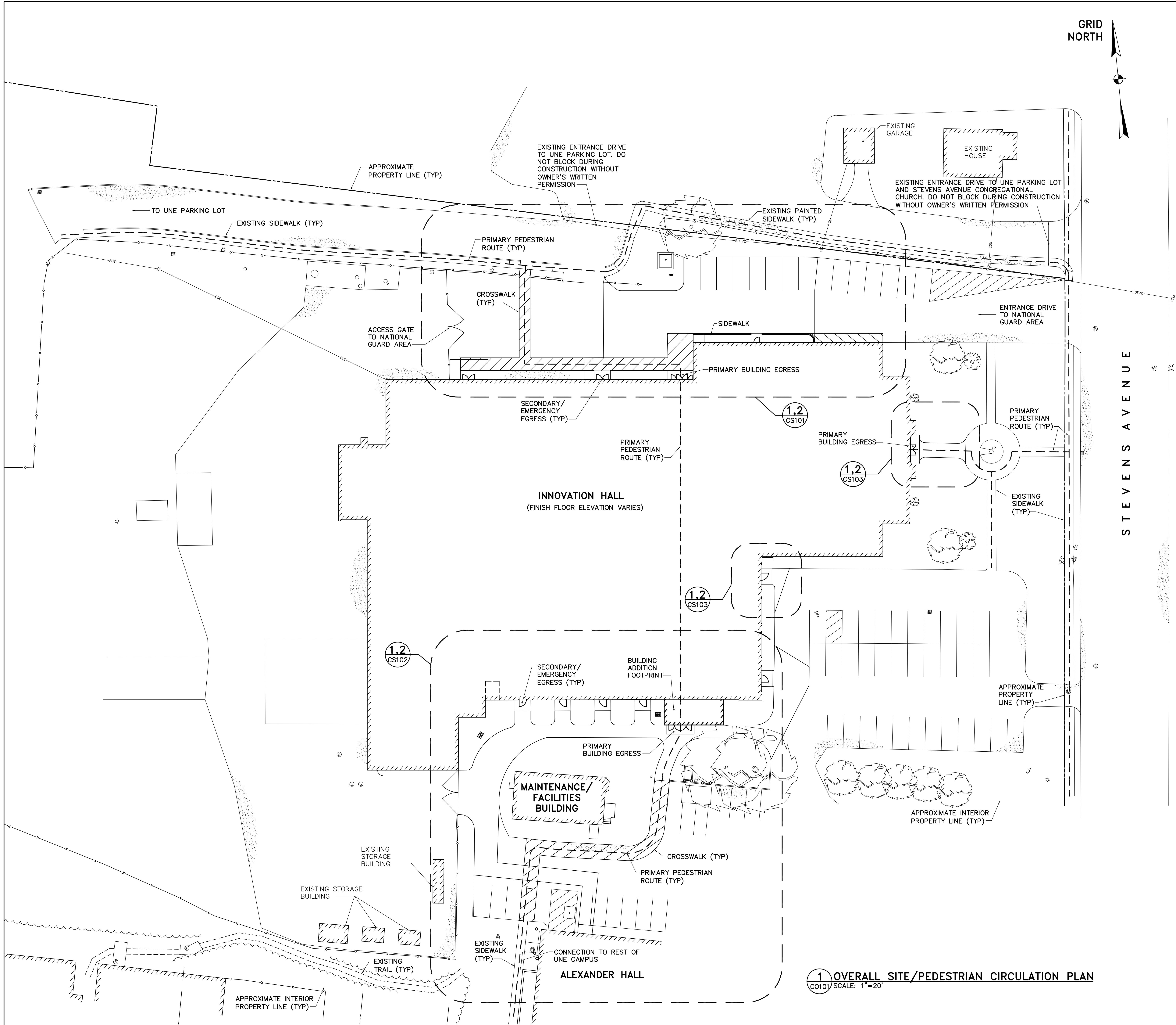
SCALE: AS NOTED
DATE: 05-03-16

DWG. CX101

SHEET: 4 OF 10

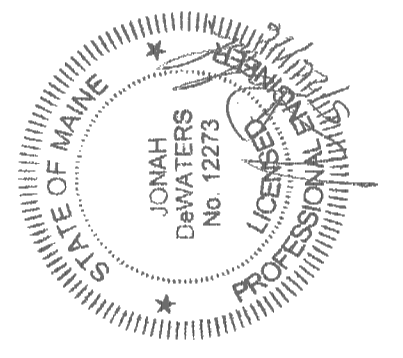
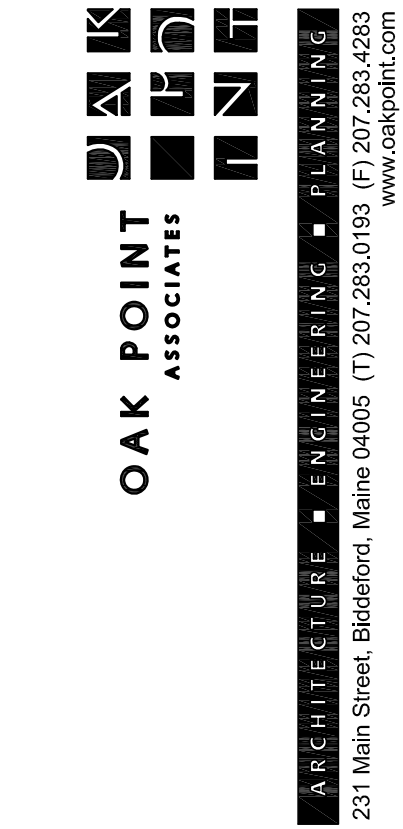
1 EXISTING CONDITIONS/OVERHEAD UTILITY REMOVAL PLAN
CX101 SCALE: 1"=20'





NO.	DATE	DESCRIPTION	BY
1	5/26/16	QUALITY CONTROL REVIEW AND RESPOND TO CITY COMMENTS	JSD

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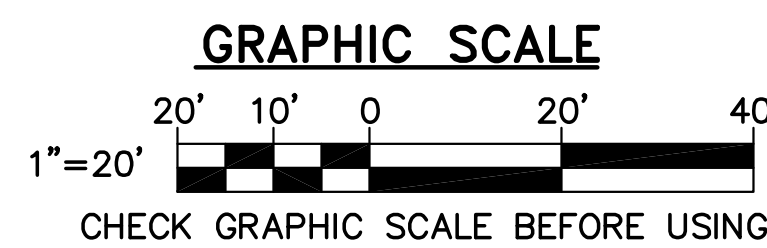
RENOVATIONS TO THE
STEVEN AVENUE ARMORY

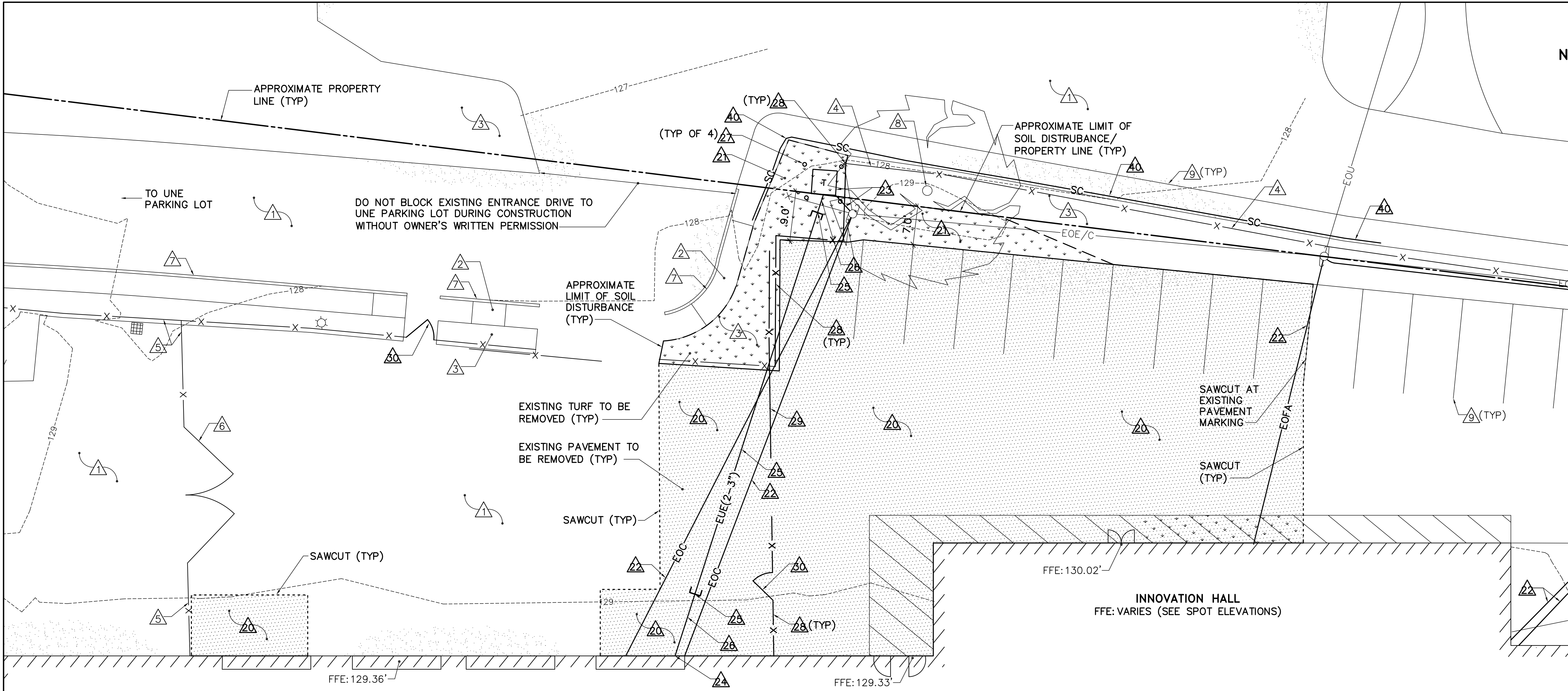
OVERALL
SITE/PEDESTRIAN
CIRCULATION
PLAN

SCALE: AS NOTED
DATE: 05-03-16

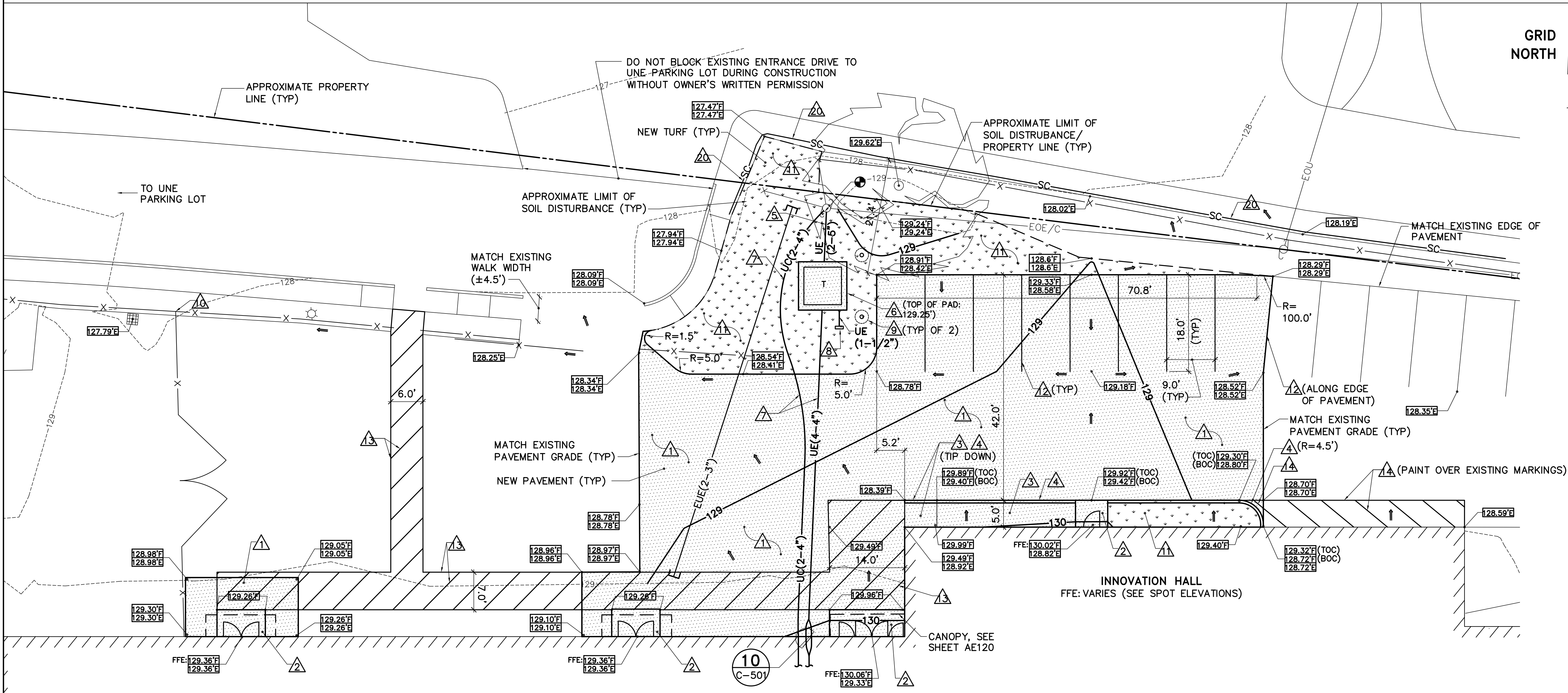
DWG. **C0101**

SHEET: 5 OF 10

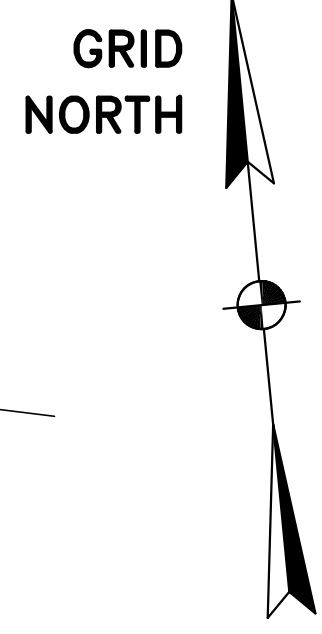




1 NORTH ENTRANCE REMOVALS PLAN
CX101 CS101 SCALE: 1"=10'



2 NORTH ENTRANCE SITE PLAN
CX101 CS101 SCALE: 1"=10'

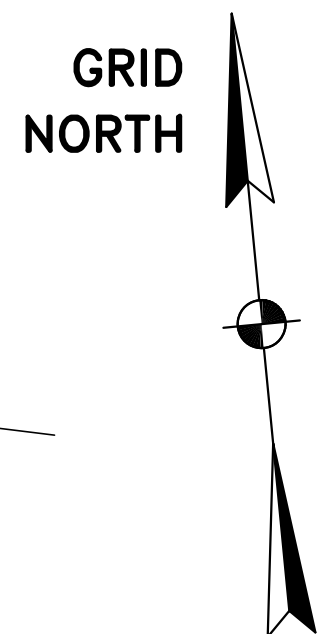


SURFACE LEGEND: (REMOVALS PLAN ONLY)

- EXISTING PAVEMENT TO BE REMOVED.
- EXISTING TURF TO BE REMOVED.

KEYNOTES: (REMOVALS PLAN ONLY)

- EXISTING ASPHALT CONCRETE PAVEMENT.
- EXISTING ASPHALT CONCRETE PAVEMENT SIDEWALK.
- EXISTING TURF.
- EXISTING ±4" TALL CHAIN LINK FENCE.
- EXISTING ±8" TALL CHAIN LINK FENCE WITH BARBED WIRE.
- EXISTING CHAIN LINK FENCE GATE.
- EXISTING ASPHALT CONCRETE CURB.
- EXISTING ±20" DIAMETER TREE.
- EXISTING PAVEMENT MARKING.
- NOT USED.
- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE PAVEMENT, ±4" THICK.
- STRIP EXISTING TOPSOIL, ±4" THICK.
- REMOVE EXISTING OVERHEAD WIRE (SEE SHEETS CX101 AND ED101).
- REMOVE EXISTING PRIMARY ELECTRIC SERVICE WIRE, CONDUIT, TRANSFORMER AND REINFORCED CONCRETE TRANSFORMER PAD. COORDINATE TIMING OF REMOVAL AND DISCONNECTION OF ELECTRICAL SERVICE WITH CMP AND THE OWNER. DO NOT REMOVE UNTIL NEW SERVICE IS ACTIVE.
- REMOVE EXISTING UNDERGROUND CONDUIT AND SEAL WALL PENETRATIONS WATERTIGHT WITH NON-SHRINK GROUT. DO NOT REMOVE UNTIL NEW SERVICE IS ACTIVE. CAP AND ABANDON CONDUIT TO REMAIN.
- REMOVE WIRING FROM EXISTING CONDUIT. CUT AND CAP ENDS OF CONDUIT TO REMAIN AND ABANDON IN PLACE.
- REMOVE EXISTING CONDUIT.
- REMOVE EXISTING ±6" DIAMETER METAL BOLLARD AND CONCRETE FOUNDATION.
- REMOVE EXISTING ±8' HIGH CHAIN LINK FENCE WITH BARBED WIRE, POSTS AND CONCRETE POST FOUNDATIONS. PATCH HOLES IN ASPHALT CONCRETE PAVEMENT/TURF FROM POST/FOUNDATION REMOVALS.
- REMOVE EXISTING CHAIN LINK FENCE SLIDE GATE, POSTS, AND CONCRETE FOUNDATIONS. PATCH HOLES IN ASPHALT CONCRETE PAVEMENT/TURF FROM POST/FOUNDATION REMOVALS.
- REMOVE EXISTING CHAIN LINK FENCE PEDESTRIAN GATE, POSTS AND CONCRETE FOUNDATION. PATCH HOLES IN ASPHALT CONCRETE PAVEMENT/TURF FROM POST/FOUNDATION REMOVALS.
- NOT USED.
- SEDIMENT CONTROL WATTLE. SEE DETAIL 2/C-001

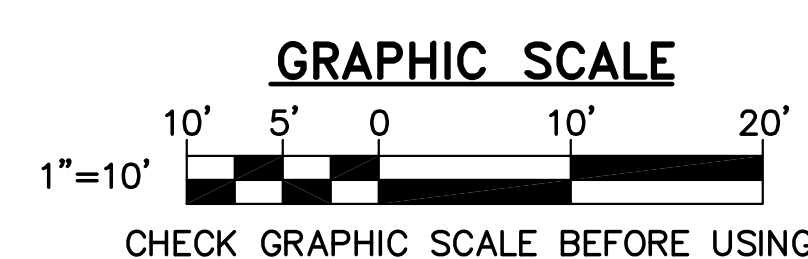


SURFACE LEGEND: (SITE PLAN ONLY)

- NEW PAVEMENT.
- NEW TURF.

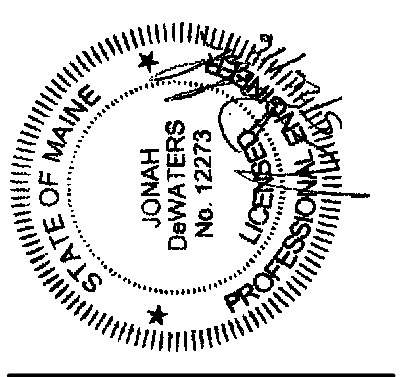
KEYNOTES: (SITE PLAN ONLY)

- HEAVY DUTY ASPHALT CONCRETE PAVEMENT. SEE DETAIL 1/C-501 (SIM, PROVIDE 15" THICK SUBBASE LAYER AND 2-3/4" THICK BINDER COURSE)
- REINFORCED CONCRETE STOOP. SEE SHEET SB101
- ASPHALT CONCRETE WALK. SEE DETAIL 2/C-501
- REINFORCED CONCRETE CURB. SEE DETAIL 3/C-501
- UNDERGROUND ELECTRIC (PRIMARY) LINE IN CONDUIT TRENCH. SEE DETAIL 7/C-501
- TRANSFORMER (BY CMP) ON REINFORCED CONCRETE TRANSFORMER PAD. SEE DETAIL 6/C-501
- UNDERGROUND ELECTRIC (SECONDARY)/COMMUNICATION LINES IN CONDUIT TRENCH. SEE DETAILS 10/C-501 (FOR WALL PENETRATION) AND 5/C-501
- METER PEDESTAL. SEE DETAIL 9/C-501
- BOLLARD. SEE DETAIL 3/CS103
- 3" DIAMETER GALVANIZED CORNER POST, SET IN 12" DIAMETER X 4' DEEP FORMED CONCRETE BASE. MODIFY AND REINSTALL EXISTING FENCE FABRIC, BARBED WIRE, AND TOP RAILS, CONNECTED TO NEW POST.
- 6" TOPSOIL, SEED, FERTILIZER AND MULCH ALL DISTURBED AREAS UNLESS INDICATED OTHERWISE
- PAVEMENT MARKING - 4" WIDE, WHITE.
- PAVEMENT MARKING - 4" WIDE, YELLOW AT 4' ON CENTER.
- PAVEMENT MARKING. MATCH EXISTING LAYOUT, WIDTH (±4') AND COLOR (YELLOW).
- NOT USED.
- SEDIMENT CONTROL WATTLE. SEE DETAIL 2/C-001



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CHECKED BY: JSD
PROJECT: 21502.10

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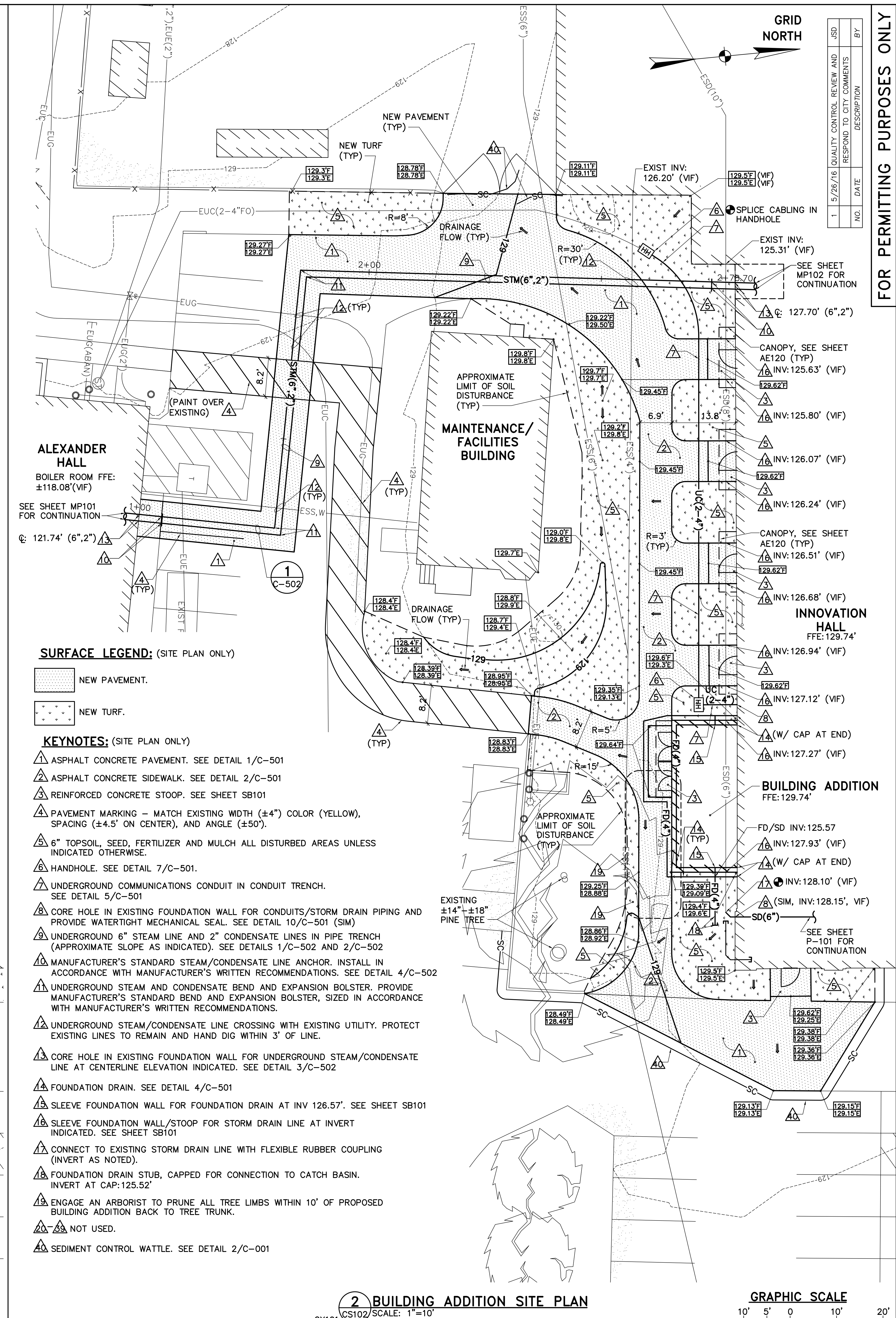
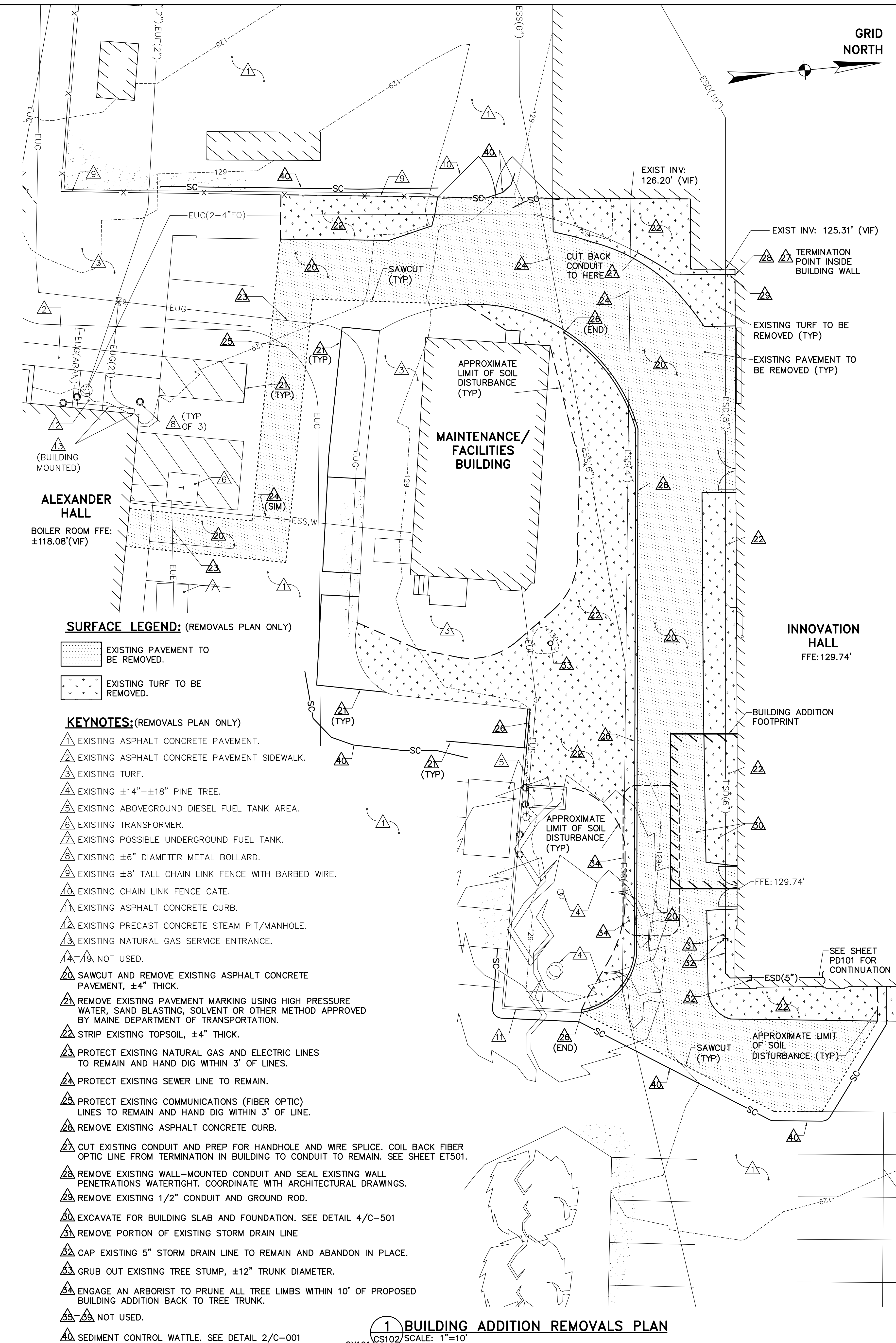
RENOVATIONS TO THE
STEVEN AVENUE ARMOY

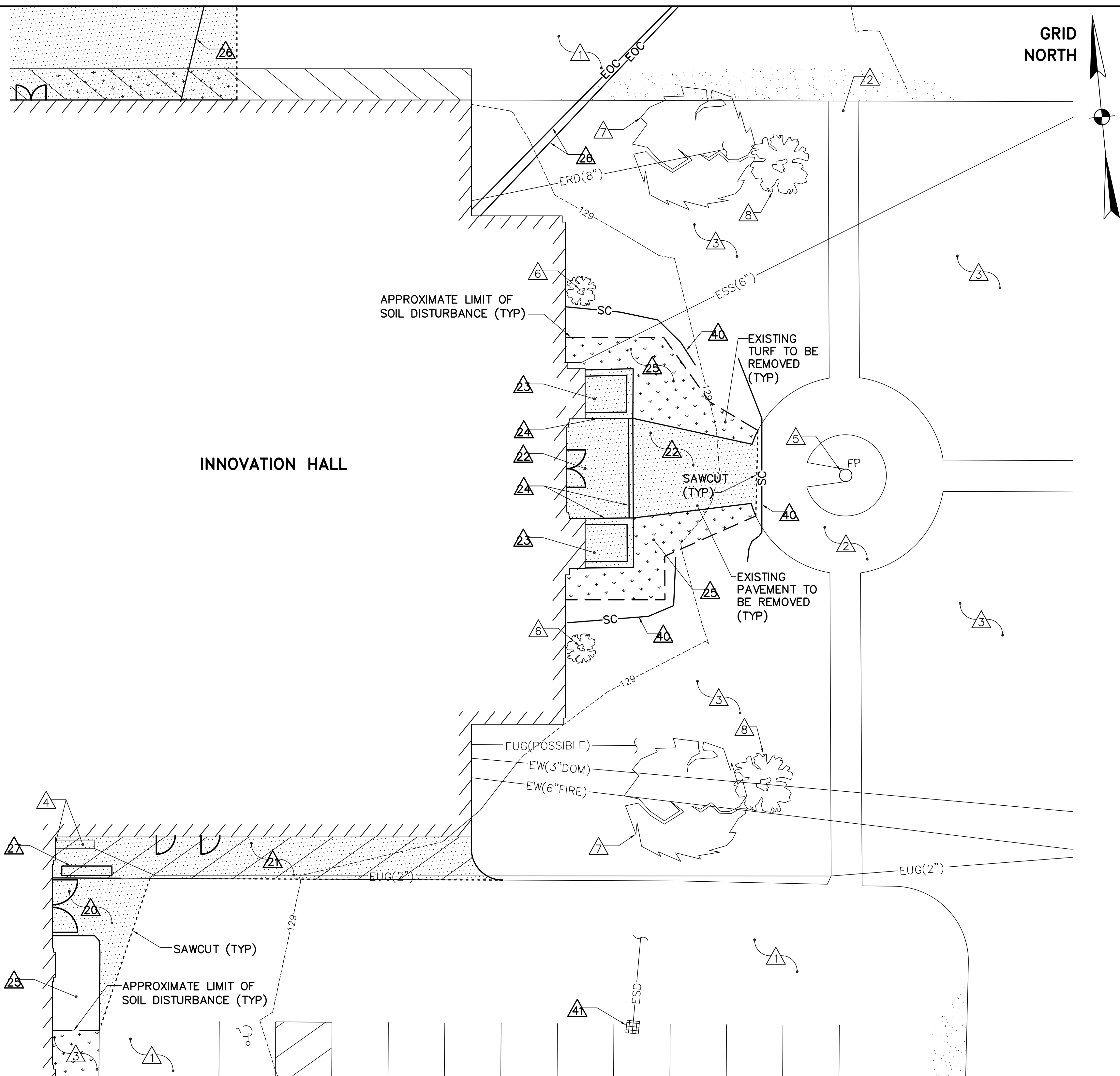
NORTH
ENTRANCE
PLANS

SCALE: AS NOTED
DATE: 05-03-16

DWG. CS101

SHEET: 6 OF 10





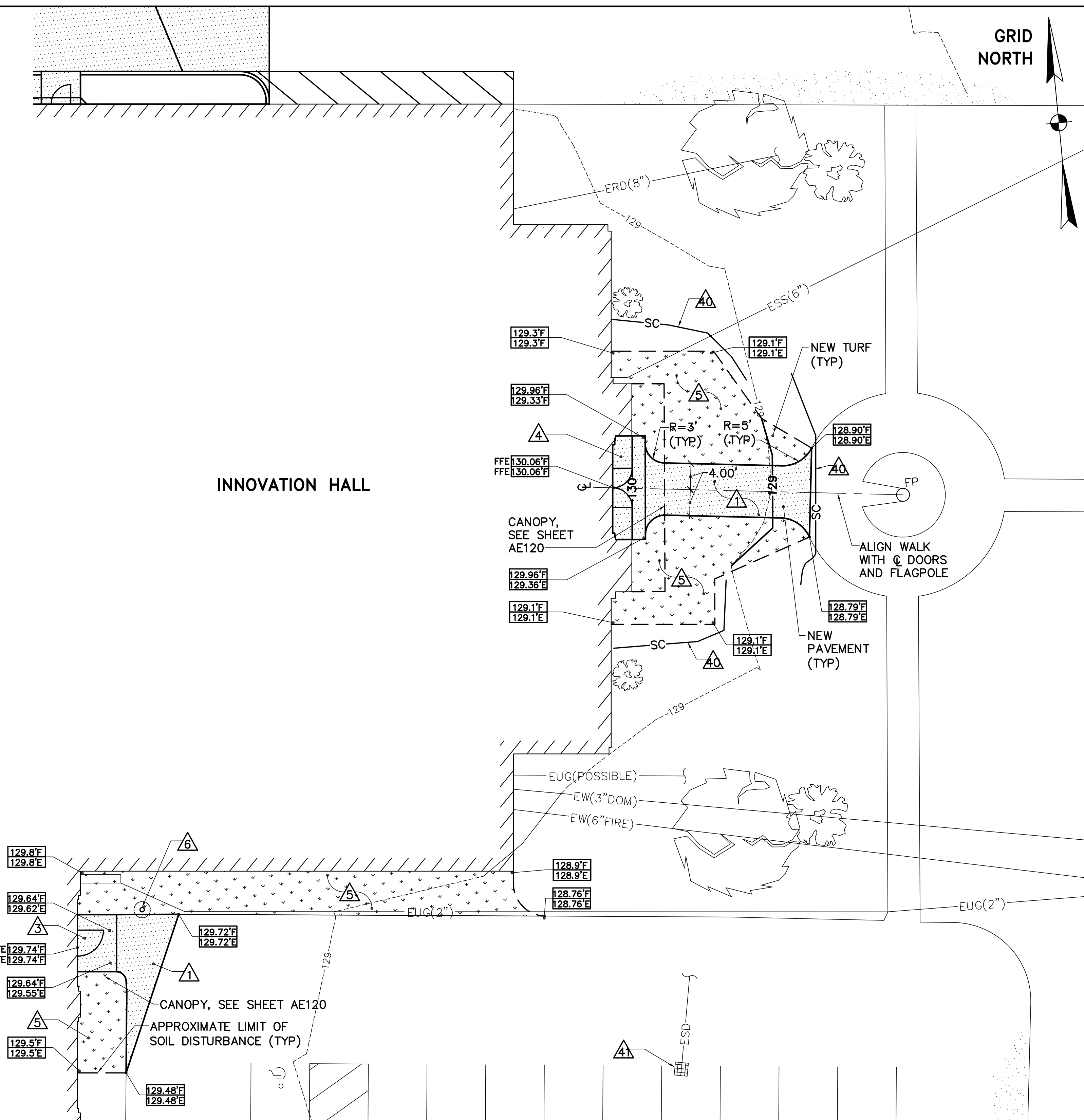
SURFACE LEGEND: (REMOVALS PLAN ONLY)

- EXISTING PAVEMENT TO BE REMOVED.
- EXISTING TURF TO BE REMOVED.

KEYNOTES:(REMOVALS PLAN ONLY)

- EXISTING ASPHALT CONCRETE PAVEMENT.
- EXISTING ASPHALT CONCRETE PAVEMENT SIDEWALK.
- EXISTING TURF.
- EXISTING NATURAL GAS SERVICE ENTRANCE, METER, REGULATOR AND PIPE UP WALL.
- EXISTING FLAGPOLE.
- EXISTING SHRUB.
- EXISTING ±10" DIAMETER SPRUCE TREE.
- EXISTING ±18"-24" DIAMETER MULTI-TRUNKED SHRUB.
- NOT USED.
- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE PAVEMENT, ±4" THICK
- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE PAVEMENT (±4" THICK) AND BASE (±6" THICK)
- SAWCUT AND REMOVE EXISTING ASPHALT CONCRETE SIDEWALK (THICKNESS VARIES FROM ±8" TO ±2") AND 6" THICK REINFORCED CONCRETE SLAB BELOW.
- REMOVE EXISTING GRANITE AND REINFORCED CONCRETE RAISED PLANTING BED. SEE SHEET SD101.
- REMOVE EXISTING 12"x8"x ±16' LONG GRANITE CURB/EDGING AND CONCRETE WALL BELOW. SEE SHEET SD101.
- STRIP EXISTING TOPSOIL, ±4" THICK.
- REMOVE EXISTING OVERHEAD WIRE (SEE SHEETS CX101 AND ED101).
- REMOVE EXISTING JERSEY BARRIER.
- NOT USED.
- SEDIMENT CONTROL WATTLE. SEE DETAIL 2/C-001.
- CATCH BASIN INLET PROTECTION. SEE DETAIL 1/C-001.

1 EAST ENTRANCE REMOVALS PLAN
CS103 SCALE: 1"=10'



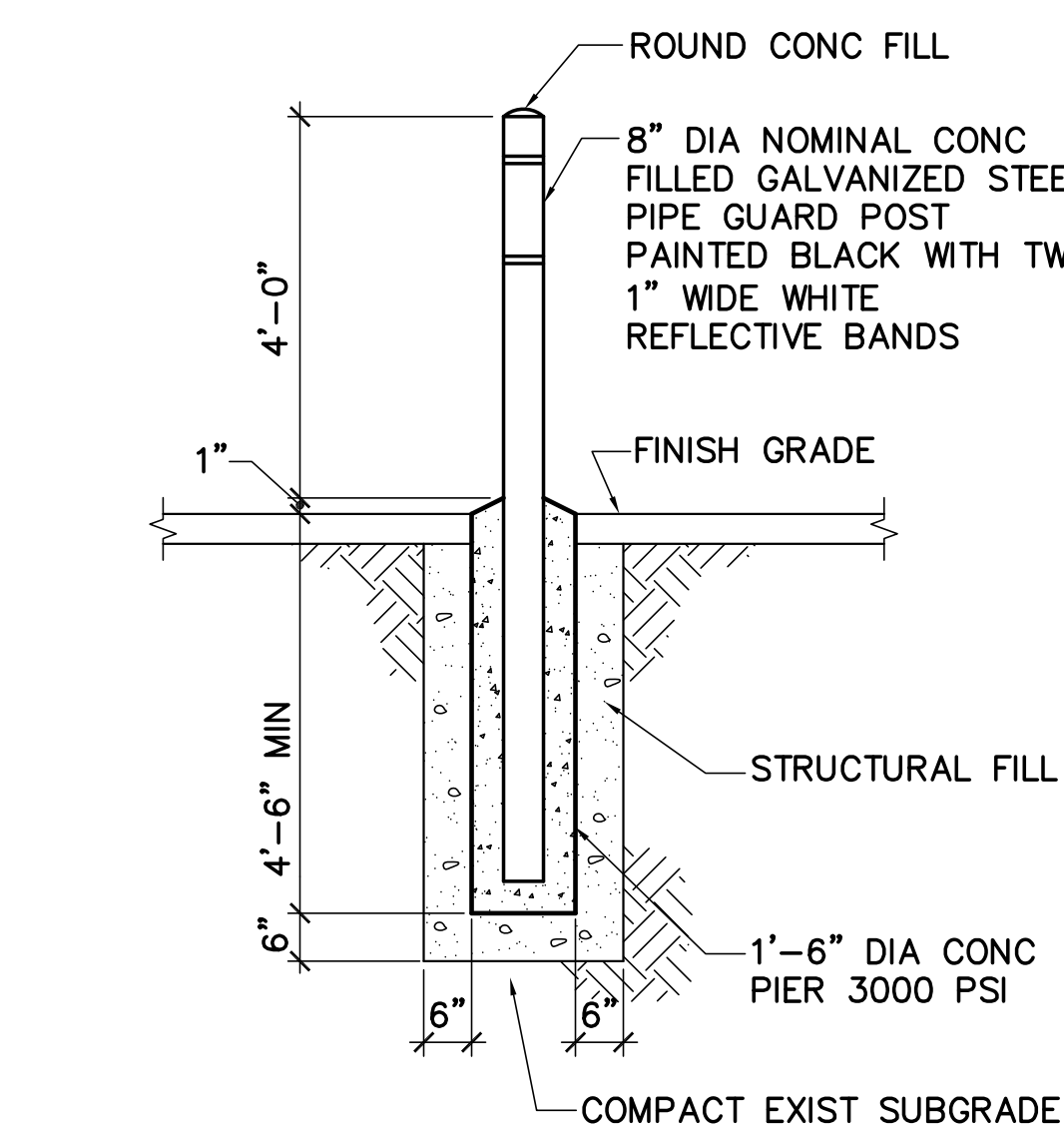
SURFACE LEGEND: (SITE PLAN ONLY)

- NEW PAVEMENT.
- NEW TURF.

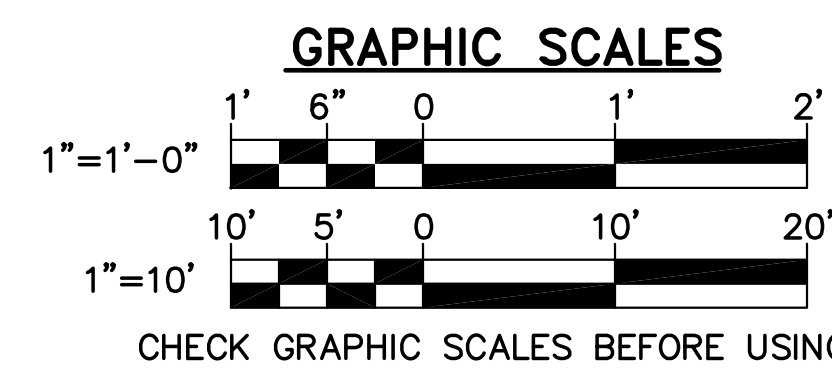
KEYNOTES:(SITE PLAN ONLY)

- ASPHALT CONCRETE PAVEMENT. SEE DETAIL 1/C-501.
- ASPHALT CONCRETE SIDEWALK. SEE DETAIL 2/C-501.
- REINFORCED CONCRETE STOOP. SEE SHEET SB101.
- REINFORCED CONCRETE STOOP. SEE SHEET SB502.
- 6" TOPSOIL, SEED, FERTILIZER AND MULCH ALL DISTURBED AREAS UNLESS INDICATED OTHERWISE.
- BOLLARD. SEE DETAIL 3/CS103.
- NOT USED.
- SEDIMENT CONTROL WATTLE. SEE DETAIL 2/C-001.
- CATCH BASIN INLET PROTECTION. SEE DETAIL 1/C-001.

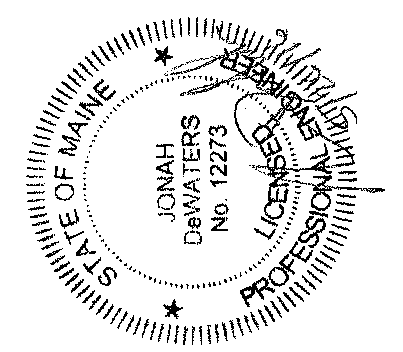
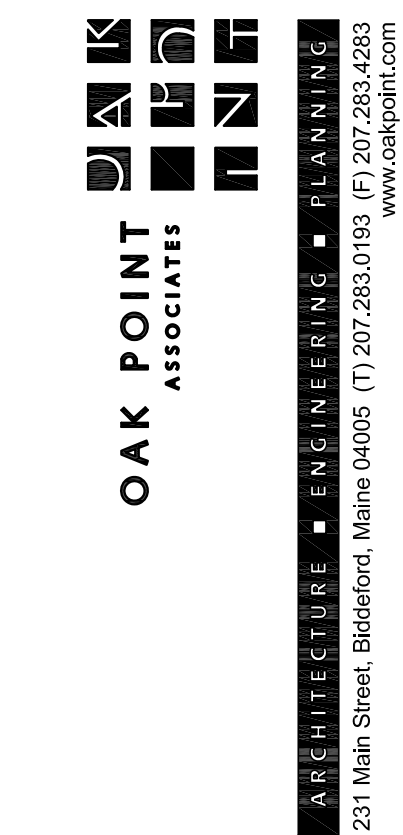
2 EAST ENTRANCE SITE PLAN
CS103 SCALE: 1"=10'



3 TYP BOLLARD DETAIL
CS101,CS103 CS103 NOT TO SCALE



NO.	DATE	DESCRIPTION	BY
1	5/26/16	QUALITY CONTROL REVIEW AND RESPOND TO CITY COMMENTS	JSD



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DRAWN BY: JLG
CHECKED BY:
PROJECT: 21502.10

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RENOVATIONS TO THE
STEVEN AVENUE ARMORY

EAST
ENTRANCE
PLANS

SCALE: AS NOTED

DATE: 05-03-16

DWG. **CS103**

SHEET: 8 OF 10

SHEET 9 OF 10



PLANNING BOARD REPORT PORTLAND, MAINE

Waynflete School Campus Upgrade Project
Level III Site Plan Review
2016-034
The Waynflete School

Submitted to: Portland Planning Board Date: June 9, 2016 Public Hearing Date: June 14, 2016	Prepared by: Nell Donaldson, Planner CBLs: 61-F-2, 3, 4, 5, 6, 7, and 11 Project #: 2016-034
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I. INTRODUCTION

The Waynflete School appears before the board for a final Level III site plan review for the construction of new gymnasium and Lower School facilities on their 5.6 acre campus in the city's West End. The project involves the demolition of the existing gym, replacement with a new 13,000 SF building, the renovation and expansion of the Lower School, and the construction of new outdoor play spaces. Sidewalk, stormwater and utility upgrades are also proposed.

The Board met in April to review preliminary plans for the project. At that workshop, discussion focused on the school's transportation demand management plan and parking arrangements, construction management plan, landscaping, and screening. Several neighbors spoke in support of the plans. The applicant met with city staff following the workshop to discuss parking, infrastructure improvements, and fire access, and submitted final plans designed to address outstanding concerns in these areas in late May and again in early June. These plans are the subject of this hearing.

This development is being referred to the Planning Board for compliance with the site plan standards of the land use code. A total of 484 notices were sent to property owners within 1,000 feet of the site and a legal ad ran in the *Portland Press Herald* on June 6 and 7, 2016.

Applicant: The Waynflete School

Consultants: Lauren Swett, Woodard & Curran; Scott Simons Architects; Titcomb Associates, Surveyor

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
<i>Maximum illumination level</i> – to allow an illumination level of 5.1 foot candles outside the south entrance of the Lower School	Technical Manual, <i>Section 12.2.3</i> . Maximum illumination levels shall be 5.0 foot candles when measured at grade.
<i>Light trespass</i> – to allow an illumination level of .4 foot candles at the property line south of the gym	Technical Manual, <i>Section 12.2.5</i> . Maximum illumination level at the property line shall not exceed .1 foot candle when measured at grade.
Review	Applicable Standards
Site Plan	<i>Section 14-526, with Historic Preservation review</i>

III. PROJECT DATA

Existing Zoning	R-4 with Waynflete Overlay
Existing Use	School
Proposed Use	School
Proposed Development Program	13,400 SF gymnasium and 26,700 SF Lower School
Parcel Size	Approximately 5.6 acres

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	9,242 SF (Gym)	10,568 SF	1,326 SF
	4,520 (Lower School)	10,270 SF	5,750 SF
Building Floor Area	9,242 SF (Gym)	13,412 SF	4,170 SF
	8,967 (Lower School)	26,698 SF	17,731 SF
Impervious Surface Area	91,876 SF	96,652 SF	4,776 SF
Parking Spaces (on site)	50	50	0
Estimated Cost of Project	\$12,500,000		

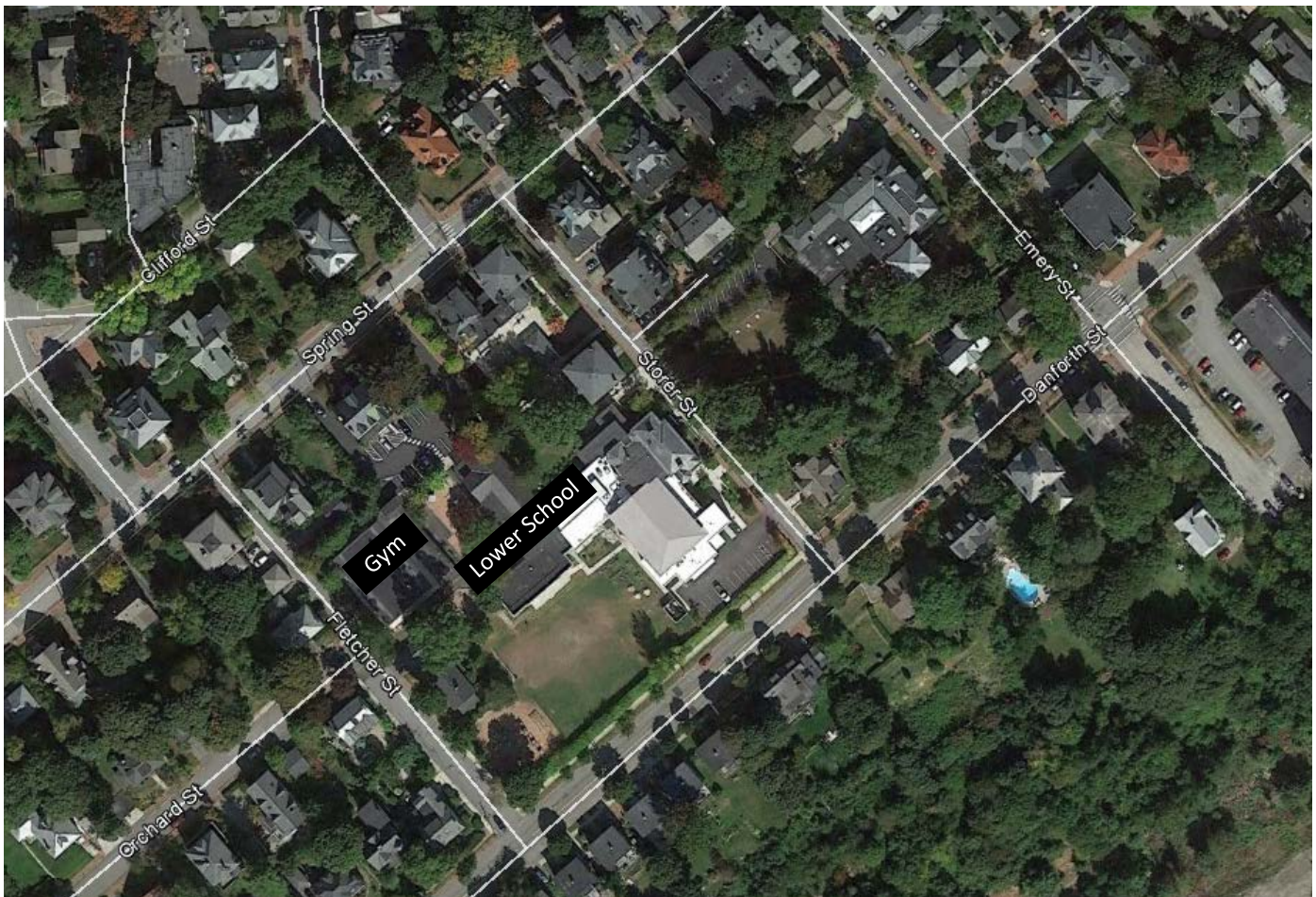
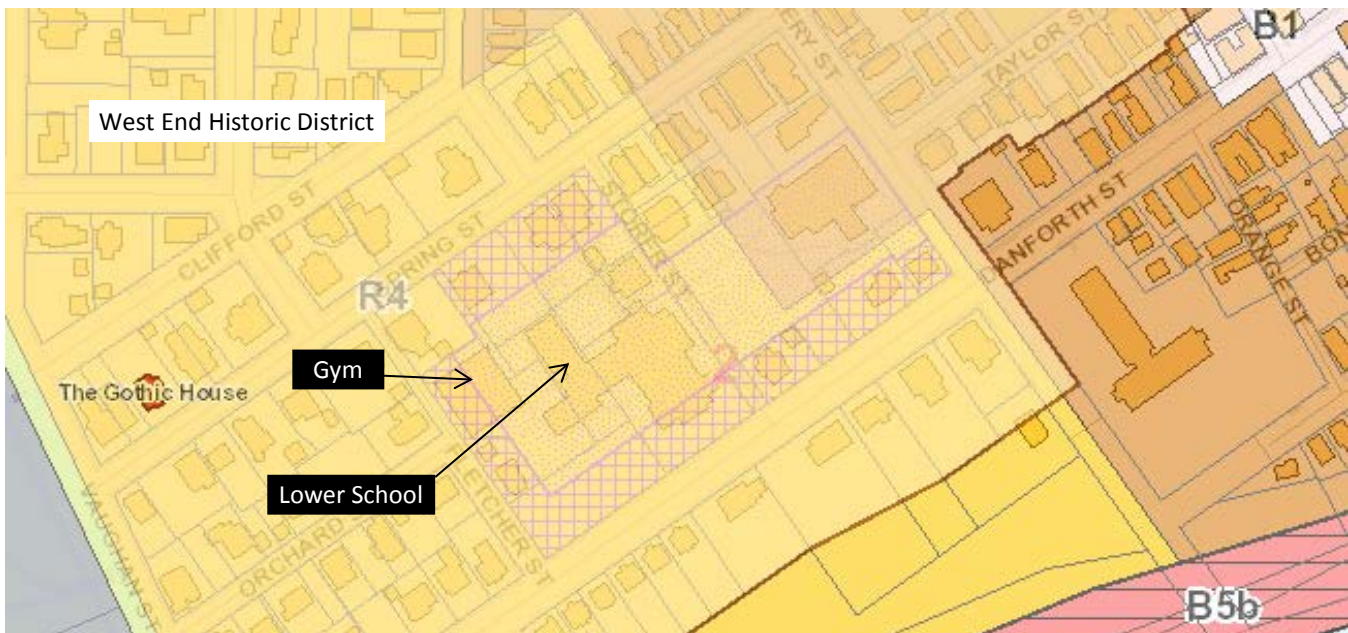


Figure 1: Waynflete campus from above



Figures 2 and 3: Existing zoning (above); view of existing gym from Fletcher Street (right)

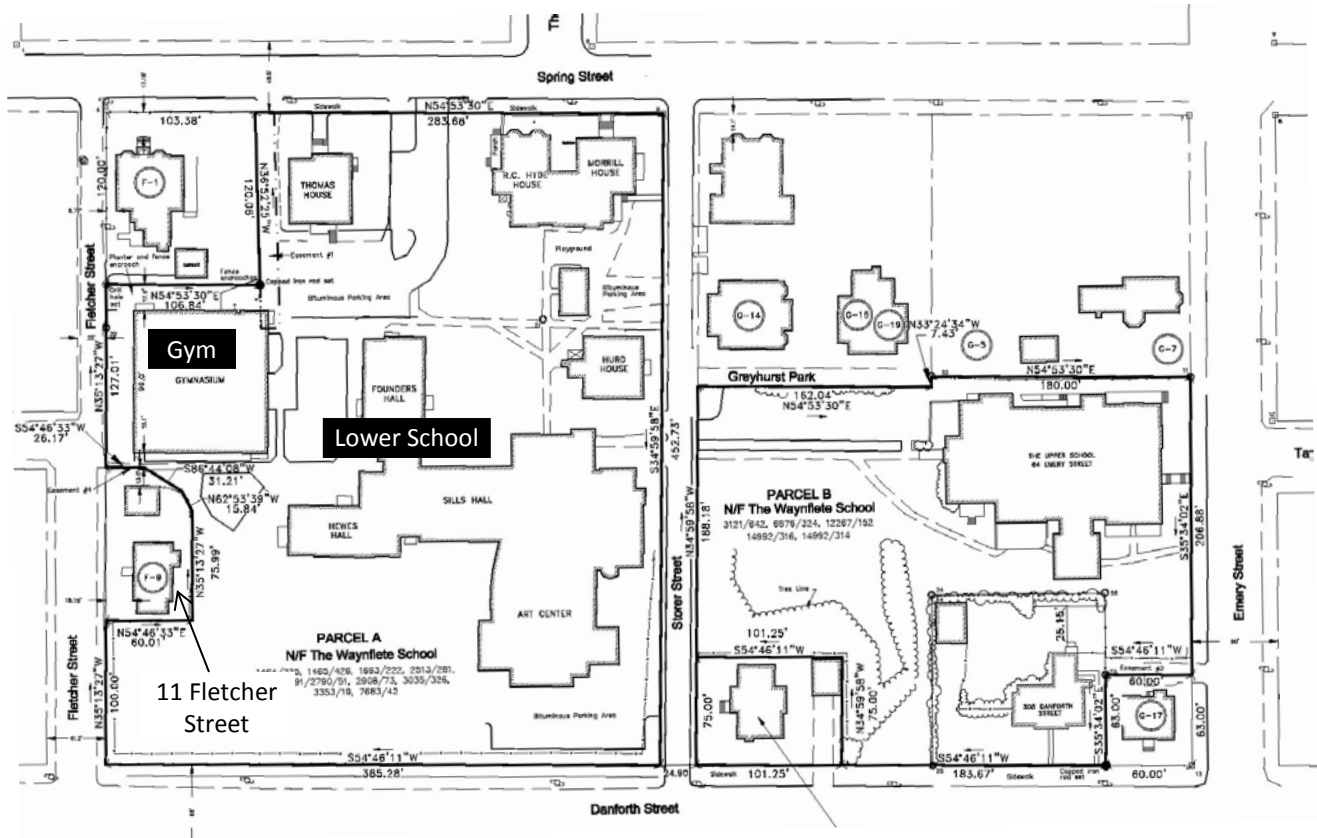
IV. BACKGROUND & EXISTING CONDITIONS

The Waynflete School is a 550-student private day school serving youth from early childhood to 12th grade, with approximately 110 full time faculty and staff. The campus has occupied its home in the West End since the early 1900s, and today consists of an Upper School on Emery Street, a Middle School on Spring and Storer Streets, a Lower School at the center of the campus, an arts center, a gymnasium, various administrative buildings, and outdoor play and gathering spaces. The campus occupies most of the block surrounded by Spring Street, Storer Street, Danforth Street, and Fletcher Street, and half of the block to the east to Emery Street (*Figure 4*). Residential uses surround the school on all sides, including both the north and south sides of the gym and the west side of the Lower School.

The existing Lower School occupies an early 20th century building at the center of the campus, with the most recent major addition in 1960. The school's master plan has listed the renovation and addition proposed under this application as a priority action item for at least 10 years (*Attachment V*).

The existing gym, which lies along Fletcher Street but fronts the interior of the campus, was constructed in the mid-1970s. Like the Lower School, its renovation or replacement has comprised a priority in the school's master plan since 2005 (*Attachment V*).

Waynflete lies in the R-4 residential zone and is subject to the Waynflete Overlay, a zoning designation created in 2010 with the expressed intent of balancing Waynflete's growth with the need for clearly defined campus boundaries. Waynflete also lies within the West End Historic District.



Figures 4 and 5: Waynflete campus survey (above) and proposed gym and Lower School from southwest (below)

V. PROPOSED DEVELOPMENT

Under the current site plan application, Waynflete proposes three major campus upgrades:

1. *Renovation and expansion of Lower School:* The plans include an 18,000 SF expansion of the existing Lower School in order to provide larger classrooms, maximize shared spaces, add office space, and enhance connections to the adjacent outdoor play spaces while meeting Passive House certification standards. Enrollment is not anticipated to increase as a product of the expansion.
2. *Construction of a new gymnasium:* The plans also include the demolition of the existing gym and replacement with a larger facility with greater capacity, expanded locker rooms, additional court space, and office space in the same location on Fletcher Street. The building is designed to meet LEED Platinum standards.
3. *Renovated grounds and play spaces.* Lastly, the plans show redesigned play spaces between the gym and Lower School and between the Lower School and the adjacent neighbor on Fletcher Street, as well as a garden space to the east of the Lower School.

Stormwater and utility improvements are proposed in association with this work, as are sidewalk and crosswalk upgrades.

VI. PUBLIC COMMENT

As required, Waynflete hosted a neighborhood meeting on Monday, March 4. The meeting minutes show that neighbors raised questions about the size of the proposed gym building, the design of the gym building, landscaping along the gym frontage on Fletcher Street, internal pedestrian circulation, and construction sequencing and impacts to school operations (*Attachment T*). In addition, the Planning Division received two written public comments on the plans (*Attachments PC-1 and 2*). Both expressed general support for the project.

VII. RIGHT, TITLE, & INTEREST

Waynflete's submittal includes deeds as evidence of right, title, and interest (*Attachment E*). There are four easements which currently encumber the site, including driveway access easements to abutters on Spring Street and Emery Street, a utility pole easement to Central Maine Power, and a sidewalk easement agreement with the abutter on Fletcher Street, where the school's walkway from Fletcher Street/Orchard Street has historically encroached on the adjacent 11 Fletcher Street property (*Figure 4*). In their most recent submittal, Waynflete has provided a copy of this easement (*Attachment H*). Under the current plans, the walkway in this area will be reconstructed entirely within Waynflete's property.

Bill Clark, the city's surveyor, has reviewed the revised survey and indicated that all boundary survey requirements have been fulfilled (*Attachment 1*).

VIII. FINANCIAL & TECHNICAL CAPACITY

The estimated cost of the project is approximately \$12.5 million. Waynflete has submitted a letter from People's United Bank attesting to the institution's financial and management capacity (*Attachment I*).

IX. ZONING ANALYSIS

Waynflete has provided zoning analysis documenting that all dimensional requirements of the R-4 and Waynflete Overlay Zones are being met (*Attachment G*). In this analysis, the school includes front yard and side yard setback calculations, particularly with respect to the gym, which is proximate to Fletcher Street and nestled between two adjacent single family homes, and shows that the building will meet the R-4 dimensional requirements. It should be noted that, in the plans, an existing non-conformity in the rear yard gym setback is maintained. Ann Machado, Zoning Administrator, has advised that this is allowable so long as the non-conformity is not exacerbated. The applicant has also provided building height and lot coverage calculations which demonstrate that the plans meet the provisions of the R-4 and Waynflete Overlay Zones.

The Waynflete Overlay Zone includes language related to off-street parking and loading. These provisions are discussed in detail under site plan review below.

X. SITE PLAN SUBMISSION REQUIREMENTS (*Section 14-527*)

The applicant has noted that a Maine Construction General Permit will be required. This permit has been suggested as a condition of approval.

The applicant has provided a preliminary Construction Logistics Plan (*Attachment J*). This plan does not address traffic control measures or temporary easements which may be necessary during construction. The applicant has requested that the construction management plan be reviewed as a condition of approval, as they are “currently reviewing funding considerations, and will be making a decision on whether to construct both the Lower School and the Gym or to split the work into two projects” over the course of the summer (*Attachment W*). If a phased project is desired, staff has advised the applicant that a formal amendment to the site plan approval would be required. Conditions of approval have been drafted to address the possibility of phasing and require a final construction management plan which reflects final decisions on construction sequencing. Any necessary construction easements are also included in this condition of approval.

XI. SITE PLAN REVIEW

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland’s site plan ordinance. Staff comments are below.

1. Transportation Standards**a. Impact on Surrounding Street Systems**

In their preliminary submittal, the applicant stated that “the campus upgrades are not being proposed for the purpose of accommodating larger enrollments; rather, [they are] intended to improve the overall learning experience of the classrooms. As such, an increase in traffic throughout, to, and from the site is not anticipated at this time” (*Attachment K*). Upon the city’s request, Waynflete has documented that the gym reconstruction project will increase its bleacher capacity from 150 to 600 seats. The final submittal states that “the primary reason for providing 600 seats is that the new design will provide an on-campus location that will seat the entire student body. Although the current gym can hold the entire student body for all school assemblies seated on the floor, there is little room for presenters or performers during those activities. These all-school assemblies during the school day involve the same number of students, faculty, and staff as they do now and will not increase traffic volume or parking demand in the area” (*Attachment K*).

However, the additional capacity will also accommodate larger crowds during special events, such as basketball games, than are supported by the existing gym. In their final submittal, the applicant estimates a peak gym occupancy of 400 spectators, similar to that of the existing theater. Given a factor of 3 persons per vehicle, this occupancy equates to a trip generation of 134 cars. They argue that, ultimately, this peak demand will occur only a “handful” of times a year (*Attachment K*). Given this very infrequent occurrence and the school’s existing transportation demand management plan, staff have not requested additional action from the applicant with respect to traffic impacts.

b. Access and Circulation

The primary access to the gym and Lower School would continue to be from the main campus entrance on Spring Street. Thus while the original plans showed sidewalk reconstruction on Danforth Street, city staff requested that the applicant modify the plans to focus sidewalk work on Spring Street, where the sidewalk receives heavy traffic but is in marginal condition. The final plans include new brick sidewalks on the southeast side of Spring Street from the school’s main vehicular entry northeast to Storer Street. In reviewing these plans, Tom Errico, the city’s consulting traffic engineer, has noted,

The plans include improving the existing sidewalk on Spring Street along the school’s frontage and I find this to be a reasonable alternative to upgrading the existing concrete sidewalk on Danforth (primarily due to the Danforth Street sidewalk to be in good condition and the Spring Street sidewalk to be in poor condition)...

Sidewalk ramps and detectible warning panels shall be provided for the existing crosswalk from the northeasterly corner of Thomas Street to the school site frontage. It is suggested that the application investigate the feasibility of shifting the crosswalk to the east to provide a perpendicular landing on the Thomas Street side. If determined not to be reasonably feasible, the fully ADA crosswalk can remain in its current location.

A condition of approval regarding the Spring Street sidewalk has been suggested.

With respect to Danforth Street, the plans also include new ramps and crosswalks at Fletcher and Danforth Streets and Storer and Danforth Streets. Mr. Errico has reviewed these improvements and notes,

I generally find the proposed crosswalk on Danforth Street to be acceptable. Please note the following:

o Warning signs that meet MUTCD standards shall be installed on Danforth Street. This is outstanding for the proposed crosswalk at Fletcher Street.

o At the northeast corner of the Danforth Street/Fletcher Street intersection where they have the two crosswalks, the one curb ramp is not designed correctly with respect to the detectable warning panel(s). For the full width of the flush curb portion of the curb ramp, there needs to be a detectible warning panel; the plans show two individual sections of detectible warning panel that does not cover the entirety of the ramp. In addition, a note shall be added that specifies the design/construction will prevent ponding within the landing area and at the base of the ramps.

A condition of approval has been suggested to address this comment.

A secondary, gated pedestrian entrance is to remain from Fletcher Street, in the space between the proposed gym and the abutter at 11 Fletcher Street. Internal circulation is planned via concrete sidewalk. No new vehicular access is proposed.

c. Public Transit Access

Greater Portland METRO's Route 8 follows Emery Street southbound past Waynflete's Upper School. However, Emery Street does not qualify as a principal or minor arterial. As such, no public transit facility is required.

d. Parking

As noted above, the Waynflete Overlay Zone contains its own regulations related to off-street parking, which state that "[t]he amount of parking required for any change of use, new building, or building addition within the zone shall be determined during site plan review, based on an analysis of school-wide demand and supply, pursuant to a comprehensive school-wide TDM plan (*Section 14-276.7*). Waynflete has not proposed to create any additional off-street vehicular or bicycle parking under this application.

Waynflete has stated that they do not anticipate any sustained increase in parking demand associated with the Lower School and gym projects, despite the fact that gym capacity will increase under the reconstruction. On a daily basis, and during the day, the gym would solely be used to accommodate the student, faculty, and staff, a population which already exists on the site. As noted above, the applicant estimates a "handful" of events in the gym each year which would comprise their peak trip generation, in their estimation, of up to 400 spectators and 134 vehicles (*Attachment K*). In their analysis, there is ample school parking (43 spaces), rented off-campus parking (25 off-campus spaces at the First Church of Christ Scientist at 61 Neal Street), and on-street parking (640 spaces) in the immediate vicinity to accommodate this peak demand on the rare occasion when it occurs. In their final submittal, Waynflete also speaks to their advance planning to offset special events in the theater and gym. Mr. Errico has reviewed the parking analysis and writes,

The applicant has provided information that notes parking demand is expected to be 134 vehicles during events assuming 400 spectators. In respect to increase in parking demand, assuming 450 new spectators (full capacity of 600 versus the old gym capacity of 150) 150 new vehicles parking in the area are projected. It should be noted that for events with a capacity of 600 spectators, 200 vehicles could be generated in total parking demand. To address parking demand impacts, the project should continue to revisit and revise the Transportation and Parking Demand Management Plan (TPDM).

Related to the issue of parking, it should be noted that, when the city's Planning Board approved Waynflete's Arts Center in 2007, it did so with a condition, based largely on Historic Preservation grounds, that the parking lot on the south side of the Arts Center be revisited at the time of the school's next Planning Board level site plan review, and that this "facility may be required to be relocated based upon the conditions at that time." In 2013, the Historic Preservation Board amended an earlier condition related to this parking, noting that the "parking lot, dumpster, and associated enclosure [should] be maintained in good order and not expanded beyond their current boundaries." Under the current application, Waynflete proposes to leave this parking area in its existing condition, where it is screened by vegetation on the Danforth frontage. The landscaping plans also show the extension of an existing fence and two new maple trees in this area. The city's Historic Preservation Board reviewed this parking at their hearing on this item on June 1 and found that the parking area meets the historic preservation ordinance review standards. No further changes have been requested at this time.

e. *Transportation Demand Management*

A Transportation Demand Management Plan is required both as a product of the Overlay Zone and site plan review. In the final submittal, the applicant has submitted an updated TDM plan with the aim of "reduc[ing] the traffic volume and parking demand in the neighborhood surrounding the School by a variety of specific strategies such as policies and procedures, rideshare, transit, bicycling, walking, and utilization of existing off-street parking" (*Attachment K*). The plan describes existing strategies employed by the school in an effort to reduce trip generation and parking demand. Mr. Errico has reviewed this TDM plan and provides the following comments,

The applicant has provided a Transportation and Parking Demand Management Plan (TPDM) dated May 2016 and my comments on specific elements of that document are provided as follows.

- o The impacts of having two simultaneous events at the new gym and theater should be avoided. The plan should note conditions where two events could occur (maybe based on expected attendance level – although this can be difficult to predict, particularly for athletic events).*
- o As noted staff and students are restricted from parking on a select number of streets. The applicant should conduct field observations that confirm this restriction. It would be helpful to understand locations where staff and students park.*
- o The Plan notes a Rideshare Program but fails to document participation levels. The applicant should provide participation levels and establish reasonable goals/targets for participation and if necessary implement strategies for increased participation.*
- o The Plan notes limited use of the provided METRO passes. The applicant should investigate barriers or issues that limit participation. Again, reasonable goals/targets should be established.*
- o It would be helpful in the crafting an effective TPDM Plan to fully understand existing transportation modes for both staff and students. Accordingly, the applicant should provide a summary of transportation modal methods for the campus.*
- o All of the above should be conducted after occupancy of the new gym. The applicant shall coordinate with the Planning Authority and on appropriate methods for conducting the work.*

A condition of approval has been drafted to address these outstanding comments.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

There are no known significant natural features on the site.

b. Landscaping and Landscape Preservation

The final landscaping plans show significant landscaping on the northwest and southern sides of the gym building, in the quad area between the gym and Lower School, in the sloped area below the Lower School, and on the north and east sides of the 11 Fletcher Street abutter. Altogether, these spaces will be reshaped significantly as a product of this proposal. The applicant has proposed to protect several critical trees on the property, including an existing white oak whose root zone extends from 11 Fletcher Street onto school property and a tree at the parking entrance on Storer Street below the Arts Center. Jeff Tarling, the city's arborist, has requested that the applicant add notes regarding tree preservation measures to be taken during construction, particularly with respect to the oak. A condition of approval has been suggested in this regard.

At the workshop, there was some discussion of the location of a proposed transformer on the northwest side of the new gym building adjacent to the northerly abutter. The final plans continue to show the transformer in this location. In their final submittal, the applicant states, "[t]he landscape architect...met with the neighbor located to the north of the gym to review the transformer location. The abutter did not have specific concerns regarding the transformer due to the extensive screening that they have in their own yard" (*Attachment W*). The applicant has proposed evergreen landscaping in this area, as well as a fence. They have requested that fence details be resolved as a condition of approval.

It should be noted that, at their hearing on this item, the Historic Preservation Board did approve a condition of approval requiring the applicant to submit revised landscaping plans for the west side of the gym building for staff review and approval. The applicant has provided plans to address this condition of approval, and Deb Andrews, the Historic Preservation Manager, has approved the revised landscaping plan as presented here.

c. Water Quality/Storm Water Management/Erosion Control

Under the current plans, the applicant proposes to increase the impervious surface on the site by approximately 5,000 SF. The plans include a subsurface underdrained sand filter in the field area to the south of the Lower School. This filter system will reduce the peak runoff rate and treat 100% of the site's new impervious area, as well as a significant portion of the site's impervious area overall. Because adjacent downgrade sewer and stormwater infrastructure are combined, the site's system would outlet to the combined sewer in Danforth Street.

Steve Bushey, the city's consulting civil engineer, has reviewed the grading and drainage and stormwater management plans and found that they meet the water quality and quantity standards. However, Mr. Bushey's final comments do raise some questions about the positioning of some of the site's storm drainage infrastructure. He writes,

We continue to question the design depth of the storm drainage line between CB5 and CB 1 as much of this system remains significantly deep for construction. We understand that the team is contemplating the use of sheet pile due to the trench depths greater than 10 feet and to avoid significant trench widths and impacts to the neighboring property and to Fletcher Street. This is likely to be expensive to say the least. The reasoning for the design as now proposed is that two small drainage basins within the exterior stairwells need points to discharge to. We simply offer other possibilities to explore that might alleviate the need for such deep drainage pipe. ...The designers may have contemplated all of these suggestions and ruled them out and if so, then our only remaining comment would be to assure that the property

owner at the NW corner of the site, nearest the DMH2 location should be made aware of the circumstances involving sheet pile placement and related heavy construction activity so proximate to their property (it appears the neighboring house might be less than 20' from the construction work limit). How and when this effort is accomplished may prove easier if the neighbor is reasonably assured of minor inconvenience to their property.

The applicant has advised that all alternatives to the existing design have been explored, and that it is likely that a construction easement with abutting property owners will be necessary in order to install storm drain lines and construct the gym building. These easements have been included as conditions of approval.

3. Public Infrastructure and Community Safety Standards

a. Consistency with Related Master Plans

The project is generally deemed consistent with related master plans.

b. Public Safety and Fire Prevention

In preliminary comments, staff raised some concerns with respect to Crime Prevention through Environmental Design (CPTED), particularly as it relates to the sunken stairwells on the north and south sides of the proposed gym building. The applicant has noted that these stairwells will have canopies, fencing, and lighting which should mitigate public safety concerns. Access to the northerly stairwell will also be gated. A detail for this fence and gate has been provided in the final submittal.

The applicant has provided a fire code analysis for review by the city's Fire Prevention Bureau, as well as a fire access diagram which depicts the location of an access lane from the existing parking adjacent to the theater across the playing fields to the southeasterly side of the Lower School (*Attachment Q*). Assistant Fire Chief Keith Gautreau has reviewed the life safety summary and the plan and notes the following,

I have reviewed the proposed Emergency Fire Lane and it is acceptable to the Fire Dept. The width is more than adequate at approx. 22 ft. I would like to see some type of signage indicating "Fire Lane No Parking" so that access will not be compromised by vehicles possibly parking up against the existing building adjacent to the proposed Fire Lane access.

In their final submittal, the applicant has submitted a plan which denotes fire lane/no parking signs in this location.

c. Availability and Capacity of Public Utilities

Regarding utility capacity, the applicant has noted that the plans "are not being proposed to accommodate a larger enrollment...As such, an increase in the utility supply needs of the site is not anticipated and we therefore do not anticipate the need to verify capacity to serve" (*Attachment O*). Following discussion with Waynflete on the potential for increased water and sewer flows to and from the site, DPW has indicated that they are satisfied that the project will not result in additional demand. No capacity letters were required.

The applicant proposes to discharge stormwater and sewer, via separate lines, into the combined sewer in Danforth Street. In the final plans, they show a new manhole in Danforth Street to provide storm drain access to this sewer line. This plan has been reviewed by Brad Roland of the Department of Public Works.

In the final submittal, the applicant has noted that, based on the age of the existing water infrastructure on the site, new water service will likely be needed from the main. The applicant has shown new water service from Spring Street on their plans and has stated that they will "work with the PWD to detail final services and develop temporary services to accommodate construction. A final plan for the water service will be provided prior to issuance of a building permit" (*Attachment W*).

Electrical service is proposed from Spring Street. Gas is proposed from an existing main on Fletcher Street.

Mr. Bushey has reviewed the utility plans and writes,

The engineer has offered responses to our earlier comments and these generally satisfy our concerns and interests in the project layout, stormwater management and utilities. There are a number of utilities related design pieces that remain outstanding, but as is often the norm, these must await further progress on MEP and architectural design as the team prepares construction documents. We suggest that a Condition of Approval simply apply for the final utilities pieces. Perhaps when the final approved plans are submitted in advance of construction the design engineer can simply provide a brief description of the final utility design conditions for the City records.

A condition of approval has been suggested to address this comment.

4. Site Design Standards

a. Massing, Ventilation, and Wind Impact

The bulk, location, and height of the proposed buildings are not likely to result in health or safety problems from a reduction in ventilation to abutting structures.

b. Shadows

The project is not anticipated to result in shadows on publicly accessible open space.

c. Snow and Ice Loading

The project is not anticipated to result in snow or ice accumulation on public ways or adjacent properties.

d. View Corridors

The project does not abut a protected view corridor.

e. Historic Resources

The project lies within the West End Historic District. As such, it is required to obtain a certificate of appropriateness under the city's historic preservation ordinance. The Historic Preservation Board reviewed the plans at two workshops on November 4, 2015 and March 10, 2016 and more recently at a hearing on June 1, 2016. The final design was approved at the hearing with some minor modifications in landscaping as described above. Historic Preservation staff have subsequently signed off on this condition.

f. Exterior Lighting

The applicant has provided cut sheets showing full cutoff fixtures in compliance with the city's Technical Manual (*Attachment R*). The applicant has also provided a photometric plan which shows that the lighting exceeds the maximum permitted illumination level of 5.0 foot candles at the southern entrance to the Lower School, where a reading of 5.1 foot candles is shown. These plans also exceed maximum illumination levels at the property line immediately south of the proposed gym, where an illumination level of .4 foot candles is shown (greater than the .1 foot candle illumination level permitted in the city's Technical Manual). In both of these instances, adequate illumination is necessary in order to light stairs and/or entrances, and particularly in the case of the gym lighting, there are CPTED concerns. The applicant has requested waivers for these lighting conditions.

g. Noise and Vibration

The applicant has provided documentation on the HVAC and mechanical equipment, and has stated that such equipment will be located on roof tops or in screened utility yards and positioned toward the interior of the campus to mitigate noise impacts.

h. *Signage and Wayfinding*

The submittal notes that signs will be limited to building names and will be designed to the Waynflete standard. As a development in a historic district, signs are subject to review under the historic preservation ordinance.

i. *Zoning-Related Design Standards*

Because the project is proposed in a historic district, design review falls entirely to the Historic Preservation Board. As noted above, the Historic Preservation Board approved the design at its June 1, 2016 hearing.

XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed Waynflete School Campus Upgrade project.

XIV. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on June 14, 2016 for application 2016-034 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. The planning board **finds/does not find**, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 12.2.3*) which establishes a maximum illumination level of 5.0 footcandles, 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** the *Technical Manual* standard (*Section 12.2.3*) to allow a maximum illumination level of 5.1 foot candles.
2. The planning board **finds/does not find**, based upon the consulting transportation engineer's review, that extraordinary conditions exist or undue hardship may result from strict compliance with the *Technical Manual* standard (*Section 12.2.5*) which establishes a maximum illumination level at the property line of 0.1 foot candle, 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** the *Technical Manual* standard (*Section 12.2.5*) to allow a maximum illumination level of .4 foot candle immediately south of the proposed gym.

B. DEVELOPMENT 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 June 14, 2016 for application 2016-034 relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the site plan standards of the land use code and **approves/does not approve** the application, subject to the following conditions of approval that must be met prior to the issuance of a building permit, unless otherwise stated:

1. The applicant shall provide evidence of a Maine Construction General Permit for review and approval by the Planning Authority;
2. The applicant shall provide a construction management plan, as well as any necessary temporary construction easements which are necessitated by that plan, for review and approval by the Department of Public Works and the Planning Authority;
3. Should the applicant elect to phase the project, the applicant shall submit an amendment to the site plan application for review and approval by the Planning Authority;

4. The applicant shall provide a revised site plan that:
 - a. Includes warning signs meeting MUTCD standards and detectable warning panels meeting the standards of the *Technical Manual* at Danforth and Fletcher Streets;
 - b. Includes a note that ponding within the landing area and the base of ramps at Danforth and Fletcher Streets shall not occur; and
 - c. Includes sidewalk ramps and detectable warning panels for the existing crosswalk from the northeasterly corner of Thomas Street to the school's Spring Street frontage and shifts this crosswalk to provide a perpendicular landing on the Thomas Street side, as feasible

for review and approval by the Department of Public works;
5. Prior to issuance of a certificate of occupancy, the applicant shall provide a revised Transportation and Parking Demand Management Plan which:
 - a. Notes conditions when simultaneous gym and theater events may occur and identifies strategies for mitigating the impacts of such occurrences;
 - b. Identifies existing on-street parking restrictions for staff and students;
 - c. Documents participation levels in the existing rideshare program and establishes targets for participation and implementation strategies;
 - d. Documents any barriers to transit ridership and establishes ridership targets; and
 - e. Documents existing mode share data for staff and students

for review and approval by the city's Department of Public Works and Planning Authority;
6. The applicant shall provide a revised landscaping plan which includes notes regarding tree protection measures to be taken during construction for review and approval by the City Arborist;
7. The applicant shall provide fence details for review and approval by the Planning Authority; and
8. The applicant shall provide a final utility plan for review and approval by the Department of Public Works.

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Surveyor review (memo from Bill Clark, 5/31/16)
2. Traffic Engineer review (memo from Thomas Errico, 6/8/16)
3. Department of Public Works review (memo from David Margolis-Pineo, 6/6/16)
4. Civil Engineer review (memo from Steve Bushey, 6/6/16)
5. Fire Prevention Bureau review (memo from Keith Gautreau, 6/1/16)

APPLICANT'S SUBMITTALS

- A. Cover Letter (from Lauren Swett, 2/16/16)
- B. Level III Site Plan Application
- C. Application Fees
- D. Project Description
- E. Evidence of Right, Title, and Interest
- F. Evidence of State and/or Federal Permits
- G. Assessment of Zoning
- H. Easements and Other Burdens

- I. Evidence of Financial and Technical Capacity
- J. Construction Management Plan
- K. Traffic Analysis (including TDM Plan)
- L. Significant Natural Features
- M. Stormwater Management Plan and Calculations
- N. Consistency with Master Plan
- O. Utility Capacity to Serve
- P. Solid Waste
- Q. Summary of Fire Codes
- R. Consistency with Portland Design Standards and Design Manual
- S. HVAC and Manufacturing Equipment Verification
- T. Neighborhood Meeting Minutes
- U. Cover Letter (response to comments from Lauren Swett, 3/31/16)
- V. 2005 Waynflete Master Plan
- W. Cover Letter (response to comments from Lauren Swett, 5/27/16)

PUBLIC COMMENT

- PC-1. Watson and Brain email (4/7/16)
- PC-2. Curtis email (5/31/16)

PLANS

- Plan 1. Cover Sheet
- Plan 2. Boundary Survey
- Plan 3. Existing Conditions Plan
- Plan 4. Site Demolition Plan
- Plan 5. Site Plan
- Plan 6. Grading & Drainage Plan
- Plan 7. Utility Plan
- Plan 8. Spring Street Connection Plan
- Plan 9. Civil Details - 1
- Plan 10. Civil Details - 2
- Plan 11. Civil Details - 3
- Plan 12. Civil Details - 4
- Plan 13. Civil Details - 5
- Plan 14. Pre-Development Drainage Area Plan
- Plan 15. Post-Development Drainage Area Plan
- Plan 16. Landscaping Site Plan
- Plan 17. Materials & Layout Plan North
- Plan 18. Materials & Layout Plan South
- Plan 19. Planting Plan North
- Plan 20. Planting Plan South
- Plan 21. Wall Elevations
- Plan 22. Landscaping Details
- Plan 23. Landscaping Details
- Plan 24. Landscaping Details
- Plan 25. Life Safety Plan & Code Summary (Gym)
- Plan 26. Lower & Mezzanine Level Floor Plan (Gym)
- Plan 27. Elevations (Gym)
- Plan 28. Life Safety Plan & Code Summary (Lower School)
- Plan 29. Lower Level Floor Plan (Lower School)
- Plan 30. Main Level Floor Plan (Lower School)
- Plan 31. Upper Level Floor Plan (Lower School)
- Plan 32. Exterior Elevations (Lower School)
- Plan 33. Northern Egress Gate Figure

Plan 34. Emergency Access Figure



Helen Donaldson <hcd@portlandmaine.gov>

Waynflete gym and Lower School - final plans

William Clark <wbc@portlandmaine.gov>

Tue, May 31, 2016 at 10:26 AM

To: Helen Donaldson <hcd@portlandmaine.gov>

Hi Nell,

Survey comments have been addressed.

Thanks,

Bill

[Quoted text hidden]

—

William Clark, PLS
Senior Project Engineer
DPW Engineering
City of Portland
55 Portland St.
Portland, ME 04101
[207 874 8847](tel:2078748847)



Helen Donaldson <hcd@portlandmaine.gov>

Waynflete Gym and Lower School - Final Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Wed, Jun 8, 2016 at 4:30 PM

To: Helen Donaldson <HCD@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, David Margolis-Pineo <dmp@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>

Hi Nell – I have reviewed the revised site plan and application materials and offer the following status update of my March 18, 2016 comments and thus these represent my final traffic comments.

- I generally find the proposed crosswalk on Danforth Street to be acceptable. Please noted the following:
 - Warning signs that meet MUTCD standards shall be installed on Danforth Street.

Status: This is outstanding for the proposed crosswalk at Fletcher Street.

- I need to review the ramp configurations with City staff.

Status: At the northeast corner of the Danforth Street/Fletcher Street intersection where they have the two crosswalks, the one curb ramp is not designed correctly with respect to the detectable warning panel(s). For the full width of the flush curb portion of the curb ramp, there needs to be a detectable warning panel; the plans show two individual sections of detectable warning panel that does not cover the entirety of the ramp. In addition, a note shall be added that specifies the design/construction will prevent ponding within the landing area and at the base of the ramps.

- A detectable warning panel and any physical adjustment to ramp on the west side of Fletcher Street shall be included.

Status: The plans include the noted panel and I have no further comment.

- On-street parking will likely need to be prohibited on the south side of Danforth Street in the area of the crosswalk. This change will require Council Action regarding changes to the Traffic Schedule. The applicant would be required to provide supporting information for the Council packet.

Status: I have no further comment.

- The application materials speak to increased gym capacity and having a larger venue for other non-athletic events. The applicant should provide specific details on how the occupancy loading capacity of the gym will change with the project. If an increase is expected, the applicant should note increases traffic and parking levels.

Status: The applicant has provided information that notes parking demand is expected to be 134 vehicles during events assuming 400 spectators. In respect to increase in parking demand,

assuming 450 new spectators (full capacity of 600 versus the old gym capacity of 150) 150 new vehicles parking in the area are projected. It should be noted that for events with a capacity of 600 spectators, 200 vehicles could be generated in total parking demand. To address parking demand impacts, the project should continue to revisit and revise the Transportation and Parking Demand Management Plan (TPDM). See the following for specific comments on the TPDM.

- I need to review the TDM plan and determine if any revisions are required.

Status: The applicant has provided a Transportation and Parking Demand Management Plan (TPDM) dated May 2016 and my comments on specific elements of that document are provided as follows.

- **The impacts of having two simultaneous events at the new gym and theater should be avoided. The plan should note conditions where two events could occur (maybe based on expected attendance level – although this can be difficult to predict, particularly for athletic events).**
 - **As noted staff and students are restricted from parking on a select number of streets. The applicant should conduct field observations that confirm this restriction. It would be helpful to understand locations where staff and students park.**
 - **The Plan notes a Rideshare Program but fails to document participation levels. The applicant should provide participation levels and establish reasonable goals/targets for participation and if necessary implement strategies for increased participation.**
 - **The Plan notes limited use of the provided METRO passes. The applicant should investigate barriers or issues that limit participation. Again, reasonable goals/targets should be established.**
 - **It would be helpful in the crafting an effective TPDM Plan to fully understand existing transportation modes for both staff and students. Accordingly, the applicant should provide a summary of transportation modal methods for the campus.**
 - **All of the above should be conducted after occupancy of the new gym. The applicant shall coordinate with the Planning Authority and on appropriate methods for conducting the work.**
- A Construction Logistics Plan has been provided. In general, I find it to be acceptable, although I need to conduct a review of the construction vehicle access route and the applicant will need to provide details on traffic management during construction of the sidewalk.

Status: It is recommended that sidewalk construction along Spring Street occur during non-school times or during the summer.

Additional Comments

-

- **The plans include improving the existing sidewalk on Spring Street along the schools frontage and I find this to be a reasonable alternative to upgrading the existing concrete sidewalk on Danforth (primarily due to the Danforth Street sidewalk to be in good condition and the Spring Street sidewalk to be in poor condition). The following are comments regarding the Spring Street sidewalk upgrade.**
 - **Sidewalk ramps and detectible warning panels shall be provided for the existing crosswalk from the northeasterly corner of Thomas Street to the school site frontage. It is suggested that the application investigate the feasibility of shifting the crosswalk to the east to provide a perpendicular landing on the Thomas Street side. If determined not to**

be reasonably feasible, the fully ADA crosswalk can remain in its current location.

-

If you have any questions or comments, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

 T.Y. Lin International

12 Northbrook Drive

Falmouth, ME 04105

[207.781.4721](tel:207.781.4721) (main)

[207.347.4354](tel:207.347.4354) (direct)

[207.400.0719](tel:207.400.0719) (mobile)

[207.781.4753](tel:207.781.4753) (fax)

thomas.errico@tylin.com

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"One Vision, One Company"

Please consider the environment before printing.

**Helen Donaldson** <hcd@portlandmaine.gov>

Waynefleete School

2 messages

David Margolis-Pineo <dmp@portlandmaine.gov>

Mon, Jun 6, 2016 at 10:27 AM

To: Helen Donaldson <hcd@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>

June 6, 2016

Memo To: Nell Donaldson

Barbara Barhydt

From: David Margolis-Pineo

Re: 360 Spring St. – Waynefleete School Campus Upgrade

All Department of Public Work comments have been addressed by the applicant. We have no additional comments.

—

David Margolis-Pineo
Deputy City Engineer
Department of Public Services
55 Portland St.
Portland, ME 04101
Office [207-874-8850](tel:207-874-8850)
Cell [207-400-6695](tel:207-400-6695)
dmp@portlandmaine.gov

Helen Donaldson <hcd@portlandmaine.gov>

Mon, Jun 6, 2016 at 10:36 AM

To: David Margolis-Pineo <dmp@portlandmaine.gov>

Thanks, David!

[Quoted text hidden]

—

Nell Donaldson
Planner, City of Portland
874-8723
hcd@portlandmaine.gov



Stantec Consulting Services Inc.
482 Payne Road Scarborough Court, Scarborough ME 04074-8929

June 7, 2016

Attention: Helen Donaldson

City of Portland
389 Congress Street
Portland, ME 04101

**Subject: Waynflete School Gym & Lower School Development
Site Plan Application
Engineering Review Comments #2**

Dear Nell:

Stantec has reviewed the revised application materials related to the proposed Waynflete School Gym & Lower School development prepared by Woodard & Curran, dated May 27, 2016. Our review has continued to be limited to those aspects of the project related to Stormwater Management, Drainage, and Utility Design along with related details.

The following documents were reviewed:

- May 27, 2016 letter from Woodard and Curran including the revised Stormwater Management report.
- Plan documents including the revised Civil series and Landscape series.

We provide the following comments:

1. The engineer has offered responses to our earlier comments and these generally satisfy our concerns and interests in the project layout, stormwater management and utilities. There are a number of utilities related design pieces that remain outstanding, but as is often the norm, these must await further progress on MEP and architectural design as the team prepares construction documents. We suggest that a Condition of Approval simply apply for the final utilities pieces. Perhaps when the final approved plans are submitted in advance of construction the design engineer can simply provide a brief description of the final utility design conditions for the City records.
2. We continue to question the design depth of the storm drainage line between CB5 and CB 1 as much of this system remains significantly deep for construction. We understand that the team is contemplating the use of sheet pile due to the trench depths greater than 10 feet and to avoid significant trench widths and impacts to the neighboring property and to Fletcher Street. This is likely to be expensive to say the least. The reasoning for the design as now proposed is that two small drainage basins within the exterior stairwells need points to discharge to. We simply offer other possibilities to explore that might alleviate the need for such deep drainage pipe. First, might the stairwells be covered so as to avoid any major amount of rainfall/water to them?



June 7, 2016

Page 2

Secondly, might it simply be possible to connect these drains, presumably collecting only a small amount of drainage, to a foundation drain or sump pump system, that might be discharged independently to a structure off the proposed lower school location? Thus perhaps the main run of drainage pipe from CB 5 to CB1 could be raised. The designers may have contemplated all of these suggestions and ruled them out and if so, then our only remaining comment would be to assure that the property owner at the NW corner of the site, nearest the DMH2 location should be made aware of the circumstances involving sheet pile placement and related heavy construction activity so proximate to their property (it appears the neighboring house might be less than 20' from the construction work limit). How and when this effort is accomplished may prove easier if the neighbor is reasonably assured of minor inconvenience to their property.

3. The installation of the underdrained subsurface sand filter will more than meet the water quality and quantity standards as evidenced by the submission materials. The designers have modified the point of connection to the City's system in Danforth Street as suggested by the Public Works reviewers, thus the campus appears to have ample systems in place to control and treat stormwater runoff. We simply suggest a Condition of Approval be considered that requires any updates/modifications to the drainage systems during construction be recorded and final As-built record plans provided to the city upon completion of the work. We expect that the school will also be seeking credits to be applied to the Stormwater Service fee for the property once these systems are in place.

We offer that the current submission materials appear satisfactory with respect to utilities, stormwater management and related civil design to allow consideration by the Planning Board for an approval with conditions, as necessary, notwithstanding any other staff or peer review comments by others.

Regards,

STANTEC CONSULTING SERVICES INC.

Stephen R. Bushey, P.E.

Associate

Phone: (207) 887-3478

Fax: (207) 883-3376

Stephen.Bushey@stantec.com

C.

V:\1953\active\195350349\civil\admin\working_documents\ltr_review_city_2016.06.07.docx

MEMORANDUM

To: FILE
From: Nell Donaldson
Subject: Application ID: 2016-034
Date: 6/1/2016

Comments Submitted by: Keith Gautreau/Fire on 6/1/2016

I have reviewed the proposed Emergency Fire Lane and it is acceptable to the Fire Dept. The width is more than adequate at approx. 22 ft. I would like to see some type of signage indicating "Fire Lane No Parking" so that access will not be compromised by vehicles possibly parking up against the existing building adjacent to the proposed Fire Lane access.



February 16, 2016

Barbara Barhydt, Development Review Manager
City of Portland Planning Division
389 Congress Street
Portland, ME 04101

Re: Waynflete School Campus Upgrades
Level III Site Plan

Dear Barbara:

On behalf of the Waynflete School, enclosed please find one paper copy and an electronic copy on CD of the Level III Site Plan Application and Plan Sets for the proposed Gymnasium and Lower School Expansion at Waynflete School, located at 360 Spring Street in Portland, Maine. These documents were prepared in accordance with Chapter 14, Land Use Code of Ordinances of the City of Portland, Maine and meet the applicable sections of the City of Portland Design and Technical Manuals.

The proposed project will include the following components:

- Demolition of the existing athletic facility and construction of a new 13,600 sf gymnasium;
- Renovation and addition of the Lower School, supporting early Childhood through 5th grade education; and
- Development of new playgrounds, educational gardens, and site features.

Construction is not anticipated to begin until 2017. It is our understanding that, in accordance with Section 14-532(c) of the City's Land Use Code, site plan approvals expire within 12 months from the date of approval, unless another time period is agreed upon between the Planning Authority and the Applicant, not to exceed three years from the date of approval. We are therefore requesting that site plan approval be extended through 2017.

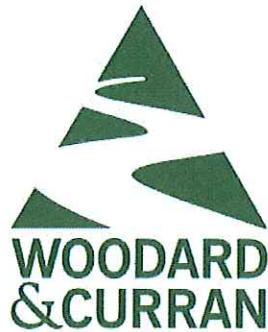
We look forward to working with your office on this project, and would be glad to meet to discuss this application in greater detail. Please do not hesitate to contact me if you have any questions or require additional information.

Sincerely,

WOODARD & CURRAN INC.

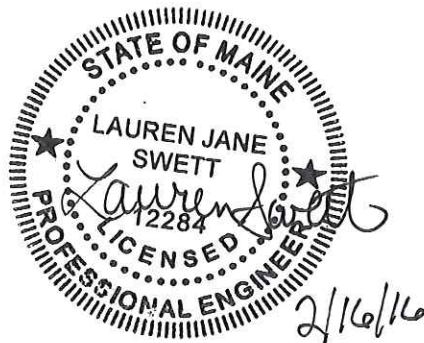
Lauren Swett, PE
Project Engineer

Enclosures: \$1,250 Check for Level III Site Plan Amendment Fee
Application narrative & attachments (1 Hardcopy)
Full Sized Plan Set
CD with electronic copy of all submitted materials



LEVEL III SITE PLAN APPLICATION

Waynflete School
Campus Upgrades



woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

41 Hutchins Drive, Portland, Maine 04102
Tel. (207) 774-2112 Fax (207) 774-6635

229423

Scott Simons Architects

February 2016

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1. APPLICATION FORM

February 16, 2016

RE: Waynflete Gym & Lower School – Agent Authorization

To Whom It May Concern:

Woodard & Curran will be acting as our agent for all local, state, and federal permitting associated with the Waynflete School Campus Upgrades project located at 360 Spring Street in Portland, Maine.

Please contact me if you have any questions.

Sincerely,



Anne C. Hagstrom
Director of Finance and Operations
Waynflete School
360 Spring Street
Portland, ME 04096

(207) 774-7863 ext. 1227
ahagstrom@waynflete.org

Portland, Maine



Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are **paid in full** to the Inspections Office, City of Portland Maine by method noted below:

☐

Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐

Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒

I intend to deliver a payment method ^{in person via check} ~~through the U.S. Postal Service mail~~ once my application paperwork has been electronically delivered.

Lauren Swett (AGENT)
Applicant Signature:

2/16/16
Date:

Lauren Swett (AGENT)
I have provided digital copies and sent them on: 2/16/16

2/16/16
Date:

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Level III – Preliminary and Final Site Plans Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sq. ft. or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sq. ft. or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sq. ft. or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sq. ft. or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sq. ft. of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sq. ft. and/or facilities encompassing 20,000 sq. ft. or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours

Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: Waynflete School Campus Upgrades

PROPOSED DEVELOPMENT ADDRESS:

360 Spring Street, Portland, ME

PROJECT DESCRIPTION:

Demolition of existing athletic facility, construction of new gymnasium, renovation and expansion of "Lower School", and the development of new playgrounds, educational gardens, and associated site features.

061 F002001, 061 F003001, 061 F004001,
061 F005001, 061 F006001, 061 F007001,

CHART/BLOCK/LOT: 061 F011001

PRELIMINARY PLAN
FINAL PLAN

2/16/16 (date)
_____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Anne C. Hagstrom, Director of Finance & Operations Business Name, if applicable: Waynflete School Address: 360 Spring Street City/State : Portland ME Zip Code: 04102	Applicant Contact Information Work # 207-774-7863 ext. 1227 Home# Cell # Fax# e-mail: ahagstrom@waynflete.org
Owner – (if different from Applicant) N/A Name: Address: City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Woodard & Curran, c/o Lauren Swett, PE Address: 41 Hutchins Drive City/State : Portland ME Zip Code: 04102	Agent/Representative Contact information Work # 207-558-3763 Cell # e-mail: lswett@woodardcurran.com
Billing Information Name: Scott Simons Architects, c/o Austin Smith Address: 75 York Street City/State : Portland ME Zip Code: 04101	Billing Information Work # 207-772-4656 Cell # Fax# e-mail: austin@simonsarchitects.com

Engineer Name: Woodard & Curran, c/o Lauren Swett, PE Address: 41 Hutchins Drive City/State : Portland ME Zip Code: 04102	Engineer Contact Information Work # 207-558-3763 Cell # Fax# e-mail: lswett@woodardcurran.com
Surveyor Name: Titcomb Associates, c/o Rex Croteau Address: 133 Gray Road City/State : Falmouth ME Zip Code: 04105	Surveyor Contact Information Work # 207-797-9199 Cell # Fax# e-mail: rcroteau@titcombsurvey.com
Architect Name: Scott Simons Architects, c/o Austin Smith Address: 75 York Street City/State : Portland ME Zip Code: 04101	Architect Contact Information Work # 207-772-4656 Cell # Fax# e-mail: austin@simonsarchitects.com
Attorney Name: Address: City/State : Zip Code:	Attorney Contact Information Work # Cell # Fax# e-mail:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews) ___ Less than 50,000 sq. ft. (\$500.00) X 50,000 - 100,000 sq. ft. (\$1,000) ___ 100,000 – 200,000 sq. ft. (\$2,000) ___ 200,000 – 300,000 sq. ft. (\$3,000) ___ over 300,00 sq. ft. (\$5,000) ___ Parking lots over 11 spaces (\$1,000) ___ After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) ___ Planning Staff Review (\$250) ___ Planning Board Review (\$500) The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) ___ Traffic Movement (\$1,000) X Stormwater Quality (\$250) ___ Subdivisions (\$500 + \$25/lot) # of Lots ___ x \$25/lot = _____ ___ Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots ___ x \$200/lot = _____ ___ Other _____ ___ Change of Use ___ Flood Plain ___ Shoreland ___ Design Review ___ Housing Replacement ___ Historic Preservation
---	--

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan and each document submitted as separate files. Naming conventions for the individual files can be found on the **Electronic Plan and Document Submittal** page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:  (AGENT)	Date: 2/16/16
--	------------------

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	156,374 (Boundary Survey Parcel A) sq. ft.		
Proposed Total Disturbed Area of the Site	91,130 sq. ft.		
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland.			
Impervious Surface Area			
Impervious Area (Total Existing)	91,876	sq. ft.	
Impervious Area (Total Proposed)	96,652	sq. ft.	
Building Ground Floor Area and Total Floor Area			
Building Footprint (Total Existing)	Gym: 9,242	LS: 4,520	sq. ft.
Building Footprint (Total Proposed)	Gym: 10,568	LS: 10,270	sq. ft.
Building Floor Area (Total Existing)	Gym: 9,242	LS: 8,967	sq. ft.
Building Floor Area (Total Proposed)	Gym: 13,412	LS: 26,698	sq. ft.
Zoning			
Existing	R4 & Waynflete Overlay		
Proposed, if applicable	N/A		
Land Use			
Existing	School		
Proposed	School		
Residential, if applicable	N/A		
# of Residential Units (Total Existing)			
# of Residential Units (Total Proposed)			
# of Lots (Total Proposed)			
# of Affordable Housing Units (Total Proposed)			
Proposed Bedroom Mix	N/A		
# of Efficiency Units (Total Proposed)			
# of One-Bedroom Units (Total Proposed)			
# of Two-Bedroom Units (Total Proposed)			
# of Three-Bedroom Units (Total Proposed)			
Parking Spaces	N/A		
# of Parking Spaces (Total Existing)			
# of Parking Spaces (Total Proposed)			
# of Handicapped Spaces (Total Proposed)			
Bicycle Parking Spaces	N/A		
# of Bicycle Spaces (Total Existing)			
# of Bicycle Spaces (Total Proposed)			
Estimated Cost of Project	\$12,500,000		

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
X		1	Evidence of right, title and interest
X		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
X		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
N/A		1	Written requests for waivers from site plan or technical standards, if applicable.
X		1	Evidence of financial and technical capacity
X		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)
X			Proposed grading and contours;
X			Existing structures with distances from property line;
X			Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;
X			Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);
X			Preliminary infrastructure improvements;
X			Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;
N/A			Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);
N/A			Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);
X			Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;
X			Exterior building elevations.



2. APPLICATION FEES

A check for the application fee has been included with the submission. The application fee includes:

Level III Development 50,000 square feet – 100,000 square feet: \$1,000

Stormwater Quality Review: \$250

Total Fee: \$1,250



3. PROJECT DESCRIPTION

3.1 INTRODUCTION

The Waynflete School is located at 360 Spring Street in Portland, Maine. The attached Location Map shows the project location. The property is located within the Residential (R4) Zone and the Waynflete Overlay Zone. The school owns approximately 5.6 acres of an area bound by Spring, Storer, Danforth, Emery, and Fletcher Streets; the boundary survey attached to Section 19 of this Report shows the full Waynflete School Campus area. The school is proposing the following campus upgrades:

- Demolition of the existing athletic facility and construction of a new 13,600 sf gymnasium;
- Renovation and addition of the Lower School, supporting early Childhood through 5th grade education; and
- Development of new playgrounds, educational gardens, and site features.

3.2 PROJECT PURPOSE AND NEED

The proposed project is intended to upgrade the learning experience of the classrooms. It should be noted that the proposed expansion is not intended to accommodate a larger enrollment. The proposed campus upgrade will better serve the needs of the school today and into the future. The new Lower School will be a high-performance, sustainable building that provides spaces custom designed for Waynflete's unique teaching needs and goals aligning with their commitment *"to help students adopt healthy values and acquire new skills in an everchanging world"*.

3.3 EXISTING CONDITIONS

The Existing Conditions Plan, included in the drawings submitted with this application, depicts the existing conditions of the Waynflete School Campus (the Site). No portion of the development is within the 100-year flood plain; a FEMA flood zone map has been attached for your reference. The Site is currently fully developed. The majority of the city-block bound by Spring, Storer, Danforth, and Fletcher Streets, is occupied by the Waynflete School campus, except for two small residential parcels. Topography slopes generally in a southerly direction, towards Danforth Street. No wetlands are present on the Site.

3.4 PROPOSED DEVELOPMENT

The project involves the demolition of the existing athletic facility, the construction of a new gymnasium, the renovation and expansion of the "Lower School", the renovation of Founders Hall, and the construction of new playgrounds, educational gardens, utilities, site features and stormwater management systems. A set of project design plans showing the proposed development is attached to this application. The set includes site, utility, and grading and drainage plans as well as architectural and landscaping plans.

3.4.1 Architectural Approach

The attached Schematic Design Narrative from Scott Simons Architects describes some of the basis for the proposed project. Also attached to this Section are architectural renderings of the proposed project.

3.4.2 Landscaping Approach

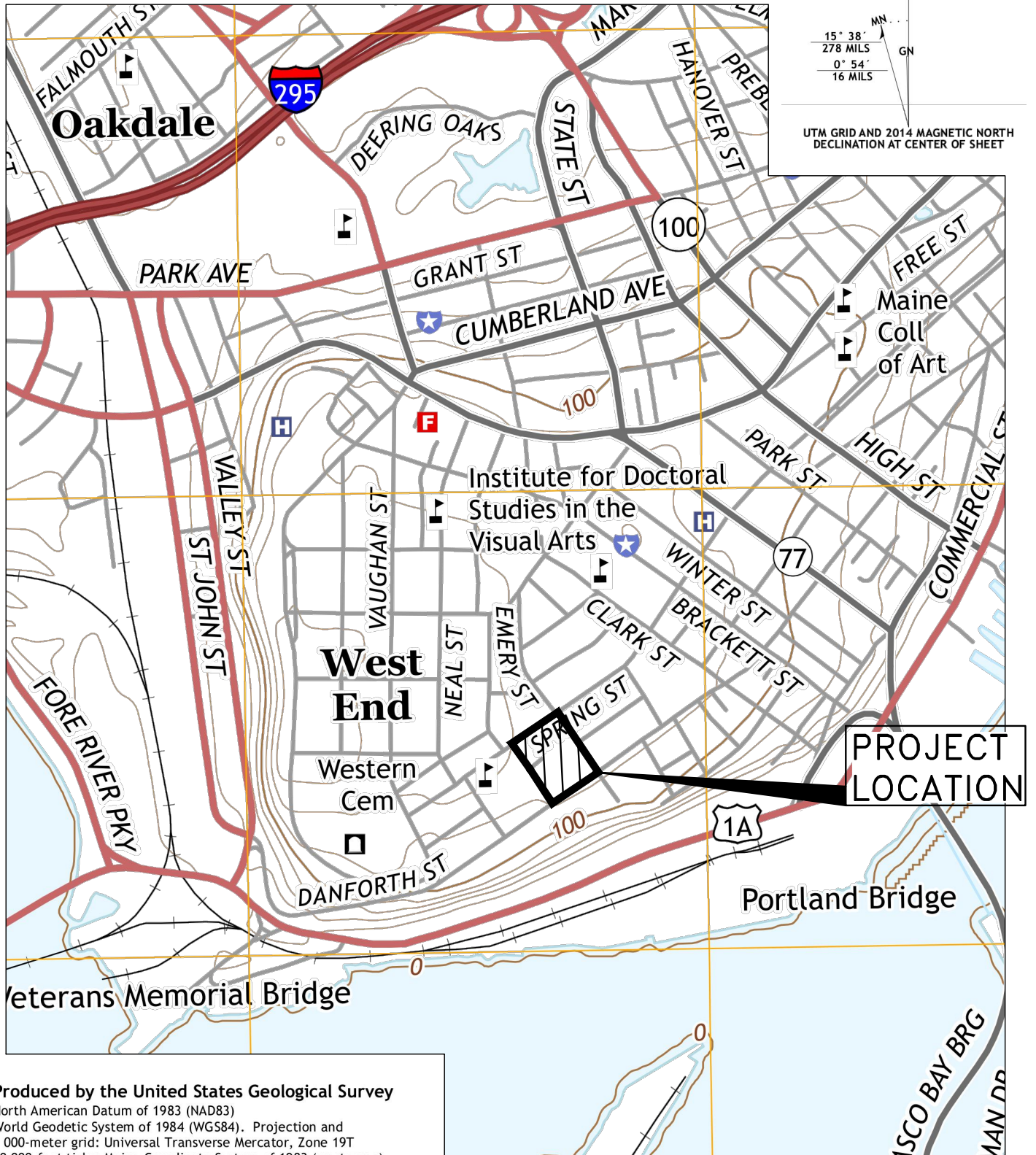
The attached landscape plans, developed by Michael Boucher Landscape Architecture are divided into the following zones:

- The Upper Playground is a relatively flat rectangular area bounded on three sides by the gym, Lower School and Founders Hall, and by the bus loop parking area on the fourth side. A fence and gate (to match existing) separates the yard from the parking area. A concrete walkway along the gym façade allows an accessible route, and a snow removal path, from the parking area to the main entrances of the Gym and Lower School. The playground area consists of four play “pods” within an impervious playground surface, for various play opportunities. Planting beds along Founders Hall and the new lower school provide spaces for sensory gardens. Waynflete’s lower school will be determining the exact use of each of the play pods as well as the plants for the sensory garden, with further study by a playground committee.
- The Gymnasium landscape consists of an arborvitae hedge to act as a buffer between the Gymnasium and the adjacent neighbor on Fletcher Street; as well as street trees planted along Fletcher Street. Adjacent to the southwest side of the gym The third side of the gymnasium is adjacent to a new Fletcher Street concrete entry walk located in a similar footprint to the existing Fletcher Street walkway.
- The Slope Playground lies between the new Lower School and the adjacent neighbor on Fletcher Street. There is an approximate 14 foot grade change between the entries of the Gymnasium and Lower School and the playfield. Two play pods sit at different elevations along the slope, connected by a trail and granite steps. This zone is planted with new native trees, shrubs and groundcover, creating a natural playground zone. A grass slope leads to the playfield to allow for sledding in the winter. A concrete retaining wall has been proposed adjacent to the neighbor’s property, replacing an existing slope and wooden retaining structure.
- The Playfield remains in its current location, and will be rehabilitated and reseeded post-construction.
- The Lower Playground will remain in its current state and location, this is outside the area of work. A new retaining wall separates this playground from the adjacent Fletcher Street neighbor to the northwest, replacing the existing wooden retaining structure.
- The Garden lies between two sets of egress stairs, in the current orchard location. This zone allows a space for the school to plant new orchard trees or relocate their container gardens if desired.

The planting palette will be finalized after a site walk and review with city arborist Jeff Tarling.

3.5 ATTACHMENTS

- Location Map
- FEMA Map
- Schematic Design Narrative
- Architectural Renderings
- Design Plans (Bound Separately)



41 Hutchins Drive
 Portland, Maine 04102
 800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

PROJECT LOCATION FIGURE

DESIGNED BY: N/A
 DRAWN BY: BCM

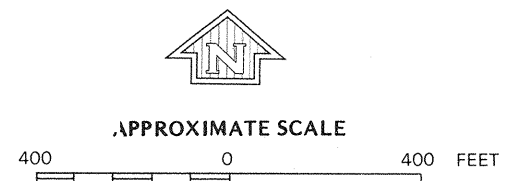
CHECKED BY: LJS
 229423 LOCATION FIG.dwg

WAYNFLETE SCHOOL
 360 SPRING STREET
 PORTLAND, ME 04102

WAYNFLETE GYMNASIUM
 & LOWER SCHOOL

JOB NO.: JOB NUMBER
 DATE: FEB. 2106
 SCALE: SCALE

FIG. 1



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND, MAINE
CUMBERLAND COUNTY

PANEL 13 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0013 B

EFFECTIVE DATE:
JULY 17, 1986



Federal Emergency Management Agency

ADJOINING AREA SHOWN AS INSET A ON PANEL 230051 0016 B

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

WAYNFLETE LOWER SCHOOL

The Waynflete Lower School currently occupies space on the lower and upper levels of Founders Hall and Hewes Wing. Founders Hall, originally a stable on the Horace Dudley estate, was purchased by the school and converted to classrooms in 1912. Hewes Wing was built in 1960. Since being converted to classroom space Founders and Hewes Wing have undergone many upgrades and renovations to respond to the changing needs of the school. Due to the design and age of the buildings, the Lower School classroom spaces are tight and cluttered creating a less than ideal environment for teaching and learning. Classrooms are not located in the best way for cross age connections and there's no one point of handicapped access or gathering space for families. While the existing Lower School has served its purpose housing one of Maine's premiere institutions of learning over the past 100 years, it is apparent that designing and building a new Lower School facility tailored to the school's specific needs will best serve Waynflete's current and future program needs.

Although Scott Simons Architects has been working alongside Waynflete for nearly a decade on ideas and design concepts for a new Lower School, SSA has been working closely with the Lower School Design Committee and the Lower School faculty developing the most recent design concepts since February of 2015. The process began by synthesizing information provided by Waynflete with relation to floor space requirements and enrollment numbers. SSA subsequently used this information to identify Waynflete's ideal Lower School classroom sizes for E/C, K/1, 2/3, and 4/5 and utilized this to form the foundation for early design strategies. As the schematic design process continued SSA further tailored the design to not only optimize classroom space requirements but also integrate daylighting and environmental certification strategies to maximize comfort within the learning environment and prioritize sustainability. The proposed design represents a forward-looking approach to design for education and is consistent with Waynflete's "Mission" and "Core Beliefs".

SITE

The Lower School is bordered by the Waynflete Campus on the north, south and east and by a private residence to the west facing Fletcher Street. To the north, the existing Lower School playground borders the new Lower School. The new building design acts to preserve as much open space as possible while emphasizing the connection between the new lower school and playground by providing unobstructed views both in to and out of the building's lobby. In many ways, this visual connection echoes Waynflete's mission to provide an emphasis on play alongside of the rigorous expectations of their academic programs. To the west the new Lower School borders an existing private residence. Between the residence and the new Lower School there currently exists a small "natural" playground and a hill that is used for sledding in the winter months and connects the lower ball field to the playground to the north of the new Lower School. SSA was tasked with carefully considering the impact of the new building on these areas and the new design works to preserve these functions while maintaining ample sightlines for faculty to oversee activities in the playground, "natural" playground and lower field simultaneously. The southern border of the new building borders the existing play field. Waynflete once again emphasized the importance of its on campus spaces by directing SSA to minimize the impact the new Lower School would have on the open green space. SSA carefully conducted several on site studies that

allowed members of the faculty and design committee to see first hand what the impact on these spaces would be. Ultimately the current design was chosen for its minimal impact and for the strong connection it makes between the interior and exterior of the building. To the east the new Lower School abuts the existing Sills Hall. The siting of the new school recognizes the inherent complexities of construction directly against an existing adjacent structure and has provided space to accommodate this based on input from the project's structural consultant.

Overall the site strategy aims to take full advantage of the southern exposure for daylighting by careful arrangement of the building form. In addition the project takes full advantage of the existing grade change to mitigate environmental impacts.

BUILDING DESCRIPTION

The overall form of the new Lower School is intended to have a residential scale providing a sense of comfort for the Lower School students. The familiar gabled roof forms act to define the various programmatic spaces and provide dramatic vaulted interiors in several of the classrooms. The window openings on all exposed facades provide a sense of playfulness and help to break down the scale of some of the larger walls. When entering occupants are greeted by a lobby space that has a direct connection to the outdoor environment and is open to the lower level. The connection to the lower level is made via an open amphitheater space that looks out across a shared classroom space and down through expansive openings that allow for direct views of the lower field. The amphitheater is designed to host Lower School gatherings and provide a common space for casual socializing and additional break out space throughout the school day. At the field level the building houses the arts space to the west and the after school space to the east. Each of these spaces has a continuous connecting deck that affords occupants the ability to open directly to the play field when weather conditions allow.

On the main level are the EC and K/1 spaces. These classroom spaces connect directly with the main entrance lobby providing direct access to the classroom spaces for the youngest students. Each classroom features varied views to the exterior and windows that respond to the scale of the students. Some windows are located directly at floor level and allow for unobstructed views to the natural environment outside, others provide seating areas for quiet study and reflection and others provide views to the treetops and sky beyond. In the EC classroom space the design addresses the need to have some direct access to exterior space by providing a small deck that opens directly into the classroom space. The EC and K/1 classrooms are connected by a shared classroom space for collaborative learning. This space bridges over the amphitheater below and provides direct views to the play field on the exterior and lobby/amphitheater on the interior. In addition to the lobby space, the main level houses the administrative desk that has direct access and sightlines to the main entrance providing a secure point of entry. The main level also houses the Director of the Lower School's office and connects to the existing Founder's Hall, which will be renovated as another project phase and provide further support programs. The elevator connecting all levels is centrally located in the lobby for ease of accessibility.

After moving up the sky lit lobby to the top level occupants encounter shared classroom spaces and a central solarium space that opens directly onto a roof deck that provides areas for outdoor learning and planting. On the west end of the building above the K/1 classroom space is the 2/3

classroom which is equipped with its own egress stair opening directly to the outside at the lower level for safety. The east end of the upper level opens directly to the existing upper level of Founder's Hall housing the 4/5 classroom spaces.

MATERIALS

The exterior of the new building is clad in white cementitious paneling on the main level and second levels. The material is intended to provide minimal clean lines further emphasizing the familiar gable forms that shape the classroom spaces. The white color was chosen to help connect the new Lower School to the other adjacent white buildings. On the lower level the exterior cladding material is heat-treated wood to provide natural warmth and contrast the white gabled forms above. The natural material allows the building to successfully transition to the ground plane and play field on the south and west elevations. At the play field the building above is supported by a series of load bearing tilted columns that actively engage students through their playful form in better understanding how the forces of the building are transferred to the ground plane from above. The lower level deck and ceiling are wood clad to provide warmth and another opportunity to ground the building to the field by using natural materials. The central amphitheater space, shared classroom space on the main level and solarium on the upper level serve as a connector between the gabled forms and are characterized primarily by their openness. The windows are all aluminum clad for durability.

Though the layout of each classroom space will be designed to specifically address the needs of the grade levels that it serves, all spaces will be characterized by their clean geometries and use of natural finish materials. These materials will be specifically chosen to provide comfort, environmental sustainability and optimized air quality all in line with the environmental certification goals the project will achieve. The ceilings in the classroom spaces will be clad in wood slats with specific acoustical qualities. All millwork will have natural finishes and interior partitions will be painted drywall. Classroom spaces will be carpet tile while the lobby area will be resilient porcelain flooring. The amphitheater will be clad in wood for warmth of material and the lower level will be polished concrete slab.

SUSTAINABILITY

The Lower School is designed to achieve Passive House (PHIUS) certification. The building envelope is designed to have maximum insulative qualities minimizing the need for heating and cooling. All mechanical equipment is high efficiency/high performance, as outlined in the mechanical narrative. Lighting is energy efficient LED type. Plumbing fixtures are selected for durability, performance, and water efficiency.

SUMMARY

With the construction of the new Lower School Waynflete will have a building that better serves the needs of the school today and into the future. The new Lower School will be a high-performance, sustainable building that provides spaces custom designed for Waynflete's unique teaching needs

and goals aligning with their commitment “to help students adopt healthy values and acquire new skills in an ever-changing world”.

WAYNFLETE GYMNASIUM

Waynflete's existing Gymnasium, originally designed and constructed in the middle of the 1970s, serves as the school's primary indoor athletic space. Over the past four decades the athletic program has grown increasing the need for expanded on campus practice space for various athletic programs, expanded varsity playing space and expanded seating capacity for varsity athletic contests. Due to the increasing demands put on the existing building many of the buildings major mechanical system along with the gym floor and existing Kalwall are in need of replacement. The amount associated with these repairs has been identified in the range of approximately \$580,000. Concisely stated the existing facility does not meet Waynflete's current needs.

Scott Simons Architects has been working with Waynflete and the Gymnasium Design Committee since May of 2015 on the current design concept for the expanded Gymnasium. Beginning with a thorough analysis of the site and adjacent spaces and programs that would potentially be impacted by expanding the footprint of the new Gymnasium, Scott Simons Architects developed a concept for the new space. The reimagined Gymnasium increases the building's capacity allowing it to more comfortably host varsity athletic contests. The expanded court space creates two junior varsity practice courts which can be simultaneously used. Additionally the design incorporates office space for athletic and physical education staff specifically tailored to their program's needs. Working closely with the Gymnasium Design Committee and various design consultants, SSA has continued to develop the site plan and design for the building that will expand the gym from its current 9,340 SF to 13,614 SF to better accommodate Waynflete's program. The proposed design will accommodate these needs within the very tight urban campus addressing the concerns of neighboring residents and with a design that is mindful of the importance of environmental sustainability.

SITE

The Gymnasium site is bordered by private residences on the south and north, Fletcher Street on the West and the existing Lower School playground on the east. Because of limiting setback requirements the footprint of the new building is limited with regard to increases in size on north, south and west sides. The current design is mindful of these front yard and side yard setbacks while optimizing the amount of usable space inside of the building. The design accomplishes this by utilizing exterior stairs for egress in two locations and locating several programmatic elements below grade with no footprint extending above. The exterior stair on the southwest side of the Gym allows for direct delivery access from Fletcher Street through a large double door opening making hosting large events in the new Gymnasium as convenient and efficient as possible. Although not a setback imposed by zoning, SSA worked closely with Waynflete's Lower School staff to minimize

the impact on the existing adjacent playground to the east by holding the footprint as close to the existing Gym's footprint as possible without making spatial compromises to the new Gym's program.

The entrance from Fletcher Street is currently heavily used during Lower School drop off and dismissal times. The design for the new Gymnasium takes this into consideration by maintaining the same line of direct access from Fletcher Street. In addition, the new design also provides generous covered waiting space on the south side to shelter students and parents from inclement weather during drop off and dismissal times. The new building has two entrances, both on the east (campus) side. The entrance on the northeast is intended to serve the athletic functions of the space in a location very similar to the existing Gym entrance. Its adjacency to the parking loop makes this an ideal location for pick up and drop off and serves the needs of larger functions by allowing for the most direct access to the Gym's entrance from on street parking on adjacent Spring Street. The entrance on the southeast is intended to provide more direct access to the adjacent Lower School minimizing outdoor travel for younger students in the cold winter months.

BUILDING DESCRIPTION

The new Gymnasium is designed to play host to athletic contests and provide a space that can accommodate larger campus wide events and functions as well. The new Gym's floor level is further sunken into the ground (approximately 6') allowing occupants to enter directly on the mezzanine level a full floor level above the gym floor below. During basketball games and other athletic and non athletic functions bleachers will extend from below the mezzanine to allow for direct access from the mezzanine to the gym floor level. Along the mezzanine at the upper level are two stairs that allow for access to the lower level at times when the bleachers are retracted. At the same upper level are the Athletic and Assistant Athletic Director's offices. Located near the main entrance to the building, these offices have direct sight lines helping to create a secure point of entry. The mezzanine level also contains four individual unisex toilet rooms with shared sinks and a centrally located elevator to provide handicap accessible access to the lower level.

In addition to the gym floor, the lower level houses both the home and visiting locker rooms that each contain two bathroom stalls, shared sinks and a shower. These are located below the mezzanine level and have direct individual access to the gym floor on the north and south sides of the court. Two physical education offices are located on the south side of the gym to provide direct physical and visual access to the gym floor. The lower level also contains several spaces dedicated to storage of athletic equipment and several spaces for mechanical and electrical equipment TBD.

On the exterior the building is designed to respond to the scale of the residential neighborhood in which it is sited. To accomplish this the building elevation was designed to address the scale on the Fletcher Street (west) side by stepping down to a scale that bears relation to other residences on the street. The west facade also incorporates a number of openings to further scale down its scale adjacent to the street and prevent it from having a wall-like feel similar to the existing Gymnasium's west facade. On the east elevation facing the playground the building is once again scaled down to a single story to allow for maximum light and air to enter the outdoor space and respect the current feeling of openness. On the large south facing facade the design incorporates an awning that both scales down the elevation and provides cover for students and parents at drop off and

dismissal. Planting material will be utilized to create buffers between adjacent neighboring properties and at the Fletcher Street facade to once more help scale down the building and allow it to blend successfully within the context of the West End neighborhood. The interior of the building is designed with multipurpose functions in mind. The design strategy is to minimize the amount of exposed steel and employ the most cost effective structural system and utilize these cost savings on wood cladding and materials generally not associated with the typical gymnasium. The ceiling HVAC and structural are almost entirely concealed by a series of hanging wood panels that create a shell below the ceiling that serve to better tailor the scale of the space while dressing up the Gym and make it a more appealing space for functions that lie outside athletics (i.e. baccalaureate, all school events, etc.). The wood ceiling panels would not simply act as an aesthetic element but also as an acoustic element making the space more comfortable for all occupants and events.

MATERIALS

The exteriors of the new building are clad with brick to better help the building blend in with both the historic context of the neighborhood and other buildings on campus. The windows are all aluminum clad for durability. Roof overhangs are designed to shade and shelter the entrances and walkway from Fletcher Street and provide covered outdoor spaces. The undersides of the new roofs will be clad with wood, providing warmth and texture to these surfaces. The interior walls will be painted drywall with some use of natural wood paneling to provide a warm feel and needed durability for athletic practices and events. Flooring on the mezzanine will be porcelain. The remainder of the space is covered by the gym floor and additional porcelain flooring for durability. Ceilings will be a combination of wood paneling, acoustic ceiling tile, or painted drywall.

SUSTAINABILITY

The Gymnasium is designed to achieve LEED Platinum (Version 4 certification). All mechanical equipment is high efficiency/high performance, as outlined in the mechanical narrative. Lighting is energy efficient fluorescent and/or LED lamps. Plumbing fixtures are selected for durability, performance, and water efficiency. A large photovoltaic array will be installed on the roof to offset electricity costs as well.

SUMMARY

With this Gym Waynflete will be able to better accommodate the existing and future needs for the athletic program now and into the future. The new, expanded building, will be a high-performance, sustainable building that serves the needs of the school and enhances the context of the neighborhood and campus. It can play host to athletic and non-athletic functions making it a valuable asset in what is a very compact urban campus with limited room for expansion. The new building provides the entire Waynflete community a space consistent with its mission "devoted to the healthy development of the whole person: mind, body and spirit."









4. EVIDENCE OF RIGHT, TITLE AND INTEREST

The Waynflete School owns approximately 3.6 acres of the city-block bound by Spring, Storer, Danforth, and Fletcher Streets. A letter referencing the specific deeds associated with each parcel, which serve as evidence of right, title, and interest, has been attached to this Section. Copies of these deeds are included.

4.1 ATTACHMENTS

- Right, Title, & Interest Letter, dated January 28, 2016, prepared by Bernstein, Shur, Sawyer & Nelson, PA.
- Copies of referenced deeds



**Bernstein, Shur,
Sawyer & Nelson, P.A.**
100 Middle Street
PO Box 9729
Portland, ME 04104-5029

τ (207) 774-1200

✉ (207) 774-1127

Mary E. Costigan
(207) 228-7147 direct
mcostigan@bernsteinshur.com

January 28, 2016

Portland Planning Board
389 Congress Street
Portland, Maine 04101

RE: Waynflete School Site Plan Application

Dear Planning Board Members:

Please accept this letter as evidence of right, title and interest for Waynflete School in the property proposed for development with a new lower school and gym. As set forth in more detail below, Waynflete School is the owner of the subject property through numerous conveyances over the years.

17 Fletcher Street - The Gym Parcel (Identified on the Portland Tax Maps as 61-F-4):

- 1) Warranty deed from Albert W. Romano and Ralph Romano, Jr. to The Waynflete School dated October 8, 1959 and recorded in the Cumberland County Registry of Deeds in Book 2505, Page 259.
- 2) Warranty deed from Millard C. Webber, Jr. to The Waynflete School dated November 30, 1959 and recorded in the Cumberland County Registry of Deeds in Book 2513, Page 281.
- 3) Warranty deed from Magel W. Brawn to The Waynflete School dated January 18, 1973 and recorded in the Cumberland County Registry of Deeds in Book 3353, Page 19.

16 Storer Street – Lower School Parcel (Identified on the Portland Tax Maps as 61-F-3 - 8-10):

- 1) Warranty deed from Waynflete Latin School, Incorporated to The Waynflete School dated March 20, 1935 and recorded in the Cumberland County Registry of Deeds in Book 1464, Page 225.

January 28, 2016
Page 2

2) Warranty deed from Parent Realty Co. to The Waynflete School dated March 30, 1935 and recorded in the Cumberland County Registry of Deeds in Book 1465, Page 426.

3) Warranty deed from Ethel Fox Baxter to Waynflete School dated October 1, 1942 and recorded in the Cumberland County Registry of Deeds in Book 1693, Page 222.

Thank you for time and consideration. Please let me know if I can provide any further information.

Sincerely,



Mary E. Costigan

cc: Ann Hagstrom

Know All Men by These Presents.

That We, ALBERT W. ROMANO and RALPH ROMANO, JR., both of Portland,
in the County of Cumberland and State of Maine,

in consideration of One Dollar (\$1.00) and other valuable consideration,

paid by THE WAYNFLETE SCHOOL, a charitable and educational corporation organized and existing under the laws of the State of Maine and located in said Portland,
the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said THE WAYNFLETE SCHOOL, its successors

hereby and assigns forever, a certain lot or parcel of land with the buildings thereon situated in part on the easterly side of Fletcher Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point marked by an iron on the said easterly side of Fletcher Street one hundred and ninety (190) feet northerly from a stone post located at the intersection of the northerly side of Danforth Street and the easterly side of said Fletcher Street, said point of beginning also being the northwesterly corner of land now or formerly of Philip J. Deering, Jr.; thence running easterly by said Deering land sixty (60) feet to an iron; thence running southerly at right angles with said last named course by said Deering land ninety (90) feet to an iron and land now or formerly of the Parent Realty Company; thence running easterly by land of said Parent Realty Company one hundred and three (103) feet to an iron and land now or formerly of the Waynflete Latin School, Incorp.; thence northerly by land of said Waynflete Latin School, Incorp. one hundred fifty-three and three tenths (153.3) feet to a point; thence westerly at right angles with said last named course and by land of said Waynflete Latin School, Incorp. fifty-six (56) feet to an iron; thence northerly by land of said Waynflete Latin School, Incorp. fifty and one-tenth (50.1) feet to an iron situated at the southeast corner of land now or formerly of Sarah A. Wescott; thence westerly by land now or formerly of Sarah A. Wescott one hundred seven and seven tenths (107.7) feet to a passageway leading southerly from Spring Street to Fletcher and Orchard Streets; thence southerly by said passageway and by the easterly line of Fletcher Street ninety-three and nine tenths (93.9) feet to an iron; thence same course southerly twenty (20) feet to an iron and point of beginning.

Subject, however, to certain rights of way and easements as more particularly set forth in a certain Warranty Deed given by Raffaele Romano to Philip J. Deering, Jr., dated September 13, 1926 and recorded in Cumberland County Registry of Deeds in Book 1244, Page 437, to which deed reference is hereby made for a more particular description of said rights and easements.

The above described premises are a portion of the premises conveyed to said Raffaele Romano by Caroline M. Grisfield et al by Warranty Deed dated July 20, 1922 and recorded in said Registry of Deeds in Book 1110, Page 27.



Romano
&
to
Waynflete
School
--
War

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said THE WAYNFLETE SCHOOL, its successors

~~heirs~~ and assigns, to its and their use and behoof forever.

And we do covenant with the said Grantee, its ^{successors} ~~heirs~~ and assigns, that we are lawfully seized in fee of the premises, that they are free of all incumbrances, except as aforesaid;

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our heirs shall and will Warrant and Defend the same to the said Grantee, its ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons, except as aforesaid.

In Witness Whereof, we the said ALBERT W. ROMANO and RALPH ROMANO, JR., and Celeste C. Romano, wife of the said Albert W. Romano, and June B. Romano, wife of the said Ralph Romano, Jr.

~~Wife of~~ ~~of the said~~

joining in this deed as Grantors, and relinquishing and conveying all right by descent and all other rights in the above described premises, have hereunto set our hands and seals this eighth day of October in the year of our Lord one thousand nine hundred and fifty-nine.

Signed, Sealed and Delivered
in presence of

Louis J. Fournier
to all

Albert W. Romano
Celeste C. Romano
Ralph Romano Jr
June B. Romano

State of Maine. CUMBERLAND, ss. October 8 1959.
Personally appeared the above named Albert W. Romano and Ralph Romano, Jr.

and acknowledged the foregoing instrument to be their free act and deed.

Before me,

Louis J. Fournier
Justice of the Peace

OCT 9 1959
REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 11 H 50M AM, and recorded in

BOOK 2505 PAGE 259 Martha K. Shady Register

Know All Men by These Presents,

281

That I, MILLARD C. WEBBER, JR., of Portland, in the County of Cumberland and State of Maine,

in consideration of One Dollar (\$1.00) and other valuable consideration, being less than One Hundred Dollars (\$100.00),

paid by THE WAYNFLETE SCHOOL, a charitable and educational corporation organized and existing under the laws of the State of Maine and located in said Portland,

the receipt whereof I **do hereby acknowledge, do hereby give, grant, bargain, sell and convey** unto the said THE WAYNFLETE SCHOOL, its successors

Webber
Jr

to

Waynflete
School

--
War

hereby and assigns forever, a certain lot or parcel of land situated Easterly of Fletcher Street, in said Portland, bounded and described as follows: Beginning at an iron at the Northeast corner of the lot of land conveyed by John W. Gordon et al to this Grantor by deed dated October 1, 1959 and recorded in Cumberland County Registry of Deeds in Book 2507, Page 101, said corner marking an angle in land conveyed by Albert W. Romano et al to said Waynflete School by deed dated October 3, 1959 and recorded in said Registry, Book 2505, Page 259; thence by said Waynflete land S 18° 10' E 14.03 feet to an iron; thence by other land of the Grantor N 45° 57' W 15.37 feet to an iron and land of said Waynflete School; said iron also marking the most Easterly corner of other land conveyed by said Waynflete School to the Grantor by deed of even date herewith; thence by said Waynflete School land N 71° 50' E 7.35 feet to the point of beginning, and being a portion of the land conveyed to this Grantor by John W. Gordon et al as aforesaid. Said above described courses are magnetic and of the date of 1955.

Also hereby conveying all my right, title and interest in and to a certain twenty (20) foot right of way over land now of this Grantee, said right of way being more particularly described in the second paragraph of said deed from John W. Gordon et al to this Grantor.

Also hereby conveying all my right, title and interest in the use of the driveway over land now of this Grantee as more particularly described in paragraph three of said deed from John W. Gordon et al to this Grantor.

Also hereby conveying all my right, title and interest in and to a certain gas pipe easement over land now of this Grantee as more particularly described in paragraph three of said deed from John W. Gordon et al to this Grantor.

282 To have and in hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said THE WAYNFLETE SCHOOL, its successors

has _____ gns, to its and their use and behoof forever.

And I do covenant with the said Grantee, its ^{successors} ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises, that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs shall and will Warrant and Defend the same to the said Grantee, its ^{successors} ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said MILLARD C. WEBBER, JR.,

and HELEN A. WEBBER,

wife of the said Millard C. Webber, Jr.,

joining in this deed as Grantor, and relinquishing and conveying all right by descent and all other rights in the above described premises, have hereunto set our hands and seals this 30th day of November in the year of our Lord one thousand nine hundred and fifty-nine.

Signed, Sealed and Delivered
in presence of

Carl Beyer

Millard C. Webber, Jr.
Helen C. Webber, Jr.

State of Maine. CUMBERLAND, ss. November 30, 19 59.
Personally appeared the above named Millard C. Webber, Jr.

and acknowledged the foregoing instrument to be his free act and deed.

Before me, Carl Beyer
Justice of the Peace

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 11:57 A.M., and recorded in
BOOK 2573 PAGE 281 DEC 1 1959
Edward P. Lyon Registrar

Known All Men by these Presents,

That I, MAGEL W. BRAUN, of Portland in the County of Cumberland and State of Maine, do hereby certify that I am the owner of the following described property:

in consideration of one dollar (\$1.00) and other valuable considerations,

paid by THE WAYNFLETE SCHOOL, a corporation organized and existing under the laws of the State of Maine and having its principal place of business at said Portland, whose address is 356 Spring Street, Portland, Maine 04102, Successors

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said The Waynflete School,

all my right, title and interest in and to the following described property:

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

Beginning on the easterly side line of said Fletcher Street at the south-westerly corner of that certain lot or parcel of land conveyed to Roy E. Braun and the Grantor by Alice D. Kilborn by deed, dated August 25, 1952 and recorded in the Cumberland County Registry of Deeds in Book 2100, Page 221; thence easterly by land formerly of T. C. Hersey and parallel with the south-easterly side line of Spring Street one hundred seven and seven tenths (107.7) feet to the westerly side of a passageway about thirteen (13) feet wide leading southerly from Spring Street to the former residence of the late T. C. Hersey; thence northerly by said passageway thirty and one hundredth (30.01) feet to a drill hole; thence westerly at an included angle of ninety-one degrees forty-five minutes (91° 45') with the last described course one hundred six and eighty-four hundredths (106.84) feet, more or less, to a drill hole in said easterly side line of Fletcher Street; thence southerly by said easterly side line of Fletcher Street thirty (30) feet to the point of beginning.

Being a portion of the premises conveyed to Roy E. Braun and Magel W. Braun, as joint tenants and not as tenants in common, by Alice D. Kilborn by said deed, dated August 25, 1952 and recorded in said Registry of Deeds in Book 2100, Page 221. The said Roy E. Braun died on May 13, 1961.

[illegible][illegible]

with all privileges and appurtenances thereof to the said The
Waynflete School, its

THE COMPUTER SYSTEMS

And I do covenant with the said Grantee, its / Successors
and Assigns, that I am lawfully seized in fee of the premises;
that they are free of all incumbrances;

that, I. have good right to sell and convey the same to the said
Grantee to hold as aforesaid; and that I. and my Heirs, shall
and will Warrant and Defend the same to the said Grantee, its

Successors
~~Make~~ and Assigns forever, against the lawful claims and demands
of all persons.

21

XXXXXXXXXXXXXXXXXXXX

[illegible]

Signed, Sealed and Delivered
in presence of

Magel Christ

January 18, 1973

and acknowledged the above instrument to be her free and
voluntary deed.

Before me,

10, Joseph H. ...
 RECEIVED FOR ...

Notary Public

JAN 23 1973

REGISTRY OF DEEDS: CUMBERLAND COUNTY, MAINE

Received at BOOK 3353 H 25 N.P.M. and recorded in PAGE 19

Recorded in
to Court May 20

Register

Know all Men by these Presents, That

225

Waynflete Latin School, Incorporated, a corporation duly organized under and existing by the laws of the State of Maine and having a place of business at Portland, in the County of Cumberland and State of Maine, in consideration of one dollar and other good and valuable considerations to it paid by The Waynflete School, a literary, educational and scientific corporation organized and existing under the provisions of Chapter 70 of the Revised Statutes of Maine and all acts additional thereto and amendatory thereof, and located at said Portland,

the receipt whereof is ~~do~~ hereby acknowledged do hereby give, grant, bargain, sell and convey unto the said The Waynflete School, its successors and assigns forever, A certain lot or parcel of land with the buildings thereon, situated in said Portland, and bounded and described as follows: Beginning at a point in the northeasterly side line of land conveyed by Caroline M. Crisfield and Agnes P. Lowell to Raffaele Romano by deed dated July 20, 1922, and recorded in Cumberland County Registry of Deeds in Book 1110, at page 27, said point being distant along said northeasterly side line one hundred (100) feet from the northerly side line of Danforth Street; thence south, seventy-one degrees (71°) thirty minutes (30') west, a distance of sixty (60) feet to a point; thence north, eighteen degrees (18°) thirty minutes (30') west, a distance of one hundred fifty-three and three tenths (153.3) feet, to a point; thence south, seventy-one degrees (71°) thirty minutes (30') west, a distance of fifty-six (56) feet to a point; thence north, eighteen degrees (18°) thirty minutes (30') west, a distance of fifty and seven-hundredths (50.07) feet to the southwesterly corner of a thirteen (13) foot passageway described in a deed from Margaret C. Dudley to said Crisfield and Lowell, dated April 30, 1912, and recorded in said Cumberland County Registry of Deeds in Book 891, at page 310; thence north, seventy-one degrees (71°) thirty minutes (30') east, along the northwesterly side line of land conveyed by said Crisfield and said Lowell to said Romano, a distance of one hundred sixteen (116) feet to the northerly corner of land so conveyed and to the land of Charles Cook; thence south, eighteen degrees (18°) thirty minutes (30') east, by land of said Cook and by land of the late Edward Fox, along the northeasterly side line of land conveyed as aforesaid by said Crisfield and Lowell to said Romano, a distance of two hundred three and thirty-seven hundredths (203.37) feet to the point of beginning; together with said certain thirteen (13) foot passageway running from the lot hereby conveyed to Spring Street, said passageway being bounded on the west by land now or formerly of George P. Wescott and on the east by land now or formerly of Julia St. F. Thaxter, subject, however, to rights of passage and use heretofore granted to and in said passageway.

The grantor hereby conveys to The Waynflete School the right to maintain for efficient service to the property hereby conveyed, a sewer, water pipes and gas and electric connections in the present location of such sewer, water pipes and gas and electric connections or in any other location provided by said Raffaele Romano or his heirs and assigns.

The premises herein conveyed are subject to a right of way reserved by said Raffaele Romano for himself, his heirs and assigns, from the land now or formerly belonging to him adjoining the land hereby conveyed on the southwest to said passageway leading to Spring Street and also rights of passage over said passageway leading to Spring Street, said right of way to be an extension of said passageway.

This conveyance is made subject to a certain mortgage from the said Waynflete Latin School, Incorporated to the Maine Savings Bank, dated July 2, 1928 and recorded in said Cumberland County Registry of Deeds, Book 1294, Page 50, which grantee assumes and agrees to pay.

Un Have and in Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said The Waynflete School, its successors ~~be~~ and assigns, to its and their use and behoof forever. And it does ~~do~~ covenant with the said grantee, its successors ~~be~~ and assigns, that it is lawfully seized in fee of the premises; that they are free of all in cumberances; except as above set out,

that it has ~~have~~ good right to sell and convey the same to the said grantee ~~successors~~ to hold as aforesaid; and that it and its ~~successors~~ shall and will warrant and defend the same to the said grantee, its successors ~~be~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said Waynflete Latin School, Incorporated has caused these presents to be signed and its corporate seal to be hereunto affixed by Anne M. Gannett, its President and Philip C. Keith, its Treasurer, hereto duly authorized,

Land - and seal this 20th day of March in the year of our Lord one thousand nine hundred and thirty-five.

Signed, Sealed and Delivered
in presence of

Florence M. Hollywood

Florence M. Hollywood

WAYNFLETE LATIN SCHOOL, INCORPORATED
CORPORATE SEAL
By Anne M. Gannett, its President
And Philip C. Keith, its Treasurer

State of Maine, CUMBERLAND, ss. March -- 1935.

Personally appeared

the above named Anne M. Gannett,

and acknowledged the above instrument to be the free act and deed of the Waynflete Latin School, Incorporated and of herself as President.
Before me, Florence M. Hollywood, Notary Public, Notarial Seal. *Justices of the Peace.*

Received March 20, 1935, at 3 o'clock 30 m. P. M., and recorded according to the original

U.S.I.R.
\$1.00
W.L.S.
Inc.
3/20/35

Received March 30, 1935, at 11h 25m A. M., and recorded according to the original -

Parent
Realty
Co.
to
Waynflete
School
War.

U.S.I.R.
\$1.00
P.R.C.
3/30/35

KNOW ALL MEN BY THESE PRESENTS, That Parent Realty Co., a corporation organized under and existing by the laws of the State of Maine and located at Portland, in the County of Cumberland and State of Maine, in consideration of one dollar and other good and valuable considerations to it paid by The Waynflete School, a literary, educational and scientific corporation organized and existing under the provisions of Chapter 70 of the Revised Statutes of Maine and all acts additional thereto and amendatory thereof, and located at said Portland, the receipt whereof is hereby acknowledged, do hereby give, grant, bargain, sell and convey unto the said The Waynflete School, its successors and assigns forever,

A certain lot or parcel of land situated on the Northerly side of Danforth Street, in Portland, in said County, and bounded and described as follows: Beginning on said side of said Danforth Street at the Southeasterly corner of a certain lot of land conveyed to Raffaele Romano by Caroline M. Crisfield and Agnes P. Lowell by deed dated July 20, 1922, and recorded in Cumberland County Registry of Deeds in Book 1110, Page 27, which corner is on the division line between the land hereby conveyed and land now or formerly of the Estate of Edward Fox, and running thence Northwesterly by said division line one hundred (100) feet, more or less, to land conveyed by said Romano to Waynflete Latin School, Incorporated, by deed dated December 10, 1923, and recorded in said Registry in Book 1158, Page 29; thence Southwesterly by said Waynflete Latin School land to the Southwesterly corner thereof; thence continuing Southwesterly to the Southeasterly corner of a lot of land conveyed by said Romano to Philip J. Deering, Jr., by deed dated September 13, 1926, recorded in said Registry in Book 1244, Page 437; thence continuing Southwesterly by said Deering land to Fletcher Street; thence Southeasterly by said Fletcher Street to Danforth Street; thence Northerly by said Danforth Street to the place of beginning.

Being the same premises conveyed to this Grantor by said Raffaele Romano by warranty deed dated May 19th, 1927, and recorded in said Registry in Book 1265, Page 286.

This conveyance is made subject to a reservation, however, in favor of said Raffaele Romano, his heirs and assigns, of the right to maintain and use a certain sewer running from a building on adjoining land of said Romano across the land hereby conveyed to Danforth Street, with the right to enter whenever necessary upon the land hereby conveyed for the purpose of cleaning, repairing, replacing and removing said sewer, and in the event of such entry the premises are to be restored to their previous condition at the expense of said Romano, his heirs and assigns, exercising such right. Provided, however, that said sewer right may be terminated at any time by the Grantee, its successors and assigns, by giving notice of such termination in writing to the then owner of said adjoining premises served by said sewer, and, in the event of such notice, the then owner of said adjoining premises shall, with-

in ninety (90) days of the receipt of said notice, remove and discontinue the use of said sewer at his expense and shall have the right at his expense to run a sewer across the land hereby conveyed at a location to be designated by the Grantee, its successors or assigns, such location to be suitable for the proper drainage of said adjoining premises of said Romano, his heirs and assigns; and the owners of said adjoining premises and of the premises hereby conveyed shall have the same rights and privileges as to said sewer as are herein provided in connection with the existing sewer.

TO HAVE AND TO HOLD the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said The Waynflete School, its successors and assigns, to its and their use and behoof forever.

And it does covenant with the said Grantee, its successors and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances except as above set out, that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors, shall and will warrant and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, the said Parent Realty Co. has caused these presents to be signed and a wafer seal which it adopts as its corporate seal to be hereunto affixed by Spaulding Bisbee, its President and William D. Ireland, its Treasurer, hereto duly authorized this 30th day of March, in the year of our Lord one thousand nine hundred and thirty-five.

Signed, Sealed and Delivered in Presence of

Florence M. Hollywood

PARENT REALTY CO.

Seal

By Spaulding Bisbee, Its President

Marguerite T. Mahoney

And William D. Ireland Its Treasurer

State of Maine. Cumberland, ss. March 30th, 1935. Personally appeared the above named Spaulding Bisbee and acknowledged the above instrument by him signed to be the free act and deed of the Parent Realty Co. and of himself as President.

Before me, Roger V. Snow Justice of the Peace

Received March 30, 1935, at 11h 45m A. M., and recorded according to the original

 KNOW ALL MEN BY THESE PRESENTS, That I, Claud H. Thomas of Otisfield, in the County of Cumberland and State of Maine mortgagee owner of a certain mortgage given by Lester F. Thomas of Otisfield, in the County of Cumberland and State of Maine to me dated March 30, 1934 A. D. and recorded in Cumberland Registry of Deeds, Book 1435, Page 196, do hereby acknowledge that I have received full payment and satisfaction of the same and of the debt thereby secured, and in consideration thereof I do hereby cancel and discharge said mortgage, and release unto the said Lester F. Thomas, his heirs and assigns forever the premises therein described.

IN WITNESS WHEREOF, I the said Claud H. Thomas have hereunto set my hand and seal this twenty-ninth day of March A. D. 1935.

Thomas
to
Thomas
Disch.

Know all Men by these Presents, That

I, Ethel Fox Baxter, of Cape Elizabeth in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable considerations paid by Waynflete School, a corporation organized and existing under the laws of the State of Maine and located at Portland in said County of Cumberland and State of Maine, the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Waynflete School, its successors and assigns forever, the following described property:

A certain lot or parcel of land with the buildings thereon situated on the northerly side of Danforth Street and westerly side of Storer Street in said City of Portland, bounded and described as follows: Beginning on the northerly side of Danforth Street at the easterly corner of land formerly of T. C. Hersey; thence easterly on Danforth Street one hundred seventy-four (174) feet six and one-half (6½) inches to the center line of Storer Street; thence northerly parallel with said Hersey line and in the middle line of said Storer Street two hundred twenty-seven (227) feet more or less to a point equally distant from Spring Street and Danforth Street; thence westerly one hundred seventy-four (174) feet six and one-half (6½) inches to said Hersey land; thence southerly by said Hersey land to said Danforth Street at the point of beginning, subject to the location of the westerly half of a way twenty-five (25) feet wide now known as Storer Street.

Being the same premises conveyed to me by Clinton L. Baxter, Trustee, by deed dated April 23, 1901, recorded in Cumberland County Registry of Deeds in Book 851, Page 77.

U.S.I.R.
\$7.70
E.F.B.
10/1/42

On Have and in Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Waynflete School, its successors

heirs and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said Ethel Fox Baxter by Ellen B. Moyer, my Attorney acting under power of Attorney, dated February 12, 1942 and recorded in Cumberland County Registry of Deeds, said Ethel Fox Baxter being a widow,

my hand and seal this first day of October have hereunto set one thousand nine hundred and forty-two. in the year of our Lord

Signed, Sealed and Delivered in presence of

John F. Dana

Ethel Fox Baxter

Seal

by Ellen B. Moyer, her attorney

State of Maine, CUMBERLAND, SS. October 1, 1942.

Personally appeared

the above named Ellen B. Moyer, Attorney for Ethel Fox Baxter, and acknowledged the above instrument to be her free act and deed. in her said capacity and the free act and deed of said Ethel Fox Baxter.

Before me, John F. Dana, Justice of the Peace.

Received October 1 19 42, at 1 o'clock 44 m. P. M., and recorded according to the original.

o

x



5. EVIDENCE OF STATE AND/OR FEDERAL APPROVALS

In addition to the City's Level III Site Plan Review, a Maine Construction General Permit will be required from the Maine Department of Environmental Protection (DEP) prior to construction. A copy of this permit will be provided to the City upon receipt.



6. ASSESSMENT OF ZONING

As previously discussed, no portion of the development is within the 100-year flood plain; a FEMA flood zone map is attached to Section 3 of this Report. The proposed project is therefore not subject to the City's Shoreland and Flood Plan Management Regulations. The proposed project is located with the R4 Residential Zone and the Waynflete School Overlay Zone. These zones are regulated by Division 5 and 16 of the City of Portland Land Use Ordinance, respectively. Schools are a permitted use within the Waynflete School Overlay Zone. The Waynflete School is an existing, previously approved use located entirely within the Waynflete School Overlay Zone; the proposed project will not result in a change in use. The following Sections describe how the proposed project will comply with the City's parking and dimensional requirements within these zones.

6.1 PARKING

The proposed campus upgrades are NOT being proposed for the purpose of accommodating a larger enrollment; rather the proposed project is intended to upgrade the learning experience of the classrooms and better serve the educational needs of the school. As such, no new parking is proposed.

6.2 DIMENSIONAL REQUIREMENTS

In accordance with Section 14-276.6(c) of the City's Land Use Ordinance, the maximum coverage by buildings within the Waynflete School Overlay Zone shall be the same as in the underlying zone, except that maximum coverage within the Waynflete Campus Core Subdistrict shall be 40% and all the land within the Campus owned or occupied by Waynflete School shall be considered a single lot for the purpose of calculating maximum coverage by buildings. A portion of the proposed gymnasium is located within the Waynflete Edge Subdistrict; all other work is located within the Waynflete Core Subdistrict. The space and bulk regulations of the R-4 district continue to apply within the Campus Edge Subdistrict, which has a maximum lot coverage of 30%. The total campus building area, accounting for the demolition and reconstruction of the athletic facility and the lower school, is now 69,191 square feet, which is approximately 28% of the Waynflete Campus; the proposed lot coverage does not exceed the requirements of the Waynflete Campus Core Subdistrict or the Campus Edge Subdistrict.

The Waynflete School's existing athletic facility is a Legally Non-Conforming Building. As such, the Development Team has met with the City of Portland Zoning Administrator to develop the following setback requirements for the new replacement gymnasium:

Table 6-1: Waynflete School Athletic Facility Dimensional Requirements

	REQUIRED	PROVIDED
Rear Yard Setback	Existing MIN	Existing Maintained
Front Yard Setback	Average of Parcel 061 F001001 & 061 G001001	15.73 FT
Side Yard Setback	Average of Parcel 061 F001001 & 061 F009001	11.50 FT
Building Height	Existing MAX	Existing Maintained*

*Note: The proposed building height is 21-feet, eight and ¾ inches, which is lower than the height of the existing building.

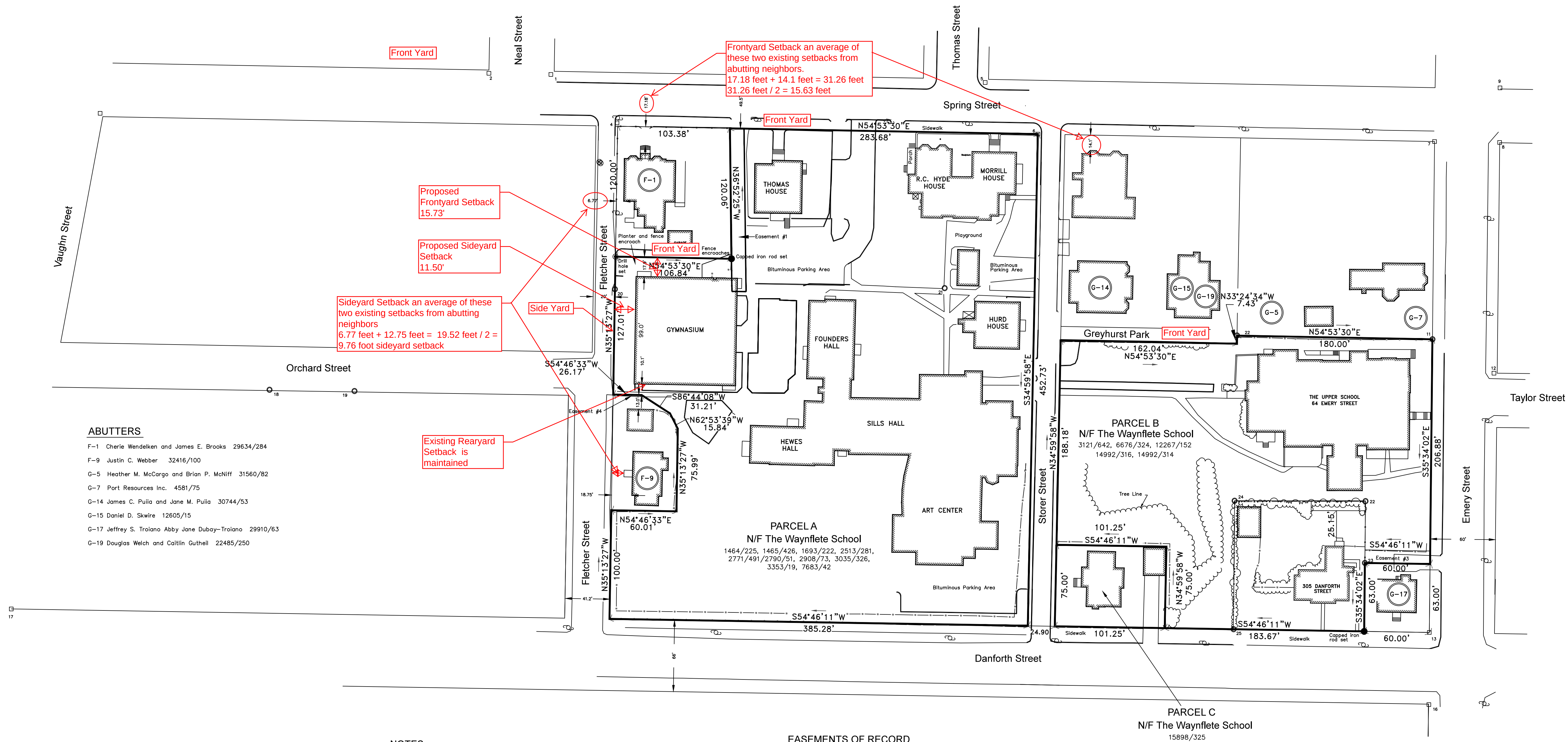
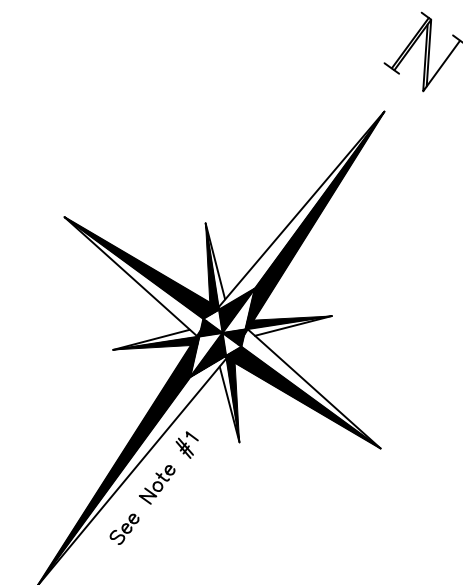
The dimensional requirements for the work associated with the Lower School are described in Sections 14-105 and 14-276.6. It should be noted that, for past work at the Waynflete campus associated with the Franklin Theater & Arts Center, due to the intricate roof lines and varying grade elevations, the Zoning Administrator recommended calculating

building heights based on the average of measurements from the existing grade to the top of the roof edge at two foot intervals around the full perimeter of the building. Utilizing this method to calculate the building height of the proposed lower school yields a building height of 33-feet and one half-inch, which is less than the 35-foot maximum permitted.

The proposed project will not result in any changes to the existing front yard setback, lot size, street frontage, or lot width associated with the Lower School. The dimensional requirements for the side and rear yard setbacks are summarized in the table below:

Table 6-2: Waynflete Lower School Dimensional Requirements

	REQUIRED	PROVIDED
Side Yard Setback	16 FT	41 FT
Rear Yard Setback	25 FT	120 FT



ABUTTERS

F-1 Cherie Wendelken and James E. Brooks 29634/284
F-9 Justin C. Webber 32416/100
G-5 Heather M. McCargo and Brian P. McNiff 31560/82
G-7 Port Resources Inc. 4581/75
G-14 James C. Pulla and Jane M. Pulla 30744/53
G-15 Daniel D. Skwire 12605/15
G-17 Jeffrey S. Troiano Abby Jane Dubay-Troiano 29910/63
G-19 Douglas Welch and Caitlin Guthrie 22485/250

DESCRIPTION OF MONUMENTS

- 1) 8"x8" Granite with brass plug, 5" below sidewalk
- 2) Drill hole in brick.
- 3) 8"x8" Granite with brass plug at grade.
- 4) 8"x8" Granite with Drill hole, at grade
- 5) 8"x8" Granite with brass plug, at grade
- 6) Stone post 3" above grade, inside corner.
- 7) 10"x11" Granite with "M", at grade, inside corner
- 8) 9"x11" Granite with "M" at grade, inside corner
- 9) 10"x11" Granite with "M" at grade, inside corner
- 10) 8"x8" Granite with brass plug, 1" above grade
- 11) capped iron rod, PLS #466, at grade
- 12) 8"x8" Granite with brass plug 1" above grade
- 13) 9"x5" Granite with "M", 5" below grade, inside corner
- 14) 6"x6" Granite with brass plug at grade
- 15) City of Portland survey disk, PLS#2230
- 16) 8"x8" Granite 1" above grade inside corner
- 17) 8"x10" Granite with "M", at grade inside corner
- 18) 3/4" pipe, at grade
- 19) Capped iron rod, PLS #284
- 20) 1" pipe, 4" below grade
- 21) 1" pipe, at grade
- 22) Capped iron rod, PLS #466, at grade
- 23) Capped iron rod, PLS #466, at grade
- 24) 3/4" Pipe, at grade
- 25) 3/4" Pipe, 2" below grade

NOTES

- 1) Bearings are referenced to the True North as determined by astronomic observation.
- 2) Deed and Plan Book references are to the Cumberland County Registry of deeds.
- 3) Pipe sizes shown are inside diameter (I.D.).
- 4) Street lines for Storer and Fletcher Streets are based on building ties shown in the field notes for Reference #5 and #6. Street lines for Spring, Emery, and Danforth Streets are based on monuments as shown.

PLAN REFERENCES

- 1) Plan of land at Emery and Danforth Streets, from a copy by M.C. Pingree recorded November 6, 1871 recorded in Plan Book 3 Page 27.
- 2) "Plan of lot on Emery Street Owned by Charles S. Forbes" by W.A. Goodwin, C.E., dated May 11, 1874, and recorded in Plan Book 3 Page 26.
- 3) "Plan of Division of Land Belonging to Jerome, Parley & Cram" by E.C. Jordan, C.E., dated July 28, 1886 and recorded in Plan Book 6 Page 12.
- 4) City of Portland monument maps, dated 1925, on file at the City of Portland Department of Public Works.
- 5) Plan of Fletcher Street, dated December 13, 1934, on file at the City of Portland Department of Public Works.
- 6) Plan of Storer Street, undated, on file at the City of Portland Department of Public Works.
- 7) "Plan of Property ... made for John W. Gordon" by H.I. & E.C. Jordan dated September 28, 1959.
- 8) Plan of Danforth, Salem, May, School, and Briggs Streets by Owen Haskell Inc., dated December 4 1974.
- 9) Standard Boundary Survey ... made for Christopher M. Harte " by Titcomb Associates Inc. dated February 4, 1997.
- 10) Standard Boundary Survey made for The Waynflete School by Titcomb Associates Inc. dated April 26, 1999.

EASEMENTS OF RECORD

- 1) "The right to use the way before named as a driveway" granted to George P. Westcott by Abby D. Hersey et al. by deed dated June 10, 1886, and recorded in Book 529 Page 21.
- 2) Pole easement granted to Central Maine Power Co. by Waynflete School by deed dated August 16, 1955, and Recorded in Book 2276 Page 253.
- 3) Driveway easement granted to Monty Q. Hagen and James H. Harrison by Waynflete School by deed dated March 10, 2000, and Recorded in Book 15361 Page 261.
- 4) Sidewalk Easement Agreement between Helen A. Webber and Waynflete School by deed dated September 25, 2006 and recorded in Book 24399 Page 338.

OWNER OF RECORD / AREA

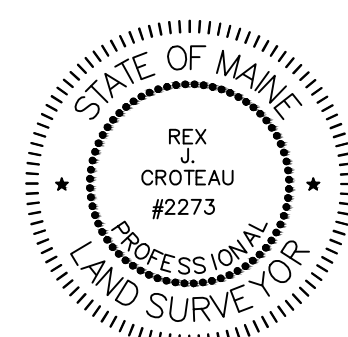
Parcel 'A' -- The Waynflete School
Area: 156,374 sq ft = 3.59 Acres
Parcel 'B' -- The Waynflete School
Area: 80,272 sq ft = 1.84 Acres
Parcel 'C' -- The Waynflete School
Area: 7,594 sq ft = 0.17 Acres
Total Area: 244,240 sq ft = 5.60 Acres

Frontyard and sideyard setback
calculations,
Waynflete Gymnasium
March 01, 2016
Scott Simons Architects

CERTIFICATION

This survey conforms to the current standards of practice set forth by the Maine State Board of Licensure for Land Surveyors.

Rex J. Croteau, P.L.S. #2273



50 0 50 100
SCALE IN FEET

Standard Boundary Survey

Spring, Emery, Danforth, Fletcher, & Storer Streets Portland, Maine

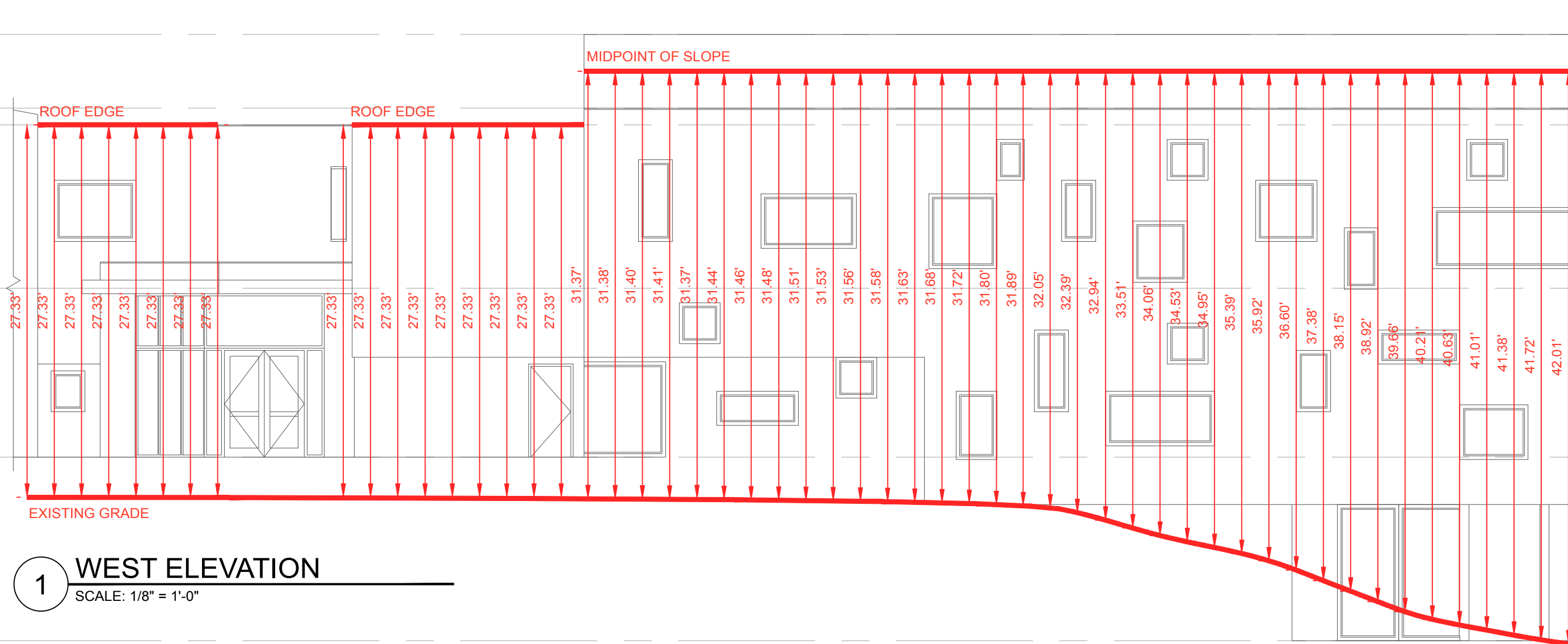
made for
The Waynflete School

360 Spring Street Portland, Maine

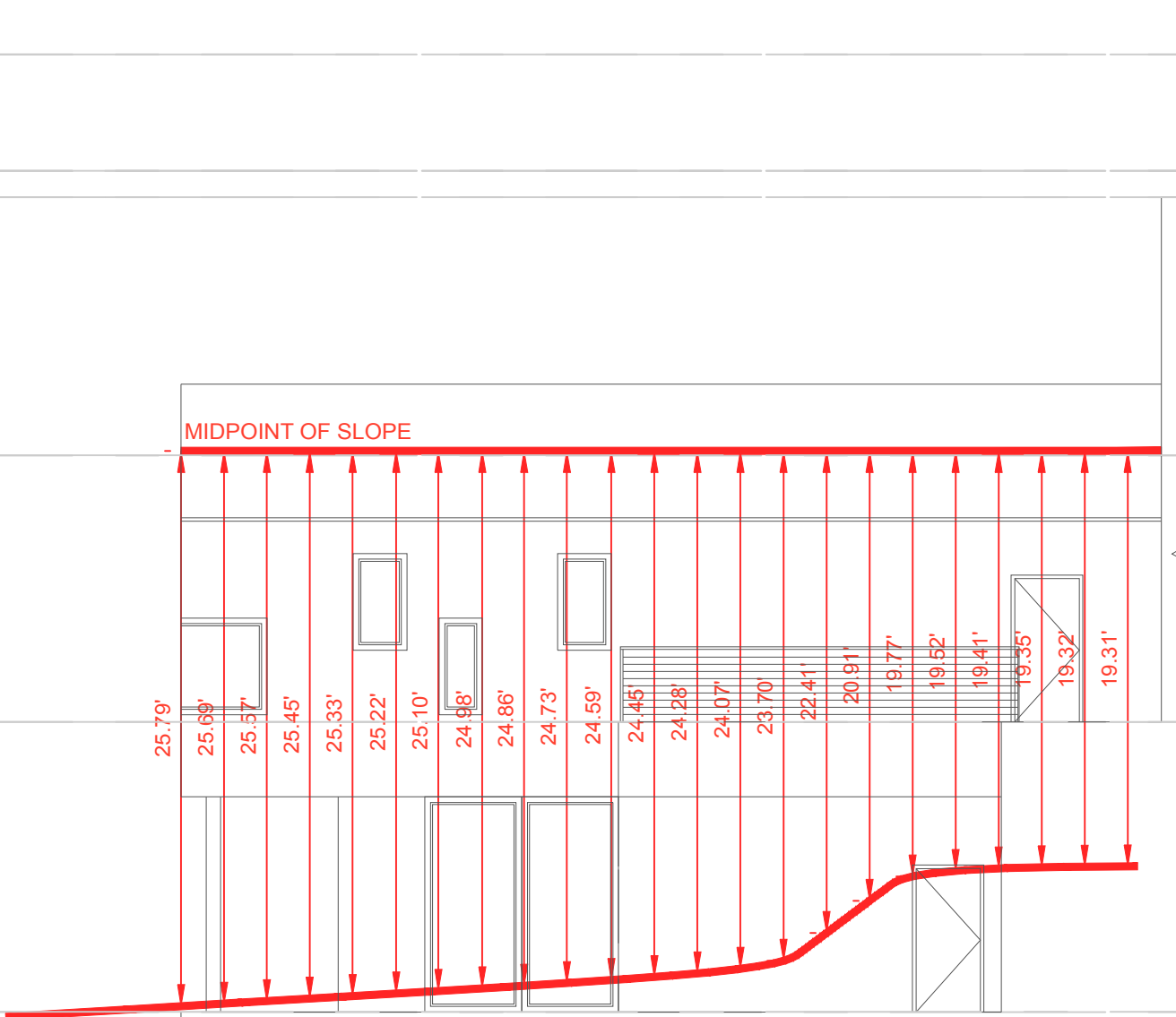
JOB#	93093	DATE:	August 13, 2015	SCALE:	1" = 50'
BOOK#	532				
DISC#	380				
FILE#	6831				

Titcomb Associates
133 Gray Road, Falmouth, Maine 04105
(207)797-9199 www.titcombsurvey.com

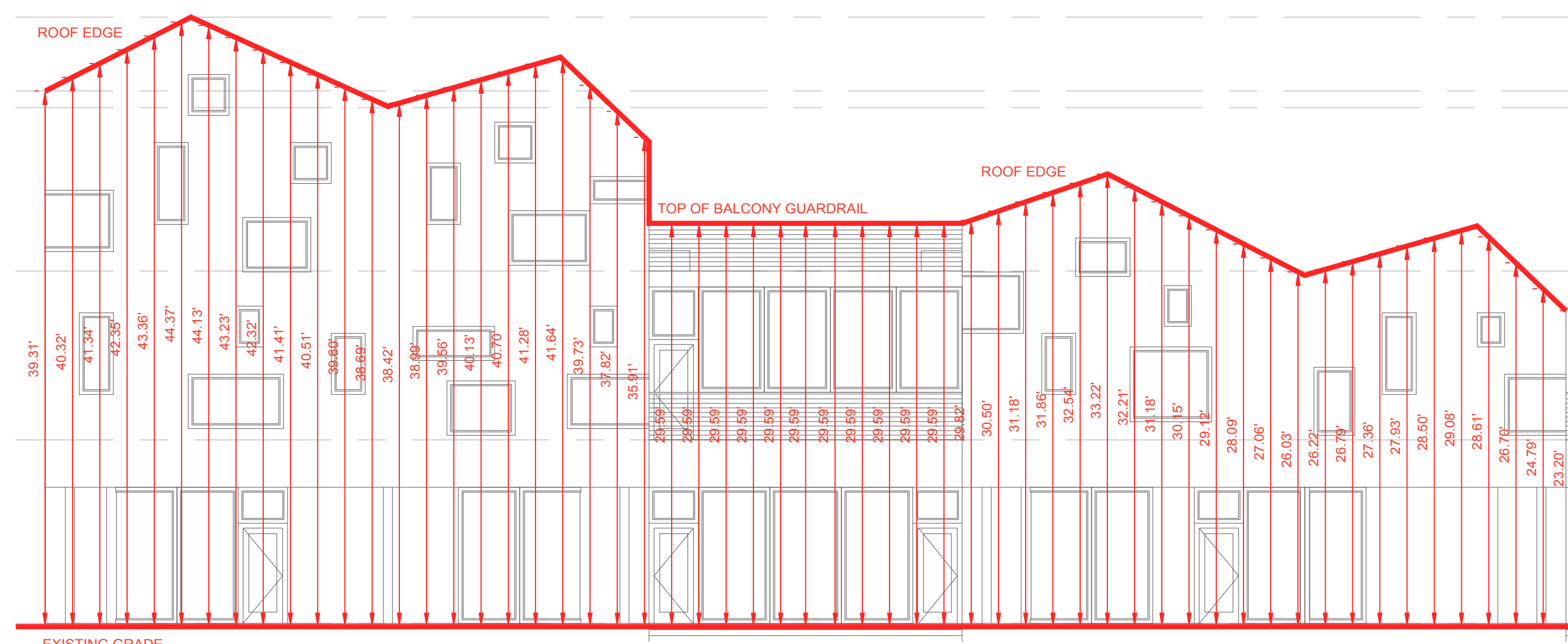
(FIG. 3)



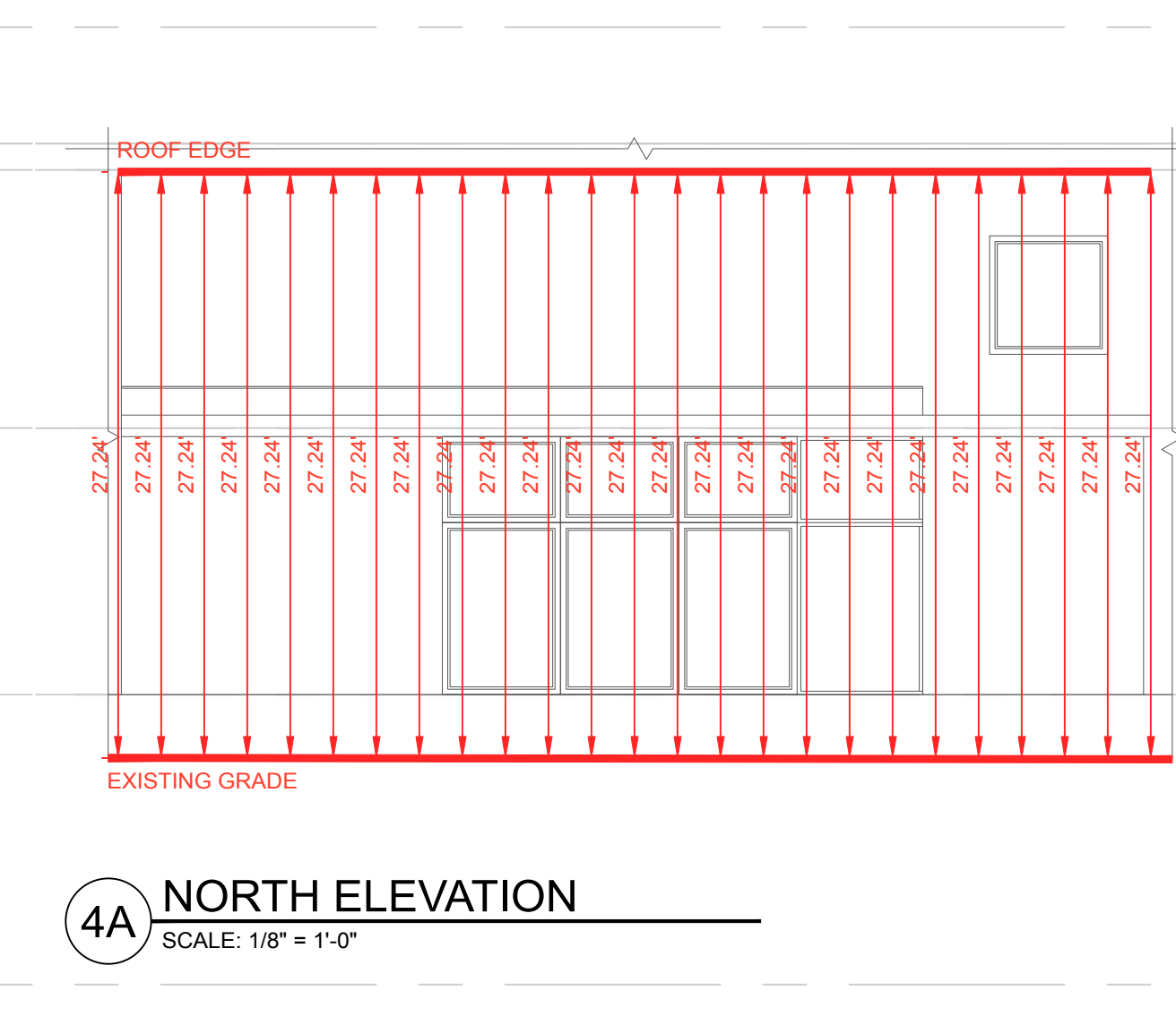
1 WEST ELEVATION
SCALE: 1/8" = 1'-0"



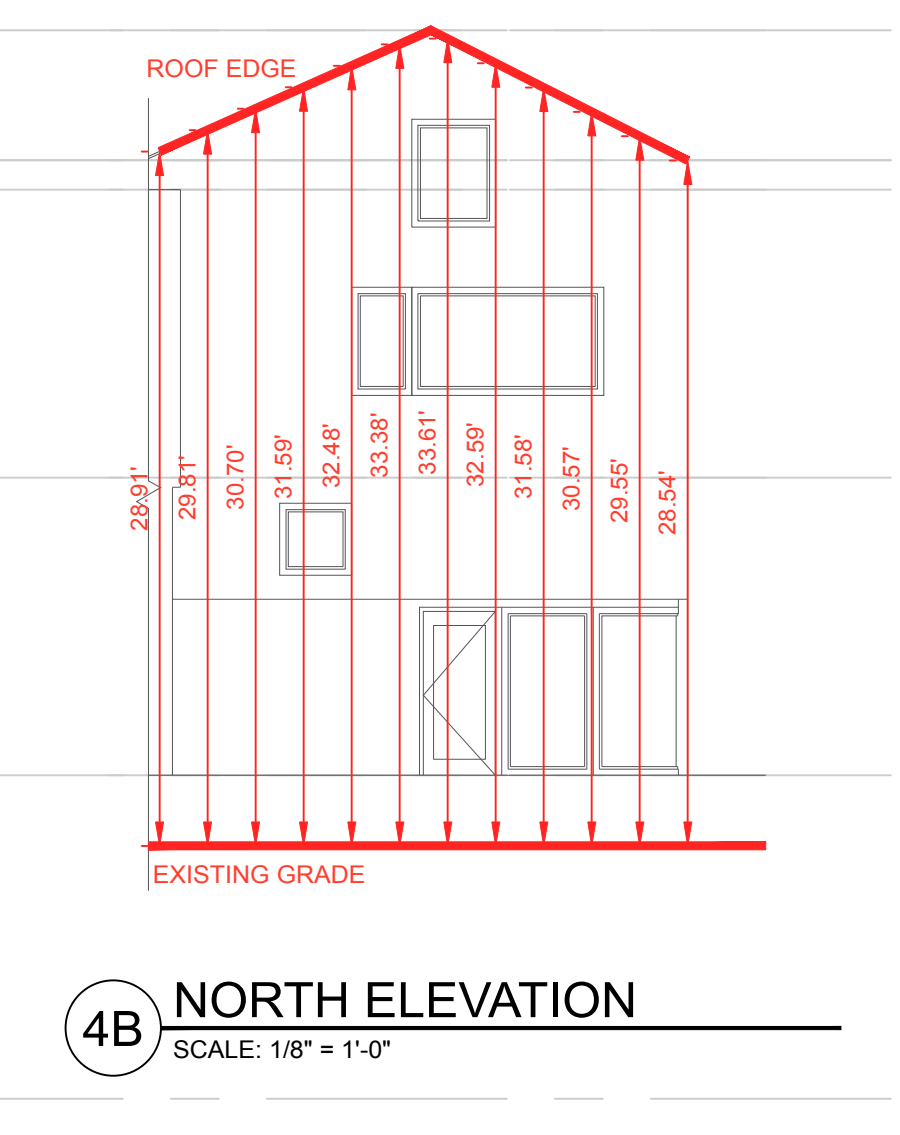
2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



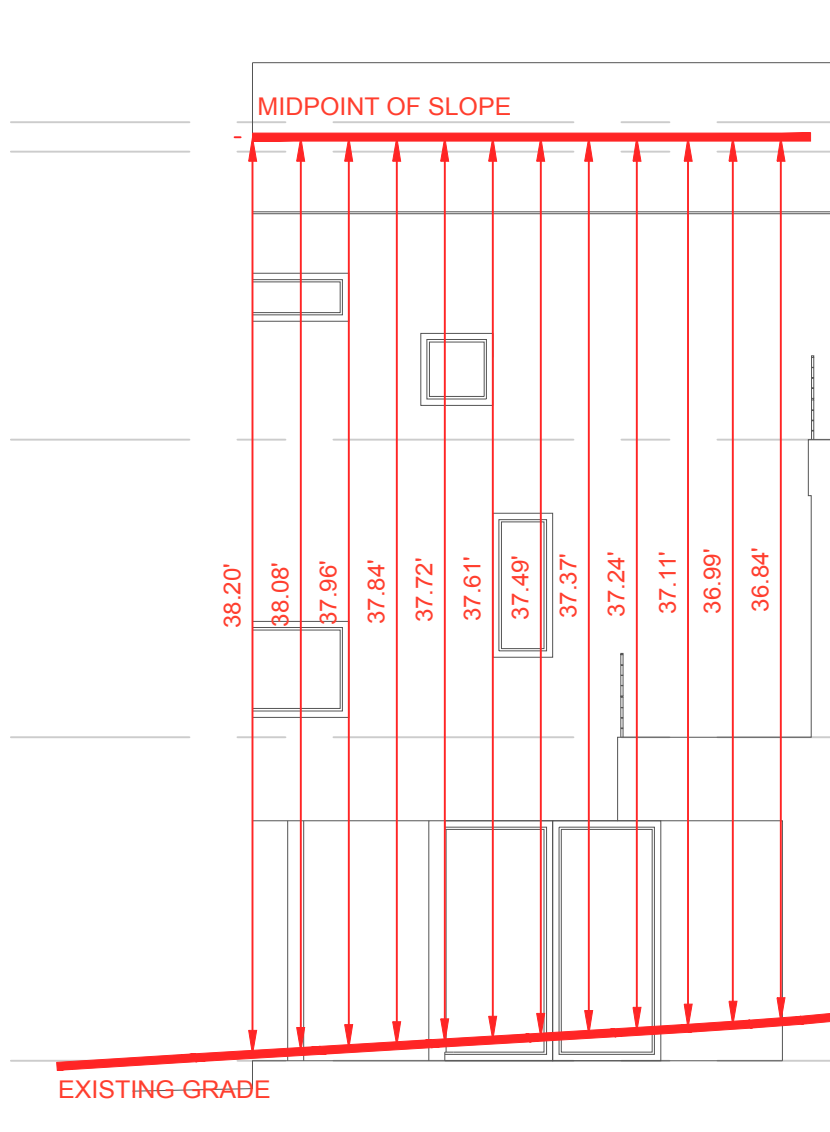
3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0" NOTE: DRAWN ORTHOGONAL TO SHEET



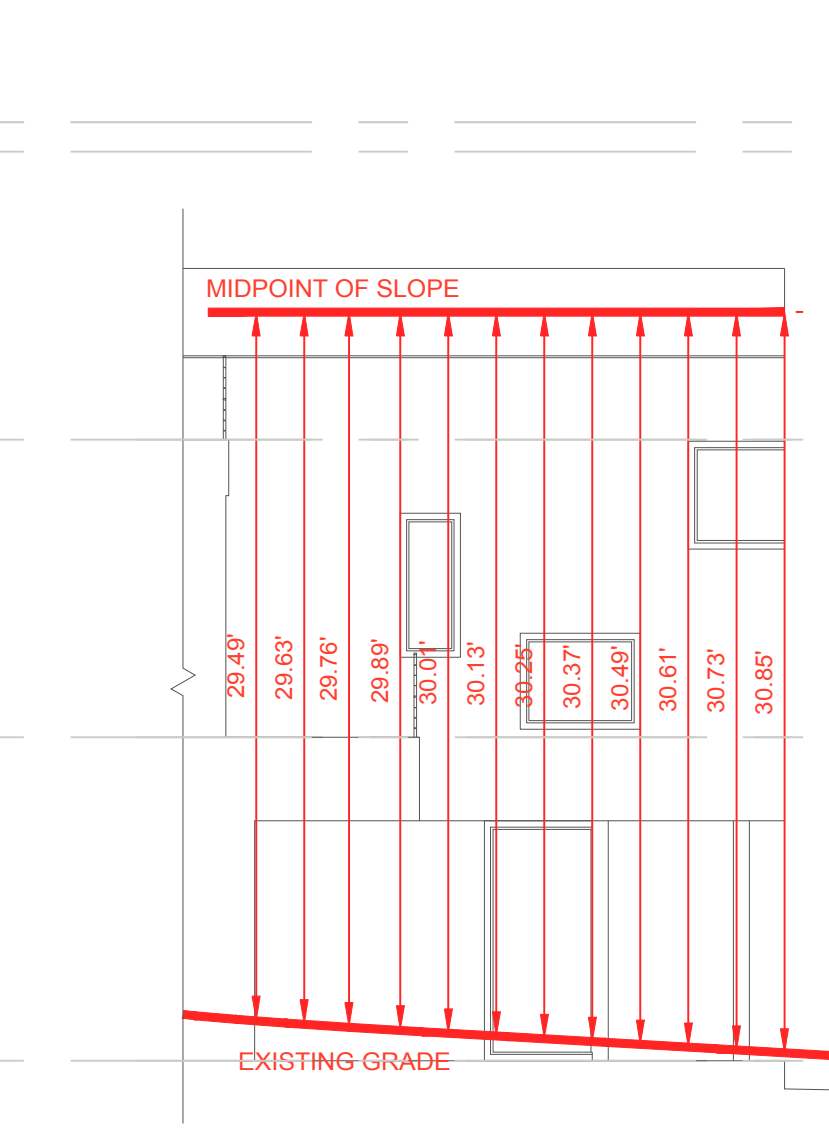
4A NORTH ELEVATION
SCALE: 1/8" = 1'-0"



4B NORTH ELEVATION
SCALE: 1/8" = 1'-0"



5 INSET EAST ELEVATION
SCALE: 1/8" = 1'-0"



6 INSET WEST ELEVATION
SCALE: 1/8" = 1'-0"

ROOF EDGE
EL. + 167' - 3 1/4"

TOP OF FIN. FLOOR
EL. + 154' - 1/2"

TOP OF FIN. FLOOR
EL. + 141' - 7 3/4"

TOP OF FIN. FLOOR
EL. + 128' - 2"

TOP OF ROOF
EL. + 172' - 8 1/4"

ROOF EDGE
EL. + 167' - 3 1/4"

TOP OF FIN. FLOOR
EL. + 154' - 1/2"

TOP OF FIN. FLOOR
EL. + 141' - 7 3/4"

TOP OF FIN. FLOOR
EL. + 128' - 2"

TOP OF ROOF
EL. + 172' - 8 1/4"

ROOF EDGE
EL. + 167' - 3 1/4"

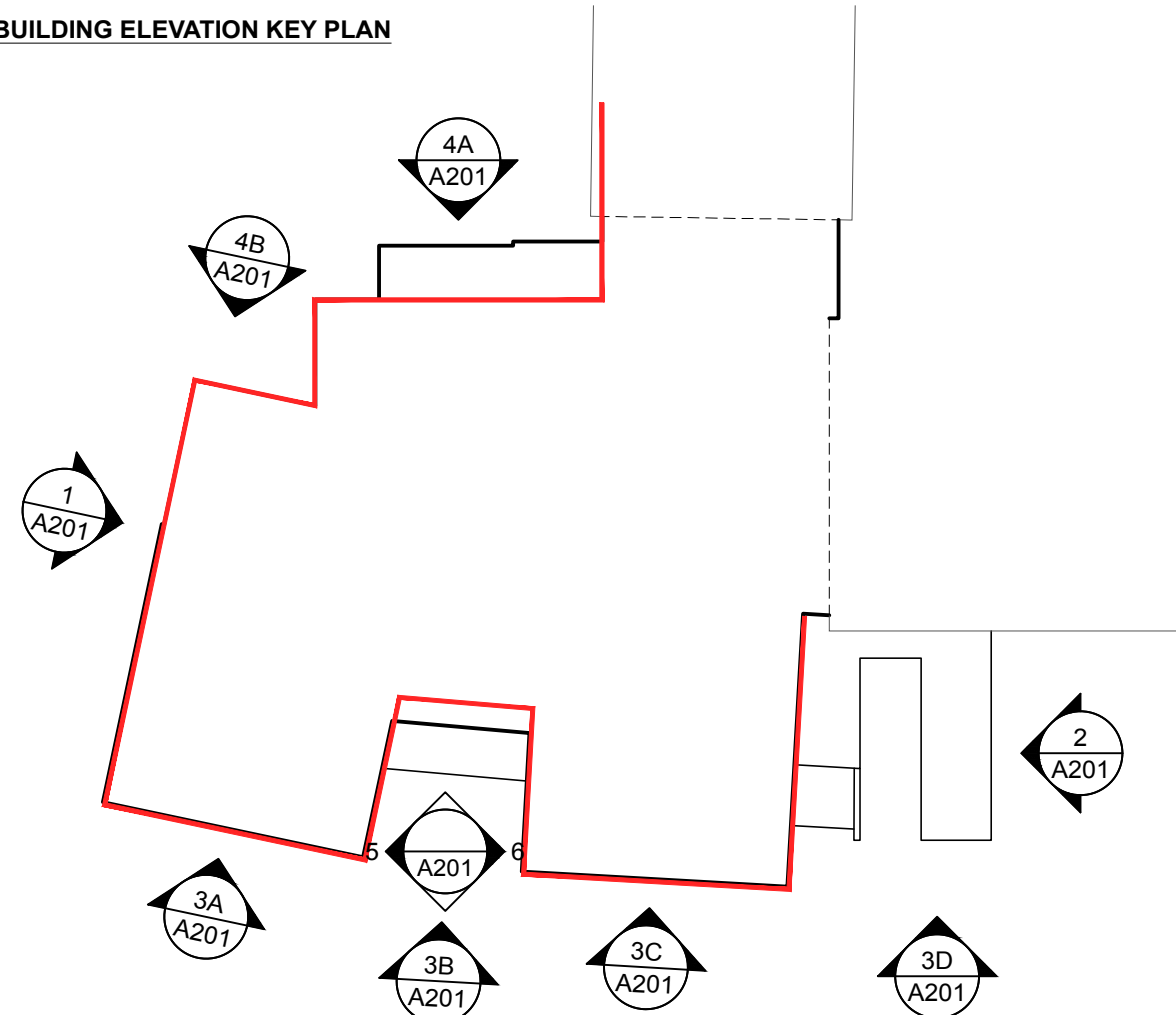
TOP OF FIN. FLOOR
EL. + 154' - 1/2"

TOP OF FIN. FLOOR
EL. + 141' - 7 3/4"

TOP OF FIN. FLOOR
EL. + 128' - 2"



TOTAL AVERAGE HEIGHT
6157.03' VERTICAL
+ 195 STATIONS (24" O.C.)
31.57' AVG HEIGHT



75 York Street
Portland, Maine 04101
simonsarchitects.com
207.772.4656

PROJECT NAME:
**WAYNFLETE
LOWER SCHOOL**
ADDITION & RENOVATIONS

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

NOT FOR
CONSTRUCTION

THIS DRAWING IS THE PROPERTY OF SCOTT SIMONS
ARCHITECTS (SSA) AND IS NOT TO BE COPIED OR
REPRODUCED IN PART OR WHOLE
2015 © SCOTT SIMONS ARCHITECTS, LLC

REVISION:	
1	DATE
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE

DATE OF ISSUE: 29 FEBRUARY 2016
PROJECT NUMBER: 2013-0050
STATUS: PLANNING BOARD SUBMISSION

**EXTERIOR
ELEVATIONS -
AVERAGE
PERIMETER HEIGHT
ABOVE GRADE**

A201 (FIG. 2)



7. EASEMENTS AND OTHER BURDENS

The Boundary Survey attached to Section 19 herein shows and describes easements located within the Waynflete Campus.

EASEMENT DEED

This Easement deed is dated as of this 21st day of September, 2006 by and between **Helen A. Webber** of 11 Fletcher Street, Portland, Maine ("Grantor") and **The Waynflete School**, a Maine non-profit corporation having a mailing address of 360 Spring Street, Portland Maine 04102 ("Grantee").

WHEREAS, Grantee has enjoyed the permissive use of a portion of the land of Grantor located at 11 Fletcher Street ("Grantor's Land") for many years as the location of an existing paved walkway (the "Walkway") for pedestrian access to the adjacent Waynflete School campus (the "Campus"); and

WHEREAS, in exchange for Grantor's permission, Grantee has performed services upon and provided benefits to Grantor's Land in recognition of Grantor's generosity and permission to use the Walkway; and

WHEREAS, Grantor and Grantee wish to create perpetual easement rights in favor of Grantee for the continued use of the Walkway to access the Campus, and to create an obligation on the part of Grantee to continue to perform services to Grantor's Land for as long as Grantor shall live thereupon;

NOW THEREFORE, for Three Thousand Dollars (\$3,000), the mutual promises and covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor and Grantee hereby covenant and agree as follows:

1. Grantor does hereby grant to Grantee, its successors and assigns, a perpetual right and easement for the use of the Walkway in or near its existing location, for use by Grantor, its agents, servants, students and invitees, for the purpose of pedestrian access to the Campus from Fletcher Street and/or Orchard Street, together with a further right and easement in and to the area of Grantor's Land near the Walkway as identified in the sketch attached hereto as Exhibit A (such area and the Walkway together known herein and depicted on Exhibit A as the "Easement Area," being generally located north and northwesterly of the existing garage on Grantor's Land), for the purpose of access to the Walkway with personnel and equipment for the maintenance and improvement of the Walkway from time to time to keep it in a safe and attractive condition. Grantee shall further be allowed within the Easement Area to locate landscaping, fencing, lighting, or other related improvements consistent with the ongoing use of the Walkway for the purposes set forth herein, so that its appearance may be integrated with that of the rest of the Campus. Grantee shall have the specific right to construct and maintain a fence line from the corner of the existing garage on Grantor's Land extending across the Walkway to the gymnasium located on the Campus. Grantee shall have the right to resurface (pave) the Walkway from time to time, and shall have a right to reasonably alter or widen its location within the Easement Area consistent with the further terms and conditions hereof. For the purposes of this Easement, "pedestrian access" to the Campus shall

include access by bicycle, wheelchair, or other non-motorized means of conveyance.

2. Grantee shall keep and maintain the Walkway in a good, safe and attractive condition, such maintenance being the sole responsibility of Grantee. Grantee shall provide reasonable advance notice to Grantor prior to the commencement of any work within the Easement Area that shall create unusual noise, vibration, dust, or disturbance.
3. Grantee agrees that (i) any entry or work upon the Easement Area shall not materially adversely interfere with Grantor's use of the remaining portions of Grantor's Land; and (ii) in connection with any entry upon or work performed in or upon the Easement Area by Grantee that shall impact Grantor's Land in any way, Grantee shall promptly and fully restore the property to the same or better condition as existed prior to the entry or work (this shall not act as a license to enter Grantor's Land outside of the Easement Area without advance permission); and (iii) all work that is performed by Grantee shall be performed in a good and workmanlike manner. Grantee shall require any of its contractors or agents performing work upon the Easement Area to carry types and amounts of insurance as are usual and customary.
4. Grantee agrees to indemnify and hold harmless Grantor from and against any and all damages, liabilities, losses, expenses, claims and suits (including the cost of defending the same or enforcing this indemnity, including reasonable attorneys' fees) incurred or suffered in consequence of either bodily injury to any person (including death) or damage to any property arising directly out of Grantee's acts or omissions related to the easement granted hereby, or the exercise by Grantee of the rights granted by this easement or the breach or violation of the terms hereof by Grantee. This indemnity shall not apply, however, to any costs, damages, claims, losses, suits, fees or injuries arising from Grantor's own negligence, recklessness, or willful misconduct.
5. In consideration of the Easement herein described, Grantee further agrees and covenants that during the time that Grantor Helen A. Webber shall reside at the house located on Grantor's Land ("Grantor's House"), Grantee shall mow the lawn around Grantor's House, plow the sidewalk and driveway serving Grantor's House, and promptly remove and dispose of any and all litter or debris which may accumulate on or near the Easement Area. The foregoing obligation as to mowing and plowing shall terminate upon the death of Grantor Helen A. Webber, or upon any conveyance of Grantor's Land other than to a trust or entity controlled by or created for the benefit of Helen A. Webber personally. The obligation for removal of rubbish and debris shall continue as reasonably associated with Grantee's maintenance obligations as to the Easement Area. The termination of Grantee's obligations under this Section 5 shall not revoke, affect, or diminish Grantee's perpetual easement rights described above in any way.

Witness my hand and seal this 21st day of September, 2006.

WITNESS

Michael H. Hill

Helen A. Webber
Helen A. Webber

State of Maine
County of Cumberland

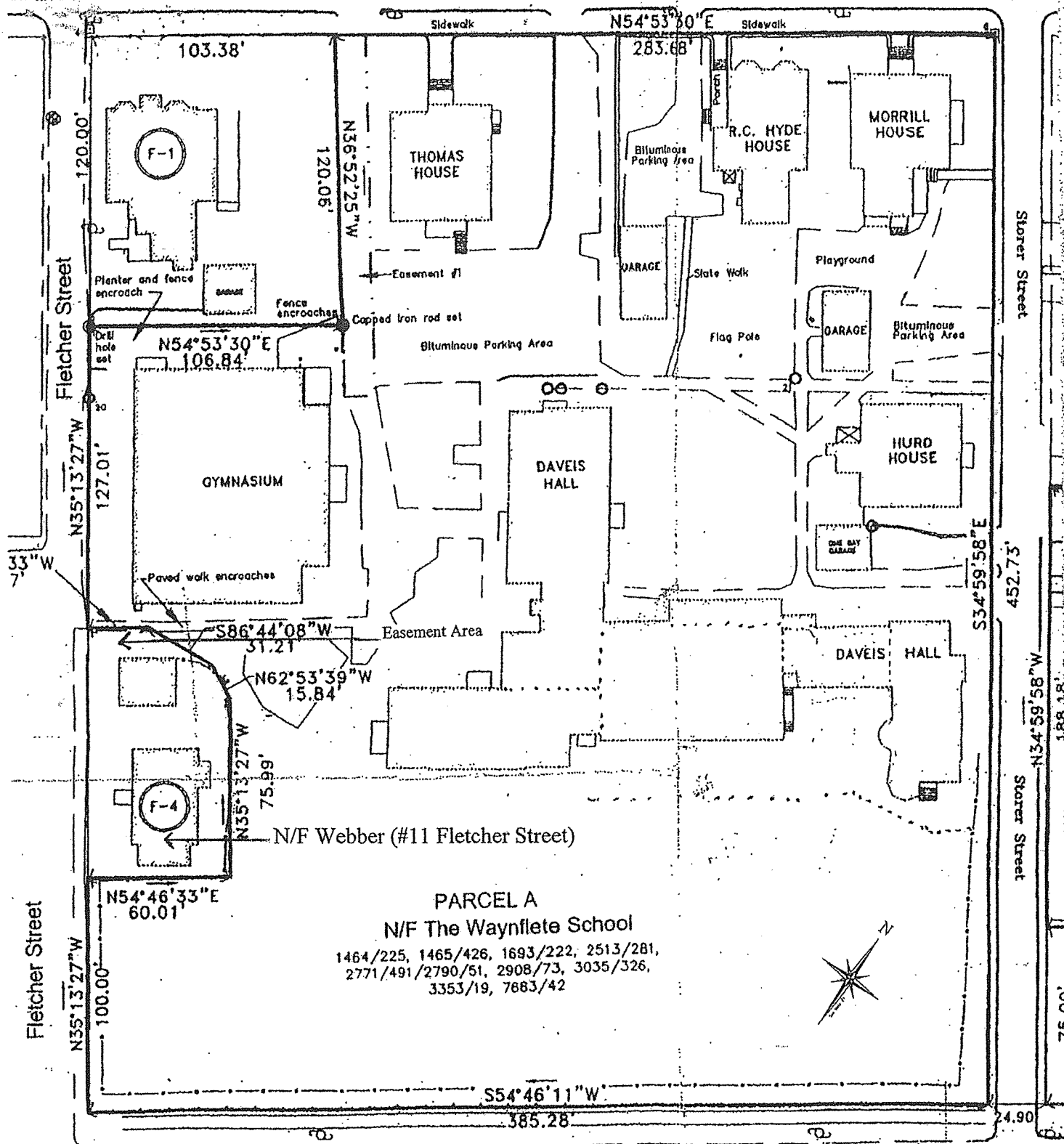
September 21, 2006

Then personally appeared before me the above named Helen A. Webber and acknowledged the foregoing instrument to be her free act and deed.

Before me,

Michael H. Hill
~~Notary Public/Attorney at Law~~

MICHAEL H. HILL



Received
Recorded Register of Deeds
Sep. 25, 2006 02:11:57P
Cumberland County
John B. OBrien



8. EVIDENCE OF FINANCIAL & TECHNICAL CAPACITY

8.1 FINANCIAL CAPACITY

Attached to this Section is a letter from the Waynflete School Director of Finance and Operations demonstrating that the facility has enough financial capacity to support the proposed project.

8.2 TECHNICAL CAPACITY

Scott Simons Architects is the architect for the project and Woodard & Curran is the civil engineering firm completing the site design and permitting for the project. Both Woodard & Curran and Scott Simons Architects have significant experience completing similar types of development projects in Maine, and specifically in Portland.

Resumes or additional company information for Woodard & Curran, other consultants referenced within this application, or key personnel involved in preparing this application can be provided upon request.

8.3 ATTACHMENTS

- Financial Capacity Letter

Memorandum

To: Elizabeth Boepple, Chair, and Members of the Portland Planning Board
From: Anne C. Hagstrom, Director of Finance and Operations, Waynflete School
Date: February 16, 2016
Re: Financing for Construction of Lower School and Gymnasium

The construction of a new and renovated Lower School and a new Gymnasium are important priorities for the Waynflete Board of Trustees. The estimated construction costs for the Lower School are approximately \$8,200,000 and, for the Gym, approximately \$4,500,000.

Waynflete is in the beginning phase of an \$8,000,000 fundraising campaign, half of which is for building projects. Donor interest for the building projects has been strong with nearly \$2,000,000 in gifts and pledges so far including one gift for the Lower School for \$750,000. In addition to the \$4,000,000 in gifts anticipated for construction, the School has \$9,600,000 available in tax exempt bond financing.



February 10, 2016

Planning Board
City of Portland
389 Congress Street
Portland, Maine 04101

Dear Planning Board Members:

I am pleased to provide this letter of recommendation regarding The Waynflete School's proposed Lower School and Gymnasium Projects.

Waynflete began its commercial banking relationship with People's United Bank in October 2014. This relationship includes deposit accounts and loan facilities, a significant portion of which remains available for the projects described above. I am pleased to report that all aspects of our mutual relationship have been handled in a fully satisfactory manner. Waynflete has demonstrated that it has both the financial capacity and the management ability to successfully bring the proposed projects to fruition.

If I can be of any further assistance, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lisa C. Hook', is written in a cursive style.

Lisa C. Hook
Senior Vice President



9. CONSTRUCTION MANAGEMENT PLAN

The proposed development will be constructed in a single phase. On-site work for this project is anticipated to begin in 2017. All erosion and sediment control measures will be installed prior to any soil disturbance. The project contractor will be required to submit a detailed construction management plan for review by the City of Portland prior to the start of construction. A Logistics Plan has been attached to this Section, which notes the sequence and layout for construction activities.

9.1 ATTACHMENTS

- Logistics Plan

WAYNFLETE SCHOOL
LOGISTICS PLAN E: LOWER SCHOOL, FOUNDERS, GYM & CONNECTOR

WR

Wright-Ryan

11/16/15

NOTES:

SEQUENCE: GYM, CONNECTOR, FOUNDERS, LOWER SCHOOL

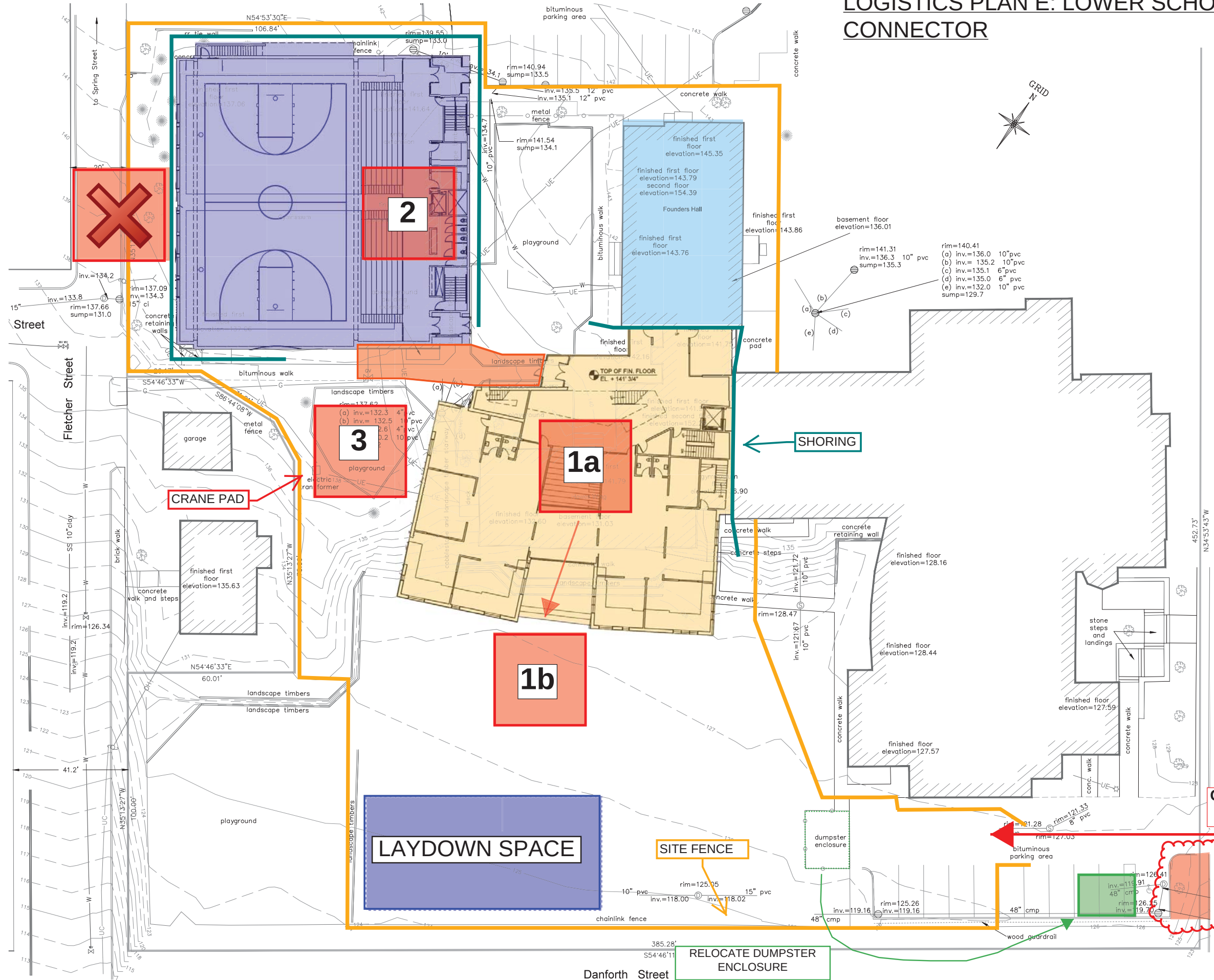
CRANE PADS:

- 1a: FIRST LOCATION**
- 1b: SECOND LOCATION**
- 2. LOCATION FOR GYM BIG STEEL**
- 3. INTERMEDIARY LOCATION**
- X. MULTIPLE ELECTRICAL LINES IN THE WAY - NOT LIKELY**

THIS PLAN APPLIES TO THE PROJECT IF ALL CONSTRUCTION TAKES PLACE AT ONCE.

CONSTRUCTION ENTRANCE

REMOVE PLANTINGS FOR DELIVERY ACCESS AND REPLACE WHEN COMPLETE





10. TRAFFIC ANALYSIS

The campus upgrades are not being proposed for the purpose of accommodating a larger enrollment; rather, it is intended to improve the overall learning experience of the classrooms. As such, an increase in traffic throughout, to, and from the Site is not anticipated at this time. No new parking lots are proposed. The school's current traffic management protocols and existing campus parking areas will be maintained.

Waynflete School Updated - Transportation and Parking Demand Management Plan (TPDM) May 2016

Introduction

Background:

In 2007 Waynflete School received site plan approval from the City of Portland for the construction of a new 276 seat theater (379 occupancy limit) on their existing campus. The Theater was constructed and has been operational since January 2009. While student enrollment did not increase as a result of the project, the approval from the City of Portland to construct the Arts Center included several conditions. The City of Portland required that Waynflete complete a parking management plan with respect to event parking as a condition of their site plan approval. The specific condition #9 is as follows:

“With respect to the event parking, the applicant will provide a written parking management plan prior to issuance of Certificate of Occupancy and a performance report no less than 18 months to 2 years following Certificate of Occupancy to evaluate effectiveness of the parking management plan. Any identified deficiencies in parking will be rectified by an amendment to the parking management plan subject to approval by the Planning Authority. Prior to the Planning Authority approval, Waynflete shall provide a copy of the plan to the Western Promenade Neighborhood Association for input.”

Waynflete retained Gorrill Palmer to create a Transportation and Parking Demand Management Plan (TPDM), which was completed, submitted to the City, and approved November 17, 2008. Since that approval and the creation of a TPDM, a Six Month Interim Assessment was issued in June 2009 and then a Performance Report was issued January 7, 2011. As of the writing of this revised TPDM, all of the action items in the 2008 “Timetable for Plan Action Items” have been completed, with the on-going items still active.

Current:

Waynflete is an independent day school with a student population of over 550 students and employs approximately 110 full-time faculty and staff, bringing approximately 660 individuals to and from the School on a daily basis.



Waynflete is currently planning to upgrade and expand the Lower School and to raze the existing athletic facility and construct a new 600 seat gymnasium. The upgraded and expanded Lower School is not expected to significantly increase traffic or parking demands in the area. However, since the new gymnasium will increase its bleacher capacity from 150 to 600 seats, traffic and parking may increase as a result on occasion. The purpose of this Updated TPDM is to update the previous plan such that it considers the new gymnasium and all of the current policies and procedures Waynflete is currently implementing to reduce the impact of traffic and parking on the adjacent streets and neighborhood.

Parking Supply

There are currently 43 on-campus parking spaces in three parking lots that are used by faculty/staff, visitors, and school vehicles during the school day and are available for night events. In addition, there are 25 rented parking spaces at the First Church of Christ Scientist for school day use. On a couple of occasions the School has rented the Church lot for a night or weekend event. In addition to the on campus and rented parking spaces, there are approximately 640 on street parking spaces identified in a previous study by Gorrill Palmer. These 640 spaces ranged from mostly unrestricted and 2 hour parking during the day down to a few spaces that only allow 15 minutes. Previous studies have all indicated that there is sufficient parking in the area with ample additional parking supply to accommodate additional parking. This was verified in discussions with City staff.

Increase in Traffic or Parking Demand

The proposed Lower School upgrade and expansion is not forecast to significantly impact the traffic volume and parking demand in the area. The existing athletic facility is currently 150 seats and the new gymnasium is planned for 600 seats, an increase of 450 seats. It should be noted that the primary reason for providing 600 seats is that the new design will provide an on-campus location that will seat the entire student body. Although the current gym can hold the entire student body for all school assemblies seated on the floor, there is little room for presenters or performers during those activities. These all-school assemblies during the school day involve the same number of students, faculty and staff as they do now and will not increase traffic volume or parking demand in the area.

Other than the on-campus assemblies, the next largest seating demand anticipated for the new gymnasium will be varsity basketball games. During the 2015-2016 season there were only 10 weekdays that had varsity basketball games. Of those, only a handful are against competition (e.g Falmouth, Yarmouth, Cape Elizabeth) that would be expected to generate any significant additional traffic volume. For these games, the gymnasium could experience a potential seating of up to 400 spectators – nearly equivalent to full occupancy for the Theater. Gorrill Palmer had used an occupancy rate for the previous theater of 2.5 persons per vehicle. For the basketball



events we would anticipate a higher occupancy rate of 3.0. Although we could not verify a rate for this specific size and type of use, the closest we could find was from the ITE 4th Edition of the Parking Generation Manual, using “Live Theater”. This use suggests a rate of 0.33 spaces per seat, which is equivalent to a ratio of 3 persons per vehicle, and falls between the 2.5 used for the previous theater and 3.5 which was used for the approved Thompsons Point basketball court. Therefore, the 3.0 appears reasonable. Using the 3.0 persons per vehicle rate, the forecasted demand should yield the need for approximately 134 spaces. Subtracting the 43 available on-campus spaces yields an off-site demand of approximately 91 spaces out of 640 available on-street spaces. Other large events in the new Gymnasium could include the Auction, currently held every other year in the existing Gymnasium and possibly Commencement, currently held in Merrill Auditorium. The School will adjust its parking management efforts, as it does now, for such large events.

Combined Events

The possibility of events occurring at both the Theater and the gymnasium at the same time was also considered. Since Waynflete is responsible for scheduling the use of both the Theater and the Gym, they will be mindful of overlapping parking demands and manage accordingly. In comparing the 2015-2016 schedule of basketball games and events at the Theater, there were only four times when a home basketball game occurred on the same weekday as theater events. Those Theater events included a music recital (approximately 200 people), a State of the School address (approximately 50-100 people), an Upper School concert (approximately 200 people), and a play (approximately 250 people). The largest three events started at approximately 7:00 PM, either after or toward the end of the basketball games. Based on this information, the School is doing a good job of managing the potential overlap of basketball games and Theater events and this oversight will continue with the new gymnasium.

Transportation and Parking Management Plan

Objective- The objective of the Transportation and Parking Demand Management (TPDM) Plan is to reduce the traffic volume and parking demand in the neighborhood surrounding the School by a variety of specific strategies such as policies and procedures, rideshare, transit, bicycling, walking, and utilization of existing off street parking.

Waynflete is a well-established school that is very proactive with their TPDM plan. The following describes the efforts that the school has undertaken to manage their traffic and parking demands since 2008.



- Established Transportation Coordinator
- Education / Informational Materials
- Current School Policies
- Rideshare program
- Incentives to use Public Transportation
- Encouraging bicycling and walking
- Utilization of Satellite Parking Areas
- Event Planning and Coordination
- Survey

These efforts will continue after the upgrade to the new gymnasium. The following is a more detailed description of the efforts.

Transportation Coordinator:

Waynflete's Director of Finance and Operations together with the Executive Assistant to the Head of School administers and directs the parking and transportation initiatives for the gymnasium and Art Center / Theater events, as well as the typical school day to ensure a cohesive and consistent plan. This includes working with the City of Portland Planning staff in implementing the Plan.

Education and Informational Materials:

Waynflete provides a student handbook and includes their current "Transportation, Parking, Towing and No Idling Policy". The first sentence in this section is "Waynflete has adopted a Transportation and Parking Management Plan approved by the City of Portland." The handbook later states; "Please drive slowly, park legally, and obey all city parking signs and regulations at all times." This handbook is distributed to all students, parents and staff annually and is updated at least yearly to highlight the goals of the plan, their participation, and the desired outcomes; and to emphasize how reducing the parking demand integrates into the School's green campus initiative. This handbook is supplemented with emails and newsletters throughout the year. This material emphasizes an "open door" policy with respect to continued feedback and suggestions for the program.

Current School Policies:

As described previously, the school provides a handbook yearly that is distributed to students, parents, and staff identifying very strict policies on parking and vehicle use. These policies are closely monitored by the school. Some of the policies / efforts the school is undertaking are identified as follows, some of which were also identified in the Performance Report (1/7/11) identified in the "Background" section of this update as well as in the handbook:



- Employees are restricted by school policy from parking along a number of streets even though those areas are legal parking areas
- Employees are required to submit commuting plans annually by the start of school
- Upper School students in grades 10-12 must complete a Student and Vehicle Registration form
- Students driving to school are **required** to display a Waynflete parking sticker on their windshield
- Student daytime parking is limited to certain sides of certain streets

Rideshare Program:

This program is designed to encourage carpooling by educating staff, parents, and students about the need to reduce the number of vehicles traveling to campus by matching rideshare candidates and by encouraging carpooling with others they know who commute into the City. The goal is to have at least two riders per vehicle who are not in the same family, with a guaranteed ride home service in case of illness, scheduling conflict, or family emergency. To further encourage rideshare; the Student Handbook provides student's names, addresses (physical and email) and phone numbers such that families can more easily coordinate with each other.

Employees who carpool are given preference to use on-campus parking.

Prior to large special events, reminders are sent to parents via email and encouraged to car pool.

Incentives to Use Public Transportation:

As described in the Waynflete handbook which is distributed to the students and parents, to reduce traffic to / from the school "Waynflete School bus service is available to and from Kennebunk, Bath, Cape Elizabeth, Freeport, Lewiston / Auburn and points in between."

To encourage staff to utilize public bus transportation, Waynflete makes bus transit passes available. These passes are fully paid for by Waynflete. Two to three faculty/staff per year use this option.

This combination of incentives is revisited and re-evaluated by the School annually to determine their efficacy.

Encouraging Bicycling and Walking:

Waynflete currently has bicycle racks at several locations on the campus and will continue to encourage staff and students who live within the area to walk or bike when possible.



Utilization of Satellite Parking Areas:

Waynflete currently rents 25 parking spaces off site for daily use at a local church. This allows for more parking spaces on-site for visitors and guests. In the past, the school has rented these spaces for faculty/staff when a large special event has been scheduled but has found that they were not needed, because there was ample on-street parking.

Event Planning and Coordination:

Waynflete currently creates parking plans for large events at the Arts Center / Theater. The efforts for those larger events includes:

- Making sure on-site campus lots are empty prior to the event
- Informing neighbors
- Placing sandwich board signs to direct drivers and pedestrians to the correct locations
- Staff are stationed outside in brightly colored safety vests to manage parking and direct drivers and pedestrians to the proper venue
- Staff monitor the adjacent neighborhood to ensure driveways are not blocked and in some cases, with the neighbor's permission, place cones in front of the driveways
- For basketball games, the visiting team's athletic directors are given instructions on where to load and unload team members, and also where to park buses during the game

These same efforts will continue and expand to include not only larger events at the Theater but those at the gymnasium as well.

Surveys:

The School has experience surveying and communicating with its employees, parents and students via electronic means, and will continue to do so. It promotes an open door policy in which anyone at any time can communicate with the schools about its concerns. In addition, the school is constantly seeking input from the students, parents and staff in an effort to improve the operations of the campus.

Timetable

Since the initial approval of the Transportation and Parking Demand Management Plan (TPDM) in November of 2008, the school has completed all of the original requirements and continues to implement, refine and improve on the plan. The expanded Lower School and new gymnasium are not anticipated to create new action items for the School, but provide an opportunity for the School to refine and improve upon its current expansive efforts.



11. SIGNIFICANT NATURAL FEATURES

The Site is fully developed and there are no known areas of significant natural features, including unusual natural areas, rare or endangered botanical features, areas of significant wildlife habitats, or wetland areas.

A Historic Preservation Application for Certificate of Appropriateness was submitted on October 5, 2015, and a public hearing has been scheduled for March 16, 2016.



12. STORMWATER MANAGEMENT PLAN & CALCULATIONS

As previously described, the Site is currently entirely developed by the Waynflete School campus. The project will disturb more than one acre of area and will result in more than 1,000 Square-Feet of new impervious area. Applicable regulations that govern stormwater management on this site include Section 5 of the City of Portland Technical Manual, Chapter 32 of the City of Portland Code of Ordinances, and the Maine Stormwater Best Management Practices (BMP) Manual. Under Section 5 of the City Technical Manual, the project is subject to the Basic, General, and Flooding Standards of the Maine Department of Environmental Protection Chapter 500 Stormwater Regulations.

Adequate provisions have been made to collect, treat, and detain the required amount of stormwater runoff generated from the Site. The following sections describe the proposed compliance with these standards.

12.1 BASIC STANDARD (SOIL EROSION AND SEDIMENTATION CONTROL)

These standards address erosion and sedimentation control, inspection and maintenance, and good housekeeping practices. The application includes erosion and sediment control plans, details, and notes. These notes cover good housekeeping practices. The Erosion and Sedimentation Control Plan for the proposed project is provided below.

12.1.1 Erosion and Sedimentation Control Plan

The overall goal of the Soil Erosion and Sedimentation Plan is to restrict the potential for erosion and sedimentation at the site and down-gradient of the site. A variety of erosion control techniques will be implemented to achieve this goal. During construction, these include:

- Positive grades throughout the construction site to direct flow to sediment control barriers;
- Diversion barriers to keep upslope runoff from flowing through the construction site;
- Preserving and maintaining vegetated areas to the maximum extent possible;
- Installation and maintenance of sedimentation barriers adjacent to the project;
- Installation and maintenance of construction entrances at the travelled interface between stabilized and non-stabilized portions of the project site;
- Controls for fugitive dust, debris, and other materials;
- Permanent seeding and mulching applied as soon as areas are at final grades; and
- Inspection of all in-place measures after every significant rainfall until permanent measures are in place.

Structural measures will be installed where shown on the Soil Erosion and Sedimentation Control Plan, which is included in the drawings attached to Section 3 of this Report; details for the proposed measures are also included in the drawings. All measures will be implemented in accordance with the “Maine Erosion and Sedimentation Handbook for Construction: Best Management Practices”; they will be installed prior to any earth disturbing activities. All temporary measures will be removed after the areas are permanently stabilized.

Permanent erosion control measures will include vegetation and pavement. Areas of concentrated flow will be protected from erosion by establishing vegetation and riprap. All measures will be maintained in effective operating condition. The Contractor will be responsible for implementing and maintaining all erosion and sediment control measures and will use the attached inspection report form or equivalent.

12.2 GENERAL STANDARD (WATER QUALITY)

The DEP Chapter 500 Stormwater Regulations requires that at least 80% of the developed Site and 95% of impervious area be treated through the use of wetponds, filtration, infiltration, or buffers. An Underdrained Subsurface Sand Filter has been selected as the water quality treatment BMP for the Site, as there is limited available space on the Site for treatment measures that require surface area. Alternative methods were considered, such as space efficient Filterra

units, but were not selected because of the large areas required for treatment and because of the potential for snow plow damage on the Site.

Table 12-1 below outlines the treated areas and calculated percentages demonstrating conformance with the DEP Chapter 500 General Standard:

Table 12-1: Water Quality Treatment Percentages

	NET AREA INCREASE (SQUARE-FEET)	TREATED BY BMP* (SQUARE-FEET)	PERCENT TREATED
Impervious Area	4,776	40,833	>100%
Developed Area	0	47,429	>100%

*Note: Includes both new and existing areas

No new developed area will be created as the site is already entirely developed. The total new impervious area anticipated to result from the construction of the proposed development is approximately 4,776 Square-Feet. 100% of the new impervious area will be treated. This area, in addition to existing impervious and developed areas, will drain to an Underdrained Subsurface Sand Filter, which includes a bed of Stormtech chambers and will store and treat runoff before discharging from the Site.

12.2.1 Underdrained Subsurface Sand Filter

Adequate provisions have been made to collect stormwater runoff from the project area via a series of catch basins and inlets, which drain to an Underdrained Subsurface Sand Filter (USSF) designed to store and treat stormwater volumes generated from the 2-year, 10-year, and 25-year 24-hour storm events. The stormwater is directed through the initial subsurface chamber rows, which are identified as the pretreatment isolator rows of the system, before the remainder of the chambers are filled hydraulically via the porous stone bedding and water infiltrates down through the sand filter; stormwater that is not discarded via infiltration into the subsurface soils will be hydraulically collected by an underdrain system and then discharged to an outlet control structure. When larger storm events occur and the chambers are full, stormwater will be directed over the weir wall within a drainage manhole and bypass the chamber system via a manifold system to the outlet control structure.

The USSF has been designed based on Chapter 7.3 of Volume III of the DEP Stormwater BMP Manual; calculations demonstrating compliance with the BMP design requirements have been included at the end of this Section. Based on the results of the geotechnical evaluation conducted by SW Cole in 2015, separation between the proposed USSF and bedrock/groundwater is not anticipated to be an issue.

On-site soils testing was also completed by a research hydrologist from the sustainable Environments Branch of the National Risk Management Research Laboratory at the Environmental Protection Agency. A City-wide study is being completed to determine the potential for using infiltration systems in the City. Based on the data from this study, we anticipate that the proposed USSF will promote infiltration; however, infiltration has not been modeled so that a conservative outflow estimate can be made for the flooding standard, as described in the following section.

12.2.2 Existing Site Treatment

The existing parking lot located at the Arts Center will be slightly adjusted as a result of this project. The parking lot will be shifted to the west to facilitate fire truck access to the site, but there will be no net increase in parking spaces. The parking lot drains to the existing stormwater management system that was installed as part of the previously approved Arts Center project. This system will continue to provide treatment for the stormwater from this parking lot. The current stormwater model also indicates that the downstream stormwater management system will adequately manage the site's stormwater, including all runoff from this parking lot.

12.3 FLOODING STANDARD (WATER QUANTITY)

The MaineDEP Chapter 500 Stormwater Regulations indicate that the stormwater management system must detain, retain, or result in the infiltration of the stormwater flows from the 24-hour storm of the 2-, 10- and 25-year frequencies such that peak flows from the post-development design of the site do not exceed those from the pre-development design. The proposed USSF will provide both detention and infiltration of stormwater flows, in compliance with the Flooding Standard.

Stormwater modeling was completed using the HydroCAD 10.00 Stormwater Modeling System by Applied Microcomputer Systems, which uses TR-20 runoff calculation methodology. The HydroCAD output for both the pre- and post-development models are attached to this Section. The new Chapter 500 Stormwater regulations, adopted in August 2015, define new standard rainfall amounts for the 2-year, 10-year and 25-year, 24-hour storm events; a Type III rainfall distribution was applied to the storm events.

Subcatchment drainage areas were delineated based on topographical information. HydroCAD provides a lookup table for curve number (CN), which is a measure of the retention and runoff properties of various surfaces based on the Hydrological Soil Group (HSG) and land cover type using TR-55 methodology. The HSG for the Site was taken from the USDA Natural Resources Conservation Service Web Soil Survey; the Site consists entirely of HSG Type A. The area of each land cover type was delineated utilizing topographical information and HydroCAD computed the final CN for each subcatchment based on an area-weighted average.

The Time of Concentration (T_c) is the time required for runoff to travel from the most hydrologically distant point of a watershed to the point of discharge. The T_c for each subcatchment drainage area was computed within HydroCAD using TR-55 methodology as the sum of the travel times for each consecutive flow segment along the longest hydraulic flow path. The longest hydraulic flow path was delineated utilizing contour data and partitioned into segments based on flow types, land cover, and slopes. The primary types of flow consist of sheet flow, shallow concentrated flow, and channel flows. A minimum T_c of five minutes was utilized for all subcatchments.

12.3.1 Pre-Development Conditions

As previously described, the Site is currently entirely developed by the Waynflete School campus. The Site slopes generally in the south-easterly direction and discharges towards the combined sewer system in Danforth Street, which will serve as the study point for the Site. Currently, there are two stormwater pipes entering the combined sewer system in Danforth Street, one at the catch basin located at the intersection of Danforth and Fletcher Streets, and one direct connection mid-block between Fletcher and Storer Street. The Pre-Development stormwater model consists of seven subcatchments. Existing subcatchment boundaries, drainage patterns, and features are shown on Figure 12-1, Pre-Development Drainage Area Plan.

12.3.2 Post-Development Conditions

The proposed drainage structures and features are shown on Figure 12-2, Post-Development Drainage Area Plan. The Post-Development Site has been delineated based on topography as eight subcatchments, similar to those in the Pre-Development model, all of which ultimately discharge to the combined sewer system in Danforth Street. The proposed project will eliminate the two existing connections to the combined sewer, sending all stormwater through a dedicated stormwater pipe connecting to the existing combined sewer line in Danforth Street via a doghouse manhole.

Adequate provisions have been made to collect and dispose of stormwater generated from the developed area of the Site. An USSF, which includes a bed of StormTech storage chambers, has been designed to store and treat stormwater volumes generated on-site. The HydroCAD Reports for both the Pre- and Post-Development conditions are attached to this Section. Table 12-2 below provides a summary of the peak runoff rates for the 24-hour, 2-year, 10-year, and 25-year Type III storm events. As shown below, there is a net decrease in the post-development rate of runoff during all storms at the Site's study point.

Table 12-2: Summary of Peak Runoff Rates

STUDY POINT (EXISTING COMBINED SEWER SYSTEM IN DANFORTH STREET)	PEAK RUNOFF RATE (CFS)		
	2-YEAR STORM	10-YEAR STORM	25-YEAR STORM
Pre-Development	3.85	6.95	9.54
Post-Development	1.91	3.66	5.39
Difference	-1.94	-3.29	-4.15

The proposed stormwater management system has been designed to decrease peak flow rates and to improve water quality. As the Site's peak runoff rate has been reduced, the proposed development is not anticipated to result in adverse effects, including flooding and erosion, to abutting and downstream properties.

12.4 INSPECTION AND MAINTENANCE OF STORMWATER SYSTEMS

General inspection and maintenance during and after construction must take place in accordance with the requirements outlined in Chapter 500, Stormwater Management, Appendix B, Inspection and Maintenance and Stormwater Management, Maine Department of Environmental Protection publication No. DEPLW0738. The Waynflete School will be responsible for implementing the maintenance and inspection requirements for the stormwater management system associated with the new development. The USSF and associated stormwater infrastructure will be inspected and maintained per the guidance outlined herein.

In accordance with Ordinance Section 27-1536(2)(b), the Waynflete School will enter into a Drainage Maintenance Agreement with the City in a form acceptable to Corporation Counsel. A third-party person from the list of approved inspectors maintained by the Water Resource Protection Department with knowledge of stormwater management and erosion and sediment control, including the standards and conditions in the permit, shall conduct the inspections and perform maintenance of the facilities. On or by July 15th of each year, Certification that the stormwater management system has been inspected, cleaned, and maintained shall be submitted to the Director of Water Resource Protection in a form provided by that Department.

The inspection and maintenance criteria outlined in Chapter 500 Stormwater Regulations will be followed. Monitoring and maintenance is critical for the proper operation of the USSF and StormTech chamber system. First year post-construction monitoring differs primarily by its increased frequency to assure proper system functioning. Post-construction routine monitoring is based on USEPA requirements for good housekeeping practices.

Post-Construction: Inspection frequency should be at least once every six months and after every major storm in the first year following construction.

- ☐ Ensure system drains within 24-36 hours; and
- ☐ Clean pre-treatment devices and remove debris and sediment buildup from Isolator Rows as needed (when the average depth of sediment throughout the length of the Isolator Row exceeds three inches).

Trash, debris, and sediment shall be removed from storm drain pipes as needed on a semi-annual basis. In addition to the inspection and maintenance of stormwater systems, paved areas will be inspected annually each spring. Periodic sweeping of pavement will reduce the amount of sediment available to enter the USSF, in turn reducing the need to clean the Stormwater system.

12.5 ATTACHMENTS

- Stormwater Erosion & Sedimentation Control Inspection Report Form

-
- USSF Design Calculations
 - Figure 12.1 Pre-Development Drainage Area Plan
 - Figure 12.2 Post-Development Drainage Area Plan
 - Pre-Development HydroCAD Report
 - Post-Development HydroCAD Report

**STORMWATER EROSION & SEDIMENTATION CONTROL
INSPECTION REPORT FORM**

Inspectors:

Date: ____ / ____ / ____

_____ of _____ (Project Owner)

_____ of _____ (Contractor)

_____ of _____

_____ of _____

Storm Event? ☐ Yes ☐ No Rainfall Amount _____ Storm Duration _____ hours

Visual Observations of Activity and Site Conditions:

Disturbed Soil Areas:

Storage Of Soils:

Sediment & Erosion Control Measures:

Construction Site Entrance:

Surface Stabilization:

Corrective Actions Taken

Attachments (if any):

Signature:

Representing:

Representing:



41 HUTCHINS DRIVE
PORTLAND, MAINE 04102
TEL. (207) 774-2112
FAX (207) 774-6635

CLIENT Scott Simons Architects
PROJECT Wynnflete School Campus Upgrades
DESIGNED BY AEA DATE 2-1-16
CHECKED BY _____ DATE _____
PROJECT NO. 229423 SHEET NO. 1 OF 1

Underdrained Subsurface Sand Filter Design Calculations

Per Chapter 7.3 of Volume III of the Maine DEP Stormwater BMP Manual

Treatment : $(1" \times \text{Impervious Area}) + (0.4" \times \text{Pervious Area})$
Volume

Impervious Area = 42,442 SF

Pervious Area = 11,465 SF

→ Treatment Volume Req'd = 3,919 CF OK

Provided = 4,019 CF OK

Impoundment : Storage Provided @ Elevation $\leq 18"$?
Depth

Yes OK

Surface Area : $5\% (\text{Impervious Area}) + 2\% (\text{Pervious Area})$

→ Surface Area Req'd = 2,351 SF

Provided = 4,717 SF OK

Isolator Row :
Sizing

Treatment Flow Rate = $\frac{1.88 \text{ CFS}}{(1\text{-yr Storm})} \Rightarrow 6$

MC-3500 Chambers = 0.3 CFS chambers Req'd

Chambers Provided = 12 OK

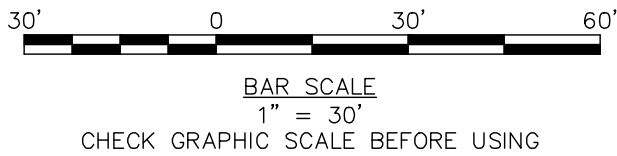
Release :
Time

System drains w/in 24-36 hours? 27 hours OK



STORMWATER LEGEND

- 1X SUBCATCHMENT AREAS
- TIME OF CONCENTRATION (Tc) FLOW LINE
- LIMIT OF SUBCATCHMENT AREA
- SP1 STUDY POINT



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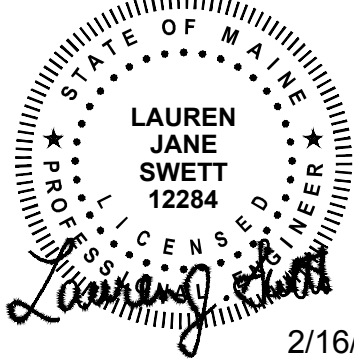
PROJECT NAME:

WAYNFLETE
GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:



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REVISION:

1	DATE
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE

DATE OF ISSUE: FEBRUARY 2016

PROJECT NUMBER: 229423

STATUS: PLANNING BOARD SUBMISSION

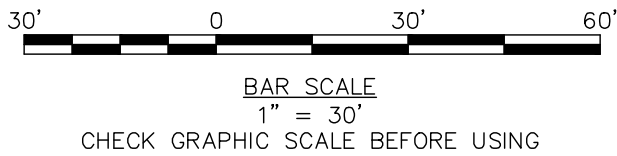
PRE
DEVELOPMENT
DRAINAGE AREA
PLAN

PRE



STORMWATER LEGEND

- 1S SUBCATCHMENT AREAS
- TIME OF CONCENTRATION (Tc)
FLOW LINE
- LIMIT OF SUBCATCHMENT AREA
- SP1 STUDY POINT



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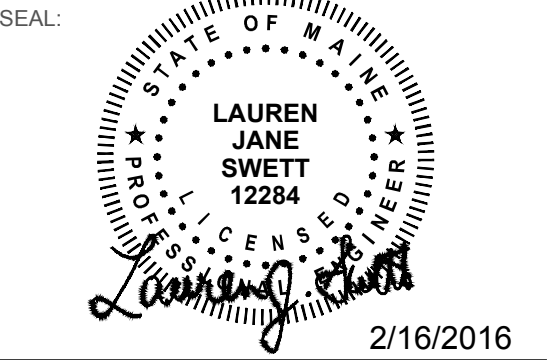
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PROJECT NAME:

WAYNFLETE
GYM + LOWER SCHOOL

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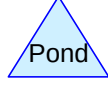
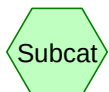
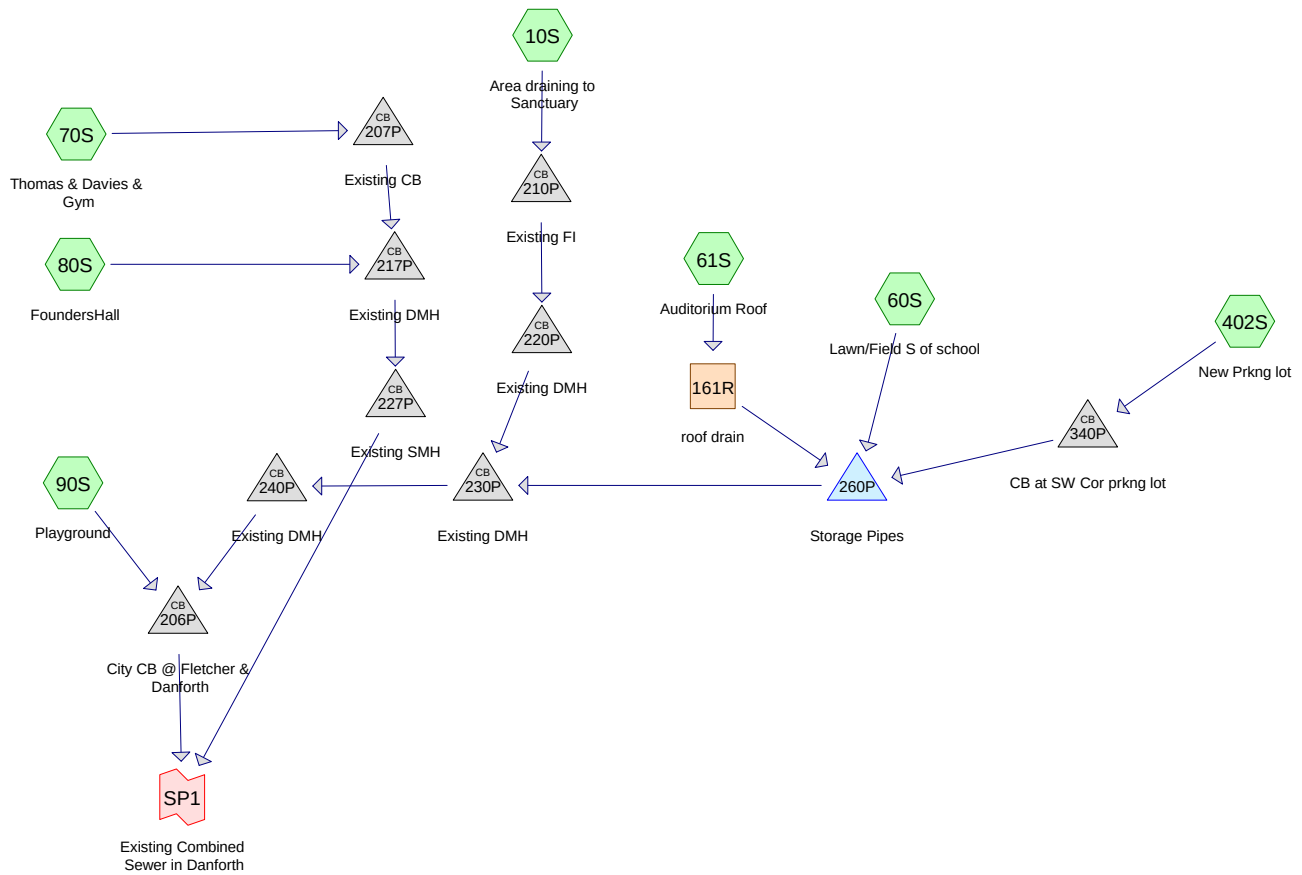
DATE OF ISSUE: FEBRUARY 2016

PROJECT NUMBER: 229423

STATUS: PLANNING BOARD SUBMISSION

POST
DEVELOPMENT
DRAINAGE AREA
PLAN

POST



Routing Diagram for 5. Pre

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.14	98	Impervious (402S)
1.13	39	Lawn/field, HSG A (10S, 60S, 70S, 90S)
0.09	39	Pervious (402S)
0.18	98	Roof runoff (61S, 80S)
1.59	98	impervious (10S, 60S, 70S, 90S)
3.14	75	TOTAL AREA

5. Pre

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PRE
Type III 24-hr 2-YR Rainfall=3.10"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 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: Area draining to Runoff Area=19,633 sf 57.01% Impervious Runoff Depth>0.92"
Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=73 Runoff=0.42 cfs 0.034 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth>1.99"
Tc=5.0 min CN=89 Runoff=0.92 cfs 0.064 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth>2.87"
Tc=5.0 min CN=98 Runoff=0.32 cfs 0.025 af

Subcatchment 70S: Thomas & Davies & Runoff Area=41,034 sf 78.01% Impervious Runoff Depth>1.67"
Tc=5.0 min CN=85 Runoff=1.92 cfs 0.131 af

Subcatchment 80S: FoundersHall Runoff Area=3,498 sf 100.00% Impervious Runoff Depth>2.87"
Tc=5.0 min CN=98 Runoff=0.25 cfs 0.019 af

Subcatchment 90S: Playground Runoff Area=41,240 sf 29.19% Impervious Runoff Depth>0.25"
Flow Length=188' Tc=14.6 min CN=56 Runoff=0.09 cfs 0.020 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth>1.03"
Tc=5.0 min CN=75 Runoff=0.28 cfs 0.020 af

Reach 161R: roof drain Avg. Flow Depth=0.15' Max Vel=6.63 fps Inflow=0.32 cfs 0.025 af
6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.32 cfs 0.025 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=109.59' Inflow=1.79 cfs 0.162 af
8.0" Round Culvert n=0.013 L=18.0' S=0.2750 '/' Outflow=1.79 cfs 0.162 af

Pond 207P: Existing CB Peak Elev=131.47' Inflow=1.92 cfs 0.131 af
10.0" Round Culvert n=0.010 L=60.0' S=0.1287 '/' Outflow=1.92 cfs 0.131 af

Pond 210P: Existing FI Peak Elev=132.39' Inflow=0.42 cfs 0.034 af
10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=0.42 cfs 0.034 af

Pond 217P: Existing DMH Peak Elev=125.48' Inflow=2.17 cfs 0.150 af
8.0" Round Culvert n=0.013 L=89.0' S=0.0367 '/' Outflow=2.17 cfs 0.150 af

Pond 220P: Existing DMH Peak Elev=122.06' Inflow=0.42 cfs 0.034 af
10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=0.42 cfs 0.034 af

Pond 227P: Existing SMH Peak Elev=121.98' Inflow=2.17 cfs 0.150 af
8.0" Round Culvert n=0.013 L=71.0' S=0.2025 '/' Outflow=2.17 cfs 0.150 af

Pond 230P: Existing DMH Peak Elev=120.15' Inflow=1.79 cfs 0.143 af
8.0" Round Culvert n=0.010 L=156.0' S=0.0272 '/' Outflow=1.79 cfs 0.143 af

Pond 240P: Existing DMH Peak Elev=115.91' Inflow=1.79 cfs 0.143 af
8.0" Round Culvert n=0.010 L=58.0' S=0.0833 '/' Outflow=1.79 cfs 0.143 af

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Type III 24-hr 2-YR Rainfall=3.10"

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Pond 260P: Storage Pipes

Peak Elev=119.87' Storage=164 cf Inflow=1.52 cfs 0.108 af
12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/ Outflow=1.37 cfs 0.108 af

Pond 340P: CB at SW Cor prkng lot

Peak Elev=129.34' Inflow=0.28 cfs 0.020 af
8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/ Outflow=0.28 cfs 0.020 af

Link SP1: Existing Combined Sewer in Danforth

Inflow=3.85 cfs 0.313 af
Primary=3.85 cfs 0.313 af

Total Runoff Area = 3.14 ac Runoff Volume = 0.313 af Average Runoff Depth = 1.19"
38.86% Pervious = 1.22 ac 61.14% Impervious = 1.92 ac

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Summary for Subcatchment 10S: Area draining to Sanctuary

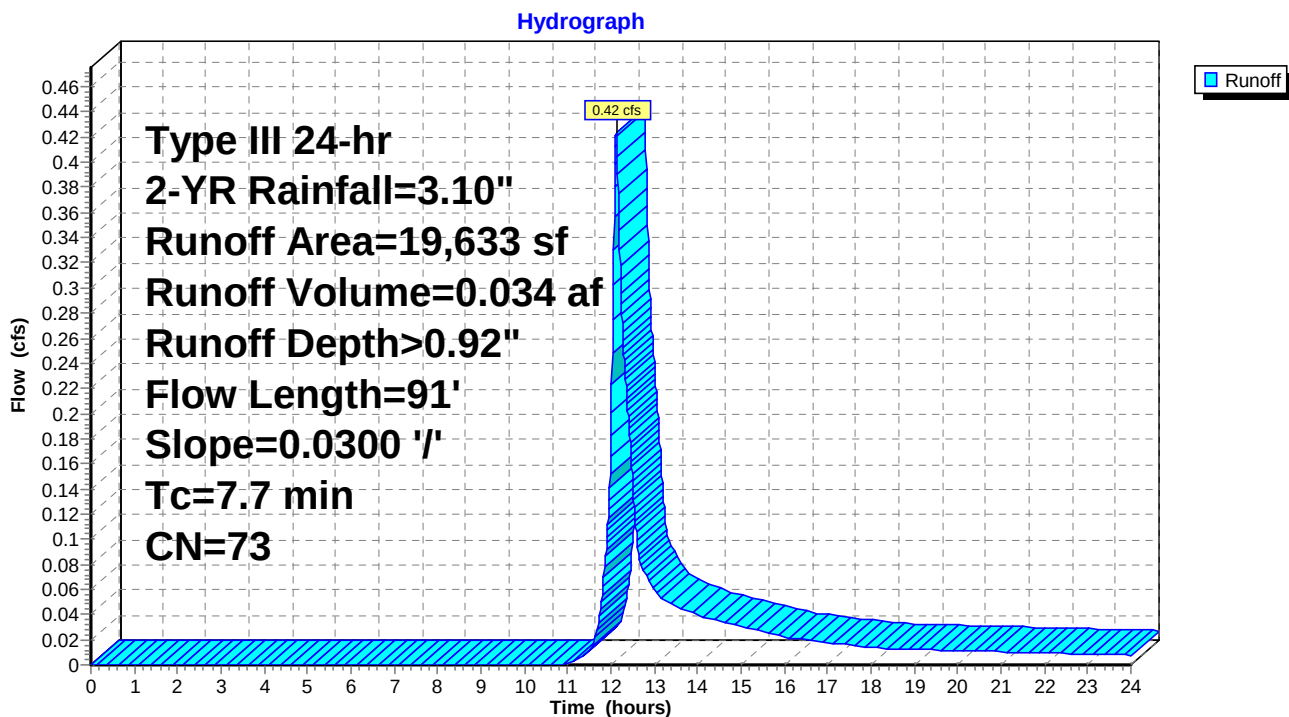
Runoff = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af, Depth> 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	11,192	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,633	73	Weighted Average
	8,441		42.99% Pervious Area
	11,192		57.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B
Grass: Short n= 0.150 P2= 3.19"					

Subcatchment 10S: Area draining to Sanctuary



5. Pre

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 60S: Lawn/Field S of school

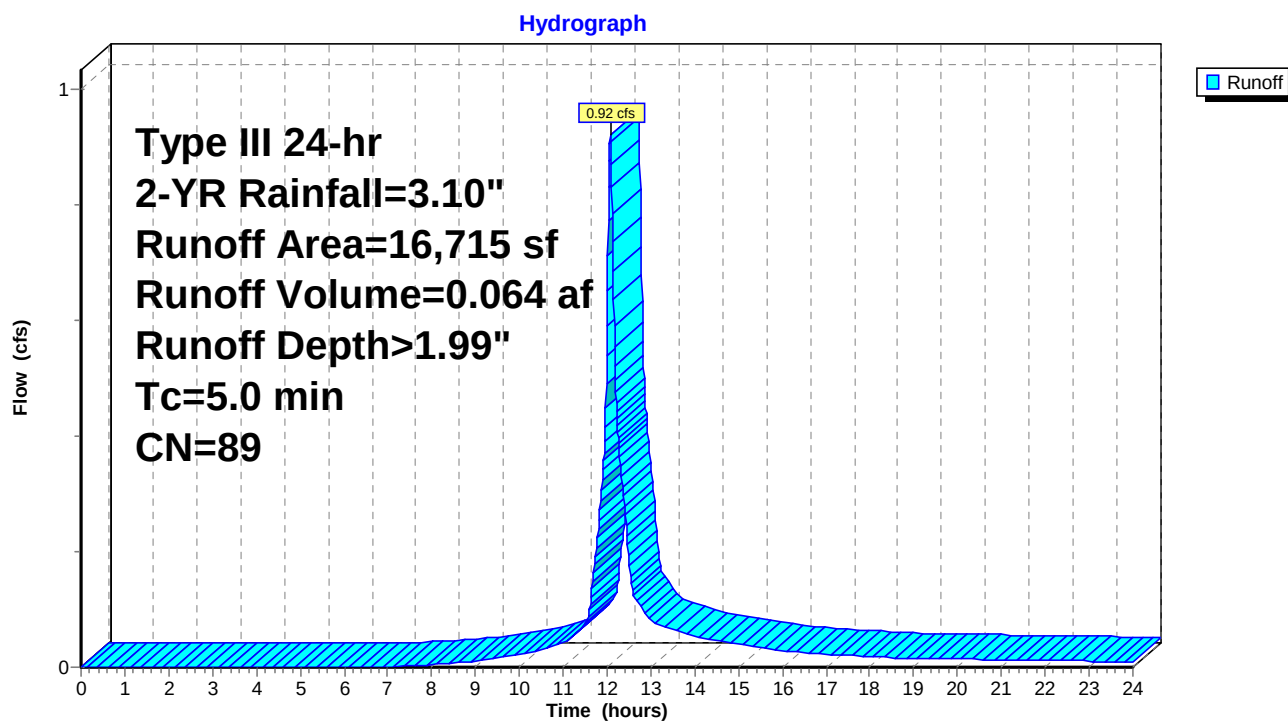
Runoff = 0.92 cfs @ 12.07 hrs, Volume= 0.064 af, Depth> 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school



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PRE

Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.32 cfs @ 12.07 hrs, Volume= 0.025 af, Depth> 2.87"

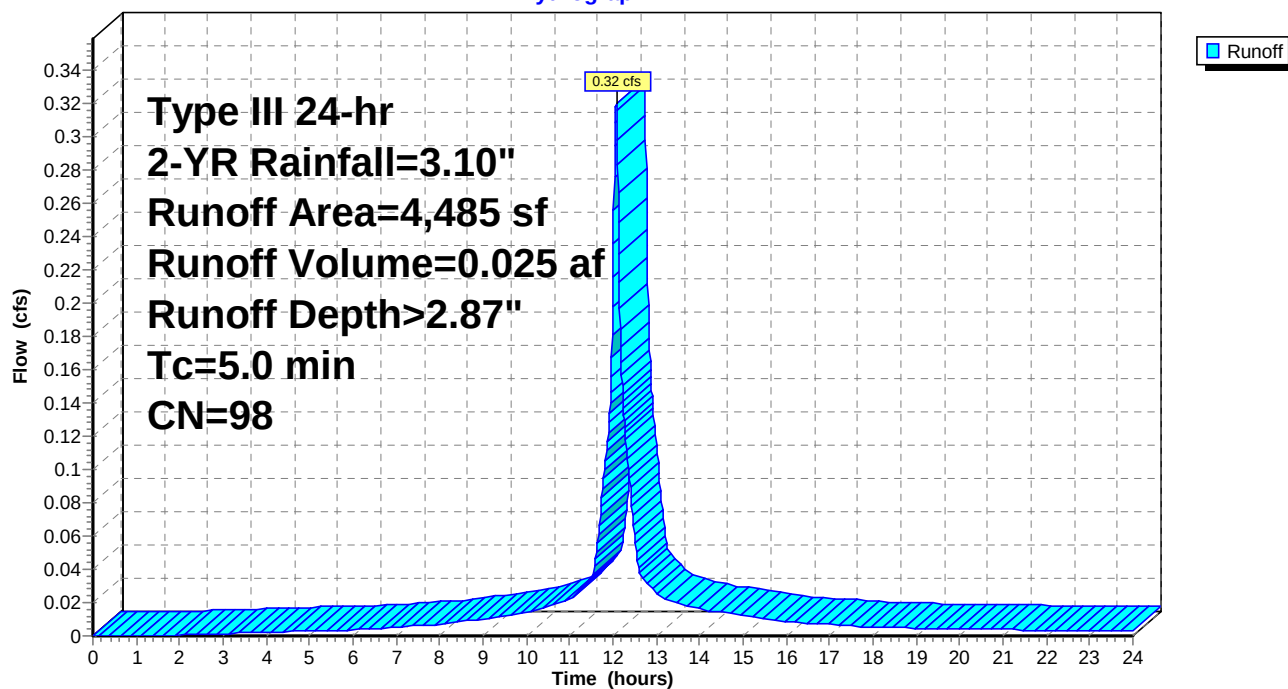
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



5. Pre

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PRE
Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

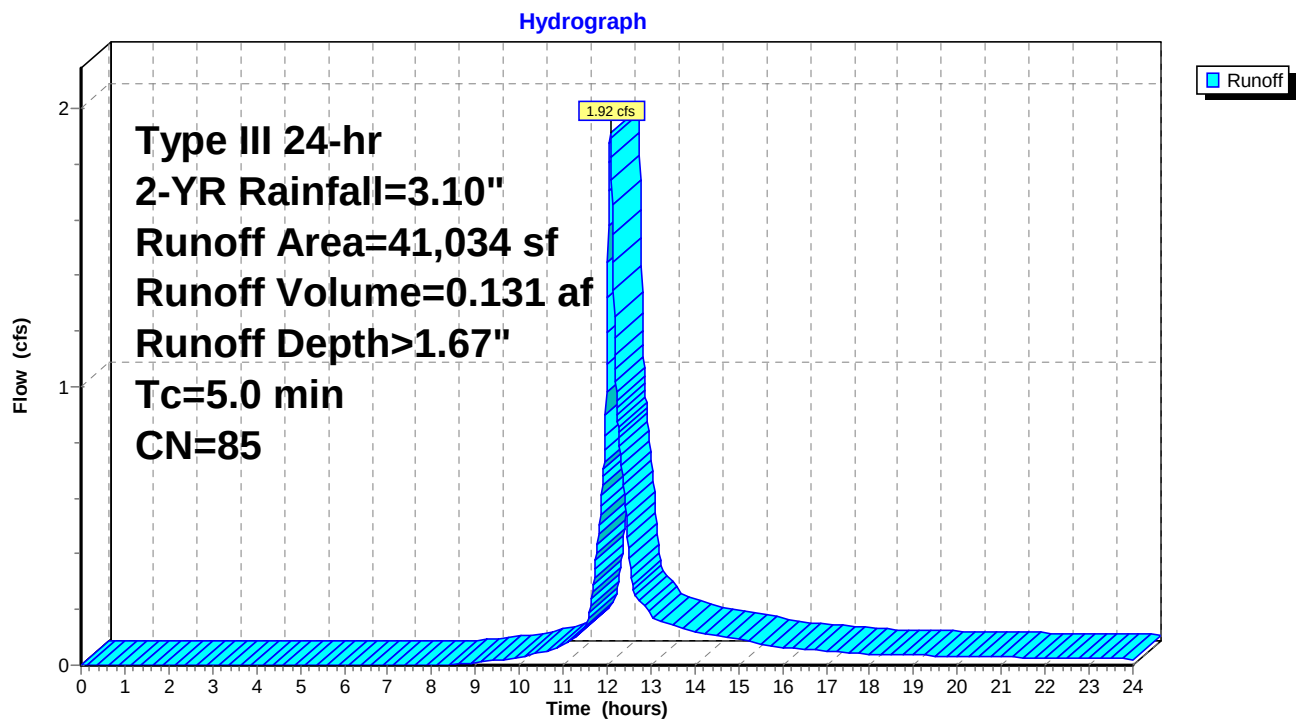
Runoff = 1.92 cfs @ 12.08 hrs, Volume= 0.131 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	32,011	98	impervious
*	9,023	39	Lawn/field, HSG A
	41,034	85	Weighted Average
	9,023		21.99% Pervious Area
	32,011		78.01% Impervious Area

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

Subcatchment 70S: Thomas & Davies & Gym



5. Pre

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PRE

Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 0.25 cfs @ 12.07 hrs, Volume= 0.019 af, Depth> 2.87"

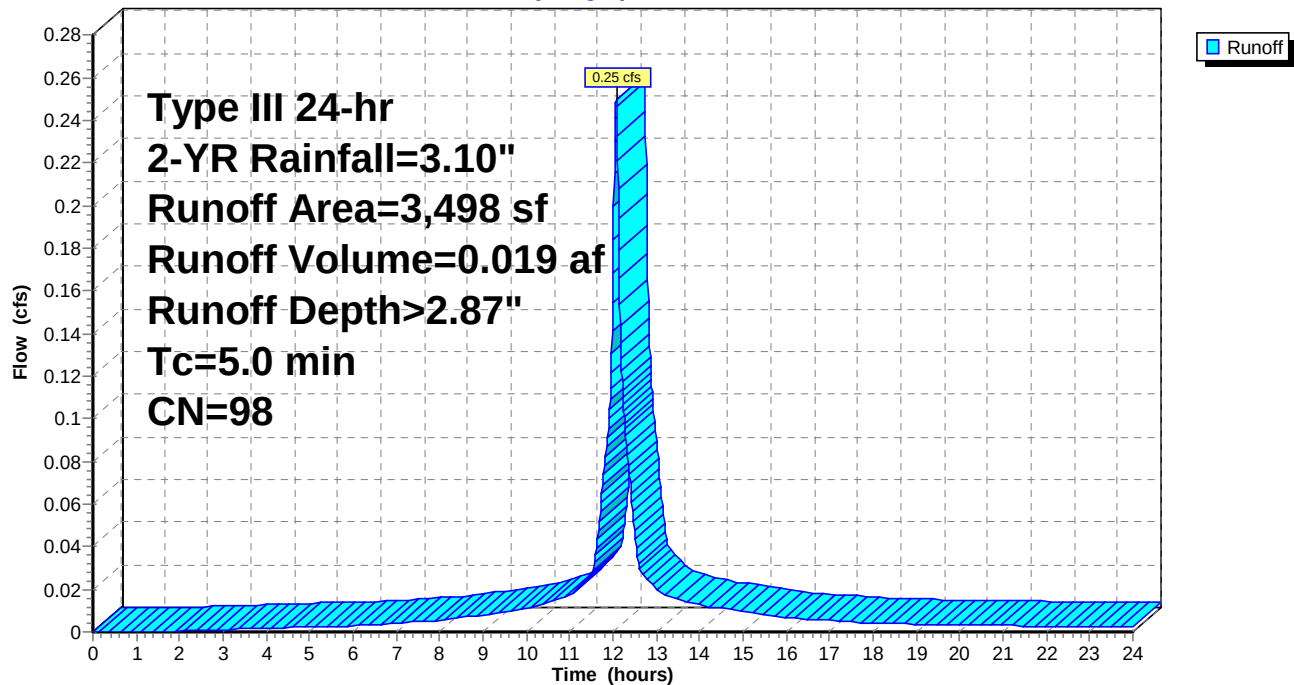
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	3,498	98	Roof runoff
	3,498		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



5. Pre

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PRE
Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 90S: Playground

Runoff = 0.09 cfs @ 12.47 hrs, Volume= 0.020 af, Depth> 0.25"

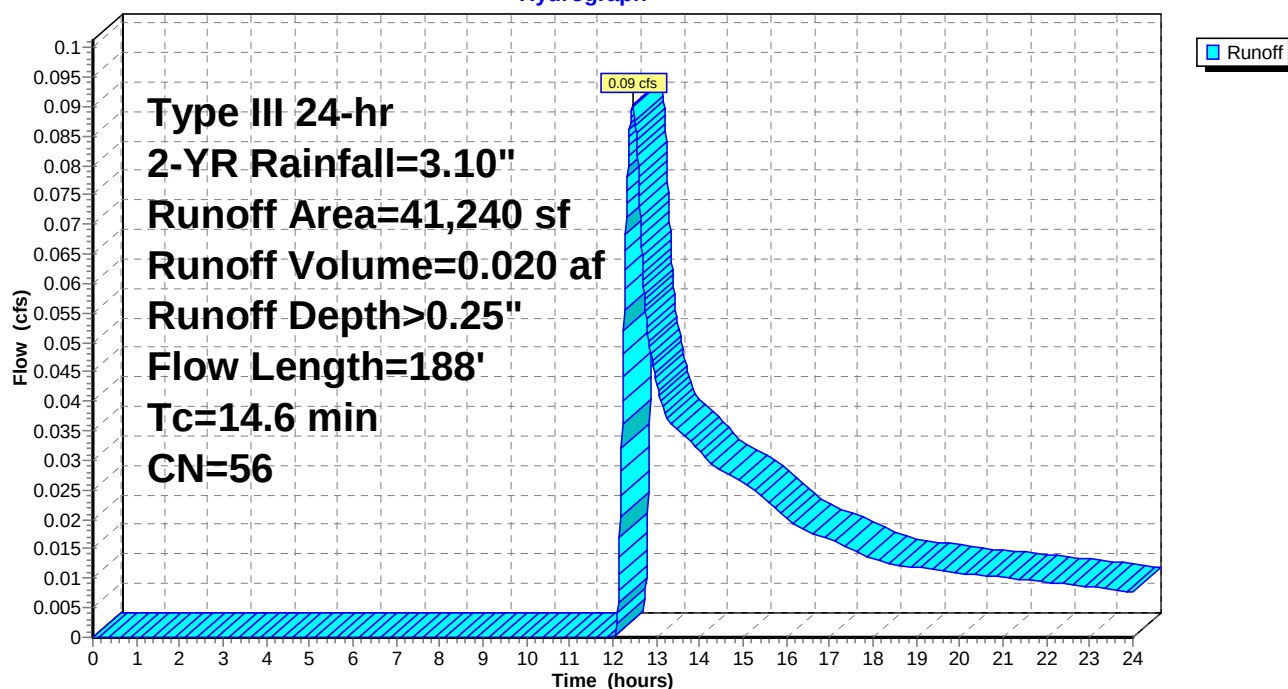
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	12,037	98	impervious
*	29,203	39	Lawn/field, HSG A
	41,240	56	Weighted Average
	29,203		70.81% Pervious Area
	12,037		29.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0100	0.13		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
1.7	88	0.0154	0.87		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
14.6	188	Total			

Subcatchment 90S: Playground

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 402S: New Prkng lot

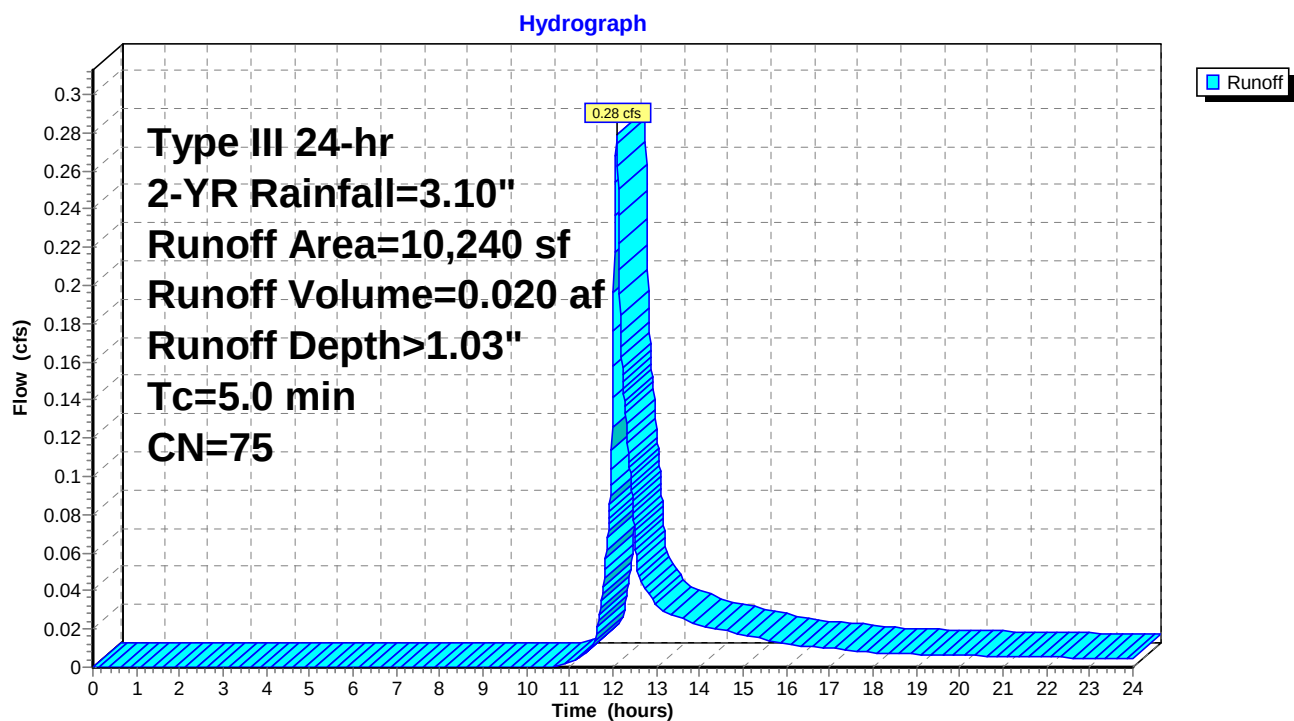
Runoff = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Depth> 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Reach 161R: roof drain

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth > 2.87" for 2-YR event
Inflow = 0.32 cfs @ 12.07 hrs, Volume= 0.025 af
Outflow = 0.32 cfs @ 12.08 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Max. Velocity= 6.63 fps, Min. Travel Time= 0.3 min

Avg. Velocity= 2.17 fps, Avg. Travel Time= 1.0 min

Peak Storage= 6 cf @ 12.07 hrs

Average Depth at Peak Storage= 0.15'

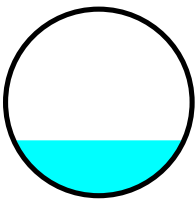
Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.69 cfs

6.0" Round Pipe

n= 0.013 Corrugated PE, smooth interior

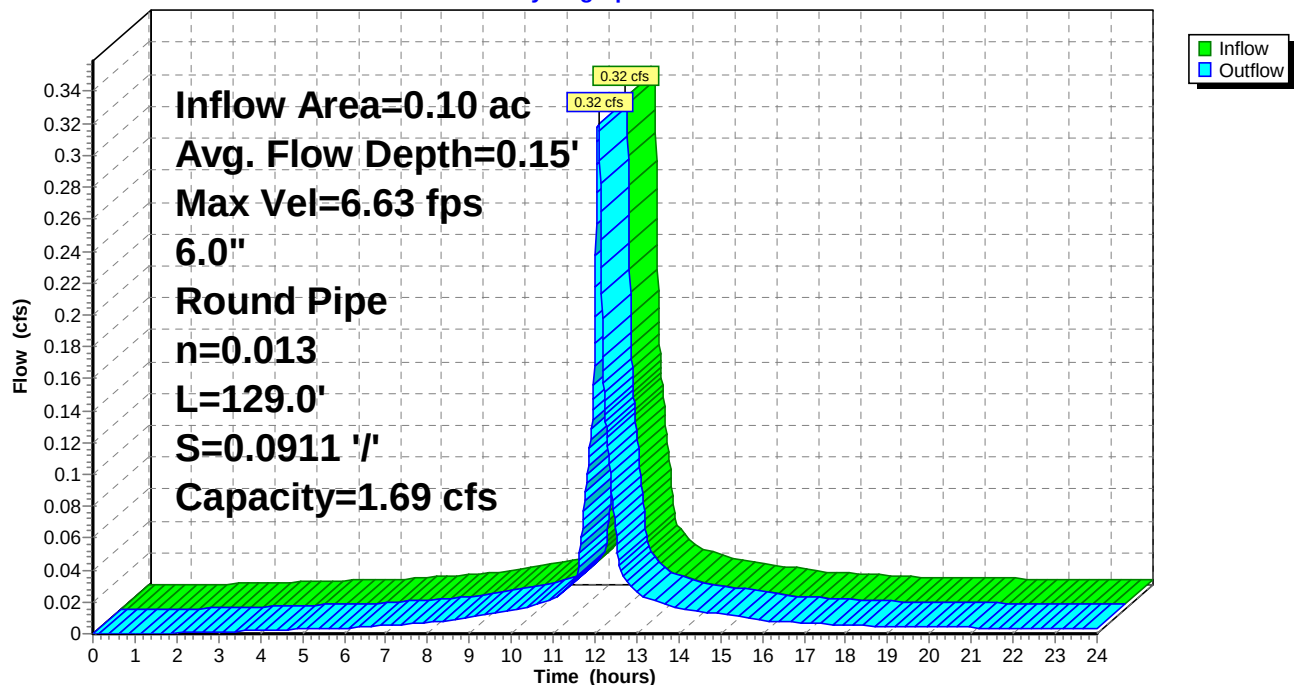
Length= 129.0' Slope= 0.0911 '/

Inlet Invert= 130.00', Outlet Invert= 118.25'



Reach 161R: roof drain

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 2.12 ac, 52.17% Impervious, Inflow Depth > 0.92" for 2-YR event
Inflow = 1.79 cfs @ 12.12 hrs, Volume= 0.162 af
Outflow = 1.79 cfs @ 12.12 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Primary = 1.79 cfs @ 12.12 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 109.59' @ 12.12 hrs

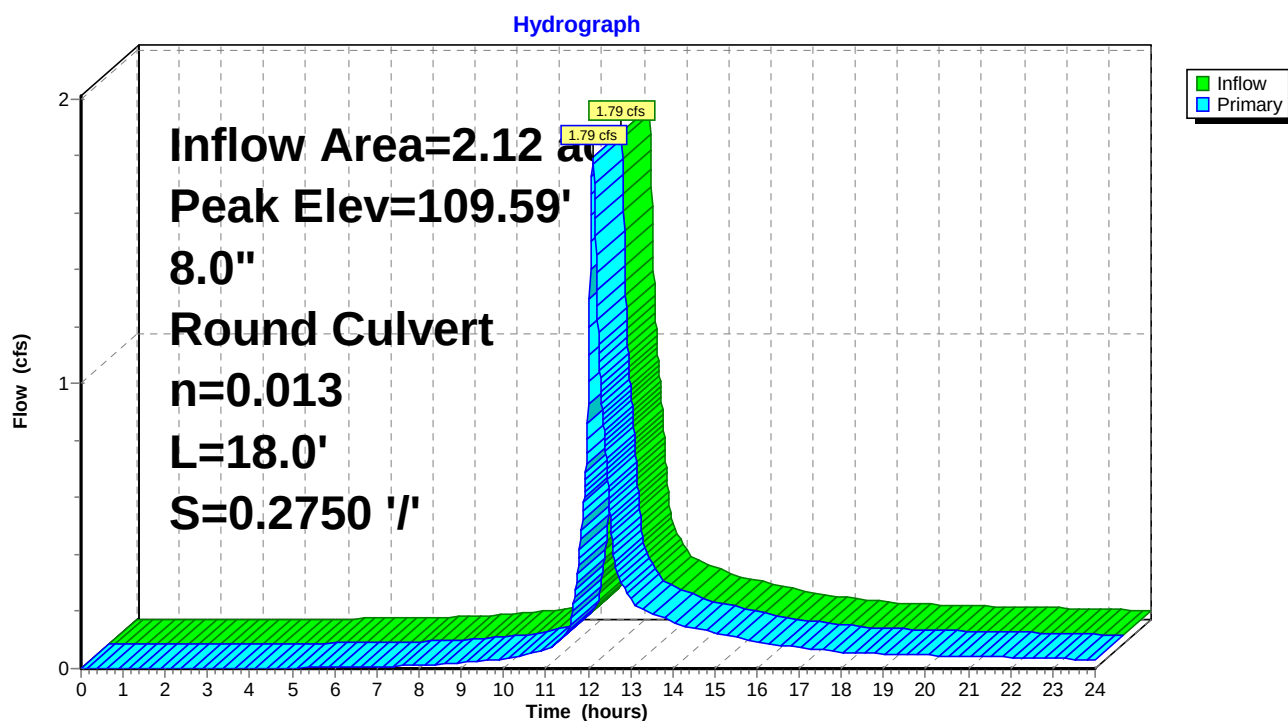
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	8.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2750 '/ Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=1.79 cfs @ 12.12 hrs HW=109.59' (Free Discharge)

↑**1=Culvert** (Inlet Controls 1.79 cfs @ 5.13 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Pond 207P: Existing CB

Inflow Area = 0.94 ac, 78.01% Impervious, Inflow Depth > 1.67" for 2-YR event
Inflow = 1.92 cfs @ 12.08 hrs, Volume= 0.131 af
Outflow = 1.92 cfs @ 12.08 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min
Primary = 1.92 cfs @ 12.08 hrs, Volume= 0.131 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 131.47' @ 12.08 hrs

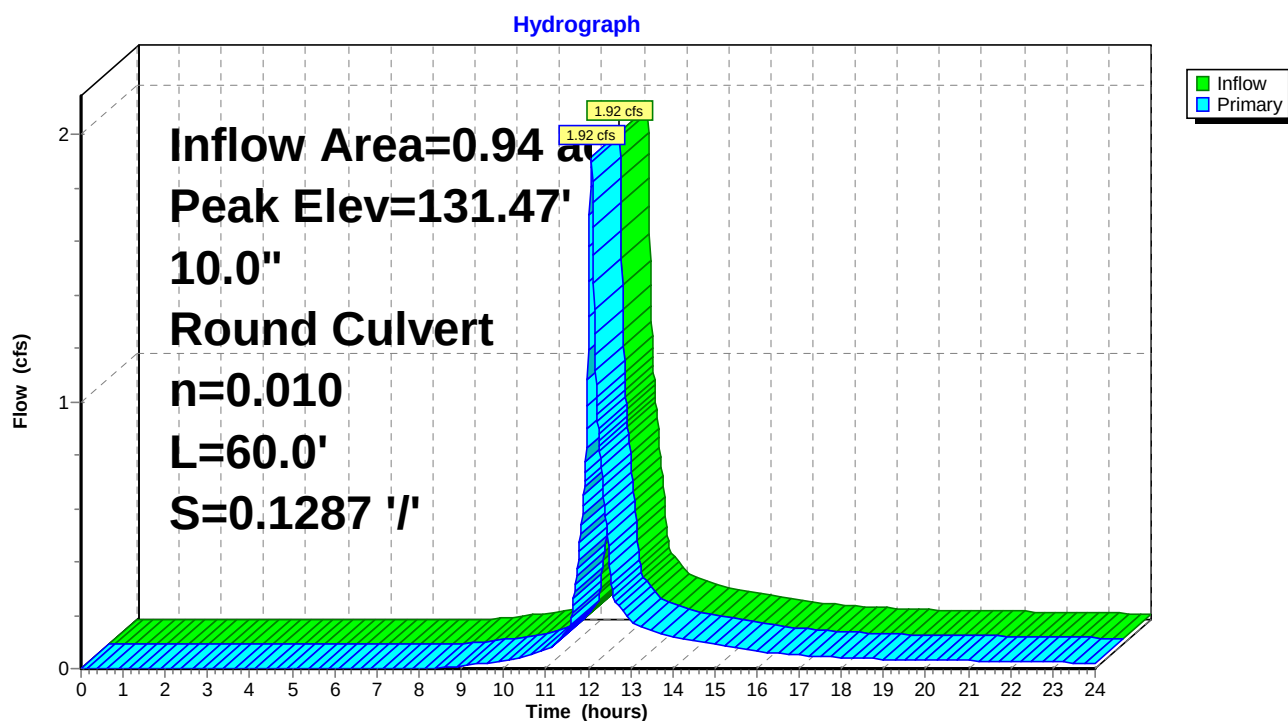
Flood Elev= 137.62'

Device	Routing	Invert	Outlet Devices
#1	Primary	130.20'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 130.20' / 122.48' S= 0.1287 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.91 cfs @ 12.08 hrs HW=131.47' (Free Discharge)

↑1=Culvert (Inlet Controls 1.91 cfs @ 3.51 fps)

Pond 207P: Existing CB



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Pond 210P: Existing FI

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 0.92" for 2-YR event
Inflow = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af
Outflow = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 132.39' @ 12.12 hrs

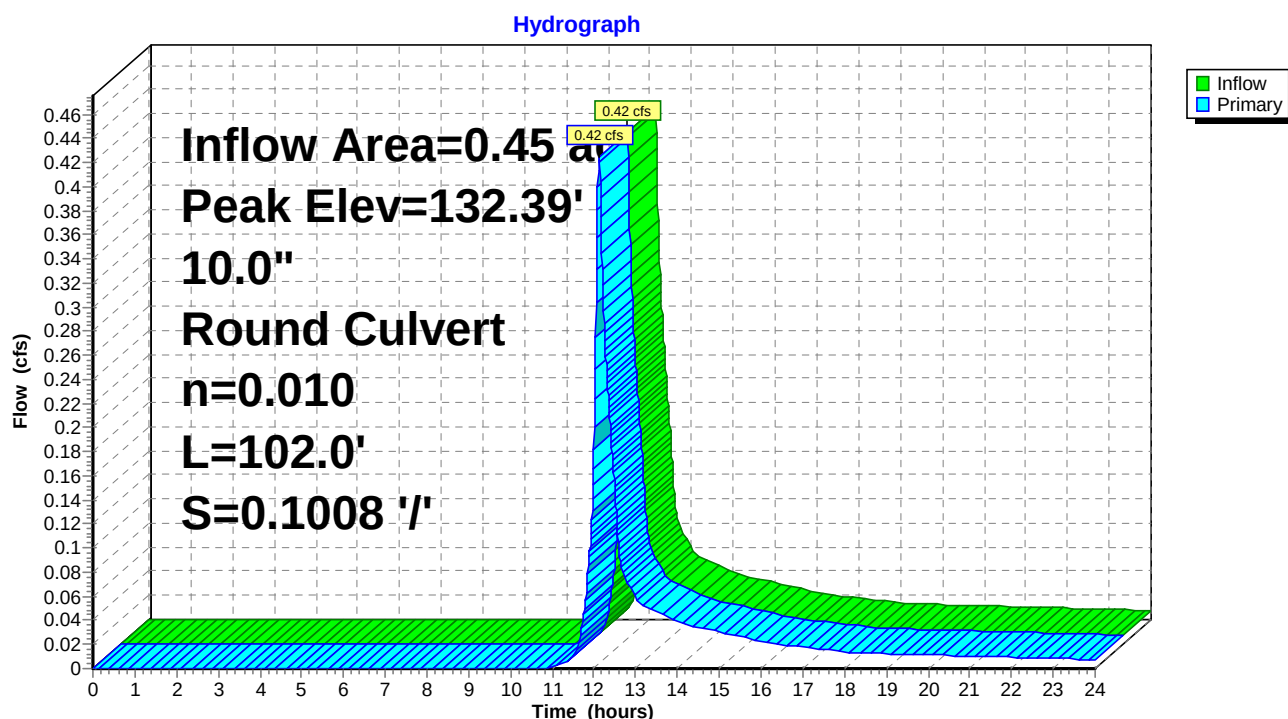
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.42 cfs @ 12.12 hrs HW=132.39' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.42 cfs @ 1.68 fps)

Pond 210P: Existing FI



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Pond 217P: Existing DMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 1.76" for 2-YR event
Inflow = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af
Outflow = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 125.48' @ 12.07 hrs

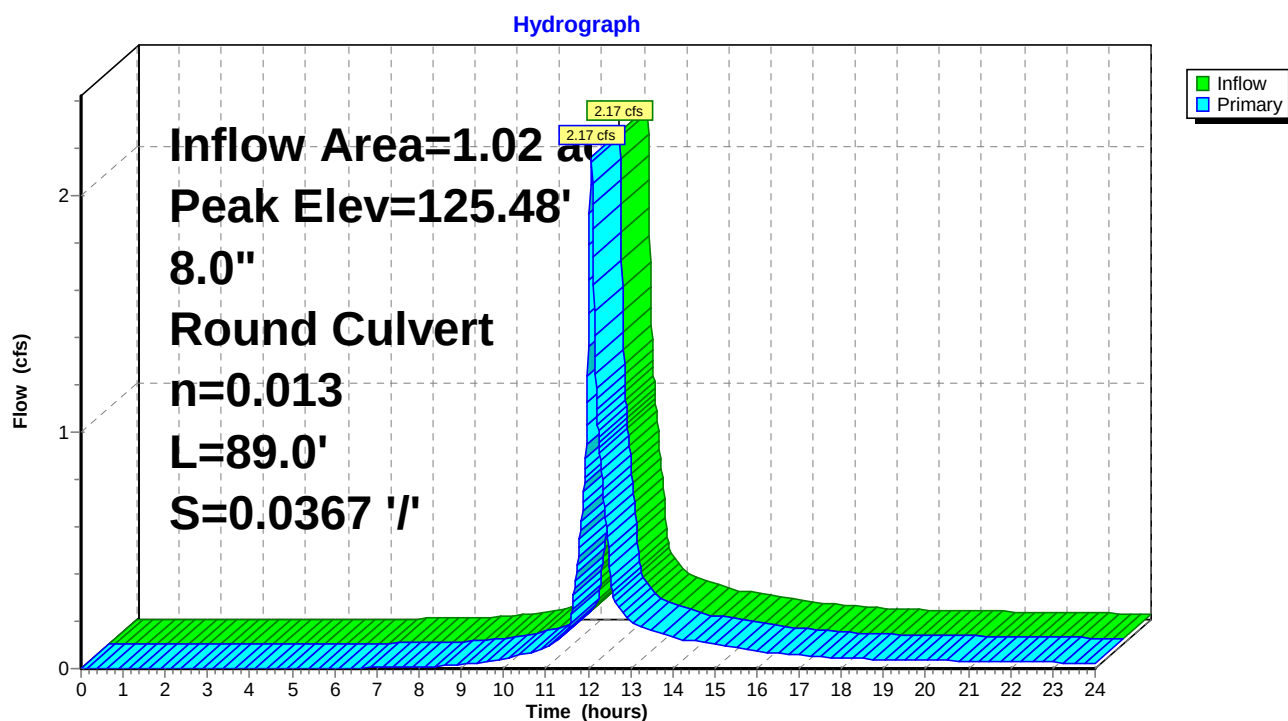
Flood Elev= 126.98'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.48'	8.0" Round Culvert L= 89.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.48' / 119.21' S= 0.0367 '/' Cc= 0.900 n= 0.013 Cast iron, coated, Flow Area= 0.35 sf

Primary OutFlow Max=2.16 cfs @ 12.07 hrs HW=125.46' (Free Discharge)

↑**1=Culvert** (Inlet Controls 2.16 cfs @ 6.19 fps)

Pond 217P: Existing DMH



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Summary for Pond 220P: Existing DMH

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 0.92" for 2-YR event
Inflow = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af
Outflow = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 12.12 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 122.06' @ 12.12 hrs

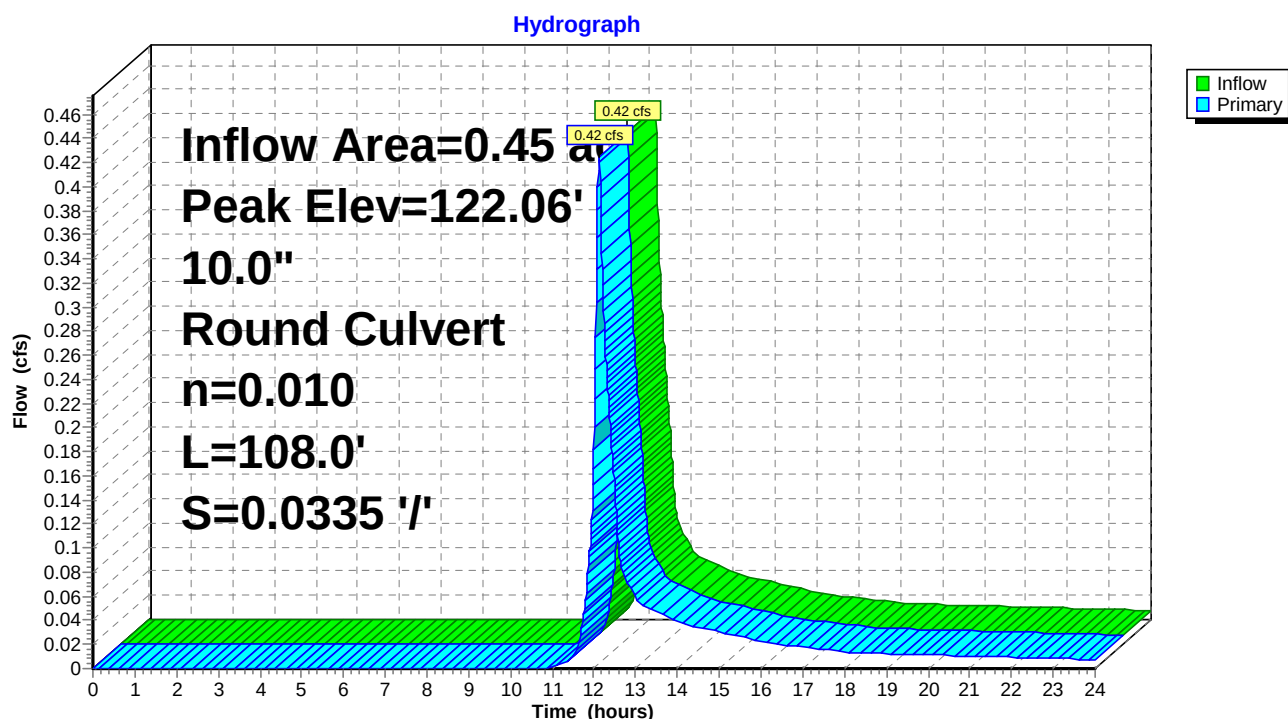
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.42 cfs @ 12.12 hrs HW=122.06' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.42 cfs @ 1.68 fps)

Pond 220P: Existing DMH



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Summary for Pond 227P: Existing SMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 1.76" for 2-YR event
Inflow = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af
Outflow = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 12.07 hrs, Volume= 0.150 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 121.98' @ 12.07 hrs

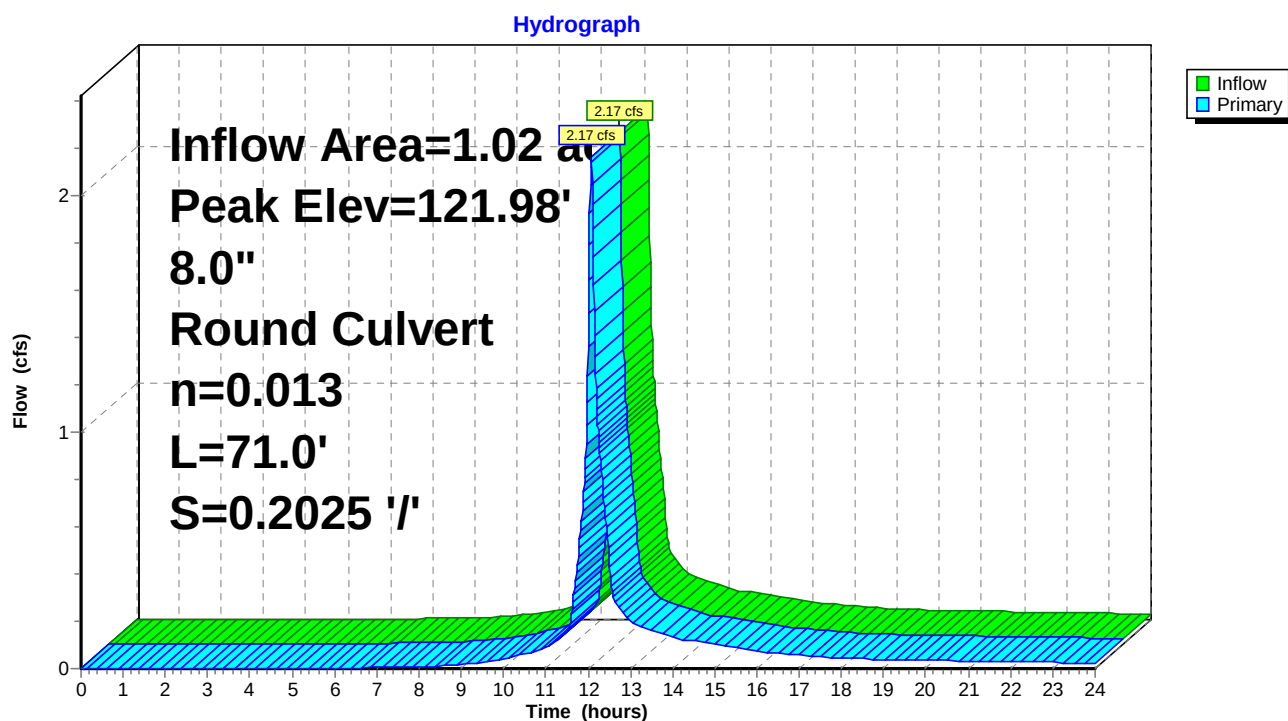
Flood Elev= 123.81'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.98'	8.0" Round Culvert L= 71.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.98' / 104.60' S= 0.2025 '/' Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=2.16 cfs @ 12.07 hrs HW=121.96' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 2.16 cfs @ 6.19 fps)

Pond 227P: Existing SMH



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Summary for Pond 230P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 1.46" for 2-YR event
Inflow = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af
Outflow = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 120.15' @ 12.12 hrs

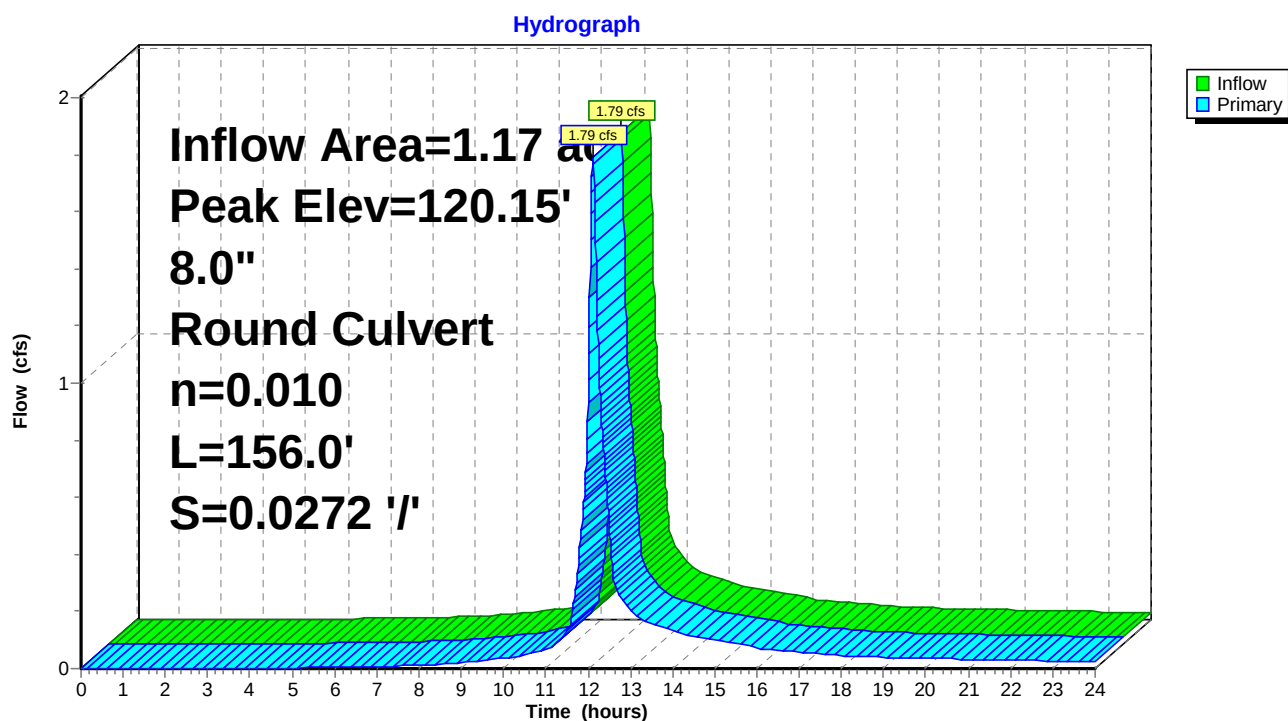
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	8.0" Round Culvert L= 156.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 113.76' S= 0.0272 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.79 cfs @ 12.12 hrs HW=120.15' (Free Discharge)

↑1=Culvert (Inlet Controls 1.79 cfs @ 5.12 fps)

Pond 230P: Existing DMH



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Summary for Pond 240P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 1.46" for 2-YR event
Inflow = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af
Outflow = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.79 cfs @ 12.12 hrs, Volume= 0.143 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 115.91' @ 12.12 hrs

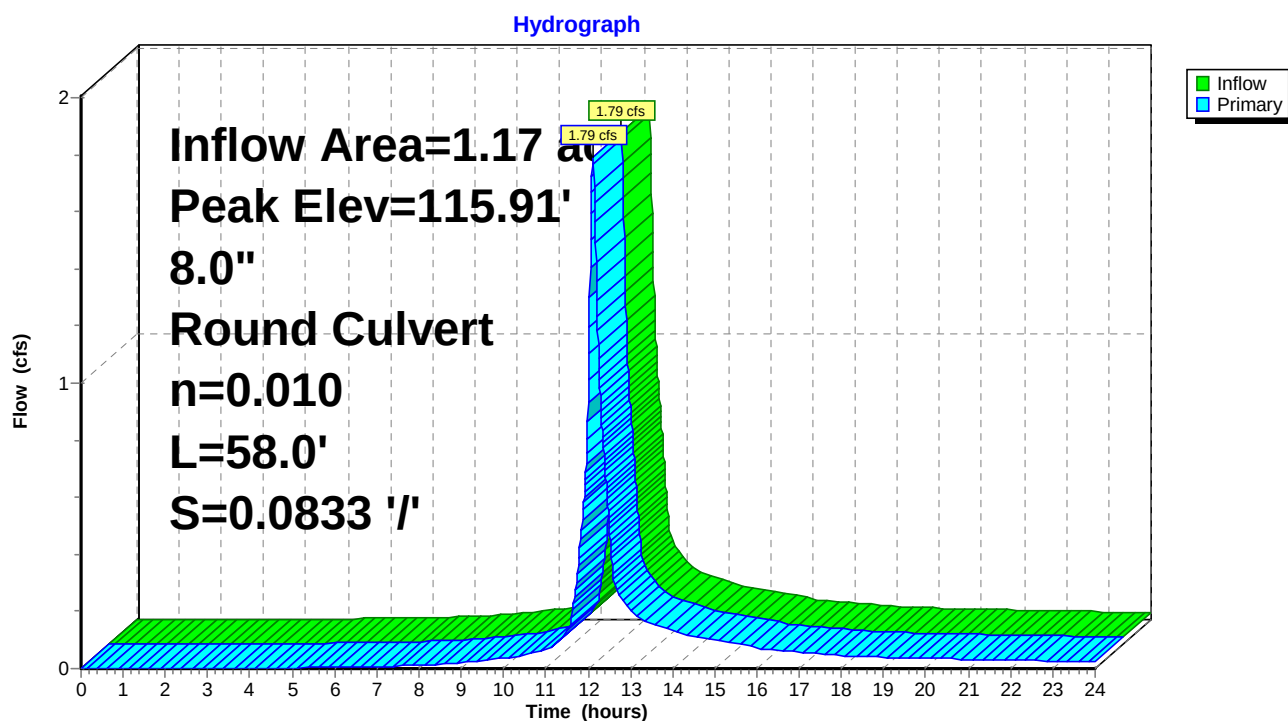
Flood Elev= 124.03'

Device	Routing	Invert	Outlet Devices
#1	Primary	113.76'	8.0" Round Culvert L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 113.76' / 108.93' S= 0.0833 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.79 cfs @ 12.12 hrs HW=115.91' (Free Discharge)

↑1=Culvert (Inlet Controls 1.79 cfs @ 5.12 fps)

Pond 240P: Existing DMH



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Summary for Pond 260P: Storage Pipes

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth > 1.80" for 2-YR event
Inflow = 1.52 cfs @ 12.08 hrs, Volume= 0.108 af
Outflow = 1.37 cfs @ 12.11 hrs, Volume= 0.108 af, Atten= 10%, Lag= 2.3 min
Primary = 1.37 cfs @ 12.11 hrs, Volume= 0.108 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 119.87' @ 12.11 hrs Surf.Area= 564 sf Storage= 164 cf
Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= 1.1 min calculated for 0.108 af (100% of inflow)
Center-of-Mass det. time= 1.0 min (808.5 - 807.5)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.36 cfs @ 12.11 hrs HW=119.87' (Free Discharge)

↑**1=Culvert** (Inlet Controls 1.36 cfs @ 2.27 fps)

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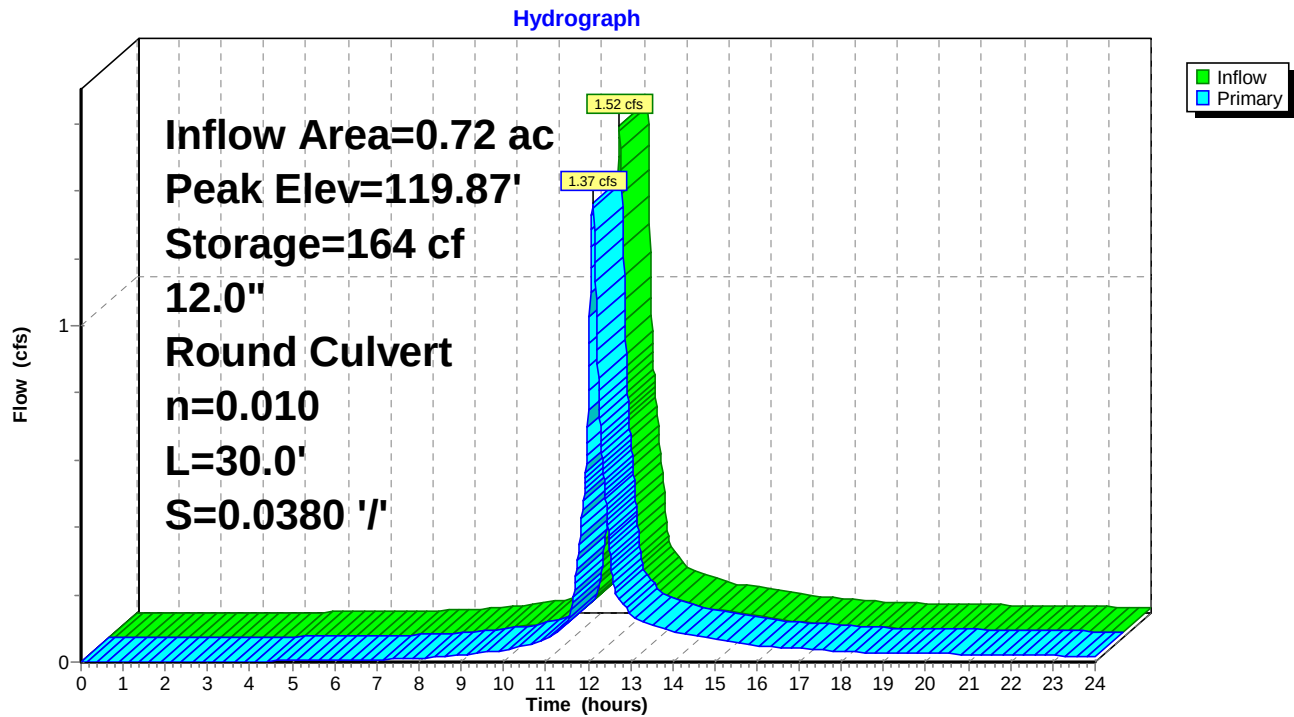
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Type III 24-hr 2-YR Rainfall=3.10"

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Pond 260P: Storage Pipes



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Pond 340P: CB at SW Cor prkng lot

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth > 1.03" for 2-YR event
Inflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af
Outflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

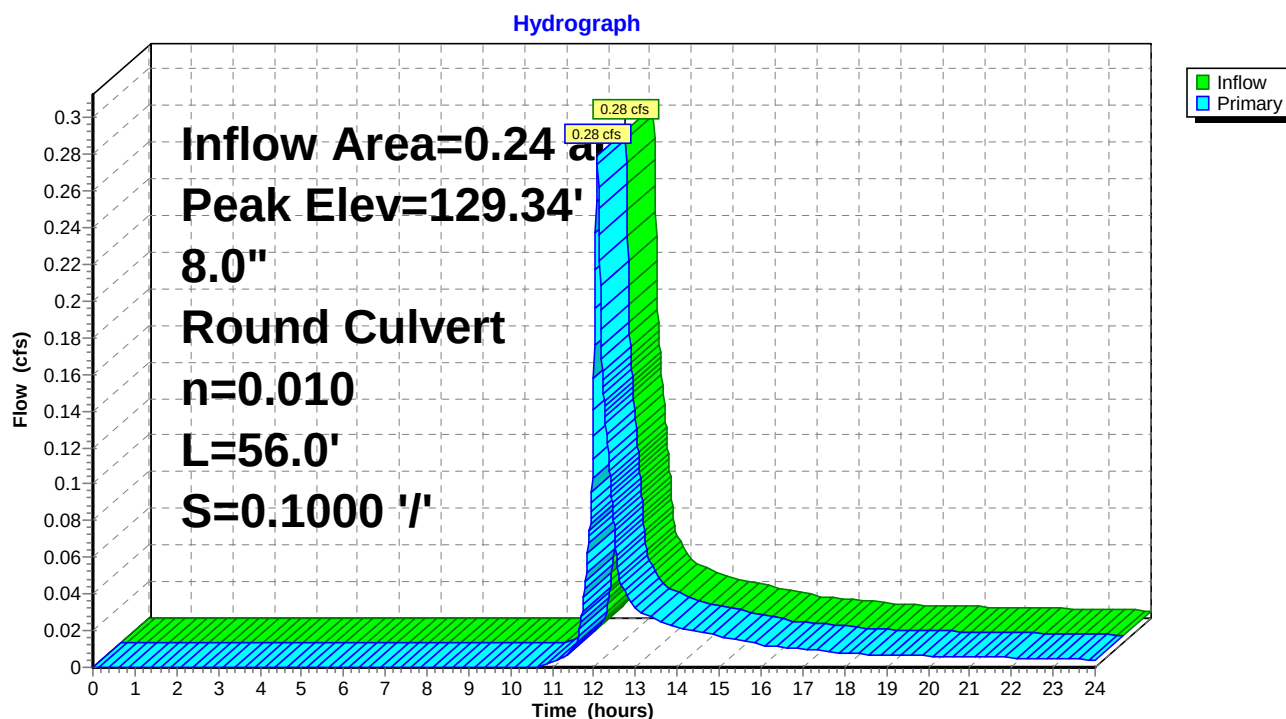
Peak Elev= 129.34' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.28 cfs @ 12.08 hrs HW=129.34' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.28 cfs @ 1.57 fps)

Pond 340P: CB at SW Cor prkng lot



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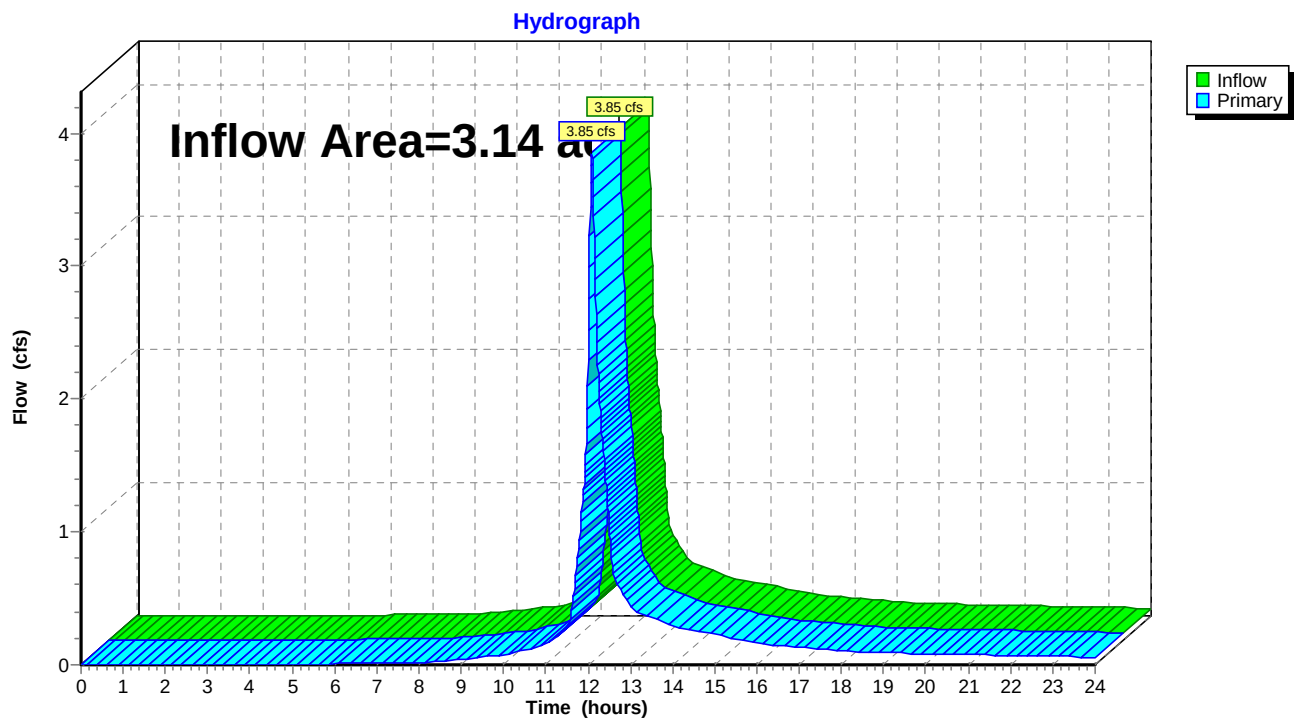
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Summary for Link SP1: Existing Combined Sewer in Danforth

Inflow Area = 3.14 ac, 61.14% Impervious, Inflow Depth > 1.19" for 2-YR event
Inflow = 3.85 cfs @ 12.09 hrs, Volume= 0.313 af
Primary = 3.85 cfs @ 12.09 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth



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Type III 24-hr 10-YR Rainfall=4.60"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 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: Area draining to Runoff Area=19,633 sf 57.01% Impervious Runoff Depth>1.97"
Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=73 Runoff=0.97 cfs 0.074 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth>3.39"
Tc=5.0 min CN=89 Runoff=1.54 cfs 0.108 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth>4.36"
Tc=5.0 min CN=98 Runoff=0.48 cfs 0.037 af

Subcatchment 70S: Thomas & Davies & Runoff Area=41,034 sf 78.01% Impervious Runoff Depth>3.00"
Tc=5.0 min CN=85 Runoff=3.41 cfs 0.235 af

Subcatchment 80S: FoundersHall Runoff Area=3,498 sf 100.00% Impervious Runoff Depth>4.36"
Tc=5.0 min CN=98 Runoff=0.37 cfs 0.029 af

Subcatchment 90S: Playground Runoff Area=41,240 sf 29.19% Impervious Runoff Depth>0.84"
Flow Length=188' Tc=14.6 min CN=56 Runoff=0.54 cfs 0.066 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth>2.13"
Tc=5.0 min CN=75 Runoff=0.60 cfs 0.042 af

Reach 161R: roof drain Avg. Flow Depth=0.18' Max Vel=7.42 fps Inflow=0.48 cfs 0.037 af
6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.48 cfs 0.037 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=114.62' Inflow=3.48 cfs 0.327 af
8.0" Round Culvert n=0.013 L=18.0' S=0.2750 '/' Outflow=3.48 cfs 0.327 af

Pond 207P: Existing CB Peak Elev=133.32' Inflow=3.41 cfs 0.235 af
10.0" Round Culvert n=0.010 L=60.0' S=0.1287 '/' Outflow=3.41 cfs 0.235 af

Pond 210P: Existing FI Peak Elev=132.64' Inflow=0.97 cfs 0.074 af
10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=0.97 cfs 0.074 af

Pond 217P: Existing DMH Peak Elev=132.11' Inflow=3.79 cfs 0.265 af
8.0" Round Culvert n=0.013 L=89.0' S=0.0367 '/' Outflow=3.79 cfs 0.265 af

Pond 220P: Existing DMH Peak Elev=122.31' Inflow=0.97 cfs 0.074 af
10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=0.97 cfs 0.074 af

Pond 227P: Existing SMH Peak Elev=127.45' Inflow=3.79 cfs 0.265 af
8.0" Round Culvert n=0.013 L=71.0' S=0.2025 '/' Outflow=3.79 cfs 0.265 af

Pond 230P: Existing DMH Peak Elev=123.87' Inflow=3.12 cfs 0.261 af
8.0" Round Culvert n=0.010 L=156.0' S=0.0272 '/' Outflow=3.12 cfs 0.261 af

Pond 240P: Existing DMH Peak Elev=119.63' Inflow=3.12 cfs 0.261 af
8.0" Round Culvert n=0.010 L=58.0' S=0.0833 '/' Outflow=3.12 cfs 0.261 af

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Type III 24-hr 10-YR Rainfall=4.60"

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Pond 260P: Storage Pipes

Peak Elev=120.18' Storage=377 cf Inflow=2.62 cfs 0.187 af
12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/ Outflow=2.16 cfs 0.187 af

Pond 340P: CB at SW Cor prkng lot

Peak Elev=129.54' Inflow=0.60 cfs 0.042 af
8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/ Outflow=0.60 cfs 0.042 af

Link SP1: Existing Combined Sewer in Danforth

Inflow=6.95 cfs 0.592 af
Primary=6.95 cfs 0.592 af

Total Runoff Area = 3.14 ac Runoff Volume = 0.592 af Average Runoff Depth = 2.26"
38.86% Pervious = 1.22 ac 61.14% Impervious = 1.92 ac

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 10S: Area draining to Sanctuary

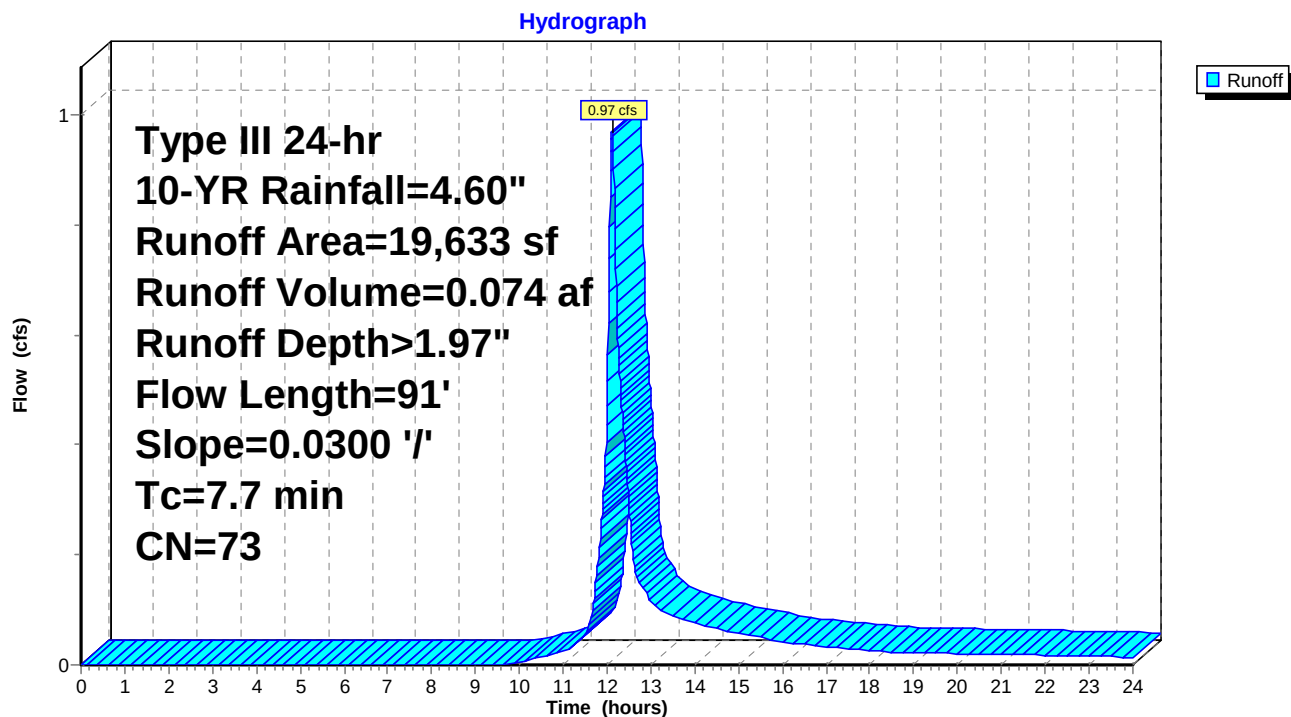
Runoff = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af, Depth> 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	11,192	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,633	73	Weighted Average
	8,441		42.99% Pervious Area
	11,192		57.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B
Grass: Short n= 0.150 P2= 3.19"					

Subcatchment 10S: Area draining to Sanctuary



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 60S: Lawn/Field S of school

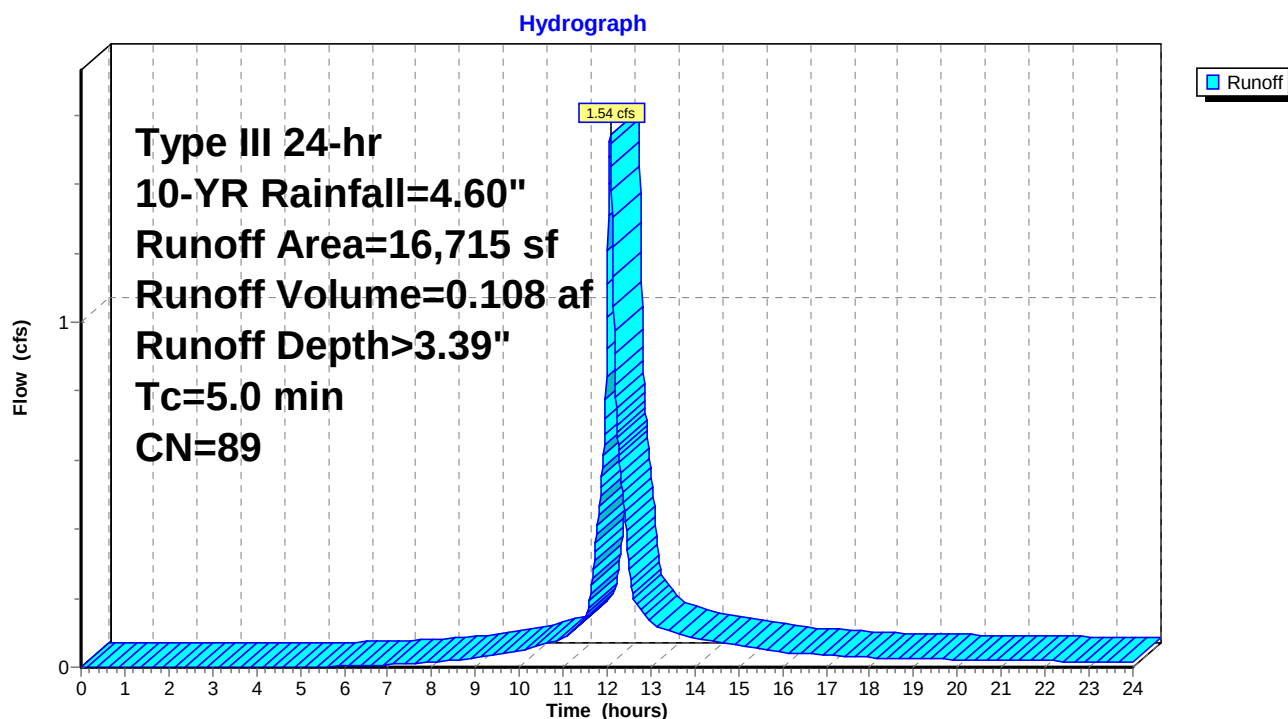
Runoff = 1.54 cfs @ 12.07 hrs, Volume= 0.108 af, Depth> 3.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.48 cfs @ 12.07 hrs, Volume= 0.037 af, Depth> 4.36"

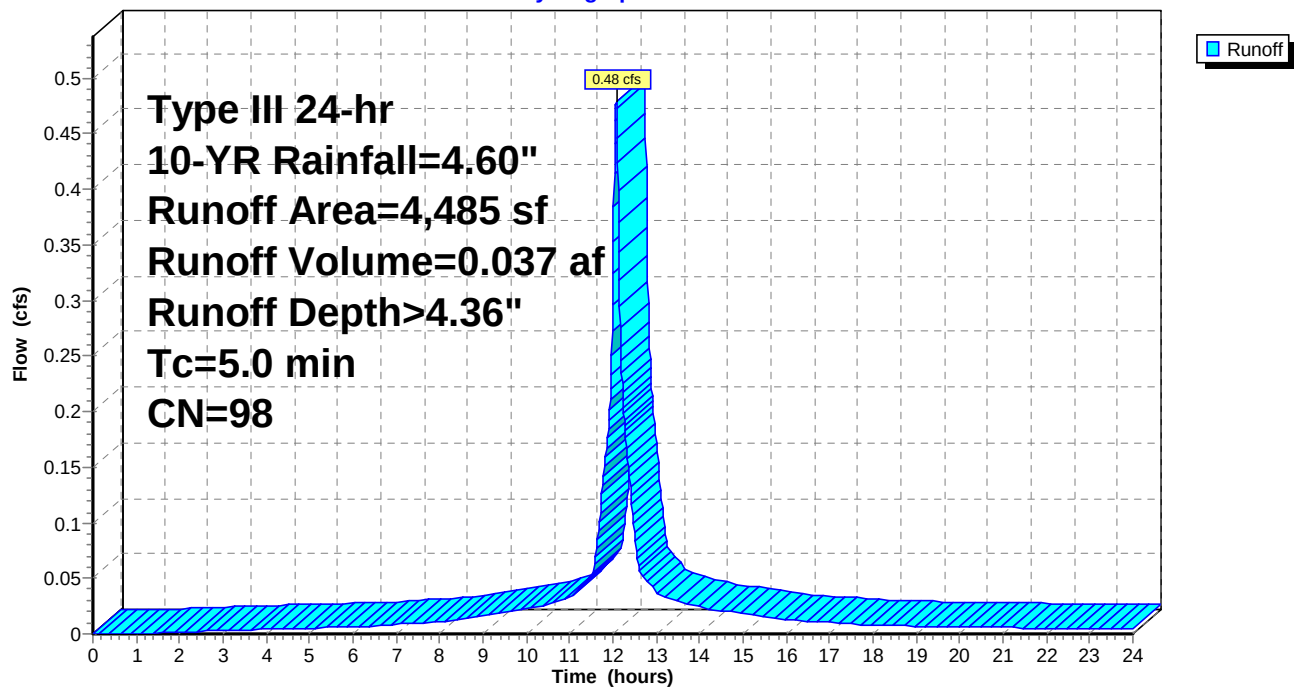
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

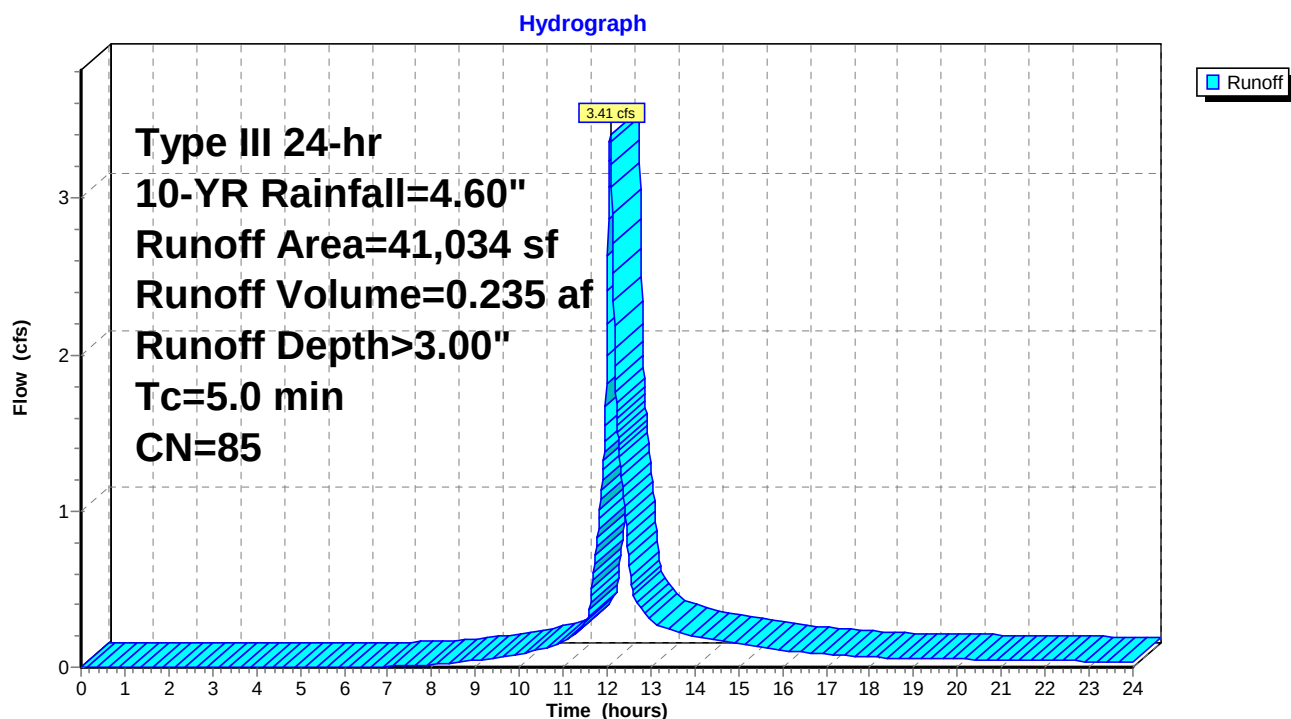
Runoff = 3.41 cfs @ 12.07 hrs, Volume= 0.235 af, Depth> 3.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	32,011	98	impervious
*	9,023	39	Lawn/field, HSG A
	41,034	85	Weighted Average
	9,023		21.99% Pervious Area
	32,011		78.01% Impervious Area

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

Subcatchment 70S: Thomas & Davies & Gym



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 0.37 cfs @ 12.07 hrs, Volume= 0.029 af, Depth> 4.36"

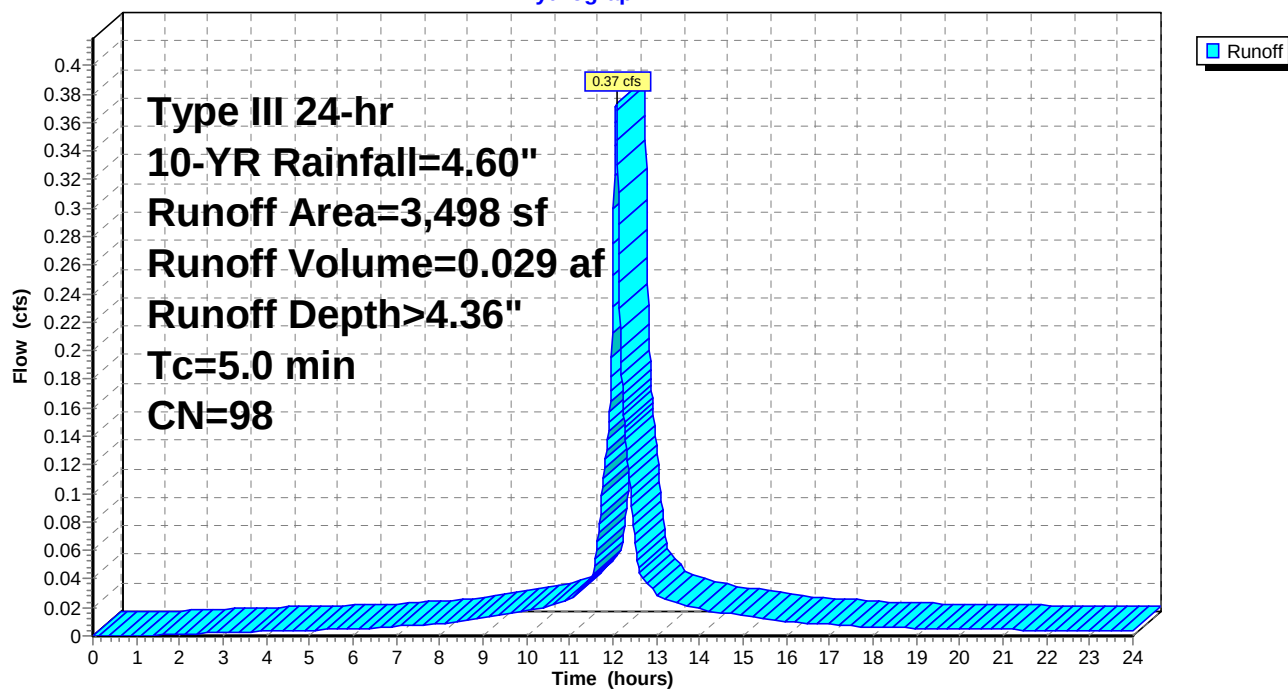
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	3,498	98	Roof runoff
	3,498		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 90S: Playground

Runoff = 0.54 cfs @ 12.25 hrs, Volume= 0.066 af, Depth> 0.84"

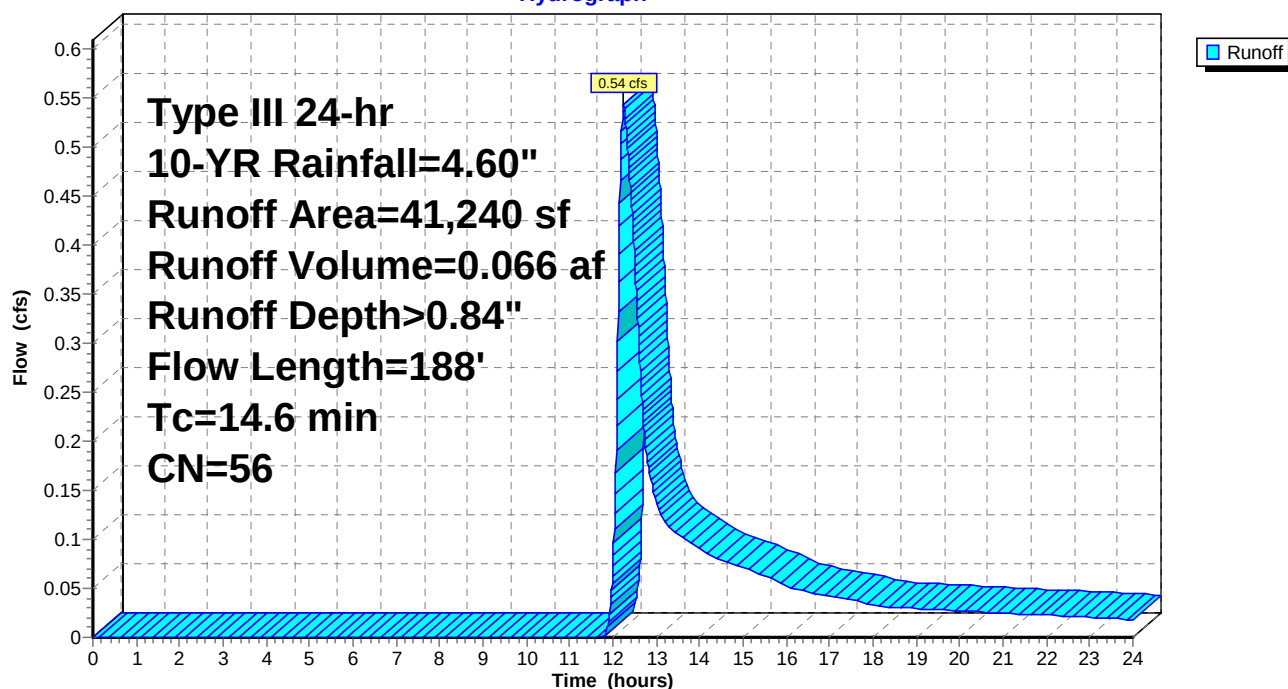
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	12,037	98	impervious
*	29,203	39	Lawn/field, HSG A
	41,240	56	Weighted Average
	29,203		70.81% Pervious Area
	12,037		29.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0100	0.13		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
1.7	88	0.0154	0.87		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
14.6	188	Total			

Subcatchment 90S: Playground

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 402S: New Prkng lot

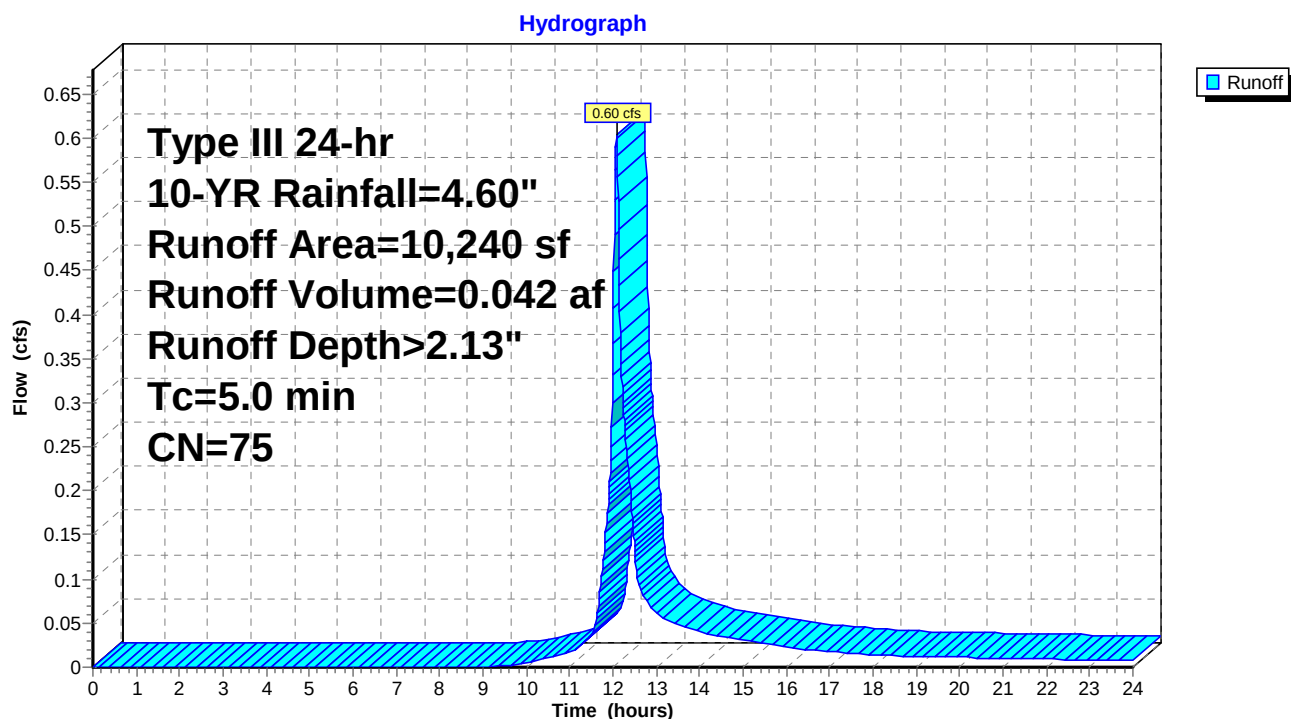
Runoff = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af, Depth> 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Reach 161R: roof drain

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth > 4.36" for 10-YR event
Inflow = 0.48 cfs @ 12.07 hrs, Volume= 0.037 af
Outflow = 0.48 cfs @ 12.08 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Max. Velocity= 7.42 fps, Min. Travel Time= 0.3 min

Avg. Velocity= 2.45 fps, Avg. Travel Time= 0.9 min

Peak Storage= 8 cf @ 12.07 hrs

Average Depth at Peak Storage= 0.18'

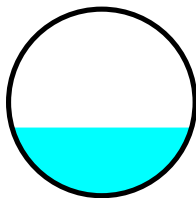
Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.69 cfs

6.0" Round Pipe

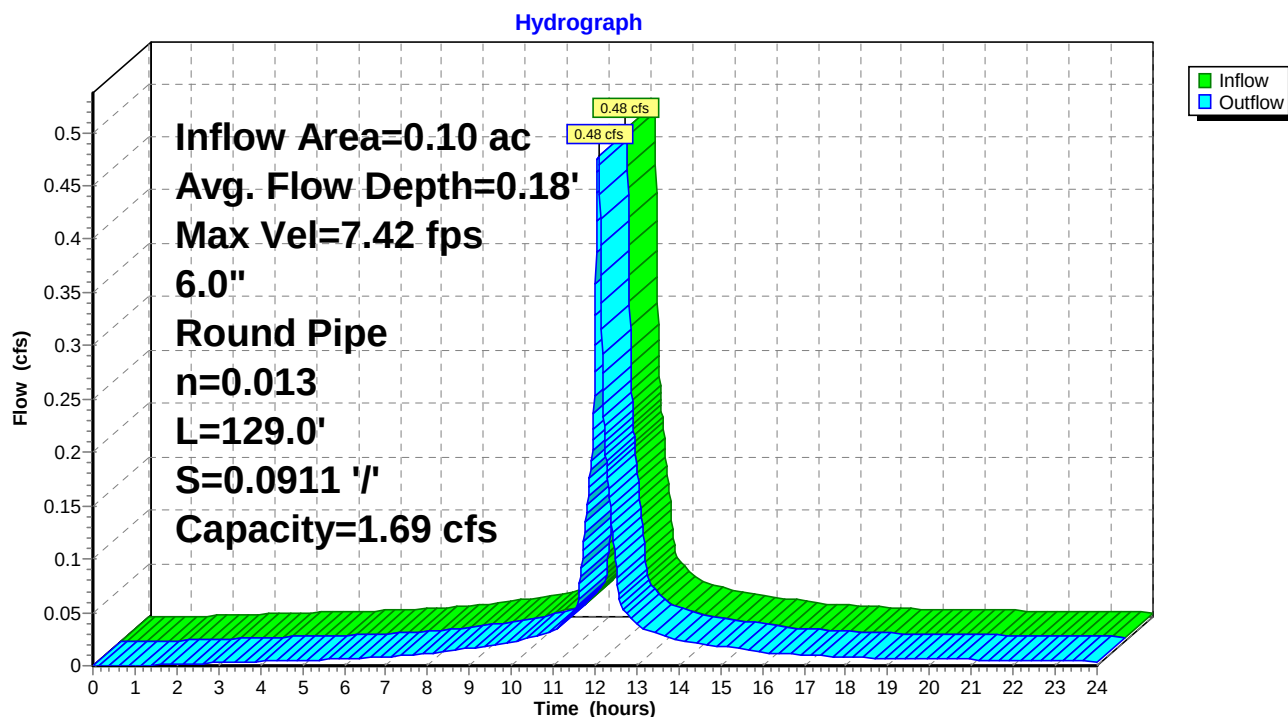
n= 0.013 Corrugated PE, smooth interior

Length= 129.0' Slope= 0.0911 '/'

Inlet Invert= 130.00', Outlet Invert= 118.25'



Reach 161R: roof drain



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 2.12 ac, 52.17% Impervious, Inflow Depth > 1.85" for 10-YR event
Inflow = 3.48 cfs @ 12.13 hrs, Volume= 0.327 af
Outflow = 3.48 cfs @ 12.13 hrs, Volume= 0.327 af, Atten= 0%, Lag= 0.0 min
Primary = 3.48 cfs @ 12.13 hrs, Volume= 0.327 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 114.62' @ 12.13 hrs

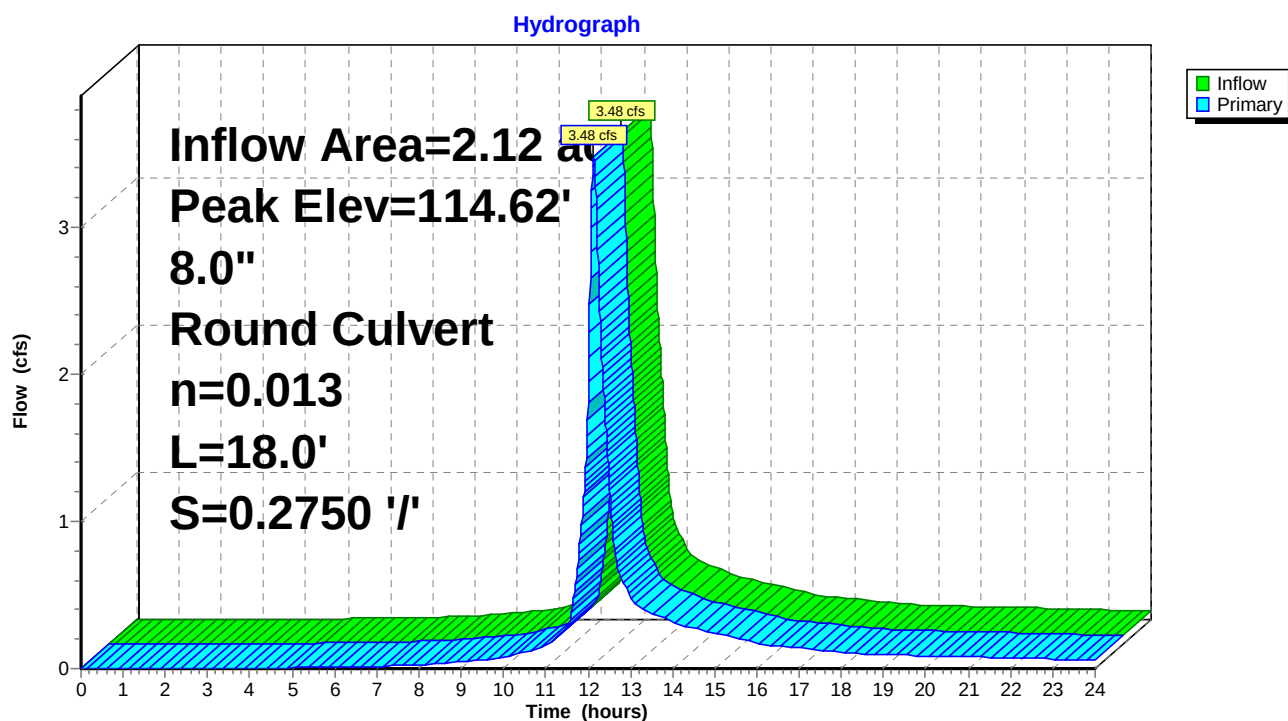
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	8.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2750 '/ Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=3.47 cfs @ 12.13 hrs HW=114.61' (Free Discharge)

↑1=Culvert (Inlet Controls 3.47 cfs @ 9.95 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 207P: Existing CB

Inflow Area = 0.94 ac, 78.01% Impervious, Inflow Depth > 3.00" for 10-YR event
Inflow = 3.41 cfs @ 12.07 hrs, Volume= 0.235 af
Outflow = 3.41 cfs @ 12.07 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min
Primary = 3.41 cfs @ 12.07 hrs, Volume= 0.235 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 133.32' @ 12.07 hrs

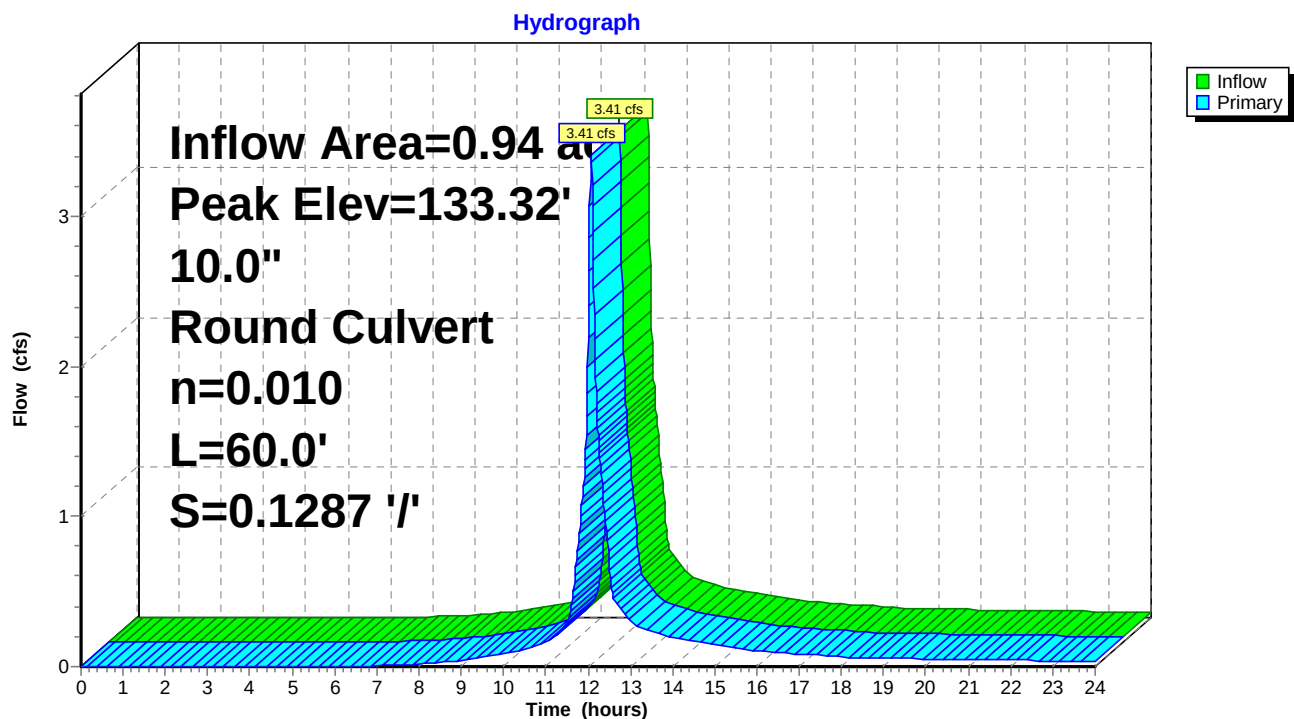
Flood Elev= 137.62'

Device	Routing	Invert	Outlet Devices
#1	Primary	130.20'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 130.20' / 122.48' S= 0.1287 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=3.40 cfs @ 12.07 hrs HW=133.31' (Free Discharge)

↑1=Culvert (Inlet Controls 3.40 cfs @ 6.24 fps)

Pond 207P: Existing CB



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Summary for Pond 210P: Existing FI

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 1.97" for 10-YR event
Inflow = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af
Outflow = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 132.64' @ 12.11 hrs

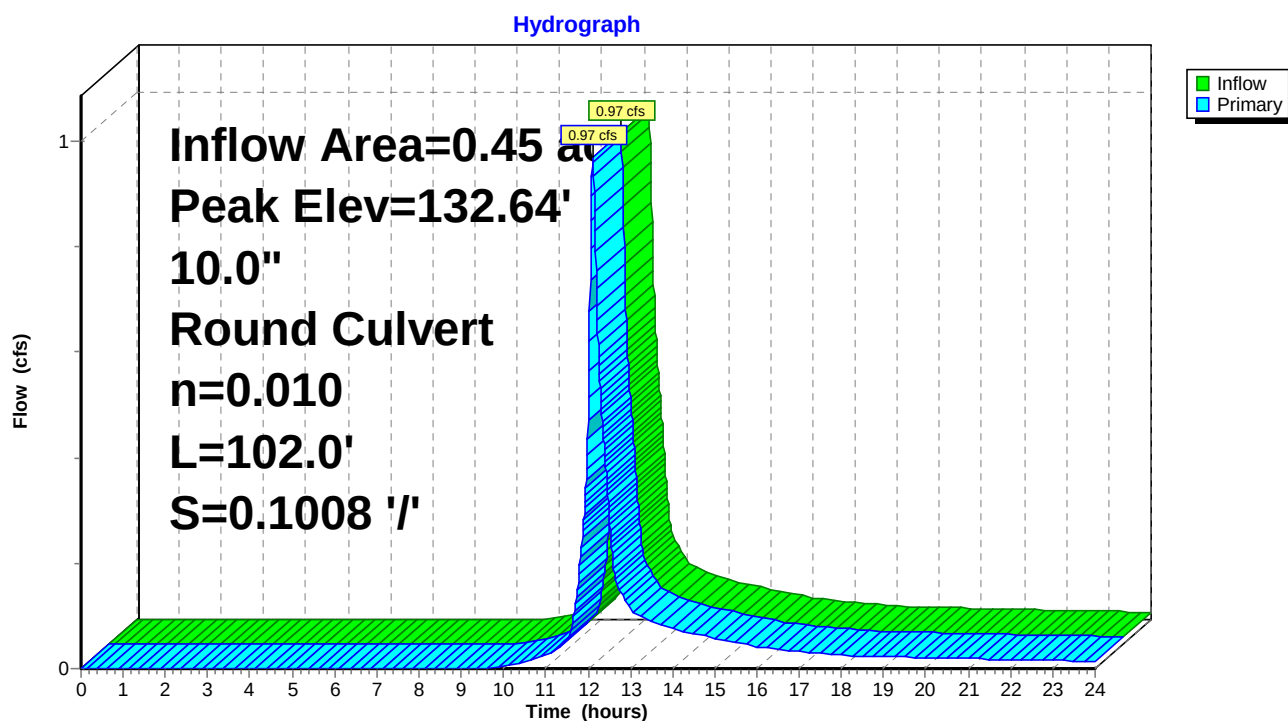
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.97 cfs @ 12.11 hrs HW=132.64' (Free Discharge)

↑1=Culvert (Inlet Controls 0.97 cfs @ 2.15 fps)

Pond 210P: Existing FI



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 217P: Existing DMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 3.10" for 10-YR event
Inflow = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af
Outflow = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min
Primary = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 132.11' @ 12.07 hrs

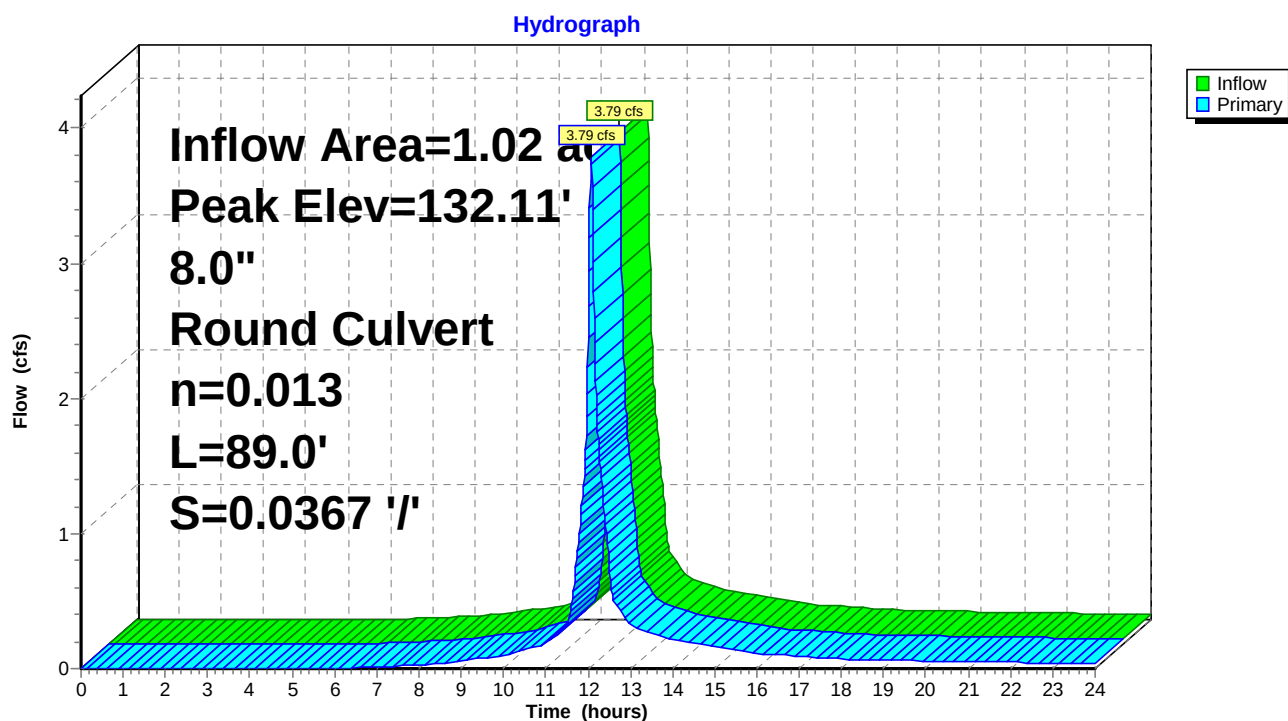
Flood Elev= 126.98'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.48'	8.0" Round Culvert L= 89.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.48' / 119.21' S= 0.0367 '/' Cc= 0.900 n= 0.013 Cast iron, coated, Flow Area= 0.35 sf

Primary OutFlow Max=3.78 cfs @ 12.07 hrs HW=132.06' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 3.78 cfs @ 10.82 fps)

Pond 217P: Existing DMH



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Summary for Pond 220P: Existing DMH

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 1.97" for 10-YR event
Inflow = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af
Outflow = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 12.11 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 122.31' @ 12.11 hrs

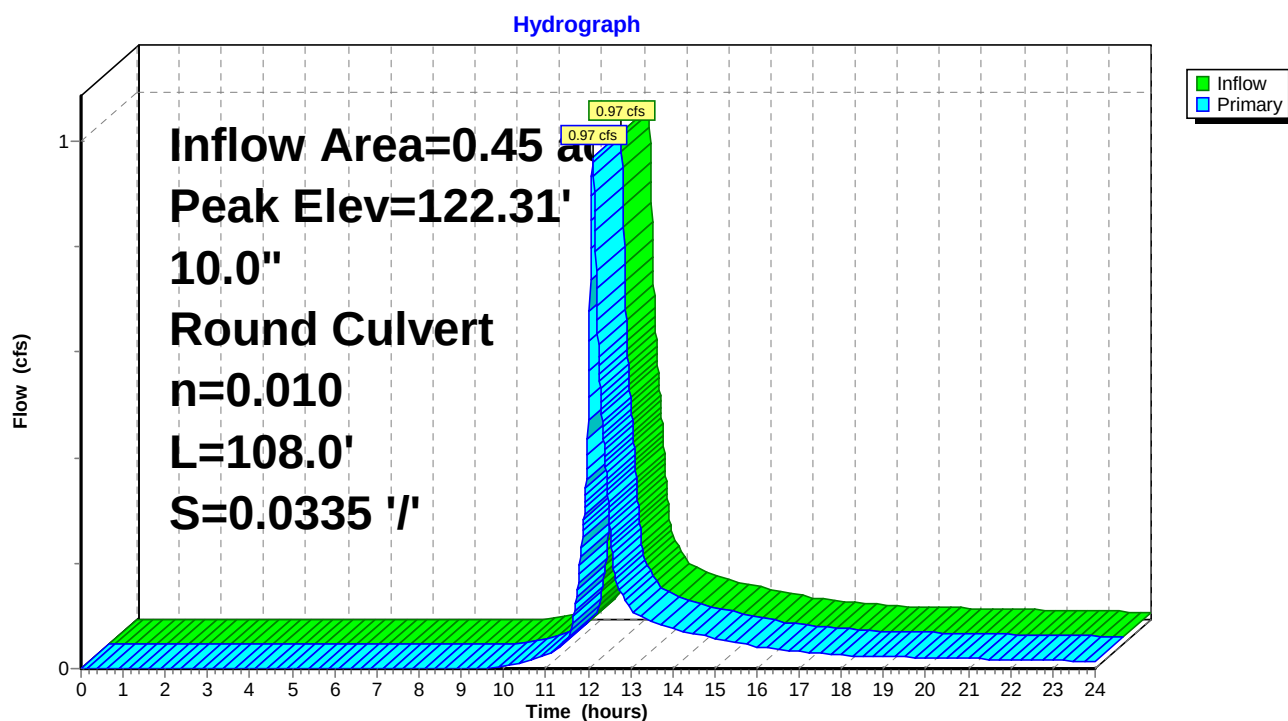
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.97 cfs @ 12.11 hrs HW=122.31' (Free Discharge)

↑1=Culvert (Inlet Controls 0.97 cfs @ 2.15 fps)

Pond 220P: Existing DMH



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Summary for Pond 227P: Existing SMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 3.10" for 10-YR event
Inflow = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af
Outflow = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min
Primary = 3.79 cfs @ 12.07 hrs, Volume= 0.265 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 127.45' @ 12.07 hrs

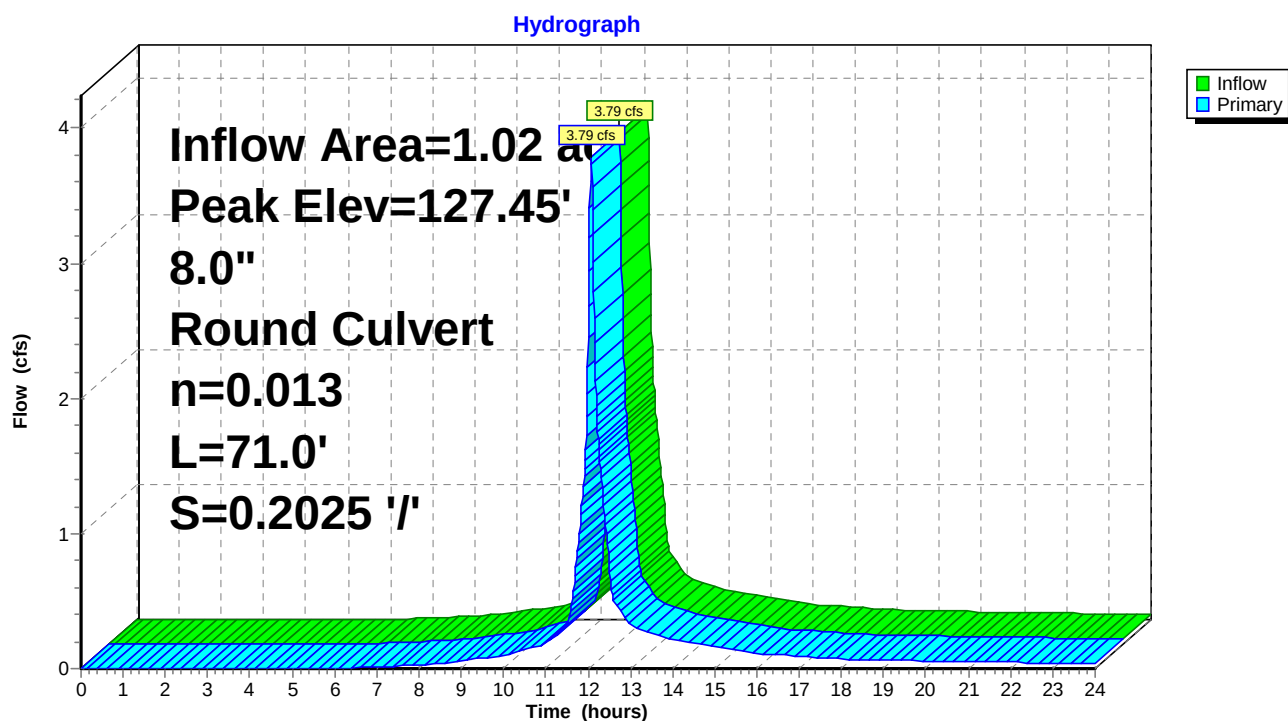
Flood Elev= 123.81'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.98'	8.0" Round Culvert L= 71.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.98' / 104.60' S= 0.2025 '/' Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=3.78 cfs @ 12.07 hrs HW=127.42' (Free Discharge)

↑**1=Culvert** (Inlet Controls 3.78 cfs @ 10.82 fps)

Pond 227P: Existing SMH



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 230P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 2.67" for 10-YR event
Inflow = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af
Outflow = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min
Primary = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 123.87' @ 12.12 hrs

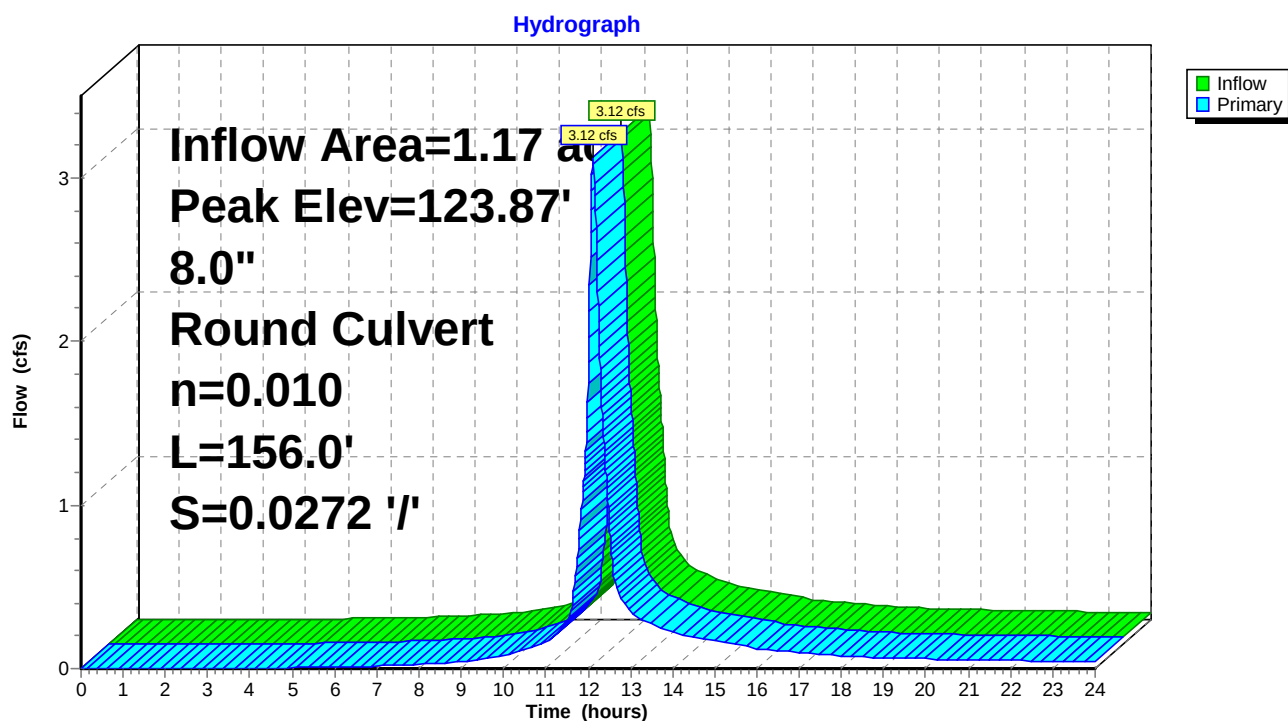
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	8.0" Round Culvert L= 156.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 113.76' S= 0.0272 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.12 cfs @ 12.12 hrs HW=123.87' (Free Discharge)

↑**1=Culvert** (Inlet Controls 3.12 cfs @ 8.95 fps)

Pond 230P: Existing DMH



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Summary for Pond 240P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 2.67" for 10-YR event
Inflow = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af
Outflow = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min
Primary = 3.12 cfs @ 12.12 hrs, Volume= 0.261 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 119.63' @ 12.12 hrs

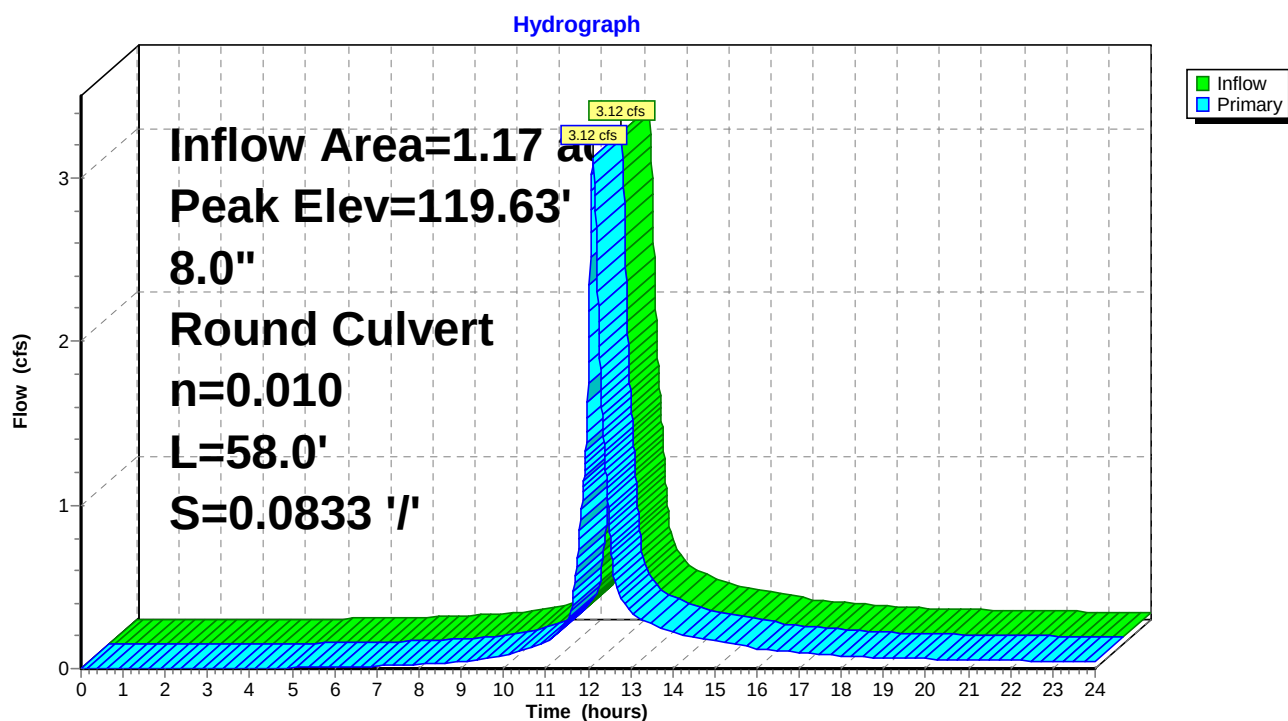
Flood Elev= 124.03'

Device	Routing	Invert	Outlet Devices
#1	Primary	113.76'	8.0" Round Culvert L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 113.76' / 108.93' S= 0.0833 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.12 cfs @ 12.12 hrs HW=119.63' (Free Discharge)

↑**1=Culvert** (Inlet Controls 3.12 cfs @ 8.95 fps)

Pond 240P: Existing DMH



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 260P: Storage Pipes

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth > 3.12" for 10-YR event
Inflow = 2.62 cfs @ 12.07 hrs, Volume= 0.187 af
Outflow = 2.16 cfs @ 12.13 hrs, Volume= 0.187 af, Atten= 18%, Lag= 3.1 min
Primary = 2.16 cfs @ 12.13 hrs, Volume= 0.187 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 120.18' @ 12.13 hrs Surf.Area= 797 sf Storage= 377 cf
Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= 1.4 min calculated for 0.187 af (100% of inflow)
Center-of-Mass det. time= 1.3 min (797.0 - 795.7)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.15 cfs @ 12.13 hrs HW=120.18' (Free Discharge)

↑**1=Culvert** (Inlet Controls 2.15 cfs @ 2.74 fps)

5. Pre

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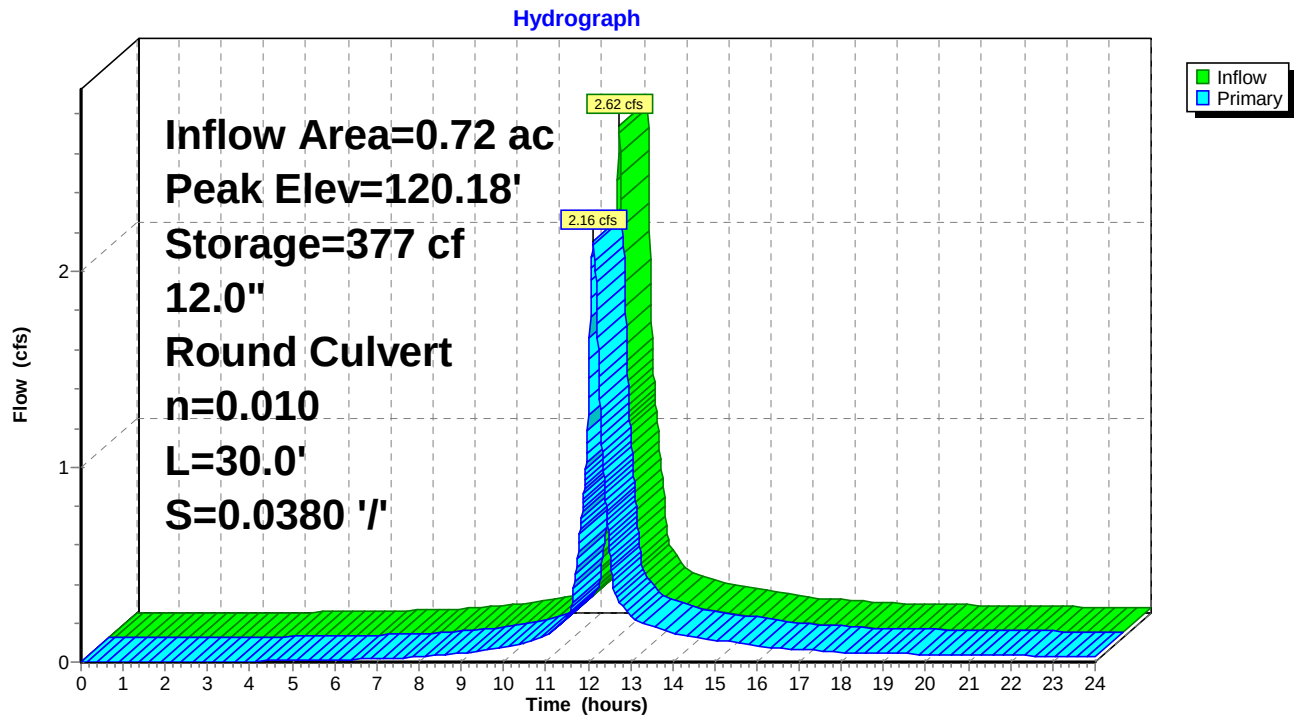
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PRE
Type III 24-hr 10-YR Rainfall=4.60"

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Pond 260P: Storage Pipes



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PRE
Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 340P: CB at SW Cor prkng lot

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth > 2.13" for 10-YR event
Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

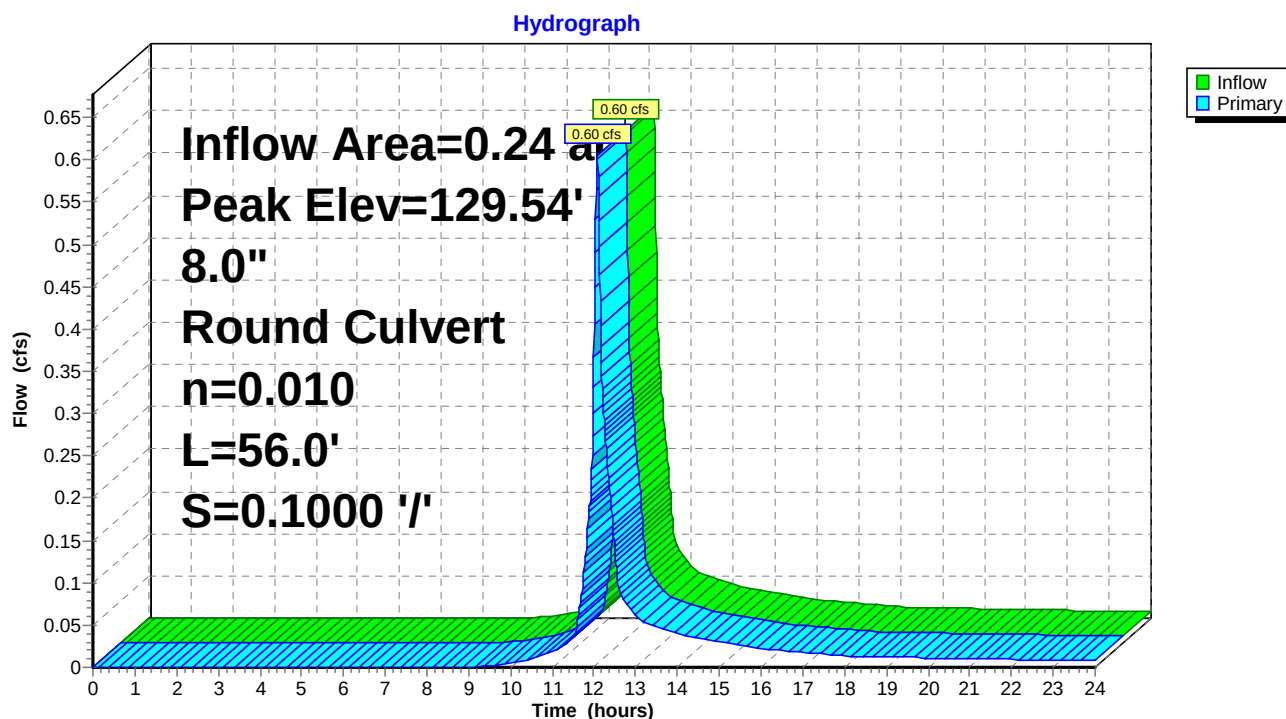
Peak Elev= 129.54' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.60 cfs @ 12.08 hrs HW=129.54' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.60 cfs @ 1.98 fps)

Pond 340P: CB at SW Cor prkng lot



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Type III 24-hr 10-YR Rainfall=4.60"

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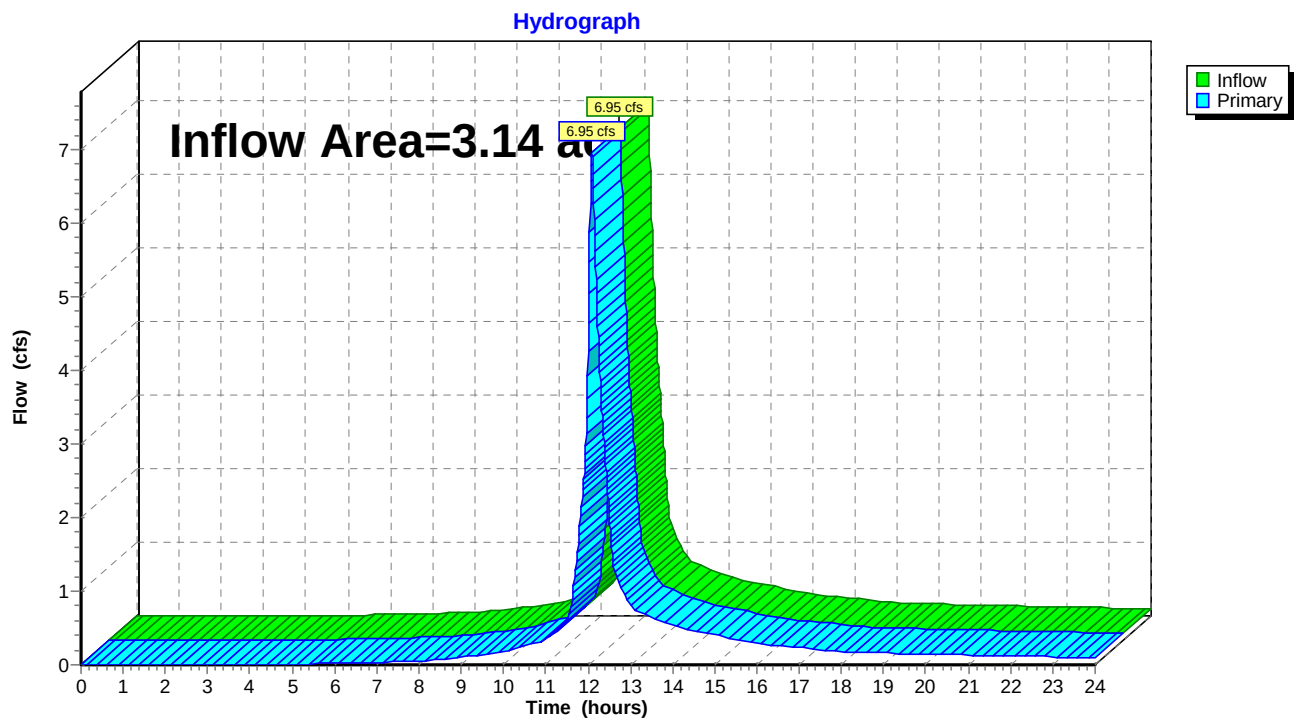
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Summary for Link SP1: Existing Combined Sewer in Danforth

Inflow Area = 3.14 ac, 61.14% Impervious, Inflow Depth > 2.26" for 10-YR event
Inflow = 6.95 cfs @ 12.09 hrs, Volume= 0.592 af
Primary = 6.95 cfs @ 12.09 hrs, Volume= 0.592 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth



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Type III 24-hr 25-YR Rainfall=5.80"

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Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 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: Area draining to Runoff Area=19,633 sf 57.01% Impervious Runoff Depth>2.92"
Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=73 Runoff=1.45 cfs 0.110 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth>4.54"
Tc=5.0 min CN=89 Runoff=2.04 cfs 0.145 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth>5.56"
Tc=5.0 min CN=98 Runoff=0.61 cfs 0.048 af

Subcatchment 70S: Thomas & Davies & Runoff Area=41,034 sf 78.01% Impervious Runoff Depth>4.11"
Tc=5.0 min CN=85 Runoff=4.63 cfs 0.323 af

Subcatchment 80S: FoundersHall Runoff Area=3,498 sf 100.00% Impervious Runoff Depth>5.56"
Tc=5.0 min CN=98 Runoff=0.47 cfs 0.037 af

Subcatchment 90S: Playground Runoff Area=41,240 sf 29.19% Impervious Runoff Depth>1.47"
Flow Length=188' Tc=14.6 min CN=56 Runoff=1.11 cfs 0.116 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth>3.11"
Tc=5.0 min CN=75 Runoff=0.89 cfs 0.061 af

Reach 161R: roof drain Avg. Flow Depth=0.21' Max Vel=7.90 fps Inflow=0.61 cfs 0.048 af
6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.60 cfs 0.048 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=121.80' Inflow=4.97 cfs 0.480 af
8.0" Round Culvert n=0.013 L=18.0' S=0.2750 '/' Outflow=4.97 cfs 0.480 af

Pond 207P: Existing CB Peak Elev=135.60' Inflow=4.63 cfs 0.323 af
10.0" Round Culvert n=0.010 L=60.0' S=0.1287 '/' Outflow=4.63 cfs 0.323 af

Pond 210P: Existing FI Peak Elev=132.91' Inflow=1.45 cfs 0.110 af
10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=1.45 cfs 0.110 af

Pond 217P: Existing DMH Peak Elev=142.08' Inflow=5.10 cfs 0.360 af
8.0" Round Culvert n=0.013 L=89.0' S=0.0367 '/' Outflow=5.10 cfs 0.360 af

Pond 220P: Existing DMH Peak Elev=122.58' Inflow=1.45 cfs 0.110 af
10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=1.45 cfs 0.110 af

Pond 227P: Existing SMH Peak Elev=134.09' Inflow=5.10 cfs 0.360 af
8.0" Round Culvert n=0.013 L=71.0' S=0.2025 '/' Outflow=5.10 cfs 0.360 af

Pond 230P: Existing DMH Peak Elev=129.28' Inflow=4.12 cfs 0.363 af
8.0" Round Culvert n=0.010 L=156.0' S=0.0272 '/' Outflow=4.12 cfs 0.363 af

Pond 240P: Existing DMH Peak Elev=123.72' Inflow=4.12 cfs 0.363 af
8.0" Round Culvert n=0.010 L=58.0' S=0.0833 '/' Outflow=4.12 cfs 0.363 af

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Type III 24-hr 25-YR Rainfall=5.80"

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Pond 260P: Storage Pipes

Peak Elev=120.47' Storage=626 cf Inflow=3.53 cfs 0.254 af
12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/ Outflow=2.69 cfs 0.254 af

Pond 340P: CB at SW Cor prkng lot

Peak Elev=129.78' Inflow=0.89 cfs 0.061 af
8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/ Outflow=0.89 cfs 0.061 af

Link SP1: Existing Combined Sewer in Danforth

Inflow=9.54 cfs 0.839 af
Primary=9.54 cfs 0.839 af

Total Runoff Area = 3.14 ac Runoff Volume = 0.839 af Average Runoff Depth = 3.21"
38.86% Pervious = 1.22 ac 61.14% Impervious = 1.92 ac

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Summary for Subcatchment 10S: Area draining to Sanctuary

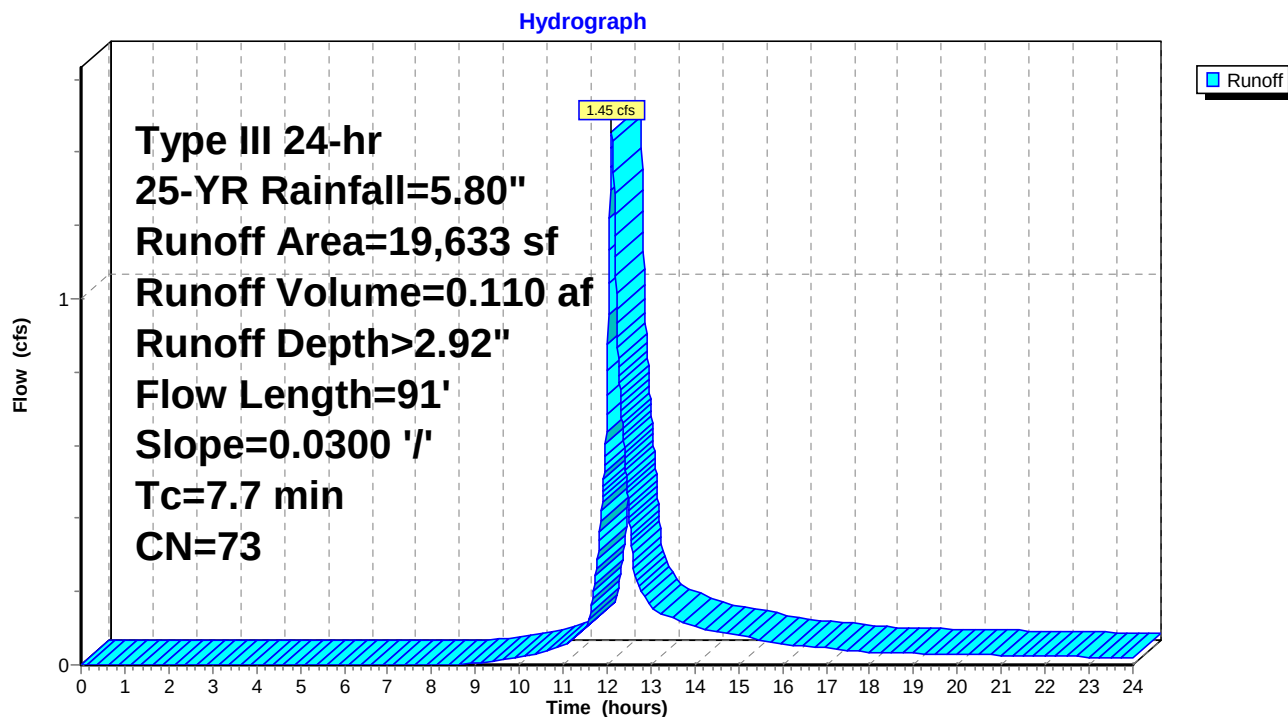
Runoff = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	11,192	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,633	73	Weighted Average
	8,441		42.99% Pervious Area
	11,192		57.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B
Grass: Short n= 0.150 P2= 3.19"					

Subcatchment 10S: Area draining to Sanctuary



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 60S: Lawn/Field S of school

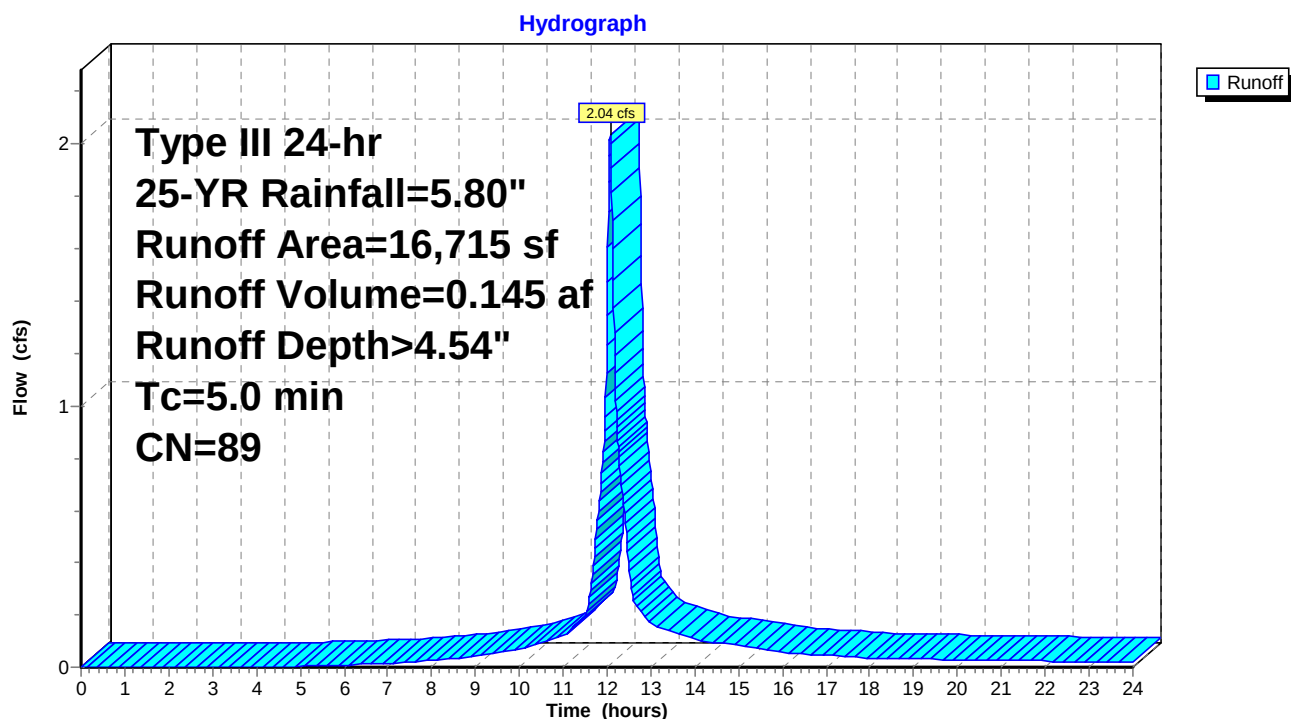
Runoff = 2.04 cfs @ 12.07 hrs, Volume= 0.145 af, Depth> 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.61 cfs @ 12.07 hrs, Volume= 0.048 af, Depth> 5.56"

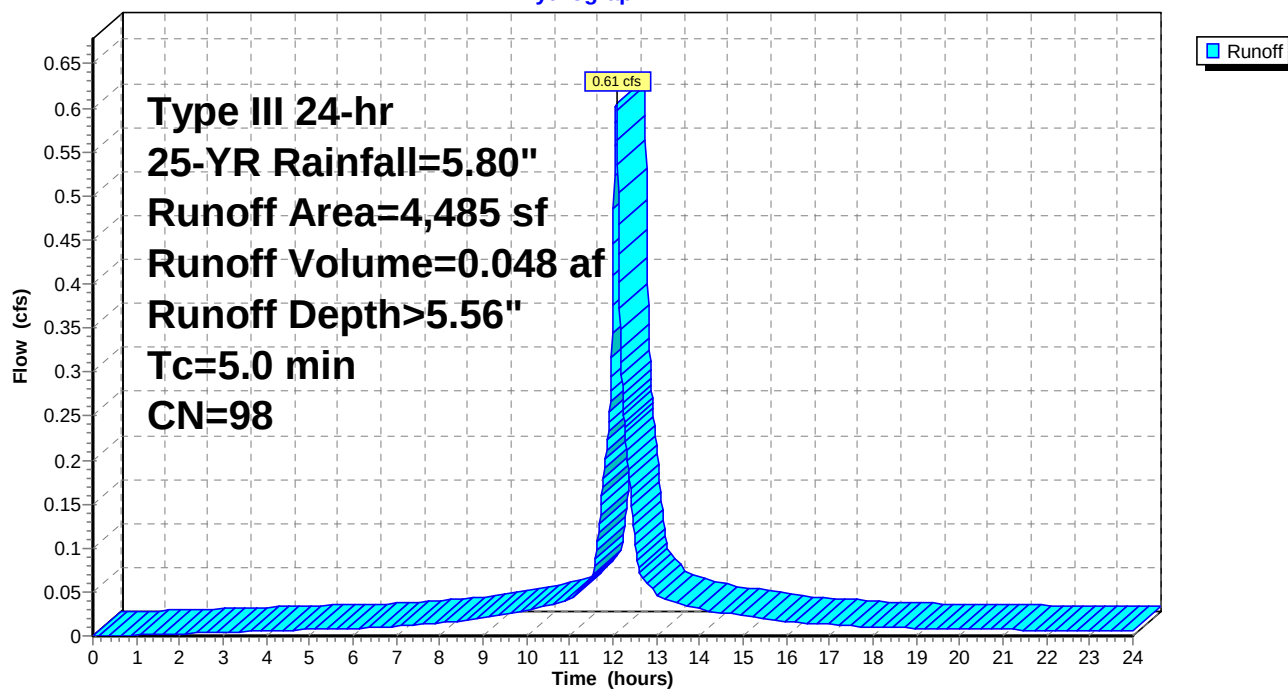
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

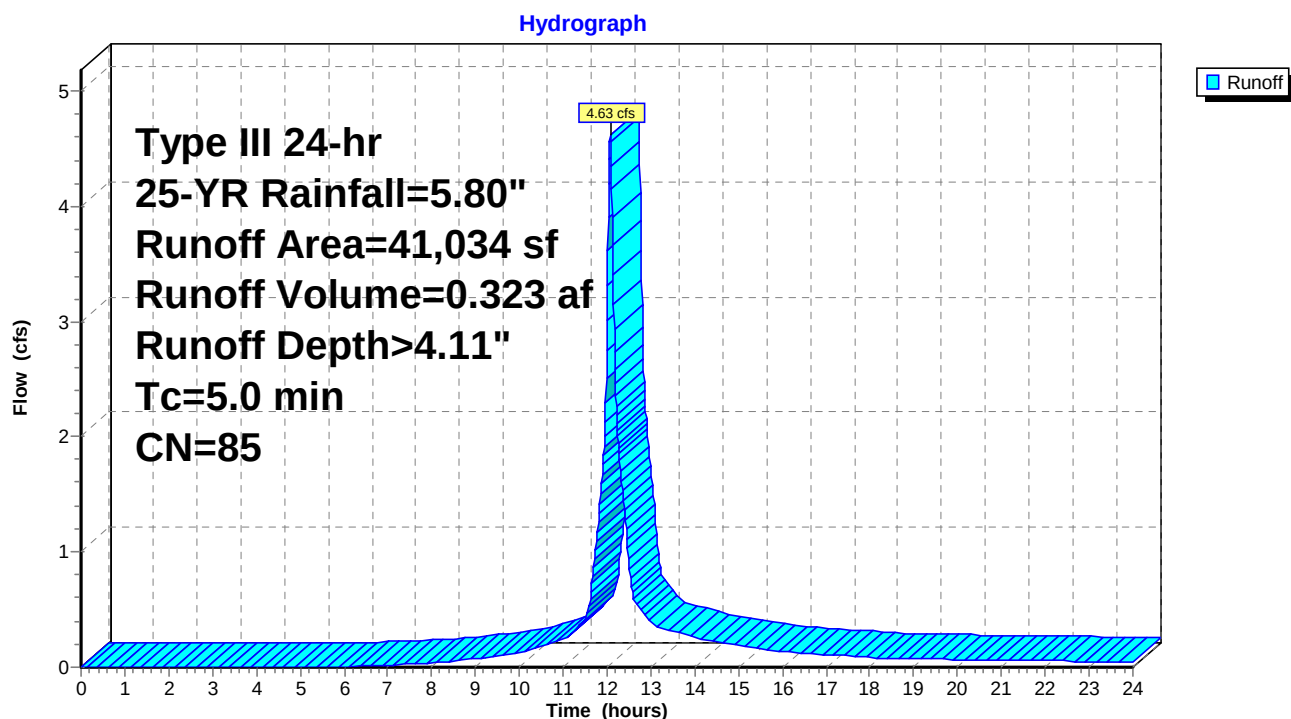
Runoff = 4.63 cfs @ 12.07 hrs, Volume= 0.323 af, Depth> 4.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	32,011	98	impervious
*	9,023	39	Lawn/field, HSG A
	41,034	85	Weighted Average
	9,023		21.99% Pervious Area
	32,011		78.01% Impervious Area

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

Subcatchment 70S: Thomas & Davies & Gym



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 0.47 cfs @ 12.07 hrs, Volume= 0.037 af, Depth> 5.56"

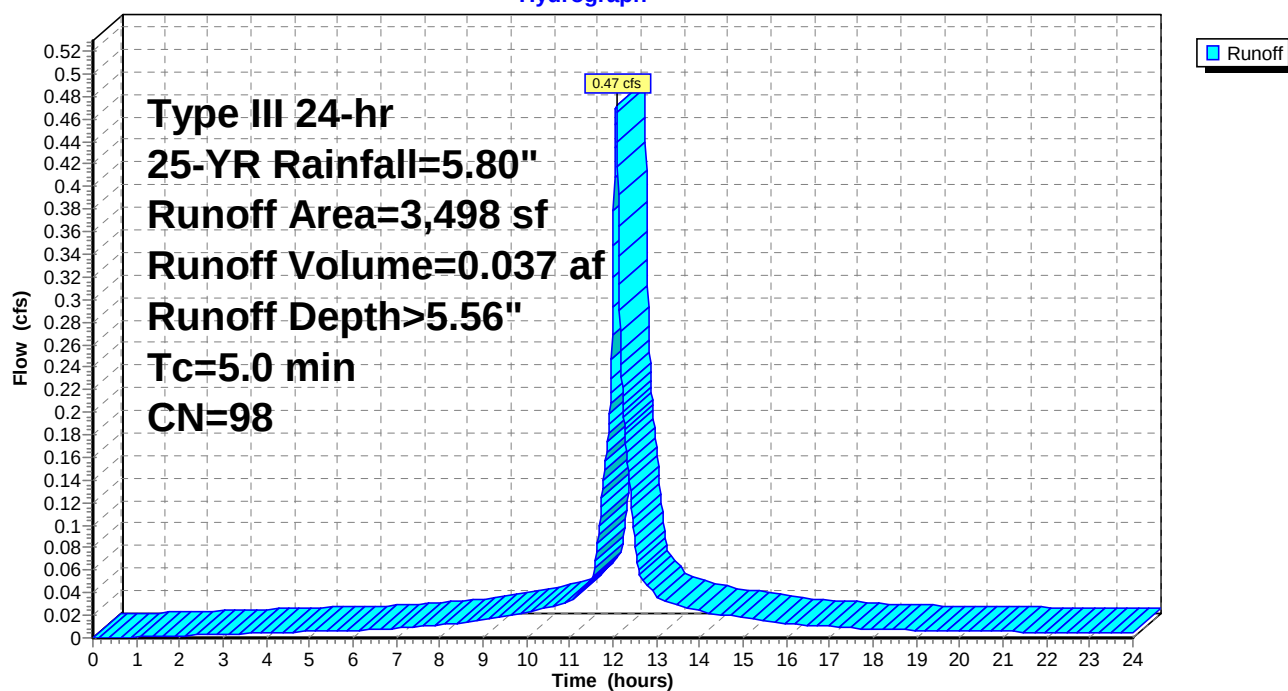
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	3,498	98	Roof runoff
	3,498		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 90S: Playground

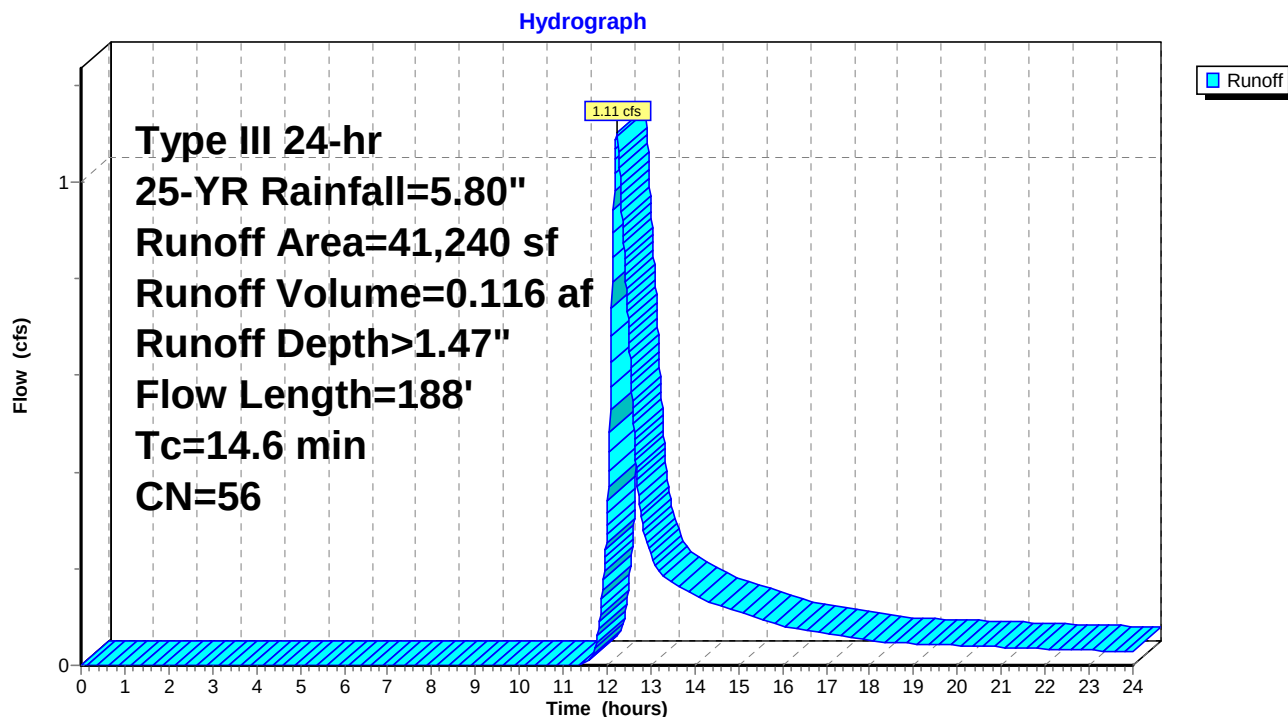
Runoff = 1.11 cfs @ 12.22 hrs, Volume= 0.116 af, Depth> 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	12,037	98	impervious
*	29,203	39	Lawn/field, HSG A
	41,240	56	Weighted Average
	29,203		70.81% Pervious Area
	12,037		29.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0100	0.13		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
1.7	88	0.0154	0.87		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
14.6	188	Total			

Subcatchment 90S: Playground



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 402S: New Prkng lot

Runoff = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af, Depth> 3.11"

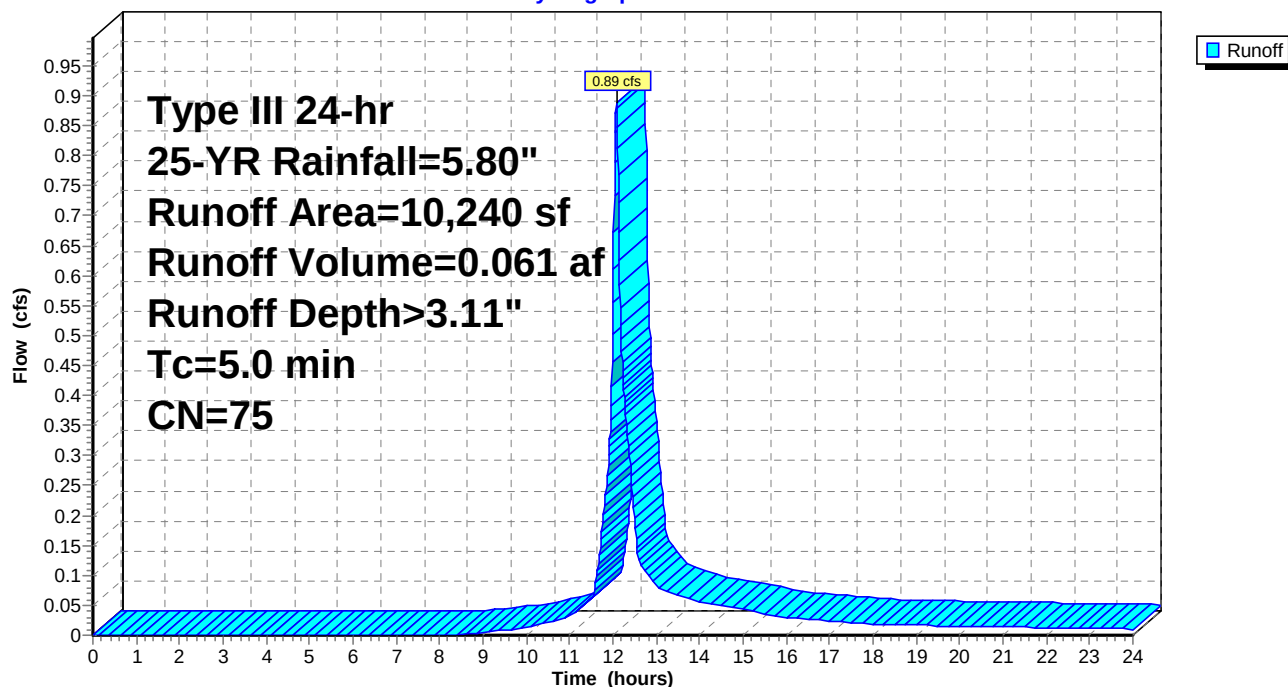
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Reach 161R: roof drain

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth > 5.56" for 25-YR event
Inflow = 0.61 cfs @ 12.07 hrs, Volume= 0.048 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Max. Velocity= 7.90 fps, Min. Travel Time= 0.3 min

Avg. Velocity= 2.64 fps, Avg. Travel Time= 0.8 min

Peak Storage= 10 cf @ 12.07 hrs

Average Depth at Peak Storage= 0.21'

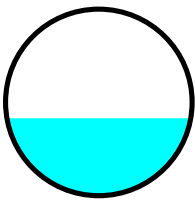
Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.69 cfs

6.0" Round Pipe

n= 0.013 Corrugated PE, smooth interior

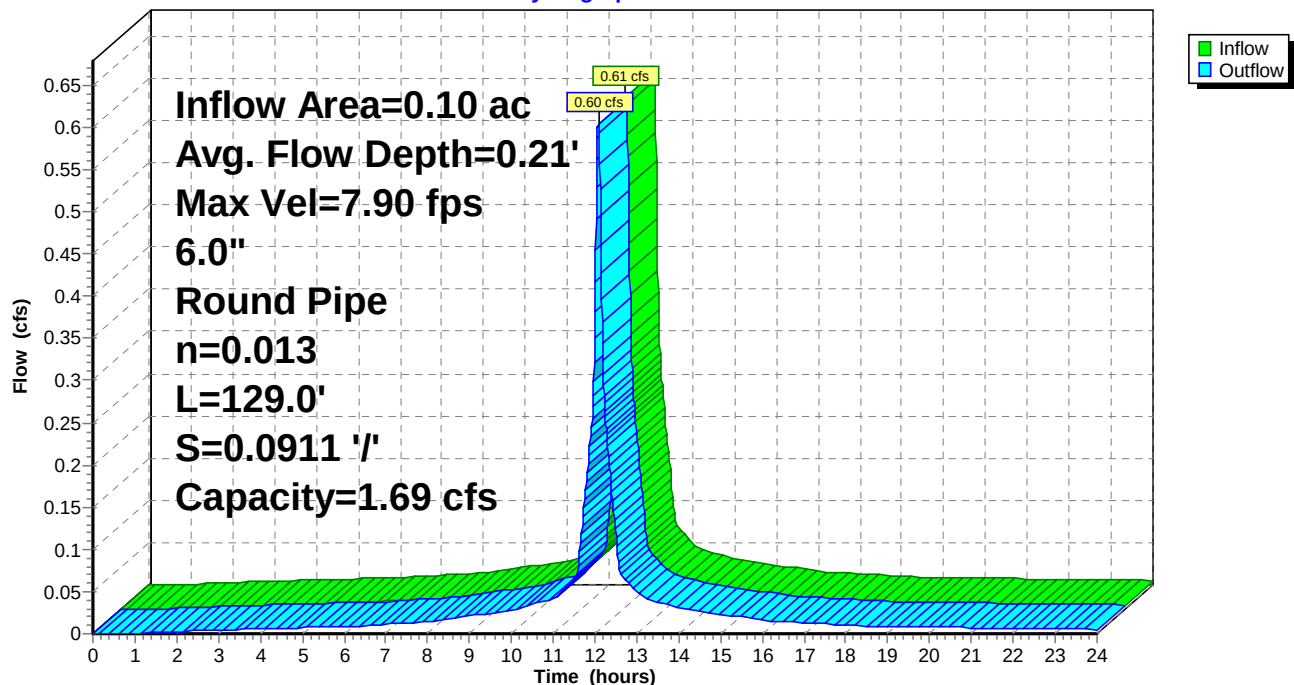
Length= 129.0' Slope= 0.0911 '/'

Inlet Invert= 130.00', Outlet Invert= 118.25'



Reach 161R: roof drain

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 2.12 ac, 52.17% Impervious, Inflow Depth > 2.72" for 25-YR event
Inflow = 4.97 cfs @ 12.14 hrs, Volume= 0.480 af
Outflow = 4.97 cfs @ 12.14 hrs, Volume= 0.480 af, Atten= 0%, Lag= 0.0 min
Primary = 4.97 cfs @ 12.14 hrs, Volume= 0.480 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 121.80' @ 12.14 hrs

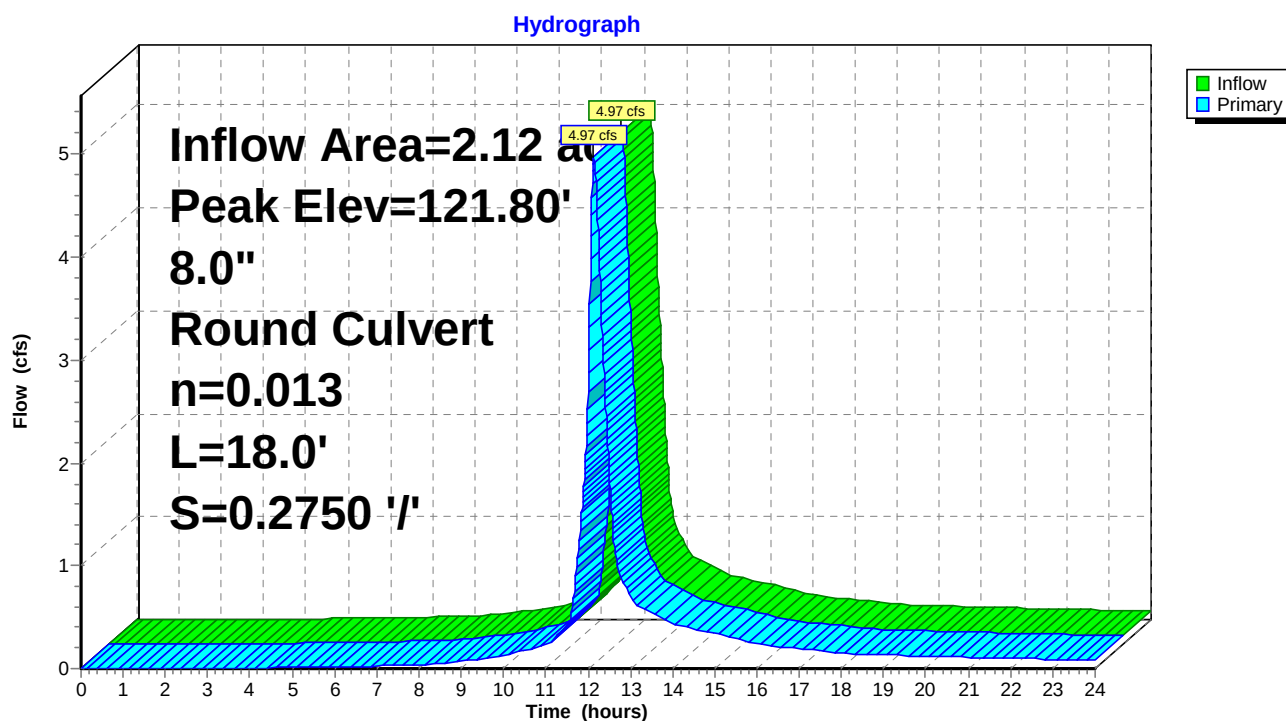
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	8.0" Round Culvert L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2750 '/ Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=4.97 cfs @ 12.14 hrs HW=121.79' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 4.97 cfs @ 14.24 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 207P: Existing CB

Inflow Area = 0.94 ac, 78.01% Impervious, Inflow Depth > 4.11" for 25-YR event
Inflow = 4.63 cfs @ 12.07 hrs, Volume= 0.323 af
Outflow = 4.63 cfs @ 12.07 hrs, Volume= 0.323 af, Atten= 0%, Lag= 0.0 min
Primary = 4.63 cfs @ 12.07 hrs, Volume= 0.323 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 135.60' @ 12.07 hrs

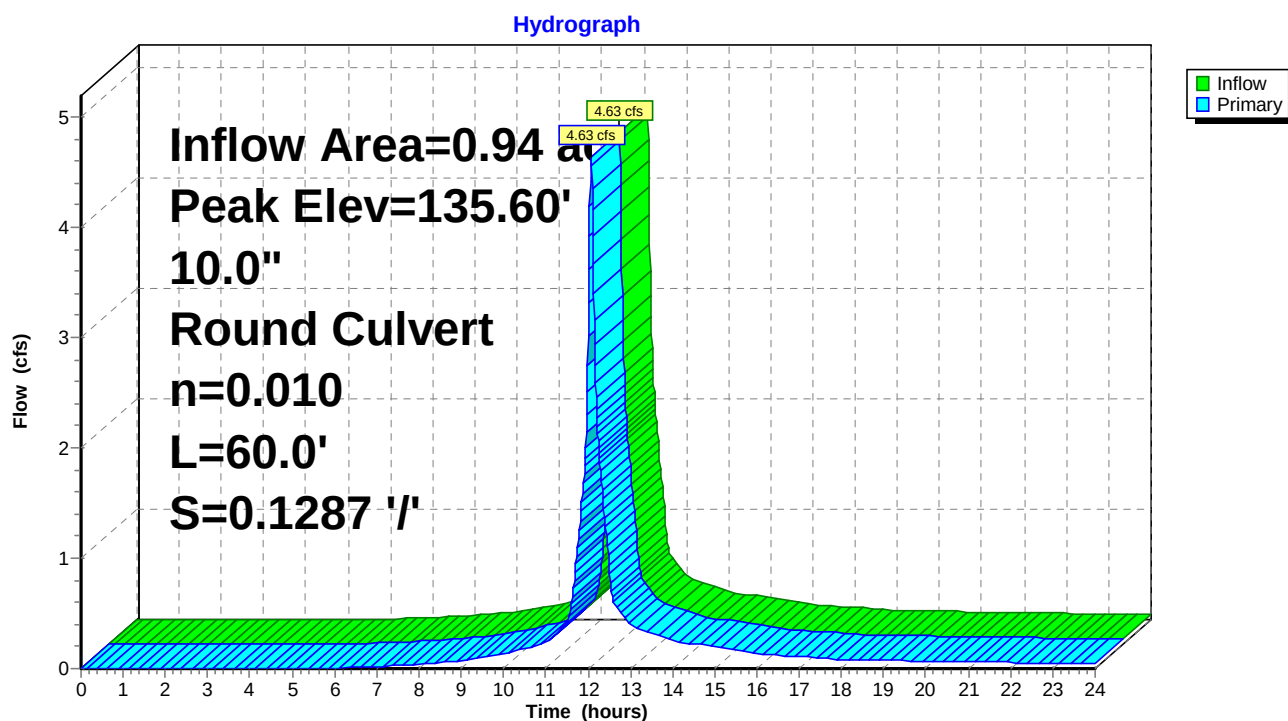
Flood Elev= 137.62'

Device	Routing	Invert	Outlet Devices
#1	Primary	130.20'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 130.20' / 122.48' S= 0.1287 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=4.62 cfs @ 12.07 hrs HW=135.58' (Free Discharge)

↑**1=Culvert** (Inlet Controls 4.62 cfs @ 8.47 fps)

Pond 207P: Existing CB



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 210P: Existing FI

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 2.92" for 25-YR event
Inflow = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af
Outflow = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 132.91' @ 12.11 hrs

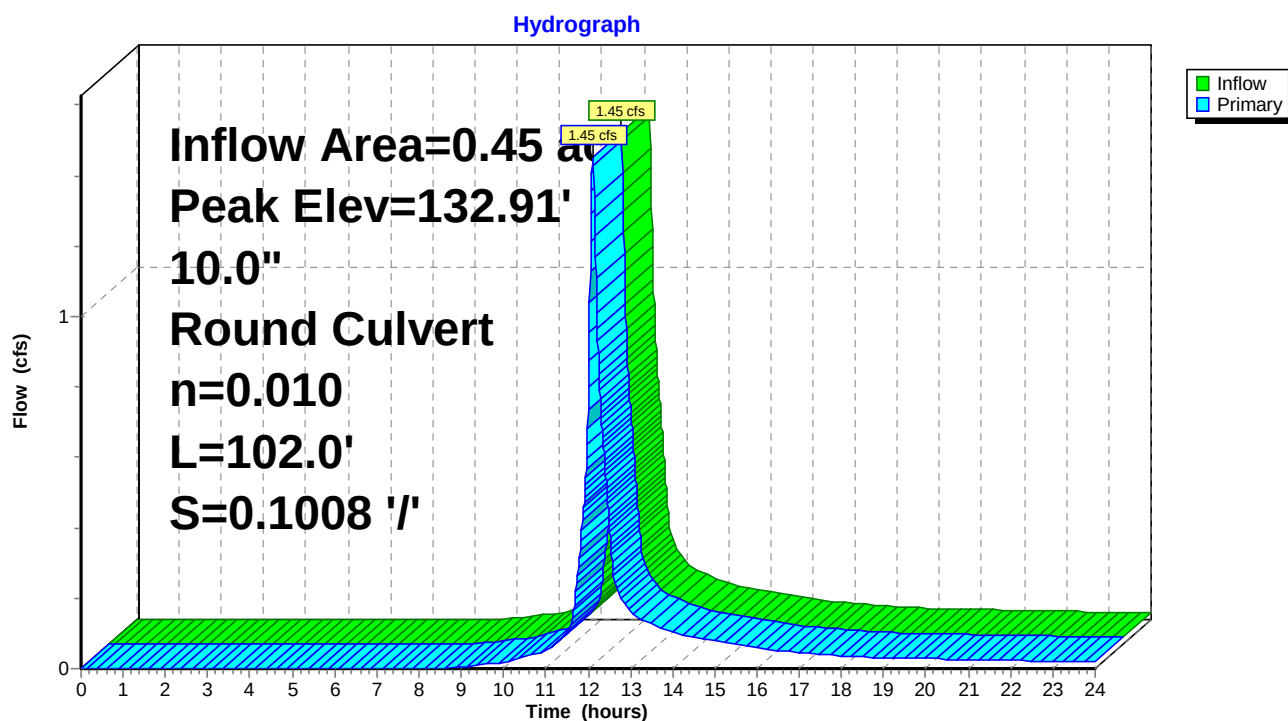
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.45 cfs @ 12.11 hrs HW=132.91' (Free Discharge)

↑1=Culvert (Inlet Controls 1.45 cfs @ 2.66 fps)

Pond 210P: Existing FI



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Summary for Pond 217P: Existing DMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 4.22" for 25-YR event
Inflow = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af
Outflow = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af, Atten= 0%, Lag= 0.0 min
Primary = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 142.08' @ 12.07 hrs

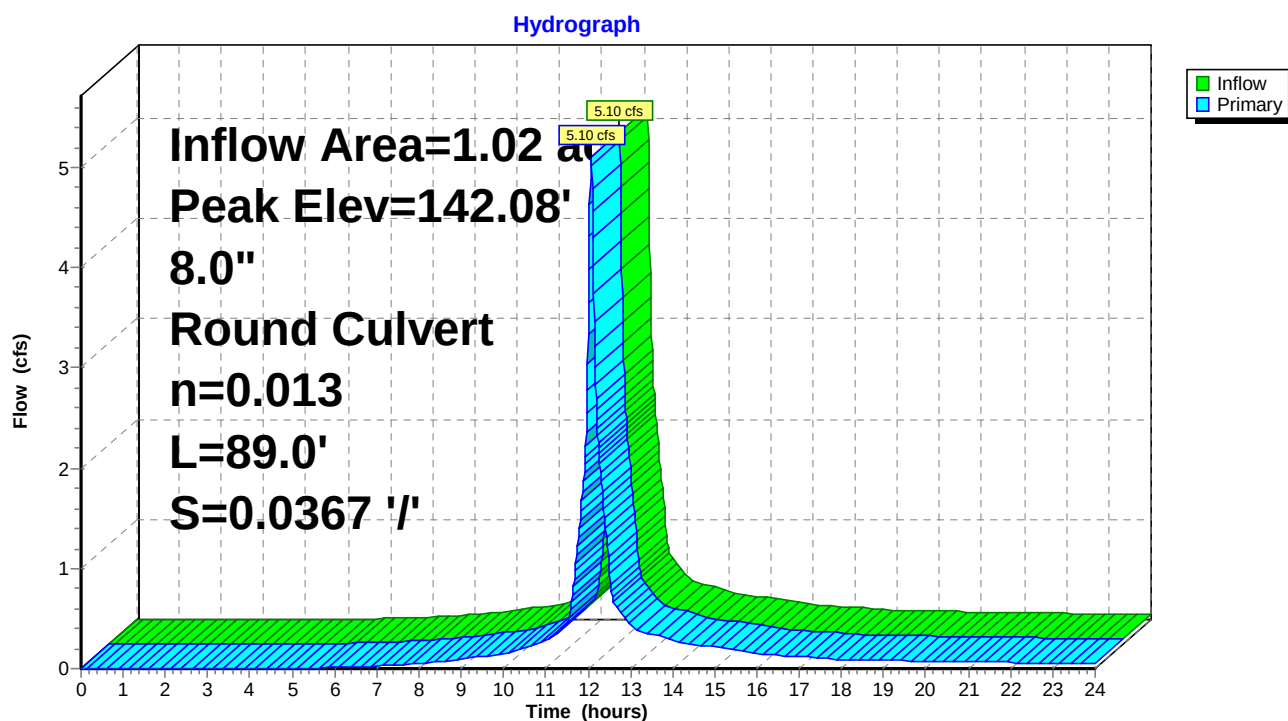
Flood Elev= 126.98'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.48'	8.0" Round Culvert L= 89.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.48' / 119.21' S= 0.0367 '/' Cc= 0.900 n= 0.013 Cast iron, coated, Flow Area= 0.35 sf

Primary OutFlow Max=5.09 cfs @ 12.07 hrs HW=142.01' (Free Discharge)

↑**1=Culvert** (Barrel Controls 5.09 cfs @ 14.59 fps)

Pond 217P: Existing DMH



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Summary for Pond 220P: Existing DMH

Inflow Area = 0.45 ac, 57.01% Impervious, Inflow Depth > 2.92" for 25-YR event
Inflow = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af
Outflow = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 12.11 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 122.58' @ 12.11 hrs

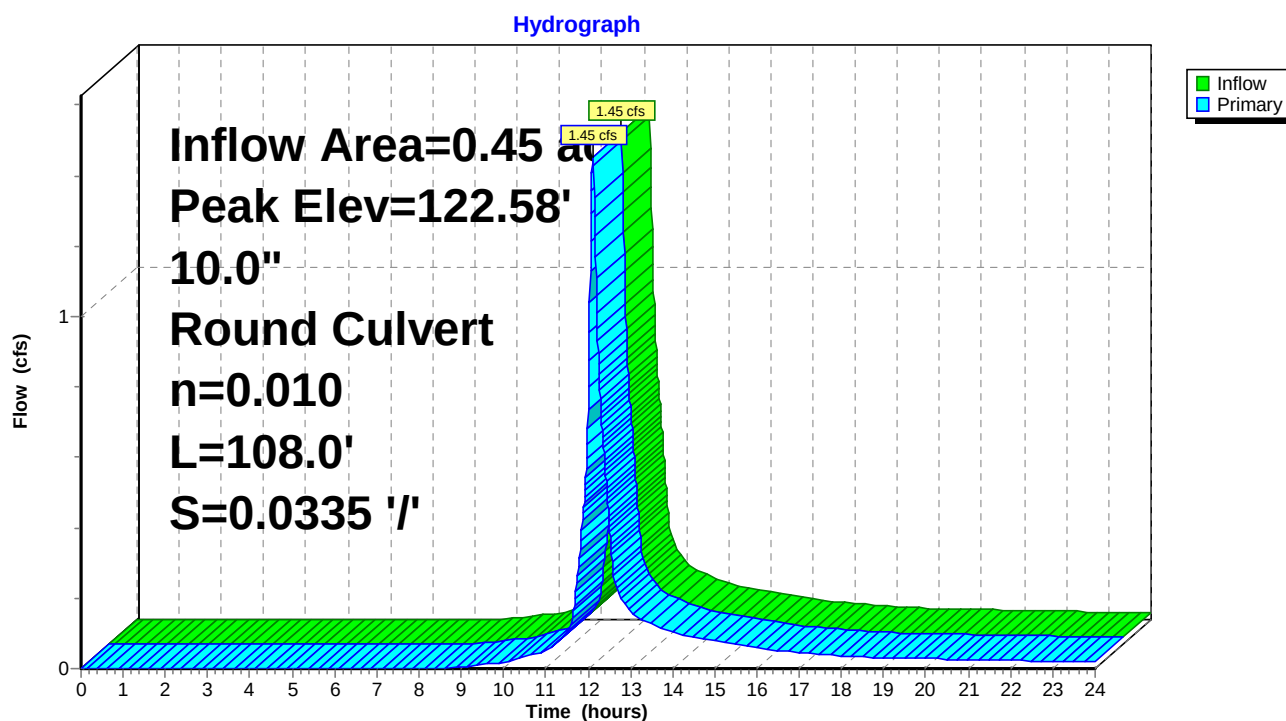
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.45 cfs @ 12.11 hrs HW=122.58' (Free Discharge)

↑1=Culvert (Inlet Controls 1.45 cfs @ 2.66 fps)

Pond 220P: Existing DMH



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PRE
Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 227P: Existing SMH

Inflow Area = 1.02 ac, 79.74% Impervious, Inflow Depth > 4.22" for 25-YR event
Inflow = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af
Outflow = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af, Atten= 0%, Lag= 0.0 min
Primary = 5.10 cfs @ 12.07 hrs, Volume= 0.360 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 134.09' @ 12.07 hrs

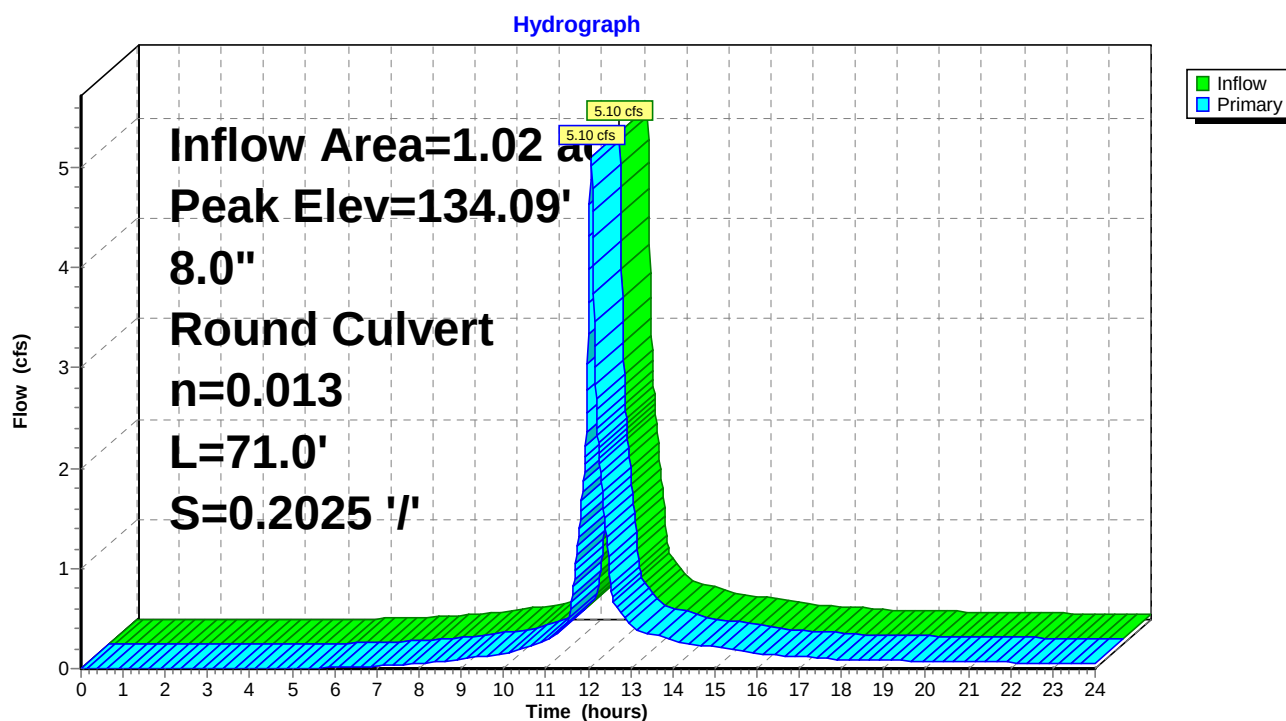
Flood Elev= 123.81'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.98'	8.0" Round Culvert L= 71.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.98' / 104.60' S= 0.2025 '/ Cc= 0.900 n= 0.013 Clay tile, Flow Area= 0.35 sf

Primary OutFlow Max=5.09 cfs @ 12.07 hrs HW=134.04' (Free Discharge)

↑**1=Culvert** (Inlet Controls 5.09 cfs @ 14.59 fps)

Pond 227P: Existing SMH



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PRE
Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 230P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 3.72" for 25-YR event
Inflow = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af
Outflow = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af, Atten= 0%, Lag= 0.0 min
Primary = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 129.28' @ 12.12 hrs

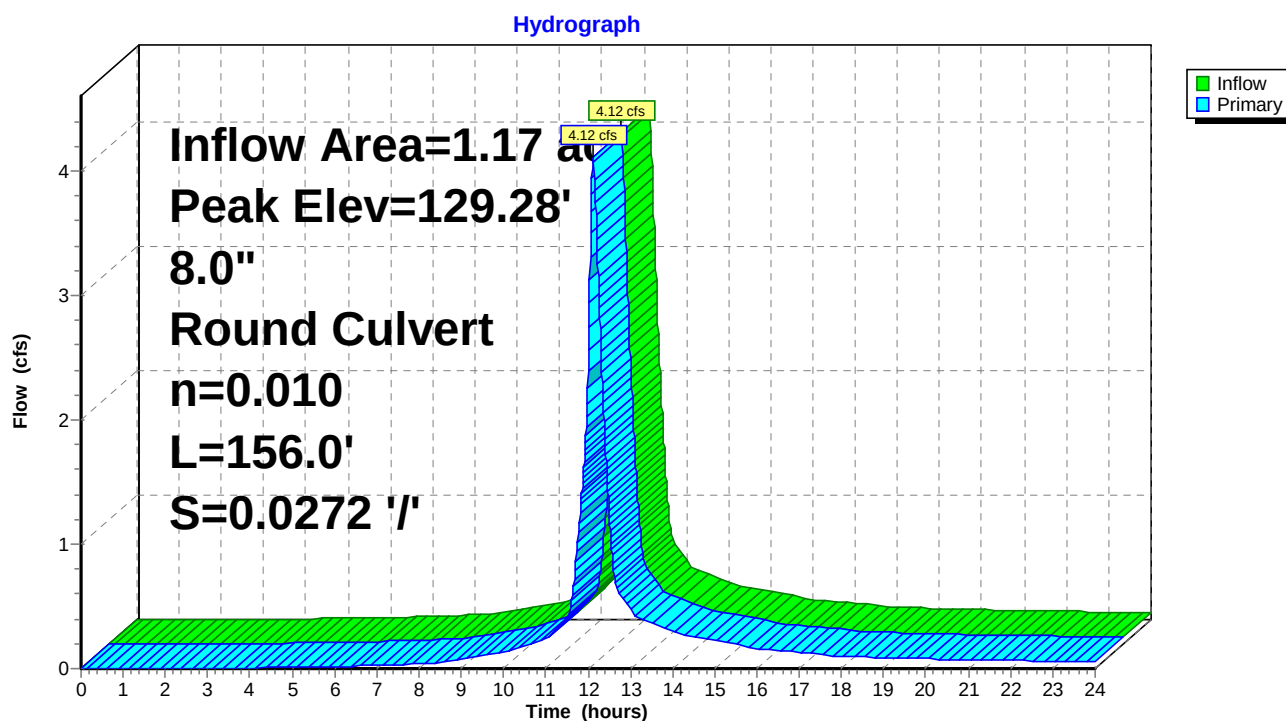
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	8.0" Round Culvert L= 156.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 113.76' S= 0.0272 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=4.11 cfs @ 12.12 hrs HW=129.26' (Free Discharge)

↑**1=Culvert** (Barrel Controls 4.11 cfs @ 11.79 fps)

Pond 230P: Existing DMH



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 240P: Existing DMH

Inflow Area = 1.17 ac, 70.73% Impervious, Inflow Depth > 3.72" for 25-YR event
Inflow = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af
Outflow = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af, Atten= 0%, Lag= 0.0 min
Primary = 4.12 cfs @ 12.12 hrs, Volume= 0.363 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 123.72' @ 12.12 hrs

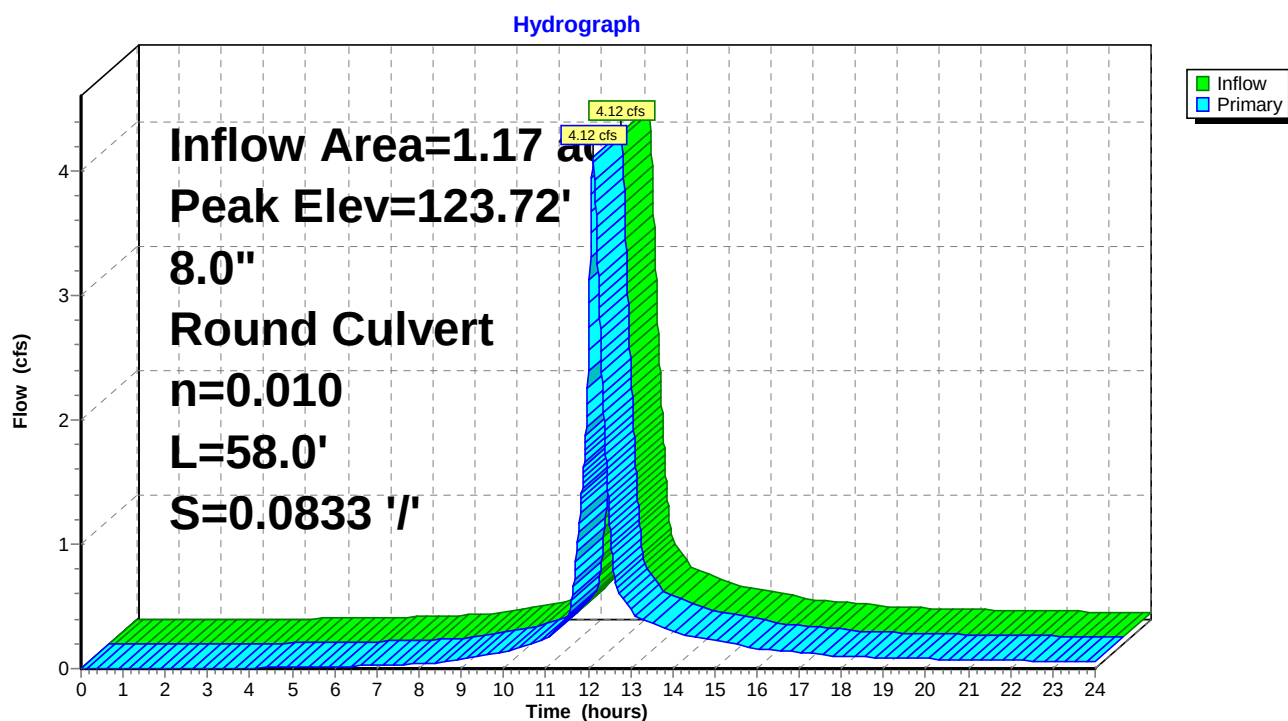
Flood Elev= 124.03'

Device	Routing	Invert	Outlet Devices
#1	Primary	113.76'	8.0" Round Culvert L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 113.76' / 108.93' S= 0.0833 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=4.11 cfs @ 12.12 hrs HW=123.71' (Free Discharge)

↑**1=Culvert** (Inlet Controls 4.11 cfs @ 11.79 fps)

Pond 240P: Existing DMH



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 260P: Storage Pipes

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth > 4.22" for 25-YR event
Inflow = 3.53 cfs @ 12.07 hrs, Volume= 0.254 af
Outflow = 2.69 cfs @ 12.14 hrs, Volume= 0.254 af, Atten= 24%, Lag= 3.8 min
Primary = 2.69 cfs @ 12.14 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 120.47' @ 12.14 hrs Surf.Area= 924 sf Storage= 626 cf
Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= 1.6 min calculated for 0.254 af (100% of inflow)
Center-of-Mass det. time= 1.6 min (790.6 - 789.1)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.68 cfs @ 12.14 hrs HW=120.47' (Free Discharge)

↑**1=Culvert** (Inlet Controls 2.68 cfs @ 3.42 fps)

5. Pre

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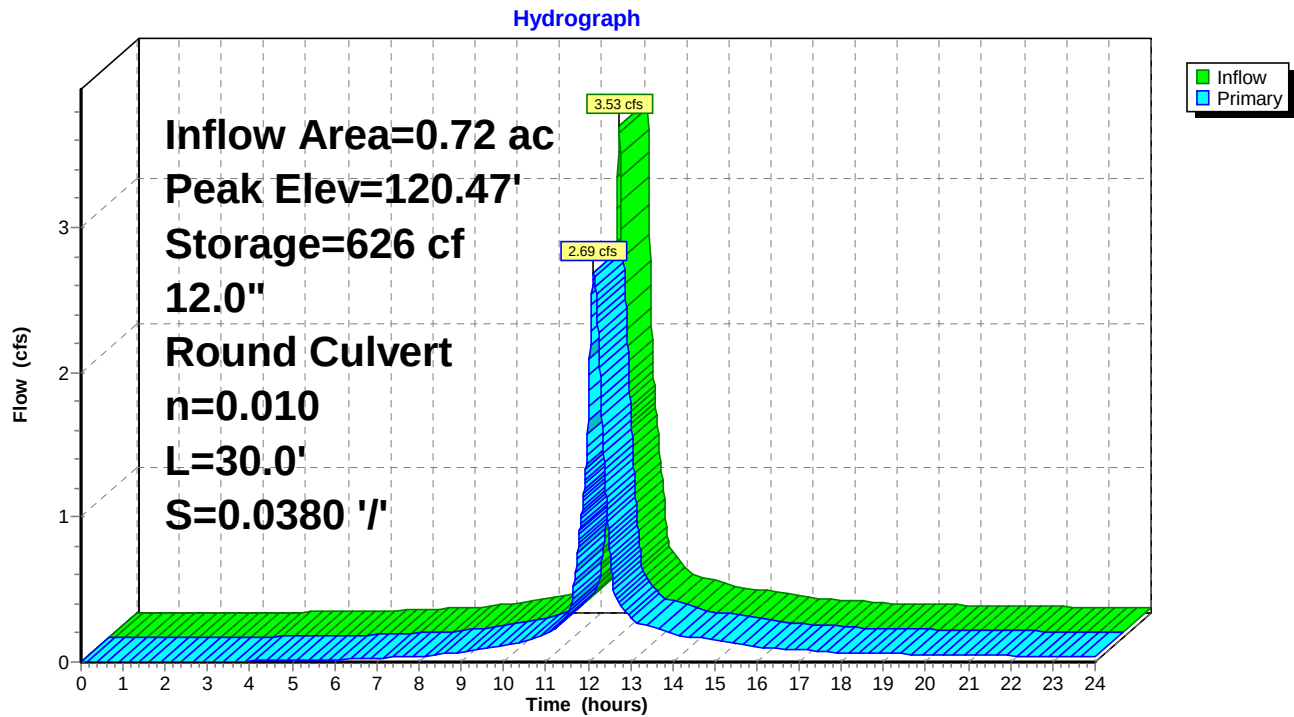
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Type III 24-hr 25-YR Rainfall=5.80"

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Pond 260P: Storage Pipes



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PRE
Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 340P: CB at SW Cor prkng lot

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth > 3.11" for 25-YR event
Inflow = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af
Outflow = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

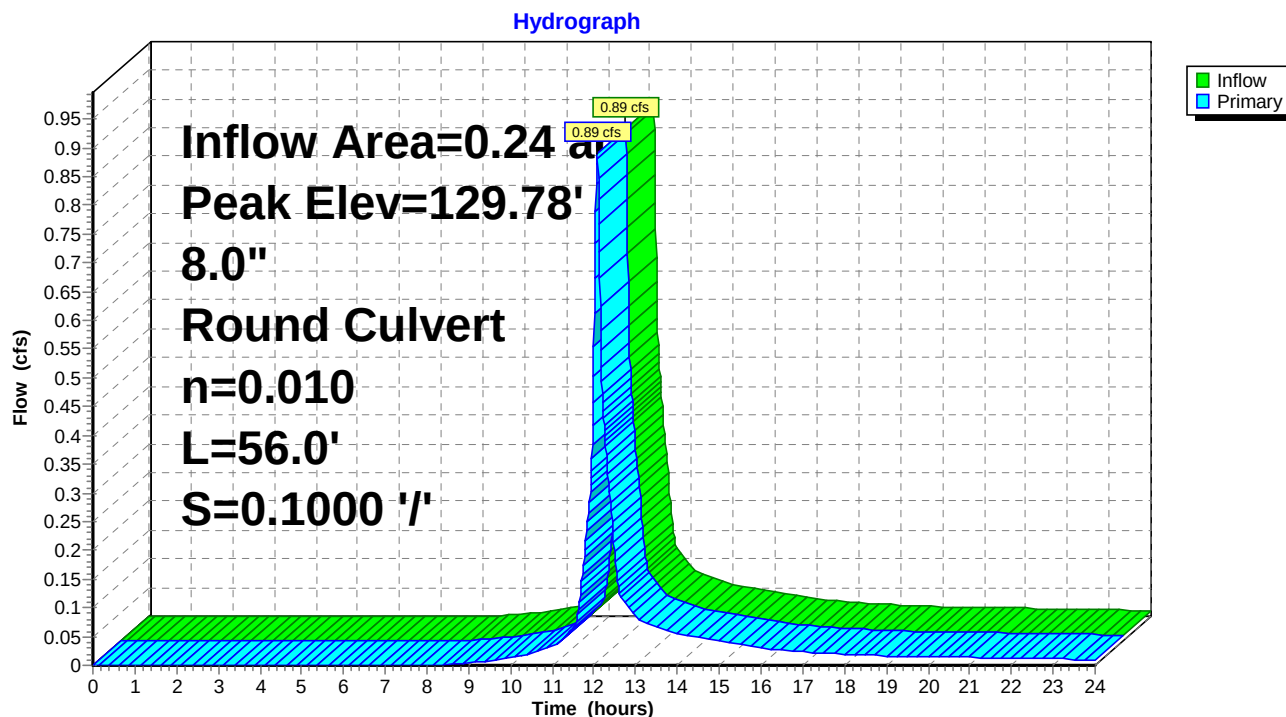
Peak Elev= 129.78' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.89 cfs @ 12.08 hrs HW=129.78' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.89 cfs @ 2.54 fps)

Pond 340P: CB at SW Cor prkng lot



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Type III 24-hr 25-YR Rainfall=5.80"

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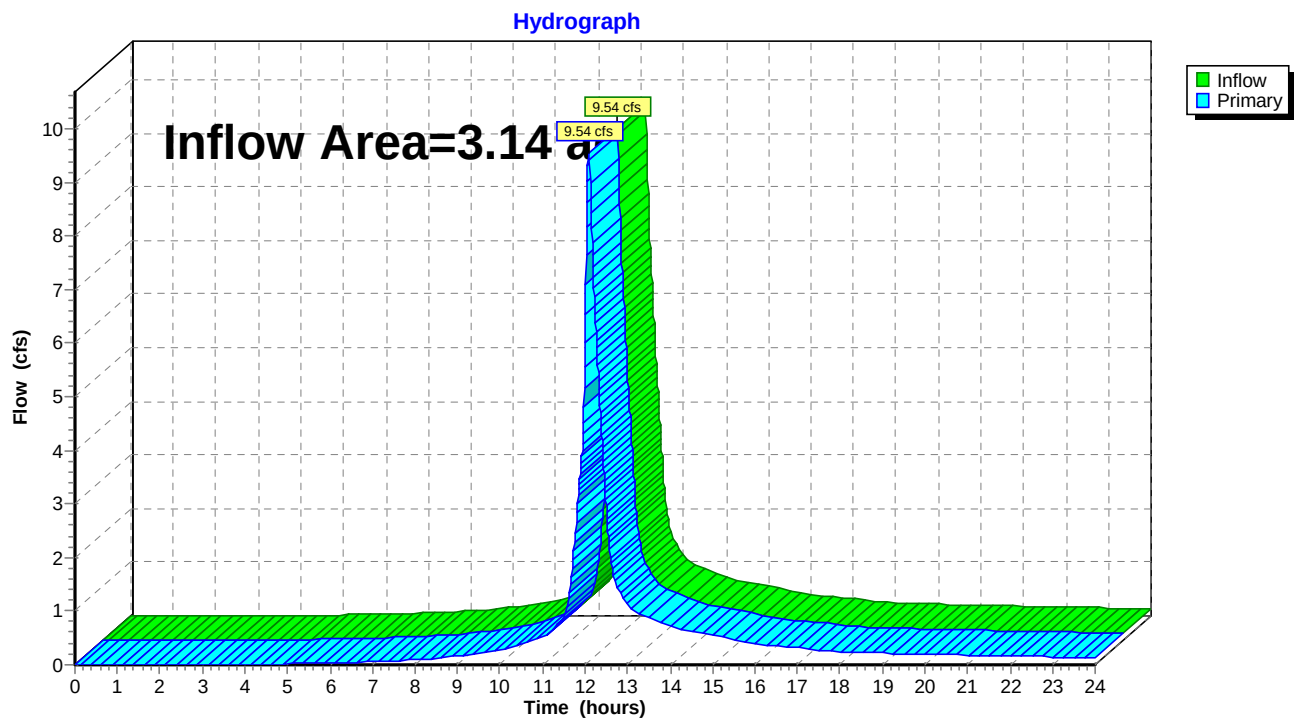
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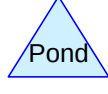
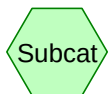
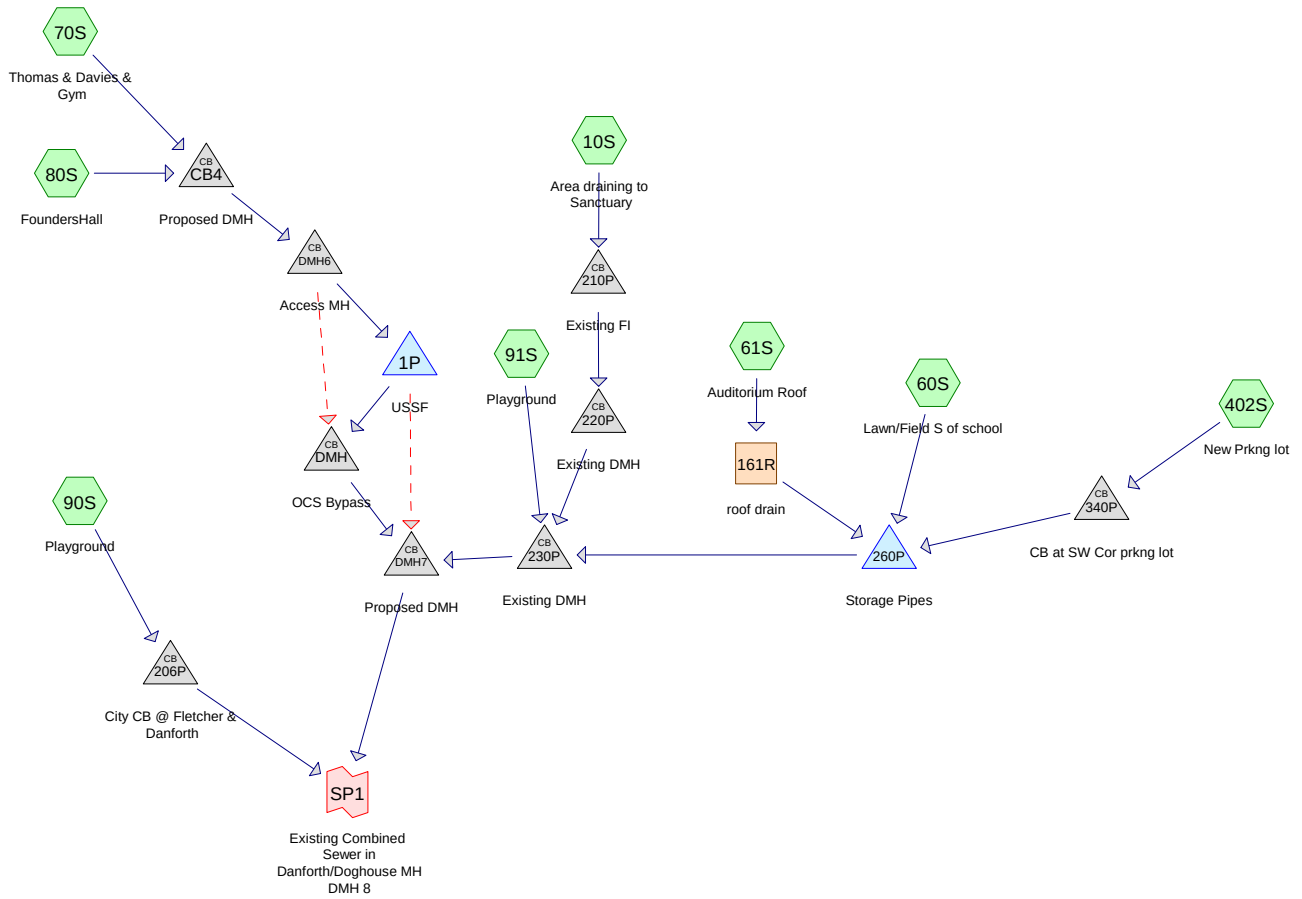
Summary for Link SP1: Existing Combined Sewer in Danforth

Inflow Area = 3.14 ac, 61.14% Impervious, Inflow Depth > 3.21" for 25-YR event
Inflow = 9.54 cfs @ 12.09 hrs, Volume= 0.839 af
Primary = 9.54 cfs @ 12.09 hrs, Volume= 0.839 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth





Routing Diagram for 5b. Post

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Type III 24-hr 2-YR Rainfall=3.10"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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: Area draining to Runoff Area=19,254 sf 56.16% Impervious Runoff Depth=0.87"
 Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=72 Runoff=0.39 cfs 0.032 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth=1.99"
 Tc=5.0 min CN=89 Runoff=0.92 cfs 0.064 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=5.0 min CN=98 Runoff=0.32 cfs 0.025 af

Subcatchment 70S: Thomas & Davies & Runoff Area=44,441 sf 74.20% Impervious Runoff Depth=1.53"
 Flow Length=91' Slope=0.1593 '/' Tc=5.0 min CN=83 Runoff=1.89 cfs 0.130 af

Subcatchment 80S: FoundersHall Runoff Area=9,466 sf 100.00% Impervious Runoff Depth=2.87"
 Tc=5.0 min CN=98 Runoff=0.68 cfs 0.052 af

Subcatchment 90S: Playground Runoff Area=27,554 sf 25.26% Impervious Runoff Depth=0.20"
 Flow Length=117' Tc=9.2 min CN=54 Runoff=0.04 cfs 0.010 af

Subcatchment 91S: Playground Runoff Area=4,688 sf 69.20% Impervious Runoff Depth=1.33"
 Tc=5.0 min CN=80 Runoff=0.17 cfs 0.012 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth=1.03"
 Tc=5.0 min CN=75 Runoff=0.28 cfs 0.020 af

Reach 161R: roof drain Avg. Flow Depth=0.15' Max Vel=6.63 fps Inflow=0.32 cfs 0.025 af
 6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.32 cfs 0.025 af

Pond 1P: USSF Peak Elev=121.19' Storage=7,622 cf Inflow=2.57 cfs 0.182 af
 Primary=0.03 cfs 0.014 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.014 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=107.54' Inflow=0.04 cfs 0.010 af
 12.0" Round Culvert n=0.010 L=20.0' S=0.2475 '/' Outflow=0.04 cfs 0.010 af

Pond 210P: Existing FI Peak Elev=132.37' Inflow=0.39 cfs 0.032 af
 10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=0.39 cfs 0.032 af

Pond 220P: Existing DMH Peak Elev=122.04' Inflow=0.39 cfs 0.032 af
 10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=0.39 cfs 0.032 af

Pond 230P: Existing DMH Peak Elev=119.26' Inflow=1.91 cfs 0.152 af
 10.0" Round Culvert n=0.010 L=83.0' S=0.0257 '/' Outflow=1.91 cfs 0.152 af

Pond 260P: Storage Pipes Peak Elev=119.87' Storage=164 cf Inflow=1.52 cfs 0.108 af
 12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/' Outflow=1.37 cfs 0.108 af

Pond 340P: CB at SW Cor prkng lot Peak Elev=129.34' Inflow=0.28 cfs 0.020 af
 8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/' Outflow=0.28 cfs 0.020 af

5b. Post*Type III 24-hr 2-YR Rainfall=3.10"*

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Pond CB4: Proposed DMH

Peak Elev=123.50' Inflow=2.57 cfs 0.182 af
12.0" Round Culvert n=0.010 L=24.0' S=0.0621 '/' Outflow=2.57 cfs 0.182 af

Pond DMH: OCS Bypass

Peak Elev=119.51' Inflow=0.03 cfs 0.014 af
10.0" Round Culvert n=0.010 L=60.0' S=0.0692 '/' Outflow=0.03 cfs 0.014 af

Pond DMH6: Access MH

Peak Elev=120.69' Inflow=2.57 cfs 0.182 af
Primary=2.57 cfs 0.182 af Secondary=0.00 cfs 0.000 af Outflow=2.57 cfs 0.182 af

Pond DMH7: Proposed DMH

Peak Elev=116.43' Inflow=1.91 cfs 0.166 af
10.0" Round Culvert n=0.010 L=57.0' S=0.1739 '/' Outflow=1.91 cfs 0.166 af

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow=1.91 cfs 0.177 af
Primary=1.91 cfs 0.177 af

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 10S: Area draining to Sanctuary

Runoff = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af, Depth= 0.87"

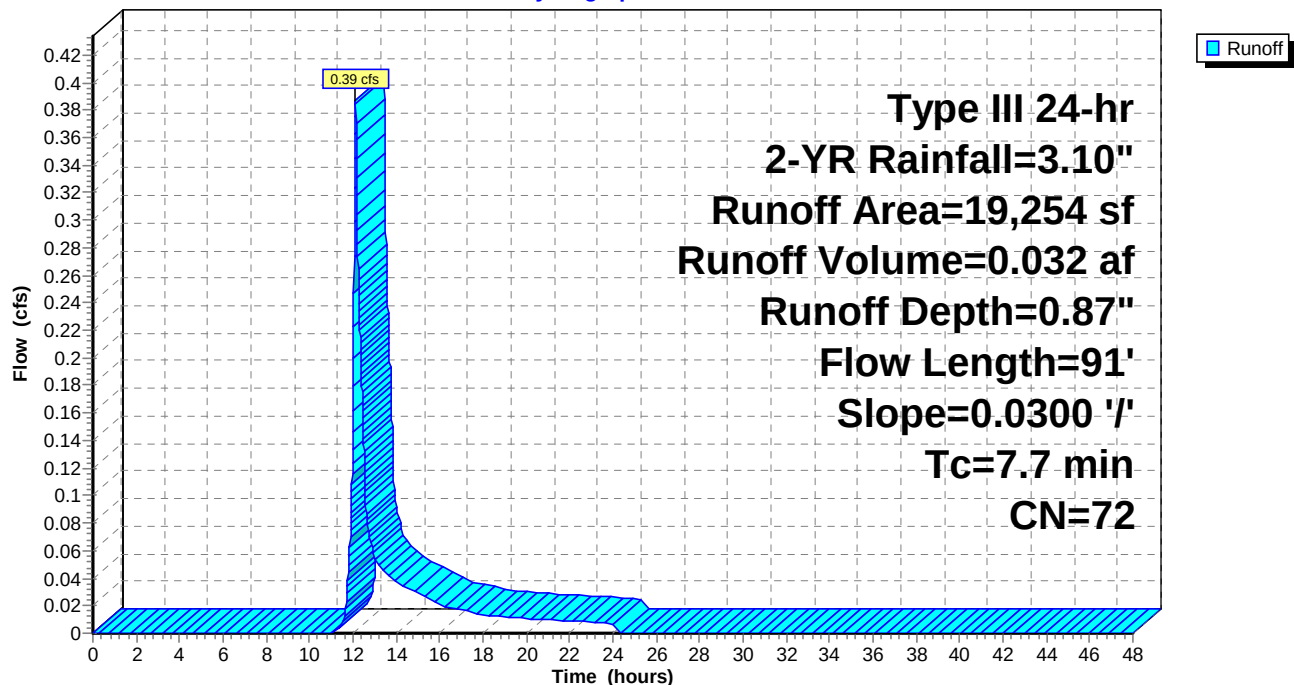
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	10,813	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,254	72	Weighted Average
	8,441		43.84% Pervious Area
	10,813		56.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"

Subcatchment 10S: Area draining to Sanctuary

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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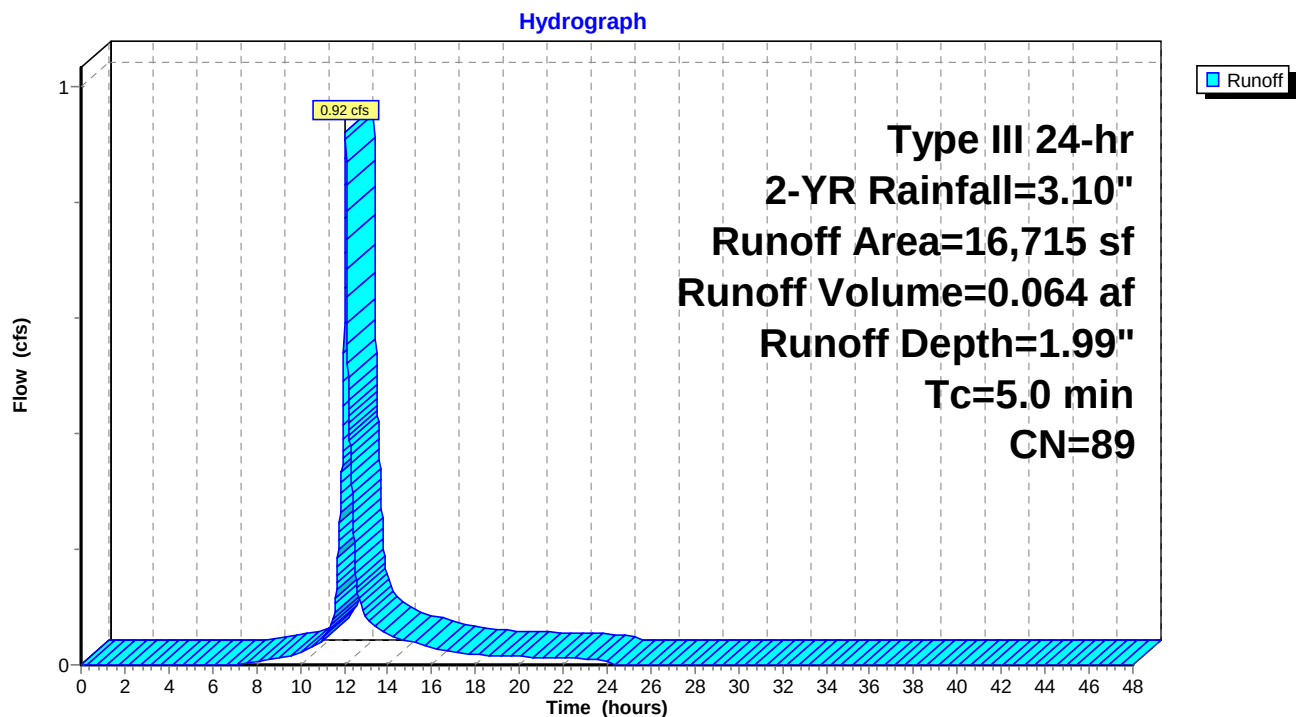
Summary for Subcatchment 60S: Lawn/Field S of school

Runoff = 0.92 cfs @ 12.07 hrs, Volume= 0.064 af, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school

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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.32 cfs @ 12.07 hrs, Volume= 0.025 af, Depth= 2.87"

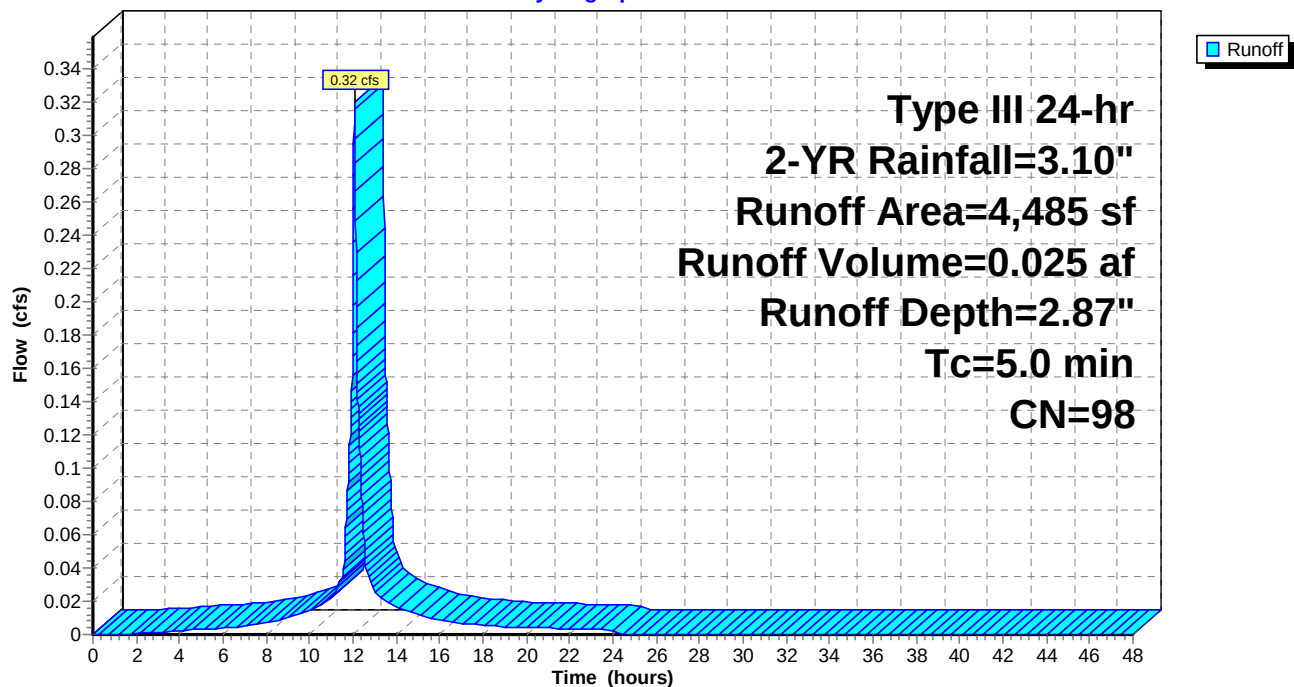
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

Runoff = 1.89 cfs @ 12.08 hrs, Volume= 0.130 af, Depth= 1.53"

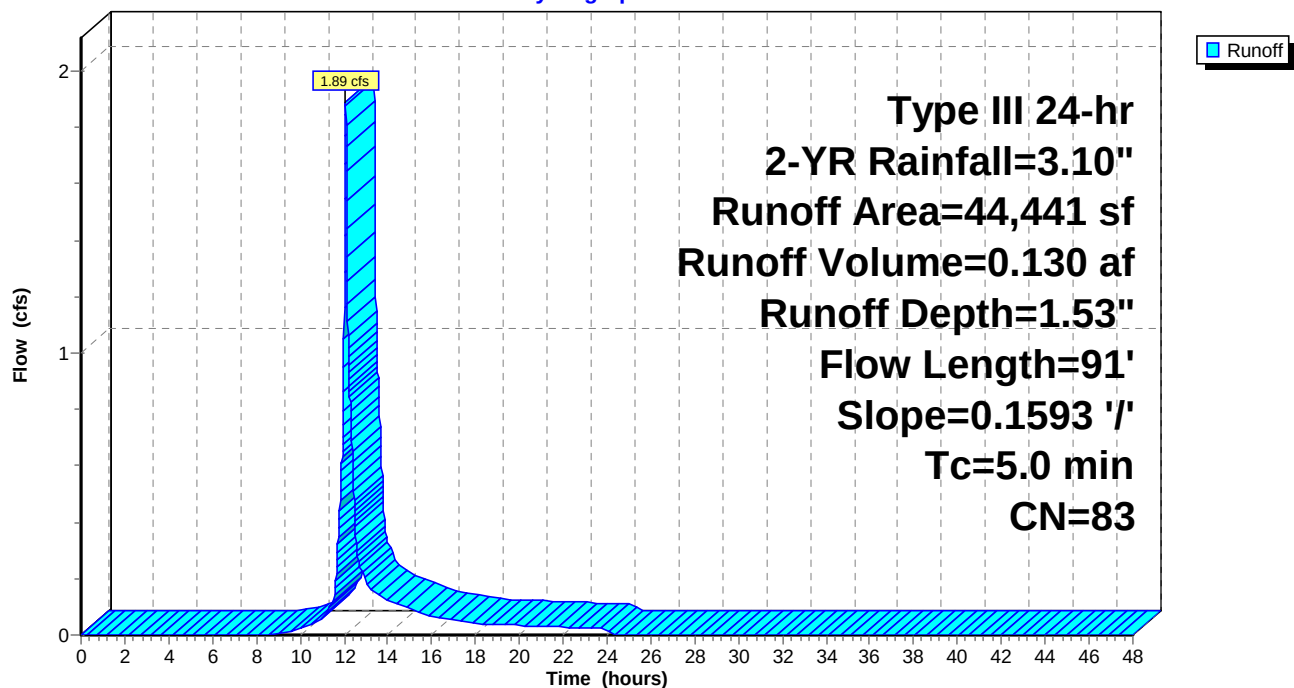
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	32,976	98	impervious
*	11,465	39	Lawn/field, HSG A
	44,441	83	Weighted Average
	11,465		25.80% Pervious Area
	32,976		74.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	91	0.1593	0.38		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
4.0	91	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 70S: Thomas & Davies & Gym

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 0.68 cfs @ 12.07 hrs, Volume= 0.052 af, Depth= 2.87"

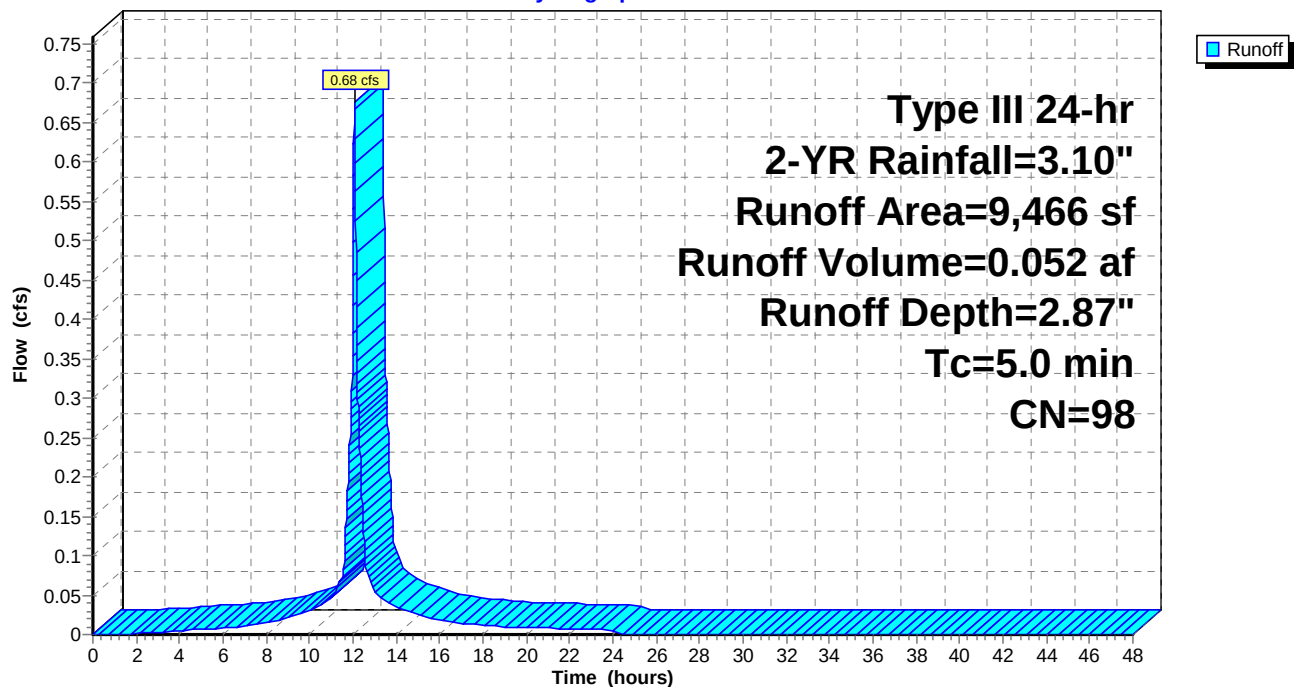
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	9,466	98	Roof runoff
	9,466		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 90S: Playground

Runoff = 0.04 cfs @ 12.42 hrs, Volume= 0.010 af, Depth= 0.20"

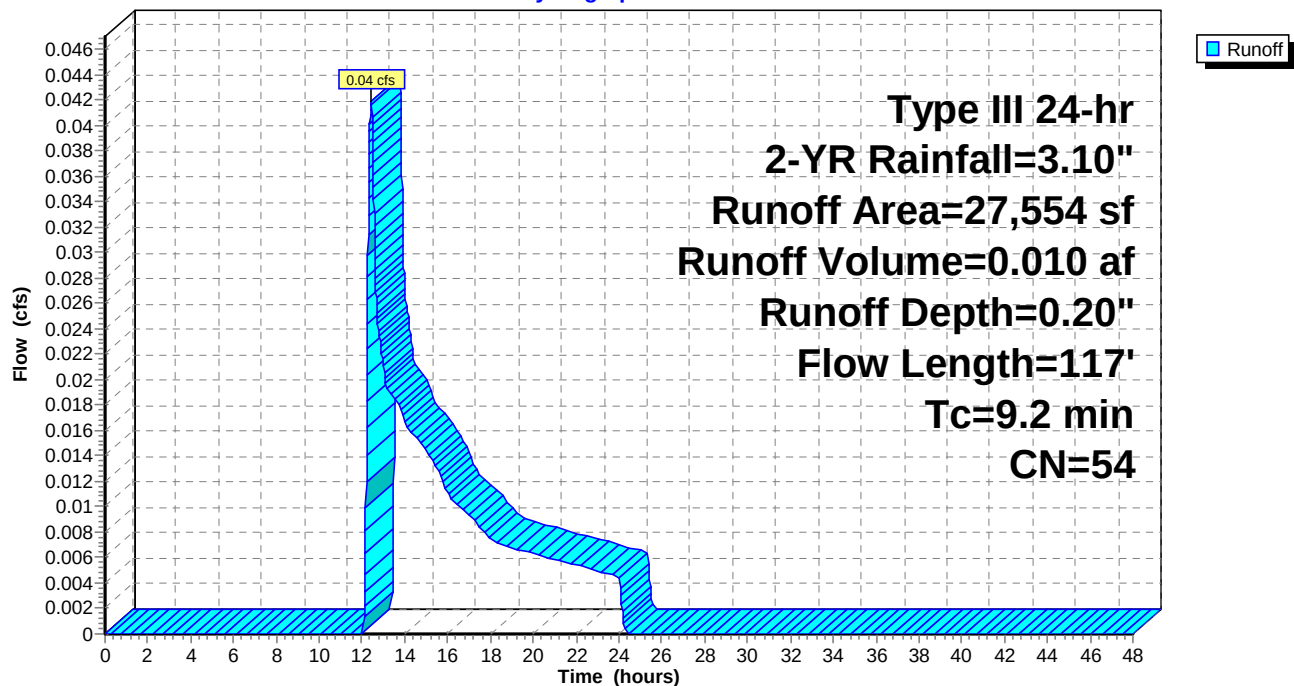
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	6,960	98	impervious
*	20,594	39	Lawn/field, HSG A
	27,554	54	Weighted Average
	20,594		74.74% Pervious Area
	6,960		25.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0250	0.19		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
0.2	17	0.0588	1.70		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
9.2	117	Total			

Subcatchment 90S: Playground

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 91S: Playground

Runoff = 0.17 cfs @ 12.08 hrs, Volume= 0.012 af, Depth= 1.33"

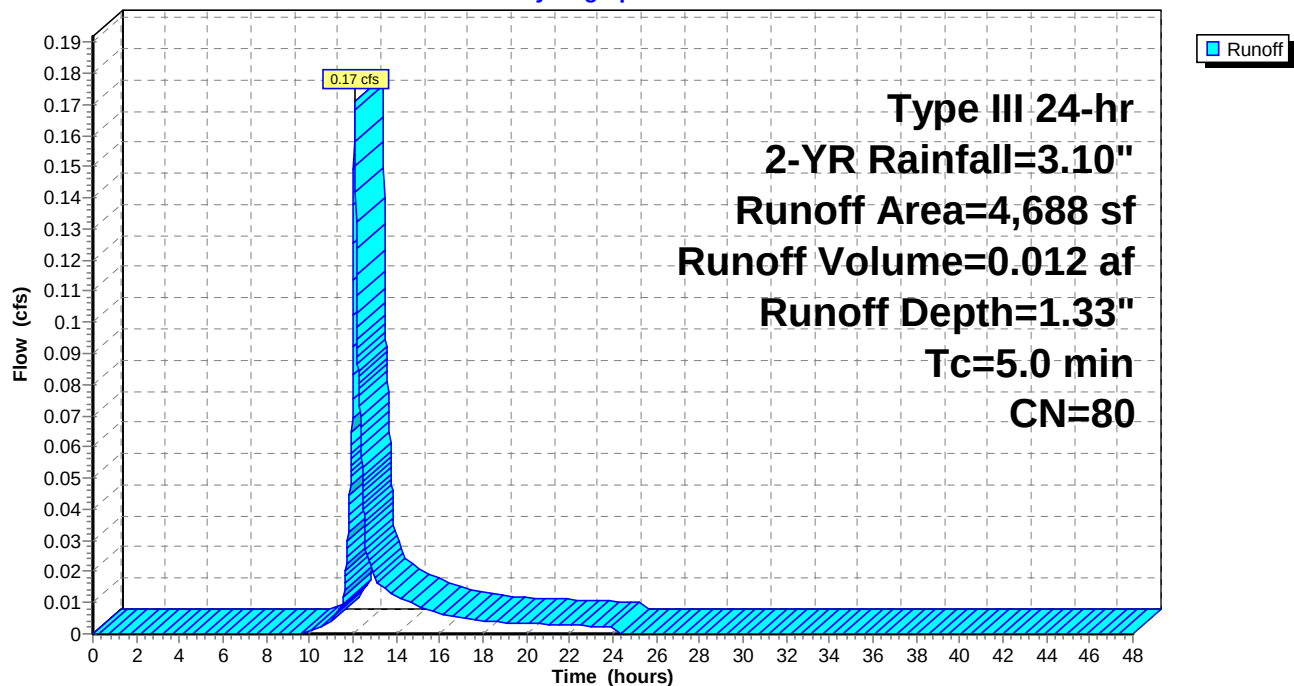
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	3,244	98	impervious
*	1,444	39	Lawn/field, HSG A
	4,688	80	Weighted Average
	1,444		30.80% Pervious Area
	3,244		69.20% Impervious Area

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

Subcatchment 91S: Playground

Hydrograph



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Type III 24-hr 2-YR Rainfall=3.10"

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Summary for Subcatchment 402S: New Prkng lot

Runoff = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Depth= 1.03"

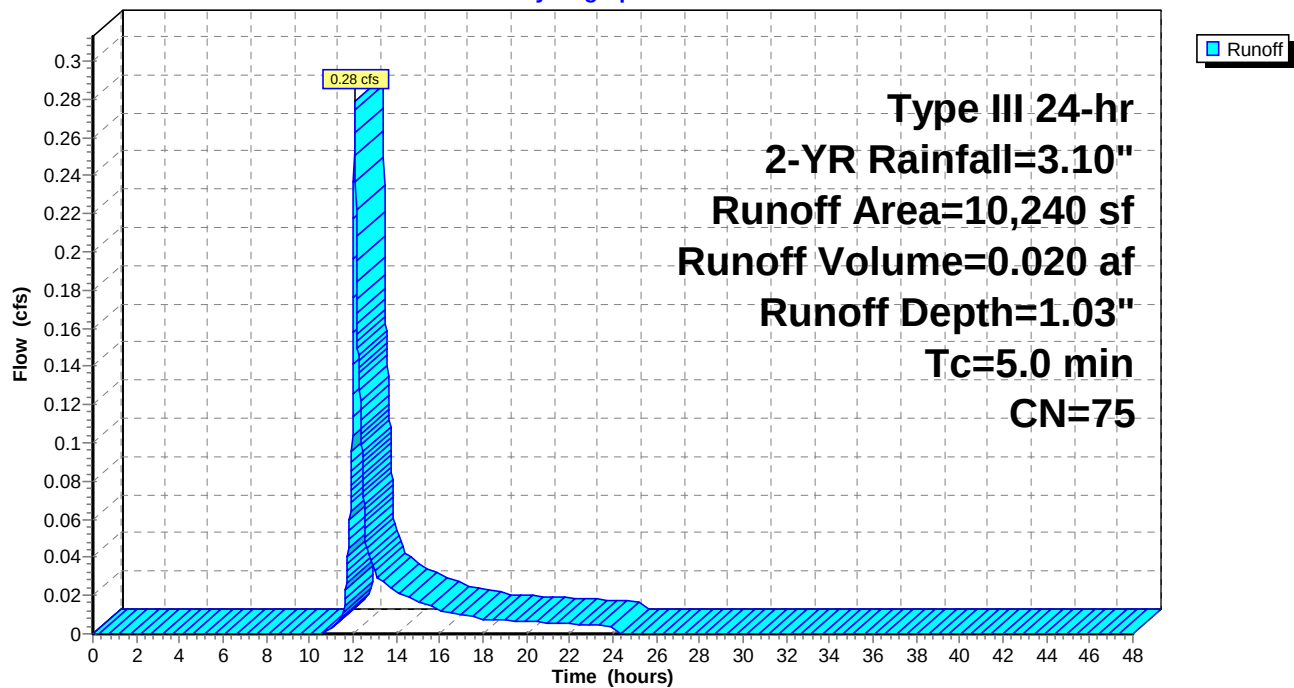
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-YR Rainfall=3.10"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot

Hydrograph



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Summary for Reach 161R: roof drain

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-YR event
Inflow = 0.32 cfs @ 12.07 hrs, Volume = 0.025 af
Outflow = 0.32 cfs @ 12.08 hrs, Volume = 0.025 af, Atten = 0%, Lag = 0.6 min

Routing by Stor-Ind+Trans method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs

Max. Velocity = 6.63 fps, Min. Travel Time = 0.3 min

Avg. Velocity = 2.15 fps, Avg. Travel Time = 1.0 min

Peak Storage = 6 cf @ 12.07 hrs

Average Depth at Peak Storage = 0.15'

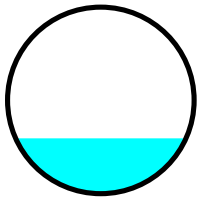
Bank-Full Depth = 0.50' Flow Area = 0.2 sf, Capacity = 1.69 cfs

6.0" Round Pipe

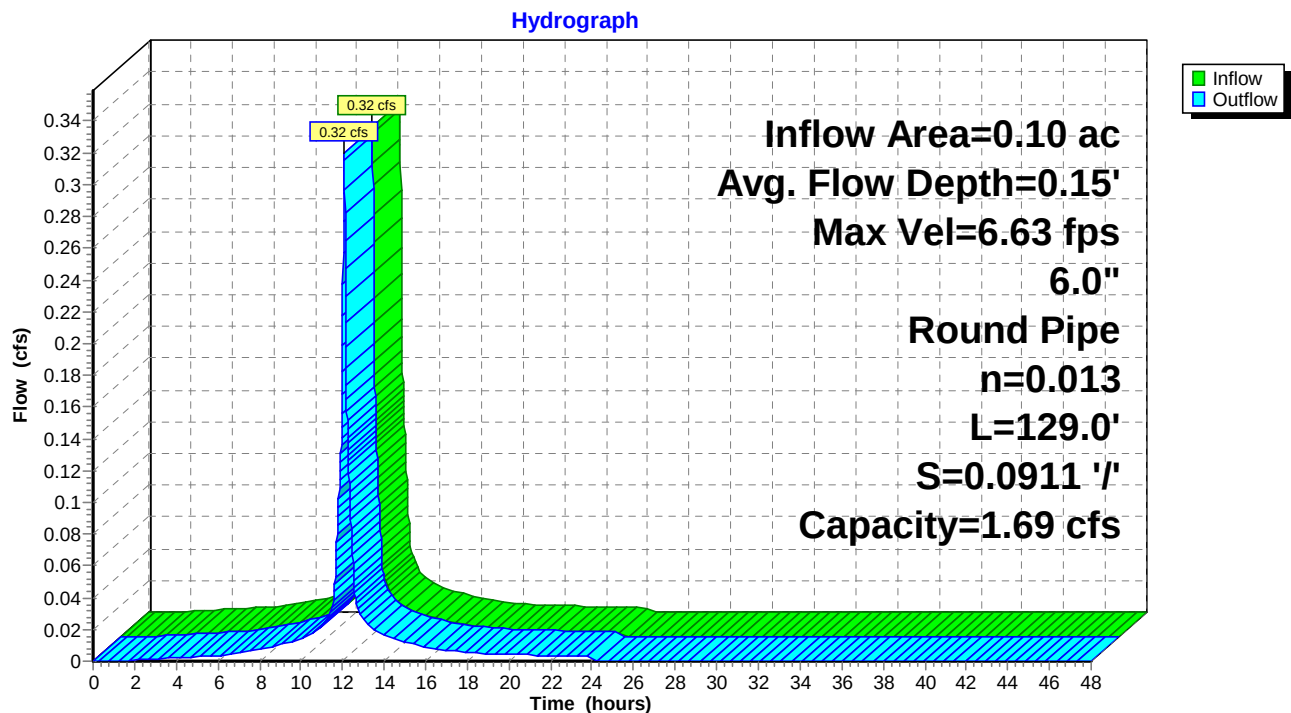
n = 0.013 Corrugated PE, smooth interior

Length = 129.0' Slope = 0.0911 '/'

Inlet Invert = 130.00', Outlet Invert = 118.25'



Reach 161R: roof drain



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Summary for Pond 1P: USSF

[81] Warning: Exceeded Pond DMH6 by 1.41' @ 24.23 hrs

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 1.76" for 2-YR event
 Inflow = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af
 Outflow = 0.03 cfs @ 24.01 hrs, Volume= 0.014 af, Atten= 99%, Lag= 715.9 min
 Primary = 0.03 cfs @ 24.01 hrs, Volume= 0.014 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= 0.01 hrs
 Peak Elev= 121.19' @ 24.01 hrs Surf.Area= 4,717 sf Storage= 7,622 cf
 Flood Elev= 126.48' Surf.Area= 4,717 sf Storage= 16,044 cf

Plug-Flow detention time= 1,009.8 min calculated for 0.014 af (8% of inflow)
 Center-of-Mass det. time= 739.1 min (1,550.5 - 811.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	118.85'	6,599 cf	51.42'W x 91.74'L x 5.50'H Field A 25,943 cf Overall - 9,445 cf Embedded = 16,499 cf x 40.0% Voids
#2A	119.60'	9,445 cf	ADS_StormTech MC-3500 d +Cap x 84 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 7 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf
		16,044 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	119.67'	8.0" Round Culvert L= 7.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.67' / 119.52' S= 0.0214 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	123.35'	5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	121.10'	8.0" Vert. Orifice/Grate C= 0.600
#4	Device 5	118.85'	2.410 in/hr Exfiltration over Surface area above 118.85' Conductivity to Groundwater Elevation = 113.00' Excluded Surface area = 4,717 sf
#5	Secondary	116.02'	6.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 116.02' / 115.88' S= 0.0045 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

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Primary OutFlow Max=0.03 cfs @ 24.01 hrs HW=121.19' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.03 cfs of 1.44 cfs potential flow)
- ↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
- ↑ **3=Orifice/Grate** (Orifice Controls 0.03 cfs @ 1.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=118.85' (Free Discharge)

- ↑ **5=Culvert** (Passes 0.00 cfs of 1.20 cfs potential flow)
- ↑ **4=Exfiltration** (Controls 0.00 cfs)

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Pond 1P: USSF - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)

Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf

Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap

Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length

7 Rows x 77.0" Wide + 9.0" Spacing x 6 + 12.0" Side Stone x 2 = 51.42' Base Width

9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

84 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 7 Rows = 9,444.6 cf Chamber Storage

25,943.3 cf Field - 9,444.6 cf Chambers = 16,498.7 cf Stone x 40.0% Voids = 6,599.5 cf Stone Storage

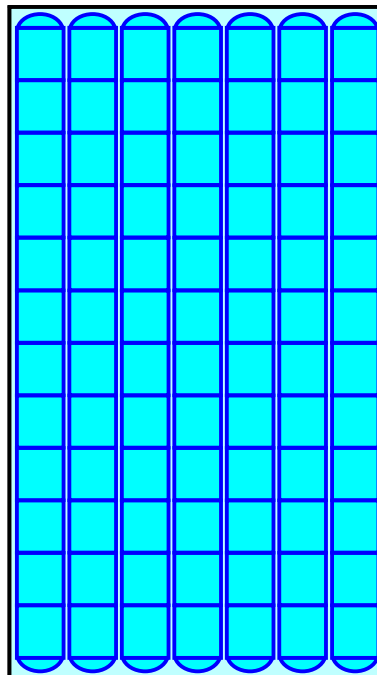
Chamber Storage + Stone Storage = 16,044.1 cf = 0.368 af

Overall Storage Efficiency = 61.8%

84 Chambers

960.9 cy Field

611.1 cy Stone



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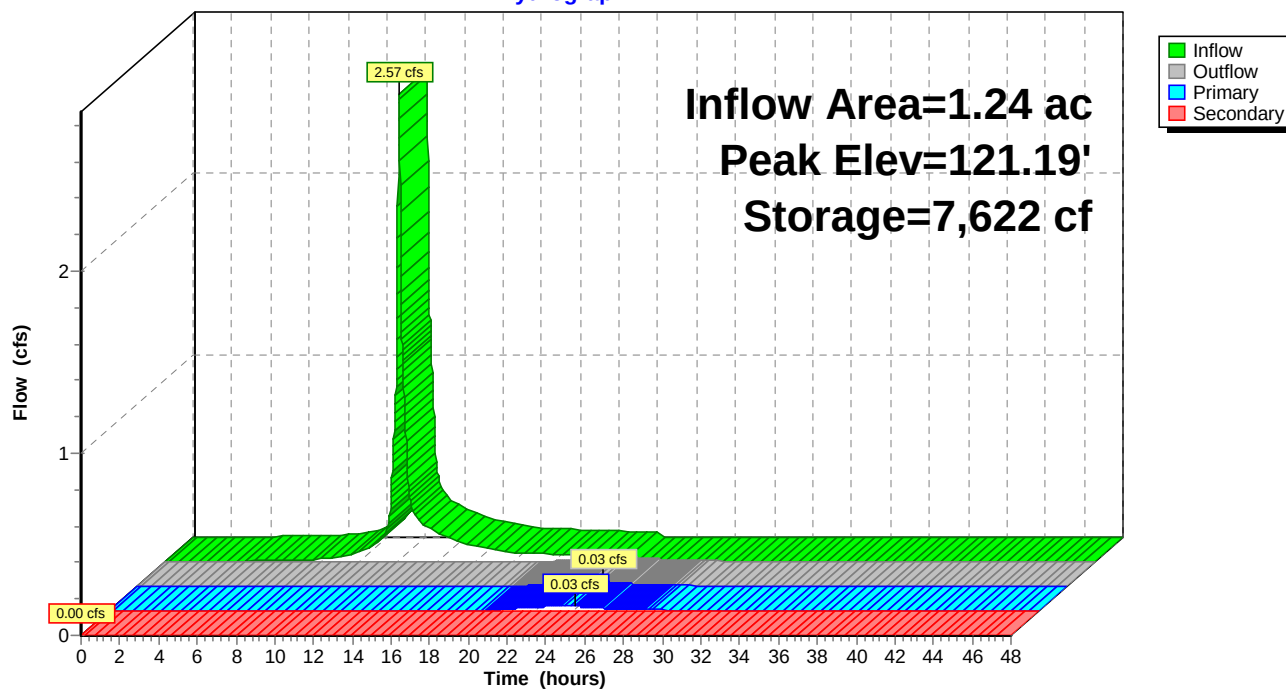
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Pond 1P: USSF

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 0.63 ac, 25.26% Impervious, Inflow Depth = 0.20" for 2-YR event
Inflow = 0.04 cfs @ 12.42 hrs, Volume= 0.010 af
Outflow = 0.04 cfs @ 12.42 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min
Primary = 0.04 cfs @ 12.42 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 107.54' @ 12.42 hrs

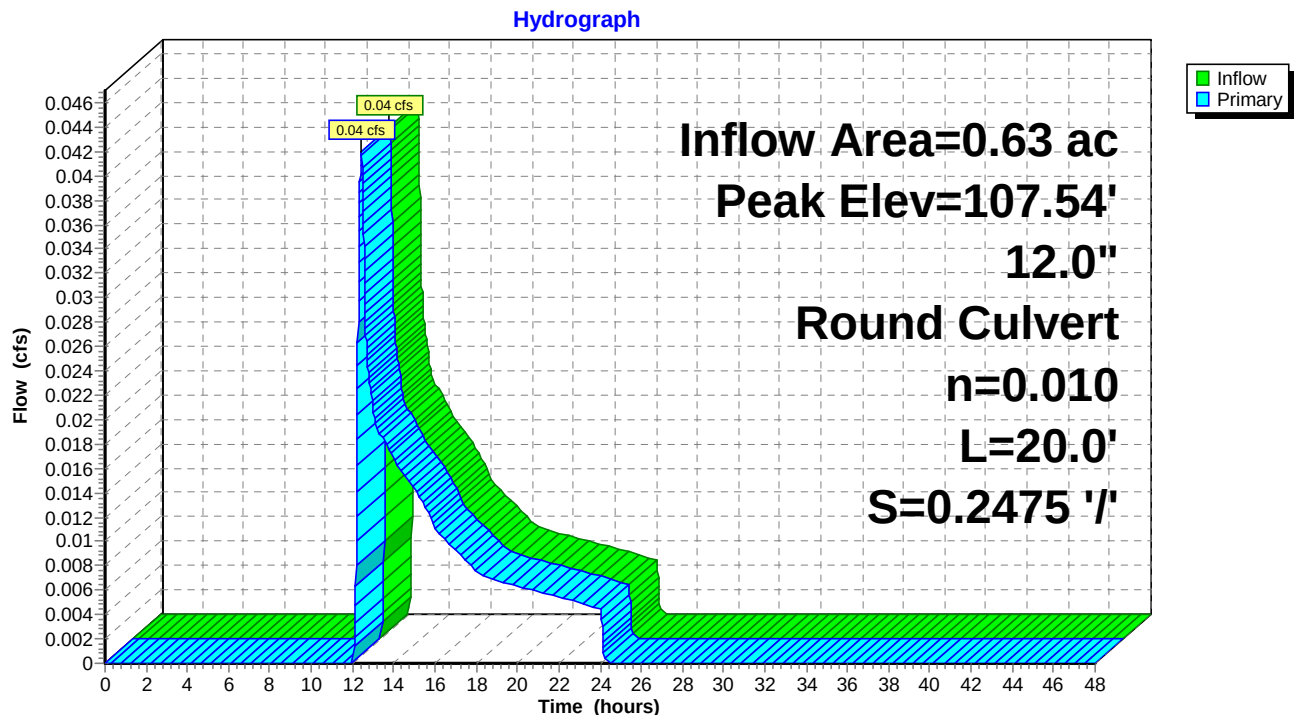
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2475 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.04 cfs @ 12.42 hrs HW=107.54' (Free Discharge)

↑1=Culvert (Inlet Controls 0.04 cfs @ 0.89 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Summary for Pond 210P: Existing FI

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 0.87" for 2-YR event
Inflow = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af
Outflow = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 132.37' @ 12.12 hrs

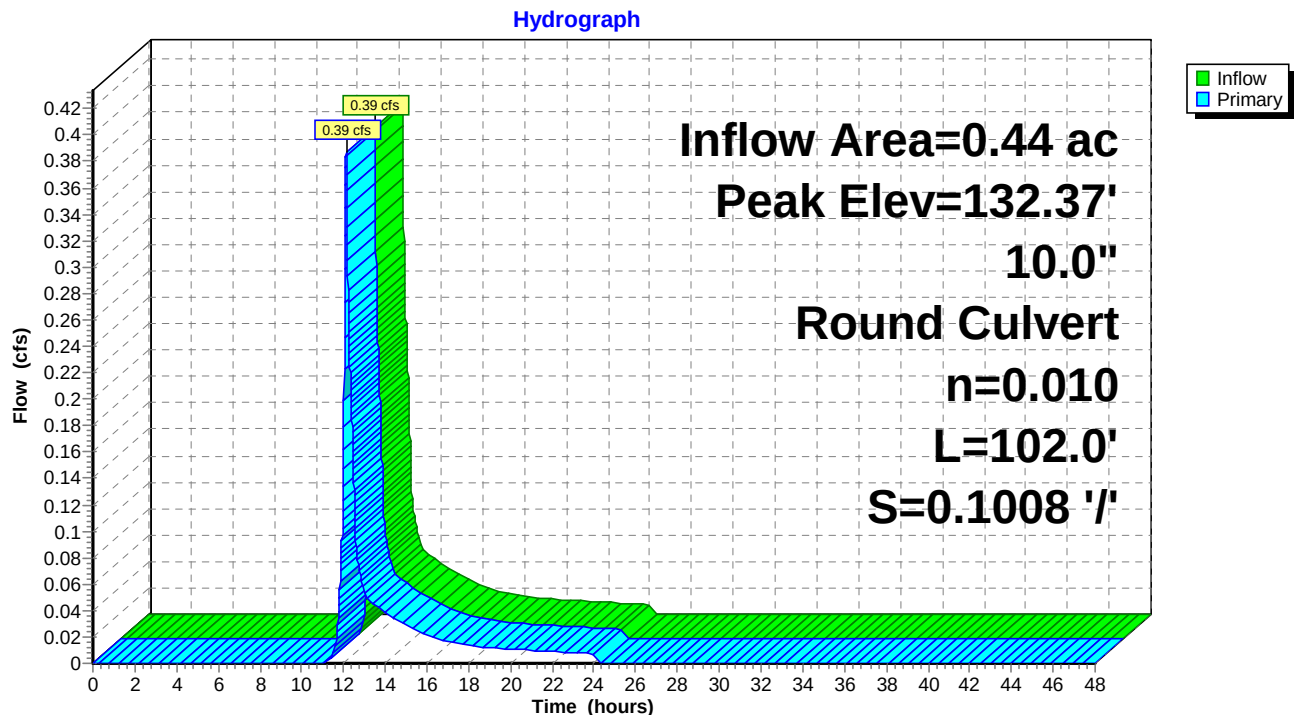
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.38 cfs @ 12.12 hrs HW=132.37' (Free Discharge)

↑1=Culvert (Inlet Controls 0.38 cfs @ 1.64 fps)

Pond 210P: Existing FI



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Summary for Pond 220P: Existing DMH

[79] Warning: Submerged Pond 210P Primary device # 1 OUTLET by 0.32'

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 0.87" for 2-YR event
Inflow = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af
Outflow = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 12.12 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 122.04' @ 12.12 hrs

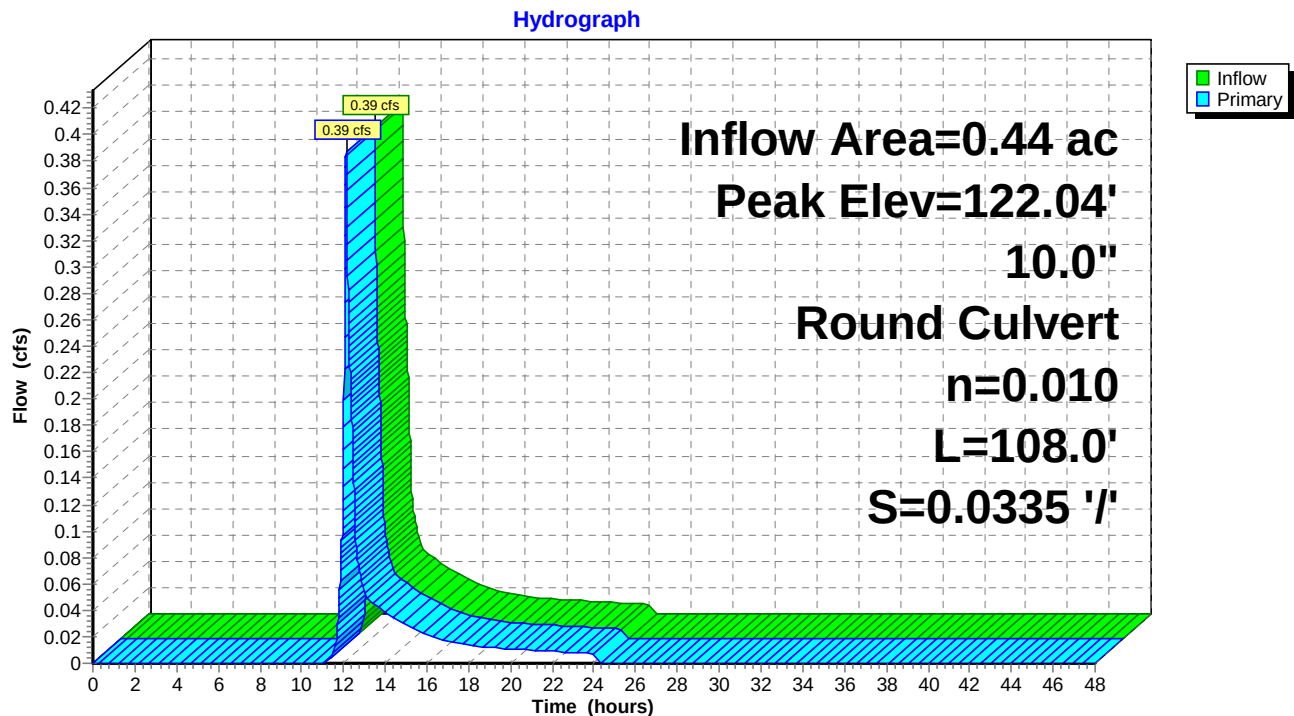
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.39 cfs @ 12.12 hrs HW=122.04' (Free Discharge)

↑1=Culvert (Inlet Controls 0.39 cfs @ 1.64 fps)

Pond 220P: Existing DMH



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Summary for Pond 230P: Existing DMH

[79] Warning: Submerged Pond 220P Primary device # 1 OUTLET by 1.21'

[79] Warning: Submerged Pond 260P Primary device # 1 INLET by 0.10'

Inflow Area = 1.27 ac, 70.40% Impervious, Inflow Depth = 1.44" for 2-YR event
Inflow = 1.91 cfs @ 12.11 hrs, Volume= 0.152 af
Outflow = 1.91 cfs @ 12.11 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min
Primary = 1.91 cfs @ 12.11 hrs, Volume= 0.152 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 119.26' @ 12.11 hrs

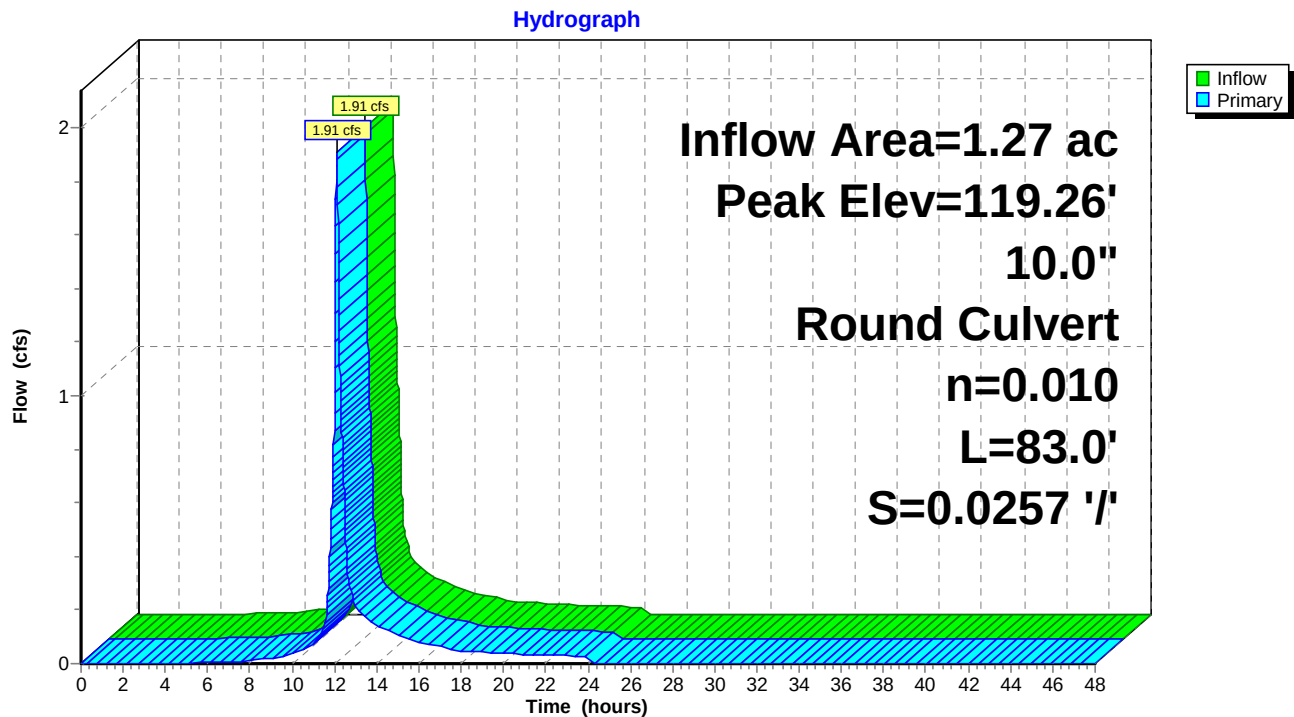
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	10.0" Round Culvert L= 83.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 115.87' S= 0.0257 ' S= 0.0257 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.91 cfs @ 12.11 hrs HW=119.26' (Free Discharge)

↑1=Culvert (Inlet Controls 1.91 cfs @ 3.49 fps)

Pond 230P: Existing DMH



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Summary for Pond 260P: Storage Pipes

[62] Hint: Exceeded Reach 161R OUTLET depth by 1.49' @ 12.12 hrs

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth = 1.80" for 2-YR event
 Inflow = 1.52 cfs @ 12.08 hrs, Volume= 0.108 af
 Outflow = 1.37 cfs @ 12.11 hrs, Volume= 0.108 af, Atten= 10%, Lag= 2.3 min
 Primary = 1.37 cfs @ 12.11 hrs, Volume= 0.108 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 119.87' @ 12.11 hrs Surf.Area= 564 sf Storage= 164 cf
 Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.1 min (809.2 - 808.1)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.36 cfs @ 12.11 hrs HW=119.87' (Free Discharge)
 ↑**1=Culvert** (Inlet Controls 1.36 cfs @ 2.27 fps)

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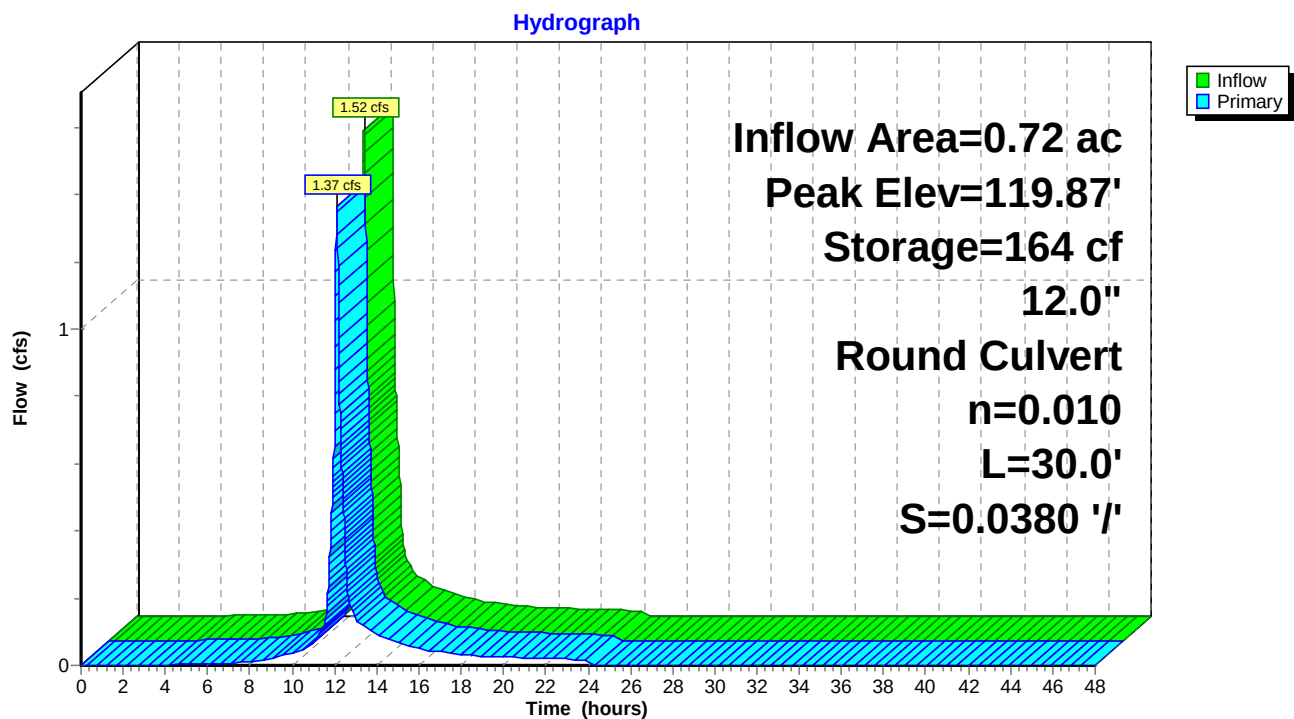
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Pond 260P: Storage Pipes



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Summary for Pond 340P: CB at SW Cor prkng lot

[57] Hint: Peaked at 129.34' (Flood elevation advised)

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth = 1.03" for 2-YR event
Inflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af
Outflow = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.08 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

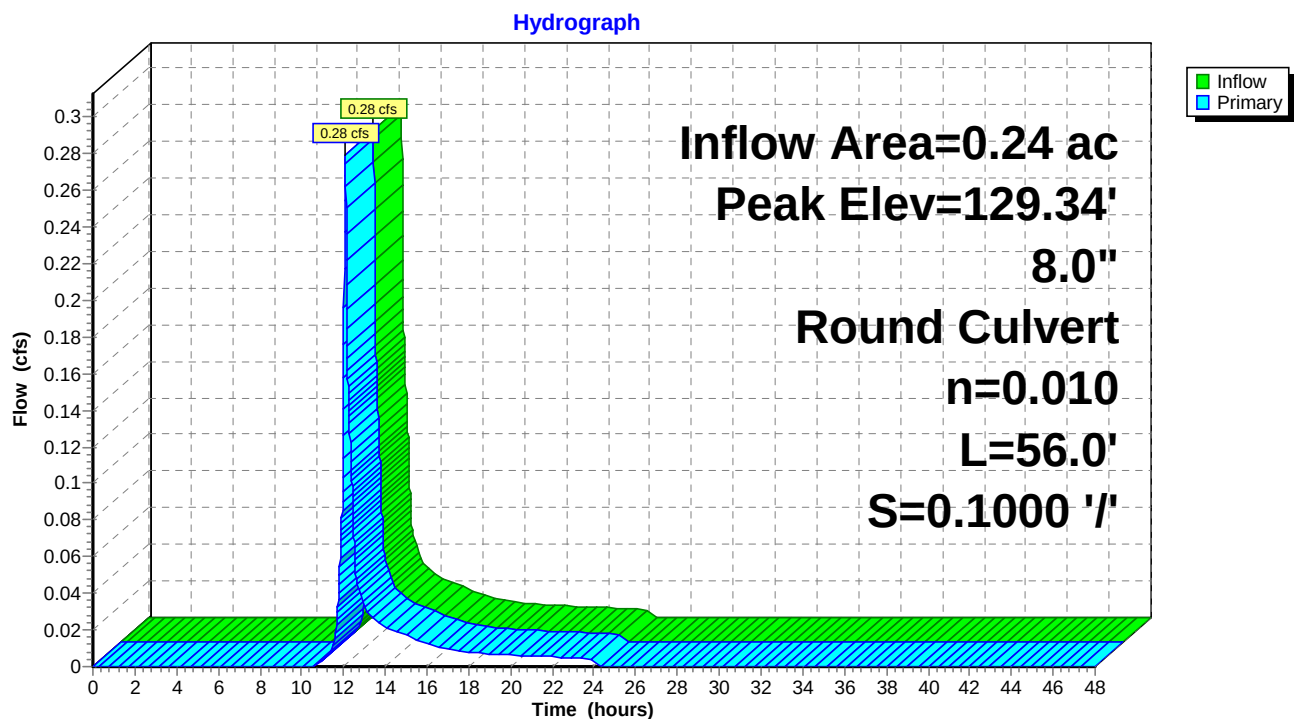
Peak Elev= 129.34' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.28 cfs @ 12.08 hrs HW=129.34' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.28 cfs @ 1.57 fps)

Pond 340P: CB at SW Cor prkng lot



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Summary for Pond CB4: Proposed DMH

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 1.76" for 2-YR event
Inflow = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af
Outflow = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af, Atten= 0%, Lag= 0.0 min
Primary = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 123.50' @ 12.07 hrs

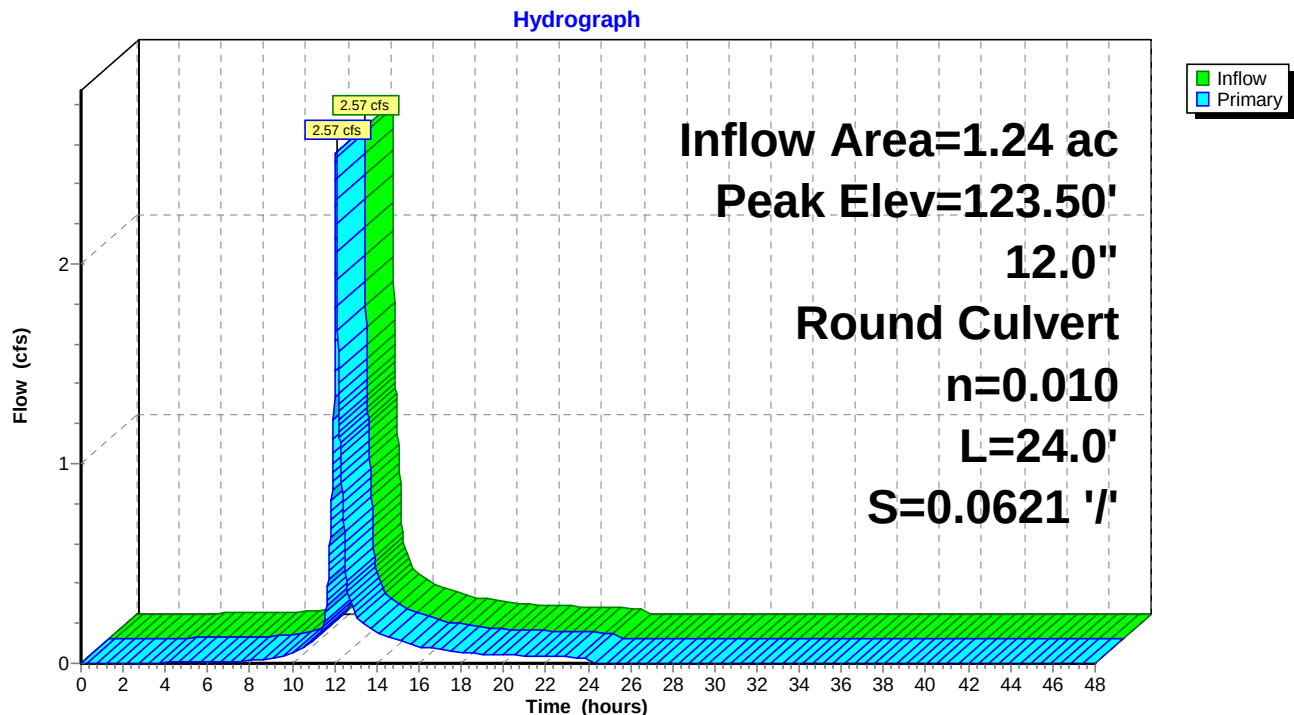
Flood Elev= 127.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.26'	12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.26' / 120.77' S= 0.0621 ' S= 0.0621 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.56 cfs @ 12.07 hrs HW=123.50' (Free Discharge)

↑1=Culvert (Inlet Controls 2.56 cfs @ 3.26 fps)

Pond CB4: Proposed DMH



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Summary for Pond DMH: OCS Bypass

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth > 0.14" for 2-YR event
Inflow = 0.03 cfs @ 24.01 hrs, Volume= 0.014 af
Outflow = 0.03 cfs @ 24.01 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min
Primary = 0.03 cfs @ 24.01 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 119.51' @ 24.01 hrs

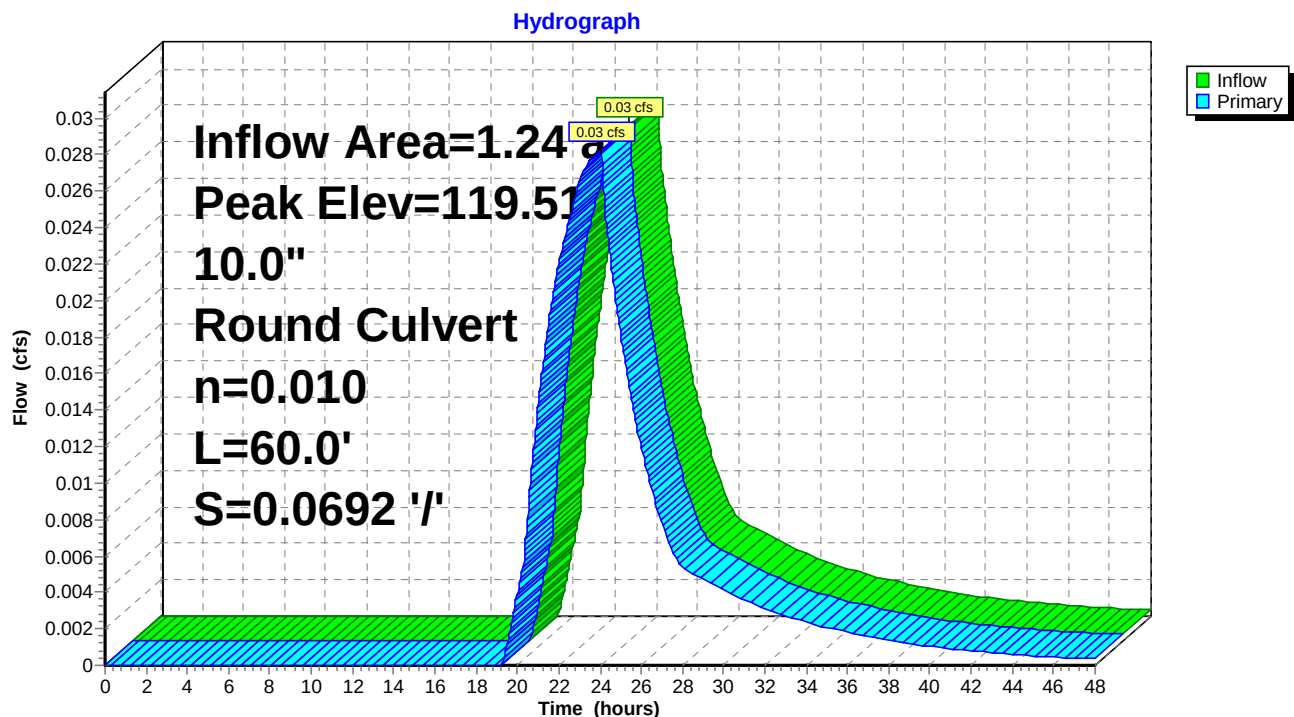
Flood Elev= 126.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.42'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.42' / 115.27' S= 0.0692 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.03 cfs @ 24.01 hrs HW=119.51' (Free Discharge)

↑1=Culvert (Inlet Controls 0.03 cfs @ 0.80 fps)

Pond DMH: OCS Bypass



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Summary for Pond DMH6: Access MH

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 1.76" for 2-YR event
 Inflow = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af
 Outflow = 2.57 cfs @ 12.07 hrs, Volume= 0.182 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.57 cfs @ 12.07 hrs, Volume= 0.182 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= 0.01 hrs

Peak Elev= 120.69' @ 12.07 hrs

Flood Elev= 126.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.77'	24.0" Round Culvert L= 9.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Secondary	119.77'	24.0" Round Culvert L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf
#3	Device 2	123.35'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.56 cfs @ 12.07 hrs HW=120.69' (Free Discharge)

1=Culvert (Barrel Controls 2.56 cfs @ 2.68 fps)
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=119.77' (Free Discharge)

2=Culvert (Controls 0.00 cfs)


3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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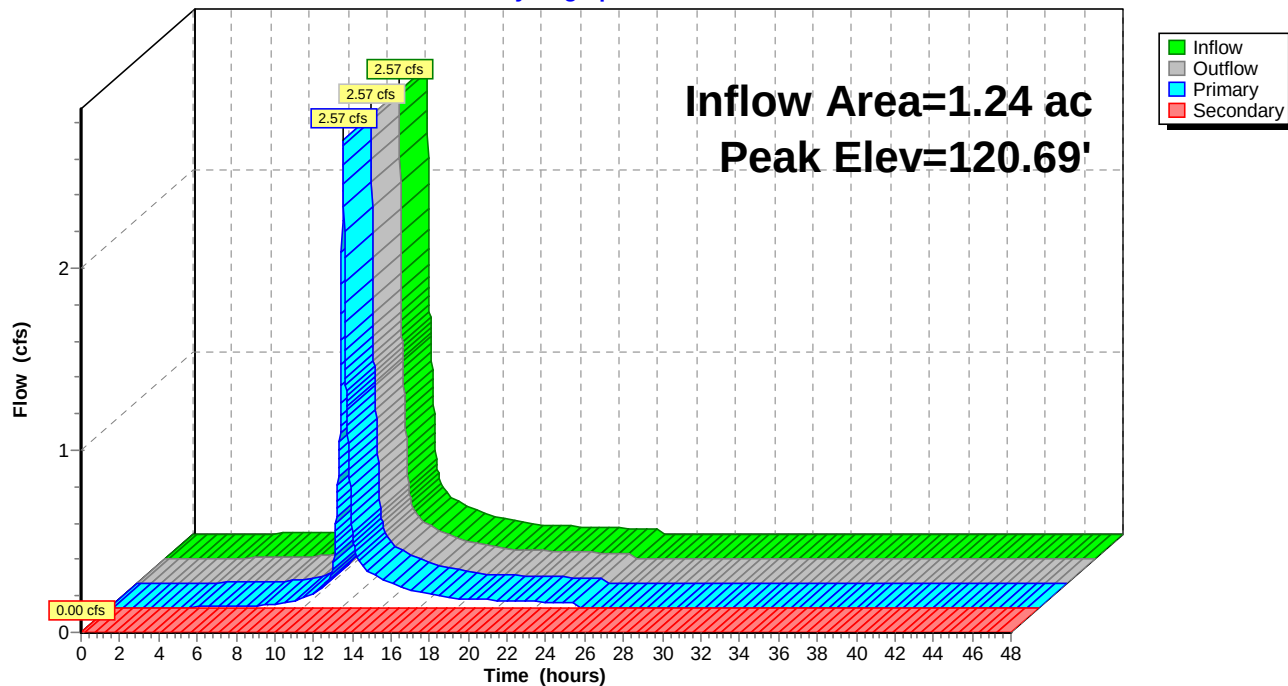
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Pond DMH6: Access MH

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Summary for Pond DMH7: Proposed DMH

[79] Warning: Submerged Pond 1P Secondary device # 5 INLET by 0.41'

[79] Warning: Submerged Pond 230P Primary device # 1 OUTLET by 0.56'

[79] Warning: Submerged Pond DMH Primary device # 1 OUTLET by 1.16'

Inflow Area = 2.51 ac, 74.51% Impervious, Inflow Depth > 0.80" for 2-YR event
Inflow = 1.91 cfs @ 12.11 hrs, Volume= 0.166 af
Outflow = 1.91 cfs @ 12.11 hrs, Volume= 0.166 af, Atten= 0%, Lag= 0.0 min
Primary = 1.91 cfs @ 12.11 hrs, Volume= 0.166 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 116.43' @ 12.11 hrs

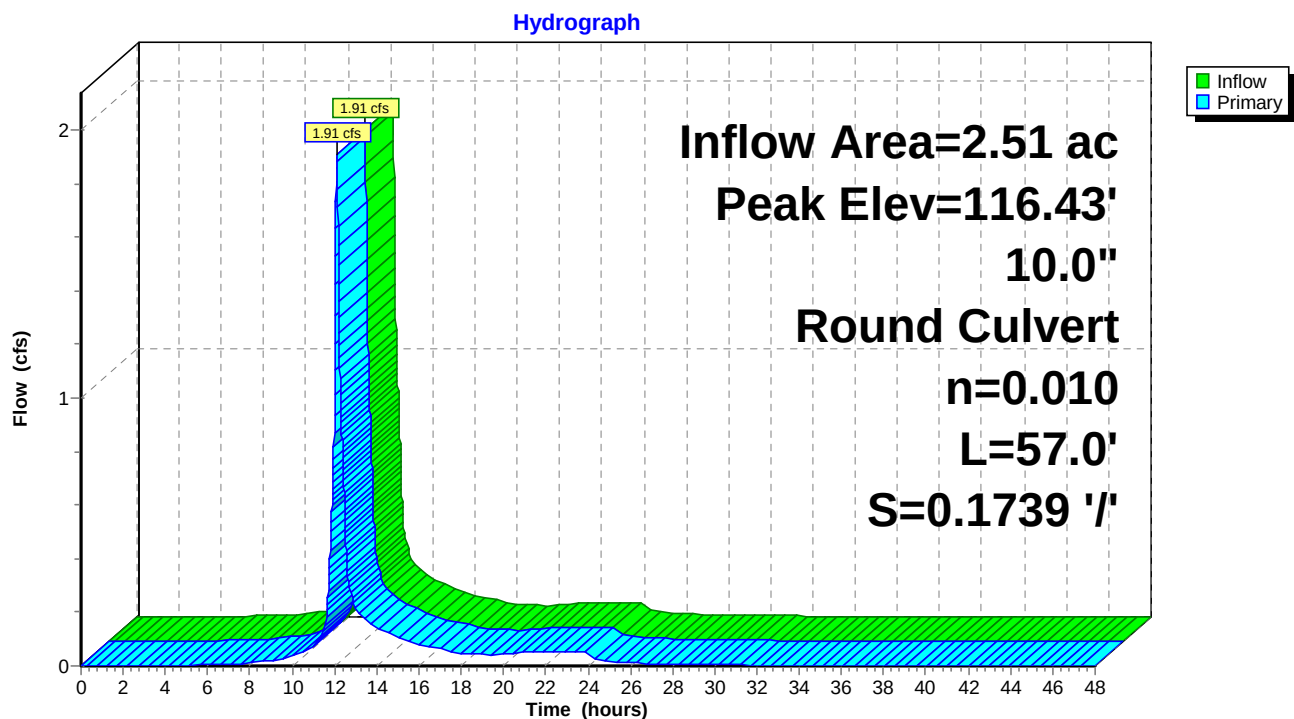
Flood Elev= 124.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	115.17'	10.0" Round Culvert L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 115.17' / 105.26' S= 0.1739 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.91 cfs @ 12.11 hrs HW=116.43' (Free Discharge)

↑1=Culvert (Inlet Controls 1.91 cfs @ 3.49 fps)

Pond DMH7: Proposed DMH



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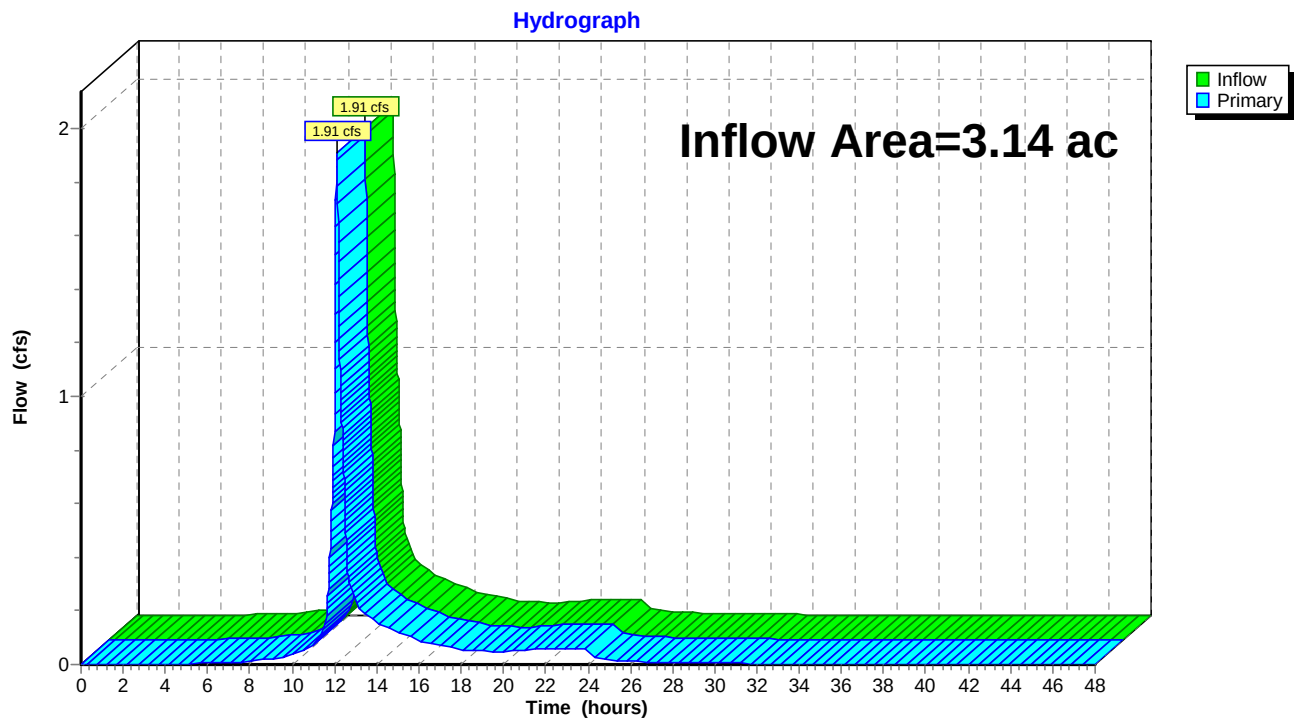
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Summary for Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow Area = 3.14 ac, 64.59% Impervious, Inflow Depth > 0.68" for 2-YR event
Inflow = 1.91 cfs @ 12.11 hrs, Volume= 0.177 af
Primary = 1.91 cfs @ 12.11 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8



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Type III 24-hr 10-YR Rainfall=4.60"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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: Area draining to Runoff Area=19,254 sf 56.16% Impervious Runoff Depth=1.89"
 Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=72 Runoff=0.91 cfs 0.070 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth=3.39"
 Tc=5.0 min CN=89 Runoff=1.54 cfs 0.108 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=5.0 min CN=98 Runoff=0.48 cfs 0.037 af

Subcatchment 70S: Thomas & Davies & Runoff Area=44,441 sf 74.20% Impervious Runoff Depth=2.81"
 Flow Length=91' Slope=0.1593 '/' Tc=5.0 min CN=83 Runoff=3.48 cfs 0.239 af

Subcatchment 80S: FoundersHall Runoff Area=9,466 sf 100.00% Impervious Runoff Depth=4.36"
 Tc=5.0 min CN=98 Runoff=1.01 cfs 0.079 af

Subcatchment 90S: Playground Runoff Area=27,554 sf 25.26% Impervious Runoff Depth=0.73"
 Flow Length=117' Tc=9.2 min CN=54 Runoff=0.34 cfs 0.039 af

Subcatchment 91S: Playground Runoff Area=4,688 sf 69.20% Impervious Runoff Depth=2.55"
 Tc=5.0 min CN=80 Runoff=0.33 cfs 0.023 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth=2.13"
 Tc=5.0 min CN=75 Runoff=0.60 cfs 0.042 af

Reach 161R: roof drain Avg. Flow Depth=0.18' Max Vel=7.42 fps Inflow=0.48 cfs 0.037 af
 6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.48 cfs 0.037 af

Pond 1P: USSF Peak Elev=121.45' Storage=8,567 cf Inflow=4.49 cfs 0.318 af
 Primary=0.37 cfs 0.151 af Secondary=0.00 cfs 0.000 af Outflow=0.37 cfs 0.151 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=107.75' Inflow=0.34 cfs 0.039 af
 12.0" Round Culvert n=0.010 L=20.0' S=0.2475 '/' Outflow=0.34 cfs 0.039 af

Pond 210P: Existing FI Peak Elev=132.62' Inflow=0.91 cfs 0.070 af
 10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=0.91 cfs 0.070 af

Pond 220P: Existing DMH Peak Elev=122.28' Inflow=0.91 cfs 0.070 af
 10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=0.91 cfs 0.070 af

Pond 230P: Existing DMH Peak Elev=121.04' Inflow=3.36 cfs 0.280 af
 10.0" Round Culvert n=0.010 L=83.0' S=0.0257 '/' Outflow=3.36 cfs 0.280 af

Pond 260P: Storage Pipes Peak Elev=120.18' Storage=377 cf Inflow=2.62 cfs 0.188 af
 12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/' Outflow=2.16 cfs 0.188 af

Pond 340P: CB at SW Cor prkng lot Peak Elev=129.54' Inflow=0.60 cfs 0.042 af
 8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/' Outflow=0.60 cfs 0.042 af

5b. Post*Type III 24-hr 10-YR Rainfall=4.60"*

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Pond CB4: Proposed DMH

Peak Elev=125.03' Inflow=4.49 cfs 0.318 af
12.0" Round Culvert n=0.010 L=24.0' S=0.0621 '/' Outflow=4.49 cfs 0.318 af

Pond DMH: OCS Bypass

Peak Elev=119.78' Inflow=0.37 cfs 0.151 af
10.0" Round Culvert n=0.010 L=60.0' S=0.0692 '/' Outflow=0.37 cfs 0.151 af

Pond DMH6: Access MH

Peak Elev=121.01' Inflow=4.49 cfs 0.318 af
Primary=4.49 cfs 0.318 af Secondary=0.00 cfs 0.000 af Outflow=4.49 cfs 0.318 af

Pond DMH7: Proposed DMH

Peak Elev=118.21' Inflow=3.36 cfs 0.431 af
10.0" Round Culvert n=0.010 L=57.0' S=0.1739 '/' Outflow=3.36 cfs 0.431 af

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow=3.66 cfs 0.470 af
Primary=3.66 cfs 0.470 af

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 10S: Area draining to Sanctuary

Runoff = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af, Depth= 1.89"

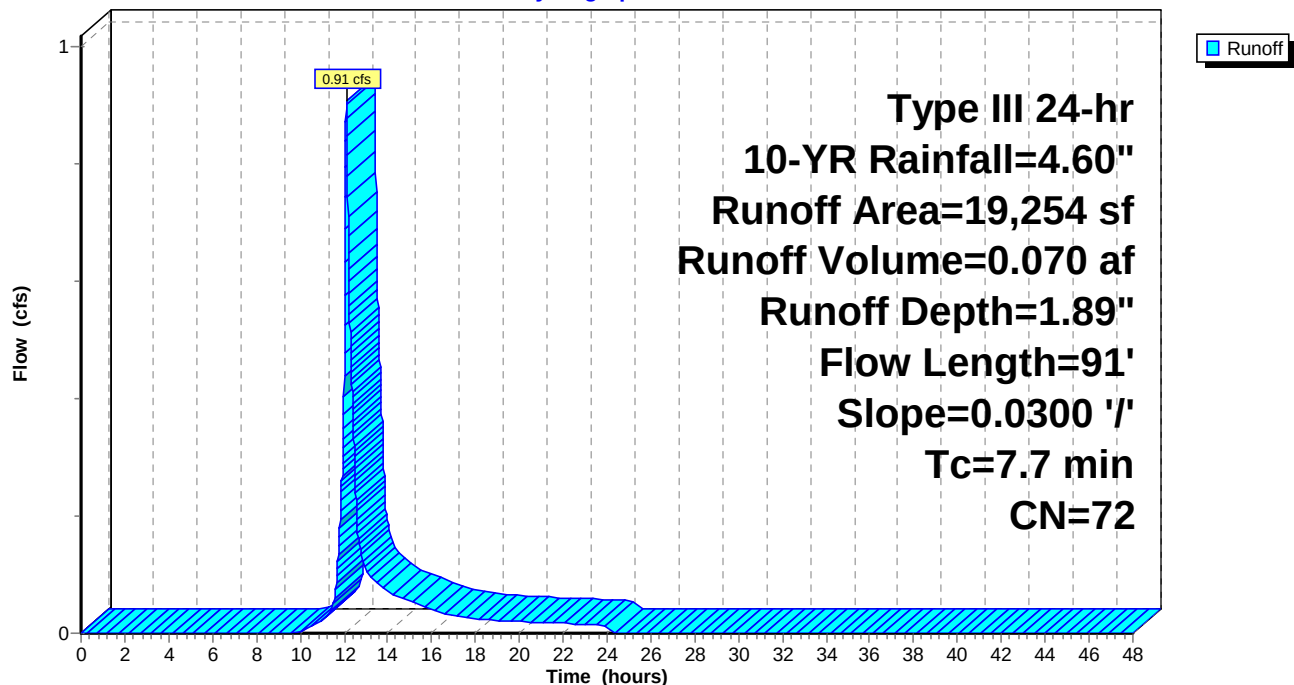
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	10,813	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,254	72	Weighted Average
	8,441		43.84% Pervious Area
	10,813		56.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.19"

Subcatchment 10S: Area draining to Sanctuary

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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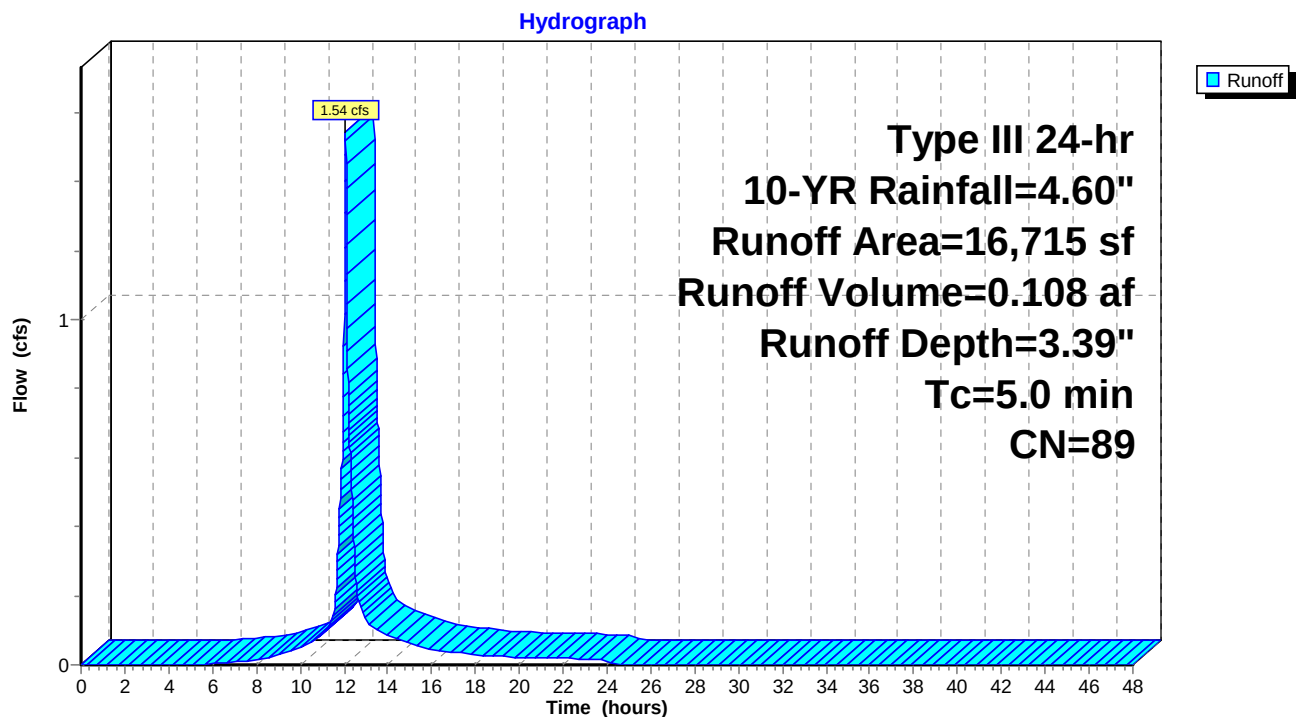
Summary for Subcatchment 60S: Lawn/Field S of school

Runoff = 1.54 cfs @ 12.07 hrs, Volume= 0.108 af, Depth= 3.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school

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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.48 cfs @ 12.07 hrs, Volume= 0.037 af, Depth= 4.36"

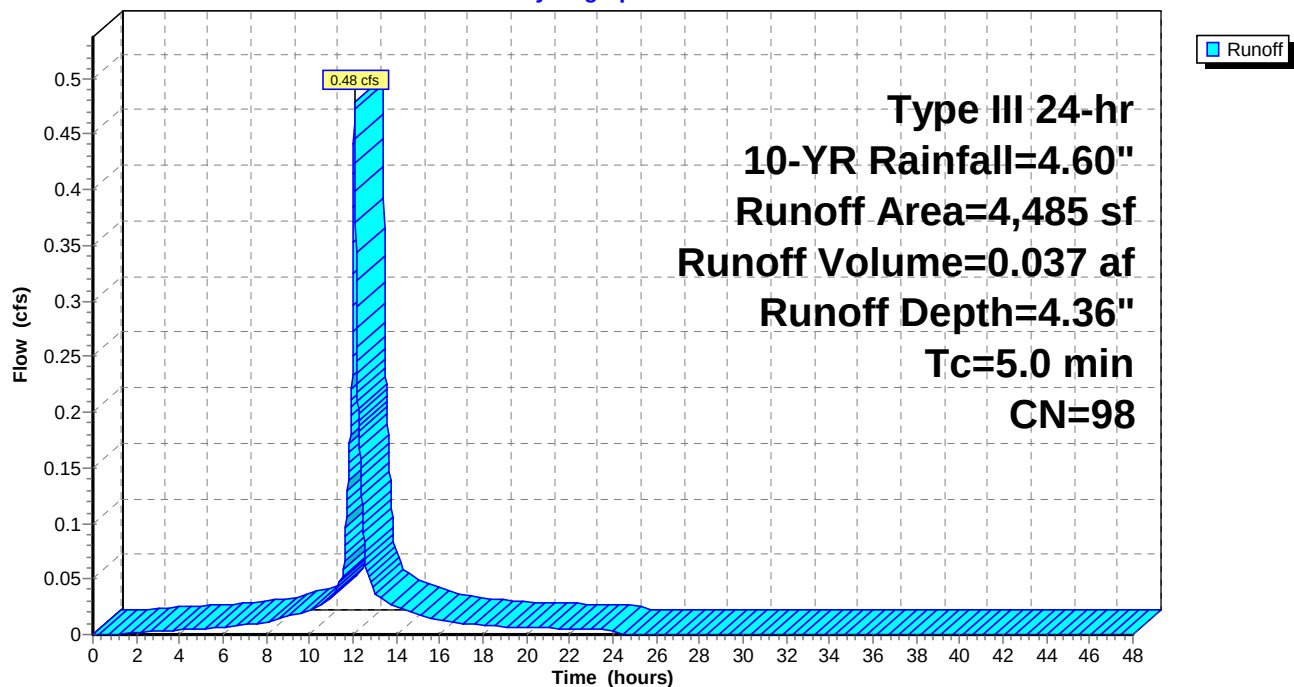
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

Runoff = 3.48 cfs @ 12.07 hrs, Volume= 0.239 af, Depth= 2.81"

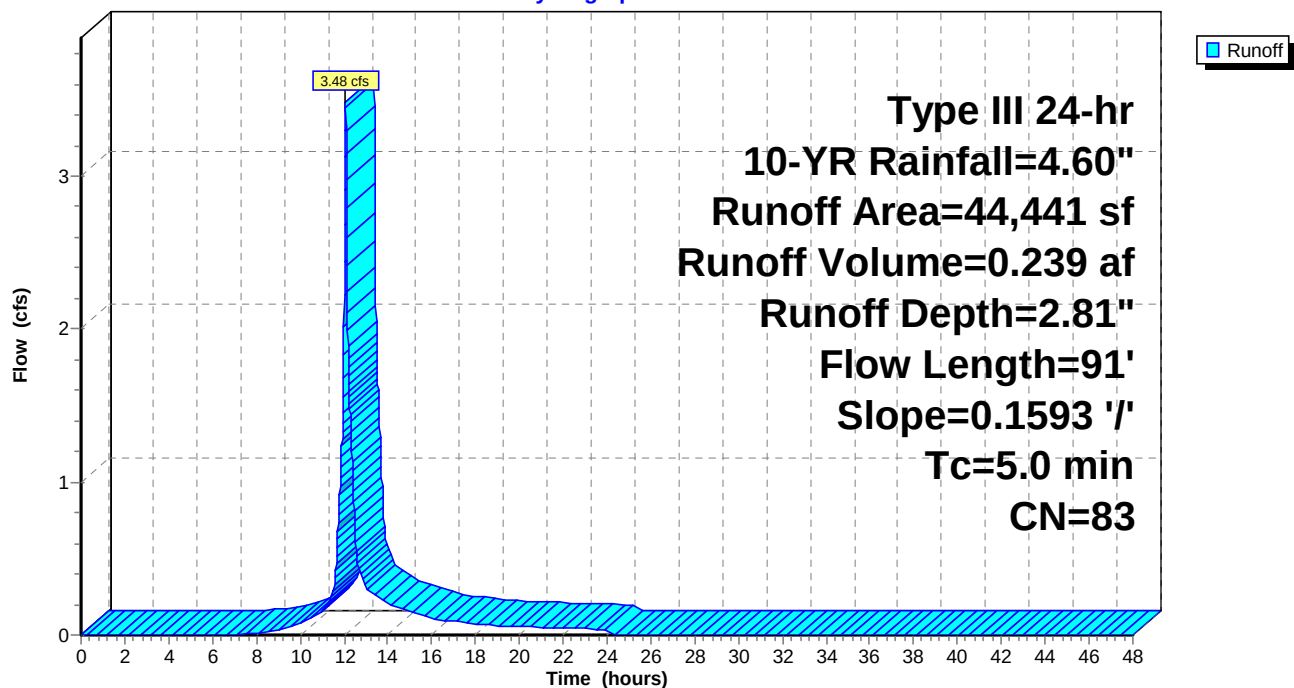
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	32,976	98	impervious
*	11,465	39	Lawn/field, HSG A
	44,441	83	Weighted Average
	11,465		25.80% Pervious Area
	32,976		74.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	91	0.1593	0.38		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
4.0	91	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 70S: Thomas & Davies & Gym

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 1.01 cfs @ 12.07 hrs, Volume= 0.079 af, Depth= 4.36"

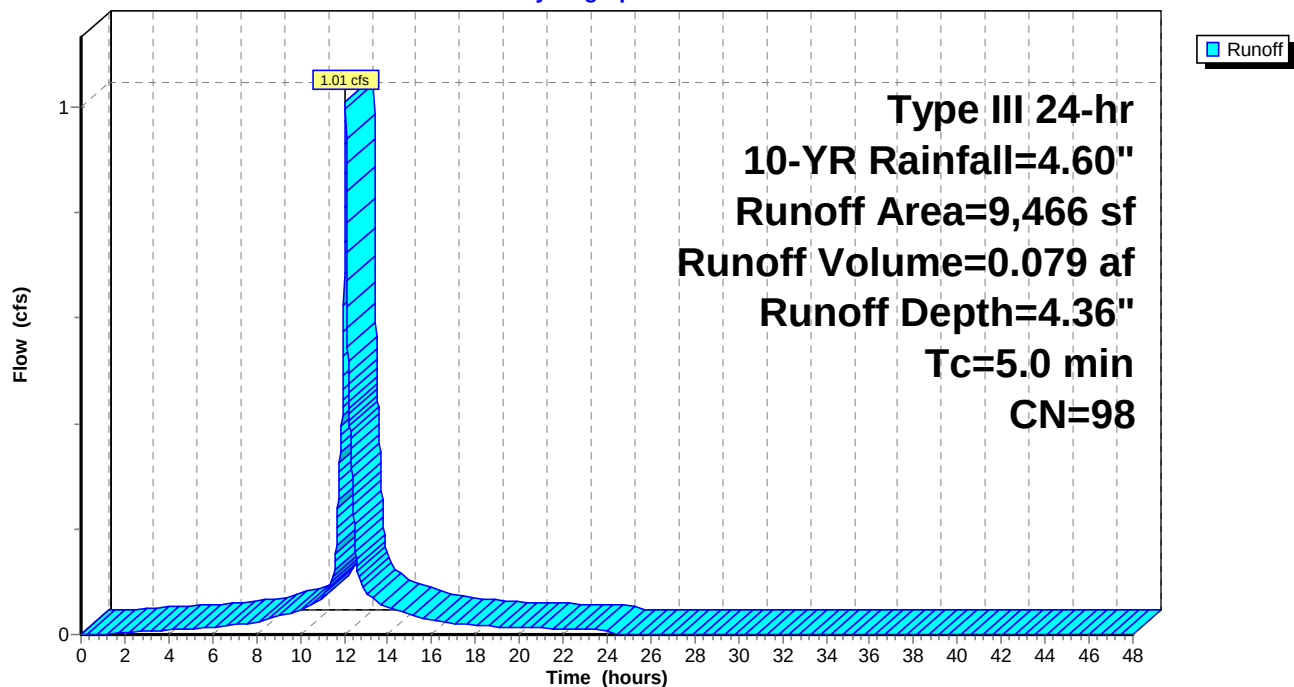
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	9,466	98	Roof runoff
	9,466		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Subcatchment 90S: Playground

Runoff = 0.34 cfs @ 12.16 hrs, Volume= 0.039 af, Depth= 0.73"

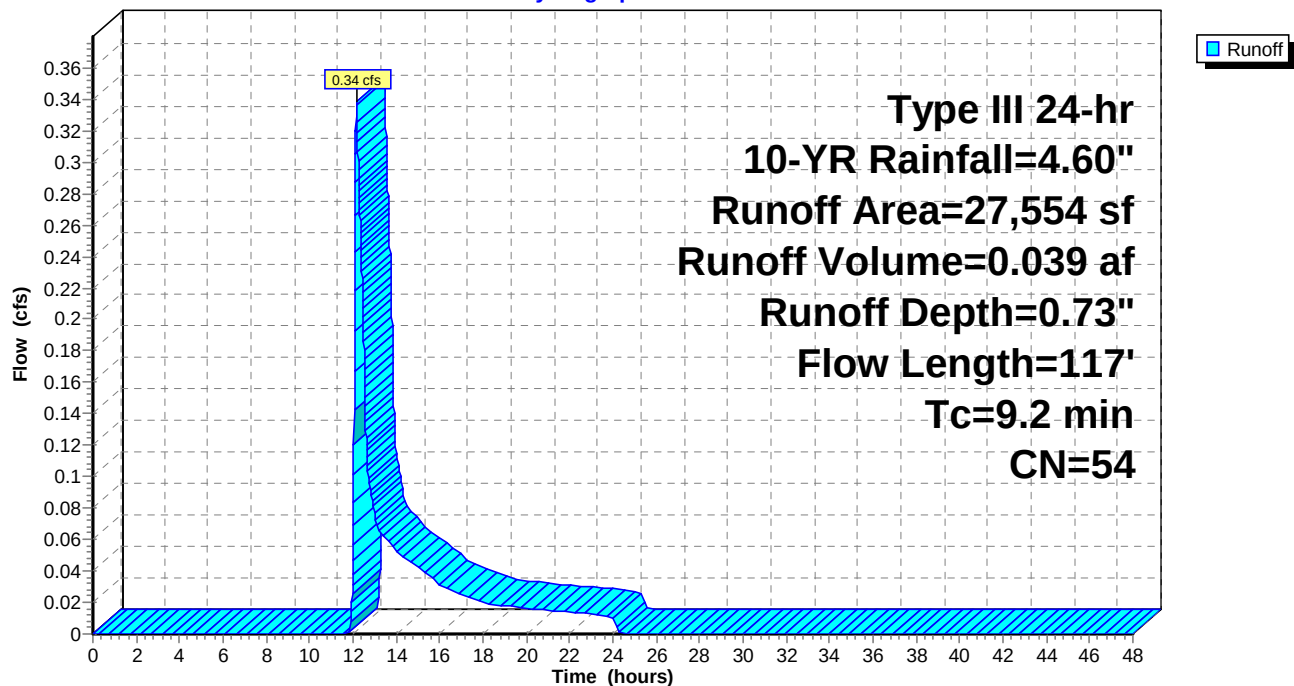
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	6,960	98	impervious
*	20,594	39	Lawn/field, HSG A
	27,554	54	Weighted Average
	20,594		74.74% Pervious Area
	6,960		25.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0250	0.19		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
0.2	17	0.0588	1.70		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
9.2	117	Total			

Subcatchment 90S: Playground

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Summary for Subcatchment 91S: Playground

Runoff = 0.33 cfs @ 12.07 hrs, Volume= 0.023 af, Depth= 2.55"

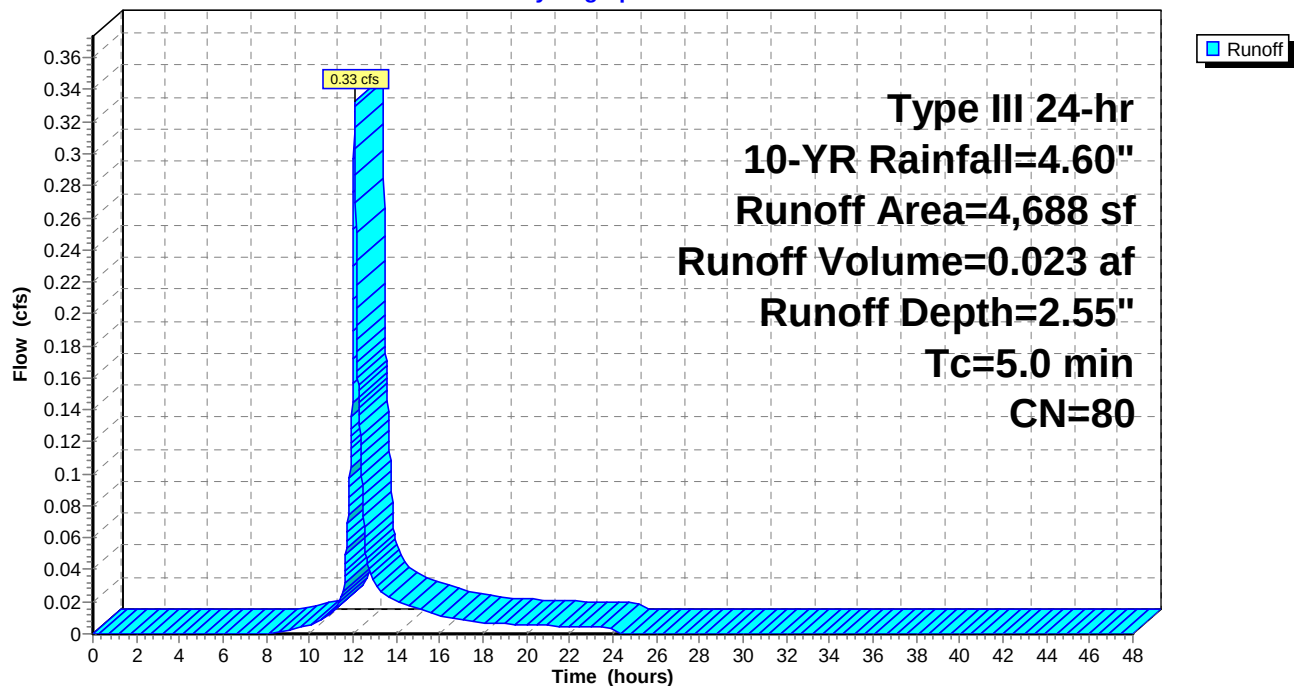
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	3,244	98	impervious
*	1,444	39	Lawn/field, HSG A
	4,688	80	Weighted Average
	1,444		30.80% Pervious Area
	3,244		69.20% Impervious Area

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

Subcatchment 91S: Playground

Hydrograph



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Summary for Subcatchment 402S: New Prkng lot

Runoff = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af, Depth= 2.13"

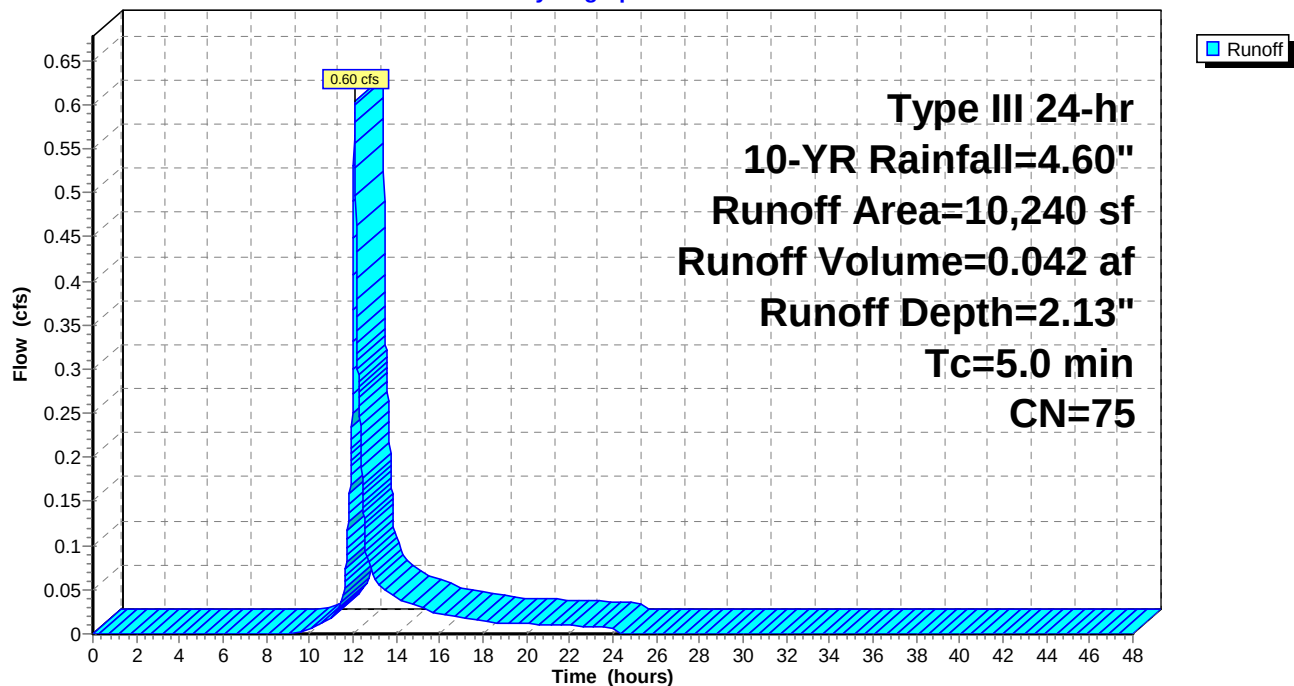
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-YR Rainfall=4.60"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Reach 161R: roof drain

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-YR event
Inflow = 0.48 cfs @ 12.07 hrs, Volume = 0.037 af
Outflow = 0.48 cfs @ 12.08 hrs, Volume = 0.037 af, Atten = 0%, Lag = 0.5 min

Routing by Stor-Ind+Trans method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs

Max. Velocity = 7.42 fps, Min. Travel Time = 0.3 min

Avg. Velocity = 2.44 fps, Avg. Travel Time = 0.9 min

Peak Storage = 8 cf @ 12.07 hrs

Average Depth at Peak Storage = 0.18'

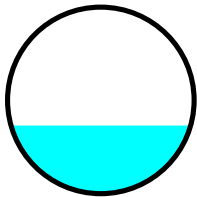
Bank-Full Depth = 0.50' Flow Area = 0.2 sf, Capacity = 1.69 cfs

6.0" Round Pipe

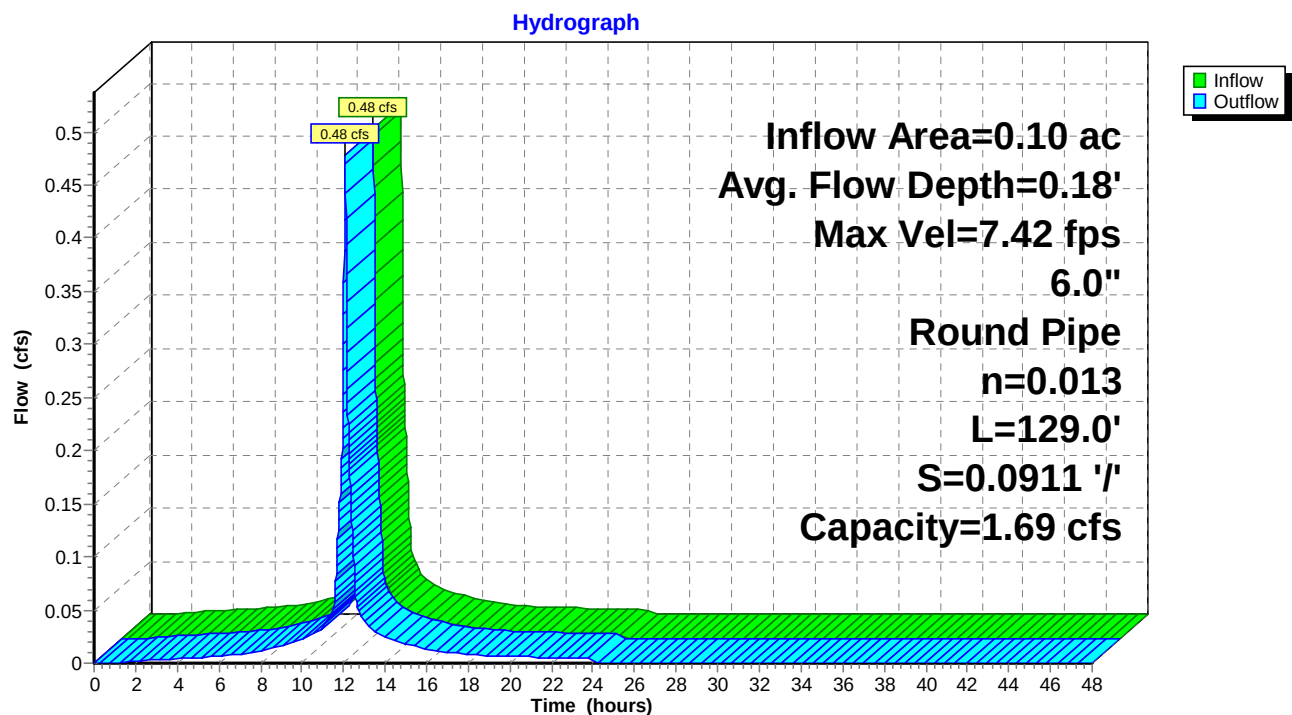
n = 0.013 Corrugated PE, smooth interior

Length = 129.0' Slope = 0.0911 '/'

Inlet Invert = 130.00', Outlet Invert = 118.25'



Reach 161R: roof drain



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 1P: USSF

[81] Warning: Exceeded Pond DMH6 by 1.44' @ 24.23 hrs

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 3.09" for 10-YR event
 Inflow = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af
 Outflow = 0.37 cfs @ 13.08 hrs, Volume= 0.151 af, Atten= 92%, Lag= 60.5 min
 Primary = 0.37 cfs @ 13.08 hrs, Volume= 0.151 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= 0.01 hrs
 Peak Elev= 121.45' @ 13.08 hrs Surf.Area= 4,717 sf Storage= 8,567 cf
 Flood Elev= 126.48' Surf.Area= 4,717 sf Storage= 16,044 cf

Plug-Flow detention time= 343.2 min calculated for 0.151 af (47% of inflow)
 Center-of-Mass det. time= 222.8 min (1,022.0 - 799.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	118.85'	6,599 cf	51.42'W x 91.74'L x 5.50'H Field A 25,943 cf Overall - 9,445 cf Embedded = 16,499 cf x 40.0% Voids
#2A	119.60'	9,445 cf	ADS_StormTech MC-3500 d +Cap x 84 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 7 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf
		16,044 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	119.67'	8.0" Round Culvert L= 7.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.67' / 119.52' S= 0.0214 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	123.35'	5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	121.10'	8.0" Vert. Orifice/Grate C= 0.600
#4	Device 5	118.85'	2.410 in/hr Exfiltration over Surface area above 118.85' Conductivity to Groundwater Elevation = 113.00' Excluded Surface area = 4,717 sf
#5	Secondary	116.02'	6.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 116.02' / 115.88' S= 0.0045 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

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Type III 24-hr 10-YR Rainfall=4.60"

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Primary OutFlow Max=0.37 cfs @ 13.08 hrs HW=121.45' (Free Discharge)

- ↑ 1=Culvert (Passes 0.37 cfs of 1.59 cfs potential flow)
- ↑ 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Orifice Controls 0.37 cfs @ 2.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=118.85' (Free Discharge)

- ↑ 5=Culvert (Passes 0.00 cfs of 1.20 cfs potential flow)
- ↑ 4=Exfiltration (Controls 0.00 cfs)

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Type III 24-hr 10-YR Rainfall=4.60"

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Pond 1P: USSF - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)

Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf

Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap

Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length

7 Rows x 77.0" Wide + 9.0" Spacing x 6 + 12.0" Side Stone x 2 = 51.42' Base Width

9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

84 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 7 Rows = 9,444.6 cf Chamber Storage

25,943.3 cf Field - 9,444.6 cf Chambers = 16,498.7 cf Stone x 40.0% Voids = 6,599.5 cf Stone Storage

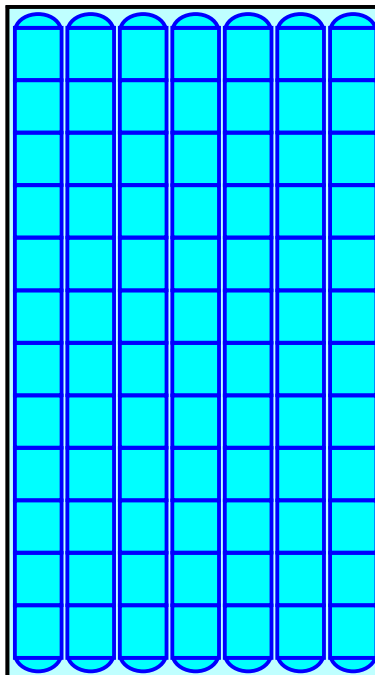
Chamber Storage + Stone Storage = 16,044.1 cf = 0.368 af

Overall Storage Efficiency = 61.8%

84 Chambers

960.9 cy Field

611.1 cy Stone



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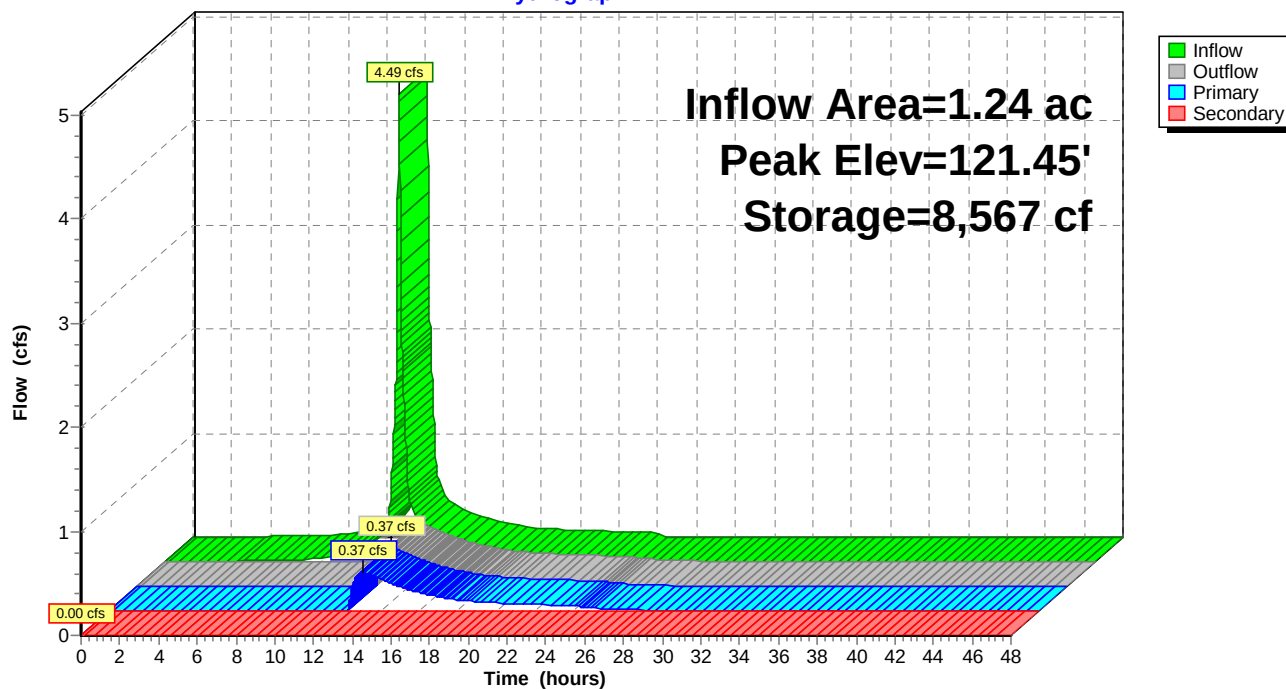
Type III 24-hr 10-YR Rainfall=4.60"

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Pond 1P: USSF

Hydrograph



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 0.63 ac, 25.26% Impervious, Inflow Depth = 0.73" for 10-YR event
Inflow = 0.34 cfs @ 12.16 hrs, Volume= 0.039 af
Outflow = 0.34 cfs @ 12.16 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 12.16 hrs, Volume= 0.039 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 107.75' @ 12.16 hrs

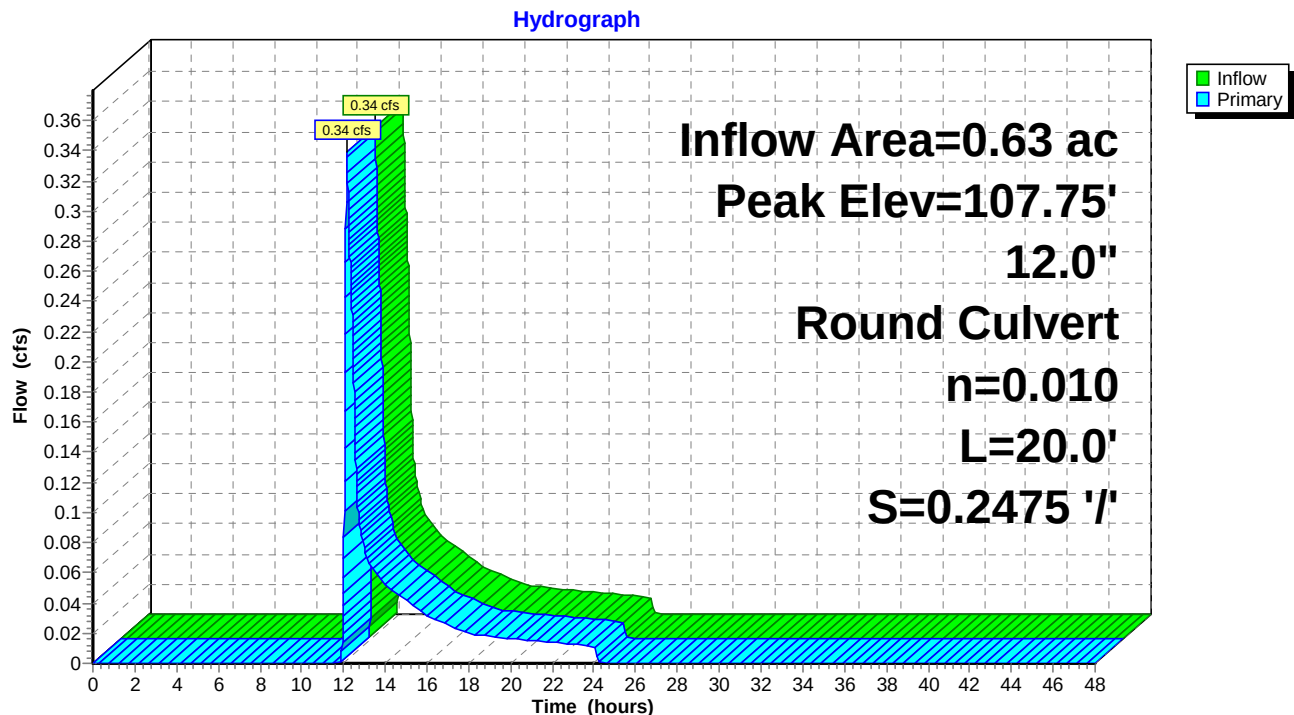
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2475 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.16 hrs HW=107.75' (Free Discharge)

↑1=Culvert (Inlet Controls 0.34 cfs @ 1.53 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 210P: Existing FI

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 1.89" for 10-YR event
Inflow = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af
Outflow = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 132.62' @ 12.11 hrs

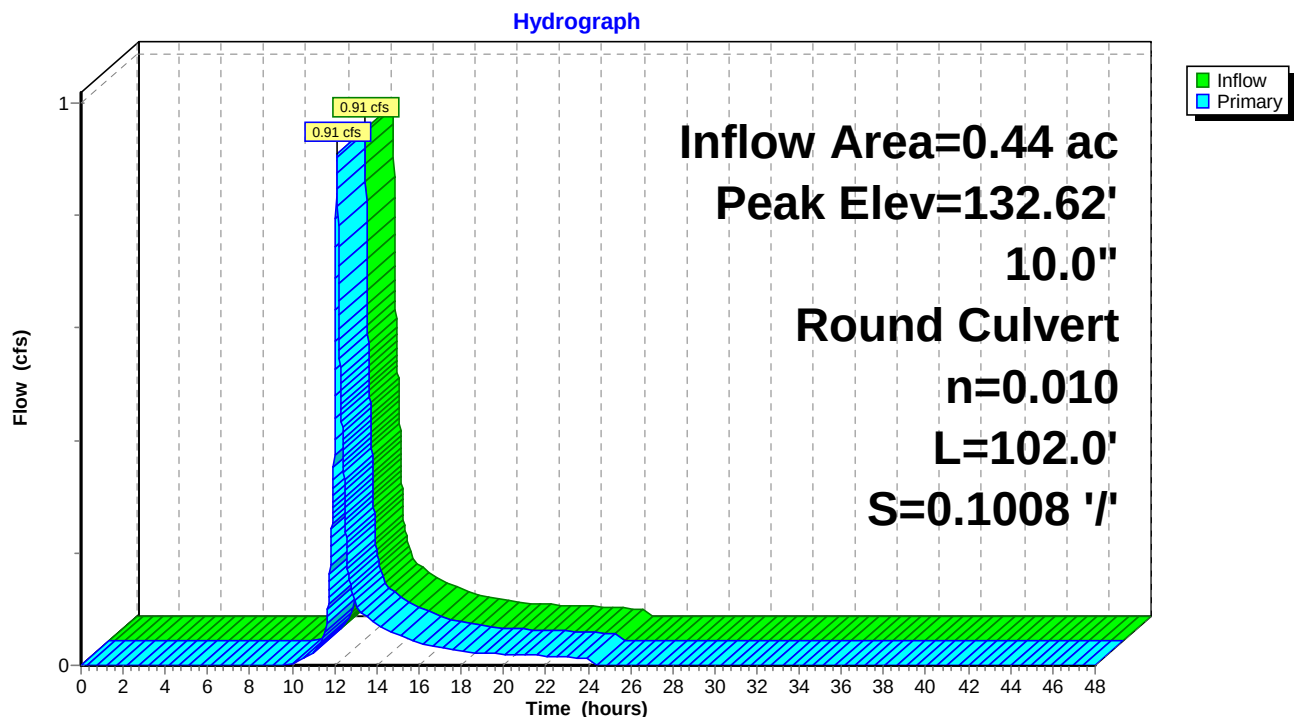
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.91 cfs @ 12.11 hrs HW=132.61' (Free Discharge)

↑1=Culvert (Inlet Controls 0.91 cfs @ 2.11 fps)

Pond 210P: Existing FI



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 220P: Existing DMH

[79] Warning: Submerged Pond 210P Primary device # 1 OUTLET by 0.56'

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 1.89" for 10-YR event
Inflow = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af
Outflow = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.11 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 122.28' @ 12.11 hrs

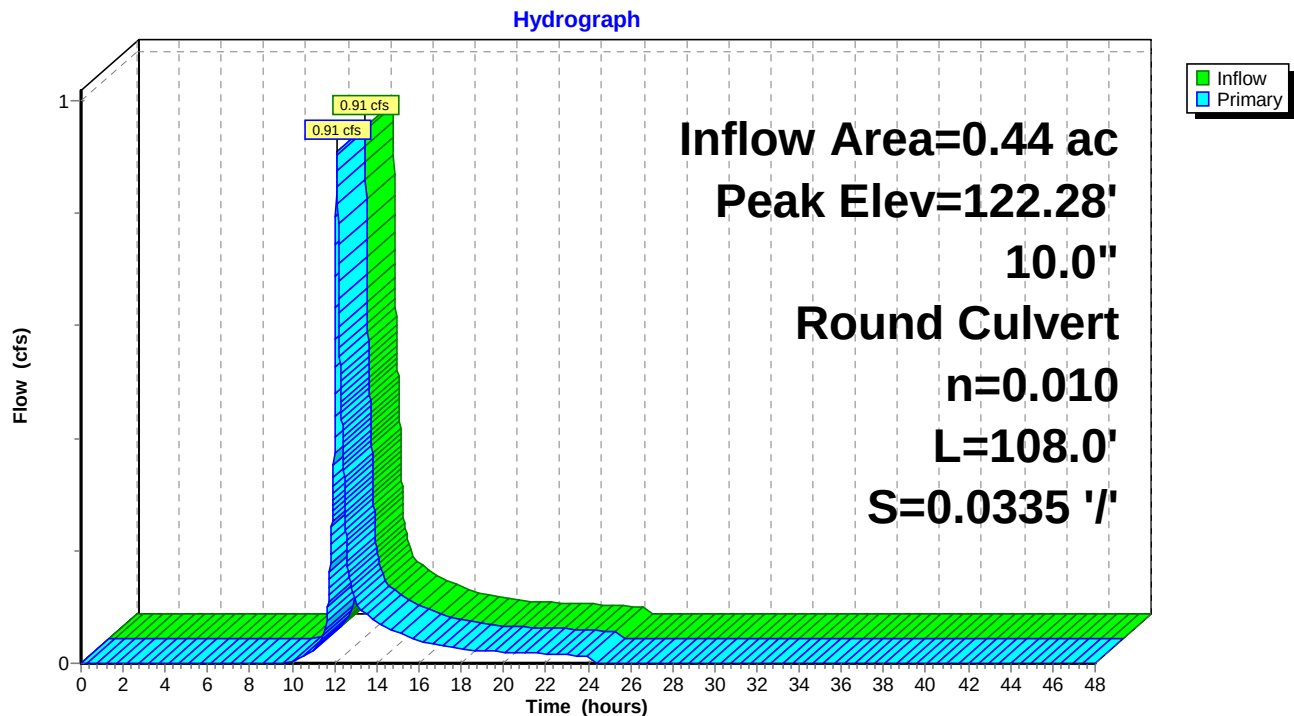
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.91 cfs @ 12.11 hrs HW=122.28' (Free Discharge)

↑1=Culvert (Inlet Controls 0.91 cfs @ 2.11 fps)

Pond 220P: Existing DMH



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Summary for Pond 230P: Existing DMH

[79] Warning: Submerged Pond 220P Primary device # 1 OUTLET by 2.98'

[81] Warning: Exceeded Pond 260P by 0.86' @ 12.11 hrs

Inflow Area = 1.27 ac, 70.40% Impervious, Inflow Depth = 2.64" for 10-YR event
Inflow = 3.36 cfs @ 12.11 hrs, Volume= 0.280 af
Outflow = 3.36 cfs @ 12.11 hrs, Volume= 0.280 af, Atten= 0%, Lag= 0.0 min
Primary = 3.36 cfs @ 12.11 hrs, Volume= 0.280 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 121.04' @ 12.11 hrs

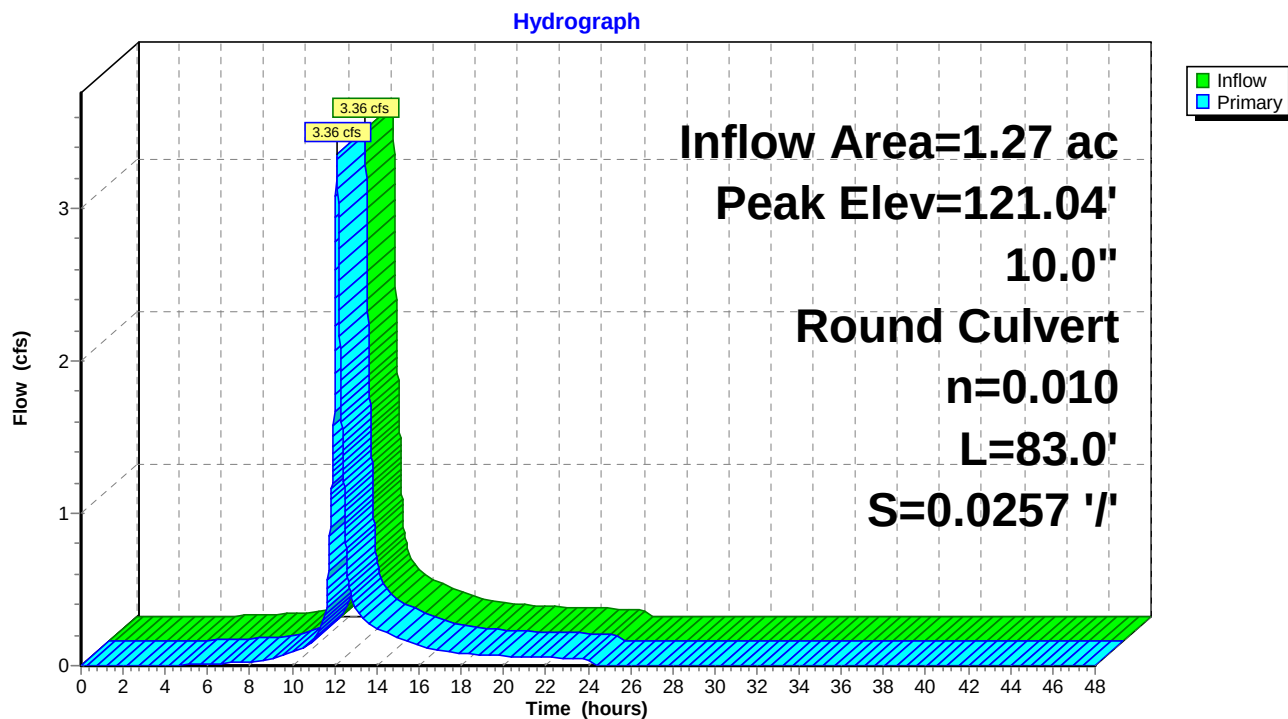
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	10.0" Round Culvert L= 83.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 115.87' S= 0.0257 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=3.35 cfs @ 12.11 hrs HW=121.03' (Free Discharge)

↑1=Culvert (Inlet Controls 3.35 cfs @ 6.15 fps)

Pond 230P: Existing DMH



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond 260P: Storage Pipes

[62] Hint: Exceeded Reach 161R OUTLET depth by 1.77' @ 12.14 hrs

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth = 3.12" for 10-YR event
 Inflow = 2.62 cfs @ 12.07 hrs, Volume= 0.188 af
 Outflow = 2.16 cfs @ 12.13 hrs, Volume= 0.188 af, Atten= 18%, Lag= 3.1 min
 Primary = 2.16 cfs @ 12.13 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 120.18' @ 12.13 hrs Surf.Area= 797 sf Storage= 377 cf
 Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= 1.4 min calculated for 0.188 af (100% of inflow)
 Center-of-Mass det. time= 1.4 min (797.7 - 796.3)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.15 cfs @ 12.13 hrs HW=120.18' (Free Discharge)
 ↗**1=Culvert** (Inlet Controls 2.15 cfs @ 2.74 fps)

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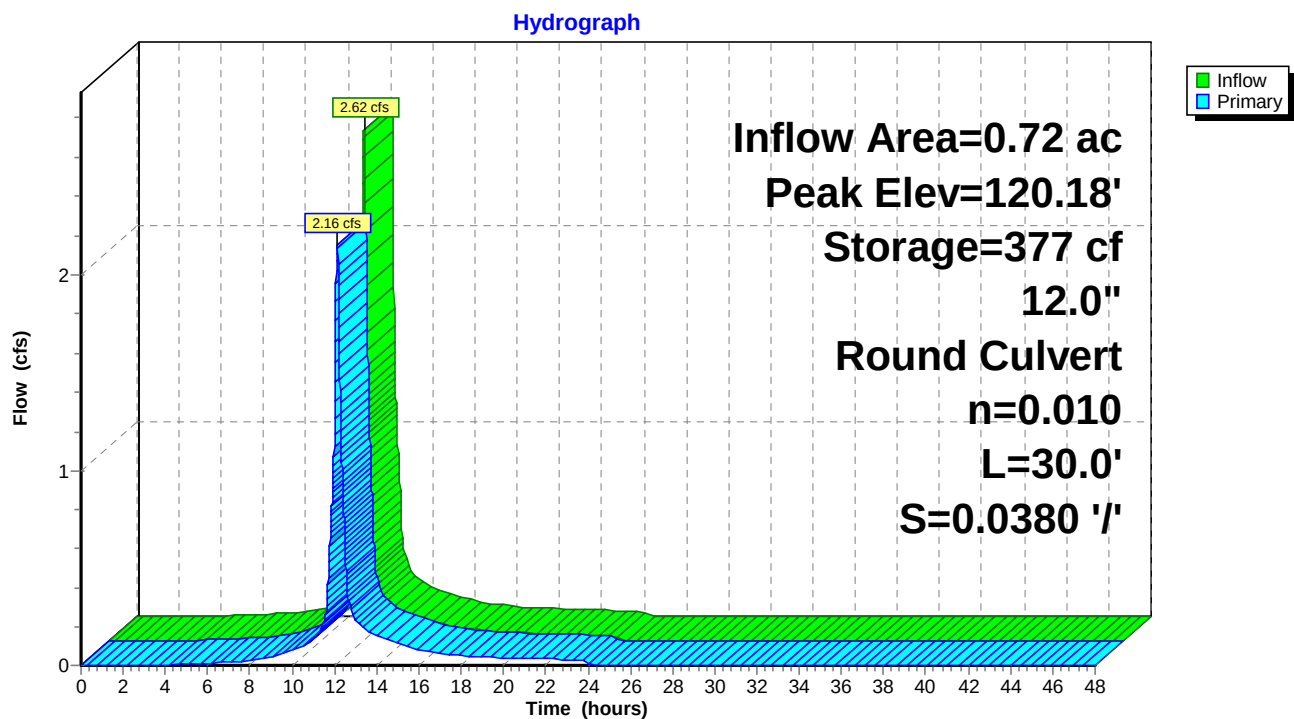
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Type III 24-hr 10-YR Rainfall=4.60"

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Pond 260P: Storage Pipes



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Summary for Pond 340P: CB at SW Cor prkng lot

[57] Hint: Peaked at 129.54' (Flood elevation advised)

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth = 2.13" for 10-YR event
Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.08 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

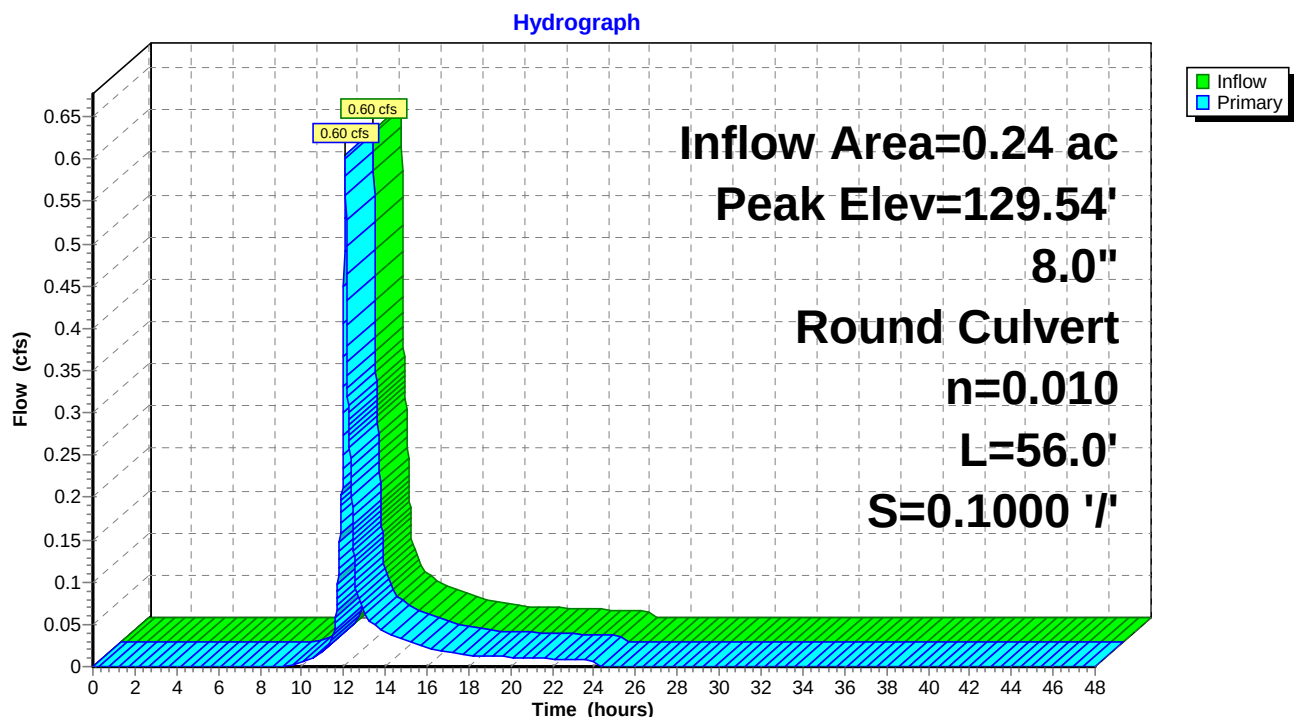
Peak Elev= 129.54' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.60 cfs @ 12.08 hrs HW=129.54' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.60 cfs @ 1.98 fps)

Pond 340P: CB at SW Cor prkng lot



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Type III 24-hr 10-YR Rainfall=4.60"

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Summary for Pond CB4: Proposed DMH

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 3.09" for 10-YR event
Inflow = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af
Outflow = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min
Primary = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 125.03' @ 12.07 hrs

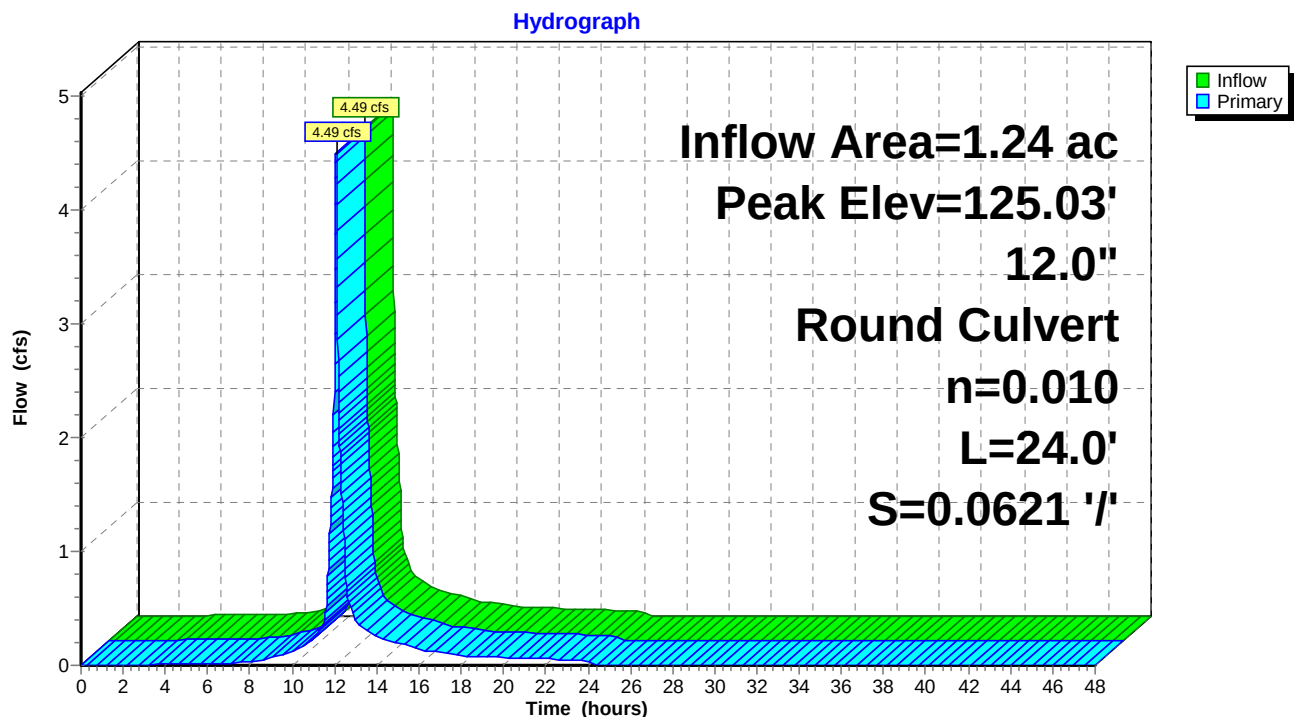
Flood Elev= 127.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.26'	12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.26' / 120.77' S= 0.0621 ' S= 0.0621 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.48 cfs @ 12.07 hrs HW=125.02' (Free Discharge)

↑1=Culvert (Inlet Controls 4.48 cfs @ 5.71 fps)

Pond CB4: Proposed DMH



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Summary for Pond DMH: OCS Bypass

[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 0.11'

[79] Warning: Submerged Pond DMH6 Secondary device # 2 by 0.01'

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth > 1.46" for 10-YR event
Inflow = 0.37 cfs @ 13.08 hrs, Volume= 0.151 af
Outflow = 0.37 cfs @ 13.08 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 13.08 hrs, Volume= 0.151 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 119.78' @ 13.08 hrs

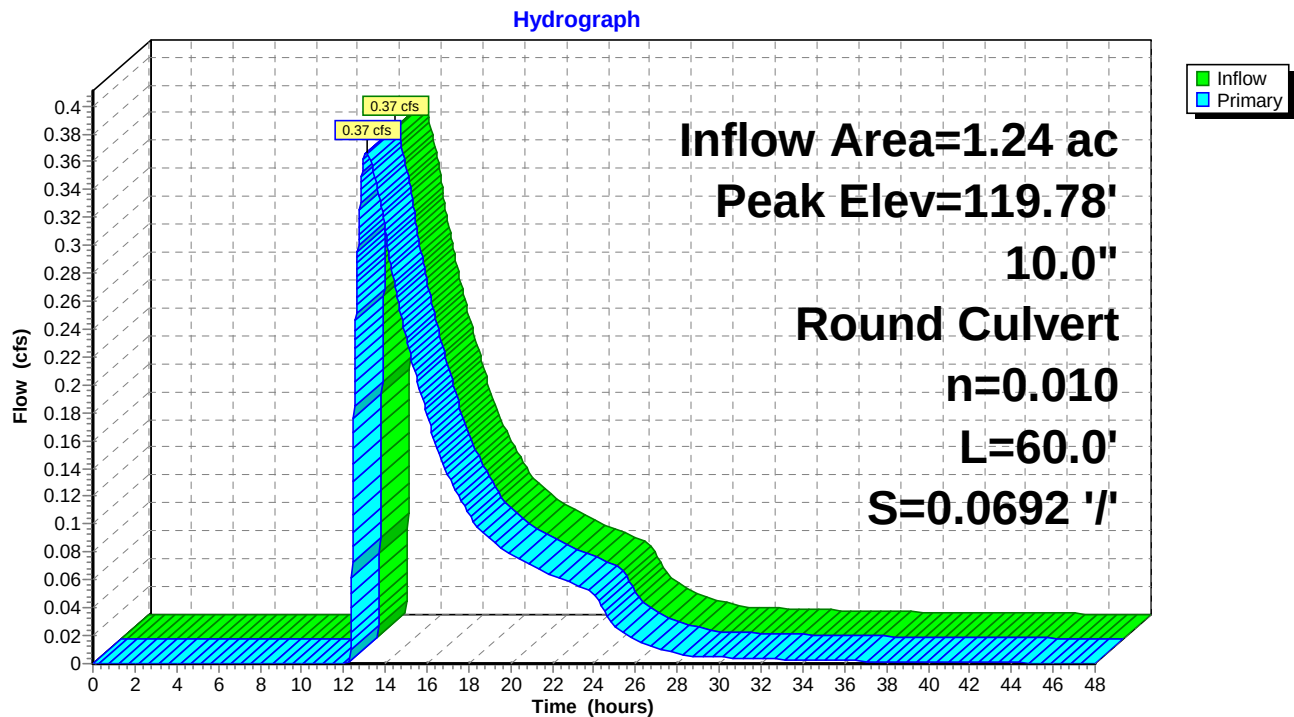
Flood Elev= 126.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.42'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.42' / 115.27' S= 0.0692 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=0.37 cfs @ 13.08 hrs HW=119.78' (Free Discharge)

↑1=Culvert (Inlet Controls 0.37 cfs @ 1.62 fps)

Pond DMH: OCS Bypass



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Summary for Pond DMH6: Access MH

[79] Warning: Submerged Pond CB4 Primary device # 1 OUTLET by 0.24'

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 3.09" for 10-YR event
 Inflow = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af
 Outflow = 4.49 cfs @ 12.07 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.49 cfs @ 12.07 hrs, Volume= 0.318 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= 0.01 hrs

Peak Elev= 121.01' @ 12.07 hrs

Flood Elev= 126.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.77'	24.0" Round Culvert L= 9.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Secondary	119.77'	24.0" Round Culvert L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf
#3	Device 2	123.35'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=4.48 cfs @ 12.07 hrs HW=121.01' (Free Discharge)

1=Culvert (Barrel Controls 4.48 cfs @ 3.14 fps)
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=119.77' (Free Discharge)

2=Culvert (Controls 0.00 cfs)


3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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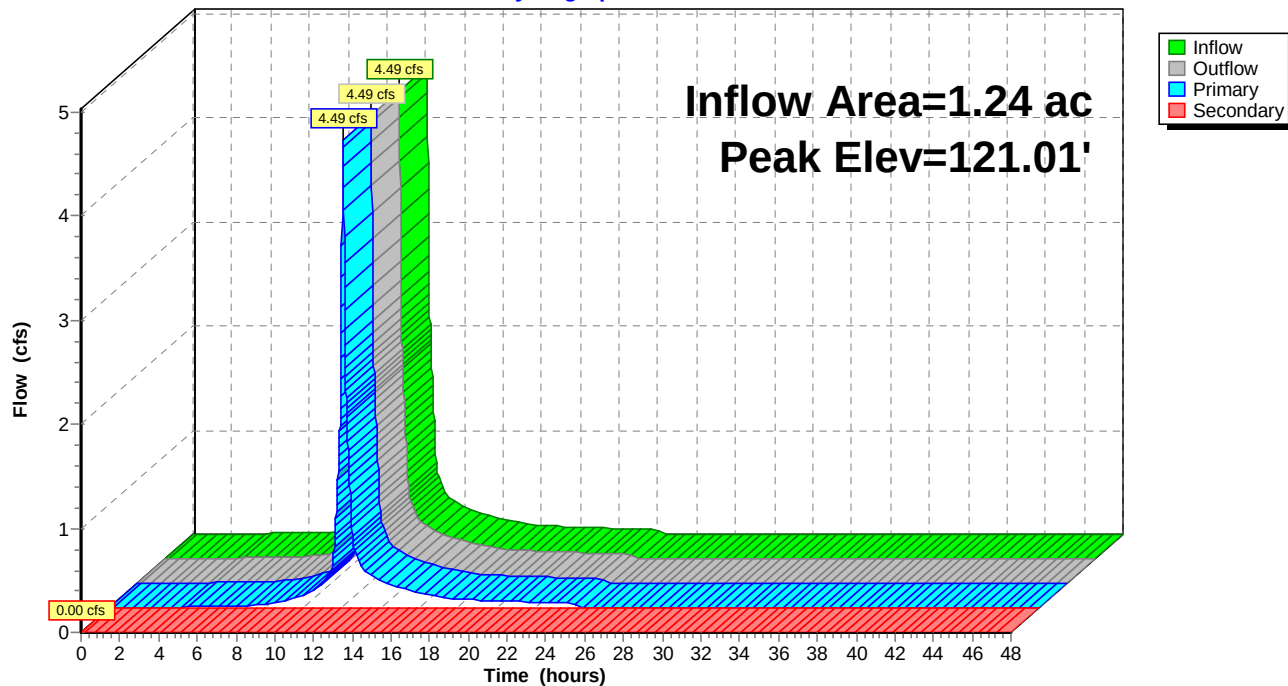
Type III 24-hr 10-YR Rainfall=4.60"

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Pond DMH6: Access MH

Hydrograph



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Summary for Pond DMH7: Proposed DMH

[79] Warning: Submerged Pond 1P Secondary device # 5 INLET by 2.18'

[79] Warning: Submerged Pond 230P Primary device # 1 INLET by 0.20'

[79] Warning: Submerged Pond DMH Primary device # 1 OUTLET by 2.93'

Inflow Area = 2.51 ac, 74.51% Impervious, Inflow Depth > 2.06" for 10-YR event
Inflow = 3.36 cfs @ 12.11 hrs, Volume= 0.431 af
Outflow = 3.36 cfs @ 12.11 hrs, Volume= 0.431 af, Atten= 0%, Lag= 0.0 min
Primary = 3.36 cfs @ 12.11 hrs, Volume= 0.431 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 118.21' @ 12.11 hrs

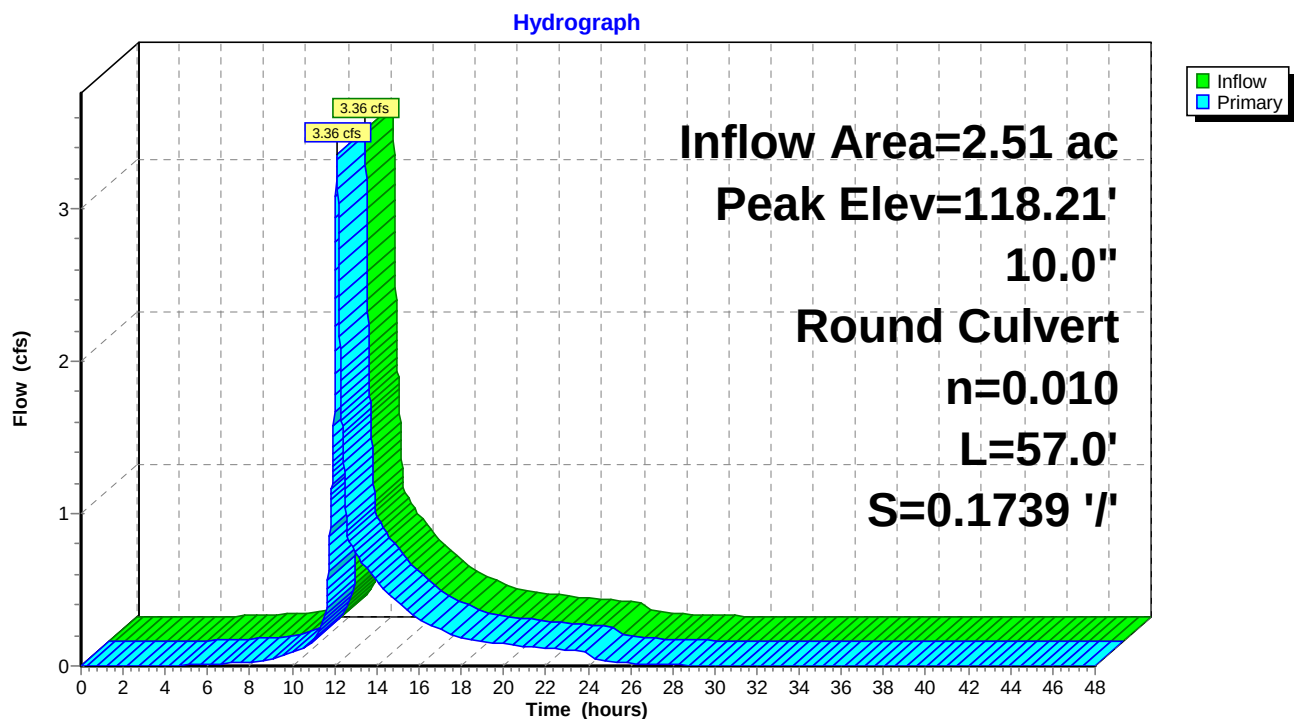
Flood Elev= 124.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	115.17'	10.0" Round Culvert L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 115.17' / 105.26' S= 0.1739 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=3.35 cfs @ 12.11 hrs HW=118.20' (Free Discharge)

↑1=Culvert (Inlet Controls 3.35 cfs @ 6.15 fps)

Pond DMH7: Proposed DMH



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Type III 24-hr 10-YR Rainfall=4.60"

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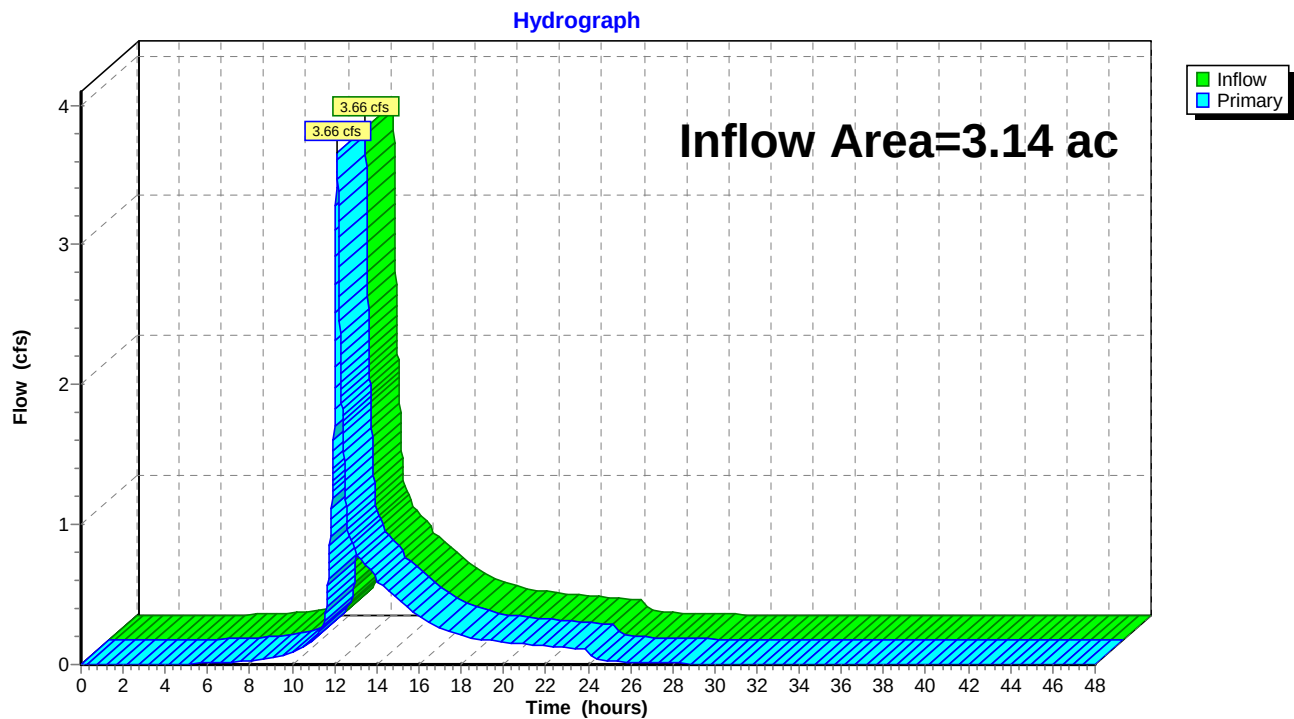
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Summary for Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow Area = 3.14 ac, 64.59% Impervious, Inflow Depth > 1.79" for 10-YR event
Inflow = 3.66 cfs @ 12.12 hrs, Volume= 0.470 af
Primary = 3.66 cfs @ 12.12 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8



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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 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: Area draining to Runoff Area=19,254 sf 56.16% Impervious Runoff Depth=2.83"
 Flow Length=91' Slope=0.0300 '/' Tc=7.7 min CN=72 Runoff=1.38 cfs 0.104 af

Subcatchment 60S: Lawn/Field S of school Runoff Area=16,715 sf 84.98% Impervious Runoff Depth=4.54"
 Tc=5.0 min CN=89 Runoff=2.04 cfs 0.145 af

Subcatchment 61S: Auditorium Roof Runoff Area=4,485 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=5.0 min CN=98 Runoff=0.61 cfs 0.048 af

Subcatchment 70S: Thomas & Davies & Runoff Area=44,441 sf 74.20% Impervious Runoff Depth=3.91"
 Flow Length=91' Slope=0.1593 '/' Tc=5.0 min CN=83 Runoff=4.79 cfs 0.332 af

Subcatchment 80S: FoundersHall Runoff Area=9,466 sf 100.00% Impervious Runoff Depth=5.56"
 Tc=5.0 min CN=98 Runoff=1.28 cfs 0.101 af

Subcatchment 90S: Playground Runoff Area=27,554 sf 25.26% Impervious Runoff Depth=1.33"
 Flow Length=117' Tc=9.2 min CN=54 Runoff=0.75 cfs 0.070 af

Subcatchment 91S: Playground Runoff Area=4,688 sf 69.20% Impervious Runoff Depth=3.60"
 Tc=5.0 min CN=80 Runoff=0.47 cfs 0.032 af

Subcatchment 402S: New Prkng lot Runoff Area=10,240 sf 60.94% Impervious Runoff Depth=3.11"
 Tc=5.0 min CN=75 Runoff=0.89 cfs 0.061 af

Reach 161R: roof drain Avg. Flow Depth=0.21' Max Vel=7.90 fps Inflow=0.61 cfs 0.048 af
 6.0" Round Pipe n=0.013 L=129.0' S=0.0911 '/' Capacity=1.69 cfs Outflow=0.60 cfs 0.048 af

Pond 1P: USSF Peak Elev=121.91' Storage=10,207 cf Inflow=6.07 cfs 0.433 af
 Primary=1.16 cfs 0.265 af Secondary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.265 af

Pond 206P: City CB @ Fletcher & Danforth Peak Elev=107.93' Inflow=0.75 cfs 0.070 af
 12.0" Round Culvert n=0.010 L=20.0' S=0.2475 '/' Outflow=0.75 cfs 0.070 af

Pond 210P: Existing FI Peak Elev=132.86' Inflow=1.38 cfs 0.104 af
 10.0" Round Culvert n=0.010 L=102.0' S=0.1008 '/' Outflow=1.38 cfs 0.104 af

Pond 220P: Existing DMH Peak Elev=122.53' Inflow=1.38 cfs 0.104 af
 10.0" Round Culvert n=0.010 L=108.0' S=0.0335 '/' Outflow=1.38 cfs 0.104 af

Pond 230P: Existing DMH Peak Elev=123.02' Inflow=4.45 cfs 0.390 af
 10.0" Round Culvert n=0.010 L=83.0' S=0.0257 '/' Outflow=4.45 cfs 0.390 af

Pond 260P: Storage Pipes Peak Elev=120.47' Storage=626 cf Inflow=3.53 cfs 0.254 af
 12.0" Round Culvert n=0.010 L=30.0' S=0.0380 '/' Outflow=2.69 cfs 0.254 af

Pond 340P: CB at SW Cor prkng lot Peak Elev=129.78' Inflow=0.89 cfs 0.061 af
 8.0" Round Culvert n=0.010 L=56.0' S=0.1000 '/' Outflow=0.89 cfs 0.061 af

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Pond CB4: Proposed DMH

Peak Elev=126.90' Inflow=6.07 cfs 0.433 af
12.0" Round Culvert n=0.010 L=24.0' S=0.0621 '/' Outflow=6.07 cfs 0.433 af

Pond DMH: OCS Bypass

Peak Elev=120.15' Inflow=1.16 cfs 0.265 af
10.0" Round Culvert n=0.010 L=60.0' S=0.0692 '/' Outflow=1.16 cfs 0.265 af

Pond DMH6: Access MH

Peak Elev=121.24' Inflow=6.07 cfs 0.433 af
Primary=6.07 cfs 0.433 af Secondary=0.00 cfs 0.000 af Outflow=6.07 cfs 0.433 af

Pond DMH7: Proposed DMH

Peak Elev=120.60' Inflow=4.64 cfs 0.656 af
10.0" Round Culvert n=0.010 L=57.0' S=0.1739 '/' Outflow=4.64 cfs 0.656 af

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow=5.39 cfs 0.726 af
Primary=5.39 cfs 0.726 af

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Summary for Subcatchment 10S: Area draining to Sanctuary

Runoff = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af, Depth= 2.83"

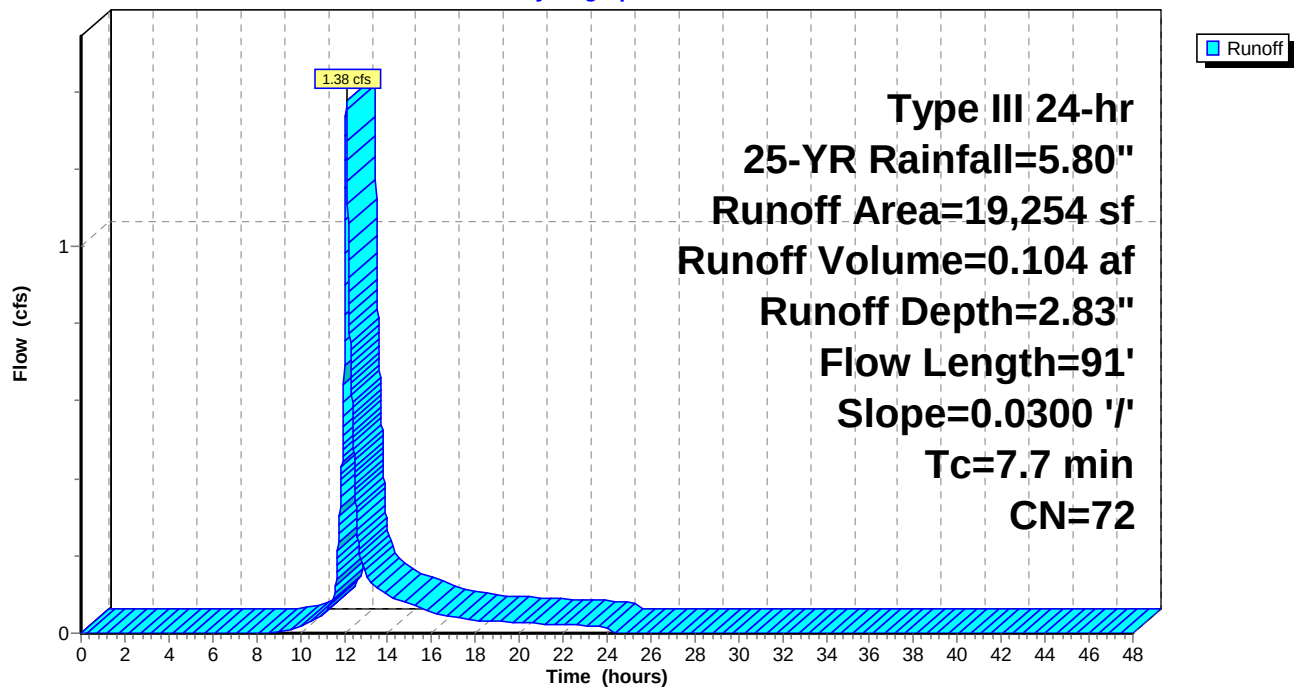
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	10,813	98	impervious
*	8,441	39	Lawn/field, HSG A
	19,254	72	Weighted Average
	8,441		43.84% Pervious Area
	10,813		56.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	91	0.0300	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"

Subcatchment 10S: Area draining to Sanctuary

Hydrograph



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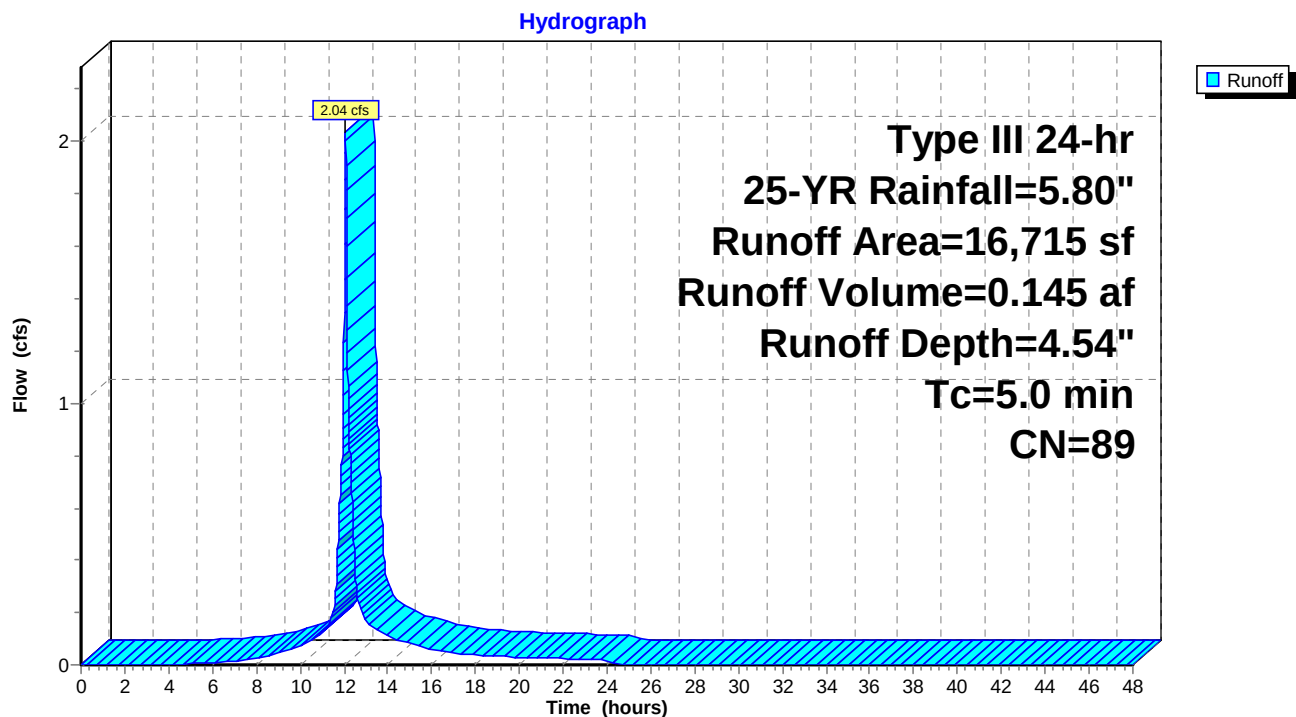
Summary for Subcatchment 60S: Lawn/Field S of school

Runoff = 2.04 cfs @ 12.07 hrs, Volume= 0.145 af, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	14,205	98	impervious
*	2,510	39	Lawn/field, HSG A
	16,715	89	Weighted Average
	2,510		15.02% Pervious Area
	14,205		84.98% Impervious Area

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

Subcatchment 60S: Lawn/Field S of school

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 61S: Auditorium Roof

Runoff = 0.61 cfs @ 12.07 hrs, Volume= 0.048 af, Depth= 5.56"

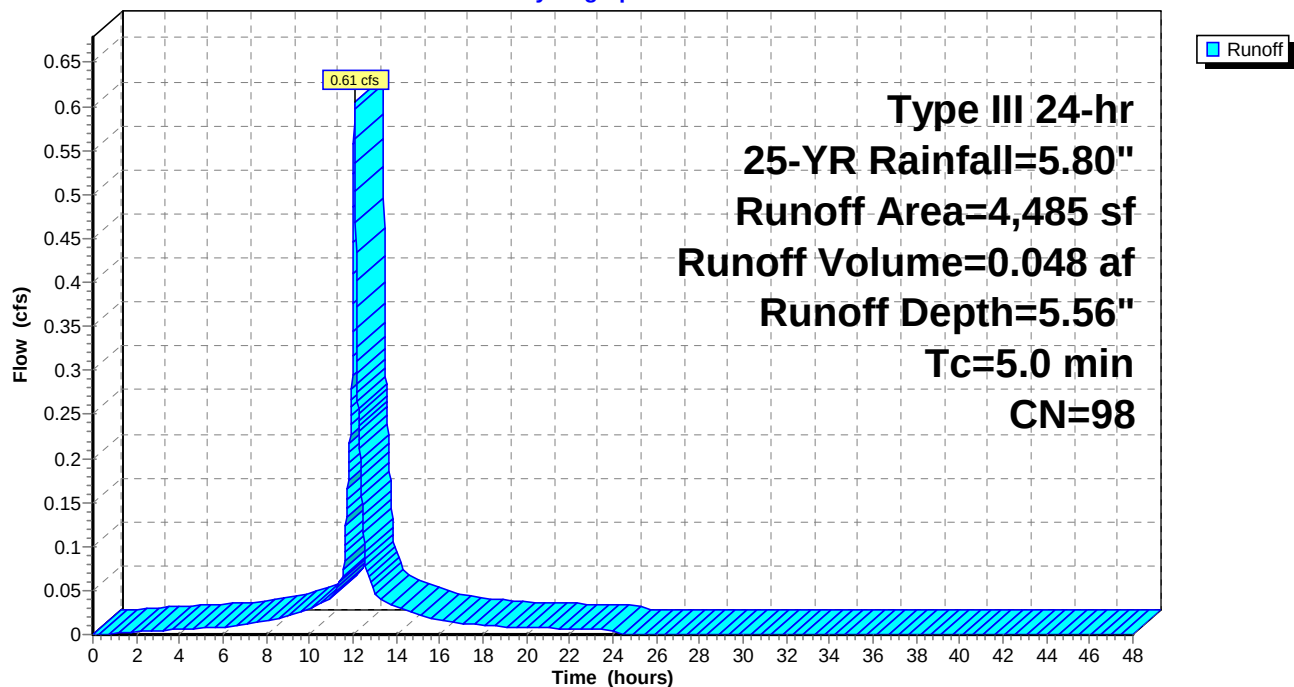
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	4,485	98	Roof runoff
	4,485		100.00% Impervious Area

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

Subcatchment 61S: Auditorium Roof

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 70S: Thomas & Davies & Gym

Runoff = 4.79 cfs @ 12.07 hrs, Volume= 0.332 af, Depth= 3.91"

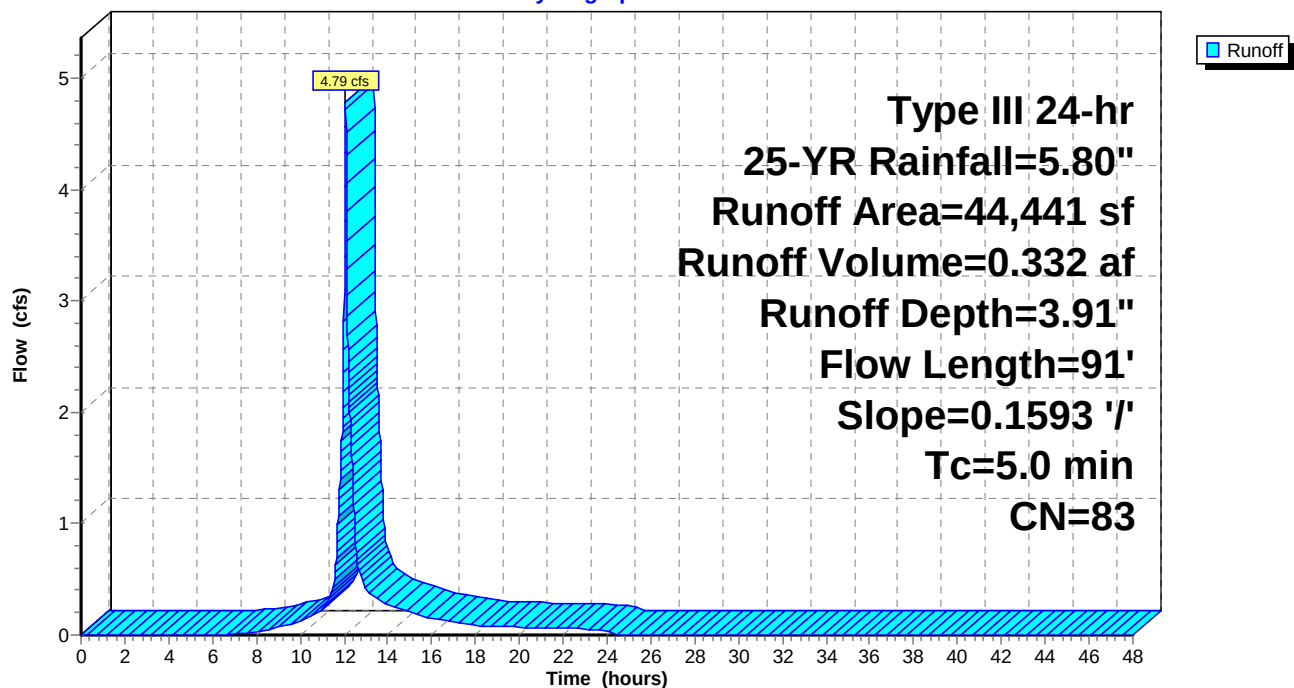
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	32,976	98	impervious
*	11,465	39	Lawn/field, HSG A
	44,441	83	Weighted Average
	11,465		25.80% Pervious Area
	32,976		74.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	91	0.1593	0.38		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
4.0	91	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 70S: Thomas & Davies & Gym

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 80S: FoundersHall

Runoff = 1.28 cfs @ 12.07 hrs, Volume= 0.101 af, Depth= 5.56"

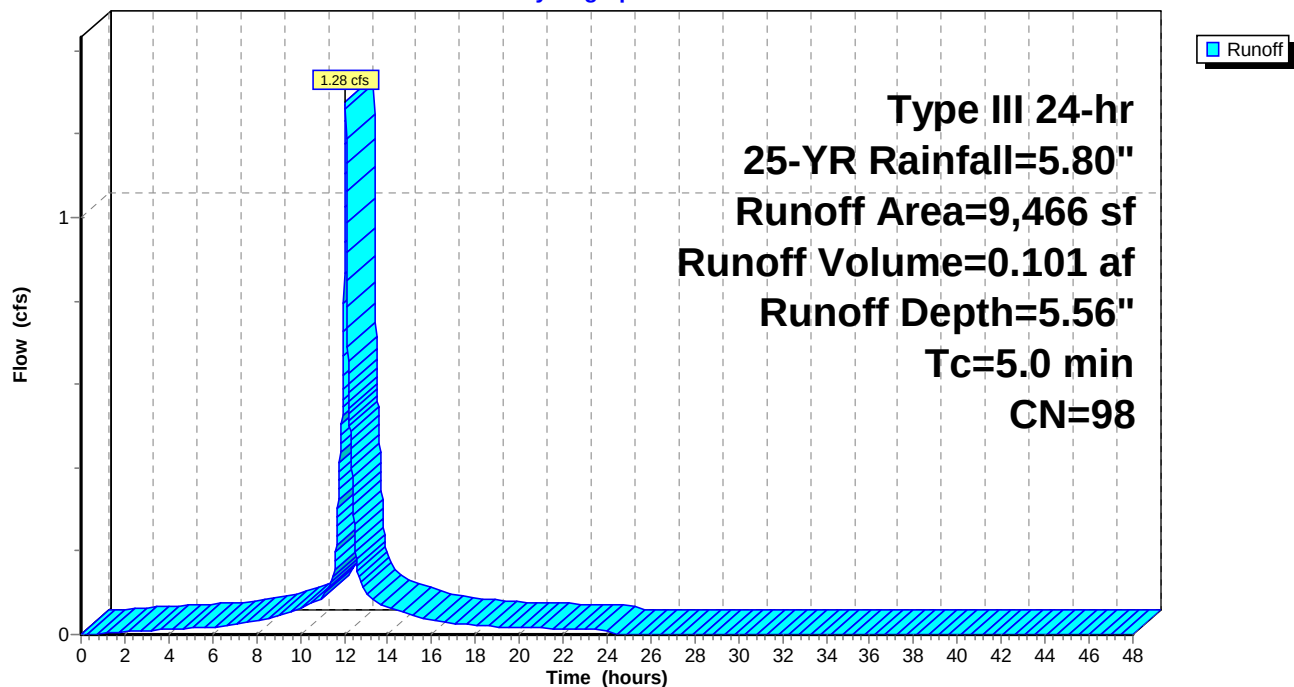
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	9,466	98	Roof runoff
	9,466		100.00% Impervious Area

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

Subcatchment 80S: FoundersHall

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 90S: Playground

Runoff = 0.75 cfs @ 12.15 hrs, Volume= 0.070 af, Depth= 1.33"

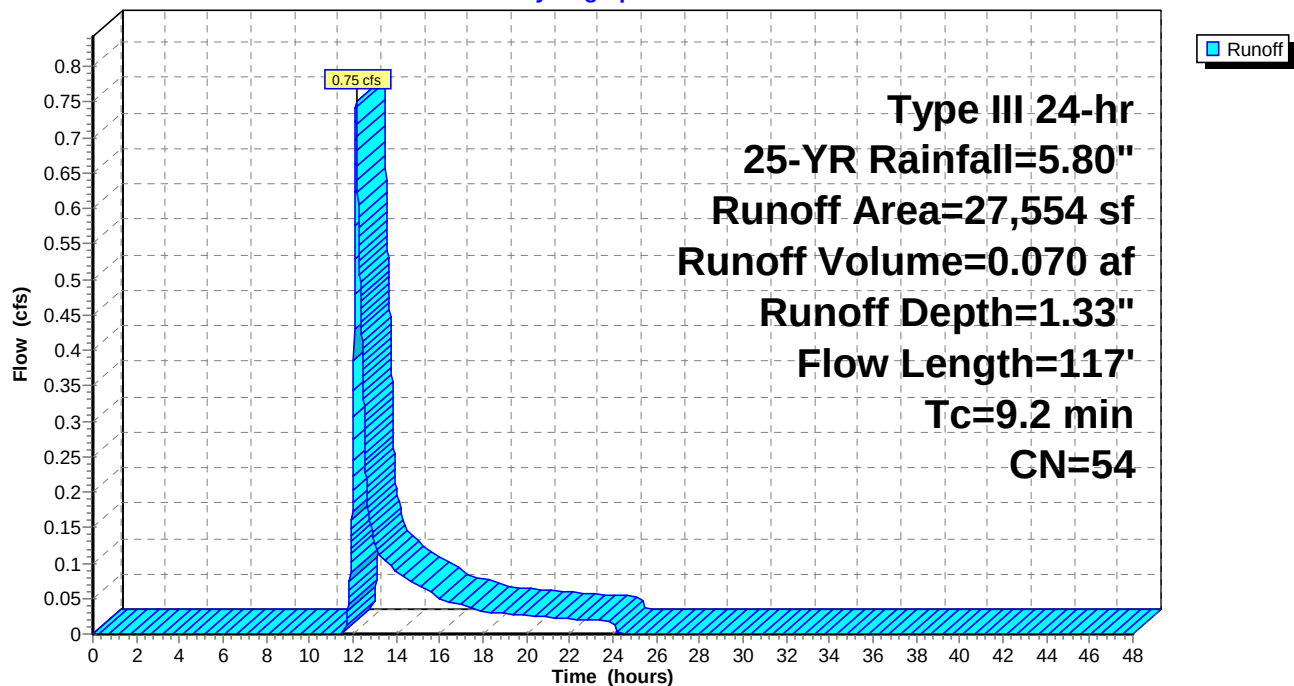
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	6,960	98	impervious
*	20,594	39	Lawn/field, HSG A
	27,554	54	Weighted Average
	20,594		74.74% Pervious Area
	6,960		25.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0250	0.19		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.19"
0.2	17	0.0588	1.70		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
9.2	117	Total			

Subcatchment 90S: Playground

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 91S: Playground

Runoff = 0.47 cfs @ 12.07 hrs, Volume= 0.032 af, Depth= 3.60"

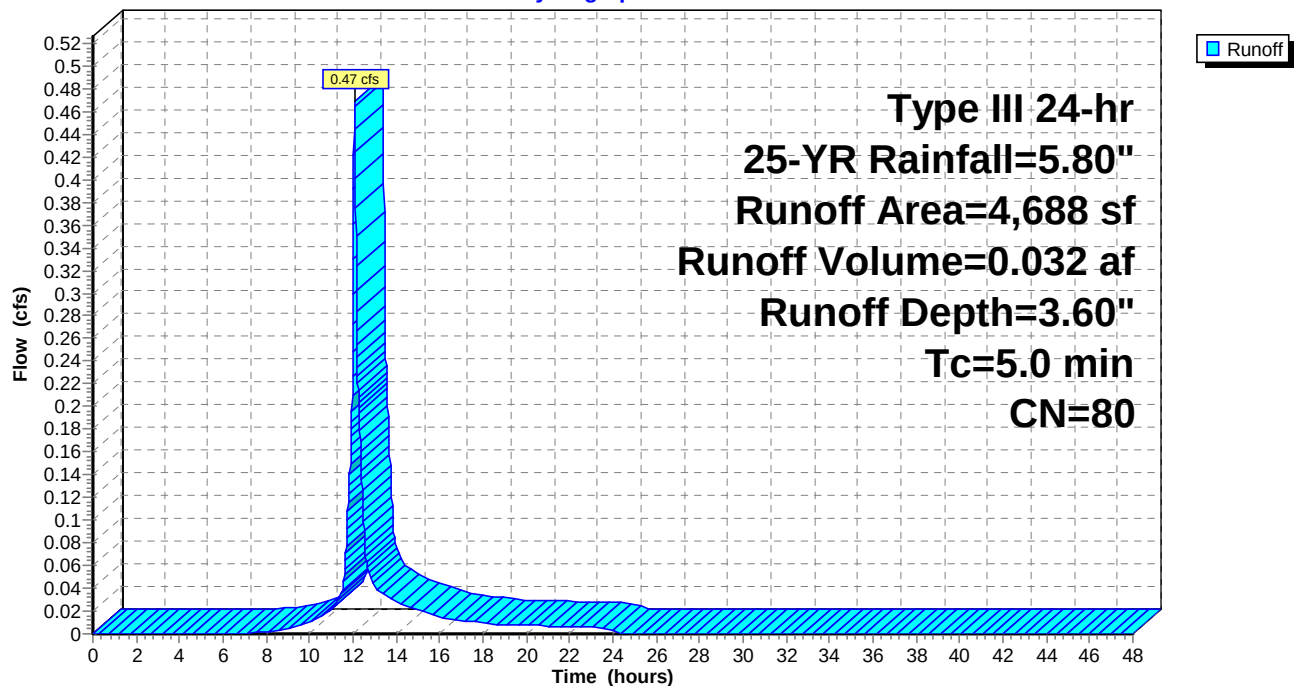
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	3,244	98	impervious
*	1,444	39	Lawn/field, HSG A
	4,688	80	Weighted Average
	1,444		30.80% Pervious Area
	3,244		69.20% Impervious Area

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

Subcatchment 91S: Playground

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Subcatchment 402S: New Prkng lot

Runoff = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af, Depth= 3.11"

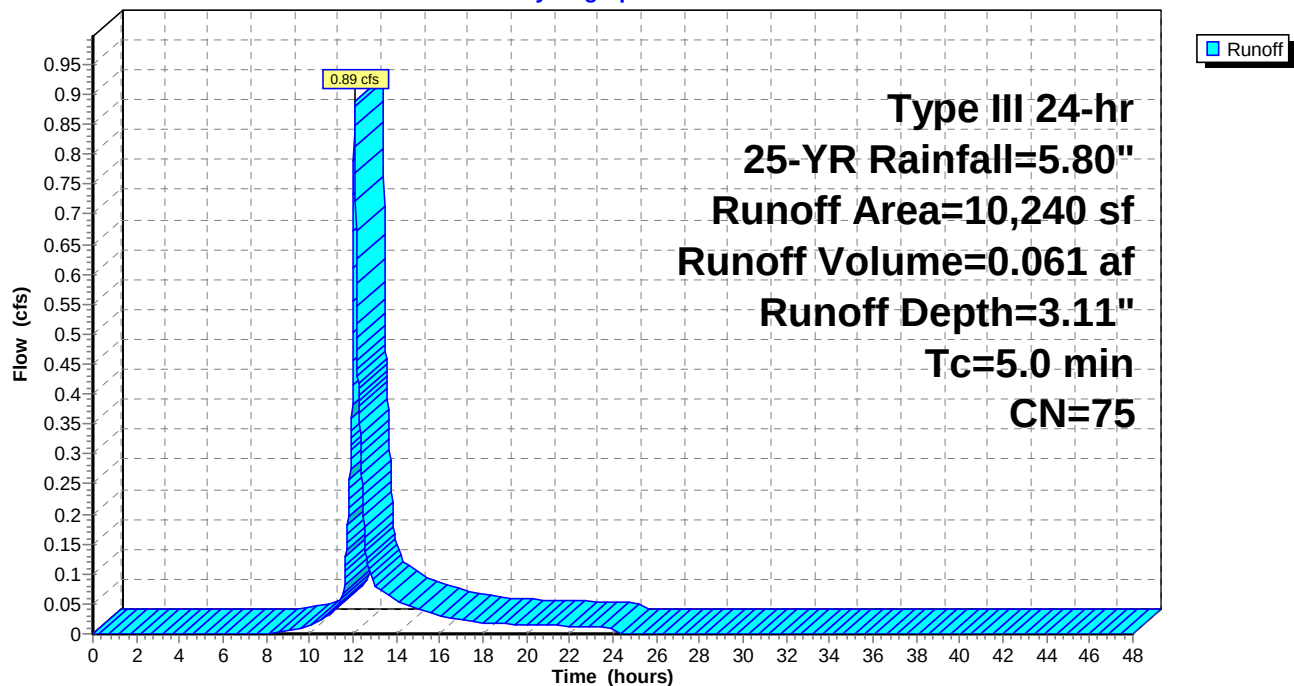
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-YR Rainfall=5.80"

	Area (sf)	CN	Description
*	4,000	39	Pervious
*	6,240	98	Impervious
	10,240	75	Weighted Average
	4,000		39.06% Pervious Area
	6,240		60.94% Impervious Area

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

Subcatchment 402S: New Prkng lot

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Reach 161R: roof drain

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.10 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-YR event
Inflow = 0.61 cfs @ 12.07 hrs, Volume = 0.048 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume = 0.048 af, Atten = 0%, Lag = 0.5 min

Routing by Stor-Ind+Trans method, Time Span = 0.00-48.00 hrs, dt = 0.01 hrs

Max. Velocity = 7.90 fps, Min. Travel Time = 0.3 min

Avg. Velocity = 2.62 fps, Avg. Travel Time = 0.8 min

Peak Storage = 10 cf @ 12.07 hrs

Average Depth at Peak Storage = 0.21'

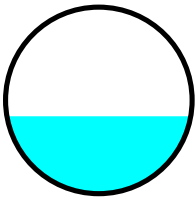
Bank-Full Depth = 0.50' Flow Area = 0.2 sf, Capacity = 1.69 cfs

6.0" Round Pipe

n = 0.013 Corrugated PE, smooth interior

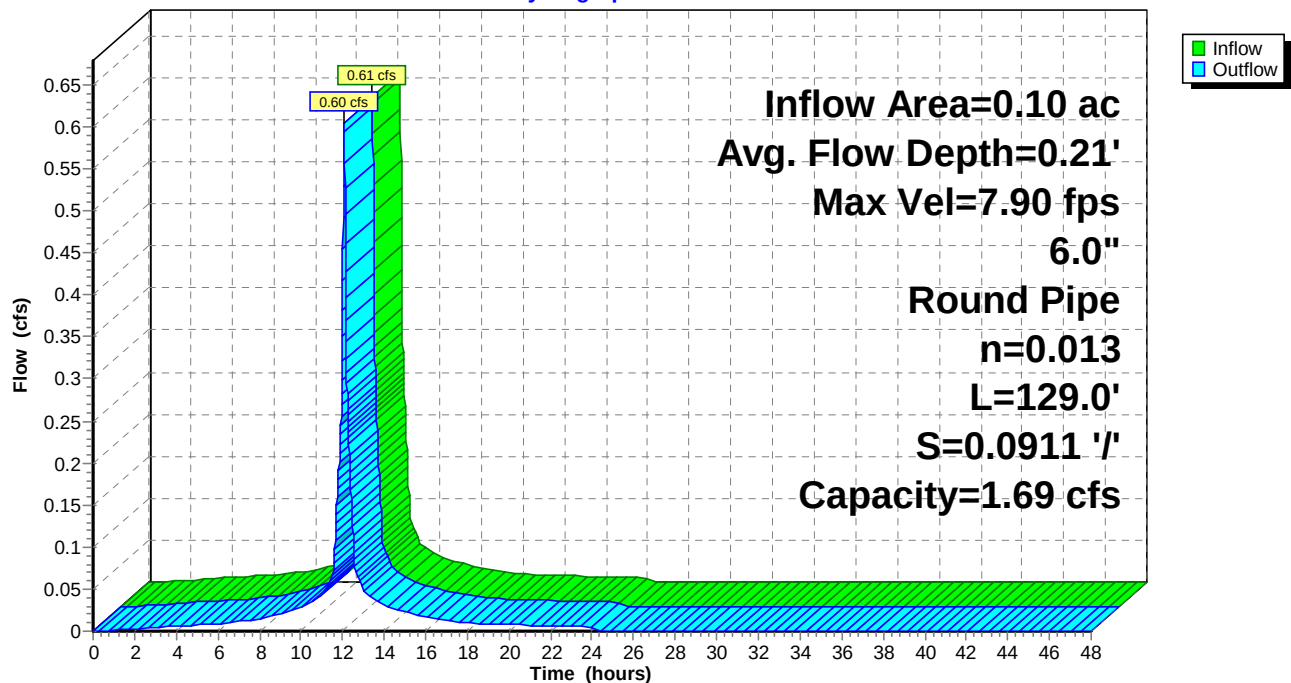
Length = 129.0' Slope = 0.0911 '/'

Inlet Invert = 130.00', Outlet Invert = 118.25'



Reach 161R: roof drain

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 1P: USSF

[81] Warning: Exceeded Pond DMH6 by 1.62' @ 12.62 hrs

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 4.20" for 25-YR event
 Inflow = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af
 Outflow = 1.16 cfs @ 12.51 hrs, Volume= 0.265 af, Atten= 81%, Lag= 26.1 min
 Primary = 1.16 cfs @ 12.51 hrs, Volume= 0.265 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= 0.01 hrs
 Peak Elev= 121.91' @ 12.51 hrs Surf.Area= 4,717 sf Storage= 10,207 cf
 Flood Elev= 126.48' Surf.Area= 4,717 sf Storage= 16,044 cf

Plug-Flow detention time= 259.1 min calculated for 0.265 af (61% of inflow)
 Center-of-Mass det. time= 154.4 min (946.7 - 792.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	118.85'	6,599 cf	51.42'W x 91.74'L x 5.50'H Field A 25,943 cf Overall - 9,445 cf Embedded = 16,499 cf x 40.0% Voids
#2A	119.60'	9,445 cf	ADS_StormTech MC-3500 d +Cap x 84 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 7 Rows of 12 Chambers Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf
		16,044 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	119.67'	8.0" Round Culvert L= 7.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.67' / 119.52' S= 0.0214 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	123.35'	5.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Device 1	121.10'	8.0" Vert. Orifice/Grate C= 0.600
#4	Device 5	118.85'	2.410 in/hr Exfiltration over Surface area above 118.85' Conductivity to Groundwater Elevation = 113.00' Excluded Surface area = 4,717 sf
#5	Secondary	116.02'	6.0" Round Culvert L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 116.02' / 115.88' S= 0.0045 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf

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Type III 24-hr 25-YR Rainfall=5.80"

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Primary OutFlow Max=1.16 cfs @ 12.51 hrs HW=121.91' (Free Discharge)

- ↑ 1=Culvert (Passes 1.16 cfs of 1.83 cfs potential flow)
- ↑ 2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Orifice Controls 1.16 cfs @ 3.34 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=118.85' (Free Discharge)

- ↑ 5=Culvert (Passes 0.00 cfs of 1.20 cfs potential flow)
- ↑ 4=Exfiltration (Controls 0.00 cfs)

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Type III 24-hr 25-YR Rainfall=5.80"

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Pond 1P: USSF - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)

Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf

Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap

Cap Storage= +14.9 cf x 2 x 7 rows = 208.6 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

12 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 89.74' Row Length +12.0" End Stone x 2 = 91.74' Base Length

7 Rows x 77.0" Wide + 9.0" Spacing x 6 + 12.0" Side Stone x 2 = 51.42' Base Width

9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

84 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 7 Rows = 9,444.6 cf Chamber Storage

25,943.3 cf Field - 9,444.6 cf Chambers = 16,498.7 cf Stone x 40.0% Voids = 6,599.5 cf Stone Storage

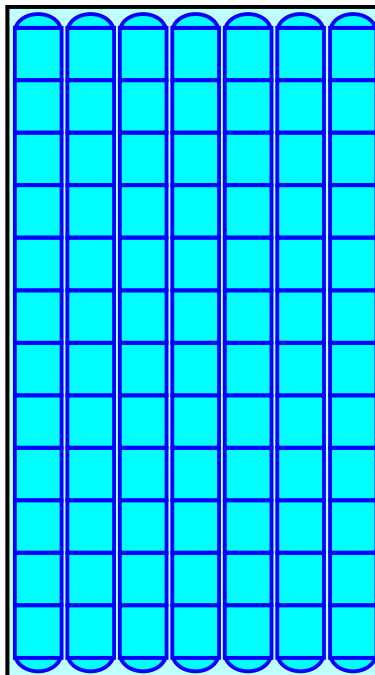
Chamber Storage + Stone Storage = 16,044.1 cf = 0.368 af

Overall Storage Efficiency = 61.8%

84 Chambers

960.9 cy Field

611.1 cy Stone



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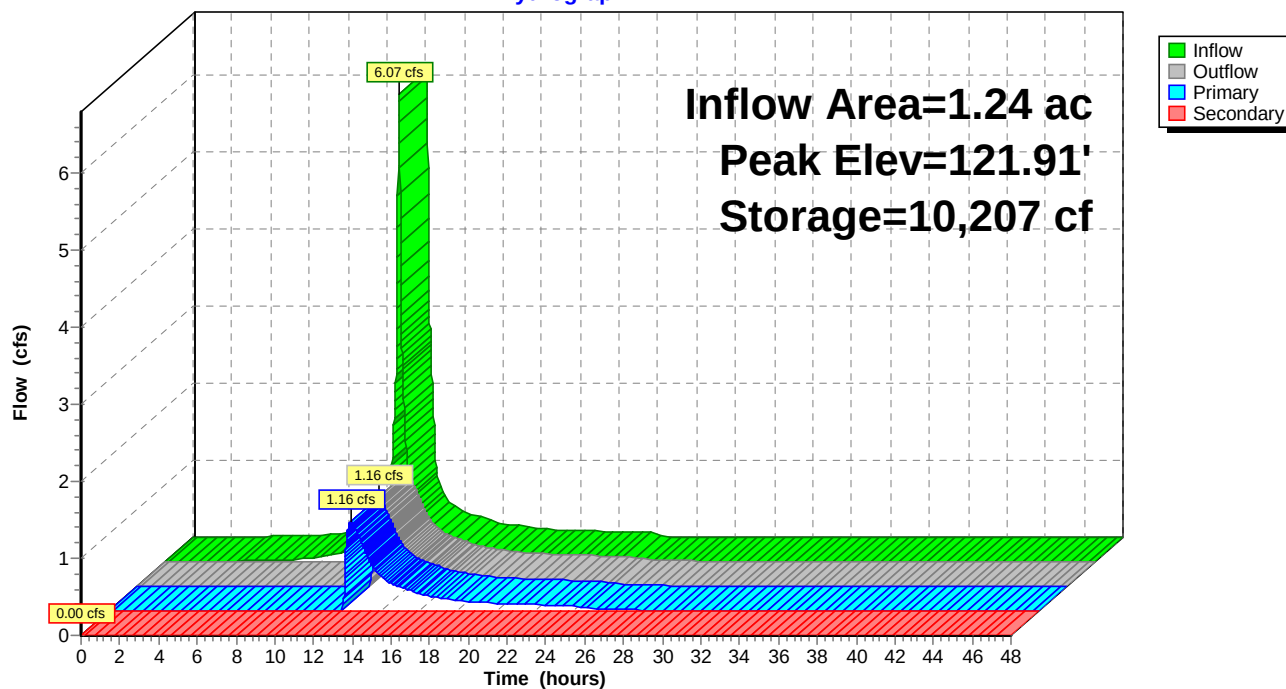
Type III 24-hr 25-YR Rainfall=5.80"

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Pond 1P: USSF

Hydrograph



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 206P: City CB @ Fletcher & Danforth

Inflow Area = 0.63 ac, 25.26% Impervious, Inflow Depth = 1.33" for 25-YR event
Inflow = 0.75 cfs @ 12.15 hrs, Volume= 0.070 af
Outflow = 0.75 cfs @ 12.15 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.75 cfs @ 12.15 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 107.93' @ 12.15 hrs

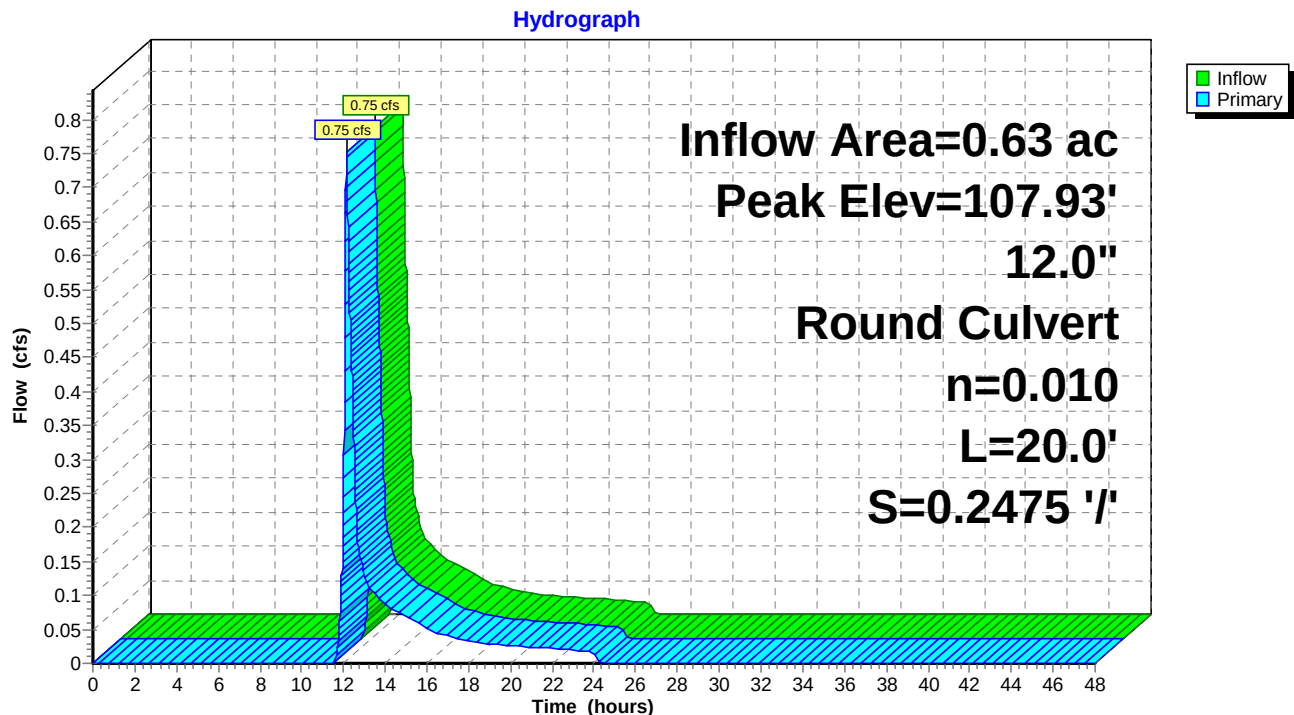
Flood Elev= 111.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	107.43'	12.0" Round Culvert L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 107.43' / 102.48' S= 0.2475 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.75 cfs @ 12.15 hrs HW=107.93' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.75 cfs @ 1.90 fps)

Pond 206P: City CB @ Fletcher & Danforth



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 210P: Existing FI

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 2.83" for 25-YR event
Inflow = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af
Outflow = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 132.86' @ 12.11 hrs

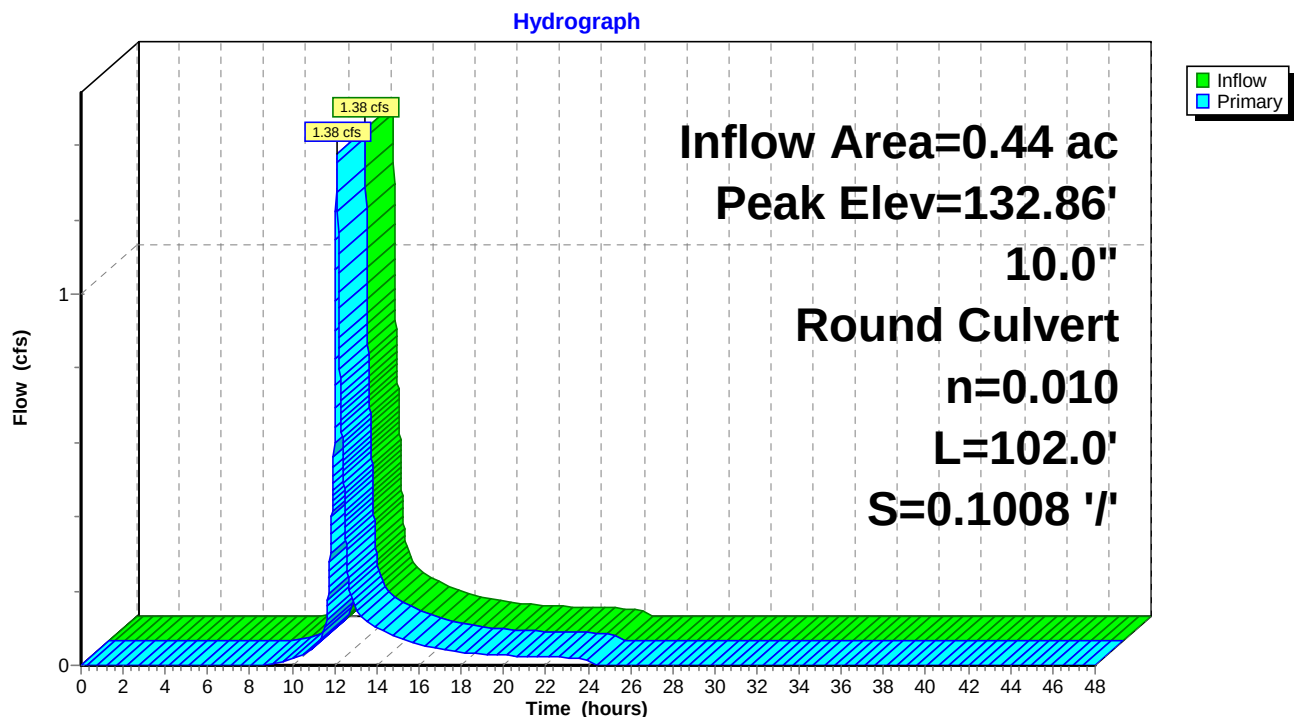
Flood Elev= 140.41'

Device	Routing	Invert	Outlet Devices
#1	Primary	132.00'	10.0" Round Culvert L= 102.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 132.00' / 121.72' S= 0.1008 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.38 cfs @ 12.11 hrs HW=132.86' (Free Discharge)

↑1=Culvert (Inlet Controls 1.38 cfs @ 2.53 fps)

Pond 210P: Existing FI



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Summary for Pond 220P: Existing DMH

[79] Warning: Submerged Pond 210P Primary device # 1 OUTLET by 0.81'

Inflow Area = 0.44 ac, 56.16% Impervious, Inflow Depth = 2.83" for 25-YR event
Inflow = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af
Outflow = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.38 cfs @ 12.11 hrs, Volume= 0.104 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 122.53' @ 12.11 hrs

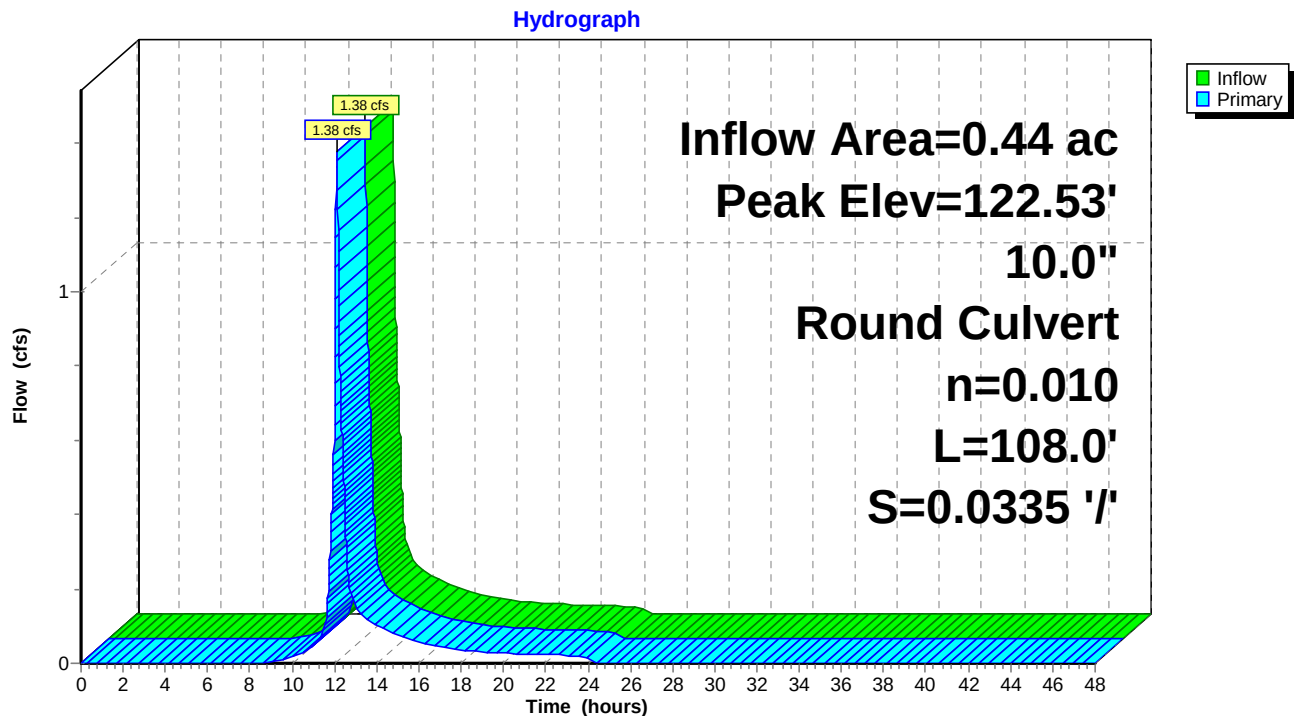
Flood Elev= 128.47'

Device	Routing	Invert	Outlet Devices
#1	Primary	121.67'	10.0" Round Culvert L= 108.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 121.67' / 118.05' S= 0.0335 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.37 cfs @ 12.11 hrs HW=122.53' (Free Discharge)

↑**1=Culvert** (Inlet Controls 1.37 cfs @ 2.52 fps)

Pond 220P: Existing DMH



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Summary for Pond 230P: Existing DMH

[81] Warning: Exceeded Pond 220P by 0.48' @ 12.12 hrs

[81] Warning: Exceeded Pond 260P by 2.56' @ 12.11 hrs

Inflow Area = 1.27 ac, 70.40% Impervious, Inflow Depth = 3.69" for 25-YR event
Inflow = 4.45 cfs @ 12.12 hrs, Volume= 0.390 af
Outflow = 4.45 cfs @ 12.12 hrs, Volume= 0.390 af, Atten= 0%, Lag= 0.0 min
Primary = 4.45 cfs @ 12.12 hrs, Volume= 0.390 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 123.02' @ 12.12 hrs

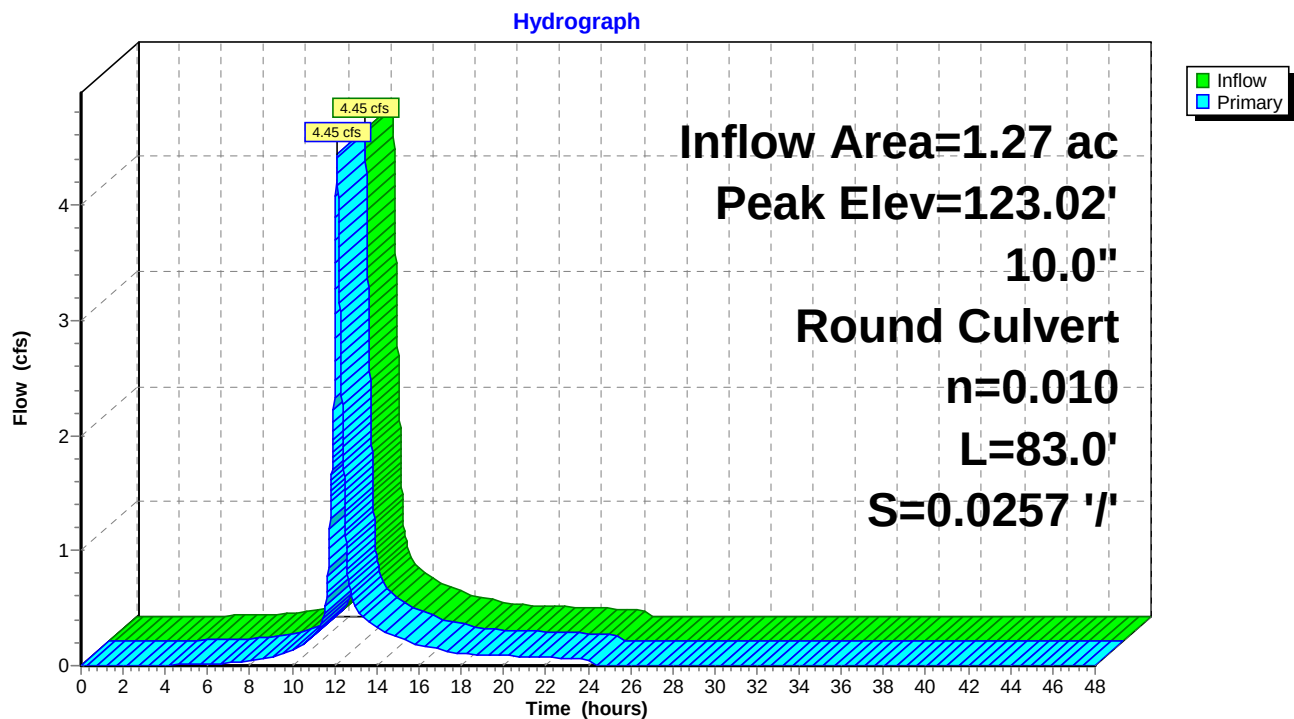
Flood Elev= 125.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	118.00'	10.0" Round Culvert L= 83.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 118.00' / 115.87' S= 0.0257 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=4.44 cfs @ 12.12 hrs HW=123.01' (Free Discharge)

↑1=Culvert (Inlet Controls 4.44 cfs @ 8.14 fps)

Pond 230P: Existing DMH



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 260P: Storage Pipes

[62] Hint: Exceeded Reach 161R OUTLET depth by 2.04' @ 12.15 hrs

Inflow Area = 0.72 ac, 79.29% Impervious, Inflow Depth = 4.22" for 25-YR event
 Inflow = 3.53 cfs @ 12.07 hrs, Volume= 0.254 af
 Outflow = 2.69 cfs @ 12.14 hrs, Volume= 0.254 af, Atten= 24%, Lag= 3.8 min
 Primary = 2.69 cfs @ 12.14 hrs, Volume= 0.254 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 120.47' @ 12.14 hrs Surf.Area= 924 sf Storage= 626 cf
 Flood Elev= 125.26' Surf.Area= 0 sf Storage= 3,468 cf

Plug-Flow detention time= 1.6 min calculated for 0.254 af (100% of inflow)
 Center-of-Mass det. time= 1.6 min (791.3 - 789.6)

Volume	Invert	Avail.Storage	Storage Description
#1	119.16'	3,468 cf	48.0" Round Pipe Storage L= 276.0' S= 0.0027 '/'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.16'	12.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.16' / 118.02' S= 0.0380 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.68 cfs @ 12.14 hrs HW=120.47' (Free Discharge)
 ↑**1=Culvert** (Inlet Controls 2.68 cfs @ 3.42 fps)

5b. Post

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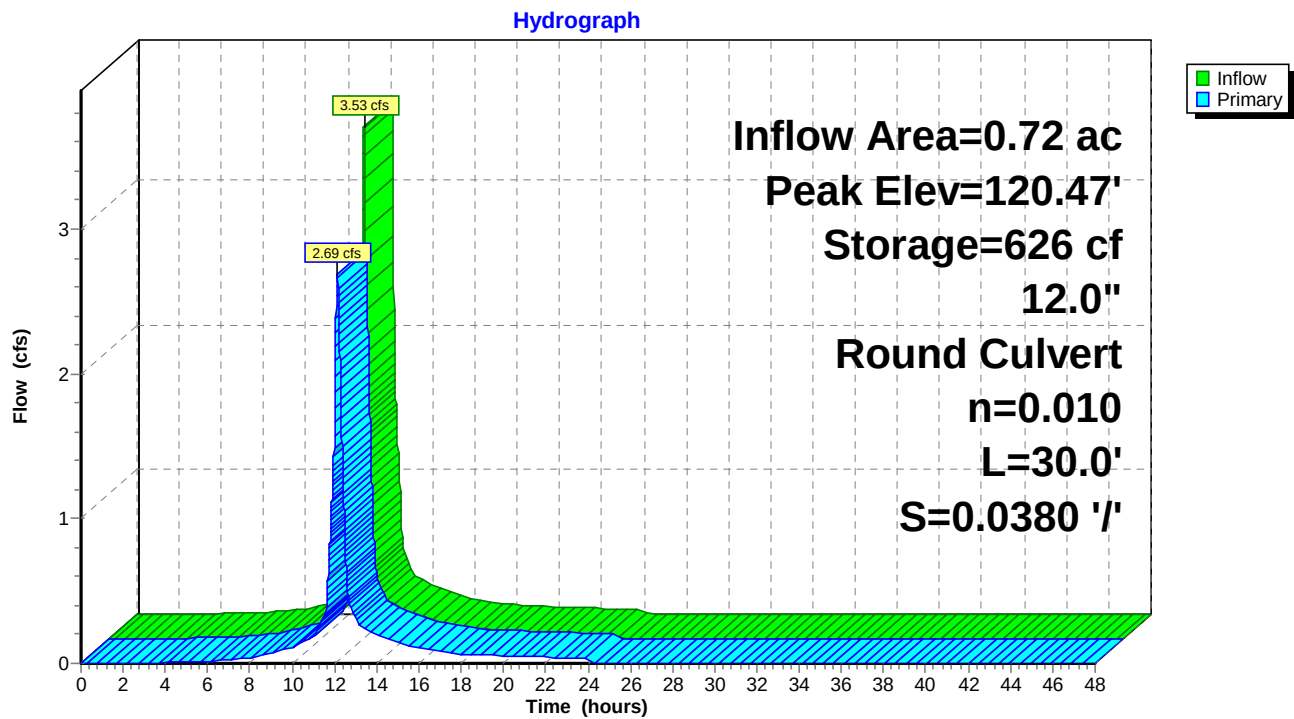
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Pond 260P: Storage Pipes



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond 340P: CB at SW Cor prkng lot

[57] Hint: Peaked at 129.78' (Flood elevation advised)

Inflow Area = 0.24 ac, 60.94% Impervious, Inflow Depth = 3.11" for 25-YR event
Inflow = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af
Outflow = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 12.08 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

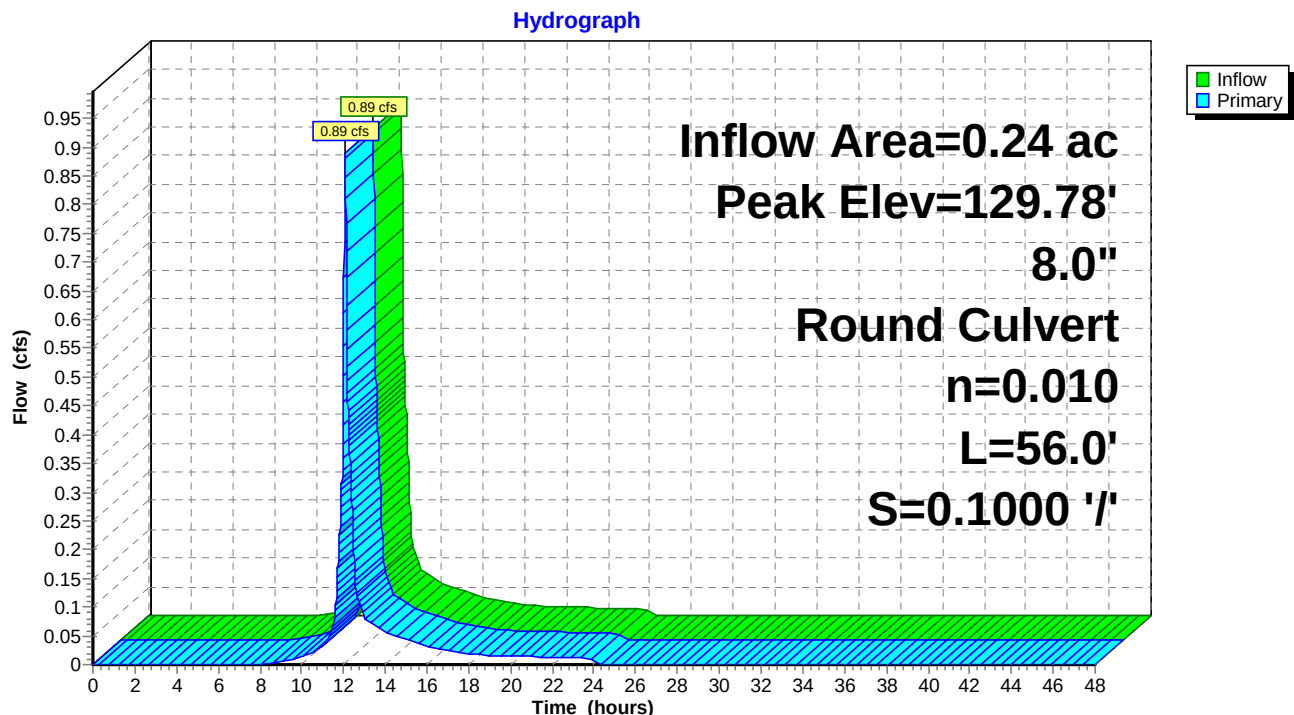
Peak Elev= 129.78' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	129.00'	8.0" Round Culvert L= 56.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 129.00' / 123.40' S= 0.1000 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.89 cfs @ 12.08 hrs HW=129.78' (Free Discharge)

↑**1=Culvert** (Inlet Controls 0.89 cfs @ 2.54 fps)

Pond 340P: CB at SW Cor prkng lot



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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond CB4: Proposed DMH

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 4.20" for 25-YR event
Inflow = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af
Outflow = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af, Atten= 0%, Lag= 0.0 min
Primary = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 126.90' @ 12.07 hrs

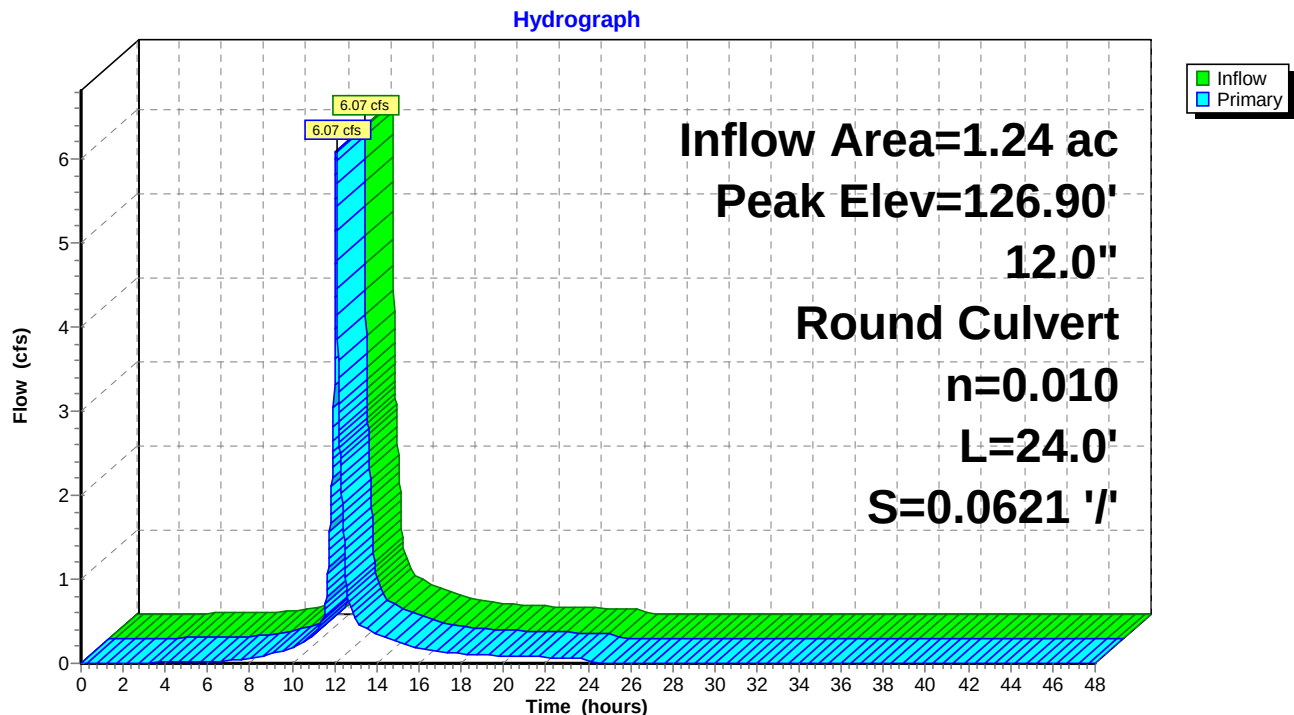
Flood Elev= 127.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	122.26'	12.0" Round Culvert L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 122.26' / 120.77' S= 0.0621 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.06 cfs @ 12.07 hrs HW=126.88' (Free Discharge)

↑**1=Culvert** (Inlet Controls 6.06 cfs @ 7.72 fps)

Pond CB4: Proposed DMH



5b. Post

Prepared by Microsoft

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond DMH: OCS Bypass

[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 0.48'

[79] Warning: Submerged Pond DMH6 Secondary device # 2 by 0.38'

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth > 2.57" for 25-YR event
Inflow = 1.16 cfs @ 12.51 hrs, Volume= 0.265 af
Outflow = 1.16 cfs @ 12.51 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min
Primary = 1.16 cfs @ 12.51 hrs, Volume= 0.265 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 120.15' @ 12.51 hrs

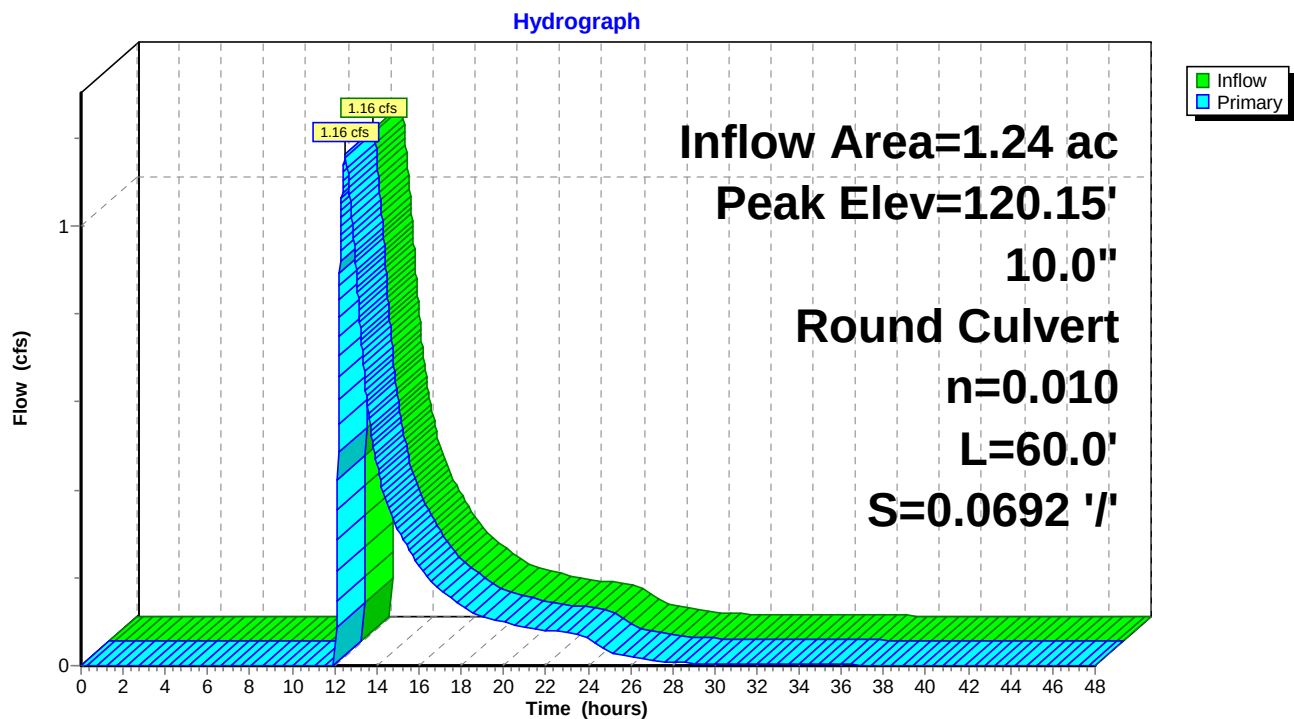
Flood Elev= 126.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.42'	10.0" Round Culvert L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.42' / 115.27' S= 0.0692 ' / Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=1.17 cfs @ 12.51 hrs HW=120.15' (Free Discharge)

↑1=Culvert (Inlet Controls 1.17 cfs @ 2.30 fps)

Pond DMH: OCS Bypass



5b. Post

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond DMH6: Access MH

[79] Warning: Submerged Pond CB4 Primary device # 1 OUTLET by 0.47'

Inflow Area = 1.24 ac, 78.73% Impervious, Inflow Depth = 4.20" for 25-YR event
 Inflow = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af
 Outflow = 6.07 cfs @ 12.07 hrs, Volume= 0.433 af, Atten= 0%, Lag= 0.0 min
 Primary = 6.07 cfs @ 12.07 hrs, Volume= 0.433 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= 0.01 hrs

Peak Elev= 121.24' @ 12.07 hrs

Flood Elev= 126.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	119.77'	24.0" Round Culvert L= 9.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Secondary	119.77'	24.0" Round Culvert L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 119.77' / 119.77' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf
#3	Device 2	123.35'	4.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=6.06 cfs @ 12.07 hrs HW=121.23' (Free Discharge)

1=Culvert (Barrel Controls 6.06 cfs @ 3.43 fps)
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=119.77' (Free Discharge)

2=Culvert (Controls 0.00 cfs)


3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

5b. Post

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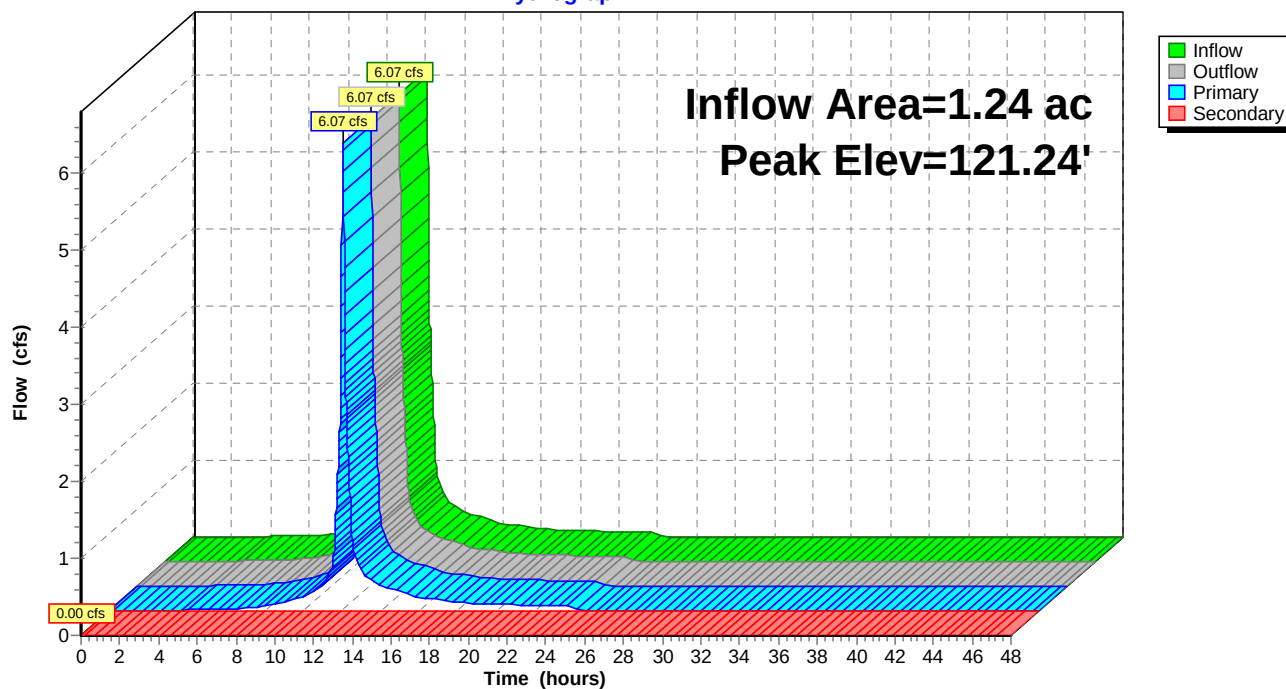
Type III 24-hr 25-YR Rainfall=5.80"

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Pond DMH6: Access MH

Hydrograph



5b. Post

Prepared by Microsoft

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Type III 24-hr 25-YR Rainfall=5.80"

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Summary for Pond DMH7: Proposed DMH

[79] Warning: Submerged Pond 1P Secondary device # 5 INLET by 4.58'

[79] Warning: Submerged Pond 230P Primary device # 1 INLET by 2.60'

[81] Warning: Exceeded Pond DMH by 0.87' @ 12.13 hrs

Inflow Area = 2.51 ac, 74.51% Impervious, Inflow Depth = 3.14" for 25-YR event
Inflow = 4.64 cfs @ 12.14 hrs, Volume= 0.656 af
Outflow = 4.64 cfs @ 12.14 hrs, Volume= 0.656 af, Atten= 0%, Lag= 0.0 min
Primary = 4.64 cfs @ 12.14 hrs, Volume= 0.656 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 120.60' @ 12.14 hrs

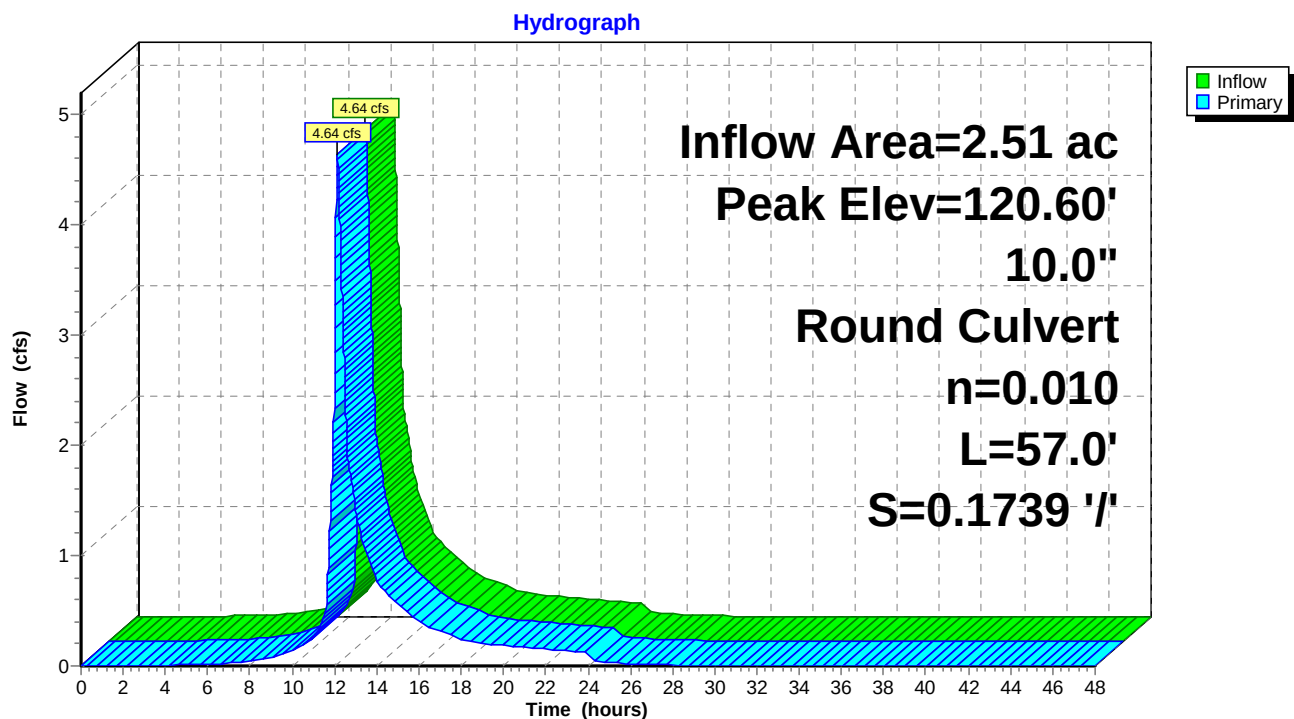
Flood Elev= 124.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	115.17'	10.0" Round Culvert L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 115.17' / 105.26' S= 0.1739 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.55 sf

Primary OutFlow Max=4.64 cfs @ 12.14 hrs HW=120.60' (Free Discharge)

↑**1=Culvert** (Inlet Controls 4.64 cfs @ 8.51 fps)

Pond DMH7: Proposed DMH



5b. Post

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Type III 24-hr 25-YR Rainfall=5.80"

Printed 5/27/2016

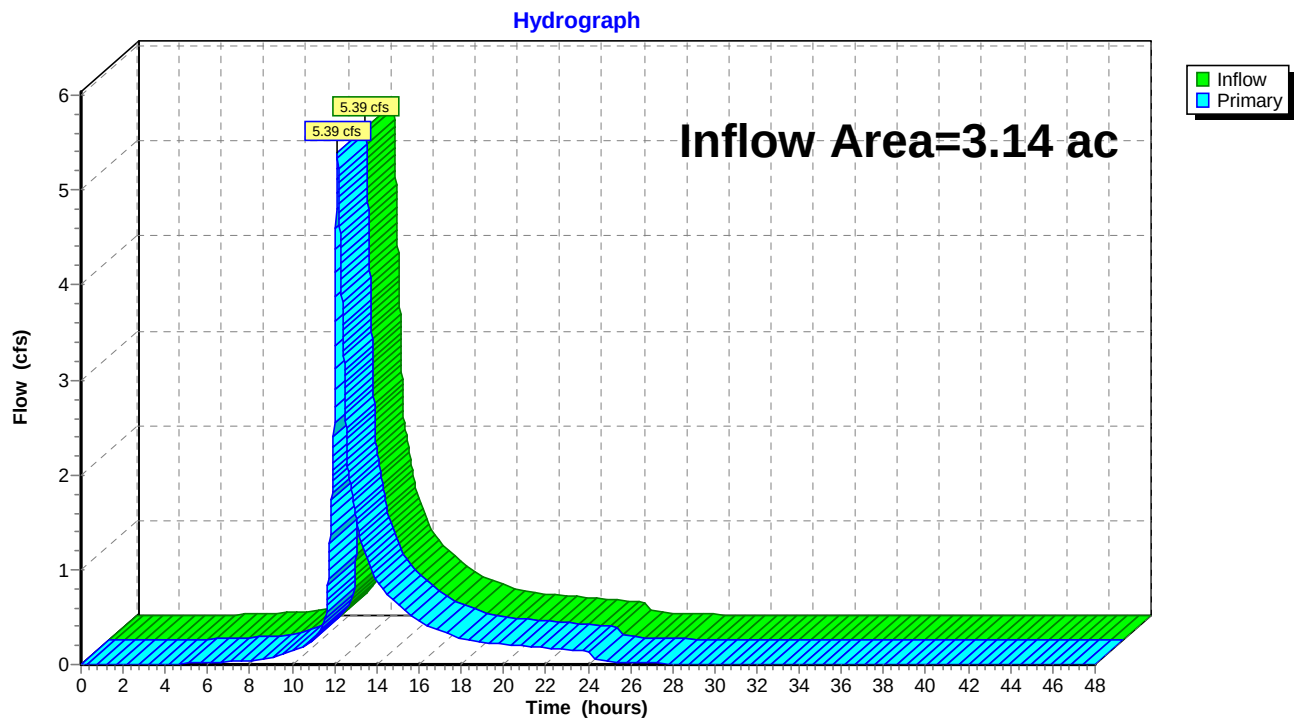
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Summary for Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8

Inflow Area = 3.14 ac, 64.59% Impervious, Inflow Depth = 2.77" for 25-YR event
Inflow = 5.39 cfs @ 12.14 hrs, Volume= 0.726 af
Primary = 5.39 cfs @ 12.14 hrs, Volume= 0.726 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link SP1: Existing Combined Sewer in Danforth/Doghouse MH DMH 8





13. CONSISTENCY WITH MASTER PLAN

The Waynflete School Campus is an existing, previously approved development subject to the zoning requirements of the Waynflete School Overlay Zone; the proposed project will not result in a change in use. Section 6 of this Report describes how the proposed project will comply with the zoning requirements. The Schematic Design Narrative from Scott Simons Architects attached to Section 3 of this Report describes some of the basis for the proposed project and includes a description of the project's compliance with the City's Historic Preservation requirements; a Historic Preservation Application for Certificate of Appropriateness was submitted on October 5, 2015, and a public hearing has been scheduled for March 16, 2016.



14. UTILITY CAPACITY TO SERVE

The campus upgrades are not being proposed to accommodate a larger enrollment; rather, it is intended to improve the classroom learning experience. As such, an increase in the utility supply needs for the Site is not anticipated and we therefore do not anticipate the need to verify capacity to serve with Portland Water District or Department of Public Services for this project. However, it should be noted that the project team will be coordinating the design of the proposed project with the appropriate utilities and will obtain approvals for any modifications to existing services. Evidence of approvals for this work will be provided to the City upon receipt.

The Site's existing sewer services and storm drain system discharge to the City's combined sewer system. The proposed project will improve overall conditions by separating the Site's sewer services from the storm drain system. The Site's storm drain system currently enters the City's combined sewer system in Danforth Street via two eight inch pipes; one of these pipes will be demolished and the other will be upgraded to a ten inch pipe. The cross-sectional area of the ten-inch pipe will not exceed the cross-sectional area of the two existing eight-inch pipes, such that the overall size of the connection to the combined sewer system will not be increased.

Additionally, in accordance with Section 2.7.2. of the City of Portland Technical Manual, catch basin drain pipes of less than ten inches in diameter are not permitted; the existing catch basin connection at the corner of Fletcher and Danforth Streets is eight inches. This pipe will be upgraded to 12 inches to accommodate existing capacity issues. As further described in Section 12 of this report, an on-site, subsurface stormwater treatment and detention system is proposed for the playfield, which reduces the peak rate of runoff from the site and provides stormwater treatment.



15. SOLID WASTE

15.1 COMMERCIAL SOLID WASTE

All solid waste materials from the Waynflete School will continue to be transported and disposed of in accordance with applicable laws and regulations. As previously noted, the proposed expansion is not intended to accommodate a larger enrollment; as such, an increase in waste generation from the Site is not anticipated at this time.

15.2 CONSTRUCTION & LAND CLEARING DEBRIS

As with any construction project, the proposed construction will generate construction, demolition, and land-clearing debris. The contractor(s) for the construction work will be fully responsible for handling all waste generated by the project and for managing and disposing of it in accordance with Maine Solid Waste Management Regulations - 06-096 CMR 400-409. The contractor(s) will be bound by contract to dispose of all materials in full accordance with applicable Maine regulations and approval of the City of Portland. All efforts will be made during construction to minimize waste and to recycle. Construction debris will be transported to a waste management facility licensed to accept the waste materials.

15.3 SPECIAL & HAZARDOUS WASTE

The proposed development will not produce any special or hazardous waste.

15.4 FINDINGS

Adequate provisions for solid waste disposal have been made. General solid waste, construction, demolition, and land-clearing debris will be managed in full accordance with all applicable laws and will not cause a deleterious effect on the environment.



16. SUMMARY OF FIRE CODES

The items in the Portland Fire Department Site Review Checklist are addressed as follows:

- Name, address, telephone number of applicant
 - o The Waynflete School, c/o Anne C. Hagstrom, Director of Finance & Operations
 - o 360 Spring Street, Portland, ME 04102
 - o 207-774-7863 ext. 1227
- Name, address, telephone number of architect
 - o Scott Simons Architects, c/o Austin Smith
 - o 75 York Street, Portland, ME 04101
 - o 207-772-4656
- Proposed uses of any structures [NFPA and IBC classification]
 - o The proposed use of the structures will be consistent with the existing school use.
- Square footage of all structures [total and per story].
 - o This information is provided on the attached plan set.
- Elevations of all structures
 - o This information is provided on the attached plan set.
- Proposed fire protection of all structures
 - o All structures shall be sprinkled.
- Hydrant locations
 - o This information is provided on the attached plan set.
- Water main size and location
 - o This information is provided on the attached plan set.
- Access to all structures [min. 2 sides]
 - o This information is provided on the attached plan set.
- A code summary shall be included referencing NFPA 1 and all fire department technical standards.
 - o A code summary referencing NFPA 1 and all fire department technical standards is provided on Sheet G002 of the Architectural Plan Sets for both the Waynflete Lower School Addition & Renovations and the Waynflete Gymnasium.

The full plan set has been provided to the Fire Department Reviewer, along with a cover letter including the above information.



17. CONSISTENCY WITH PORTLAND DESIGN STANDARDS & DESIGN MANUAL

The City of Portland has design standards contained within Section 14-526 of the City Code; the City of Portland Design Manual does not contain any design guidance relevant to the Waynflete School Campus. The proposed development will follow the City's design standards as described below:

a) *Transportation Standards*

The campus upgrades are not being proposed for the purpose of accommodating a larger enrollment; rather, it is intended to improve the overall learning experience of the classrooms. As such, an increase in traffic throughout, to, and from the Site is not anticipated at this time. No new curb cuts or parking lots are proposed. The school's current traffic management protocols and existing campus parking areas will be maintained.

b) *Environmental Quality Standards*

1. *Preservation of Significant Natural Features*

The Site is fully developed and there are no known areas of significant natural features, including unusual natural areas, threatened or endangered botanical features, areas of significant wildlife habitats, aquifers, waterbodies, or wetland areas.

2. *Landscaping & Landscape Preservation*

Landscaping Plans are included in the Design Drawings attached to Section 3 of this Report. Existing trees will be preserved to the maximum extent practicable. Vegetation not specified for removal will be protected during construction. The project design team will request a meeting with the City Arborist, Jeff Tarling, to review the Landscaping Plan and to coordinate proposed plantings and the preservation of existing landscaping.

3. *Water Quality, Stormwater Management & Erosion Control*

The proposed project has been designed to minimize the amount of stormwater leaving the site. As further described in Section 12 of this report, an on-site, subsurface stormwater treatment and detention system is proposed, which reduces the peak rate of runoff from the site, provides stormwater treatment, and complies with the standards of Section 5 of the Technical Manual. The proposed project will not result in the flooding of adjacent lots or City property. The proposed project is not located within the watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination either during or post-construction.

The proposed project has also been designed to provide for adequate and sanitary disposal of sewage, as further described in Section 14 of this Report.

c) *Public Infrastructure & Community Safety Standards*

The proposed project's consistency with City Master Plans is described in Section 13 of this Report.

As a School Campus, provisions for public safety are of the utmost importance and have been incorporated into the design of site visibility, access, and territorial reinforcement. The school's current traffic management protocols, including emergency vehicle access, will be maintained.

The availability and adequate capacity of public utilities is described in Section 14 of this Report.

The full plan set has been provided to the Fire Department Reviewer, along with a cover letter including the items in the Portland Fire Department Site Review Checklist.

d) *Site Design Standards*

1. *Massing, ventilation, and wind impact:* The proposed Lower School is within the school campus and does not result in any changes to ventilation or significant change in wind patterns or any adverse effects on the adjacent neighbor on Fletcher Street. The proposed Gymnasium will be recessed into the ground an additional six feet, such that the proposed roof height will be lower than the existing roof height of the current gymnasium. The Lower School will be pursuing a Passive House certification and, as a result, will have minimal HVAC systems. Air source heat pumps will be used with condensers on roof tops or in screened utility yards. The gymnasium will be serviced by a major roof top mechanical unit, which will be screened and positioned so that it faces the campus interior.
2. *Shadows:* The footprints of both the proposed and existing Lower School and Gymnasium are essentially the same, and there is no significant change to building heights; no adverse impacts from shadows are anticipated to result from the proposed project.
3. *Snow and ice loading:* The proposed buildings have been designed to accommodate appropriate snow and ice loads and to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.
4. *View corridors:* The proposed buildings are located within the Waynflete School Campus and comply with the building height requirements, as described in Section 6 of this Report, and will therefore not obstruct public view corridors identified in the City's Downtown Vision View Corridor Protection Plan.
5. *Historic Resources:* A Historic Preservation Application for Certificate of Appropriateness was submitted on October 5, 2015, and a public hearing has been scheduled for March 16, 2016.
6. *Exterior Lighting:* Cut Sheets for all proposed lighting fixtures, in addition to a Photometric Plan, are attached to this Section for your reference. No pole mounted light fixtures will be used; all site lighting will be building mounted or on the underside of canopies. All exterior light fixtures will be full cutoff with no light emitted above the horizontal plane. No light trespass onto the adjacent properties or street is anticipated to result from the proposed project.
7. *Noise and Vibration:* Noise associated with the proposed development will not exceed regulated levels. The Lower School will be serviced by air source heat pumps and condensers will be located on roof tops and in a concealed utility yard. The Gymnasium will be serviced by a major rooftop air handling unit located on a rooftop within the campus and screened for noise reduction. Proposed HVAC equipment is further described in Section 18 of this Report.
8. *Signage and Wayfinding:* All signage will be limited to building names and function and will be designed to the Waynflete campus standards.
9. *Zoning Related Design Standards:* An assessment of the City Zoning requirements is provided in Section 6 of this Report. There are no other zoning related design standards associated with the proposed project; the City of Portland Design Manual does not contain any design guidance relevant to the Waynflete School Campus.

17.1 ATTACHMENTS

- Lighting Fixture Cut Sheets
- Photometric Plan

PHILIPS LIGHTOLIER

Downlighting

SlimSurface LED

5" and 7" round aperture
surface mount downlight

TYPE C1



Project: _____
Location: _____
Cat.No: _____
Type: _____
Lamps: _____ Qty: _____
Notes: _____

SlimSurface LED is a 5/8" thick surface mounted luminaire with the appearance of a recessed downlight. Easy to install into most standard j-boxes, the SlimSurface LED round apertures are available in a 5" 650 lm and 7" 1000 lm fixture.

Ordering information

example: S5R830K7AL

Series	Size	Shape	CRI	CCT	Lumens	Finish	UL listing
S		R					
S SlimSurface	5 5"	R Round	8 80 9 90 ¹	27K 2700K 30K 3000K 35K 3500K 40K 4000K	7 650lm	blank White AL Aluminum BK Black	blank Wet location
	5 5"	R Round	8 80	30K 3000K	7 650lm	blank White	-D Damp location
	7 7"	R Round	8 80 9 90 ¹	27K 2700K 30K 3000K 35K 3500K 40K 4000K	10 1000lm	blank White AL Aluminum BK Black	blank Wet location
	7 7"	R Round	8 80	30K 3000K	10 1000lm	blank White	-D Damp location



White



Black



Aluminum

1. 90 CRI is only available with 2700K

Note: Lumen output is calculated based on 80 CRI and 3000K CCT. Please consult adjustment factors table on page 3 for other lumen outputs.

Features

- Flange:** One piece plastic flange. Injection molded white, applied aluminum, or black.
- Lens:** High transmittance lens allowing for smooth, comfortable light pattern.
- Power supply:** Integral class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications)
- LED Strip:** Utilizes Philips LEDs.
- Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).
- Compliance:** Non-conductive fixture for shower light application. This product complies with the requirements of the California Energy Commission regulated under Title 24, and has been listed in the Title 20 database.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit. Unit tolerates sustained open circuit and short circuit output conditions without damage.

Dimming: All luminaires are intended for use with incandescent standard type dimmers (TRIAC). 10%-100% dimming range.

Lumen Output	Max. Input Current	Max. Input Power
630lm	0.08A	9.5W
980lm	0.13A	14.2W

Input Voltage 120V
Input Frequency 50/60Hz
Power Factor > 0.9
Max. THD < 15%
Minimum Operating Temperature -20°C

Labels

cULus listed for damp locations (wall mount applications and wet locations (covered ceilings). ENERGY STAR® certified.

Compatibility

Installs into standard J-box applications:



3 1/2" round (plastic)



4" square (plastic)
Not compatible with S5R



4" octagonal (metal)



4" square (metal)
Not compatible with S5R

Note: 2 1/8" deep octagon junction box recommended for through circuit wiring applications.

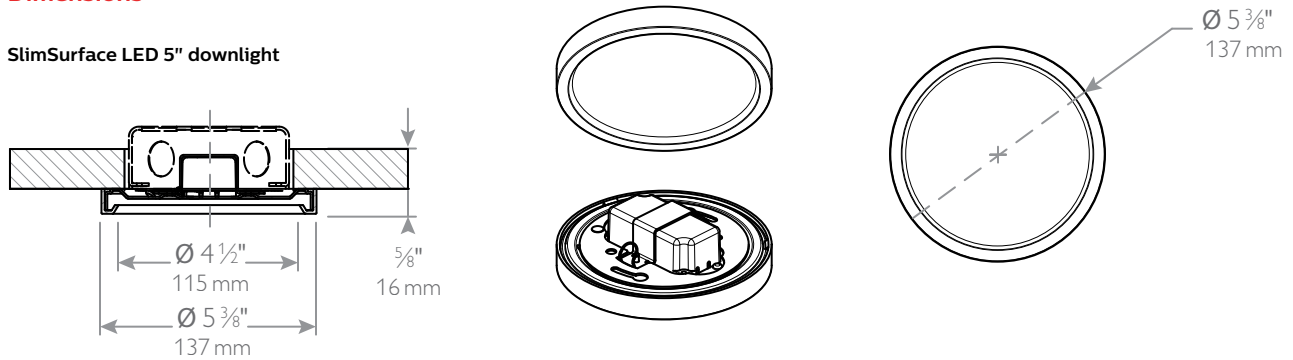


S5R & S7R SlimSurface LED

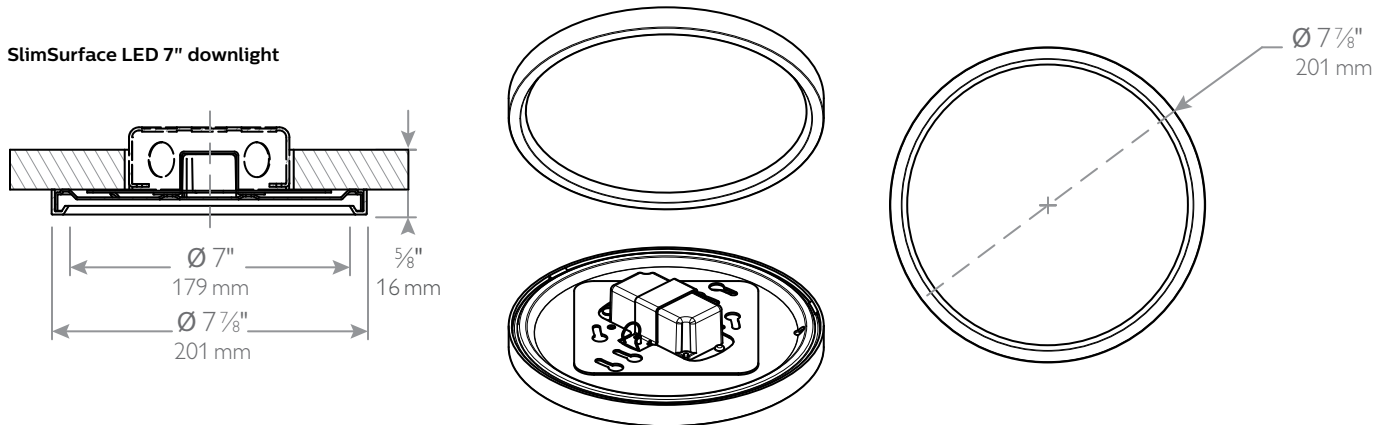
5" and 7" round aperture surface mount downlight

Dimensions

SlimSurface LED 5" downlight



SlimSurface LED 7" downlight

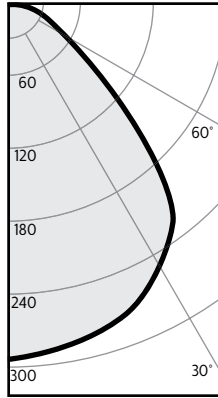


S5R & S7R SlimSurface LED

5" and 7" round aperture surface mount downlight

S5R830K7 • 10 W LED, 3000 K, 80 CRI

Candela Curves



Report#: 438GFR

Output lumens:	625lm	Input Watts ² :	9.8W
Spacing Criterion:	1.3	Efficacy:	64.8lm/w
Field Angle:	141°	CCT ³ :	3000 K
Beam Angle:	92°	CRI:	>80

Angle	Mean CP	Lumens
0	294	
5	291	28
10	286	
15	282	80
20	276	
25	265	122
30	253	
35	236	147
40	211	
45	157	121
50	108	
55	74	68
60	53	
65	39	40
70	30	
75	22	23
80	14	
85	5	6
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	12	6.5'
6'	8	7.8'
7'	6	9.1'
8'	5	10.4'
9'	4	11.7'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	26.7	0.43
6'	17.5	0.29
7'	12.5	0.20
8'	10.4	0.17
9'	8.4	0.14

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
	4	87	77	69	63	75	63	73	62	71	61	58
	5	81	69	61	55	68	55	66	55	64	54	52
	6	75	63	55	49	62	49	61	49	59	48	46
	7	70	58	50	44	57	44	55	44	54	43	41
	8	65	53	45	40	52	40	51	39	50	39	37
	9	61	49	41	36	48	36	47	36	46	36	34
10	58	45	38	33	45	33	44	33	43	33	31	

Zonal lumens & percentages

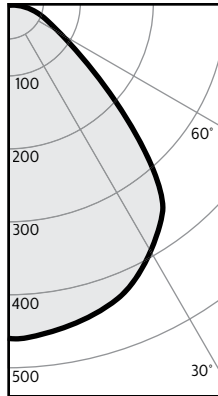
Zone	Lumens	%Luminaire
0-30	230	36.2%
0-40	377	59.3%
0-60	566	89.2%
0-90	635	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R830K10 • 14 W LED, 3000 K, 80 CRI

Candela Curves



Report#: 441GFR

Output lumens:	977lm	Input Watts ² :	13.8W
Spacing Criterion:	1.3	Efficacy:	70.8lm/w
Field Angle:	140°	CCT ³ :	3000 K
Beam Angle:	91°	CRI:	>80

Angle	Mean CP	Lumens
0	461	
5	457	43
10	450	
15	444	125
20	433	
25	415	192
30	395	
35	365	227
40	322	
45	235	182
50	161	
55	111	102
60	80	
65	59	60
70	45	
75	34	36
80	22	
85	10	11
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	18	6.5'
6'	13	7.8'
7'	9	9.1'
8'	7	10.4'
9'	6	11.7'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	41.2	0.61
6'	27.0	0.40
7'	19.3	0.29
8'	16.1	0.24
9'	12.9	0.19

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
Wall	70	50	30	10	50	10	50	10	50	10	0	
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	82	87	80	76
	3	94	85	78	73	84	72	81	71	78	70	66
	4	87	77	69	63	76	63	73	62	71	61	59
	5	81	70	62	56	69	56	67	55	65	54	52
	6	75	63	55	50	63	49	61	49	59	49	46
	7	70	58	50	44	57	44	56	44	54	44	42
	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	36	49	36	48	36	47	36	34
10	58	46	38	33	45	33	44	33	43	33	31	

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	360	36.9%
0-40	587	60.1%
0-60	871	89.2%
0-90	977	100.0%

CRI and CCT adjustment factors

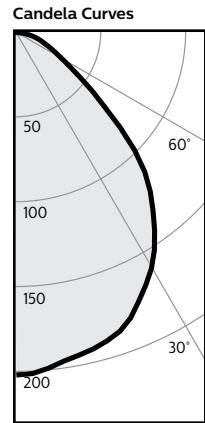
90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5" and 7" round aperture surface mount downlight

S5R927K7 • 10 W LED, 2700 K, 90 CRI



Report¹: 683GFR

Output lumens:	395lm	Input Watts²:	9.7W
Spacing Criterion:	1.1	Efficacy:	40.7lm/w
Field Angle:	130°	CCT³:	2700 K
Beam Angle:	82°	CRI:	>90

Angle	Mean CP	Lumens
0	222	
5	219	21
10	213	
15	207	58
20	197	
25	181	83
30	163	
35	141	88
40	119	
45	88	68
50	60	
55	41	38
60	30	
65	22	22
70	17	
75	13	13
80	8	
85	3	4
90	0	

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	9	5.5'
6'	6	6.6'
7'	5	7.7'
8'	3	8.8'
9'	3	9.9'

* Beam diameter is where foot-candles drop to 50% of maximum.

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	16.8	0.43
6'	11.0	0.28
7'	7.9	0.20
8'	6.6	0.17
9'	5.2	0.13

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										

Room Cavity Ratio	0	1	2	3	4	5	6	7	8	9	10
0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	104	100	105	99	101	96	97	93	88
2	103	96	90	86	94	85	91	83	88	81	77
3	95	86	80	74	85	74	82	72	80	71	68
4	89	78	71	65	77	65	75	64	72	63	60
5	82	71	63	58	70	57	68	57	66	56	54
6	77	65	57	52	64	52	63	51	61	51	48
7	72	60	52	47	59	47	58	46	56	46	44
8	67	55	48	42	55	42	53	42	52	42	40
9	63	51	44	39	51	39	50	38	48	38	36
10	60	48	40	36	47	36	46	35	45	35	34

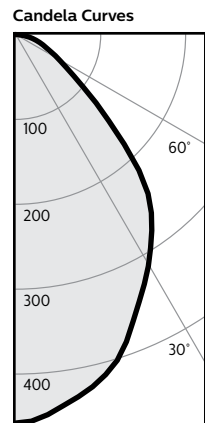
Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	162	41.1%
0-40	250	63.4%
0-60	356	90.0%
0-90	395	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R927K10 • 14 W LED, 2700 K, 90 CRI



Report¹: 681GFR

Output lumens:	779lm	Input Watts²:	14.2W
Spacing Criterion:	1.1	Efficacy:	54.8lm/w
Field Angle:	132°	CCT³:	2700 K
Beam Angle:	83°	CRI:	>90

Angle	Mean CP	Lumens
0	443	
5	435	41
10	419	
15	401	113
20	374	
25	338	156
30	308	
35	276	172
40	241	
45	178	137
50	120	
55	83	76
60	60	
65	46	46
70	35	
75	27	28
80	18	
85	8	9
90	0	

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	18	5.5'
6'	12	6.6'
7'	9	7.7'
8'	7	8.8'
9'	5	9.9'

* Beam diameter is where foot-candles drop to 50% of maximum.

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	32.9	0.63
6'	21.6	0.41
7'	15.4	0.30
8'	12.9	0.25
9'	10.3	0.20

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										

Room Cavity Ratio	0	1	2	3	4	5	6	7	8	9	10
0	119	119	119	119	116	116	111	111	106	106	100
1	111	107	103	100	104	98	100	95	96	92	88
2	102	96	90	85	94	84	90	82	87	80	77
3	95	86	79	73	84	73	82	72	79	70	67
4	88	78	70	64	76	64	74	63	72	62	60
5	82	71	63	57	70	57	68	56	66	56	53
6	76	65	57	51	64	51	62	50	60	50	48
7	71	59	51	46	58	46	57	46	56	45	43
8	67	55	47	42	54	42	53	41	52	41	39
9	63	51	43	38	50	38	49	38	48	38	36
10	59	47	40	35	47	35	46	35	45	35	33

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	310	39.8%
0-40	482	61.9%
0-60	696	89.3%
0-90	779	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

- Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
- Wattage: controlled to within 5%
- Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

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Philips Lighting Canada Ltd.
A division of Philips Electronics Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008



P9000 | Recessed

TYPE C2



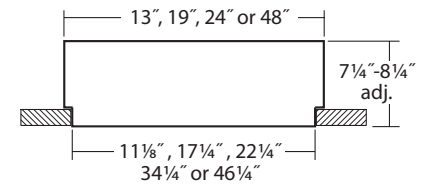
PRUDENTIAL LTG.

PRULITE.COM 213.746.0360



Type:

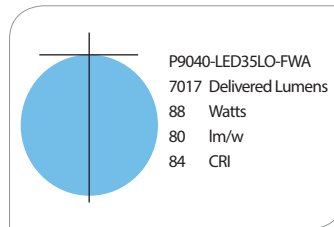
Job:



Clean, radiant, celestial, at times almost invisible.

P9000 – a slimmer, refined version of P8900 – minimal 7/16” trim or trimless with flush lens that melts into its environment. Optional drop down lens creates a playful ‘bubble-like’ effect.

Perfect partner to our P4000 Sky Oculus pendant.



		LOW	MED	STD	HIGH
12":	lm	550	700	1100	1400
	w	14	18	28	35
18":	lm	950	1650	1950	2150
	w	19	33	39	47
2':	lm	2100	3150	3900	5300
	w	35	54	67	97
3':	lm	4500	7000	9000	13275
	w	56	87	113	177
4':	lm	7000	8800	13900	21000
	w	88	110	174	281

Lumen output may vary +/- 5%
4000K used for lm/ft estimates above
3500K –2% If, 3000K –4%, 2700K –6%
See LED Details PDF for more info

SERIES	LED COLOR	OUTPUT	SHIELDING	TRIM COLOR	CIRCUITING	VOLTAGE	CEILING SYSTEMS	CONTROLS	OPTIONS
9012 12" diam.	LED27 2700K	LO Low	FWA Flush White Acrylic Lens	TMW Textured Matte White Standard	SC Single Circuit	120 277 UNV 120-277	X1 T-Bar X3 Hard Ceiling Flange trim X7 Hard Ceiling Trimless mud- over Flange	ND Non-dimming DM10 0-10v 10% dimming Standard DM01 0-10v 1% dimming STEP Step Dimming 100-50-Off DML 1% Lutron Dimming DMD 0.1% DALI Dimming DMG 1% DALI Dimming	EML Emergency Battery, Low EMH Emergency Battery, High (NA 18" and 2') PRUBIN Meticulous binning and labeling every LED board within a 2-step MacAd- ams ellipse
9018 18" diam.	LED3 3000K	MO Medium	DWA Drop White Acrylic lens	YGW Gloss White Y Premium Color CC Custom Color					
9020 2" diam.	LED35 3500K	SO Standard							
9030 3" diam.	LED4 4000K	HO High							
9040 4" diam.		PROG Program- mable light output (specify de- sired lumens or watts per fixture)							



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Sky Oculus Series

1

8-11-15



P9000 | Recessed



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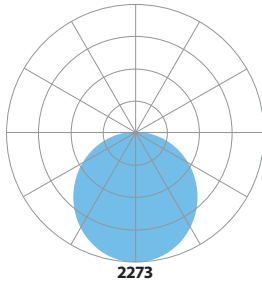
PRULITE.COM 213.746.0360

PHOTOMETRICS

Low Output:

P9040-LED35LO-FWA
7017 Delivered Lumens
88 Watts
80 lm/w
84 CRI
3500 CCT
Light Labs Test #L041411805

Zonal Lumen Summary:
0-90 = 100%



Vertical Angle	0	22.25	45	67.5	90
0	2273	2273	2273	2273	2273
5	2260	2260	2260	2260	2260
15	212	212	212	212	212
25	2005	2005	2005	2005	2005
35	1773	1773	1773	1773	1773
45	1484	1484	1484	1484	1484
55	1150	1150	1150	1150	1150
65	807	807	807	807	807
75	440	440	440	440	440
85	131	131	131	131	131
90	0	0	0	0	0

LUMEN MAINTENANCE

Designed to last with cool running mid-power LEDs projected to maintain 90% (L90) of their initial output for 100,000 hours (at HO), and L70 exceeding 150,000 hours.

LED SYSTEM LED modules and drivers are field replaceable.

PROG (optional) Programmable light output. Specify desired lumens or watts per fixture.

BINNING Standard binning (all Prudential LED boards) includes testing at the chip level and board integration to provide consistent color temperature within a 3-step MacAdam ellipse, with +/- 5% lumen output range and +/- .004 Duv.

PRUBIN™ Prudential Ltg's exclusive 'job binning' method that ensures color temperature consistency across all luminaires on a project. Meticulously testing and labeling EVERY LED BOARD to +/- 25 lumens, +/- 50k CCT and +/- .004 Duv — while also separating positive from negative — allows us to match color, hue and intensity throughout a project and provides a consistent color temperature within a 2-step MacAdam ellipse.

LABELS ETL damp labeled and I.B.E.W. manufactured

ELECTRICAL Must specify LED dimming controls. LED fixtures have constant current driver(s) with less than 20% THD when loaded to a minimum of 60%. Drivers sink a maximum of 6mA per driver. DM10 LED drivers are 0-10V dimmable and are compatible with most 0-10V wall slide dimmers and direct 0-10V analog signal dimmers. Max driver size 1.25" w x 1" h.

CONSTRUCTION

Housing Die-formed 20-gauge USA steel, >20% PC recycled, 100% recyclable

Lens Thermoformed acrylic, 100% recyclable

MOUNTING Recessed mounted into exposed T-bar or hard ceiling applications

WARRANTY Single-source, 5 year limited warranty covers standard components and construction



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Sky Oculus Series

2

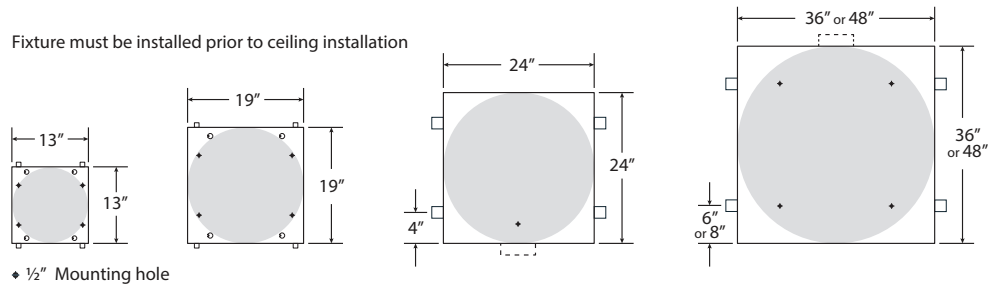
8-11-15



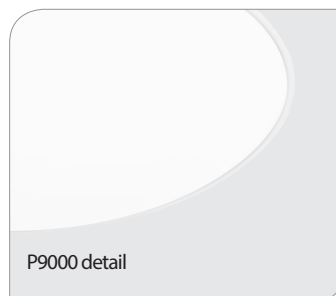
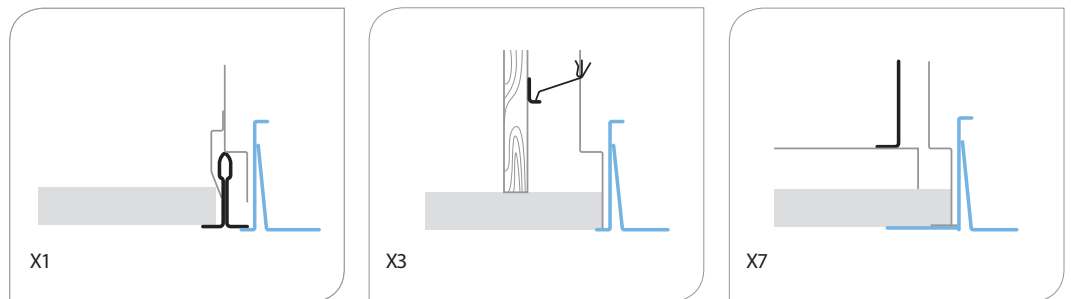
Client: GKK Works, Architect: GKK Works

MOUNTING LOCATIONS

Fixture must be installed prior to ceiling installation



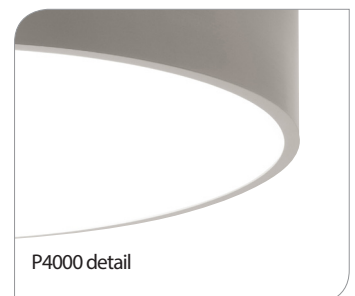
CEILING SYSTEMS



P9000 detail



P8900 detail



P4000 detail

FINELITE

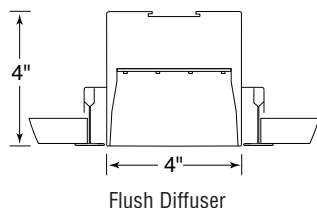
High Performance 4" Aperture (HP-4) - Recessed

Date Project Type Comments 

DESCRIPTION

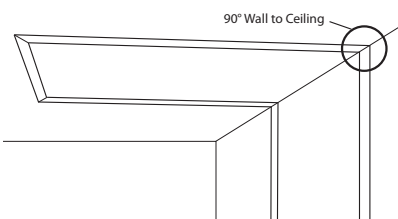
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy. HP-4 R is RoHS compliant.

TYPE L1



DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-powered LEDs and a precise diffuser to eliminate pixilation.



MITERED ANGLES

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.



SEAMLESS ILLUMINATION

Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - SO - 3500K - 120V - SC - C1 - OBO



Finelite **Series HP-4 R**

Length (Minimum 2', increments accurate to 1/16th", Standard)

Light Engine (SO - Standard Output, HO - High Output)

LED Color Temperature (3000K, 3500K, 4000K)

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)*

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange, C2T - 9/16" Tegular,

C1T - 1" Tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3F) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Standard Output

Efficacy (Lumen per watt): 79.9

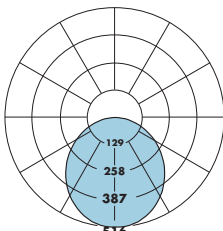
Total luminaire output: 1447 Lumens (362 lumens/foot)
18 Watts (4.5 watts/foot)

CRI: 83

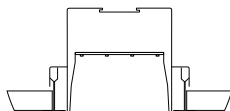
R9: 10

CCT: 4000K

ITL LM79 Report 74686



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	514	514	514	514	514	
5	514	511	511	511	513	49
15	493	492	492	491	492	139
25	453	492	492	491	492	139
35	397	397	395	395	394	247
45	331	330	328	328	326	254
55	255	256	256	255	251	228
65	179	179	180	178	174	177
75	103	103	104	102	99	109
85	33	33	34	34	33	37
90	0	2	4	5	6	

PHOTOMETRY

High Output

Efficacy (Lumen per watt): 74.6

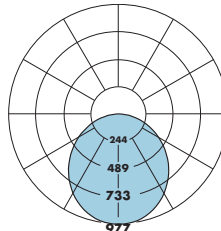
Total luminaire output: 2754 Lumens (689 lumens/foot)
37 Watts (9.2 watts/foot)

CRI: 83

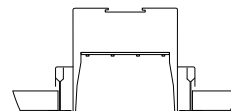
R9: 10

CCT: 4000K

ITL LM79 Report 74687



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	973	973	973	973	973	
5	974	969	968	969	972	92
15	936	932	931	932	934	263
25	860	859	855	856	858	395
35	754	755	750	751	751	470
45	628	629	625	625	623	483
55	487	489	488	486	481	435
65	341	342	343	340	334	337
75	199	198	198	194	190	208
85	65	64	64	63	61	70
90	0	4	6	8	8	

PHOTOMETRY

Standard Output

Efficacy (Lumen per watt): 74

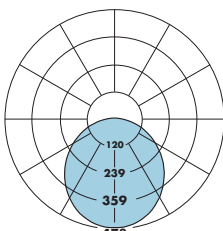
Total luminaire output: 1348 Lumens (337 lumens/foot)
18 Watts (4.5 watts/foot)

CRI: 84

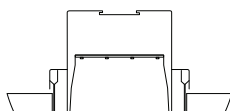
R9: 14

CCT: 3500K

ITL LM79 Report 74684



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	476	476	476	476	476	
5	476	474	473	473	475	45
15	457	456	455	455	456	129
25	420	422	418	418	419	193
35	368	369	367	367	367	230
45	308	307	306	306	304	236
55	238	239	238	238	235	213
65	167	167	168	166	163	165
75	97	97	97	96	94	102
85	32	31	32	32	32	35
90	0	2	4	5	6	

PHOTOMETRY

High Output

Efficacy (Lumen per watt): 70.5

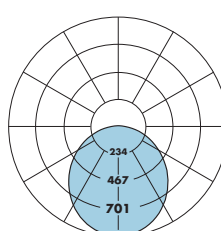
Total luminaire output: 2622 Lumens (656 lumens/foot)
37 Watts (9.2 watts/foot)

CRI: 84

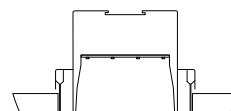
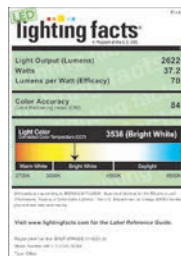
R9: 16

CCT: 3500K

ITL LM79 Report 74685



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	930	930	930	930	930	
5	930	926	925	925	928	88
15	893	890	889	890	891	251
25	820	821	816	816	817	377
35	719	719	714	715	714	448
45	598	598	595	595	592	460
55	463	464	463	462	456	413
65	325	325	326	323	317	320
75	188	188	189	186	181	198
85	61	61	62	62	60	67
90	0	2	5	6	7	

Consult www.finelite.com for 3000K photometric reports.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane are standard. Custom angles are available (90° minimum on inside corners). Contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DIFFUSER: 12" maximum lens length. Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination. Frost white snap-in lens, 73% transmissive, 99% diffusion.

LIGHT ENGINE: Two lumens packages are available, Standard Output (SO) and High Output (HO). A separate chart summarizes lumen distribution and wattage. LM79 test reports are available for each distribution. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000 hours; 70% of initial light output (L70) 168,000 hours.

LED COLOR TEMPERATURE (CCT): 3000K, 3500K, or 4000K.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥ 0.9 . Total Harmonic Distortion (THD) $< 20\%$. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more information.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. Optional 6' flex conduit whips available.

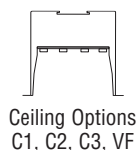
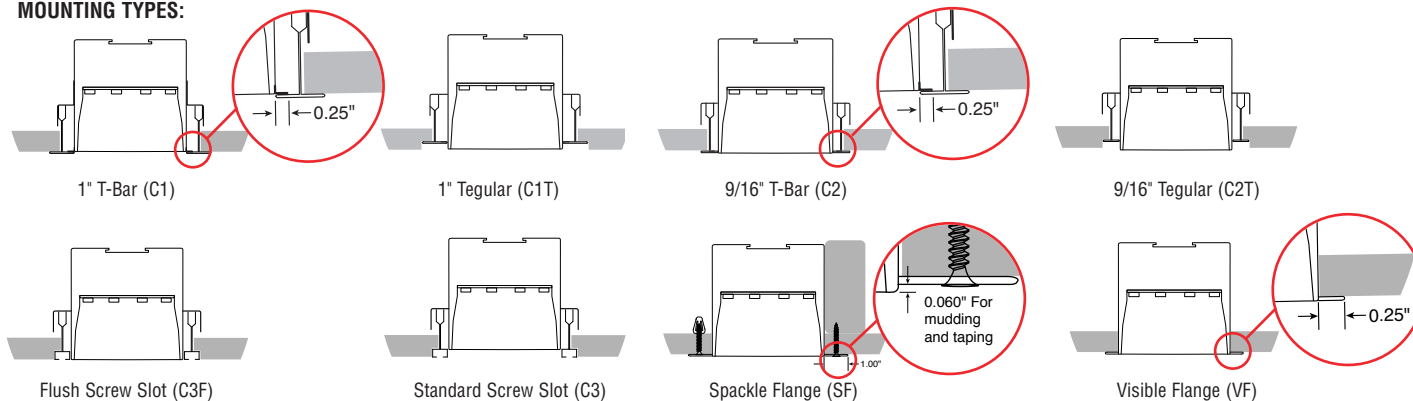
LENGTHS: Standard 4', 8', and 12' section lengths can be combined to make longer runs. Contact factory for custom lengths, angles and configurations accurate to 1/16th-inch.

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location.

WEIGHT: 2.8 lb/ft.

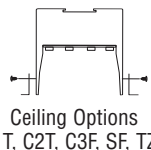
WARRANTY: 10-year warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

MOUNTING TYPES:



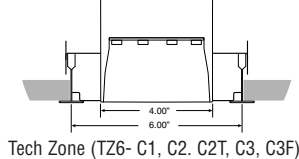
Housing With Extruded Flange (V1)

Ceiling Options
C1, C2, C3, VF

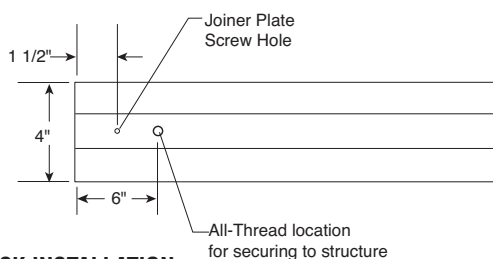


Housing Without Extruded Flange (V2)
Ceiling Hardware Attached

Ceiling Options
C1T, C2T, C3F, SF, TZ6

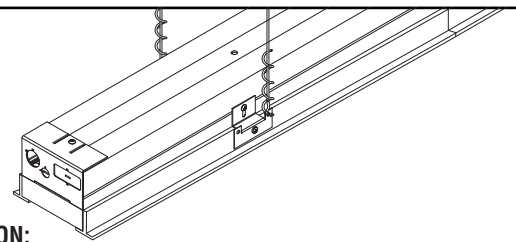


Tech Zone (TZ6- C1, C2, C2T, C3, C3F)



SHEET ROCK INSTALLATION:

Flex conduit is secured to top of fixture. Support to structure using All-Thread. All-Thread support holes are located on each end of the fixture.



T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the fixture to T-Bar and provide support to structure location. All starter/independent fixtures are 11/16" shorter than nominal. All joiner/ender fixture are normal length.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

	Lumen Output Per Foot					
	3000K		3500K		4000K	
	SO	HO	SO	HO	SO	HO
Lumens Per Foot	329.75	639.25	337	655.5	361.75	689
Watts Per Foot	4.45	9.35	4.55	9.3	4.525	9.225
Efficacy (LPW)	74.1	68.4	74.1	70.5	79.9	74.6

SO - Standard Output, HO - High Output

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

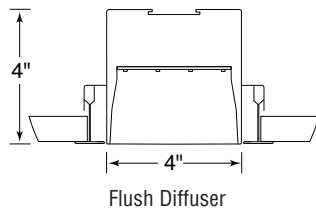
Comments



DESCRIPTION

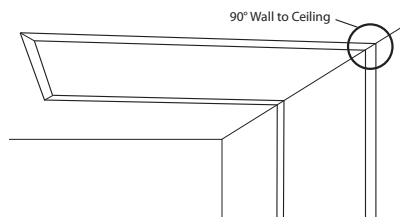
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy. HP-4 R is RoHS compliant.

TYPE L2



DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-powered LEDs and a precise diffuser to eliminate pixilation.



MITERED ANGLES

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.



SEAMLESS ILLUMINATION

Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - SO - 3500K - 120V - SC - C1 - OBO



Finelite **Series HP-4 R**

Length (Minimum 2', increments accurate to 1/16th", Standard)

Light Engine (SO - Standard Output, HO - High Output)

LED Color Temperature (3000K, 3500K, 4000K)

Voltage (120V, 277V)

Circuiting (SC - Single Circuit)*

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange, C2T - 9/16" Tegular,

C1T - 1" Tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3F) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)

*Contact factory for switching options.

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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Standard Output

Efficacy (Lumen per watt): 79.9

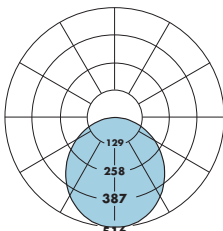
Total luminaire output: 1447 Lumens (362 lumens/foot)
18 Watts (4.5 watts/foot)

CRI: 83

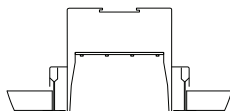
R9: 10

CCT: 4000K

ITL LM79 Report 74686



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	514	514	514	514	514	
5	514	511	511	511	513	49
15	493	492	492	491	492	139
25	453	492	492	491	492	139
35	397	397	395	395	394	247
45	331	330	328	328	326	254
55	255	256	256	255	251	228
65	179	179	180	178	174	177
75	103	103	104	102	99	109
85	33	33	34	34	33	37
90	0	2	4	5	6	

PHOTOMETRY

High Output

Efficacy (Lumen per watt): 74.6

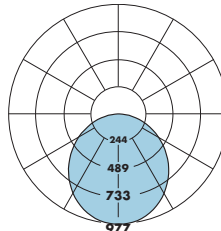
Total luminaire output: 2754 Lumens (689 lumens/foot)
37 Watts (9.2 watts/foot)

CRI: 83

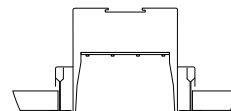
R9: 10

CCT: 4000K

ITL LM79 Report 74687



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	973	973	973	973	973	
5	974	969	968	969	972	92
15	936	932	931	932	934	263
25	860	859	855	856	858	395
35	754	755	750	751	751	470
45	628	629	625	625	623	483
55	487	489	488	486	481	435
65	341	342	343	340	334	337
75	199	198	198	194	190	208
85	65	64	64	63	61	70
90	0	4	6	8	8	

PHOTOMETRY

Standard Output

Efficacy (Lumen per watt): 74

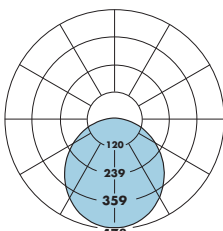
Total luminaire output: 1348 Lumens (337 lumens/foot)
18 Watts (4.5 watts/foot)

CRI: 84

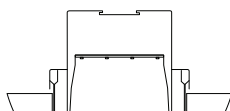
R9: 14

CCT: 3500K

ITL LM79 Report 74684



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	476	476	476	476	476	
5	476	474	473	473	475	45
15	457	456	455	455	456	129
25	420	422	418	418	419	193
35	368	369	367	367	367	230
45	308	307	306	306	304	236
55	238	239	238	238	235	213
65	167	167	168	166	163	165
75	97	97	97	96	94	102
85	32	31	32	32	32	35
90	0	2	4	5	6	

PHOTOMETRY

High Output

Efficacy (Lumen per watt): 70.5

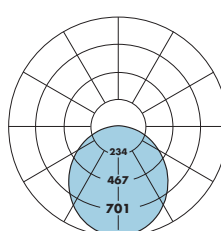
Total luminaire output: 2622 Lumens (656 lumens/foot)
37 Watts (9.2 watts/foot)

CRI: 84

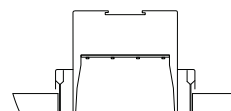
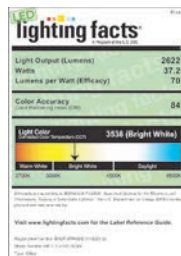
R9: 16

CCT: 3500K

ITL LM79 Report 74685



— Refer to www.finelite.com for additional photometry and product information.



CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	930	930	930	930	930	
5	930	926	925	925	928	88
15	893	890	889	890	891	251
25	820	821	816	816	817	377
35	719	719	714	715	714	448
45	598	598	595	595	592	460
55	463	464	463	462	456	413
65	325	325	326	323	317	320
75	188	188	189	186	181	198
85	61	61	62	62	60	67
90	0	2	5	6	7	

Consult www.finelite.com for 3000K photometric reports.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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FINELITE

High Performance 4" Aperture (HP-4) - Recessed

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane are standard. Custom angles are available (90° minimum on inside corners). Contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DIFFUSER: 12" maximum lens length. Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination. Frost white snap-in lens, 73% transmissive, 99% diffusion.

LIGHT ENGINE: Two lumens packages are available, Standard Output (SO) and High Output (HO). A separate chart summarizes lumen distribution and wattage. LM79 test reports are available for each distribution. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000 hours; 70% of initial light output (L70) 168,000 hours.

LED COLOR TEMPERATURE (CCT): 3000K, 3500K, or 4000K.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥ 0.9 . Total Harmonic Distortion (THD) $< 20\%$. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.



INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more information.

MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. Optional 6' flex conduit whips available.

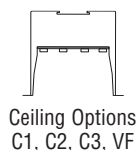
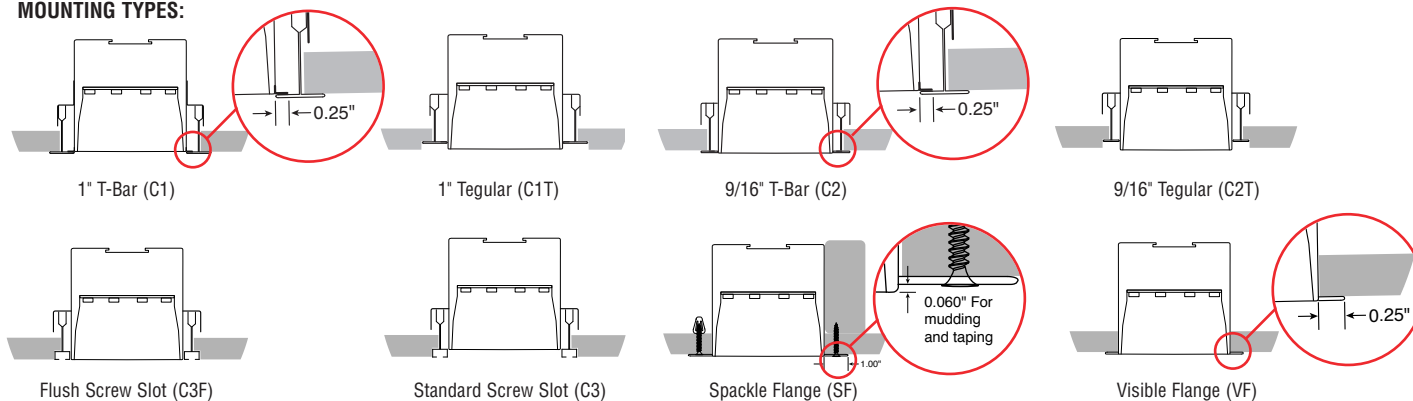
LENGTHS: Standard 4', 8', and 12' section lengths can be combined to make longer runs. Contact factory for custom lengths, angles and configurations accurate to 1/16th-inch.

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location.

WEIGHT: 2.8 lb/ft.

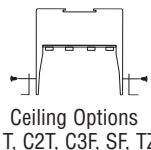
WARRANTY: 10-year warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

MOUNTING TYPES:



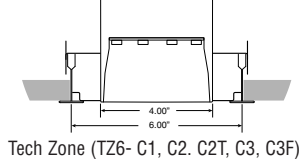
Housing With Extruded Flange (V1)

Ceiling Options
C1, C2, C3, VF

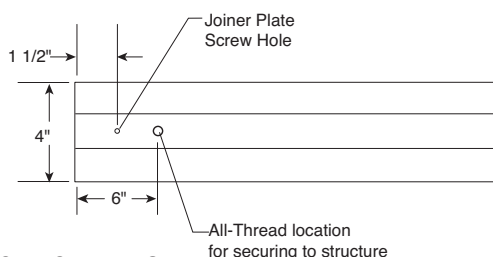


Housing Without Extruded Flange (V2)
Ceiling Hardware Attached

Ceiling Options
C1T, C2T, C3F, SF, TZ6

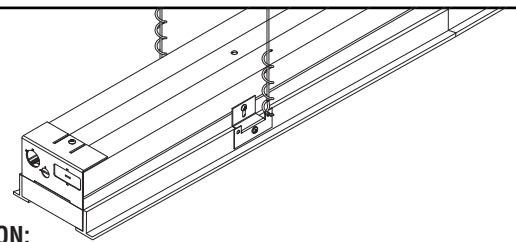


Tech Zone (TZ6- C1, C2, C2T, C3, C3F)



SHEET ROCK INSTALLATION:

Flex conduit is secured to top of fixture. Support to structure using All-Thread. All-Thread support holes are located on each end of the fixture.



T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the fixture to T-Bar and provide support to structure location. All starter/independent fixtures are 11/16" shorter than nominal. All joiner/ender fixture are normal length.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

	Lumen Output Per Foot					
	3000K		3500K		4000K	
	SO	HO	SO	HO	SO	HO
Lumens Per Foot	329.75	639.25	337	655.5	361.75	689
Watts Per Foot	4.45	9.35	4.55	9.3	4.525	9.225
Efficacy (LPW)	74.1	68.4	74.1	70.5	79.9	74.6

SO - Standard Output, HO - High Output

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

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DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial

Catalog #

Project

Comments

Prepared by

Type

Date

light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

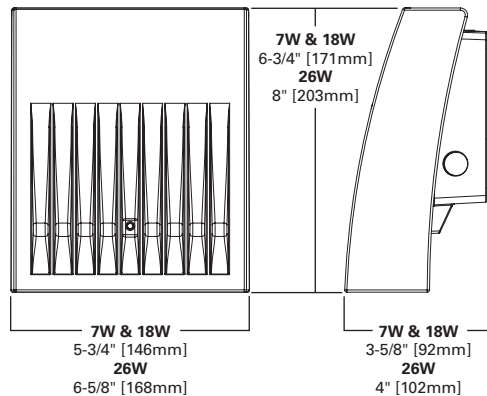
Five-year warranty.



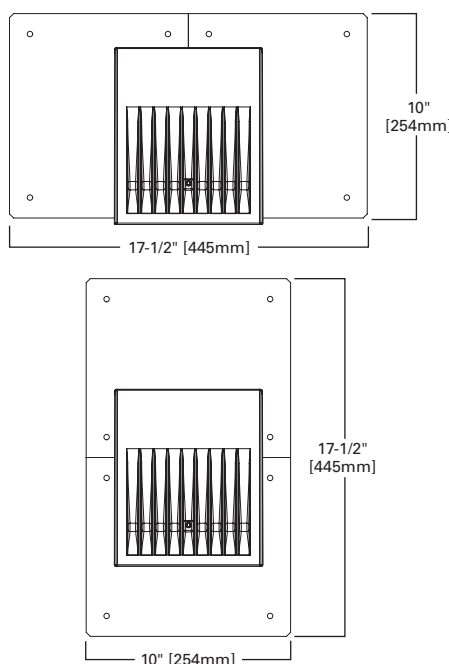
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingress Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XTOR2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W XTOR2A=Small Door, 18W XTOR3A=Small Door, 26W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K ²	[Blank]=Carbon Bronze (Standard) WT=Summit White	PC1=Photocontrol 120V ³ PC2=Photocontrol 208-277V ^{3,4} 347V=347V ⁵ HA=50°C High Ambient ⁵	WG/XTOR=Wire Guard ⁶ XTORFLD-KNC=Knuckle Floodlight Kit ⁷ XTORFLD-TRN=Trunnion Floodlight Kit ⁷ XTORFLD-KNC-WT=Knuckle Floodlight Kit, Summit White ⁷ XTORFLD-TRN-WT=Trunnion Floodlight Kit, Summit White ⁷ EWP/XTOR=Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 XTOR1A not available in 3500K. 3 Photocontrols are factory installed. 4 Order PC2 for 347V models. 5 Thru-branch wiring not available with HA option or with 347V. 6 Wire guard for wall/surface mount. Not for use with floodlight kit accessory. 7 Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

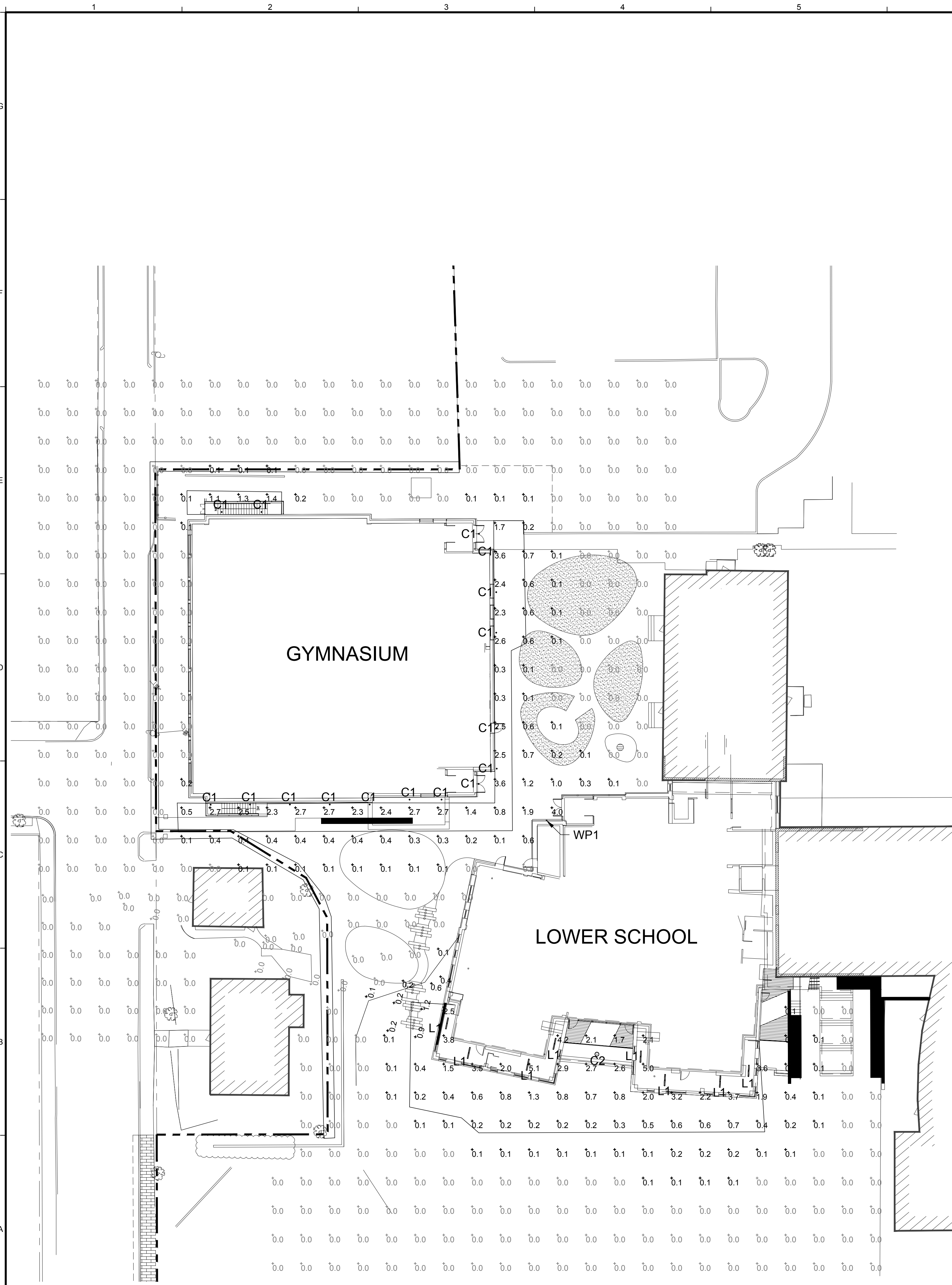
STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC

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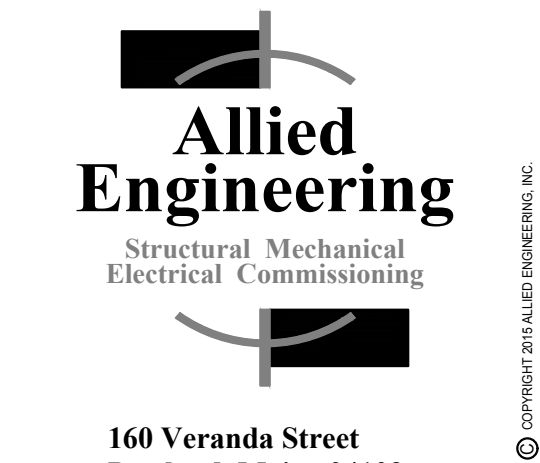


LUMINAIRE SCHEDULE - SITE									
TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	LAMP			KEY NOTES
						QTY PER FIXTURE	WATTS	TYPE	
C1	5" ROUND SURFACE MOUNTED DOWNLIGHT	PHILIPS	S-5-R-8-35K-650	SURFACE	120	1	9.5	LED ARRAY- 3500K	
C2	18" ROUND RECESSED DOWNLIGHT	PRUDENTIAL	9018-LED35-LO-FWA	RECESSED	120	1	19	LED ARRAY- 3500K	
L1	4' LONG 4" APERTURE DOWNLIGHT	FINELITE	HP4R-4'-SO-3500K	RECESSED	120	1	36.8	LED ARRAY- 3500K	
L2	8' LONG 4" APERTURE DOWNLIGHT	FINELITE	HP4R-8'-SO-3500K	RECESSED	120	1	73.6	LED ARRAY- 3500K	
WP1	LED WALLPACK	LUMARK	XTOR2A-N	WALL SURFACE- 10'-0" AFG	120	1	18	LED ARRAY- 3500K	
NOTES									
1 NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.									
2 CATALOG SERIES NUMBERS ARE USED TO ESTABLISH A LEVEL OF QUALITY AND NOT INTENDED TO LIMIT COMPETITION. SERIES NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. COMPLY WITH ADDITIONAL REQUIREMENTS IN SPECIFICATIONS AND DRAWINGS.									
3 PROVIDE WALL/CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.									
4 PROVIDE PROGRAMMED START BALLAST WITH ROOMS THAT HAVE OCCUPANCY SENSORS.									
5 VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.									

STATISTICAL AREA SUMMARY					
STAT ZONE NAME	AVERAGE (fc)	MAXIMUM (fc)	MINIMUM (fc)	AVG/MIN RATIO (fc)	MAX/MIN RATIO (fc)
PROPERTY LINE	0.04	0.4	0.0	0.00	0.00
GYM NORTH STAIR EXIT	1.27	1.4	1.1	1.15	1.27
SOUTH AND EAST WALKWAYS	1.86	3.6	0.2	9.3	18.00
LOWER SCHOOL SOUTH	1.68	5.1	0.20	8.40	25.50



75 York Street,
Portland, Maine 04101
simonsarchitects.com
207.772.4656



Allied Project No: 15051
Cad File: 15051ES.dwg

PROJECT NAME:
**WAYNEFLETE
LOWER SCHOOL**
ADDITION & RENOVATIONS

WAYNEFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

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ARCHITECTS (SSA) AND IS NOT TO BE COPIED OR
REPRODUCED IN PART OR WHOLE.
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REVISION:	
1	DATE
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE

DATE OF ISSUE:
PROJECT NUMBER: 2013-0050
STATUS: DESIGN DEVELOPMENT

ELECTRICAL
SITE PHOTOMETRIC
PLAN AND
SCHEDULES

SL-100

SITE PERMITTING ~ 31 MARCH 2016 ~ NOT FOR CONSTRUCTION



18. HVAC & MANUFACTURING EQUIPMENT VERIFICATION

Allied Engineering, Inc., has verified that the proposed HVAC equipment meets federal emissions standards. The new Triangle Tube “Prestige Solo” condensing natural gas boiler has low emissions and low production of NOx. This unit is certified by the South Coast Air Quality Management District (SCAQMD). It is our understanding that the SCAQMD requirements are stricter than federal requirements.

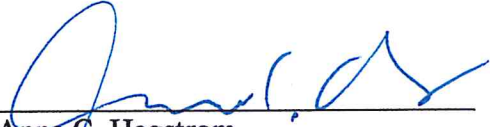
NEIGHBORHOOD MEETING CERTIFICATION

I, Anne Hagstrom Director of Finance and Operations at Waynflete School, hereby certify that a neighborhood meeting was held on March 14, 2016 from 6:30-7:30 at Waynflete School.

I also certify that on March 1, 2016 an invitation to the meeting was mailed to all the neighbors on the mailing list provided by the Planning Division which included property owners within 1000 feet of the proposed development and residents on the "interested parties" list.

A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov) to be forwarded to those on the interested citizen list who receive email notices and to the assigned planner.

Signed,



Anne C. Hagstrom
Director of Finance and Operations

3/20, 2016

Attached to this certification are:

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

March 1, 2016

Dear Neighbor,

I am writing to invite you to join us for a neighborhood meeting to discuss Waynflete's preliminary site plan application to the City of Portland Planning Board for approval of renovations to and new construction of the Lower School and construction of a new Gymnasium.

Meeting date: Monday, March 14, 2016
Meeting time: 6:30-7:30 p.m.
Meeting location: Art Center Music Room (Please see campus map enclosed.)

The Portland City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. We have also invited neighbors from a wider radius who might not be on the lists provided by the City. If you are aware of someone who would like to attend, but did not receive this invitation, please ask them to contact us. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

Waynflete has identified the Lower School as a building priority for over a decade due to aging facilities as well as limitations of space and function. The design we are proposing would replace the Hewes Wing built in 1960 with a new building constructed to Passive House standards along with interior renovations to Founders Hall which was purchased by the School in 1912. The Gymnasium, originally built in 1974, is also in need of substantial improvements. Our intent is to remove the existing gym and replace it with a more functional and attractive building designed to achieve a LEED Platinum rating using a slightly larger footprint but essentially the same height. Both buildings are designed with environmental sustainability as an important consideration. Passive House is a newer building standard designed to achieve significant reductions in energy usage.

We are hopeful that construction on one or both projects will begin by May/June of 2017 and be completed for the opening of school in 2018. When completed, the new and renovated spaces will serve a similar student population size and significantly enhance the quality of the School's academic programs.

I also wanted to take this opportunity to encourage you to stroll through campus during the evenings or on weekends or use one of our playgrounds when school or summer programs are not in session. The preservation of open space has been one of the important values guiding the School's campus planning and we are glad to be able to share our campus with our neighbors.

I hope you can join us on March 14. If you have any questions please call me at ext. 1201 or Anne Hagstrom, Director of Finance and Operations, at ext. 1227. We hope to see you there.

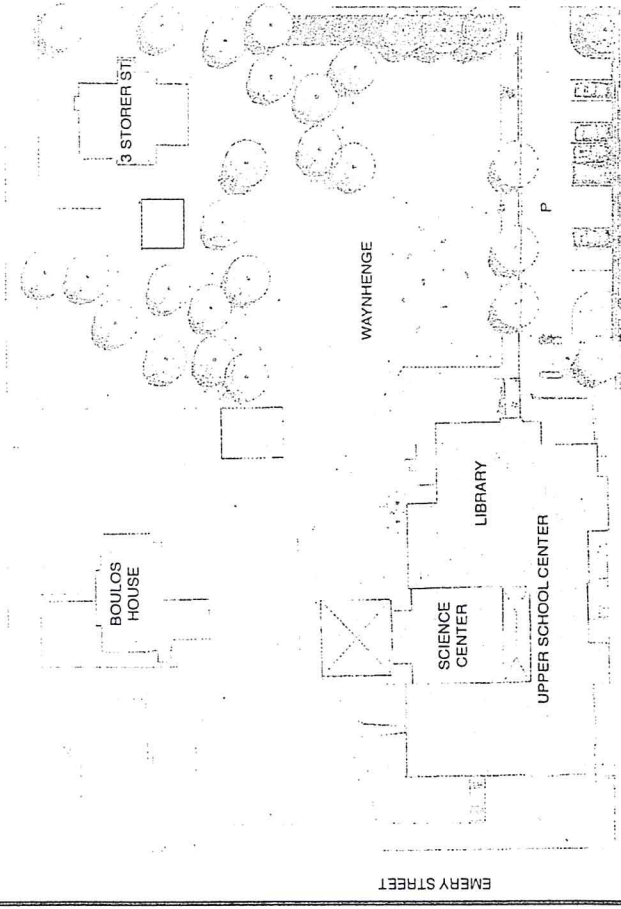
Sincerely,

Geoffrey Wagg
Head of School

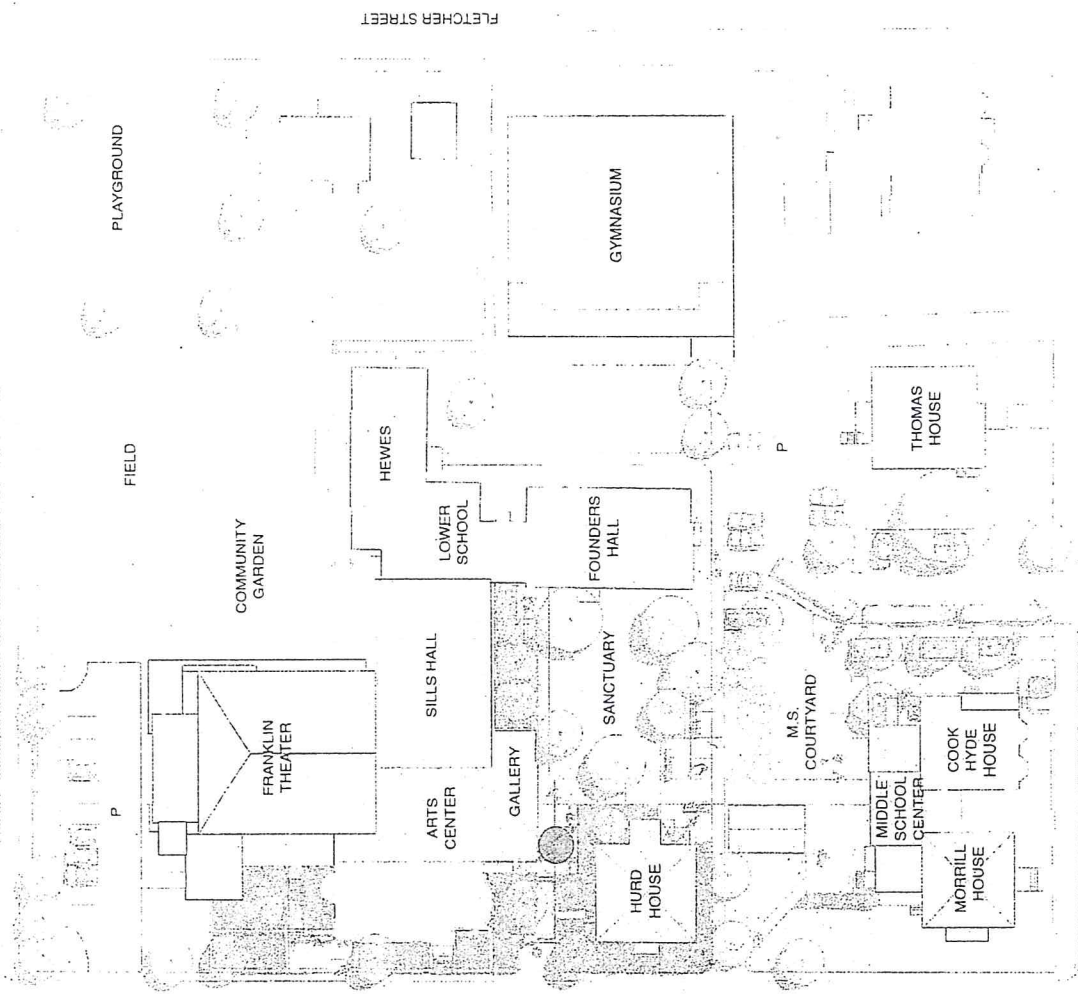
Note: Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development

Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

DANFORTH STREET



EMERY STREET



FLETCHER STREET

SPRING STREET

WAYNFLETE SCHOOL CAMPUS MAP

Sign In

Waynflete Neighborhood Meeting 3/14/2016

Date: _____

Print Name	Address (optional)	Phone # (optional)	Email Address (optional)
1. H.W. Kunkel			
2. Jeremy Marton			
3. Alice Wagy			
4. Nicholas Wagy			
5. Christa Vail	308 Danforth St	508-320-9510	christa.vail@gmail.com
6. Elizabeth Mcbuddy			
7. Jim Ohannes			
8. Deborah Shinn	15 Thomas		
9. Anna Spaf	28 Richard St.		
10. SETH SPARDE	28 " "		
11. Sarah Daiguel	350 Danforth		
12. Doug Welch	12 Grayhurst Pt		
13. Jane & Elsie Phillips	374 Spring		
14. Anne Plunk	44 NEA St	774-0437	dunayon@maine-rs.com
15. Georgia Bancroft	322 Spring St	828-3742	gbancroft@maine-rs.com
16. John Bancroft	" "	" "	" "
17. GINA SHEVELEU	270 B DANFORTH ST.	646.373.2015	gcianciotta@hotmail.com
18. Emily Bulawski-Pall	155 Western Promenade		Sawyerfam@gmail.com

Sign In

Waynflete Neighborhood Meeting 3/14/2016--Page 2

Date: _____

Print Name	Address (optional)	Phone # (optional)	Email Address (optional)
19. Patricia Voss	366 Spring St Rtd.		
20. Lyle Voss	" " "		
21. BARAK OLINS	2 Taylor St.	409-0117	
22. MATTHEW POOR	15 VAUGHAN ST	917-208-8529	
23.			
24.			
25.			
26.			
27.			
28.			
29.			
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31.			
32.			
33.			
34.			
35.			
36.			

Waynflete

Waynflete School Neighborhood Meeting

Date: Monday, March 14, 2016
Time: 6:30-7:30pm
Location: Arts Center Music Room, 1st Floor, Daveis Arts Center, Waynflete Campus
Invitations Mailed: March 1, 2016
Invited: Abutters within 1000 feet of property (labels provided by the City of Portland)
Attending: Geoff Wagg, Head of School
Anne Hagstrom, Director of Finance and Operations
Heather Isherwood, Executive Assistant to the Head of School
Scott Simons, Principal, Scott Simons Architects
22 Neighbors (attendance taken and sheets attached)

MINUTES

Head of School Geoff Wagg opened the meeting at 6:40pm and thanked the neighbors for attending.

Geoff first explained that the parking lot adjacent to the Arts Center at the intersection of Danforth and Storer Streets was designated as a temporary location by the Historic Preservation and Planning Boards as a condition of approval of the Art Center, to be re-considered as part of the School's next major project needing City approval. Waynflete will be asking the City to designate the existing parking lot as a permanent location. Geoff explained that the lot brings employee cars off the neighborhood streets and provides overnight parking to neighbors during parking bans. He reported that he had spoken to Sonia Robertson, who lives directly across the street from the parking lot, and that she is in favor of the lot becoming permanent. Geoff then asked for feedback from the neighbors in the room. Lyle Voss asked how many parking spots were in the lot, to which Director of Finance and Operations Anne Hagstrom replied eleven. Geoff asked if there were any objections to leaving the parking lot in its current location and no objections were raised.

Geoff then introduced the proposed Lower School and Gymnasium projects. He reported that the School has previously spoken with direct abutters on at least two occasions to ask for feedback, which resulted in changes to the Gym design and landscaping. He explained that the Lower School renovations have been needed since the late 1980's and the faculty had been asking for better facilities for the last three decades. The proposed design would double current square footage of the facility and bring Waynflete's Lower School facility more in alignment with current state elementary school standards for new buildings. He explained that the primary focus is to design and construct a Lower School that meets program needs and is environmentally sustainable, noting that the Lower School is designed to meet Passive House standards, a high efficiency energy standard.

Geoff then turned to the topic of the proposed new Gymnasium, which is planned to meet at least LEED GOLD, as Passive House standards are not compatible in that type of space. He reported that the current Gym was built in early 1970's to the standards of that time with small locker rooms, limited spectator seating, and short court runoff areas. With the designs from Scott Simons Architects, the space would be better suited for basketball games, visiting teams, spectators, and other school events such as all-school assemblies for grades EC-12, and possibly, Commencement. Geoff added that the sound coming from the new Gym would have less of an impact on the neighborhood.

Scott Simons, Principal for Scott Simons Architects, projected renditions of the proposed Lower School. Scott showed aerial and street views of the current interior and exterior of the Lower School. He noted that Founders Hall was the original building with two additions built later. He then showed the design of the new building with before and after external views and interior classroom spaces. He explained the purpose behind the window designs, with some windows that will open to provide natural ventilation and some for daylighting as part of the Passive House standards, which will reduce energy use by 70-80 percent of code compliant standards. He also shared renderings of the new Lower School Library with wall panels that slide for flexibility of use.

Scott's presentation then turned to the proposed Gymnasium. He explained that although the footprint is limited, more program space is attained by pushing the floor down, and extending the gym approximately two feet to the north and 14 feet in width. The entrance will be in the same location, there will be bleachers that pull out and retract, public restrooms on both levels, and a future underground connection with Lower School for more efficient transitions for students and space for programming.

Scott explained that the Gym's building setbacks are dictated by the average of setbacks from buildings along Spring and Fletcher Streets and that the height of the building is slightly lower than the current Gym. During construction, the existing hemlock trees would be removed, but in their place a mix of evergreens would be planted. There was a question from a neighbor about the existing power transformer, which Scott explained will be replaced with a new one. He noted that the windows on the side along Fletcher Street are designed to be more in character with the neighborhood buildings vs. a solid brick wall, similar to what is there now.

Scott's concluded his presentation by showing examples of the materials proposed for the exterior of the proposed new buildings including a brick base similar to the Daveis Arts Center, ashlar patterned cementitious siding, and treated wood paneling and detailing, and showed the before and after views from various locations – down Fletcher and Orchard Streets towards the Gym and down the Loop Road entrance toward the Gym and Lower School.

The meeting was then opened up for comments. Patty Voss commented that she felt the proposed Gym was a massive building in a residential neighborhood. In her opinion, the older gym looked nice with a roof that was built to fit in with the other houses and reflect the sky. She felt that the windows wouldn't be helpful to neighbors with lights on at night and suggested frosted glass. Sarah Daignault suggested that the School take into consideration that when the Gym lights are on, clear glass windows will flood light into the neighborhood at night. The School was agreeable to installing window shades. Scott added that his understanding of the Historic Preservation Board's opinion of windows in urban design is that they are preferable to blank brick walls because they are more in character with the residential neighborhood.

Mrs. Voss recalled that it took 15 years for Waynflete to plant the trees when the current Gym was built and that the School should consider planting conifers, have more green spaces and create a bigger setback. Geoff noted that the depiction of trees in the slides shown were "as planted," and not fully grown, and that the landscape design is still in process. Mrs. Voss added that she liked the design of Lower School and that the Gym design was good, but in the wrong place, which Mr. Voss echoed by commenting on its proximity to Fletcher Street.

Barak Olins suggested that the School should be mindful of how walking paths connect so that Lower School students could be better connected with Middle and Upper School students and that we consider planning more activities in the green space near Founders Hall (aka the Sanctuary.) Geoff mentioned that the Sanctuary is occasionally used for gatherings and classroom projects, and that it is a philosophical choice to be preserved primarily as a quiet space.

A neighbor asked for information on the timeline of the projects and Geoff responded that if all plans align well, the School would begin the project in May/June 2017 and finish in August 2018 with construction and staging contained primarily on campus with access from Danforth and Storer Streets as much as possible. Geoff also responded to the question of where classes will take place during the construction noting that the School is exploring options for temporary relocation of the Lower School program.

With no other business, the meeting adjourned at 7:40pm.

Respectfully submitted,

Heather Isherwood
Executive Assistant to the Head of School

March 31, 2016



Nell Donaldson, Planner
City of Portland Planning Office
389 Congress Street
Portland, ME 04101

Re: Waynflete School Campus Upgrades
Level III Site Plan – Response to Comments

Dear Nell:

On behalf of the Waynflete School, we are submitting this response to comments regarding the Level III Site Plan Application for the proposed Gymnasium and Lower School Expansion at Waynflete School, located at 360 Spring Street in Portland, Maine. Comments received to-date have been provided below in italics, followed by our response:

February 29, 2016, Waynflete Zoning Analysis Comments via email from Nell Donaldson

- *Provide a copy of the Site's survey.*

The Boundary Survey is now included in the complete plan set. The updated plan set is attached (Attachment 1).

- *Provide lot coverage calculations for both the core subdistrict area and the edge subdistrict.*

The attached Figure 1 (Attachment 2) shows the building coverage for the Core Subdistrict and Edge Subdistrict of the Waynflete Overlay Zone. The total building coverage for the Core Subdistrict is 32.6% (less than the allowed maximum of 40%). The total building coverage for the Edge Subdistrict is 20.4% (less than the allowed maximum of 30%).

- *Provide height calculations for the lower school building, including a graphic showing where height measurements were taken.*

Scott Simons Architects has prepared the attached Figure 2 (Attachment 3) height calculation graphic (utilizing Sheet A201) for the lower school building.

- *For the gym building, provide side and front yard setback calculations, including a graphic showing the setbacks on the adjacent buildings from which the average was derived.*

Scott Simons Architects has prepared the attached Figure 3 (Attachment 4) setback calculation graphic (utilizing the Boundary Survey) for the gym building.

- *For the gym building, provide east and west elevations which show the way the stairwells, fencing, and canopies work.*

Additional architectural plans will be provided as part of a future submission. Please see the response to the comment on gym stairwells provided below for more information on canopies at the stairwells. The landscaping plans now include section views of the retaining walls.



- *Add zoning demarcation to the existing conditions plan and the site plan.*

The Existing Conditions Plan and the Site Plan have been revised to include zoning demarcation, and have been included in the attached revised plan set (Attachment 1).

- *Add the proposed setbacks to the site plan.*

The Site Plan has been revised to include proposed setbacks and has been included in the attached Revised Plan Set (Attachment 1).

March 8, 2016 Waynflete Zoning Analysis Comments via email from Nell Donaldson

- *Please provide a copy of Waynflete's current master plan.*

Attached is the 2005 Waynflete School Campus Master Plan, which was approved by the Board of Trustees on March 15, 2005, in addition to the 2008 Update, which was approved by the Board of Trustees on November 18, 2008. (Attachment 5)

In 2008, the Board re-affirmed a number of the assumptions that were the foundation for the 2005 plan and prepared an updated space analysis to support the overlay zone request to be able to expand the campus to include certain residential houses on the perimeter for partial school use in the future. The request was denied, so an updated Campus Master Plan was not prepared.

March 10, 2016 Waynflete Preliminary Review Comments via email from Nell Donaldson

- *You've stated in the application that there will not be a change in enrollment, and thus that the project has no parking/trip generation implications. While I understand that this is the case, I also anticipate that there will be questions from the Board (and potentially neighbors) on this point. Can you give me a little background on enrollment projects and on how much the occupancy of the gym is changing, if at all? I also emailed the other day to ask about the most recent iteration of the Waynflete Master Development Plan. To the extent that this plan addresses parking, trip generation and TDM, it would be really helpful to have.*

The 2008 TDM Plan and two follow-up letters discussing progress on the TDM plan are attached. (Attachment 6) We are currently working with a Traffic Engineer to update the plan. We will provide information on how the proposed project will impact traffic demand (with regards to enrollment and special event attendance) under separate cover as part of the final submission.

- *Environmental Quality – I know Jeff has talked to Michael Boucher's office about this, but the final landscaping plans should pay particular attention to the interfaces with abutting neighbors. The property owner to the north has expressed concern about losing plantings on the north side of the gym (e.g. the birch). Can any of these mature plantings be preserved and integrated with the plan?*

Due to the access required during construction, it will not be possible to preserve any of these plantings. The landscape architect and Waynflete are working directly with the neighbors to develop a mutually agreeable planting buffer for this space. Proposed landscaping is shown on the enclosed updated landscaping plans (Attachment 1). These plans will continue to be updated as coordination continues with the neighbors. Final plans will be provided as part of the final submission



- *Environmental Quality – The proposed transformer on the northern property line should be either well buffered or moved to a location more interior to the site. If you choose to keep the transformer in this location, it would be helpful to have a fence detail and additional information about landscaping here.*

The project team is working to review options for locating the transformer on the project site. If the transformer remains in the location as currently proposed, adequate screening will be provided. The landscape architect will review landscaping screening features with the abutter to select acceptable materials.

- *Environmental Quality – In the revised submittal, could you provide details on the proposed retaining wall adjacent to the residence on Fletcher? There is some concern about the transition between the two properties in this area. There is an existing fence?*

The enclosed updated landscaping plans now include Sheet L5.0 with proposed wall elevations (Attachment 1). The landscape architect and Waynflete are coordinating with the neighbor to review the proposed wall and the impact that it will have on the abutting property. The results of the planned discussions with the neighbor, and any updates required to the walls will be provided under separate cover.

- *Public Infrastructure/Community Safety – The sunken stairwells on the gym building have the potential to create safety issues, particularly on the north side where there will not be a lot of foot traffic. This should be addressed in the revised submittal.*

Each Stairwell will have an overhead canopy to protect the exit from the elements. A decorative powdered grillwork similar to other Waynflete fencing will control access to the stair from the exterior. The southernmost staircase opens to the interior of the campus. Both staircases will have carefully considered lighting with an additional emergency lighting system as well.

- *Site Design – Can you take a look at the photometric plan and revise to meet the TM standards re maximum illumination levels and light trespass? (Regarding trespass, I realize that you need to balance public safety and light pollution - the northern gym stairwell is a good example. If you feel lighting levels can't be reduced in a location like this, just give me an explanation.)*

The outdoor lighting plan has been revised to reduce the maximum illumination level at the abutting property lines. The lighting level at the property line to the north of the gym is now in conformance with the standard. The lighting level at the property line to the south of the gym is now 0.4 footcandles maximum, greater than the allowed 0.1 footcandles. Considering the proximity of this gym exit to the property line, and the need to provide adequate illumination at this location, it is not feasible to provide the necessary lighting levels without exceeding the City of Portland Lighting Standards. The lighting is adjacent to a garage, which will help to block the visibility of the lighting from the house on the abutting property.

The maximum outdoor illumination level on the site is now 5.1 footcandles, slightly greater than the City of Portland Lighting Standard level of 5.0 footcandles. The maximum illumination level for the entire site occurs just outside the south entrance to the Lower School, beneath an overhanging upper level of the building. The lighting level is required to provide adequate illumination of the entrance. The maximum illumination level that occurs outside of the building footprint is 3.7 footcandles.

We request a waiver for the two exceeded lighting standards. An updated photometrics plan is attached (Attachment 7).



- *In the revised submittal, provide a copy of the easement to Helen Weber (identified as #4 on the survey). From the survey, it is a little difficult to tell what this easement encompasses.*

Attached is a copy of the aforementioned easement to Helen Weber (identified as #4 on the survey) (Attachment 8).

- *Eventually, we will need a copy of the ME Construction General Permit.*

As noted in the Site Plan Application, a copy of this permit will be provided to the City upon receipt. We anticipate that providing a copy of the permit will be a condition of the project approval, as construction will not occur until the spring of 2017.

- *On the revised site plan, show easements and distances to property lines.*

The easements have not yet been added to the site plan. The Boundary Survey is being updated per public works comments (see later responses in this letter), and additional information is being provided on the locations of these easements. The easements will be added to the final plans.

- Note that zoning comments provided as part of the March 10 email were also included in previous emails, and are addressed previously in this letter.

March 18, 2016 Waynflete Preliminary Arborist Comments via email from Jeff Tarling

- *Existing White Oak - The proposed project should work to minimize impact to this 'Heritage' White Oak tree on the nearby property. This would include minimizing disturbance to the root zone. (The root zone likely extends beyond the drip line of the canopy in places.) Work in the area beneath the drip line should minimize disturbance, storage of materials and follow best management practices. (see notes / web links from ISA, 'Avoiding construction standards and Treatment of trees by construction', these standards & recommendations can be Incorporated into the final landscape plan, perhaps in the notes section.)*

<http://www.treesaregood.com/treecare/resources/AvoidingTreeDamage.pdf>

<http://www.treesaregood.com/treecare/resources/ConstructionDamage.pdf>

The impact of the project on the existing tree has been taken into consideration. The site utilities are currently being reviewed, and adjustments will be made to reduce impact to the tree's root system.

- *Replacement of Evergreen buffer along private property North of the proposed gym – The replacement of the existing Hemlock hedge is a key element in the landscape plan. Options include Serbian Spruce, Swiss Stone Pine, Chamaecyparis (Cedar), Red Cedar (Juniper), Arborvitae. This discussion has been on-going with the project team.*

The landscape architect and Waynflete are coordinating with the abutting neighbors and will be meeting with them to discuss the planting plan and other landscape features. An updated landscaping plan is enclosed (Attachment 1) and will be updated as required based on discussions with the neighbors.

- *New retaining walls, private property edges - The project proposes to move existing retaining walls closer to private property lines. Landscape buffer zones between the active play areas and private properties and effective treatment is a key element of the landscape plan for the*



proposed project. Quality existing vegetation should be incorporated into the design when possible.

The landscape architect and Waynflete are coordinating with the abutting neighbors and will be meeting with them to discuss the planting plan and other landscape features. An updated landscaping plan is enclosed (Attachment 1) and will be updated as required based on discussions with the neighbors. The enclosed updated landscaping plans now include wall elevations.

- *Landscape plan elements – the next revision of the landscape plan should include plant names, locations and quantities. Conversation in the preliminary phase of the project agreed that this should come after the first landscape review.*

An updated landscaping plan is enclosed (Attachment 1).

March 18, 2016 Waynflete Preliminary Traffic Comments via email from Tom Errico

- *I generally find the proposed crosswalk on Danforth Street to be acceptable. Please noted the following:*
 - o *Warning signs that meet MUTCD standards shall be installed on Danforth Street.*
 - o *I need to review the ramp configurations with City staff.*
 - o *A detectible warning panel and any physical adjustment to ramp on the west side of Fletcher Street shall be included.*
 - o *On-street parking will likely need to be prohibited on the south side of Danforth Street in the area of the crosswalk. This change will require Council Action regarding changes to the Traffic Schedule. The applicant would be required to provide supporting information for the Council packet.*

Based on further discussion with the City, we will be meeting with the Planning Division and Public Services to coordinate crosswalk, handicap ramp, and sidewalk layout for the project. The final plans will be updated to reflect this coordination. At this time, we have added detectable warning panels as noted. The crosswalk across Danforth Street at Storer Street has been eliminated based on discussions with the City. Modifications are reflected on the updated plans (Attachment 1).

- *The application materials speak to increased gym capacity and having a larger venue for other nonathletic events. The applicant should provide specific details on how the occupancy loading capacity of the gym will change with the project. If an increase is expected, the applicant should note increases in traffic and parking levels.*

As noted in a previous response, the TDM is currently being updated. Additional information on the impact of gym capacity on parking needs will be provided as part of a future submission.

- *I need to review the TDM plan and determine if any revisions are required.*

The 2008 TDM Plan and two follow-up letters discussing progress on the TDM plan are attached (Attachment 6).

- *A Construction Logistics Plan has been provided. In general, I find it to be acceptable, although I need to conduct a review of the construction vehicle access route and the applicant will need to provide details on traffic management during construction of the sidewalk.*



The construction logistics plan is currently being reviewed and updated by the construction manager. An updated version taking into consideration these comments will be provided as part of the final submission.

March 22, 2016 Waynflete Preliminary DPS Comments via memo from David Margolis-Pineo

- *Add note to Sheet C-002 stating that, "All work within the street right of way shall meet City of Portland Technical Manual Standards." Understood this note is on Sheet C-100.*

The note has been added and is reflected on the enclosed updated plans.

- *Note that the installation of a cross walk at Storer St. may eliminate on-street parking potential.*

This crosswalk has now been removed based on discussions with the City.

- *City Code does not allow for drain laterals to be connected to catchbasins. The proposed drainage connection shall be to the combined sewer in Danforth St and if the lateral is 8" or larger a manhole shall be installed.*

Woodard & Curran is coordinating with Public Works to confirm location for the storm drain connection. Overall, the number of storm drain connections to the combined sewer will be reduced and the rate of stormwater entering the system will be decrease under this proposed development.

The remaining comments are from Bill Clark, City Surveyor:

- *Need to mark property corners and add State Plane Coordinates.*

The boundary survey is currently being updated, and a new copy will be provided under separate cover.

- *Site plan refers to a existing conditions plan dated 10/27/2015. Was that included?*

A copy of the existing conditions survey has been referenced on the site plan and has been added to the plan set.

- *The site plan shows boundary information. Add information on surveyor or source of boundary lines on site plan.*

Boundary information has been removed from the site plan. Boundary information will now only be referenced, and will be included only on the stamped Boundary Survey. The Boundary Survey has been added to the plan set.

- *Include the stamped surveyor's existing conditions plan in the submission set for the Archives.*

A copy of the existing conditions survey has been referenced on the site plan and has been added to the plan set.

March 22, 2016 Waynflete Preliminary Fire Comments via email from Nell Donaldson

Comments are from Keith Gautreau provided on March 9, 2016

- *Emergency access to these proposed buildings is difficult and limited. The campus does not have any proposed fire lanes or emergency access to the lower school.*



We are currently coordinating with the Fire Department regarding emergency access. The final plans will reflect any updates to the site layout.

- *Construction Management Plan – Streets must maintain a 20' width for Fire Department access at all times. Fire Hydrants shall not be blocked or enclosed by fencing. A 3' foot clearance must be kept at all times around the fire hydrant. If gates are locked, a Portland Fire Department Knox padlock must be purchased by the applicant to allow access for the Fire Department. The Construction Company' emergency contact information shall be posted on the property in case of an after hours emergency. All construction shall comply with 2009 NFPA 1 Chapter 16 Safeguards During Building Construction, Alteration, and Demolition Operations. Any cutting and welding done will require a Hot Work Permit from Fire Department.*

The Construction Management Plan will be updated to reflect the Fire Department's comments.

- *I would like to see the two nearest fire hydrants data on water flow from the PWD Portland Water District. 2009 NFPA 1 18.4 Fire Flow Requirements for Buildings – may require additional installation of fire hydrants to meet fire flow requirements.*

We are currently coordinating with the Portland Water District, and will provide the fire flow data under separate cover when it becomes available.

March 22, 2016 Waynflete Preliminary Transportation Comments via email from Bruce Hyman

- *The ramps, as shown in D-202 (the detail sheet) and the Site Plan in C-100, are not ADA-compliant. If the ramps are to be constructed as shown, the Detectable Warning Panels need to extend the full width of the ramp (the flush area), not with two individual panels. The ramp detail on Sheet D-202 should also provide additional information on grades on the ramps (e.g., 8% on the ramping down, and maximum of 2% cross-slopes on the landing areas within the ramp). They should indicate how the grades within the landing area of the ramp will prevent ponding of water within the landing area and also at the base of the ramp where it meets the street (a typical problem that needs to be avoided).*

As noted previously, based on further discussion with the City, we will be meeting to coordinate crosswalk, handicap ramp, and sidewalk layout for the project. These comments will be discussed as part of that coordination. The final plans will be updated to reflect this coordination.

- *For the ramping down portions of the ramps, there may need to be curb at the backside of the ramp for proper ramping down. The detail needs to be clearer for the contractor*

As noted previously, based on further discussion with the City, we will be meeting with the Planning Division and Public Works to coordinate crosswalk, handicap ramp, and sidewalk layout for the project. These comments will be discussed as part of that coordination. The final plans will be updated to reflect this coordination.

- *Did they consider a more standard two-ramp configuration so the crosswalk is not skewed at Storer Street/Danforth or differently aligned at Danforth/Spring?*

Per discussions with the City, the crosswalk across Danforth Street at Storer Street has been eliminated.

- *Is this not in a Historic District? They show Yellow DWPs, not the Gray with the full brick surround which is the Historic District ramp detail.*



The detail has been updated to the Historic District Ramp detail.

The plans have been updated to reflect the various comments that have been received. The revised plan set is enclosed with this letter. A number of items require further coordination, as noted throughout our responses. To the extent that we can address these comments prior to the April 12, 2015 Planning Board Workshop, we will plan to discuss them at the workshop. We will submit additional information to reflect these remaining items as the information is available.

If you have any additional comments or questions, please do not hesitate to reach out to me. Thank you for your help in coordinating the review of this project.

Sincerely,

WOODARD & CURRAN

Lauren Swett, PE
Project Engineer

Enclosures:

1. Revised Plan Set
2. Figure 1 Lot Coverage
3. Figure 2 Building Heights
4. Figure 3 Gym Setbacks
5. 2005 Waynflete Master Plan
6. 2008 TDM and 2009 and 2010 Update Letters
7. Updated Photometrics
8. Helen Webber Easement

PN: 229423

WAYNFLETE SCHOOL

Campus Master Plan

**Approved by the Board of Trustees
March 15, 2005**

The Campus Master Plan Committee

David Brown
Taffy Field
Anne Hagstrom
Peter Hamblin
Cinda Joyce
Mark Lickus
Alan McIlhenny, chair
Cynthia Orcutt
Scott Simons

With the assistance of:

Jane Begert
Peter Brewitt
Molly MacAuslan
John Orcutt
Mark Segar

Waynflete School
Campus Master Plan

Achievements of the past decade:

Waynflete invested millions of dollars to improve its facilities over the past decade, and the improvements are evident everywhere.

Upper School:

- Construction of the Science Wing
- Complete renovation of the Emery building
- Improvements to the café and basement work and storage areas

Middle School:

- Construction of the addition linking Morrill and Cook-Hyde
- Complete renovation of Morrill, Cook-Hyde and Hurd
- Creation of the Academic Support Center in Hurd
- Creation of the archives space in Morrill
- Locker room created in the garage building
- Play area improvement

Lower School:

- Creation of the 2-3 classroom in Hewes
- Renovation of the Early Childhood classrooms
- Lower playground improvements and expansion

The Arts Center:

- Completion of Phase 1 the gallery and studios
- Renovation of Daveis House

Gymnasium:

- Construction of the locker room addition

Administration:

- Creation of the faculty workroom and mailroom
- Office renovations

Outdoors:

- Improved pathways and lighting
- The Loop Road around Thomas House
- Fore River Fields:
 - tennis courts
 - baseball diamond

New Properties:

- 305 Danforth Street – The Headmaster’s House
- 3 Storer Street
- Several small parcels adjacent to the Fore River Fields

Maintenance:

- Everywhere, with more always needed

Guiding Assumptions and Principles

Several important assumptions underlie the 2005 Campus Master Plan:

- Waynflete will remain on its campus in Portland’s West End, and its athletic facilities will remain at the Fore River Fields off Osgood Street
- The size of the school will remain at its current level of approximately 540 students
- The relative sizes and age-ranges of the three school divisions will remain the same: Lower School EC (3 and 4 year olds) – 5th grade (165 students); Middle School 6th – 8th grades (140 students); Upper School 9th – 12th (235 students)
- Continuity will be maintained in the School’s mission and programs

And several guiding principles underlie our deliberations and recommendations:

- Enhance safety
- Promote accessibility
- Preserve open space
- Preserve the historic character and distinctive appeal of the school campus and buildings
- Consider environmental issues of energy efficiency and green design
- Create welcoming points of access to the campus and to the school divisions
- Invest in the maintenance of all of the buildings – endow this if possible

Methodology

This is an updating of the 1994 Campus Master Plan rather than an attempt to start from scratch. Where the earlier document relied on extensive interviews with stakeholders throughout the school, we have relied on interviews with the heads of the school's three divisions – Lower, Middle and Upper – and with those in charge of specific facilities or functions, such as the library, the café and the athletic department. An extensive questionnaire was prepared by the committee to help those interviewed assess their respective facility needs, and many used the questionnaire to solicit the input of their division faculty or co-workers. The principal respondents were asked to dream – a little – with the understanding that their dreams would face stiff competition for limited financial resources. The committee thanks all who helped us gather the information that went into this report.

The process we followed included the following elements:

- Establishment of our Guiding Principles
- Identification of Existing Conditions on the Campus
 - Site
 - Building Use
 - Open Space and Landscape
 - Circulation and Parking
 - Buildings
 - Useable square footage
 - Identification of storage areas and condition
- Identification of future physical needs through the interview and questionnaire process described above
- Charrettes to explore alternative ideas for future improvements
- Refinement of a preferred Final Plan to be used as a starting point by decision makers preparing funding and construction plans

Waynflete School Campus Master Plan

Priorities and Recommendations for Future Planning

March 15, 2005

The Board of Trustees established the Campus Master Planning Committee (CMP) in the fall of 2003 as a subcommittee of Buildings and Grounds to recommend revisions to the 1994 Waynflete Campus Master Plan. The revised Plan summarized below also addresses the fourth goal of the 2002 Strategic Plan to “improve facilities to meet program needs”. The subcommittee consisted of trustees, faculty, staff, parents, and architects.

In June of 2004, the Board of Trustees approved fundraising and construction design for the Theater and Gymnasium Project which is the School’s first priority for current new construction. The proposed revisions to the Campus Master Plan assume that this facility will be built.

The CMP recommended that the next priorities for Waynflete should be a New Lower School and an Athletic Fieldhouse & Additional Playing Fields in that order. Other projects considered as having a high level of importance, and which would greatly enhance the program and campus are listed in Tier II in alphabetical order; these have not been prioritized. The third section is a list of other important needs and considerations identified in the planning process, some of which could be addressed through the completion of other projects.

I. Tier I Campus Master Plan Priorities.

1. **New Lower School.** The first priority for future investment is the creation of a New Lower School. While this would not involve the construction of a new building, the addition of new spaces and renovation of existing areas would result in a transformation so complete that, in effect, the Lower School would seem entirely new. Although there have been some improvements to the Lower School as part of the prior Campus Master Plan (creation of the 2-3 classroom, renovation of Early Childhood spaces, and playground improvements and expansion), classrooms for K-1, 2-3, and 4-5 continue to be overcrowded, there is little quiet space anywhere in the building, no entry or central gathering place, no library space, a crowded art studio space, no space for academic tutorials, no dedicated space for the Afterschool Program¹, an inadequate and out-of-date playground for the youngest children, and no handicapped access to the 2-3 program.² Further, storage for curriculum materials is

¹ One possibility for creating dedicated space for Afterschool as well as additional meeting rooms and storage areas would be to purchase and renovate the house at 11 Fletcher Street, known as the Webber House. There would be many factors to consider (cost of purchase and renovations, availability for actual use given zoning and land use restrictions), but its location within the natural footprint of the Waynflete campus and proximity to the Lower School suggest that it could be a viable solution.

² Handicapped access to the 2-3 classroom will be addressed in the spring of 2005 at least as a temporary solution. A long-term solution may also be possible with the completion of the Theater and Gymnasium Project.

consigned to damp and markedly substandard basement areas and the heating system is old, unreliable, and inefficiently zoned.

Since the original Campus Master Plan was adopted by the Board, the Middle and Upper Schools have each undergone a transformation involving both the addition of new spaces and renovations. The effect of these transformations on the students, faculty and program cannot be overstated. A similar transformation of the Lower School is long overdue. Lower School should be housed in a state-of-the-art facility that better supports its already excellent programs.

2. **Athletic Fieldhouse & Fields**. The second priority for future investment is the construction of a Fieldhouse and the addition of more playing fields at the Fore River Fields Complex. A Fieldhouse and new fields would greatly expand Waynflete's capability to meet the athletic needs of its middle and upper school students and could contain many attractive features depending on cost and available resources. Preliminary designs reviewed by the Committee suggested at least two possibilities for siting of a Fieldhouse that could contain up to three basketball courts, suspended track, weight room and fitness center, aerobic exercise room, training room, locker rooms, offices as well as ample parking and storage. A Fieldhouse would address many of the scheduling and use limitations that currently exist with only one gym on campus, and would provide an admissions advantage for middle and upper school students considering Waynflete. Although some of these limitations will be addressed with the conversion of Waldron Auditorium to lower and middle school recreational space as part of the Theater and Gymnasium Project, the current gym will still not meet the needs of competitive athletics for students in grades 7-12; it has only one playing surface, limited spectator seating, inadequate locker room space, an inadequate weight room, and no storage. Other uses for a fieldhouse could include an environmental classroom and meeting spaces.

Additional soccer and lacrosse fields and a softball field could be created depending on the siting of a fieldhouse and the possible acquisition of additional properties adjoining the Fore River Fields. With up to ten teams vying for two fields in the fall and spring, additional playing fields are sorely needed. A field with an artificial surface would allow teams to begin practices earlier in mud season.

As the area at the Fore River Fields is further developed, it will be important to preserve undeveloped space in the woods and along the waterfront for outdoor classrooms and environmental studies.

Tier II. Campus Master Plan Projects (in alphabetical order)

➤ **Completion of Arts Center**. The Arts Center was originally conceived as being built in three phases, the last of which would include large music classrooms and art studio space. The Theater and Gymnasium Project which currently (2005) is the primary focus for fundraising and construction will add a state-of-the-art auditorium and recreational space for lower and middle schools. The project, originally Phase II, was re-designed to provide additional spaces to support the music and theater and programs including a Jazz room, set building areas, dressing rooms and storage. However, it does not complete the original

vision of the Arts Center and there will still be a need for larger classrooms and art studio spaces in the future.

➤ Library and Technology Center. The existing Library in the Emery Building is an active, bright and welcoming space, typically crowded with students. Although used most intensively by Upper School students, it serves the library needs of the whole school. The offices for technology staff are currently located in Cook-Hyde and storage for equipment (CD's, slides, computers, DVD's, tapes, etc.) is in various places across campus. Both Middle and Upper schools have a computer room for student use, although the Middle School would benefit from having a larger classroom that could hold more computers.

Additional space for books, research, work areas for library staff and students, and storage is increasingly necessary. Storage for technology equipment should be centralized and offices for technology staff should be in closer proximity to the Library. There could also be spaces dedicated to more advanced technology uses such as a media center.

The Committee looked at the possibility of adding a floor to the top of the current library, expanding the library down the eastern slope or building a new building on campus. A new building could possibly be located in the area of the current Storer parking lot, but this siting would reduce the amount of play/open space on campus which, as noted below is also a significant need. A new building would, however, have a ripple effect across the campus in opening up additional space in Emery and Ruth Cook Hyde. A two-story building in either location or an expansion of the current facility could have exciting possibilities for library services by providing browsing/fiction on one level with a centralized open circulation desk and a second level for reference/quiet study and computer work stations. Technology staff could be housed in that building along with storage. The possibility of demonstration classrooms or a media center could also be explored.

➤ Play Space and Open Space. Play space on campus is severely limited for all three schools. Although Middle School play areas improved dramatically with the completion of the Loop Road/MS Playground Project, there is still limited space for games involving throwing or distance such as football and lacrosse. The Sanctuary is an area reserved for quiet conversations or reflection and is not used for active games. The Lower School field along Danforth Street is limited in size due to construction activity, parking, and is used heavily by Lower School students. Any new construction on campus should keep in mind the importance of maintaining or adding to play space.

Preservation of open space is important both for the School and the neighborhood. The School has improved the feeling of open space on campus with the completion of the Loop Road Project and the creation of pathways linking Emery, Daveis, Hurd House, and the sanctuary.

➤ Waynflete Front Door. The "Front Door" refers to the first impression that visitors have when they come to Waynflete, whether in Thomas House or Lower, Middle or Upper School. This impression is important for current and prospective families, alumni, candidates for employment, and other visitors. The goal is for the School to be physically organized and staffed in a way that it is warm, welcoming, and easy to navigate for everyone who comes.

The current offices for Administration (Admissions, Business, Development and Head of School) do not meet those goals due to the layout of Thomas House which has limited waiting areas, separation of departments on more than one floor or in more than one building, no handicapped access, and a lack of gathering/meeting spaces for parent volunteers and alumni. The entry areas of each School are also not designed in a way that welcomes students or families. One solution would be to create spaces which serve as central reception areas located on a ground floor or with handicap access, with administrators located near the central area. The Campus Master Plan Committee was confident that there are several options to create a better “Front Door” for the Admissions, Business Office, Development, and Head of School using existing buildings including the possible renovation and use of the Storer Street House (if allowed by the City).

III. Ongoing Projects, Needs, and Considerations. This section identifies additional space needs, some of which could be accomplished through completion of projects listed above. The creation of new library/technology space, for example, could result in additional classroom space in Middle School. Also listed in this section are considerations that should be taken into account in any project – accessibility, storage, and parking.

➤ Academic Support. The current space in the basement of Hurd House provides little privacy and quiet for academic support faculty to work with students. The space is also dark and too hot in the winter months. Ideally, Academic Support would have a large central office, private rooms for tutors to work with students, a director’s office and a gathering space.

➤ Accessibility. Accessibility is an issue in several areas of the School – Thomas House, 3rd floor of Ruth Cook Hyde and Morrill Houses, and the 2-3 classroom.

➤ Adjoining Properties. There are several properties adjoining the main campus and the athletic fields that could be of future use by the School. The “Webber House” located on Fletcher Street borders the Lower School and is within the natural footprint of the School. Students walk in to school daily along the north side of the house and play along the south side of the house. There is nearly constant activity around 3/4 of the property. Conversion of this property (if the building were purchased by the School and a partial change of use permitted by the City) could significantly alleviate Lower School needs for dedicated space for Afterschool, storage, and meeting areas. Several properties adjacent to the Fore River Fields could also be purchased to expand playing fields and parking.

➤ Middle School: The Middle School would benefit from at least three more spacious classrooms for up to 16 students, a larger computer room space, and gathering spaces to accommodate each grade and advising faculty. A larger and more accessible location for student lockers would be a significant improvement.

➤ College Counseling. College counseling is currently run by three people out of the Dean of Studies office and other spaces in the Middle School. A dedicated space, with private offices for counselors to meet with students, a small library of college catalogues,

materials and tables for students to use to research opportunities would provide welcome support for this important aspect of the Upper School.

➤ Faculty Housing. Short or long term faculty housing could assist new faculty/staff moving to the Portland area and other faculty/staff faced with high housing costs. The availability of on-campus or near-campus housing could also help alleviate the housing shortage in Portland.

➤ Parking. The possibility of additional on-campus parking should be considered whenever possible as part of the School's ongoing efforts to improve safety and reduce the impact of parking in the neighborhood.

➤ Storage. The need for more storage across the School is critical. Some of the projects in Tiers I and II include a storage component as well. Any current storage space that is converted to other uses should have an accompanying storage plan elsewhere on campus.

➤ Upper School: The primary unmet need in the Upper School is for gathering spaces for large groups of up to 65 people.

P r o g r a m S u m m a r y

Project: Waynflete Master Plan – Programming

Re: Summary of Programming Interview Sheets for Tier I and II
Projects

Waynflete School Program			
Space Name	Existing SF	Proposed SF	Remarks
Lower School	11,100 SF 0 SF 600 SF 0 SF 500 SF <u>3,800 SF</u> 16,000 SF	3,050 SF 1,350 SF 800 SF 1,250 SF 800 SF <u>4,300 SF</u> 11,550 SF	Classroom space Lower School Library Art Studio First Floor of Webber House Offices Storage, Lobby, 30% planning factor Sub-total for Lower School
Fieldhouse	9,500 SF	30,000 SF 43,300 SF	Option #1 – 2-court Gym Option #2 – 3-court mini Field House
Library/Technology	2,800 SF 270 SF	2,800 SF 800 SF	Note: Proposed Library for LS is included in the LS proposed SF Technology
Front Door/Administration	1,200 SF 2,100 SF 500 SF 1,000 SF <u>1,800 SF</u> 8,700 SF	540 SF 175 SF 500 SF 200 SF <u>650 SF</u> 4,865 SF	Headmaster and Admissions Development and Business College Counseling/Registrar Maintenance Storage/Garage Sub-total for Administration

C o s t S u m m a r y

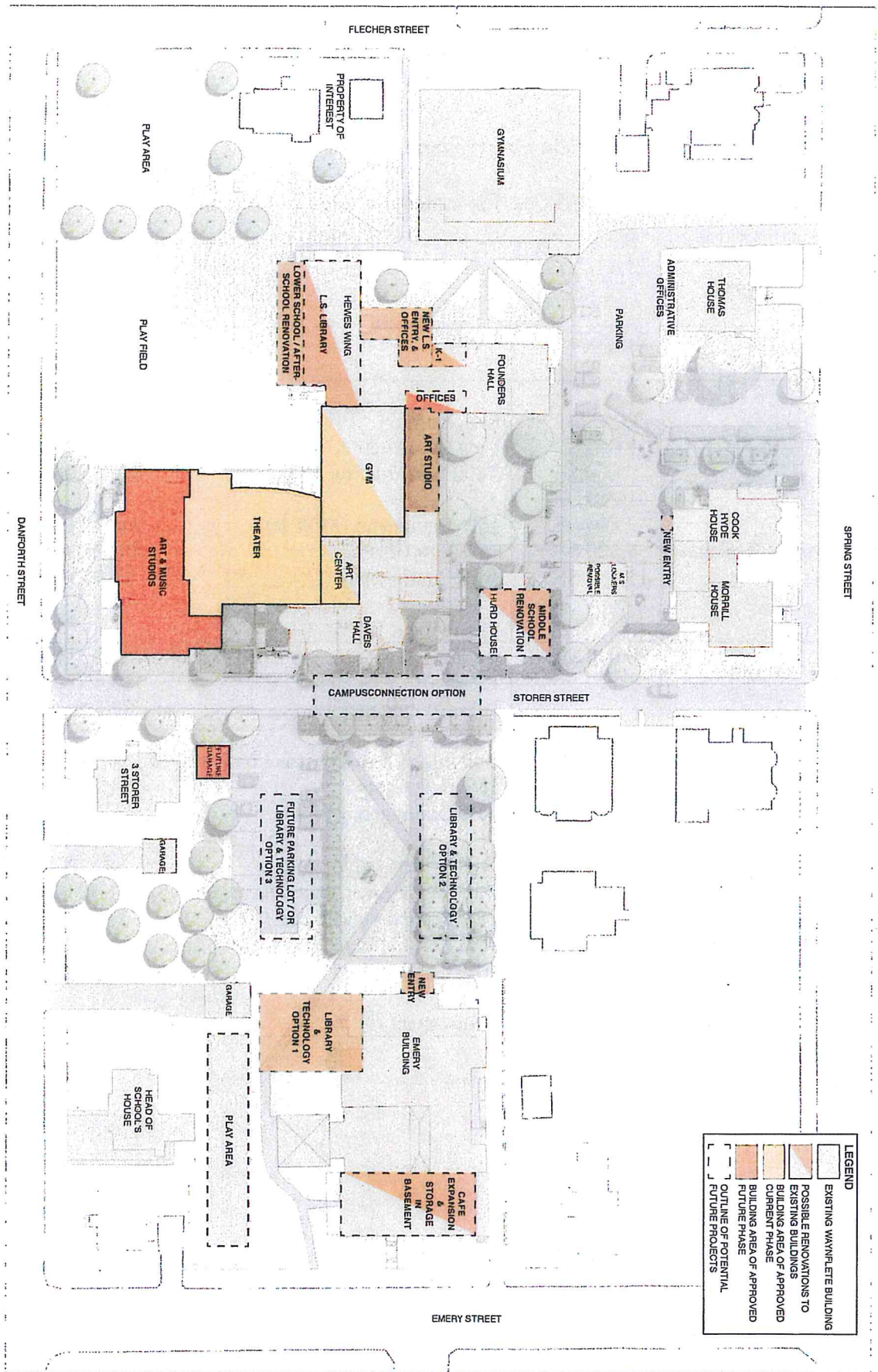
Project: Waynflete Master Plan – Programming

Re: Summary of Cost Estimates for Selected Projects as of January, 2005³

Waynflete School Program			
Space Name	Proposed SF	Costs	Remarks
Lower School			
Classrooms	3,050 SF	Renovation 3850 SF @ \$95/SF = \$370,000	Assume 1/3 of project
Library	1,350 SF	New Construction 7700 SF @ \$125/SF = \$965,000	Assume 2/3 of project
Art Studio	800 SF	Total Construction \$1,335,000	
Afterschool	1,250 SF		
Offices	800 SF	15% Equipment (FF & E) \$1,540,000	
Storage, Lobby, 30% planning	4,300 SF	15% Soft Costs \$1,770,000	
	11,550 SF	10% Contingency \$1,950,000	
		Endowment @? %	
Fieldhouse	30,000 SF	Building & Site Construction (\$100/SF) \$3,000,000	2-court Gym
		15% Soft Costs \$3,450,000	
		10% Contingency \$3,800,000	
	43,300 SF	Building & Site Construction (\$100/SF) \$4,300,000	3-court mini Field Ho
		15% Soft Costs \$4,950,000	
		10% Contingency \$5,500,000	
		Endowment @? %	
New Library/Technology	12,000 SF	Building & Site Construction (\$130/SF) \$1,560,000	
Library – MS & US		15% Equipment (FF & E) \$1,800,000	
Technology dept./classes		15% Soft Costs \$2,070,000	
Storage		10% Contingency \$2,300,000	
		Endowment @? %	

³ Costs have been estimated only on the basis of square footage and are very rough estimates.

Waynflete School Master Plan Update



(For inclusion in the updated 2008-2009 Waynflete Campus Master Plan)

Guiding Assumptions and Principles

Several important assumptions and guiding principles underlie the 2008-2009 Updated Campus Master Plan:

- Waynflete will maintain its campuses in Portland's West End and at the Fore River Fields off Osgood Street.
- Waynflete will aim for an average enrollment of 552 students, recognizing the normal fluctuations of enrollment (approx. 5%).
- Subject to demographic and market conditions, the relative sizes and age-ranges of the three school divisions will remain proportionally the same: Lower School EC (3 and 4 year olds) – 5th grade 35%; Middle School 6th – 8th grades (25%); Upper School 9th – 12th (40%)
- The School's Mission will continue to inform and guide the development of programs.
- Facilities will be developed and maintained to meet evolving program needs.
- Safety and accessibility will be important considerations in all campus development
- Open space will be valued for students' play and their connections to natural spaces.
- Preserving the character and distinctive appeal of the school campus and buildings will continue to be an important priority.
- Environmental issues of energy efficiency, reduction of carbon footprint, and green design, will be important considerations for all facilities development.
- Waynflete will continue to develop welcoming points of access to the campus recognizing that the School is part of larger neighborhoods in the City of Portland.

Waynflete School Mission Statement

Waynflete's mission is to engage the imagination and intellect of our students, to guide them toward self-governance and self-knowledge, and to encourage their responsible and caring participation in the world.

Our aim is to provide a program that combines security with challenge, playful exploration with rigorous expectation, and range of experience with depth of inquiry.

Waynflete School Master Plan Update

Revised Space Program: April 13, 2009

Administration:

From 2004 Master Plan	4,865 NSF	
Development: one more office space than identified in 2004 Master Plan	150 NSF	
Subtotal: Interior Space	5,015 NSF	
Net to Gross Ratio @ 30%	1,505 NSF	
Total Interior Space	6,520 GSF	(4,525 Existing)

All-School:

General storage	1,000 NSF	
Storage for facilities operations	1,000 NSF	
Technology Studios (robotics, engineering, etc): 2 @ 2,000 SF	4,000 NSF	
Spaces for academic support, parent resource center	400 NSF	
Space for archives	250 NSF	
Subtotal Interior Space	6,650 NSF	
Net to Gross Ratio @ 30%	1,995 NSF	
Total Interior Space	8,645 GSF	(16,300 Existing)

Lower School: (see 2004 MP and 50% Schematic Design drawings)

From 2006 Lower School Schematic Design	9,000 NSF	
Additional Space identified since 2006 SD:		
Shop space	500 NSF	
Foreign language classroom,	250 NSF	
Additional meeting spaces: 2 @ 250 SF	500 NSF	
Flexible office space for psychological consultant and/or other consultants here on part-time basis (such as speech/language pathologist)	150 NSF	
Adult bathroom	50 NSF	
Subtotal Interior Space	10,450 NSF	
Net to Gross Ratio @ 30%	3,135 NSF	
Total Interior Space	13,585 GSF	(20,700 Existing)
Exterior Space	No Additional NSF	

Middle School:

Decentralize MS lockers	500 NSF	
Faculty offices: 5 @ 150 SF	750 NSF	
Create new space or reconfigure larger classrooms to make gathering spaces for 50-55 people: 2 @ 800 SF	1,600 NSF	
Increase size of play space/green space/garden space	4,000 NSF	
Subtotal Interior Space	3,850 NSF	
Net to Gross Ratio @ 30%	1,140 NSF	
Total Interior Space	4,990 GSF	(15,400 Existing)
Exterior Space	4,000 NSF	

Upper School:

Three more classrooms @ 500 SF	1,500 NSF	
Dedicated teacher workspace	250 NSF	
Better sick bay (larger, more privacy)	150 NSF	
Language Learning Laboratory: 1 @ 500 SF	500 NSF	
Expanded library (same as 2004 MP)	3,600 NSF	
College counseling center	500 NSF	
More active play area, garden space, more green/open space	8,000 NSF	
Subtotal Interior Space	6,500 NSF	
Net to Gross Ratio @ 30%	1,950 NSF	
Total Interior Space	8,450 GSF	(17,600 Existing)
Exterior Space	8,000 NSF	

Arts Center:

Phase Three	6,000 NSF	
Net to Gross Ratio @ 30%	1,800 NSF	
Total Interior Space	7,800 GSF	(32,523 Existing)

Grand Total Interior Space	49,990 GSF	(107,048 Existing)
Exterior Space	12,000 NSF	

Parking:

Existing Spaces	TH (21) US (11) MS (2) AC(11)	45 Spaces
Required New Spaces		approx. 10 Spaces

May 27, 2016



Nell Donaldson, Planner
City of Portland Planning Office
389 Congress Street
Portland, ME 04101

Re: Waynflete School Campus Upgrades
Level III Site Plan – Final Plans and Response to Comments

Dear Nell:

On behalf of the Waynflete School, we are submitting the final plans for the Level III Site Plan Application for the proposed Gymnasium and Lower School Expansion at Waynflete School, located at 360 Spring Street in Portland, Maine. The preliminary application was submitted on February 16, 2016, and a subsequent response to comments was submitted on March 31, 2016. Additional comments were provided on stormwater on April 5, 2016, and the project was discussed at an April 12, 2016 Planning Board Workshop. The Applicant also met with City Staff to discuss outstanding issues on April 27, 2016. This letter provides information on project updates that have occurred since the initial application, and provides additional response to comments.

Traffic and Transportation

An update to the existing Waynflete Transportation and Parking Demand Management Plan is attached. The updated plan includes consideration of on- and off-site parking for regular operations as well as for after-school events.

At the direction of Public Works and Planning Staff, during our meeting on April 27, 2016, sidewalk replacement at Danforth Street is no longer being proposed. Rather, sidewalk replacement is proposed on Spring Street. The plans have been updated to reflect this change.

Landscaping/Architecture

The landscape architect has coordinated with the property abutters and with Jeff Tarling to develop the updated landscape plan. The plans show the agreed-upon fencing location, and the Landscape Architect is currently working with the abutters to confirm fence style selections. Final fence selections will be provided to the Town prior to issuance of a building permit. A figure has also been provided to show additional detail on the gate protection what will be provided on the northern gym egress. A 6-foot tall fence and gate will be provided to prevent unintended access to the stairwell. The Landscape Architect also met with the neighbor located to the north of the gym to review the transformer location. The abutter did not have specific concerns regarding the transformer due to the extensive screening that they have in their own yard.

Boundary Survey

An updated Boundary Survey is enclosed showing property corners and State Plan Coordinates as previously requested by Bill Clark.

Reference to the Helen Webber easement has been added to the existing conditions plan sheet C-001. The easement (provided as part of a previous response to comments) does not define the specific bounds



of the easement, an refers generally to the easement including the sidewalk encroachment. The other defined easements are shown on the survey, but are not within the defined project area.

Stormdrain Connection

Per the recommendations of Brad Roland from the Public Works Department, Woodard & Curran has updated the proposed stormdrain connection to the combined sewer in Danforth Street. This connection will be accomplished by installing a new manhole in the existing combined sewer in Danforth Street. The grading and drainage plan and the stormwater management plan have been modified to reflect this change.

Emergency Access

Woodard & Curran has updated the attached drawings to provide fire truck access to the Lower School via the parking lot entrance south of the Arts Center. To accommodate the emergency access, Woodard & Curran is proposing to shift the dumpster a small amount to the west. Attached is a turning movement figure and renderings of the area. Additional plantings are proposed for the space between the dumpster enclosure and Danforth Street. This information has been provided to the Historic Preservation Board, and will be reviewed during their June 1, 2016 meeting.

Water Service

The applicant is working with the Portland Water District on the details surrounding the water service for the project. As previously noted in the application, the water capacity requirements will not change, but the age of the existing services will likely necessitate the installation of new services from the main. During the development of Construction Documents, Woodard & Curran will work with the Portland Water District to detail final services and develop temporary services to accommodate construction. A final plan for the water service will be provided prior to the issuance of a Building Permit.

Project Phasing

Construction of any portion of the project will not begin on the site until the spring of 2017. The Applicant is currently reviewing funding considerations, and will be making a decision on whether to construct both the Lower School and the Gym or to split the work into two projects. If the Applicant chooses to take this approach, an amendment to our Site Plan Application reflecting the proposed first phase of work (including all proposed stormwater treatment and sidewalk improvements) will be submitted to the City for review and approval.

Response to Comments

Comments received to-date have been provided below in italics, followed by our response:

April 5, 2016, Engineering Review Comments via memo from Stantec:

C-001 Existing Conditions Plan

- *The existing catch basin located north of Founders Hall should be investigated to determine where it discharges to and whether it is connected to the system(s) ultimately draining to Danforth Street. Per the watershed maps it appears to be part of the systems that will be reconstructed.*

Woodard & Curran reviewed record drawings from the 2007 Arts Center development and confirmed that the catch basin north of Founders Hall connects to the east, and is not connected to the proposed stormdrain system for this project.



- *We suggest that the existing utilities be further identified with pipe sizes if this information is available. We understand that existing Spring Street water service will be replaced. It's not clear if that the existing service provides water to the Gymnasium, Founders Hall and the Arts Center. The PWD should weigh in on how the new services for domestic and Fire services will be aligned. It appears sensible that a new Fire Line supply meter assembly will be installed thus allowing multiple buildings to be served. This should be confirmed for acceptance by PWD however.*

Woodard & Curran has met with the Portland Water District and will be coordinating final water and fire service connections as part of the Construction Documents. We anticipate that new services are required, but that staging of the installation of these services with the existing services will be required to allow for construction without disruption of water service to the remaining buildings. Final service connection details will be completed, per Portland Water District requirements, prior to issuance of a building permit.

- *Is it possible to confirm if there is a sanitary sewer service exiting the Arts Center to the 8" PVC line located south of the building? Is there plumbing in the Founders Hall wing that will remain and require reconnection to the proposed Lower School plumbing? These questions may become addressed when more detailed MEP work is performed understandably.*

The detailed MEP work will address the internal building plumbing. The Founders Hall building and the Arts Center will remain connected to the facility's existing sewer service. There will be no change to the capacity requirements, only to the internal building plumbing to allow for the connection to occur. Temporary service for sewer and all utilities as necessary for construction will be addressed as part of the MEP construction design.

- *We suggest the locations of all nearby fire hydrants in the vicinity of the site be identified if possible. It's not clear where the nearest hydrants are and whether one or more onsite hydrants are necessary.*

The location of the nearest hydrant is noted on the Existing Conditions plan, C-001. Additional fire hydrants will be provided, if requested from PWD and the Fire Department, and included prior to issuance of a building permit.

- *We suspect there may need to be some temporary utility provisions made during construction for power, communications, gas and water. Notes regarding this might be helpful to address whatever needs each utility provider may have.*

As noted previously, temporary service for utilities will be required for construction phases. This design will be a part of the final construction documents and will be developed with assistance from the Contractor.

C-100 Site Plan

- *The alignment of the new brick sidewalk along Danforth Street appears to be offset from the existing concrete walk by a foot or so. Is this intentional and acceptable to Public Services?*

The brick sidewalks are no longer proposed on Danforth Street.

- *We note that the limits of work may increase in various locations due to the required excavation depths for drainage and utilities. For example the excavation depth for DMH 2 and DMH 3 will require a large hole that is likely to extend out into Fletcher Street, thus requiring street restoration in accordance with the City's standards.*



The intent for construction on this site is to utilize driven sheet pile around the perimeter of excavation areas. This will allow for deep construction without the requirement to extend into the street which would impact various existing utilities. The final construction design will be developed by the Contractor following permit approval

C-103 Spring Street Connection Plan

- *We suggest the engineer clarify where the water and sewer services for the Thomas House are located to assure the new work doesn't impact them.*

Woodard & Curran has met with the Portland Water District and will be coordinating final water and fire service connections as part of the Construction Documents. The location of the sewer service will be field verified, and protected during construction.

- *It's not clear if there is one or two water services off the main line in Spring Street since there appear to be two shutoffs located just northwest of the Thomas House. The PWD should clarify. If these are to be discontinued this will need to be completed in accordance with PWD requirements.*

Woodard & Curran has met with the Portland Water District and will be coordinating final water and fire service connections as part of the Construction Documents

- *The grading for the Spring Street connection should be clarified perhaps with some spot grades or contouring. This seems like a replace in kind situation; however it's not entirely clear.*

The intent is to return the pavement to existing grades in the driveway. Additional notes have been added to the drawings for clarity.

- *The water main size should be identified on the plan and the details for the meter pit provided. We assume this is to be a Fire Line supply meter, if so, then the PWD should provide a letter of support for this installation. Provisions for the tie in on the street including a Tapping sleeve and valve also should be identified.*

Woodard & Curran has met with the Portland Water District and will be coordinating final water and fire service connections and meter supply as part of the Construction Documents. The final water design will be provided prior to issuance of building permit, per the requirements of the Portland Water District.

- *CMP will likely require an easement for the primary power service to the Transformer. This should simply be noted on the plan. If details of the underground electric will be on a Site Electrical plan then that should also be noted for cross reference purposes.*

A note referencing the electrical plans has been added to the utility plan shown on Sheet C-103. The final electrical design and coordination will be done by the electrical engineer as part of the construction document development.

C-101 Grading and Drainage Plan

- *Although it may not be clearly known yet, some thought should be given to a construction entrance and staging area(s) and any measures for temporary erosion and sediment control that may be necessary. This may include items consistent with the construction management plan by Wright Ryan to be shown on this drawing.*

Notes about the location of the construction entrance have been included on plan sheet C-002.



- *We note that several drainage structures exceed 10 feet in depth thus these pose challenges for construction to a certain extent. One idea to explore, if not already considered, might be to connect the upper playground drainage to pipe 16 rather than extending the drainage system around the north and west sides of the new gym. This might help eliminate the significantly deep structures DMH 2 and DMH 3. There may be a reason for the alignment as designed and if so, then that is the designer's choice.*

The depth of the drainage system is driven primarily by the connections to drainage structures at the base of the gymnasium stairwells. It is anticipated that sheet piling will be utilized around the perimeter of the site during construction which will manage the footprint of the site impact. The final construction design will be developed by the Contractor following permit approval.

- *It appears that the Founders Hall roof drainage will be tied into Pipe 5 (6"). We simply recommend this be reviewed for capacity as a 6" size line has limited capacity. It's not clear exactly how the Founders Hall roof drain works however we caution against the tie in to a 6" pipe if possible. The sizing of all the new roof drains should be coordinated with the Mechanical designers to assure proper pipe sizing in any case.*

The connecting storm drain line has been upsized to 8 inches to provide additional capacity. This exceeds the size of the existing roof drain connections.

- *It may be worthy to review the vertical alignment of the drainage run from DMH 1 to DMH6 to verify if the structure depths need to be as deep as currently shown. Perhaps the upstream segments can be shallower. If this has already been considered, then that's the designer's choice.*

As previously noted, the depth of the stormdrain system is driven by connections to the drainage structures at the base of the gym stairwells. To connect these sunken areas, the main pipeline and structures must be deep. In addition, a tunnel connection may be constructed between the Gymnasium and Lower School, restricting that space for the installation of shallower drainage pipes.

- *If DMH 3 remains as designed, then a temporary construction easement from the abutting landowner may be required due to the structure installation depth and excavation limits.*

A construction easement may be required due to proximity of construction, and will be obtained prior to the start of work if the Contractor deems it to be necessary. The use of sheet piles for construction excavation will reduce the impact to the site. The existing easement with the property owner (submitted to the City as part of a previous response to comments), also includes provisions for making improvements to the fencing and the encroaching sidewalk.

- *The designer might consider tying AD3 to CB2 to avoid two inlets into DMH1.*

Comment noted. The two invert elevations are sufficiently different such that construction of the manhole will not be any more challenging than construction of CB2 with two inverts.

C-102 Utility Plan

- *We recommend that exit elevations for the sanitary services be identified on the plans (at least by the time of CD production).*

The invert elevations of the sewer services will be defined by the mechanical engineer on the final construction plans.



- *The water main sizes should be identified and whether there are fire and domestic water services to the existing and new structures. Will temporary water need to be provided for any of the buildings? This doesn't need detailing, simply notes describing what may be needed.*

Woodard & Curran has met with the Portland Water District and will be coordinating final water and fire service connections and temporary water supply as part of the Construction Documents. The final water design will be provided prior to issuance of building permit, per the requirements of the Portland Water District. Note 15 on sheet C-002 includes reference to the temporary utility services.

- *The transformer pad size should be noted as either 7x7 or 9x9.*

The size of the transformer pad will be 7'x7'.

- *Are the two existing 8" sewer lines from the ball field to Danforth Street to remain in place? Can one of these lines be abandoned? Does the owner have any record of the condition of these pipes and are they acceptable for continued use. Perhaps Public Services has some indication of possible I & I concerns?*

At this time, both pipes will remain in place. The condition is unknown. The upstream stormdrain connection has been eliminated.

- *Should the existing catch basin in Danforth Street be replaced? This is likely a Public Services determination.*

The stormdrain connection has been changed and stormwater will no longer be directed to the catch basin. The catch basin will not be impacted by the proposed construction work.

- *It's not clear where the underground telecom is located on the north side of the proposed gym.*

The underground telecommunications notes have been corrected on the plan. Underground telecommunications lines will run in parallel with the electrical lines.

Predevelopment Drainage Plan

- *It's not clear why Subarea 402S is included in the model, although it appears to somehow discharge into the existing 48" storage pipes located on the south side of the Arts Center. As there is no change from pre to post for this area it isn't clear why the area is included. While not critical, there is no specific information on this area identified on the plan thus it's difficult to review the closed drainage associated with the area. If there is information on how there is a closed pipe system serving this subarea it may be worthy to include on the plan, especially since the subarea includes private and public property?*

The stormwater model incorporates data from the HydroCAD model for the previously approved Arts Center expansion, which included the 48" pipes. Subarea 402S is not a part of the project area, but the intent of the model was to conservatively include Subcatchment 402S to confirm that the stormdrain connection to Danforth Street is able to handle the total stormwater flow that may come from the site.

- *It's not clear how subarea 61S ties a roof drain into the 48" storage pipes as the routing of any pipe(s) from that building area are not shown on the plan.*

As described for Subcatchment 402S above, Subcatchment 61S is not a part of the impacted project area. We have not modeled the multiple roof drain connections from the building, but we have



included the area in the stormwater model to confirm that the stormwater connection to Danforth Street is able to handle all of the total stormwater flow from the site.

- *Ultimately the plans should address the removal of the existing 8" pipe connection to the Danforth Street sewer. We understand a new 12" pipe connection is to be installed.*

The proposed stormdrain connection is shown on the Grading and Drainage Plan. Two existing stormdrain connections will be disconnected from the site, and a new connection will be provided.

- *There is a Time of Concentration path for subarea 90S that appears to end at the back of the existing retaining wall. Is there a catch basin or other structure there that then ties into the closed drainage? Any change to this flow path is unlikely to have a significant impact on the model so it's not of great concern, simply some explanation perhaps. This is true for the post model also.*

Drainage from subcatchment 90S (the school's grassed playfield) that does not infiltrate flows via overland flow (over the retaining wall) and ultimately to the catch basins on Danforth Street. The pre- and post- models both show the flow connecting directly to the catch basin. In reality, the time of concentration includes further flow distance, and a slightly higher Time of Concentration than is shown, which would result in a smaller peak flow. The Time of Concentration has been maintained within the boundaries of the subcatchment, which results in a more conservative estimate of flow.

Post Development Drainage Area Plan

- *The primary comment we offer relates to the functioning of the existing 48" storage pipes on the overall management of stormwater from the site. According to the post development routing computations the 48" pipes only partially fill during a 25 year storm event (invert at 119.16' and peak elevation is 120.47'), thus it appears there may be opportunity to store additional runoff volume in the storage pipes. The engineer may consider adjustments to the control structure regulating how the pipe storage functions and perhaps they may be able to reduce the size of the proposed underdrained chambered filter field by holding more volume in the existing pipes. Otherwise there needs to be further inspection of this existing system to understand how it functions during heavier rainfalls since the model suggests it doesn't fill up much. An inspection to identify water marks on the interior piping etc. may be helpful to gauge how the system actually functions. The pipe storage doesn't achieve the water quality benefits, however, the city may be more interested in achieving greater flood control measures instead as it relates to the Combined flows entering the sewer system in the street. There seems to be some lost benefit with these 48" pipes unless we do not understand something within the model.*

The 48" storage pipes are not a part of this project. They were previously approved and will not be modified at this time. The proposed underdrained sand filter will be independent of the existing stormwater system, treating and detaining a different portion of the site. The stormwater model incorporates data from the previously approved HydroCAD model for the 48" storage pipes installed for the Arts Center expansion to confirm that the stormdrain connection to Danforth Street is able to handle to the total stormwater flow that may come from the site.

- *As currently proposed and modeled the systems more than satisfy the provisions for water quality benefits and flood control storage. We note that the installation of the underdrained system will involve excavation of materials that will likely require removal from the site, thus it should be anticipated there will be soils removed. We did not review any data related to the potential for rock removal within the project limits so the applicant may need to address that need if necessary.*

Based on previous site construction and site observations, we do not anticipate that rock removal will be required.



- *We understand the owner will need to enter into the City's Standard Stormwater Drainage System Maintenance Agreement following approvals.*

The project will comply with the conditions of the City's Post Construction Stormwater Management requirements.

Planning Board Workshop Comments

The comments received at the April 12, 2016 Planning Board Workshop are generally addressed previously in this memo as part of other plan updates and responses to comments. One specific comment received at that meeting was that a statement be added to the Stormwater Management Plan that the site's stormwater system will manage the stormwater runoff from the existing parking lot at the Arts Center. The following statement has been added:

"The existing parking lot located at the Arts Center will be slightly adjusted as a result of this project. The parking lot will be shifted to the west to facilitate fire truck access to the site, but there will be no net increase in parking spaces. The parking lot drains to the existing stormwater management system that was installed as part of the Arts Center project. The current stormwater model indicates that the downstream stormwater management system will adequately manage the site's stormwater, including all runoff from this parking lot."

The revised plan set and stormwater management plan is enclosed with this letter. If you have any additional comments or questions, please do not hesitate to reach out to me. Thank you for your help in coordinating the review of this project.

Sincerely,

WOODARD & CURRAN

A handwritten signature in cursive script that reads "Lauren Swett".

Lauren Swett, PE
Project Engineer

Enclosures:

1. Updated Plans (Bound Separately)
2. Transportation and Parking Demand Management Plan
3. Gym Egress Figure
4. Boundary Survey
5. Updated Stormwater Management Plan (Application Report Section 12) (Bound Separately)
6. Emergency Access/Dumpster Relocation Figures

PN: 229423

32 Orchard Street
Portland, ME 04102

207-774-3968

April 7, 2016

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

TO WHOM IT MAY CONCERN

Re : Waynflete School's Application to the Planning Board

We are near neighbors of Waynflete School, and write to record our strong support for the school's application to construct a new Lower School building and a new Gymnasium on its campus. We have seen the plans and the drawings and are very impressed with all aspects of these designs. It is clear, too, that the school and its architect are being very responsive to comments and concerns from the neighborhood. There is no doubt that these building projects are of great importance to the school, and that they are indeed essential to the school's mission, but we believe also that they will actually enhance the appearance of the campus and thus be beneficial to the whole neighborhood.

We hope that the planning board will be able to give favorable consideration to the school's application

Sincerely,

A handwritten signature in cursive script, appearing to read "Nancy R. Brain" followed by a flourish and "John C. Watson".

Nancy R. Brain and John C. Watson



Helen Donaldson <hcd@portlandmaine.gov>

Fwd: Waynflete application

1 message

Barbara Barhydt <bab@portlandmaine.gov>
To: "Donaldson, Helen" <hcd@portlandmaine.gov>

Wed, Jun 1, 2016 at 8:31 AM

Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101
(207) 874-8699
Fax: (207) 756-8256
bab@portlandmaine.gov

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

From: **michael curtis** <mrudgec@gmail.com>
Date: Wed, Jun 1, 2016 at 7:53 AM
Subject: Fwd: Waynflete application
To: bab@portlandmaine.gov
Cc: Geoff Wagg <gwagg@waynflete.org>, Margaret Curtis <margarettcurtis@gmail.com>

To the Board of Planning and Urban Development,

We live at 354 Danforth Street, across the street from the proposed Waynflete School renovation. We have been impressed with the process and the thoughtful design that has been presented by the school and support their application. We have been included in meetings and notices from the school and feel that the school has listened and responded to our questions and concerns. We are impressed that with a minimal change to the footprint of the school, and frankly, an improvement to the outward appearance, the school will be updated in a way that will allow it to be a vital element of this neighborhood.

We have noticed over the last 5 years there have been a number of families that have moved to this neighborhood precisely because of a desire to be within walking distance of the school. When these families have moved in they have updated houses that had accumulated some deferred maintenance. It is our opinion that allowing Waynflete school to update and remain relevant is a critical element of maintaining this neighborhood as a vibrant place to live.

We find Waynflete to be an excellent neighbor and hope that this project will be approved.

Thank you for considering our input.

Sincerely yours,

Michael and Margaret Curtis
354 Danforth Street
Portland, Maine 04102

[207-699-4074](tel:207-699-4074)

WAYNFLETE GYMNASIUM & LOWER SCHOOL

Waynflete School, 360 Spring Street, Portland, Maine 04102
PLANNING BOARD SUBMISSION
27 MAY 2016

PROJECT TEAM

OWNER Waynflete School 360 Spring Street Portland, ME 04102 207.774.5721 x227 Anne Hagstrom, Director of Finance and Operations ahagstrom@waynflete.org	ARCHITECT Scott Simons Architects 75 York Street Portland, ME 04101 207.772.4656 Austin Smith, AIA, RLA, LEED AP austin@simonsarchitects.com
CONSTRUCTION MANAGER Wright Ryan Construction 10 Danforth Street Portland, ME 04101 207.773.3625 Cordelia Pittman cpitman@wright-ryan.com	LANDSCAPE ARCHITECT Michael Boucher Landscape Architecture 457 US Route 1, Suite 2 Freeport, ME 04032 207.865.1080 Gretchen Giumarro gretchen@boucherlandscape.com
M/E/P/FP ENGINEER Allied Engineering, Inc. 160 Veranda Street Portland, Maine 04103 207.221.2260 x114 Ian MacDonald, PE, LEED AP BD+C imacdonald@allied-eng.com	STRUCTURAL ENGINEER Becker Structural Engineers 75 York Street Portland, ME 04101 207.897.1838 Dan Burne dan@beckerstructural.com
CIVIL ENGINEER Woodard & Curran 41 Hutchins Drive Portland, ME 04102 207.774.2112 David Senus dsenus@woodardcurran.com	SUSTAINABILITY Thornton Tomasetti 386 Fore Street, Suite 401 Portland, ME 04101 207.245.6070 Michael Pulaski mpulaski@thorntontomasetti.com
SPECIFICATIONS Lowell Specifications, Inc. 34 Marc Avenue Topsham, ME 04085 207.406.4001 Keith Lowell keith@lowellspecs.com	

SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER MANHOLE		
CLEANOUT		
STORM DRAIN MANHOLE		
CATCH BASIN		
UTILITY POLE W/GUY		
UTILITY POLE		
GAS VALVE		
WATER VALVE		
HYDRANT		
SIGN		
CONIFEROUS TREE		
DECIDUOUS TREE		
BORING		
SPOT ELEVATION		
BITUMINOUS PAVEMENT		
CONCRETE SIDEWALK		
BRICK SIDEWALK		

LINE TYPES

DESCRIPTION	EXISTING	DESCRIPTION	PROPOSED
CONTOUR (1' INTERVAL)		CONTOUR (1' INTERVAL)	
CONTOUR (INDEX)		CONTOUR (INDEX)	
SANITARY SEWER		SANITARY SEWER	
STORM DRAIN		STORM DRAIN	
UNDERDRAIN		UNDERDRAIN	
WATER MAIN		WATER MAIN	
UNDERGROUND ELECTRIC		UNDERGROUND ELECTRIC	
UNDERGROUND TELEPHONE		GAS LINE	
GAS LINE		FENCE	
OVERHEAD ELECTRIC		RETAINING WALL	
PROPERTY LINE		EDGE OF PAVEMENT	
RIGHT OF WAY		LIMIT OF WORK	
EDGE OF VEGETATION		CURB	
FENCE		SAWCUT	
CURB		EROSION CONTROL BARRIER	
EDGE OF PAVEMENT			
STONE RETAINING WALL			

DRAWING LIST

GENERAL	
G001	COVER SHEET
SURVEY	
S1	STANDARD BOUNDARY SURVEY
S2	EXISTING CONDITIONS SURVEY - WAYNFLETE SCHOOL
CIVIL	
C-001	EXISTING CONDITIONS PLAN
C-002	SITE DEMOLITION PLAN
C-100	SITE PLAN
C-101	GRADING & DRAINAGE PLAN
C-102	UTILITY PLAN
C-103	SPRING STREET CONNECTION PLAN
D-200	CIVIL DETAILS - 1
D-201	CIVIL DETAILS - 2
D-202	CIVIL DETAILS - 3
D-203	CIVIL DETAILS - 4
D-204	CIVIL DETAILS - 5
PRE	PRE DEVELOPMENT DRAINAGE AREA PLAN
POST	POST DEVELOPMENT DRAINAGE AREA PLAN
LANDSCAPE	
L-1.0	SITE PLAN
L-2.0	MATERIALS AND LAYOUT PLAN
L-2.1	LAYOUT & MATERIALS PLAN
L-4.0	PLANTING PLAN
L-4.1	PLANTING PLAN
L-6.0	CONSTRUCTION DETAILS
L-6.1	CONSTRUCTION DETAILS
L-6.2	CONSTRUCTION DETAILS
ARCHITECTURAL - GYM	
G002	LIFE SAFETY PLAN + CODE SUMMARY
A101	LOWER AND MEZZANINE LEVEL FLOOR PLAN
A102	ROOF PLAN
ARCHITECTURAL - LOWER SCHOOL	
G002	LIFE SAFETY PLAN + CODE SUMMARY
A101	LOWER LEVEL FLOOR PLAN
A102	MAIN LEVEL FLOOR PLAN
A103	UPPER LEVEL FLOOR PLAN
A201	EXTERIOR ELEVATIONS
A202	EXTERIOR ELEVATIONS

ABBREVIATIONS

&	AND	NO.	NUMBER
AD	AREA DRAIN	NR	NO REFUSAL
A.G.	ABOVE GROUND	N.T.S.	NOT TO SCALE
B	BORING	Q.U.	OUTSIDE DIAMETER
BIT.	BITUMINOUS	OE	OVERHEAD ELECTRIC
BM	BENCHMARK	OH	OVERHEAD
CB	CATCH BASIN	±	PLUS OR MINUS
CMP	CORRUGATED METAL PIPE	PLS	PROFESSIONAL LAND SURVEYOR
COMM	COMMUNICATION	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	R.O.W.	RIGHT-OF-WAY
COND.	CONDUIT	RCP	REINFORCED CONCRETE PIPE
DI	DUCTILE IRON	REINF.	REINFORCED
DIA.	DIAMETER	REQ'D	REQUIRED
DMH	DRAIN MANHOLE	RET	RETAINING
DS	DOWN-SPOUT	RLS	REGISTERED LAND SURVEYOR
E	UNDERGROUND ELECTRICAL	RTE	ROUTE
EL.	ELEVATION	S	SLOPE
EMBED.	EMBEDMENT	SD	SEWER
EX.	EXISTING	SMH	SEWER MANHOLE
FF	FINISH FLOOR	SCH	SCHEDULE
FL.	FLOOR	SDR	STANDARD DIMENSION RATIO
FT	FOOT/FEET	STA.	STATION
GALV.	GALVANIZED	TYP.	TYPICAL
GRAN.	GRANITE	UC	UNDERGROUND CABLE
HDPE	HIGH DENSITY POLYETHYLENE	U.N.O.	UNLESS NOTED OTHERWISE
HWY	HIGHWAY	W	WEST
HYD	HYDRANT	W/	WITH
IN	INCH	WV	WATER VALVE
INV.	INVERT	WWM	WELDED WIRE MESH
LP	LIGHT POST		
LF	LINEAR FEET		
MAX.	MAXIMUM		
MIN.	MINIMUM		
MON	MONUMENT		

NOT FOR CONSTRUCTION



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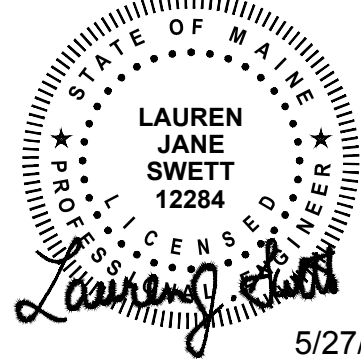
PROJECT NAME:

WAYNFLETE GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:



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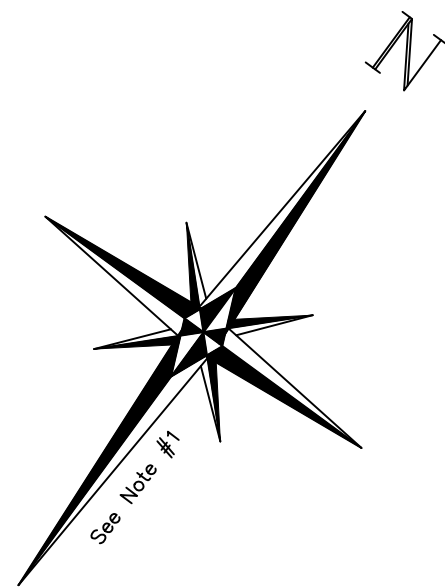
REVISION:	
REVISED PER CITY OF PORTLAND COMMENTS	3/31/16
1	DATE
REVISED PER CITY OF PORTLAND COMMENTS	5/27/16
2	DATE

3	DATE
4	DATE
5	DATE
6	DATE

DATE OF ISSUE:	MAY 2016
PROJECT NUMBER:	229423
STATUS:	PLANNING BOARD SUBMISSION

COVER SHEET

G-001



DESCRIPTION OF MONUMENTS

- 1) 8"x8" Granite with brass plug, 5" below sidewalk
- 2) Drill hole in brick.
- 3) 8"x8" Granite with brass plug at grade.
- 4) 8"x8" Granite with Drill hole, at grade
- 5) 8"x8" Granite with brass plug, at grade
- 6) Stone post 3' above grade, inside corner.
- 7) 10"x11" Granite with "M", at grade, inside corner
- 8) 9"x11" Granite with "M" at grade, inside corner
- 9) 10"x11" Granite with "M" at grade, inside corner
- 10) 8"x8" Granite with brass plug, 1" above grade
- 11) capped iron rod, PLS #466, at grade
- 12) 8"x8" Granite with brass plug 1" above grade
- 13) 9"x5" Granite with "M", 5" below grade, inside corner
- 14) 6"x6" Granite with brass plug at grade
- 15) City of Portland survey disk, PLS#2230
- 16) 8"x8" Granite 1" above grade inside corner
- 17) 8"x10" Granite with "M", at grade inside corner
- 18) 3/4" pipe, at grade
- 19) Capped iron rod, PLS #284
- 20) 1" pipe, 4" below grade
- 21) 1" pipe, at grade
- 22) Capped iron rod, PLS #466, at grade
- 23) Capped iron rod, PLS #466, at grade
- 24) 3/4" Pipe, at grade
- 25) 3/4" Pipe, 2" below grade

ABUTTERS

- F-1 Cherie Wendelken and James E. Brooks 29634/284
F-9 Justin C. Webber 32416/100
G-5 Heather M. McCargo and Brian P. McNiff 31560/82
G-7 Port Resources Inc. 4581/75
G-14 James C. Pulla and Jane M. Pulla 30744/53
G-15 Daniel D. Skwire 12605/15
G-17 Jeffrey S. Troiano Abby Jane Dubay-Troiano 29910/63
G-19 Douglas Welch and Caitlin Guthrie 22485/250

LEGEND

- | | | | |
|-----|-----------------------|-----|-------------------|
| ● | CAPPED IRON SET (CIR) | — | PROPERTY LINE |
| ○ | IRON PIN FOUND | — | EASEMENT LINE |
| □ | MONUMENT FOUND | --- | RIGHT-OF-WAY LINE |
| ○ | UTILITY POLE | --- | EDGE OF PAVEMENT |
| ▨ | EXISTING BUILDING | — | CURBING |
| N/F | NOW OR FORMERLY OF | —○— | CHAIN LINK FENCE |
| | | — | RETAINING WALL |
| | | — | FENCE LINE |
| | | — | DEED REFERENCE |

NOTES

- 1) Bearings are referenced to the True North as determined by astronomic observation.
- 2) Deed and Plan Book references are to the Cumberland County Registry of deeds.
- 3) Pipe sizes shown are inside diameter (i.d.).
- 4) Street lines for Storer and Fletcher Streets are based on building ties shown in the field notes for Reference #5 and #6. Street lines for Spring, Emery, and Danforth Streets are based on monuments as shown.
- 5) The Maine State Coordinates listed are based on NAD83 West Zone derived from GPS observations.

PLAN REFERENCES

- 1) Plan of land at Emery and Danforth Streets, from a copy by M.C. Pingree recorded November 6, 1871 recorded in Plan Book 3 Page 27.
- 2) "Plan of lot on Emery Street Owned by Charles S. Fobes" by W.A. Goodwin, C.E., dated May 11, 1874, and recorded in Plan Book 3 Page 26.
- 3) "Plan of Division of Land Belonging to Jerseys, Parleys & Cram", By E.C. Jordan, C.E., dated July 28, 1886 and recorded in Plan Book 6 Page 12.
- 4) City of Portland monument maps, dated 1925, on file at the City of Portland Department of Public Works.
- 5) Plan of Fletcher Street, dated December 13, 1934, on file at the City of Portland Department of Public Works.
- 6) Plan of Storer Street, undated, on file at the City of Portland Department of Public Works.
- 7) "Plan of Property ... made for John W. Gordon" by H.J. & E.C. Jordan dated September 28, 1959.
- 8) Plan of Danforth, Salem, May, School, and Briggs Streets by Owen Haskell Inc., dated December 4, 1974.
- 9) Standard Boundary Survey ... made for Christopher M. Harte by Titcomb Associates Inc. dated February 4, 1997.
- 10) Standard Boundary Survey made for The Waynflete School by Titcomb Associates Inc. dated April 26, 1999.

EASEMENTS OF RECORD

- 1) "The right to use the way before named as a driveway" granted to George P. Westcott by Abby D. Hersey et al. by deed dated June 10, 1886, and recorded in Book 529 Page 21.
- 2) Pole easement granted to Central Maine Power Co. by Waynflete School by deed dated August 16, 1955, and Recorded in Book 2276 Page 253. Not plottable, utility pole not found.
- 3) Driveway easement granted to Monty Q. Hagen and James H. Harrison by Waynflete School by deed dated March 10, 2000, and Recorded in Book 15361 Page 261.
- 4) Sidewalk Easement Agreement between Helen A. Webber and Waynflete School by deed dated September 25, 2006 and recorded in Book 24399 Page 338.

OWNER OF RECORD AREA

Parcel 'A' -- The Waynflete School
Area: 156,374 sq ft = 3.59 Acres
Parcel 'B' -- The Waynflete School
Area: 80,272 sq ft = 1.84 Acres
Parcel 'C' -- The Waynflete School
Area: 7,594 sq ft = 0.17 Acres
Total Area: 244240 sq ft = 5.60 Acres

CERTIFICATION

This survey conforms to the current standards of practice set forth by the Maine State Board of Licensure for Land Surveyors.

Rev. J. Croteau, P.L.S. #2273



50 0 50 100
SCALE IN FEET

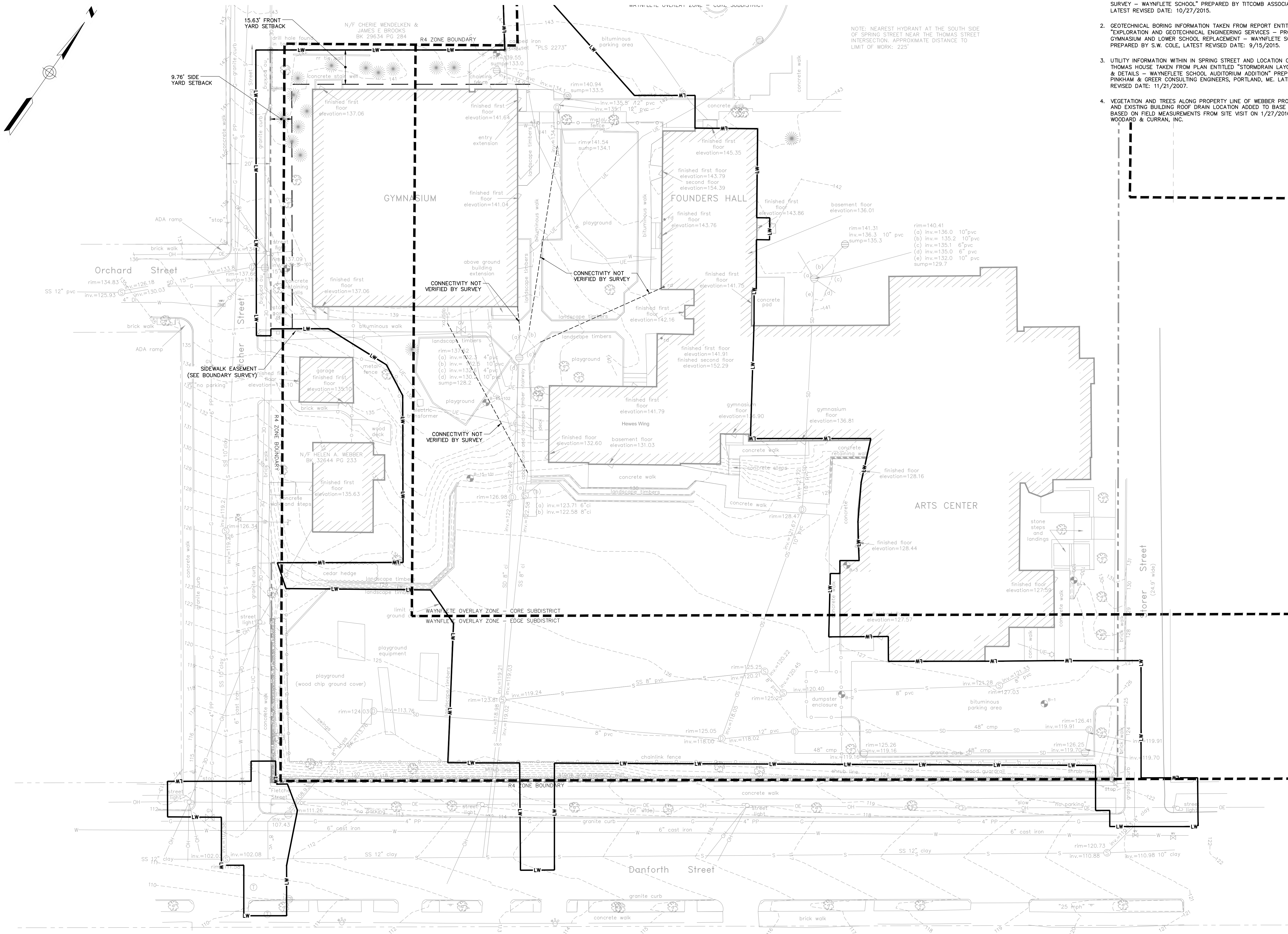
Rev. 1 05/23/16 Maine State Plane Coordinates RJC

Standard Boundary Survey
Storer, Emery, Danforth, Fletcher, Storer Streets Portland, Maine

made for
The Waynflete School
360 Storer Street Portland, Maine

JOB	3013	DATE	August 13, 2015	SCALE	1" = 50'
BOOK	532				
DISC	310				
FILE	6131				

Titcomb Associates
133 Grand Road, Falmouth, Maine 04105
(207) 777-1111 titcomb.survey.com



PLAN NOTES

1. SURVEY INFORMATION TAKEN FROM PLAN ENTITLED "EXISTING CONDITIONS SURVEY - WAYNFLETE SCHOOL" PREPARED BY TITCOMB ASSOCIATES, LATEST REVISED DATE: 10/27/2015.
2. GEOTECHNICAL BORING INFORMATION TAKEN FROM REPORT ENTITLED "EXPLORATION AND GEOTECHNICAL ENGINEERING SERVICES - PROPOSED GYMNASIUM AND LOWER SCHOOL REPLACEMENT - WAYNFLETE SCHOOL" PREPARED BY S.W. COLE, LATEST REVISED DATE: 9/15/2015.
3. UTILITY INFORMATION WITHIN IN SPRING STREET AND LOCATION OF THOMAS HOUSE TAKEN FROM PLAN ENTITLED "STORMDRAIN LAYOUT PLAN & DETAILS - WAYNFLETE SCHOOL AUDITORIUM ADDITION" PREPARED BY PINKHAM & GREER CONSULTING ENGINEERS, PORTLAND, ME. LATEST REVISED DATE: 11/21/2007.
4. VEGETATION AND TREES ALONG PROPERTY LINE OF WEBBER PROPERTY AND EXISTING BUILDING ROOF DRAIN LOCATION ADDED TO BASE PLAN BASED ON FIELD MEASUREMENTS FROM SITE VISIT ON 1/27/2016 BY WOODARD & CURRAN, INC.

NOTE: NEAREST HYDRANT AT THE SOUTH SIDE OF SPRING STREET NEAR THE THOMAS STREET INTERSECTION. APPROXIMATE DISTANCE TO LIMIT OF WORK: 225'

20' 0 20' 40'
BAR SCALE
1" = 20'
CHECK GRAPHIC SCALE BEFORE USING

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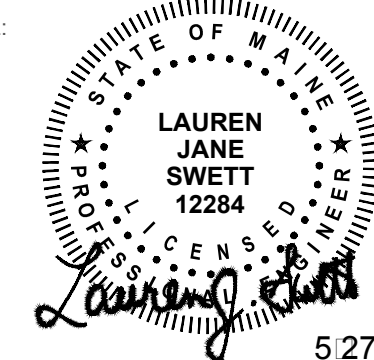
PROJECT NAME:

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NEW CONSTRUCTION

WAYNFLETE SCHOOL
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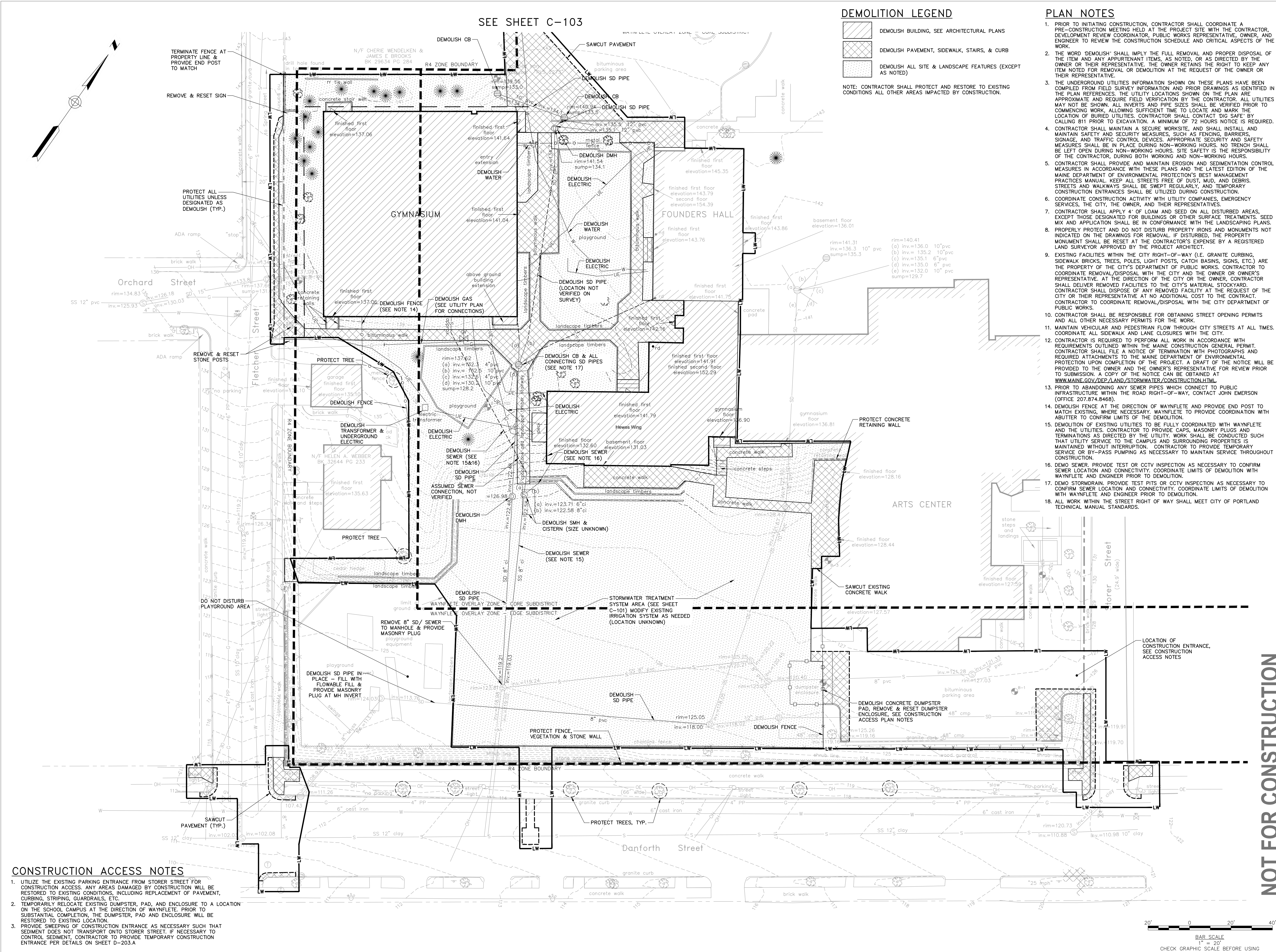
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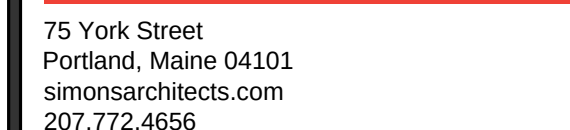
DATE OF ISSUE: MAY 2016
PROJECT NUMBER: 229423
STATUS: PLANNING BOARD SUBMISSION

EXISTING
CONDITIONS PLAN

C-001

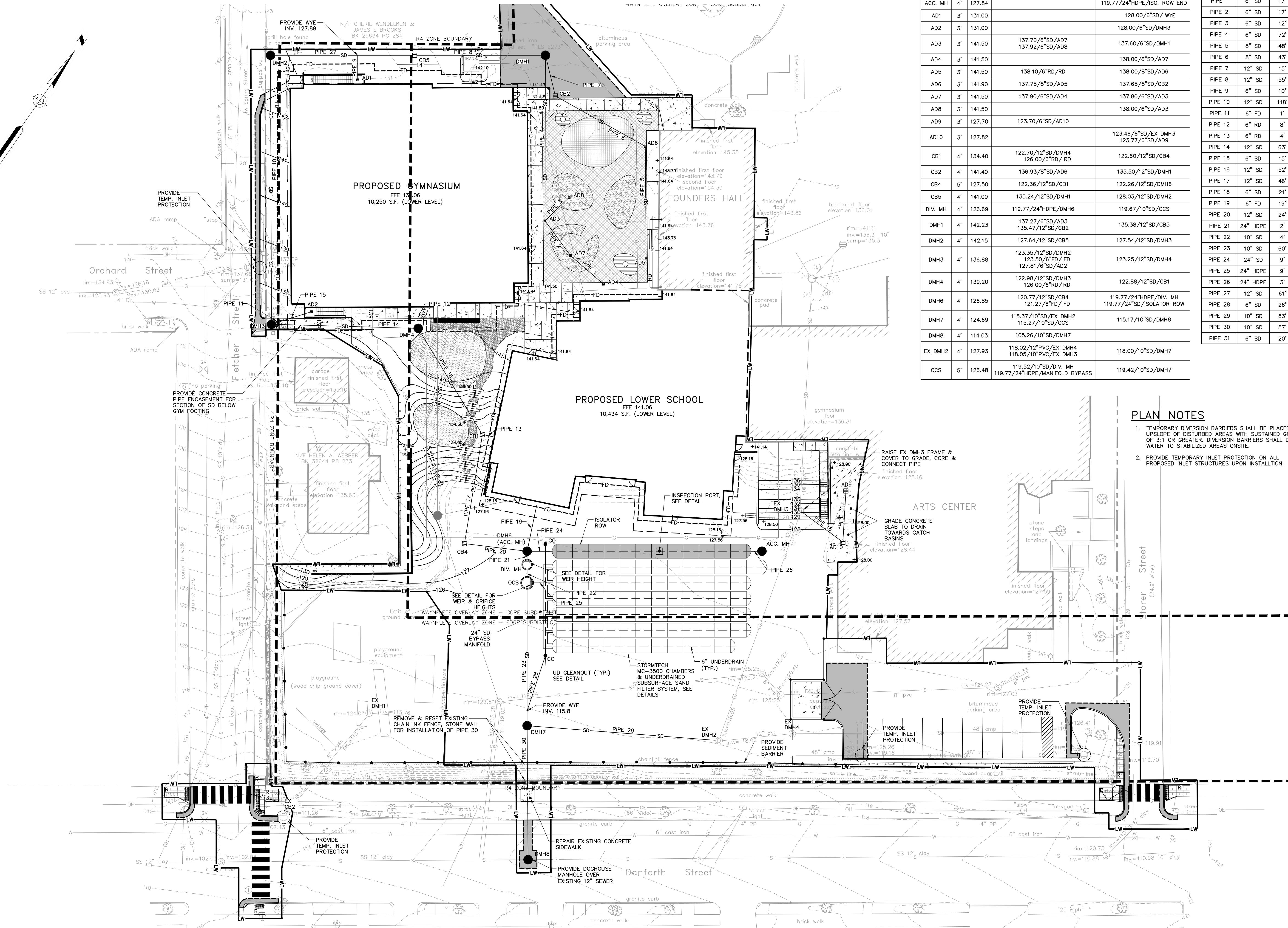
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NOT FOR CONSTRUCTION

SEE SHEET C-103



STRUCTURE TABLE				
NAME	DIA.	RIM	INV IN/SIZE/FROM	INV OUT/SIZE/TO
ACC. MH	4'	127.84		119.77/24"HDPE/ISO. ROW END
AD1	3'	131.00		128.00/6"SD/ WYE
AD2	3'	131.00		128.00/6"SD/DMH3
AD3	3'	141.50	137.70/6"SD/AD7 137.92/6"SD/AD8	137.60/6"SD/DMH1
AD4	3'	141.50		138.00/6"SD/AD7
AD5	3'	141.50	138.10/6"RD/RD	138.00/8"SD/AD6
AD6	3'	141.90	137.75/8"SD/AD5	137.65/8"SD/CB2
AD7	3'	141.50	137.90/6"SD/AD4	137.80/6"SD/AD3
AD8	3'	141.50		138.00/6"SD/AD3
AD9	3'	127.70	123.70/6"SD/AD10	
AD10	3'	127.82		123.46/6"SD/EX. DMH3 123.77/6"SD/AD9
CB1	4'	134.40	122.70/12"SD/DMH4 126.00/6"RD/ RD	122.60/12"SD/CB4
CB2	4'	141.40	136.93/8"SD/AD6	135.50/12"SD/DMH1
CB4	5'	127.50	122.36/12"SD/CB1	122.26/12"SD/DMH6
CB5	4'	141.00	135.24/12"SD/DMH1	128.03/12"SD/DMH2
DIV. MH	4'	126.69	119.77/24"HDPE/DMH6	119.67/10"SD/OCS
DMH1	4'	142.23	137.27/6"SD/AD3 135.47/12"SD/CB2	135.38/12"SD/CB5
DMH2	4'	142.15	127.64/12"SD/CB5	127.54/12"SD/DMH3
DMH3	4'	136.88	123.35/12"SD/DMH2 123.50/6"FD/ FD 127.81/6"SD/AD2	123.25/12"SD/DMH4
DMH4	4'	139.20	122.98/12"SD/DMH3 126.00/6"RD/ RD	122.88/12"SD/CB1
DMH6	4'	126.85	120.77/12"SD/CB4 121.27/6"FD/ FD	119.77/24"HDPE/DIV. MH 119.77/24"SD/ISOLATOR ROW
DMH7	4'	124.69	115.37/10"SD/EX. DMH2 115.27/10"SD/OCS	115.17/10"SD/DMH8
DMH8	4'	114.03	105.26/10"SD/DMH7	
EX DMH2	4'	127.93	118.02/12"PVC/EX. DMH4 118.05/10"PVC/EX. DMH3	118.00/10"SD/DMH7
OCS	5'	126.48	119.52/10"SD/DIV. MH 119.77/24"HDPE/MANIFOLD BYPASS	119.42/10"SD/DMH7

PIPE TABLE			
PIPE NAME	SIZE	LENGTH	SLOPE
PIPE 1	6" SD	17'	0.0050
PIPE 2	6" SD	17'	0.0050
PIPE 3	6" SD	12'	0.0050
PIPE 4	6" SD	72'	0.0045
PIPE 5	8" SD	48'	0.0050
PIPE 6	8" SD	43'	0.0154
PIPE 7	12" SD	15'	0.0013
PIPE 8	12" SD	55'	0.0022
PIPE 9	6" SD	10'	0.0100
PIPE 10	12" SD	118'	0.0344
PIPE 11	6" FD	1'	0.3526
PIPE 12	6" RD	8'	0.0081
PIPE 13	6" RD	4'	0.0100
PIPE 14	12" SD	63'	0.0040
PIPE 15	6" SD	15'	0.0100
PIPE 16	12" SD	52'	0.0033
PIPE 17	12" SD	46'	0.0048
PIPE 18	6" SD	21'	0.0650
PIPE 19	6" FD	19'	0.2530
PIPE 20	12" SD	24'	0.0521
PIPE 21	24" HDPE	2'	0.0000
PIPE 22	10" SD	4'	0.0181
PIPE 23	10" SD	60'	0.0640
PIPE 24	24" SD	9'	0.0000
PIPE 25	24" HDPE	9'	0.0000
PIPE 26	24" HDPE	3'	0.0000
PIPE 27	12" SD	61'	0.0060
PIPE 28	6" SD	26'	0.0083
PIPE 29	10" SD	83'	0.0301
PIPE 30	10" SD	57'	0.1631
PIPE 31	6" SD	20'	0.0028

PLAN NOTES

1. TEMPORARY DIVERSION BARRIERS SHALL BE PLACED UPSLOPE OF DISTURBED AREAS WITH SUSTAINED GRADES OF 3:1 OR GREATER. DIVERSION BARRIERS SHALL DIRECT WATER TO STABILIZED AREAS ON SITE.
2. PROVIDE TEMPORARY INLET PROTECTION ON ALL PROPOSED INLET STRUCTURES UPON INSTALLATION.

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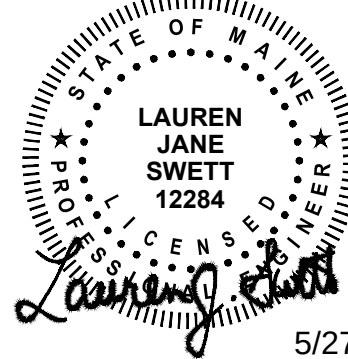
PROJECT NAME:

WAYNFLETE
GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

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1	REVISED PER CITY OF PORTLAND COMMENTS	5/27/16
2		DATE
3		DATE
4		DATE
5		DATE
6		DATE

DATE OF ISSUE: MAY 2016

PROJECT NUMBER: 229423

STATUS: PLANNING BOARD SUBMISSION

GRADING
DRAINAGE PLAN

C-101



SEE SHEET C-103

STRUCTURE TABLE					
NAME	DIA.	RIM	INV IN/SIZE/FROM	INV OUT/SIZE/TO	
SMH1	4'	131.57	122.19/6"S/GYM 121.79/6"S/LS	121.69/6"S/EX SMH	

SEE SHEET C-101 FOR STORM DRAINAGE STRUCTURE & PIPE INFORMATION.

PIPE TABLE			
PIPE NAME	SIZE	LENGTH	SLOPE
PIPE S1	6" S	94'	0.0707
PIPE S2	6" S	86'	0.0299
PIPE S3	6" S	37'	0.0204

PLAN NOTES

1. THE UTILITY LOCATIONS SHOWN ON PLAN ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION BY THE CONTRACTOR. CONTACT THE OWNER AND THE OWNER'S REPRESENTATIVE IMMEDIATELY UPON DISCOVERING ANY CONFLICTS WITH EXISTING AND PROPOSED UTILITY LOCATIONS. NOT ALL EXISTING UTILITIES ARE SHOWN ON PLANS.
2. CLEAN AND/OR FLUSH ALL MANHOLES, CATCH BASINS, AND ASSOCIATED PIPING AFTER THE WORK HAS BEEN COMPLETED.
3. ALL SEWER CONSTRUCTION IN THE PUBLIC WAY SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLE II OF CHAPTER 24-SEWERS OF THE CITY OF PORTLAND CODE OF ORDINANCES.
4. ALL WATER LINE (MAINS, SERVICES, HYDRANTS, ETC.) CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT TECHNICAL SPECIFICATIONS, LATEST EDITION. PORTLAND WATER DISTRICT TECHNICAL SPECIFICATIONS, LATEST EDITION SHALL GOVERN IN THE CASE OF ANY AND ALL CONFLICTS IN THE PROJECT CONSTRUCTION DOCUMENTS AT NO ADDITIONAL COST TO OWNER.
5. ALL GAS LINE (MAINS, SERVICES, HYDRANTS, ETC.) CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH UNITL'S TECHNICAL SPECIFICATIONS, LATEST EDITION. UNITL'S TECHNICAL SPECIFICATIONS, LATEST EDITION SHALL GOVERN IN THE CASE OF ANY AND ALL CONFLICTS IN THE PROJECT CONSTRUCTION DOCUMENTS AT NO ADDITIONAL COST TO OWNER.
6. FOR TEST PIT LOCATIONS SHOWN ON PLANS, FIELD VERIFY UTILITY EXCAVATIONS PRIOR TO ORDERING CATCH BASIN AND MANHOLE STRUCTURES. NOTIFY OWNER AND OWNER'S REPRESENTATIVE OF ANY CONFLICTS.

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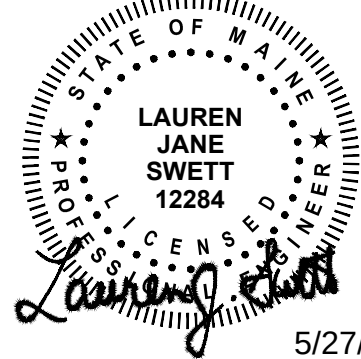
PROJECT NAME:

WAYNFLETE GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
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3		DATE
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5		DATE
6		DATE

DATE OF ISSUE: MAY 2016

PROJECT NUMBER: 229423

STATUS: PLANNING BOARD SUBMISSION

UTILITY PLAN

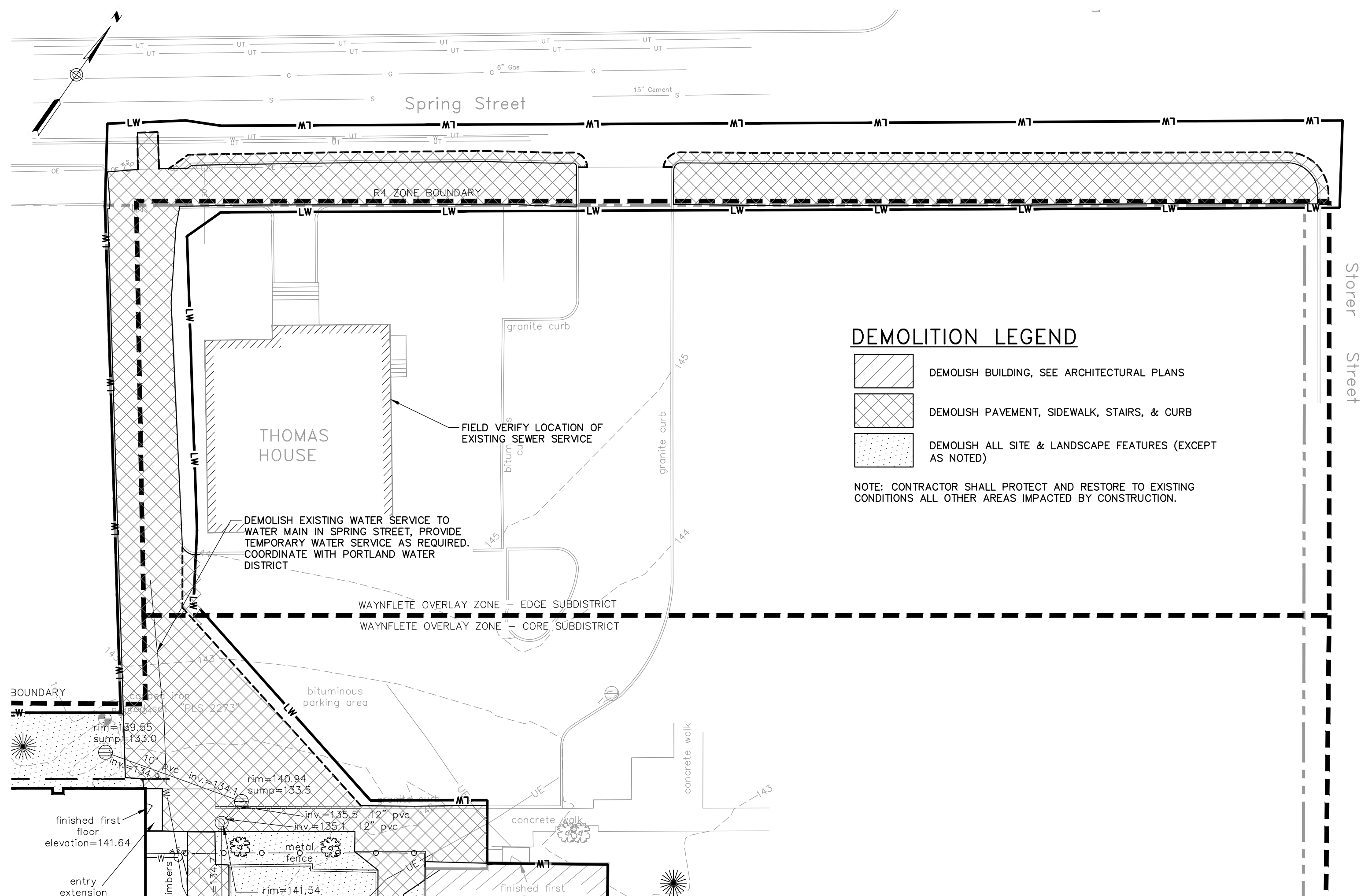
C-102

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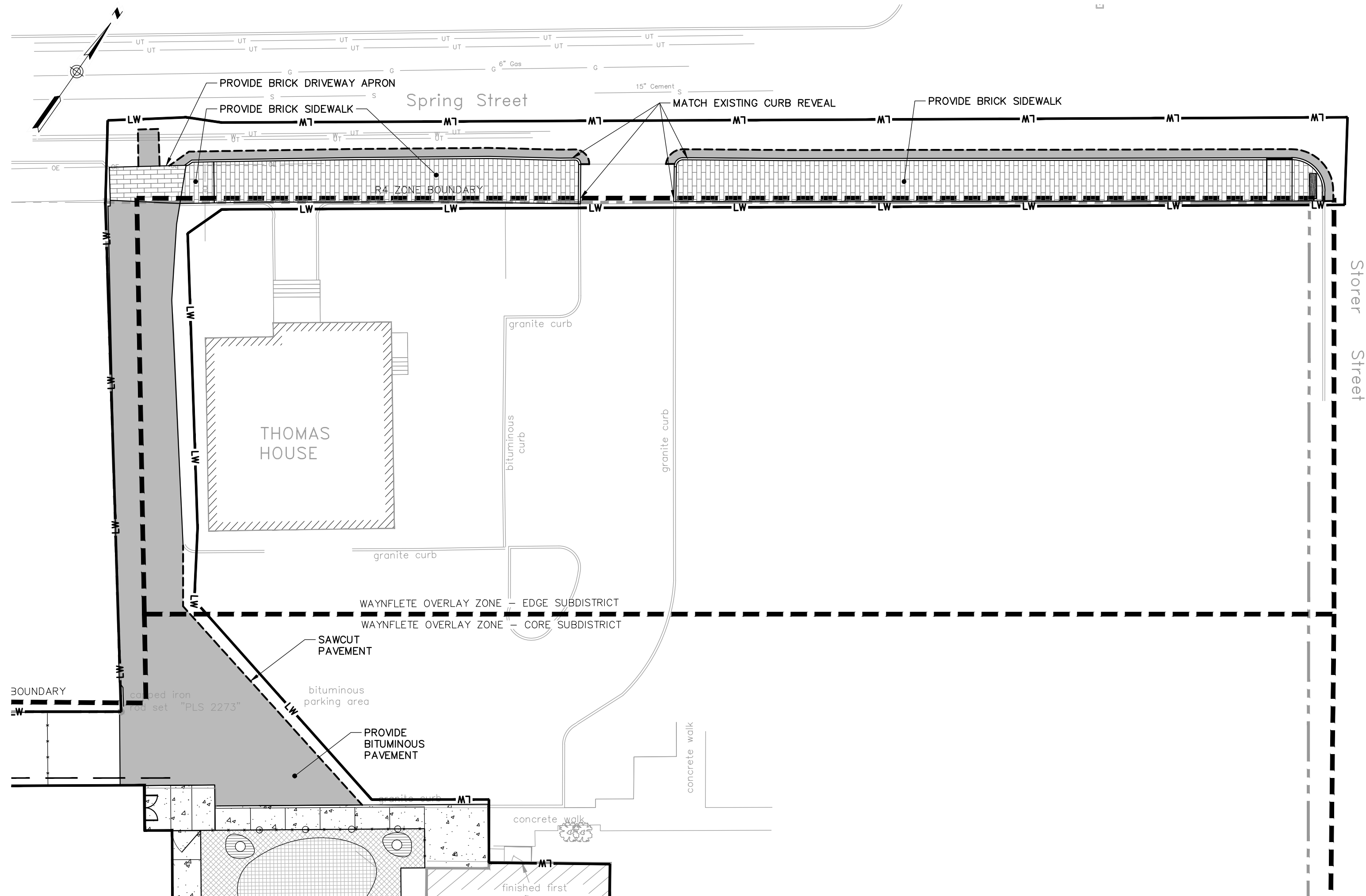
20' 0 20' 40'

BAR SCALE

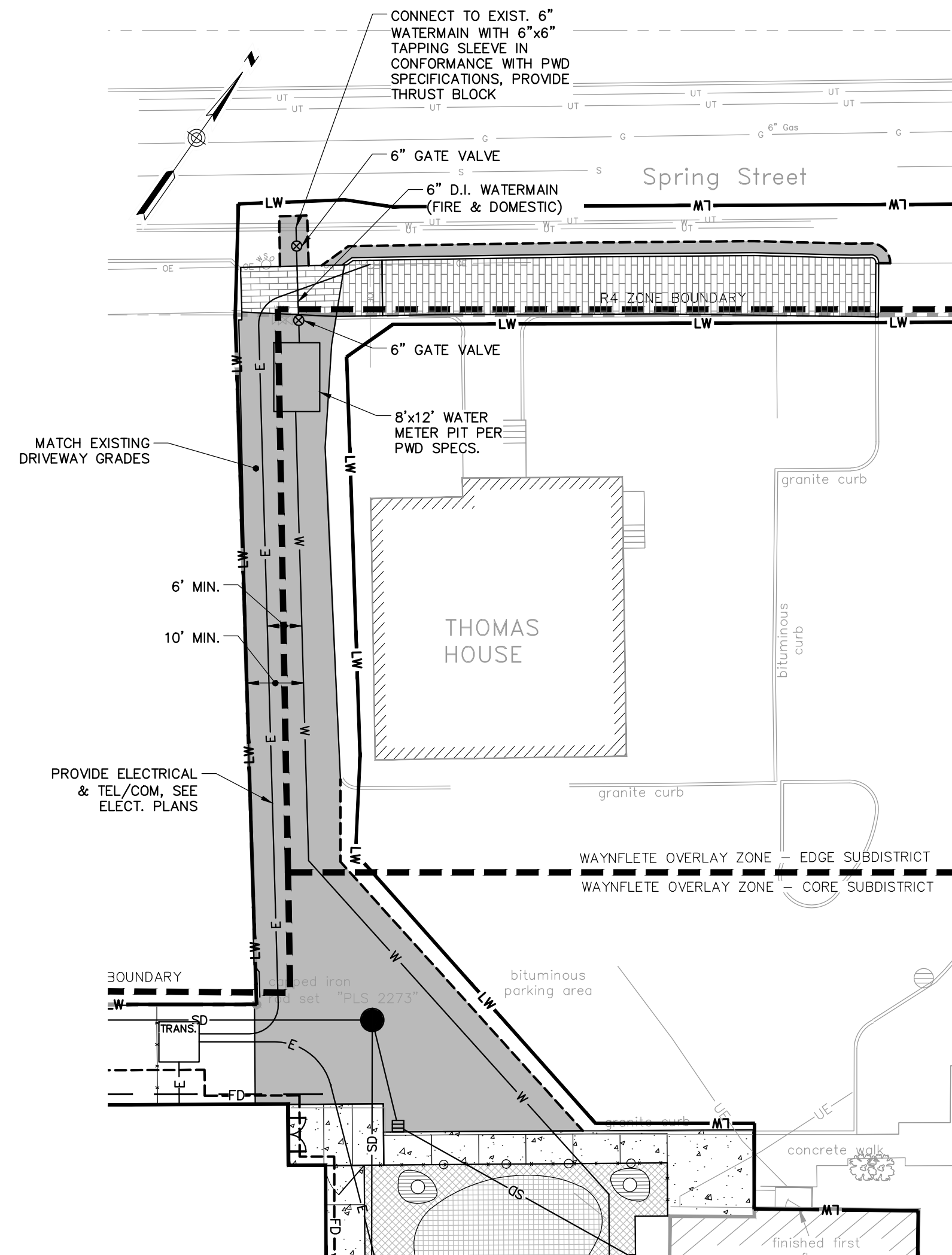
1" = 20'
CHECK GRAPHIC SCALE BEFORE USING



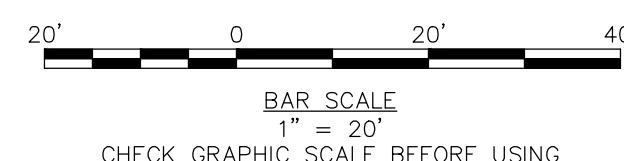
SPRING ST. CONNECTION
DEMO PLAN
SCALE: 1"=20'



SPRING ST. CONNECTION
SITE PLAN
SCALE: 1"=20'



SPRING ST. CONNECTION
GRADING, DRAINAGE &
UTILITY PLAN
SCALE: 1"=20'



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GYM + LOWER SCHOOL

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SEAL:



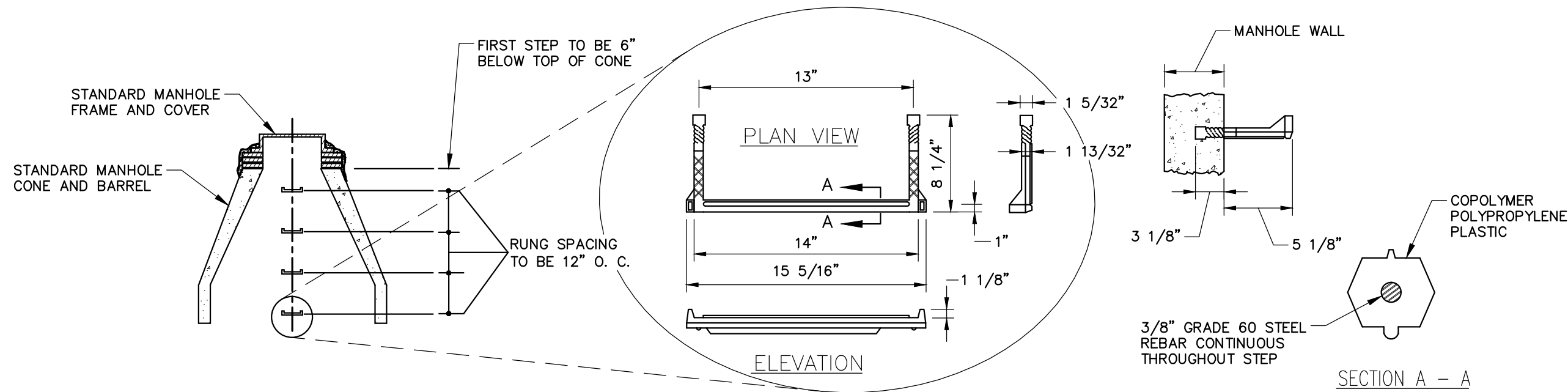
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STATUS: PLANNING BOARD SUBMISSION

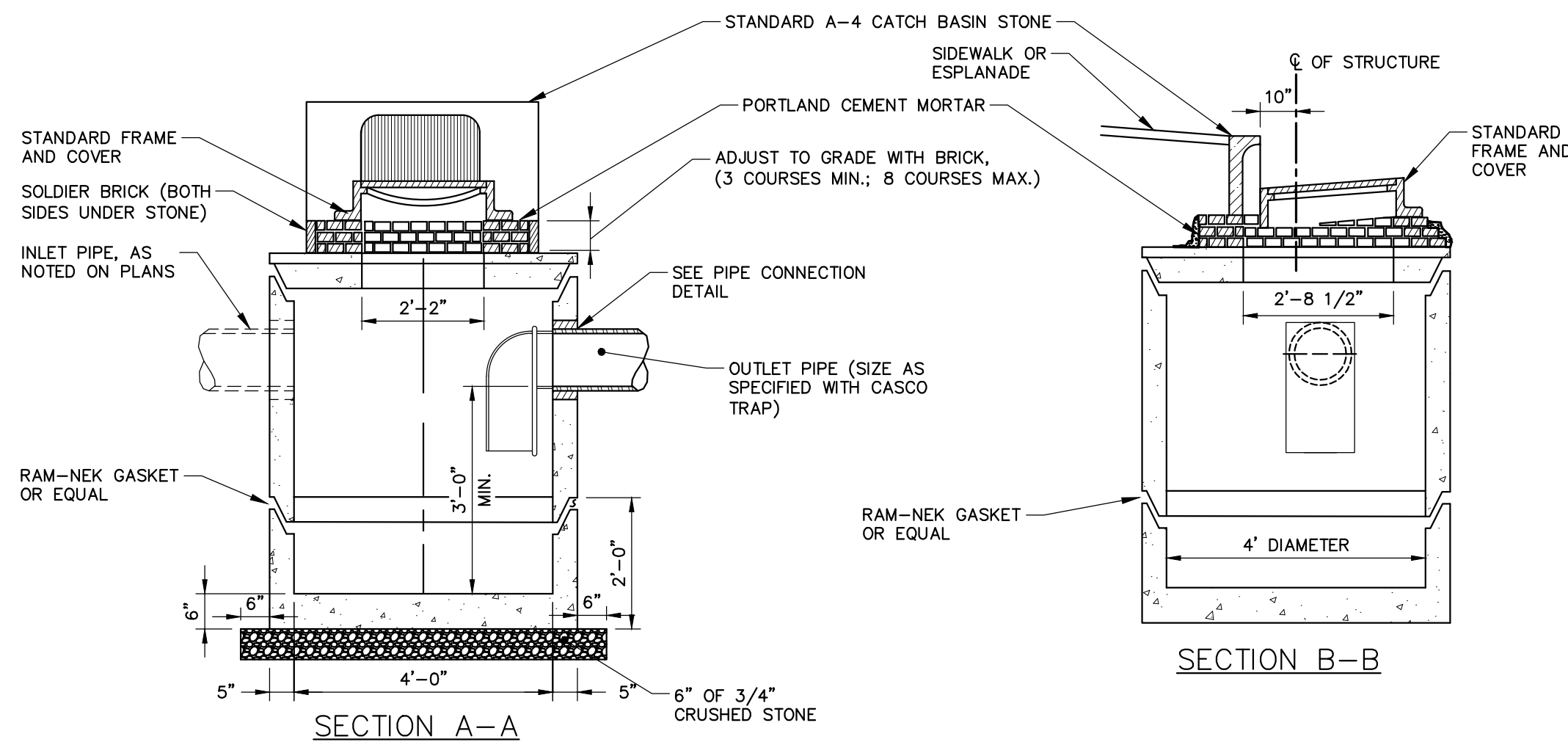
SPRING STREET
CONNECTION PLAN

C-10



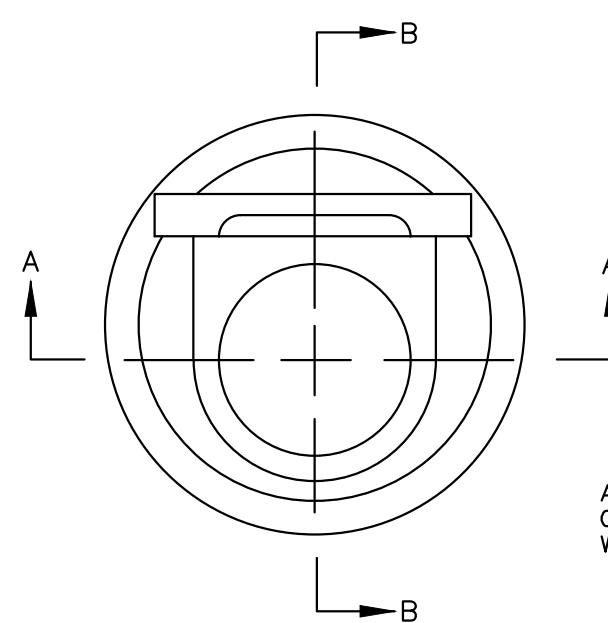
PLASTIC MANHOLE STEPS

N.T.S.

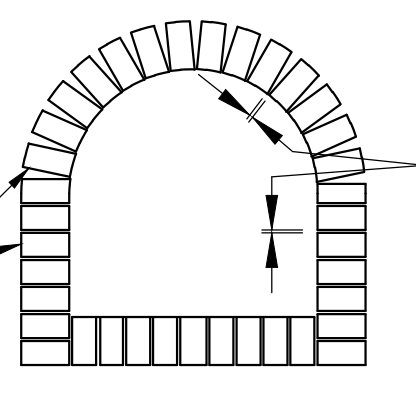


SECTION A-A

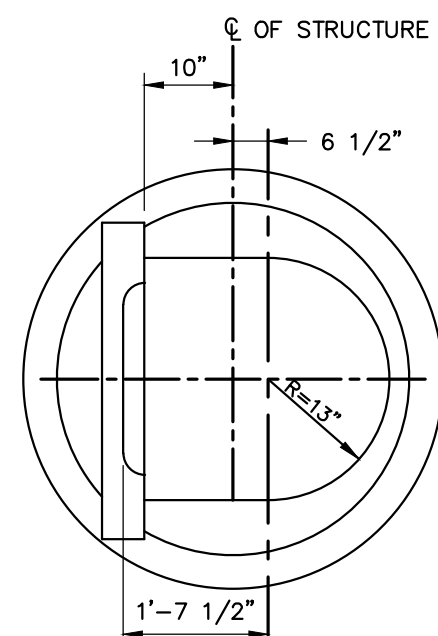
SECTION B-B



PLAN VIEW
COVER, FRAME AND STONE



BRICK/JOINT DETAIL



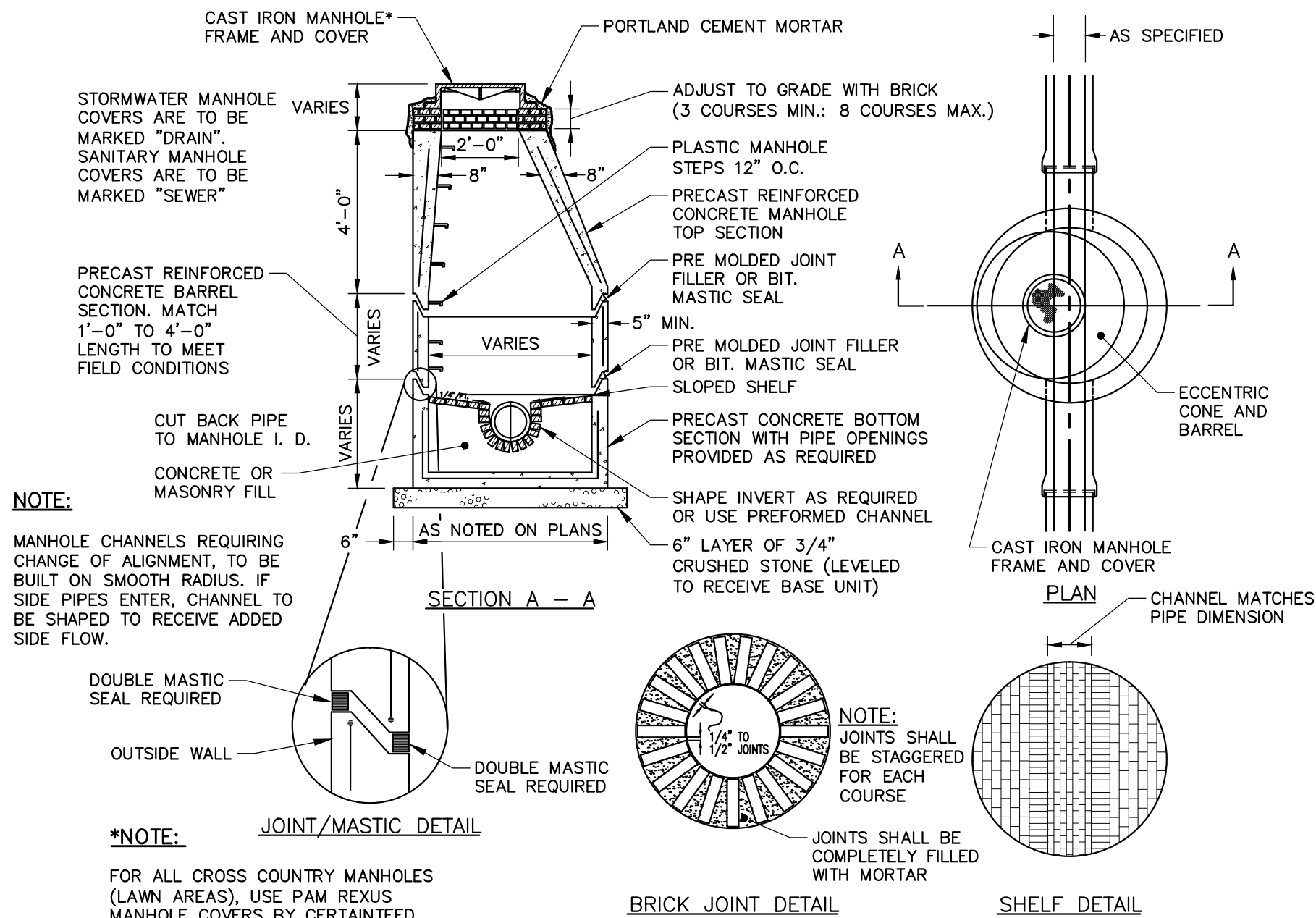
PLAN VIEW
TOP SLAB

PRECAST CONCRETE CATCH BASIN

N.T.S.

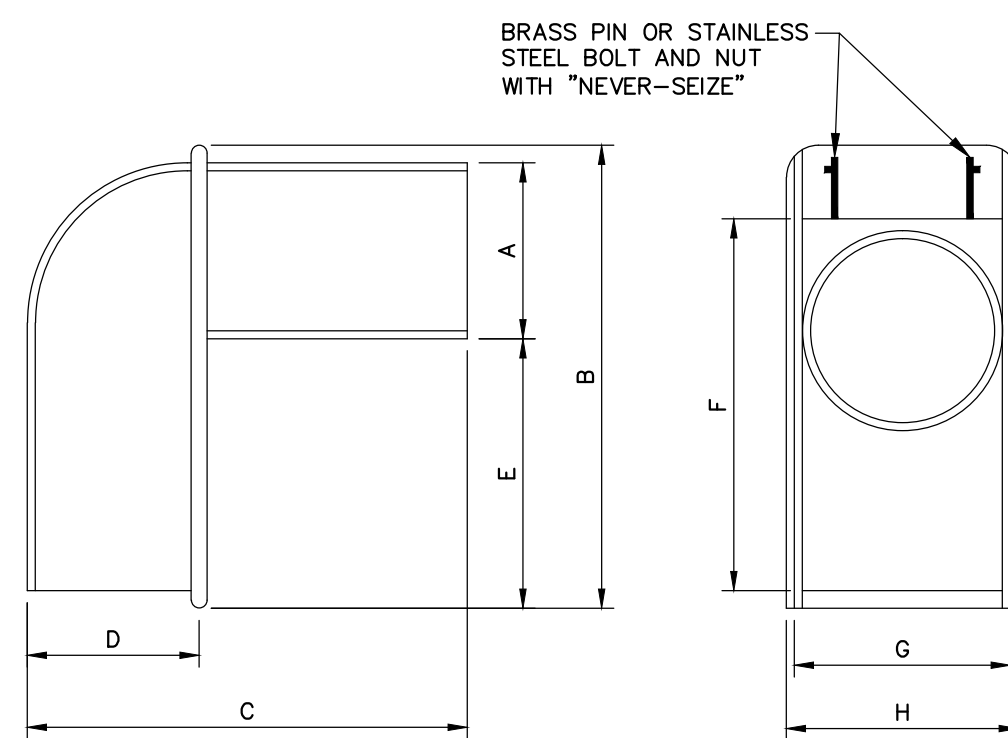
GENERAL NOTES FOR MANHOLES AND CATCH BASINS

- ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
- ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
- CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
- MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- CONTRACTOR SHALL SUBMIT ANTIFLOATATION CALCULATIONS FOR ALL MANHOLE AND CATCH BASIN STRUCTURES.
- ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION, OFFSET, AND STRUCTURE ID PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
- STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PICK HOLE.
- EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
- WHEN THE FLOW CHANGES DIRECTION IN A MANHOLE, THE CHANNEL ALIGNMENT SHALL FOLLOW A SMOOTH RADIUS. CHANNELS SHALL BE FORMED TO ACCEPT ALL INLET PIPES.
- ON STORM AND SEWER MANHOLES, THE SHELF AND CHANNEL SHALL BE FORMED BY BRICK SET IN CEMENT MORTAR OR BY FACTORY PRE-CAST CONCRETE. SUCH PRE-CAST CONCRETE SHALL BE EPOXY COATED AND THE SHELF SHALL HAVE A PERMANENT NON-SKID SURFACE.



PRECAST CONCRETE MANHOLE

N.T.S.



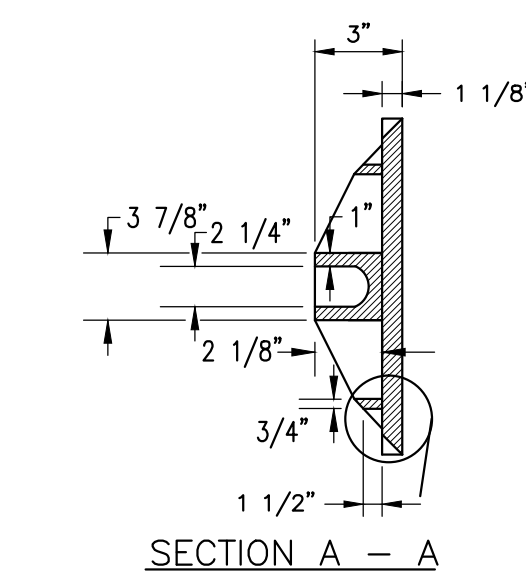
SIZE	A	B	C	D	E	F	G	H
10"	9 1/2"	16"	16 1/4"	6"	4 1/2"	14 1/8"	11 1/2"	12 3/8"
15"	14 1/2"	22 1/2"	23"	10 1/4"	5 3/4"	21"	14 1/2"	15 3/4"

NOTE:

- CASCO TRAP SHALL BE CAST IRON CASCO TRAP BY ETHERIDGE FOUNDRY OR APPROVED EQUAL.
- BOLT AND NUT REQUIRED WHERE HOOD WILL NOT OPEN COMPLETELY.
- CASCO TRAP SHALL BE INSTALLED ON ALL CATCH BASIN OUTLET PIPES, INCIDENTAL TO COST OF CATCH BASIN

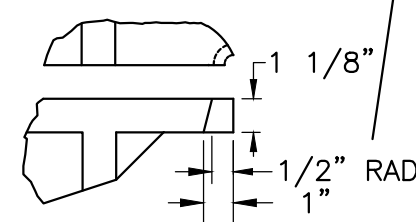
CASCO TRAP DETAIL

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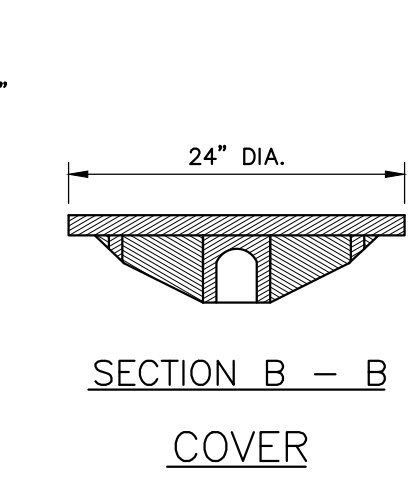


SECTION A-A

COVER

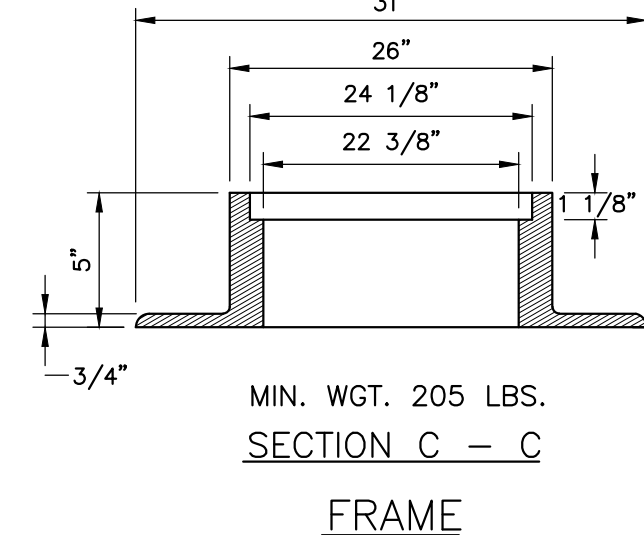


PICK HOLE DETAIL



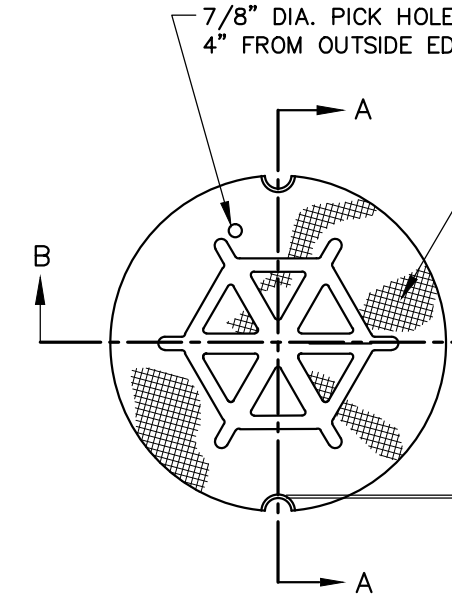
SECTION B-B

COVER



SECTION C-C

FRAME



COVER

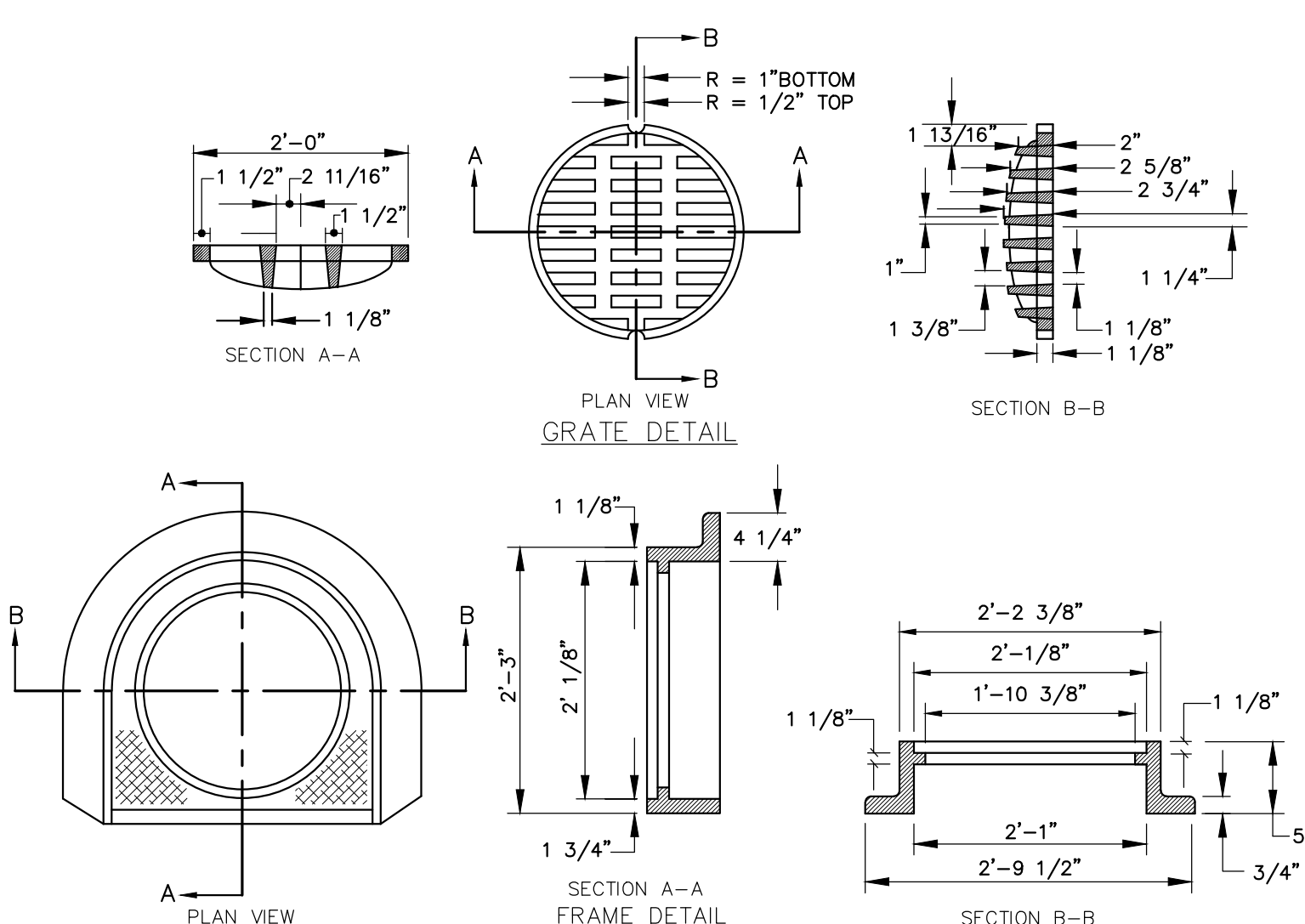
PLAN VIEW

NOTE:

FOR ALL CROSS COUNTRY MANHOLES (LAWN AREAS),
USE PAM REXUS MANHOLE COVERS BY CERTAINTED.

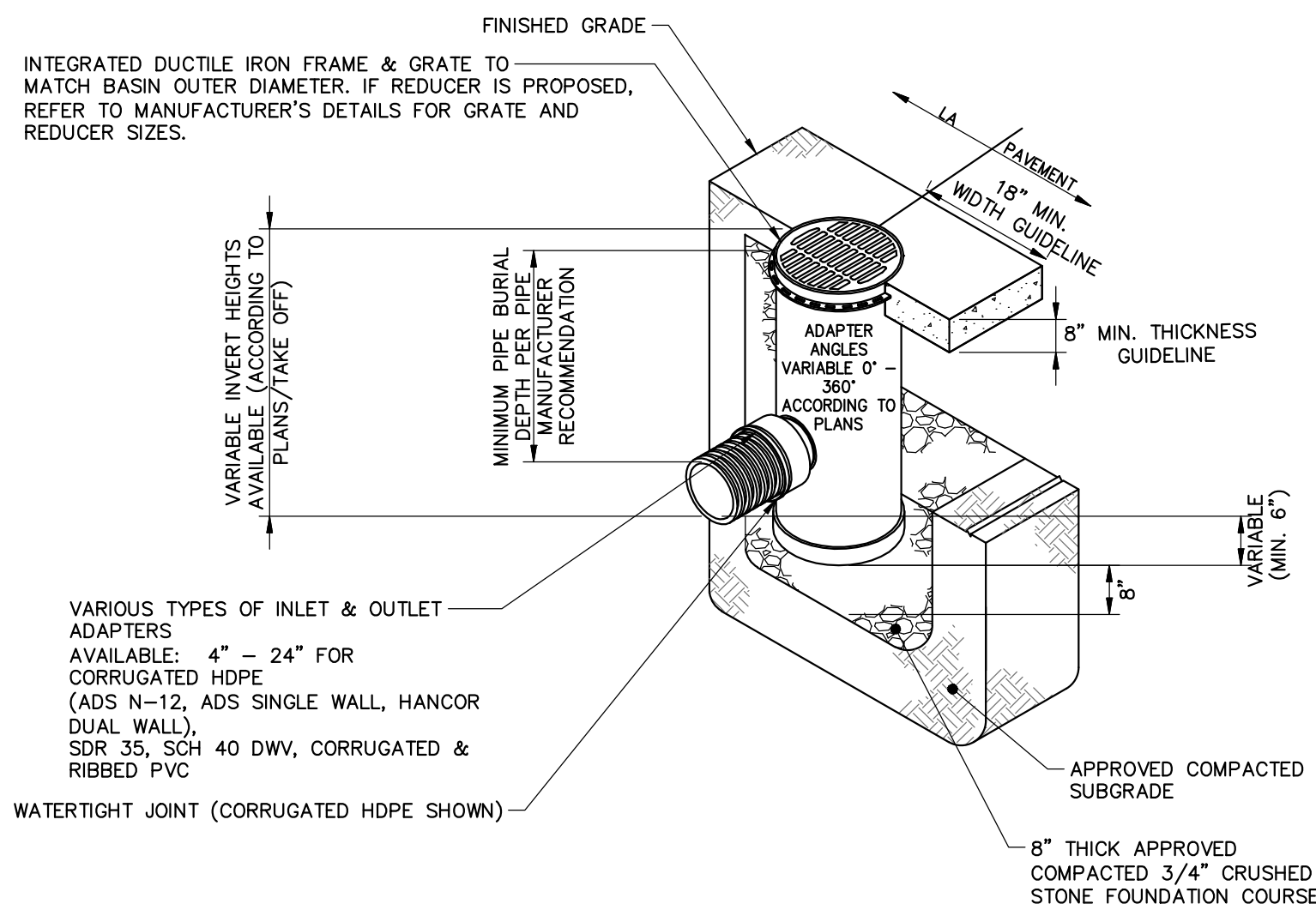
TYPE "A" CAST IRON MANHOLE COVER AND FRAME

N.T.S.



CATCH BASIN TYPE "D" - FRAME & COVER DETAIL

N.T.S.



PVC AREA DRAIN

N.T.S.

NOTES:

- INSTALL BASIN IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
- PRODUCT SHALL BE NYLOPLAST DRAIN BASIN MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS (ADS) OR APPROVED EQUAL.
- GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTORATIONS.
- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC.
- ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°.

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COMMITMENT & INTEGRITY DRIVE RESULTS

PROJECT NAME:

WAYNFLETE GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:



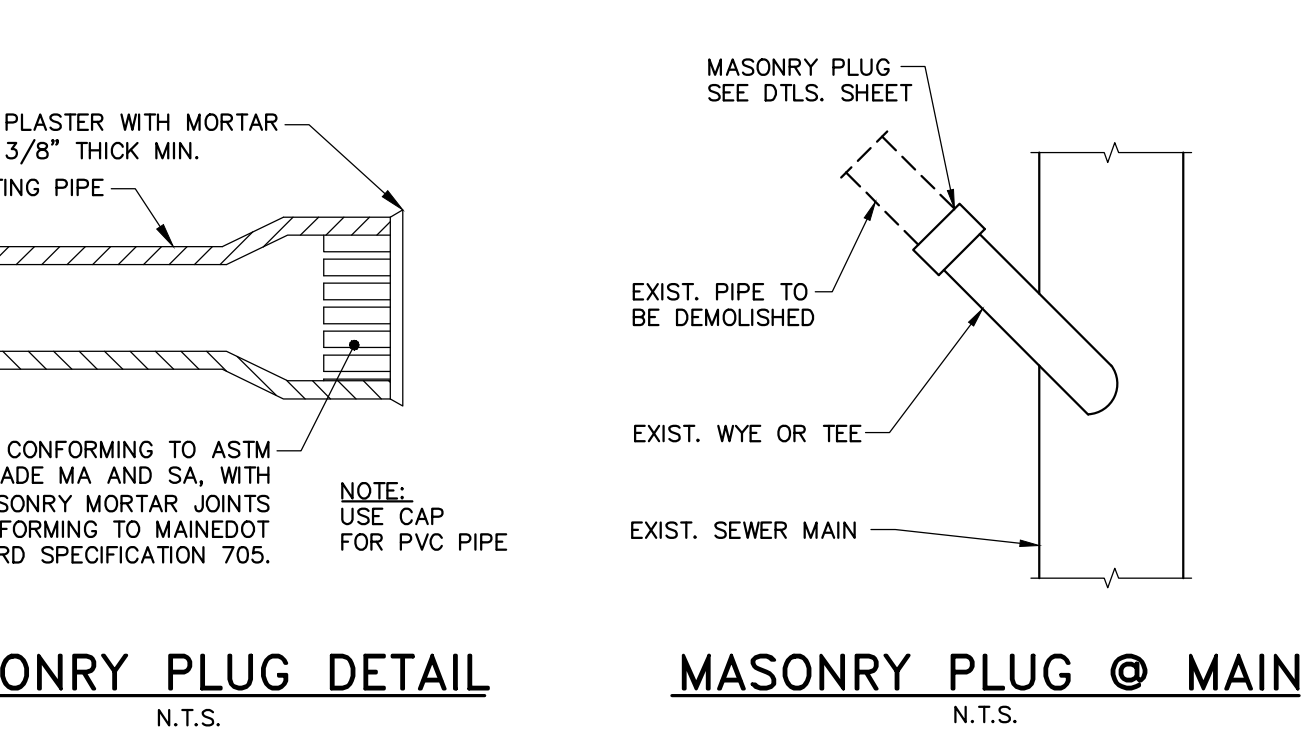
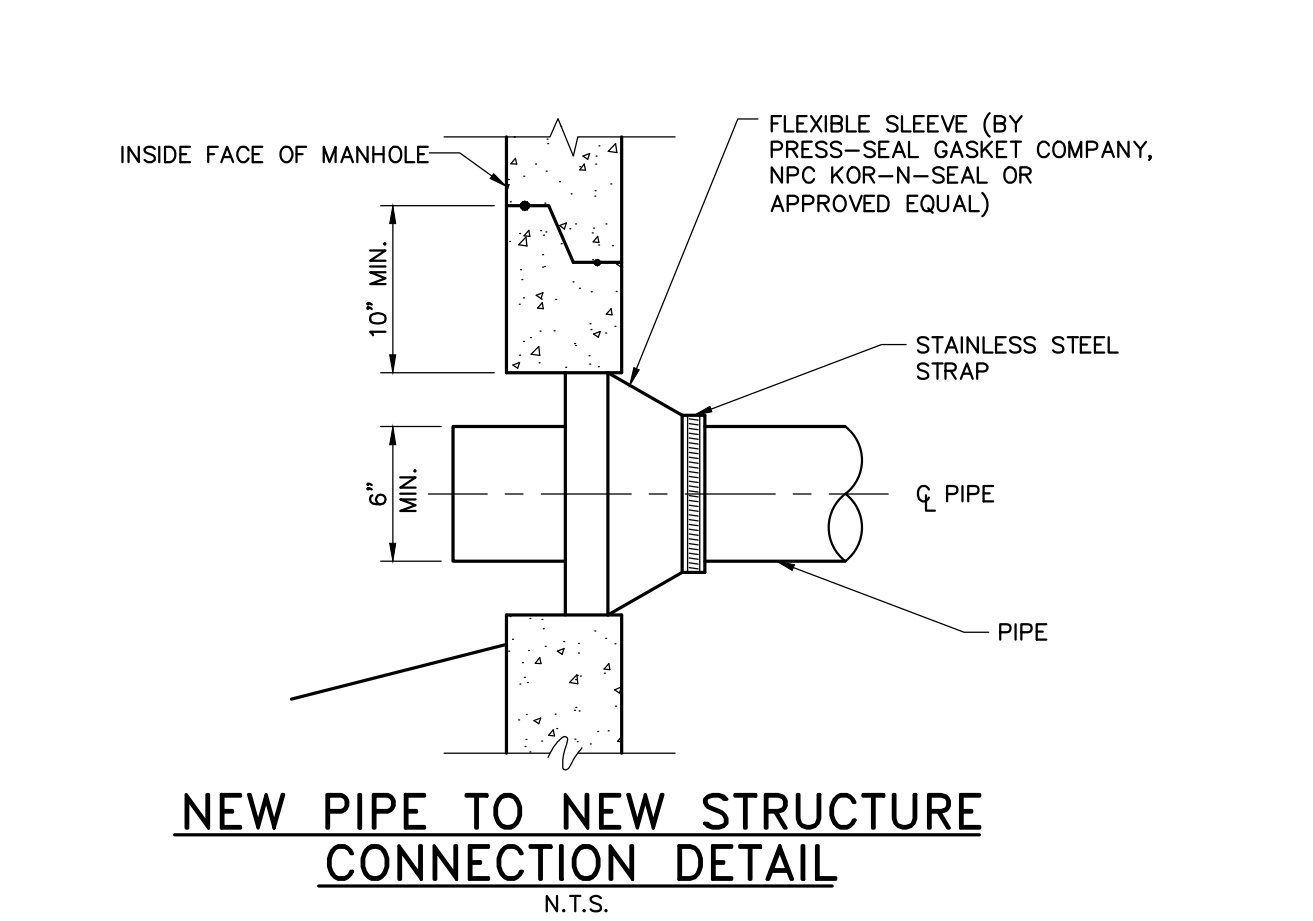
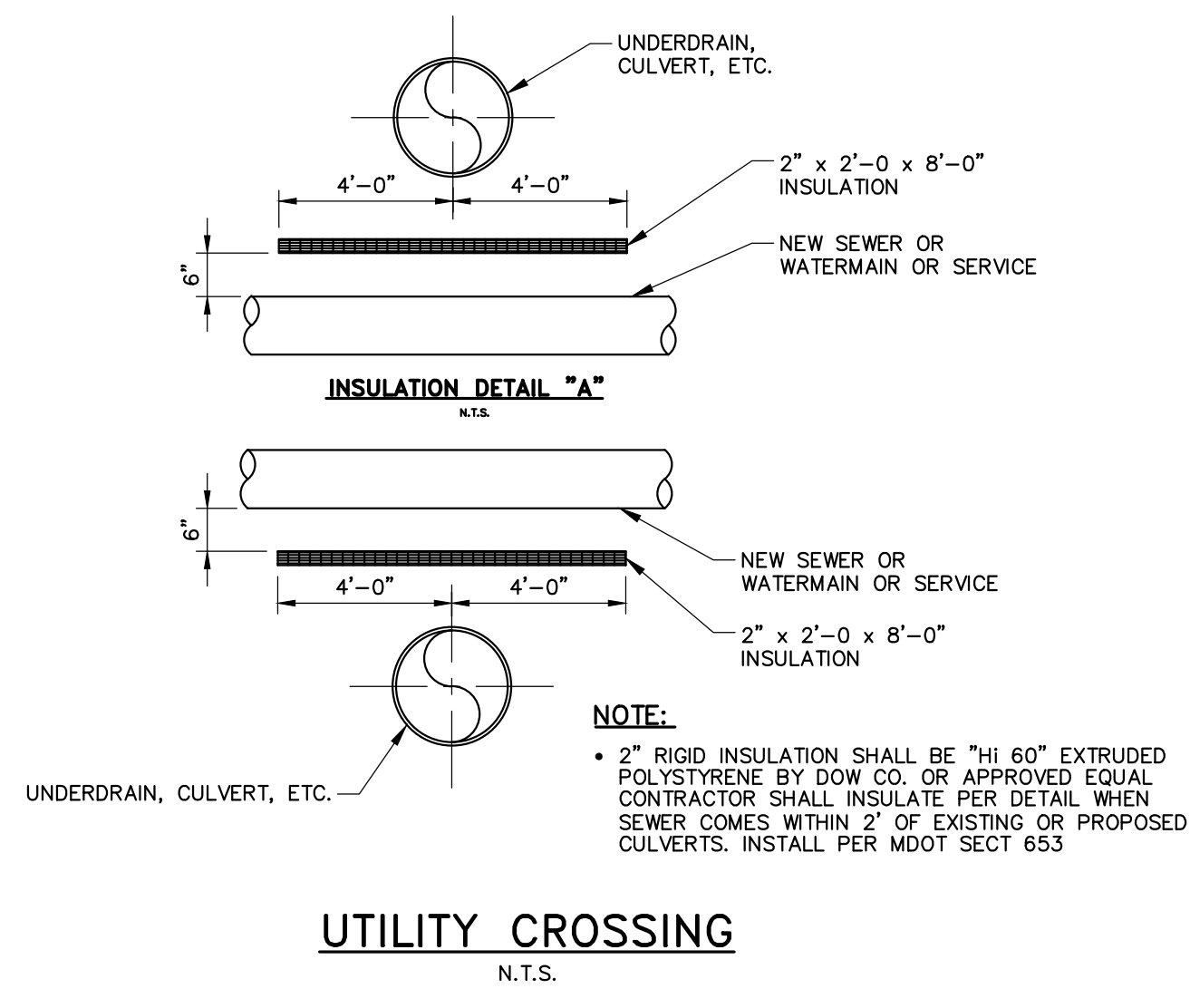
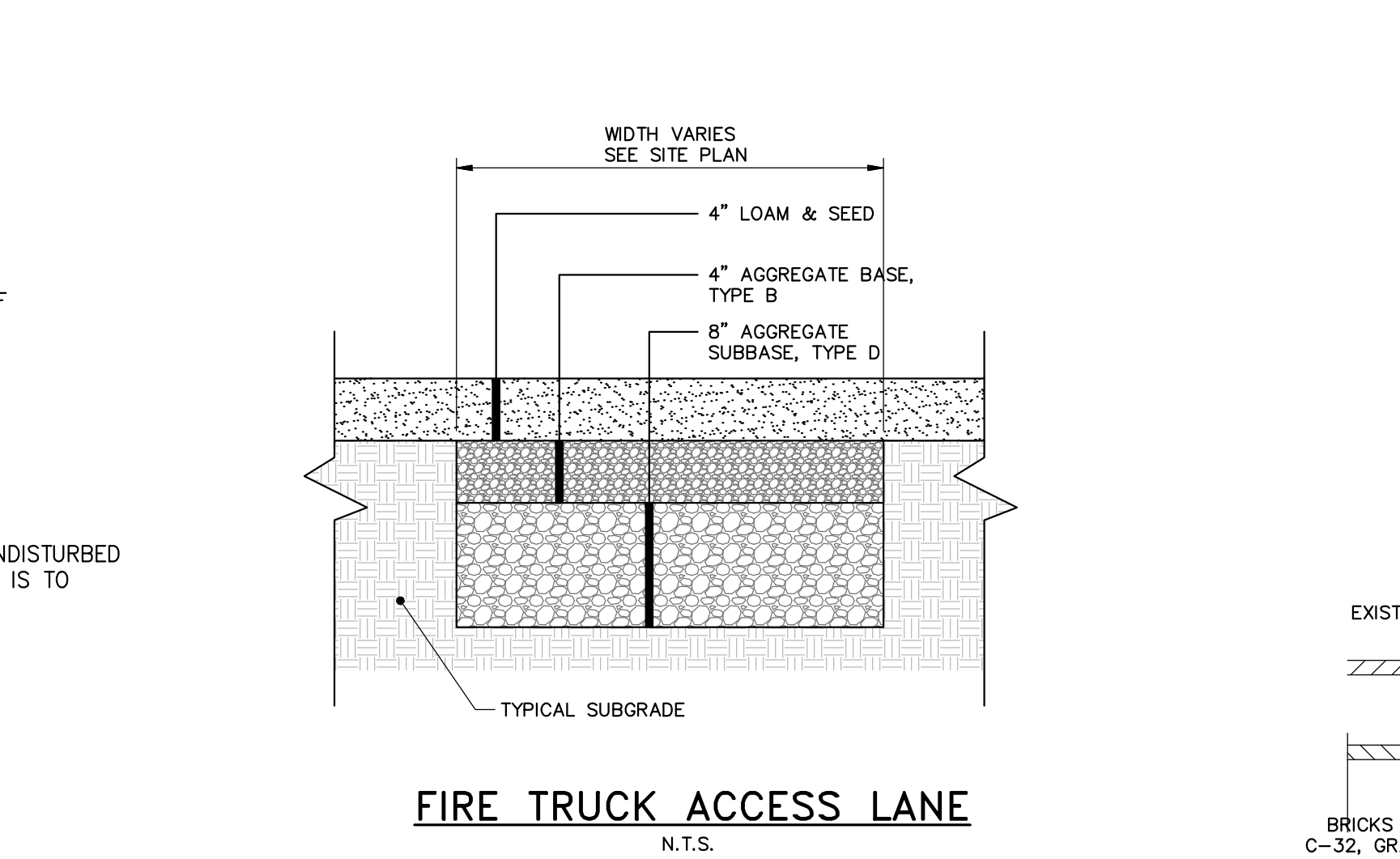
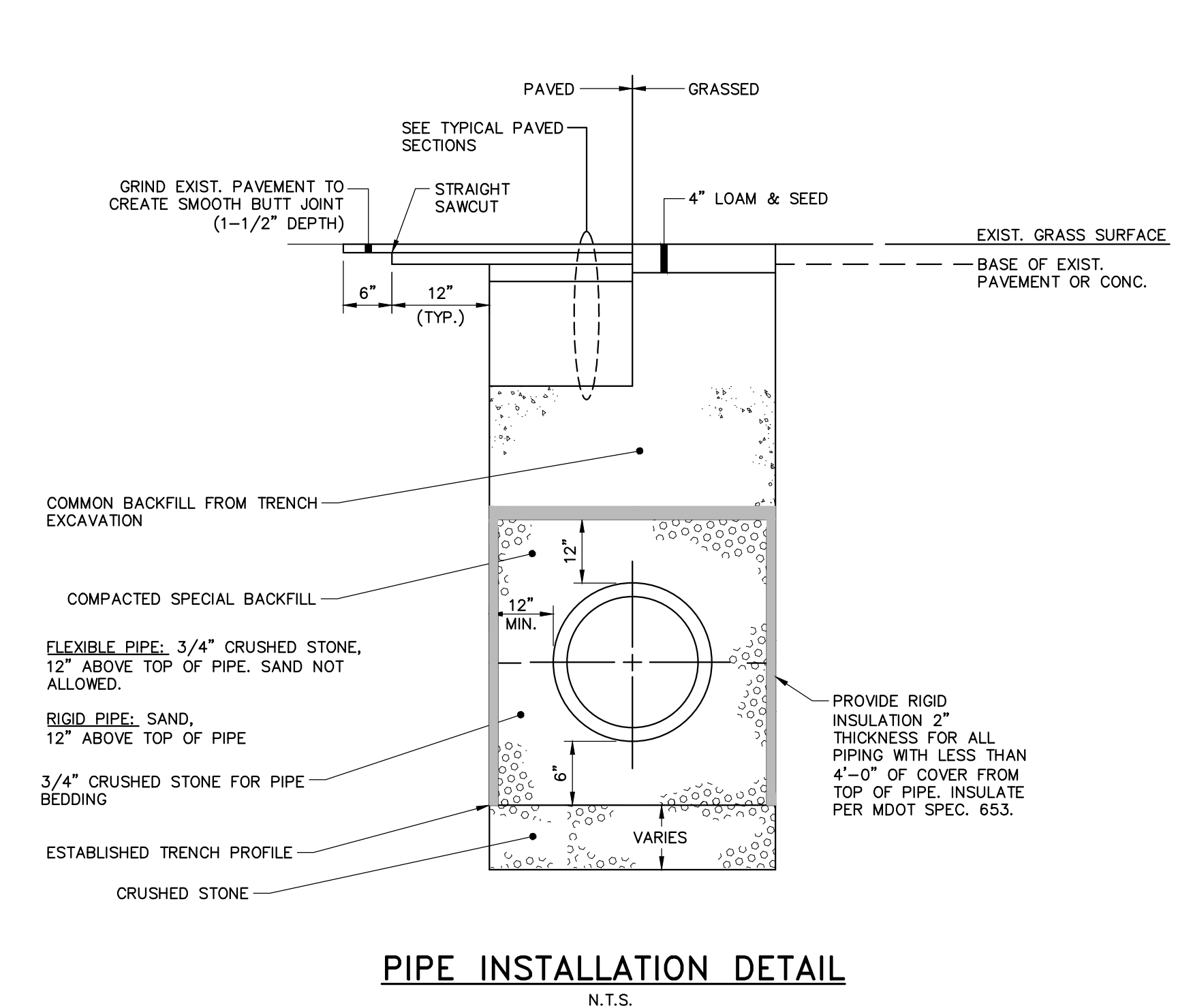
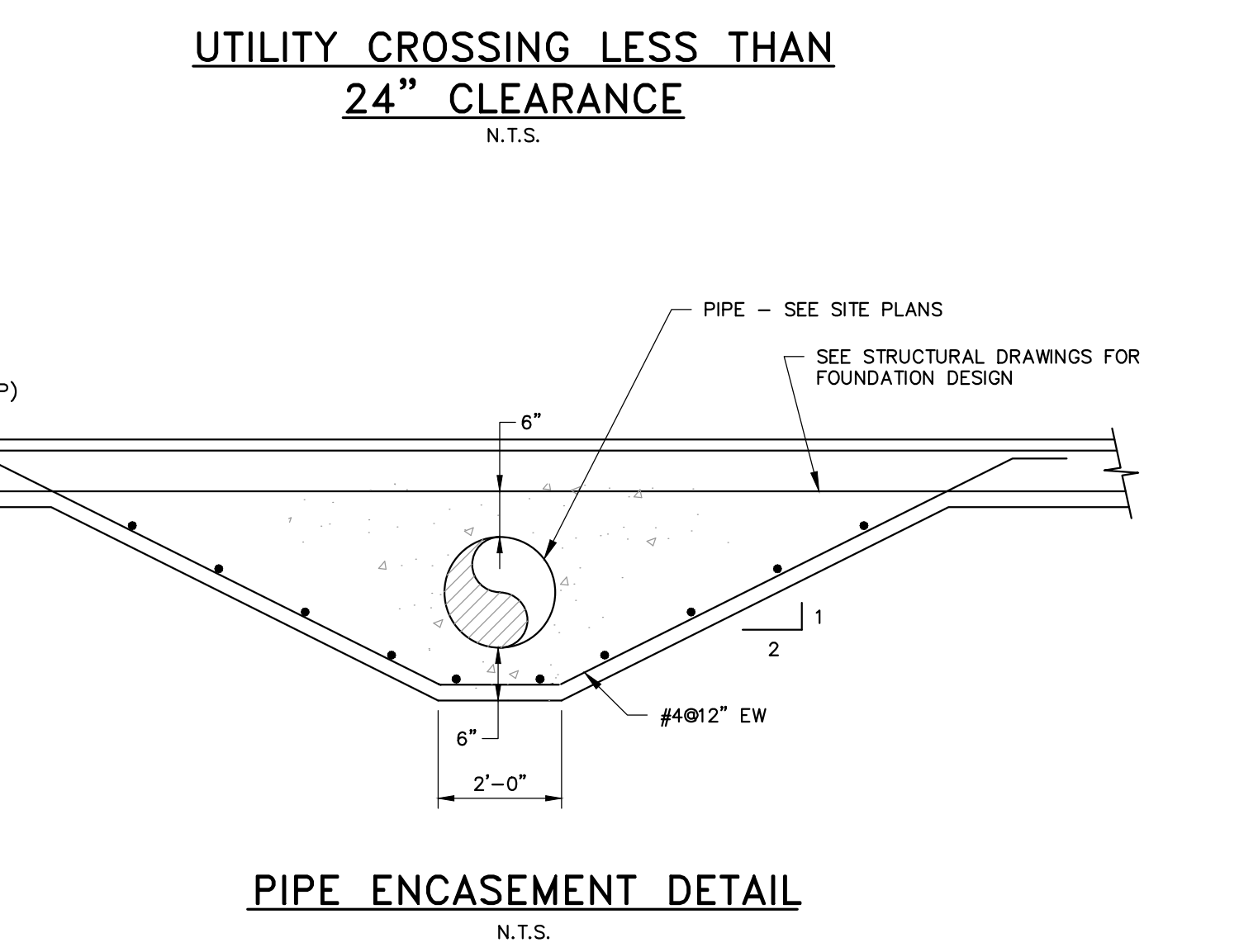
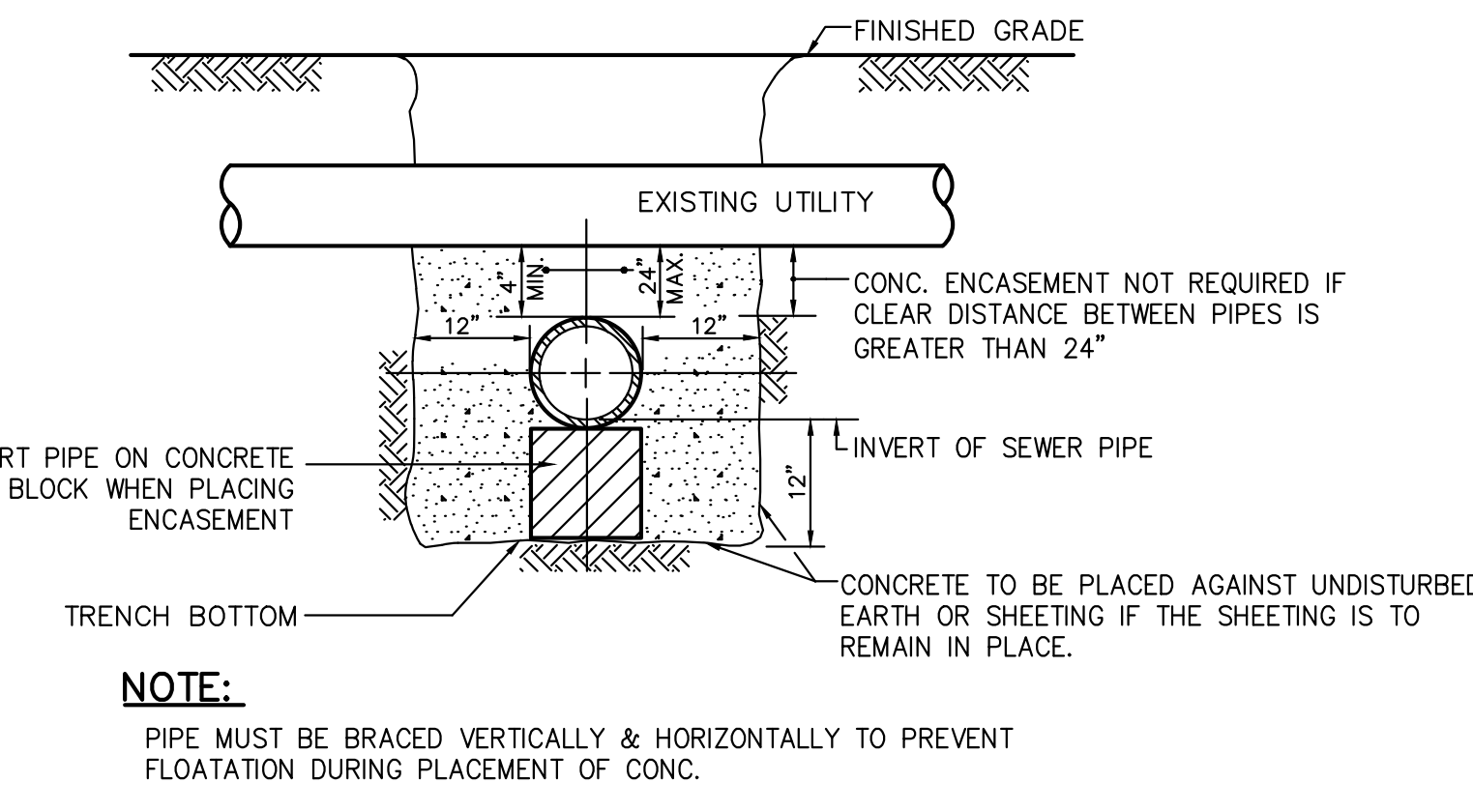
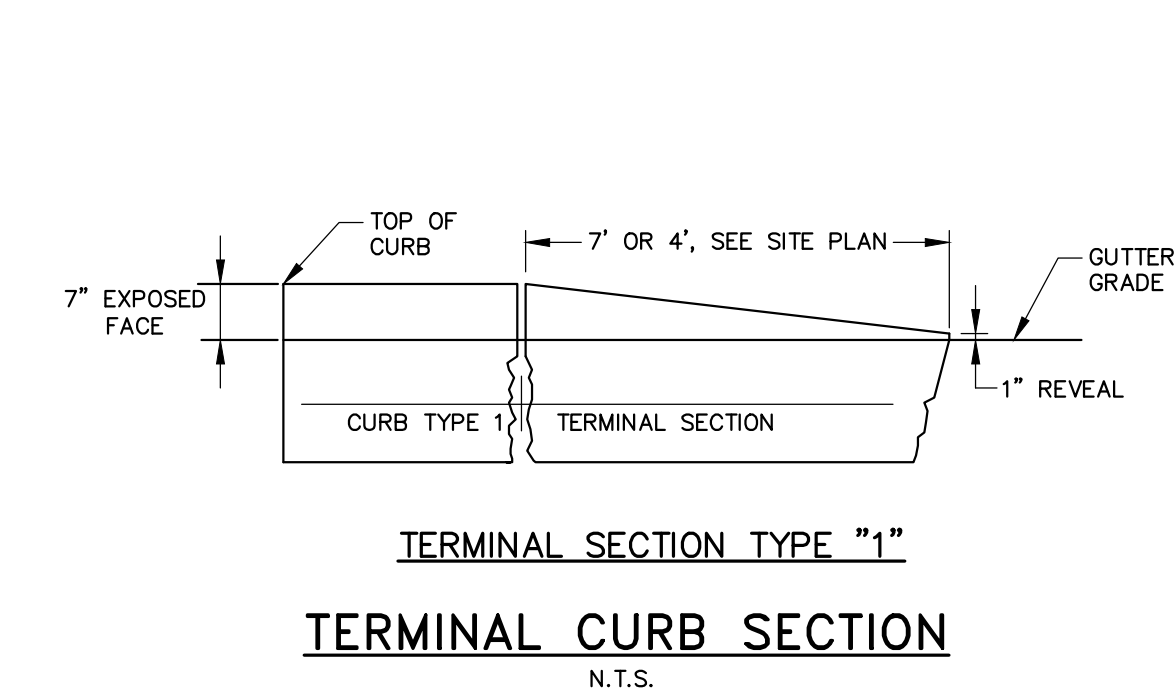
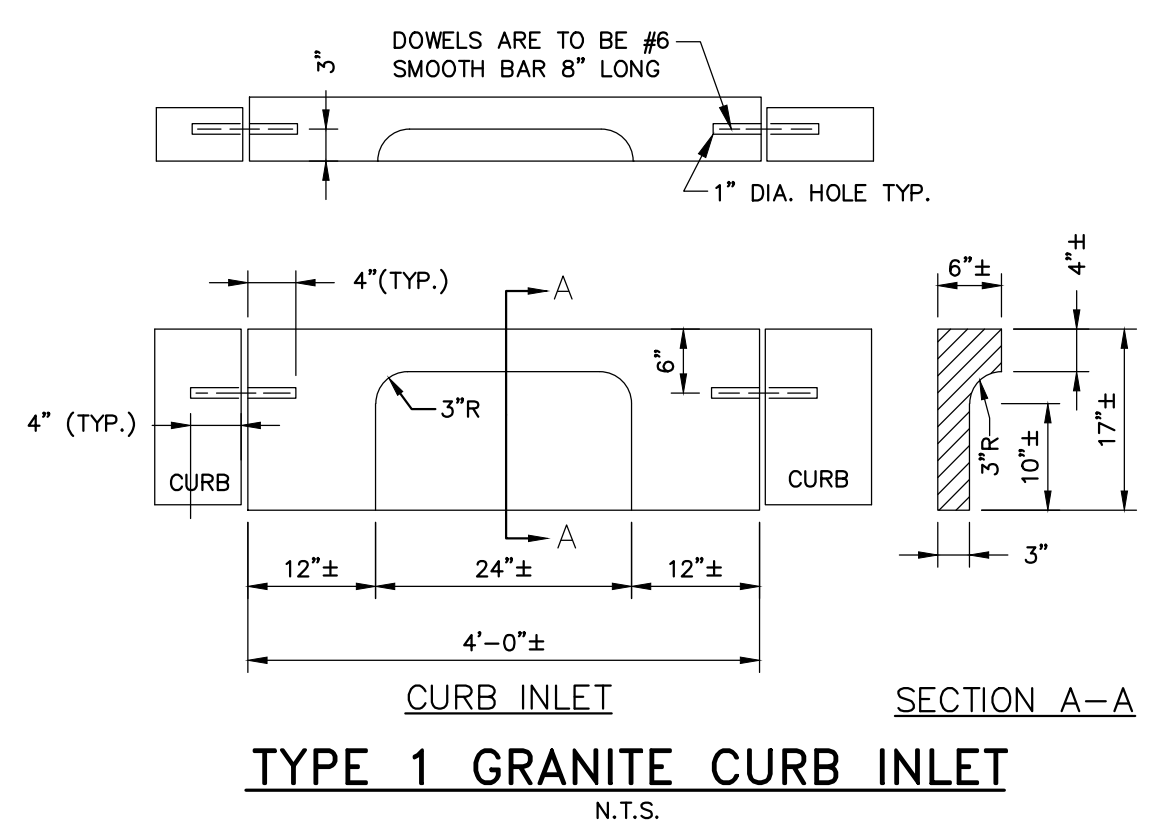
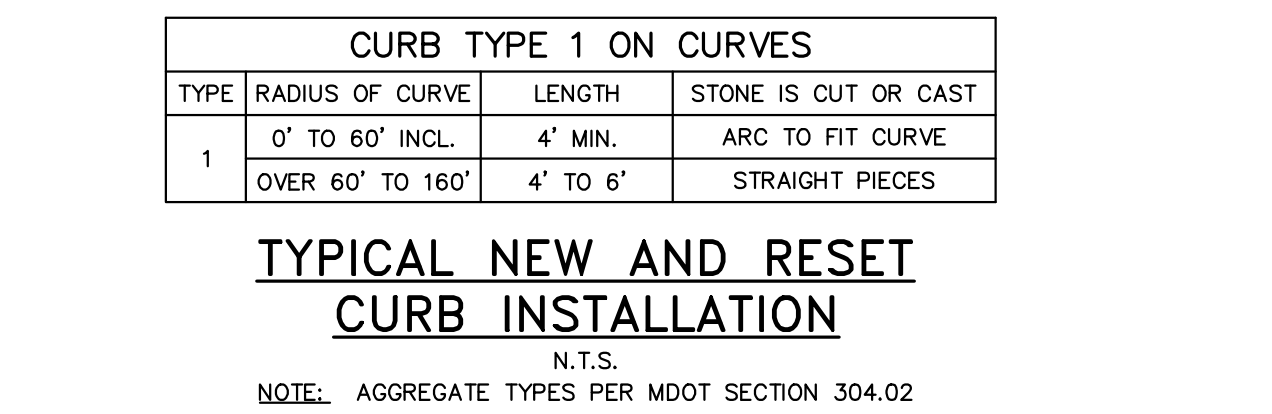
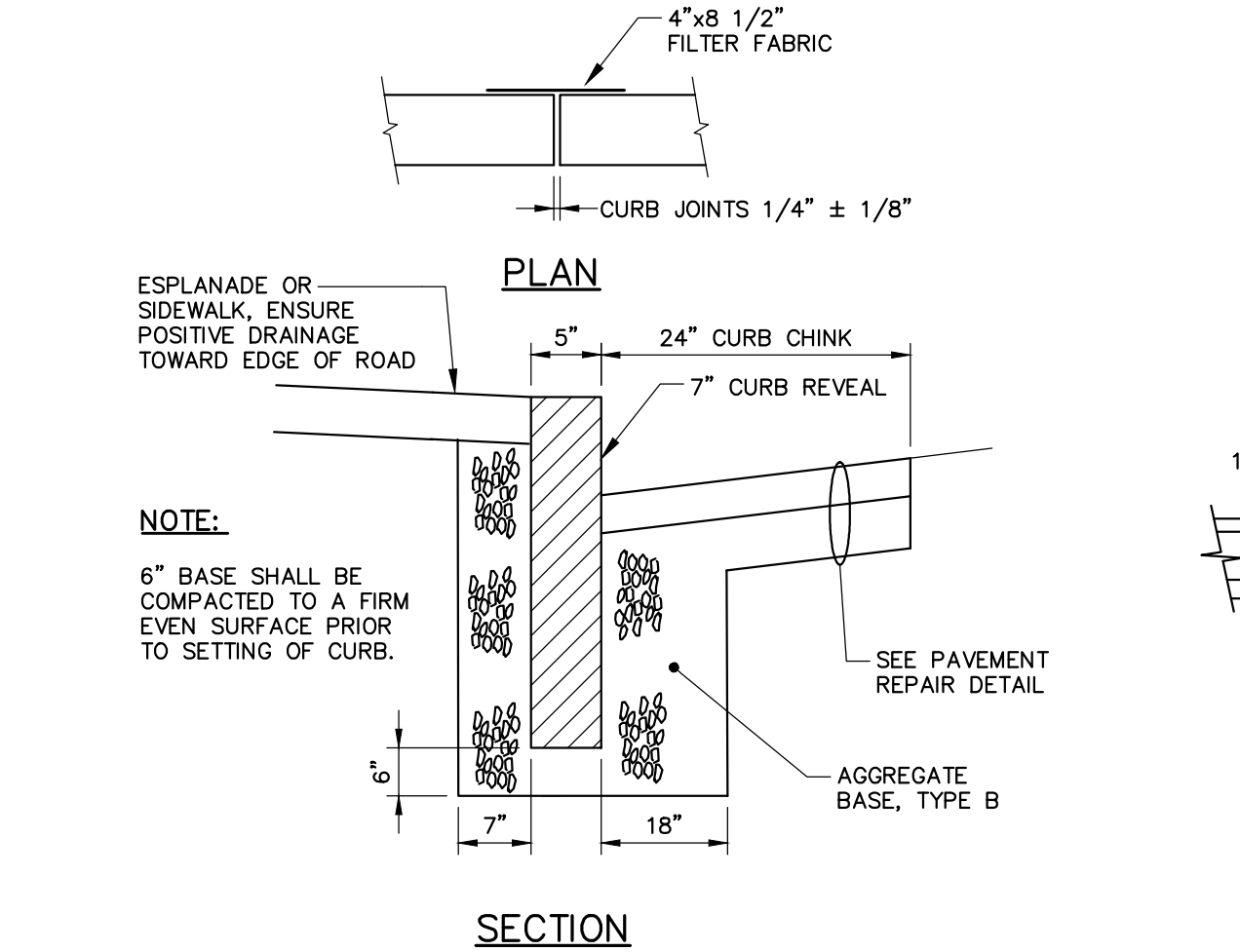
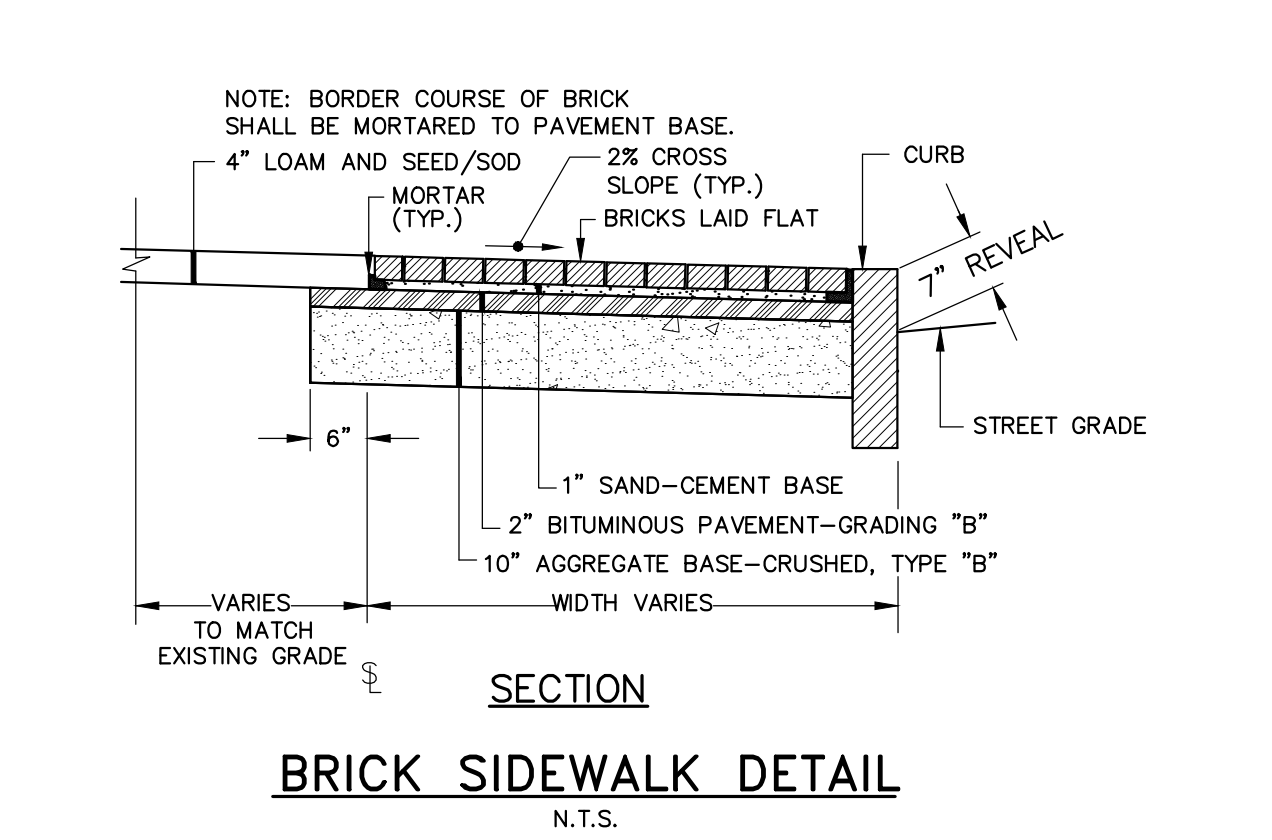
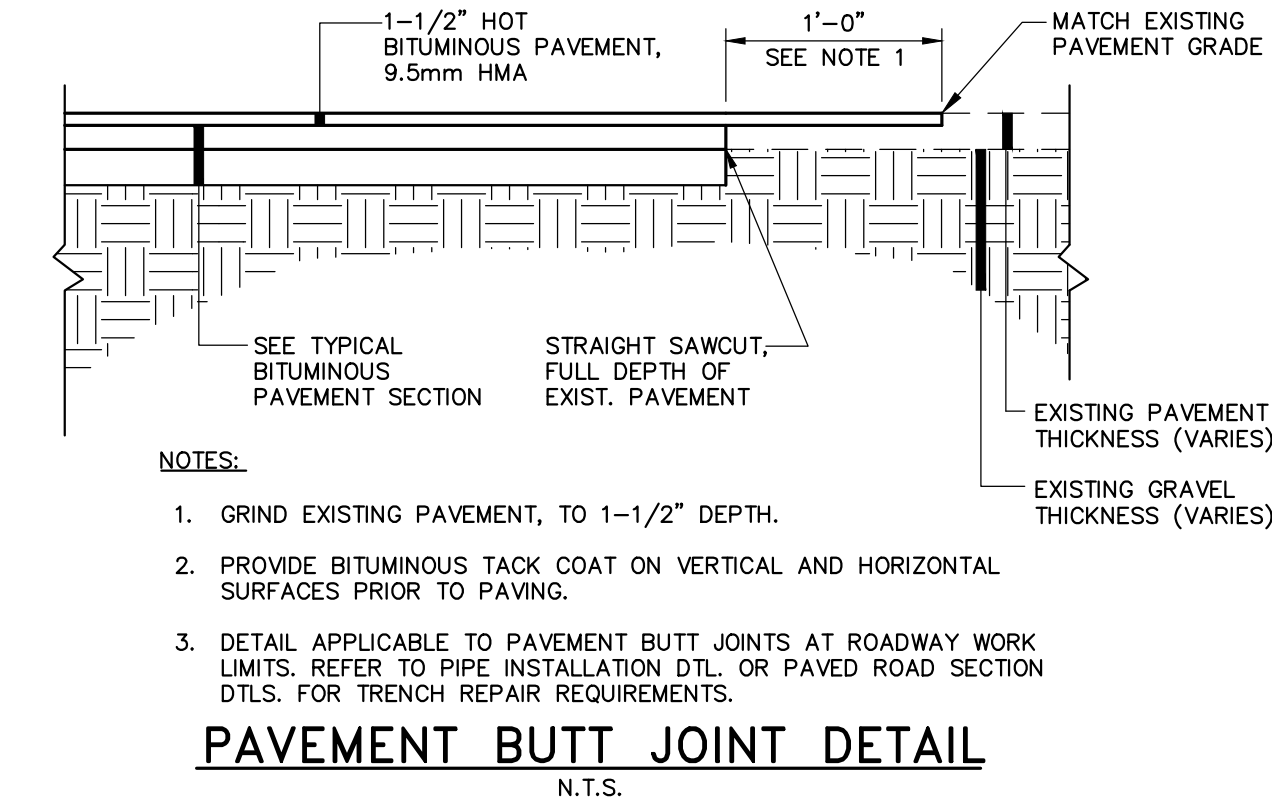
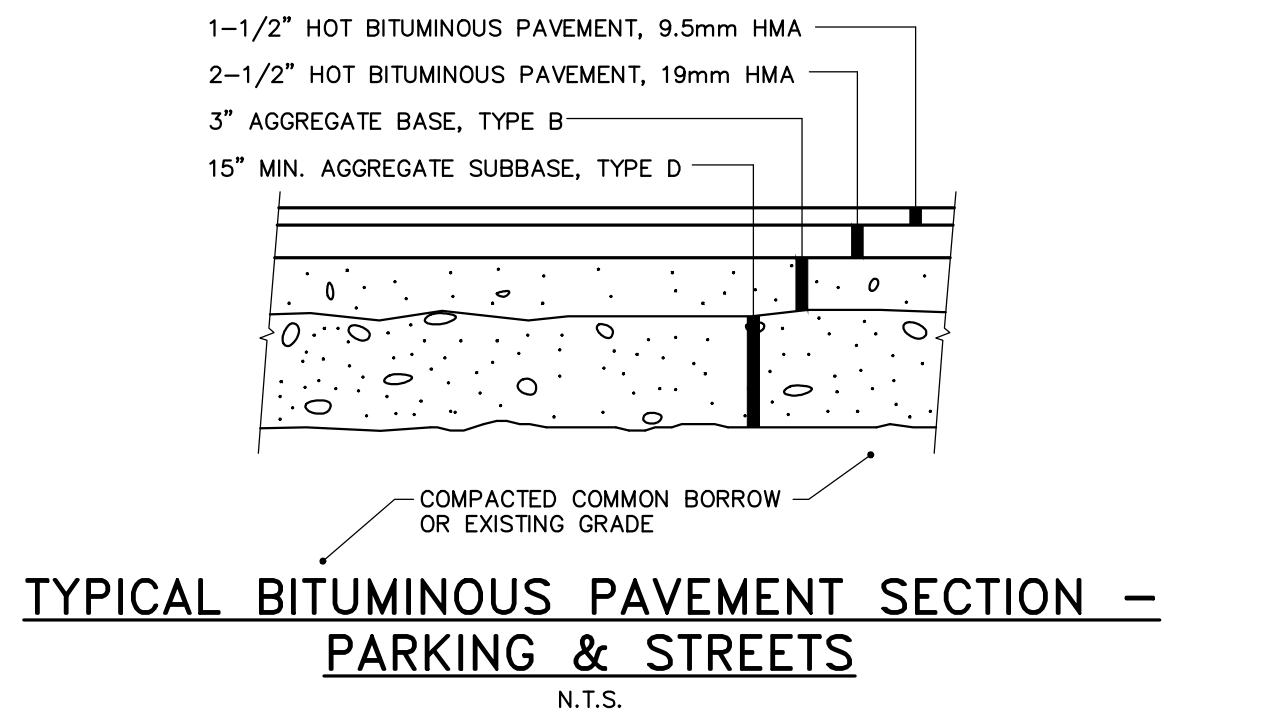
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REVISION:		
REVISED PER CITY OF PORTLAND COMMENTS	3/31/16	DATE
1		DATE
REVISED PER CITY OF PORTLAND COMMENTS	5/27/16	DATE
2		DATE
3		DATE
4		DATE
5		DATE
6		DATE

DATE OF ISSUE: MAY 2016
PROJECT NUMBER: 229423
STATUS: PLANNING BOARD SUBMISSION

CIVIL DETAILS - 1

D-200



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COMMITMENT & INTEGRITY DRIVE RESULTS

PROJECT NAME:

WAYNFLETE GYM & LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

5/27/2016

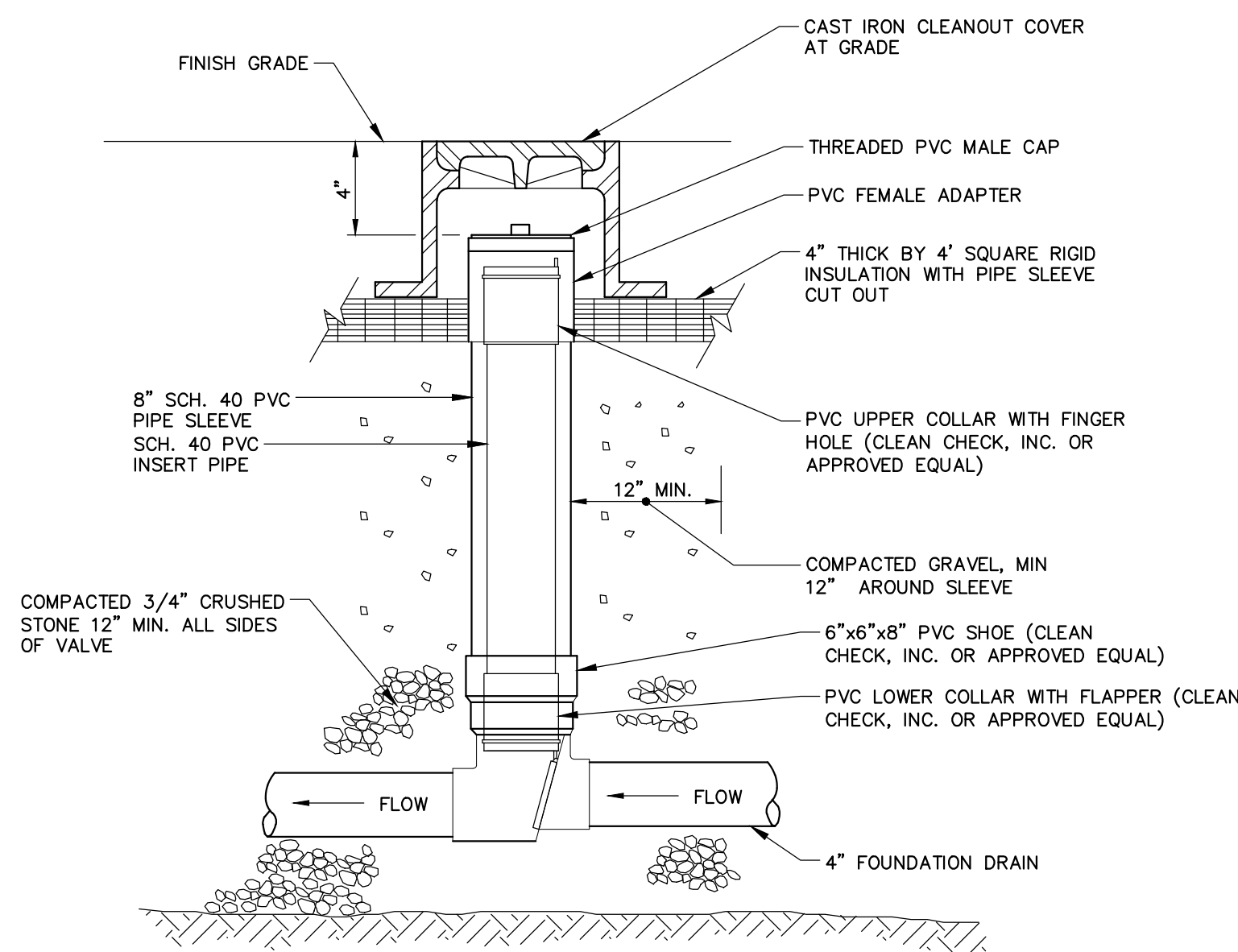
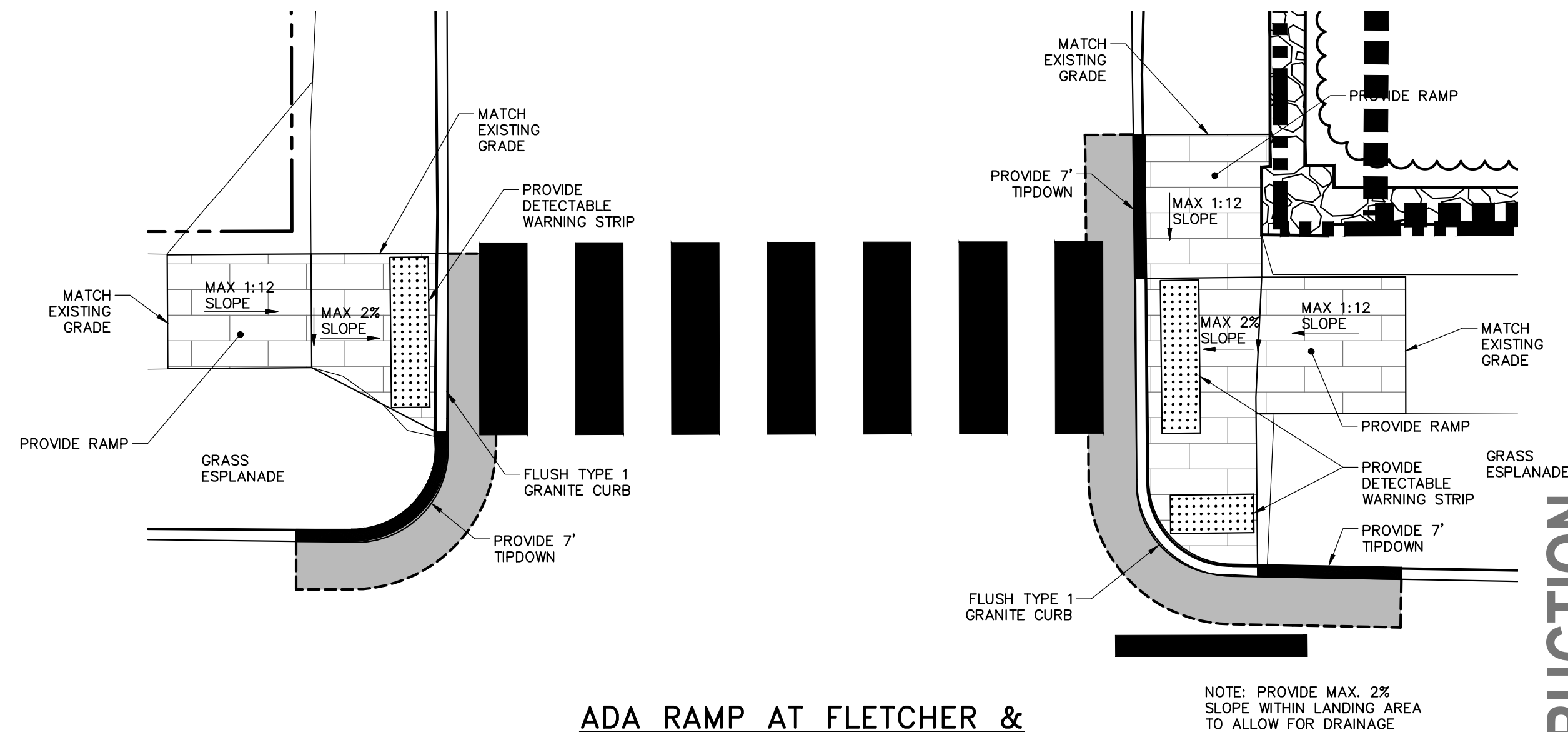
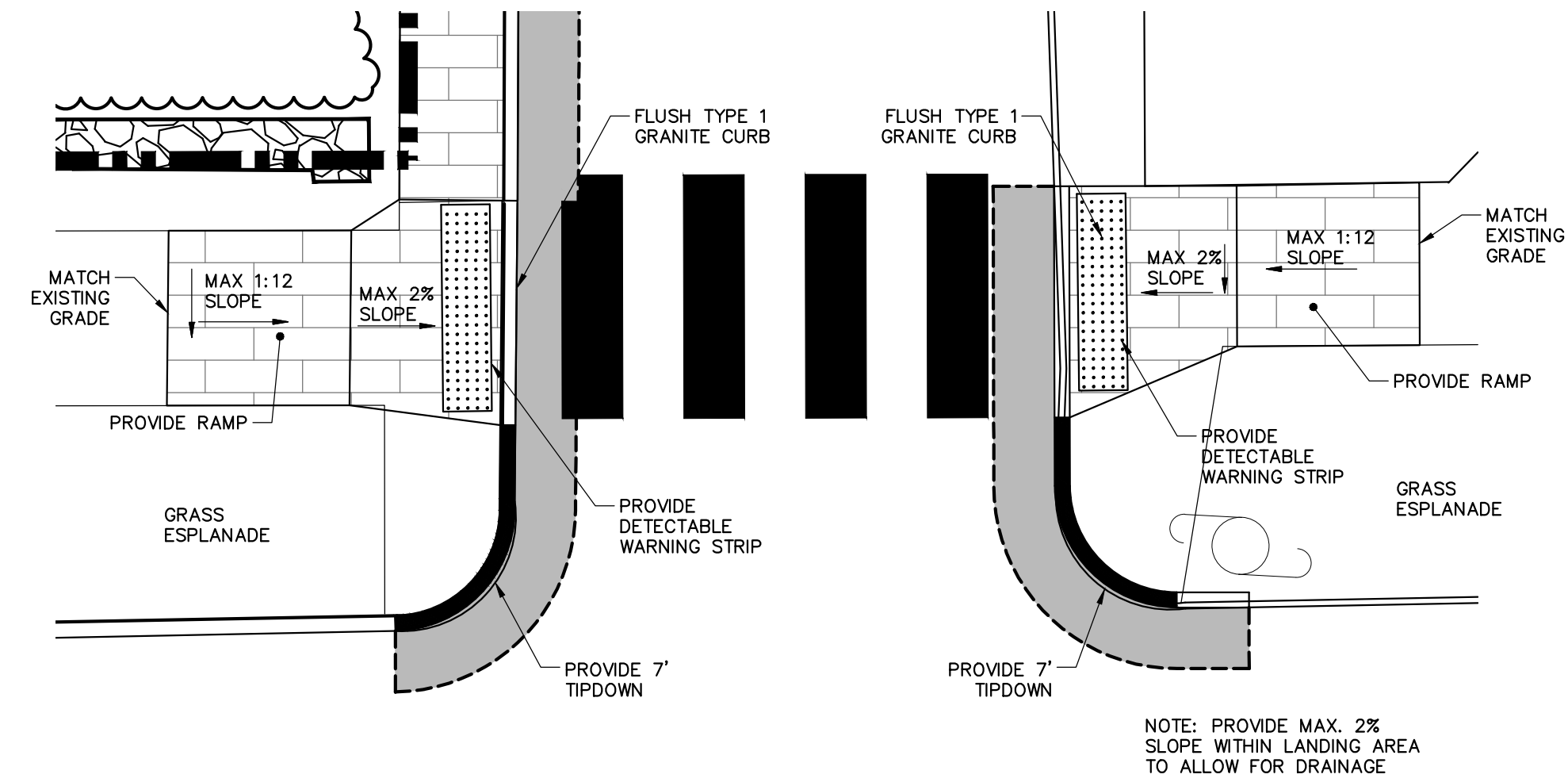
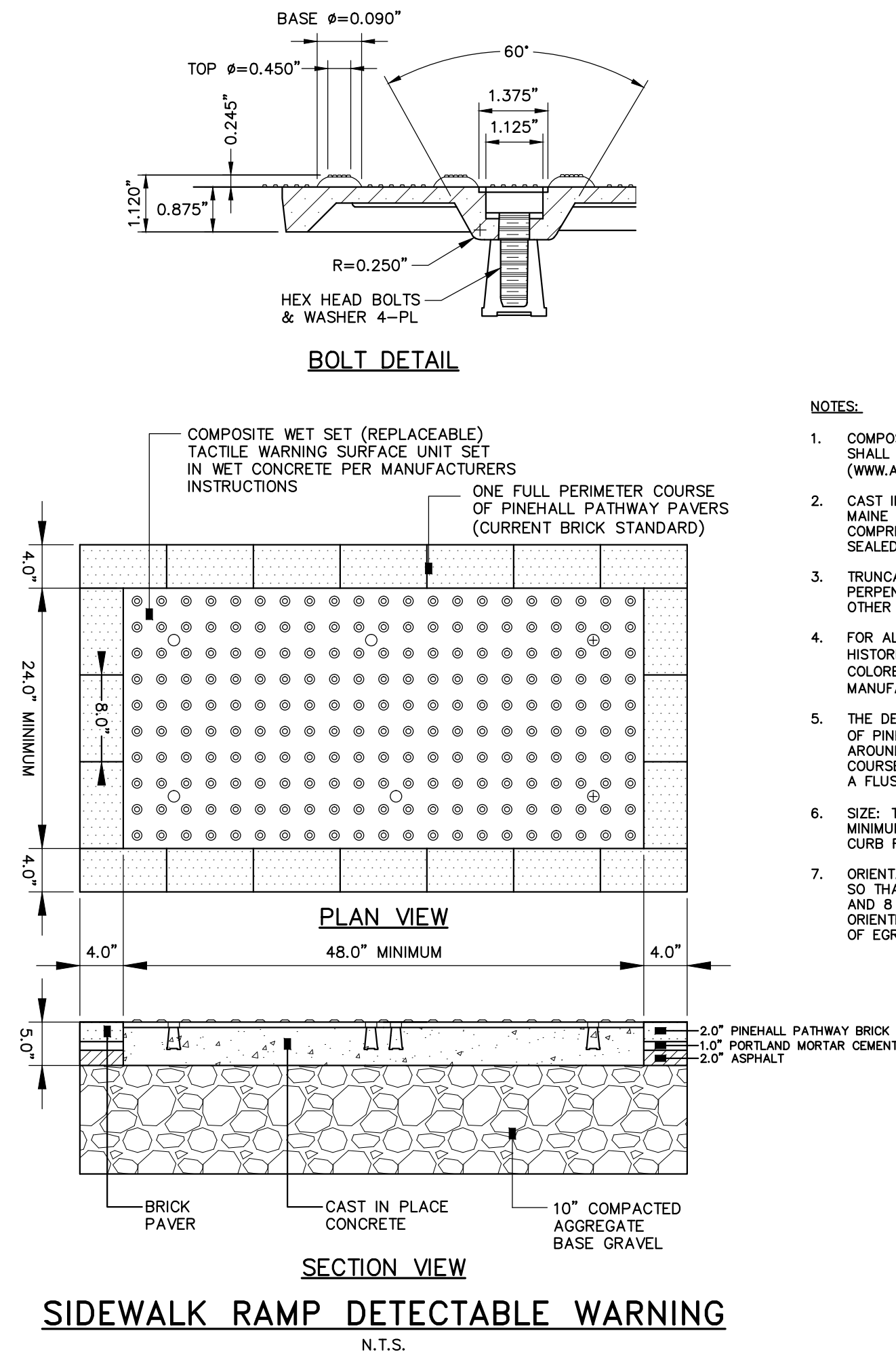
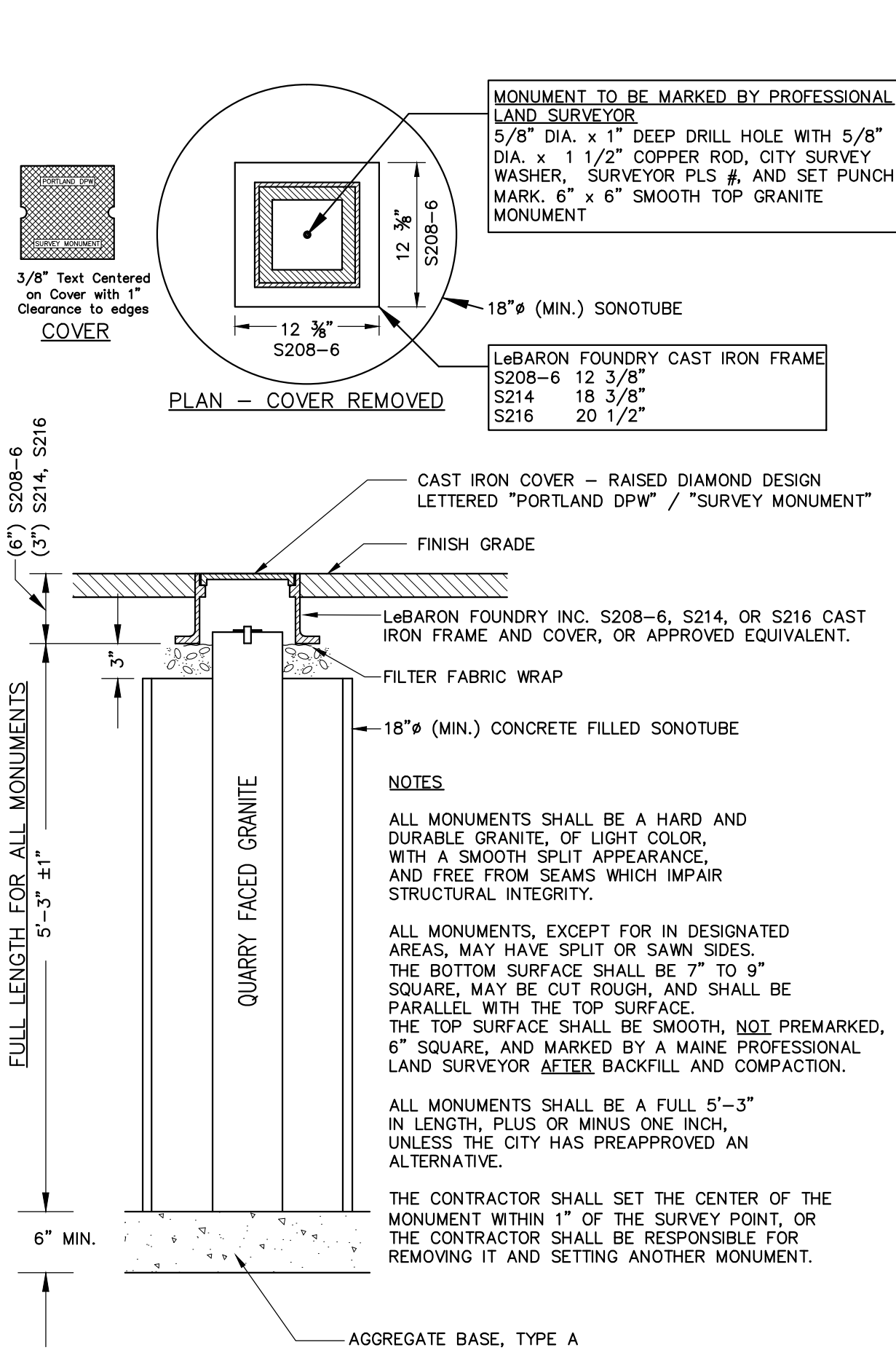
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PROJECT NAME:
WAYNFLETE GYM + LOWER SCHOOL
NEW CONSTRUCTION
WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102



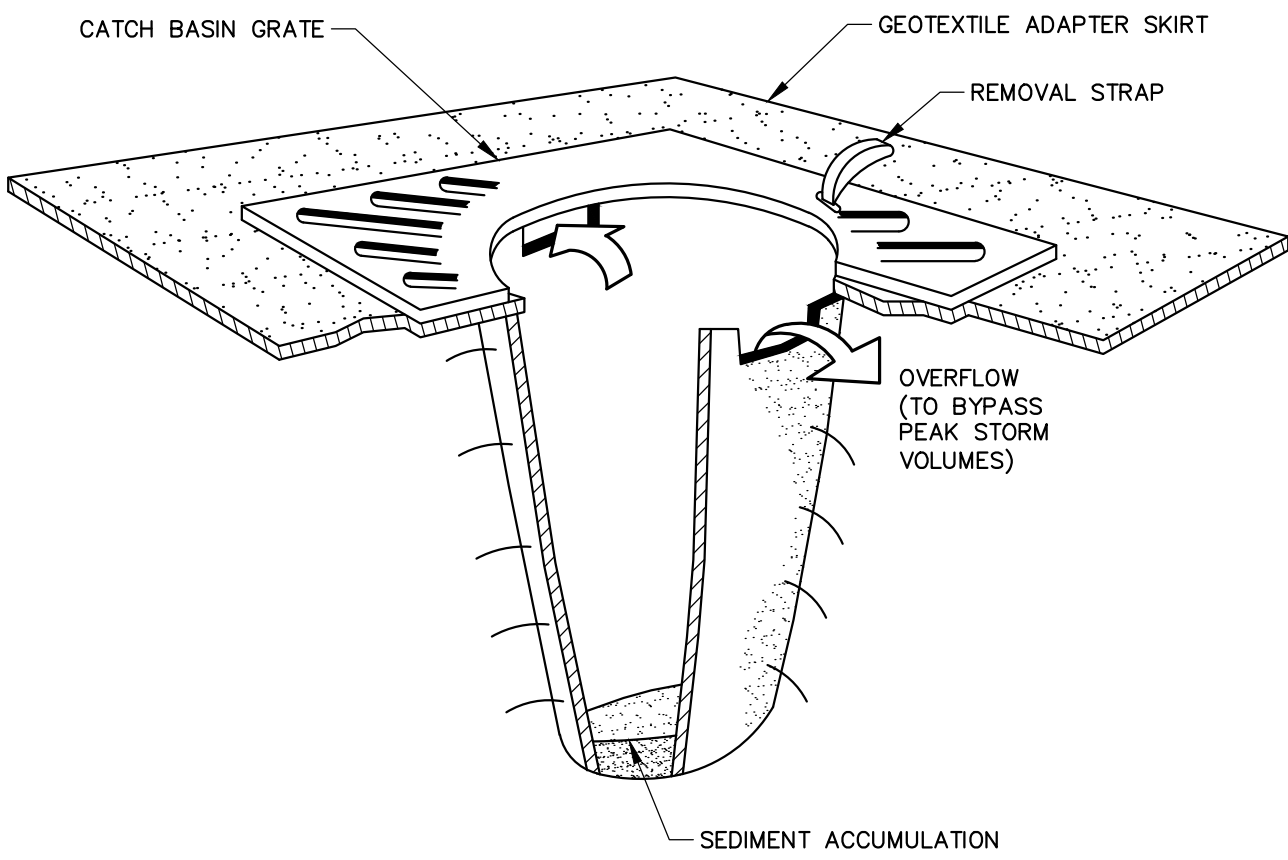
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DATE OF ISSUE: MAY 2016
PROJECT NUMBER: 229423
STATUS: PLANNING BOARD SUBMISSION

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D-202



NOTES:

CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).

INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.

INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

TEMPORARY INLET PROTECTION

N.T.S.

EROSION AND SEDIMENT CONTROL NOTES

Temporary Erosion Control

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer in accordance with section 656.

Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsack, Siltsaver Inlet Filter, or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If grass growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Mulch	April 15 to Sept. 15	On all areas of exposed soil prior to rain events or every days, apply 100-150 lbs (2.5 bales) per 1,000 sq ft. by mechanical blower.
Winter Mulch	Sept. 16 to Oct. 31	On all areas of exposed soil prior to precipitation or every days, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch.
	Nov. 1 to April 14	On all areas of exposed soil, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. and anchor with netting at the end of each working day. Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures daily, and maintain and repair as necessary.

Permanent Erosion Control:

Measure	Dates For Use	Timing, Activity, and Location
Pavement – Base Course – Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rivalets.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.

EROSION AND SEDIMENTATION CONTROL NOTES

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATTING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERM, PLUNGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS. [HTTP://MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/](http://MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/)
- ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
- THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
- CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALLS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
 - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZABLE THIN OR BARE SPOTS.
 - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE OFF.
 - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
 - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
 - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
- IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.
- PERMANENT SEEDING: SEED MIXES AND APPLICATION ARE SPECIFIED ON THE LANDSCAPING PLANS.
- PROTECT ALL SEEDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
- DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

WINTER CONDITIONS

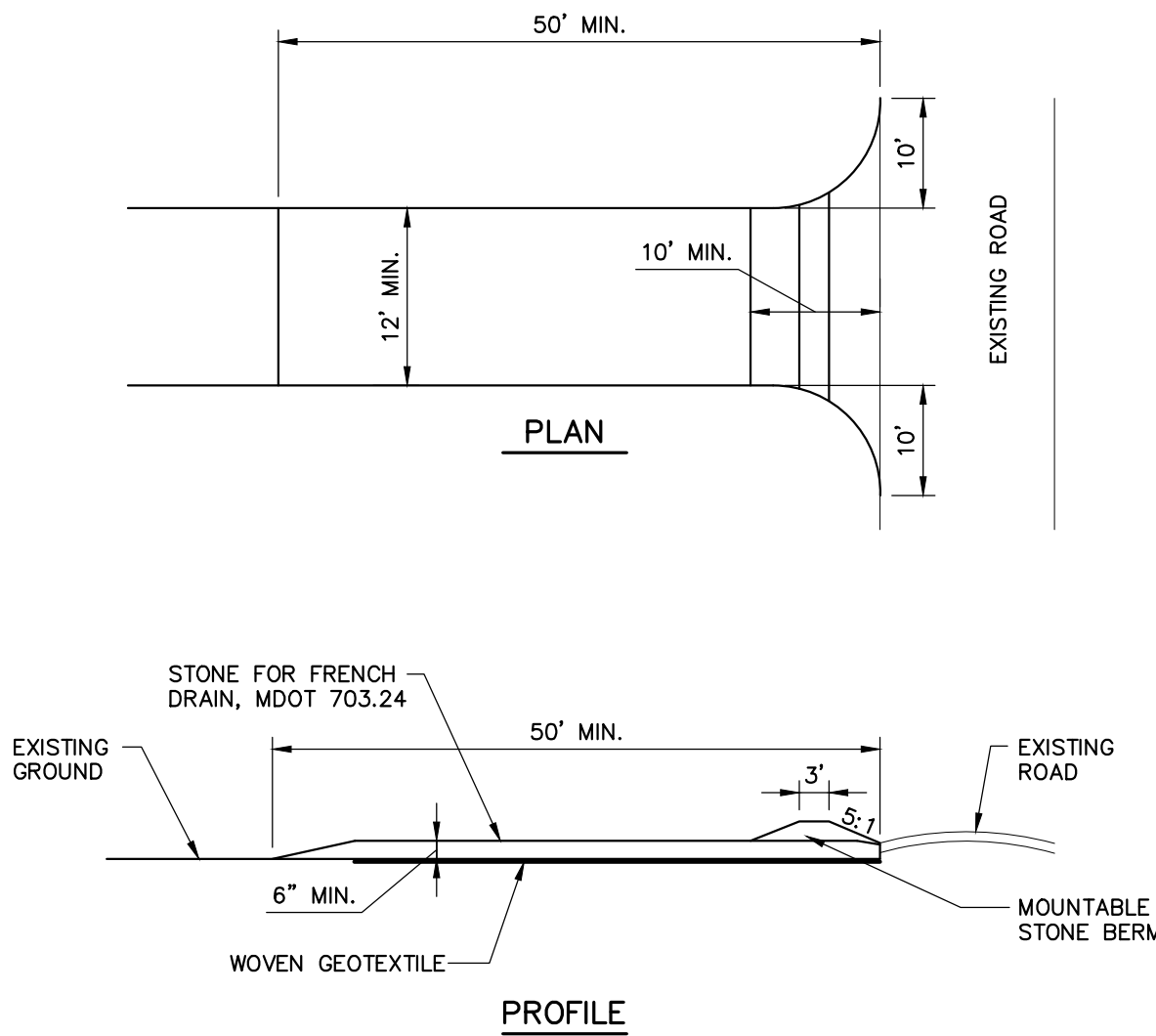
- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 1. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION

- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
- DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY ARE OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL. DIKES, BERMS, SUMPS AND OTHER FORMS OF TEMPORARY SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
- LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
- LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
- TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK.
- SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEP FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

INSPECTION AND MAINTENANCE

- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPS OR MODIFICATIONS TO BMPS ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
- AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.



NOTES:

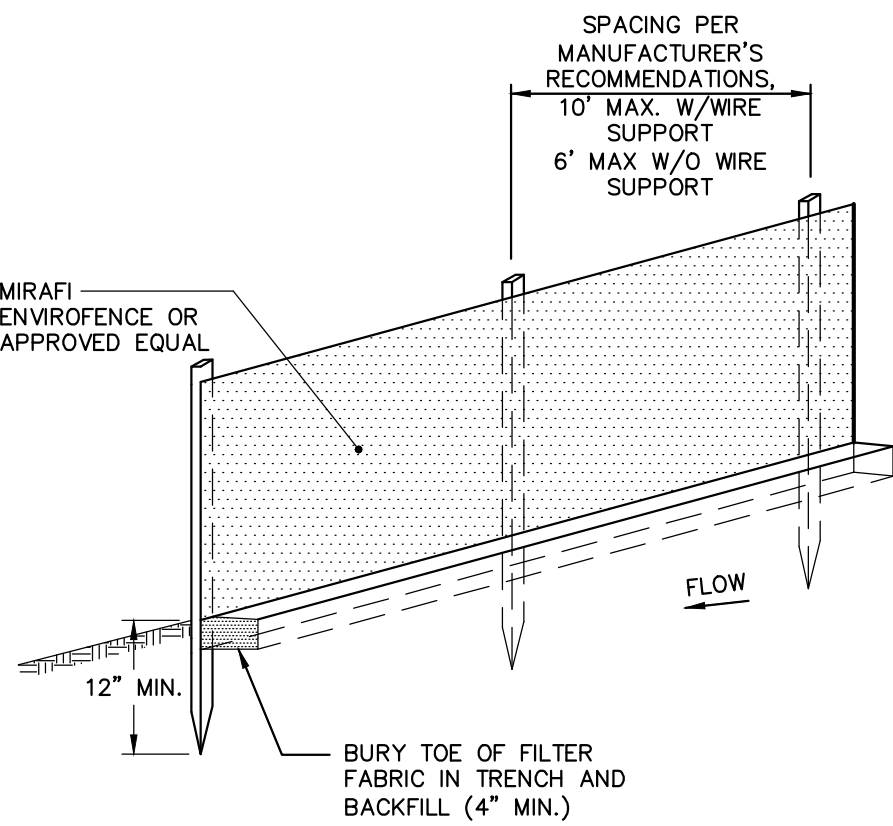
- CONSTRUCTION ENTRANCES MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
- WHEEL WASH PITS MAY ALSO BE USED, IF APPROVED.

MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.

REMOVAL: AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE STABILIZED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

N.T.S.



NOTES:

- INSTALL FABRIC ON UPHILL SIDE OF SUPPORT POSTS
- INSTALL SILT FENCE ACROSS SLOPES
- SILT FENCE SHALL NOT BE USED IN DRAINAGE WAYS

MAINTENANCE: INSPECT FOR TEARS IN THE FABRIC OR DAMAGE TO SUPPORTS. REPAIR AS NECESSARY. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF SIX-INCHES OR LESS.

REMOVAL: WHEN UPSLOPE AREAS ARE STABILIZED, THE STRUCTURE AND ANY ACCUMULATED SEDIMENT WILL BE REMOVED.

SEDIMENT BARRIER – SILTATION FENCE DETAIL

N.T.S.

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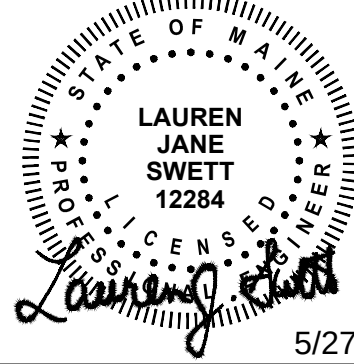
PROJECT NAME:

WAYNFLETE
GYM + LOWER SCHOOL

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:



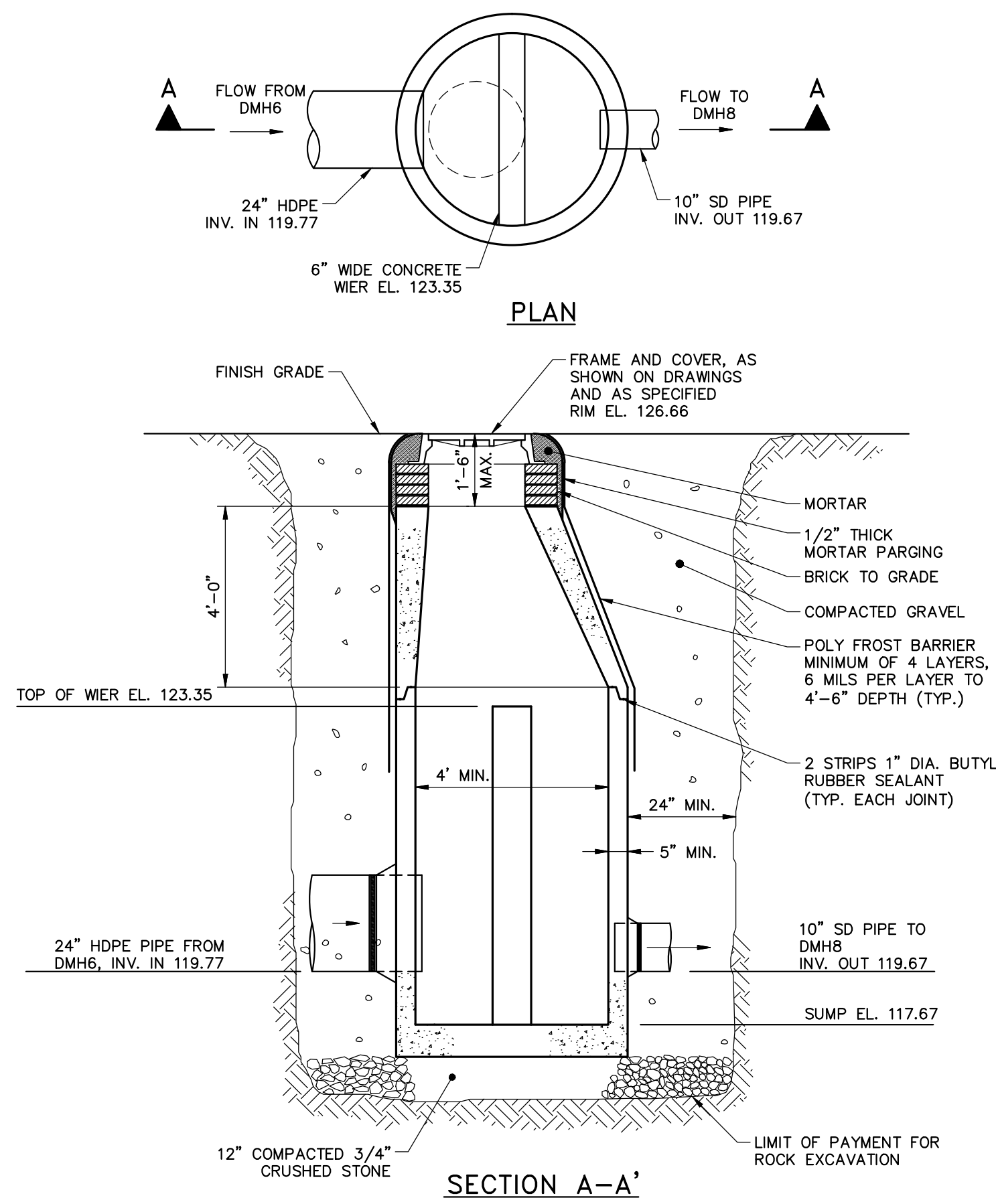
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REVISED PER CITY OF PORTLAND COMMENTS	5/27/16
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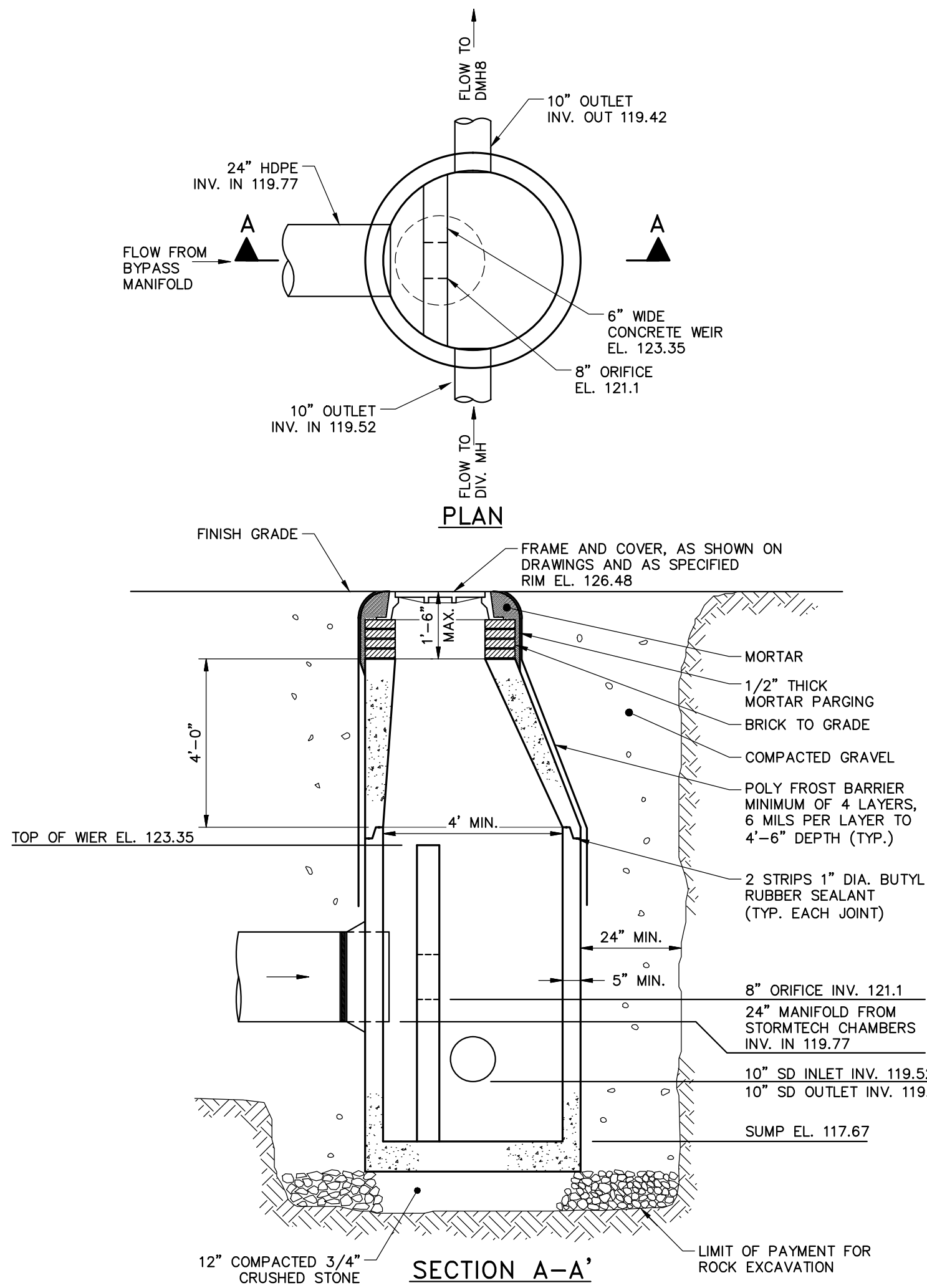
DATE OF ISSUE:	MAY 2016
PROJECT NUMBER:	229423
STATUS:	PLANNING BOARD SUBMISSION

CIVIL DETAILS - 4

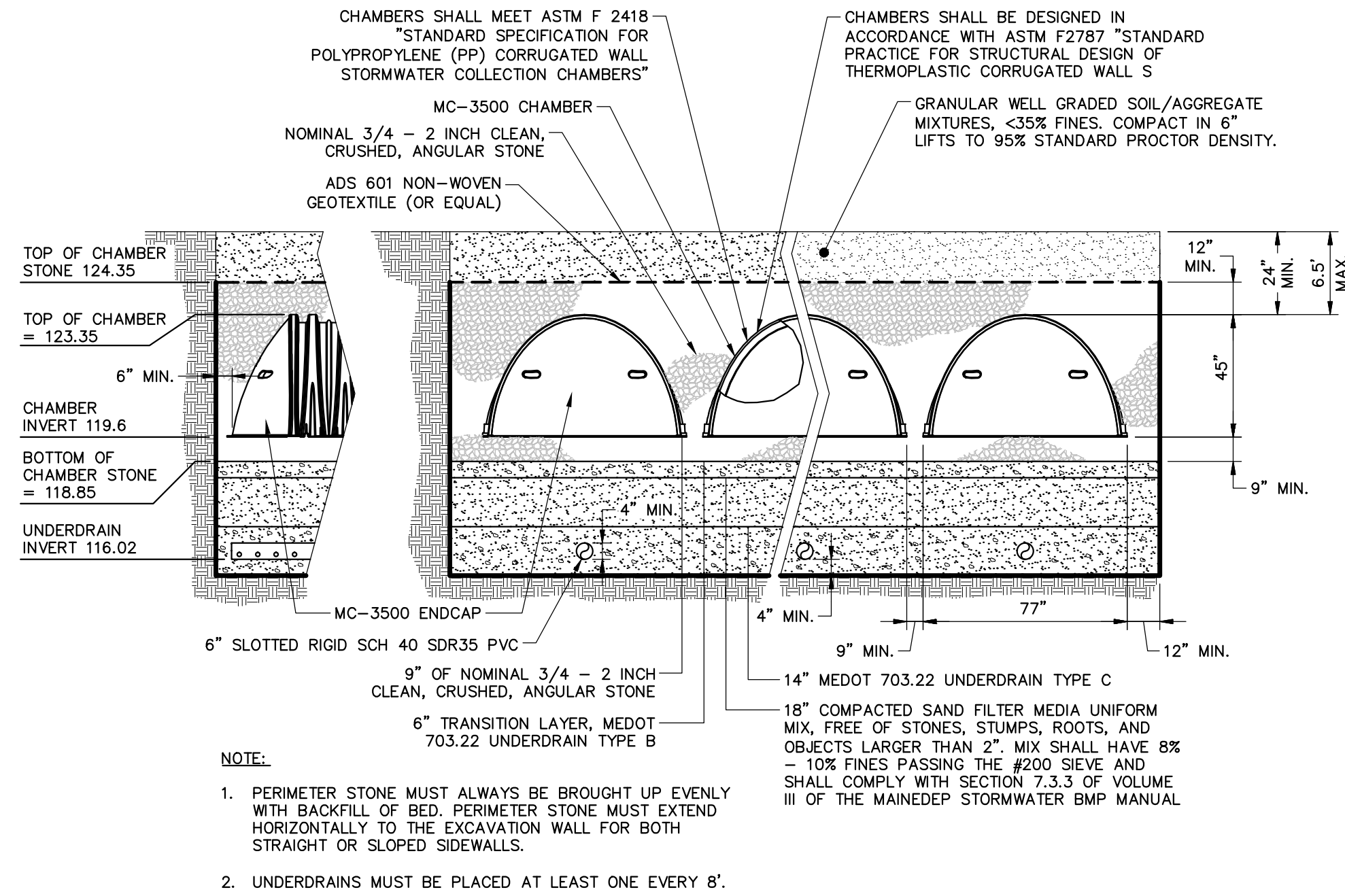
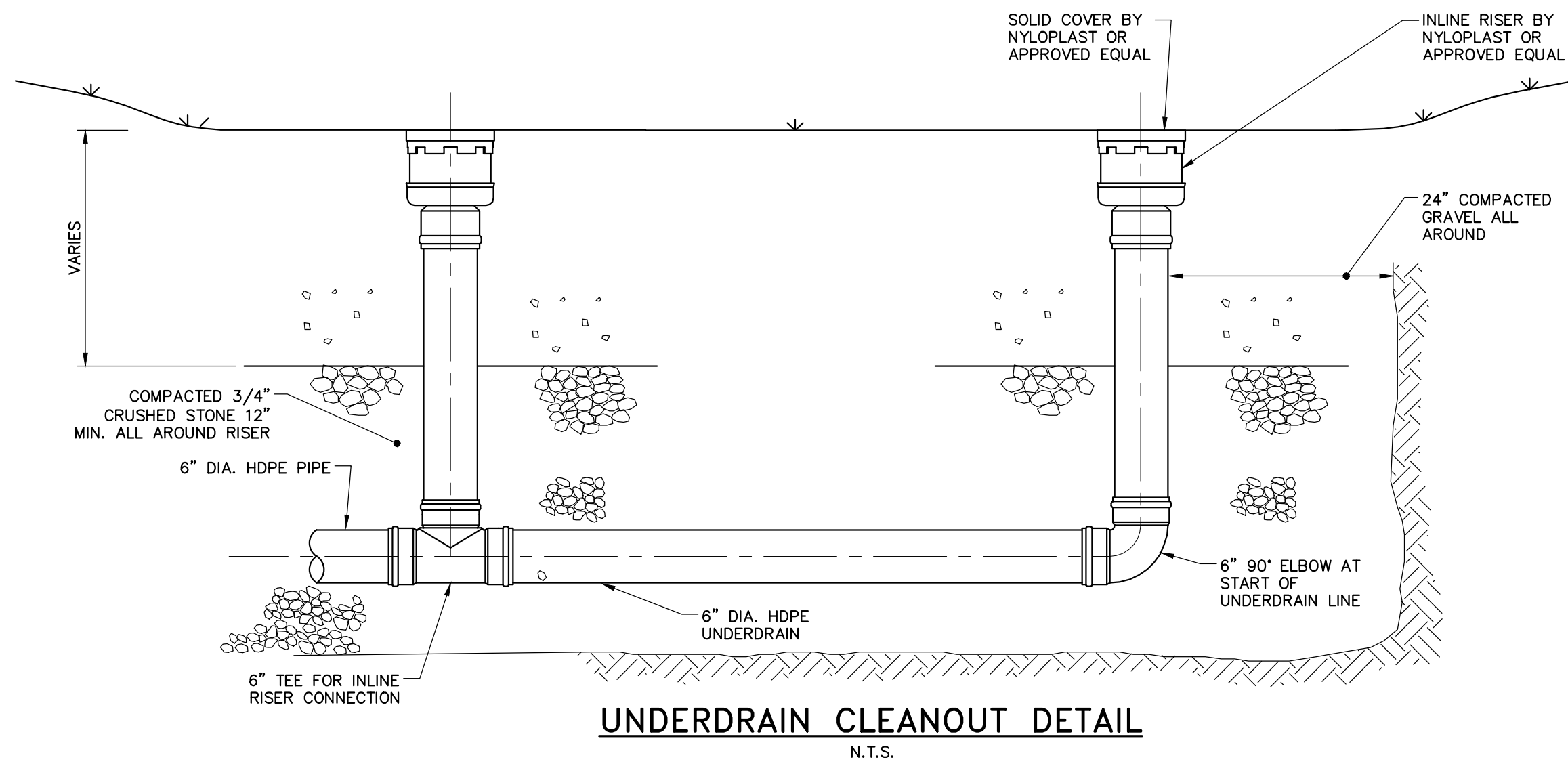
D-20



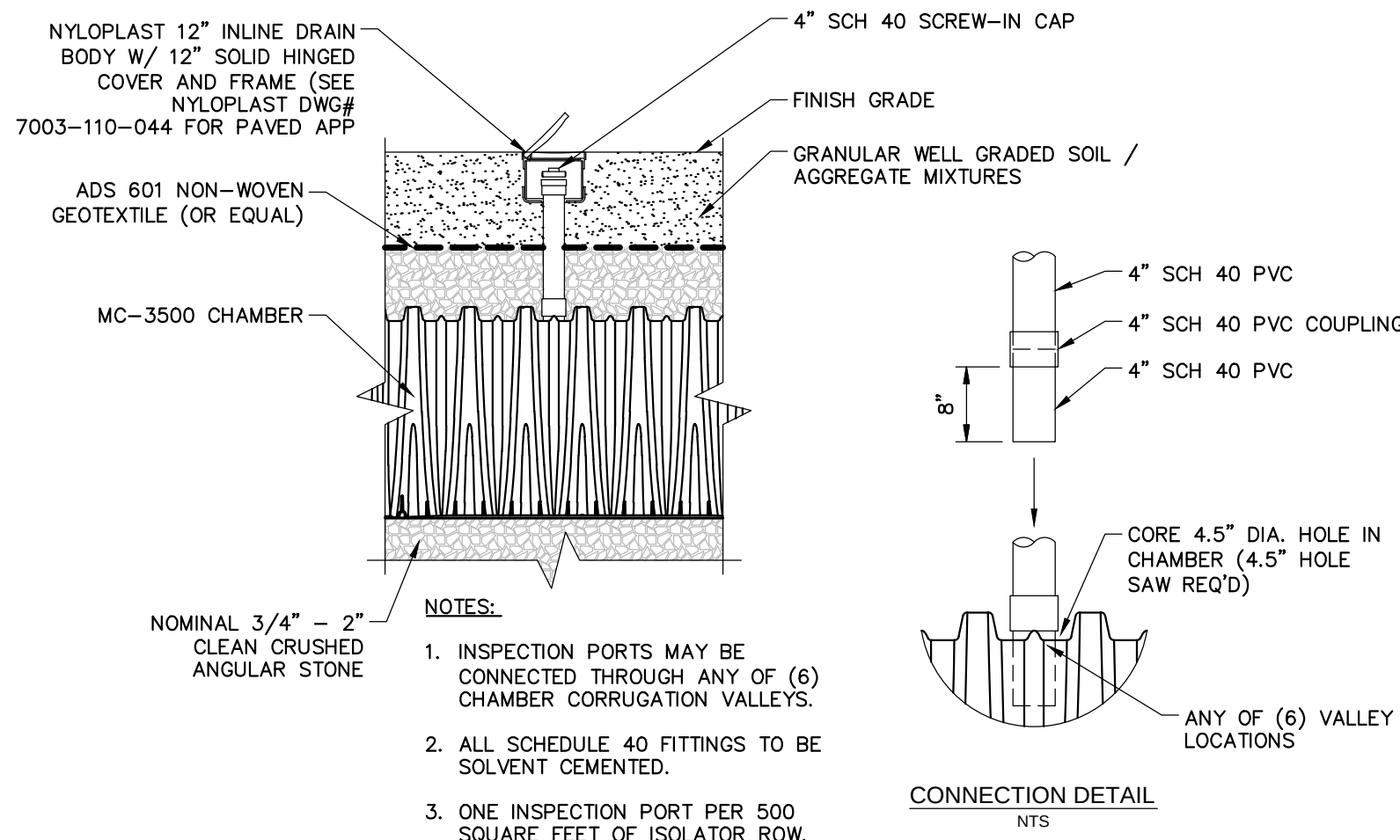
DIVERSION MANHOLE DETAIL
N.T.S.



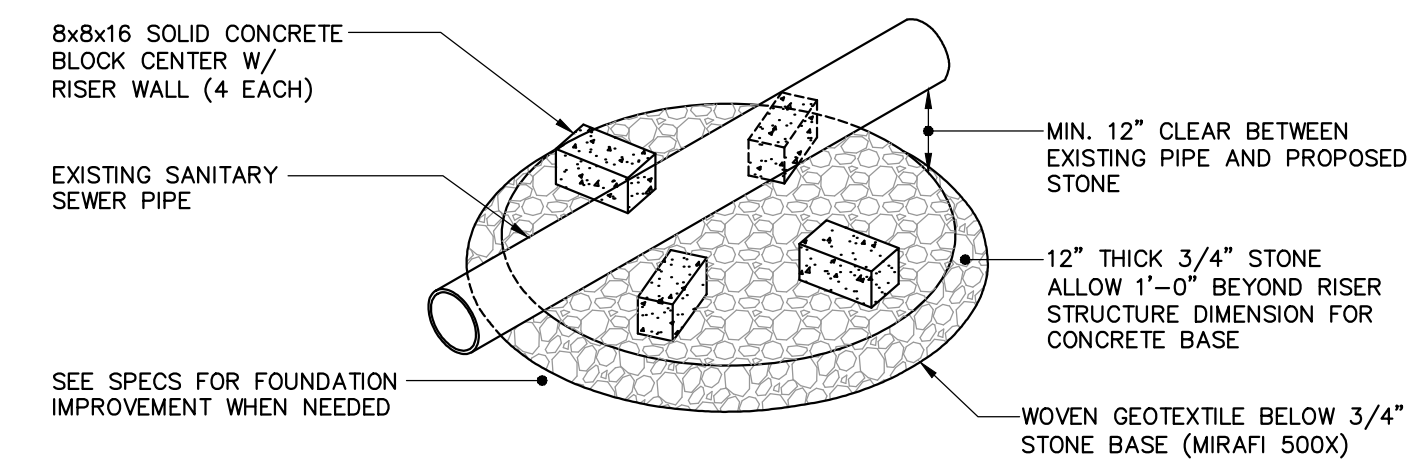
OUTLET CONTROL STRUCTURE (OCS) DETAIL
N.T.S.



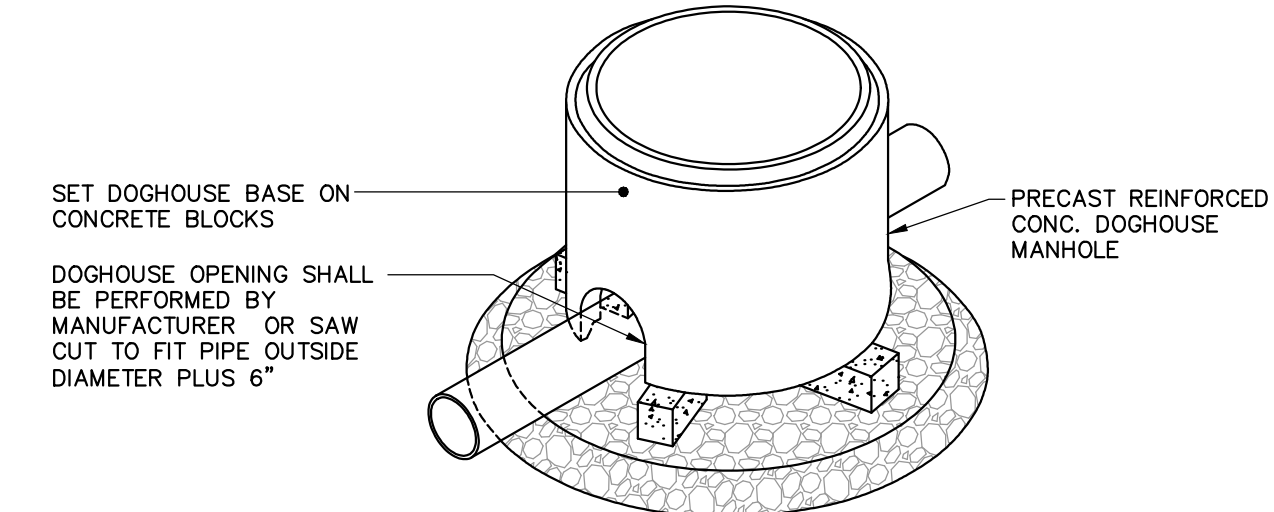
STORMTECH MC-3500 AND UNDERDRAINED SUBSURFACE SAND FILTER TYPICAL SECTION
N.T.S.



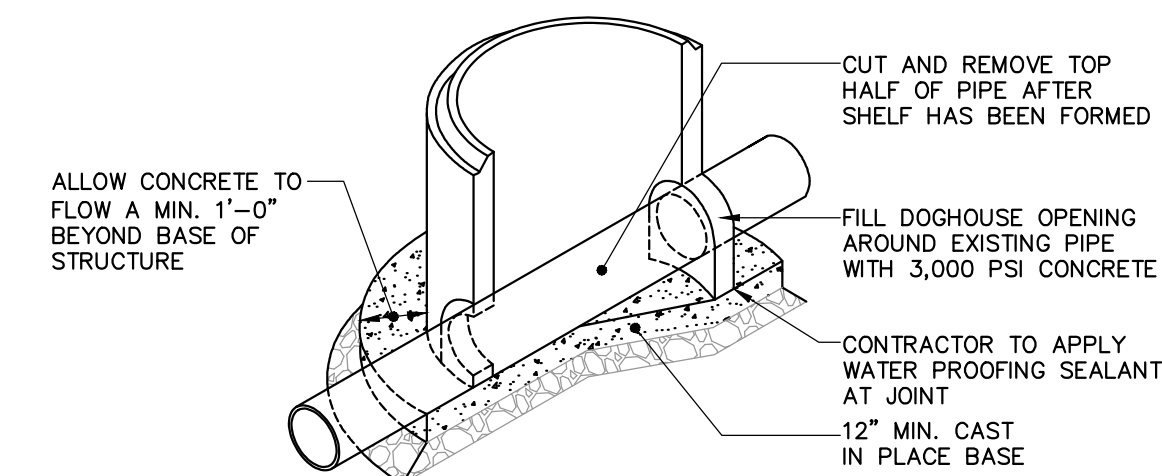
STORMTECH MC-3500 INSPECTION PORT DETAIL
N.T.S.



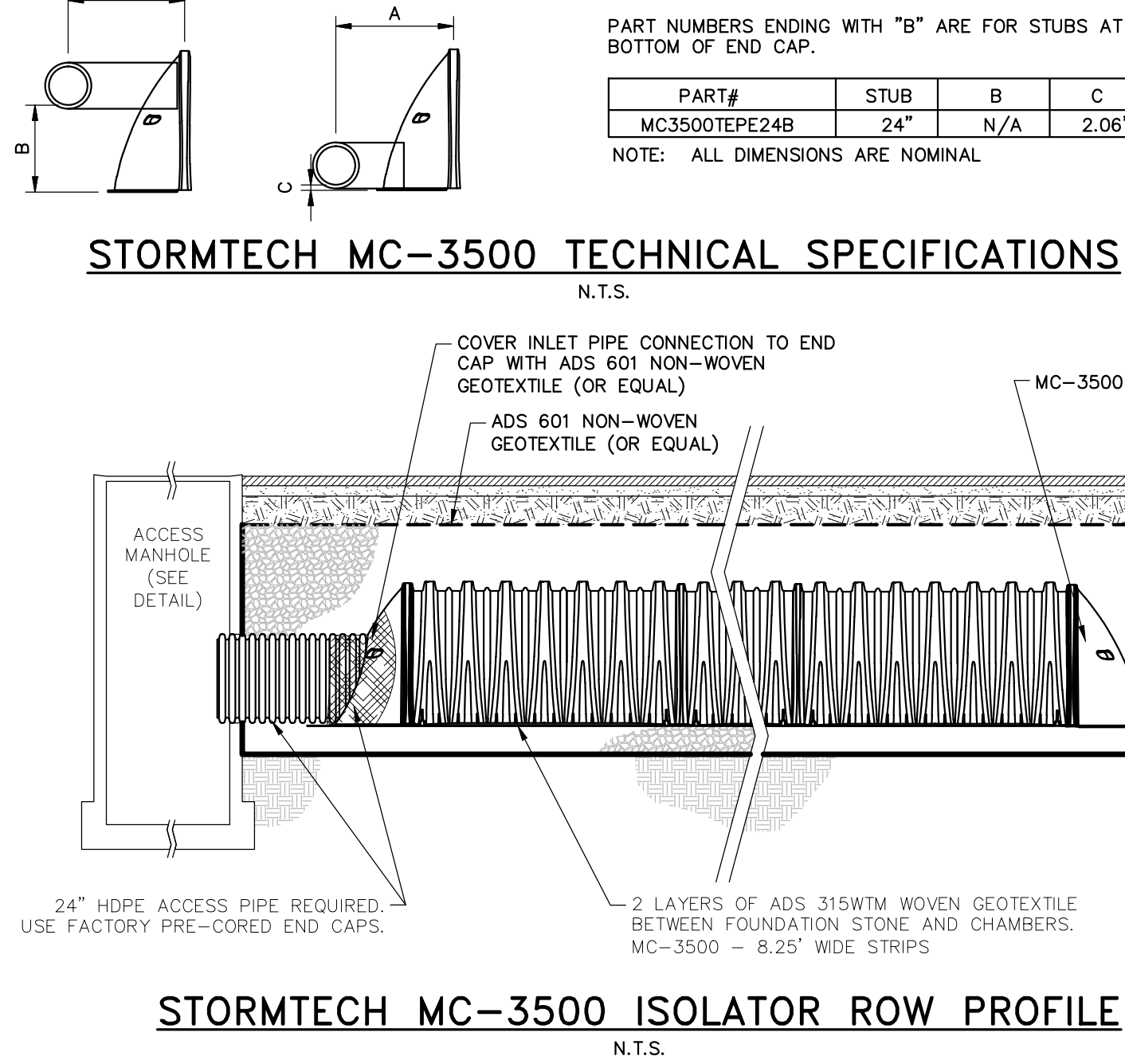
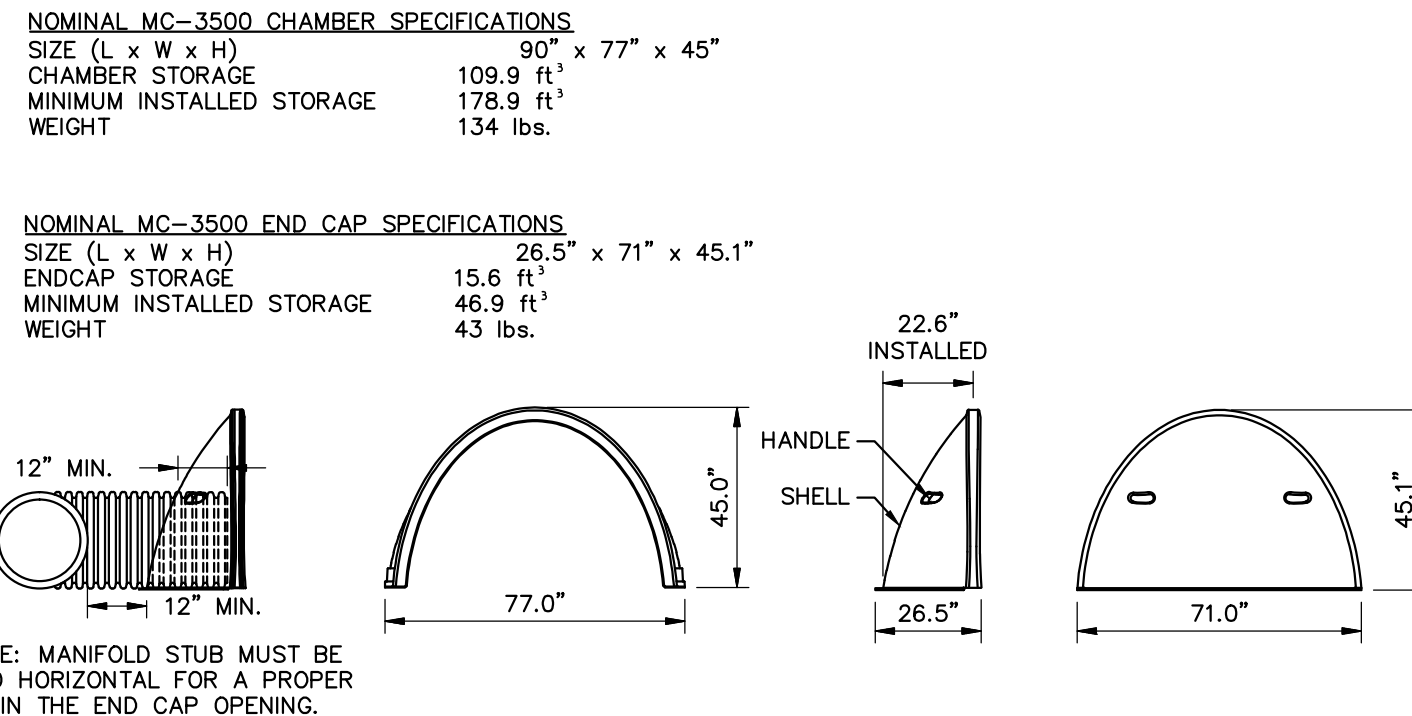
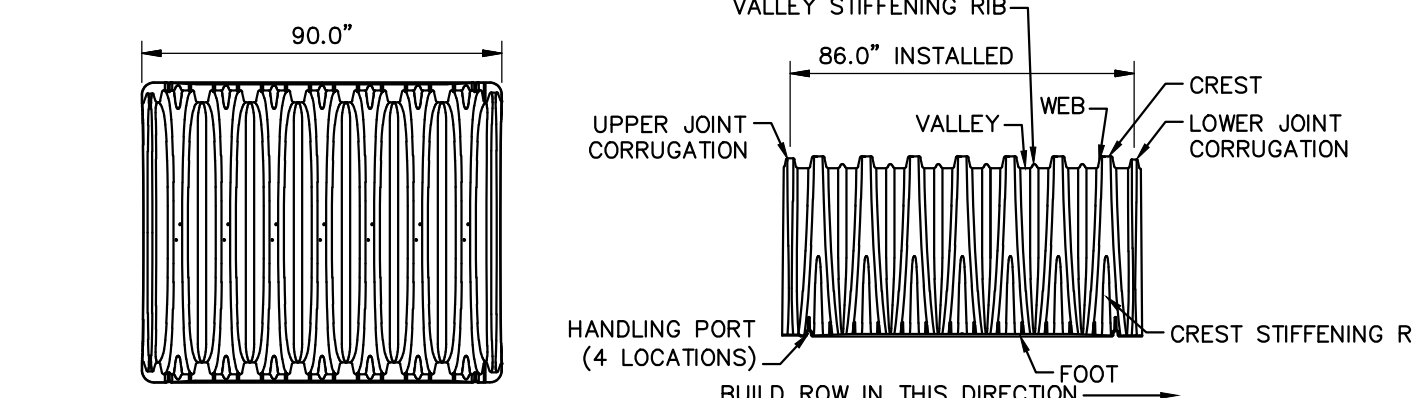
BASE ISOMETRIC VIEW



RISER ISOMETRIC VIEW

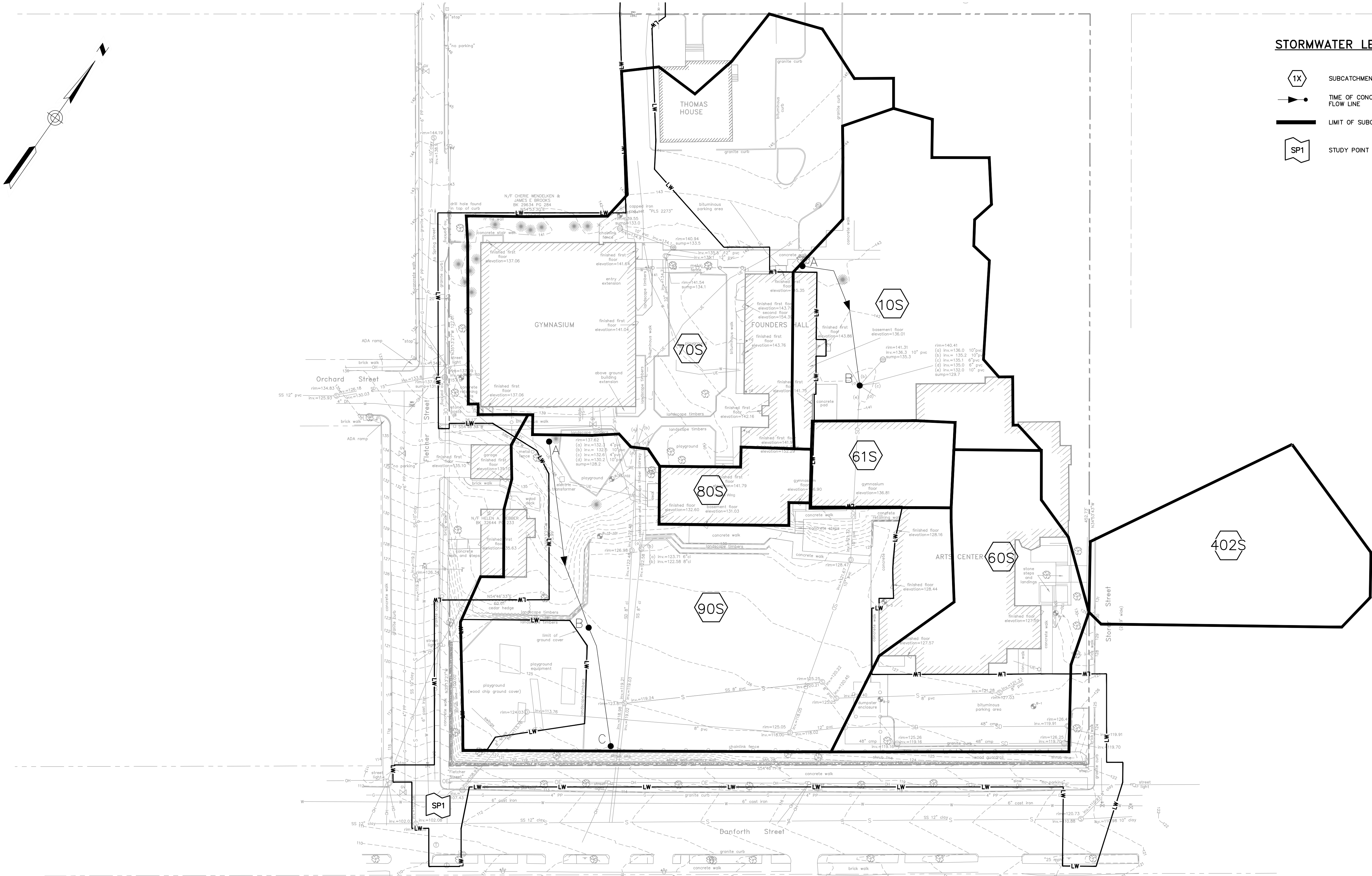


DOGHOUSE MANHOLE DETAIL
N.T.S.



STORMTECH MC-3500 ISOLATOR ROW PROFILE
N.T.S.

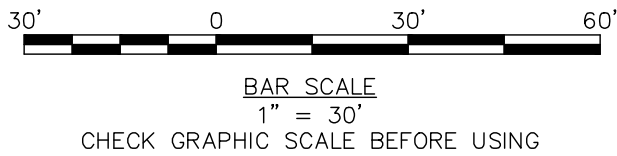
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STORMWATER LEGEND

- 1X SUBCATCHMENT AREAS
- TIME OF CONCENTRATION (Tc) FLOW LINE
- LIMIT OF SUBCATCHMENT AREA
- SP1 STUDY POINT

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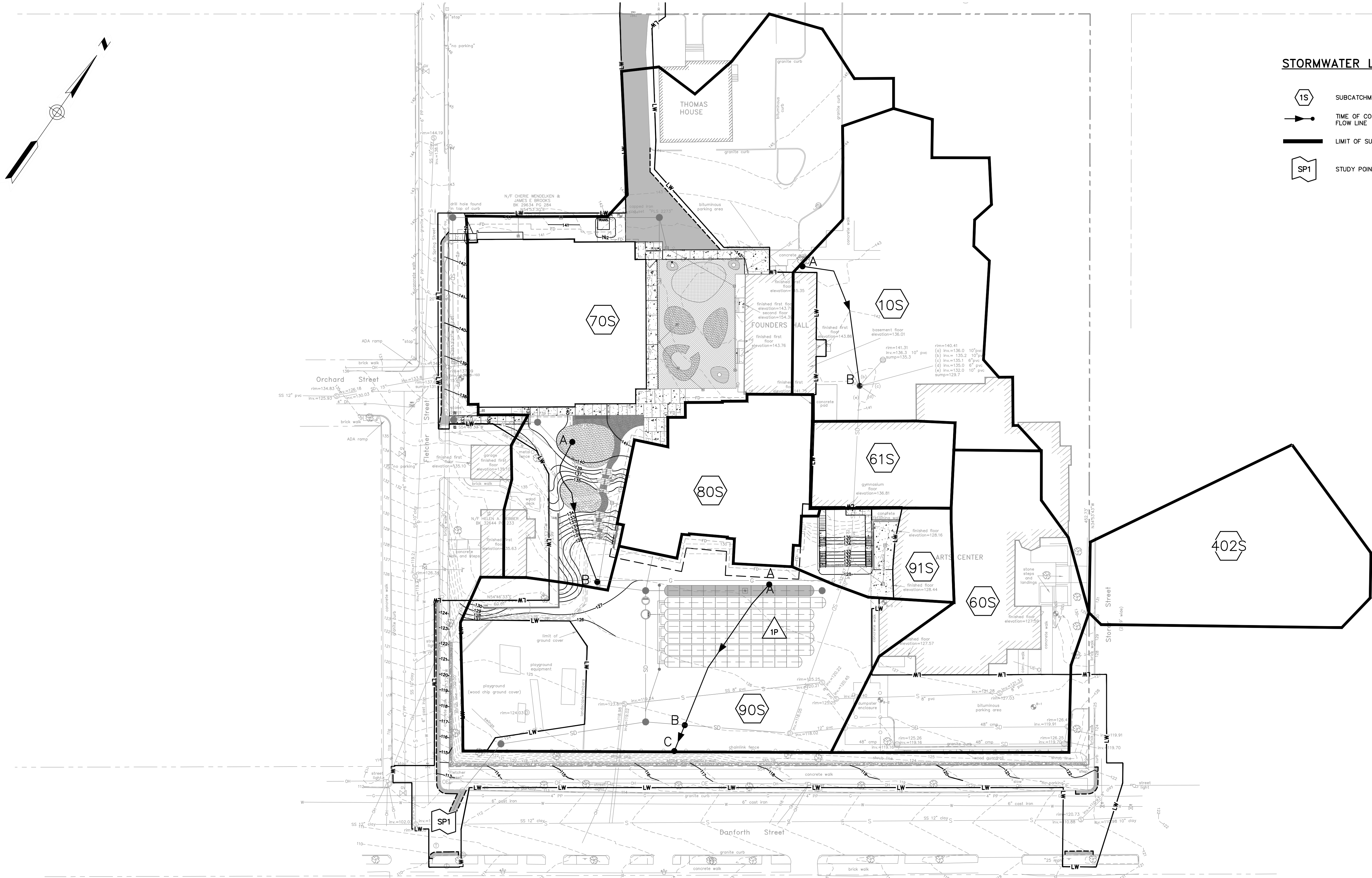
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DATE OF ISSUE: FEBRUARY 2016
PROJECT NUMBER: 229423
STATUS: PLANNING BOARD SUBMISSION

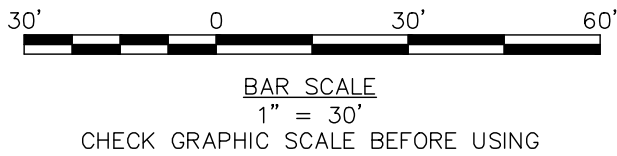
PRE
DEVELOPMENT
DRAINAGE AREA
PLAN

PRE



STORMWATER LEGEND

- 1S SUBCATCHMENT AREAS
- TIME OF CONCENTRATION (Tc)
FLOW LINE
- LIMIT OF SUBCATCHMENT AREA
- SP1 STUDY POINT



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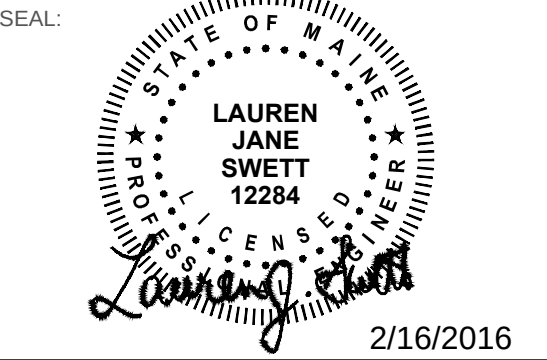
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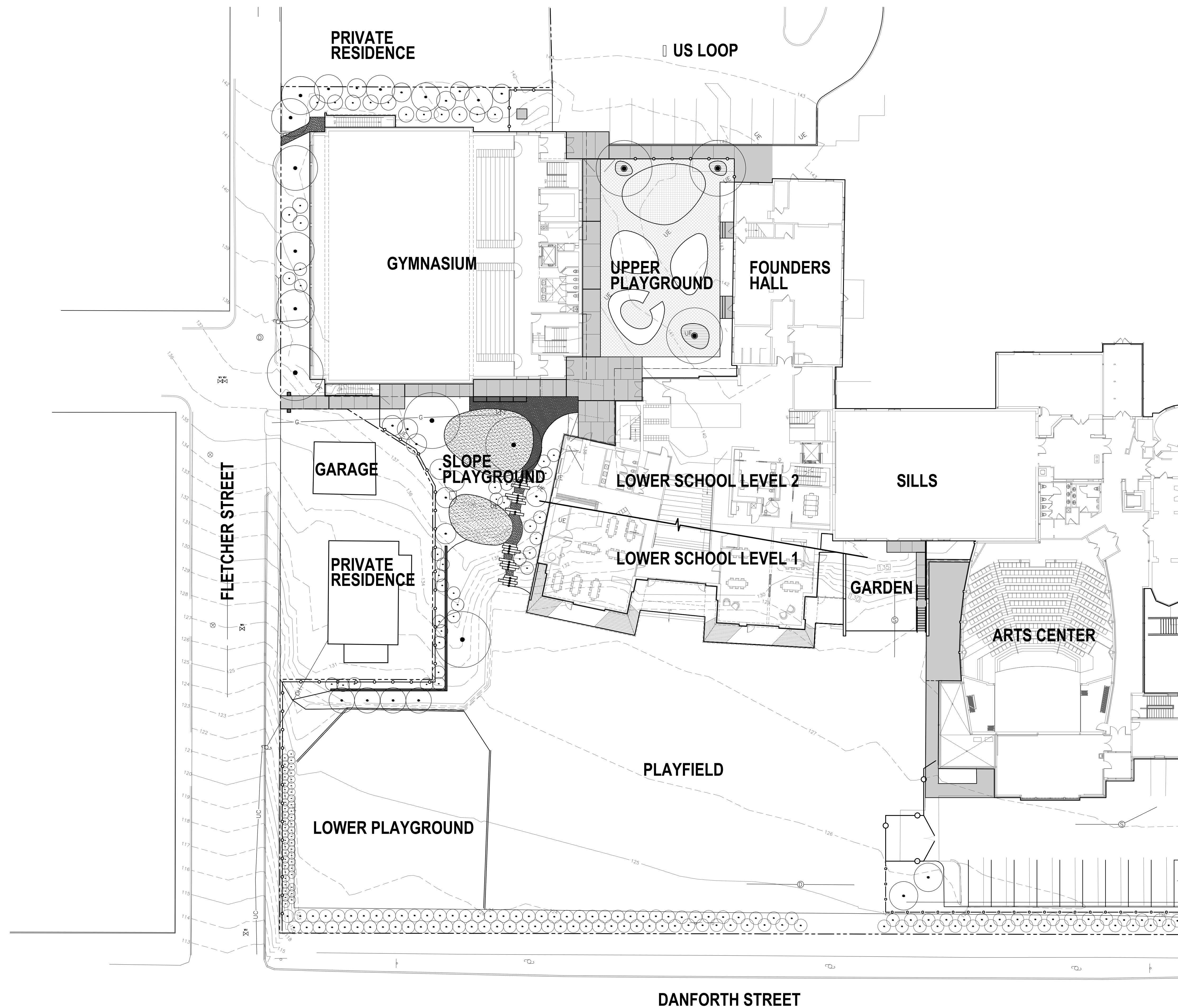
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PROJECT NUMBER: 229423

STATUS: PLANNING BOARD SUBMISSION

POST
DEVELOPMENT
DRAINAGE AREA
PLAN

POST



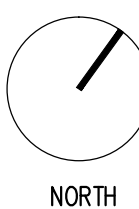
SCALE 1" = 20'0"

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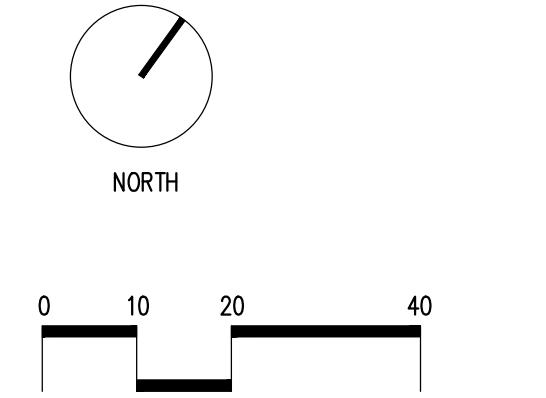
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11/16/2016
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SITE PLAN

L-10



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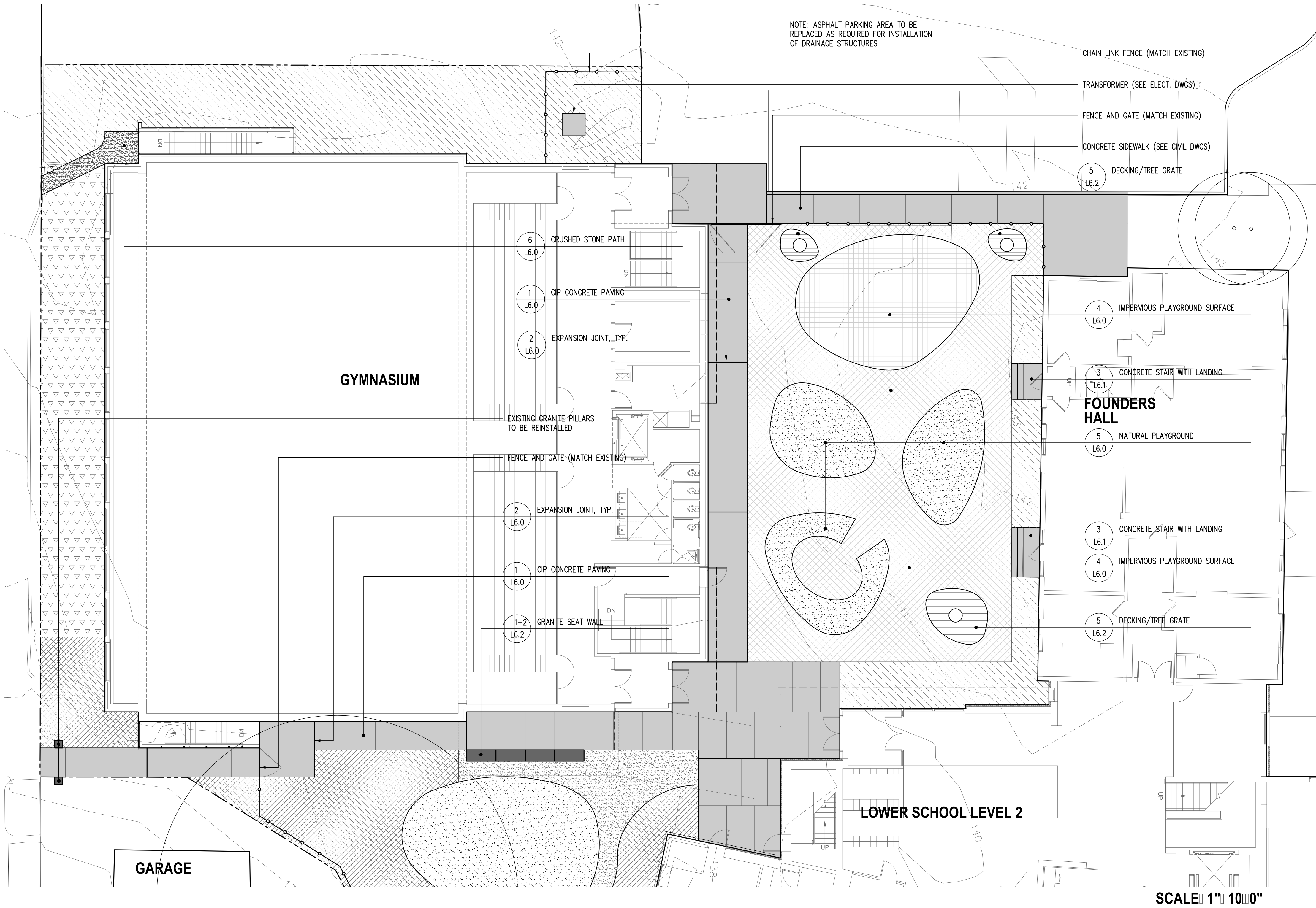
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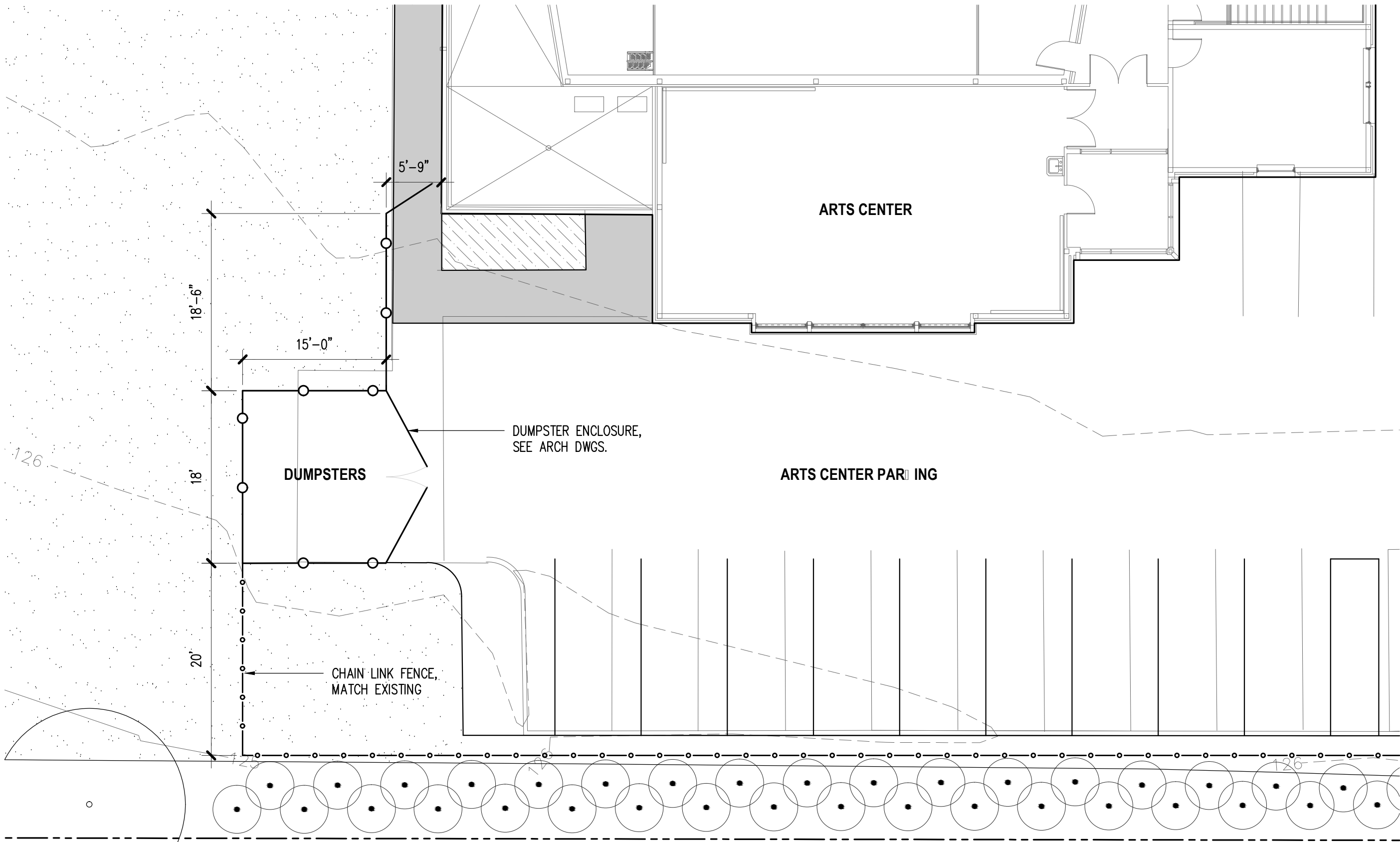
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PLANNING BOARD SUBMISSION

MATERIALS AND
LAYOUT PLAN N

L-2





DUMPSTER ENCLOSURE

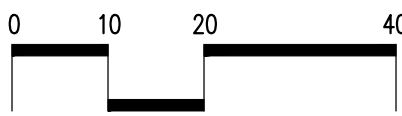
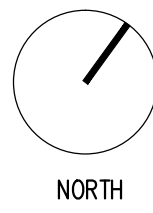
SCALE 1" = 10'-0"



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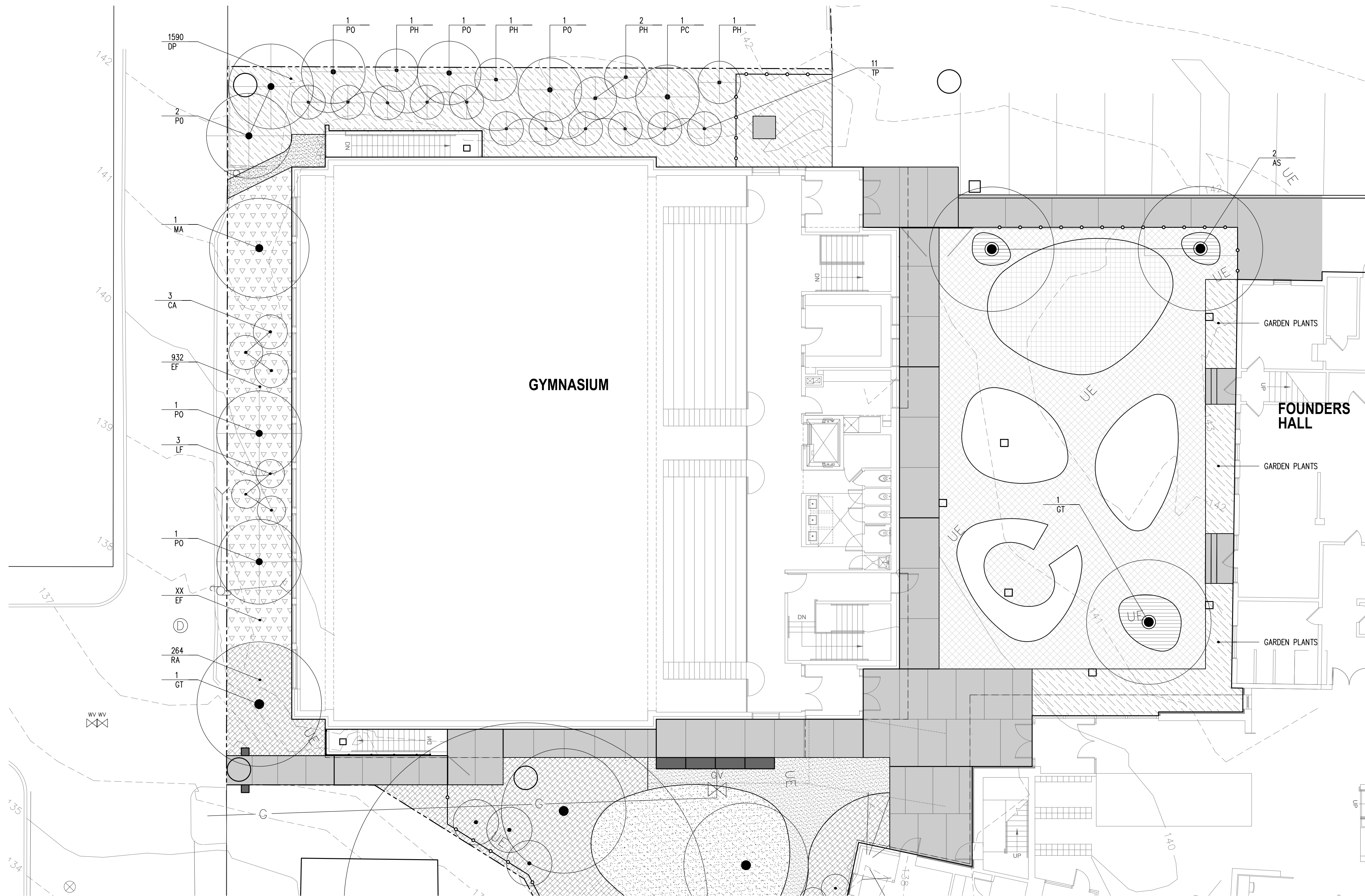
11 JUNE 2016

2013.00.0

PLANNING BOARD SUBMISSION

LAYOUT □
MATERIALS PLANS

L-2 □



SEE L4.1 FOR PLANT SCHEDULE

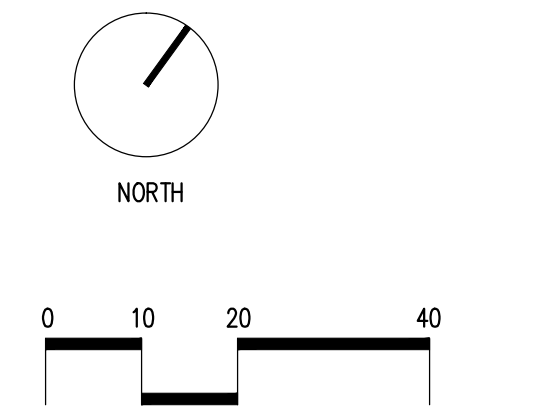
SCALE: 1" = 10'-0"



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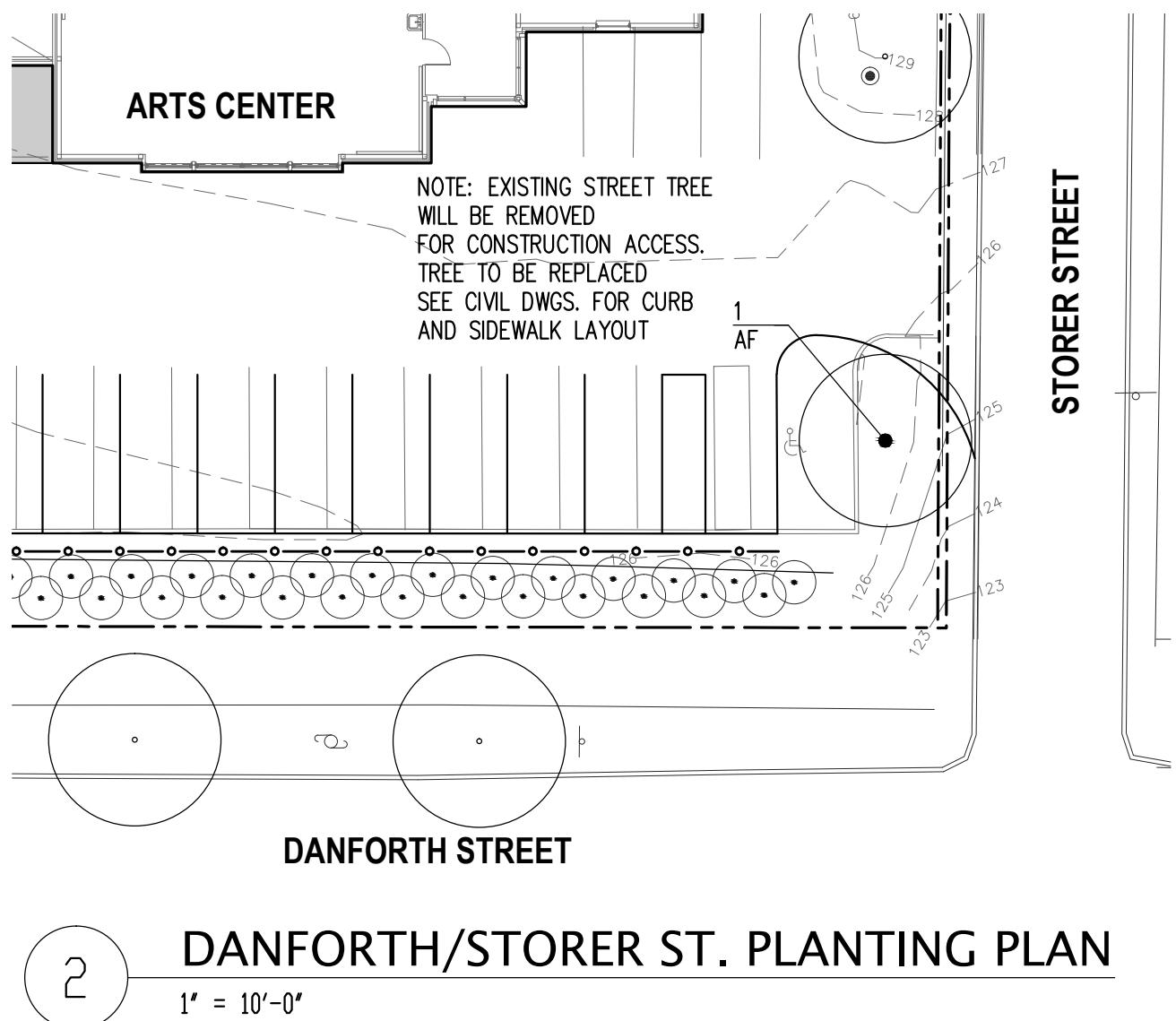
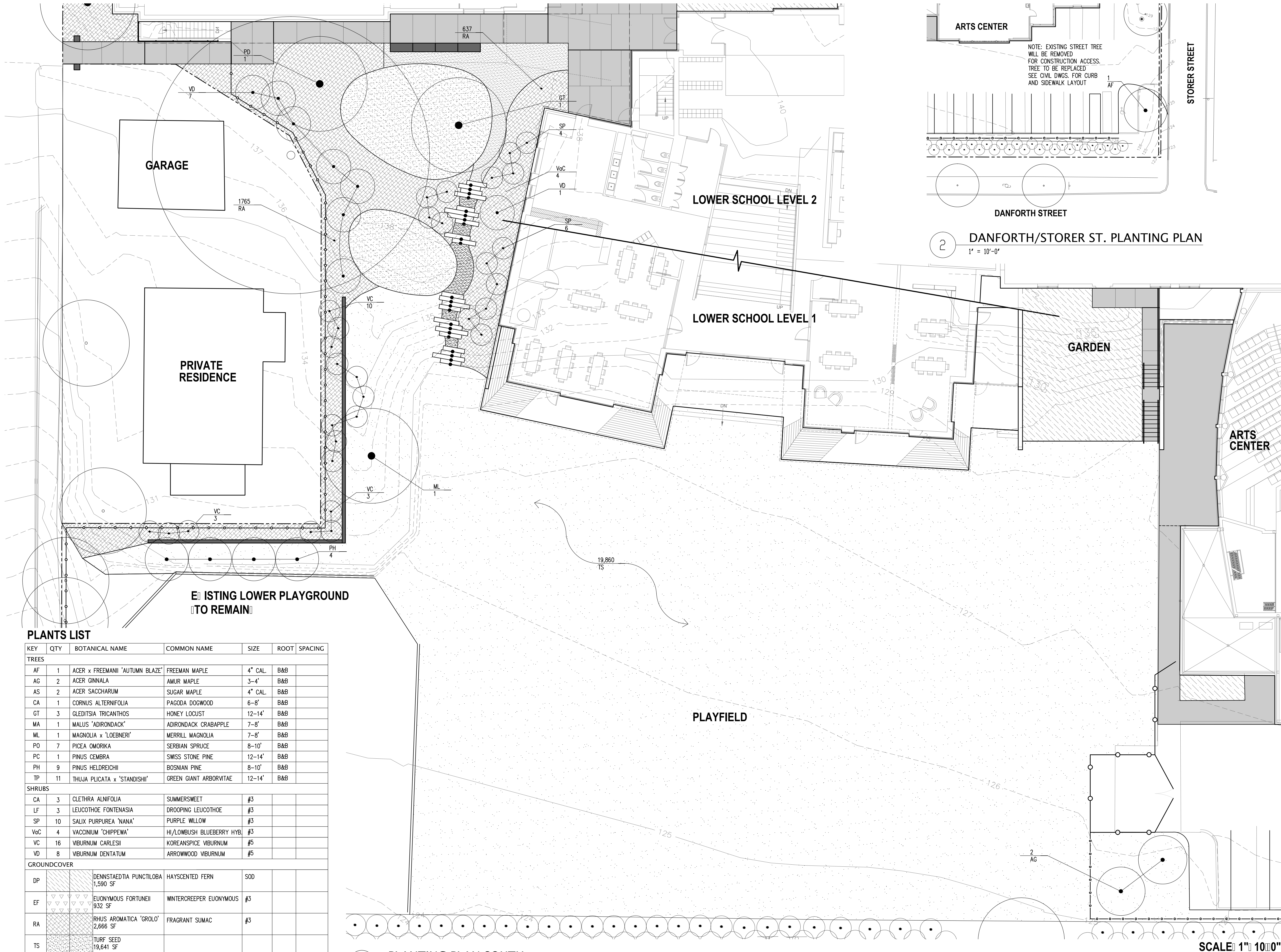
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1 JUNE 2016
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PLANTING PLAN N

L-4



PLANTS LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
TREES						
AF	1	ACER x FREEMANII 'AUTUMN BLAZE'	FREEMAN MAPLE	4" CAL.	B&B	
AG	2	ACER GINNALA	AMUR MAPLE	3-4'	B&B	
AS	2	ACER SACCHARUM	SUGAR MAPLE	4" CAL.	B&B	
CA	1	CORNUS ALTERNIFOLIA	PAGODA DOGWOOD	6-8'	B&B	
GT	3	GLEDITSIA TRICANTHOS	HONEY LOCUST	12-14'	B&B	
MA	1	MALUS 'ADIRONDACK'	ADIRONDACK CRABAPPLE	7-8'	B&B	
ML	1	MAGNOLIA x 'LOEBNERI'	MERRILL MAGNOLIA	7-8'	B&B	
PO	7	PICEA OMORIKA	SERBIAN SPRUCE	8-10'	B&B	
PC	1	PINUS CEMBRA	SWISS STONE PINE	12-14'	B&B	
PH	9	PINUS HELDREICHII	BOSNIAN PINE	8-10'	B&B	
TP	11	THUJA PLICATA x 'STANDISHII'	GREEN GIANT ARBORVITAE	12-14'	B&B	
SHRUBS						
CA	3	CLETHRA ALNIFOLIA	SUMMERSWEET	#3		
LF	3	LEUCOTHOE FONTENASIA	DROOPING LEUCOTHOE	#3		
SP	10	SALIX PURPUREA 'NANA'	PURPLE WILLOW	#3		
VaC	4	VACCINIUM 'CHIPPEWA'	HI/LOWBUSH BLUEBERRY HYB.	#3		
VC	16	VIBURNUM CARLESII	KOREANSPICE VIBURNUM	#5		
VD	8	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	#5		
GROUND COVER						
DP		DENNSTAEDTIA PUNCTILOBA	HAYSCENTED FERN	SOD		
EF		EUONYMUS FORTUNEII	WINTERCREEPER EUONYMUS	#3		
RA		RHUS AROMATICA 'GROLO'	FRAGRANT SUMAC	#3		
TS		TURF SEED				

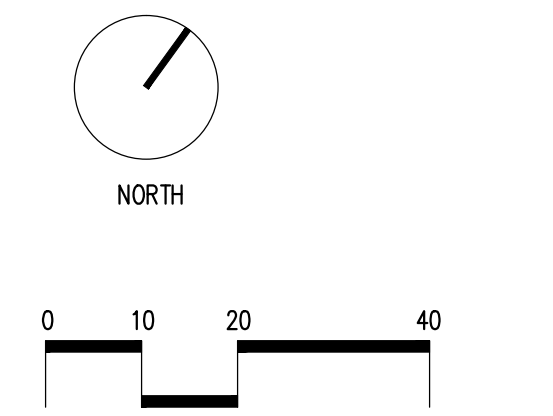
1 PLANTING PLAN SOUTH
1' = 10'-0"

SCALE 1" = 10'-0"



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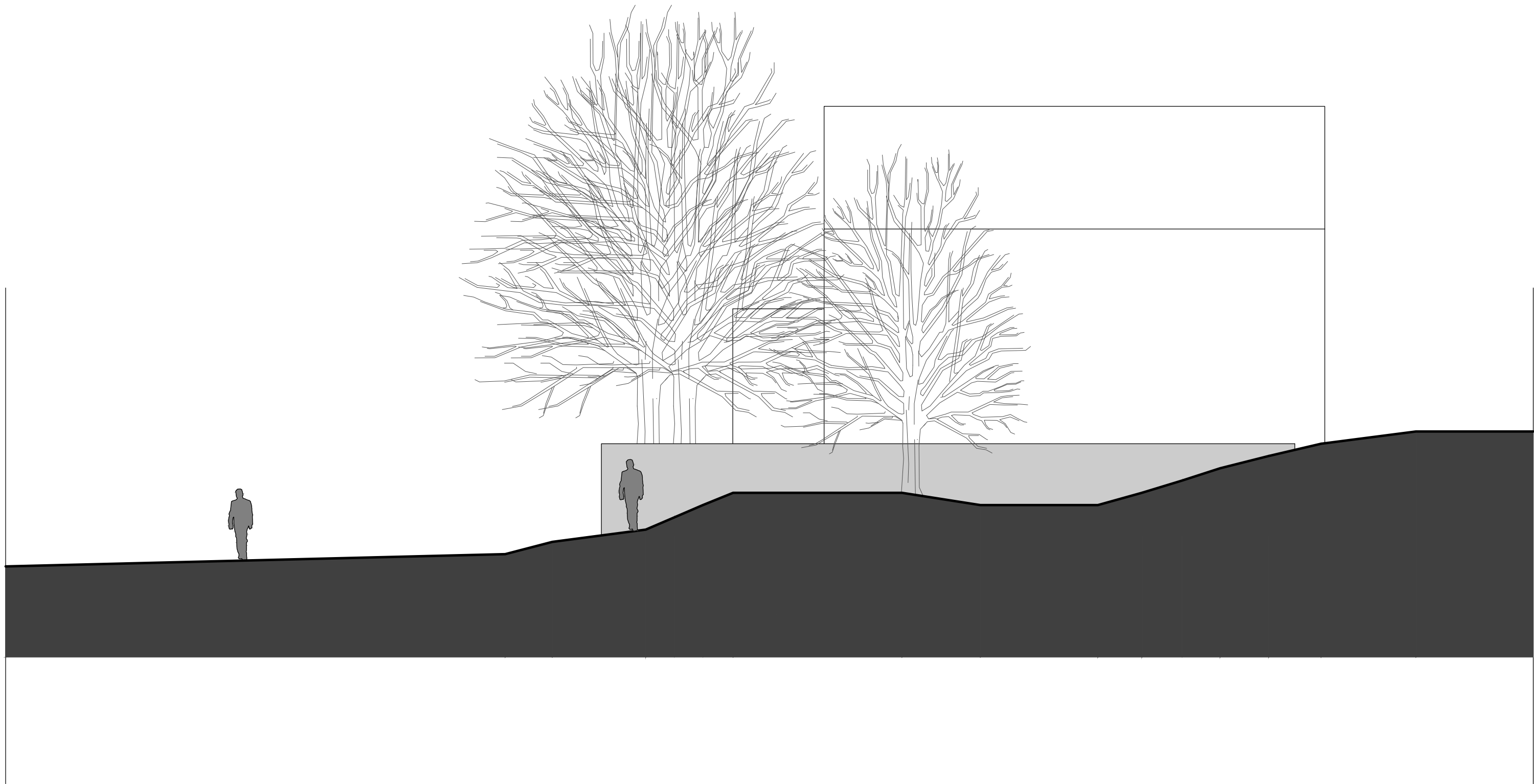
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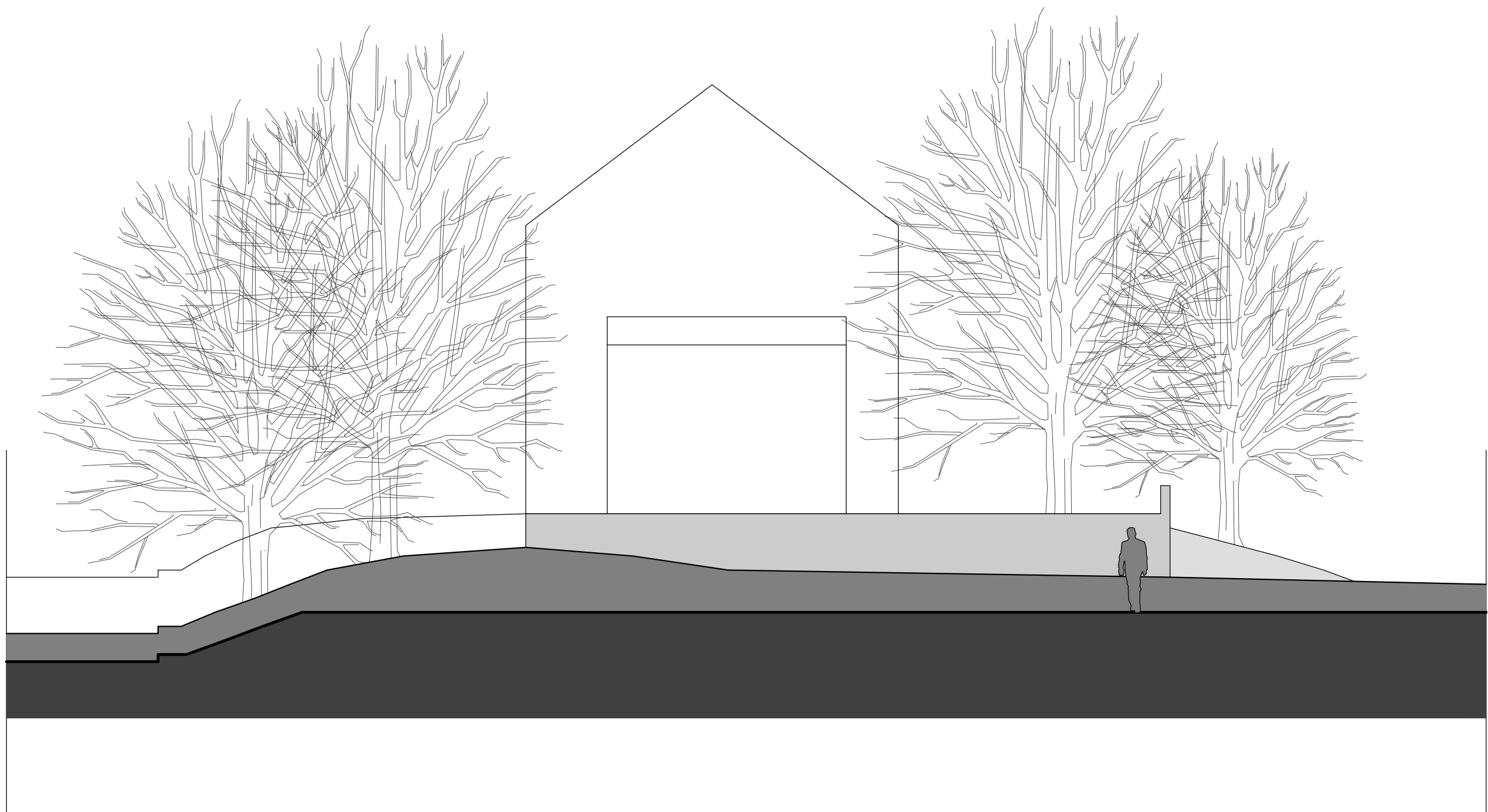
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PLANTING PLAN S

L-41



1 WALL ELEVATION, NORTH
1/8" = 1'-0"



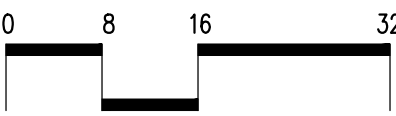
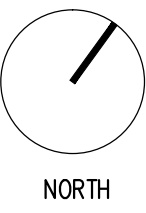
2 WALL ELEVATION, EAST
1/8" = 1'-0"



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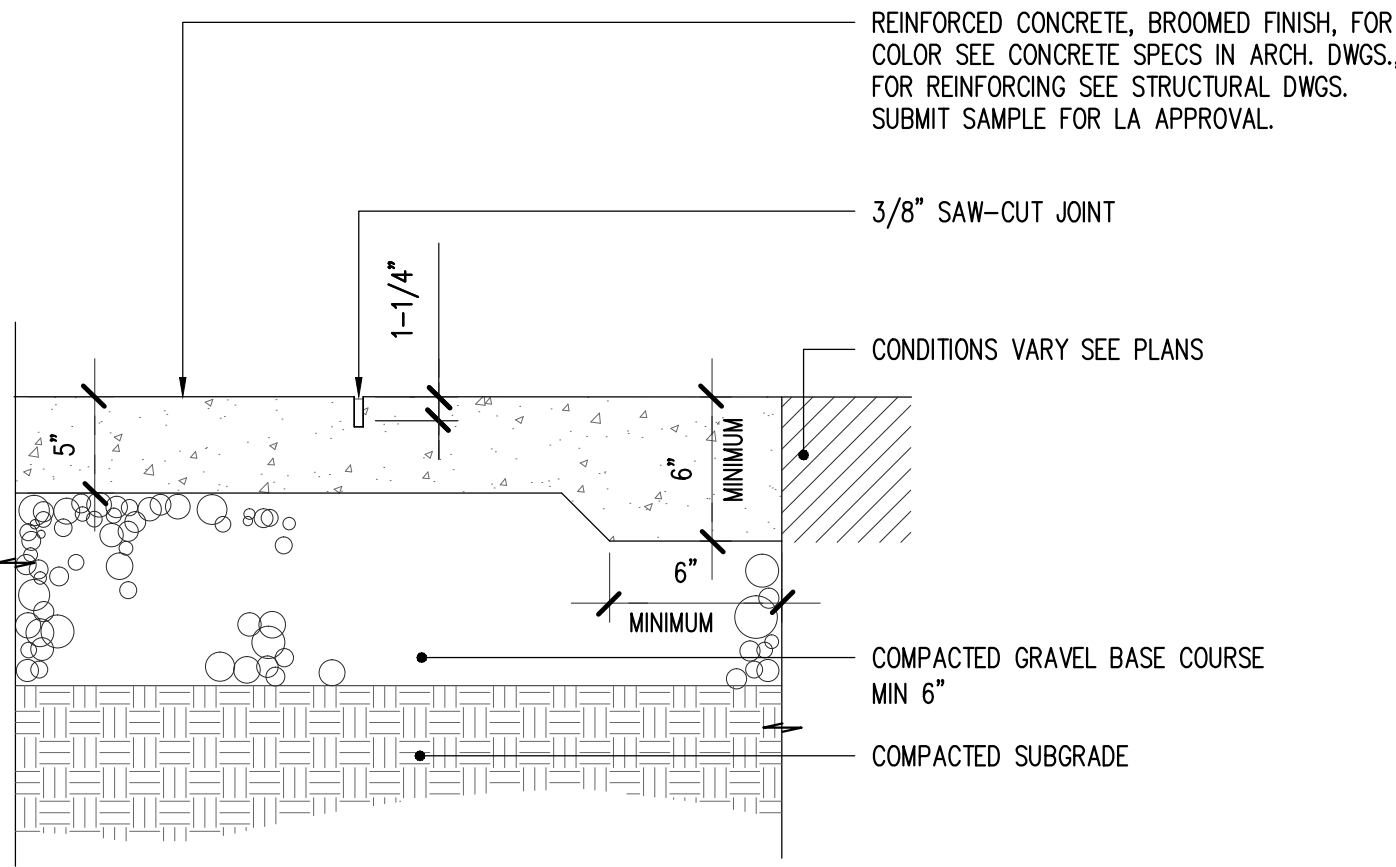
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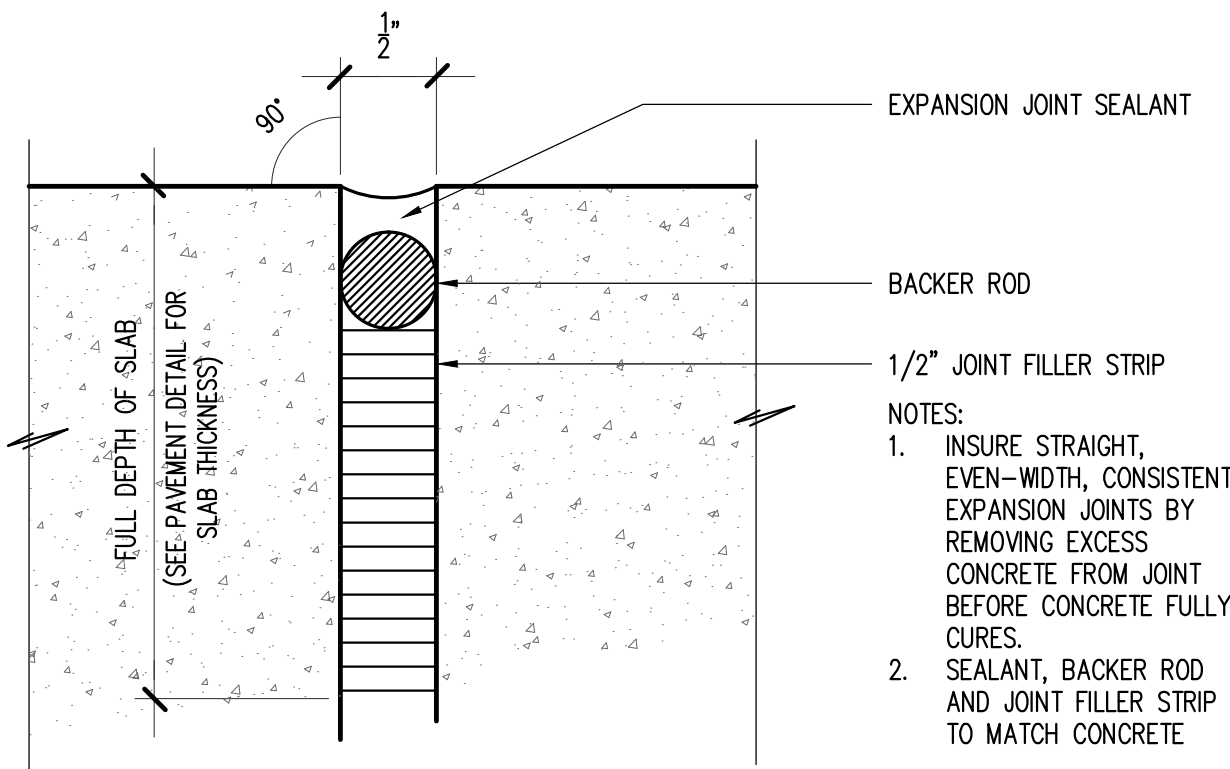
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WALL ELEVATIONS

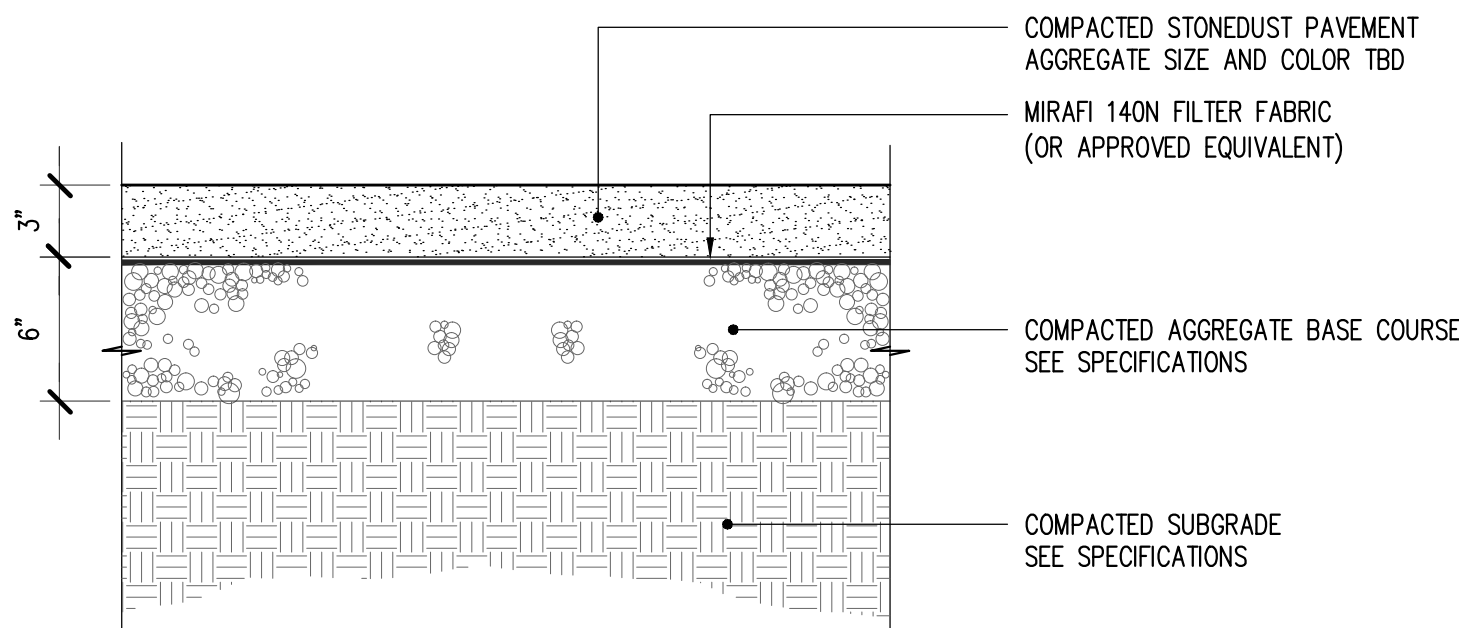
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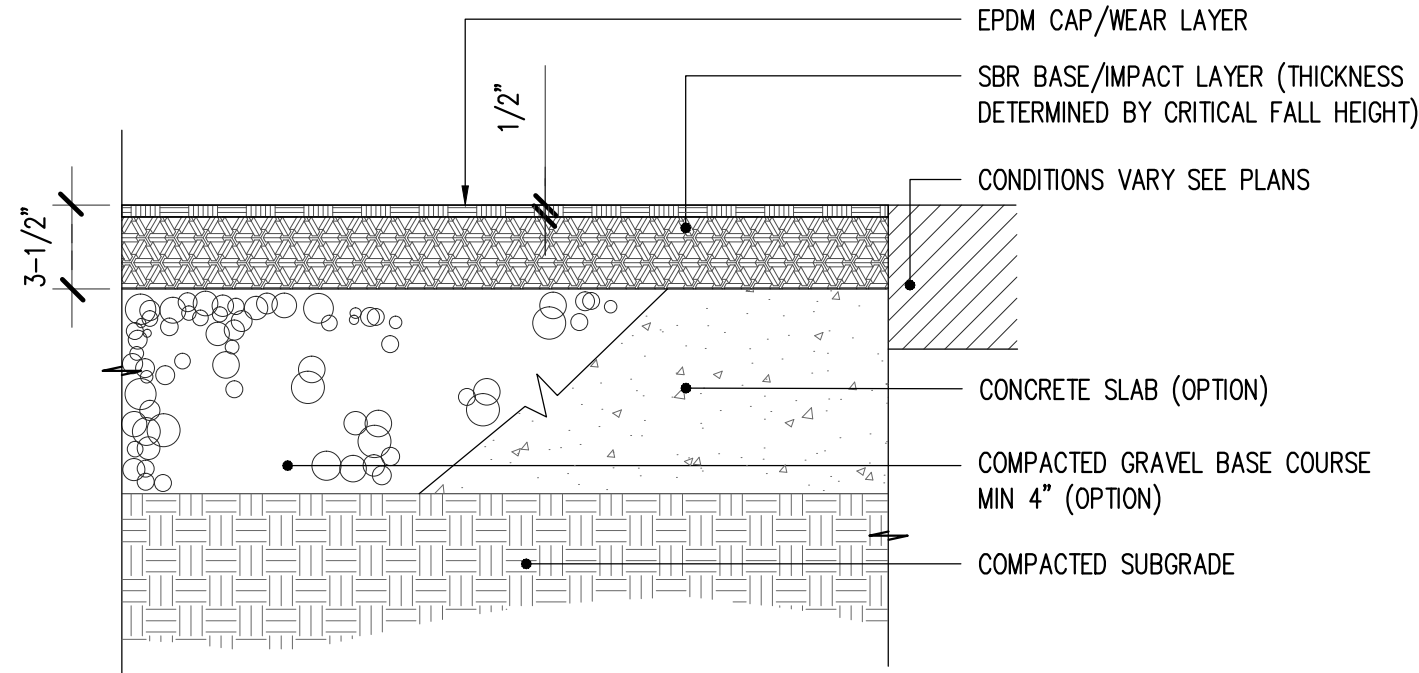
1 C.I.P. CONCRETE PAVING
1-1/2"=1'-0"



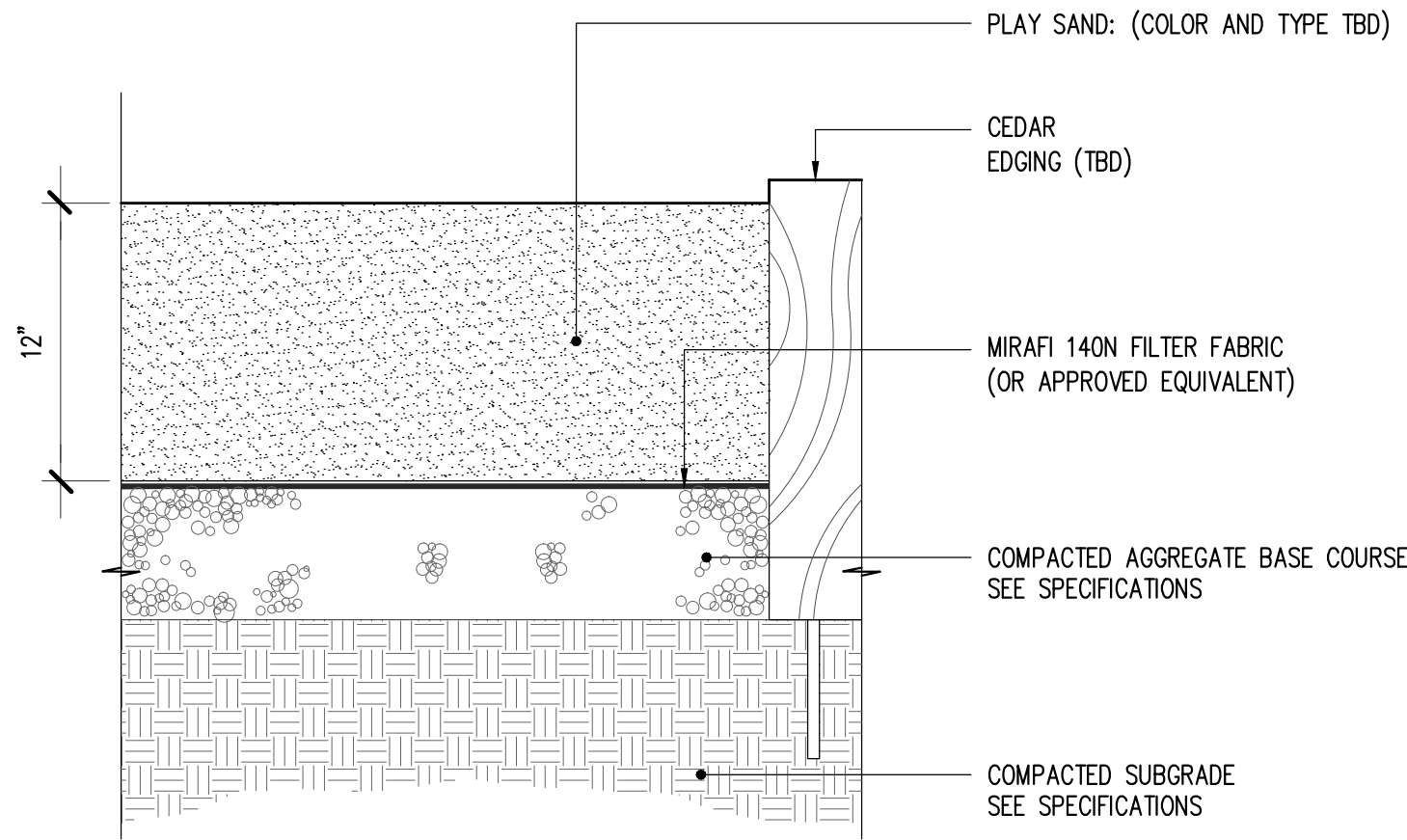
2 EXPANSION JOINT
1"-0" = 1'-0"



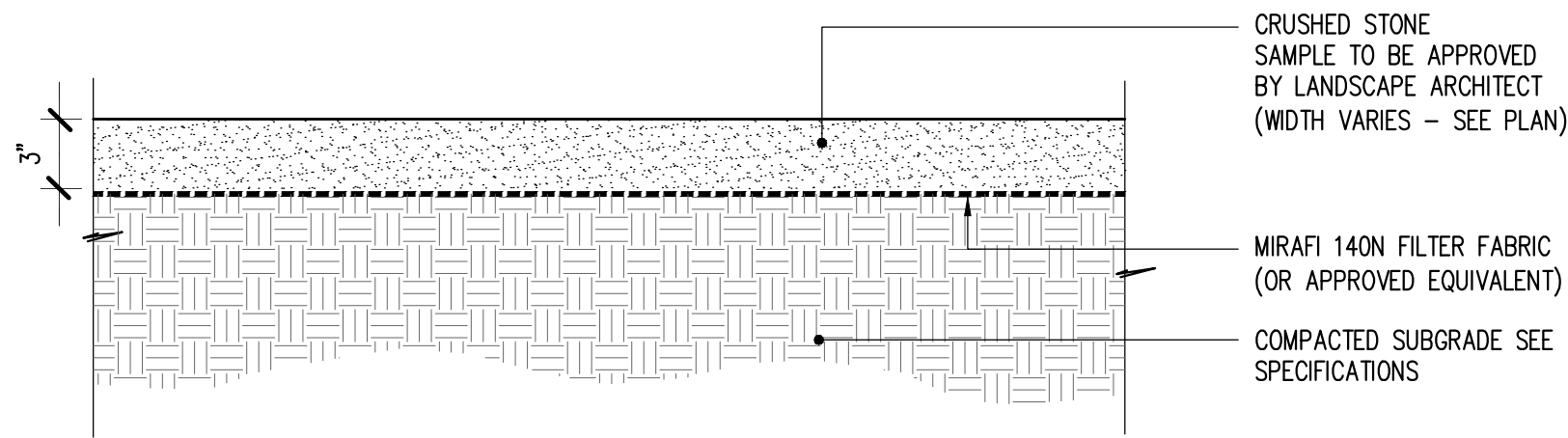
3 STONE DUST PATH
1-1/2"=1'-0"



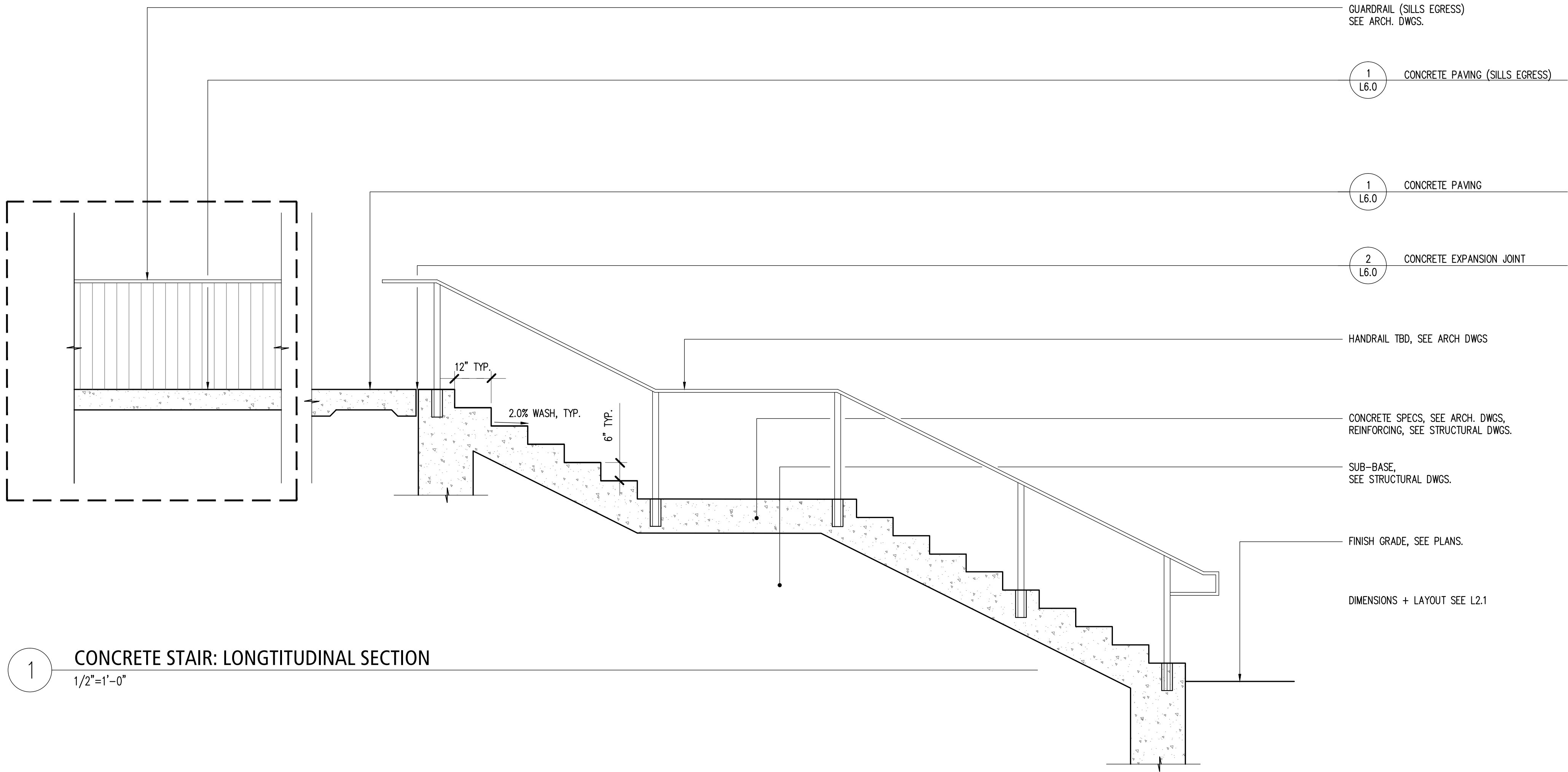
4 IMPERVIOUS PLAYGROUND SURFACE: (POURED IN PLACE RUBBER OPTION)
1-1/2"=1'-0"



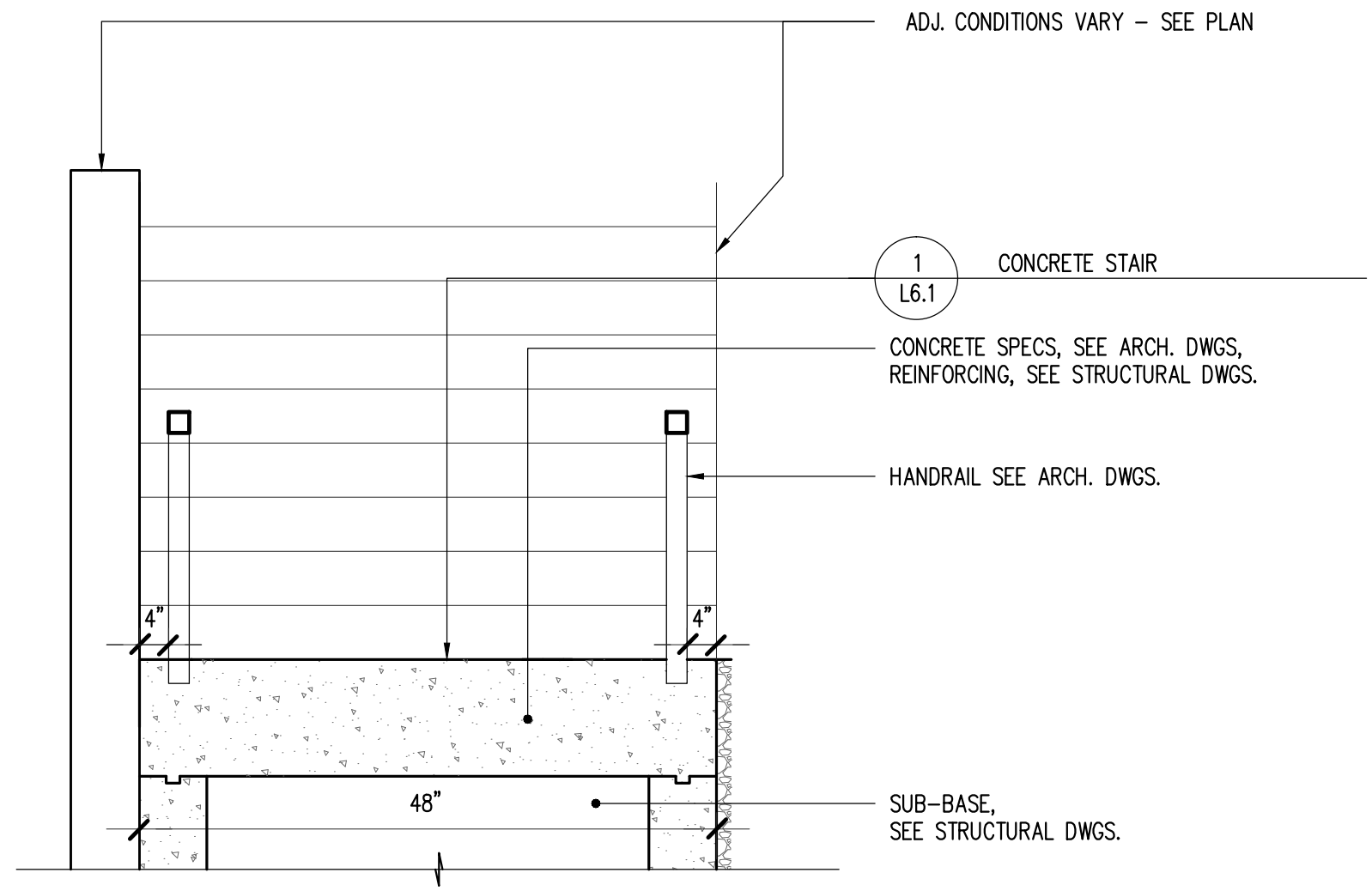
5 NATURAL PLAYGROUND
1-1/2"=1'-0"



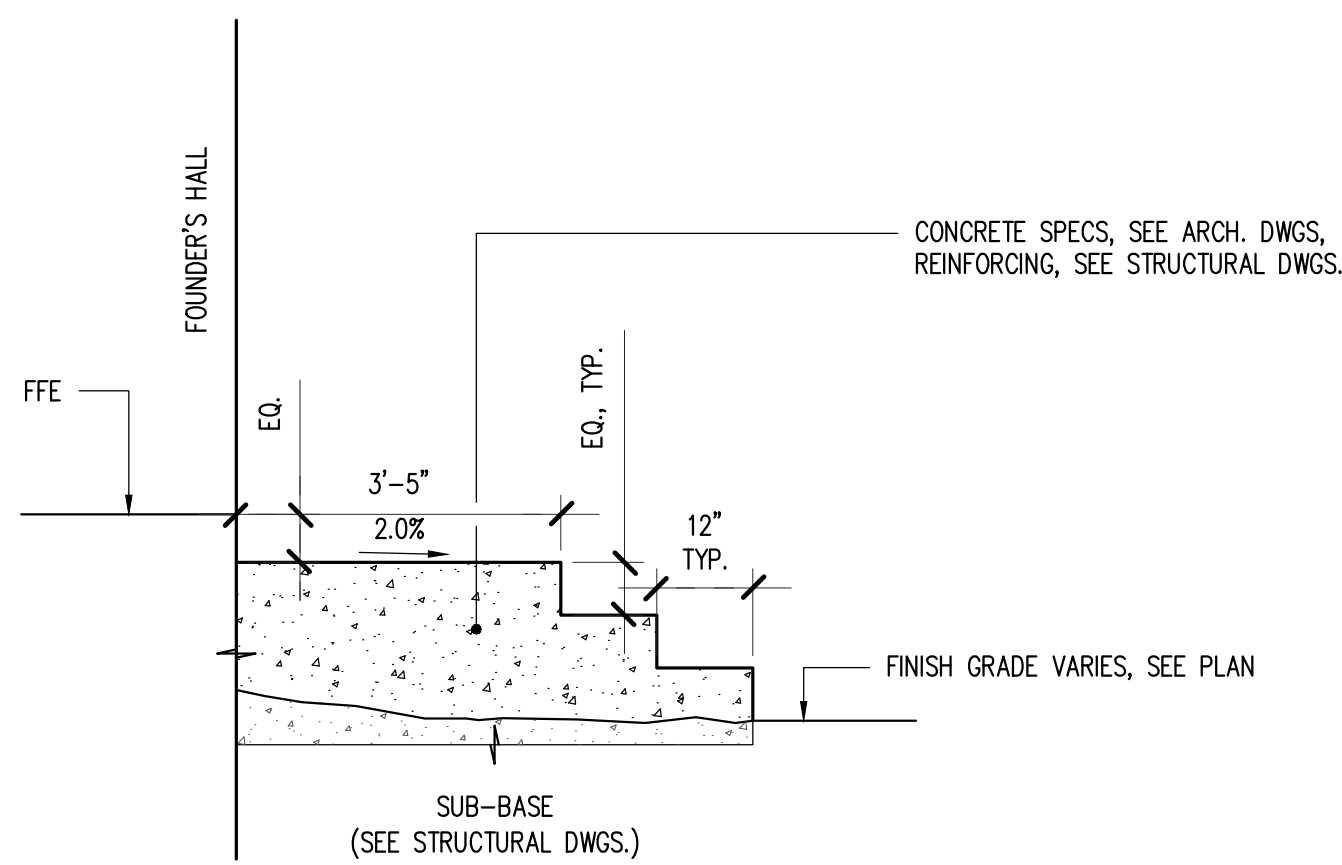
6 CRUSHED STONE PATH
1-1/2"=1'-0"



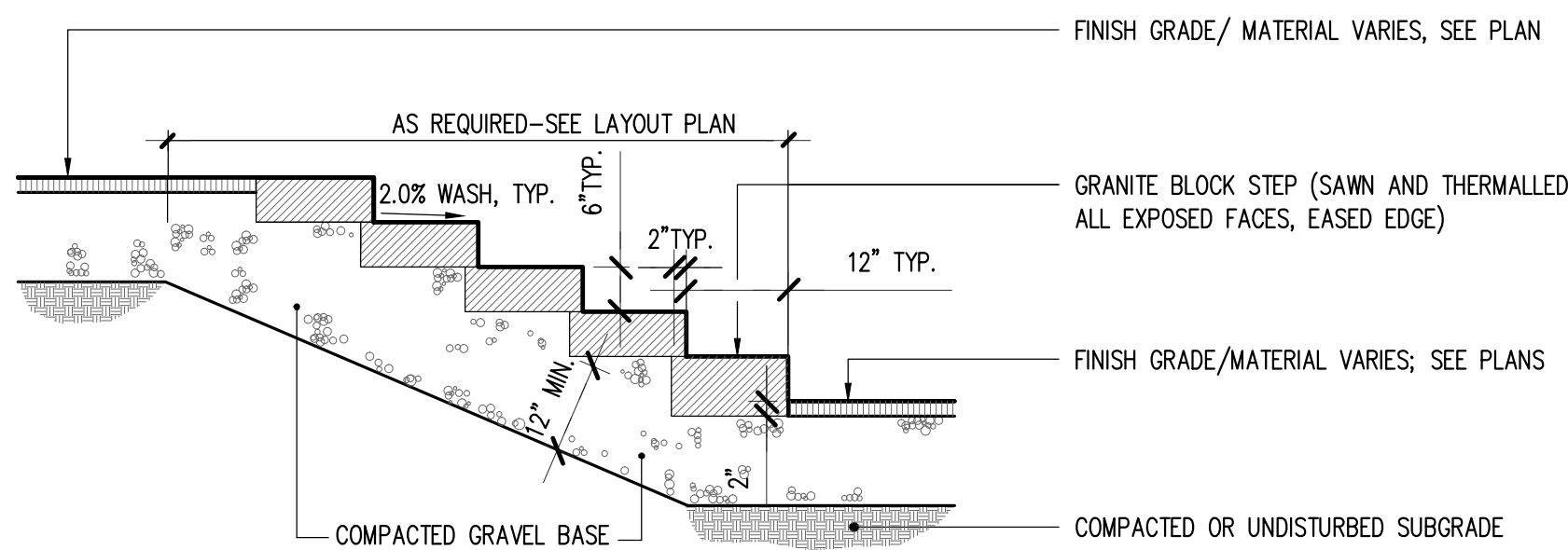
1 CONCRETE STAIR: LONGTITUDINAL SECTION
1/2"=1'-0"



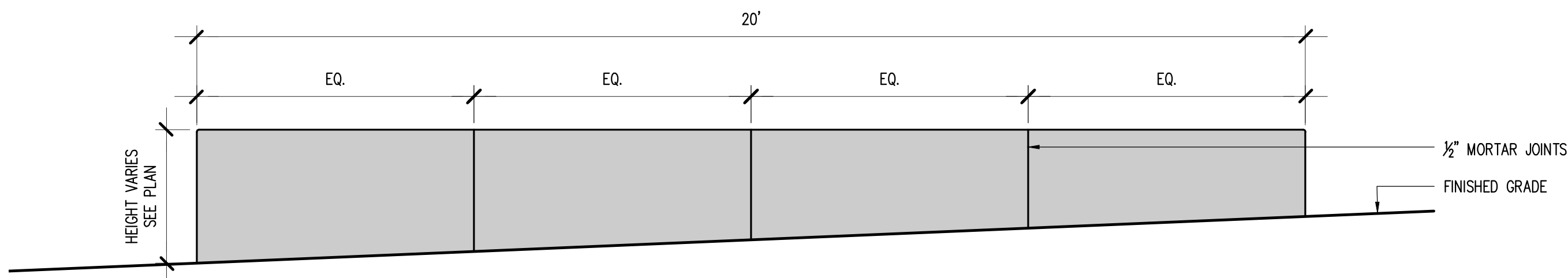
2 CONCRETE STAIR: LATERAL SECTION
1/2"=1'-0"



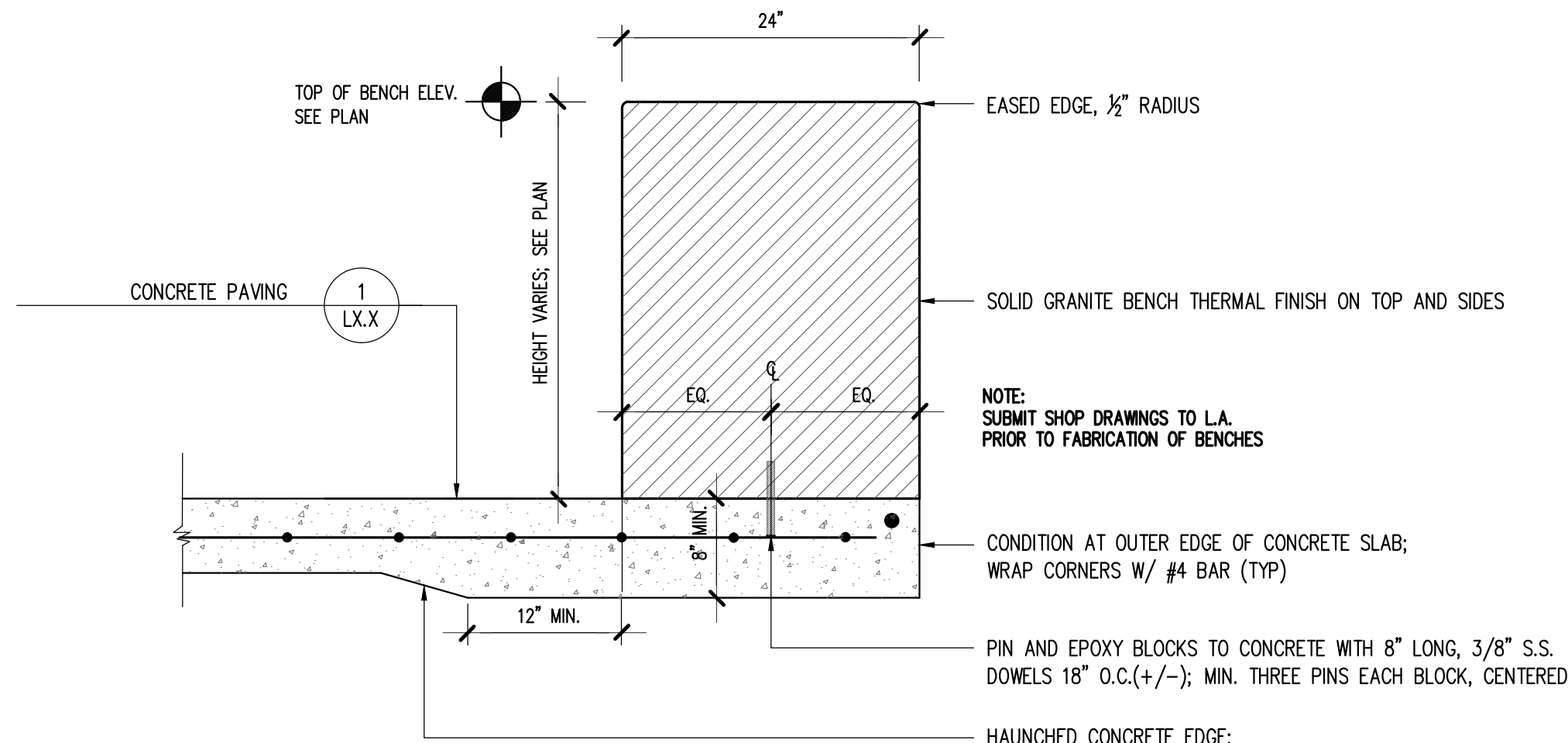
3 CONCRETE STAIR: LATERAL SECTION
1/2"=1'-0"



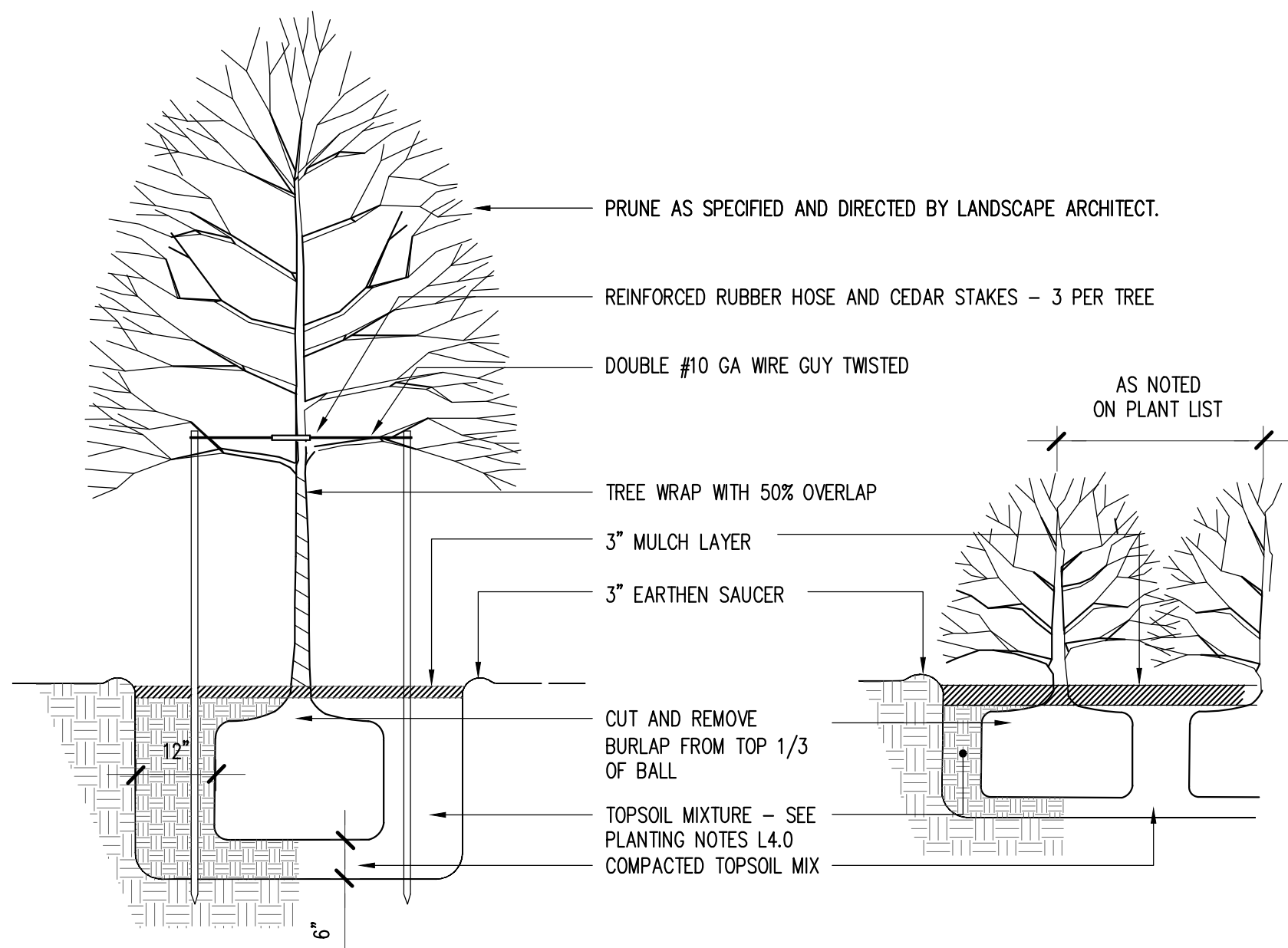
4 GRANITE STEPS-DRYLAI
1/2"=1'-0"



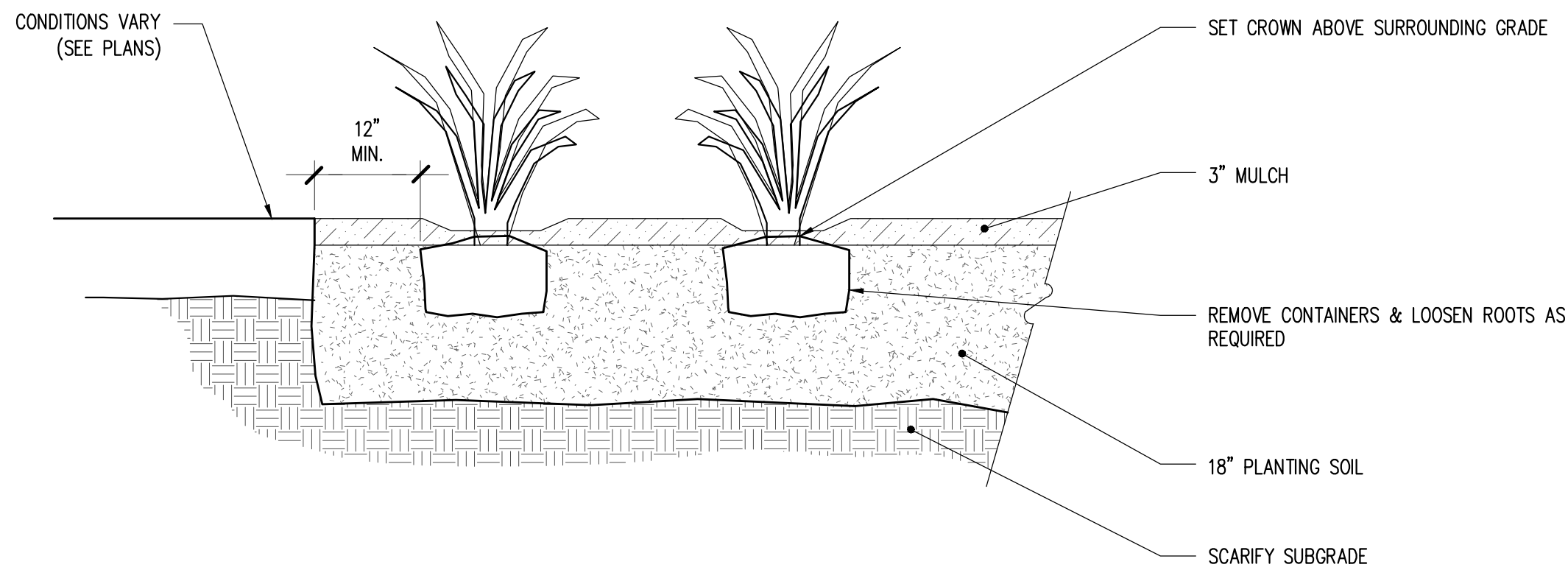
1 GRANITE SEAT WALL: SE ELEVATION
1/2"=1'-0"



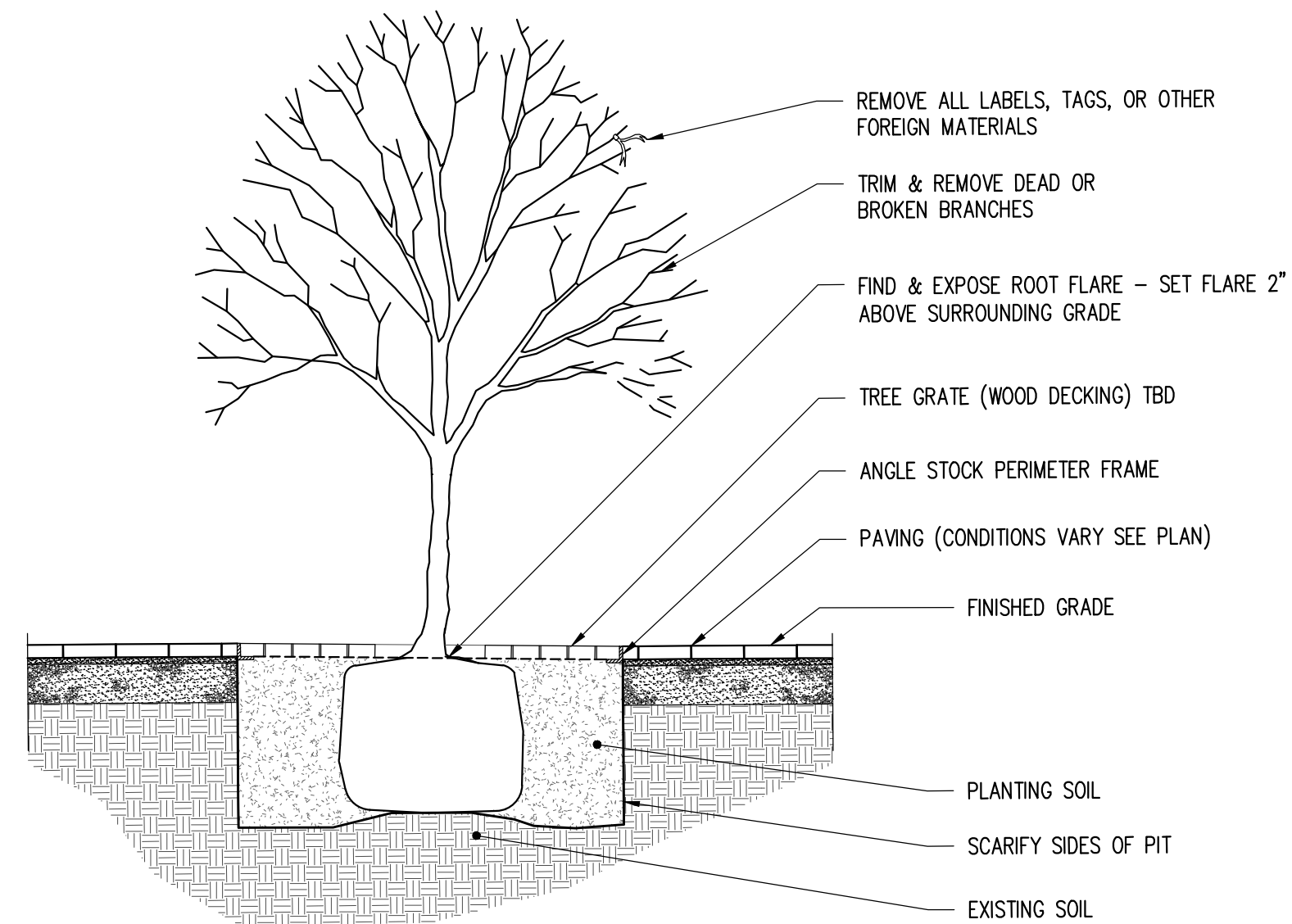
2 GRANITE SEAT WALL: SECTION
1"=1'-0"



3 TREE + SHRUB PLANTING DETAIL
NTS

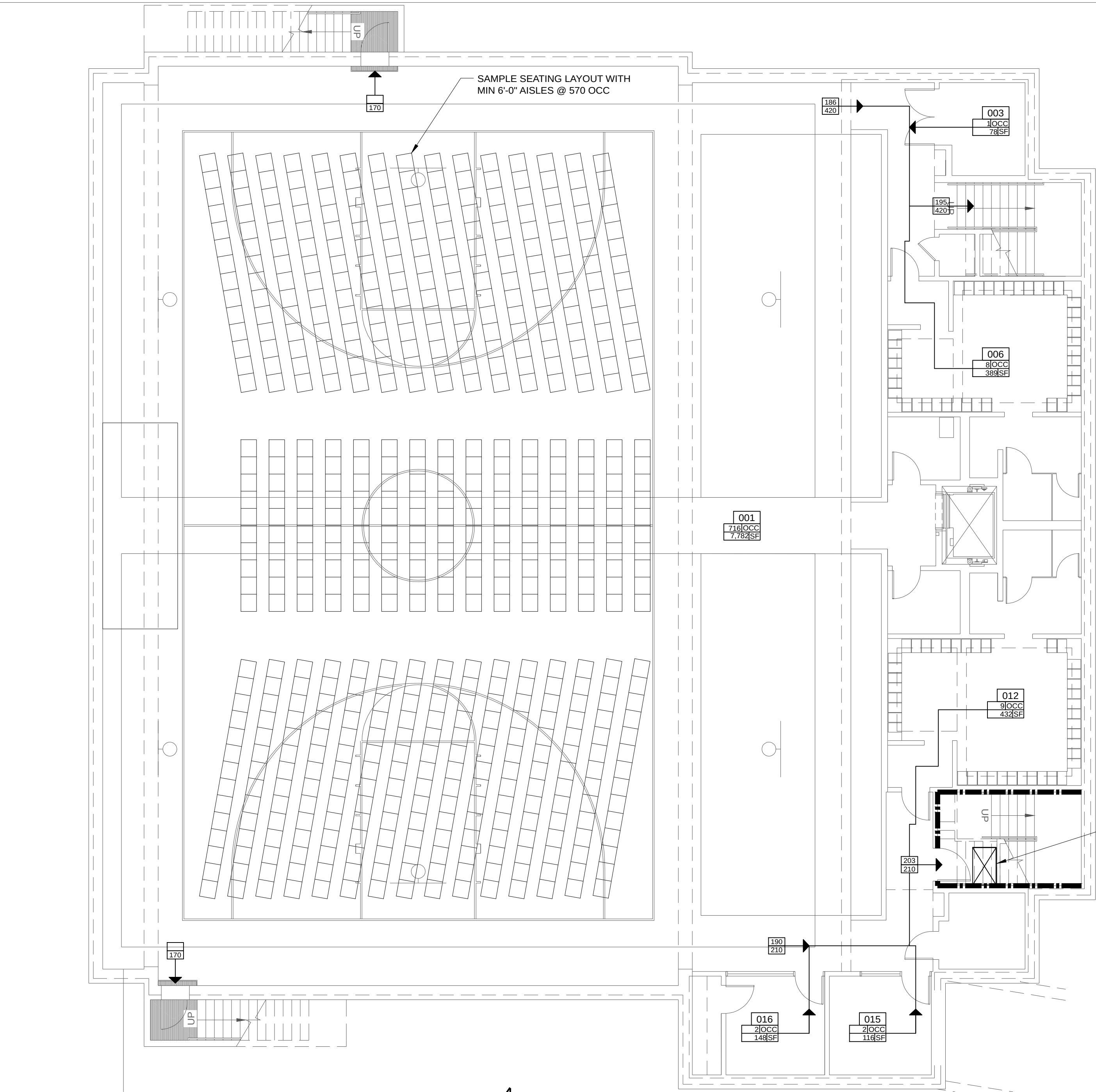


4 GROUNDCOVER PLANTING DETAIL
NTS



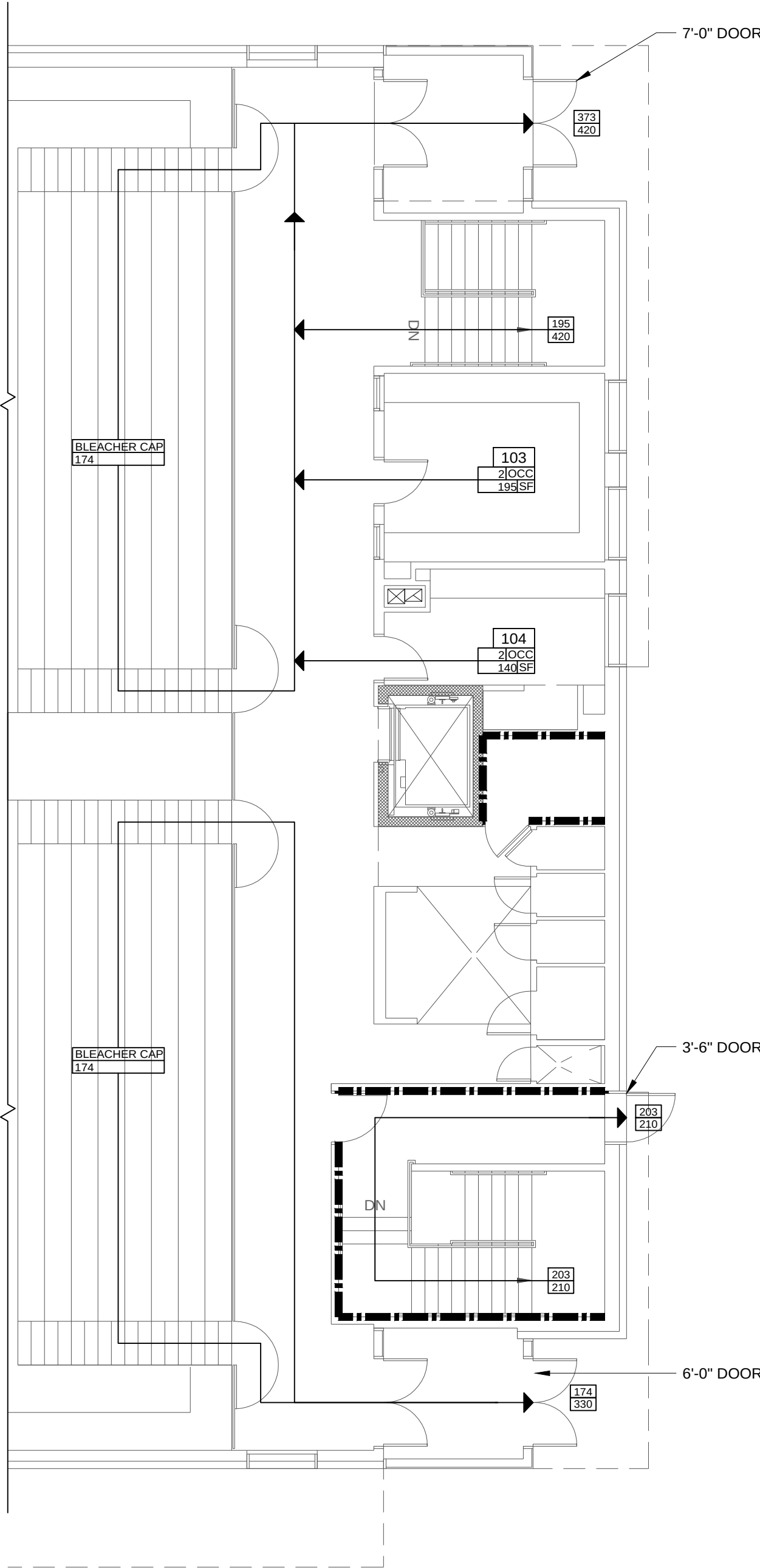
- NOTES:
1. TREE TO BE SET PLUMB.
 2. SECURE TREE AS MAY BE REQUIRED ACCORDING TO TREE SIZE, LOCATION, & WIND/WEATHER CONDITIONS.
 3. IF USING ROOTBALL STABILIZATION, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

5 TREE PIT WITH WOODEN TREE GRATE DETAIL
NTS



GYMNASIUM OCCUPANCY CALCULATIONS:
OPTION A:
TOTAL OCCUPIABLE GYM AREA WITH BLEACHERS CLOSED: 7782 SF
7782 / 7 SF = 1111 OCC
OPTION B:
TOTAL OCCUPIABLE GYM AREA WITH BLEACHERS OPEN: 6542 SF
6542 / 7 SF = 934 OCC
BLEACHER CAPACITY: 348 OCC
TOTAL OCCUPANTS: 1282 OCC

30'x48" AREA OF REFUGE



LIFE SAFETY PLAN LEGEND

SEE A102 FOR PARTITION TYPES

FE FIRE EXTINGUISHER
ROOM NUMBER
OCC OCCUPANTS
SF ROOM AREA

OCCUPANT EGRESS LOAD AT DOOR
DOOR OCCUPANT CAPACITY
↓ DIRECTION OF EGRESS

1-HOUR FIRE RATED SEPARATION WITH 1 HOUR OPENINGS

SMOKE SEPARATION WITH 20 MINUTE OPENINGS

1 LOWER LEVEL LIFE SAFETY PLAN
SCALE: 1/8" = 1'-0"

2 MEZZANINE LEVEL LIFE SAFETY PLAN
SCALE: 1/8" = 1'-0"

CODE SUMMARY

APPLICABLE CODES

Maine Uniform Building and Energy Code "MUBEC"
Consists of the following applicable codes:

2009 International Building Code (IBC)
2009 International Existing Building Code (IEBC)
2009 International Energy Conservation Code (IECC)
2007 ASHRAE 62.1 (Ventilation for Acceptable Indoor Air Quality)
2007 ASHRAE90.1 - (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda.
E-1465-2006, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
Maine State Internal Plumbing Code based on the 2009 Uniform Plumbing Code
State of Maine Subsurface Wastewater Disposal Rules Version dated: Jan 18, 2011
2011 National Electrical Code (NEC)

Fire/ Life Safety

NFPA Life Safety Code as adopted by the State of Maine
Including but not limited to:

2009 NFPA 101: Life Safety Code
2007 NFPA 13: Installation of Sprinkler Systems, [2010 Edition through Equivalency]

Accessibility

2010 ADA Standards for Accessible Design

NOTE: All Codes shall include changes/amendments by the State of Maine

OCCUPANCY CLASSIFICATION (IBC Sec 302, 303, 304) (NFPA)
Assembly A-3

AUTOMATIC SUPPRESSION SYSTEM (NFPA 13)

Automatic sprinkler system provide per NFPA 13 throughout

GENERAL BUILDING INFORMATION AND ALLOWABLE BUILDING HEIGHTS AND AREA

(IBC Chapter 5, Table 503) (NFPA)

Building Height (To mid-height of the roof) - 2 Stories
Total Area 12,580
Perimeter 436'

Allowable Building Height
55' Maximum + 20' (Sprinkler Benefit) = 75'
2 Stories Maximum + 1 (Sprinkler Benefit) = 3 Stories

Allowable Building Area

	OCCUPANCY (PER IBC CHAPTER 3)	CONSTRUCTION TYPE (PER IBC CHAPTER 6)	ALLOWABLE AREA (IBC TABLE 503 MODIFIED PER IBC 506)	ACTUAL AREA
LOWER FLOOR LEVEL	A-3	IIB	9,500 TABULAR 28,000 ALLOWABLE	10,250 NEW
GROUND FLOOR LEVEL	A-3	IIB	9,500 TABULAR 28,000 ALLOWABLE	2,330 NEW

Building Area Modifications (IBC Sec 506.1, 506.2, 506.3)

Automatic Sprinkler Increase (IBC 506.3)

Taken; 200% Increase

REQUIRED OCCUPANCY SEPARATIONS

(IBC Table 508.4) (NFPA)
A-3 + E (None)

TYPES OF CONSTRUCTION

(IBC Table 601, Sec 602) (NFPA 220)
Type IIB

FIRE RESISTIVE RATINGS

(IBC Table 601) (NFPA Table A.8.2.1.2)

	TYPE IIB	II (0,0,0)
STRUCTURAL FRAME	0	0
BEARING WALLS, EXTERIOR AND INTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, EXTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, INTERIOR		
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0	0

OCCUPANCY LOAD

(IBC Table 1004.1.1) (NFPA)
Business B 100 Gross Sqft per Occupant
Gym Assembly A-3 7 Net Sqft per Occupant
Exercise Rooms 50 Gross Sqft per Occupant
Locker Rooms 50 Gross Sqft per Occupant
Accessory Storage 300 Gross Sqft per Occupant
Mechanical 300 Gross Sqft per Occupant
Stage 15 Net Sqft per Occupant

MEANS OF EGRESS (IBC Chapter 10)

EGRESS WIDTH PER OCCUPANT

(IBC 1005.1) (IEBC Table 1301.6.11(1))

0.3 Inches per occupant for stairways
0.2 Inches for other egress components

STAIRWAY WIDTH

(IEBC 1301.6.11)
0.3 Inches per occupant

EXIT ACCESS

Common path of egress travel

(IBC 1014.3) (IBC 1028.8)
For Assembly <30'
For Business <75'

Corridor Fire Resistance

(IBC 1018.1)
1 hour

Corridor Width

(IBC 1018.2)
Not less than 44"

Dead-End Corridor

(IEBC 705.6)
Dead-end corridors in occupancy E ≤50'
Dead-end corridors in occupancy A-3 ≤20'

Travel distance to exit: 250'

PLUMBING FIXTURE COUNT

(IBC Table 2902.1)



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PROJECT NAME:

WAYNFLETE GYM

NEW CONSTRUCTION

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

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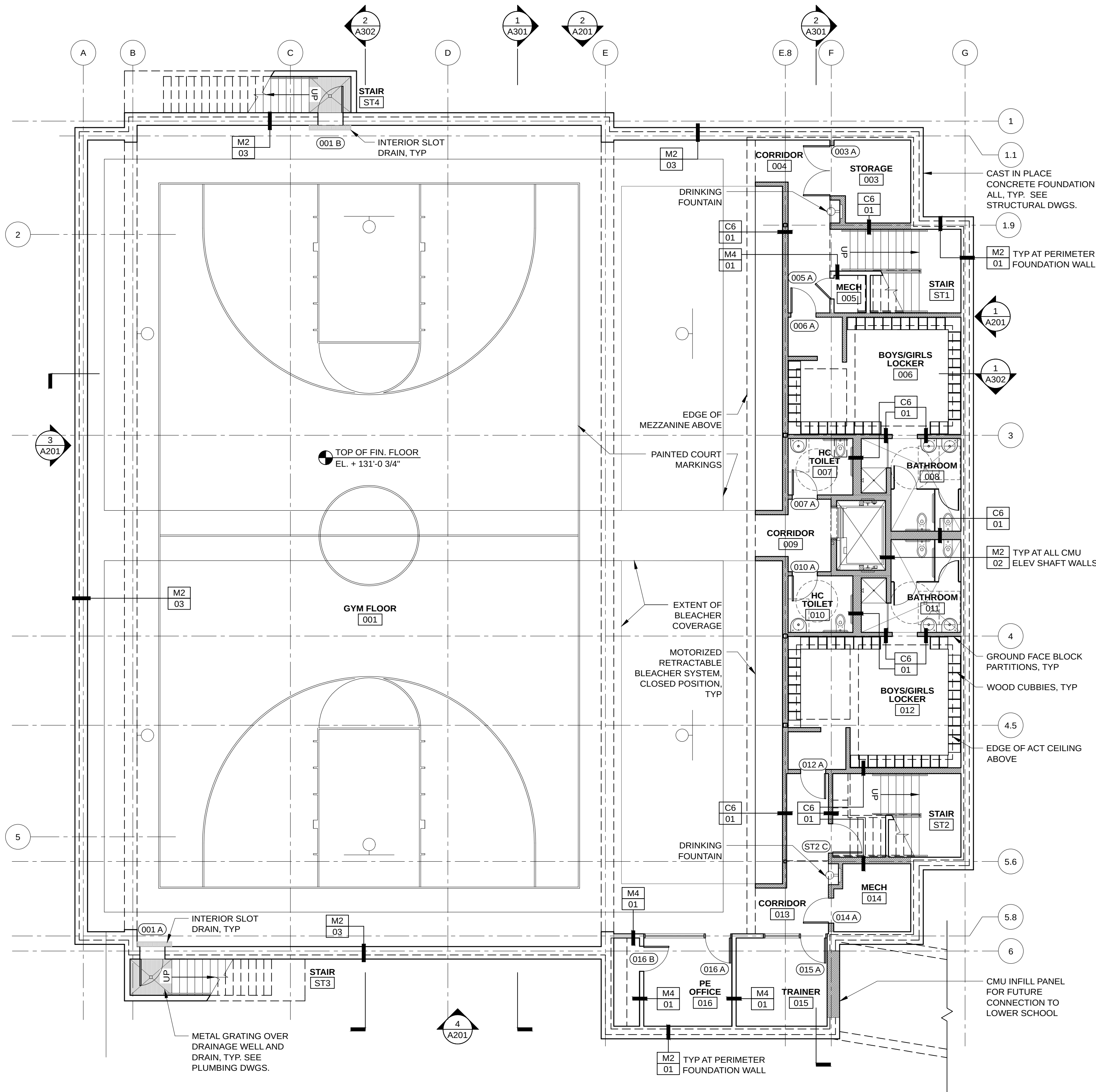
DATE OF ISSUE: 16 FEBRUARY 2016

PROJECT NUMBER: 2014-0080

STATUS: PLANNING BOARD SUBMISSION

LIFE SAFETY PLAN + CODE ANALYSIS

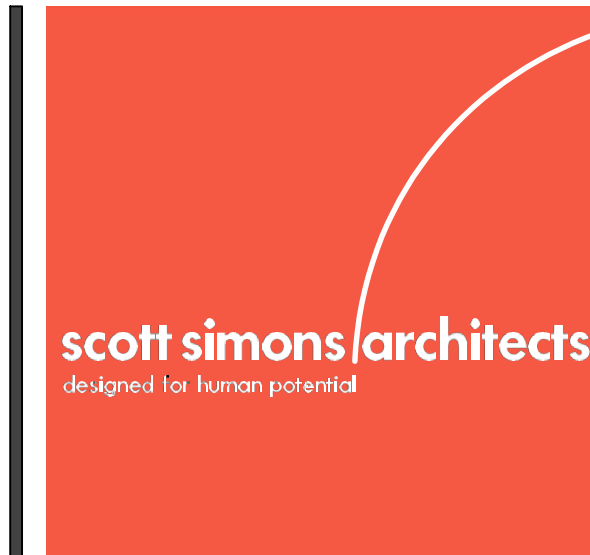
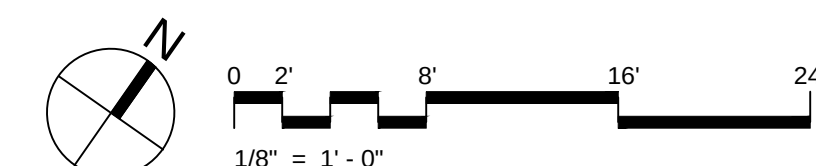
G002



1 LOWER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

2 MEZZANINE LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"

PARTITION TYPES			
M4 01		M2 01	
UL# --- RATING --- MINS	NOTE: EXTEND TO UNDERSIDE OF DECK ABOVE	UL# --- RATING --- MINS	NOTE: SHIM AS REQUIRED
M4 02		M2 02	
UL# U305 RATING 60 MINS	NOTE: EXTEND TO UNDERSIDE OF DECK ABOVE; FIRE SEAL ALL JOINTS AND PENETRATIONS	UL# --- RATING --- MINS	
C6 01		M2 03	
UL# --- RATING --- MINS		UL# --- RATING --- MINS	



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PROJECT NAME:
WAYNFLETE GYM
NEW CONSTRUCTION
WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

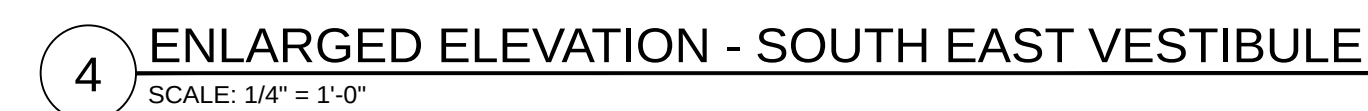
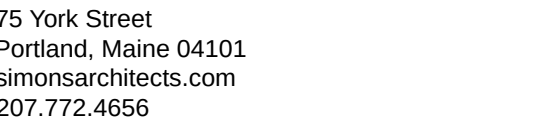
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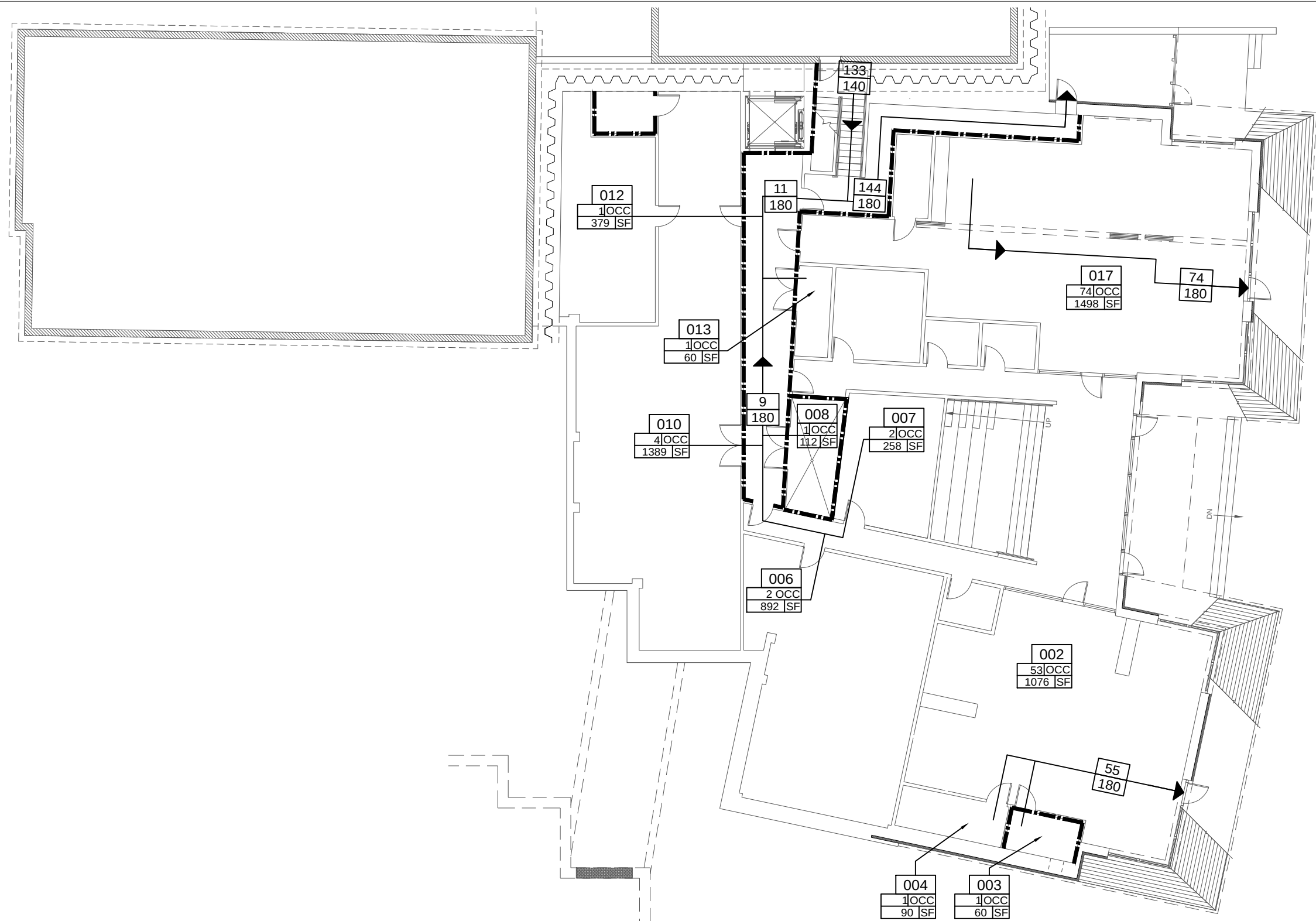
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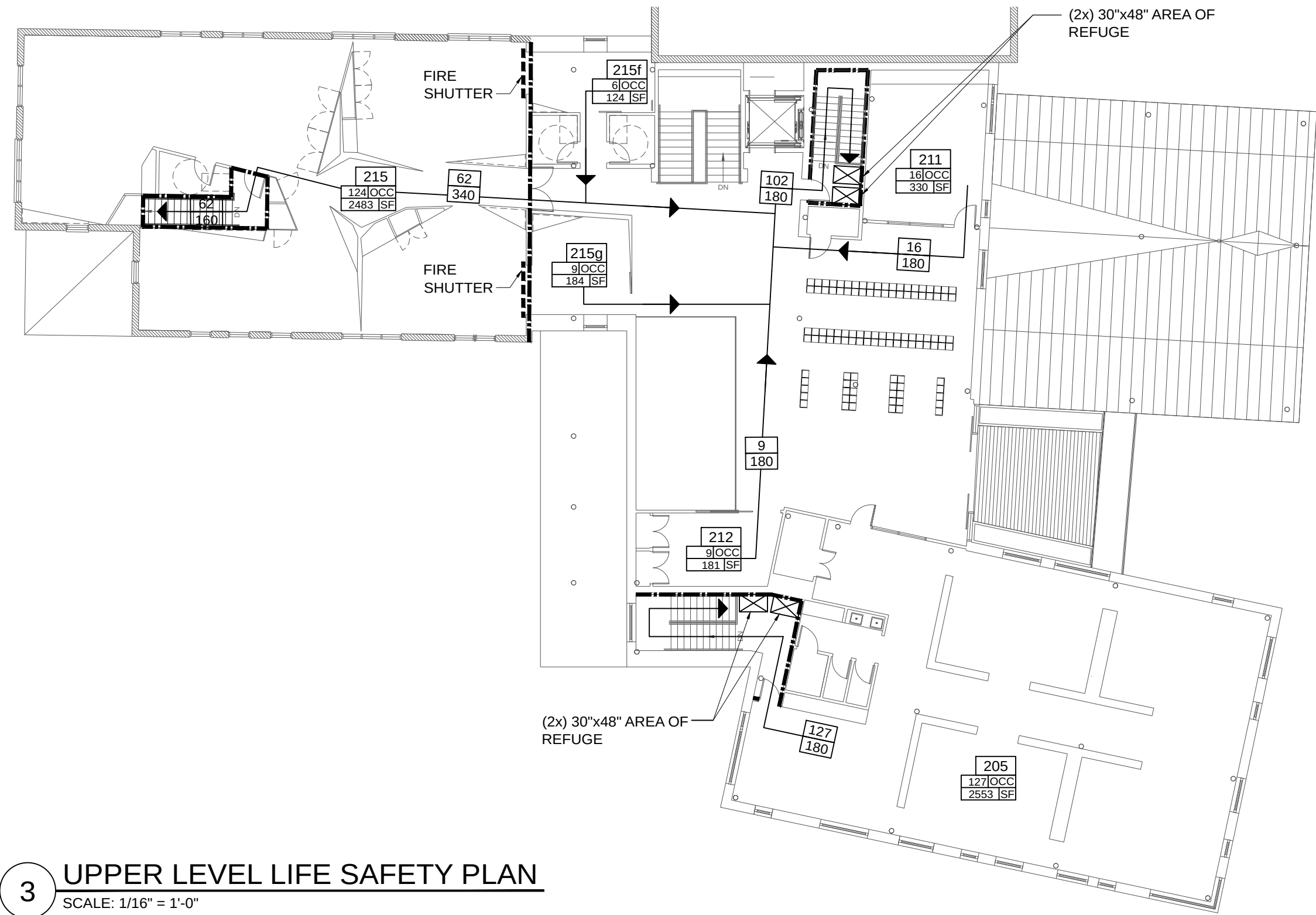
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PROJECT NUMBER:	2014-0080
STATUS:	PLANNING BOARD SUBMISSION

ELEVATIONS

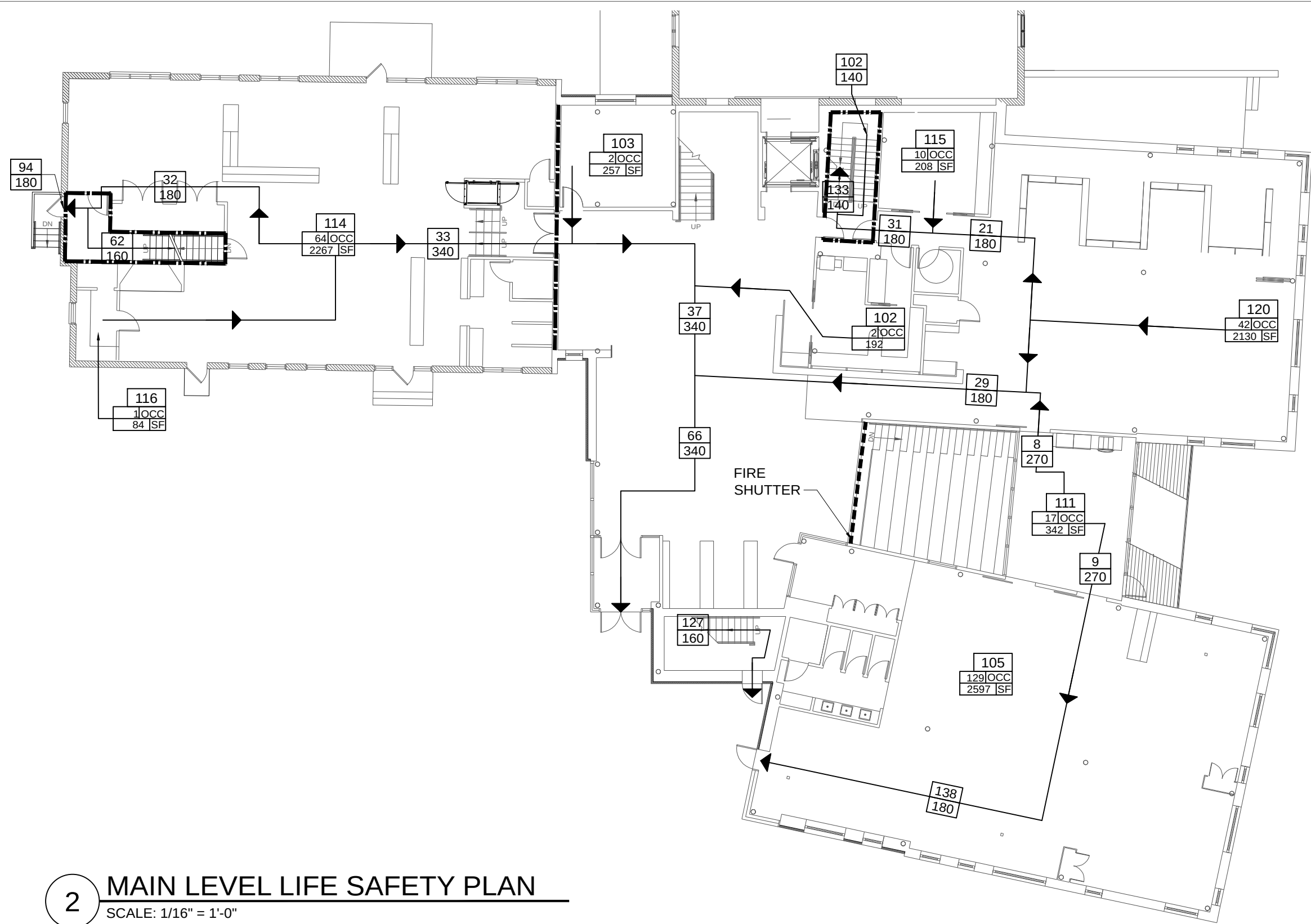
A201



1 LOWER LEVEL LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"



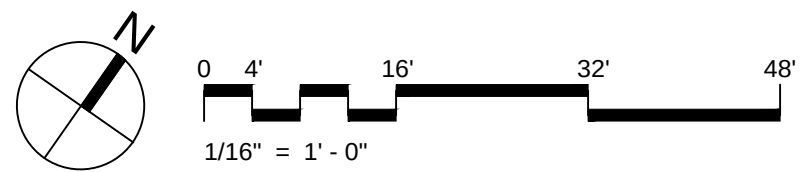
3 UPPER LEVEL LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"



2 MAIN LEVEL LIFE SAFETY PLAN
SCALE: 1/16" = 1'-0"

LIFE SAFETY PLAN LEGEND

- SEE A102 FOR PARTITION TYPES
- FIRE EXTINGUISHER
 - ROOM NUMBER
 - OCCUPANTS
 - ROOM AREA
 - OCCUPANT EGRESS LOAD AT DOOR
 - DOOR OCCUPANT CAPACITY
 - DIRECTION OF EGRESS
 - 1-HOUR FIRE RATED SEPARATION WITH 1 HOUR OPENINGS
 - SMOKE SEPARATION WITH 20 MINUTE OPENINGS



CODE SUMMARY

APPLICABLE CODES

Maine Uniform Building and Energy Code "MUBEC"
Consists of the following applicable codes:

2009 International Building Code (IBC)
2009 International Existing Building Code (IEBC)
2009 International Energy Conservation Code (IECC)
2007 ASHRAE 62.1 (Ventilation for Acceptable Indoor Air Quality)
2007 ASHRAE 90.1 - (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda.
E-1465-2006, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
Maine State Internal Plumbing Code based on the 2009 Uniform Plumbing Code
State of Maine Subsurface Wastewater Disposal Rules Version dated: Jan 18, 2011
2011 National Electrical Code (NEC)

Fire/ Life Safety

NFPA Life Safety Code as adopted by the State of Maine
Including but not limited to:

2009 NFPA 101: Life Safety Code
2007 NFPA 13: Installation of Sprinkler Systems, [2010 Edition through Equivalency]

Accessibility

2010 ADA Standards for Accessible Design

NOTE: All Codes shall include changes/amendments by the State of Maine

OCCUPANCY CLASSIFICATION (IBC Sec 302, 303, 304) (NFPA)

Assembly A-3
Educational E

AUTOMATIC SUPPRESSION SYSTEM

(NFPA 13)

Automatic sprinkler system provide per NFPA 13 throughout

GENERAL BUILDING INFORMATION AND ALLOWABLE BUILDING HEIGHTS AND AREA

(IBC Chapter 5, Table 503) (NFPA)

Building Height (To mid-height of the roof) - 2 Stories
Total Area 30,470
Perimeter 469'

Allowable Building Height
55' Maximum + 20' (Sprinkler Benefit) = 75'
2 Stories Maximum + 1 (Sprinkler Benefit) = 3 Stories

Allowable Building Area	OCCUPANCY (PER IBC CHAPTER 3)	CONSTRUCTION TYPE (PER IBC CHAPTER 6)	ALLOWABLE AREA (IBC TABLE 503 MODIFIED PER IBC 506)	ACTUAL AREA
LOWER LEVEL	A-3	IIB	9,500 TABULAR	10,434 NEW
			28,000 ALLOWABLE	
GROUND FLOOR LEVEL	A-3	IIB	9,500 TABULAR	10,332 NEW
			28,000 ALLOWABLE	
UPPER FLOOR	A-3	IIB	9,500 TABULAR	9,704 NEW
			28,000 ALLOWABLE	

Building Area Modifications

(IBC Sec 506.1, 506.2, 506.3)

Automatic Sprinkler Increase (IBC 506.3)

Taken; 200% Increase

REQUIRED OCCUPANCY SEPARATIONS

(IBC Table 508.4)
(NFPA)
A-3 + E (None)

TYPES OF CONSTRUCTION

(IBC Table 601, Sec 602)
(NFPA 220)
Type IIB

FIRE RESISTIVE RATINGS

(IBC Table 601)
(NFPA Table A.3.2.1.2)

	TYPE IIB	II (0,0,0)
STRUCTURAL FRAME	0	0
BEARING WALLS, EXTERIOR AND INTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, EXTERIOR	0	0
NON-BEARING WALLS AND PARTITIONS, INTERIOR	0	0
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0	0

OCCUPANCY LOAD

(IBC Table 1004.1.1)
(NFPA)

Business B 100 Gross Sqft per Occupant
Assembly A-3
Classroom 20 Net Sqft per Occupant
Daycare 35 Net Sqft per Occupant
Gym 7 Net Sqft per Occupant
Exercise Rooms 50 Gross Sqft per Occupant
Locker Rooms 50 Gross Sqft per Occupant
Accessory Storage 300 Gross Sqft per Occupant
Mechanical 300 Gross Sqft per Occupant
Stage 15 Net Sqft per Occupant

MEANS OF EGRESS

(IBC Chapter 10)

EGRESS WIDTH PER OCCUPANT

(IBC 1009.1)
(IEBC Table 1301.6.11(1))

0.3 Inches per occupant for stairways
0.2 Inches for other egress components

STAIRWAY WIDTH

(IEBC 1301.6.11)
0.3 Inches per occupant

EXIT ACCESS

Common path of egress travel

(IBC 1014.3)
(IBC 1028.8)
For Assembly <30'
For Business <75'

Corridor Fire Resistance

(IBC 1018.1)
1 hour

Corridor Width

(IBC 1018.2)
Not less than 44"
Not less than 36" when less than 50 occupants

Dead-End Corridor

(IEBC 705.6)
Dead-end corridors in occupancy E ≤50'
Dead-end corridors in occupancy A-3 ≤20'

Travel distance to exit: 250'

PLUMBING FIXTURE COUNT



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207.772.4656

PROJECT NAME:

WAYNFLETE
LOWER SCHOOL
ADDITION & RENOVATIONS

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

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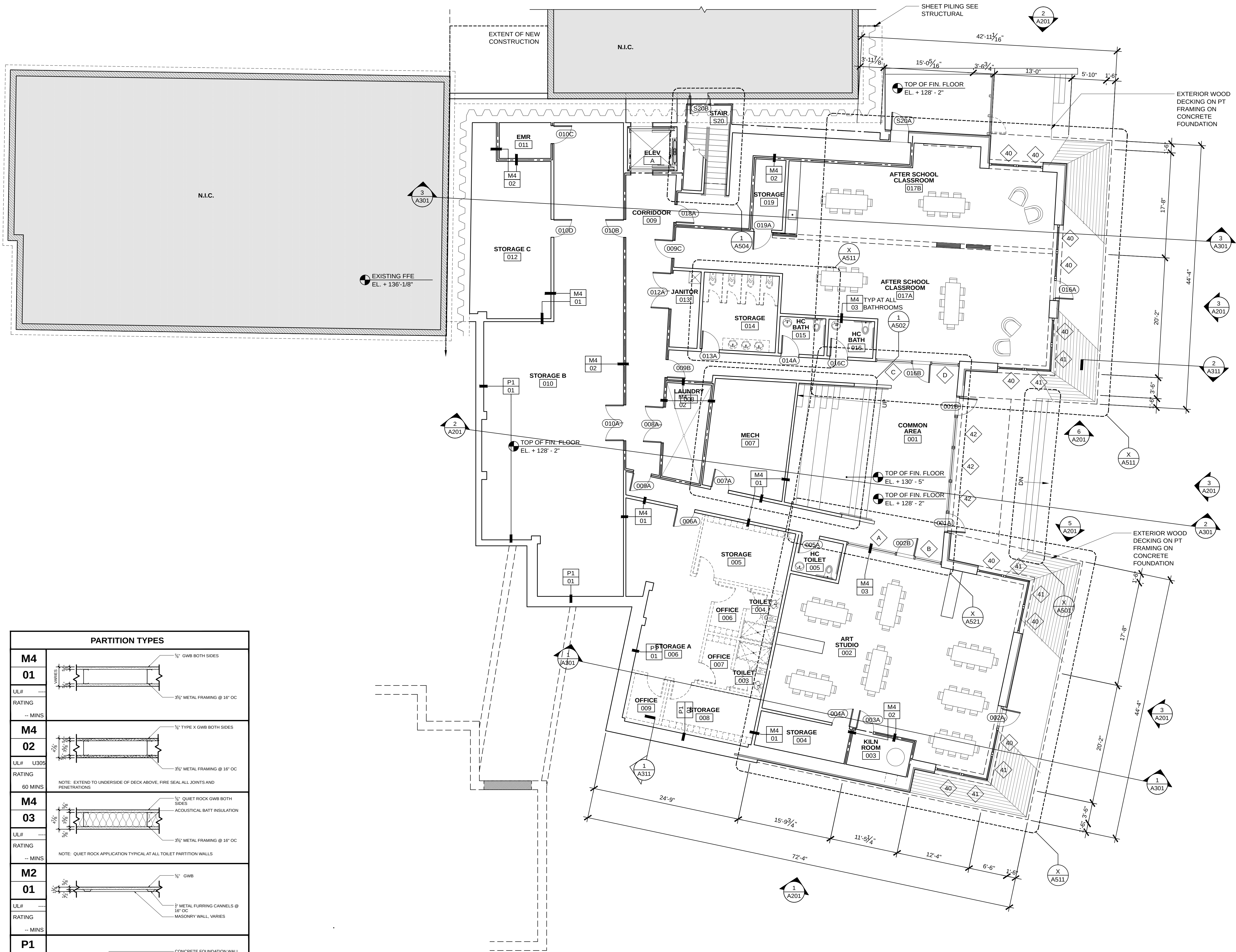
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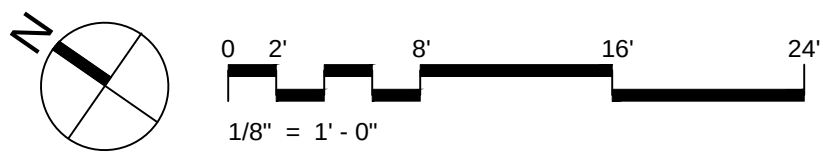
LIFE SAFETY PLAN +
CODE SUMMARY

G002



PARTITION TYPES	
M4 01	
UL#	---
RATING	-- MINS
M4 02	
UL#	U305
RATING	60 MINS
NOTE: EXTEND TO UNDERSIDE OF DECK ABOVE. FIRE SEAL ALL JOINTS AND PENETRATIONS	
M4 03	
UL#	---
RATING	-- MINS
NOTE: QUIET ROCK APPLICATION TYPICAL AT ALL TOILET PARTITION WALLS	
M2 01	
UL#	---
RATING	-- MINS
P1 01	
UL#	---
RATING	-- MINS
NOTE: BLOCK AND SHIM AS NECESSARY FOR PLUMB FINISH SURFACE. EXTEND TO TOP OF CONCRETE OR DECKING ABOVE	

1 LOWER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"



PROJECT NAME:
**WAYNFLETE
LOWER SCHOOL
ADDITION & RENOVATIONS**

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

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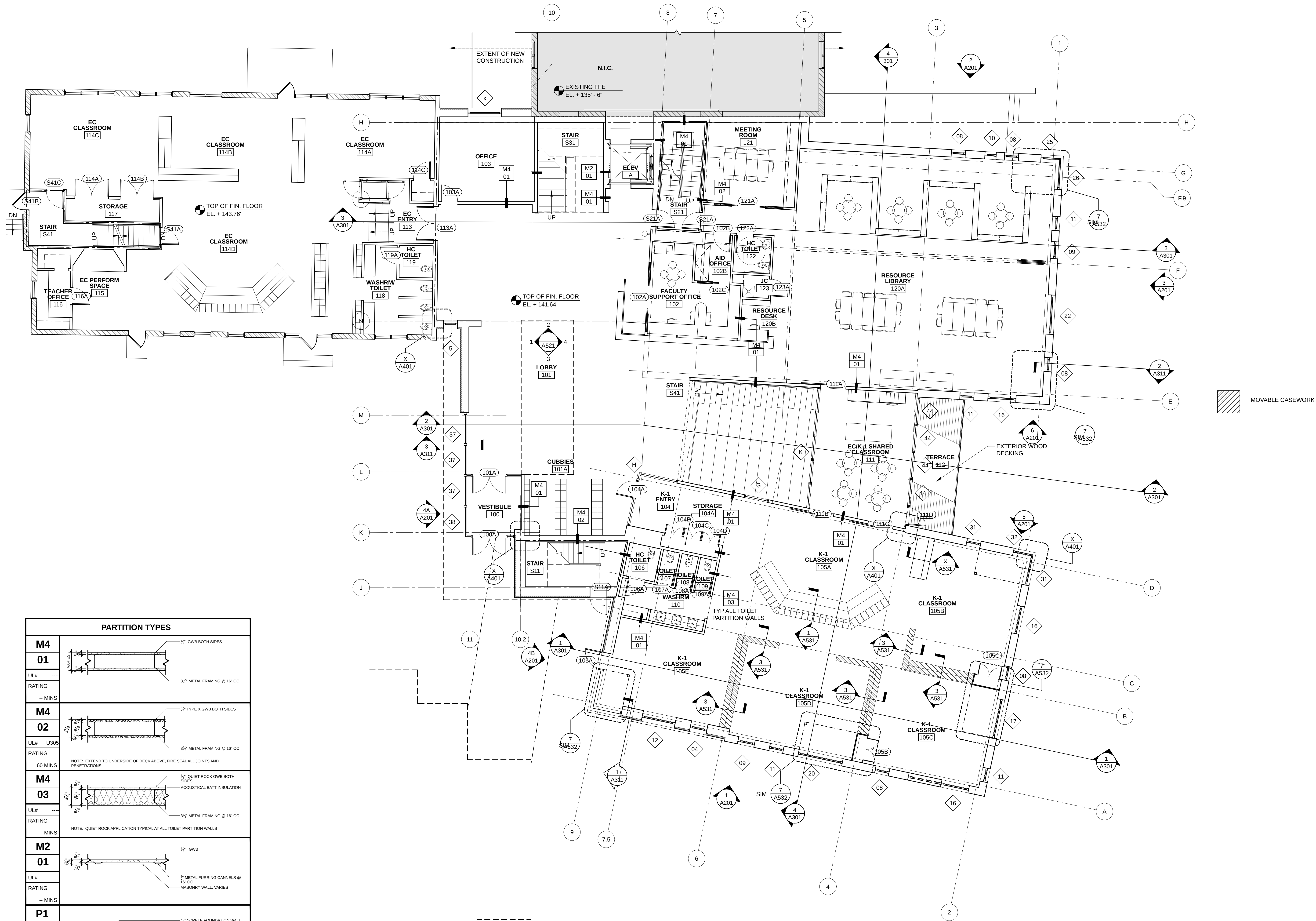
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**LOWER LEVEL
FLOOR PLAN**

A101



PROJECT NAME:

**WAYNFLETE
LOWER SCHOOL**
ADDITION & RENOVATIONS

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

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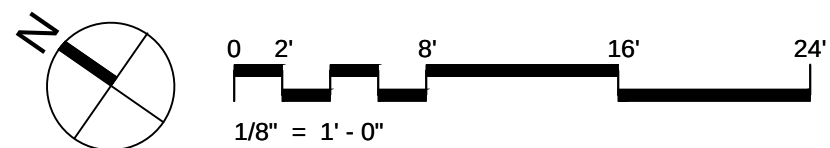
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**MAIN LEVEL
FLOOR PLAN**

A102



1 UPPER LEVEL FLOOR PLAN
SCALE: 1/8" = 1'-0"



MOVABLE CASEWORK

PROJECT NAME:
**WAYNFLETE
LOWER SCHOOL
ADDITION & RENOVATIONS**

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

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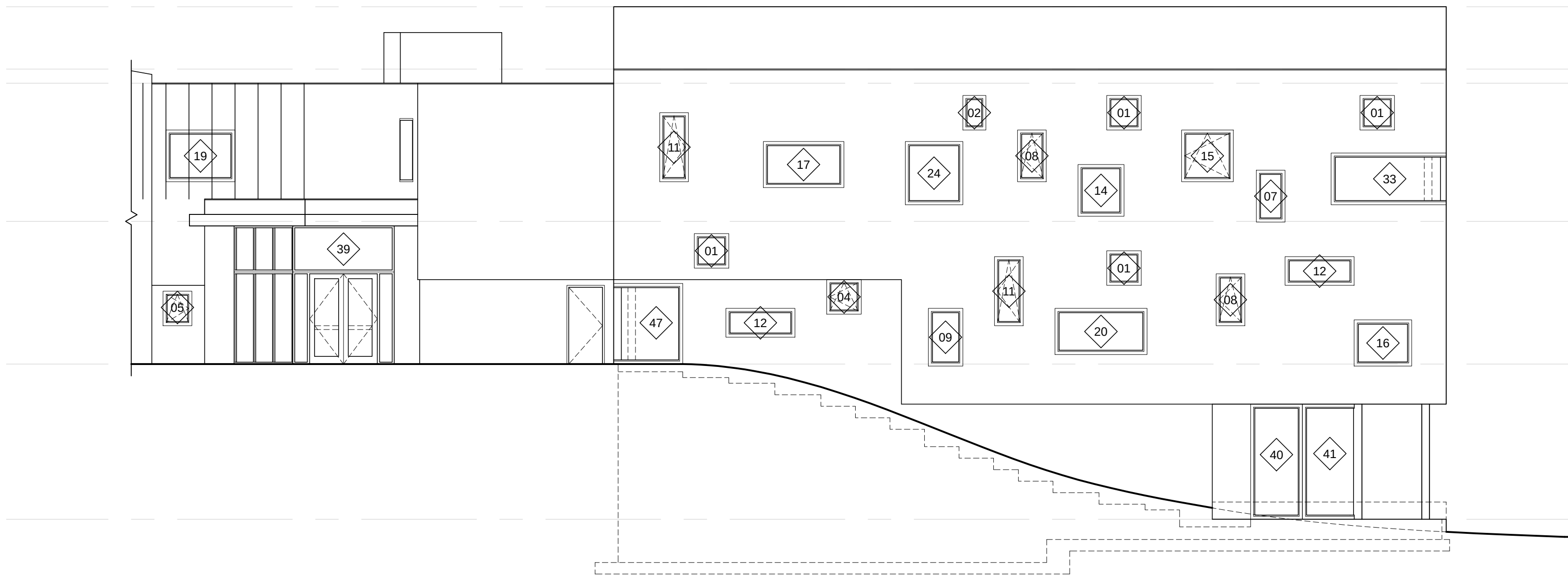
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**UPPER LEVEL
FLOOR PLAN**

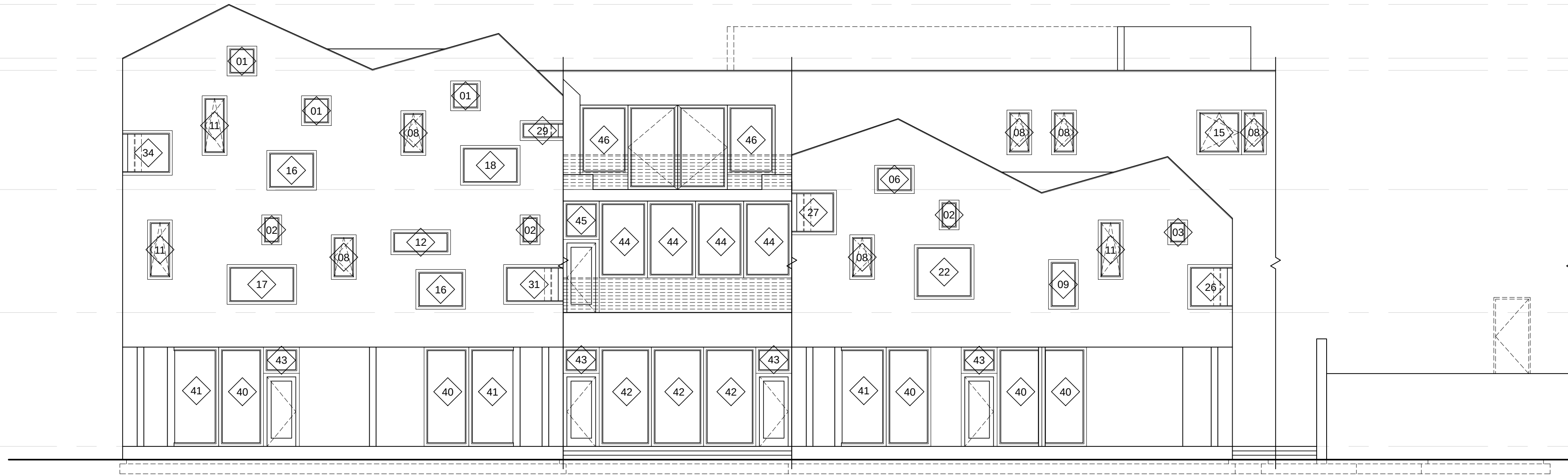
A103



1 WEST ELEVATION
SCALE: 1/8" = 1'-0"



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



3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0" NOTE: DRAWN ORTHOGONAL TO SHEET

TOP OF ROOF
EL. + 172' - 8 1/4"

ROOF EDGE
EL. + 167' - 3 1/4"

TOP OF FIN. FLOOR
EL. + 154' - 1/2"

TOP OF FIN. FLOOR
EL. + 141' - 7 3/4"

TOP OF FIN. FLOOR
EL. + 128' - 2"

TOP OF ROOF
EL. + 172' - 8 1/4"

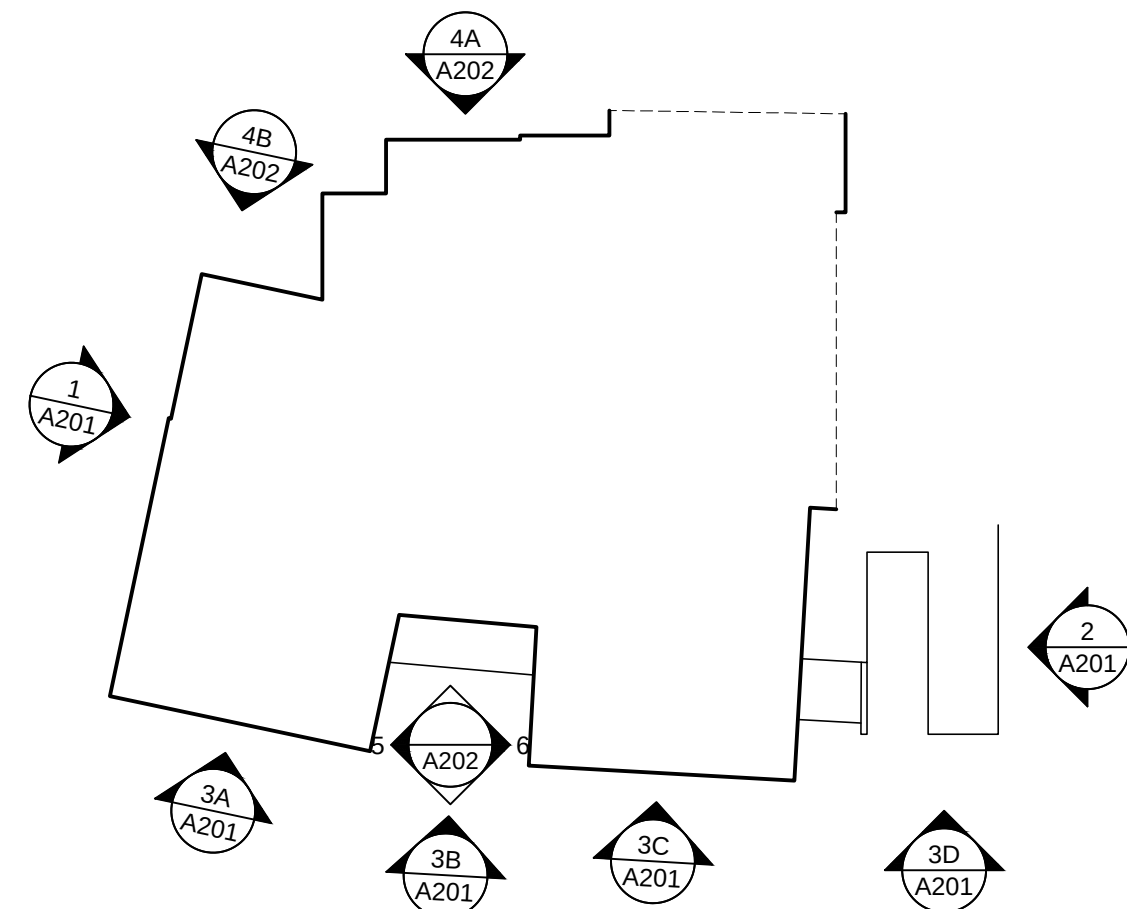
ROOF EDGE
EL. + 167' - 3 1/4"

TOP OF FIN. FLOOR
EL. + 154' - 1/2"

TOP OF FIN. FLOOR
EL. + 141' - 7 3/4"

TOP OF FIN. FLOOR
EL. + 128' - 2"

BUILDING ELEVATION KEY PLAN



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PROJECT NAME:
**WAYNFLETE
LOWER SCHOOL
ADDITION & RENOVATIONS**

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

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PROJECT NUMBER: 2013-0050
STATUS: PLANNING BOARD SUBMISSION

**EXTERIOR
ELEVATIONS**

A201



FIGURE 1



FIGURE 2

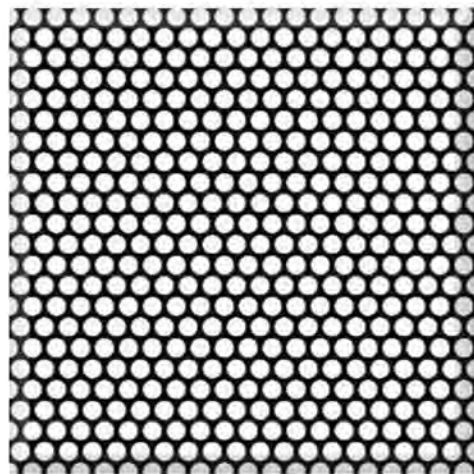
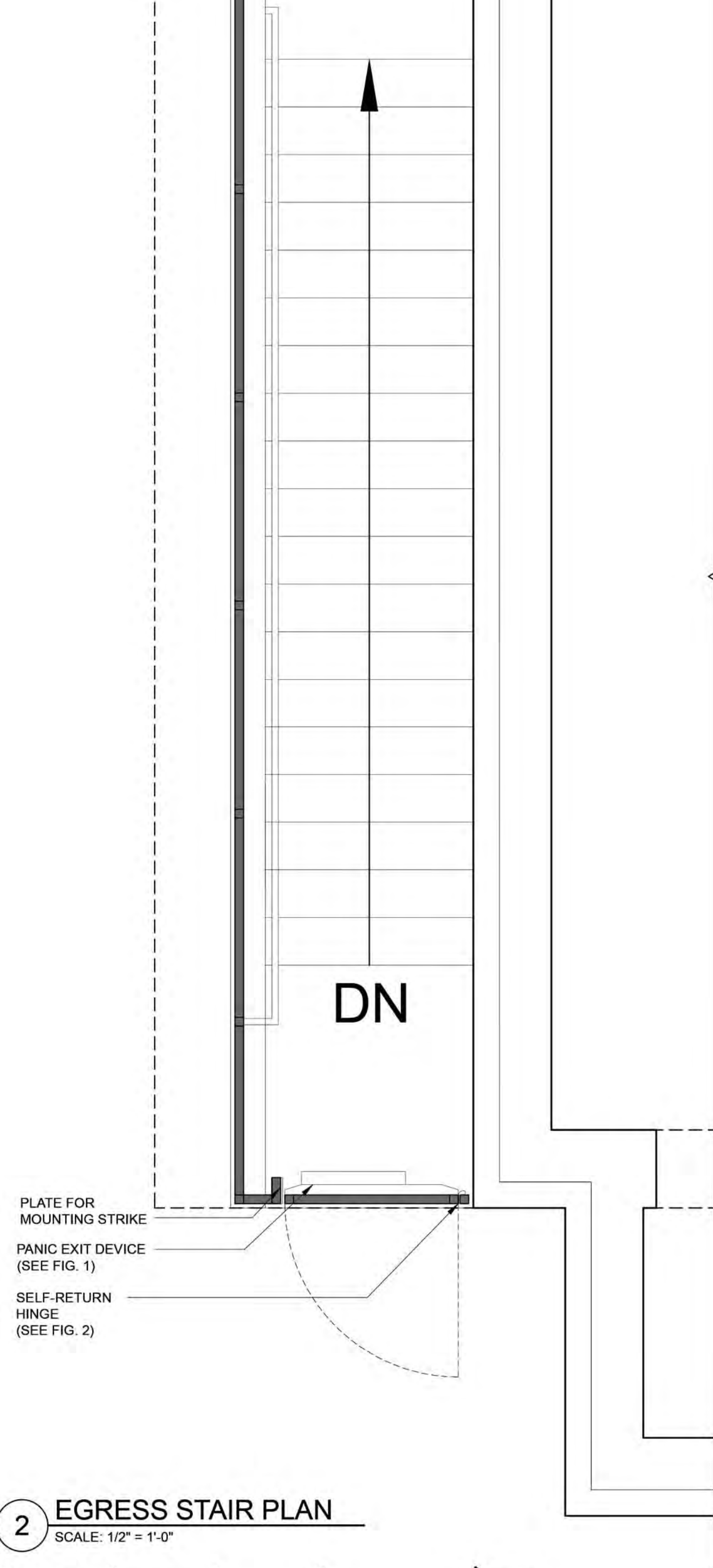
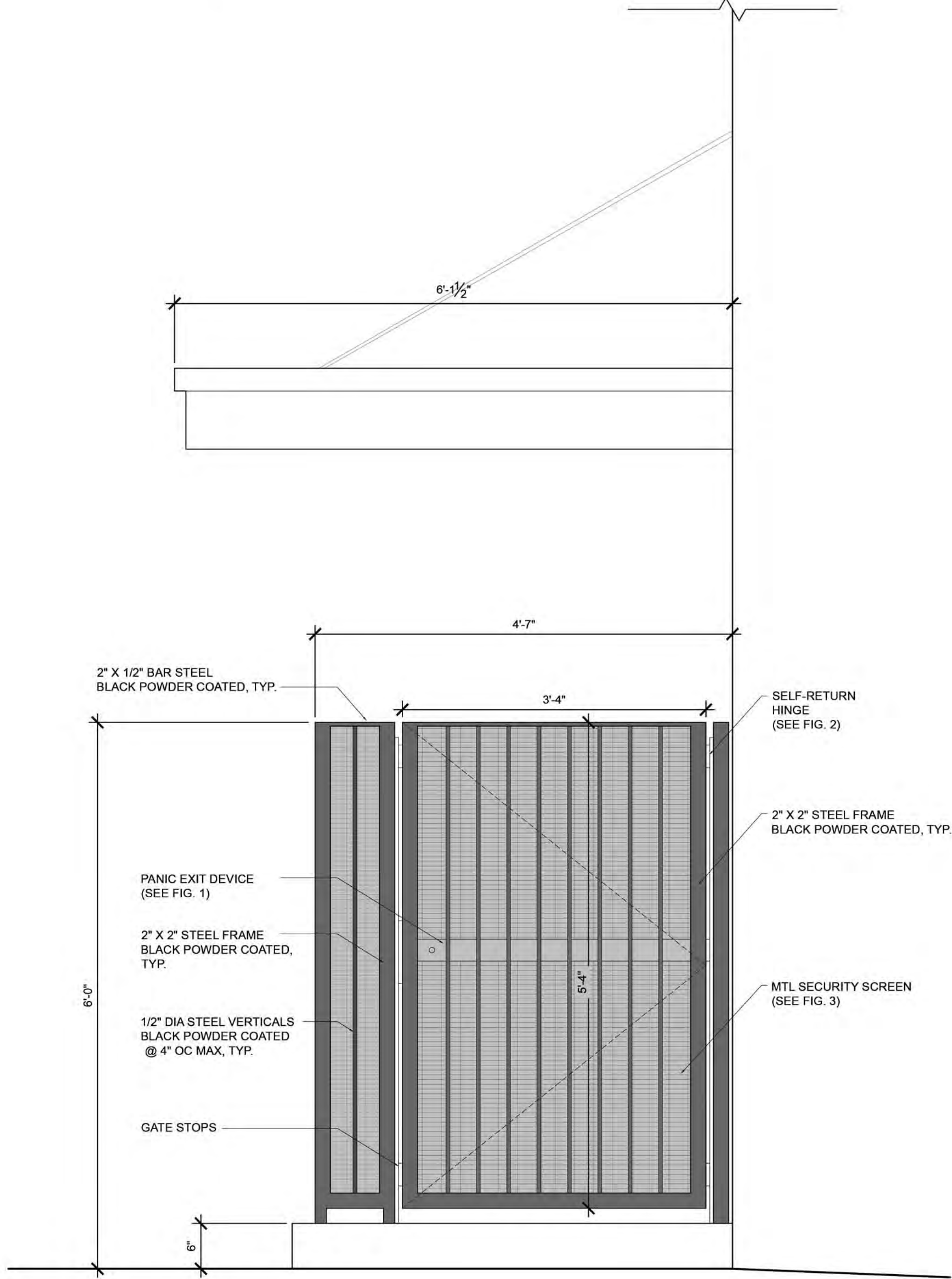
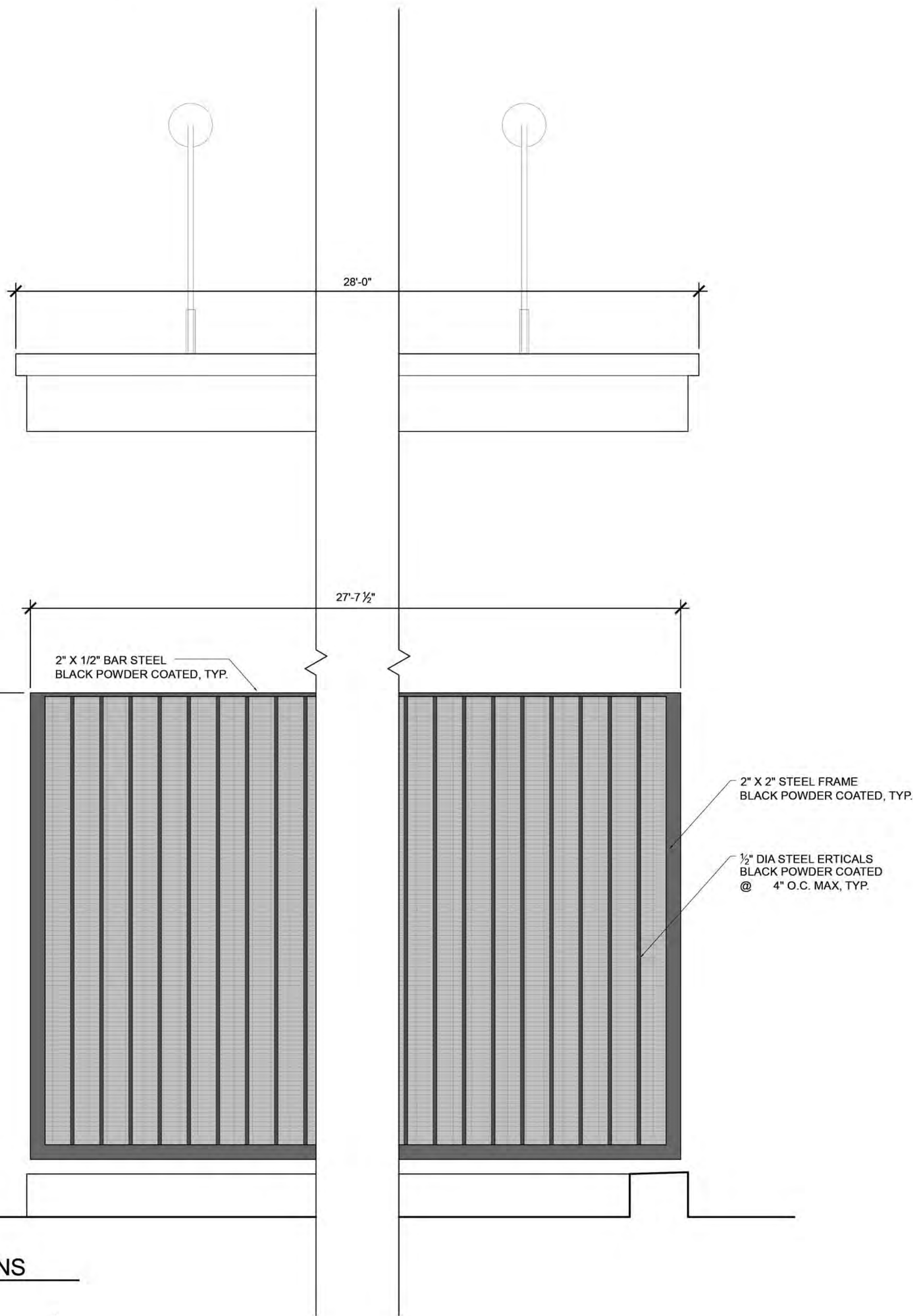
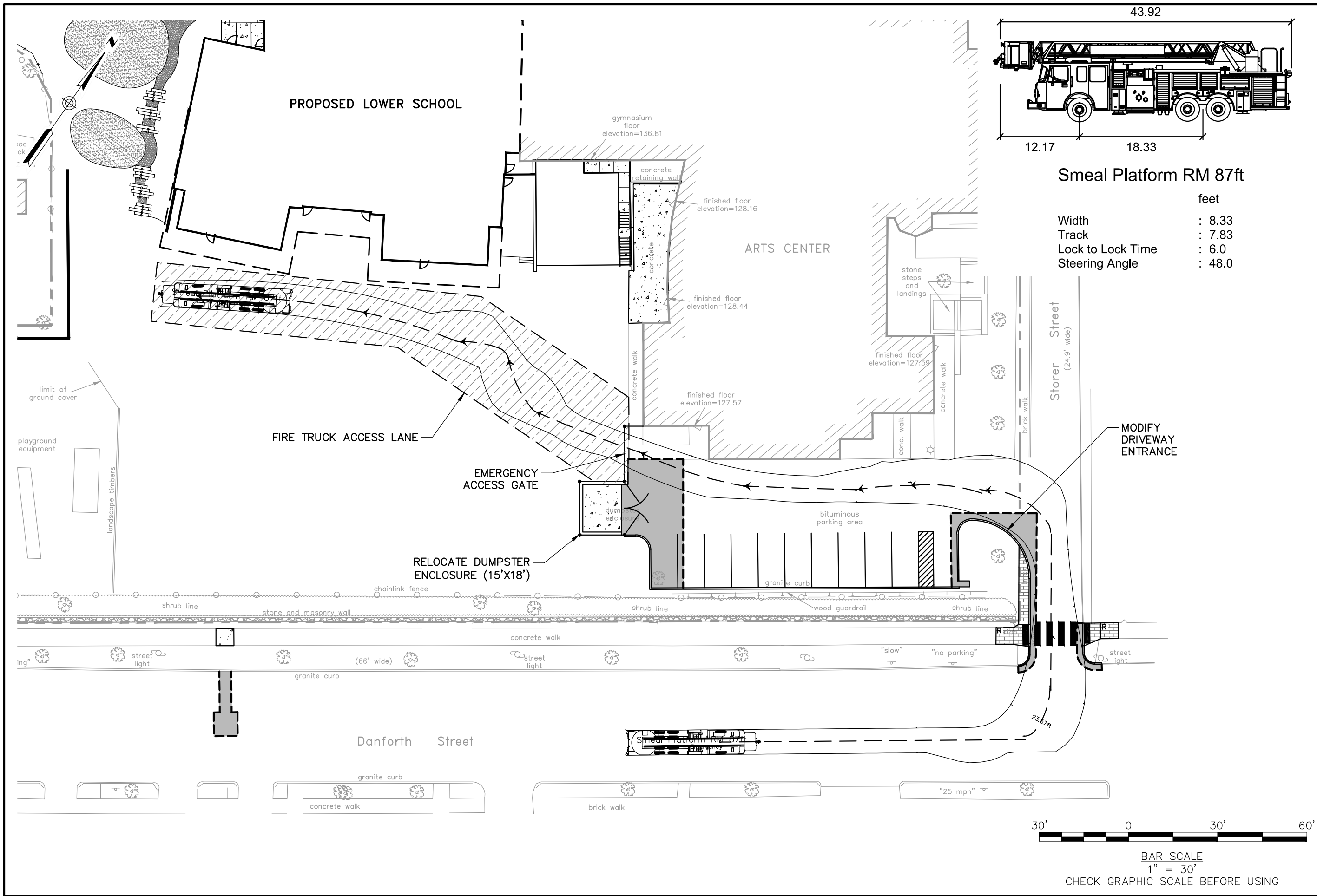


FIGURE 3



1 GATE ELEVATIONS
SCALE: 1" = 1'-0"

2 EGRESS STAIR PLAN
SCALE: 1/2" = 1'-0"



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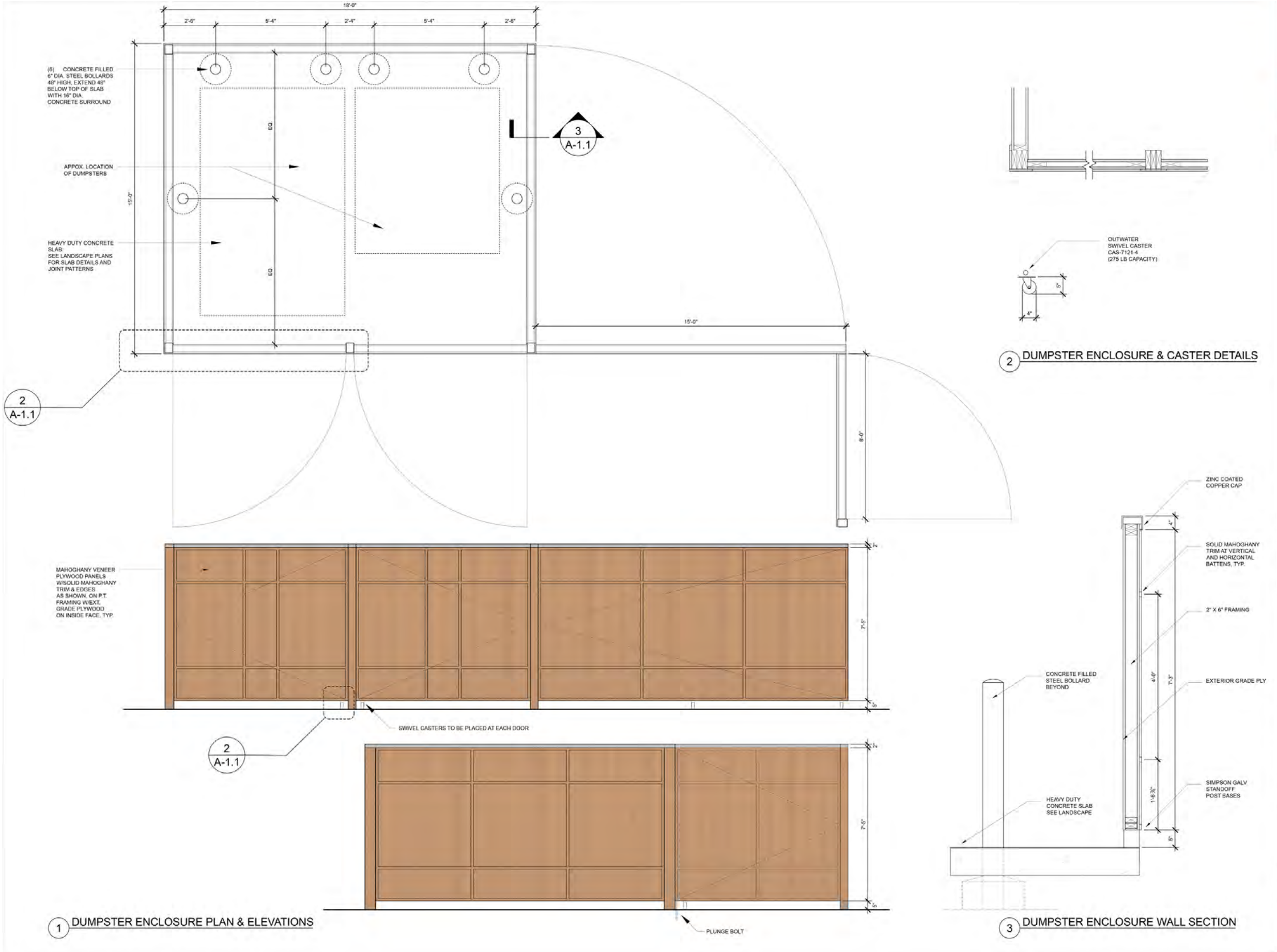
DESIGNED BY: BCM
CHECKED BY: LJS
DRAWN BY: BCM
229423 C10X.dwg

**WAYNFLETE SCHOOL
360 SPRING ST. PORTLAND, ME**

WAYNFLETE GYM & LOWER SCHOOL

JOB NO: 229423
DATE: MAY 2016
SCALE: 1"=30'

FIG.1











PLANNING BOARD REPORT PORTLAND, MAINE

605 Stevens Avenue Senior Housing (Lots 3 and 4)
Master Development Plan

Level III Master Development Plan
Sea Coast at Baxter Woods Associates, LLC, Applicant

Submitted to: Portland Planning Board
Date: June 10, 2016
Public Hearing Date: June 14, 2016

Prepared by: Jean Fraser, Planner
CBL: 136 E006001
Project #: 2016-033

I. INTRODUCTION

Sea Coast at Baxter Woods Associates, LLC has requested approval of the Level III Master Development Plan (MDP) application for 249 dwelling units of senior housing on two lots (Lots 3 and 4, approximately 13.5 acres) at the corner of Walton Avenue and Stevens Avenue. The project has been considered by the Planning Board at two workshops, and the final proposals have been revised to address Board, staff and neighbor comments.

The site is located just north of Baxter Woods and abuts the Catherine McAuley High School and the Deering Pavilion. The MDP site is part of an approximately 20 acre site that was previously owned by the Sisters of Mercy and included the Motherhouse (now mostly vacant); the Catherine McAuley High School and associated playing fields; and the St Catherine apartments on Walton Street. The MDP does not include the ongoing uses of the School (except the playing field area) and the apartments, but does include the Motherhouse.



The MDP proposal for 249 units comprises the rehabilitation of the former convent (referred to as the Motherhouse) into 88 apartments, and the phased development 161 dwellings (condos) in five new 4-5 story new buildings nearby. The project includes 399 parking spaces and approximately 6 acres of open space. These proposals are consistent with previous reviews and approvals, including the rezoning from R5 to R5A for part of the site and Site Plan approval for the rehabilitation of the Motherhouse. A summary of the previous approvals is included in [Attachment 7](#) for reference.

Applicant: Sea Coast at Baxter Woods Associates, LLC

Consultants: Rick Licht of Licht Environmental Design LLC and Pat Carroll of Carroll Associates Landscape Architects

II. REQUIRED REVIEWS

Review	Applicable Standards
Master Development Plan	Section 14-524(a)3c(iii)
Site Location of Development Act	Note: First new building will trigger this delegated review (see para X)

III. PROJECT DATA for Lots 3 and 4 only (Lot #3 is Motherhouse site; Lot #4 is the area to south and east of the Motherhouse - see data sheet in updated Attachment B)

	<i>Existing</i>	<i>Proposed</i>
Zoning	R5 and R5a	Previously amended
Uses	Vacant Motherhouse; playing fields; open land	Senior housing and associated parking and open space; reconfigured playing field
Parcel Size	13.5 acres (585,176 sf)	13.5 acres (585,176 sf)
Dwelling Units	none	Motherhouse: 88 units (68 1-BR; 20 studios) Lot #4: 161 units, all 2BR
Building footprint	24,065 sf (Motherhouse)	Motherhouse: 24,065 sf Lot #4: 74,188sf
Building floor area	102,241 sf (Motherhouse)	Motherhouse; 102,241 sf Lot #4: 349,626 sf
Impervious Surface		261,188 sf
Parking spaces	Approx. 34	Motherhouse: 43 new (not all for Motherhouse occupants) Lot #4: 322 (183 covered; 139 surface)

IV. EXISTING CONDITIONS and BACKGROUND

The MDP site has 460 feet of frontage along Stevens Avenue between Catherine McAuley High School and Baxter Woods. To the south and south-east the site abuts Baxter Woods and the Deering Pavilion. The north and north-east parts of the site abut an area of single and multifamily homes and the Forest Avenue RP zone is nearby. The site is adjacent to two valued open areas, Evergreen Cemetery and Baxter Woods and located on an arterial street with good public transit. The wider neighborhood is a cohesive and family-focused community with a mix of institutions (including 2 existing senior housing developments, several schools and UNE) and some retail (see [Plan P4](#) Neighborhood Context Plan).

Evergreen Cemetery is located opposite the site on Stevens Avenue and is an historic landscape. None of the buildings on or near the site are formally designated as landmarks, but the Motherhouse is currently being reviewed at State/Federal level (at the applicant's request) for inclusion on the National Register.

The existing Catherine McAuley High School is currently accessed by two one-way drives from Walton Street direct into the existing parking lot (see [Plan P2](#)). There are two small drives with gates (currently closed) on Stevens Avenue that go directly to the front of the Motherhouse. Walton Street is a residential street connecting Stevens Avenue and Forest Avenue, with signals at both intersections. Under the Federal Street Classification system Stevens Avenue is classified as a "Minor Arterial" (other "Minor Arterials" in Portland are Warren Avenue and Washington Avenue) and Forest Avenue is classified a "Principal Arterial" (other "Principal Arterials" in Portland are Brighton Avenue and outer Congress Street).

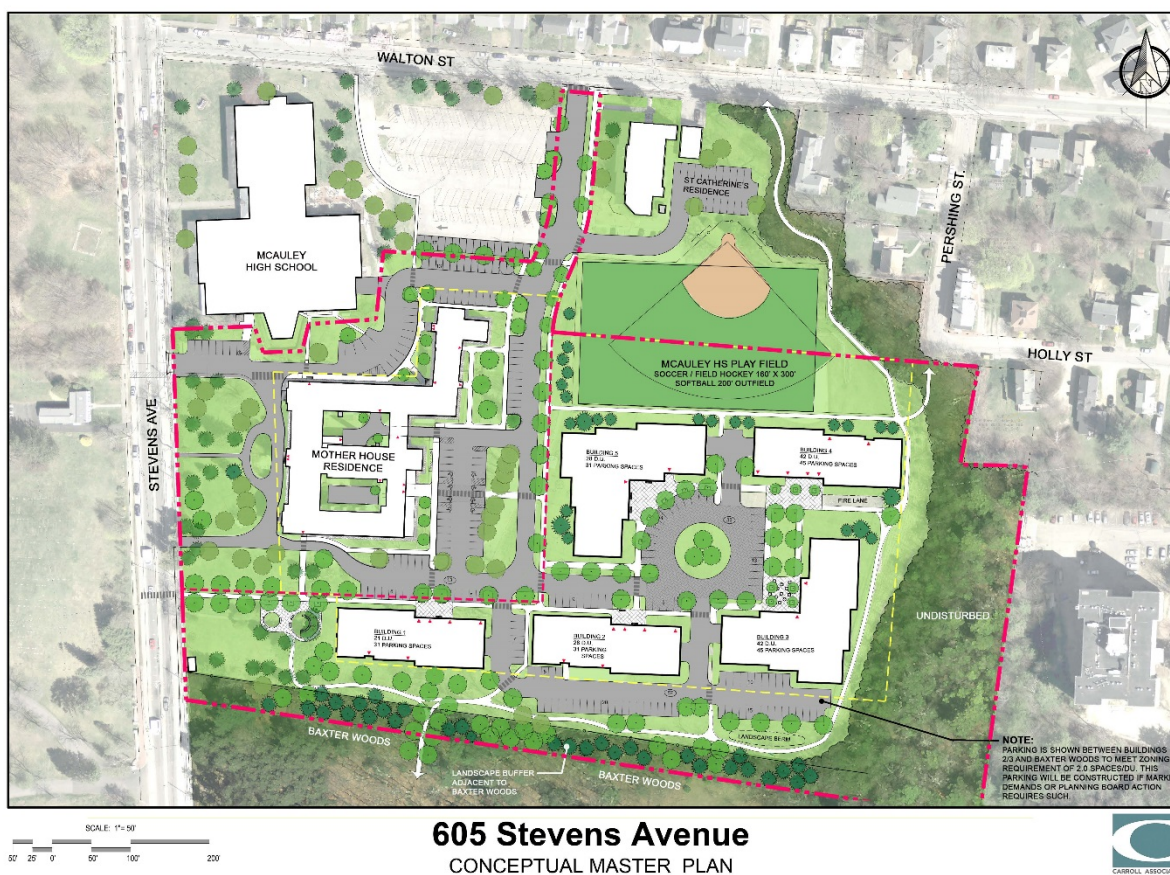
V. MASTER DEVELOPMENT PLAN PROPOSALS

The applicant has described the proposal in detail in the cover letter and narrative ([Attachment A](#)) which clarifies the revisions that have been made to the proposals over the course of the review between March and May. The final submissions include additional elevations, renderings and design information as well as a more detailed response to the issues that have been raised regarding the integration with/impacts on Baxter Woods and the location of pedestrian and transit facilities.

The [key features](#) of the final MDP proposals include (see [Plan Set P3 to P14](#))

- A five phase development (anticipated to be one new building per phase) to create 161 new units of senior housing (plus a first phase of 88 units located within the existing Motherhouse building to be converted and refurbished);
- Five new buildings, one at 4 stories (between the Motherhouse and Baxter Woods on the Stevens Avenue frontage) and four 5-story buildings behind the Motherhouse;
- A total of 395 new parking spaces, of which about half are underneath the new buildings;
- Several acres of open space, with connections to Baxter Woods and extensive new tree planting;
- A network of pedestrian walkways that link to Walton Street, Stevens and Forest Avenues and other pedestrian and transit facilities;
- Improved landscape along Baxter Woods, including replacement of the existing fencing and additional planting buffers (details in [Attachment A](#) and Plans [P12](#) and [P15](#)).

The final Conceptual Master Plan (Plan P5) illustrates the key features for the overall build out:



VI. PUBLIC COMMENT and PB WORKSHOP DISCUSSIONS

A total of 129 notices were sent to property owners within 500 feet of the site and interested parties, and a legal ad was published in the *Portland Press Herald* on June 6 and 7, 2016. The required Neighborhood Meeting was held on March 14, 2016 (documented in Attachment H) which was attended by about 15 neighbors. A second (voluntary) Neighborhood Meeting was held at the site on May 19th, 2016 which was attended by about 10 members of the public and included a walk around the site where the applicant had placed markers showing the corners of the proposed new buildings. As of the time of completing this Memorandum, the Planning Division has received ten written public comments (PC A and B; PC 1-10), with eight of these in support of the project with some suggestions. The other four comments, and many of the comments at the Workshop, raised concerns about the impact of the project on Baxter Woods.

The first Workshop on March 22, 2016 included a discussion about the potential traffic generation and noted that a Traffic Movement Permit (State but delegated to the City) was not required. Tom Errico, the City's Traffic consultant reviewer, clarified that the proposals would still be subject to a Traffic Study and further review of potential impacts, and that Transportation Demand Management measures would be expected as part of the proposals. Diane Moribito, the applicants Traffic consultant, outlined that the traffic analyses indicated that the proposals and the additional traffic would have very limited impacts, in part because much of the traffic would be off-peak.

The second Workshop concentrated on building and landscape design issues, including the relationship with Baxter Woods. The City's Urban Designer, Caitlin Cameron, and the City's Arborist Jeff Tarling commented on the proposals and the Board discussed the design (particularly the roofline and need to respect the Motherhouse context). The Board generally welcomed the applicant's willingness to contribute to the preservation of Baxter Woods, though the proximity of the parking to the Woods was a concern. The applicant clarified that the proposed parking was intended to ensure that all the parking demand could be accommodated on site, but that this could be modified in later stages if the parking demand in the early phases turned out to be less.

VII. RIGHT, TITLE, & INTEREST and FINANCIAL CAPACITY

The applicant has submitted a P&S Agreement and letter from the Bath Savings Institution (2.16.16) (Atts C and E).

VIII. ZONING ANALYSIS

The Master Development Plan proposals comply with the R5 and R5A requirements; the applicant has included this information on Plans P6 and P7 and the R5A dimensional standards are included in Attachment 9. It should be noted that the density and open space calculations are based on the R5A requirements but (based on the principle established by the City Council when the R5A area was reduced) the R5 parts of these lots is not built upon but the area is used to calculate the density and open space for a unified development plan.

IX. STAFF REVIEW

A. MASTER DEVELOPMENT PLAN OBJECTIVES

The Site Plan ordinance outlines that an approved Master Development Plan (MDP) establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. It is not a final authorization for development, but it does confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of the approval for as long as the MDP approval remains valid (6 years initially), including permissible extensions up to 10 years. All Level III site plans for each phase shall be in general conformance with the approved MDP. The required review is under *Section 14-524(a)3c(iii) Master Development Plan Review including Standards for Review*.

B. MASTER DEVELOPMENT PLAN SUBMISSION REQUIREMENTS (*Section 14-527(e)*)

Section 14-527 of the city's site plan ordinance outlines Master Development Plan submittal requirements. The Planning Authority or Planning Board may give direction regarding the form of the information required for the MDP review. In general the final submission requirements have been met and the applicant has submitted additional information as requested.

C. MASTER DEVELOPMENT PLAN STANDARDS (*Section 14-524(a)3.c(iii)*)

Section 14-524 of the City's land use code establishes standards under which Master Development Plan applications must be reviewed. Per this section, Master Development Plans shall adhere to the following general requirements and features:

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;

Staff comments: The 13.5 acre site meets this requirement.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;

Staff comments: The applicant has submitted a Master Development Plan for Lots #3 and #4 where the proposed senior housing development will be located, and shows how the proposed development integrates with the surrounding area.

c. Consistent with the objectives of this ordinance; and d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);

Staff comments: There are no formal City Council approved plans in the vicinity except for the Evergreen Cemetery Master Plan. The applicant has sought staff guidance in relation to ensuring consistency with the proposed sidewalk improvements in Stevens Avenue, with surrounding utilities, with METRO's bus service and with the City's preservation plans for Baxter Woods. The final plans reflect the existing and anticipated local infrastructure/facilities.

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;

Staff comments: The trees to be preserved, removed and the new trees proposed to be planted are shown on the following plans: Tree Removal/Landscape Preservation Plan (Plan P11 and Landscape Master Plan (Plan P12)); and Conceptual Site Plan in Plan P5 and above. The tree removal analysis is provided in Plan

P11. The City Arborist has reviewed the plans and noted there is an historic allee linking the site to Baxter Woods which is impacted by building 1; he has indicated that proposed replacement planting to extend and reinforce the allee is acceptable as are the overall landscape and preservation proposals. (Attachment 6).

The Open Space Calculations Plan in Plan P8, clarify the extent of impervious surfaces, wetland and open space. Open space areas, excluding the wetland, total about 6 acres (45% of the MDP area) and the plan indicates the different sizes and functions of the open space areas.

- f. *Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;*

Staff comments: Although the Motherhouse building is considered of historic and architectural significance, the building is not yet designated a local landmark under Portland's Historic Preservation ordinance nor is it located in a local Historic District. It is understood that the applicant is seeking to list the building in the National Register of Historic Places in conjunction with their interest in securing tax credits for its rehabilitation.

The review under the tax credit program will likely require the preservation of some existing site elements. A letter from the Maine Historic Preservation Commission (Attachment 5) confirms general support for the overall project based on the understanding that the “existing landscape and shrine located west of Building 1 (proposed new 4 story building fronting Stevens Avenue) will remain in place”. The new buildings nearest to the Motherhouse may also be subject to review by the Maine Historic Preservation Commission and National Park Service, given the fact that the buildings will be located on the original Motherhouse property and have a visual relationship with the Motherhouse.

It should be noted that the site is opposite and within 100 feet of Evergreen Cemetery, an Historic Landscape. Thus the proposals for the frontage along Stevens Avenue would be reviewed at site plan stage by the Historic Preservation Program Manager under the site plan requirement for compatibility. If the Motherhouse is designated as a local landmark, then this site plan requirement would extend to any new buildings within 100 feet of the Motherhouse.

The Motherhouse dominates the site and the anticipated historic reviews are likely to consider the detailed architectural design relationship of any new buildings in the context of the Motherhouse; this is considered to be an important influence on the architectural approach to the new buildings.

The submitted perspective (right; with gables, which have since been removed as shown in Exhibit B) of the proposed first building (building #1 on Plan P5, 4 story and 21 units) illustrates how this new building would be set back to minimize impacts on the Motherhouse building.



EXISTING VIEW - VIEW FROM EVERGREEN CEMETERY



PROPOSED VIEW - VIEW FROM EVERGREEN CEMETERY

A rendering of the Building 1 west elevation (directly facing Stevens Avenue) was added to the final submissions and is extracted at right.



Building 1 from Stevens Avenue

- g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;

Staff comments: The proposed layout has taken account of site features/constraints (see Exhibit B-16 and Plans P8 and P11). Public comments have included concerns about the impact of the development on the birds and wildlife in Baxter Woods- for example glare from headlights, site lighting and lights shining through curtain walls in the buildings. Staff suggest the following condition of approval (combined with a reference to the Urban Design comments):

That the site plan applications for the new buildings nearest to Baxter woods shall include an analysis and supporting information as to how all light sources (buildings, vehicles and site lighting) are proposed to be minimized to avoid impacts on the wildlife attracted to and in Baxter Woods; and

- h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure; and
- i. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible; and

Staff comments: The applicants plan set (Plans P3-P14) illustrate the coordination of the proposals in some detail. **Baxter Woods** is a key surrounding land use/public facility is Baxter Woods, which shares an approximately 1000 foot long boundary with the MDP site. The 29.5 acre Baxter Woods was presented to the “People of Portland” in 1946, a gift from then Governor Percival Baxter as a “municipal forest to be kept in its natural state” (see background leaflet with plan in Attachment 10). The use and maintenance of the Woods are dictated by deed restrictions and the City Arborist has been working with foresters over the years to meet the original intent of the gift, especially in the context of its high level of recreational use by the community.

Through the rezoning and MDP reviews the question of the potential impact of the future senior housing development on Baxter Woods has been raised by neighbors and staff. The City Arborist, Jeff Tarling, has provided the following comments (Attachment 6, at end) and been involved in all of the meetings with the applicants on this subject:

The proposed 605 Stevens Avenue project is adjacent to 'Mayor Baxter Woods' which is a significant natural, open space park donated to the City of Portland by Governor Percival Baxter in honor of his father, James P Baxter former Mayor of Portland. The woods was also formerly 'Forest Home' and throughout the last century and a half have have been a forested refuge. To minimize impact to the park both physically and view wise it will be important for the project team to work closely with the City objectively, so that visitors to the park have the natural experience as they have for over 75 years.

Recommendations include:

- a) *Enhance buffering along the property edge, including the roadway easement*
- b) *Future parking facing the park should be screened with native vegetation and earth berms.*
- c) *Building facades facing the park should be painted or stained using natural earth tones. Night lighting should be engineered to have minimal trespass into the park.*
- d) *Landscape treatment should be designed using native plants and plants that habitat friendly to birds.*
- e) *Park impact baseline & monitoring - baseline assessment of park conditions along with a five year monitoring program would be a recommended.*

The final proposals address these comments and now include a mechanism for ensuring that any potential impacts of the development would be identified and addressed and that the applicant would contribute to further preservation of Baxter Woods in accordance with Baxter's intentions for its future public use and enjoyment, including:

1. An assessment of the Wood's current condition and use as a baseline for future monitoring of its condition, use and associated impacts.
2. Monitoring (linked to phases and going beyond the final phase) of its condition over time, with monitoring data maintained and made available to interested parties; and
3. Development of a list of potential improvement proposals and timing based on 1 and 2 above.

This is documented by a *Letter of Intent LOI* ([Attachment I](#)) which clarifies the applicant's willingness to work with the City, and specifies in some detail the objectives and associated process related to these three items. The *LOI* is complemented by the recommended condition number *vii* that specifies the applicant's contribution to the costs of these items, so that as the development is implemented the program of monitoring continues and informs the nature and priority of the preservation projects. The *LOI* has evolved from the "*Memorandum of Understanding*" (*MOU*) presented to the April PB workshop and reflects Board, public and staff comments. An important principle is that the City would supervise these studies/associated projects, and make use of specialist advisors who were already familiar with the Woods.

The *LOI* ([Attachment I](#)) also confirms the applicant's intention to treat the 33 feet of their land between the fence the and property boundary as part of Baxter Woods. The most effective legal mechanism to achieve this requires further investigation and this is addressed by a suggested condition of approval.

In addition to the use and condition of the Woods, there are concerns about the height and proximity of the new buildings to and as viewed from the Woods. The applicants have addressed this issue in a number of ways (see narrative [Exhibit B-16 Massing and Baxter Woods](#)):

- The buildings are located approximately 90 to 140 feet from the property boundary (35 feet required by zoning ordinance- see [Att 9](#));
- The location and massing of the buildings and how they have responded to constraints is explained in the [Exhibit B-16](#);
- Introduced berms and landforms (see Sections in [Plan P15](#)) between the buildings and the Woods;
- Revised the phasing of the parking construction to reduce the spaces built near Baxter Woods (although staff are recommending that none be built there until the last phase, if needed (see below);
- The design of the buildings has been revised to incorporate flat roofs and more neutral colors as shown in the submitted (as part of the final submission) rendering at right, as located in the vicinity of the "Meadows" part of Baxter Woods (see discussion below regarding overall design issues).
- Submitted (March) a perspective from the "Meadows" area of



Baxter Woods (Exhibit B Arch Info) that gives an impression of how the new buildings would appear from that location. The perspectives are of the former design, with gables and extracted below:

Perspectives (see Exhibit B)



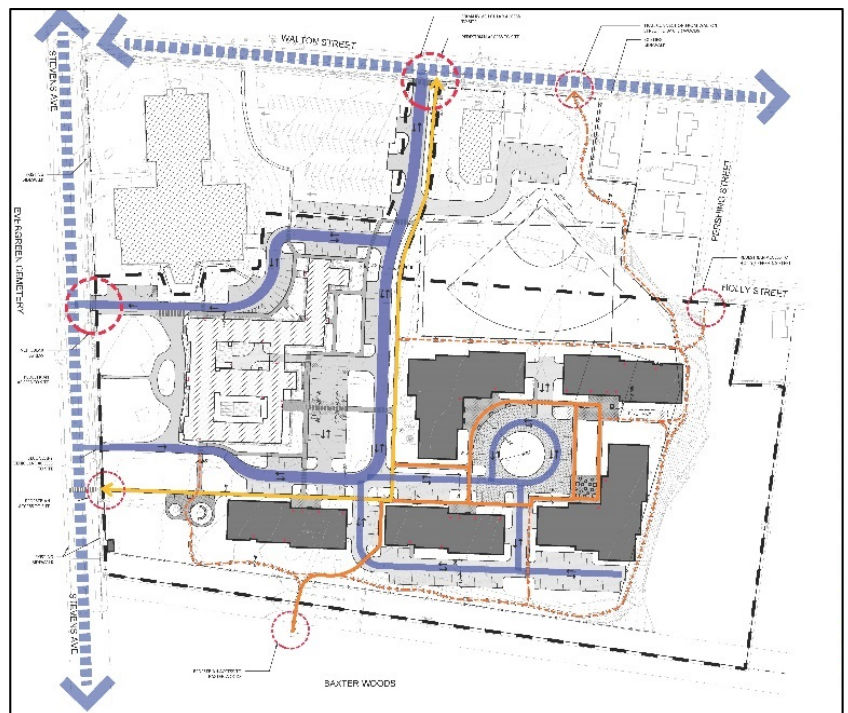
EXISTING VIEW - VIEW FROM BAXTER WOODS MEADOW



PROPOSED VIEW - VIEW FROM BAXTER WOODS MEADOW

- j. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;
- k. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;

Staff comments: The applicant has proposed a full turn access on Walton Street and a one way system in front of the Motherhouse that allows a right in and right out only with the egress being to the north. This was proposed to address concerns about congestion and safety in Stevens Avenue and direct vehicles to the signaled turn locations. The circulation is shown in Plan P9 and to right:



The applicants consulting traffic engineer submitted a Traffic Impact Study and additional information as requested by the City's Traffic Reviewing Engineer (Att. F entitled "Exhibit D- Traffic".)

Tom Errico, the City's Traffic Engineering reviewer, has reviewed the final submissions and provided the following final comments (Attachment 1):

- *The applicant submitted a preliminary trip generation analysis that was based upon data from the Trip Generation Manual, Institute of Transportation of Engineers (ITE). The estimate was based upon Land Use Code 252 – Senior Adult Housing. I requested additional information on the ITE Land Use development type and is the data based upon current developments. Additionally, I requested the applicant provide local data for comparison. The applicant provided information that indicates the most recent publication provided by ITE does include current developments sites. Additionally, the applicant provided actual trip generation data collected at the Highlands in Topsham, which indicates similar trip levels as ITE. Based upon the applicant's analysis the project would be expected to generate 97 trips entering and exiting during the Weekday AM Peak hour and 87 trips entering and exiting during the Weekday PM Peak hour. This level of trip generation does not trigger the need for a Traffic Movement Permit, although it is very close to 100 peak hour vehicle trip threshold.*

The applicant shall conduct monitoring studies for each phase after the Motherhouse and the first and second new buildings are completed to confirm trip generation levels are consistent with ITE. This monitoring will also confirm that trip levels remain below the Traffic Movement Permit threshold of 100 peak hour vehicle trips. Details of the monitoring study scope will be defined in the future.

- *The applicant has recommended that on-street parking be prohibited on Stevens Avenue at the Motherhouse egress driveway to enhance safety by improving sight distance. The applicant is suggesting that 50 feet of a No Parking zone be established. I concur with this recommendation. The applicant shall be responsible for implementation of the No Parking restriction. Final details shall be reviewed and approved by the City.*
- *The applicant should provide details and clarification on proposed measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities, etc. that would be considered to be a component of a Senior Housing development that would have been reflected in the developments surveyed by ITE for use in estimating trip generation.*
- *A traffic impact study has been submitted and in general I find the methods and conclusions to be acceptable with the following comments:*
 - *The Forest Avenue/Walton Street intersection is a High Crash Location and based upon the applicant's analysis no correctable crash patterns were identified. I have field reviewed the subject intersection and concur with the findings. Accordingly, no action by the applicant is required.*
 - *The applicant shall install a crosswalk on the south side of Stevens Avenue at Walton Street thus creating full intersection accessibility. This will include all work associated with a fully installed ADA compliant crossing and shall include, but not limited to, traffic signal equipment, sidewalk ramps, pavement markings, and signage.*

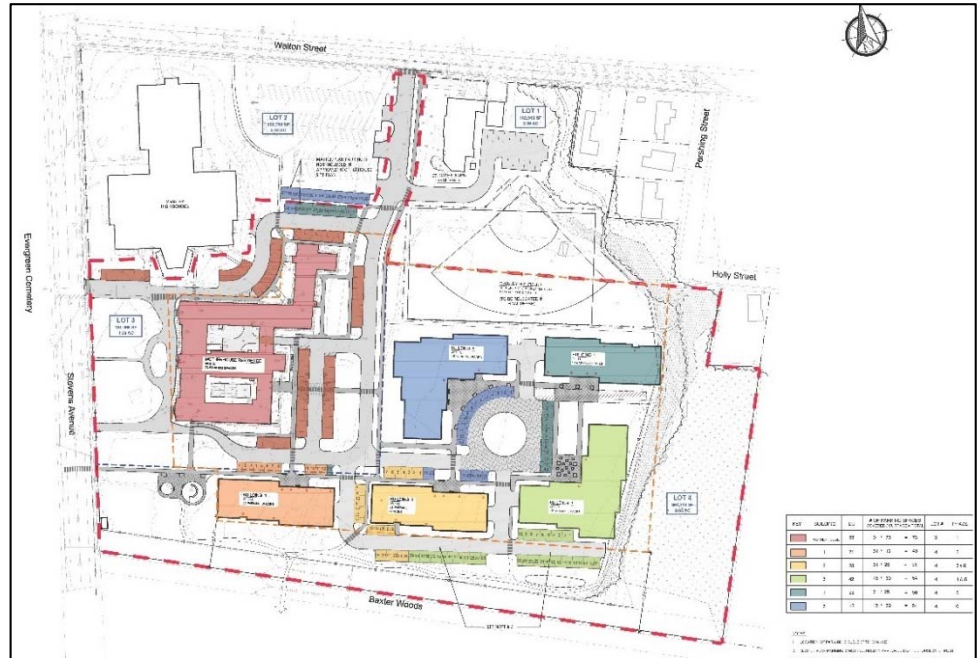
The applicant shall install a crosswalk on the south side of Stevens Avenue at Walton Street. This will include all work associated with a fully installed ADA compliant crossing and shall include, but not limited to, traffic signal equipment, sidewalk ramps, pavement markings, and signage. This work shall be installed at the time of occupancy of the first new building (anticipated to be between the Motherhouse and Baxter Woods).

- **Fire Access**

The Fire Department was concerned that previous layouts needed additional access routes to ensure rescues could be made from all of the buildings (Attachment 1). The Fire Department has verbally confirmed that the final MDP layout appears to be generally acceptable, and noted that at the Site Plan review stage they will require life safety and emergency access accommodations.

- **Parking**

The Parking Diagram (Plan P10) shows a total of 395 parking spaces, of which 212 spaces are on the surface and 183 are beneath the buildings. The allocation of the surface parking is shown as color-coded on the Parking Diagram:



The proposals outlined in the Master Development Plan are based on the approved parking ratio for the Motherhouse (73 dedicated parking spaces for the 88 units) and on the zoning requirement for the rest of the area (2 parking spaces per unit).

The objective is to ensure that the proposed parking levels will not result in overflow parking to streets outside of the site. Staff generally consider that the parking is adequate, but Tom Errico, the Traffic Engineering Reviewer, has recommended a requirement for monitoring as follows ([Attachment 1](#)):

- *On-site traffic circulation and parking will need to be evaluated, particularly as it relates to interaction between the proposed project and the McAuley School (both typical school days and during events). The applicant shall conduct monitoring studies prior to the submission of site plan applications for each phase after the Motherhouse to confirm parking supply and circulation conditions at both the project site and at McAuley School are safe and acceptable. Associated with this is the requirement that the applicant confirm the parking generation assumptions for each phase are valid and the project does not impact the public street system and neighborhood. Details of the monitoring scope will be defined in the future*

Some of the parking for the final build out is located between the new buildings and Baxter Woods and this was raised as a concern by many members of the public and some members of the Planning Board. In view of the fact that that monitoring of the parking demand may show that some of this parking is not required to meet future demand, staff requested ([Attachment 5](#)) that the applicant reconsider the way the parking was allocated during all but the last phases to avoid constructing the parking between the buildings and Baxter Woods until shown to be needed.

The revised phasing plan ([Plan P7](#)) has moved in that direction with less parking constructed in this location than in the earlier phases, but staff suggest that there should not be any parking in this location as described in the suggested condition of approval:

That the proposed parking may be reduced from the zoning requirement of 2 parking spaces per unit of new development (excludes the Motherhouse) if the parking monitoring studies show that the demand is less than 2 spaces per unit. No parking between the new buildings and Baxter Woods shall be constructed until after the fourth building is occupied, and only if the monitoring studies show that additional parking is necessary to meet demand. The phasing plan shall be revised to show all parking for phases II to V to be located to the north of the buildings southmost wall;

- **Street Connectivity, pedestrian and transit connections**

One of the public comments (PC3- C MilNeil) suggested that the project include improvements that would improve access to and from Forest Avenue and ensure public access at the eastern side of the development.

The Traffic Engineer Reviewer has commented (Attachment 1):

Given the likelihood of residents seeking destinations along Forest Avenue south of Walton Street, there may be benefits in providing a more direct pedestrian/bicycle connection between the east boundary of the site and Holly Street. Accordingly, the applicant shall provide a pedestrian connection to Holly Street as part of the site plan application for the third new building.

The applicant has addressed this by indicating a pedestrian link on Plan P8 between the site and the abutting Holly Street. A suggested condition of approval is included to ensure that this is implemented as part of the site plan for the third new building.

The Planning Board approval for the Motherhouse required the applicant to work with the City on the relocation of the existing crosswalk and the provision of a bus shelter for a bus stop along the frontage. Since then the applicant and staff have identified the likely location for the crosswalk, bus stop and associated bus shelter and these are indicated on the MDP final proposals. The suggested conditions on the MDP reiterate the requirements already approved in relation to the Motherhouse.

- **Utilities; Stormwater; other**

The applicant submitted additional information to assess the available capacity and the extent of upgrades and new infrastructure that may be required. The Peer Engineering Reviewer and the Department of Public Works have confirmed that the applicant has demonstrated that the full build out can be satisfactorily accommodated based on the engineering approaches outlined in the submissions (Attachment 2 and 3). At each site plan stage the applicant will need to show how the specific proposals relate to the overall MDP framework and calculations and obtain the associated detailed capacity letters.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

Staff comments:

Since the April PB workshop the applicant has revised the building renderings to show a different architectural approach, added renderings to show the elevation of building 1 from Stevens Avenue and the 5 story building nearest to Baxter Woods as viewed from the south. Massing models have also been submitted, which include an additional “closer” view.

The proposed building design originally incorporated gables as shown in the now-superseded rendering at right.



The roofline was discussed at the April PB workshop and the applicant has responded to comments by revising the roofline to be a flat roof and simplifying the design elements, as shown left and in Exhibit B (B6 shows the 4 story version):

The applicant submitted three “massing model” views at the April PB Workshop and staff requested a “closer” view, which was included in the final submissions and below (see [Exhibit B: B-11-B-13](#)):



PROPOSED BIRDSEYE VIEW - VIEW FROM THE SOUTH WEST

The City’s Urban Designer, Caitlin Cameron, has commented ([Attachment 4](#)):

The proposed master plan for multi-family residential buildings is only reviewed according to the Master Plan criteria. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines.

In the Master Plan level review, the design considerations include cohesiveness within the proposed development as well as compatibility with the context. In this case, the immediate context is the Motherhouse and campus property on which future developments will be situated. Though the design and placement of buildings should be sensitive to neighboring residential and park contexts, the multi-family building typology and the relationship to the Motherhouse are the primary considerations in evaluating the proposed design characteristics.

Building Footprints

The applicant was asked to consider whether there are strategies for reducing the impact of the buildings facing Baxter Woods. Suggested strategies included reducing the building footprints, varying building heights, turning buildings 90 degrees so that the shorter end faces the park. The applicant responded with a memorandum “Urban Design – Massing Relationship to Baxter Woods” ([Exhibit B](#)) describing the building footprints and the rationale for their placement. Staff has no further comment at this time and defers to the Planning Board on the evaluation of the impact of the master plan development on Baxter Woods. In each future Site Plan application, the applicant is expected to re-evaluate the scale, placement, orientation, and footprint of the buildings in consideration of impact on Baxter Woods and will mitigate that impact whenever feasible.

Architectural Design

The applicant has included architectural plans, elevations, and renderings ([Exhibit B](#)), as well as an Architectural Characteristics Summary ([Exhibit B.1](#)) as guiding documents for future development proposals with the expectation of creating cohesive design throughout the campus as well as defining how new development shall be compatible with the existing context. Staff considers all these documents together and recommends the Planning Board approve the Master Plan Development application with the expectation that these are guiding documents only, but should be considered applicable design guidelines for any future Site Plan application on this site.

The Architectural Characteristics Summary (Exhibit B.1) describes which characteristics found in the drawing set will apply to all future architectural proposals. The staff reviewers are generally in favor of the revisions made to the architectural character proposed for the site and support the guidelines proposed – brief staff comment on each guideline is provided below:

1. Building Footprints – Future development shall generally follow the MDP approved footprints. The proposed footprints – an L-type and a bar-type – successfully mitigate the scale of the buildings through the use of varied forms and change of building plane. The buildings are also placed interior to the lot and are therefore less visible from public rights-of-way and neighboring properties, buffered by space and trees.
2. Roof Lines – Flat roof forms are prescribed; the change to flat roofs is consistent with the building typology proposed and moves the architecture in a direction that is responsive to the Motherhouse context which has a hipped roof with gabled dormers.
3. Motherhouse Context – Characteristics taken from the Motherhouse be applied to new development include: granite base; reference to the Motherhouse roofline through material changes and floor delineation; brick elements using brick of similar color and pattern as the Motherhouse.
4. Material Palette – The material selection and color palette should be guided by the material indications on the elevations and renderings and as described in the narrative as having natural tone, brick, granite, and grey clapboard. The more subtle grey material palette with brick vertical elements is supported – the use of as few materials as possible is recommended.
5. Building Entry – Clearly delineated entries with porch elements shall be a common feature.
6. Massing - The scale of each building is proposed to be mitigated through the use of varied forms and change of building plane, deck spaces, and façade composition (see renderings for material placement and massing).
7. Parking – Structured parking is proposed to be designed to have similar character to the residential building above.

Conditions of Approval

Staff recommends the following design conditions of approval:

- That the documents included in Exhibit B – architectural plans, elevations, and renderings, as well as an Architectural Characteristics Summary (Exhibit B.1) – are considered together to be adopted guiding documents that will be applicable design guidelines for future development proposals on this site.
- That an additional guideline 8. be added to Exhibit B.1 Architectural Characteristics Summary as follows: 8. Window types will be consistent with vertical proportion throughout all buildings.

Additional Design Considerations (Site Plan)

The following guidelines will be taken into consideration for the architecture and design of future Site Plan development applications:

- Flat or hipped roof line referential of the Motherhouse would be acceptable provided the proportion and slope of the roof is comparable and compatible as well as consistent throughout all the buildings.
- In the new buildings, maintain the proportional relationship of “roof” to façade found in the Motherhouse. The four-story building design in the MDP guiding documents does not reflect these proportions.
- Use as few material types as possible.
- The building nearest the Motherhouse should be designed with the most sensitivity to the context of the historic structure.

The potential conditions of approval include the Urban Designer’s recommended condition (above) and an additional condition that “the comments of the Urban Designer dated 6.9.2016 be taken into account when finalizing the location, size and design of the new buildings generally”.

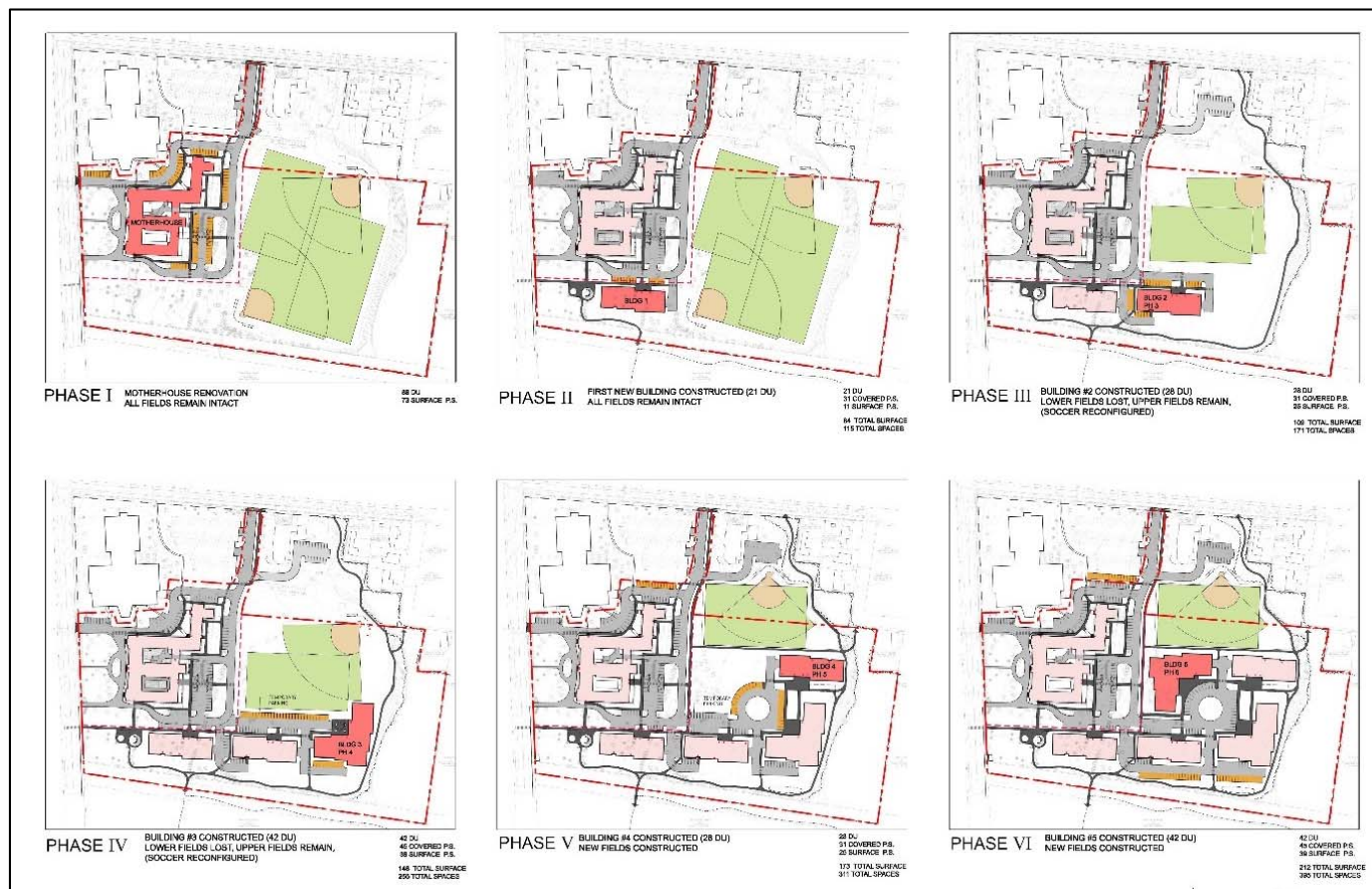
m. Inclusive of provisions for the ownership and maintenance of usable open space as appropriate;

Staff comments: The submission includes the draft Condominium Documents (**Attachment D**) that outline the management arrangements for the MDP area, including the open space. These will be finalized as required by the conditions of approval for the Motherhouse rehabilitation project. A suggested condition of approval requires the submission of further legal documents that clarify the use and operation of the MDP site.

n. For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.

Staff comments: The applicant has submitted a revised Phasing Diagram (**Plan P7**) to reflect the intention of constructing one building per phase and to address comments regarding the interim parking and access for each phase and minimizing parking between the buildings and Baxter Woods (see discussions above). Staff consider that in phases III, IV and V the parking and paved areas should be omitted from the sides of the buildings facing Baxter Woods as it appears that interim parking (to serve that phase) could be provided on areas away from Baxter woods that are going to be disturbed and paved in any case. The suggested condition states:

That the proposed parking may be reduced from the zoning requirement of 2 parking spaces per unit of new development (excludes the Motherhouse) if the parking monitoring studies show that the demand is less than 2 spaces per unit. No parking between the new buildings and Baxter Woods shall be constructed until after the fourth building is occupied, and only if the monitoring studies show that additional parking is necessary to meet demand. The phasing plan shall be revised to show all parking for phases II to V to be located to the north of the buildings southmost wall;



X. SITE LOCATION OF DEVELOPMENT ACT

In consultation with the MDEP, staff confirm that this review will apply when the first new building is submitted for site plan review and will take into account both the Lot 3 and Lot 4 in terms of relevant data.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the master development plan for the senior housing development proposed for Lots 3 and 4 at 605 Stevens Avenue.

XII. PROPOSED MOTIONS – MASTER DEVELOPMENT PLAN

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on June 14, 2016 for application 2016-033 (605 Stevens Avenue) relevant to the master development plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the master development plan standards of the land use code, subject to the following conditions of approval:

- i. That the applicant shall conduct traffic monitoring studies (methodology to be agreed with the Planning Authority prior to undertaking the first study) prior to the submission of site plan applications for each phase after the Motherhouse and the first and second new buildings are completed, to confirm to the Planning Authority that the trip generation levels are consistent with the levels predicted in the traffic studies (based on ITE) and remain below the Traffic Movement Permit threshold of 100 peak hour vehicle trips; and
- ii. That the applicant shall conduct parking monitoring studies (methodology to be agreed with the Planning Authority prior to undertaking the first study) prior to the submission of site plan applications for each phase after the Motherhouse, to confirm to the Planning Authority that the parking supply and circulation conditions at both the project site and at McAuley School are safe and acceptable. Associated with this is the requirement that the applicant confirm the parking generation assumptions for each phase are valid and the project does not impact the public street system and neighborhood; and
- iii. That the proposed parking may be reduced from the zoning requirement of 2 parking spaces per unit of new development (excludes the Motherhouse) if the parking monitoring studies show that the demand is less than 2 spaces per unit. No parking between the new buildings and Baxter Woods shall be constructed until after the fourth building is occupied, and only if the monitoring studies show that additional parking is necessary to meet demand. The phasing plan shall be revised to show all parking for phases II to V to be located to the north of the buildings southmost wall; and
- iv. That the applicant shall implement the following improvements in the ROW:
 - a. Implementation of a 50 feet No Parking Zone on Stevens Avenue at the Motherhouse egress driveway to enhance safety by improving sight distance. Final details of the Zone shall be reviewed and approved by the City prior to implementation;
 - b. Installation of a crosswalk on the south side of Stevens Avenue at Walton Street, to include all works associated with a fully installed ADA compliant crossing and shall include, but not limited to, traffic signal equipment, sidewalk ramps, pavement markings, and signage. This work shall be installed at the time of occupancy of the first new building (anticipated to be between the Motherhouse and Baxter Woods).
- v. That the applicant shall include the location (which may need to be on the applicant's property) and implementation proposals for a bus shelter along the Stevens Avenue frontage as part of the site plan application for the first building (between the Motherhouse and Baxter Woods), and all site plan applications shall include details and clarification of proposed measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities etc; and
- vi. That the applicant shall include a pedestrian connection to Holly Street as part of the site plan application for the third new building, and continue to coordinate with the City on the location of the crosswalk on Stevens Avenue (to which a contribution has already been required as part of the Motherhouse rehabilitation site plan approval); and

(continued)

- vii. That the applicant shall contribute to the preservation of Baxter Woods by:
 - a. Implementation of the submitted and approved “*Letter of Intent*” that confirms that the applicant will work with the city to assist in the preservation of Baxter Woods. The City will oversee this work which shall include the assessment of the current condition of Baxter Woods, annual monitoring, and specific work identified as a priority by the monitoring;
 - b. Making a contribution of \$5000 per year (starting at the date of the issuance of the first building permit and ending 2 years after the final phase is occupied) towards the items identified in the *LOI*, except that the contributions will not exceed either 10 years or \$50,000 in total contributions;
 - c. Pursuing the creation of a *conservation easement*, or equally binding legal mechanism, for the 33 ft of applicant’s land between the existing fence and the property line along Baxter Woods.
- viii. That the site plan applications for the new buildings nearest to Baxter woods shall include an analysis and supporting information as to how all light sources (buildings, vehicles and site lighting) are proposed to be minimized to avoid impacts on the wildlife attracted to and in Baxter Woods; and that the comments of the Urban Designer dated 6.9.2016 be taken into account when finalizing the location, size and design of the new buildings generally; and
- ix. That the documents included in Exhibit B – architectural plans, elevations, and renderings, as well as an Architectural Characteristics Summary (Exhibit B.1) – are considered together to be the guiding documents that will be applicable design guidelines for future development proposals on this site. The applicable design guidelines shall also include an additional guideline 8. to be added to *Exhibit B.1 Architectural Characteristics Summary* as follows: 8. Window types will be consistent with vertical proportion throughout all buildings; and
- x. The applicant shall provide, as part of the site plan application for the first building, a summary of existing and/or proposed easements, covenants, public or private rights-of-way, public access agreements, parking management arrangements or other documents that augment the subdivision plat and condo documents and support the operation of the site as presented in the MDP application; and
- xi. For each phase the applicant shall submit an analysis (for review and approval) that documents how the specific proposals relate to the overall MDP stormwater and utility framework and calculations (eg re impervious surfaces, stormwater flows etc) and include evidence of water capacity from the Portland Water District and of sewer capacity from the Department of Public Works.

ATTACHMENTS

REPORT ATTACHMENTS

- 1. Traffic Engineer final review comments
- 2. Peer Engineer final review comments
- 3. Dept. of Public Works review comments
- 4. Urban Design review comments
- 5. Staff review comments May 2016
- 6. City Arborist review comments
- 7. Background and previous reviews and approvals
- 8. Lots & zoning data table based on R5A zone
- 9. R5A Zone Dimensional Requirements
- 10. Baxter Woods leaflet: history, plans & restrictions

PUBLIC COMMENTS

PC A and B; PC1-10

APPLICANT’S SUBMITTAL

- A. Cover Letter & Narrative 5.24.2016
- B. MDP updated Application 6.3.2016 & prelim 2.1.2016
- C. RTI
- D. Draft Condo Docs
- E. Financial Capability
- F. Exhibit D – Traffic final
- G. Exhibit E – Stormwater & Utilities final

APPLICANT’S SUBMITTAL

- H. Exhibit F - Neighborhood Meeting Documentation
- I. Letter of Intent (LOI) re Baxter Woods

PLANS (FINAL)

- P1 Draft Subdivision Plat (previously approved)
- P2 Overall Existing Conditions Plan
- P3 Cover Sheet
- P4 Neighborhood Context Plan
- P5 Conceptual Master Plan
- P6 Site Plan (full build out)
- P7 Phasing Diagram
- P8 Open space Calculations (full build out)
- P9 Circulation Plan (full build out)
- P10 Parking Diagram (full build out)
- P11 Tree Removal Plan (full build out)
- P12 Landscape Master Plan (full build out)
- P13 Concept Stormwater Plan (full build out)
- P14 Concept Utilities Plan (full build out)
- P15 Sections buildings & Baxter Woods

Exhibit B Architectural Info: B-1 to B-16 Design narratives, elevations, renderings, perspectives and views that comprise the Urban Design Package



Memorandum

Planning and Urban Development Department

Planning Division

To: Elizabeth Boepple, Chair and Members of the Portland Planning Board

From: Jean Fraser, Planner

Date: June 13, 2016

Re: ADDENDUM TO PB REPORT
Level III Master Development Plan; 605 Stevens Avenue;
Sea Coast at Baxter Woods Associates, LLC, Applicant
Project #: 2016-033 CBL: 136 E006001

Meeting Date: June 14, 2016

1. One of the Master Development Plan standards under *Section 14-524(a)3c(iii)* is as follows:

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);

2. This Addendum confirms that the proposed development, as outlined in the final submissions for the Master Development Plan application (#2016-033), is consistent with the R5A and R5 zoning. In addition, the proposals are consistent with the Comprehensive Plan in that they locate growth in an identified "Growth Area" and meet the Housing Goals and Policies that aim to provide a diverse mix of housing types and maximize development where public infrastructure and amenities are nearby. The attached document, which was prepared for the Planning Board during the review of the rezoning proposals, provides details.

Attachment:

1. May 12, 2015 Addendum to Planning Board Report (re Rezoning)



Memorandum
Planning and Urban Development Department
Planning Division

To: Stuart O'Brien, Chair and Members of the Portland Planning Board
From: Barbara Barhydt, Development Review Services Manager
Date: May 12, 2015
Re: Addendum to Planning Board Report: R5A Zoning Map and Text Amendments for
McAuley Place, 605 Stevens Avenue, Seacoast At Baxter Woods Associates, LLC,
Applicant
Project #: 2015-022 CBL: 136 E006001

I. Portland's Comprehensive Plan

Volume I of Portland Comprehensive Plan contains the Community Vision, goals and policies sorted according to the State's 10 goals, and the inventory and analysis of the plan. Volume II contains the following: 1) Implementation Measures and Major Initiatives; 2) Future Land Use Plan; 3) Regional Coordination program; 4) Capital Improvement program; and 5) Appendix.

II. Growth and Rural Areas of Future Land Use Plan

Under Portland's Future Land Use Plan contained within Volume II, the state's growth management definitions for growth and rural area in 2005 were listed. Following is the excerpt of those definitions from the Comprehensive Plan.

Growth Areas:

The land use plan must designate as "growth area" those land areas within the municipality into which the municipality intends to direct the future growth and development planned to occur during the planning period. Use designation of growth areas is intended to ensure that planned growth and development is directed to areas most suitable for such growth and development and away from areas in which growth and development would be incompatible with the protection of rural resources. Land areas designated as "growth area" must be consistent with the following provisions.

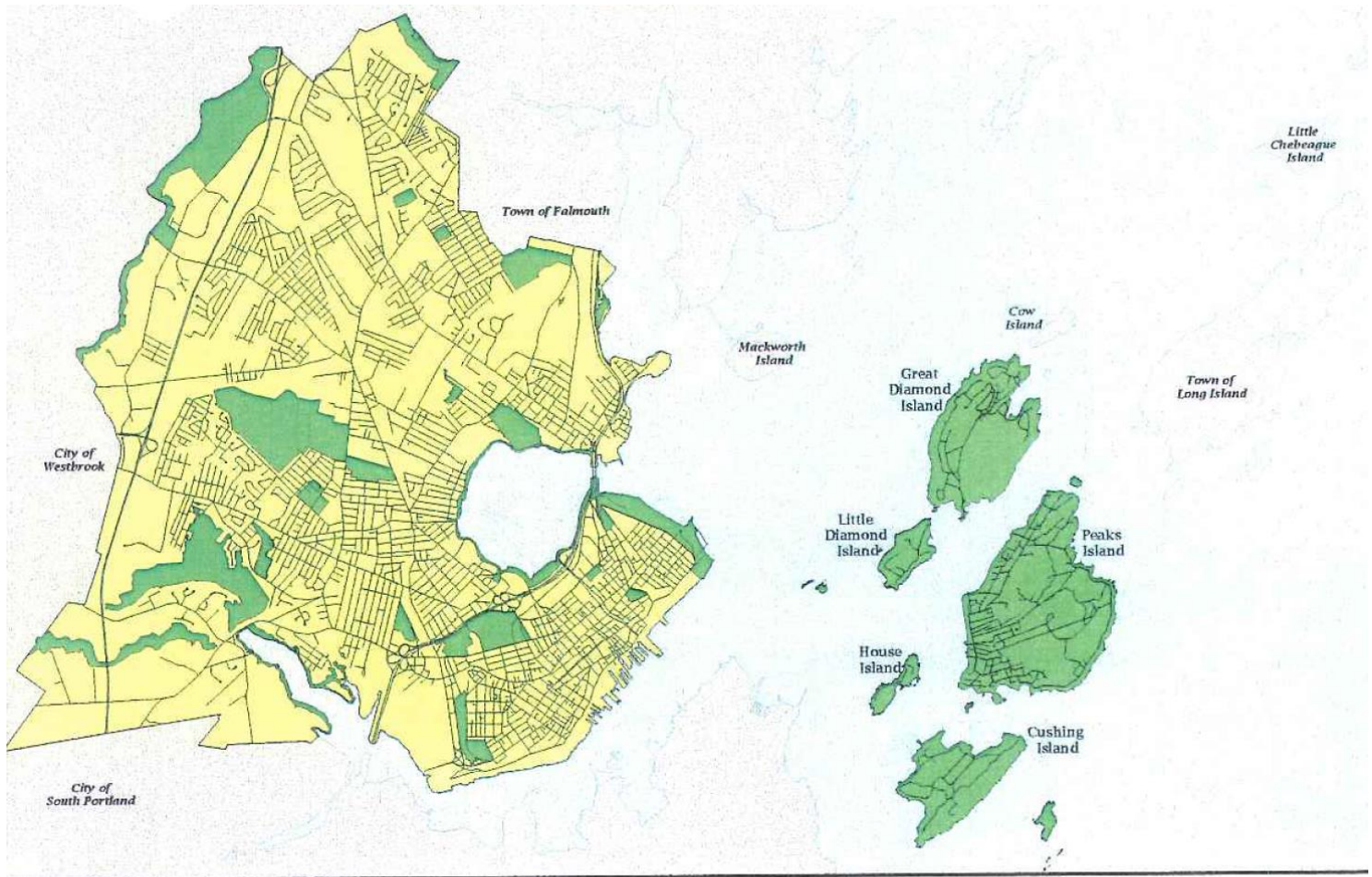
1. Growth areas must be limited to land areas within which public facilities and services are efficiently provided or can be efficiently provided during the planning period.
2. Growth areas must be limited to land areas that are physically suitable for development or redevelopment. (Growth areas may include land areas that are physically unsuitable for development or redevelopment if such areas such as a river, stream, floodplain, small natural hazard area, small lake, or small critical natural resource area run through or are located in the middle of a growth area.)
3. Growth areas must include enough land area suitable for development or redevelopment to accommodate all growth and development planned to occur during the planning period, based on the plan's policies and implementation strategies.
4. Growth areas must be limited to an amount of land area and a configuration that will encourage compact, efficient development patterns and discourage development sprawl and strip development along roads.

Rural Areas:

The land use plan must designate as "rural area" those land areas within the municipality within which the municipality intends to protect agricultural, forest, scenic areas, and other open space land areas from incompatible development. The designation of rural areas is intended to provide for the long-term protection of resource production and open space and scenic lands from incompatible development. Land areas designated as "rural area" must be consistent with the following provisions.

1. Rural areas must include agricultural and forest lands important to the local or regional economy.
2. Rural areas must include land areas consisting of large areas of contiguous open space, farmland, or forestland. They must include land areas in which the predominant pattern of development is intended to consist of very low intensity development broadly dispersed within what would otherwise be a rural landscape. They must also include land areas containing other rural resources that significantly contribute to the municipality's rural character.
3. Rural areas must include land areas in which the municipality can ensure that the level and type of development will be compatible with maintenance of rural character and will not constitute or encourage development sprawl or strip development along roads.
4. Rural areas may include, but may not be limited to, land areas containing natural resources and scenic open spaces that are intended to be protected.
5. Rural areas may not include land areas in which a significant portion of the municipality's future residential development is planned to occur. Nor may they include land areas in which the municipality plans the occurrence of large-scale or widespread residential development that would alter the municipality's rural character.

Portland designated zoning classifications under the categories of growth and rural. In the plan is Table 2, which lists Portland Growth and Rural areas by zone. Residential R-5A is a designated growth zone, along with the residential zones 1 through 7, contract zones, office zones, business zones, industrial zones and waterfront zones. The rural areas include the conservation zones of Resource Protection and ROS (Recreation and Open Space) and all of the Island zones. The map of the growth and rural areas is included on the next page. Baxter Woods is listed as a rural area and the McAuley Place site is located within the designated growth area.



GROWTH & RURAL AREAS

CITY of PORTLAND, MAINE

Growth Areas **Rural Areas**

III. Future Land Use Plan - R-5A Residential Zone

The full excerpt of the R-5A description under the section of the comprehensive plan titled Growth Area by Zoning Classifications in Portland Residential Zones is as follows:

7. R-5a RESIDENTIAL

Location: There is one R-5a zone along Canco Road that encompasses an elderly housing complex.

Current and Proposed Zoning: All land currently zoned R-5a.

Discussion: To provide for moderate-density residential development in off-peninsula sections 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.

The permitted residential uses in the R-5a zone are very similar to those in the R-5 zone, except that multiplexes are not allowed. The other significant difference is that PRUDs may be developed at a higher density. PRUDs in an R-5a zone require a minimum of 3 acres and a minimum net land area of 1,600 square feet per unit compared to 3,000 square feet in the R-5 zone. The R-5a is applied through rezoning when a site and development proposal meets the intent of this zoning classification. This would be a tool for encouraging more housing in specific neighborhood locations as determined through the city's neighborhood based planning program and recommended in Housing: Sustaining Portland's Future. Potential text amendments will be considered to update the residential zones in conformance with the recommendations of Housing: Sustaining Portland's Future.

As stated in the description written in 2005, the R-5A is applied through rezoning within a site and development proposal meets the intent of this zoning classification. The description does not specify that it would be through a contract or conditional rezoning; however, that is included in the PRUD provisions with the R-5A zone. As stated in the above description, the R-5A would a tool for encourage more housing in specific neighborhood locations as recommended through neighborhood plan and as recommended in Housing: Sustaining Portland's Future. It is noted that "potential text amendments will be considered to update the residential zones in conformance with the recommendations of " Housing: Sustaining Portland's Future."

IV. Goals, Policies and Actions of Volume I: Portland Comprehensive Plan

Public comments have been received in opposition to the proposed rezoning and the submission from Peggy McGehee and Lauren Weliver from Perkins/Thompson on behalf of Ms. Bobbi Cope (refer to PC 26). Please refer to the applicant's submission for their analysis.

Below are the goals and policies of the Comprehensive Plan cited in the Planning Board report:

Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

Policies

- Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following:
 - ii. Housing units for decreasing household size, such as young professionals, empty nesters, single-parent households, and senior citizens.
 - viii. Housing with a range of services and medical support for the elderly and special needs population, including assisted living, congregate care, group homes and nursing homes;
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation.
- Increase Portland's rental housing stock to maintain a reasonable balance between supply and demand yielding consumer choice, affordable rents, and reasonable return to landlords.
- Identify vacant land and redevelopment opportunities throughout the City to facilitate the construction of new housing.

Portland Housing Goal: Maintain and enhance the livability of Portland's neighborhoods as the City grows and evolves through careful land use regulations, design and public participation that respects neighborhood integrity.

Policies

- Encourage innovative new housing development, which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood.
- Encourage new housing development in proximity to neighborhood assets such as open space, schools, community services and public transportation.

- Ensure the integrity and economic value of Portland's neighborhoods.

In addition, the Planning Division cites the following goals and policies from Housing; Sustaining Portland's Future for the Planning Board's consideration of consistency with the comprehensive plan:

Portland Housing Goal: Ensure that an adequate supply of housing is available to meet the needs, preferences, and financial capabilities of all Portland households, now and in the future.

- Objective 1a. Ensure the construction of a diverse mix of housing types that offers a continuum of options across all income levels, which are both renter and owner-occupied, including but not limited to the following: (cited above with policies)
 - Actions
 - Evaluate and update current zoning to incorporate flexible provisions and incentives to encourage all types of housing. Establish zoning provisions that enhance neighborhoods with compatible and high quality housing developments.
 - Develop financial incentives, partnerships, zoning incentives and non-regulatory options to increase the diversity of Portland's housing stock.
- Objective 1b. A variety of housing choices should be available such that no one should have to spend more than 30% of their income for housing.
 - Maintain Portland's current proportion of subsidized units to its total housing stock. Establish a target of at least 20% of the total number of new housing units will be subsidized for households earning 80% or less of the region's median income.
- Objective 1d. (above from report)
 - Actions
 - Support a variety of affordable rental options for senior citizens.

Maintain, rehabilitate, and restore the existing housing stock as a safe and important physical, economic and architectural resource for the community.

- Objective 2c. Target vacant buildings for maintenance, rehabilitation and reuse.
 - See creative and architecturally compatible reuse of vacant non-residential buildings for housing or for mixed-use projects that incorporate housing by using creative financial incentives and partnerships.

Portland's Comprehensive Plan encourages a manageable level of growth that will sustain the City as a healthy urban center in which to live and work and to achieve a shared vision for Portland. Portland should encourage sustainable development

patterns and opportunities with the City by promoting efficient land use, conservation of natural resources and easy access to public transportation, services and public amenities.

- Objective 5a. Encourage growth in Portland that strives for a dynamic balance of the essential elements of the city, such as excellent schools, diverse housing choices, proximity to services and employment, increased public transit usage, expanded economic base, high quality services, and an affordable tax rate.
 - Integrate Portland's housing and economic development incentives to encourage growth and take advantage of the city's capacity to accommodate more people.
- Objective 5b. Maximize development where public infrastructure and amenities, such as schools, parks, public/alternative transportation, sewer lines, and roads exist or may be expanded at minimal costs.
 - Locate new housing along or within walking distance of major transportation corridors to increase use of METRO and encourage alternative modes of transportation.
 - Encourage new housing near neighborhood schools and in proximity of public parks and athletic facilities throughout the city.
- Objective 5e. Locate and design housing to reduce impacts on environmentally sensitive areas.
 - Encourage sensitive land development designs and construction methods that minimize impacts on the environment and investigate innovative solutions and collaborative approaches to address stormwater separation and management through natural means.
 - Explore ways to use zoning and other regulatory tools to encourage environmentally friendly development.

V. Findings of Consistency with the Comprehensive Plan

In making a recommendation to the City Council, the Board is asked to determine if the proposed zoning map and text amendments are consistent with the adopted Comprehensive Plan.

Consistency means "in basic harmony with" the comprehensive plan as a whole and it does not mean that it is consistent with every provision of the comprehensive plan. It is the City Council as the legislative body that balances all the provision of the comprehensive plan and determines whether or not the proposed amendments are consistent with the plan as a whole. Following is an excerpt from a memo Jennifer Thompson, Associate Corporation Counsel, wrote regarding the conditional rezoning agreement at 184 Auburn Street on August 16, 2013:

The Maine Law Court has interpreted the term consistent to mean that the proposed use/agreement must be "in basic harmony with . . ." the City's comprehensive plan (the "Plan") and existing and permitted uses in the original zone . Consistency does not mean, however, that a project has to be the "best possible use" for a site/location. See Vella v. Town of Camden, 677 A.2d 1051, 1053 (Me. 1996) (citing LaBonta, et al. v. City of Waterville, 528 A.2d 1262, 1265); see also City of Old Town v. Dimoulas, 2002 ME 133, ¶ 20, 803 A.2d 1018, 1024.

First, as you are aware, the Plan outlines “a compilation of policy directives and goals” for the development of the City. Among other things, the policies outlined in the Plan address the City’s infrastructure, commercial/business development, transportation resources, industry, and commerce and residential housing. See City of Portland Comprehensive Plan. Since these goals and policies can sometimes compete and/or conflict with one another, it is the Planning Board’s/City Council’s task to balance and accommodate the many goals/policies in a way that advances the City’s overall best interests. See Adelman v. Town of Baldwin et al., 2000 ME 91, ¶ 24, 750 A.2d 577, 585-586 (citations omitted); see also LaBonta, 528 A.2d at 1265. In fact, such a balancing is exactly the type of flexibility that conditional zoning is meant to facilitate.

The recent Remmel v. City of Portland case was a decision regarding a conditional zone agreement and not about a map or text amendment, but it does contain a discussion of the principle of what consistency with the comprehensive plan means under Maine law. Basically, a rezoning (either through a text/map amendment or a Conditional Zone Agreement) needs to be in basic harmony with the plan as a whole, and the Council (as the legislative body) is the body that must balance all the provisions of the comprehensive plan (even competing policies) and determine whether or not the proposed amendment is consistent with the plan as a whole and is in the best interests of the City. A conclusion from this case is as follows:

In light of the evidence before the City Council and the various competing goals of the comprehensive plan, the City Council had a rational basis for its conclusion that the CZA was consistent with the comprehensive plan as a whole, and struck a reasonable balance among the competing goals of the plan. See Nestle, 2009 ME 30, ¶ 23, 967 A.2d 702 (a zoning action may be considered as in basic harmony with the plan so long as the action “strikes a reasonable balance among the municipality’s various zoning goals”); LaBonta, 528 A.2d at 1265.

Danielle West-Chuhta, Corporation Counsel, has stated that the corporation counsel office is available to draft a memo regarding consistency for the City Council package, should the Board desire to have it included with the Board’s recommendation.

605 Stevens Avenue - Final Master Plan Traffic Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Thu, Jun 9, 2016 at 2:50 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: David Margolis-Pineo <dmp@portlandmaine.gov>, Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>

Hi Jean – the following provides final traffic comments and suggested conditions of approval requirements for the project.

- The applicant submitted a preliminary trip generation analysis that was based upon data from the Trip Generation Manual, Institute of Transportation of Engineers (ITE). The estimate was based upon Land Use Code 252 – Senior Adult Housing. I requested additional information on the ITE Land Use development type and is the data based upon current developments. Additionally, I requested the applicant provide local data for comparison. The applicant provided information that indicates the most recent publication provided by ITE does include current developments sites. Additionally, the applicant provided actual trip generation data collected at the Highlands in Topsham, which indicates similar trip levels as ITE. Based upon the applicant's analysis the project would be expected to generate 97 trips entering and exiting during the Weekday AM Peak hour and 87 trips entering and exiting during the Weekday PM Peak hour. This level of trip generation does not trigger the need for a Traffic Movement Permit, although it is very close to 100 peak hour vehicle trip threshold.

The applicant shall conduct monitoring studies for each phase after the Motherhouse and the first and second new buildings are completed to confirm trip generation levels are consistent with ITE. This monitoring will also confirm that trip levels remain below the Traffic Movement Permit threshold of 100 peak hour vehicle trips. Details of the monitoring study scope will be defined in the future.

- The applicant has recommended that on-street parking be prohibited on Stevens Avenue at the Motherhouse egress driveway to enhance safety by improving sight distance. The applicant is suggesting that 50 feet of a No Parking zone be

established. I concur with this recommendation. The applicant shall be responsible for implementation of the No Parking restriction. Final details shall be reviewed and approved by the City.

- On-site traffic circulation and parking will need to be evaluated, particularly as it relates to interaction between the proposed project and the McAuley School (both typical school days and during events).

The applicant shall conduct monitoring studies prior to the submission of site plan applications for each phase after the Motherhouse to confirm parking supply and circulation conditions at both the project site and at McAuley School are safe and acceptable. Associated with this is the requirement that the applicant confirm the parking generation assumptions for each phase are valid and the project does not impact the public street system and neighborhood. Details of the monitoring scope will be defined in the future

- The applicant should provide details and clarification on proposed measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities, etc. that would be considered to be a component of a Senior Housing development that would have been reflected in the developments surveyed by ITE for use in estimating trip generation.
- A traffic impact study has been submitted and in general I find the methods and conclusions to be acceptable with the following comments:
 - The Forest Avenue/Walton Street intersection is a High Crash Location and based upon the applicant's analysis no correctable crash patterns were identified. I have field reviewed the subject intersection and concur with the findings. Accordingly, no action by the applicant is required.
 - The applicant shall install a crosswalk on the south side of Stevens Avenue at Walton Street thus creating full intersection accessibility. This will include all work associated with a fully installed ADA compliant crossing and shall include, but not limited to, traffic signal equipment, sidewalk ramps, pavement markings, and signage.

The applicant shall install a crosswalk on the south side of Stevens Avenue

at Walton Street. This will include all work associated with a fully installed ADA compliant crossing and shall include, but not limited to, traffic signal equipment, sidewalk ramps, pavement markings, and signage. This work shall be installed at the time of occupancy of the first new building (anticipated to be between the Motherhouse and Baxter Woods).

- Given the likelihood of residents seeking destinations along Forest Avenue south of Walton Street, there may be benefits in providing a more direct pedestrian/bicycle connection between the east boundary of the site and Holly Street. Accordingly, the applicant shall provide a pedestrian connection to Holly Street as part of the site plan application for the third new building.
- The applicant should continue to coordinate with the City on the location of the crosswalk on Stevens Avenue. At this time the City is not requesting that it be a raised crosswalk.

Please let me know if you have any questions.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

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MEMORANDUM



TO: Jean Fraser, Planner
FROM: Lauren Swett, P.E.
DATE: June 9 2016
RE: 605 Stevens Ave – Master Development Plan Application – Response to Comments Review

Woodard & Curran has reviewed the response to comments materials for a Master Development Plan for a proposed senior living / active adult community at the former Sisters of Mercy campus located at 605 Stevens Avenue.

Documents Reviewed by Woodard & Curran

- Master Development Plan Response to Comments and Exhibits prepared by Licht Environmental Design, dated May 31, 2016.
- Master Plan Design Set, sheets G-1, C-3 and C-4, and L-1 through L-5.1, prepared by Fay, Spofford, & Thorndike (Stantec) and Carroll Associates, dated April 11, 2016.

Comments

1. A Stormwater Management Report outlining the general approach for stormwater management has been provided. We have reviewed the report and the included HydroCAD model, and agree with the overall approach for stormwater management. The applicant is proposing to utilize numerous Low Impact Development measures for stormwater treatment on the site, and is working to detain water to prevent increase in peak runoff from the site. These stormwater features are shown on the Concept Stormwater Layout and Post Development Watershed Plan. The Applicant notes that there will be a minor increase in flow from the site during the 2-year, 24-hour storm event. This increase will not have a significant impact on the site or on downstream areas. Flow increases will be reviewed with each project for potential impacts, and should be reduced or maintained at this low level. In addition, the infiltration rates proposed as part of this preliminary model should be confirmed for each project. The Applicant is aware of the importance of not significantly increasing the discharge rate into Baxter Woods as a result of the development, and maintaining the existing discharge locations from the site.
2. All previously provided comments have been addressed.

MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, PE & Lauren Swett, P.E.
DATE: April 25, 2016
RE: 605 Stevens Ave – Master Development Plan Application – Response to Comments Review

Woodard & Curran has reviewed the response to comments materials for a Master Development Plan for a proposed senior living / active adult community at the former Sisters of Mercy campus located at 605 Stevens Avenue. We also attended a meeting with the Applicant and their consultant team on February 24, 2016.

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- Stormwater Management Plan prepared by Stantec, dated April 11, 2016.
- Master Plan Design Set, sheets G-1, C-3 and C-4, and L-1 through L-5.1, prepared by Fay, Spofford, & Thorndike (Stantec) and Carroll Associates, dated April 11, 2016.

Comments

1. At the time of our meeting on February 24th, the consultant team was continuing to follow up with utility companies to ensure that the approach to utility service connections to Stevens Ave (Gas & Water) and Walton Street (Sewer & Electrical) were suitable as initially presented. The Design team was awaiting updated capacity to serve letters from these utility companies, and was actively working on sizing utility stub-ins across the current Motherhouse development site to ensure that the utility feeds were adequately sized to accommodate the overall development (the full build-out of the Master Plan). The Applicant has now provided a concept utility plan that includes proposed gas, water, sanitary sewer and storm drainage. The plan should also include the electrical utility locations, and should show all existing utility locations and the approximate locations where proposed utilities will connect. The Applicant's approach to utility design for the overall Master Development Plan is acceptable; we await additional information on proposed utility service sizes and confirmation of ability to serve.
2. A Stormwater Management Report outlining the general approach for stormwater management has been provided. The report identifies that detailed grading and design has not yet been completed. It is our understanding that Site Plan Approval will be required for individual projects, and more detailed stormwater design will be provided at that time. We have reviewed the report and the included HydroCAD model, and agree with the overall approach for stormwater management. The applicant is proposing to utilize numerous Low Impact Development measures for stormwater treatment on the site, and is working to detain water to prevent any increase in peak runoff from the site. We have the following comments.
 - a. Note that the Maine DEP issued updated Chapter 500 Stormwater Management regulations in 2015. These updated regulations include new rainfall amounts based on data obtained from the Northeast Regional Climate Center website. The Applicant should update their report and model to reference this current information.
 - b. The Applicant notes that there will be a minor increase of 0.19 cubic feet per second in peak flow during the 2-year, 24-hour storm event. The model indicates that flows will be reduced during more significant 10-year and 25-year storm events. This increase will not have a significant impact on the site or on downstream areas. The HydroCAD model will be refined with each Site Plan Application, and flow increases will be reviewed with each project for potential impacts, and should be reduced or maintained at this low level. In



addition, the infiltration rates proposed as part of this preliminary model should be confirmed for each project.

- c. Sheet L-2 Site Plan does not match Sheet C-3.0 Concept Stormwater Plan. The site plan identifies rain gardens as part of its legend, but locations corresponding to the concept stormwater plan are not shown. Some landscaping features and a potential community garden are shown in areas where stormwater features are proposed. The Site Plan should be updated to reflect the current proposed stormwater management features.

Preliminary Review Comments for 605 Stevens Ave - Senior Housing

1 message

David Margolis-Pineo <dmp@portlandmaine.gov> Thu, Jun 9, 2016 at 10:38 AM
To: Tom Errico <thomas.errico@tylin.com>, Barbara Barhydt <bab@portlandmaine.gov>, Jean Fraser <jf@portlandmaine.gov>

June 9, 2016

Memo To: Jean Fraser

Barbara Barhydt

From: David Margolis-Pineo

Re: Motherhouse Senior Housing – 605 Steven Ave 2015-110

The Department of Public Works has the following comment on the above proposed project. It is realized that this project is in the concept phase and final details will need to be resolved as this phased project progresses. With that in mind, the following preliminary comments are made.

1. The total project build out is estimated to generate a wastewater volume of approximately 32,000 gpd. The downstream sanitary sewer have been evaluated and it has been determined that the sewers will have the capacity to handle this volume.
2. Stormwater Treatment and Drainage: The general concept of what is proposed for this project is understood, however the details will need to be finalized. It is understood that no stormwater drainage will

be discharged to the City's sewers designed to convey sanitary waste. In general, all site drainage is directed towards Baxter Woods. The City is in the preliminary stages of designing a stormwater drainage system to collect drainage from Baxter Woods. The design of the stormwater infrastructure for this project shall be coordinated with Nathaniel Smith (874-8818), Project Engineer of this Department.

There will be additional comments once the project is submitted for final approval for building permits. We have no addition comments at this time.

--

David Margolis-Pineo
Deputy City Engineer
Department of Public Services
55 Portland St.
Portland, ME 04101
Office [207-874-8850](tel:207-874-8850)
Cell [207-400-6695](tel:207-400-6695)
dmp@portlandmaine.gov

Planning and Urban Development Department Planning Division



Subject: Design Review – 605 Stevens Avenue Master Plan
Written by: Caitlin Cameron, Urban Designer
Date of Review: Thursday, June 9, 2016

The proposed master plan for multi-family residential buildings is only reviewed according to the Master Plan criteria. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines.

In the Master Plan level review, the design considerations include cohesiveness within the proposed development as well as compatibility with the context. In this case, the immediate context is the Motherhouse and campus property on which future developments will be situated. Though the design and placement of buildings should be sensitive to neighboring residential and park contexts, the multi-family building typology and the relationship to the Motherhouse are the primary considerations in evaluating the proposed design characteristics.

Building Footprints

The applicant was asked to consider whether there are strategies for reducing the impact of the buildings facing Baxter Woods. Suggested strategies included reducing the building footprints, varying building heights, turning buildings 90 degrees so that the shorter end faces the park. The applicant responded with a memorandum "Urban Design – Massing Relationship to Baxter Woods" (Exhibit B) describing the building footprints and the rationale for their placement. Staff has no further comment at this time and defers to the Planning Board on the evaluation of the impact of the master plan development on Baxter Woods. In each future Site Plan application, the applicant is expected to re-evaluate the scale, placement, orientation, and footprint of the buildings in consideration of impact on Baxter Woods and will mitigate that impact whenever feasible.

Architectural Design

The applicant has included architectural plans, elevations, and renderings (Exhibit B), as well as an Architectural Characteristics Summary (Exhibit B.1) as guiding documents for future development proposals with the expectation of creating cohesive design throughout the campus as well as defining how new development shall be compatible with the existing context. Staff considers all these documents together and recommends the Planning Board approve the Master Plan Development application with the expectation that these are guiding documents only, but should be considered applicable design guidelines for any future Site Plan application on this site.

The Architectural Characteristics Summary (Exhibit B.1) describes which characteristics found in the drawing set will apply to all future architectural proposals. The staff reviewers are generally in favor of the revisions made to the architectural character proposed for the site and support the guidelines proposed – brief staff comment on each guideline is provided below:

1. Building Footprints – Future development shall generally follow the MDP approved footprints. The proposed footprints – an L-type and a bar-type – successfully mitigate the scale of the buildings through the use of varied forms and change of building plane. The buildings are also placed interior to the lot and are therefore less visible from public rights-of-way and neighboring properties, buffered by space and trees.
2. Roof Lines – Flat roof forms are prescribed; the change to flat roofs is consistent with the building typology proposed and moves the architecture in a direction that is responsive to the Motherhouse context which has a hipped roof with gabled dormers.
3. Motherhouse Context – Characteristics taken from the Motherhouse be applied to new development include: granite base; reference to the Motherhouse roofline through material changes and floor delineation; brick elements using brick of similar color and pattern as the Motherhouse.
4. Material Palette – The material selection and color palette should be guided by the material indications on the elevations and renderings and as described in the narrative as having natural tone, brick, granite, and grey clapboard. The more subtle grey material palette with brick vertical elements is supported – the use of as few materials as possible is recommended.
5. Building Entry – Clearly delineated entries with porch elements shall be a common feature.
6. Massing – The scale of each building is proposed to be mitigated through the use of varied forms and change of building plane, deck spaces, and façade composition (see renderings for material placement and massing).
7. Parking – Structured parking is proposed to be designed to have similar character to the residential building above.

Conditions of Approval

Staff recommends the following design conditions of approval:

- That the documents included in Exhibit B – architectural plans, elevations, and renderings, as well as an Architectural Characteristics Summary (Exhibit B.1) – are considered together to be adopted guiding documents that will be applicable design guidelines for future development proposals on this site.
- That an additional guideline 8. be added to *Exhibit B.1 Architectural Characteristics Summary* as follows: 8. Window types will be consistent with vertical proportion throughout all buildings.

Additional Design Considerations (Site Plan)

The following guidelines will be taken into consideration for the architecture and design of future Site Plan development applications:

- Flat or hipped roof line referential of the Motherhouse would be acceptable provided the proportion and slope of the roof is comparable and compatible as well as consistent throughout all the buildings.
- In the new buildings, maintain the proportional relationship of “roof” to façade found in the Motherhouse. The four-story building design in the MDP guiding documents does not reflect these proportions.
- Use as few material types as possible.
- The building nearest the Motherhouse should be designed with the most sensitivity to the context of the historic structure.

Planning and Urban Development Department Planning Division



Subject: Design Review – 605 Stevens Avenue Master Plan

Written by: Caitlin Cameron, Urban Designer

Date of Review: Friday, April 22, 2016

The proposed master plan for multi-family residential buildings are only reviewed according to the Master Plan criteria at this point. In future Site Plan design reviews, the projects will be subject to the R-5 and Multi-family design guidelines.

In the Master Plan level review, the design considerations include cohesiveness within the proposed development as well as compatibility with the context. In this case, the immediate context is the Motherhouse and campus property on which the future development will be situated. Though the design and placement of buildings should be sensitive to neighboring residential and park contexts, the multi-family building typology and the relationship to the Motherhouse are the primary considerations in evaluating the design.

In discussion with Planning and Historic Preservation staff, I have the following preliminary design comments. The overall massing of the buildings will best be evaluated with three-dimensional models and aerial views of the proposed massing in the campus with existing building and landscape context. From the information given, it appears the design proposal successfully mitigates the scale of the buildings through the use of varied forms and change of building plane. The buildings are also placed interior to the lot and are therefore less visible from public rights-of-way and neighboring properties, buffered by space and trees. Staff is not in support of the proposal to use gable roof forms in combination with flat roofs. This approach is not responsive to the Motherhouse form or building composition. Rather than introduce vertical breaks in the façade, the preferred approach would be to use a consistent material palette for the lower floors and differentiate the upper floor in material and proportion keeping a flat roof throughout. This keeps the individual building design consistent with the typology and moves the architecture in a direction that is responsive to the Motherhouse context.

PART 1: FINAL STAFF COMMENTS ON PRELIMINARY MDP SUBMISSIONS

Senior Housing, 605 Stevens Ave

TRAFFIC, CIRCULATION & PARKING

- Please address the Traffic Engineering review comments attached (5.9.16);
- Note that the Fire Department needs access to at least 2 sides of each building, with unencumbered space of at least 16 feet (note other requirements as outlined in the City's Technical Manual *Section 3 – Public Safety Standards* (website link: <http://me-portland.civicplus.com/DocumentCenter/Home/View/2346>)
- Please adjust parking diagram to reflect the comment under PHASING below.

PEDESTRIANS/BICYCLES

- Please address the Traffic Engineering review comments attached (5.9.16);
- Please note that at the site plan stage there will be more detailed comments concerning the width of walkways; ADA compliance; possible cycle routes within the site etc.

LANDSCAPE ON SITE

- An MDP “standard for review” states:
Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;
- The City Arborist (Jeff Tarling) is concerned about the loss of the old allee, which is an important historic and natural feature of the site and cannot be replaced; he comments (5.4.16):
“While the 605 Stevens Plan calls for the removal of a large number of significant trees, I feel that the historic alle of trees along the former roadway that appears to pre-date the Mother House construction is a significant landscape feature that should be preserved. Recommendations would include designing proposed units to fit the historic landscape components of the alle. This topic has been expressed by the city since the very first days of project consideration. The historic heritage Red Oak trees along the road along with the visual aspect are important features of the site and helps the proposed development to appear to be part of the original compound.”
- Further consideration should be given to the landscape treatment, trail location and linkages along eastern boundary.

URBAN DESIGN (per MDP standards of review)

- Please address Urban Design comments dated 4.22.2016 (attached);
- Please address the Planning Board and neighbor comments at the 4.26.16 PB workshop, which were concerned about the scale of the gables; need to specify colors of materials; and seek to reconfigure buildings so they are set back further from Baxter Woods and create less of a “wall”;
- Consider developing a design “statement” to frame future phases and clarify which design elements should be consistently incorporated in all new buildings.

UTILITIES & STORMWATER

- Please address the Peer Engineer comments dated 4.25.2016 (attached);
- Please remove conflicts between stormwater features & landscaping/berms etc;
- Please address neighbor's concerns about:
 - quality of water entering existing wetland (eg salt and sand from parking lots)
 - protecting nearby homes and Baxter woods from stormwater /groundwater impacts.

PHASING

- Please revise the phasing diagram to reflect the stated intent to build one building at a time (instead of two as currently illustrated on the phasing diagram);
- Please remove all parking shown between buildings and Baxter Woods for all phases except the last phase (for last phase add note that this parking would only be constructed if warranted by the parking monitoring studies.

605 Stevens Avenue - Overview of Traffic Considerations/Comments

1 message

Tom Errico <thomas.errico@tylin.com>

Mon, May 9, 2016 at 3:13 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: David Margolis-Pineo <dmp@portlandmaine.gov>, Katherine Earley <KAS@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>

Hi Jean – the following provides an overview of traffic considerations and comments regarding the above noted project.

- The applicant submitted a preliminary trip generation analysis that was based upon data from the [Trip Generation Manual](#), Institute of Transportation of Engineers (ITE). The estimate was based upon Land Use Code 252 – Senior Adult Housing. I requested additional information on the ITE Land Use development type and is the data based upon current developments. Additionally, I requested the applicant provide local data for comparison. The applicant provided information that indicates the most recent publication provided by ITE does include current developments sites. Additionally, the applicant provided actual trip generation data collected at the Highlands in Topsham, which indicates similar trip levels as ITE. Based upon the applicant's analysis the project would be expected to generate 97 trips entering and exiting during the Weekday AM Peak hour and 87 trips entering and exiting during the Weekday PM Peak hour. It is suggested that the applicant conduct monitoring studies at the completion of each site plan phase to confirm trip generation levels are consistent with ITE. Details of the monitoring study scope will be defined in the future.
- The applicant has recommended that on-street parking be prohibited on Stevens Avenue at driveways and pedestrian crossings to enhance sight distance. The City will continue to work with the applicant in identifying parking regulations that balance safety and on-street parking supply

- On-site traffic circulation and parking will be closely reviewed particularly as it relates to interaction with McAuley School (both typical school days and during events). It is suggested that the applicant conduct monitoring studies at each site plan phase to confirm parking supply and circulation conditions are acceptable. Associated with this is the requirement that the applicant confirm the parking generation assumptions are valid and the project does not impact the public street system and neighborhood.

- The applicant should provide details and clarification on proposed measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities, etc. that would be considered to be a component of a Senior Housing development that would have been reflected in the developments surveyed by ITE for use in estimating trip generation.

- A traffic impact study has been submitted and in general I find the methods and conclusions to be acceptable with the following comments:
 - Further study of safety conditions at the Forest Avenue/Walton Street intersection are required. The location is a High Crash Location and improvements to address this deficiency are warranted. I would note that the intersection should also be reviewed for pedestrian conditions.
 - The applicant should install a crosswalk on the south side of Stevens Avenue at Walton Street thus creating full intersection accessibility. This change will require traffic signal modification and should be installed at the time of occupancy of the first phase of the project.

- Given the likelihood of residents seeking destinations along Forest Avenue south of Walton Street, there may be benefits in providing a more direct pedestrian/bicycle connection between the east boundary of the site and Holly Street. The applicant should investigate the feasibility of this connection.

- The applicant should continue to coordinate with the City on the location of the crosswalk on Stevens Avenue. At this time the City is not requesting that it be a raised crosswalk.

Please let me know if you have any questions.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

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Planning and Urban Development Department Planning Division



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Written by: Caitlin Cameron, Urban Designer

Date of Review: Friday, April 22, 2016

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MEMORANDUM



TO: Jean Fraser, Planner
FROM: David Senus, PE & Lauren Swett, P.E.
DATE: April 25, 2016
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addition, the infiltration rates proposed as part of this preliminary model should be confirmed for each project.

- c. Sheet L-2 Site Plan does not match Sheet C-3.0 Concept Stormwater Plan. The site plan identifies rain gardens as part of its legend, but locations corresponding to the concept stormwater plan are not shown. Some landscaping features and a potential community garden are shown in areas where stormwater features are proposed. The Site Plan should be updated to reflect the current proposed stormwater management features.

PART 2: FINAL STAFF COMMENTS ON PRELIMINARY MDP SUBMISSIONS

Senior Housing, 605 Stevens Ave

PUBLIC TRANSIT

- **Bus stop:** We would like to have the proposed bus stop (along the frontage of Lots 3/4) noted on the MDP plan, but further discussion with METRO is required to determine whether its best to locate the bus stop south or north of the relocated crosswalk. The attached sketch gives an indication of the two options for the bus stop location based on the current MDP layout and could form the basis for a note/graphic that confirms the likely bus stop location.
- **Bus shelter:** Both METRO and the City (ordinance requirement) would like a bus shelter in the vicinity of the bus stop. The location and installation details are the subject of the Motherhouse condition/a future Phase 1 site plan review, but it probably would need to be on the MDP property so a note on the MDP plan is suggested.

INTEGRATION WITH BAXTER WOODS (BW)

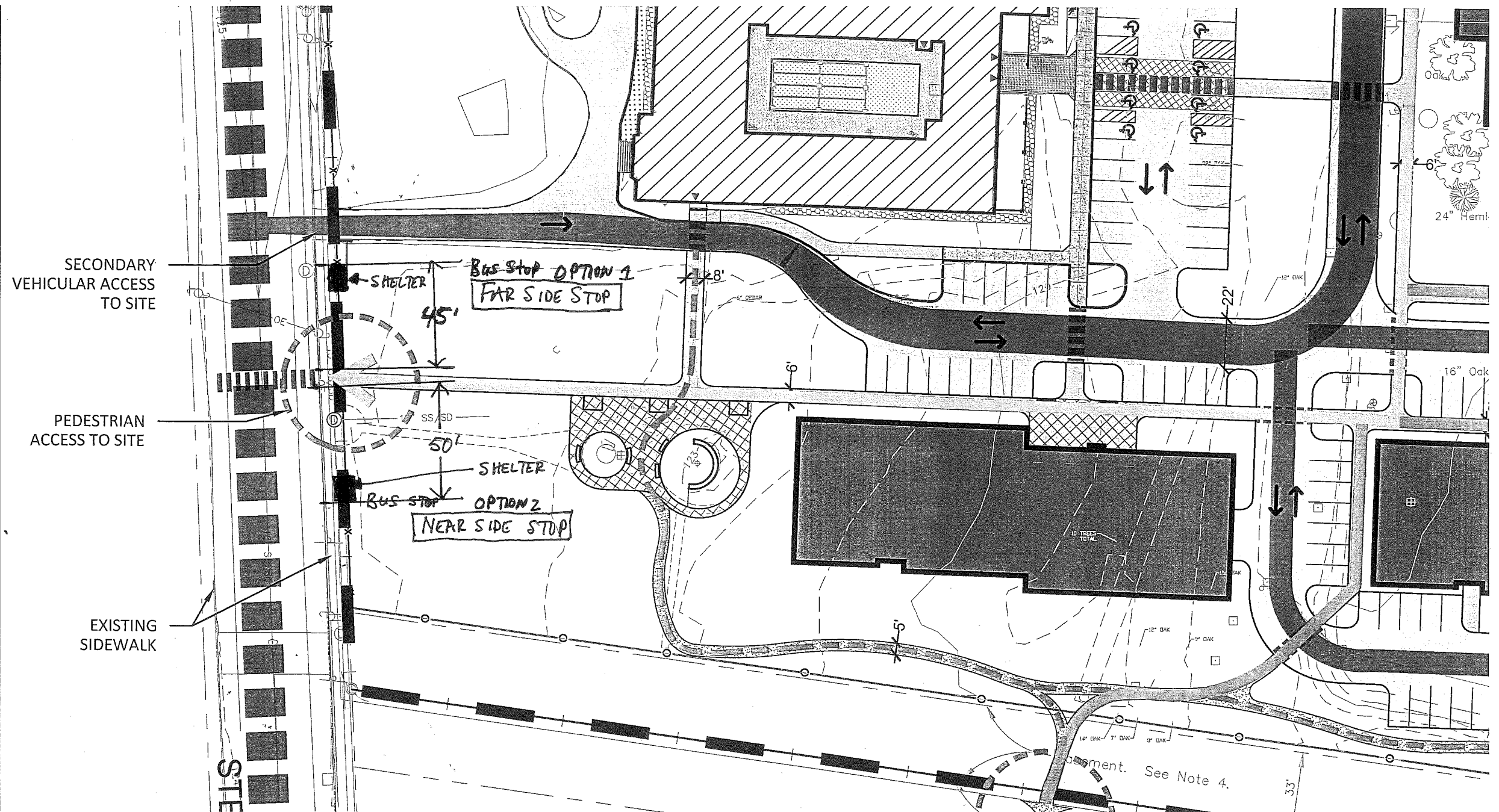
- Please consider the attached staff comments on the draft MOU received 4.12.2016 (sent separately from this note) - for discussion at the meeting 5.16.2016;
- Please address the comments of the City Arborist Jeff Tarling dated 4.22.2016 (attached) and the following additional comments from Jeff Tarling (5.4.2016):
 - Elements of the MOU are a positive element of the proposed project and help establish current park conditions and will help manage the park in the future. The MOU agreement for monitoring use should extend to two years past the final CO. Timing wise this should be two summer / fall seasons to gauge any additional impact.
 - Proposed tree planting & landscape within the current park area should be in agreement with Portland Parks, Recreation & Facilities Department agreement.
 - Park access should be limited to 2 locations with the main entrance to Mayor Baxter Woods located near the former 'old road', width of the proposed path should be 6 - 8' or in keeping with existing pathways. Material should be 3/8" stone dust surface. Care should be used to not infringe upon historic cellar hole features.
 - Continue with previous comments of using native plants, with a percentage beneficial to wild bird habitat; 'dark sky' friendly low light treatment on the park side of the project, 'earth tones' colors to park facing facade to the extent possible, use of berms between any future parking and the park, berm height should be 3 - 4' minimum and similar to successful berm & landscape treatment used at the Cheverus High School parking lot expansion.
- Please revise the parking and phasing diagrams to omit parking on side towards Baxter Woods, with all interim parking (for earlier phases) elsewhere, so that if parking is needed adjacent to Baxter Woods this would be only in the final phase and justified by the final monitoring reports;
- Please note the PB comments regarding the importance of berms and avoiding conflict with raingardens.

HISTORIC

- Please see the MHPC letter dated 4.29.16 (attached) that includes a condition relating to Lot #4 nearest to the Motherhouse. Further discussions are necessary to understand the location and extent of permitted fence removal to accommodate access points and a bus shelter.

605 Stevens Ave : MASTER DEVELOPMENT PLAN

BUS STOP + SHELTER CONFIGURATION OPTIONS



1" = 50'

BAH/PHUD
5/11/16

Jeff Tarling

10:59 AM (36
minutes ago)

to me

Jean -

In review of the proposed 605 Stevens Avenue project master plan I would like to offer the following comments:

The proposed 605 Stevens Avenue project is adjacent to 'Mayor Baxter Woods' which is a significant natural, open space park donated to the City of Portland by Governor Percival Baxter in honor of his father, James P Baxter former Mayor of Portland. The woods was also formerly 'Forest Home' and throughout the last century and a half have been a forested refuge. To minimize impact to the park both physically and view wise it will be important for the project team to work closely with the City objectively, so that visitors to the park have the natural experience as they have for over 75 years.

Recommendations include:

- a) Enhance buffering along the property edge, including the roadway easement
- b) Future parking facing the park should be screened with native vegetation and earth berms.
- c) Building facades facing the park should be painted or stained using natural earth tones. Night lighting should be engineered to have minimal trespass into the park.
- d) Landscape treatment should be designed using native plants and plants that habitat friendly to birds.
- e) Park impact baseline & monitoring - baseline assessment of park conditions along with a five year monitoring program would be a recommended.

Jeff Tarling
Portland Parks & Recreation - City Arborist
55 Portland Street
Portland, ME. 04101
[\(207\) 874.8820](tel:(207)874.8820)
jt@portlandmaine.gov



MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

PAUL R. LEPAGE

GOVERNOR

Mary Davis
City of Portland
389 Congress Street
Portland, ME 04101

April 29, 2016

KIRK F. MOHNEY

DIRECTOR

Project: MHPC# 0462-16 – Motherhouse Project; 605 Stevens Avenue; HUD HOME
funding; federal and state historic tax credit project
Town: Portland, ME

Dear Ms. Davis:

In response to your recent request, I have reviewed the information received April 4 and 11, 2016 to initiate consultation on the above referenced undertaking pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended.

Regarding the Section 106 review process, our office considers both the rehabilitation of the Motherhouse and the proposed phased construction of five new buildings to be one undertaking. Therefore, our comments encompass both portions of this redevelopment project.

Based on the information submitted, I have concluded that this undertaking will have **no adverse effect** upon this historic property.

However, this finding is conditional upon the following requirements:

1. Based on the architect's plan L-2.0 dated February 16, 2016, it is our understanding that the existing landscape and shrine located west of Building 1 (proposed new 4 story building fronting Stevens Avenue) will remain in place.
2. If this project will involve historic rehab tax credits, our finding for the HUD HOME funding will be based on an approved Part 2 of the historic tax credit application. If a Part 2 will not be submitted to our office, please let our office know so we may continue consultation with you on this project.

Please contact Robin Reed of our staff if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer

cc. Christine Beard, Tremont Preservation Services

* Jeff Tarling May 20 to me, Ethan: Jean - The idea of replacing the missing trees of the alley is a good

Att. 6

Portland
Maine

compromise. Many of the trees are old but felt that they do represent a historic element of the property.

I approve the idea of protecting the trees that are viable out of the way of the building site,

the remaining would receive the 'tree protection' features of fencing and signage about not storing materials or equipment near the trunk & drip line except on paved surfaces.

Thanks, Jeff

Jean Fraser <jf@portlandmaine.gov>

Re: Urgent re MDP 605 Stevens Ave

1 message

Jeff Tarling <jst@portlandmaine.gov>

Wed, May 4, 2016 at 2:40 PM

To: Jean Fraser <jf@portlandmaine.gov>, Ethan Hipple <ehipple@portlandmaine.gov>

Jean -

Landscape / tree review - While the 605 Stevens Plan calls for the removal of a large number of significant trees, I feel that the historic alle of trees along the former roadway that appears to pre-date the Mother House construction is a significant landscape feature that should be preserved.*Recommendations would include designing proposed units to fit the historic landscape components of the alle. This topic has been expressed by the city since the very first days of project consideration. The historic heritage Red Oak trees along the road along with the visual aspect are important features of the site and helps the proposed develop to appear the be part of the original compound.

Elements of the MOU are a positive element of the proposed project and help establish current park conditions and will help manage the park in the future. The MOU agreement for monitoring use should extend to two years past the final CO. Timing wise this should be two summer / fall seasons to gauge any additional impact.

Proposed tree planting & landscape within the current park area should be in agreement with Portland Parks, Recreation & Facilities Department agreement.

Park access should be limited to 2 locations with the main entrance to Mayor Baxter Woods located near the former 'old road', width of the proposed path should be 6 - 8' or in keeping with existing pathways. Material should be 3/8" stone dust surface. Care should be used to not infringe upon historic cellar hole features.

Continue with previous comments of using native plants, with a percentage beneficial to wild bird habitat; 'dark sky' friendly low light treatment on the park side of the project, 'earth tones' colors to park facing facade to the extent possible, use of berms between any future parking and the park, berm height should be 3 - 4' minimum and similar the to successful berm & landscape treatment used at the Cheverus High School parking lot expansion.

Jeff Tarling
City Arborist

Jeff Tarling
Portland Parks & Recreation - City Arborist

Jeff Tarling

April 22, 2016
10:59 AM (36
minutes ago)

to me

Jean -

In review of the proposed 605 Stevens Avenue project master plan I would like to offer the following comments:

The proposed 605 Stevens Avenue project is adjacent to 'Mayor Baxter Woods' which is a significant natural, open space park donated to the City of Portland by Governor Percival Baxter in honor of his father, James P Baxter former Mayor of Portland. The woods was also formerly 'Forest Home' and throughout the last century and a half have been a forested refuge. To minimize impact to the park both physically and view wise it will be important for the project team to work closely with the City objectively, so that visitors to the park have the natural experience as they have for over 75 years.

Recommendations include:

- a) Enhance buffering along the property edge, including the roadway easement
- b) Future parking facing the park should be screened with native vegetation and earth berms.
- c) Building facades facing the park should be painted or stained using natural earth tones. Night lighting should be engineered to have minimal trespass into the park.
- d) Landscape treatment should be designed using native plants and plants that habitat friendly to birds.
- e) Park impact baseline & monitoring - baseline assessment of park conditions along with a five year monitoring program would be a recommended.

Jeff Tarling
Portland Parks & Recreation - City Arborist
55 Portland Street
Portland, ME. 04101
[\(207\) 874.8820](tel:(207)874.8820)
jt@portlandmaine.gov

Report ATTACHMENT 8 7
to PB Memo for MDP Workshop II
As was in PB Memo for Workshop I

I. PREVIOUS REVIEWS AND APPROVALS

The MDP was submitted after a year of discussions with the Planning Division, Planning Board, members of the public and City Council regarding zoning text and map amendments to guide the appropriate scale of senior housing development on this site. The text and map amendments are outlined in more detail in section **V b.** below.

The associated policy decisions regarding density considerations and associated traffic, parking and visual impacts were the subject of extensive Planning Board and City Council discussion, including hours of public testimony (41 written comments on the rezoning).

The MDP submission and review is a “middle” stage between the rezoning that allowed for this particular use, and the implementation of four phases of senior housing development. The conversion of the Motherhouse as a first phase was approved by the Planning Board in August 2015 to facilitate housing and historic tax credits. The MDP, once approved, would provide a conceptual plan that integrates the existing buildings and uses into the anticipated final build out that includes 5 new buildings with associated access, parking and open space/landscape amenities.

The overall review and approval chronology is outlined in the following table:

Subject of application	Application Date	PB Workshop(s)	PB Hearing approval	City Council approval
Rezone 17 acres from R5 to R6A for senior housing/congregate care	February 2015	March 2015		
Rezone 13.5 acres to R5A senior housing/congregate care	April 2015	April 2015	May 2015	
Rezone 7.5 acres to R5A senior housing/congregate care				July 6, 2015 (amended PB recommendation)
Amendment to R5A Text	April 2015	April 2015	May 2015	June 15, 2015
Convert Motherhouse (part in R5A) to 88 senior units, incl. 66 units of affordable housing (Ph 1)	June 2015	July 2015	August 2015	N/A
Subdivision of the entire approx. 20 acre site into 4 lots	June 2015	July 2015	August 2015	N/A
(THIS APPLICATION) Master Development Plan for Lots 3 & 4 (Motherhouse and land to south and east of Motherhouse (total of 13.5 acres) /	February 2016	March 22, 2016	TBD	N/A
(ANTICIPATED NEAR FUTURE) Phase 1 of senior housing in 21 unit building near Motherhouse	Expected in 2016			N/A
(ANTICIPATED FUTURE) A further two phases as outlined in MDP	Not confirmed			N/A

II. BACKGROUND

a. Site History

The site was the location for a convent in the late 19th century for the Sisters of Mercy in Portland and originally included a church. Other uses were introduced over the years:

- A girl’s school in 1881 (later expanded into what is known as Catherine McAuley High School in 1971); the expansion of the playing fields at the back were added in the last 10 years;

- St Catherine's Hall in 1888 as St Joseph's Home for Aged Women, which later became St Joseph's college from 1917 to 1954 (now 18 apartments for Sisters of Mercy and will continue for foreseeable future);
- Motherhouse, completed in parts between 1909 and 1921, which was the home of up to 300 nuns but was closed about 10 years ago.



Motherhouse Building

b. Rezoning part from R5 to R5A

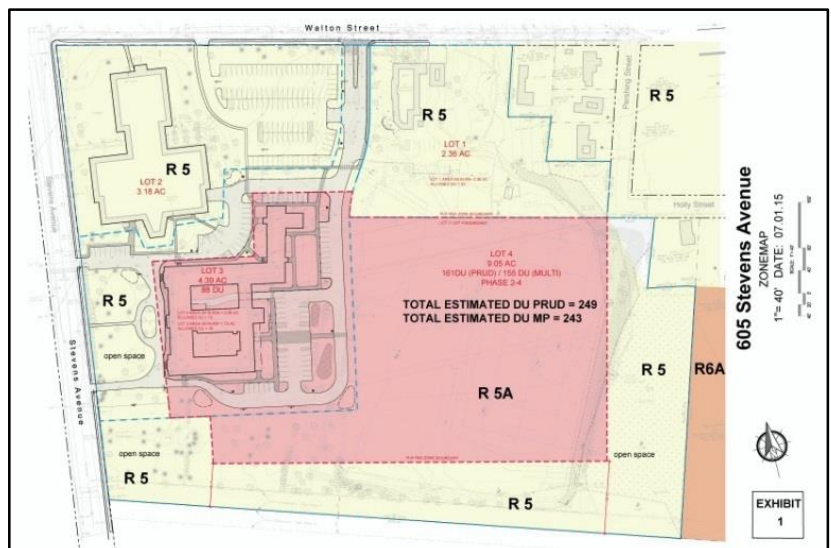
The applicant initially applied to rezone more of the site from R5 to R6A to allow for 300+ dwellings. During the review the Planning Board received extensive public comment raising concerns that the allowed density (which would have been higher) was out of scale with the surrounding neighborhood, and the lower density R5A zone emerged as an option with both a map amendment and associated text amendments (see [Att 8](#) for the amended dimensional requirements that impact density).

In summary the final zone amendments to the R5A zone text were:

- Adding “multifamily ” and “congregate care” to the permitted uses, with associated minimum lot sizes;
- Amend definition of “congregate care”;
- Clarification of the minimum lot area per dwelling (1600 sf) for both uses;
- Include a maximum structure height of 55 feet;
- Remove the requirement that the R5A zone be applied through the contract zone provisions;
- Streamlining the definition of “net land area” to meet current development review practices;
- Removal of unnecessary text and placing the dimensional requirements into a table;
- Amend the Site Plan ordinance regarding Master Development Plans to include the proposed uses.

The Planning Board recommendation to the City Council was for all of Lots 3 and 4 to be rezoned to R5A and was informed by the Conceptual Site Plan in [Att 6](#).

In response to public comments, the City Council approved a smaller final boundary of the R5A zone (shown right) which allows for a maximum of 249 dwellings on the Lot 3 and Lot 4 site. This number of dwellings was based on the total entire land area of both zones with pro-rata densities. The zone boundaries are not the same as the property or lot boundaries and the data is split out in [Att 7](#).



c. Subdivision into 4 lots

The Planning Board approved (August 2015) the creation of an overall Subdivision to define the following 4 lots within the overall site:

- Lot 1: St Catherines Hall (2.36 acres)
- Lot 2: Catherine McAuley High School (3.18 acres)
- Lot 3: Motherhouse (4.39 acres)
- Lot 4: Open area and fields (9.05 acres)

The Master Development Plan is for Lots 3 and 4 (developed for senior housing) as Lots 1 and 2 are anticipated to remain as existing for the period of the Master Development Plan.

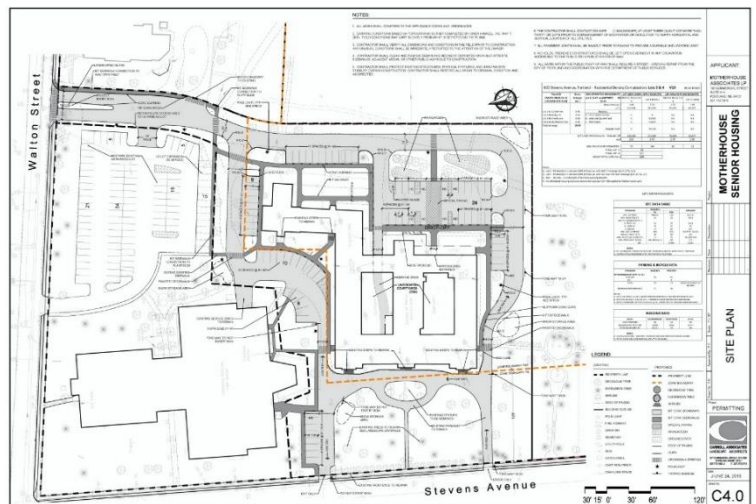


d. Review and Approval to Conversion of existing Motherhouse building

The applicant received Planning Board approval to the Phase 1 project to rehabilitate the main Motherhouse building for 66 affordable housing units and 22 market rate units - with a mix of 68 single bedroom and 20 studio apartments.

The site plan (see right) included:

- Redesign of the existing high school parking lot to better organize access and parking
- Creation of a rear main ADA entrance and associated drop-off and parking areas;
- New walkways to create an interconnected walkway system;
- Contribution to Stevens Avenue crosswalk improvements;
- Stormwater measures;
- Landscaping.



PRUD & MULTIPLEX/MULTIFAMILY ANALYSIS

Notes:
1. Under Multiplex Analysis: R5 density is 1 unit per 4,500 sf Gross ac. with 250 ft frontage (Lot 3) and 1 unit per 6,000 sf Gross ac. with < 250 ft. frontage (Lot 4) per (§ 14.117(a.) 2.)
2. Under Multifamily Analysis: R5A density is 1 unit per 1600 sf NET ac. based on Amended § 14-47 Net Land Area def. of 06-15-15
3. Under PRUD Analysis: R5 density is 1 unit per 3000/sf NET ac and R5A is 1 unit per 1600 sf NET ac.
4. No affordable housing multiplex density bonuses per §14-488 applied to Motherhouse Lot 3

R5A Zone - Extract**Sec. 14-130. Dimensional requirements.**

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-5A zone shall meet or exceed the following requirements:

Minimum Lot Size	Residential(Single-, two-and three-family dwellings): 6,000 SF and a maximum lot size up to 2 acres ¹
	Planned residential unit development (PRUD), multifamily development of 4 or more dwelling units, and Congregate Care: 2 acres gross area
	Intermediate, extended or long-term care facilities: 1 1/2 acres.
Min. Lot Area per D.U.	Single-, two-and three-family dwellings: 1,600 SF.
	Planned residential unit development (PRUD), Congregate Care and Multifamily development of 4 or more dwelling units: 1600 SF of net land area..
Min. Lot Area per Resident	<i>Minimum land area per intermediate care facility resident: 8,000 SF gross land area for the first thirty-five (35) residents, plus three hundred fifty (350) square feet for each additional resident.</i>
Min. Street Frontage	50 feet.

¹ A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807-A, or the applicable zoning lot size, whichever is the largest. Except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article.

Min. Yard Dimensions for Single-, two-and three-family dwellings²	1. <i>Front yard</i>: Principal or accessory structures: 25 feet. 2. <i>Rear yard</i>: a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: 25 feet. b. Accessory detached structures with a ground coverage of one hundred and forty-four (144) square feet or less: 5 feet. Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article. (continued) 3. <i>Side yard</i>: a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: <table border="0" style="margin-left: 40px;"> <tr> <td style="text-align: right;"><i>Height of Structure</i></td><td style="text-align: left;"><i>Required Side Yard</i></td></tr> <tr> <td>1 story</td><td>10 feet</td></tr> <tr> <td>1 1/2 stories</td><td>10 feet</td></tr> <tr> <td>2 stories</td><td>14 feet</td></tr> <tr> <td>2 1/2 stories</td><td>16 feet</td></tr> </table> The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet. b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: 5 feet. 4. <i>Side setback on side streets</i>: Principal or accessory structures: 20 feet.	<i>Height of Structure</i>	<i>Required Side Yard</i>	1 story	10 feet	1 1/2 stories	10 feet	2 stories	14 feet	2 1/2 stories	16 feet
<i>Height of Structure</i>	<i>Required Side Yard</i>										
1 story	10 feet										
1 1/2 stories	10 feet										
2 stories	14 feet										
2 1/2 stories	16 feet										

² Yard dimensions include setbacks of structures from property lines and

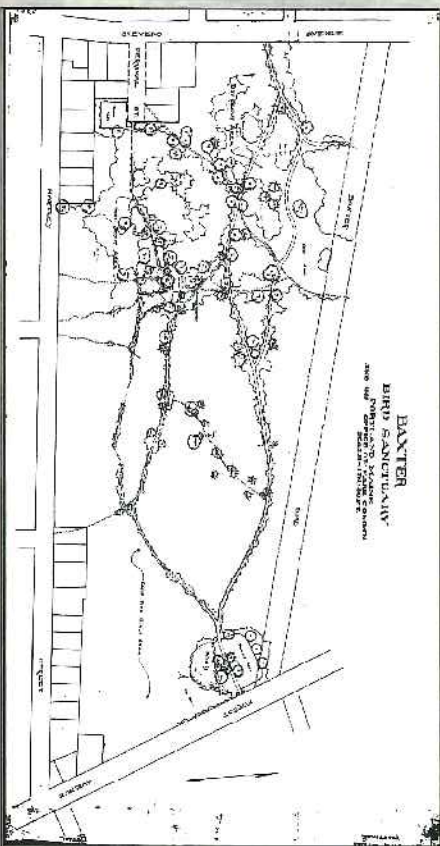
Maximum Structure Height	Principal residential (single, two and three-family) or attached accessory structure: 35 feet.
	Accessory detached structure: 18 feet.
	Principal or attached accessory structure for PRUD, Multifamily development of 4 or more dwelling units, Congregate Care and Intermediate, extended or long-term care facilities: 55 feet.
Max. Lot Coverage	30%
Minimum Lot Width	60 feet
Minimum building setback from external subdivision property lines	PRUD, multifamily development of 4 or more dwelling units, Congregate Care, and Intermediate, extended or long-term care: a. Building length of one hundred (100) feet or less: 25 feet. b. Building length of greater than one hundred (100) feet: 35 feet.
Minimum recreation open space area	PRUD, multifamily development of 4 or more dwelling units, and Congregate Care: 200 SF per dwelling unit or living unit of common area designated on the site for recreation purposes.

(Ord. No. 537-84, 5-7-84; Ord. No. 84-88, § 4, 7-19-88; Ord. No. 58-97, § 2, 8-18-97; Ord. No. 165-97, § 5, 12-1-97; Ord. No. 131-08/09, 12-15-08; Ord. No. 278-09/10, 7-19-10; Ord. 276-14/15, 6-15-2015)

setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.

... the above described premises with all the privileges and appurtenances thereto to said City of Portland as trustee as foresaid and its successors in trust and the same shall not be conveyed or encumbered by said City but shall be held forever for the benefit of the people of said Portland subject to the following terms, restriction, reservations and conditions

- 1 - shall forever be retained and used by said City in trust for the benefit of the people of Portland as a Municipal Forest and Park for public recreational and educational purposes the same forever to be known as "MAYOR BAXTER WOODS";
- 2 - shall forever be kept in its natural wild state and as a sanctuary for wild birds, with no streets for public conveyances and no cement walks therein and with only paths and trails for pedestrians, and any trees that shall fall or that may become a menace to life may be removed, but no other trees therein shall be taken down;
- 3 - shall forever be maintained for the sole use of pedestrians; and horses, automobiles and all motor vehicles, except those of the City used solely in caring for said woods, shall forever be excluded therefrom;
- 4 - that the heavy ornamental gates now in possession of said City shall be erected by said City either at the Forest Avenue or Stevens Avenue entrance within one year of the date of this deed;
- 5 - that said City shall erect within one (1) year after the date of this deed and shall forever maintain on the land hereby conveyed a suitable bronze marker the said marker to recite the conditions of this gift, the same to be attached to a granite boulder located on said land and provided by said City;



Above: Plan of Baxter Woods, dated 1935, & prepared for the Portland Parks Commission.



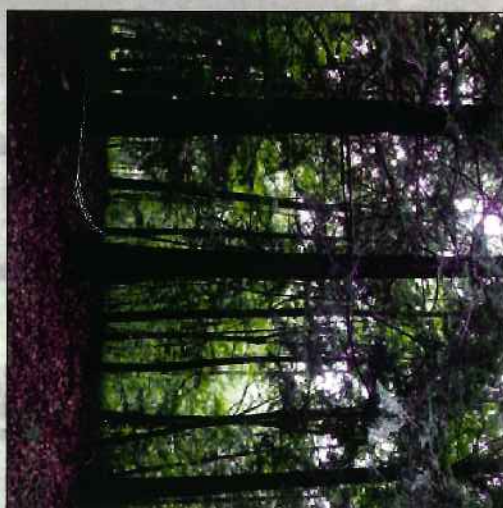
Public Services Department
55 Portland Street
Portland, Maine 04101

Welcome to

Mayor Baxter Woods

a gift from Percival P. Baxter to the City of Portland
in honor of his father, James Phinney Baxter in

- 1946 -



Mayor Baxter Woods ... "shall forever be retained and used by [the] City in trust for the benefit of the people of Portland as a Municipal Forest and Park and for public recreation and educational purposes..."

A brief history of Mayor Baxter Woods



As historian Herb Adams once wrote, "Baxter Woods' brush with history came at the hands of a politician, a portrait painter, and a plow salesman." The municipal forest now owned by the City of Portland was, at one time, the grand estate of congressman Francis Ormond Smith, also known as "Fog" Smith "for his initials and his principles" as Mr. Adams noted.

EOJ. Smith enjoyed a brief business venture with the portrait painter-turned-inventor Samuel F.B. Morse, who spent time at Forest Home working with the travelling plow salesman Ezra Cornell to lay the first underground telegraph cable in a field on the property. Also known as "Forest Home" and "Smith Castle," the house sat on the site from 1836 to 1882, when, following the deaths of Smith and his wife, the property was purchased by Mayor James Phinney Baxter.

Mayor Baxter developed little of the former estate. Portions of the property were divided, with several acres to the north sold to the Roman Catholic Diocese and streets and parcels developed to the south. Upon J.P. Baxter's death in 1921, care for the property fell to his youngest son Percival, the eventual Governor of Maine and founder of Baxter State Park. Percival soon opened the woods to the public for the purposes of passive recreation and the land soon became known as the "Baxter Bird Sanctuary." The community embraced the property and the care of it. The Cumberland County Audubon Society and the Longfellow Garden Club teamed to maintain the nature trails and the Boy Scouts and Girl Scouts adopted their own activity areas.

In April of 1946, Governor Percival Baxter presented the 29.5 acres to the People of Portland as a municipal forest to be kept in its natural state. To this end, he established distinct deed restriction to guide the use and maintenance of the park. The woods were to be known forever as "Mayor Baxter Woods."



IMAGES: Top left, "View of the E.O.J. Smith House, Portland." Oil on canvas by Harrison Bird Brown (1831-1915). Above left: James Phinney Baxter (1831-1921). Above right: Percival Proctor Baxter (1876-1969). Images courtesy of the City of Portland and the Maine State Archives Baxter Collection.

MAYOR BAXTER WOODS TRAILS

LEGEND

- ENTRANCE KIOSK
- EDGE OF WOODLAND
- SIGNIFICANT EVERGREEN
- SIGNIFICANT SHADE TREE
- PRIMARY TRAIL
- SECONDARY TRAIL
- CONNECTION PATH
- FOOT PATH



Jean Fraser <jf@portlandmaine.gov>

Mother House

1 message

Carol Pickering <cpicky@gmail.com>

Tue, Mar 22, 2016 at 9:22 AM

Reply-To: cpicky@gmail.com

To: jf@portlandmaine.gov

Dear Jean,

I would like to write in support of the proposed redevelopment of the Mother House for senior housing. I think it's a smart redevelopment option for the property and in keeping with a low-impact project for the neighborhood. I'd ask that the Planning Board support it.

Thank you,

Carol Pickering
66 Alba St.
Portland, ME 04103

Jean Fraser <jf@portlandmaine.gov>

605 Stevens Avenue

1 message

Brewster Buttfeld <brewster@prospectdesign.me> Mon, Mar 21, 2016 at 8:18 PM
To: jf@portlandmaine.gov

To the Planning Board, City of Portland

I have been a resident of Deering Highlands and Deering Center since 1995. I am familiar with the Sisters of Mercy campus and am writing in support of the project. I believe the proposed redevelopment plan is excellent for the preservation of the architectural integrity of the structure and the gentle development of the community.

The traffic and parking impacts will be minimal. Any additional people in the neighborhood will most likely add to the vibrancy and economic stability of local businesses.

I am an active user of the recreational opportunities around the Sisters of Mercy Campus; dog walking in Baxter woods and bike riding with my children in Evergreen Cemetery, etc. I do not think the development will have a negative impact on either of these Portland treasures.

It is hard to imagine a better reuse of this property.

Sincerely,
Brewster Buttfeld
Mabel Street

--

Brewster Buttfeld | Prospect Design | [207.749.7400](tel:207.749.7400)
www.prospectdesign.me

Fwd: Planning Board Meeting Next Week

1 message

Jean Fraser <jf@portlandmaine.gov>
To: "Fraser, Jean" <jf@portlandmaine.gov>

Thu, Apr 21, 2016 at 3:57 PM

From: **Connie Gemmer** <Connie.Gemmer@powereng.com>
Date: Thu, Apr 21, 2016 at 12:36 PM
Subject: Planning Board Meeting Next Week
To: "BAB@portlandmaine.gov" <BAB@portlandmaine.gov>
Cc: Preserve Deering Neighborhood 1 <preservedeering@gmail.com>

Dear Barbara:

I am not able to attend the Planning Board meeting next week as I'll be out of state.
I am concerned about the proposal to redevelop the convent on Stevens Avenue as I live in the neighborhood and enjoy Baxter Woods almost every day.

I hope that the Planning Board will do everything possible to maintain the integrity of this public treasure, and not allow the development of an overbearing wall of buildings that back up to the woods. May I suggest that the Planning Board members to come over, walk in the woods and experience for themselves the character of this space before anything is finalized?

The woods have been a wonderful space for so many Portland residents and the Motherhouse has been an excellent neighbor.
My hope is that the plan that is approved is in keeping with what was discussed last year, rather than anything that includes more building length, height and density.

Thank you for the chance to share my opinion.

Connie Gemmer
180 Glenwood Ave
Portland, Maine
(207) 671-6678 cell

--

*Jean Fraser, Planner
City of Portland*

Baxter woods ,Historical context,past management of stands of heritage trees and environmental impact of dense build against wild sanctuary.

1 message

mary vankevich <maryksv@gmail.com>

Mon, Apr 25, 2016 at 4:50 PM

To: jf@portlandmaine.gov

Dear Jean ,

Thank you for for being so receptive .Not exactly sure what you require of me here .

I submitted an Outline pertaining to the Environmental impact of a dense build against a wild nature sanctuary. I hope the planing board will consider the information. The more research I did the more I learned of actual and potential harm to the natural functioning of park ecosystems.

When planing for the far future it is advantageous to review the past. Many people use the Baxter Boulevard today as the result of planning 100 years ago. I believe the current and remaining stand that was greatly altered in 2006 should have restoration and protection for the next 100 years. I had a long walk in the woods 2 weeks ago and noted the number of trees dying or fallen at the convent edge and Jeff explained that due to the cut 10 years ago the trees naturally form a new edge that takes the brunt of the wind and protects the inner trees. The paths are well worn and despite a rain shower runners and dog walkers persisted .I wonder if they realize the quiet may soon be lost.

thank you ,
Mary K Skerritt-Vankevich

Portland: a liveable city

Features such as the Deering Oaks enhance neighborhoods and provide opportunities for outside pursuits. The Baxter Blvd. walking path is enjoyed by hundreds each day as are the Eastern and Western promenades.

**We owe these features to
Mayor Baxter**

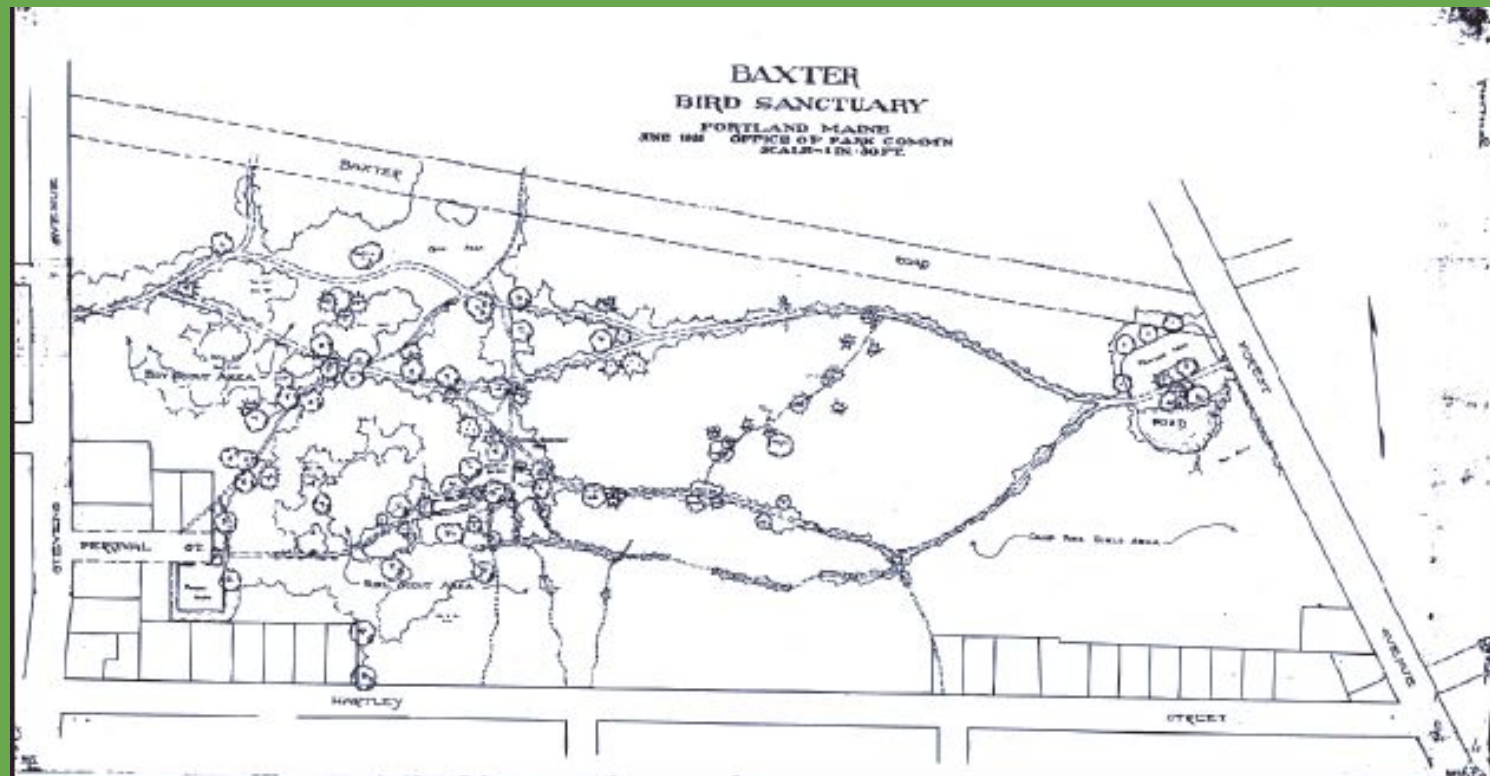


Well over 100 years ago, Mayor Baxter had great vision and his initiatives benefit and enhance the lives of Portland citizens today. Mayor Baxter would be pleased.

The city of Portland has the responsibility to protect, preserve and restore The Mayor Baxter Woods.

These woods and natural space were intended for the Portland residents to enjoy. What Seacoast Developer is proposing would seriously--possibly irretrievably--damage this natural space for which Portland is renowned.

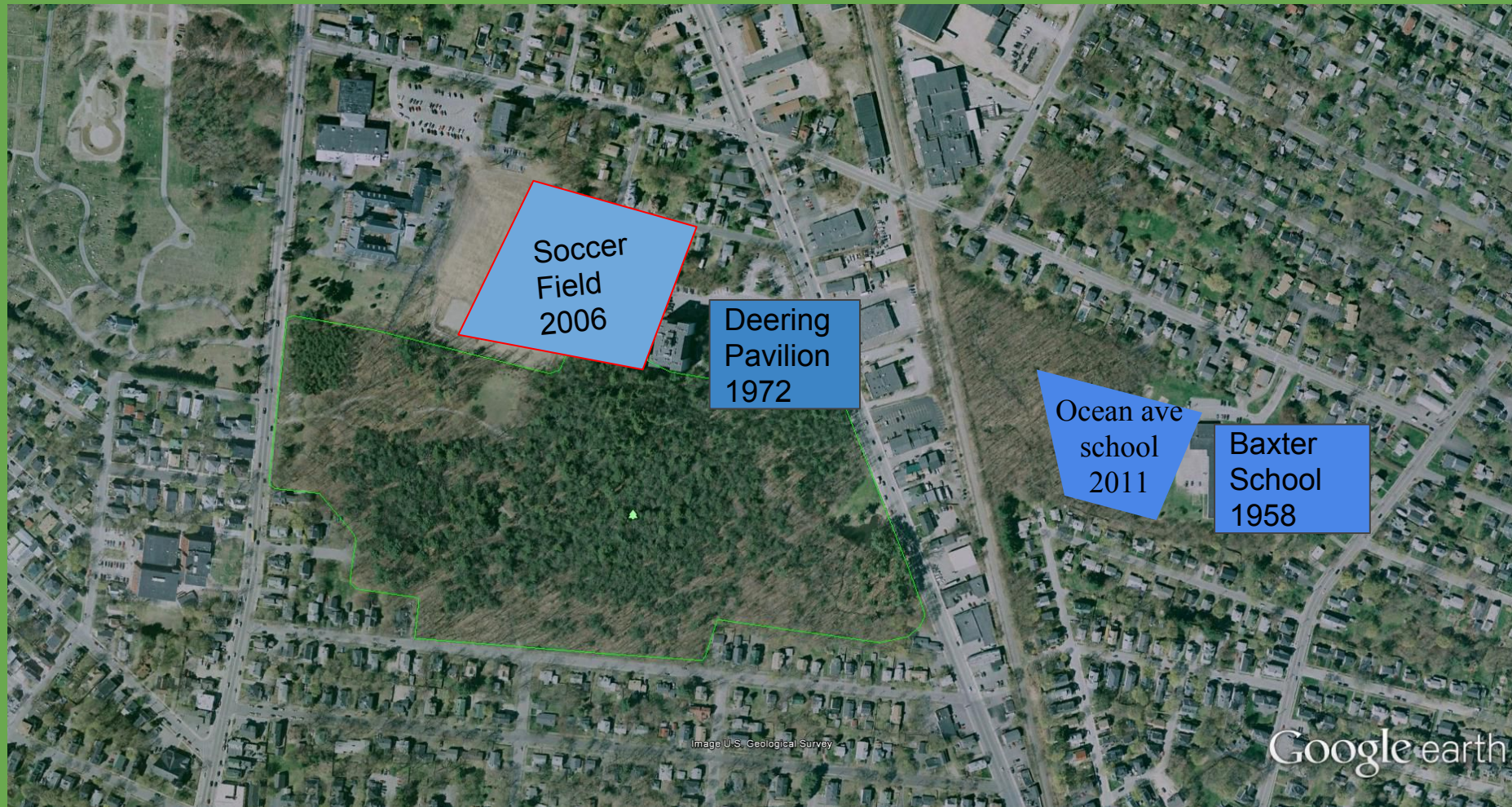
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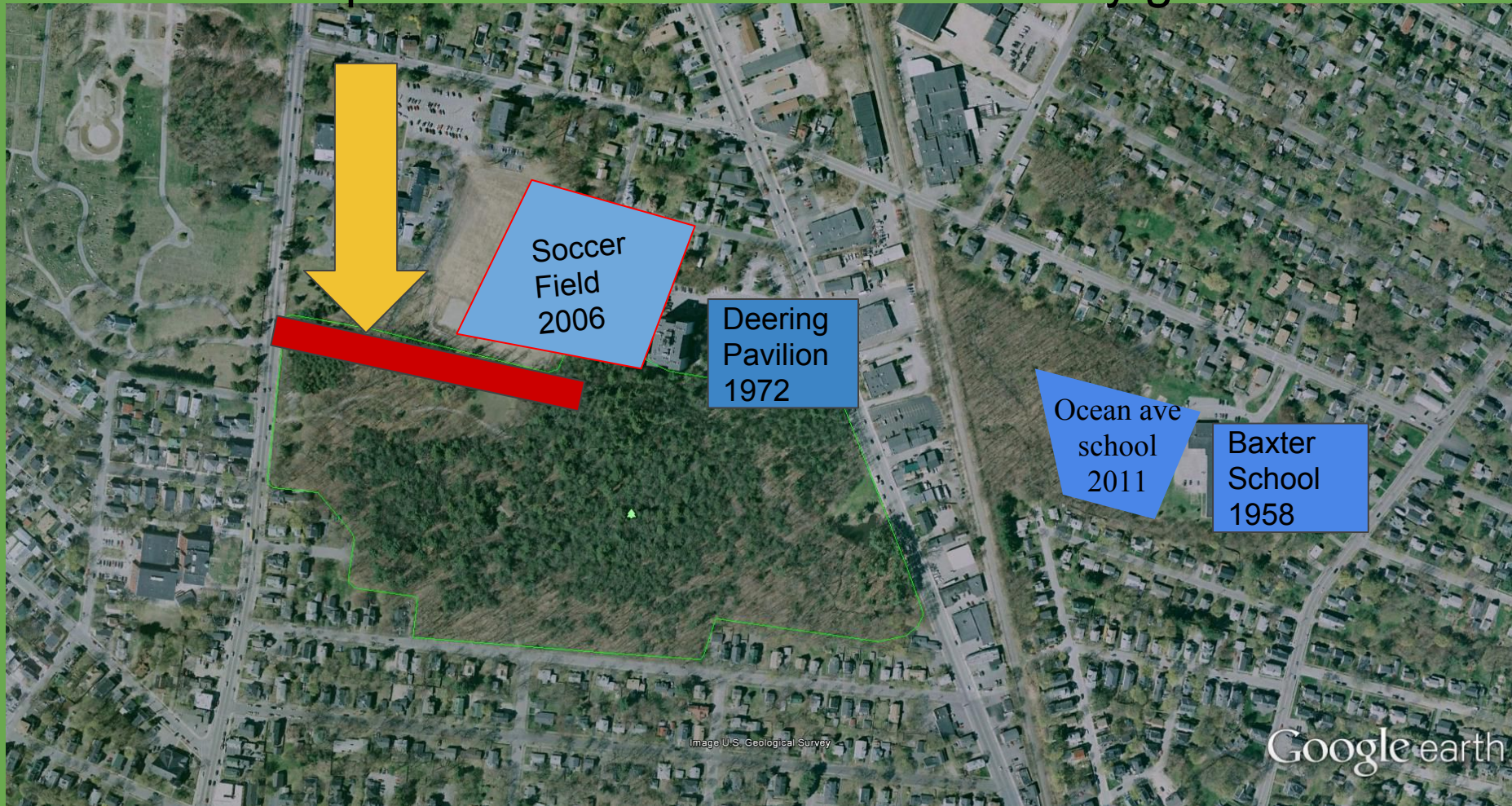
Mayor Baxter Woods...“shall forever be retained and used by [the] City in trust for the benefit of the people of Portland as a Municipal Forest and Park and for public recreation and educational purposes...”

- Excerpt from the Mayor Baxter Woods deed restriction

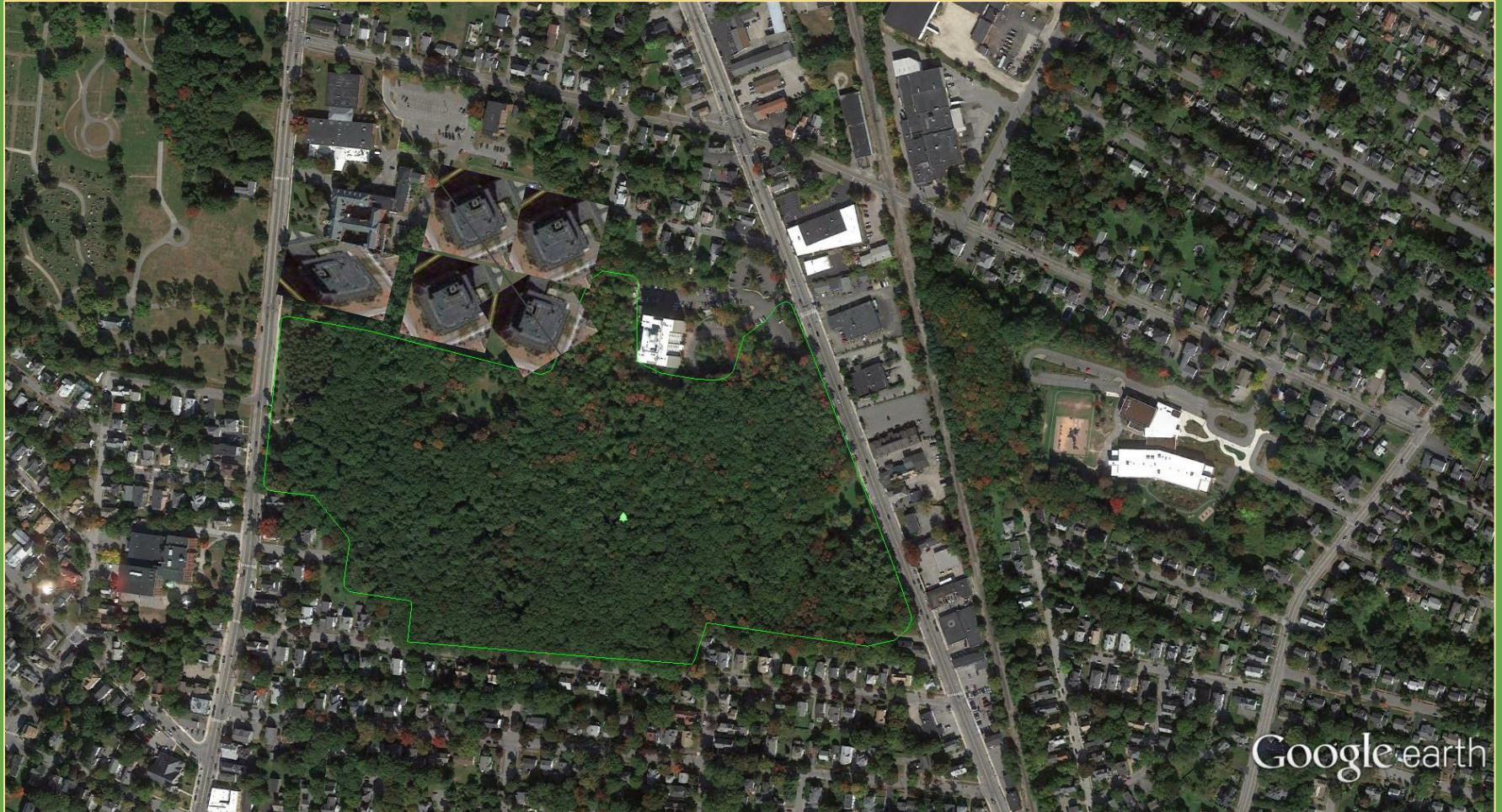
Forest loss: 1946 -2011



Anticipated Loss of Park space. Seacoast claims **33-foot swath** of old deeded right of way path .The swath is currently enclosed and part of the Baxter Woods in heavy growth.



Five large buildings abutting the boundary will threaten the remaining historic woods.



The quietest boundary would shift to a high density noise level.



The **Green Spaces Blue Edges** report states: An important section of this “old growth” forest is on land owned by Sisters of Mercy and Deering Pavilion. The developer paid in part to cut the forest.



Note: The Developer paid in part to cut the forest in order to construct the 2006 sport fields. The Sisters kept the land wooded for 100 years

Assessment and Planning

is required to protect and restore the *soundscape* of the woods.

The city failed to do this when the adjacent acres of historic forest were cut.

The acoustic environment was degraded forever.

The Baxters desired to preserve these woods in a natural state to benefit citizens with natural peace and the sounds of nature.

Image courtesy of City of Portland GIS Viewer <http://click.portlandmaine.gov/portlandzoning/>

Five public gates exist. Five is enough



Eliminate one of the existing gates for any added access.

Scientific evidence proves that the myriad of human-made sound adversely affects wildlife.

Noise pollution is considered a potential threat to animal health and long term survival.

Natural sounds are vital to the natural functioning of ecosystems. The National Park service has policy to restore and manage acoustical environments and soundscapes. The NP.S. reports that acoustical environment is important in ways including: Intraspecies communication, territory establishment, courtship and mating, nurturing and protecting young, predation and predator avoidance and effective use of habitat.

Note If National Parks deserve this consideration why not our sanctuary?

Historic Trees

The developer sought and was granted a waiver pertaining to the number of trees that were required per unit by city ordinance. That same developer participated in the razing of acres of the historic White Oaks, Ash and Hemlock trees.

In order to protect the remaining trees and displaced wildlife, the city must require a large restored buffer region between the woods and multiple-storied complexes

The Baxter Family has given greatly to the state of Maine and the City of Portland

The conditions of the gift of Lands by Percival P. Baxter are;

“The conditions imposed on this gift are simple and understandable. I want it to remain in its wild state for the use of pedestrians only, without what may be called “landscaping.” It is to have no cement walkways only paths and trails and there are to be no cultivated flower beds.--It already is a wild flower garden--- And is to be a sanctuary for wild birds. There shall be no automobile roads, no fancy work of any kind. Baxter goes on to say he wants people to enjoy its undisturbed **quiet beauty.**

The following aspects of this Seacoast Development impinge on the Park's overall health and possibly its sustainability.

- Traffic/parking on adjacent property
- Developer's plan to alter border
- Light pollution significant to alter animal behavior
- Noise pollution significant to alter animal behavior
- Loss of hunting grounds for birds and small animals
- Altered water drainage
- Runoff into Park
- Visitors increased by hundreds due to domicile proximal to woodland
- Broad expanse of supporting green space eliminated

What would Baxter do ?

WE ASK city officials to consider the effects of high-density development adjacent to a valued city green space.

WE ASK you to protect city assets for future generations.

WE ASK elected officials to listen and respect citizens' concerns, and consider what may or may not be compatible with developer desires.

Please protect the Baxter Woods.

Diminish the Impact

- The distance between park border and buildings must be increased and historic trees replenished.
- Any HVAC systems must be assessed as to how much sound and vibration they will emit. Sound absorbing enclosures must be installed to cancel noise emission prior to construction.
- Lighting type and timing must not degrade the night environment. Trees must be installed to absorb unnatural light and sounds.
- Environmental engineers must approve construction drainage plans to mitigate excessive runoff.
- the number of buildings be decreased

Fwd: Street connectivity for 605 Stevens Avenue

1 message

Christian MilNeil <c.neal.milneil@gmail.com>

Mon, Apr 25, 2016 at 3:04 PM

To: Jean Fraser <JF@portlandmaine.gov>

Hi Jean,

Forwarding this to you as well, in case you're the one in charge of public comment on this...

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

From: **Christian MilNeil** <c.neal.milneil@gmail.com>

Date: Mon, Apr 25, 2016 at 3:01 PM

Subject: Re: Street connectivity for 605 Stevens Avenue

To: Jeff Levine <jlevine@portlandmaine.gov>, Kevin Bunker
<bunker.kevin@gmail.com>, Barbara Barhydt <bab@portlandmaine.gov>

Dear Barbara, Jeff and Kevin,

I'd like to express my strong support for the master plan proposal for 605 Stevens Avenue. This site, within walking distance of two bus lines, Baxter Woods and the small businesses of Deering Center, is an ideal location for new housing.

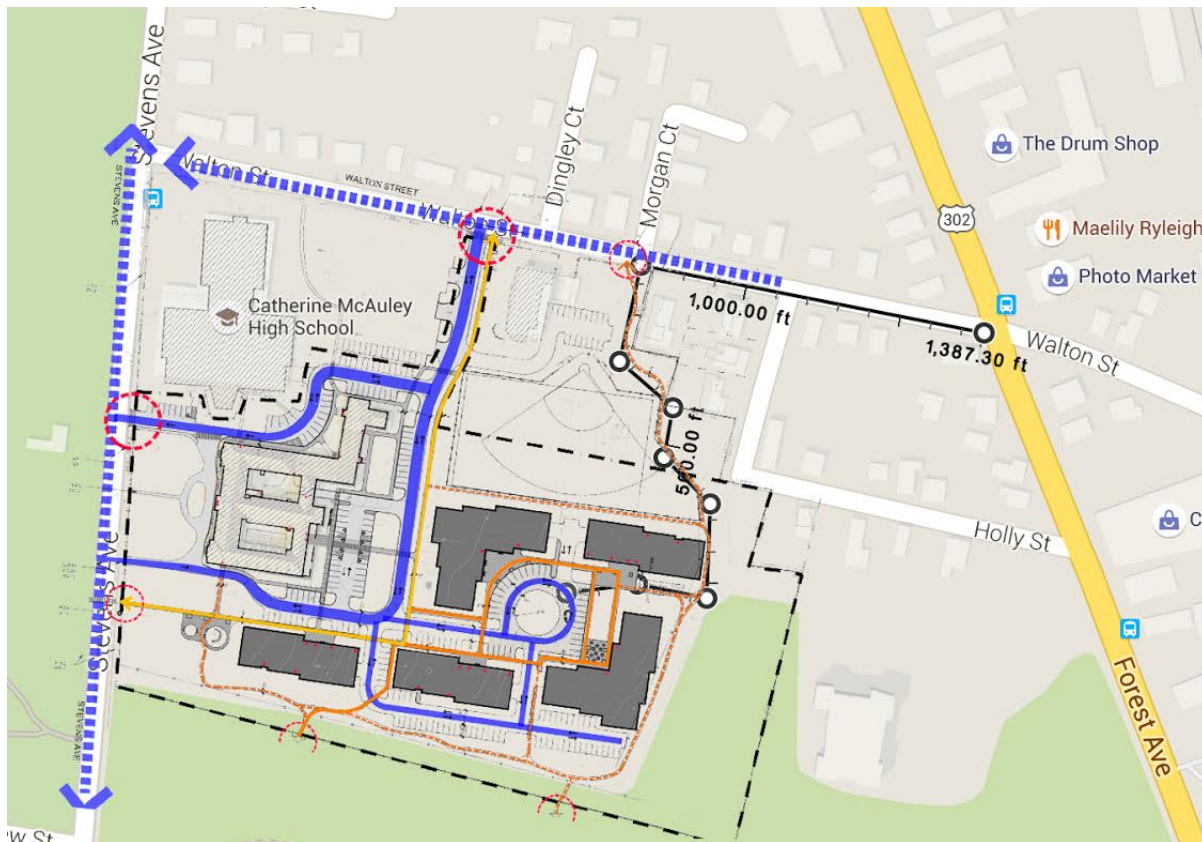
I do, however, want to request that the Planning Board, city and developer work together to make some improvements to the site plan that would improve access to and from Forest Avenue and minimize traffic impacts to Walton Street.

First, the Planning Board's approval of this Master Plan should take into consideration the likely future redevelopment of the aging Deering Pavilion property which borders this site to the east. The City Council recently rezoned that property to R-6A in hopes that it would support additional transit-oriented housing development in the future.

Second, in order to improve the proposed development's walkability and transit access, and support future redevelopment efforts at Deering Pavilion, the Planning Board should require the reservation of a public right of way to the eastern edge of the 605 Stevens site, in order to allow a future east-west local street connection between this development and the Deering Pavilion property.

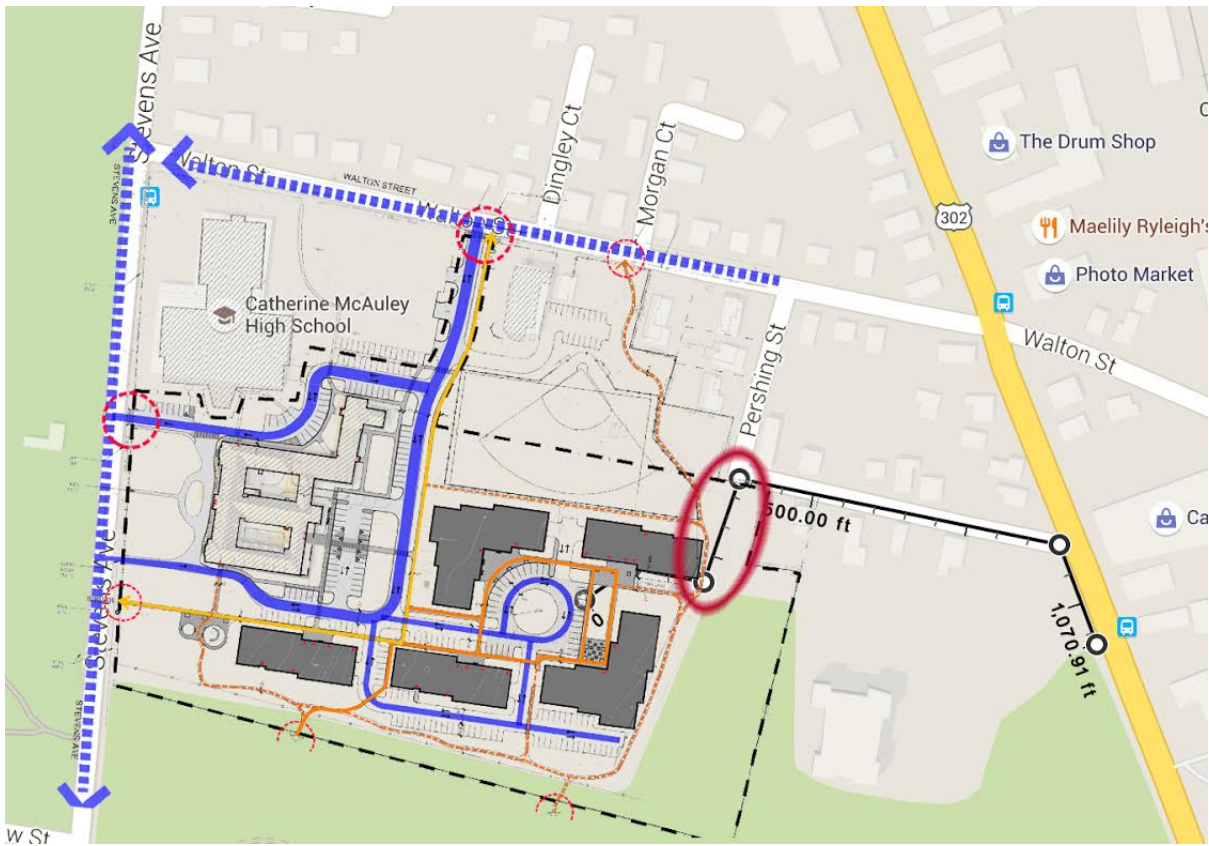
Section 14-498 of the city's zoning code requires new developments to continue the predominant pattern of blocks in surrounding neighborhoods.

The current site plan, which locates the apartment buildings around a dead-end cul-de-sac, does not meet this standard. In the current design, the walking distance from the proposed new apartment buildings to the nearest Route 2 bus stop on Forest Avenue is approximately 1400 feet along a needlessly circuitous route via Walton Street:

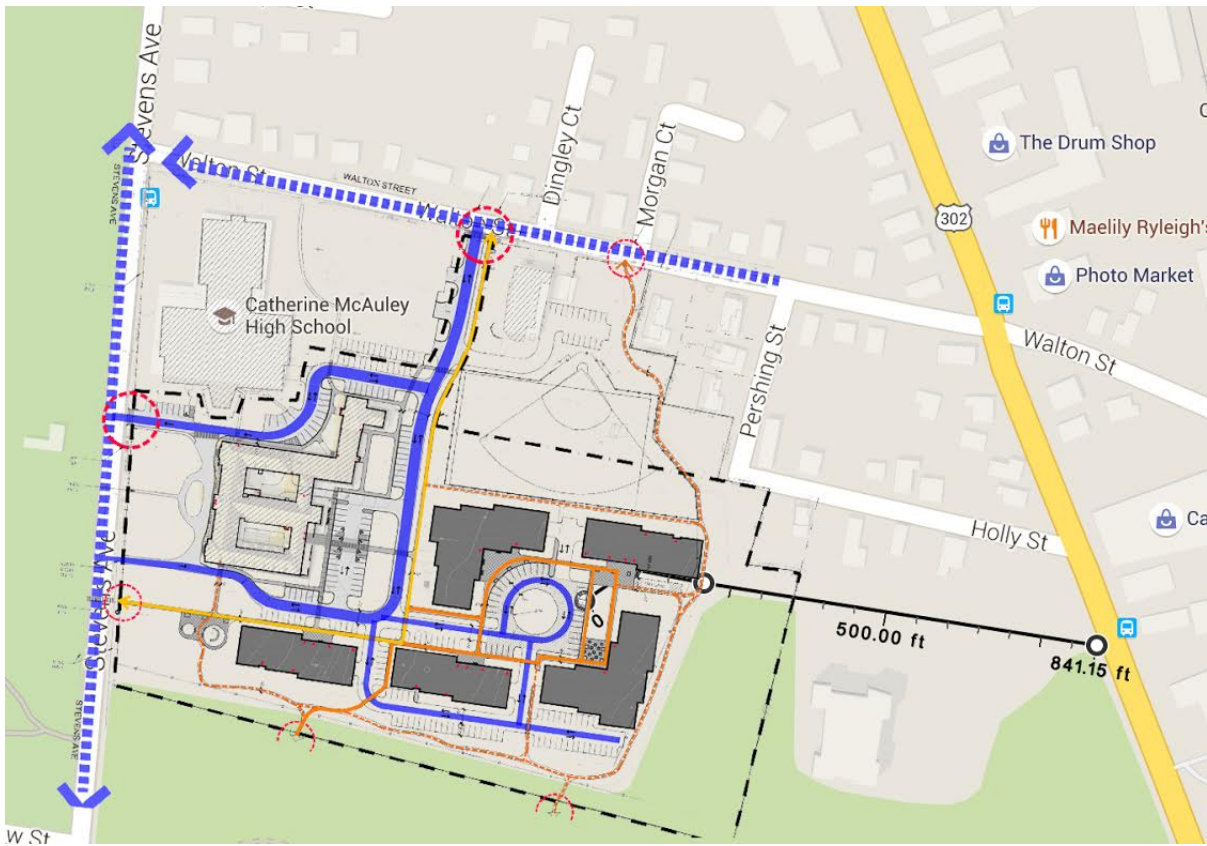


This site layout discourages foot traffic between the site and the businesses and bus stops Forest Avenue, and makes METRO a less convenient option to future residents. This means that future residents of the neighborhood will be more likely to crowd their cars onto Walton and other neighborhood streets, and less likely to walk to local businesses.

A better option that's more considerate of pedestrians and transit riders would be to connect the development's proposed footpaths to the existing public right-of-way on Pershing Street. This option reduces the walking distance to the nearest bus stop (at Deering Pavilion) by 20%, and also gives existing households on Pershing and Walton Streets an improved route into Baxter Woods:



And the best option of all would be to reserve a new east-to-west right of way to connect Stevens and Forest Avenues directly, cutting future residents' walking distance to the bus stop to only 840 feet. This option would also benefit current and future residents of Deering Pavilion with better access to METRO's Route 9 bus stops on Stevens Avenue.



For the developer, reserving a new public street with on-street parking should count towards zoning-mandated parking and open space requirements. But instead of paying property taxes, stormwater fees and pavement maintenance costs for a traditional, privately-owned parking lot, a public street could serve the same access and parking functions, but without the costs to the property manager.

I'm hoping that the Planning Board, city staff and developers can work together to make this happen. Thanks for considering it.

605 Stevens Ave.

1 message

Elizabeth Tarasevich <emtarasev@gmail.com>

Tue, Apr 26, 2016 at 8:58 AM

To: Jean Fraser <jf@portlandmaine.gov>

To the Planning Board,

I am a resident of the Deering Center neighborhood in Portland, ME. I am active in many neighborhood endeavors that are sponsored by the neighborhood association and through the Brentwood Farms Community Garden. We moved here from Boston when our children were young for the neighborhood parks and schools public and Catholic. It has been an enormous pleasure to raise our children here and to meet the people who make up the neighborhood.

Perhaps the best thing about Deering Center is the mix of people - all ages, walks-of-life, and income levels. I love that there are still inter-generational families living together, although this arrangement is increasingly rare. I think the development of the Motherhouse and its surroundings at 605 Stevens Ave. is an extremely good fit for our neighborhood, and will continue to safeguard the affordability for seniors to remain in or move to our neighborhood, in a setting that is as home like as possible, accessible, and beautiful in its surroundings.

I think the developers have been inclusive and sensitive to neighbors' concerns to an admirable degree. There is some concern on the impact to Baxter Woods, once the setting for for Francis O.J. "Fog" Smith's Forest Home, later the wood lot for the Baxter Family, and now a cherished park for our neighborhood. I think the project is designed with minimal impact for the woods, and, personally, I like the idea of sharing this spot with the seniors, especially with those whose only access may be by looking out their window. It is something of a comfort to think that FOG Smith's Home for Aged Indigent Mothers (est.1863, filed 1864 in Cumberland County Registry of Deeds, Book 322 p. 479) will once again welcome seniors.

After visiting the site, and being given a tour by the developers, it is clear to me that this space is in imminent need of attention, and that any delay will only incur cost and threaten the viability of the project. I do hope that the project is approved without further delay and I hope to welcome our newest neighbors soon.

Thank you for your time and consideration,

Elizabeth Tarasevich
14 Hillis Street



Jean Fraser <jf@portlandmaine.gov>

605 Stevens Ave.

1 message

Jean Rank <jcnrank@icloud.com>

Tue, Apr 26, 2016 at 9:08 AM

To: jf@portlandmaine.gov

Hello Ms. Frazier,

I'm a resident of Deering Center and have lived here for the past 12 years. I support the proposed redevelopment of 605 Stevens Ave. I feel that the redevelopment is a good fit for the neighborhood and will not pose a treat to Baxter Woods. Please extend my support to the Planning Board. I hope to see this project approved.

Thank you,
Jean Rank
98 Hamblet Ave.

Jean Fraser <jf@portlandmaine.gov>

605 Stevens Avenue

1 message

Julie Larry <jlarry@portlandlandmarks.org>

Tue, Apr 26, 2016 at 10:22 AM

To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

Please distribute to the Planning Board, thank you!

Julie Ann Larry

Director of Advocacy

Greater Portland Landmarks

93 High Street

Portland, ME 04101

[207.774.5561](tel:207.774.5561) x102



605 Stevens Avenue_PB_Statement for Workshop_03222016.pdf

131K



18 March 2016

Jean Fraser
Planner
City of Portland
389 Congress Street
Portland, ME 04101

Greater Portland Landmarks encourages the Planning Board to support the master development plan for the redevelopment of 605 Stevens Avenue. We supported the 2015 rezoning of this property and we support the proposed master development plan as they facilitate the rehabilitation of the St. Joseph's Convent Motherhouse, one of the most impressive religious structures in Portland and a challenging historic building to redevelop. The use of state and federal historic preservation tax credit programs by the developer's mean this project will conform to the high preservation standards overseen by the National Park Service. Ultimately this previously unprotected local landmark building will be required to be listed in the National Register of Historic Places and locally protected under Portland's Historic Preservation Ordinance.

The siting of the new construction proposed in the master development plan preserves the character of the Motherhouse and the existing landscaping features between the building and Stevens Avenue. The site plan preserves existing mature trees, provides usable open space, and retains the character of the Motherhouse's site in a manner that is compatible with the character of Evergreen Cemetery across the street, while providing much needed housing units.

The project team has a record of successful development in Portland and southern Maine. Kevin Bunker has done similar rehabilitation projects using historic preservation tax credits, including the conversion of the Nathan Clifford School in Portland into housing; and the preservation and adaptive reuse of the St. Hyacinth's Convent and School in Westbrook, also for housing. The latter project was recently recognized by Landmarks with a 2014 historic preservation honor award.

Thank You,

Julie Ann Larry
Director of Advocacy
Greater Portland Landmarks
93 High Street
Portland, ME 04101

605 Stevens Ave Project

1 message

Maureen OMeara <maureenomearag@yahoo.com> Tue, Apr 26, 2016 at 12:42 PM
To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

To: Portland Planning Board

I would like to express my support for the Stevens Ave project.

I have lived in the neighborhood for 25 years and especially enjoy walking around the area. I've walked by the property on Walton St. and Stevens Ave many times. This project will be an asset to the neighborhood. My comments focus on the following two points.

1. Portland needs housing. This project will add housing that the region needs. A recently completed housing market analysis completed by HUD for the Portland/South Portland area predicts a need for 4,000 new housing units in the next 3 years. About 850 of those units are in process. Portland, and my neighborhood, needs housing to remain a vital community.

Most of us now recognize that that the population is getting older. As the child of parents in their 80's who still live in a single family home, I have looked and found very few housing units available that offer the single level living they need. If a unit with a first floor master comes on the market, it is quickly sold.

If a senior homeowner is able to transition out of a single family home, the new home owners are often young families. My neighborhood needs new children in the school system to keep local schools open and maintain support to fund a quality school system.

Trying to keep the neighborhood just the way it is now is not preserving it, it is putting us on a path of slow decline. Appropriate investment in the neighborhood will benefit all the residents.

2. Public amenities in the project. I am looking forward to the construction of this project so that I will no longer peer past the gate on Stevens Ave and instead will be able to walk onto the property. This project offers access amenities. I encourage the Planning Board to make sure the project includes public walkway connections in the project.

I support the efforts to preserve the general look of the frontage of the property on Stevens Ave. The one-way driveway loop connecting to Stevens Ave does not overwhelm the frontage with pavement. The access to Walton St makes sense. I walk this street often and there is very, very little traffic. Both ends of the street already have intersections with a controlled traffic light access to Stevens Ave and Forest Ave. The busiest times are pick up and drop off of students and these times do not overlap with the times that residents would typically be entering and exiting the property.

Finally, I urge the Planning Board to resist decreasing the density of the project in order to appease abutters. Even with fewer units, the property will still be developed and that is the fundamental issue for most people who oppose the project. Keeping the density in the project may reduce pressure to develop another property in the neighborhood. We already have identified unmet housing needs. I would prefer developing at a density that provides the developers with the revenue needed to build a quality project and then require better quality finishes.

Thank you for your service to the City of Portland.

Maureen O'Meara
29 Lawn Ave
Portland, Maine

Sent from my iPad

605 Stevens Avenue

1 message

Ethan Boxer-Macomber <ethan@anew-development.com>

Tue, Apr 26, 2016 at 2:36 PM

To: Jean Fraser <jf@portlandmaine.gov>

Cc: Jeff Levine <jlevine@portlandmaine.gov>, Tuck O'Brien <sgo@portlandmaine.gov>

Dear Jean,

I received a notice from the City that the matter of **605 Stevens Avenue** is slated for a workshop with the planning board this evening. I am a Deering resident, my children both attend Portland Schools on Stevens Avenue, and our family makes very frequent and regular use of the beautiful wooded trail network through Baxter Woods into Evergreen Cemetery and beyond.

For what it's worth, I wanted to share with you that I am **very supportive** of the proposed development at 605 Stevens and view the project as an all around 'win-win'.

Here are just a few of the reasons that I say this:

- From an **architecture & urban design** standpoint- The proposed density is very moderate for an urban site and context (possibly *too low*, in my opinion) and seems to provide for a very appropriate transition between the the far higher density of the adjacent Deering Pavilion property on one hand and the mix of close knit single and multi-family structures across the street and down adjacent streets. The design is obviously well planned to avoid undue impacts on adjacent land owners and Baxter Woods. The developers have a long, strong, an consistent history of developing projects of high architectural quality that contribute positively to neighborhoods and we have every reason to trust that they will do the same here.
- From an **environmental** standpoint - I am eager to see acres of chemically managed, monocultural field grass of little to no value to wildlife or the woods replaced with a well landscaped, tree lined (habitat) development with

appropriate stormwater management systems (water quality) in place. Moreover, future senior residents of the development will benefit from significantly **reduced auto dependency and carbon footprint** given the presence of public transit and goods and services within walking distance.

- Our City will benefit economically from a significant **boost to the tax base** without needing to install any significant new road, utility, or public service infrastructure. **Local business will directly benefit**, especially those in Deering Center, from more neighborhood shoppers living within walking distance. In the coming years, the project will also generate millions of dollars of local economic development activity in the form of high value **local service and construction contracts** supporting so may **local jobs**.
- Would-be traffic impacts have been professionally studied and it has been demonstrated that our existing street network has more than adequate capacity to support the proposed residential development. There's no problem with our streets now and there won't be any after the development is built. I'd take that a step further and suggest (anecdotally) that adding more residences and residents to Walton Street will contribute new vitality and human activity to the corridor which could only serve to slow down existing pass-through traffic and make the street safer from us all.
- Lastly, and most importantly, I look forward to welcoming **wonderful new neighbors** to Deering Center; to greeting them on the sidewalk in Deering Center and during walks along the trails and to welcoming them to volunteer in our children's classrooms. I suspect most will have connections to the community and family in the area. New senior residents will greatly contribute to the **diversity** and **social connectivity** of our community and provide a greatly needed opportunity for our parents and grandparents (and some day ourselves :-)) to age in place and stay engaged in the neighborhood we love.

Apparently this project has stirred up a lot of fear and mis-information in our neighborhood which is sad and unfortunate. I hope and expect that the Planning Board will see the project for what it is- a code complaint, high value, progressive project that offers a giant leap forward for our community.

I am sorry that I will be unable to attend the workshop this evening due to a prior

commitment (son's game at Deering High / Go Rams!). I hope you will please enter this email into the record and bring it to the the Planning Board's attention as they consider the project.

Sincerely,

Ethan

Ethan Boxer-Macomber, LEED AP

34 Glenwood Avenue
Portland, Maine 04103

[207.272.8550](tel:207.272.8550)

ethan.macomber@gmail.com

605 Stevens/Baxter Woods

1 message

John Thibodeau <jet627@icloud.com>

Tue, Apr 26, 2016 at 6:52 PM

To: Jean Fraser <JF@portlandmaine.gov>

Hi Jean,

Just wanted to quickly add a few points I was not able to get to in public comment. Can you please share with the planning board?

-Leaving ball field location as is, as it acts as a natural buffer/transition to the rest of the property. (Move buildings from current proposal back toward Walton St)

-Proposal of this size would fit perfectly on Marginal Way or Forest Ave by Oakhurst Dairy. However, this is in the middle of Portland's largest green space (Baxter Woods and Evergreen Cemetery) and a historic neighborhood full of single and multi family houses. A smaller development away from the woods would make a lot of sense in balancing the needs for housing and preserving the spirit of the woods and surrounding neighborhood. (Also of note, the project was viable financially in 2007 with 114 units-- I have draft plans from applicant if needed).

-How many mature trees are planning to be cut down?

-This was asked but not answered. Has corporate counsel reviewed property rights of 33' section of right of way? If not, can corporate counsel review and give legal opinion?

Thank you, John Thibodeau

Stevens Avenue development of senior housing

1 message

Maggie Drummond <maggie.r.drummond@gmail.com> Wed, Apr 27, 2016 at 11:08 AM
To: Jf@portlandmaine.gov

Dear Planning Board Members and Jean,

I have followed the proposed redevelopment of 605 Stevens Avenue over the past year with interest. I was so excited to have the chance to tour the motherhouse building recently! What an amazing treasure.

I am very excited about seeing this property provide much needed housing in my neighborhood. The reason my husband and I chose Deering Center to raise our family is because it is a family friendly neighborhood that offers a mix of housing, businesses, schools, and open space. I used to live on the peninsula and when we were first looking for our home here, I felt like it would be like living in the suburbs. Thankfully, I've found that it's a vibrant, walkable neighborhood with a lot of amenities to offer - it's a perfect place for senior housing, and we need more housing in general as well.

My husband and I often walk with our little boys through Baxter Woods and the Evergreen Cemetery. I really am not at all concerned that this redevelopment will impact the area negatively. Baxter Woods is a wonderful place that has provided a peaceful refuge despite being surrounded by development including major roads like Forest and Stevens, single family homes as well as the Pavillion building. This Development Team has a proven track record of thoughtful and environmentally sensitive developments. I have every confidence that this redevelopment will only add to the vibrancy of our neighborhood.

I hope you will consider strongly supporting this development.

- Maggie Drummond-Bahl

74 Lawn Avenue

Letter re Motherhouse development & Baxter Woods

1 message

Preserve Deering Neighborhood 1

<preservedeering@gmail.com>

To: JF@portlandmaine.gov

Mon, Jun 13, 2016 at 7:16

AM

Hi Jean,

This is a letter (below) that we sent to some of our neighbors and our city councilors. We ask that you include this as our public comment for Tuesday's public hearing re the master plan for the Motherhouse property.

Also, we have one question to submit: If approved, can the master plan be changed in the future (if the applicant and/or Planning Board were to want changes)? If yes, what process would that entail?

Thank you, Bobbi Cope - 172 Concord St & John Thibodeau - 114 Clinton St

Hello,

The Motherhouse property applicant, Sea Coast Management, continues to pursue master plan approval for their entire project before the city's Planning Board. This process began in late winter and will likely wrap up this Tuesday the 14th at 6pm with a public hearing and vote on the master plan. We anticipate strong support from the Board for the master plan.

We have participated in this master plan process with the Planning Board, Planning Staff and the applicant, and communicated with them

extensively. Based on this experience, we believe serious concerns regarding the project's impact on Baxter Woods are not being sufficiently considered by the applicant or the Board.

Last summer and fall, after we agreed to a compromise with the applicant that reduced the number of units by 25%, we were assured by the applicant that they would make every effort (and were likely) to move the buildings and parking lots away from the Woods. We were also assured that there would be a community Woods walk-through in the master plan process before foliage (7 months of the year---foliage dramatically alters the northern boundary of the woods) where community members could be led on a walk that would help imagine/simulate/view the project and how it might effect the Woods' experience. Given the potential, irreversible impact on one of Portland's public treasures, these both seemed like reasonable requests and responsible assurances were given. Unfortunately, despite continued requests and assurances over many months neither was fulfilled.

We believe the current building and parking lot placement in the master plan would alter Baxter Woods significantly and permanently.

Summary of impact on Baxter Woods:

- Though the # of units was decreased by 25% last summer, the physical footprint of the project is nearly identical to what was initially proposed last spring, including the row of 3 buildings lining the Woods (which were strongly objected to by many).

- 3 buildings equalling approximately 530 ft in length would line the Woods' fence. For comparison, EACH building would be approximately the size of the Motherhouse itself or the building currently under construction at Park Danforth.

- This row of 3 Woods' boundary buildings would be 4, 5 and 5 stories high. They would begin at approximately 50 ft from the Woods' fence. (Also, there would be 2 additional 5 story buildings behind the row of 3

along the border.)

-A Large parking lot would be 15 ft from the Woods' fence.

We hope city officials outside of the Planning Board will consider these concerns and with the reverence and caution due the Woods, consider actions to protect it. We believe there are practical solutions available that largely address these concerns. For example, if the current ball field were kept where it is, bordering the Woods, and not moved near Walton St., a vital buffer for the Woods would be maintained and its most visually sensitive area, the meadow, protected. Additionally, it would allow for some continuity. This is just one idea, perhaps there are others.

Attached are the applicant's mock photos, the first is current, the second is from spring of 2015. If you have any questions, please let us know.

Best, Bobbi & John

Preserve Deering Neighborhood

<https://www.facebook.com/Preserve-Deering-Neighborhood-848389568560983/>

2 attachments



FullSizeRender.jpg
127K



Messages Image(1559455132).jpg
169K



May 24, 2016
REV May 31, 2016

J14.067

Jean Fraser
Senior Planner
Planning and Urban Development Department
Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

605 Stevens Avenue
Master Development Plan Final Submittal Addenda
(CBL 136 E006001, 143 F004000, 144 B001000)

Dear Jean:

On behalf of Sea Coast at Baxter Woods Associates, LLC and Motherhouse Associates LP, our project team is submitting this Final Package to the Master Development Plan (MDP) application dated February 16, 2016 and subsequent update submittals dated March 16, 2016 and April 12, 2016 for the 605 Stevens Avenue project.

This submittal provides additional information in support of the Portland Land Use Code Articles IV - Subdivision and Article V - Site Plan Sections 14-523 through 14-527 - Master Development Plan review. Enclosed are one (1) hard copy of the following materials and Site Plans and PDF copies submitted electronically:

Cover Letter
Exhibit A - MDP Application Form
Exhibit B - Urban Design & Architecture and Revised Master Plans dated 05-24-16
Exhibit C - Baxter Woods Draft Letter of Intent
Exhibit D - Traffic Study and Updates
Exhibit E - Stormwater and Utility Update
Exhibit F - Neighborhood Meeting Notes and Certification

I. Summary of Events Since the April 12th Submittal:

Our last formal submittal was dated April 12th. In the following weeks the following activities and design updates have occurred.

- April 26th – Second MDP Planning Board workshop
- May 16th - Staff Review Meeting and Plan updates
- May 19th - Neighborhood Meeting #2 and Site Walk

This update responds to comments provided at the referenced meetings as well as Staff emails and Memos issued May 10, 13, 10 and 23rd.

II. Master Plan Updates:

Updates to the site plans have been relatively minor and include the following

General:

- Addition of a proposed METRO bus shelter and removal of a section of the decorative historic fence along the most southerly corner of the site along Stevens Avenue. This location was provided by City Staff and will be subject to acceptance under the site historic review.
- Fencing – the plans indicate that the older chain link fencing located 33 feet inside the property line at Baxter Woods will be replaced in phases with a decorative fence with the final style to be determined during the Site Plan review process.
- A future potential future pedestrian connection shown to Holly Street.
- The fire access between buildings 3 and 4 has been emphasized on the Site Plan L2.0.
- Phasing – The design intent is to build one building at a time as a Phase. The Phasing Plan has been adjusted for this submittal to include the Motherhouse as Phase 1 and Buildings 1-5 as Phases 2-6 with graphics showing proposed parking assuming both less than 2.0 vehicles per unit and with 2.0 vehicles per unit.

Parking:

- A note has been added to the site plans to indicate that the required 2.0 spaces per unit is met with the Master Plan as shown. However should market conditions dictate that a lesser ratio is suitable the applicant reserves the right to not build all or some of the parking located between Buildings 2-3 and Baxter Woods.

Historic Review (Reference MHPC letter of April 29, 2016):

- The shrine located westerly of Building 1 will remain as an historic and focal element. The area will be enhanced with upgraded surface materials to replace old bituminous pavement. However some of the overgrown vegetation is proposed to be removed/trimmed and the inactive well element may be required to be removed or replaced with a similar element depending on the final condition of that structure. The existing 2-3 foot degraded walkway to Stevens Avenue will be replaced with a new central tree-lined walkway slightly north of the current walk as shown on the Site Plan L2.0.

III. Integration with Baxter Woods and Letter of Intent (Exhibit C):

- The allee connection at the east end of Building 1 and the continuation into Baxter Woods have been strengthened with additional plantings on-site to transition from the walking path between Buildings 1 and 2 into the former allee and into Baxter Woods along the former carriage trail. Trees will include heritage red oaks and other species to be coordinated with Jeff Tarling. (See Plan L5.1.)
- A landscaped berm has been added along a portion of the buffer area between Buildings 2 and 3 and the property fence along Baxter Woods to increase eye level screening to the parking areas and buildings from the trails and “the Meadow” within Baxter Woods.
- The rain garden at the rear of Building 3 in the area of the proposed berm has been removed. If space and grading permit –during the LIII Site Plan review, a rain garden or similar BMP may be added back in if needed.

- Plan L5.1 has been revised to provide additional infill planting along the buffer to Baxter Woods on either side of the fence line. Native plant materials will be utilized and reviewed with Jeff Tarling, City Arborist. Final planting lists will be developed at the Site Plan review phase.
- Design Sections along the buffer with Baxter Woods have been added to the Master Plans (See Series L6 Site Plan) along Buildings 1-3. The sections demonstrate both the areas proposed for infill planting and berming together with the robust buffer which exists naturally with a mix of hard and softwood trees and understory vegetation. The sections further reinforce the great distances from the property line to the buildings.
- Addition of and adjustments in site pathways. Only one opening/gate at the Baxter Woods fence is now shown connecting to the historical Baxter Woods alley off the corner of Building 1. Currently the plans do not show a second connection near the Meadow – however the desirability of a second trail connection can be reviewed at the Site Plan review phase.
- Draft Baxter Woods Letter of Intent – *Exhibit C* contains the current draft of the Letter of Intent as provided by Staff and an email response to several comment dated 05-24-16 from Matt Teare. It is our understanding that we will work with staff to refine the draft agreement and conditions over the coming week.

IV. Architectural Context:

Revised Architectural Elevations and Renderings have been provided to respond to urban design comments from the Planning Board and staff. (Refer to *Exhibit B* for design principles and 4 & 5 story renderings, L-Building rendering and Elevations A 2.1 & 2.2.).

- The most fundamental architectural change has been removal of the gables to provide a flat roof design more in context with the Motherhouse roof lines.
- The color and materials palette shows a softer grey tone siding with vertical brick sections to provide fenestration and break up the façade. It should be clear as discussed with staff that the colors and materials provided at the MDP level are intended to provide context both within the development and as viewed from Baxter Woods and the perimeters of the development. Final elements and color tones will be provided during the LIII Site Plan review process.
- The architecture continues to provide common design elements and proportions between the 5 proposed buildings (scale, massing, rooflines, windows, trim, materials, colors, etc.) to create a cohesive campus which respects both the Motherhouse and Baxter Woods.
- Staff has provided comments regarding the massing of buildings as viewed from Baxter Woods. The design team has studied options to turn buildings 90 degrees however the site constraints restrict flexibility with alternate layouts (wetlands and fill slope to the east which narrows to the north, R5A/R5 Zoning Line along Lot 1, central access corridor from Walton Street, emergency vehicle access). We believe the design of the campus quad and building scale as viewed from Baxter Woods is well screened as seen on the Perspective Plans and Sections and will include additional plantings as noted above. The distance from the “Baxter Woods” fence line (which is 33 feet north of the actual property line) to Buildings 1 through 3, varies from approximately 52 to over 100 feet, respectively – well exceeding the required R5A zoning setback of 16 feet for a 5-story building.

V. Traffic, Circulation & Parking:

Responses to Tom Errico's email memo of May 9th are provided by Diane Morabito of Maine Traffic Resources (*Exhibit D*). There are several items which deserve additional discussion:

- Traffic management demand and trip reduction measures – the applicant has agreed to provide additional measures such as use of vans, ride share, promotion of walking and bicycling to reduce vehicle trips. As a connected community there are great opportunities for “getting the word out” to residents who as baby-boomers typically desire to reduce the use of vehicles. We are proposing to address these measures during the Site Plan review phases.
- Agreement to add crosswalk/beacons and associated curb cuts at Stevens Avenue/Walton intersection – south side.
- Walton Street/Forest Avenue Intersection – The accident data (rear-end collisions) is not related to the proposed site generated traffic. The applicant is in general agreement to stripe a new crosswalk at the Forest/Walton intersection.

VI. Stormwater & Utilities:

Exhibit E provides a response to the 04-25-16 Woodard & Curran review memo regarding Stormwater and Utilities. Updated serviceability letters have been requested from utility companies. Additional responses to staff and public comments are provided below:

- A question was raised in the Public Hearing about the impact of road salts and sand on the groundwater and wetlands. The stormwater management system will be designed to meet DEP Chapter 500 standards which require “pre-treatment” prior to stormwater discharge. Parking lots will not discharge runoff directly but will be directed to BMP's such as pervious pavers, undertrained soil filters, rain gardens which provide treatment and removal of pollutants prior to discharge.
- A question was raised regarding potential impacts to neighboring properties and Baxter Woods from stormwater/groundwater impacts. The project will be designed as noted, to meet DEP and City stormwater standards and with favorable soils will encourage infiltration to further reduce flows. The initial MDP Stormwater Analysis submitted previously, demonstrates a reduction in peak flows being discharged offsite for the storms analyzed. Additionally the applicant has agreed to work in good faith with an abutter on Pershing Street to mitigate groundwater issues which exist currently at that residence.

VII. Neighborhood Meeting Records:

Exhibit F has been added to provide documentation of the official MDP Neighborhood Meeting held on March 14th, 2016. The applicant also held a subsequent neighborhood meeting on May 19th 2016 to both update the public on design and site program changes resulting from input on the project and to solicit additional feedback.

We look forward to working closely with staff over the next week to finalize comments in preparation for a June Planning Board meeting. In the meantime our project team remains available to meet with staff or to provide any additional information if required.

Sincerely,



Frederic (Rick) Licht, PE, LSE
Principal

Encl: As Noted

Cc: (via email - PDF copy)
John Wasileski; Sea Coast at Baxter Woods Associates, LLC
Matthew Teare; Sea Coast at Baxter Woods Associates, LLC
Kevin Bunker; Motherhouse, LLC
Ron Epstein; Jensen, Baird, Gardner & Henry
Pat Carroll; Carroll Associates, Landscape Architects
Andrew Johnston; Stantec
Diane Morabito, Maine Traffic Resources



February 16, 2016
Received
4.12.2016

J14.067

Barbara Barhydt
Development Review Manager
Planning and Urban Development Department
Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

605 Stevens Avenue
Master Development Plan Addenda Information
(CBL 136 E006001, 143 F004000, 144 B001000)

Dear Barbara:

On behalf of Sea Coast at Baxter Woods Associates, LLC and Motherhouse Associates LP, our project team are submitting these Addenda to the Master Development Plan (MDP) application dated February 16, 2016 and update dated March 16, 2016 for the 605 Stevens Avenue project.

This submittal provides additional information in support of the Portland Land Use Code Articles IV - Subdivision and Article V - Site Plan Sections 14-523 through 14-527 - Master Development Plan review. The project proposes development of a residential senior living campus on the grounds of the former ST. Joseph's Convent and McAuley High School fields.

Enclosed are one (1) hard copy of the following materials and Site Plans and PDF copies submitted electronically:

- A. Cover Letter & Attachments:
 - 1. Baxter Woods MOU Outline
- B. MDP Site Plans Revised 04-11-16 with the following *new* Plan Sheets added:
 - L-2.1 Open Space Calculations
 - L-3.1 Parking Diagram
 - L5.0 Tree Removal and Preservation Plan
 - L5.1 Landscape Master Plan
 - C-3.0 Concept Stormwater Plan (originally one plan)
 - C-4.0 Concept Utility Plan (originally one plan)
- C. Additional Photo Board Perspective/Massing Views dated 04-12-16
 - From Stevens Ave At Evergreen Cemetery
 - From the Baxter Woods Meadow
- D. Architectural Elevations and Materials Selection dated 04-11-16
- E. MDP Stormwater Report & Plans dated 04-11-16

I. Summary of Events Since February 16th MDP Submission:

As you are aware, the project team has been working closely with staff to address comments and develop supplemental information to support the Zoning Section 14-523 – 14-527 MPD Submittal requirements. As a review, the project approval schedule has included the following activities and updates since the February submission:

- Staff Review meetings held – 02/14 and 03/29
- Planning Board Workshop #1 – 03/22
- Neighborhood Meeting held -03/14
- Supplemental Submittal (Plan Updates, Traffic Study, Photo Perspective Boards) - 03/16
- Baxter Woods Site Walk Staff and Design Team – 03/31
- Supplemental Submittal – 04/12

This updated material is being submitted for the Planning Board workshop #2 scheduled for April 26.

II. Plan Revisions:

The overall Lot 4 Senior Campus design has seen considerable improvements since the initial submittal – both in response to staff and neighborhood comments and in part due to the zoning lines being shown incorrectly on the initial submittal. The R5 and R5A zone lines were inadvertently shown *closer* to Baxter Woods (from an earlier version of the 2015 zoning process) than the final zoning map amendment approved on July 06, 2015. The plans now reflect the updated zone boundaries resulting in the following improvements to the plans:

- In the original submittal, buildings 1-3 ranged from approximately 65 to 80 feet off the southern property line. The corrected zone boundary increases the building setbacks to the property line with Baxter Woods from approximately 80 feet for building 1 to over 140 feet for building 3.
- The configuration of the buildings has been modified to provide a more integrated campus by aligning buildings 1-3 along the southern zone boundary line and increasing space between the buildings, particularly buildings 3 and 4. The design creates a stronger pedestrian and visual connection from Stevens Avenue into the campus courtyard on Lot 4 whereas in the initial plan, Building 3 blocked this view with the access to the interior courtyard offset further north from the current location.
- Additional parking has been placed behind buildings 2 and 3 which allows for more green space and plaza areas within the central courtyard areas. The rear parking will be buffered from Baxter Woods with a combination of plantings and/or berms.
- The central courtyard parking and amenity spaces have been re-organized to provide more efficient and interesting outdoor spaces for residents.
- The configuration provides a more prominent north-south visual and pedestrian connection between Baxter Woods across the courtyard and to the athletic fields to the north.
- The increased building spacing has allowed the former fire lane, located previously on the north side of buildings 4 and 5, to be located within the courtyard - which was preferred by the fire department.
- The main campus sidewalk connection to Stevens Avenue has shifted 10 to 15 feet to the north. This has been coordinated with City Staff with respect to the proposed new crosswalk location.

- Additional landscaping and screening has been added to the plans conceptually.
- Stormwater BMP's and utilities have been adjusted to reflect the new layout.
- The Site Data/Net Residential Density tables have been updated.

Overall we believe that the new layout provides greater buffering and setbacks to Baxter Woods and a more cohesive urban design for the campus. Refer to the Site Plans for additional detail.

III. Parking:

The plan continues to provide 2 parking spaces per unit including both covered and open parking. The applicant has indicated in our meetings with Staff and the Planning Board that as the project is phased, should the market demonstrate that a lesser ratio is justified, some of the additional parking may not be necessary. This will be finalized during the site plan review for future phases. For now the plan is currently in compliance with the Zoning Ordinance requirement of 2 spaces per unit.

IV. Baxter Woods:

As discussed above, the current design provides greater opportunity for buffering Baxter Woods with increased setbacks to the buildings. Equally as important is the focus on a collaborative approach between the applicant and the City to support Baxter Woods through the implementation of assessment, monitoring and stewardship programs to improve the conditions of the park. A site walk was conducted on March 31st with staff, Jeff Tarling, City Arborist, and the applicant's team to explore opportunities for meeting these goals.

The outcome of that meeting and discussions with staff provided clarity to a two pronged approach to protecting Baxter Woods. One is a design strategy which includes landscaping and buffering on the campus site and selected plantings within Baxter Woods to enhance the park. Notwithstanding ongoing ecological monitoring by groups such as the U.S. Forest Service, the second strategy is the implementation of a program of assessment, monitoring and education to target improvements to the park infrastructure. All goals must align with the mission of Baxter Woods as set forth by Mayor Baxter. Attachment A.1 provides a draft MOU for the applicant together with the City to both define and meet these objectives.

An outline of sample tasks and design guidelines follow:

1. Physical Improvements & Landscaping:

- Add landscaping plantings along the fence line on both the project side and Baxter Woods side of the existing fence to fill in visual gaps. Coordinate plant species with Jeff Tarling to compliment Baxter Woods.
- Remove invasive species within the 33 ft. strip of land along the fence in Baxter Woods.
- Establish where existing fencing is to be replaced and provide fencing specification.
- Create stormwater rain gardens along buffer area to Baxter Woods.
- Create landscape berms on the project side of the Baxter Woods fence.
- Provide additional trail connections from campus to Baxter Woods (See Site Plans).
- Formalize a new trail in Baxter Woods along the former "allée" and connect to the campus behind building 1 (new fence opening) and link to internal project pathway/sidewalk system.

- Work with Jeff Tarling to supplement the red pine grove near Stevens Avenue and the “Meadow” in Baxter Woods.
- Together with Jeff Tarling, close off and redirect overused side trails by the property fence, and re-vegetate with screening materials.
- Provide funds or assistance for trail maintenance.
- Implement/add interpretive signage as deemed needed by the City.

2. Assessment/Monitoring and Education (MOU):

(See attached draft MOU Attachment A.2 for specifics)

- Provide baseline assessment of physical condition of trails and infrastructure.
- Implement method for annually monitoring use of Baxter Woods.
- Provide/support educational strategies to increase awareness and promote stewardship.
- Research and promote historical connection between McAuley campus and Baxter Woods.

V. Building Massing and Perspective Views:

In addition to the existing and proposed perspective views provided in the March 16th submission, staff requested additional building massing views from two additional locations – one from the Meadow at Baxter Woods and one from Stevens Avenue as one approaches from the south. These are attached.

The view sheds demonstrate that even in winter conditions, the existing woods provide significant filtering of views of proposed buildings 1-3. Additionally the Meadow is bordered by a thick row of pines which provide dense filtering of the proposed area of parking behind buildings 2-3 and the lower levels of the buildings as well. The perspective suggests supplemental evergreen plantings to strengthen that buffer as well.

VI. Architectural Materials:

Archetype, PA have provided architectural elevations and perspectives suggesting the building forms and a selection of potential exterior materials and finishes –as examples, which may vary with the final building designs. These include clapboard fiber cement siding, PVC trim boards, brick or similar materials. The models depict shadow effects across the face of a typical building and the variation in flat and pitched rooflines. The architecture creates interest with protruding balconies and breaking up the buildings into various forms and fenestrations both in the vertical and horizontal planes to provide a scale in context with the site and buildings in this area.

VII. Summary:

In summary we feel that the updated site plans together with the supporting massing assessments provide for an improved project layout and design. The improved buffers and proposed Baxter Woods stewardship strategies demonstrate the applicant’s commitment to preserving and protecting Baxter Woods.

We look forward to working closely with staff in preparation for the April 26th Planning Board workshop. In the meantime our project team remains available to meet with staff or to provide any additional information if required.

Sincerely,

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

Frederic (Rick) Licht, PE, LSE
Principal

Encl: As Noted

Cc: John Wasileski; Sea Coast at Baxter Woods Associates, LLC
Matthew Teare; Sea Coast at Baxter Woods Associates, LLC
Kevin Bunker; Motherhouse, LLC , Ron Epstein; Jensen, Baird, Gardner & Henry
Pat Carroll; Carroll Associates, Landscape Architects
Andrew Johnston; Stantec
Diane Morabito, Maine Traffic Resources



February 16, 2016

J14.067

Ms. Barbara Barhydt
Development Review Manager
Planning and Urban Development Department
Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04101

605 Stevens Avenue
Master Development Plan Preliminary Application
(CBL 135 X003, 136 E006001, 143 F004000, 144 B001000)

Dear Barbara:

We are pleased to submit this application for Master Plan Review of the former Sisters of Mercy campus located at 605 Stevens Avenue on behalf of Motherhouse Associates, LP (for the Motherhouse redevelopment project) and Sea Coast at Baxter Woods Associates, LLC (for the market rate active adult community). Our team is seeking to redevelop the Motherhouse and the surrounding grounds into a senior living / active adult community. This Master Plan application comes after a rezoning of portions of the campus and level III site plan approval of the Motherhouse project in 2015.

As part of the earlier zoning and approval process, our team agreed to participate in the Master Plan Review process due to our lengthy and positive experience with master planning in other Maine communities. Sea Coast Management has utilized a master plan process to update and expand the OceanView at Falmouth Retirement Community since the passage of a special overlay district by the Town of Falmouth in the late 1990's. In Topsham, the Highland Green active adult community has utilized a master planning process with both the Town of Topsham and the Maine Department of Environmental Protection since 2000. The Developers Collaborative utilized a similar approach with its redevelopment of the historic Brick Hill campus located in South Portland.

In each example, the master planning process allowed both the development team and the local planning authorities to take a holistic, comprehensive approach to the development and this generally leads to a better, more integrated design. Neighbors and other stakeholders can also participate in the master planning process to ensure that their concerns and input are addressed in a comprehensive manner with no surprises during future phases of development. Once the master plan is approved, it is quick and efficient to review and approve the subsequent, specific phases of the development. The planning board knows how the specific phases fit into the overall plan for the development and the development team knows that it will receive approval of subsequent phases in a timely manner as long as they remain generally consistent with the master plan.

As we begin this master planning process, we note that the City of Portland's requirements for a master plan application are quite detailed. We look forward to working with the City, neighbors, various planning consultants and other stakeholders during this evolutionary process. This first application is simple and basic. As we proceed with the numerous meetings and complete the various planning studies, the application and the details of the master plan will evolve until a detailed blueprint for the redevelopment of the campus.

This application is being submitted pursuant to the Portland Land Use Code Articles IV Subdivision and Article V Site Plan Sections 14-523 through 14-527 - Master Development Plan review. The project proposes development of a residential senior living campus on the grounds of the former Joseph's Convent and McAuley High School fields. This application and the following sections follow the MDP Application Checklist with additional information added as deemed necessary to provide a thorough summary of the proposed project.

PROJECT DESCRIPTION

The former Sisters of Mercy campus is located at the corner of Stevens Avenue and Walton Streets in the Deering Center neighborhood of Portland. The entire campus is 18.98 acres and includes Catherine McAuley High School (Lot 1), Saint Catherine's residence hall (Lot 2), Saint Joseph's Convent (the Motherhouse / Lot 3) and the surrounding land (Lot 4). This Master Development Plan (MDP) application commences the formal review process for the creation of a senior living / active adult community on Lot 4 and the integration of the Lot 3 Motherhouse into the overall campus masterplan. At this time, the status of the school and St. Catherine's is unchanged and those elements of the property will remain "as is" for the purpose of the master plan but will be integrated in terms of access, parking and circulation. The master planning process will focus on the redevelopment and repurposing of the historic Motherhouse and its surrounding land. This land, rather than the entire campus, was rezoned in 2015 from the R-5 zone to the R-5A zone.

The redevelopment of the iconic Motherhouse into a mixed income project of affordable and market rate senior housing is the first phase of the project and the centerpiece of the master planned campus. The Motherhouse project will be financed in part through Low Income Housing Tax Credits (LIHTC) and Historic Tax Credits (HTC). Sixty six (66) apartments will be offered at affordable rents and twenty two (22) will be offered at market rate rents. Consistent with the parameters of the Maine State Housing Authority's LIHTC program, the residents can access the assistance of a part-time resident service coordinator but the services will otherwise be minimal. However, there will be an abundance of shared common areas to facilitate congregate living at the Motherhouse.

The second component of the community will be a market rate active adult community with approximately 160 apartments located in new buildings to the side and rear of the Motherhouse. This community will target younger seniors from age 55 to 75 looking to simplify their living arrangements and spend more time enjoying an active lifestyle. The general idea is to offer younger seniors a wide array of senior-friendly apartment living options that include a number of shared amenities and spaces. This is a concept generally known as congregate living for independent residents. Layered on top of the physical design of the community is an array of services – some included / some ala carte -- that support healthy, active and independent living as residents age.

The following are some of the important aspects of the active adult market rate community:

- The five apartment buildings will be marketed, pre-sold and constructed in phases to ensure the financial stability of the new community. Each building will include parking underneath the building to reduce surface parking and to provide an attractive amenity to residents. The buildings will range from three to four floors in height not including the under building parking.
- The apartments will be sold as condominiums and include both one and two bedroom models. They will all be single level, senior friendly apartments designed to accommodate a residents changing needs as they age.
- The community will include a series of amenities and common spaces designed to encourage an active, healthy lifestyle. These amenities may include common living rooms

and libraries, a fitness center, a café, a theater, a conference room, a private dining room and a variety of outdoor common spaces.

- The service component of the community will include comprehensive building maintenance and concierge services from housekeeping and laundry to fitness classes and transportation. As a residents need for support increases, the community will contract with an in-home providers of senior services – from homemaking assistance to personal care and assistance with the activities of daily living.

The design of the new campus is a careful balance of several important and sometimes competing elements. These elements include the preservation of the historic streetscape and view of the Motherhouse along Stevens Avenue; the preservation of a playing field for the school; and provision of an over-sized buffer along the property line with Baxter Woods. As a result, the new buildings are grouped in a close-knit neighborhood to the side and rear of the Motherhouse. This grouping of buildings and preservation of open spaces – combined with sidewalks, pathways, landscaping and hardscaping running throughout the campus and new buildings – will create an attractive campus setting.

The new community can also integrate the former Sisters of Mercy campus into the surrounding community as never before. Pathway connections with Baxter Woods can be re-established and the entire corridor cleaned up and landscaped. The large green spaces along Stevens Avenue can be literally opened up by establishing new entrances and/or removing fencing (consistent with the National Park Service Review); re-establishing proper and well-maintained landscaping; and creating new sitting areas. The entrance and parking areas along Walton Street will be upgraded, landscaped and maintained to ensure an attractive, safe and welcoming view of the new community.

AFFORDABILITY

At a time when the City of Portland is facing a serious challenge due to the lack of affordable housing, it is important to note that this project provides a significant contribution of housing. Of the 249 apartments planned for the site, 66 of those apartments are just under 25% are affordable per the terms of the Maine State Housing Authorities Low Income Tax Credit Program. Additionally, the remaining 22 market rate apartments in the Motherhouse are moderate in price.

In addition to the new apartments created with this project, the project is designed to appeal to older adults living throughout Portland and particularly in the off-peninsula neighborhoods. To the extent that individuals move to the new housing from these neighborhoods, numerous existing homes will become available for younger families. We believe this new project – and other like it – are an important step toward addressing the housing crises.

IMPACT ON SCHOOLS / SERVICES

The new community will have an impact on the local schools and services and it will be extremely positive. The Sea Coast senior communities are the number one tax payer in both Topsham and Falmouth – by far. This includes both residential and commercial taxpaying entities. A preliminary projection for the tax revenues from this project is approximately \$900,000 per year. These tax revenues can be utilized in a number of ways and with instruments such as the TIF program to direct funds directly into the Deering Center neighborhood. In addition to tax revenues, our senior communities have been strong supporters of the local schools. This support includes intergenerational programs of all types and specific fundraising efforts to support the schools.

Another impact on the local community comes from general economic development. Seniors moving into a market rate community bring their savings and investments with them and reinvest it

into the local community and its businesses and services. These seniors are affluent and the investment is significant – amounting to tens of millions of dollars. The significant, positive impact of senior communities was heralded by the Governor Angus King administration is an effort entitled “The Golden Opportunity”.

An often repeated misconception of market rate senior communities is that they are a major drain on municipal services. In fact, the opposite is true. Senior communities utilize very few municipal services while paying significant amount of taxes. While this is partially due to the fact that they place no children in the schools, it extends to many other services as well. For example, we recently did an analysis of the fire and ambulance trip to our 175 home active adult community in Topsham, Maine. Records indicate that there were 17 emergency service visits over a six month period in 2014. This equates to just over 1 trip every 2 weeks.

Lastly, the design of the new buildings reduces and simplifies the burden placed on emergency responders. First, all of our buildings are fully covered by the modern, fully code compliant fire sprinkler systems. Second, there is a comprehensive life safety system in each building – from an emergency call system to security to all of the required smoke, fire and carbon monoxide detectors. Third, the size of the building requires that it is designed and approved in conjunction with the State Fire Marshall’s Office.

NEIGHBORHOOD CONTEXT

The Sisters of Mercy Convent and Campus have been located in Deering Center for well over 100 years. Its early neighbors included the remarkable greens spaces represented by Baxter Woods and Evergreen Cemetery but since those early days a truly diverse neighborhood has grown up around it. There is a wide variety of commercial, industrial, residential and institutional uses in the immediate vicinity in and around the campus. While the Motherhouse has long been an iconic presence along Stevens Avenue, this project provides an opportunity to fully realize the potential of the campus to become an attractive, integrated part of its surrounding community.

The first and most important element of the campus in terms of the surrounding community is the Motherhouse. The Sisters of Mercy have spent millions of dollars maintaining and studying a potential reuse of the Motherhouse since approximately 1995. The Motherhouse has been empty for the past 10 years but still requires over \$200,000 annually to maintain. This project will renovate and repurpose the Motherhouse so that it will remain impressive and financially viable for the next 100 years. Equally important, it will continue to serve the Sisters of Mercy legacy of caring for those in the surrounding community.

There are several large housing, institutional and educational uses in direct proximity to the campus. These include the abutting 11 story Deering Pavilion, the University of New England, the Park Danforth, Saint Brigid School, Lincoln Middle School and Deering High School to name a few. Deering Pavilion, UNE and the Park Danforth are more institutional in practice and appearance while the schools form a remarkable continuum of education along Stevens Avenue.

The proposed campus – from the preserved Motherhouse to the McAuley School to the new senior housing – is an important and consistent part of this neighborhood. But while the larger entities are more institutional, the design of the proposed senior community will be more residential in nature. It will provide a smooth transition from the larger institutional and commercial buildings on the north end of Stevens Avenue and the nearby Forest Avenue to the residential neighborhoods that dominate in and around Deering Center. The new buildings will be shorter and smaller than both

Deering Pavilion and the Motherhouse itself. Moreover, they will be set back from both Stevens Avenue and Walton Street.

Unlike the institutional and educational entities lining Stevens Avenue, the proposed senior community will be quiet and attractive. All seniors, including youthful seniors, generate significantly less traffic and parking than a young family or a business or a school. Additionally, it is the development team's intention that the campus is designed so that all parking will be contained on campus. This is accomplished in an attractive, sustainable manner but placing a significant amount of required parking under the apartment buildings.

Additionally, it is important that the new community properly integrate with and compliment the surrounding green spaces at Baxter Woods and Evergreen Cemetery. This is the most important element of the site design as it relates to neighborhood context. We believe this can be accomplished in three ways. First, the proposed new buildings will be grouped in a close-knit neighborhood to the side and the rear of the campus. This will provide significant green space and distance between the primary view sheds along Stevens and Walton Street. Second, an oversized buffer and planting will occur along the border with Baxter Woods. There is already a significant wooded buffer between the main pathways in Baxter Woods and the campus but clean up and additional landscaping will improve the appearance and enjoyment of this buffer area. Lastly, the campus will be opened up and integrated with the neighborhood as never before via a network of drives, sidewalks, pathways, hardscaping and landscaping. And the residents of the new community – along with family, friends and neighbors – can enjoy the campus.

Finally, we have heard from those who oppose the development that the proposed community is completely out of context with the surrounding residential neighborhoods. First, a review of the surrounding neighborhood indicates that is simply not true. There is a wide variety of residential, commercial and institutional uses in the neighborhood and they are housed a wide variety of buildings and settings. Second, and more importantly, to attempt design the campus so that it mimics the surrounding single family home neighborhoods is inadvisable. This would require covering the entire campus with streets and smaller homes and a proliferation of cars and parking throughout the campus and beyond. It would eliminate all green space and detract from the Motherhouse, the school and Baxter Woods. It would appear both out of place and out of time. The proposed design fits into the context of the existing campus. Moreover, it is a sustainable design with preserved open spaces, parking underneath and attractive buildings.

RIGHT, TITLE & INTEREST

The applicants have secured a Purchase Option for the campus from Saint Joseph's Convent and Hospital, included as *Attachment 1*.

The draft Declaration of Condominium and Declaration of Covenants and Easements for the Lot 3 Motherhouse are also included as Attachment 1.

STATE & FEDERAL APPROVALS

The project will develop 3 or more acres of impervious area meeting the thresholds for a Department of Environmental Protection Site Law permit. A formal DEP Permit is not required as the City Portland has delegated review and will review the project as part of the formal site plan submission.

No wetland impacts are anticipated for the project and no permit from the Corps of Engineers under Section 404 of the Clean Water Act will be required.

COMPLIANCE WITH ZONING

The project site contains areas of R-5 and R-5A zone districts as a result of an extensive rezoning process that was adopted in 2015. All proposed building and site development is located entirely within the R-5A zone. A summary of the Space and Bulk requirements for Lot 4 is included on the Conceptual Site Plan (Sheet L-2). We believe that the project meets or exceeds all Spatial Standards for the R-5A Zone District.

EASEMENTS AND RIGHTS OF WAYS

Existing Easements: The existing site contains a 33-foot right of way easement along the southern property line at Baxter Woods deeded in 1908 by James Baxter as part of a 66-foot wide paper street. The applicants intend to preserve that right of way as a natural buffer subject to any rights or interests the City may have in the right of way.

The site is subject to an overhead utility line easement over Lot 1 to service the Motherhouse.

Proposed Easements: As a 4-lot subdivision and master planned site, cross-easements are typically required for shared utilities, access, stormwater management, etc. Shared easements for sewer, water and storm drainage are shown on the Subdivision Plat. It is anticipated that shared parking and access easements may be required between the subdivision lots which will be added to the updated subdivision plan for the campus.

A reciprocal easement agreement will be created between Lots 3 and 4 providing covenants and restrictions as required.

The stormwater easement across Lot 4 will be conditioned to allow that storm drain line to be moved upon development of Lot 4 Senior Housing.

WAIVER REQUESTS

The following MDP Application waiver is requested:

- a. Ordinance 14-527 (e) 1. – Scale of Context Map. We respectfully request a waiver of the plan scale of one inch = 100 ft. to one inch = 150 feet. This request is being made to fit the neighborhood context map on to a standard plan sheet size.

FINANCIAL AND TECHNICAL CAPACITY

- a. **Financing:** A letter of Financial Capacity from from Bath Savings Institution is attached to this application as Exhibit 2.
- b. **Technical Capacity:**

The development team for this project includes Sea Coast Management Company based in Falmouth, Maine; the Developers Collaborative of Portland, Maine; and a team of very qualified and experienced consultants.

Sea Coast Management Company is Maine's leading developer, owner and operator of market rate senior living communities including OceanView at Falmouth and Highland Green in Topsham. Over the last 30 years, our communities have grown and prospered. Some of their development related projects include:

- OceanView at Falmouth, a full service retirement community located in Falmouth, Maine.

- Highland Green, an active adult community located in Topsham, Maine.
- The Highlands of Topsham, a full service retirement community located in Topsham, Maine.
- Granite Hill Estates, a full service retirement community located in Augusta, Maine.

Developers Collaborative of Portland is the leading developer of community-oriented smart growth projects with a strong emphasis on the creative use of tax credits to support the redevelopment of in-town historic buildings and sites. Many of their projects include the same qualities and challenges posed by the Motherhouse redevelopment project. Some of their development projects include:

- Nathan Clifford School, historic rehabilitation into market rate apartments, Portland, Maine
- Healy Terrace, historic rehabilitation of a former Catholic children's home in senior affordable apartments, Lewiston, ME
- Gilman School, historic rehabilitation into workforce housing, Lewiston, ME
- Brick Hill, redevelopment of the former Maine Youth Center campus, South Portland, ME

Our design team includes a seasoned team of the following professionals:

- Licht Environmental Design, LLC – Project Manager
- Carroll Associates – Master Planning and Landscape Architecture
- Stantec– Civil Engineering
- Archetype, PA –Architecture
- Maine Traffic Resources – Traffic Assessment
- Titcomb Associates – Surveying
- Tremont Preservation Services/ Christine Beard – Historical Consultant

9. STORMWATER MANAGEMENT

The project will take a Low Impact Development (LID) approach to stormwater management. This will focus on source capture, treatment and detention of runoff from newly developed areas of the site using a series of small, localized Best Management Practices (BMPs). The design approach is intended to mimic existing drainage patterns and maintain surface runoff and groundwater recharge rates at predevelopment levels. The project site is underlain by Adams series, coarse grained, sandy soils, providing ideal conditions for the use of infiltrating stormwater BMPs, similar to those used on the recently approved adjacent Motherhouse - McAuley project.

Several types of BMP will be proposed for use at the site, all of which are designed to fit with the site topography and be incorporated into the existing and proposed landscape features. These include small-scale planted rain gardens adjacent to the buildings, filtering drip edge filters to capture and treat roof runoff, and infiltration trenches along linear impervious edges with low pollutant loading potential. The use of pervious pavement sections is also an option particularly for lightly loaded parking areas. This approach will be vetted to ensure viability from a cost and maintenance perspective, but offers potential aesthetic value in addition to the stormwater treatment and detention benefits. All BMPs will be designed with underdrain and overflow outlets to a piped storm drain system. However, it is anticipated that during all but the largest storm events, the majority of runoff from the developed site will drain by infiltration to the underlying soils.

All stormwater BMPs will be designed to current State of Maine Chapter 500 Stormwater Law standards. The design will ensure that post-development surface runoff rates do not increase over

the existing conditions for the 2-year, 10-year and 25-year design storm events, and the downstream discharge points from the new stormwater system will remain the same as currently exist at the site.

10. TRAFFIC ANALYSIS and PARKING

- a. Traffic Analysis: The project traffic engineer, Diane Morabito, PE, PTOE of Maine Traffic Resources is preparing a traffic impact analysis for the proposed campus development of the additional 161 senior housing units together with the Motherhouse trips for the submission of a Traffic Movement Permit (TMP) application if the 100-200 pce trip rates are triggered. Trip generation data and study area limits will be reviewed with the City traffic consultant, Tom Errico of TYLin International as part of the scoping process.

A scoping meeting and final traffic impact study and TMP Application will be provided as part of the Master Development review process.

- b. Parking Summary: The proposed project envisions a mixture of covered and surface spaces to meet its parking demand. A total of 322 parking spaces are provided for residents and guests, a parking ration of 2.0 PS/ Dwelling Unit. The majority of parking is provided in the lower level of the buildings, allowing convenient and desirable parking for residents and freeing up a significant portion of the site for open space. This number meets the existing R-5A zoning requirement for Multiplex use.

The project has always been envisioned as a campus, and there is great opportunity for the project to share parking needs with McAuley High School and the Motherhouse if necessary. The school needs are typically during daytime hours and residential parking is an evening activity, so the school could benefit for event parking and residents/ guests could utilize other on-site parking as needed.

11. UTILITIES ANALYSIS

The project proposes a comprehensive utility masterplan to provide the following utility services. Appropriate utility easements will be provided as needed to service Lot 4 over Lots 1, 2 and 3. The final utility design will be submitted for the respective utility company approvals. The campus utility infrastructure improvements will be financed by the developers and coordinated with City staff with respect to sewer CSO's and street opening connections.

Refer to the Conceptual Stormwater and Utility Plan and *Attachment 3* for Letters of Serviceability.

1. Natural Gas – To be provided from Stevens Avenue with a new main servicing the Motherhouse and extending into Lot 4 to service the 5 new campus buildings.
2. Water – A new fire and domestic service will be connected from Stevens Ave. to the Motherhouse and extended into Lot 4. An main extension easement will be provided to the Portland Water District across Lot 3.

3. Sanitary Sewer – An onsite 8 -inch sewer main services the existing Motherhouse and discharges to the City sewer in Walton Street. That main is expected to be utilized and upgraded as necessary to service the additional Lot 4 development. A new service connection and manhole at Walton Street will be installed as part of the Motherhouse project and coordinated with the Department of Public Services. Cross easements between Lots 2,3 and 4 will be provided and updated on the subdivision plan.

The applicant has submitted the Wastewater Capacity Application and supporting flows to the Department of Public Services (DPS) for review with estimated flows of 6,776 gallons per day of water/wastewater projected for the Motherhouse development. Updated flow data will be provided to the DPS for the 161 unit Lot 3 development as part of the MDP review process.

4. Electric/Communications – Electric and communications service to the Motherhouse is currently provided from Walton Street via an overhead line and easement to the rear of the Motherhouse and Smith Wing. The approved LIII Motherhouse project will continue to use the overhead lines upgrading from single to 3-phase power and provide a pad mounted 3-phase transformer at the Motherhouse (refer to approved Motherhouse LIII Site Plans.)

The Lot 4 campus development anticipates replacing the overhead lines from Walton Street with a new underground service and extending into Lot 4 from the new pad mounted transformer at the Motherhouse. The final utility design will be reviewed with Central Maine Power Company. Appropriate utility easements will be provided between the campus lots.

5. Site Lighting – Site lighting has been approved for the Motherhouse project parking and pedestrian areas and access drive from Walton Street. A similar phased site lighting theme will be carried forward into the Lot 4 senior housing project as part of the final review of the campus buildings.

Enclosed are one (1) hard copy of the following materials and Site Plans and PDF copies on an attached CD-ROM:

- Cover Letter
- City of Portland Master Development Plan Review Application
- Site Plan/Subdivision Application Fee (Submitted separately)
- Sections
 - 1 – Project Description & Consistency with Comprehensive Plan
 - 2 – Neighborhood Context
 - 3 - Right, Title & Interest
 - 4 - State & Federal Approvals
 - 5 - Compliance with Zoning
 - 6 - Easements & ROWs
 - 7 – Waiver Requests
 - 8 - Financial and Technical Capacity
 - 9 – Stormwater Management
 - 10 –Traffic Analysis
 - 11 – Utilities Analysis

Attachments:

1. RT&I -P&S Agreement and Lot 3 Condominium Documents

2. Financial Ability
3. Utility Serviceability Letters

Site Plans

- A. Cover Sheet
- B. Subdivision Plan
- C. Context Plan
- D. Conceptual Site Master Plan
- E. Circulation Plan
- F. Phasing Plan
- G. Conceptual Stormwater and Utilities
- H. Architectural Plans and Elevations

We look forward to working closely with staff towards a series of workshops with the Planning Board over the coming months. A neighborhood meeting will be noticed and held in accordance with the MDP process requirements and we envision additional meetings as the project progresses. In the meantime our project team remains available to meet with staff to review the application in further detail or to provide any additional information if required.

Sincerely,



Frederic (Rick) Licht, PE, LSE
Principal

Matthew Teare
Seacoast at Baxter Woods Associates, LLC

Encl: As Noted

Cc: (via email - PDF copy)
John Wasileski; Sea Coast at Baxter Woods Associates, LLC
Sister Lindora Cabral; Sisters of Mercy of the Americas Northeast Community, Inc.
Daniel Justynski; Sisters of Mercy of the Americas Northeast Community, Inc.
Dennis Keeler; Pierce Atwood, LP
Kevin Bunker; Motherhouse, LLC
Ron Epstein; Jensen, Baird, Gardner & Henry
Natalie Burns; Jensen, Baird, Gardner & Henry
Pat Carroll; Carroll Associates, Landscape Architects
Andrew Johnston; Stantec
Diane Morabito, Maine Traffic Resources



Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a **legal signature** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are **paid in full** to the Inspections Office, City of Portland Maine by method noted below:

- ☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☒ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.
- ☐ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature:

Date:

I have provided digital copies and sent them on:

Date:

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.



Master Development Plan Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Master Development Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Purpose of a Master Development Plan:

- The purpose of a Master Development Plan is to provide for a mix of land uses at designated locations to achieve a land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review of a Level III site plan application for a phased development.

A Master Development Plan is applicable as follows:

- A Master Development Plan is applicable for a site with one acre or larger in cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.
- The Master Development Plan option shall not apply in residential zones, except for institutional uses.

Planning Board Decision:

- A Master Development Plan approval shall not be construed as final authorization of the development. An approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the Master Development approval remains valid (6 years from date of approval), including permissible extensions if granted (two 2-year extensions may be granted based upon criteria). All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division

Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours

Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: 605 Stevens Avenue

PROPOSED DEVELOPMENT ADDRESS:

605 Stevens Avenue

PROJECT DESCRIPTION:

Master planned Senior Housing community consisting of 88 affordable and market rate apartments created through renovation of the former St. Joseph's Convent (Lot 3) and new construction of 161 market rate condominiums to be located on land directly behind and south of the convent building (Lot 4)

CHART/BLOCK/LOT: 135 X003/ 136-E006001/ 143-F004/ 144-B001

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Kevin Bunker/ Matthew Teare Business Name, if applicable: Seacoast at Baxter Woods, LLC Address: 100 Commercial St, Suite 414 City/State: Portland, ME Zip Code: 04101	Applicant Contact Information Work # Kevin Bunker Matthew Teare Home# 207-766-1632 (c) 207-837-2418(c) Cell # Fax# e-mail: kbunker@gmail.com mteare@highlandgreenlifestyle.com
Owner – (if different from Applicant) Name: St. Joseph's Convent and Hospital C/O Sisters of Mercy of the Americas Northeast Community, Inc. Address: 15 Highland View Road City/State: Cumberland, RI Zip Code: 02864	Owner Contact Information Work # Attn: Sister Lindora Cabral Home# Cell # Fax# 207-333-6450 e-mail: lcabral@mercyn.org
Agent/ Representative Name: Frederic (Rick) Licht, PE, LSE Licht Environmental Design Address: 35 Fran Circle City/State: Gray, ME Zip Code: 04039	Agent/Representative Contact information Work # Cell # e-mail:
Billing Information Name: Matthew Teare SeaCoast at Baxter Woods Associates, LLC Address: 100 Commercial Street, Suite 414 City/State: Portland, ME Zip Code: 04101	Billing Information Work # Cell # 207-837-2418 Fax# e-mail: mteare@highlandgreenlifestyle.com

Engineer Name: Andrew Johnston Stantec, Inc. Address: 778 Main Street, Suite 8 South Portland, ME 04106 City/State : Zip Code:	Engineer Contact Information Work # 207-775-1121 Cell # Fax# 207-879-0896 e-mail: ajohnston@fstinc.com
Surveyor Name: David Titcomb, PLS Titcomb Associates Address: 133 Gray Road Falmouth, ME 04105 City/State : Zip Code:	Surveyor Contact Information Work # 207-797-9199 Cell # 207-797-9018 Fax# e-mail: dtitcomb@titcombsurvey.com
Architect Name: David Lloyd Archtype 48 Union Wharf Portland, ME 04101 Address: Patrick Carroll Carroll Associates City/State : 217 Commercial St, Portland, ME 04101 Zip Code:	Architect Contact Information Work # Archtype- 207-772-6022 (w) 207-772-4056 (f) Cell # Carroll Associates Fax# 207-772-1552(w) 207-772-0712(f) e-mail: lloyd@archtype.com pcarroll@carroll-assoc.com
Attorney Name: Ron Epstein/ Natalie Burns Jensen, Baird, Gardner, and Henry Address: 10 Free Street, PO Box 04112 Portland, ME 04112 City/State : Zip Code:	Attorney Contact Information Work # 207-775-7271 Cell # Fax# 207-775-7935 e-mail: repstein@jbgh.com nburns@jbgh.com

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Master Development Plan (check applicable reviews) ☒ Application Fee (\$1,000.00)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Documents-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. One (1) full size site plans that must be folded.
2. One (1) copy of all written materials or as follows, unless otherwise noted:
 - a. Application form that is completed and signed.
 - b. Cover letter stating the nature of the project.
 - c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Master Development Plan review. It is not a permit to begin construction. An approved Level III site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant		Date:	02/16/2016
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PROJECT DATA

The following information is required where applicable, in order complete the application.

	Lot 3	Lot 4
Total Area of Site	191,066	394,110 sq. ft.
Proposed Total Disturbed Area of the Site	135,036	268,100 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland		
Impervious Surface Area		
Impervious Area (Total Existing)		0 sq. ft.
Impervious Area (Total Proposed)	111,050	131,500 sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	24,065	0 sq. ft.
Building Footprint (Total Proposed)	24,065	74,188 sq. ft.
Floor Area (Total Existing)	102,241	0 sq. ft.
Floor Area (Total Proposed)	102,241	349,626 sq. ft.
Zoning		
Existing	R-5/ R-5A	R-5/ R-5A
Proposed, if applicable	NA	NA
Land Use		
Existing	Former Convent and Campus	
Proposed	Senior Living Campus	
Residential, If applicable		
# Residential Units (Total Existing)	0	0
# Residential Units (Total Proposed)	88	161
# Number of Lots (Total Proposed)	1	1
# Affordable Housing Units (Total Proposed)	66	0
Proposed Bedroom Mix		
# Efficiency Units (Total Proposed)	68	0
# One-Bedroom Units (Total Proposed)	20	0
# Two-Bedroom Units (Total Proposed)	0	161
# Three-Bedroom Units (Total Proposed)	0	0
Parking Spaces		
# Parking Spaces (Total Existing)	Lot 3- 34+/-	Campus = +/- 155
# Parking Spaces (Total Proposed)	77	322 (139 surface/ 183 covered)
# Handicapped Spaces (Total Proposed)	9	10
Bicycle Parking Spaces		
# Bicycle Spaces (Total Existing)	0	
# Bicycle Spaces (Total Proposed)	12 ext/ 24 int= 36	20 ext + 45 int = 65
Estimated Cost of Project		TBD

MASTER DEVELOPMENT PLAN SUBMISSIONS			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
x		1	Completed Application form
x		1	Application fees
x		1	Written description of project
x		1	A written statement and/or plan as to the general impact of the proposed Master Development plan upon the area, relationship to surrounding properties, and measures to create appropriate transitions and access to abutting public properties and neighboring tracts.
x		1	Evidence of right, title and interest
NA		1	Evidence of state and/or federal approvals, if applicable
x		1	Written assessment of proposed project's compliance with applicable zoning requirements
x		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
x		1	Written requests for waivers from site plan or technical standards, if applicable
x		1	Evidence of financial and technical capacity
x		1	General statements concerning storm water management techniques.
Pending		1	Traffic Analysis and recommendations prepared by a registered professional engineer, including current traffic counts, existing street capacity, traffic generation projections, and ability to absorb the increased traffic. If Traffic Movement Permit applies, the TMP submissions and review supersede. (Section 14-527 (e) xii)
x		1	Utilities analysis and recommendations prepared by registered professional engineer. (see utility plan below) Analysis shall assess capacity, identify deficiencies and recommend improvements, including timing, funding mechanisms and coordination with City (14-527 (e) xiii)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST Sec. 14-527 (c) and (e)
x		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
x		1	Master Development Plan Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase) – scale not less than 1 inch equaling 50 feet
x			Neighborhood context map, at a scale not less than 1 inch 100 feet
x			Approximate boundary lines of existing and proposed lots with areas and dimensions
x			Plan show north arrow, date, scale, legend, title Master Development Concept Site Plan, followed by project name, applicant, engineer, designer, and/or agents
x			For residential areas, proposed density, lot configuration, circulation and plot plan
x			Analysis of natural features of the site, including natural waterways, wetlands, floodplains, topography, soil conditions and other natural features
x			Analysis of designated view corridors, historic resources, and archeological resources associated with the site
x			Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas and other significant physical features of the site

Pending		Context drawings, perspective renderings, photographic montages, or computer generated graphics depicting the proposed development within the surrounding building and environmental context
Pending		Building elevation drawings shall include: • Illustration of all sides of the structures
		• Views of major entries or prominent building features
		• Illustration of building articulation and elements
		• Building finish composition
Pending		• Pedestrian and streetscape elements of the Master Development Plan
Pending		Digital 3-D model tied to specific location that is submitted as a KML, KMZ, DXF or DWG file on a CD or DVD or such format as approved by the Planning Authority (Sec. 14527 (e)2)
x		Major circulation patterns surrounding and serving the site, existing and proposed street lines, ways, easement and public areas within or next to the site
x		Major landscaping elements, features, open space, and plans for preservation of natural features
x		Analysis of the public safety services needed to support the Master Development Plan
x		Analysis of the anticipated impacts on the public school system to support the Master Development Plan
x		Generalized drainage plan for the site, drainage ways, flows, points of outfall and indicating impacts of development on affected drainage basins. Contour information at not less than 2 ft. intervals and document run-off characteristics
x		Inventory of existing utilities (storm water, sanitary, electrical , fire alarm boxes & lines, gas, water, lighting, curb and gutter and etc.) illustrating locations, sizes, diameters carrying capacity and present load



**PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST**

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
 - **As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)**
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: _____

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

Site Address: _____

Chart Block Lot Number: _____

Proposed Use: _____

Previous Use: _____

Existing Sanitary Flows: _____ GPD

Existing Process Flows: _____ GPD

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

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: _____

Owner/Developer Address: _____

Phone: _____

Fax: _____

E-mail: _____

Engineering Consultant Name: _____

Engineering Consultant Address: _____

Phone: _____

Fax: _____

E-mail: _____

*(Note: Consultants and Developers should allow +/- 15 days, for capacity status,
prior to Planning Board Review)*

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: _____ GPD

Peaking Factor/ Peak Times: _____

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)

*(Note: Please submit calculations showing the derivation of your design flows,
either on the following page, in the space provided, or attached, as a separate sheet)*

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

GPD

Do you currently hold Federal or State discharge permits?

Yes ☐ No ☐

Is the process wastewater termed categorical under CFR 40?

Yes ☐ No ☐

OSHA Standard Industrial Code (SIC):

[http://www.osha.gov/oshstats/sicser.h
tml](http://www.osha.gov/oshstats/sicser.html)

Peaking Factor/Peak Process Times:

(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation



A Guide to Holding Neighborhood Meetings Portland, Maine

Planning and Urban Development Department
Planning Division and Planning Board

In order to improve communication between applicants and neighbors, the City of Portland requires applicants who are proposing certain types of development review projects, to hold a neighborhood meeting.

Developments requiring a neighborhood meeting

- Proposed map amendments, contract zones and zoning text amendments that would result in major development;
- Subdivisions of five or more units or lots;
- Master Development Plans; and
- Level III site plan proposals as defined in Section 14-523.

(The Land Use Code, including Article II (Planning Board) and Article V (Site Plan – which contains the neighborhood meeting requirements), are available on the City's web site at www.portlandmaine.gov/citycode/chapter014.pdf)

Timing of meeting

- **Subdivisions of 5 or more units or lots, zone changes, contract zones, zoning text amendments and Level III site plans:**
 - Preliminary Site Plan - The meeting should be held within 30 calendar days of filing the application.
 - Final Site Plan – If only a final plan is submitted, the meeting should be held within 21 calendar days of filing the application and no less than 7 calendar days before the public hearing.
- **Master Plan Development:**
 - The meeting should be held within 30 calendar days of filing the application.
 - The meeting should be held on a date no less than 7 calendar days before a public workshop or public hearing.
 - The meeting shall not be combined with any required neighborhood meeting for the Level III applications.

Location of meeting

- The meeting should be held in the evening, during the week, at a convenient location within the Portland neighborhood surrounding the proposed site. Community meeting spaces at libraries, schools or other places of assembly are recommended. Neighborhood schools are usually available for evening meetings.
- Meetings should not be held on the same day as scheduled Planning Board or City Council meetings. The City Council generally meets on the 1st and 3rd Monday of each month and the Planning Board generally meets on the 2nd and 4th Tuesday of each month; however additional meetings may be scheduled. An updated schedule may be found on the City's website: www.portlandmaine.gov

Invitation List

- Property owners within 500 feet of the proposed development (1000 feet for proposed industrial subdivisions and industrial zone changes)
- Interested citizens and neighborhood groups.

The Planning Division provides the mailing labels. We require at least 48 hours notice to generate the mailing labels and a charge of \$1.00 per sheet will be payable upon receipt of the labels. An electronic version (excel or word format) of the labels can also be e-mailed upon request.

A digital copy of the notice must be provided to the Planning Office (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner, which will then be forwarded to those on the interested citizen list who receive e-mail notices.

When to Send Invitations

- Invitations must be sent **no less than 10 days (to include weekends)** prior to the neighborhood meeting.
- Notices may be sent by regular mail and do not need to be sent by certified mail.

Notice Description

A recommended invitation format is included in this packet of material.

Attendance Sheet and Meeting Minutes

- Sign-in sheet must be circulated for those in attendance.
- Applicant shall take accurate minutes of the meeting.
- The sign-in sheet and minutes shall be submitted to the Planning Division.

A public hearing will not be scheduled until the meeting minutes and sign-up sheet are submitted to the Planning Division.

A Certification form is included with this packet to be completed and signed by the applicant.

Please call the Planning Division at 874-8721 or 874-8719 if you have any questions.

Attachments

1. Neighborhood Meeting Invitation Format
2. Neighborhood Meeting Certification

EXAMPLE: Neighborhood Meeting Invitation Format

**Applicant/Consultant
Letterhead**

(Date)

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a (development proposal) located at (location/number and street address).

Meeting Location: _____

Meeting Date: _____

Meeting Time: _____

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call (telephone number of applicant or consultant).

Sincerely,

(Applicant)

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

EXAMPLE: Neighborhood Meeting Certification

I, (applicant/consultant) hereby certify that a neighborhood meeting was held on (date) at (location) at (time).

I also certify that on (date 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 1000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.
3. A digital copy of the notice was also provided to the Planning Division (jmy@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,

_____ (date)

Attached to this certification are:

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

Memorandum of Purchase and Sale Agreement

Notice is hereby given of the existence of a Purchase and Sale Agreement, dated June 16, 2014 (the "Agreement") between St. Joseph's Convent and Hospital, a Maine non-profit corporation (hereinafter called "Seller") and Sea Coast Healthcare, Inc., a corporation existing under the laws of the State of Maine or its nominee (hereinafter called "SCH"), and of an Assignment, dated September 15, 2014 by SCH to Sea Coast at Baxter Woods Associates, LLC ("Purchaser") of all of its rights as Purchaser under said Agreement.

Under the Agreement, Purchaser has the right and obligation to purchase, on and subject to the terms and conditions of the Agreement, the following property at the First Closing, as hereafter defined: (i) a portion of that certain real property consisting of the real estate situated at 605 Stevens Avenue in Portland, Maine, which portion is to contain approximately 17.36 acres, and all buildings and improvements thereon, including the Motherhouse, the Catherine McAuley school, the land between the Motherhouse and Baxter Woods and the "ball fields" and being the premises described in Exhibit A hereto (but excluding the St. Catherine's Parcel, as hereafter described) and generally shown as Lots 1, 3, 4 and 5 on the Conditional Zone Concept Plan, McAuley Place at Baxter Woods, Stevens Avenue, Portland, Maine prepared by Belanger Engineering, March 21, 2014 attached hereto as Exhibit A (hereinafter the "Plan"), together with easements over the St. Catherine's Parcel for existing and proposed underground drainage and utilities, including sewer, water and other utilities, a parking easement for use of up to a 20 parking space expansion of the parking lot on the St. Catherine's Parcel, and an easement for secondary ingress and egress from Walton Street, all for the benefit of said Lots 1, 3, 4 and 5 (with Purchaser to have the right but not the obligation after the First Closing to construct the drainage and utility lines, parking lot expansion and secondary access permitted by such Easements) (collectively, the "Easements"), which Easements shall be located substantially as shown on the Plan attached hereto as Exhibit A-1 (hereinafter the "Property"), and (ii) an assignment by McAuley Place at Baxter Woods Retirement Community, Inc. of the Credit Enhancement Agreement, dated May 2009 between the City of Portland and McAuley Place at Baxter Woods Retirement Community, Inc. (which is an affiliate of Seller), to the extent assignable, relating to the existing tax increment financing district, with no representations or warranties other than the fact that Seller has not assigned or caused to be assigned such agreement to any third party. At the Second Closing, as hereinafter defined, Purchaser has the right and obligation to purchase, on and subject to the terms and conditions of the Agreement, the following property, for the price and upon the terms and conditions hereinafter set forth, the St. Catherine's Residence, being the land and 18 unit apartment building generally as depicted as Lot 2 on the Plan and referred to herein as the "St. Catherine's Parcel" and also as generally depicted on Exhibit A-1.

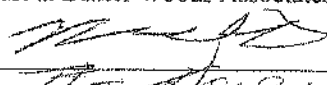
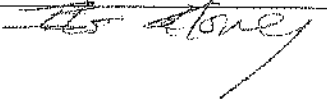
The First Closing shall occur on the earlier of the following dates: (a) the date of the construction loan closing with Maine State Housing Authority relating to an award of low income housing tax credits (such loan closing is anticipated to be in April 2015 if low income housing tax credits are awarded to Purchaser or its nominee in the fall of 2014, or in April 2016 if low income housing tax credits are awarded to Purchaser or its nominee in the fall of 2015); or (b) June 30, 2016. The First Closing shall also occur on any earlier date as specified by Purchaser by at least ten days prior written notice to Seller. The Second Closing shall occur on the earlier of: (i) the date that is ten years after the date of this Agreement, or (ii) the date that is 180 days after Seller certifies to Purchaser in writing that all Non-Market Rate Leases have expired or been terminated, and that the Second Closing Date has been scheduled for 180 days after the date of such certification.

This Memorandum does not modify or alter the terms of the Purchase and Sale Agreement in any way.

Dated as of this ___ day of October 2014.

WITNESS:

Sea Coast at Baxter Woods Associates, LLC

By: 


DECLARATION OF CONDOMINIUM OF 605 STEVENS AVENUE CONDOMINIUM

This Declaration of Condominium is executed as of this 1st day of _____ 2015 by Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, pursuant to the Maine Condominium Act, Chapter 31 of Title 33 of the Maine Revised Statutes of 1964, as amended, 33 M.R.S.A. §1601-101 et seq. (hereinafter the "Act").

ARTICLE I: CREATION OF CONDOMINIUM: DEFINED TERMS

A. Declaration of Property. Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, with an address of 20 Blueberry Lane, Falmouth, Maine, owner in fee simple of the land described in Schedule A annexed hereto, located in the City of Portland, Cumberland County, Maine (hereinafter the "Land"), hereby submits the Land, together with all buildings, improvements, easements, rights, privileges and appurtenances now or hereafter thereon or pertaining thereto (hereinafter the "Property") and together with the rights and easements described in Schedule hereto and subject to all covenants, restrictions, and easements described or referred to in Schedule A, to the provisions of the Act, as amended from time to time, and hereby creates with respect to the Property a condominium, known as 605 Stevens Avenue Condominium (hereinafter the "Condominium"). The Property is depicted on the plat prepared by Titcomb Associates and floor plans prepared by _____, which plat and plans, as amended from time to time, being herein referred to respectively as "Plats" and "Plans", are recorded in the Cumberland County Registry of Deeds. The Property shall hereafter be held, sold and conveyed subject to the terms, conditions, covenants, easements and restrictions set forth in this Declaration of Condominium as amended from time to time (hereinafter the "Declaration") and in the Act, which shall run with the Property and bind and inure to the benefit of all owners of the Property or any portion thereof, their respective heirs, successors and assigns. Pursuant to the Act, 605 Stevens Avenue Condominium Association, a Maine nonprofit corporation under Title 13-B of the Maine Revised Statutes of 1964, as amended (hereinafter the "Association") shall be the Unit Owners' Association under the Act.

B. Defined Terms. Capitalized terms used in this Declaration shall have the meaning specified hereinabove or hereinbelow or, if not otherwise defined in this Declaration, as it may be amended from time to time, or in the Plats and Plans, shall have the same meanings as specified in the Act:

(1) "Allocated Interests" mean: (a) the Common Element Interest, (b) the Common Expense Liability and (c) the votes in the Association, allocated to each Unit pursuant to this Declaration.

(2) "Assignable Limited Common Elements" has the meaning provided in Article IV(C) of this Declaration.

(3) "Building(s)" means the building or buildings now existing or hereafter erected on the Land containing one or more Units whether in vertical or horizontal arrangement, as well as other improvements comprising a part of the Buildings.

(4) "Bylaws" means the Bylaws of the Association as are adopted pursuant to the Act and this Declaration for the regulation and management of the Property, including such amendments thereof as may be adopted from time to time.

(5) "Common Elements" mean all portions of the Condominium other than the Units.

(6) "Common Element Interest" has the meaning provided in Article IV(E) of this Declaration.

(7) "Common Expenses" mean expenditures made by or financial liabilities of the Association together with any allocation to reserves and include, but are not limited to, (a) the cost of maintenance, management, operation, repair and replacement of the Common Elements and such Limited Common Elements and such parts of the Units as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace, (b) the cost of all insurance premiums on all policies of insurance required to be or which have been obtained by the Executive Board pursuant to the provisions of this Declaration and the fees and disbursements of the Insurance Trustee, if any, (c) such amounts as the Executive Board may deem necessary for general operating reserve funds, reserve funds for replacements and such other reserve funds as the Executive Board may periodically establish, (d) such amounts as the Executive Board may deem necessary to compensate for any deficits in receipts over expenses for previous periods of time, (e) the charges and fees for energy, electricity, heat, water, gas and sewer services furnished to the Condominium to the extent not separately metered to individual Units and charged to individual Unit Owners; and (f) such other costs and expenses that may be declared by the Act, this Declaration, the Bylaws, or resolution or agreement by the Executive Board or Unit Owners to be Common Expenses of the administration, operation, maintenance and repair of the Condominium and Property and the rendering to Unit Owners of all related services.

(8) "Common Expense Liability" has the meaning provided in Article VI(A) of this Declaration.

(9) "Condominium Documents" mean this Declaration, the Plats, Plans and the Bylaws, as amended from time to time.

(10) "Declarant" means Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, its successors and assigns and all successors to any Special Declarant Rights hereunder.

(11) "Development Rights" has the meaning specified in Article V of this Declaration and Section 1601-103(11) of the Act.

(12) "Eligible Mortgage Holder" means the holder of record of a recorded first Mortgage on a Unit in the Condominium which has delivered written notice to the Association by prepaid United States mail, return receipt requested, or by delivery in hand securing a receipt therefor, stating the name and address of such holder, the name and address of the Owner of the Unit encumbered by such Mortgage, the identifying number of such unit, and containing a statement that such Mortgage is a recorded first mortgage.

(13) "Executive Board" means the Executive Board or Board of Directors of the Association authorized to act pursuant to this Declaration and the Act on behalf of the Association.

(14) "Insurance Trustee" has the meaning provided in Article XI(B)(7) of this Declaration.

(15) "Limited Common Elements" mean those portions of the Common Elements the exclusive use of which is reserved as an appurtenance to one or more, but fewer than all, of the Units as allocated pursuant to this Declaration.

(16) "Limited Common Expenses" mean the Common Expense for services benefiting fewer than all the Units, which are assessed pursuant to this Declaration exclusively against the Units benefited in accordance with Section 1603-115(c)(2) of the Act pursuant to Article IV(k) hereof.

(17) "Mortgage" means a recorded mortgage or deed of trust encumbering a Unit in the Condominium held by a Mortgagee; "Mortgagee" means the holder of a recorded Mortgage or deed of trust encumbering a Unit in the Condominium.

(18) "Recorded" means that an instrument has been duly entered of record in the Registry of Deeds in and for Cumberland County, Maine.

(19) "Special Declarant Rights" has the meaning provided in Article V of this Declaration and Section 1601-103(25) of the Act.

(20) "Unit" means a part of the Property designated for separate ownership or occupancy.

ARTICLE II: IDENTIFICATION AND LOCATION OF CONDOMINIUM; ASSOCIATION

The name of the Condominium is 605 Stevens Avenue Condominium. The name of the Association organized under the Act is 605 Stevens Avenue Condominium Association. The Condominium is located in the City of Portland, County of Cumberland and State of Maine (which location is more particularly described in Schedule A hereto) and the address of the Condominium is 605 Stevens Avenue, Portland, Maine.

ARTICLE III: DESCRIPTION OF PROPERTY AND UNITS

A. Description of the Property. A legally sufficient description of the Property included in the Condominium is set forth in Schedule A attached hereto and made a part hereof.

B. Maximum Number of Units. Declarant has created 2 units pursuant to this Declaration. Declarant reserves the right to create up to 2 additional units, and accordingly the maximum number of units that the Declarant has the right to create in the Condominium is 4 Units.

C. Description and Boundaries of Units. The unit numbers, location of units created by this Declaration and their approximate dimensions are shown on the Plats and Plans.

A general description of the Units is as follows (provided, however, that nothing in this paragraph shall alter in any way the Unit boundaries as described below and the unit numbers, location of units created by this Declaration and their approximate dimensions are shown on the Plats and Plans): (1) Unit 1 is a substantial portion of the four-story Motherhouse or convent building that was designed in the Italian Renaissance style and constructed in 1908-1909 but excluding the portions thereof described as Common Elements or Limited Common Elements herein and also excluding the portions thereof shown as part of Unit 2 on the Plans; and Unit 2 is the three-story Smith House building that was constructed in the 1800s, and which is currently used as part of the Catherine McAuley High School and a portion of the basement of the Motherhouse, but excluding the portions thereof described as Common Elements or Limited Common Elements herein. Units 3 and 4, if created by Declaration pursuant to its Development Rights reserved hereunder, would be new construction in the areas as shown on the survey Plat.

A list of all unit numbers, locations (all as shown more fully on the Plats and Plans), and Common Element Interests and Common Expense Liability and votes in the Association appurtenant to each unit is attached hereto as Schedule B.

The boundaries of each unit created by this Declaration are as follows:

Each Unit includes the following items:

- (a) All interior partitions (excepting those portions thereof which are load-bearing), interior doors located entirely within a Unit including without limitation their frames, locking systems, hinges and sills, and interior halls and stairways located wholly within the Unit;
- (b) Finish flooring, floor coverings, carpeting and the like, and finish walls and ceilings and coverings including the paint, wallpaper, furring, gypsum board, moldings, the panels, framework, lighting, and acoustical tile ceilings if any, and any other materials constituting any part of the finished surfaces thereof which are nonstructural), but excluding exterior masonry or brick walls, exterior windows and excluding interior or exterior doors providing access to the Common Elements or public streets;
- (c) Plumbing, electrical, sewer, heating, air conditioning, air handling and ventilating fixtures, pipes, lines, equipment, chimneys, vents, flues, systems, Unit specific security and door access systems, controls and components thereof serving a single Unit, even if located outside of a Unit's general boundaries;
- (d) Electrical wiring, equipment, outlets and lighting devices from the point where the feed wire enters the Unit's meter box inwards, and telecommunication and data wiring and equipment serving only a single Unit; and
- (e) Fuel, gas, electric, water and utility lines, pipes and equipment serving only a single Unit from the meters inwards, even if located outside of a Unit's general boundaries.

A Unit generally does not include the exterior walls, the roofs, rafters, floor joists, subfloors, foundations, land, sidewalks, and parking areas, nor does a Unit include the pipes, wires, conduits, flues, ducts, pipes, heating, flues, chase ways, roof drains, fuel, telecommunications, data and utility lines running through a Unit which serve more than one Unit, which serve the Common Elements or which serve another Unit. Any internal room configuration shown on the Plans is illustrative only, and is not binding on an Declarant except that the structural support of the Building must be preserved.

Each Unit and the Common Elements shall have an easement for lateral and subjacent support from every other Unit and the Common Elements, and shall have the easement for encroachments established under Section 1602-114 of the Condominium Act.

Subject to such security and card/keypad access restrictions as the Association may establish from time to time, each Unit has an perpetual right of ingress and egress: to such Unit; to emergency egress areas, and stairs; and to the Limited Common Elements which are appurtenant to such Unit, all of which rights shall automatically transfer with a transfer of title to the Unit. Any conveyance, encumbrance, judicial sale, or other transfer (whether voluntary or involuntary) of an interest in the Common Elements shall be void unless the Unit to which that Common Element interest is allocated is also transferred.

If any Unit components or any Common Elements, including without limitation as utility, heating, ventilation, fuel, life safety and sprinkler systems, electrical, telecommunications and data wiring, equipment, ducts, chases and the like which service other Units or the Common Elements extend into or are accessible only through another Unit, then such other Unit is subject to an easement for reasonable access upon prior notice except in an emergency but the other Unit may relocate such items or alter the access at its expense so long as the functionality of such items or access are maintained and any disruption of the use of such items or access is minimized.

Subject to the foregoing provisions, the general boundaries of each Unit created and each Unit that may be created under this Declaration are generally shown on the Plat and Plans, and consist of:

(a) *Horizontal Boundary*: The upper and lower boundaries of each Unit are generally the following boundaries extended to an intersection with the vertical (perimeter) boundaries:

1. Upper Boundaries: The lowest level planes at the lowermost surfaces of: the upper side of any gypsum board or acoustical tiles of the ceiling and any other materials constituting any part of the finished ceiling surfaces; if there is no finished ceiling, then upper boundary is the lowermost surfaces of the floor joists and structural members supporting each Unit and/or Common Elements above; or if there is no floor above, the lowermost surfaces of surfaces of rafters and structural members supporting the roof above, extending to the intersection with the vertical boundaries.

2. Lower Boundary: The horizontal plane at the upper surface of the undecorated upper surface of the sub-floor or of any concrete or masonry floor slab extending to the intersection with the vertical boundaries.

The subsequent alteration of the Property, such as to add an acoustical tile ceiling, shall not alter the initial Unit boundaries hereunder.

(b) *Vertical Boundaries*: The vertical boundaries of each Unit shall be the vertical planes at the interior surfaces of exterior masonry walls or the stud line at the exterior or outer-most surface of the gypsum-board, sheetrock or other wall materials forming its exterior or common walls, extended to the intersections with each other and with the horizontal boundaries.

(c) *Interior Finishes*. A Unit shall include all lath, furring, wallboard, plasterboard, plaster, paneling, tiles, wallpaper, paint, acoustical tiles, grids and supports, finished flooring, carpeting and any other materials constituting any part of the finished surfaces thereon located within the boundaries of the Unit.

(d) *Interior Space/Other*. All other spaces, interior partitions and other fixtures and improvements within the boundaries of a Unit are a part of the Unit except as otherwise provided herein.

(e) *Relocation and Subdivision*. Relocation of boundaries between Units is permitted by amendment to the Declaration in compliance with the provisions of the Condominium Act. The subdivision of Units is permitted.

D. Subdivision or Relocation of Unit Boundaries. Subject to applicable provisions of this Declaration or law and environmental, subdivision and land-use ordinances and regulations the subdivision of Units and/or relocation of boundaries between Units will be permitted at the expense of the Unit Owners of the Unit or Units to be so subdivided and the boundaries of which are to be so relocated, upon the prior written approval of the Association and subject to compliance with the provisions therefor set forth in Section 1602-113 and Section 1602-112 of the Act. The subdivision of an original Unit created hereby into multiple Units or into Common Areas shall not alter the Unit boundaries except through the exercise of the rights otherwise established herein.

E. Alteration of Partitions. Subject to applicable provisions of law, ordinances, and land-use regulations, a Unit Owner may, after acquiring a horizontally or vertically adjoining Unit or adjoining part of an adjoining Unit, remove or alter any intervening partition or create apertures therein, even if the partition in whole or in part is a Common Element, if such acts do not impair the structural integrity or mechanical systems of the Buildings in which such Units are located or lessen the support of any portion of the Property. Removal of partitions or creation of apertures under this subparagraph is not an alteration of

boundaries.

F. Maintenance Responsibilities. Notwithstanding the ownership of the various portions of the Common Elements and the Units by virtue of the foregoing boundary descriptions, the Units shall be maintained and repaired by each Unit Owner and the Common Elements shall be maintained and repaired by the Association except that if damages are inflicted to any Common Elements, the Unit Owner responsible for the damage is liable for the prompt repair thereof, all in accordance with the provisions of Section 1603-107(a) of the Act, except as may be expressly set forth to the contrary in this Declaration.

ARTICLE IV: COMMON ELEMENTS AND LIMITED COMMON ELEMENTS

A. Common Elements. The Common Elements are all parts of the Property other than the Units. The term "Common Elements" includes:

- i. The land, parking areas and drives together with the benefit of and subject to all the accompanying rights and easements described in Exhibit A;
- ii. The Chapel located in the Motherhouse building;
- iii. Elevators, hallways, vestibules, and stairways serving or providing access to more than one Unit or serving or providing access to the Common Element chapel;
- iv. All utility, heating, air conditioning and ventilating, drainage, and life safety system chases, lines, pipes, conduits, ducts, transmission wires, distribution boxes, utility and lines, pipes, conduits and equipment which serve more than one Unit (excepting lines and equipment owned by public and municipal utilities, or which service only a single Unit and are defined as a part of the Unit above), utility chase areas, roof drains, and all fire sprinklers and alarms and life safety and security access systems; and
- v. All other parts of the property necessary or convenient to its existence, maintenance and safety or normally in common use, except as otherwise expressly provided in this Declaration.

B. Allocation of Limited Common Elements. A description, including the location and dimensions of all Limited Common Elements other than portions of the Property described as Limited Common Elements pursuant to Section 1602-102(2) and (4) of the Act, and the identifications of the Unit or Units to which the Limited Common Elements are hereby allocated are set forth in or shown on the Plats or Plans and/or described herein. The allocation of Limited Common Elements to the Units cannot be altered except with the written consent of the Owners and Mortgagees of record of the Units affected by the reallocation of Limited Common Elements, and in compliance with the provisions of Section 1602-108(b) of the Act. Limited Common Elements other than those described in Sections 1602-102(2) and (4) of the Act consist of the following:

- i. All utility, heating, air conditioning and ventilating equipment, controls, chases, lines, pipes, wires, distribution boxes, ducts, conduits and related accessories if any located outside of a Unit's boundaries (excepting lines and equipment owned by public and municipal utilities) which are not a defined part of a Unit but designed to serve one or more but less than all Units are Limited Common Elements allocated exclusively to such Unit(s);
- ii. The areas shown and designated as Limited Common Elements on the Plans, including

without limitation the Limited Common Element parking spaces and areas as set forth below:

To Unit 1, 73 assigned Limited Common Element parking spaces to be designated by the Association; and

To Unit 2, any parking spaces in excess of the first 73 spaces, .

Generally all other parking spaces designated on the Floor Plans and/or Plat which are not assigned pursuant to the foregoing are Common Elements;

- iii. All doors, steps, stoops, thresholds and windows, including without limitation their glass, frames, hinges, locks, bolts, handles and sills and any other similar fixture which are not a defined part of a Unit but designed to serve one or more but less than all Units are Limited Common Elements allocated exclusively to such Unit(s);
- iv. The elevators and related controls, equipment, structures, shafts, car and controls, and applicable security systems, if any, located in a Building including without limitation those designated as "LCE" on the Plat and/or Floor Plans are Limited Common Elements allocated exclusively to the Units located in the Building serviced;
- v. Any HVAC equipment, chimneys, vents and flues servicing a Unit or its Limited Common Elements, if any, which are not otherwise a defined part of the Unit;
- vi. The foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the Motherhouse building and the triple-based gilded cupola and gold Celtic cross thereof are limited common elements assigned to Unit 1 and the foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the Smith House Building are limited common elements assigned to Unit 2; and for an additional Unit(s) created pursuant to the Development Rights reserved by Declarant under this Declaration, the foundations, roofs, exterior walls, exterior windows, doors, fire escapes, chimneys, chase ways, sub-floors, utility lines and conduits, roof drains and all joists, rafters, structural and load bearing portions of the building in which such additional Unit is located are limited common elements assigned to such Unit; and
- vii. the portions of the Property shown on the Plat and Plans or as described as Limited Common Elements pursuant to Section 1602-102(2) and (4) of the Condominium Act.

C. Limited Common Elements to be Subsequently Allocated by Declarant. There is no real estate which may be subsequently allocated as Limited Common Elements, other than Limited Common Elements specified in Section 1602-102(2)-(4) of the Act or the Limited Common Elements already allocated, except that Declarant reserves the right to create additional Limited Common Elements as described herein. If Declarant creates Unit 3 and/or Unit 4 in the Condominium pursuant to the Development Rights reserved herein by Declarant, the portions of the new Building(s) that are not within the Unit boundaries, as defined herein, and that are not Common Elements, as defined herein, shall be Limited Common Elements allocated to the adjoining Unit. In addition, Declarant may allocate to Unit 3 or Unit 4, as Limited Common Elements, parking lot spaces shown on the Plats or Plans and not already allocated to specific units and such parking spaces are hereafter called "Assignable Limited Common Elements". Pursuant to Section 1602-105(a)(7) of the Act, the Declarant reserves the exclusive right to assign each Assignable Limited Common

Element as a Limited Common Element for the exclusive use of the respective Unit Owner to whose Units such Assignable Limited Common Elements shall be assigned and become appurtenant. The Declarant may, without consent or action by the Unit Owners or any Mortgagee, allocate each Assignable Limited Common Element as a Limited Common Element pursuant to the provisions of the Section 1602-108 of the Act by causing appropriate amendments to this Declaration or to the Plats or Plans to be executed and recorded by Declarant, which amendments may be set forth in any Unit Deed to a Purchaser. The Declarant shall evidence the right to such an allocation either in the deed to the Unit to which such Assignable Limited Common Element shall appertain as a Limited Common Element or in writing recorded in the Cumberland County Registry of Deeds. After all Units have been sold by Declarant, the Association shall have the right to use or to assign any unallocated Assignable Limited Common Element pursuant to the provisions of Section 1602-108 of the Act.

D. Association Rights to Reserve Common Elements. "Reserved Common Elements" are those parts of the Common Elements (including the parking rights over the Secondary Parking Easement Area described in Schedule A and the "chapel") which the Executive Board may designate from time to time for use by less than all Unit Owners or by non-Unit Owners for specified periods of time. The Executive Board of the Association shall have the power in its discretion from time to time to grant revocable licenses in designated Reserved Common Elements and to establish a reasonable charge for the use and maintenance thereof. Such designation by the Board shall not be construed as a sale or disposition of the Common Elements.

E. Common Element Interest. The fraction of undivided interest in the Common Elements appurtenant to each Unit (the "Common Element Interest") is listed and allocated to each Unit in Schedule B. The Common Element Interest appurtenant to each Unit is a fraction determined as follows: The formula or method used to establish those allocations of votes and common expense liability and interest is as follows: The percentage of each Unit's Common Element Interest and Common Expense Liability is allocated by a formula represented by a fraction wherein the numerator is the number of interior square feet of each Unit located within a Building measured at the boundaries with the Common Element as shown on the Plans, and the denominator is the total such square footage of all the Units subject to rounding in order to permit ease of administration, provided however that the percentage stated in Exhibit B (as it may be amended) shall control in any event. Such square footage measurements may differ from leasing square footage calculations.

In the event a Unit is subsequently divided, a Unit is converted to Common Elements or is withdrawn, or Common Elements are converted to Units or if additional Units are added to the Condominium, then the percentages of all Units shall be allocated and re-determined based on such resulting interior floor areas of the Units.

F. Common Elements to Remain Undivided. The Common Element Interest of a Unit shall be inseparable from each Unit, and any conveyance, lease, devise or other disposition or mortgage or other encumbrance of any Unit shall extend to and include the Common Element Interest, whether or not expressly referred to in the instrument effecting such transfer. Except as otherwise provided by law or this Declaration, the Common Element Interests and the fee titles to the respective Units conveyed therewith shall not be separately conveyed, transferred, alienated or encumbered and each of said Common Element Interests shall be deemed to be conveyed, transferred, alienated or encumbered with its respective Unit notwithstanding that the description in the instrument of conveyance, transfer, alienation or encumbrance may refer only to the fee title to the Unit.

G. Partition or Division of Common Elements. The Common Elements shall remain undivided and no action for partition or division of any part thereof shall be permitted, unless otherwise provided by law and permitted by this Declaration.

H. Amendment of Interest in Common Elements. Except with respect to the subdivision or conversion of Units as provided in Article III(D), or as otherwise provided in the Act, the Common Element Interest appurtenant to each Unit shall have a permanent character, shall be inseparable from each Unit and shall not be altered or changed except by the recording of an amendment to this Declaration, duly executed by all of the Unit Owners and all of the holders of record of any first Mortgage liens upon the Units.

I. Use of Common Elements. Except as their use may otherwise be limited by this Declaration or the By-Laws or otherwise by the Executive Board pursuant to its powers, each Unit Owner, tenant and occupant of a Unit, and the family members and guests of such Unit Owner, tenant and occupant, may use the Common Elements in common with all other Unit Owners and tenants or occupants of other Units, and their respective family members and guests, in accordance with the purposes for which they are intended without hindering or encroaching upon the lawful rights of the other Unit Owners, upon the following terms:

(1) The parking spaces are provided for the parking of private motor vehicles and shall not be used for the parking of commercial vehicles, trailers, motor homes, or trucks with a gross weight of over 6,000 pounds except with the prior written approval of the Executive Board. Parking of permitted motor vehicles by Unit Owners and guests shall be only in any Limited Common Elements or other areas designated as spaces for parking. No unattended vehicles shall at any time be left in such a manner as to impede the passage of traffic or to impair access to parking areas. Parking areas and Common Elements shall at all times be kept free of unreasonable accumulations of debris or rubbish of any kind and no junk or derelict vehicle or other vehicle on which current registration plates are not displayed shall be kept upon any of the Common Elements. Vehicle repairs other than ordinary light maintenance are not permitted on the Property.

(2) Except for such signs as may be posted by the Declarant for promotional or marketing purposes, no signs of any character shall be erected, posted or displayed upon, in, from or about any Unit or Common Element without the prior written approval of the Executive Board. The foregoing provisions of this subparagraph shall not apply to a Mortgagee in possession of a Unit as a result of foreclosure, judicial sale or a proceeding in lieu of foreclosure.

(3) No Unit Owner shall obstruct any of the Common Elements nor shall any Unit Owner place or cause or permit anything to be placed on or in any of the Common Elements without the approval of the Board. Nothing shall be altered or constructed in or removed from the Common Elements except with the prior written consent of the Executive Board. The Common Elements shall be kept clean and free of debris.

(4) The Executive Board, the Association, any Unit Owner and the Declarant shall not be considered a bailee, however, of any personal property stored on the Common Elements (including vehicles parked on the Common Elements), whether or not exclusive possession of the particular area is given to a Unit Owner for parking purposes, and shall not be responsible for the security of such personal property or for any loss or damage thereto, whether or not due to negligence, except to the extent covered by insurance in excess of any applicable deductible.

J. Alteration to Common Elements by Unit Owner. A Unit Owner may make improvements and alterations to the interior of his Unit but no Unit Owner may make any improvements or alterations or do any work whatsoever which would impair the structural integrity or mechanical systems of the Buildings, lessen the support of any portion of the Condominium, or jeopardize the soundness or safety of the Property. No Unit Owner shall impair any easement or hereditament therein without the unanimous consent of the Unit Owners affected thereby. No Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including the Limited Common Elements) or

paint or otherwise change the exterior appearance of his Unit or any other portion of the Condominium without the prior written approval of the Association acting by the Executive Board, which approval will not be unreasonably withheld. Subject to this Declaration, the Bylaws and the Rules and Regulations of the Association as amended from time to time, a Unit Owner may make nonstructural improvements and alterations within the interior of the Unit in compliance with all applicable governmental requirements and in a good and workmanlike manner, but using reasonable efforts to mitigate disturbance to other Units, even if increased costs result. Any expenses of Americans with Disabilities Act, Maine Human Rights Act, life safety code, building code or other governmental compliance required as a result of such improvements shall be borne by the Unit Owner, even if the required improvements are to be made to the Common Elements but such work shall be subject to approval by the Board of Directors.

The Association shall have the right to require that: (i) copies of the plans and specifications and evidence of compliance with all governmental requirements be submitted to the Board of Directors prior to commencing any work within the interior of the Unit and (ii) to approve all work that takes place in or affects Common Elements upon such terms and conditions as the Board may reasonably require, including without limitation the submission of plans, specifications and permits, evidence of insurance for all contractors, peer review of plans and specifications performed by professionals engaged the Board and the reasonable mitigation of the impact of such construction on other occupants of the Property. The Board may regulate and grant temporary licenses for construction parking, dumpsters and storage of construction materials and waste and other similar activities on the Property and adjacent public areas.

No Unit Owner may make any improvements or alterations or do any work whatsoever which would materially impair the structural integrity or mechanical systems or the walls separating Units, impair life safety or sprinkler systems of the building, lessen the support of any portion of the Condominium, or jeopardize the soundness, noise control components or safety of the Property, all without prior Board consent. All work shall reasonably mitigate any disturbance on other occupants of the Property even if additional costs would result.

All Unit Owner work shall be completed promptly and in a good and workmanlike manner and shall be performed in such a manner that no mechanics, materialmen or other similar liens shall attach to the Property. No Unit Owner shall permit, suffer or authorize any such liens or other claims to be asserted against the Association, other Units or the Common Elements, other than the allocated interest in the Common Elements appurtenant to a Unit. At the completion of all work each Unit Owner shall obtain waivers of mechanics and materialmen's liens from all persons performing work on or furnishing material and upon request provide the Association with copies.

No Unit Owner shall alter any of the Common Elements or paint or otherwise change the appearance of the Common Elements (including without limitation the Limited Common Elements, except for rights to alter Limited Common Element signage as provided in this Declaration) or paint or otherwise change the exterior appearance of the Unit in violation of this Declaration (including, but not limited to, signage or the exterior surfaces of doors or windows leading to a Common Element or a Limited Common Element) or any other portion of the Condominium, without first obtaining: (i) the prior written approval of the Board of Directors of the Association, which shall not be unreasonably withheld, but the applicant shall comply with such standards of general application as may then be established in the Rules and Regulations; and no such approval is required for improvements made pursuant to the exercise of Special Declarant and Development Rights or to change signage located in signage Limited Common Areas, (ii) all required approvals from the City of Portland and the Maine Department of Public Safety including any approvals required under the City of Portland's Historic Preservation Ordinance, if applicable, and Building-Life Safety Codes.

K. Limited Common Elements and Expense. The Association shall maintain, repair and replace all Limited Common Elements except as may otherwise be provided in this Declaration and shall assess except

as otherwise provided herein as a Common Expense the Common Expenses associated with the maintenance, repair or replacement of such Limited Common Elements. The Association shall also have the right to assess an individual Unit for Common Expenses associated with said purposes applicable to such Unit if the Common Expenses shall be incurred due to the negligence, neglect or misconduct of the Owner of such Unit. Maintenance and repair of any shared mechanical equipment will be assessed as a Limited Common Expense against the unit or units benefited.

L. Maintenance of Common Elements. The Association shall be responsible for the maintenance, repair and replacement (unless, in the opinion of the Executive Board such expense was necessitated by the negligence, misuse or neglect of a Unit Owner) of all of the Common Elements (including the Limited Common Elements) whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense except as otherwise provided in Article IV(K). Except as otherwise provided in this paragraph, the Association shall be responsible for the maintenance (including but not limited to (i) minimum annual and as needed inspection and maintenance of all drainage facilities; (ii) snow and ice removal; (iii) repair and replacement (unless, such expense was necessitated by the negligence, misuse or neglect of a Unit Owner)) of all of the Common Elements whether located inside or outside of the Units, the cost of which shall be charged to the Unit Owners as a Common Expense. The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units shall be furnished by the Association as part of the Common Expenses except as provided in Article IV(J) and/or in Article VI(B). The maintenance, repair and replacement of Common Elements located within a Unit, or for which the Unit Owner is otherwise responsible, to the extent required for the functioning of or for connecting utilities to the Property and Units shall be furnished by the Association as part of the Common Expenses except as provided in Article IV(K).

M. Maintenance of Unit. Each Unit Owner shall keep and maintain his Unit and its equipment, appliances and appurtenances in good order, condition and repair and in clean and sanitary condition, whether such maintenance and repair shall be structural or nonstructural, ordinary or extraordinary, and shall do all redecorating, painting and varnishing which may at any time be necessary to maintain the good appearance and condition of his Unit. No Unit Owner shall sweep or throw, or permit to be swept or thrown, from his Unit any dirt, debris or other substance. In addition, each unit Owner shall be responsible for all damage to any other Units or to the Common Elements resulting from his failure or negligence to make any of the repairs required by this Article. Each Unit Owner shall perform his responsibility in such manner as shall not unreasonably disturb or interfere with the other Unit Owners. Each Unit Owner shall promptly report to the Executive Board or the managing agent any defect or need for repairs for which the Association is responsible.

N. Liability of Owner. Each Unit Owner shall be liable, and the Association shall have a lien against his Unit for the expense of maintenance, repair or replacement of any damage to the Common Elements or to another Unit caused by such Unit Owner's act, neglect or carelessness or by that of any member of such Unit Owner's family, or such Unit Owner's guest or tenants, or their pets. Such liability shall include any increase in fire insurance rates occasioned by use, misuse, occupancy, or abandonment of any Unit or its appurtenances. Nothing herein contained, however, shall be construed so as to modify any waiver by insurance companies of rights of subrogation against such Unit Owner.

O. Maintenance, Owner Self-Help. If the Association fails to comply with its obligation to maintain, replace or repair any part of the Condominium as specified in this Declaration, within a reasonable time after the owner of a Unit requests that such required maintenance, replacement or repair be performed by the Association, then such Unit owner shall have the right to perform the required maintenance, replacement or repair, provided that no work done by a Unit Owner shall impair or jeopardize the structural integrity of the Building or any part of the Condominium. Any Unit Owner may at any time

commission an engineer's report regarding the necessity or advisability of such maintenance, replacement or repair, and may present that report to the Association. If the Unit Owner has performed such maintenance, replacement or repair pursuant to this paragraph, the Unit Owner may seek reimbursement from the Association as a Common Expense for any portion of any expense so incurred by the Unit Owner, the cost of which would not have been allocated to such Unit Owner. If, after a reasonable time, a Unit Owner is not satisfied with or disagrees with the Association's response, such Unit Owner may submit the dispute, including, without limitation, any request for reimbursement of expenses, if applicable, to arbitration in accordance with the terms of this Article VII(B). The expenses of such arbitration shall be a Common Expense. If the arbitrator finds in favor of the Unit Owner that commissioned the engineering report, the expense of such report shall be a Common Expense. Otherwise, such expense shall be borne by said Unit Owner.

ARTICLE V: SPECIAL DECLARANT RIGHTS

A. Development Rights. Declarant shall have and hereby reserves the Development Rights: (i) to create up to 2 additional or new units on the Property (and/or on property added to the Condominium) and associated Common Elements and Limited Common Elements, such Units to be located on the Property described in Schedule A to the Declaration and with Units 3 and 4 to be substantially as shown on the Plats and Plans, with any changes thereto as may be approved by the City of Portland Planning Board; (ii) to add all or any portion of Lot 1, Lot 2 and/or Lot 4 as shown on said Plan to the Condominium; and (iii) to create Common Elements and/or Limited Common Elements (including the parking spaces and drives as shown on the Plats and Plans, as the same may be modified from time to time with the approval of the Portland Planning Board, and shared mechanical equipment and rooms) in connection with the additional or new units described hereinabove, with the Units, Common Elements and Limited Common Elements for Units 3 and 4 to be substantially as shown on the Plats and Plan with any changes thereto as may be approved by the City of Portland Planning Board and the related additional parking spaces, driveways and shared mechanical equipment and rooms to be substantially as may be hereafter approved by the Portland Planning Board. The other Units may be declared and built as separate phases, not necessarily in numerical order. The Development Rights may be declaration and built as separate phases, not necessarily in numerical order, and such Development Rights may be exercised with respect to different parcels of the real estate at different times, and no assurances are made in regard to the fixing of the boundaries of those portions and regulating the order in which those portion may be subjected to the exercise of each Development Right, and if any Development Right is exercised in any portion of the real estate subject to that Development Right, that Development Right need not be exercised in all or in any other portion of the remainder of the real estate. Any improvements to future Units, Limited Common Elements and Common Elements created under this Section A including the Buildings, appurtenances, and improvement need not be consistent with the initial Buildings or the initial architectural style, layout and principal materials but shall be constructed substantially consistent with all approvals of the Portland Planning Board.

To exercise any rights under this Section, the Declarant shall prepare, execute and record an amendment to the Declaration pursuant to the Condominium Act, which amendment may include a Condominium Plat and Plans as required by the Condominium Act to the extent not previously recorded and the establishment of said cross easements. Said amendment shall become effective upon recording, without need for the consent of any other person except as otherwise specifically provided herein.

Upon the alteration, conversion or addition of such Units to the Condominium, the Allocated Interests of all Units shall be reallocated in accordance with this Declaration and Exhibit B shall be amended accordingly. Upon the addition of a Unit, the Declarant may create and assign additional Limited Common Elements appurtenant to a Unit.

The exercise of Development Rights shall be subject to the following restrictions: (a) no changes shall be

made by the Declarant or any other person, unless any applicable approvals are obtained pursuant to the City of Portland's and State of Maine's statutes, laws, ordinances and rules to the extent applicable; and (b) any construction shall be at the sole expense of the Declarant and such construction shall reasonably minimize any disruption to the other Units during business hours in a manner consistent with the exercise of such rights, even if extra costs would result.

B. Condominium Association and Executive Board Access. Declarant reserves in favor of itself, the Association and its Executive Board, officers, agents and employees, any managing agent and every other person authorized by the Executive Board the irrevocable right and easement to have access to each Unit as provided in Section 1603-107(a) of the Act as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Elements and Limited Common Elements therein or accessible therefrom or the making of any addition or improvements thereto; or to make repairs to any Unit, the Common Elements or the Limited Common Elements if such repairs are reasonably necessary for the public safety or to prevent damage to any other Unit or Units, the Common Elements or the Limited Common Elements; or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Unit Owner is present at the time. The Association and its Executive Board shall have the right to grant to third parties permits, licenses and easements over and through the Common Elements for utilities and other purposes reasonably necessary or useful for the proper maintenance and operation of the Condominium.

C. Declarant's Easement for Marketing. The Declarant reserves the right with respect to its marketing of Units to use the Common Elements and Limited Common Elements for the ingress and egress of itself, its officers, employees, agents, contractors and subcontractors and for prospective purchasers of Units, including the right of such prospective purchasers to park in parking spaces. The Declarant also reserves the right to use any Units owned or leased by the Declarant as models, management offices, sales offices for this and other projects or customer service offices. The Declarant reserves the right to relocate the same from time to time within the Property; upon relocation, the furnishings thereof may be removed. The Declarant further reserves the right to maintain on the Property such advertising signs and lighting as may comply with applicable governmental regulations, which may be placed in any location on the Property and may be relocated or removed, all at the sole discretion of the Declarant. The Declarant shall have the right to restrict the use of certain Common Element parking spaces to sales purposes and to use such spaces for sales purposes. Further, the Declarant shall have the right to erect temporary offices on the Common Elements for models, sales, management, customer service and similar purposes. This easement shall continue until the Declarant has conveyed all Units to Purchasers.

D. Declarant's Easements for Construction. The Declarant reserves the easement, right and privilege without let or hindrance with respect to the creation of the Units, Common Elements, Limited Common Elements, the Development Rights specified in Paragraph A hereinabove and other improvements of the Condominium, to go upon any and all of the Property except for Units conveyed to Purchaser for purposes of construction, reconstruction, maintenance, repair, renovation, replacement, improvement or correction of the Units and Common Elements and for completion of the improvements indicated on the Plats and Plans. Furthermore, the Declarant reserves an easement in the Units and Common Elements pursuant to Section 1602-116 of the Act for the purpose of discharging Declarant's obligations and exercising the Special Declarant rights reserved pursuant to this Declaration. These easements shall continue until all Units in the Condominium are conveyed by Declarant.

E. Declarant's Right to Connect With Utilities. The Declarant further reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located on the Property for construction purposes on the Property, provided that Declarant shall be responsible for the cost of service so used, and to use the Common Elements for ingress and egress and construction activities and for the storage of

construction materials and equipment used in the completion of the Units and Common Elements. This easement shall continue until the Declarant has conveyed all Units.

F. Declarant's Right to Grant Easements. The Declarant shall have the right, until the Declarant has conveyed all Units to Purchasers, to grant and reserve easements and rights of way through, under, over and across the Property for construction purposes, and for the installation, maintenance and inspection of the liens and appurtenances for public or private water, sewer, drainage, gas, electricity, telephone and other utilities. The Units and Common Elements shall be, and are hereby, made subject to easements in favor of the Declarant, appropriate utility and service companies and governmental agencies or authorities for such utility and service lines and equipment as may be necessary or desirable to serve any portion of the Property. The easements created in this Paragraph shall include, without limitation, rights of Declarant, or the providing utility or service company, or governmental agency or authority to install, lay, maintain, repair, relocate and replace gas lines, pipes and conduits, water mains and pipes, sewer and drain lines, elevators, telephone wires and equipment, air conditioning, heating systems, ventilation systems, electric wires, conduits and equipment and ducts and vents over, under, through, along and on the Units and Common Elements.

G. Alteration of Common Elements by Declarant. The Declarant reserves the right (but shall have no obligation) to modify, alter, remove or improve defective, obsolete or nonfunctional portions of the Common Elements, including without limitation any equipment, fixtures and appurtenances when in the Declarant's judgment it is necessary or desirable to do so, until all Units have been conveyed to Purchasers.

H. Transfer of Special Declarant Rights; Termination and Surrender. Declarant reserves the right to transfer from time to time to any one or more transferees any or all reserved Special Declarant Rights in accordance with Section 1603-104 of the Act. Notwithstanding any other provisions in this Declaration, this Article may not be amended without the prior written consent of the Declarant. Notwithstanding the foregoing, Declarant may surrender or terminate any rights reserved under this Article at any time by recording an instrument so providing in the Cumberland County Registry of Deeds.

I. Time. The Development Rights and Special Declarant Rights may be exercised at any time within 50 years after the date of this Declaration.

ARTICLE VI: ASSESSMENTS FOR COMMON EXPENSES

A. Common Expense Liability. Except as provided in Article IV(K), Article IV(L), and Article VI(B), the Common Expense Liability (which is the allocation to each Unit or Unit Owner of the respective liability of each Unit Owner for Common Expenses) allocated to each Unit is a fraction of the Common Expenses assessed against all of the Units that is equal to the Common Element Interest appurtenant to the respective Unit as set forth in Schedule B.

B. Allocation of Assessments of Common Expenses. The total amount of Common Expenses shall be assessed against the Units in the following proportions: (1) the Common Expenses that are not Limited Common Expenses shall be assessed against all of the Units in proportion to the relative Common Expense Liabilities of all the Units; (2) the Limited Common Expenses shall be assessed solely against each Unit benefited except as otherwise provided in this Declaration; except as provided in Article IV(K) and Article IV(L), if a Limited Common Expense benefits more than a single Unit, that Limited Common Expense shall be assessed solely against each Unit benefited equally against the Units to which Limited Common Elements are assigned or appurtenant; (3) assessments to pay a judgment against the Association shall be made as a Limited Common Expense against the Units included in the Condominium at the time such judgment was entered; (4) any utilities which are or are made by Declarant to be separately metered shall be supplied by the public utility company serving the area directly to each Unit through a separate meter and

each Unit Owner shall be required to pay the bills for utilities consumed or used in his Unit; any utilities which are not separately metered shall be paid by the Executive Board as a Common Expense.

The Declarant shall not be liable for any assessments for any Units until after the later to occur of the first conveyance of a Unit to a third person other than an affiliate of the Declarant or the first Common Expense assessment by the Association. Assessments for Common Expenses shall commence on the first day of the first month following the date of the first conveyance of a Unit to a person other than the Declarant.

C. Payment Obligations. Each Unit Owner shall pay to the Association or its authorized representative on the first day of each month, or on such other date that the Association may determine in writing, one-twelfth of the Common Expenses including Limited Common Expenses assessed on an annual basis against his Unit in the proportions required in Paragraph B of this Article in accordance with the By-Laws and subject to Section 1603-103(c) of the Act. If for any reason the Association shall revise the annual budget of the Association in accordance with the By-Laws and subject to Section 1603-103(c) of the Act whereby the Common Expenses or any component thereof may be increased, thence commencing on the first day of the first month subsequent to the adoption of such revised budget each Unit Owner shall pay to the Association or its authorized representative one-twelfth of any such revised annual Common Expenses including Limited Common Expenses assessed against his Unit in the proportions required in Paragraph B of this Article.

D. Interest; Acceleration. In the event of a default by any Unit Owner in paying any sum assessed against his Unit which continues for a period in excess of thirty (30) days, interest at a rate of interest to be established annually by the Executive Board which shall not exceed the lower of the maximum interest rate allowed by law which may be charged by the Association at such time or eighteen percent per annum shall be imposed on the principal amount unpaid from the date when due until paid. If the Executive Board shall fail to set such rate, it shall be deemed to have been set at the rate of Eighteen Percent (18%) per annum. The Association shall have the right to establish and impose charges for late payment of assessments. In any case where an assessment against a Unit Owner is payable in installments, upon a default by such Unit Owner in the timely payment of any two consecutive installments, the maturity of the remaining total of the unpaid installments of such assessments may be accelerated at the option of the Executive Board, and the entire balance of the annual assessment may be declared due and payable in full by the service of notice to such effect upon the defaulting Unit Owner by the Executive Board or its representatives.

E. Lien for Assessments. The total annual assessment levied against each Unit for Common Expenses including Limited Common Expenses, revised Common Expenses including Limited Common Expenses, or any special assessment, and any other sums duly levied against the Unit pursuant to this Declaration, the By-Laws, or the Act and all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof shall constitute the personal liability of the Owner of the Unit so assessed and also shall, until fully paid, constitute a lien against the Unit in favor of the Association from the date upon which such assessment, special assessment or other sum such as interest becomes due as provided in Section 1603-116 of the Act. Such lien shall, with respect to annual assessments, be effective on the first day of each fiscal year of the Association as to the full amount of the annual assessment, and, as to special assessments and other sums duly levied, on the first day of the next month which begins more than ten (10) days after delivery to the Unit Owner of notice of such special assessment or levy. Such lien is prior to all other liens and encumbrances on a Unit except (a) liens and encumbrances recorded before the recordation of this Declaration, (b) a first Mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent, and (c) liens for real estate taxes and other governmental assessments or charges against the Units; provided, however, that such lien is not subject to the provisions of 14 M.R.S.A. §4561 and 18-A M.R.S.A. §2-201, et seq., as they or their equivalents may be amended or modified from time to time.

F. Enforcement. The lien for assessments described in Paragraph E of this Article may be enforced and foreclosed by the Association in like manner as a mortgage on real estate as provided in Section 1603-116(a) of the Act or by any other means presently or hereafter provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interests, penalties, and costs of collection may be maintained against the Unit Owner personally without foreclosing or waiving the lien securing such assessments and a foreclosure may be maintained notwithstanding the pendency of any suit to recover a money judgment. During the pendency of any such suit, the Unit Owner shall be required to pay a reasonable rental of the Unit for any period prior to the sale pursuant to any judgment or order of any Court having jurisdiction over such sale.

G. Exemption from Expenses by Waiver of Use of Common Elements or Unit Elements. No Unit Owner may exempt himself from Common Expense Liability with respect to the payment of assessments for Common Expenses by waiver of the enjoyment of the right to use any of the Common Elements or by abandonment of his Unit or otherwise. The obligation to pay assessments for Common Expenses is absolute and unconditional and shall not be subject to set-offs or counterclaims.

H. Reduction of Expenses. All receipts from payments, fees or charges for the use, rental, operation, or allocation as a Reserved Common Element, of any and all Common Elements shall be applied first to reduce the Common Expense relating to the use of that Common Element giving rise to such Common Expense and any excess thereof shall be applied to Common Expenses generally.

I. Surplus Funds. If at the end of any fiscal year any amounts accumulated from assessments for Common Expenses and income from the operation of the Common Elements to which such Common Expenses pertain shall exceed the amount required or actual Common Expenses and provision for Common Expenses and any payment of reserves for future Common Expenses, such excess shall be applied to the reserve fund unless credited by the Association to each Unit Owner in proportion to their respective Common Expense Liabilities to reduce until exhausted the next monthly installments due from Unit Owners. Similarly, any surplus funds of the Association not so applied to the reserve fund and remaining after payment of or provision for Limited Common Expenses after application to Common Expenses as provided in Paragraph H of this Article, shall be credited to the Owners of the Units giving rise to such Limited Common Expenses in the proportions provided in Paragraphs B and H of this Article to reduce until exhausted the next monthly installments of assessments for such respective Expenses due from such Unit Owners. Surplus funds shall not otherwise be paid or credited to Unit Owners.

J. Service Charges. The Association shall have the express power to separately charge a unit and the owner thereof for services rendered to that unit. Such charges shall be a lien on the unit with the same status as a lien for common expense assessment under this Declaration and By-Laws, which lien for service charges may be foreclosed in like manner as a mortgage on real estate. The recordation of this Declaration constitutes record notice of the lien. Service charges shall include without limitation: (1) if a Unit Owner, members of his family, guests or tenants request the Association to perform repair and maintenance work on his Unit or damages the Common Elements or fails to perform maintenance and repair work required, the expense thereof as determined by the Executive Board or its designee may be assessed as a Service Charge; (2) fees, if any, which may be established by the Executive Board for use and maintenance of water, sewer, heat and/or other utility services; and (3) insurance premiums on permanent improvements to Units installed by Unit Owners and insured by the request of the Unit Owner with the Association's hazard insurance carrier.

K. Liability. In a voluntary conveyance, the Purchaser of a Unit shall be jointly and severally liable with the Seller for all unpaid common charges, assessments, service charges, interest and costs of collection up to the time of the grant or conveyance, although the Purchaser shall not be prevented from exercising any

right to recover from the Seller the amounts paid for those assessments and common charges. A Purchaser or prospective purchaser under a purchase and sale contract for a Unit may obtain, upon request and the payment of such fee as may be established from time to time by the Executive Board, a statement from the Association setting forth the amount of unpaid common charges, assessments and service charges, interest and costs of collection against the unit as of the date of grant or conveyance and such other items required by the Act. The Purchaser shall not be liable for, and the Unit conveyed shall not be subject to a lien for any unpaid amounts due from the Seller before the statement date in excess of the amount set forth in the statement except interest and costs of collection accrued thereafter.

ARTICLE VII: UNIT OWNERS ASSOCIATION

A. Owners Association and Bylaws. Each Unit Owner shall be a member of the Association, a non-profit corporation organized under the laws of the State of Maine known as 605 Stevens Avenue Condominium Association. Membership shall be appurtenant to the Units, and the transfer of title to a Unit shall automatically transfer the membership appurtenant to that Unit to the transferee or transferees. A mortgage, however, shall not transfer membership until foreclosure or sale in lieu of foreclosure. The Bylaws of the Association, which, except as otherwise provided for herein govern the operation and management of the Association, are attached hereto as Schedule C.

B. Disputes. The Association and any aggrieved Unit Owner shall have an appropriate right of action, together with any and all appropriate remedies under the Act, in law or equity, against any of the Unit owners or the Association for failure to comply with any provision of this Declaration or with any decision of the Association made pursuant thereto. The Executive Board shall have the authority to seek a declaratory judgment or other appropriate judicial relief in order to assist it in carrying out its responsibilities under this Article, except as hereinafter provided. Notwithstanding the rights of action described in the preceding two sentences, any dispute resulting in a deadlock among the Executive Board members or described in Article III or Article IV hereof shall be submitted to arbitration in accordance with the procedures set forth herein. In such cases, all of the members of the Executive Board shall, within thirty days after such deadlock occurs, attempt to agree upon a single arbitrator to settle the dispute. If the members are unable to agree on a single arbitrator within such thirty-day period, then the dispute shall be settled by a single arbitrator in accordance with the rules of the American Arbitration Association. The expenses of such arbitration shall be a Common Expense. All Unit Owners and the Association shall be bound by the arbitration decision, including, without limitation, any determination regarding the entitlement of a Unit owner to reimbursement of expenses incurred pursuant to Article IV(O). No other right of action shall arise with respect to a dispute arising out of an Executive Board deadlock or a dispute over maintenance, replacement or repair of all or any part of the Common Elements.

ARTICLE VIII: LIMITATION OF LIABILITY

A. Limited Liability of the Executive Board. No member of the Executive Board or officer of the Association, except to the extent of his or her willful misconduct or gross negligence: (1) shall be liable for the failure of any service to be obtained by the Executive Board and paid for by the Association, or for injury or damage to persons or property caused by the elements or by another Unit Owner or person on the Property, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Buildings, or from any of its pipes, drains, conduits, appliances, or equipment, or from any other place; (2) shall be liable to the Unit Owners as result of the performance of the Executive Board members' duties for any mistake of judgment, negligence or otherwise; (3) shall have any personal liability in contract to a Unit Owner or any other person or entity under any agreement, check, contract, deed, lease, mortgage, instrument or transaction entered into by them on behalf of the Executive Board or the Association in the performance of the Executive Board members' duties; (4) shall be liable to a Unit Owner, or such Unit Owner's tenants, employees, agents, customers or guests, for loss or damage

caused by theft of or damage to personal property left by guests in a Unit, or in or on the Common Elements or Limited Common Elements; (5) shall have any personal liability in tort to a Unit Owner or any other person or entity, direct or imputed, by virtue of acts performed by or for them; or (6) shall have any personal liability arising out of the use, misuse or condition of the Buildings, or which might in any other way be assessed against or imputed to the Executive Board members as a result of or by virtue of the performance of their duties.

B. Indemnification. Each member of the Executive Board, in his capacity as an Executive Board member, officer or both, shall be indemnified by the Association against all expenses and liabilities, including attorney's fees, reasonably incurred by or imposed upon him in connection with any proceeding in which he may become involved by reason of his being or having been a member and/or officer of the Executive Board, or any settlement of any such proceeding, whether or not he is an Executive Board member, officer or both at the time such expenses are incurred, except in such cases wherein such Executive Board member and/or officer is adjudged guilty of willful misconduct or gross negligence in the performance of his duties; provided that, in the event of a settlement, this indemnification shall apply only if and when the Executive Board (with the affected member abstaining if he is then an Executive Board member) approves such settlement and reimbursement as being in the best interests of the Association; and provided further that, indemnification hereunder with respect to any criminal action or proceeding is permitted only if such Executive Board member and/or officer had no reasonable cause to believe his conduct was unlawful. The indemnification by the Unit Owners set forth in this Paragraph shall be paid by the Association on behalf of the Unit Owners and shall constitute a Common Expense and shall be assessed and collectible as such. Such right of indemnification shall not be deemed exclusive of any other rights to which such Executive Board member and/or officer may be entitled as a matter of law or agreement or by vote of the Unit Owners or otherwise.

C. Defense of Claims. Complaints brought against the Association, the Executive Board or the officers, employees or agents thereof in their respective capacities as such, or the Condominium as a whole, shall be directed to the Executive Board of the Association, which shall promptly give written notice thereof to the Unit Owners and the Eligible Mortgage Holders and the Mortgagees of Units identified to the Association, and such complaints shall be defended by the Association. The Unit Owners shall have no right to participate in such defense other than through the Association.

ARTICLE IX: EMINENT DOMAIN

A. Entire Unit. If any Unit shall be taken or condemned by any authority having the power of eminent domain, or if part of a Unit is taken or condemned by any authority having the power of eminent domain leaving the Unit Owner with a remnant which may not practically or lawfully be used for any purpose permitted by this Declaration, the award for such taking or condemnation shall be paid to the Unit Owner as compensation for his Unit and its Allocated Interest in the Common Elements, whether or not any Common Elements are taken or condemned. Upon such taking or condemnation, unless the decree provides otherwise, that Unit's entire Allocated Interests shall be automatically reallocated to the remaining Units in proportion to the respective Allocated Interests of those Units prior to the taking or condemnation, and the Association shall promptly prepare, execute and record as a Common Expense an amendment to this declaration reflecting such reallocation. Any remnant of a Unit remaining after part of a Unit is taken or condemned under this Article IX(A) shall thereafter be a Common Element.

B. Part of Unit. Except as otherwise provided in Paragraph A, if part of a Unit is taken or condemned by any authority having the power of eminent domain, any award therefor shall be paid to the Owner of such Unit as compensation for the reduction in value of the Unit and its Allocated Interest in the Common Elements, whether or not any Common Elements are taken or condemned. After such part of a Unit is taken or condemned: (1) That Unit's Allocated Interests shall be reduced in proportion to the

reduction in relative value of the Unit as determined by the Executive Board; and (2) The portion of the Allocated Interests, Common Element Interest, Votes and Common Expense Liability which has been divested by virtue of the taking or condemnation from the partially-acquired Unit shall be automatically reallocated to such Unit and the remaining Units in proportion to the respective Allocated Interests appurtenant to each of the Units before the taking or condemnation, and the Association shall promptly prepare, execute and record as a Common Expense an amendment to this Declaration reflecting such reallocation, with the partially taken or condemned Unit participating in the reallocation on the basis of its reduced Allocated Interests.

C. Common Elements. If part of the Common Elements shall be taken or condemned by any authority having the power of eminent domain, the Association shall represent the Unit Owners in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority, and the portion of the award attributable to the Common Elements taken shall be paid to the Association for the use and benefit of the Unit Owners and their Mortgagees as their interests may appear. Each Unit Owner appoints the Association as attorney-in-fact for this purpose. Subject to the provisions of Article IX(D), the Association shall divide any portion of remaining Common Elements among the Unit Owners and their Mortgagees, in proportion to their respective interests in the Common Elements prior to such taking or condemnation, but the portion of the award attributable to the acquisition of any Limited Common Element shall be equally divided among the Owners of the Units to which such Limited Common Element was allocated at the time of such taking or condemnation. The Association shall promptly prepare, execute and record as a Common Expense an amendment to this Declaration reflecting such reallocation.

D. Decree, Prior Liens. The court decree shall be recorded. Notwithstanding anything to the contrary in this Article, lien holders on any Unit, Common Element or Limited Common Element, shall have a lien on any such awards in order of priority of their respective liens.

ARTICLE X: REPAIR AND RECONSTRUCTION AFTER FIRE OR OTHER CASUALTY

A. Required Repair and Reconstruction. In the event of damage to or destruction of all or any part of the Property as a result of fire or other casualty, the Executive Board on behalf of the Association shall promptly arrange for and supervise the prompt repair, replacement and restoration thereof (including any damaged Units, service fixtures, service machinery and other apparatus initially installed therein by the Declarant, but not including any other furniture, furnishings, fixtures, equipment or other personal property supplied or installed by the Unit Owners in the Units), substantially in accordance with this Declaration, Plats and Plans, the original elevation thereof and the original plans and specifications therefor unless (a) the Condominium is terminated, or (b) repair, replacement or restoration would be illegal under any state or local health, safety, land-use or environmental statute, code or ordinance, or (c) eighty percent (80%) of the Unit Owners vote not to repair, restore or replace the damaged or destroyed Property, and such decision is approved by every Owner of a Unit or Limited Common Element, which will not be repaired, replaced or restored, and by all Eligible Mortgage Holders of all Mortgages thereon.

B. Procedure for Reconstruction and Repair. If repair, replacement or restoration shall be required pursuant to Paragraph A of this Article: (1) Cost Estimates: The Executive Board shall promptly obtain reliable and detailed estimates of the cost of repairing and restoring such portion (including any damaged Units, fixtures, service machinery and other apparatus initially installed by Declarant, but not including any other furniture, furnishings, fixtures or equipment installed by the Unit Owner in the Unit) substantially in accordance with this Declaration, the Plats and Plans, the original elevation thereof and original building plans and specifications therefor unless other action or repair or replacement is approved by at least 80% of the Unit Owners and 51% of the Eligible Mortgage Holders; such costs may also include professional fees and premiums for such bonds as the Insurance Trustee may determine to be necessary; (2) Assessments: If the net proceeds of insurance, if any, are not sufficient to defray such estimated costs of reconstruction,

repair and replacement, or if upon completion of reconstruction and repair the funds for the payment of the costs thereof are insufficient, the amount necessary to complete such reconstruction and repair may be obtained from the appropriate reserve for replacement funds, and any such costs in excess of insurance proceeds and reserves shall be deemed a Common Expense and a special assessment therefor shall be levied by the Association; and (3) Construction Fund and Disbursement: The proceeds on insurance collected on account of the casualty, and the sums received by the Association from collections of assessments against Unit Owners pursuant to Paragraph B(2) of this Article on account of such casualty, shall constitute a construction fund which shall be held in trust by the Insurance Trustee or Association as provided in this Declaration and disbursed in payment of the costs of reconstruction and repair in the following manner: (a) if the estimated cost of reconstruction and repair is less than Two Hundred Thousand (\$200,000.00) Dollars, then the construction fund shall be disbursed in appropriate progress payments, or upon order of the Executive Board; provided, however, that upon request of fifty percent (50%) of the Eligible Mortgage Holders (based upon one vote for each mortgage held) such funds shall be disbursed pursuant to subparagraph B(3)(b); (b) if the estimated cost of reconstruction and repair is Two Hundred Thousand (\$200,000.00) Dollars or more, then the construction fund shall be disbursed in payment of such costs upon approval of an architect qualified to practice in the State of Maine employed by the Association (the "Architect") or Insurance Trustee to supervise such work and approved by such fifty percent (50%) of the Eligible Mortgage Holders, payment to be made from time to time as the work progresses; the Architect shall be required to furnish a certificate giving a brief description of the services and materials furnished by various contractors, subcontractors, materialmen, the architect and other persons who have rendered services or furnished materials in connection with the work stating that: (i) the sums requested by them in payment are justly due and owing and that such sums do not exceed the value of the services and materials furnished; (ii) there is no other outstanding indebtedness known to such Architect for the services and materials described; (iii) the cost as estimated by such Architect for the work remaining to be done subsequent to the date of such certificate does not exceed the amount of the construction fund remaining after payment of the sum so requested; and (c) when the damage is to both Common Elements and Units, the insurance proceeds shall be applied first to the cost of repairing the Common Elements and thereafter to the cost of repairing the Units; and (d) the first monies disbursed in payment of the cost of reconstruction and repair shall be from any insurance proceeds and, if there is a balance in the construction fund after the payment of all of the costs of the reconstruction and repair for which the fund is established, such balance shall be distributed among all Unit Owners, Mortgage holders and lien holders, as their respective insurable interests may appear, in proportion to their respective Common Element Interests or the Common Element Interests to which their respective Mortgages are subject.

C. Damage or Destruction; No Repair or Replacement. If the entire Condominium is not repaired or replaced: (1) the insurance proceeds attributable to the damaged Common Elements shall be used to restore the damaged areas of the Common Elements to a condition compatible with the remainder of the Condominium as determined by the Executive Board or Architect; (2) the insurance proceeds attributable to Units and Limited Common Elements which are not rebuilt shall be distributed to the Owners and Mortgagees of those Units as their insurable interests appear and the Owners and Mortgagees of the Units to which those Limited Common Elements were assignable or allocated, as their insurable interests may appear; and (3) the remainder of the proceeds shall be distributed to all the Unit Owners and Mortgagees, as their insurable interest may appear, in proportion to their respective Common Element Interests or the Common Element Interests to which their respective Mortgagees are subject.

If the Unit Owners and their Mortgagees vote not to rebuild any unit, that Unit's entire Allocated Interests shall be automatically reallocated upon said vote as if the Unit had been condemned as provided in Article IX of this Declaration and the Association shall prepare, execute and record an amendment to this Declaration reflecting the reallocations. Notwithstanding any provisions of this Article to the contrary, Section 1602-118 of the Act governs the distribution of insurance proceeds if the Condominium is terminated.

ARTICLE XI: INSURANCE

A. General. No later than the date of the first conveyance of a Unit to a person other than the Declarant, the Association, shall obtain and maintain as a Common Expense, the policies of insurance described below to the extent such policies shall be reasonably available. If such insurance is not maintained, then the Association shall give written notice thereof to the Unit Owners and the Eligible Mortgage Holders. To the extent that such insurance subsequently becomes unavailable, the Association shall obtain as a substitution the most comparable insurance available. The Board of Directors is hereby irrevocably appointed as attorney-in-fact for each Unit Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property, for purchasing and maintaining the insurance, for the collection and disposition of any insurance, including distribution pursuant to Section 1603-113(c) of the Condominium Act, for the negotiation of losses and execution of releases of liability, and for the execution of all documents, and performance of all other acts necessary to accomplish these purposes.

B. Property and Casualty Insurance for Units and Common Elements. The Association shall obtain and maintain in effect an "extended coverage" fire and casualty insurance policy covering the Units and Common Elements (including the Limited Common Elements) with vandalism, malicious mischief, windstorm, debris removal, cost of demolition and water damage endorsements, issued by an insurance company authorized to do business in the State of Maine, excluding the land, foundations and excavations and other similar items customarily excluded from property insurance policies, excluding risks customarily excluded from commercial property insurance policies as determined by the Board of Directors, and excluding furniture, furnishings, inventory, equipment and other personal property supplied or installed by Unit Owners. The policy shall cover the interests of and benefit as insureds the Association, the Board of Directors, and all Unit Owners and their Mortgagees as their insurable interests may appear.

The Association's blanket or master insurance policy shall be in an amount equal to one hundred percent (100%) of the then current fair market value of such insured Units and Common Elements (exclusive of the land, excavations, foundations and other similar items customarily excluded from such coverage), without deduction for depreciation, which coverage may be "replacement cost" coverage if the Board of Directors determines such coverage is reasonably available. Such insurance policy may, at the option of the Board of Directors, contain such deductible and exclusions as the Board of Directors shall reasonably deem appropriate but the deductible not to exceed the lesser of \$10,000 or one (1) percent of the policy's face amount, unless approved by a majority vote of the Owners.

Unless otherwise established under Rules and Regulations adopted by the Board of Directors from time to time, a Unit Owner shall pay the expense of repair of damage to its Unit, to the Common Elements or to another Unit if caused by the neglect of the Unit Owner in the amount of the Association's insurance deductible (or such greater amount as may be established by the Rules and Regulations adopted by the Board of Directors from time to time); the Association shall not be responsible to such Unit Owner for the costs of such repair or damage. In the event of a casualty affecting both the Common Elements and Unit(s) the Board of Directors may allocate responsibility for the insurance deductible among the Common Elements and Unit(s).

Notwithstanding the foregoing, each Unit Owner shall procure "builder's risk" insurance coverage on a Unit while the Unit is undergoing construction or significant repairs and renovations such that the Unit is not otherwise covered by the Association's policy, and the Association shall have no responsibility for any design error, faulty workmanship or defective construction carried on by or at the request of a Unit Owner

Since the Common Elements are believed to have been originally constructed a number of years ago, the Association is not required to carry casualty insurance for the replacement or repair of the Common

Elements to their exact prior state and the Board of Directors may limit the scope of insurance coverage to the market value of the Common Elements and limit repair or replacement to more modern materials and techniques based on available casualty insurance proceeds.

Such casualty insurance policy shall also include the following provisions:

(i) The following endorsements or their equivalent: (a) "no control," meaning that coverage shall not be prejudiced by any act or neglect of any occupant or Unit Owner or their agents, when such act or neglect is not within the control of the insured, or the Unit Owners collectively, nor by any failure of the insured, or the Unit Owners collectively, to comply with any warranty or condition with regard to any portion of the Condominium over which the insured, or the Unit Owners collectively, have no control; (b) "Construction Code Endorsement" or "increased cost of construction," (c) "agreed amount" or elimination of co-insurance clause; and (d) "inflation guard," when it can be obtained.

(ii) That any "no other insurance" clause shall expressly exclude individual Unit Owners' policies from its operation, so that the physical damage policy purchased by the Board of Directors shall be deemed primary coverage and any individual Unit Owners' policies shall be deemed excess coverage, and in no event shall the insurance coverage obtained and maintained by the Board of Directors hereunder provide for or be brought into contribution with insurance purchased by individual Unit Owners or their Mortgagees;

(iii) The recognition of any Insurance Trust Agreement whereby the Board of Directors may designate in writing an Insurance Trustee to hold any insurance proceeds in trust for disbursement, as provided in Section C below; and

(iv) A standard "mortgagee clause" which shall: (a) provide that any reference to a mortgagee in such policy shall mean and include all holders of mortgages of any Unit, in their respective order and preference, whether or not named therein; (b) provide that such insurance as to the interest of any mortgagee shall not be invalidated by any act or neglect of the Association or owners or any persons under any of them; and (c) waive any provision invalidating such mortgagee clauses by reason of the failure of any mortgagee to notify the insurer of any hazardous use or vacancy, and requirement that the mortgagee pay any premium thereon, and any contribution clause.

C. Casualty Losses, Adjustment and Payment; Insurance Trustee. Any loss covered by the insurance policy described in Section B above shall be adjusted with the Association acting through its Board of Directors, but the insurance proceeds shall be payable to the Insurance Trustee designated for that purpose by the Board of Directors, if any, as provided in the Condominium Act and otherwise to the Association, and not to any Mortgagee.

The Insurance Trustee or the Association as applicable shall hold any insurance proceeds in trust for Unit Owners, Mortgagees and other lien holders as their interests may appear. The Board of Directors shall cause the Insurance Trustee or the Association to obtain a surety bond in 100% of the amount of the insurance proceeds for the faithful performance of the duties as insurance trustee before it shall be entitled to receive such proceeds. Subject to the provisions of this Article, the Bylaws and Section 1603-113(e) of the Condominium Act, the proceeds shall be disbursed first for the repair or restoration of the damage to the Common Elements. Unit Owners, Mortgagees and other lien holders are not entitled to receive payment of any portion of the proceeds, unless either (i) there is a surplus of proceeds after the damaged Units and Common Elements have been repaired or restored, or (ii) the decision has been made not to repair or restore the damage as provided in Section 1603-113(h) of the Condominium Act, or (iii) the Condominium is terminated in whole or part.

D. Liability Insurance. The Board of Directors shall obtain and maintain, as a Common Expense,

comprehensive general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Board of Directors member, the managing agent, each Unit Owner and the Declarant against any liability to the public or to the Unit Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage, arising out of the maintenance, ownership or use of the Common Elements, and for any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain: (a) a cross liability endorsement, under which the rights of a named insured under the policy shall not be prejudiced with respect to his action against another named insured; (b) hired and non-owned vehicle coverage; (c) a "severability of interest" endorsement, which shall preclude the insurer from denying liability to a Unit Owner because of negligent acts of the Association or of another Unit Owner; and (d) a broad form liability extension endorsement including "personal injury," contractual liability, and other coverage commonly included in such broad form endorsement. The Board of Directors shall review such limits once each year, but in no event shall such insurance be less than two million dollars (\$2,000,000.00) covering all claims for bodily injury or property damage arising out of one occurrence.

E. Additional Required Provisions. All insurance policies required to be carried by the Association under this Article shall in addition contain the following provisions or features:

- i. The insurer waives any right to claim by way of subrogation against the Declarant, the Association, the Board of Directors, the managing agent or the Unit Owners, and their respective agents, employees, guests and, in the case of the Unit Owners, the members of their households;
- ii. The Declarant, so long as the Declarant shall own any Unit, shall be protected by all such policies as a Unit Owner.
- iii. Each Unit Owner is an insured person under the policy with respect to liability arising out of the ownership of an undivided interest in the Common Elements or membership in the Association;
- iv. The insurer waives its right to subrogation under the policy against any Unit Owner, its principles, managers, officers, employees or directors or members of his household;
- v. No act or omission by any Unit Owner, unless acting within the scope of his authority on behalf of the Association, will void the policy or be a condition to recovery under the policy; and
- vi. If at the time of a loss under the Association's policy, there is other insurance in the name of a Unit Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

F. Other Insurance. The Board of Directors shall obtain and maintain as a Common Expense:

(i) To the extent reasonably available, "directors' and officers'" liability insurance, to satisfy the indemnification obligations of the Association;

(ii) Workers' compensation insurance, if and to the extent necessary to meet the requirements of law;

(iii) Flood insurance if any or all of the Property is located in a special flood hazard area equal to the greater of 100% of the insurable value of the Property or the maximum coverage available under the appropriate national Flood Insurance Administration program. A blanket or master policy shall be obtained which includes a maximum deductible of one percent (1.00%) of the policy face amount; and

(iv) Such other insurance as the Board of Directors may determine, as may be requested by a majority of the Unit Owners (including, without limitation, "fidelity bond" or employee dishonesty coverage).

G. Memoranda and Cancellation. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Unit Owner or Mortgagee.

All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify, or refuse to renew such policy or policies until twenty (20) days (10 days notice for non-payment of premiums) after notice of the proposed cancellation of non-renewal has been mailed to the Association, the managing agent, each Unit Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses.

H. Separate Insurance Required to be Maintained by Owners. Each Unit Owner should obtain at its own expense, a condominium insurance policy for damage to its Unit not insured through the Association, and all personal property located in a Unit for its own benefit and for its personal liability, as well as upon any improvements made by him to its Unit under coverage normally called "improvements and betterments coverage;" provided, however, that no Unit Owner shall be entitled to exercise its right to acquire or maintain such insurance coverage which would decrease the amount which the Association on behalf of all Unit Owners may realize under any insurance policy maintained by the Association, or to cause any insurance coverage maintained by the Association to be brought into contribution with insurance coverage obtained by a Unit Owner.

All such Unit Owner's policies must contain waivers of subrogation in favor of the Association.

The Association shall have no responsibility for ascertaining whether or not the Unit Owner maintains such insurance in effect.

Each Unit Owner shall notify the Board of Directors in writing of all structural improvements made by the Unit Owner to his Unit; provided, however, that this sentence shall not be construed as an authorization to Unit Owners to make structural improvements to Units otherwise than in accordance with this Declaration, the Bylaws and Rules and Regulations promulgated by the Board of Directors. Any premium increase caused by such improvements may be assessed to the Owner of the improved Unit. No Unit Owner shall be entitled to receive insurance proceeds for the repair, restoration or rebuilding of any such improvements not so reported to the Board of Directors and not insured by the Association, unless otherwise consented to by vote of the Board of Directors.

At the request of the Association, any Unit Owner who obtains an individual insurance policy covering any portion of the Condominium shall file a certificate or copy of such individual policy or policies with the Board of Directors within thirty (30) days after the purchase of such insurance but failure to request or provide such certificate or insurance copies shall not impair any terms of this Declaration.

ARTICLE XII: ADDITIONAL RESTRICTIONS ON USE, OCCUPANCY OR ALIENATION

A. Use and Occupancy Restrictions. Each Unit shall be occupied and used subject to the following restrictions: (1) Unit 1 will be used solely for residential purposes; and (2) each Unit will be subject to reasonable rules and regulations as adopted by the Association from time to time. Nothing in this Declaration shall be construed to prohibit the Declarant from exercising any easements and rights reserved by the Declarant pursuant to this Declaration for any purposes including promotional, marketing or display purposes, from using any appropriate portion of the Common Elements for exercising these reserved rights,

settlement of sales of Units and for customer service purposes, or from leasing Units owned by Declarant as provided in this Declaration.

B. Leasing Restrictions. No Unit Owner shall lease a Unit other than on written form of lease requiring the lessee to comply with the Condominium Documents and rules and regulations of the Association. Each Unit Owner shall, promptly following the execution of any lease of a Unit, notify the Association in writing of the name of the tenant and the term of the lease and any options in the lease to renew, extend or purchase. The Declarant retains and reserves the right, without complying with the restrictions contained in the foregoing Paragraphs, to enter into leases with any persons for the occupancy of any of the Units owned by the Declarant during the period ending 30 years from the date of this Declaration.

C. Voluntary Resale of Units. The following provisions apply to the sales of Units by all Unit Owners other than the Declarant: No Unit Owner shall be liable for the payment of any part of the Common Expenses assessed against his Unit subsequent to the date of recordation of a bona fide conveyance in fee of such Unit by the Owner. In a voluntary transfer of a Unit, the grantee of the Unit shall be jointly and severally liable with the grantor for all unpaid assessments and special assessments for Common Expenses made by the Executive Board against the latter up to the time of the recordation of grantor's transfer, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefor. However, any person who shall have entered into an agreement to purchase a Unit from a Unit Owner shall be entitled to a certificate from the Executive Board as provided by Section 1604-108(b) of the Act, and the grantee shall not be liable for, nor shall the Unit conveyed by subject to a lien for, any assessments or unpaid special assessments made by the Executive Board against the grantor for Common Expenses in excess of those disclosed on such certificate. All Unit Owners shall comply with Section 1604-108 of the Act. Except as provided in this Article, there are no other restrictions governing the voluntary transfer of a Unit.

D. Restriction on Demolition and Rehabilitation of Unit 2: Unit 2 (the Smith Wing) shall not be demolished within five years of the completion of the initial rehabilitation of Unit 1; and any work on the Unit 2 within 5 years of Unit 1 placement in service of the Unit 1 (Motherhouse) rehabilitation project must be performed in accordance with NPS standards for historic preservation to the extent required so that such rehabilitation shall not adversely affect historic tax credits arising from the rehabilitation of Unit 1.

E. Rules and Regulations. Each Unit, appurtenant Limited Common Elements and the Common Elements shall be subject to all restrictions contained in the Unit deed, this Declaration, the By-Laws of the Association, and any reasonable Rules and Regulations adopted by the Association from time to time, as amended from time to time.

ARTICLE XIII: APPLICABILITY; COMPLIANCE AND DEFAULT

A. Applicability. All present and future Owners and tenants, their guests, servants, agents and employees and any other person or persons that shall be permitted to use the Common Elements shall be subject to this Declaration, the By-Laws and to such rules and regulations as may be issued by the Executive Board of the Association from time to time to govern the conduct of its members and the use and occupancy of the Property. Ownership, rental or occupancy of any of the Units in the Condominium shall be conclusively deemed to mean that said Owner, tenant or occupant has accepted and ratified this Declaration, the By-Laws and the rules and regulations of the Association and will comply with them. The acceptance of a deed or conveyance (other than as security) or the entering into of a lease or the entering into of occupancy of any Unit (other than possession by a Mortgagee prior to either the completion of foreclosure or the acceptance of a deed to the Unit subject to the Mortgage held by such Mortgagee) shall signify that the provisions of this Declaration and the By-Laws, the rules and regulations of the Condominium and the decisions of the Executive Board are accepted and ratified by such Owner, tenant or

occupant, and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such Unit, as though such provisions were recited and stipulated at length in each and every deed or conveyance or lease thereof.

B. Compliance and Default. (1) Each Unit Owner shall be governed by and shall comply strictly with the terms, covenants, conditions and restrictions of this Declaration, By-Laws and the rules and regulations adopted pursuant thereto, and the same as they may be amended from time to time. The Executive Board shall have the power to adopt, amend and enforce compliance with such reasonable rules and regulations relative to the operation, use and occupancy of the Units and the Common Elements consistent with the provisions of this Declaration and the Act, including, but not limited to the appointment of such committees and the enactment and enforcement of such enforcement procedures and penalties for violations as the Executive Board shall deem appropriate. Any such rules and regulations shall be adopted or amended, from time to time, by means of appropriate resolutions duly approved by the Executive Board in accordance with the By-Laws. A copy of such rules and regulations and copies of any amendments thereto shall be delivered or mailed to each Owner or occupant of a Unit promptly after the adoption thereof. Failure of the Unit Owner to comply therewith shall entitle the Association or Unit Owners to the remedies provided in this Declaration and the Act, and also to the following relief, none of which remedies shall be exclusive of any other remedies: (1) Suits: Failure to comply with the terms of this Declaration, the By-Laws and the rules and regulations adopted pursuant thereto, as the same may be amended from time to time, shall entitle the Association or any aggrieved Unit Owner to sue for the recovery of damages or for injunctive relief, or both. Such relief shall not be exclusive of other remedies provided by law; (2) Costs and Attorney's Fees: In any proceeding arising because of an alleged failure of a Unit Owner to comply with the terms of the Condominium Documents and rules and regulations adopted pursuant thereto, as the same may be amended from time to time, the prevailing party shall be entitled to recover the costs of the proceeding and reasonable attorney's fees; provided, however, that no attorney's fees may be recovered against the Executive Board in any such action unless the court shall first expressly find that the Executive Board acted in bad faith. (3) No Waiver of Rights: The failure of the Declarant, or the Executive Board, or any Unit Owner to enforce any covenant, restriction or other provision of the Act, the Condominium Documents or the rules and regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

C. Appeal and Hearing Procedure; Actions by Owners. No Unit Owner shall have the right to object, challenge, commence any suit at law or in equity or take any other action under any act, power or authority now in force or hereafter adopted except after following such procedures as are established by the Executive Board by rule or regulation consistent with the provisions of this Paragraph. The Executive Board, or a committee as may be appointed by the Executive Board, shall hear appeals from Unit Owners or lessees of alleged violations of the Condominium Documents and rules and regulations of the Association. Unit Owners shall not have the right to appeal assessments for or collections of assessments for Common Expenses. The Executive Board or such committee shall hold a hearing on any such appeal within thirty (30) days after the receipt by the Executive Board of a formal notice of appeal from a Unit Owner or resident. A decision shall be issued in writing by the Executive Board within ten (10) days after the conclusion of the hearing. The Executive Board shall have the right to establish various rules and procedures governing the operation and administration of the appeal and hearing process and the enforcement of the Condominium Documents and rules and regulations. Unless the internal remedies provided by this Paragraph and such rules and regulations as may be promulgated by the Executive Board shall be expressly waived by the Association or the Association fails or refuses to act, no action at law or in equity shall be commenced by any Unit Owner or resident until such internal remedy is pursued to exhaustion. Any action by a Unit Owner against any other Unit Owner or resident arising out of any term, covenant or condition contained in the Condominium Documents or any rule or regulation made pursuant thereto shall be subject to the same procedures. In hearings before the Executive Board or the committee designated by the Executive Board, all parties shall be entitled to be represented by counsel.

ARTICLE XIV: MORTGAGES OF UNITS; RIGHTS OF MORTGAGEES

A. Right to Mortgage. Each Unit Owner shall have the right to mortgage or encumber his own respective Unit together with the Allocated Interests appurtenant to such Unit. Except as otherwise permitted by Section 1603-112 of the Act and subject to this Declaration, no Unit Owner shall have the right or authority to mortgage or otherwise encumber in any manner whatsoever the Common Elements or any part thereof except his own Unit and the Limited Common Elements and Allocated Interests appurtenant to his Unit. A Unit Owner who mortgages his Unit shall notify the Executive Board in writing of the name and address of his Mortgagee(s) and shall file a conformed copy of the note and mortgage with the Executive Board; provided, however, that failure to do so shall not in any way affect the validity or enforceability of any mortgage.

B. Mortgage Foreclosure. Any Mortgagee of a Unit holding a recorded first mortgage on a Unit that obtains title to the Unit pursuant to the remedies provided in the Mortgage, or through a completed foreclosure of the Mortgage, or through deed (or assignment) in lieu of foreclosure, shall take the Unit with the Allocated Interests appurtenant thereto free of such claims and liens for unpaid assessments for Common Expenses, interest and costs levied against such Unit which accrue prior to the acquisition of title to such Unit by the Mortgagee, other than the proportionate share of the Common Expenses which become due and payable from and after the date on which the Mortgagee shall acquire title to the Unit through a completed foreclosure of deed (or assignment) in lieu of foreclosure.

C. Notices to Eligible Mortgage Holder. The Association shall send written notice by prepaid United States mail to each Eligible Mortgage Holder at the address identified pursuant to Article XVII(C) of this Declaration of the following proposed actions either within a reasonable period prior to the taking of any such proposed actions or at the time that notice thereof is given to Unit Owners unless another time is specified herein: (1) any condemnation loss or any casualty loss which affects a material portion of the Condominium or any unit in which there is a first Mortgage held by such Eligible Mortgage Holder; (2) notice of any default or delinquency in the payment of assessments for Common Expenses or any other charges owed by an Owner of a Unit subject to a Mortgage held of record by such an Eligible Mortgage Holder, or any other default in the performance or payment by such an Owner of a Unit of any obligation under this Declaration, the By-Laws or any rules and regulations of the Association, which delinquency or other default continues for a period of sixty (60) days, to the Eligible Mortgage Holder of the Mortgage to which such Owner's Unit is subject; (3) any lapse, cancellation or material modification of any insurance policy or fidelity bond required to be maintained under the Declaration or By-Laws by the Association; (4) the proposed use of any proceeds of Property Insurance required to be obtained and maintained by the Association pursuant to Section 1603-113, subsection (a) of the Act, for purposes other than repair or restoration of the damaged property; (5) the adoption by the Executive Board of any proposed budget under Section 1603, subsection (c) of the Act, the date of the meeting of Unit Owners scheduled to consider ratification of such proposed budget, and a summary of the proposed budget; (6) any proposed action which would require the consent of a specified percentage of Eligible Mortgage Holders as specified in Paragraph E of this Article; (7) the termination of the Condominium pursuant to Section 1602-118 of the Act and this Declaration; (8) a change in the Allocated Interests appurtenant to any Unit, a change in the boundaries of a Unit, or the subdivision of a Unit; (9) the merger or consolidation of the Condominium with another condominium; or (10) the conveyance or subjection to a security interest of any portion of the Common Elements. Upon written request of any Eligible Mortgage Holder, the Association will provide an audited financial statement of the Association for the preceding fiscal year.

D. Mortgagee Approval Rights. For purposes of this Paragraph and the following subparagraphs, where approval by a stated percentage of Eligible Mortgage Holders is required, such approval shall be based upon one (1) vote for each Unit on which a mortgage is held. Any repair, replacement or restoration

of the Condominium, after a partial condemnation or damage due to an insurable hazard, shall be performed as provided in this Declaration, unless other action is approved by at least fifty-one (51%) percent of Eligible Mortgage Holders. Any election to terminate the legal status of the Condominium pursuant to Section 1602-118 of the Act, and this Declaration after substantial destruction or a substantial taking in condemnation of the Condominium Property shall require the approval of at least fifty-one (51%) percent of all Eligible Mortgage Holders. Any abandonment or termination of the legal status of the Condominium pursuant to Section 1602-118 of the Act by act or omission for reasons other than said substantial destruction or taking shall require the prior written approval of at least fifty-one (51%) percent of Eligible Mortgage Holders of first Mortgages on Units. Any abandonment, partition, subdivision, encumbrance, sale or transfer of any of the Common Elements (except for grant easements for utilities or other public purposes consistent with the intended use of the Common Elements) by act or omission shall require the prior written approval of at least fifty-one (51%) percent of the Eligible Mortgage Holders. With respect to amendments to the Condominium Documents other than amendments to the Condominium Documents or termination of the Condominium made as a result of destruction, damage, or condemnation as provided in this Article, the approval of at least fifty-one percent (51%) of the Eligible Mortgage Holders shall be necessary to terminate the Condominium as provided hereinabove.

The written consent or approval of at least fifty-one (51%) percent of the Eligible Mortgage Holders of Units affected by such amendments, shall be required to add or amend any material provisions of the Condominium Documents which establish, provide for, govern or regulate any of the following matters: (i) Voting; (ii) assessments, assessment liens or subordination of such liens; (iii) reserves for maintenance, repair and replacement of the Common Elements (or Units if applicable); (iv) insurance or fidelity bonds; (v) rights to use of the Common Elements; (vi) responsibility for maintenance and repair of the Common Elements of the Condominium; (vii) expansion or contraction of the Condominium or the addition, annexation or withdrawal of property to or from the Condominium; (viii) the interests in the Common Elements or Limited Common Elements; (ix) convertibility of Units into Common Elements or of Common Elements into Units; (x) leasing of Units; (xi) imposition of any restriction on a Unit Owner's right to sell, transfer, or otherwise convey his Unit; (xii) any proposed action described in Paragraph C(4), C(7), C(8), C(9) or C(10) of this Article; (xiii) a decision by the Association to establish self-management when professional management had previously been required by an Eligible Mortgagee; or (xiv) any provisions which are for the express benefit of Eligible Mortgage Holders. An addition or amendment to the Condominium Documents shall not be considered material if it is for the purpose of correcting technical errors.

An Eligible Mortgage Holder who receives a written request to approve any additions or amendments which do not constitute either a material change to the Condominium Documents or any amendment described in the preceding paragraph hereof and who does not deliver to the requesting party a negative response within thirty (30) days after the giving of notice shall be deemed to have approved such request in writing.

E. Voting and Other Rights of Eligible Mortgage Holders. In the event of any default by a Unit Owner in payment of assessments or performance of obligations pursuant to the Condominium Documents as more fully described in Paragraph C(2) of this Article, the Eligible Mortgage Holder of the Mortgage on such Owner's Unit shall have the right but not the obligation to cure such default. In addition to, but not by way of limitation of, all rights granted to Eligible Mortgage Holders pursuant to this Declaration to cast the votes allocated to a Unit in lieu of the Unit Owner, any Eligible Mortgage Holder, or its representative, shall have the right to attend meetings of the Association and Executive Board of the purposes of discussing the matters described in Paragraphs C(4), C(5), C(7), C(8), C(9) and C(10). No provision of the Condominium Documents shall be deemed or construed to give a Unit Owner, or any other person, priority over the rights of any Eligible Mortgage Holder pursuant to its Mortgage in the case of a distribution to Unit Owners of insurance proceeds or condemnation awards for losses to or a taking of Units, Common Elements, or both.

Each Eligible Mortgage Holder shall be entitled to examine the financial records and books of account of the Association upon reasonable prior written notice to the Association.

F. Rights of First Refusal. Notwithstanding anything to the contrary elsewhere contained in this Declaration, the By-Laws or said rules and regulations, in the event that the Unit Owners in the future adopt any right of first refusal (which right may be adopted only by amending this Declaration) in the case of the sale of any Unit, such right of first refusal shall not affect, impair or apply to the right of any Mortgagee to: (1) foreclose or take title to the Unit pursuant to the remedies provided in the Mortgage, (2) accept a deed (or assignment) in lieu of foreclosure in the event of a default by a mortgagor, or (3) sell or lease a Unit acquired by the procedures hereinabove set forth.

ARTICLE XV: AMENDMENT

Except in cases of amendments to this Declaration that may be unilaterally executed and recorded by the Association as described in Sections 1601-107, Eminent Domain, 1602-108(c), Allocation of Limited Common Elements, 1602-113(a) Reallocation of Boundaries Between Adjoining Units, 1602-113, Subdivision of Units and 1602-1117(a), Amendment of Declaration, of the Act and except in cases of amendments to this Declaration by certain Unit Owners, as described in Sections 1602-108(b), Reallocation of Limited Common Elements, 1602-1112(a), Relocation of Boundaries Between Adjoining Elements, 1602-1113(a), Relocation of Boundaries Between Adjoining Units, 1602-113(b), Subdivision of Units, or 1606-118(b), Termination of Condominium, of the Act, and except in cases of amendments to the Declaration that may be executed by the Declarant under Section 1602-109(f) Plats and Plans or under Section 1602-110, Exercise of Development Rights of the Act, and subject to the other provisions of this Declaration and of the Act, this Declaration, the Plats and Plans may be amended as follows:

A. Before Any Conveyance. Prior to the conveyance of any Unit by the Declarant to a Unit Owner other than as security for an obligation, the Declarant shall have the right to amend and re-amend this Declaration in any manner that the Declarant may deem appropriate.

B. After First Conveyance. After the first conveyance of a Unit by a Declarant, the terms of the following subparagraphs shall apply to the amendment of this Declaration:

(1) Notice. Notice of the subject matter of a proposed amendment shall be included in the notice of any meeting of the Executive Board in which a proposed amendment is considered, and shall be served upon all Unit Owners in the manner provided in Article XVII(a) for service of notices and upon Eligible Mortgage Holders in the manner identified in Article XVII(C).

(2) Resolution. An amendment may be proposed by either the Executive Board or by Unit Owners holding in the aggregate no less than 1/5th of the votes in the Association. No resolution of the Executive Board adopting a proposed amendment shall be effective unless it has been adopted at a meeting of the Association duly called and held in accordance with the By-Laws of the affirmative vote of at least 2/3rds in voting interest of the Unit Owners and then executed and recorded as provided in Paragraph B(5) of this Article.

(3) Agreement. In the alternative, an amendment may be made by an agreement signed by the record Owners of the Units to which at least 2/3rds of the votes in the Association are allocated in the manner required for the execution of a deed and acknowledged by at least one of them, and such amendment shall be effective when recorded.

(4) Certain Amendments. Notwithstanding the foregoing provisions of this Article, except as otherwise permitted by the Act and provided in this Declaration, no amendment may increase the number of

Units or change the boundaries of any Unit, the Allocated Interests allocated to a Unit, or the uses to which any Unit is restricted without the unanimous consent of the Unit Owners and the consent of the Eligible Mortgage Holders representing or holding mortgages on Units having at least 2/3rds of the votes in the Association. No amendment of this Declaration shall make any change which would in any way affect any of the rights, privileges, powers and options of the Declarant, its successors or assigns, unless the Declarant, or its successors or assigns shall join in the execution of such amendment.

(5) Execution and Recording. A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which certificate shall be executed and acknowledged by such officer or officers of the Association and/or member or members of the Executive Board designated for that purpose in the By-Laws. The amendment shall be effective when such certificate and copy of the amendment are recorded.

(6) Notice and Challenge. No action to challenge the validity of an amendment to this Declaration adopted by the Association pursuant to this Article may be brought more than one year after such amendment is recorded. After each amendment to this Declaration adopted pursuant to this Article has been recorded, notice thereof shall be sent to all Unit Owners and to all Eligible Mortgage Holders at the address last furnished to the Executive Board, but failure to send such notices shall not affect the validity of such amendment. The Association shall make copies of the Declaration and all amendments thereto available for inspection at reasonable times upon reasonable request for such inspection.

ARTICLE XVI: EASEMENTS AND LICENSES

A. Recorded Easements and Licenses. The recording data for recorded easements and licenses appurtenant to or included in the Condominium or by virtue of any reservation contained in this Declaration, are stated and set forth in Schedule A hereto.

B. Utilities, Pipes and Conduits. Each Unit Owner shall have an easement in common with all other Unit Owners to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Elements serving his Unit and located in any of the other Units. Each Unit shall be subject to an easement in favor of all other Unit Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Elements serving such other Units and located in such Unit.

C. Structural Support. Each Unit shall have an easement to the extent necessary for structural and subjacent support over every other Unit and over the Common Elements, and each Unit and the Common Elements shall be subject to an easement for structural and lateral support in favor of every other Unit.

D. Ingress, Egress and Regress. Each Unit Owners shall have an easement, subject to any rules and regulations established by the Executive Board, in common with all other Unit Owners to use the entrances, exists, corridors and other Common Elements as a means of ingress, egress and regress to and from the Property and the adjoining public streets. The Executive Board shall not and cannot establish any rules and regulations depriving any Unit Owner of reasonable ingress, egress and regress to and from his Unit, the Property and Common Elements, and the adjoining public streets.

E. Encroachments. If any portion of the Common Elements or Limited Common Elements hereafter encroaches upon any Unit, or if any Unit hereafter encroaches upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, as a result of settling or shifting of any Building or Buildings in which they are located or otherwise than as a result of the purposeful or negligent act or omission of the Owner of the encroaching Unit, or of the Association in the case of encroachments by the Common Elements or Limited Common Elements, a valid easement appurtenant to the encroaching Units, Common Elements or Limited Common Elements for the encroachment and for the maintenance of

the same shall exist for so long as the encroachment shall exist. In the event that any Building shall be partially destroyed as a result of fire or other casualty or as a result of taking by the power of, or in the nature of, eminent domain or by an action or deed in lieu of condemnation, and then is rebuilt, encroachments of a portion or portions of the Common Elements or Limited Common Elements upon any Unit or of any Unit upon any other Unit or upon any portion of the Common Elements or Limited Common Elements, due to such rebuilding, shall be permitted, and valid easements appurtenant to the encroaching Units, Common Elements or Limited Common Elements for such encroachments and the maintenance thereof shall exist so long as the Building as so rebuilt shall stand.

F. Common Elements Easement in Favor of Unit Owners. The Common Elements (including, but not limited to, the Limited Common Elements) shall be and are hereby made subject to the following easements in favor of the Units benefited: (1) for the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, and other electrical installations which are Common Elements adjacent to such Unit; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the use of any part of the Common Elements, adversely affect either the thermal or acoustical character of any Building or impair or structurally weaken any Building; (2) for driving and removing nails, screws, bolts and other attachment devices into the Unit side surface of the stone, block, brick or other masonry walls bounding the Unit and the Unit side surface of the studs which support the dry wall or plaster perimeter walls bounding the Unit the bottom surface of floor joists above the Unit to the extent such nails, screws, bolts and other attachment devices may encroach into a part of a Common Elements adjacent to such unit; provided that any such action will not unreasonably interfere with the common use of any part of the Common Elements, adversely affect either the thermal or acoustical character of any Building or impair or structurally weaken any Building; and (3) for the maintenance of the encroachment of any lighting devices, outlets, exhaust fans, ventilation ducts, registers, grilles and similar fixtures which serve only one Unit but which encroach into any part of any Common Elements or Limited Common Elements on the date this Declaration is recorded.

G. Association's Rights. The Association shall have a reasonable right of entry upon any Unit to make emergency repairs and to do other work reasonably necessary for the proper maintenance or operation of the Condominium. The Association shall have the right to grant permits, licenses and easements over the Common Elements for utilities, ways and other purposes reasonably necessary or useful for the proper maintenance or operation of the Condominium. The Association has a right of access to each Unit for the purpose of making inspections or for the purpose of correcting any condition originating in this Unit or elsewhere and threatening another Unit or a Common Elements, or for the purpose of performing installations, alterations or repairs to the mechanical or electrical services, other Common Elements or units, provided that requests for entry are made in advance and that any such entry is at a time reasonably convenient to the Unit Owner, and provided further that judicial proceedings shall be instituted by the Association before any items of construction can be altered or demolished. In case of an emergency, such right of entry shall be immediate, whether the Unit Owner is present at the time or not.

H. Special Declarant Rights. The Association, Executive Board and others and Declarant, its successors and assigns have the easements specified in this Article of this Declaration entitled Special Declarant Rights.

ARTICLE XVII: NOTICES TO UNIT OWNERS BY ASSOCIATION

A. To Unit Owners. All notices, demands, bills, statements or other communications affecting the Condominium shall be given to Unit Owners by the Association in writing and shall be deemed to have been duly given if delivered personally or sent by United States mail, postage prepaid, or if such notification is of a default or lien, sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Unit Owner at the address which the Unit Owner shall designate in writing and file

with the Secretary of the Association, or if no such address is so designated, the address of the Unit of such Unit Owner who is the record owner thereof.

B. To the Association. All notices, demands, statements or other communications affecting the Condominium given by the Association shall be in writing and shall be deemed to have been duly given to the Association if delivered personally or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, or if there shall be no managing agent, then to the Secretary of the Association at the address of the Unit of which the Secretary is the record Unit Owner thereof.

C. Eligible Mortgage Holder. All notices, demands or other communications affecting the Condominium given by the Association to any Eligible Mortgage Holder shall be in writing and shall be deemed to have been duly given if delivered personally or sent by United States mail, postage prepaid, addressed to the Eligible Mortgage Holder at the address identified pursuant to this Declaration.

ARTICLE XVIII: TAXATION

A. Separate Taxation. If there is any Unit Owner other than the Declarant, each Unit and its Allocated Interests shall be deemed to be a separate tax parcel and shall be separately taxed and assessed by the City of Portland. Except to any extent required by law, neither the Buildings, the Property nor any of the Common Elements shall be deemed to be or assessed as a separate tax parcel.

B. Units Not Yet Separately Assessed. In the event that for any year real estate taxes assessed by the City of Portland are not separately taxed and assessed to each separate Unit Owner but are taxed on the Property as a whole, then each Unit Owner shall pay his proportionate share thereof in accordance with his respective Common Element Liability.

ARTICLE XIX: TERMINATION OF CONDOMINIUM

The Condominium shall not be terminated except as provided in and subject to Section 1602-118 of the Act and by agreement of Unit Owners of Units to which at least eighty (80%) percent of the votes in the Association are allocated and at least 80% of the votes of Eligible Mortgage Holders.

ARTICLE XX: MISCELLANEOUS

A. Interpretation; Conflict. In the event of any conflict or discrepancy between this Declaration, the By-laws and the Plats and Plans, this Declaration shall govern. If any provision of this Declaration, the By-Laws or the rules and regulations, or any section, sentence, clause, phrase, or word therein, or the application thereof in any circumstances be judicially held in conflict with any applicable laws, including, but not limited to, the Condominium Act, then the laws shall be deemed controlling; but the validity of the remainder of this Declaration, the By-Laws and rules and regulations, and the application of any such provision, section, clause, phrase, or word in other circumstances shall not be affected thereby and all of the other provisions of this Declaration shall continue in full force and effect as if such invalid provision had never been included herein. The captions herein are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Declaration or the intent of any provisions hereof. The use of the singular number in this Declaration shall be deemed to include the plural, and the use of any one gender shall be deemed applicable to all genders. No provision contained in this Declaration shall be deemed to have been abrogated or waived by reason of any failure to enforce the same irrespective of the number of violations or breaches which may occur. Any dispute or disagreement between Unit Owners with respect to interpretation or application of this Declaration or the By-Laws or rules and regulations shall be determined by the Board of Directors, which determination shall be final and

binding on all parties.

B. Remedies Cumulative. All rights, remedies and privileges granted to the Executive Board of a Unit Owner pursuant to any terms, provisions, covenants or conditions of the Condominium Documents shall be deemed to be cumulative, and the exercise of any one or more shall not be deemed to constitute an election of remedies nor shall it preclude the party thus exercising the same from exercising such other and additional rights, remedies, or privileges as may be granted to such party hereunder or by any instruments or documents incorporated herein by reference or at law or in equity.

IN WITNESS WHEREOF, Sea Coast at Baxter Woods Associates, LLC, a Maine limited liability company, by its Manager, hereunto duly authorized, has executed and delivered this Declaration as of the date first above written.

Signed, Sealed and Delivered
In the Presence of:

Sea Coast at Baxter Woods Associates, LLC

By: _____
John B. Wasileski, Its Manager

STATE OF MAINE
CUMBERLAND, ss.

Personally appeared the above-named John B. Wasileski, this __ day of _____, 2016 and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said limited liability company.

Notary Public/Attorney-at-Law

SCHEDULE A
605 STEVENS AVENUE CONDOMINIUM DECLARATION OF CONDOMINIUM

A certain lot or parcel of land situated on the easterly side of Stevens Avenue and the southerly side of Walton Street in the City of Portland, County of Cumberland, State of Maine, being Lot #3 as shown on the Overall Subdivision Plan 605 Stevens Avenue, Stevens Avenue and Walton Street, Portland, Maine, made for Sea Coast at Baxter Woods Associates, LLC by Titcomb Associates, dated June 24, 2015, as revised from time to time (hereinafter the "Subdivision Plan").

Said Lot #3 is bound by the covenants and is subject to the easements and rights over such lot excepted and reserved for the benefit of Lots 1, 2 and 4 shown on said Subdivision Plan set forth in the Declaration of Covenants and Easements, by Sea Coast at Baxter Woods Associates, LLC, as Declarant, dated _____, 2016 and recorded in the Cumberland County Registry of Deeds, Book __, Page _____ (the "Declaration of Covenants and Easements"). Said Lot #3 is submitted to this Declaration of Condominium together with the benefit of the easements and rights over said Lots 1, 2 and 4 and together with the benefit of the covenants set forth in said Declaration of Covenants and Easements. Said covenants, rights and easements shall be appurtenant to and shall burden and run with the land.

The premises described above as Lot 3 are also subject to:

1. Rights and easements reserved and set forth in the deed from James P. Baxter to the Roman Catholic Bishop of Portland, dated March 10, 1908 and recorded in the Cumberland County Registry of Deeds, Book 821, Page 59.

2. Declarant, its successors and assigns, except and reserve, for the benefit of Declarant in gross and for the benefit of Lots #1, 2 and 4 shown on the Subdivision Plan, a non-exclusive easement, in common with the Unit owners and others, to access and use the chapel located in the Motherhouse building located on Lot #3; the Association shall establish procedures for the scheduling of events in the chapel and for communication to all unit owners and to Declarant, its successors and assigns, when events are scheduled that will affect use of such chapel in order to avoid having multiple events scheduled for the same time that would impact use of such chapel. The Association may also establish reasonable times when the chapel is available for events and reasonable rules for use of and access to the chapel.

3. Rights and easements excepted and reserved by St. Joseph's Hospital and Convent in its deed to Sea Coast at Baxter Woods Associates, LLC, dated _____, 2016 and recorded in the Cumberland County Registry of Deeds, Book __, Page ____.

SCHEDULE B
605 STEVENS AVENUE CONDOMINIUM
DECLARATION OF CONDOMINIUM

The unit numbers, fraction of ownership of Common Elements, fraction assessment of Common Element expense, and number of votes in the 605 Stevens Avenue Condominium Association are as follows:

<u>Unit Number</u>	<u>Votes</u>	<u>Fraction or percentage of ownership of common elements and fraction assessment of Common Element expense</u>
1	1	__%
2	1	__%

The percentage of each Unit's Common Element Interest and Common Expense Liability is allocated by a formula represented by a fraction wherein the numerator is the number of interior square feet of each Unit located within a Building measured at the boundaries with the Common Element as shown on the Plans, and the denominator is the total such square footage of all the Units subject to rounding in order to permit ease of administration, provided however that the percentage stated in Exhibit B (as it may be amended) shall control in any event. Such square footage measurements may differ from leasing square footage calculations. If any additional Unit or Units are added to the Condominium, each Unit will have one vote and the fraction or percentage of ownership of common elements and fraction assessment of Common Element expense of each Unit will be revised in accordance with the formula set forth in this paragraph.

SCHEDULE C
605 STEVENS AVENUE CONDOMINIUM DECLARATION OF CONDOMINIUM

BYLAWS OF 605 STEVENS AVENUE CONDOMINIUM ASSOCIATION

ARTICLE I: Name, Location, and Fiscal Year

Section 1. Name. The name of the corporation is 605 Stevens Avenue Condominium Association (the "Corporation").

Section 2. Location. The principal office of the Corporation shall be located at 605 Stevens Avenue, Portland, Maine.

Section 3. Fiscal Year. The fiscal year of the Corporation shall, unless otherwise decided by the Board of Directors, ends December 31.

ARTICLE II: Purposes

Section 1. Purposes. The purposes of said Corporation are to act on behalf of its members collectively as their governing body with respect to the administration, maintenance, repair and replacement of certain property which will be submitted to the provisions of Maine Condominium Act, Title 33, Chapter 31, Section 1601-101 *et seq.* and to be known as 605 Stevens Avenue Condominium Association and as such to own and acquire any real estate or interest or rights therein or appurtenances thereto and any and all personal property in connection therewith as may be incidental or necessary to such purpose.

ARTICLE III: Members

Section 1. Membership. The owner or owners of record from time to time of each unit of the Condominium, shall constitute one member of the Corporation, and each such member shall have the fraction of common interest, common expenses liabilities and voting rights in the Corporation that are set forth in the Declaration of 605 Stevens Avenue Condominium, recorded in the Cumberland County Registry of Deeds, as it may be amended from time to time.

Section 2. Termination of Membership. The membership of each unit owner shall terminate when he ceases to be a unit owner, and upon the sale, transfer or other disposition of his ownership interest in the property his membership in the Corporation shall automatically be transferred to the new unit owner succeeding to such ownership interest.

Section 3. Meetings and Notice. Meetings of members shall be held at the Condominium in Portland, Maine. An annual meeting of the members shall be held on the first Tuesday in October in each year, commencing with October 1, 2016 at 7 p.m. Special meetings of the members may be called by the President, the Board of Directors or upon a petition signed by fifty (50) percent of the members. Written notice of any meeting shall be given to each member by the Secretary not less than ten (10) days nor more than thirty (30) days before the meeting by mailing it postage prepaid to the member's mailing address or to any other mailing address designated in writing by the member. The notice shall specify the time and place of the meeting and the items on the agenda.

Section 4. Quorum. A quorum for any meeting shall be constituted by persons entitled to cast 50 percent of the votes for election of the executive board, attending in person or represented by proxy.

ARTICLE IV: The Board of Directors

Section 1. Composition. The Board of Directors shall consist of four members. Two Directors shall be elected by the owner of Unit 1; and two Directors shall be elected by the owner of Unit 2.

Section 2. Election and Term. The directors, except as provided in Article III, Section 5 and Sections 7 and 8 of this Article, shall be elected at the annual meeting from among the members or spouses of members. The directors shall hold office until their successors have been elected.

Section 3. Powers. The business of the Corporation shall be managed by the Board of Directors which shall have and may exercise all the powers of the Corporation, except those powers reserved to the members by the Act or by these Bylaws. The Board shall have the power to engage a managing agent for the property and to fix the term, compensation and authority of the manager or managing agent which, initially, shall be the Declarant.

Section 4. Meetings of Directors. Meetings of the Board of Directors may be held at any time and place upon call by the President or by a majority of the Directors, reasonable notice thereof being given to each Director. Notice that a meeting has been called may be given by the President, Secretary or Assistant Secretary, if one is appointed, or by one of the Directors. Notice of any meeting of the Board of Directors may be waived in writing signed by the person or persons entitled to such notice, whether before or after the time of such meeting, and shall be equivalent to the giving of such notice. Attendance of a Director at such meeting shall constitute a waiver of notice thereof, except where a Director attends a meeting for the express purpose of objecting to the transaction of any business because such meeting is not lawfully convened. Neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice, or waiver of notice, of such meeting.

Section 5. Quorum and Voting. A majority of the directors then in office shall constitute a quorum. A majority of less than a quorum may, from time to time postpone to a new time or place any meeting and the adjourned meeting may be held without further notice. If a quorum exists, a majority of the directors present may take any action, except the removal of a director for cause which shall require a majority vote of all directors then in office.

Section 6. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if a written consent thereto is signed by all the directors. The Secretary shall file such written consent with the records of the meetings of the Board of Directors. Such consent shall be treated as a vote of the Board of Directors for all purposes.

Section 7. Vacancies. A vacancy in the Board of Directors shall be filled by the owner of the Unit that appointed the Director to hold office for the unexpired term of the director whose place is vacant and until his successor is elected.

Section 8. Removal. A director may be removed from office by a vote of all of the owner of the Unit or Units that elected such Director. A director may be removed for cause by a majority vote of all directors then in office.

Section 9. Compensation. Directors shall not receive compensation for their services except as provided by resolution of a majority of the members of the Corporation. Directors shall be reimbursed for any out-of-pocket expenses incurred which are reasonable and necessary in performing their duties on behalf of the Corporation.

Section 10. Delegation to Managing Agent. The Board of Directors may delegate to a managing

agent all of the powers of the Board, except the responsibility of preparing the annual budget and any supplemental budgets and any powers requiring approval of any specified percentage of members.

ARTICLE V: Officers

Section 1. Designation and Qualification. The officers of the Corporation shall consist of a President, a Treasurer, a Secretary and such other officers as the Board of Directors may elect. The President and Treasurer shall be members, or spouses of members, or in the case of a unit owner which is a Corporation, partnership, trust or estate, a designated agent thereof. The Secretary need not be a member, but shall be a resident of Maine.

Section 2. Election and Term. All officers shall be elected by the Board of Directors at its first meeting following the annual meeting of the members and shall hold office until the first meeting of the Board of Directors following the next annual meeting of members and until their successors are elected.

Section 3. President. The President shall be a Director and shall be the chief executive officer of the Corporation. The President shall have general supervision and control of the business of the Corporation subject to the direction of the Board of Directors and shall also have such other powers and duties as the Board of Directors may decide. The President shall preside at all meetings of the members and at all meetings of the Board of Directors. If the President is absent from any meeting of the members or Board of Directors, the Treasurer shall preside at such meeting. The President shall prepare, execute, certify and record amendments to the Declaration on behalf of the Corporation.

Section 4. Treasurer. The Treasurer shall have, subject to the direction of the members or Board of Directors, general charge of the financial affairs of the Corporation and shall keep full and accurate records thereof, which shall always be open to the inspection of any member or holder of a first mortgage on a unit. He shall render to the President and directors, at the regular meetings of the Board of Directors, or whenever they may require it, a statement of the accounts of his transactions as Treasurer and of the financial condition of the Corporation.

Section 5. Secretary. The Secretary shall record the proceedings of all meetings of the members and of the Board of Directors in books kept for that purpose. Record books of members' meetings shall be open at all reasonable times to the inspection of any member or holder of a first mortgage on a unit. The Secretary shall also keep the membership transfer books of the Corporation. He shall notify the members and the directors of all meetings in accordance with the Bylaws. If the Secretary is absent from any meeting of the members or the Board of Directors, a Temporary Secretary shall be chosen to exercise the duties of the Secretary at such meeting.

Section 6. Vacancies. A vacancy in any office may be filled by the Board of Directors by the election of a successor to hold office for the unexpired term of the officer whose place is vacant and until his successor is chosen and qualified.

Section 7. Removal. All officers may be removed from their respective offices by the Board of Directors.

Section 8. Resignation. Any officer may at any time resign his office by a resignation in writing delivered to the Corporation at its principal office or to the President or Secretary. Such resignation shall be effective upon receipt and acceptance thereof shall not be necessary to make it effective unless it so states.

Section 9. Compensation. The officers shall receive no compensation for their services unless expressly provided for in a resolution adopted by the majority of the members of the Corporation. The

officers shall be reimbursed for out-of-pocket expenses incurred which are reasonable and necessary in performing their duties on behalf of the Corporation.

ARTICLE VI: Assessments

Section 1. Budget. The Board of Directors shall cause to be prepared an estimated annual budget for each fiscal year of the Corporation. Such budget shall take into account the estimated common expenses and cash requirements for the year, including salaries, wages, payroll taxes, supplies, materials, parts, services, maintenance, repairs, replacements, landscaping, insurance, fuel, snow removal, trash pickup and other common expenses (as distinguished from individual mortgage payments, real estate taxes and individual telephone, electricity and other individual utility expenses billed or charged to the separate members on an individual or separate basis rather than a common basis). The Board shall establish and maintain an adequate reserve fund for the periodic maintenance, repair and replacement of improvements to the common areas and limited common areas. The reserve fund shall be included in the budget and maintained out of regular assessments for common expenses. To the extent that the assessments and other cash income collected during the preceding year shall be more or less than the expenditures for such preceding year, the surplus or deficit, as the case may be, shall also be taken into account in setting the budget and determining assessments for the current year so as to credit to such assessment any surplus from the preceding year or repay to said reserve fund any deficit from the preceding year.

Section 2. Payment. The estimated annual budget for each fiscal year shall be approved by the Board of Directors, and copies thereof shall be furnished to each member and eligible mortgage holder within thirty (30) days of adoption, and in any event not later than 90 days after the beginning of such year. The Board shall set a date for a meeting of the members to consider ratification of the budget not less than fourteen (14) or more than thirty (30) days after mailing of the budget. Notice of said meeting shall accompany the budget. Unless at that meeting all members reject the budget, the budget is deemed ratified, whether or not a quorum is present. In the event the proposed budget is rejected, the periodic budget last ratified by the members shall be continued until such time as the members ratify a subsequent budget proposed by the Board of Directors. On or before the first day of the next quarter and of each succeeding month or quarter of the year covered by the annual budget, each member shall pay, as his respective monthly or quarterly assessment for the common expenses, one-twelfth (1/12) or one-fourth (1/4), as the case may be, of his proportionate share of the common expenses for such year as shown by the annual budget, all as determined by the Board of Directors. Such proportionate share for each member shall be in accordance with his respective ownership interest in the common areas and facilities. No member shall be relieved of his obligation to pay his assessments for common expenses by abandoning or not using his unit or the common areas and facilities.

Section 3. Statements. Within ninety (90) days after the end of each year covered by an annual budget, or as soon thereafter as shall be practicable, the Treasurer shall cause to be furnished to each member a statement for such year so ended, showing the receipts and expenditures and such other information as he may deem desirable.

Section 4. Separate Accounts. The Treasurer shall cause to be kept a separate account for each member showing the respective assessments charged to and paid by such member, and the status of his account from time to time.

Section 5. Additional Assessments. In the event that during the course of any year, it shall appear to the Treasurer that the monthly assessments, determined in accordance with the estimated annual budget for such year, are insufficient or inadequate to cover the estimated common expenses for the remainder of such year, then the Board of Directors shall prepare and approve a supplemental budget covering the estimated deficiency for the remainder of such year, and shall cause the same to be presented to the

members for ratification in the same manner as the budget. Upon ratification of the supplemental budget, a supplemental assessment shall be made to each member for his proportionate share of such supplemental budget.

Section 6. Common Expenses. It shall be the duty of every member to pay his proportionate share of the common expenses, in the same ratio as his fraction of ownership in the common areas and facilities. If any member shall fail or refuse to make any such payment of the common expenses when due, the amount thereof together with interest at the rate established by the Corporation, costs and reasonable attorney's fees shall constitute a lien on such unit. The Corporation shall have the authority and responsibility to exercise and enforce any and all rights and remedies as provided for in Maine Revised Statutes, Title 33, Chapter 31, the Declaration and these Bylaws, or otherwise available at law or in equity for the collection of all unpaid assessments.

Section 7. Budget Expenses. The President and/or Treasurer, subject to Board direction, shall have the authority to enter into contracts on behalf of the Corporation for work and expenses provided in the budget and to make payment therefor from the funds of the Corporation.

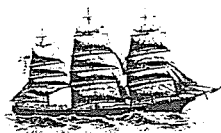
Section 8. Expenses Assessed Subsequent to Conveyance of Unit. A member may not exempt himself from liability for his shares of common expenses subsequently to be assessed by a conveyance of his unit to the Corporation, except by approval of all of the other members and their first mortgagees.

Section 9. Availability of Documents. The Corporation is required to make available to unit owners, lenders and the holders, insurers and guarantors of the first mortgage on any unit current copies of the Declaration, Bylaws and any other rules and regulations governing the condominium and other books, records and financial statements of the Corporation. In addition thereto, the Corporation shall also make available to prospective purchasers current copies of the Declaration, Bylaws, other rules governing the condominium, and the most recent annual audited financial statement, if such is prepared. The Corporation may impose a reasonable charge for copies.

ARTICLE VII: Amendments

Section 1. Amendment of By-Laws. These Bylaws may be amended or modified from time to time by action or approval of all of the members, except that no amendment may violate the provisions of Maine Revised Statutes, Title 33, Chapter 31.

Section 2. Amendment of Declaration. The Declaration may be amended in accordance with the terms thereof. Except for amendments exercising Development Rights by Declarant, the President and/or Treasurer of the Corporation shall execute a certificate setting forth the text of the amendment, which certificate shall be attested by the Secretary and recorded in the Cumberland County Registry of Deeds.



Benj. F. Packard

Bath Savings Institution

Since 1852

February 16, 2016

City of Portland
Planning Division
389 Congress Street
Portland, ME 04101

RE: Sisters of Mercy's Master Plan

To Whom It May Concern:

John Wasileski has been a customer of Bath Savings for 25 years. We have financed much of his development activities.

We are familiar with the Sisters of Mercy project and we welcome the opportunity to assist in the financing of this multi-million dollar project.

Our experience with Wasileski and his team has shown us their ability to design, construct, sell and operate a large scale planned community. We believe that John Wasileski has the financial capacity to undertake the Sisters of Mercy project.

Please feel free to contact me regarding the contents of this letter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Geoff Gattis", written over a horizontal line.

Geoff Gattis
EVP Commercial Lending
Bath Savings

State of Maine



Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this seventh day of October 2014.



A handwritten signature in black ink, appearing to read "Matthew Dunlap", written over a horizontal line.

Matthew Dunlap
Secretary of State

MAINE
LIMITED LIABILITY COMPANY

STATE OF MAINE

CERTIFICATE OF FORMATION

F. File No. 20150771DC Pages 2
Fee Paid \$ 175
DCN 2142463600085 DLLC
-----FILED-----
08/26/2014


Deputy Secretary of State

A True Copy When Attested By Signature

Deputy Secretary of State

Pursuant to 31-MRSA §1531, the undersigned executes and delivers the following Certificate of Formation:

FIRST: The name of the limited liability company is:

Sea Coast at Baxter Woods Associates, LLC

(A limited liability company name must contain the words "limited liability company" or "limited company" or the abbreviation "LLC," "LLC," "L.C." or "LC" or, in the case of a low-profit limited liability company, "L3C" or "L3c" - see 31 MRSA 1503.)

SECOND: Filing Date: (select one)

☒
☐

Date of this filing; or

Later effective date (specified here): _____

THIRD: Designation as a low profit LLC (Check only if applicable):

☐

This is a low-profit limited liability company pursuant to 31 MRSA §1611 meeting all qualifications set forth here:

A. The company intends to qualify as a low-profit limited liability company;

B. The company must at all times significantly further the accomplishment of one or more of the charitable or educational purposes within the meaning of Section 170(c)(2)(B) of the Internal Revenue Code of 1986, as it may be amended, revised or succeeded, and must list the specific charitable or educational purposes the company will further;

C. No significant purpose of the company is the production of income or the appreciation of property. The fact that a person produces significant income or capital appreciation is not, in the absence of other factors, conclusive evidence of a significant purpose involving the production of income or the appreciation of property; and

D. No purpose of the company is to accomplish one or more political or legislative purpose within the meaning of Section 170(c)(2)(D) of the Internal Revenue Code of 1986, or its successor.

FOURTH: Designation as a professional LLC (Check only if applicable):

☐

This is a professional limited liability company* formed pursuant to 13 MRSA Chapter 22-A to provide the following professional services:

(Type of professional services)

Form No. MLLC-6 (1 of 2)

FIFTH: The Registered Agent is a: (select either a Commercial or Noncommercial Registered Agent)

☐

Commercial Registered Agent

CRA Public Number: _____

(Name of commercial registered agent)

☒

Noncommercial Registered Agent

Ronald A. Epstein

(Name of noncommercial registered agent)

10 Free Street, Portland, ME 04112

(physical location, not P.O. Box – street, city, state and zip code)

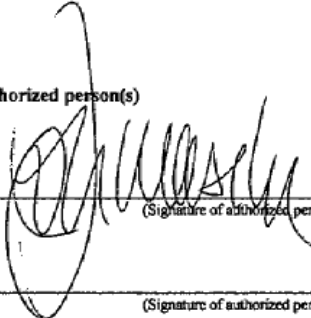
(mailing address if different from above)

SIXTH: Pursuant to 5 MRSA §105.2, the registered agent listed above has consented to serve as the registered agent for this limited liability company.

SEVENTH: Other matters the members determine to include are set forth in the attached Exhibit _____, and made a part hereof.

****Authorized person(s)**

Dated August 1, 2014



(Signature of authorized person)

John B. Wasileski, Member

(Type or print name of authorized person)

(Signature of authorized person)

(Type or print name of authorized person)

***Examples** of professional service limited liability companies are accountants, attorneys, chiropractors, dentists, registered nurses and veterinarians. (This is not an inclusive list – see 13 MRSA §723.7)

****Pursuant to 31 MRSA §1676.1 A, Certificate of Formation MUST be signed by at least one authorized person.**

The execution of this certificate constitutes an oath or affirmation under the penalties of false swearing under 17-A MRSA §453.

Please remit your payment made payable to the Maine Secretary of State.

Submit completed form to:

Secretary of State

Division of Corporations, UCC and Commissions

101 State House Station

Augusta, ME 04333-0101

Telephone Inquiries: (207) 624-7752

Email Inquiries: CEC.Corporations@Maine.gov

Form No. MLLC-6 (2 of 2) Rev. 10/31/2012

EXHIBIT D

TRAFFIC STUDY AND UPDATES

Attached are the following Maine Traffic Resources responses to Tom Errico's email comments of May 9th.



25 Vine Street Gardiner, ME 04345
(207) 582-5252 FAX (207) 582-1677
mainetrafficresources.com

SUMMARY MEMORANDUM

TO: Ms. Jean Fraser
Planner
City of Portland
389 Congress St.
Portland, Maine 04101

DATE: May 27, 2016

RE: Response to May 9th Tom Errico Traffic Comments for 605 Stevens Avenue

Tom Errico's May 9th, 2016 comments are repeated below along with our response and/or resolution reached at the May 16th meeting with City staff. Our responses follow in italics:

- The applicant submitted a preliminary trip generation analysis that was based upon data from the Trip Generation Manual, Institute of Transportation of Engineers (ITE). The estimate was based upon Land Use Code 252 – Senior Adult Housing. I requested additional information on the ITE Land Use development type and is the data based upon current developments. Additionally, I requested the applicant provide local data for comparison. The applicant provided information that indicates the most recent publication provided by ITE does include current developments sites. Additionally, the applicant provided actual trip generation data collected at the Highlands in Topsham, which indicates similar trip levels as ITE. Based upon the applicant's analysis the project would be expected to generate 97 trips entering and exiting during the Weekday AM Peak hour and 87 trips entering and exiting during the Weekday PM Peak hour. It is suggested that the applicant conduct monitoring studies at the completion of each site plan phase to confirm trip generation levels are consistent with ITE. Details of the monitoring study scope will be defined in the future.

We concur with monitoring for trip generation. It was determined at the staff meeting that the first monitoring should occur at the completion of Phase 1. Later monitoring requirements/phases will be determined based upon the outcome of the Phase 1 monitoring.

- The applicant has recommended that on-street parking be prohibited on Stevens Avenue at driveways and pedestrian crossings to enhance sight distance. The City will continue to work with the applicant in identifying parking regulations that balance safety and on-street parking supply

As discussed at the staff meeting, a sketch was provided, which is attached, showing the recommended no parking zone.

- On-site traffic circulation and parking will be closely reviewed particularly as it relates to interaction with McAuley School (both typical school days and during events). It is suggested that the applicant conduct monitoring studies at each site plan phase to confirm parking supply and circulation conditions are acceptable. Associated with this is the requirement that the applicant confirm the parking generation assumptions are valid and the project does not impact the public street system and neighborhood.

As with the trip generation, we concur with monitoring for parking and circulation. Similarly, it was determined at the staff meeting that the first monitoring should occur at the completion of Phase 1. Later monitoring requirements/phases will be determined based upon the Phase 1 monitoring results.

- The applicant should provide details and clarification on proposed measures that will be implemented to reduce vehicle trips, such as car share vehicles; van service for local trips; bicycle facilities, etc. that would be considered to be a component of a Senior Housing development that would have been reflected in the developments surveyed by ITE for use in estimating trip generation.

For this project, the applicant is interested in combining their current experience with senior community transportation with the many exciting new possibilities occurring in this field. We have already heard from many potential residents that living in a semi-urban, walkable community with easily available public and alternative transportation is an important feature of the proposed community. Therefore, we propose to pursue the following transportation initiatives:

- *Promotion and easy access to available public transportation (public bus service is available at our OceanView campus and is strongly supported by our residents);*
- *Van service to scheduled activities and events like shopping and the theater (this type of transportation is more associated with retirement communities and has a negative connotation with younger seniors – so it may become obsolete but we will seriously consider a new approach to this traditional model);*
- *Individually scheduled car transportation utilizing vehicles owned by the community and operated by paid independent contractors (the fastest growing segment of our current transportation program);*
- *Contractual relationships with professional car service companies like the Independent Transportation Network (ITN);*
- *Car sharing programs like zip cars;*
- *Bicycle programs including bike sharing, bike parking and bike storage facilities to promote the easy use of bicycles. This could include power assisted bicycles.*

The management of the 605 Stevens Avenue campus will provide for various forms of

communicating and reinforcing messages to the residents on the use of all of the above transportation methods to reduce overall vehicle trips and the site carbon footprint. As part of the increasing popularity of “in town” living, we anticipate a similar shift away from individual car based transportation as the baby boomers redefine how they wish to spend their senior years. .

- A traffic impact study has been submitted and in general I find the methods and conclusions to be acceptable with the following comments:

Further study of safety conditions at the Forest Avenue/Walton Street intersection are required. The location is a High Crash Location and improvements to address this deficiency are warranted. I would note that the intersection should also be reviewed for pedestrian conditions.

Maine Traffic Resources has fully evaluated the crashes at this intersection. The accident pattern is simply rear-ends on the Forest Avenue through movements, which will not be impacted by the project. As a result, we do not believe the project should be responsible for any improvements at this intersection.

- The applicant should install a crosswalk on the south side of Stevens Avenue at Walton Street thus creating full intersection accessibility. This change will require traffic signal modification and should be installed at the time of occupancy of the first phase of the project.

While we disagree that it is necessary, since there are no destinations on the westerly side of Stevens Avenue between the south and north side of Walton Street, the applicant has agreed to provide this crosswalk. It is understood that this will likely require the addition of one new curb ramp on the westerly side and will also require a traffic signal modification to add pedestrian signals to the new crosswalk.

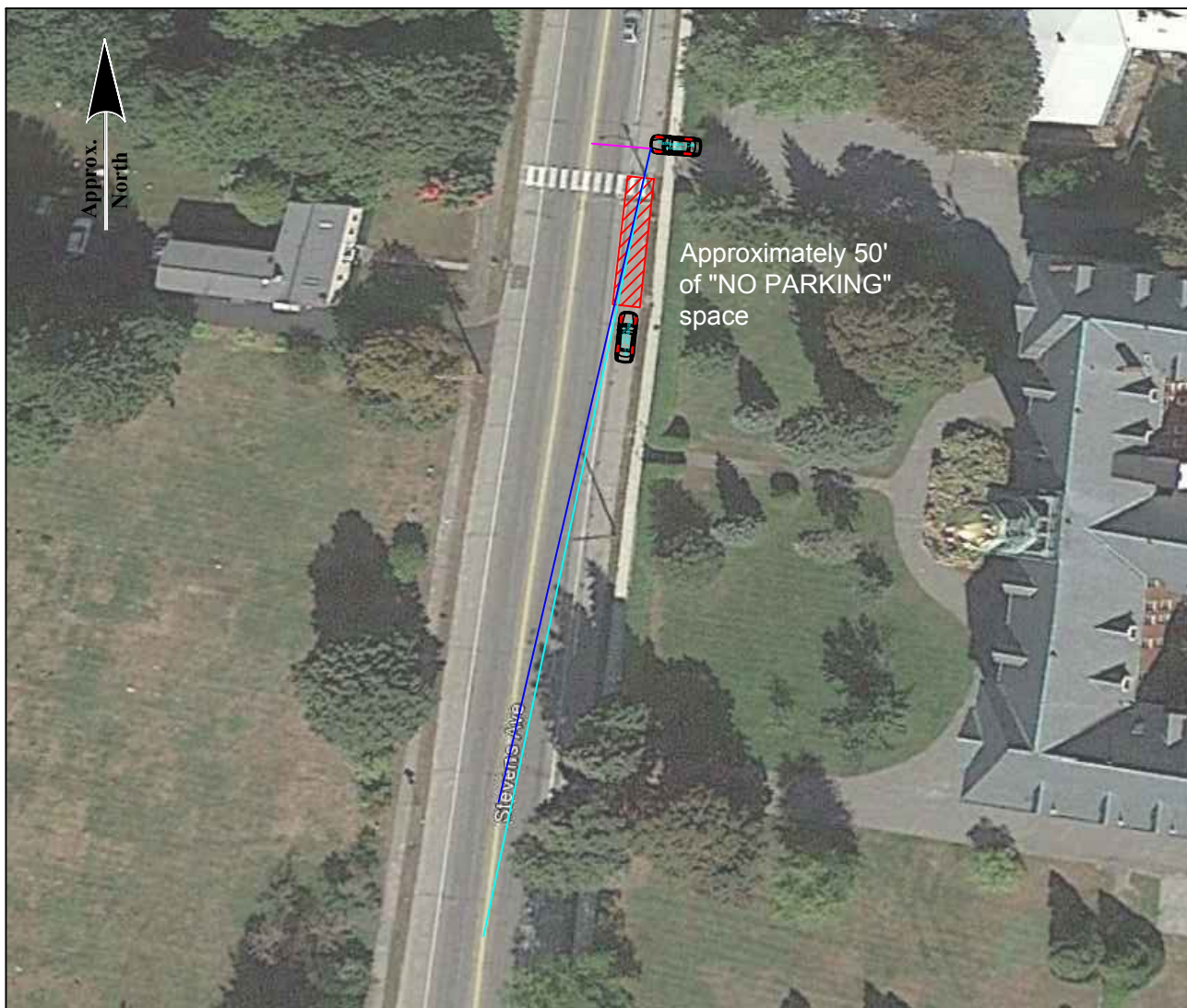
- Given the likelihood of residents seeking destinations along Forest Avenue south of Walton Street, there may be benefits in providing a more direct pedestrian/bicycle connection between the east boundary of the site and Holly Street. The applicant should investigate the feasibility of this connection.

Yes, agreed, we will investigate it this for the more detailed level 3 submission.

- The applicant should continue to coordinate with the City on the location of the crosswalk on Stevens Avenue. At this time the City is not requesting that it be a raised crosswalk.

Agreed.

Diane W. Morabito, P.E. PTOE



-  "NO PARKING" Zone
-  300' of Sight Distance Recommended by MTR
-  250' of Sight Distance Required by the City of Portland Ordinance
-  22' Setback from Centerline

No Parking Zone
605 Stevens Avenue Project
Portland, Maine

**Maine
Traffic
Resources**

25 Vine Street
 Gardiner, ME
 04345
 tel: (207) 582-5252
 fax: (207) 582-1677

EXHIBIT E

STORMWATER & UTILITY UPDATES

Attached are responses to the Woodard & Curran (Dave Senus PE and Lauren Swett, PE) Memo of April 25, 2016. The response includes the following:

- May 20, 2016 Stantec Memo and attachments.
- May 16, 2016 Rev. Concept Stormwater Plan C-1 (contained with the Site Plan Set)
- May 16, 2016 Rev. Concept Utility Plan C-2 (contained within the Site Plan Set)

Note that the attachments to the Memo include previously submitted serviceability letters and attachments for reference.

The response and plans address the review comments. Of note, Plan C-1 has removed the Rain Garden previously located between Building 3 and Baxter Woods to provide room for a landscaped berm in that area as shown on the revised site plans.



Stantec Consulting Services Inc.

482 Payne Road Scarborough Court, Scarborough ME 04074-8929

May 20, 2016

DRAFT

Ms. Jean Fraser, Planner

City of Portland
389 Congress Street
Portland, ME 04101

**Subject: 605 Stevens Ave – Master Development Plan Application
Review Comments by Woodard & Curran Dated April 25, 2016
Letter of Response 1**

Dear Ms. Fraser:

Our office has received and responded to the review comments from David Senus of Woodard & Curran dated April 25, 2016 regarding the 605 Stevens Ave Master Development Plan Application. For ease of reference, we have repeated each comment in *italics* followed by our response.

Comment 1:

At the time of our meeting on February 24th, the consultant team was continuing to follow up with utility companies to ensure that the approach to utility service connections to Stevens Ave (Gas & Water) and Walton Street (Sewer & Electrical) were suitable as initially presented. The Design team was awaiting updated capacity to serve letters from these utility companies, and was actively working on sizing utility stub-ins across the current Motherhouse development site to ensure that the utility feeds were adequately sized to accommodate the overall development (the full build-out of the Master Plan). The Applicant has now provided a concept utility plan that includes proposed gas, water, sanitary sewer and storm drainage. The plan should also include the electrical utility locations, and should show all existing utility locations and the approximate locations where proposed utilities will connect. The Applicant's approach to utility design for the overall Master Development Plan is acceptable; we await additional information on proposed utility service sizes and confirmation of ability to serve.

Response:

The utility plan has been updated to show existing utility locations and connection points. Capacity to serve letters were obtained for electrical power, sewer and water during the zoning review process. These anticipate a denser development of the site than what is now proposed, with a total of 306 units in addition to the 88 permitted in the Motherhouse. The current plan includes 161 units of additional development and is well within the overall development forecast included in the previously issued capacity letters. The previously issued capacity to serve letters are attached to this submission as Attachment A. We will obtain updated capacity letters for each phase of new development during the Site Plan review process, when a more detailed appreciation of unit types, fixture counts and likely occupancy rates is available.



Ms. Jean Fraser
May 20, 2016
Page 2

DRAFT

Comment 2:

A Stormwater Management Report outlining the general approach for stormwater management has been provided. The report identifies that detailed grading and design has not yet been completed. It is our understanding that Site Plan Approval will be required for individual projects, and more detailed stormwater design will be provided at that time. We have reviewed the report and the included HydroCAD model, and agree with the overall approach for stormwater management. The applicant is proposing to utilize numerous Low Impact Development measures for stormwater treatment on the site, and is working to detain water to prevent any increase in peak runoff from the site. We have the following comments.

- a. Note that the Maine DEP issued updated Chapter 500 Stormwater Management regulations in 2015. These updated regulations include new rainfall amounts based on data obtained from the Northeast Regional Climate Center website. The Applicant should update their report and model to reference this current information.*

Response:

The Applicant used the rainfall data included with the previous Motherhouse application in the initial submission. This was in order to maintain consistency between the predevelopment runoff rates used at the project site for the two projects, and allow direct comparison to be made between the models. Updated model results are included with this submission in Attachment B and these use the new rainfall rates for both predevelopment and post-development analyses. This produces marginally different numbers for peak flow rates during design storm events, but the conclusions of the initial analysis remain valid.

- b. The Applicant notes that there will be a minor increase of 0.19 cubic feet per second in peak flow during the 2-year, 24-hour storm event. The model indicates that flows will be reduced during more significant 10-year and 25-year storm events. This increase will not have a significant impact on the site or on downstream areas. The HydroCAD model will be refined with each Site Plan Application, and flow increases will be reviewed with each project for potential impacts, and should be reduced or maintained at this low level. In addition, the infiltration rates proposed as part of this preliminary model should be confirmed for each project.*

Response:

The stormwater analysis has been updated to reflect the updated rainfall rates referenced in the previous comment. The minor increase in the 2-year, 24-hour storm event is now 0.16cfs (i.e. marginally lower than the previous analysis). The model and stormwater analysis will be refined and updated for each phase of the project, as suggested to ensure that there are no detrimental water quality or runoff quantity impacts during any phase of the future development.



Ms. Jean Fraser
May 20, 2016
Page 3

DRAFT

- c. *Sheet L-2 Site Plan does not match Sheet C-3.0 Concept Stormwater Plan. The site plan identifies rain gardens as part of its legend, but locations corresponding to the concept stormwater plan are not shown. Some landscaping features and a potential community garden are shown in areas where stormwater features are proposed. The Site Plan should be updated to reflect the current proposed stormwater management features.*

Response:

The Site Plan and Stormwater Plan have been adjusted to try to remove conflicting information. It is anticipated that some of the rain gardens will be incorporated into landscape elements to improve the aesthetics of the site.

If you have any questions regarding the information submitted, please contact our office.

Regards,

STANTEC CONSULTING SERVICES INC.

Andrew D. Johnston, P.E.
Project Manager
Phone: (207) 887-3458
Fax: (207) 883-3376
andrew.johnston@stantec.com

Attachments: Attachment A – Capacity to Serve Letters
Attachment B – Updated Stormwater Summary
Attachment C – Plan Sheet C1.0 Stormwater Plan and C2.0 Utility Plan

C: _____

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ATTACHMENT A

CAPACITY TO SERVE LETTERS



March 6, 2015

Mr. Jamie Cough
Central Maine Power
162 Canco Road
Portland, ME 04103

**Subject: Proposed Redevelopment of McAuley High School Campus
605 Stevens Avenue and Walton Street, Portland, Maine
Request for Ability to Serve**

Dear Mr. Cough:

Our office is working as a consultant to Sea Coast Management Company in the site engineering and permitting associated with a proposed redevelopment of the Motherhouse Building on the McAuley High School Campus to provide 88 affordable senior housing units. The project site is located on all or a portion of Map 34, Block C, Lot 009 according to the City of Portland Tax Assessor's Maps. On behalf of the developer, we would like to verify CMP's ability to provide power for the project and to determine any impact fees.

This redevelopment project will be the first phase of a larger development of the property to provide a continuum of care senior community. The first phase of the project will consist of one building with size and use summarized as follows:

Phase	Use
1	Affordable Senior Living Apartments 88 Units in the Existing Mother House

We trust that the existing power supply system has adequate capacity to serve this project. We are in the process of completing the Preliminary Level III Site Plan Application for a submission to the City Planning Staff and we would appreciate your confirmation of site conditions.

We look forward to your review of this request and a summary of your findings and any updated cost projections for the project you may be able to provide. Please include in your assessment for any costs that could be associated with the following:

- Upgrades to nearby CMP infrastructure
- All onsite overhead and underground improvements
- Impact fees or connection fees
- CMP engineering costs

Mr. Jamie Cough
March 6, 2015
Page 2

Subsequent phasing of the project is as follows:

Phase	Full Master Plan Development
2	Independent Resident Apartments 69 Units Single Occupancy 23 Units Double Occupancy
3	Independent Resident Townhouses/Apartments 70 Units Single Occupancy 70 Units Double Occupancy
4	Assisted Living Apartments in Motherhouse 36 Units
5	Long-term re-development at St. Catherine's 19 Units Single Occupancy 19 Units Double Occupancy

It should be noted, that this information is provided for outline planning purposes only as the exact unit mix and numbers are subject to change. However, it may inform infrastructure and service decisions throughout the project development.

As part of the overall Master Plan for the site, the developer would like to investigate relocation of the existing onsite overhead service to run underground from the street.

The underground service would be extended to serve the existing and new buildings. Three Phase power is desired. On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the CMP supply system.

If you have any questions concerning this request, please contact me.

Sincerely,

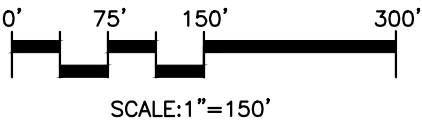
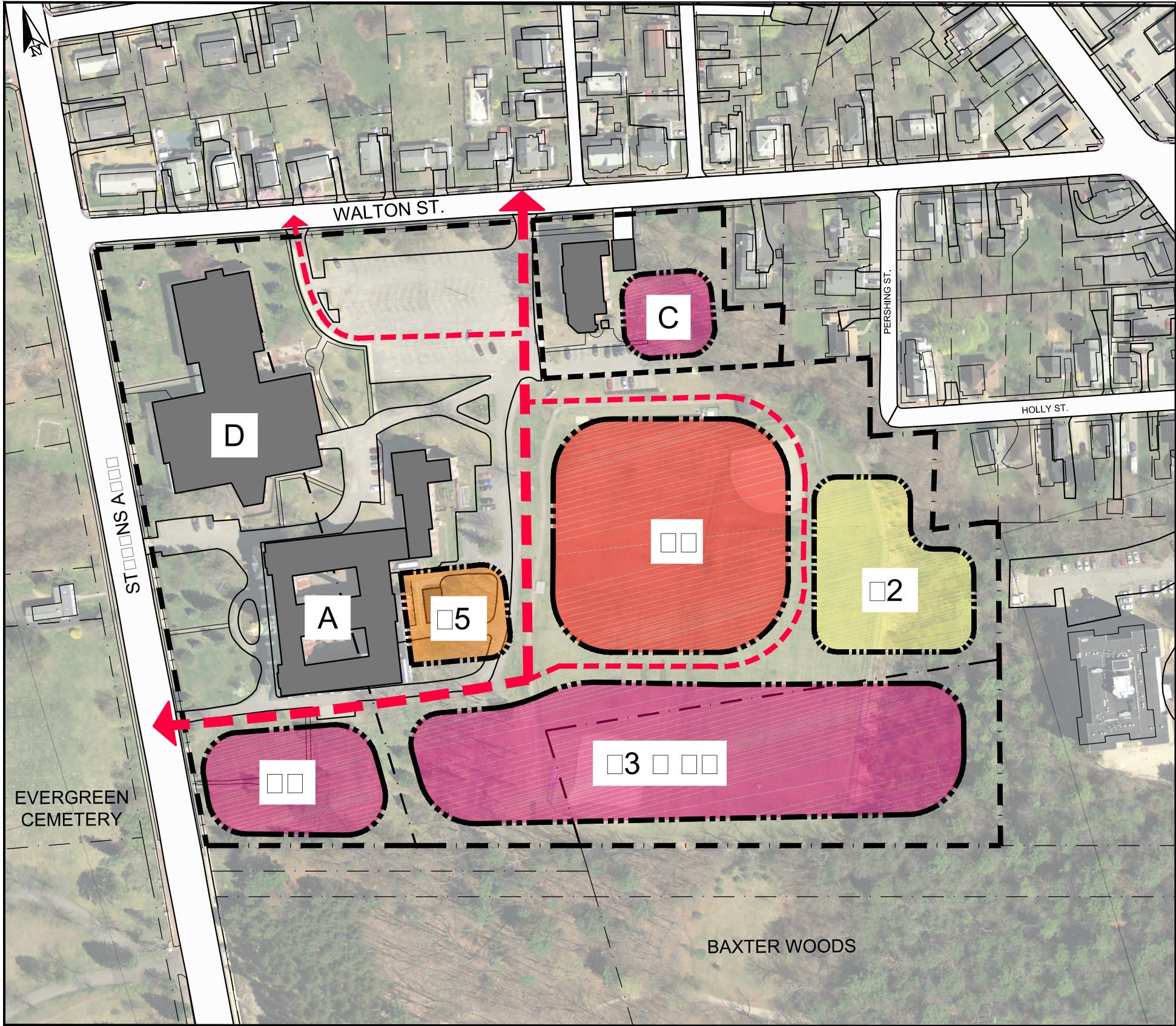
FAY, SPOFFORD & THORNDIKE



Andrew D. Johnston
Principal Engineer

ADJ/cmd

Enclosure



A	AFFORDABLE SENIOR HOUSING	100
	Renovation of Mother house into affordable senior housing using 2030 TC and Historic Tax Credits	100
B	MARKET RATE SENIOR LIVING	100
	100 New construction of Main Lodge Includes independent living apartments dining fitness community activity space	100
	200 New construction Senior Independent Living Apartments connected to Main Lodge	200
	300 New construction Senior Independent Living Apartments high end	300
	500 Assisted living community for 200-300 seniors	500
C	SAINT CATHERINE'S REDEVELOPMENT	100
	Renovation and expansion of existing apartment building 20 new apartments	100
D	POTENTIAL FUTURE COMMERCIAL MIXED USE	N/A
	High School future commercial mixed use	N/A
TOTAL PROPOSED UNITS		1000

LEGEND

	EX. PROPERTY LINE
	PROP. PROPERTY LINE
	PRIMARY CIRCULATION
	SECONDARY CIRCULATION
	MAIN LODGE - COMMUNITY CENTER
	INDEPENDENT LIVING
	SEMI-INDEPENDENT LIVING
	ASSISTED LIVING



3/9/2015

Andrew Johnson

Fay, Spofford & Thorndike

778 Main Street

South Portland, ME 04106

Sent via email to: AJohnston@fstinc.com

RE: Ability to Serve Letter for Redevelopment of McAuley High School Campus in Portland

Dear Mr. Johnson:

CMP has the ability to serve the proposed project located at 605 Stevens Avenue in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



An equal opportunity employer



For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

[CMP Handbook of Standard Requirements](http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf)

(<http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf>)

If you have any questions, please contact me.

Regards,

A handwritten signature in black ink that reads "Jamie Cough".

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

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May 26, 2015

Mr. Frank Brancely
City of Portland
Department of Public Services
55 Portland Street
Portland, Maine 04101-2991

**Subject: Proposed Redevelopment of McAuley High School Campus
605 Stevens Avenue and Walton Street, Portland, Maine
Wastewater Capacity Application**

Dear Mr. Brancely:

Our office is working as a consultant to Sea Coast Management Company with the site engineering and permitting associated with a proposed redevelopment of the Motherhouse Building on the McAuley High School Campus to provide 88 affordable senior housing units. The project site is located on all or a portion of Map 34, Block C, Lots 009 according to the City of Portland Tax Assessor's Maps. On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the municipal wastewater treatment system.

This redevelopment project will be the first phase of a larger development of the property to construct a senior living community. The first phase of the project will consist of redevelopment of the Motherhouse to provide 88 affordable senior living apartments. As part of the redevelopment, we will be undertaking mapping and condition assessment of the existing sewer system to ascertain whether the infrastructure is suitable for reuse. Where the system is found to be in poor condition, rehabilitation and replacement options will be investigated. In addition, existing sources of inflow to the sewer system will be investigated and removed to a separate stormwater system. This will reduce infiltration and inflow to the onsite system and increase the available capacity of the system for wastewater flow.

Subsequent phasing will include independent senior living residences and assisted living units. A summary of the anticipated unit counts and estimated wastewater flows associated with each phase of development is as follows:

Phase	Full Master Plan Development	Design Flow
1	Affordable Senior Living Apartments – Motherhouse 88 Units @ 77 gpd	6,776

Mr. Frank Brancely
May 26, 2015
Page 2

Subsequent phasing of the project is as follows:

Phase	Full Master Plan Development	Design Flow (gpd)
2	Independent Residences 69 Units Single Occupancy @ 60 gpd 23 Units Double Occupancy @ 120 gpd	6,900
3	Independent/Assisted Living Residences 70 Units Single Occupancy @ 60 gpd 70 Units Double Occupancy @ 120 gpd	12,600
4	Assisted Living Apartments in Motherhouse 36 Units @ 77 gpd	2,772
5	Long Term Redevelopment at St. Catherine's 19 Units Single Occupancy @ 60 gpd 19 Units Double Occupancy @ 120 gpd	3,420
	Total Average Daily Flow	32,468

It should be noted that this information is provided for outline planning purposes only as the exact unit mix and numbers are subject to change. However, it may inform infrastructure and service decisions throughout the project development.

We trust that the existing wastewater collection and treatment system has adequate capacity to serve this project. We are in the process of completing the Site Plan Application for a submission to the City Planning Staff and would appreciate your response to the Planning Department.

If you have any questions concerning this request, please contact me.

Sincerely,

FAY, SPOFFORD & THORNDIKE



Andrew D. Johnston, P.E.
Principal Engineer

ADJ/cmd

Enclosures

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail: fjb@portlandmaine.gov

Date: 05.25.2015

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

Site Address: 605 Stevens Avenue

Chart Block Lot Number: 136 E006001;143 F004000
144 B001000

Proposed Use: Mixed-Use Residential

Previous Use: Mixed-Use Residential

Existing Sanitary Flows: Not Known GPD

Existing Process Flows: None GPD

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

Existing site service to Walton Street

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

X

(Clearly, indicate the proposed connections, on the submitted plans)

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: Sea Coast at Baxter Woods, LLC and Motherhouse, LLC

Owner/Developer Address: 30 Governors Way - Topsham, ME 04086

Phone: 207-831-2418 Fax: _____ E-mail: MTeare@highlandgreenlifestyle.com

Engineering Consultant Name: Fay, Spofford & Thorndike, Attn: Andrew D. Johnston, P.E.

Engineering Consultant Address: 778 Main Street, Suite 8, South Portland, ME 04106

Phone: 207-775-1121 Fax: 207-879-0896 E-mail: ajohnston@fstinc.com

***(Note: Consultants and Developers should allow +/- 15 days, for capacity status,
prior to Planning Board Review)***

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: Phase 1 - 6,776; Total project 25,692 GPD

Peaking Factor/ Peak Times: 6 (TR-16)

Specify the source of design guidelines: (i.e. "Handbook of Subsurface Wastewater Disposal in Maine,"
"Plumbers and Pipe Fitters Calculation Manual," Portland Water District Records, Other (specify)
Handbook of Subsurface Wastewater Disposal in Maine-metered flow records from similar facilities.

***(Note: Please submit calculations showing the derivation of your design flows,
either on the following page, in the space provided, or attached, as a separate sheet)***

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values:

N/A - Residential Only

Size of External Grease Interceptor:

Retention Time:

Peaking Factor/ Peak Times:

(Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet)

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated:

N/A

GPD

Do you currently hold Federal or State discharge permits?

Yes

No

Is the process wastewater termed categorical under CFR 40?

Yes

No

OSHA Standard Industrial Code (SIC):

<http://www.osha.gov/oshstats/sicser.html>

Peaking Factor/Peak Process Times:

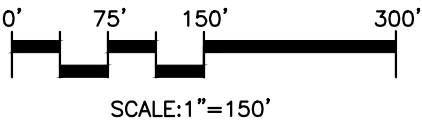
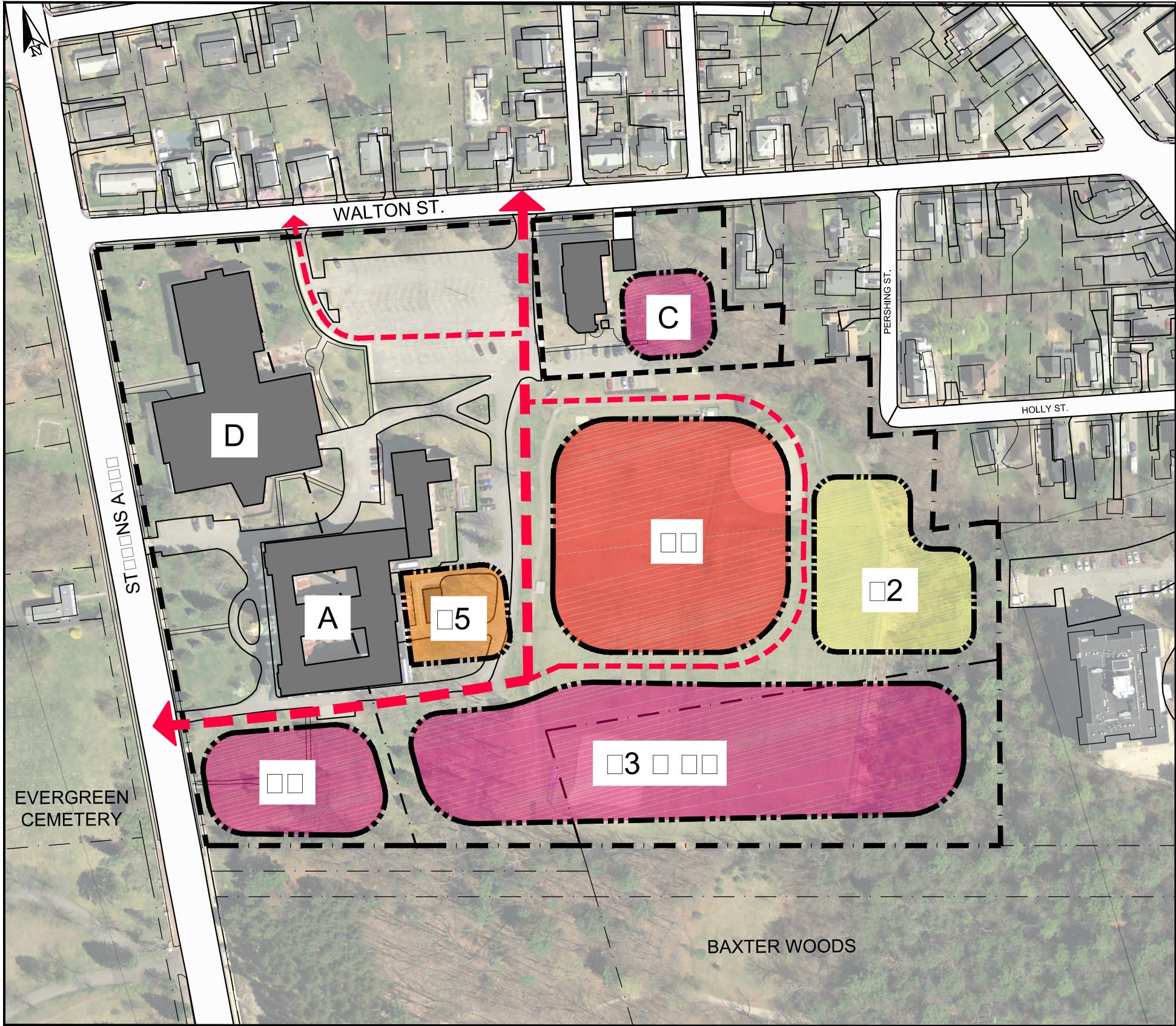
(Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps)

(Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided below, or attached, as a separate sheet)

Notes, Comments or Calculation

McAuley Place Water Demand Estimate

Phase	Use	Demand/Unit	Units	Demand (gpd)
1	Affordable Senior Living Apartments	77	88	6,776
2	Independent Resident Apartments			
	Single Occupancy	60	69	4,140
	Double Occupancy	120	23	2,760
3	Independent Townhouse/Apartment			
	Single Occupancy	60	70	4,200
	Double Occupancy	120	70	8,400
4	Assisted Living Units in Motherhouse	77	36	2,772
5	Independent Apartments - St Catherine's			
	Single Occupancy	60	19	1,140
	Double Occupancy	120	19	2,280
	TOTAL MASTER PLAN WATER DEMAND			32,468



A	AFFORDABLE SENIOR HOUSING Renovation of Mother house into affordable senior housing using 203K and Historic Tax Credits	100
B	MARKET RATE SENIOR LIVING 1. New construction of Main Lodge - Includes independent living apartments, dining, fitness, community activity space 2. New construction Senior Independent Living Apartments connected to Main Lodge 3. New construction Senior Independent Living Apartments 4. New construction Senior Independent Living Apartments - high end 5. Assisted living community for 20-30 seniors 6. New construction Senior Independent Living Apartments	100
C	SAINT CATHERINE'S REDEVELOPMENT Renovation and expansion of existing apartment building 20 new apartments	20
D	POTENTIAL FUTURE COMMERCIAL MIXED USE High School / future commercial mixed use	N/A
TOTAL PROPOSED UNITS		220

LEGEND

	EX. PROPERTY LINE
	PROP. PROPERTY LINE
	PRIMARY CIRCULATION
	SECONDARY CIRCULATION
	MAIN LODGE - COMMUNITY CENTER
	INDEPENDENT LIVING
	SEMI-INDEPENDENT LIVING
	ASSISTED LIVING



March 6, 2015

MEANS Group
Portland Water District
225 Douglass Street
P.O. Box 3553
Portland, Maine 04104-3553

**Subject: Proposed Redevelopment of McAuley High School Campus
605 Stevens Avenue and Walton Street, Portland, Maine
Water Supply and Ability to Serve**

Dear Coordinator:

Our office is working as a consultant to Sea Coast Management Company in the site engineering and permitting associated with a proposed redevelopment of the Motherhouse Building on the McAuley High School campus to provide 88 affordable senior housing units. The project site is located on all or a portion of Map 34, Block C, Lot 009 according to the City of Portland Tax Assessor's Maps. On behalf of the developer, we would like to verify the Portland Water District's ability to provide domestic and fire supply water for the project and determine any impact fees.

The projected water use, using typical metered flow data for similar facilities is as follows:

Motherhouse Building	Design Flow
Affordable Senior Living Apartments 88 Units @77 gpd averaged daily use	6,776 gpd
Average Daily Flow	6,776 gpd

Based on this amount of flow, we trust that the existing water supply system has adequate capacity to serve this project. We are in the process of completing the Level III Site Plan Application for a submission to the City Planning Staff and we are seeking to provide documentation indicating the District's ability to provide water supply service to this project.

The building will have fire protection sprinkler systems; however, at this time, the size and flow requirements of the sprinkler system have not yet been determined. As the building and site design effort progresses, our office will meet with you to coordinate locations and sizes of any new water services and connections needed for this project.

This redevelopment project will be the first phase of a larger development of the property to provide a continuum of care senior community (see attached Conceptual Master Plan). The second phase of development will include a Main Lodge for the McAuley Retirement Community proposed to include up to 60 independent living apartments with full congregate services and common areas. This phase will also include up to 32 connected semi-independent apartments connected to the Main Lodge, with full access to all of the Main Lodge supporting services and common areas.

MEANS Group
 March 6, 2015
 Page 2

The third phase of development would provide for approximately 140 new senior independent living apartments located within attractive apartment buildings and clusters. Finally, to meet the transitional needs of a full continuum of care community, a 24-36 bed Assisted Living Facility is envisioned as either a free standing structure or attached to the Motherhouse.

Two uses, which will remain in use, include the McAuley High School and St. Catherine's Residence located off Walton Street. McAuley High School will remain for the immediate future. St. Catherine's will continue to serve retired sisters and former priests, with a long-term plan for renovating an expanding the 18-unit apartment building into 38 market rate senior living apartment units.

A summary of the unit count, projected occupancy rates, and the associated water demand for the full development is provided in the table below. It should be noted that this information is provided for outline planning purposes only as the exact unit mix and numbers are subject to change. However, it may inform infrastructure and service decisions throughout the project development.

Phase	Full Master Plan Development	Design Flow
1	Affordable Senior Living Apartments 88 Units @77 gpd	6,776 gpd
2	Independent Resident Apartments 69 Units Single Occupancy @60 gpd 23 Units Double Occupancy @120 gpd	6,900
3	Independent Resident Townhouses/ Apartments 70 Units Single Occupancy @60 gpd 70 Units Double Occupancy @120 gpd	12,600
4	Assisted Living Apartments in Motherhouse 36 Units @ 77 gpd	2,772
5	Long-term re-development at St. Catherine's 19 Units Single Occupancy @60 gpd 19 Units Double Occupancy @120 gpd	3,420
	Total Average Daily Flow	25,692

If you have any questions concerning this request, please contact me.

Sincerely,

FAY, SPOFFORD & THORNDIKE

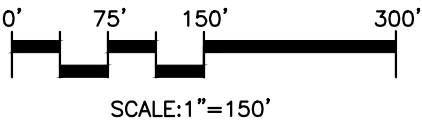
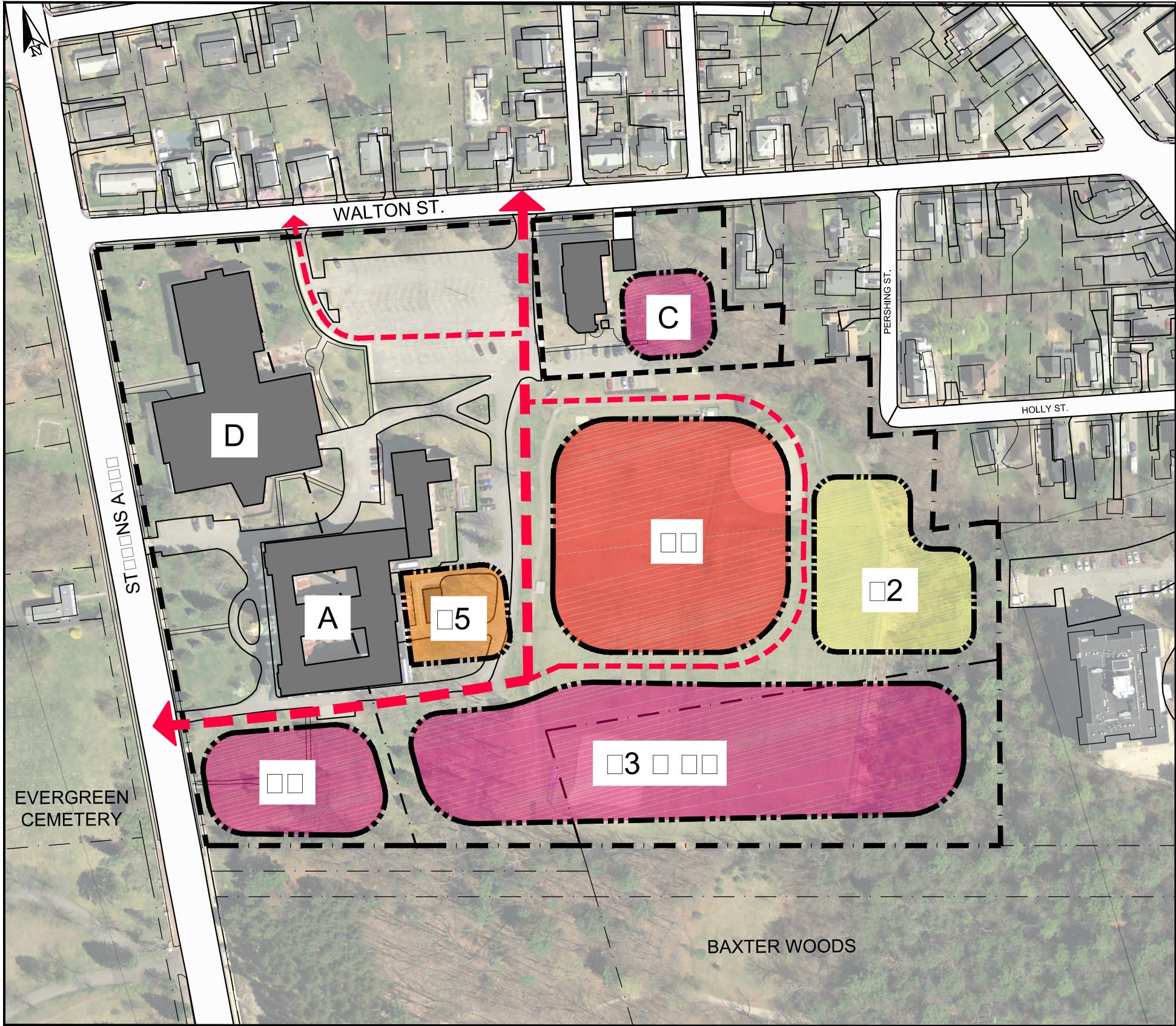


Andrew D. Johnston
 Principal Engineer

ADJ/cmd

Enclosure

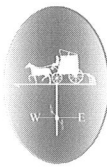
c: Glissen Havu



A	AFFORDABLE SENIOR HOUSING Renovation of Mother house into affordable senior housing using TC and Historic Tax Credits	100
B	MARKET RATE SENIOR LIVING New construction of Main Lodge Includes independent living apartments dining fitness community activity space 2 New construction Senior Independent Living Apartments connected to Main Lodge 3 New construction Senior Independent Living Apartments New construction Senior Independent Living Apartments high end 5 Assisted living community for 20-30 seniors New construction Senior Independent Living Apartments	100
C	SAINT CATHERINE'S REDEVELOPMENT Renovation and expansion of existing apartment building 20 new apartments	100
D	POTENTIAL FUTURE COMMERCIAL MIXED USE High School future commercial mixed use	N/A
TOTAL PROPOSED UNITS		300

LEGEND

	EX. PROPERTY LINE
	PROP. PROPERTY LINE
	PRIMARY CIRCULATION
	SECONDARY CIRCULATION
	MAIN LODGE - COMMUNITY CENTER
	INDEPENDENT LIVING
	SEMI-INDEPENDENT LIVING
	ASSISTED LIVING



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

April 15, 2015

Fay Spofford & Thorndike
778 Main Street, Suite 8
South Portland, ME 04106

Attn: Andrew Johnston, P.E.
Re: McAuley High School Campus - 605 Stevens Avenue Portland
Ability to Serve with PWD Water

Dear Mr. Johnston:

The Portland Water District has received your request for an Ability to Serve determination for the noted site submitted on March 6, 2015. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

Conditions of Service

The following conditions of water service apply:

- The existing services at this site may be used by the proposed development as long as the project team determines that they will provide adequate flow and pressure for the proposed use. If any of the existing services will no longer be used as a result of the development then they must be retired per PWD standards. This includes shutting the corporation valve and cutting the pipe from the water main (for service sizes 2-inch and smaller) or removing the gate valve and capping the tapping sleeve (for service sizes 4-inch and larger).
- Approval of plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

Existing Site Service

According to District records, the project site does currently have a number of existing water services. The following water service lines are located as shown on the attached water service cards:

- Saint Josephs Convent (605 Stevens Avenue) is served by a 6-inch diameter cast iron domestic water service line and an 8-inch cast iron fire service line.
- Catherine McAuley High School (631 Stevens Avenue) is served by a 4-inch diameter cast iron domestic service line
- Saint Catherines Hall (242 Walton Street) is served by a 1.5-inch diameter copper domestic water service line and a 6-inch cast iron fire service line.



Please refer to the "Conditions of Service" section of this letter for requirements related to the use of these services.

Water System Characteristics

According to District records, there is an 8-inch diameter cast iron main water main on the east side and a 12-inch cast iron water main on the west side of Stevens Avenue, a 6-inch cast iron water main on the south side of Walton Street and public fire hydrants located on Stevens Avenue and on Walton Street in front of the site.

The current data from the nearest hydrant with flow test information is as follows:

Hydrant Location:	Stevens Ave 200' S of Walton St	Walton St 100' W of Dingley Ct
Hydrant Number:	POD-HYD01287	POD-HYD01922
Last Tested:	3/9/2013	2/14/2013
Static Pressure:	64 psi	64 psi
Residual Pressure:	Not Measured	Not Measured
Flow:	Not Measured	Not Measured

Public Fire Protection

You have not indicated whether this project will include the installation of new public hydrants to be accepted into the District water system. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

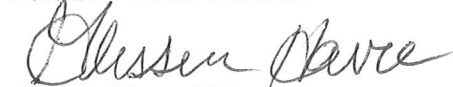
The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact the MEANS Division to request a hydrant flow test and we will work with you to get more complete data.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District


Glissen Havu, E.I.
Design Engineer

ATTACHMENT B

UPDATED STORMWATER SUMMARY

**STORMWATER MANAGEMENT CONCEPT DESIGN
SUMMARY**

**605 STEVENS AVENUE
MASTER DEVELOPMENT PLAN
PORTLAND, MAINE**

Prepared for:

**SEACOAST AT BAXTER WOODS ASSOCIATES, LLC &
MOTHERHOUSE ASSOCIATES LP
100 COMMERCIAL STREET
SUITE 414
PORTLAND ME 04101**

Prepared by:

**Stantec Consulting Services
482 Payne Road
Scarborough, Maine 04074
(207) 887-3355**

ORIGINAL ISSUE: APRIL 2016

REVISION 1: MAY 2016

STORMWATER MANAGEMENT CONCEPT DESIGN SUMMARY

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Attachments

Attachment A – Pre-Development & Post-Development Watershed Maps

Attachment B – Stormwater Areas Summary

Attachment C – TR-20 Computations (HydroCAD)

- Pre-Development Model
- Post-Development Model

STORMWATER MANAGEMENT SUMMARY

I. INTRODUCTION

Stantec Consulting Services, formerly FST (Stantec) has prepared the following Stormwater Management Summary for the redevelopment of property at 605 Stevens Avenue in the City of Portland, Maine to support an application for Master Plan Development Review. The site development design is at an early stage and no detailed grading plans have been developed. Therefore, the aim of this submission is to describe the general approach that will be taken to stormwater management, with sufficient detail to demonstrate the feasibility of the project and the ability of the design to meet the pertinent local and State stormwater management standards.

The site work associated with the Master Development Plan includes construction of five new residential buildings and the associated access and parking infrastructure around the buildings, utility upgrades and the provision of new stormwater infrastructure.

Runoff from the existing impervious areas on the site drains to two locations. The roof drainage from the existing building drains via downspouts and underground piping directly into the combined sewer system that serves the site. The remaining site area drains to a system of catch basins and storm drains that run across the property in an easterly direction. The system discharges to a wetland complex at the foot of the embankment located along the eastern property line. There is currently no provision for stormwater treatment or detention on the property.

The recently approved Motherhouse re-development plan includes removal of the roof drainage for that building from the combined sewer system, and several other new Stormwater Best Management Practices that are designed to capture and treat runoff from developed areas. Details of these plans can be found in the previously issued Stormwater Management Report that accompanied the development plans.

The design for the Master Development Plan will incorporate several Low Impact Development BMPs that are designed to mimic the natural hydrology of the site by capturing and treating runoff close to the source, and using the nature of the underlying soils to maximize groundwater recharge, and thus limit surface runoff. The stormwater management design for the project aims to meet the following key objectives:

- Water quality treatment of runoff from newly developed areas in accordance with local and State regulations;
- Detention, as necessary to ensure no increase in peak runoff from the site under design storm conditions; and
- The incorporation of Low Impact Design (LID) Best Management Practices (BMPs) to maximize groundwater recharge and ensure that there is no increase in surface runoff volume leaving the property.

II. EXISTING SITE CONDITIONS

The project site is approximately 9.05 acres in size and represents a lot to be subdivided from a larger overall parcel that totals approximately 19 acres and includes McAuley High School and the associated facilities. The property is located on the east side of Stevens Avenue, just south of Walton Street.

The watershed area analyzed in this report includes the areas of the school and Motherhouse lot that drain towards the wetland at the eastern boundary of the property. The total area of the watershed is approximately 13.3 acres. The current impervious areas within the drainage area include the existing Motherhouse building, the High School building, and the associated paved access and circulation roads and paths, parking areas and courtyards. Other improvements include the current school playing fields, and landscaped and wooded areas around the perimeter of the property. It should be noted that the roof drains from the existing buildings at the site currently drain, via downspouts and underground piping, to the combined sewer system that serves the property. Site observations of the Motherhouse building indicate that approximately half of the downspouts are broken at, or above, the ground surface allowing roof runoff to drain directly to the ground adjacent to the building. For this reason, the existing conditions stormwater model developed for the Motherhouse project includes half of the roof area from the Motherhouse building only in the subcatchment analysis. Roof runoff from the school building is excluded from the analysis as this drains to the sewer system in Walton Street.

The topography slopes in a generally easterly direction across the site, away from Stevens Avenue and towards the receiving wetland area. Slopes across most areas of the site are between 1% and 5%.

III. RECEIVING WATERS

The site drains in an easterly direction towards the wetland area located at the foot of the embankment, adjacent to the eastern property line. This entire area eventually drains into the municipal storm drain system in Forest Avenue.

IV. HISTORIC FLOODING

There are no reports of historic flooding on the project site. The site is within Flood Zone C, Areas of Minimal Flooding according to the FEMA Flood Insurance Rate Map for the area.

V. ALTERATIONS TO NATURAL DRAINAGE WAYS

There are no natural drainage ways on the site and therefore no alterations to natural drainage ways are proposed.

VI. METHODOLOGY AND MODELING ASSUMPTIONS

Runoff and routing calculations have been performed for the watershed areas affected by the proposed development under pre-development and post-development conditions 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 (0.1 hour). 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 the updated values given in the latest revisions of Maine Chapter 500 Stormwater Law. It should be noted that the previous analysis at the site used the previous rainfall data given in Stormwater Management for Maine: BMPs Design Manual, so the pre-development runoff values are no longer consistent with*

this study. The rainfall depth values for standard design storm frequencies are shown in the table below:

TABLE 1				
24-Hour Rainfall Depths for Cumberland County at Design Storm Frequencies				
<i>Stormwater Management for Maine: Best Management Practices, Appendix A</i>				
Frequency	2-Year	10-Year	25-Year	100-Year
Rainfall Depth	<i>3.1 in</i>	<i>4.6 in</i>	<i>5.8 in</i>	<i>7.5 in</i>

Soil types in the area of the site have been identified using the Natural Resource Conservation Service (NRCS) Web Soil Survey. The soils mapped across most of the site are identified as Windsor series loamy sand soils. These are classified as Hydrologic Group "A". There is a small area of Paxton fine sandy loam soils towards the south end of the site. These soils are classified as Hydrologic Group "C". The Web Soil Survey information is supplemented by a more detailed geotechnical investigation of the site, undertaken by Summit GeoEngineering Services in March 2015. The investigations included a number of borings throughout the site, analysis and description of existing soil textures, and estimated infiltration rates for use in the design of stormwater Best Management Practices (BMPs). The report describes the subsurface conditions at the site as generally topsoil, or pavement overlying fill/reworked native soil, overlying marine fan deposits. The marine fan deposits consist of sandy, well drained soils that can be divided into two distinct layers. Groundwater was observed at elevations between 5.4 feet and 11.4 feet below the surface. Infiltration rates were estimated from grain size analysis results at boring locations B-6 (depth 5-7 feet) and B-8 (depth 10-12 feet). The hydraulic conductivity of the native soil material is stated as 60in/hr. For the purposes of design of stormwater BMPs that include an infiltration component, a conservative infiltration rate of 7.5in/hr has been used.

The existing topography of the site was determined by field survey and the existing vegetative cover was identified by site inspection. The following table includes a list of the surficial soil types that were identified on the project site, along with their associated Hydrologic Soil Group (HSG).

TABLE 2	
Soils	Hydrologic Soil Group
Windsor	A
Paxton	C

A stormwater management model was developed for the previously approved Motherhouse project using the base information described above. In the pre-development conditions scenario the site was represented by a single subcatchment area that includes all areas that drain to the wetland located at the foot of the embankment, at the east end of the property. In the post-development conditions scenario for the previously approved Motherhouse project, the site was divided further into several small subcatchment areas to allow the effects of localized storage and treatment Best Management Practices (BMPs) to be analyzed. Outflow from the post-development subcatchments was combined at a single design point that represented the same discharge location to the downstream wetland as that analyzed under the pre-development scenario.

The post-development conditions model from the previously approved development of the site has been modified to reflect the new development proposed under the current Master Development Plan. Approximate subcatchment areas have been defined around proposed new Best Management Practices that are designed to capture, treat and discharge runoff from

contributing areas. The proposed BMPS have been included in the new model, with approximate sizing and assumed elevations in order to demonstrate the feasibility of the general approach to the stormwater design.

VII. PROPOSED BMPS

The stormwater management system for the project has been designed to meet several key objectives. These are:

- Water quality treatment of runoff from new developed areas;
- Detention, as necessary to ensure no increase in peak runoff from the site under design storm conditions; and
- The incorporation of Low Impact Design (LID) Best Management Practices (BMPs) to maximize groundwater recharge and ensure that there is no increase in surface runoff volume leaving the property.

The proposed stormwater management BMPs include filtering roof drip strips, four small bioretention cells, an infiltration trench, and several areas of porous pavement. These BMPs will capture, detain and treat runoff in accordance with the design standards described in Stormwater Management for Maine Technical BMPs Manual. The design aims to utilize the high infiltration rates associated with the granular onsite soils to maximize water quality treatment efficiency, promote groundwater recharge and reduce both the peak runoff rate and the volume of surface runoff leaving the property.

The filtering drip strips extend all around the perimeter of the new buildings and will allow capture, storage, treatment and exfiltration of roof runoff. The foundation walls will be waterproofed and insulated to protect any proposed interior basement spaces. Although foundation drainage is provided in order to convey excess flow away from the buildings in the event of severe storm events, under all normal conditions runoff will infiltrate directly to the underlying soils. The drip strips provide sufficient storage in the void space of the stone material to detain the Water Quality Volume for the contributing roof area.

The new bioretention cells are located on the perimeters of the project. These will make use of green spaces to incorporate stormwater management seamlessly into the overall landscaping plan. The bioretention cell provides storage and treatment for the Water Quality Volume (WQV) from the contributing area. This is defined as 1.0 inches of runoff from all contributing impervious areas and 0.4 inches of runoff from all landscaped areas.

Runoff from several of the roadways and parking areas will drain by sheet flow to areas of porous pavement. The porous pavement section will provide storage within the void space of a reservoir stone layer before allowing runoff to drain through a filtering sand layer below. Underdrain piping is provided near to the bottom of the section, but given the high anticipated exfiltration rates observed in the underlying soils at, these will not be of use except in extreme storm events.

The infiltration trench is located on the east side of the site, just west of the athletic field. A five foot wide grass filter strip is provided between the edge of pavement and the infiltration trench. This will allow pre-treatment and removal of gross solids from runoff entering the BMP from the adjacent paved area. The infiltration trench is designed to capture, treat and discharge runoff from the contributing area to the underlying soils. As in the example of the bioretention cells, an underdrain is provided above the base of the BMP as an overflow in case of large storm events.

The preliminary water quantity analysis performed for the development demonstrates that there will be no significant increase in peak flows at the design point, for design storms of 2-Year, 10-

year and 25-year frequencies. *There is a minor increase in peak runoff (0.16cfs)* predicted during the 2-year event, but this is the result of the limitations of standard modeling techniques and is explained as follows:

- The increase is related solely to a predicted increase in peak runoff from the “uncaptured” area associated with the existing site development. The area of this subcatchment is significantly reduced under the post-development conditions scenario. However, because most of the reduction is due to the removal of grass areas with a relatively low runoff curve number, the composite curve number of the remaining area is increased. This reduces the initial abstraction losses assumed in the model and thus raises the peak runoff rate for the 2-year storm despite the reduction in the contributing area.

VIII. STORMWATER QUANTITY ANALYSIS

A. Predevelopment Conditions

Under the predevelopment conditions scenario the site was represented by a single subcatchment area in the original model, representing the watershed draining to the wetland located along the eastern property line. A summary of the subcatchment area included in the pre-development model is given in the table as follows:

TABLE 3 PREDEVELOPMENT SITE CONDITIONS			
Subarea	Area (square feet)	CN	Time of Concentration (min.)
101	579,629	55	15.5

Full details pre-development subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment C of this report. A Predevelopment Conditions Watershed Plan is included in Attachment A of this report.

B. Post-Development Conditions

Under the post–development conditions scenario, the site is divided into small subcatchment areas to allow the effect of the new stormwater BMPs to be accurately modeled. The total area of analysis remains the same as in the pre-development conditions, and runoff from all areas is combined at a Design Point at the same location as the pre-development discharge point to the receiving wetland.

A summary of the subcatchment areas included in the post-development model for the previously approved Motherhouse development is given in the table as follows:

TABLE 4 POST-DEVELOPMENT SITE CONDITIONS – MOTHERHOUSE PROJECT			
Subarea	Area (square feet)	CN	Time of Concentration (minutes)
201	537,572	53	15.5
210	15,676	81	6.0
211	7,303	74	6.0
212	9,701	73	6.0
221	9,601	94	6.0
222	4,490	95	6.0
223	4,520	94	6.0
224	6,069	94	6.0

The proposed development described in the Master Development Plan takes place almost entirely within the area described as Subcatchment 201 “Uncaptured Area” in the table above. This area is thus significantly reduced in the Master Development Plan Post-Development Model. In addition, several new subcatchment areas are added to represent the new development areas that are captured and treated in the proposed new stormwater BMPs. The post-development areas included in the Master Development Plan model are listed in the table below.

TABLE 4 POST-DEVELOPMENT SITE CONDITIONS – MASTER DEVELOPMENT PLAN			
Subarea	Area (square feet)	CN	Time of Concentration (minutes)
201	323,793	59	15.5
210	15,676	81	6.0
211	7,303	74	6.0
212	9,701	73	6.0
221	9,601	94	6.0
222	9,600	93	6.0
223	9,600	93	6.0
224	9,600	93	6.0
301A	8,500	66	6.0
301B	4,200	48	6.0
302	12,000	98	6.0
303	4,500	91	6.0
304	3,100	99	6.0
305	5,010	94	6.0
306	12,000	98	6.0
307	21,600	97	6.0
308	21,600	98	6.0
309	35,000	90	6.0
310	12,000	98	6.0
311	6,000	67	6.0
312	21,600	98	6.0
313	6,000	67	6.0
314	22,750	51	6.0

Full details of the post-development subcatchment areas, cover conditions and time of concentration flow paths are described in detail in the supporting HydroCAD documentation included in Attachment C of this report. A Post-Development Conditions Watershed Plan is included in Attachment A of this report.

IX. WATER QUANTITY ANALYSIS SUMMARY

The table below summarizes the peak runoff values and runoff volumes for pre-development and post-development conditions during each of the analyzed design storm events.

TABLE 5 SUMMARY OF PEAK RUNOFF VALUES (CFS) AND RUNOFF VOLUMES (AC-FT)				
Storm Event	Peak Runoff Rate (cfs)		Runoff Volume (ac-ft)	
	Pre-Development	Post-Development	Pre-Development	Post-Development
2-Year	1.02	1.18	0.246	0.209
10-Year	6.72	5.89	0.874	0.640
25-Year	14.08	13.73	1.557	1.163

X. STORM WATER QUALITY ANALYSIS

A. Water Quality Treatment Measures

The project has been designed in accordance to provide water quality treatment for runoff from the new developed areas in accordance with current local and State regulations. The initial analysis suggests that these standards will be met with capture of 95% of new impervious areas.

XI. CONCLUSIONS

The concept 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 current State and local standards. Based on the preliminary analysis described herein, the stormwater management system will ensure that there are no significant adverse impacts to downstream properties as a result of this development.

XII. ATTACHMENTS

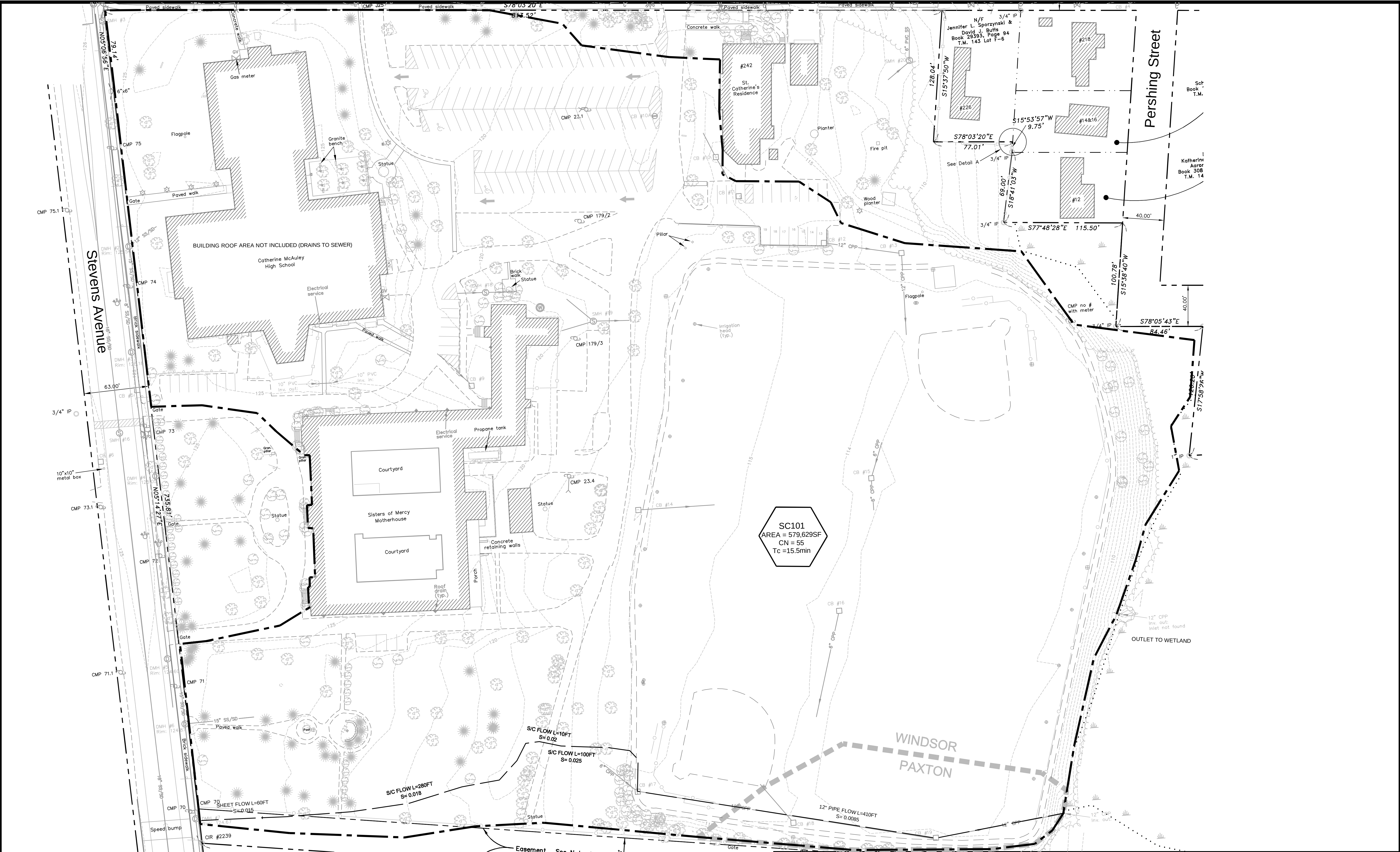
Attachment A – Pre-Development & Post-Development Watershed Maps

Attachment B – Stormwater Areas Summary

Attachment C – TR-20 Computations (HydroCAD)

ATTACHMENT A

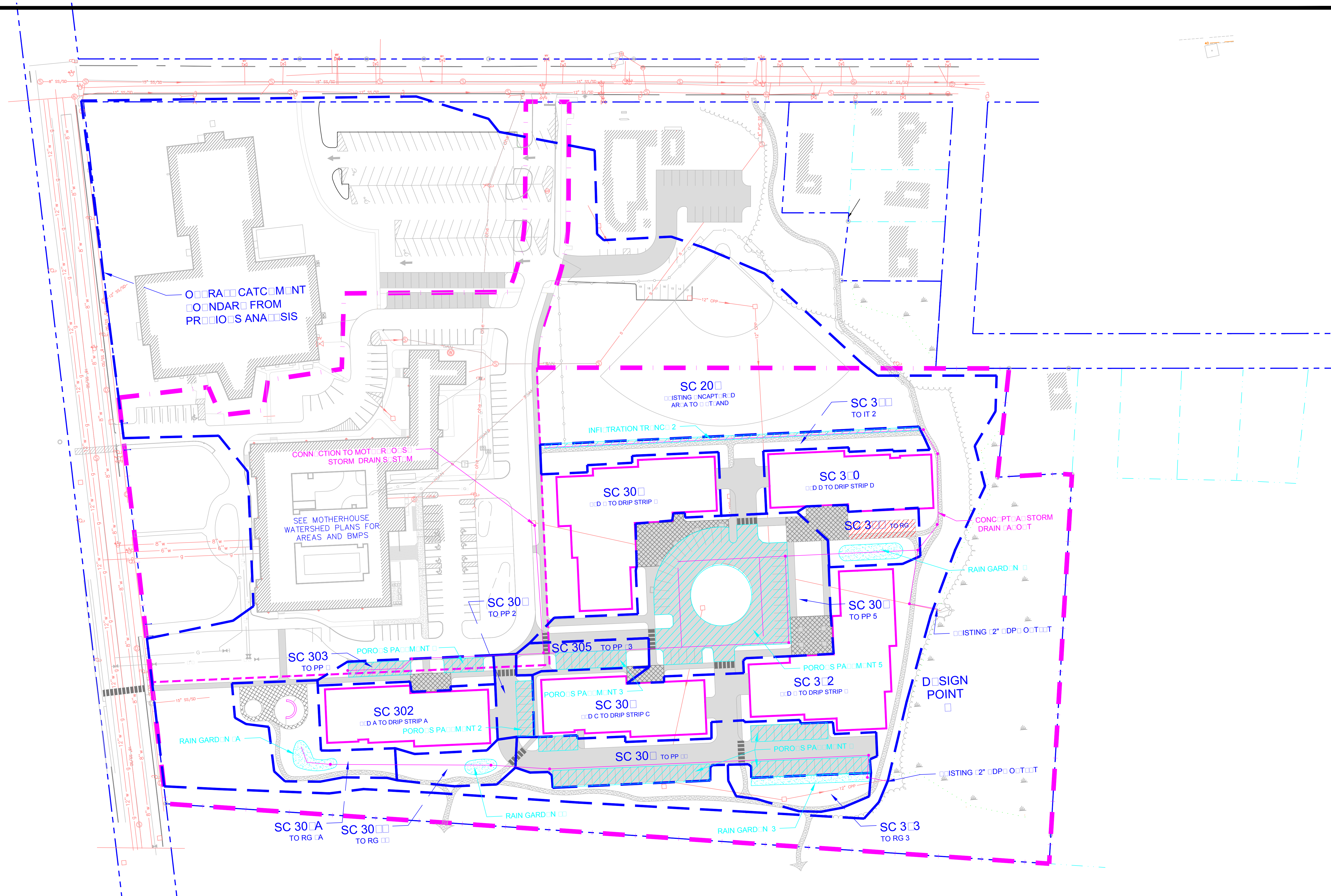
Pre-Development & Post-Development Watershed Maps



SC101
AREA = 579,629SF
CN = 55
Tc = 15.5min

PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MAINE ANDREW D. JOHNSTON NO. 9994 6-24-15 REGISTERED PROFESSIONAL ENGINEER P.E. ANDREW D. JOHNSTON LIC. #9994			PROJECT MOTHERHOUSE SENIOR HOUSING SHEET TITLE PRE-DEVELOPMENT WATERSHED PLAN CLIENT MOTHERHOUSE ASSOCIATES LP	FST FAY, SPOFFORD & THORNDIKE ENGINEERS · PLANNERS · SCIENTISTS 778 MAIN ST., SUITE 8, SOUTH PORTLAND, ME 04106 <table><tr><td>DRAWN: ADJ</td><td>DATE: JUNE 2015</td></tr><tr><td>DESIGNED: ADJ</td><td>SCALE: 1" = 40'</td></tr><tr><td>CHECKED: ADJ</td><td>JOB NO. SP-M162</td></tr><tr><td>FILE NAME: WSHED-PRE</td><td></td></tr><tr><td>SHEET</td><td>C 9.0</td></tr></table>	DRAWN: ADJ	DATE: JUNE 2015	DESIGNED: ADJ	SCALE: 1" = 40'	CHECKED: ADJ	JOB NO. SP-M162	FILE NAME: WSHED-PRE		SHEET	C 9.0
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REV	DATE	DESCRIPTION												
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REVISIONS														

[illegible]

ATTACHMENT B

Stormwater Areas Summary

Master Plan Areas

Post-Development Area Summary

Subcatchment 201

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	74	89	98	98	59	
Area	175010	8506	25724	11640	0	92620	10293	323793	111419

Subcatchment 210

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	81	
Area	4452	0	0	0	0	11224	0	15676	11224

WQV= 1084

Subcatchment 211

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	74	
Area	3004	0	0	0	0	4299	0	7303	4299

WQV= 458

Subcatchment 212

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	73	
Area	4135	0	0	0	0	5566	0	9701	5566

WQV= 602

Subcatchment 221

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	94	
Area	0	1600	0	0	0	0	8000	9600	9600

WQV= 800

Subcatchment 222

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 223

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 224

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Gravel HSG C	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	91	98	98	93	
Area	0	2000	0	0	0	0	7600	9600	9600

WQV= 800

Subcatchment 301A

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	74	100	98	98	66	
Area	4600	0	0	0	0	3900	0	8500	3900

Subcatchment 301B

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	48	
Area	3570	0	0	0	0	630	0	4200	630

WQV= 172**Subcatchment 302**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area		0	0	0	0	0	12000	12000	12000

WQV= 1000**Subcatchment 303**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	91	
Area	600	0	0	0	1794	0	2106	4500	3900

WQV= 345**Subcatchment 304**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	99	
Area	0	0	0	0	1134	1966	0	3100	3100

WQV= 258**Subcatchment 305**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	94	
Area	420	0	0	0	1548	3042	0	5010	4590

WQV= 383**Subcatchment 306**

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0	0	0	12000	12000	12000

WQV= 1000

Subcatchment 307

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	97	
Area	720		0	0	10100	10780		21600	20880

WQV= 1740

Subcatchment 308

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0	0	0	21600	21600	21600

WQV= 1800

Subcatchment 309

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	90	
Area	5200	0	0	0	18200	11600	0	35000	29800

WQV= 2483

Subcatchment 310

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area		0	0	0			12000	12000	12000

WQV= 1000

Subcatchment 311

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	67	
Area	3200	0	0	0		2800	0	6000	2800

WQV= 233

Subcatchment 312

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	98	
Area	0	0	0	0		0	21600	21600	21600

WQV= 1800

Subcatchment 313

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	67	
Area	3200	0	0	0		2800	0	6000	2800

WQV= 233

Subcatchment 313

Cover Condition	Grass (good) HSG A	Gravel HSG A	Woods /Grass HSG A	Grass (good) HSG C	Porous Pavement	Pavement Concrete	Roof	TOTAL	IMPERVIOUS
CN	39	76	32	80	100	98	98	51	
Area	18000	0	0	0		4750	0	22750	4750

WQV= 396

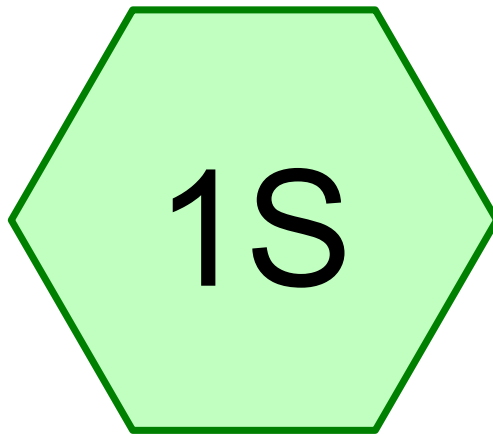
TOTAL POST-DEVELOPMENT AREA **590733 SF**
13.56136364 ACRES

ATTACHMENT C

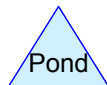
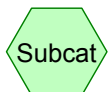
TR-20 Computations (HydroCAD)

- **Pre-Development Model**
- **Post-Development Model**

Pre-Development Calculations



Existing Area to Wetland



Routing Diagram for 605 Stevens Ave - Pre-Development-rev1
Prepared by Stantec Consulting Ltd., Printed 5/11/2016
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605 Stevens Ave - Pre-Development-rev1

Prepared by Stantec Consulting Ltd.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
8.686	39	>75% Grass cover, Good, HSG A (1S)
0.547	74	>75% Grass cover, Good, HSG C (1S)
0.508	76	Gravel roads, HSG A (1S)
0.043	89	Gravel roads, HSG C (1S)
2.551	98	Paved parking (1S)
0.381	98	Roof (1S)
0.591	32	Woods/grass comb., Good, HSG A (1S)
13.306	55	TOTAL AREA

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 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 1S: Existing Area to

Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=0.22"
Flow Length=860' Tc=15.5 min CN=55 Runoff=1.02 cfs 0.246 af

Total Runoff Area = 13.306 ac Runoff Volume = 0.246 af Average Runoff Depth = 0.22"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 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 1S: Existing Area to

Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=0.79"
Flow Length=860' Tc=15.5 min CN=55 Runoff=6.72 cfs 0.874 af

Total Runoff Area = 13.306 ac Runoff Volume = 0.874 af Average Runoff Depth = 0.79"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

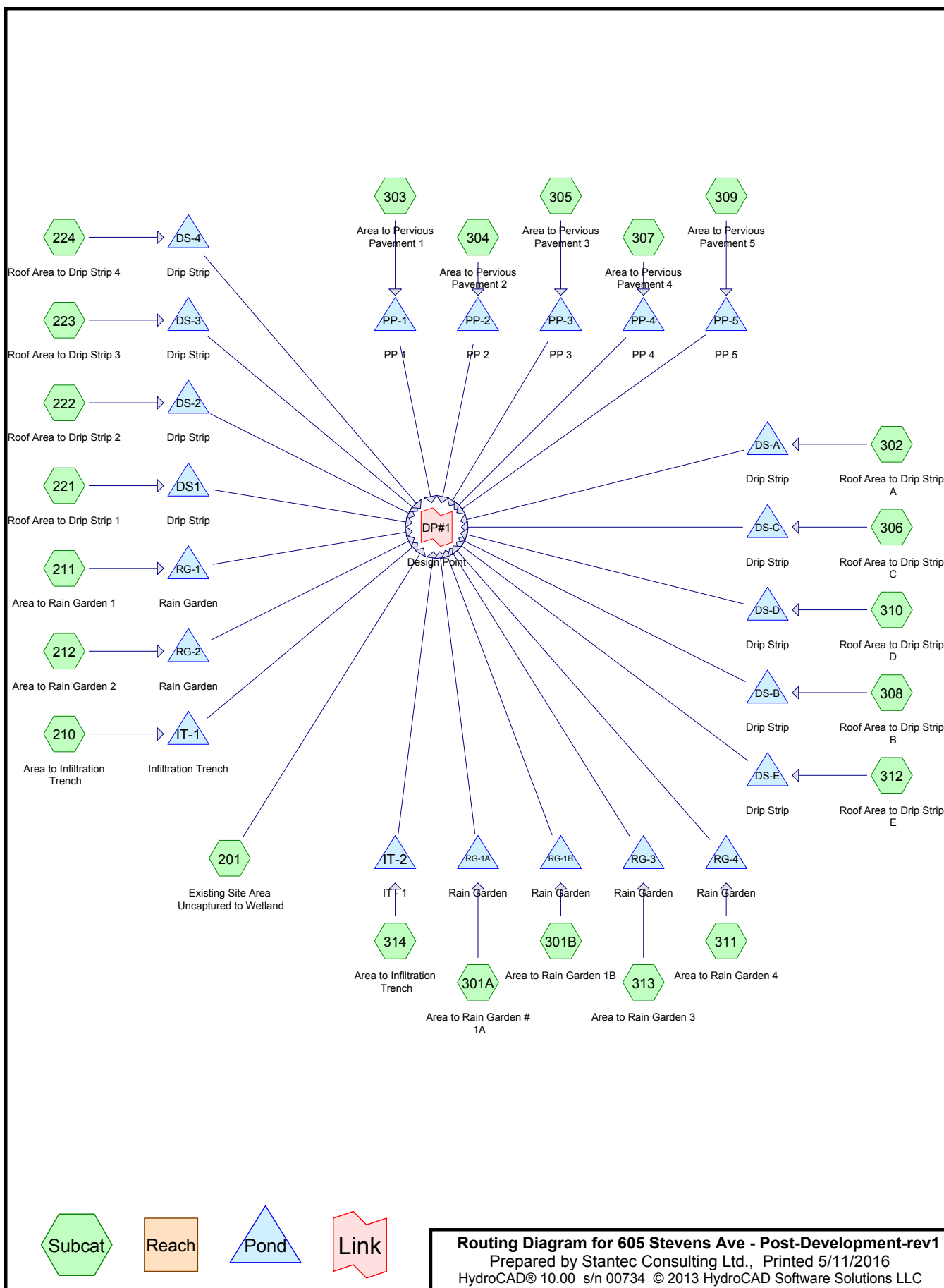
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing Area to

Runoff Area=579,629 sf 22.03% Impervious Runoff Depth=1.40"
Flow Length=860' Tc=15.5 min CN=55 Runoff=14.08 cfs 1.557 af

Total Runoff Area = 13.306 ac Runoff Volume = 1.557 af Average Runoff Depth = 1.40"
77.97% Pervious = 10.375 ac 22.03% Impervious = 2.932 ac

Post-Development Calculations



605 Stevens Ave - Post-Development-rev1

Prepared by Stantec Consulting Ltd.

Printed 5/11/2016

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.191	39	>75% Grass cover, Good, HSG A (201, 210, 211, 212, 301A, 301B, 303, 305, 307, 309, 311, 313, 314)
0.267	74	>75% Grass cover, Good, HSG C (201)
0.184	76	Drip stone, HSG A (221, 222, 223, 224)
0.195	76	Gravel roads, HSG A (201)
0.484	98	Paved parking & roofs (210, 211, 212)
3.097	98	Paved parking, HSG A (201, 301A, 301B, 304, 305, 307, 309, 311, 313, 314)
0.041	98	Paved road, HSG A (303)
0.760	100	Pervious Pavement, HSG A (303, 304, 305, 307, 309)
0.275	98	Roof, HSG A (306)
0.934	98	Roofs (201, 221, 222, 223, 224)
1.543	98	Roofs, HSG A (302, 308, 310, 312)
0.591	32	Woods/grass comb., Good, HSG A (201)
13.561	72	TOTAL AREA

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=0.34" Tc=15.5 min CN=59 Runoff=1.18 cfs 0.209 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=1.39" Tc=6.0 min CN=81 Runoff=0.57 cfs 0.042 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=0.97" Tc=6.0 min CN=74 Runoff=0.18 cfs 0.014 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=0.92" Tc=6.0 min CN=73 Runoff=0.22 cfs 0.017 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.35" Tc=6.0 min CN=93 Runoff=0.58 cfs 0.043 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.35" Tc=6.0 min CN=93 Runoff=0.58 cfs 0.043 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.35" Tc=6.0 min CN=93 Runoff=0.58 cfs 0.043 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=2.35" Tc=6.0 min CN=93 Runoff=0.58 cfs 0.043 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=0.59" Tc=6.0 min CN=66 Runoff=0.11 cfs 0.010 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.07" Tc=6.0 min CN=48 Runoff=0.00 cfs 0.001 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=0.81 cfs 0.066 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=2.16" Tc=6.0 min CN=91 Runoff=0.25 cfs 0.019 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=2.98" Tc=6.0 min CN=99 Runoff=0.21 cfs 0.018 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=2.45" Tc=6.0 min CN=94 Runoff=0.31 cfs 0.023 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=0.81 cfs 0.066 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=2.76" Tc=6.0 min CN=97 Runoff=1.43 cfs 0.114 af

Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=1.46 cfs 0.119 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=2.08" Tc=6.0 min CN=90 Runoff=1.90 cfs 0.139 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=0.81 cfs 0.066 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=0.64" Tc=6.0 min CN=67 Runoff=0.08 cfs 0.007 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=98 Runoff=1.46 cfs 0.119 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=0.64" Tc=6.0 min CN=67 Runoff=0.08 cfs 0.007 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=0.13" Tc=6.0 min CN=51 Runoff=0.01 cfs 0.006 af
Pond DS-2: Drip Strip	Peak Elev=115.29' Storage=185 cf Inflow=0.58 cfs 0.043 af Discarded=0.28 cfs 0.043 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.043 af
Pond DS-3: Drip Strip	Peak Elev=115.29' Storage=185 cf Inflow=0.58 cfs 0.043 af Discarded=0.28 cfs 0.043 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.043 af
Pond DS-4: Drip Strip	Peak Elev=115.29' Storage=185 cf Inflow=0.58 cfs 0.043 af Discarded=0.28 cfs 0.043 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.043 af
Pond DS-A: Drip Strip	Peak Elev=115.38' Storage=305 cf Inflow=0.81 cfs 0.066 af Discarded=0.35 cfs 0.066 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.066 af
Pond DS-B: Drip Strip	Peak Elev=115.38' Storage=550 cf Inflow=1.46 cfs 0.119 af Discarded=0.62 cfs 0.119 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.119 af
Pond DS-C: Drip Strip	Peak Elev=115.38' Storage=305 cf Inflow=0.81 cfs 0.066 af Discarded=0.35 cfs 0.066 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.066 af
Pond DS-D: Drip Strip	Peak Elev=115.38' Storage=305 cf Inflow=0.81 cfs 0.066 af Discarded=0.35 cfs 0.066 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.066 af
Pond DS-E: Drip Strip	Peak Elev=115.38' Storage=550 cf Inflow=1.46 cfs 0.119 af Discarded=0.62 cfs 0.119 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.119 af
Pond DS1: Drip Strip	Peak Elev=115.29' Storage=185 cf Inflow=0.58 cfs 0.043 af Discarded=0.28 cfs 0.043 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.043 af
Pond IT-1: Infiltration Trench	Peak Elev=112.36' Storage=175 cf Inflow=0.57 cfs 0.042 af Discarded=0.28 cfs 0.042 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.042 af
Pond IT-2: IT - 1	Peak Elev=112.00' Storage=1 cf Inflow=0.01 cfs 0.006 af Discarded=0.01 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.006 af

Pond PP-1: PP 1

Peak Elev=114.04' Storage=21 cf Inflow=0.25 cfs 0.019 af
Discarded=0.24 cfs 0.019 af Primary=0.00 cfs 0.000 af Outflow=0.24 cfs 0.019 af

Pond PP-2: PP 2

Peak Elev=113.05' Storage=18 cf Inflow=0.21 cfs 0.018 af
Discarded=0.20 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.018 af

Pond PP-3: PP 3

Peak Elev=113.06' Storage=30 cf Inflow=0.31 cfs 0.023 af
Discarded=0.27 cfs 0.023 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.023 af

Pond PP-4: PP 4

Peak Elev=111.04' Storage=120 cf Inflow=1.43 cfs 0.114 af
Discarded=1.38 cfs 0.114 af Primary=0.00 cfs 0.000 af Outflow=1.38 cfs 0.114 af

Pond PP-5: PP 5

Peak Elev=112.03' Storage=158 cf Inflow=1.90 cfs 0.139 af
Discarded=1.83 cfs 0.139 af Primary=0.00 cfs 0.000 af Outflow=1.83 cfs 0.139 af

Pond RG-1: Rain Garden

Peak Elev=114.91' Storage=62 cf Inflow=0.18 cfs 0.014 af
Discarded=0.08 cfs 0.014 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.014 af

Pond RG-1A: Rain Garden

Peak Elev=116.53' Storage=7 cf Inflow=0.11 cfs 0.010 af
Discarded=0.10 cfs 0.010 af Primary=0.00 cfs 0.000 af Outflow=0.10 cfs 0.010 af

Pond RG-1B: Rain Garden

Peak Elev=115.00' Storage=0 cf Inflow=0.00 cfs 0.001 af
Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af

Pond RG-2: Rain Garden

Peak Elev=114.58' Storage=25 cf Inflow=0.22 cfs 0.017 af
Discarded=0.17 cfs 0.017 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.017 af

Pond RG-3: Rain Garden

Peak Elev=111.02' Storage=5 cf Inflow=0.08 cfs 0.007 af
Discarded=0.08 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.007 af

Pond RG-4: Rain Garden

Peak Elev=111.52' Storage=5 cf Inflow=0.08 cfs 0.007 af
Discarded=0.08 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.007 af

Link DP#1: Design Point

Inflow=1.18 cfs 0.209 af
Primary=1.18 cfs 0.209 af

Total Runoff Area = 13.561 ac Runoff Volume = 1.232 af Average Runoff Depth = 1.09"
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=1.01" Tc=15.5 min CN=59 Runoff=5.48 cfs 0.628 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=2.63" Tc=6.0 min CN=81 Runoff=1.09 cfs 0.079 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=2.05" Tc=6.0 min CN=74 Runoff=0.39 cfs 0.029 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=1.97" Tc=6.0 min CN=73 Runoff=0.50 cfs 0.037 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.81" Tc=6.0 min CN=93 Runoff=0.91 cfs 0.070 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.81" Tc=6.0 min CN=93 Runoff=0.91 cfs 0.070 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.81" Tc=6.0 min CN=93 Runoff=0.91 cfs 0.070 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=3.81" Tc=6.0 min CN=93 Runoff=0.91 cfs 0.070 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=1.46" Tc=6.0 min CN=66 Runoff=0.31 cfs 0.024 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.45" Tc=6.0 min CN=48 Runoff=0.02 cfs 0.004 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=1.21 cfs 0.100 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=3.59" Tc=6.0 min CN=91 Runoff=0.41 cfs 0.031 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=4.48" Tc=6.0 min CN=99 Runoff=0.31 cfs 0.027 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=3.91" Tc=6.0 min CN=94 Runoff=0.48 cfs 0.038 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=1.21 cfs 0.100 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=4.25" Tc=6.0 min CN=97 Runoff=2.16 cfs 0.176 af

Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=2.18 cfs 0.180 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=3.49" Tc=6.0 min CN=90 Runoff=3.12 cfs 0.234 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=1.21 cfs 0.100 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=1.53" Tc=6.0 min CN=67 Runoff=0.23 cfs 0.018 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=4.36" Tc=6.0 min CN=98 Runoff=2.18 cfs 0.180 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=1.53" Tc=6.0 min CN=67 Runoff=0.23 cfs 0.018 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=0.58" Tc=6.0 min CN=51 Runoff=0.20 cfs 0.025 af
Pond DS-2: Drip Strip	Peak Elev=115.81' Storage=521 cf Inflow=0.91 cfs 0.070 af Discarded=0.28 cfs 0.070 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.070 af
Pond DS-3: Drip Strip	Peak Elev=115.81' Storage=521 cf Inflow=0.91 cfs 0.070 af Discarded=0.28 cfs 0.070 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.070 af
Pond DS-4: Drip Strip	Peak Elev=115.81' Storage=521 cf Inflow=0.91 cfs 0.070 af Discarded=0.28 cfs 0.070 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.070 af
Pond DS-A: Drip Strip	Peak Elev=115.93' Storage=746 cf Inflow=1.21 cfs 0.100 af Discarded=0.35 cfs 0.100 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.100 af
Pond DS-B: Drip Strip	Peak Elev=115.93' Storage=1,343 cf Inflow=2.18 cfs 0.180 af Discarded=0.62 cfs 0.180 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.180 af
Pond DS-C: Drip Strip	Peak Elev=115.93' Storage=746 cf Inflow=1.21 cfs 0.100 af Discarded=0.35 cfs 0.100 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.100 af
Pond DS-D: Drip Strip	Peak Elev=115.93' Storage=746 cf Inflow=1.21 cfs 0.100 af Discarded=0.35 cfs 0.100 af Primary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.100 af
Pond DS-E: Drip Strip	Peak Elev=115.93' Storage=1,343 cf Inflow=2.18 cfs 0.180 af Discarded=0.62 cfs 0.180 af Primary=0.00 cfs 0.000 af Outflow=0.62 cfs 0.180 af
Pond DS1: Drip Strip	Peak Elev=115.81' Storage=521 cf Inflow=0.91 cfs 0.070 af Discarded=0.28 cfs 0.070 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.070 af
Pond IT-1: Infiltration Trench	Peak Elev=113.27' Storage=609 cf Inflow=1.09 cfs 0.079 af Discarded=0.28 cfs 0.075 af Primary=0.19 cfs 0.004 af Outflow=0.47 cfs 0.079 af
Pond IT-2: IT - 1	Peak Elev=112.04' Storage=17 cf Inflow=0.20 cfs 0.025 af Discarded=0.20 cfs 0.025 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.025 af

Pond PP-1: PP 1

Peak Elev=114.10' Storage=53 cf Inflow=0.41 cfs 0.031 af
Discarded=0.31 cfs 0.031 af Primary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.031 af

Pond PP-2: PP 2

Peak Elev=113.18' Storage=62 cf Inflow=0.31 cfs 0.027 af
Discarded=0.20 cfs 0.027 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.027 af

Pond PP-3: PP 3

Peak Elev=113.25' Storage=117 cf Inflow=0.48 cfs 0.038 af
Discarded=0.27 cfs 0.038 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.038 af

Pond PP-4: PP 4

Peak Elev=111.08' Storage=238 cf Inflow=2.16 cfs 0.176 af
Discarded=1.75 cfs 0.176 af Primary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.176 af

Pond PP-5: PP 5

Peak Elev=112.05' Storage=260 cf Inflow=3.12 cfs 0.234 af
Discarded=3.01 cfs 0.234 af Primary=0.00 cfs 0.000 af Outflow=3.01 cfs 0.234 af

Pond RG-1: Rain Garden

Peak Elev=115.41' Storage=138 cf Inflow=0.39 cfs 0.029 af
Discarded=0.08 cfs 0.023 af Primary=0.21 cfs 0.005 af Outflow=0.29 cfs 0.029 af

Pond RG-1A: Rain Garden

Peak Elev=116.87' Storage=99 cf Inflow=0.31 cfs 0.024 af
Discarded=0.16 cfs 0.024 af Primary=0.01 cfs 0.000 af Outflow=0.16 cfs 0.024 af

Pond RG-1B: Rain Garden

Peak Elev=115.01' Storage=1 cf Inflow=0.02 cfs 0.004 af
Discarded=0.02 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.004 af

Pond RG-2: Rain Garden

Peak Elev=115.18' Storage=215 cf Inflow=0.50 cfs 0.037 af
Discarded=0.17 cfs 0.035 af Primary=0.07 cfs 0.002 af Outflow=0.24 cfs 0.037 af

Pond RG-3: Rain Garden

Peak Elev=111.18' Storage=48 cf Inflow=0.23 cfs 0.018 af
Discarded=0.14 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.018 af

Pond RG-4: Rain Garden

Peak Elev=111.62' Storage=36 cf Inflow=0.23 cfs 0.018 af
Discarded=0.16 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.018 af

Link DP#1: Design Point

Inflow=5.89 cfs 0.640 af
Primary=5.89 cfs 0.640 af

Total Runoff Area = 13.561 ac Runoff Volume = 2.306 af Average Runoff Depth = 2.04"
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

Time span=0.00-40.00 hrs, dt=0.05 hrs, 801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment201: Existing Site Area	Runoff Area=323,793 sf 31.78% Impervious Runoff Depth=1.71" Tc=15.5 min CN=59 Runoff=10.18 cfs 1.061 af
Subcatchment210: Area to Infiltration	Runoff Area=15,676 sf 71.60% Impervious Runoff Depth=3.70" Tc=6.0 min CN=81 Runoff=1.52 cfs 0.111 af
Subcatchment211: Area to Rain Garden 1	Runoff Area=7,303 sf 58.87% Impervious Runoff Depth=3.02" Tc=6.0 min CN=74 Runoff=0.58 cfs 0.042 af
Subcatchment212: Area to Rain Garden 2	Runoff Area=9,701 sf 57.38% Impervious Runoff Depth=2.92" Tc=6.0 min CN=73 Runoff=0.75 cfs 0.054 af
Subcatchment221: Roof Area to Drip Strip 1	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.99" Tc=6.0 min CN=93 Runoff=1.17 cfs 0.092 af
Subcatchment222: Roof Area to Drip Strip 2	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.99" Tc=6.0 min CN=93 Runoff=1.17 cfs 0.092 af
Subcatchment223: Roof Area to Drip Strip 3	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.99" Tc=6.0 min CN=93 Runoff=1.17 cfs 0.092 af
Subcatchment224: Roof Area to Drip Strip 4	Runoff Area=9,600 sf 79.17% Impervious Runoff Depth=4.99" Tc=6.0 min CN=93 Runoff=1.17 cfs 0.092 af
Subcatchment301A: Area to Rain Garden #	Runoff Area=8,500 sf 45.88% Impervious Runoff Depth=2.29" Tc=6.0 min CN=66 Runoff=0.50 cfs 0.037 af
Subcatchment301B: Area to Rain Garden	Runoff Area=4,200 sf 15.00% Impervious Runoff Depth=0.91" Tc=6.0 min CN=48 Runoff=0.07 cfs 0.007 af
Subcatchment302: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=1.53 cfs 0.128 af
Subcatchment303: Area to Pervious	Runoff Area=4,500 sf 86.67% Impervious Runoff Depth=4.76" Tc=6.0 min CN=91 Runoff=0.53 cfs 0.041 af
Subcatchment304: Area to Pervious	Runoff Area=3,100 sf 100.00% Impervious Runoff Depth=5.68" Tc=6.0 min CN=99 Runoff=0.40 cfs 0.034 af
Subcatchment305: Area to Pervious	Runoff Area=5,010 sf 91.62% Impervious Runoff Depth=5.10" Tc=6.0 min CN=94 Runoff=0.62 cfs 0.049 af
Subcatchment306: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=1.53 cfs 0.128 af
Subcatchment307: Area to Pervious	Runoff Area=21,600 sf 96.67% Impervious Runoff Depth=5.44" Tc=6.0 min CN=97 Runoff=2.74 cfs 0.225 af

Subcatchment308: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=2.75 cfs 0.230 af
Subcatchment309: Area to Pervious	Runoff Area=35,000 sf 85.14% Impervious Runoff Depth=4.65" Tc=6.0 min CN=90 Runoff=4.09 cfs 0.311 af
Subcatchment310: Roof Area to Drip	Runoff Area=12,000 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=1.53 cfs 0.128 af
Subcatchment311: Area to Rain Garden 4	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=2.38" Tc=6.0 min CN=67 Runoff=0.37 cfs 0.027 af
Subcatchment312: Roof Area to Drip	Runoff Area=21,600 sf 100.00% Impervious Runoff Depth=5.56" Tc=6.0 min CN=98 Runoff=2.75 cfs 0.230 af
Subcatchment313: Area to Rain Garden 3	Runoff Area=6,000 sf 46.67% Impervious Runoff Depth=2.38" Tc=6.0 min CN=67 Runoff=0.37 cfs 0.027 af
Subcatchment314: Area to Infiltration	Runoff Area=22,750 sf 20.88% Impervious Runoff Depth=1.12" Tc=6.0 min CN=51 Runoff=0.53 cfs 0.049 af
Pond DS-2: Drip Strip	Peak Elev=116.14' Storage=708 cf Inflow=1.17 cfs 0.092 af Discarded=0.28 cfs 0.087 af Primary=0.28 cfs 0.005 af Outflow=0.55 cfs 0.092 af
Pond DS-3: Drip Strip	Peak Elev=116.14' Storage=708 cf Inflow=1.17 cfs 0.092 af Discarded=0.28 cfs 0.087 af Primary=0.28 cfs 0.005 af Outflow=0.55 cfs 0.092 af
Pond DS-4: Drip Strip	Peak Elev=116.14' Storage=708 cf Inflow=1.17 cfs 0.092 af Discarded=0.28 cfs 0.087 af Primary=0.28 cfs 0.005 af Outflow=0.55 cfs 0.092 af
Pond DS-A: Drip Strip	Peak Elev=116.31' Storage=985 cf Inflow=1.53 cfs 0.128 af Discarded=0.35 cfs 0.121 af Primary=0.23 cfs 0.007 af Outflow=0.58 cfs 0.128 af
Pond DS-B: Drip Strip	Peak Elev=116.40' Storage=1,875 cf Inflow=2.75 cfs 0.230 af Discarded=0.62 cfs 0.220 af Primary=0.27 cfs 0.010 af Outflow=0.89 cfs 0.230 af
Pond DS-C: Drip Strip	Peak Elev=116.31' Storage=985 cf Inflow=1.53 cfs 0.128 af Discarded=0.35 cfs 0.121 af Primary=0.23 cfs 0.007 af Outflow=0.58 cfs 0.128 af
Pond DS-D: Drip Strip	Peak Elev=116.31' Storage=985 cf Inflow=1.53 cfs 0.128 af Discarded=0.35 cfs 0.121 af Primary=0.23 cfs 0.007 af Outflow=0.58 cfs 0.128 af
Pond DS-E: Drip Strip	Peak Elev=116.40' Storage=1,875 cf Inflow=2.75 cfs 0.230 af Discarded=0.62 cfs 0.220 af Primary=0.27 cfs 0.010 af Outflow=0.89 cfs 0.230 af
Pond DS1: Drip Strip	Peak Elev=116.14' Storage=708 cf Inflow=1.17 cfs 0.092 af Discarded=0.28 cfs 0.087 af Primary=0.28 cfs 0.005 af Outflow=0.55 cfs 0.092 af
Pond IT-1: Infiltration Trench	Peak Elev=113.65' Storage=791 cf Inflow=1.52 cfs 0.111 af Discarded=0.28 cfs 0.093 af Primary=0.60 cfs 0.018 af Outflow=0.87 cfs 0.111 af
Pond IT-2: IT - 1	Peak Elev=112.35' Storage=169 cf Inflow=0.53 cfs 0.049 af Discarded=0.28 cfs 0.049 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.049 af

Pond PP-1: PP 1

Peak Elev=114.22' Storage=121 cf Inflow=0.53 cfs 0.041 af
Discarded=0.31 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.041 af

Pond PP-2: PP 2

Peak Elev=113.35' Storage=118 cf Inflow=0.40 cfs 0.034 af
Discarded=0.20 cfs 0.034 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.034 af

Pond PP-3: PP 3

Peak Elev=113.48' Storage=222 cf Inflow=0.62 cfs 0.049 af
Discarded=0.27 cfs 0.049 af Primary=0.00 cfs 0.000 af Outflow=0.27 cfs 0.049 af

Pond PP-4: PP 4

Peak Elev=111.17' Storage=522 cf Inflow=2.74 cfs 0.225 af
Discarded=1.75 cfs 0.225 af Primary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.225 af

Pond PP-5: PP 5

Peak Elev=112.09' Storage=502 cf Inflow=4.09 cfs 0.311 af
Discarded=3.16 cfs 0.311 af Primary=0.00 cfs 0.000 af Outflow=3.16 cfs 0.311 af

Pond RG-1: Rain Garden

Peak Elev=115.84' Storage=204 cf Inflow=0.58 cfs 0.042 af
Discarded=0.08 cfs 0.031 af Primary=0.35 cfs 0.012 af Outflow=0.43 cfs 0.042 af

Pond RG-1A: Rain Garden

Peak Elev=117.12' Storage=178 cf Inflow=0.50 cfs 0.037 af
Discarded=0.17 cfs 0.034 af Primary=0.15 cfs 0.004 af Outflow=0.32 cfs 0.037 af

Pond RG-1B: Rain Garden

Peak Elev=115.03' Storage=5 cf Inflow=0.07 cfs 0.007 af
Discarded=0.07 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.007 af

Pond RG-2: Rain Garden

Peak Elev=115.53' Storage=325 cf Inflow=0.75 cfs 0.054 af
Discarded=0.17 cfs 0.046 af Primary=0.25 cfs 0.008 af Outflow=0.42 cfs 0.054 af

Pond RG-3: Rain Garden

Peak Elev=111.50' Storage=132 cf Inflow=0.37 cfs 0.027 af
Discarded=0.14 cfs 0.026 af Primary=0.06 cfs 0.001 af Outflow=0.20 cfs 0.027 af

Pond RG-4: Rain Garden

Peak Elev=111.94' Storage=130 cf Inflow=0.37 cfs 0.027 af
Discarded=0.16 cfs 0.027 af Primary=0.03 cfs 0.000 af Outflow=0.18 cfs 0.027 af

Link DP#1: Design Point

Inflow=13.73 cfs 1.163 af
Primary=13.73 cfs 1.163 af

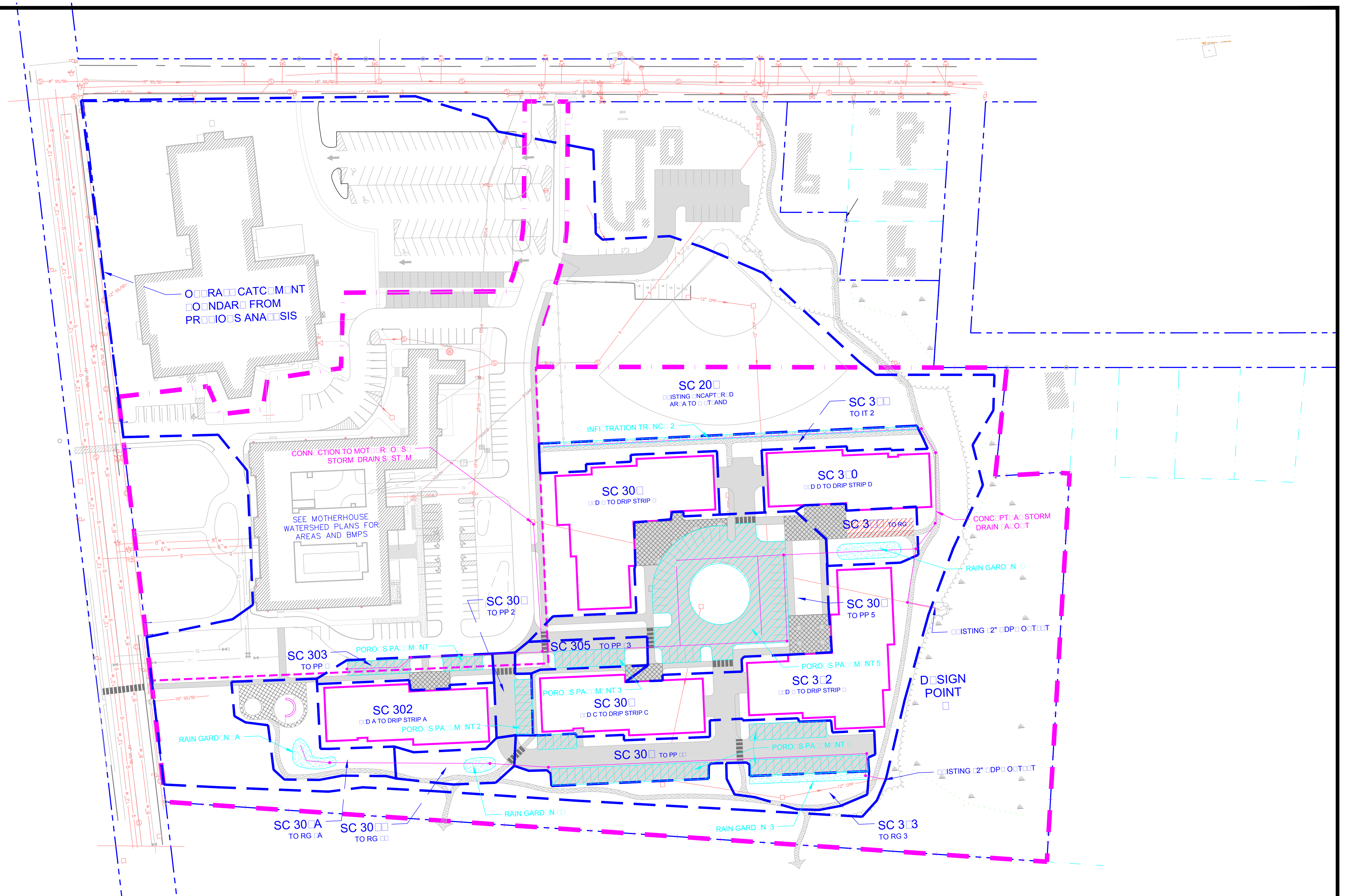
Total Runoff Area = 13.561 ac Runoff Volume = 3.285 af Average Runoff Depth = 2.91"
47.40% Pervious = 6.427 ac 52.60% Impervious = 7.134 ac

ATTACHMENT C

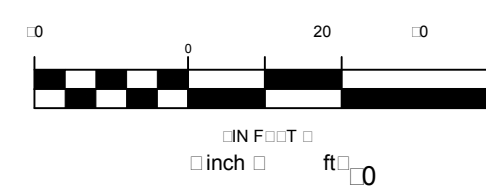
PLAN SHEETS:

C1.0 STORMWATER PLAN

C2.0 UTILITY PLAN



PRIMINARY NOT FOR CONSTRUCTION



PROJECT		STANTEC CONSULTING SERVICES INC.	
05 STREETS AND		12 PALM ROAD	
MASTER DEVELOPMENT PLAN		SCARLETON GARDENS	
SUBMIT TITLE		STANTEC.COM	
CONCEPT STORM WATER LAYOUT AND		DRAWN BY	
POST DEVELOPMENT WATER LAYOUT		DESIGNED BY	
CLIENT		CHECKED BY	
SIA COASTAL WATERWAYS ASSOCIATION		FILE NAME	
MOTORHOUSE ASSOCIATION		SUBMIT	
REVISIONS		C0	



CONNECTIONS TO
WATER AND GAS MAINS
FROM MOTHOUSES
PROJECT

NEW PRIMARY ELECTRIC
FROM DROP POLE (SEE
MOTHERHOUSE PLANS)

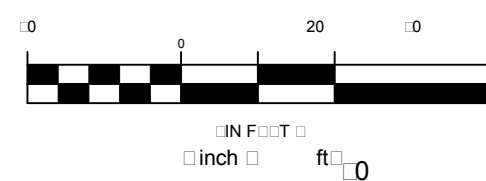
NEW SERVICE
TO CONNECT
AT EXISTING
MANHOLE

NEW SERVICE IN

NEW GAS MAIN

NEW WATER MAIN

WATER TAP



PRELIMINARY NOT FOR CONSTRUCTION

PROJECT		05 STONE A		STANTEC CONSULTING SERVICES INC.	
MASTER DEVELOPMENT PLAN		12 PALM ROAD		SCARLETON GARDENS 0.00	
CONCEPT SITE PLAN		STANTEC.COM		DRAWN BY: D	
DATE: 05/05/2020		ISSUED FOR MASTER PLAN REVIEW		DESIGNED BY: AD	
REVISIONS		PROJECT NO: 1010		CHECKED BY: AD	
SHEET NO: C2/0		SHEET TITLE: CONCEPT SITE PLAN		DATE: MAY 2020	
PROJECT NO: 1010		SHEET NO: C2/0		SCALE: 1" = 10'	
PROJECT NO: 1010		SHEET NO: C2/0		PROJECT NAME: SP M 2 SITE	
PROJECT NO: 1010		SHEET NO: C2/0		PROJECT NO: 1010	

EXHIBIT F

MDP NEIGHBORHOOD MEETING

As required by the Master Development Plan Process, the applicant held an official neighborhood meeting on March 14, 2016 at the McAuley High School. The meeting was properly noticed to all abutters within 500 feet of the development based on an abutters list provided by the City of Portland Staff.

A subsequent informal neighborhood meeting was also held at the McAuley High School (McAuley) on May 19th, 2016 at 6:00 p.m. to further present updates to the master plans and site program following review by the Planning Board, Staff and neighborhood.

Attached as *Exhibit F* are the following:

- March 14, 2016 Neighborhood Meeting Minutes
- Copy of Invitation
- Sign-in Sheet
- Certification form

605 Stevens Avenue Master Development Plan for the
Redevelopment of the Sisters of Mercy Convent and Campus
Neighborhood Meeting held at the McAuley School at 6:00 pm – March 14, 2016

Meeting Purpose:

First Neighborhood Meeting to begin the Master Development Plan process for the Sisters of Mercy Campus located at 605 Stevens Avenue. The Motherhouse will be redeveloped as affordable senior housing and the new buildings will be added to the campus as part of an active adult (55+) community.

Presentation:

Katheryn Barr, Head of McAuley School
Matt Teare, Seacoast at Baxter Woods Associates, LLC
Pat Carroll, Carroll Associates.
Kevin Bunker, Motherhouse LLC
Tuck O'Brien, City Planning Director

Meeting Minutes:

Kathryn Barr, Head of the McAuley School, kicked off the meeting with a general welcome to the school and gave an update on recent school activities.

Matt Teare from Sea Coast Management provided an introduction to the meeting. He reviewed the key areas of neighbor concern from the 2015 rezoning and motherhouse approvals process.

- Traffic & Safety
- Parking
- Density
- Impact on the McAuley school
- Impact on Baxter Woods

Matt Teare then reviewed the master planning process.

- There will be several meeting and opportunities to give comment and feedback.
- 3 to 4 month process with neighborhood meetings, planning board workshops and planning board formal meetings.
- There will also be a specific site plan review for each phase of the master plan prior to construction.

Matt Teare gave an overview of the type of senior community envisioned for the new apartments.

- What is generally know of as an Active Adult Community – it is 55+
- Not a full service retirement community with health care services and numerous employess
- Concept for the new apartments is an active adult condominium community with apartments, parking underneath buildings, elevators and a variety of amenities.

Matt Teare reviewed the key factors in creating the master plan

- Density was reduced throughout the re-zoning process. The zoning and the density was reduced by choosing zone 5A over 6A (like Deering and Park Danforth). Density was further reduced to by squeezing the area of the campus covered by zone 5A. Density dropped from over 500 to 249 throughout the process.
- New zone focuses the development on areas to the side and rear of the Motherhouse.
- Saving a playing field for McAuley was a key concern – and pushed the new buildings toward Baxter Woods
- Increasing the set back from Baxter Woods pushes development toward the school

- A reduction in building height makes the building footprints larger
- Parking underneath the building saves green space but eliminates a floor of apartments and thus makes the building footprints larger because a floor of apartments is lost to parking

Pat Carroll from Carroll Associates Landscape Architects then gave an overview of the master plan including:

- Height and placement of buildings;
- Landscaping;
- Traffic Access and Circulation;
- Parking;
- Sidewalks and green space
- Pat mentioned that the team was working to open up the campus to the public for the first time including a variety of green spaces – especially along the front of the motherhouse. He is also working with Jeff Tarling regarding connections to Baxter Woods and ways to improve this area.

There was a question about providing parking for guests and service parking.

- The number of parking spaces was reviewed – 88 or 1 per unit for the Motherhouse. 322 new parking spaces for the condos or 2 per unit. Total of 410 new parking spaces for the 249 new apartments.
- The applicant replied that there are no designated parking spaces for guests and services because their experience indicated that there should be a good number of open spaces at the current totals. For example, a new project similar to the Motherhouse recently opened in South Portland. Of its 48 spaces, 32 spaces were actually used by residents based on a recent count.
- All parking will be on-site
 - Each Motherhouse apartment will have 1 space (88)
 - Each condo has 2 spaces – 1 underneath and 1 on surface.
- No desire to have parking on streets and residents will not want parking on streets
- An important aspect will be parking management when McAuley School has large events

It was commented that 2 parking spots per unit seemed too high given the trends in transportation. Kevin Bunker agreed that it seemed high to the development team but that they wanted to start the process by meeting the ordinance standard but hoped to adjust the parking in future phases if the market shows that the demand is for less than 2 spaces.

There was a lot of discussion regarding the access points into and out of the new campus – including concern that Walton Street would be the only access points.

- The applicant explained that there will be two access points added on Stevens Avenue in front of the Motherhouse. The gates will be opened and widened. There will be a one way in and a one way out. However, there will be some limitations on left hand turns for safety reasons.
- There was an ongoing general discussion on this item with an acknowledgment that more access points were better in order to not unduly impact Walton Street when other opportunities existed. Try to fully utilize all opportunities for spreading the traffic. A suggestion was to allow left hand turns in and out of the Stevens Avenue at only certain hours.

A question was asked about two things. First, wasn't the first building next to the Motherhouse supposed to be behind the Motherhouse not next to it? Second, wasn't the buffer between Baxter Woods over 100 feet when the first master plans were shown last summer?

- The applicant responded that the first building was never meant to be behind the Motherhouse but set back significantly from the front of the Motherhouse. Which it is – very similar to the 2015 plan. This set back is also important to the historic review of the site plan by the city and state.

- The applicant explained that the buffer between Baxter Woods is smaller than the buffer shown on the first concepts in 2015 but still significantly more than the required – and we are open to looking at how this buffer can be improved.
- This buffer space was identified as a really key area in the master planning process.
- There was discussion of the ability to bring the McAuley playing field closer to Baxter Woods in order to keep the green space closer to the woods. Could the buildings and playing fields be moved around to reduce the impact on Baxter Woods. While somewhat restricted due to the new zoning, the applicant is open to ideas on this.

There was a general discussion on traffic impacts.

- Matt Teare acknowledged this probably is the key area of neighborhood concern.
- He indicated that the type of traffic that concerns the neighborhood – the traffic and safety along Stevens Avenue at rush hours – is generally not the type of traffic generated by an active adult community.
- It generates limited commuter rush hour traffic trips from employees or residents. There are no parents dropping off children. There are no college kids rushing to class. An active adult communities traffic is moderate and spread across the day
- An updated traffic study is just complete. It was generally positive. It indicates that:
 - The proposed community has different peak hour trips than current neighborhood
 - No capacity concerns will identified at study area intersections
 - Site distances exceed the minimum

Pat Carroll gave an overview of the phasing plan and how the McAuley fields would be shifted and downsized as the project progressed – with one field remaining at the end of the project.

There were comments and discussion on the impact on Baxter Woods. Pat indicated that the applicant was working with the City and Jeff Tarling to see how these impacts could be addressed – and what opportunities there was to actually have some positive impacts. Ideas included the landscape buffer, planting within Baxter Woods, reopening / reconnecting Baxter Woods to the campus through connections and pedestrian access.

A comment / expression of concern was made about the view of the new buildings from the meadow in Baxter Woods. It was acknowledged that this is one of the key impact points but that there isn't much that can be done with the siting of the buildings due to the other factors pushing the buildings into this area. Trees were planted in the rear of the meadow area as part of McAuley's construction of the playing fields. These trees will provide some buffering but they are still fairly young.

A concern was expressed that the project might bring too much new foot traffic to Baxter Woods.

There was a question and recommendation for installing a community garden within the new community. The applicant agreed that this was a good idea. There are lots of opportunities for both formal and informal green spaces within the new community.

There was a question about the storm water management for the project.

- Pat described the approach to storm water in the project --- the inclusion of a number of features within the project to reduce and treat storm water right within the campus. This is possible in part because of the good soils within the campus. Items like rain gardens and drip edge and porous pavement are all under consideration.
- There was also a comment about a neighbor who had storm water issues related to the playing fields and that the applicant had committed to addressing those issues as part of the project.

There was a comment about the noise and environmental impacts from air exchangers. There was a general discussion at this point about both noise and light pollution – both growing concerns to many residents and what can be done about it.

There was then a question and discussion about the green or energy efficient nature of the buildings. The applicant has a history of working with energy efficient buildings but the benefits must be balanced by the cost to ensure it is a wise investment – especially with affordable housing projects.

A comment was made about the impact of the construction at Park Danforth on the local streets and parking situation.

- Matt Teare indicated that because the campus is large – we can keep the construction and construction related traffic and parking from spilling onto the side streets.
- Sea Coast Management has significant experience with construction projects on an active, operating senior campus. The construction parking, lay down areas, deliveries, hours of construction and a variety of other elements will be planned and incorporated into the general contractors construction contract. They will be shown on a site plan and kept within the campus.

Matt Teare showed the initial building renderings and gave an overview of the architecture

- Mostly traditional New England architecture to fit into neighborhood with some design elements of Motherhouse and the University of New England.
- Variety of colors and finishes to break up the mass of the building
- Balconies that adds to interest of exterior façade
- He mentioned Jeff Tarling's thoughts about designing the buildings – their color and lighting – to mute the visual impact on Baxter Woods.

Matt Teare also reviewed the issue of the views of the new buildings from around the neighborhood.

- There will be filtered views from Stevens Avenue due to the large Motherhouse and the mature trees and landscaping at the front of the campus and at Baxter Woods. Walton Street will have more distant views of the new buildings and there is an opportunity for significant new landscaping along Walton Street to improve this streetscape and filter the views into the campus.
- There will be filtered views of the new buildings from Baxter Woods – especially during winter and especially from the meadow within Baxter Woods.
- As mentioned by Jeff Tarling at a staff meeting, the 11 Story Deering Pavilion is instructive that the new buildings don't need to overwhelm the Baxter Woods experience

The meeting concluded with Tuck O'Brian of the city planning staff giving an overview of the master plan process over the next few months.

These notes have been prepared by Matthew D. Teare and are the author's interpretation and summary of the presentation and comments provided by the public and may not reflect each individual speaker's comments.



Neighborhood Meeting Invitation

March 4, 2016

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for the Master Development Plan for 605 Stevens Avenue Project, located at 605 Stevens Avenue in Portland.

Meeting Location: Catherine McAuley High School , 631 Stevens Avenue
Meeting Date: Monday, March 14, 2016
Meeting Time: 6:00 PM

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call Matt Teare at 207-837-2418.

Sincerely,

Sea Coast Management Company

A handwritten signature in black ink, appearing to read 'Patrick J. Carroll'.

Patrick J. Carroll,
On behalf of Sea Coast Management Company

Note:

Under Section 14-32(C) and 14-524(a)d of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within 30 days of submitting a preliminary application or 21 days of submitting a final site plan application, if a preliminary plans was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email: to bab@portlandmaine.gov

EXAMPLE: Neighborhood Meeting Certification

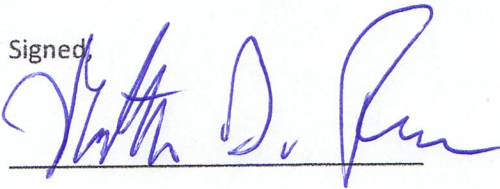
3/14/16 McAuley HS 6pm

I (applicant/consultant) hereby certify that a neighborhood meeting was held on (date) at (~~location~~) at (~~time~~).

I also certify that on (March 3rd, 2016) (date 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 1000 feet of a proposed industrial subdivision or industrial zone change.
2. ☒ Residents on the "interested parties" list.
3. ☒ A digital copy of the notice was also provided to the Planning Division (imv@portlandmaine.gov and ldobson@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,



05-31-16 (date)

Attached to this certification are:

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

June 9, 2016

Jean Fraser
Senior Planner
Planning and Urban Development Department
Planning Division
389 Congress Street, 4th Floor
Portland, ME 04104

605 Stevens Avenue -- Master Development Plan Submission
Letter of Intent regarding Monitoring and Preservation of Baxter Woods

The applicant, neighbors, City of Portland and a variety of important stakeholder groups identified the interrelationship between 605 Stevens Avenue and Baxter Woods as a crucial issue for the outset of the planning process. Over the past 24 months, we have heard many comments, concerns and ideas regarding Baxter Woods. Based on this input and meetings with city staff, please accept this letter of intent as one element in our effort to help protect and preserve Baxter Woods.

The fundamental first step in this effort is to recognize the current fence line as the effective border between Baxter Woods and the 605 Stevens campus. While the applicant owns 33 feet of a historic 66-foot-wide road easement located on the Baxter Woods side of the current fence, we will pursue a conservation easement or other legally appropriate mechanism to permanently preserve this area. With the acknowledgement of this border, the next elements of the proposal involve the collection of data and implementing solutions as follows:

I. Assessing and Monitoring the Use and Condition of Baxter Woods

The next important step in protecting Baxter Woods is ensuring accurate and comprehensive data on its current status. With its long history, there is a significant amount of information on Baxter Woods. The applicant proposes assisting the City of Portland in assembling and augmenting this data to create a baseline of information and then establish a periodic monitoring program to update, organize and maintain this information.

Specifically, the applicant will assist the city with the following three initiatives:

- 1) Baseline Data - Engage a professional conservationist /forester, as recommended and approved by the Planning Authority, to complete the following under the supervision of specified City representatives:
 - a) Research and assemble all appropriate existing data and information on Baxter Woods;
 - b) Plan and conduct a monitoring study which will result in a comprehensive set of *baseline data* on the condition, use and impacts on Baxter Woods;

c) Create an annual monitoring plan for Baxter Woods to update the baseline data. The first phase of this data collection process would begin with the financing and construction start of the first phase of the project.

2) Annual Monitoring

- a) Continue the data collection process outlined above by assisting the City to coordinate the annual monitoring and update of the baseline data focusing on the condition, use and impacts on Baxter Woods from both the 605 Stevens community and other users and activities.
- b) The monitoring, including the annual monitoring reports, would occur on an annual basis beginning approximately one year after the completion and publication of the baseline study. The idea would be for the applicant to sponsor the annual effort until 2 years after the occupation of the final phase of the project with some reasonable expectations and limitations. Following this initial period, the applicant would continue to work with the City and local stakeholders to help ensure a partnership develops to continue this work indefinitely.

3) Annual Recommendations to be included in the monitoring report

- a) The monitoring would include a series of recommendations designed to preserve the Baxter Woods experience as originally intended by helping to address any issues identified during the monitoring process.
- b) These recommendations would be updated and published annually.
- c) The recommendations would include a plan of action with specific tasks, deadlines and funding resources designed to ensure implementation.

II. Potential Improvements to Preserve the Baxter Woods Experience

The applicant would fund work in and around its border with Baxter Woods that respect the original deed restrictions regarding the preservation of Baxter Woods. Any and all improvements would be approved and directed by the Planning authority and the City Arborist. These improvements could derive from the Master Planning process, site plan reviews of individual phases or the annual monitoring process.

While the applicant is happy to assist in broader activities regarding the preservation of Baxter Woods, the specific work items under consideration should be directly related to the applicant's border area with Baxter Woods and the impact of the new development upon Baxter Woods. Wherever possible, the improvements should be tailored to address the impact of each new phase of development and any remedial activities should occur during that phase.

The following are some of the potential activities under consideration for inclusion in a future work plan:

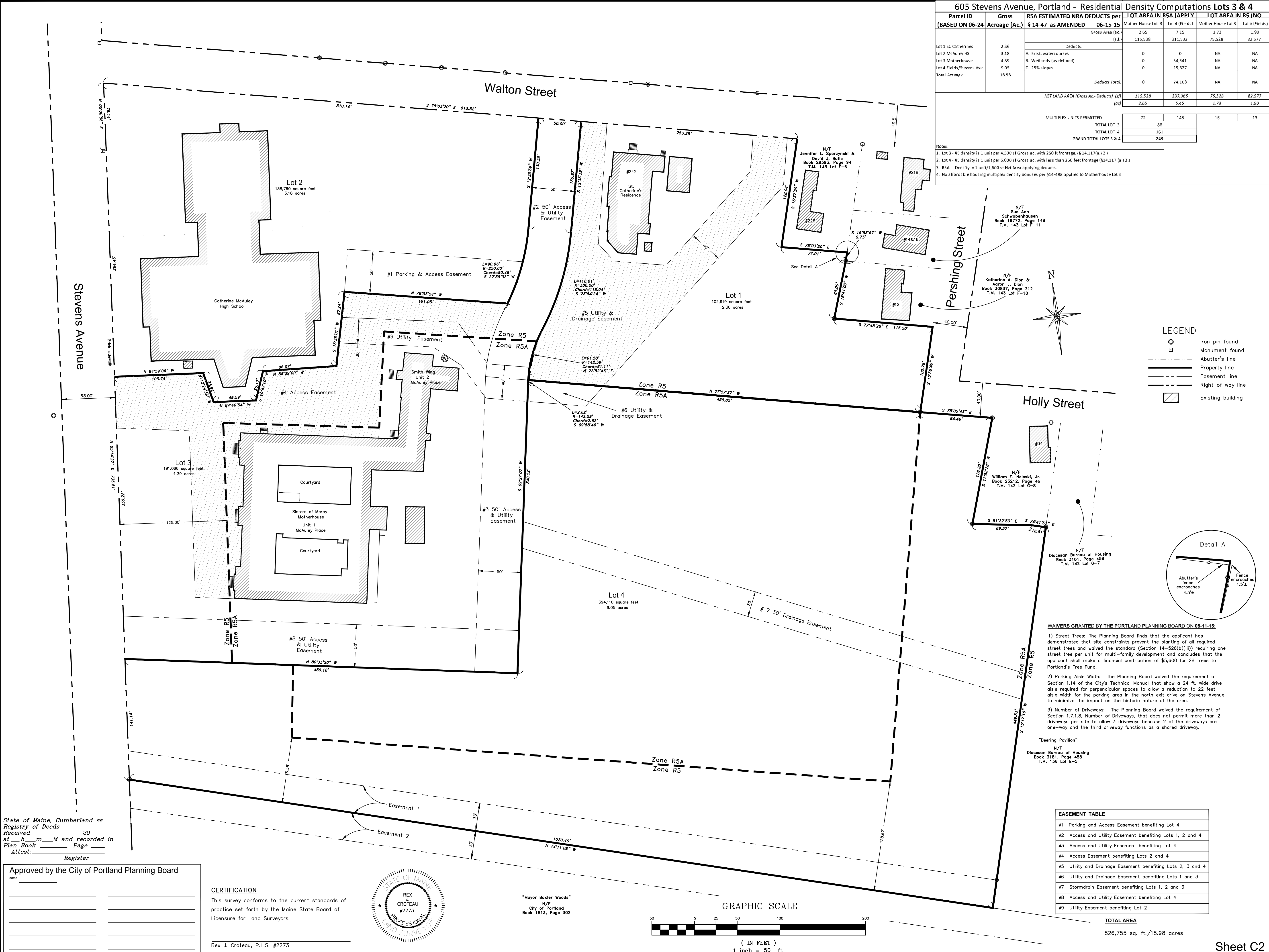
- 1) Re-establishment of the pathway through the allee of mature trees that once connected Baxter Woods to the 605 Stevens Avenue property;

- 2) Relocation and repurposing of some of the secondary trails that run directly against the chain-line fence in the 33' boundary area. These trails should be designed as primitive footpaths – providing for modest, lower level use.
- 3) Removal of invasive species within the 33' boundary area;
- 4) Replacement of the existing chain-link fencing with a more attractive, appropriate option;
- 5) Additional plantings on the 605 Stevens Avenue property to enhance the buffer area between the fence and the new development. Two areas of particular focus should include:
 - a) Red Pine Grove at the Entrance to Baxter Woods along Stevens Avenue. The trees are tall with no limbs for buffering on their lower trunks. There are several areas in and around this viewpoint where plantings could add significant buffering.
 - b) The Meadow in Baxter Woods. While the existing evergreens here are effective, there is a zone approx. 100 ft. long to the north of the meadow where additional plantings would be beneficial.
- 6) Additional supplemental plantings on both sides of the fence with the purpose of providing wildlife habitat and food – particularly for birds. Plantings as viburnum, elderberry and blueberry might add to the buffering and act to enhance the wildlife habitat of the woods.

Over more than 30 years of creating and operating senior communities, the applicant and the residents of our communities have strongly supported a long list of civic minded organizations and initiatives. During that time, initiatives related to land conservation, energy efficiency and energy conservation have received the greatest level of interest and support. The opportunity to enjoy, protect and preserve Baxter Woods and Evergreen Cemetery is a critical element of the proposed community at 605 Stevens Avenue. We look forward to working in partnership with all the various stakeholders to preserve these unique and invaluable resources.

Very Truly Yours,

Matthew D. Teare
Director of Development
Sea Coast Management Company



LOCUS PLAN NOT TO SCALE

SITE DATA TABLE		
STANDARD	R5	RSA
MIN. LOT AREA		
A. MULTIFAMILY	9,000 SF	2 AC
B. CONGREGATE CARE	N/A	2 AC
C. ELEM. - SECONDARY SCHOOL	30,000 SF	N/A
MIN. FRONTAGE (FT)	50	50
MIN. YD. DIMENSIONS (FT.)		
A. FRONT YD.	20	25
B. REAR YD.	20	25
C. SIDE YD.	14	16
MAX. LOT COVERAGE	40%	30%
MIN. LOT WIDTH (FT.)	90	60

NOTES

- Book and Page references are to the Cumberland County Registry of Deeds.
- Bearings are referenced to Grid North. See Plan Reference 1.
- This plan has been prepared and approved in accordance with the City of Portland Land Use Code, Article IV Subdivisions as a four (4)-lot subdivision. Development of Lots 1-4 shall be subject to Site Plan Review and approval by the Planning Board pursuant to Article V Site Plan Review standards. A sectional recording plat for individual or master planned development shall be prepared and approved for individual lot or section development in accordance with Article IV, § 14-49(h) requirements prior to construction on any lots.
- No development shall occur within the 33-foot right of way easement located on the southerly property line (the Baxter Easement). Said easement shall forever remain natural, however allowing for tree and vegetation maintenance by a licensed arborist, creation and maintenance of trails for use by the public or other activities consistent with permitted uses within the adjacent Mayor Baxter Woods property.
- This four lot subdivision approval was granted by the City of Portland Planning Board 8/11/15.
- Reference is made to the Lot 3 Sectional Subdivision Plat Motherhouse-88 Units prepared by Titcomb Associates, last dated 3/25/16 and approved by the City of Portland on 8/11/15 for Lot 3 conditions of approval.

REFERENCES

- Site Plan done by SYTDesign Consultants, December 2000 and May 2001, not recorded.
- Standard Boundary Survey of "Mayor Baxter Woods" by Public Works Department of the City of Portland, Maine, dated April 2001, not recorded.
- Plan of Land Attached to the Last Will and Testament of Annie E. Ewing by E.C. Jordan, dated April 25, 1892, recorded in Plan Book 10, Page 131.
- Plan of Topography in Portland, Maine for Mercy Hospital by E.C. Jordan, dated March 21, 1968, not recorded.
- Plan of Maple Grove, Portland, not signed, recorded October 20, 1868 in Plan Book 2, Page 52.
- Plan of Property made for St. Joseph's Convent and Hospital Corp. by H.I. & E.C. Jordan, dated June 28, 1977, not recorded.
- Standard Boundary Survey made for Amy Mulkerin by Titcomb Associates, dated July 14, 1987, not recorded.
- Standard Boundary Survey, Property of St. Joseph's Convent and Hospital, made for SYTDesign Consultants by Titcomb Associates, dated November 4, 2002.
- Plan of Property and Existing Conditions, Catherine McAuley High School & St. Joseph's Convent made for Land Use Consultants by Land Use Consultants dated September 26, 2006.

EASEMENTS and ENCUMBRANCES

- Property is subject to a right of way 33 feet wide as shown, reserved in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- Property benefits from a right of way 33 feet wide adjoining the southerly sideline as shown, described in deed of James P. Baxter to the Roman Catholic Bishop of Portland dated March 10, 1908 and recorded in Book 821, Page 59.
- No record evidence of an easement for utility poles on the property was found.

OWNERS OF RECORD

Tax Assessment Map 136, Lot E-6	Book 486, Page 322	Book 494, Page 178	Book 496, Page 71	Book 479, Page 327	Book 563, Page 275	Book 698, Page 426
St. Joseph's Convent and Hospital	Book 821, Page 57	Book 1649, Page 160	Book 1652, Page 357	Book 4057, Page 310		

Rev. 1 5/24/16 misc. easement updates RJC

OVERALL SUBDIVISION PLAN

605 Stevens Avenue

Stevens Avenue & Walton Street Portland, Maine

MADE FOR

Sea Coast at Baxter Woods Associates, LLC

30 Elm Street Topsham, Maine

JOB# 202096.1 DATE: June 24, 2015 SCALE: 1" = 50'

BOOK# 525, 578

202096-2006.dwg

FILE# 8538

Titcomb Associates

133 Gray Road, Falmouth, Maine 04105 (207)797-9199 www.titcombsurvey.com

605 STEVENS AVENUE

605 Stevens Ave. | Portland, Maine

MAP / BLOCK / LOT
135-X033, 136-E006001
143-F004, 144-B001

Consultants:

PROJECT MANAGER:

LICHT ENVIRONMENTAL DESIGN, LLC
35 Fran Circle
Gray, ME 04039
(207) 749-4924

LANDSCAPE ARCHITECT:

CARROLL ASSOCIATES
217 Commercial St. Suite 200
Portland, ME 04101
(207) 772-1552

CIVIL ENGINEER:

STANTEC
778 Main Street, Suite 8
South Portland, ME 04106
(207) 775-1121

ARCHITECT:

ARCHETYPE ARCHITECTS
48 Union Wharf
Portland, ME 04101
(207) 772-6022

SURVEYOR:

TITCOMB ASSOCIATES
133 Gray Road
Falmouth, ME 04105
(207) 797-9199

Master Development Plan

Final Plan Submittal
June 1, 2016



Owner / Applicant:

SEA COAST AT BAXTER WOODS
ASSOCIATES, LLC
&
MOTHERHOUSE ASSOCIATES LP

100 COMMERCIAL STREET, SUITE 414
PORTLAND, ME 04101
207.772.7673
rlicht@securespeed.net

Index of Drawings:

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C-1	BOUNDARY SURVEY
C-2	SUBDIVISION PLAT
L-1.0	NEIGHBORHOOD CONTEXT MAP
L-2.0	CONCEPTUAL SITE PLAN
L-2.1	OPEN SPACE CALCULATIONS
L-3.0	CIRCULATION DIAGRAM
L-3.1	PARKING DIAGRAM
L-4.0	PHASING DIAGRAM
L-4.0a	ALTERNATE PHASING PLAN
L-5.0	TREE REMOVAL & PRESERVATION PLAN
L-5.1	LANDSCAPE MASTER PLAN
L-6.0	SECTIONS - BUILDING 1
L-6.1	SECTIONS - BUILDING 2
L-6.2	SECTIONS - BUILDING 2 W/ PARKING
L-6.3	SECTIONS - BUILDING 3
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C-3.0	CONCEPT STORMWATER PLAN
C-4.0	CONCEPT UTILITY PLAN
A2.1	EXTERIOR ELEVATIONS
A2.2	EXTERIOR ELEVATIONS



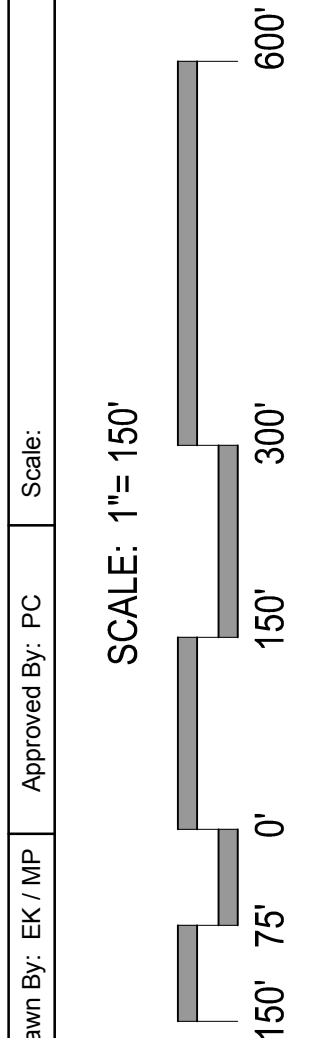
LEGEND

- OPEN SPACE
- INSTITUTIONAL
- COMMERCIAL / INDUSTRIAL
- RESIDENTIAL
- SITE

APPLICANT:
SEA COAST AT
BAXTER WOODS
ASSOCIATES, LLC
&
MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
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PORTLAND, ME 04101
207.772.7673

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
NEIGHBORHOOD CONTEXT MAP

Revisions	Date	Description
1	3.8.2016	PLANNING BOARD SUBMISSION
2	3.16.2016	PLANNING BOARD SUBMISSION
3	4.11.2016	BOARDS SITE PLAN AND ZONE BOUNDARY
4	6.1.2016	FINAL PLAN SUBMITTAL TO CITY

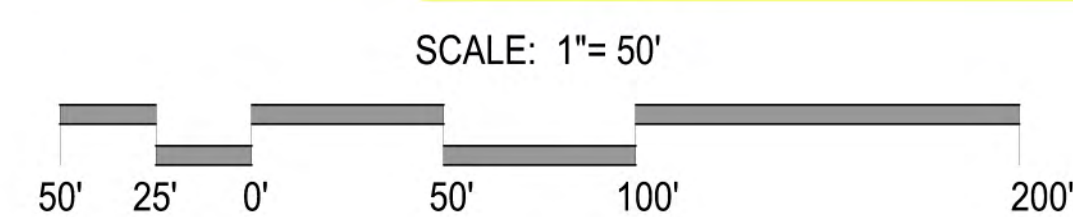
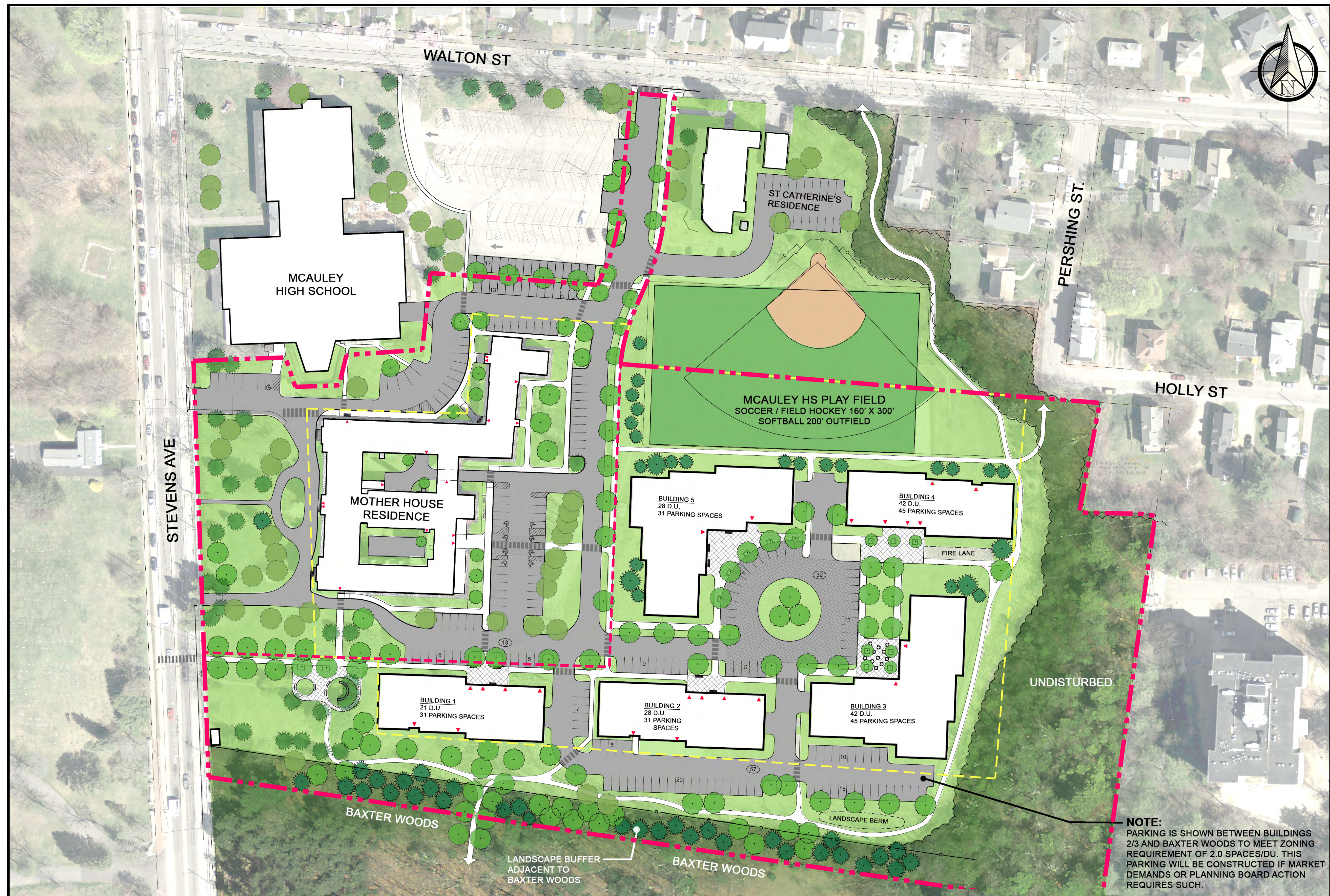


Phase: **PERMITTING**

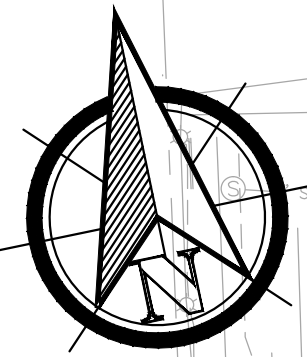
CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date: **FEBRUARY 16, 2016**

Sheet No: **L-1**



605 Stevens Avenue CONCEPTUAL MASTER PLAN



Evergreen Cemetery



605 Stevens Avenue, Portland - Residential Density Computations Lots 3 & 4 V10 06-23-15 LED

Parcel ID (BASED ON 06-24-15 UPDATED SITE PLAN)	Gross Acreage (Ac.)	RSA ESTIMATED NRA DEDUCTS per § 14-47 as AMENDED 15-15	LOT AREA IN RSA (APPLY DEDUCTS)		LOT AREA IN RS (NO DEDUCTS)	
			06- Mother House Lot 3	Lot 4 (Fields)	Mother House Lot 3	Lot 4 (Fields)
Lot 1 St. Catherine's Lot 2 McAuley HS Lot 3 Motherhouse Lot 4 Fields/Stevens Ave. Total Acreage	2.36	Gross Area (ac.) (s.f.)	2.65 115,538	7.15 311,533	1.73 75,528	1.90 82,577
	3.18	Deducts:				
	4.39	A. Exist. watercourses	0	0	NA	NA
	9.05	B. Wetlands (as defined)	0	54,341	NA	NA
		C. 25% slopes	0	19,827	NA	NA
	18.98	Deducts Total:	0	74,168	NA	NA
NET LAND AREA (Gross Ac. - Deducts) (sf)			115,538	237,365	75,528	82,577
			2.65	5.45	1.73	1.90
MULTIPLEX UNITS PERMITTED			72	148	16	13
TOTAL LOT 3			88			
TOTAL LOT 4			161			
GRAND TOTAL LOTS 3 & 4			249			

- Notes:
- Lot 3 - R5 density is 1 unit per 4,500 sf Gross ac. with 250 ft frontage. (\$ 14.117(a.) 2.)
 - Lot 4 - R5 density is 1 unit per 6,000 sf Gross ac. with less than 250 feet frontage (\$14.117 (a.) 2.)
 - R5A - Density = 1 unit/1,600 sf Net Area applying deducts.
 - No affordable housing multiplex density bonuses per §14-488 applied to Motherhouse Lot 3

PARKING DATA TABLE

	PROPOSED D.U.	PROPOSED PARKING			PARKING / D.U.
		SURFACE	COVERED	TOTAL	
LOT 4	161	139	183	322	2.0
LOT 3	88	73	0	73	0.83

SITE DATA TABLE

SPATIAL STANDARDS	REQUIRED R-5	REQUIRED R-5A	PROPOSED LOT 4	PROPOSED LOT 3
MINIMUM LOT SIZE	9,000 SF	2 ACRES	9.03 AC	4.35 AC
MINIMUM FRONTAGE	50 FT.	50 FT.	140.85 FT.	380 FT.
FRONT YARD SETBACK	20 FT.	25 FT.	+185 FT.	130.4 FT.
SIDE YARD SETBACK (5 STORIES)	14 FT.	16 FT.	16 FT.	36.4 FT.
REAR YARD SETBACK	20 FT.	25 FT.	76 FT.	80 FT.
MAXIMUM STRUCTURE HEIGHT	35 FT.	55 FT.	55 FT.	58 FT. (EXISTING)
MAXIMUM LOT COVERAGE	40%	30%	19%	30,677 SF (16%)
MINIMUM LOT WIDTH	90 FT.	60 FT.	+140 FT.	304 FT.
MIN. OPEN SPACE (SF/DU)	300 SF / D.U.	49,800 SF	R5 94,861 SF R5A 92,463 SF TOTAL 187,324 SF	R5 39,221 SF R5A 38,207 SF TOTAL 77,428 SF

LEGEND

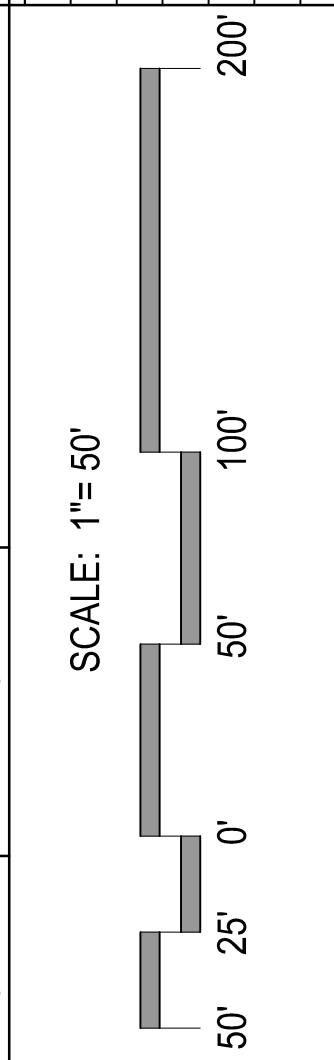
- PROPERTY LINE
- ZONE BOUNDARY
- LOT LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING TREES
- PROPOSED TREES
- PROPOSED BIT CONC (ROADWAY)
- PROPOSED BIT CONC (SIDEWALK)
- SPECIAL PAVING
- PERMEABLE PAVING
- STONEDUST TRAIL
- EDGE OF PAVING
- CURB
- CROSSWALK STRIPING
- POLE LIGHT
- EXISTING WETLAND
- STEEP SLOPES >25%
- PURPOSED RAIN GARDEN
- BUILDING ACCESS POINT
- EXISTING FENCE

APPLICANT:

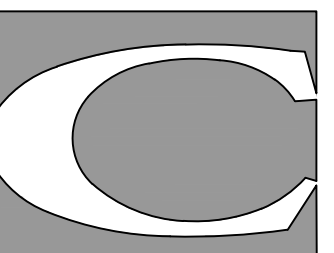
SEA COAST AT
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605 Stevens Ave.
MASTER DEVELOPMENT PLAN
CONCEPTUAL SITE PLAN

Revisions	Date	Description
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PERMITTING

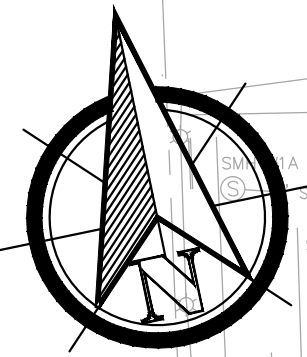


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet No:

L-2.0



Parcel ID (BASED ON 06-24-15 UPDATED SITE PLAN)	Gross Acreage (Ac.)	RSA ESTIMATED NRA DEDUCTS per § 14-47 as AMENDED 15-15	LOT AREA IN RSA (APPLY DEDUCTS)		LOT AREA IN RS (NO DEDUCTS)	
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Lot 2 McAuley HS	3.18	Deducts:				
Lot 3 Motherhouse	4.39	A. Exist. watercourses	0	0	NA	NA
Lot 4 Fields/Stevens Ave.	9.05	B. Wetlands (as defined)	0	54,341	NA	NA
Total Acreage	18.98	C. 25% slopes	0	19,827	NA	NA
Deducts Total:			0	74,168	NA	NA
NET LAND AREA (Gross Ac. - Deducts) (sf)			115,538	237,365	75,528	82,577
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LEGEND

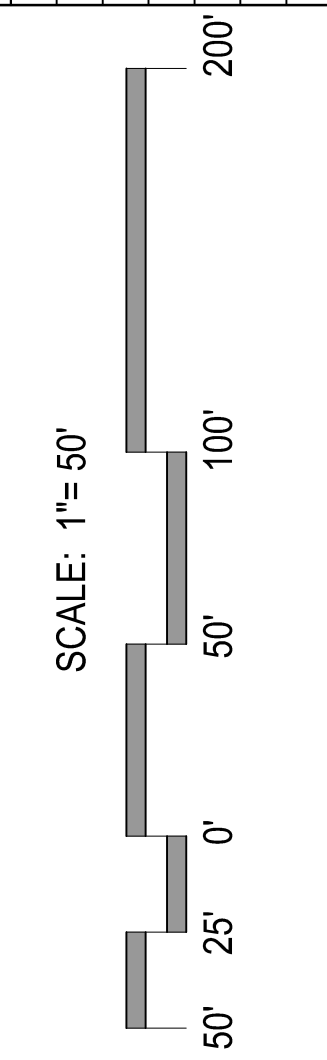
- PROPERTY LINE
- ZONE BOUNDARY
- LOT LINE
- EXISTING BUILDING
- PROPOSED BUILDING
- EXISTING TREES
- PROPOSED TREES
- PROPOSED BIT CONC (ROADWAY)
- PROPOSED BIT CONC (SIDEWALK)
- SPECIAL PAVING
- PERMEABLE PAVING
- STONEDUST TRAIL
- EDGE OF PAVING
- CURB
- CROSSWALK STRIPING
- POLE LIGHT
- EXISTING WETLAND
- STEEP SLOPES >25%
- PURPOSED RAIN GARDEN

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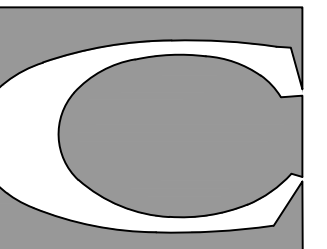
605 Stevens Ave.
MASTER DEVELOPMENT PLAN
OPEN SPACE CALCULATIONS

Revisions	Date	Description	Project
1	3.6.2016	PLANNING BOARD SUBMISSION	
2	3.16.2016	PLANNING BOARD SUBMISSION	
3	4.11.2016	REVISED SITE PLAN AND ZONE BOUNDARY	
4	6.1.2016	FINAL PLAN SUBMITTAL TO CITY	



Phase:

PERMITTING



CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1552 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet No:

L-2.1

LOT 3 / ZONE 5

TOTAL SF 75,468
IMPERVIOUS 36,247

OPEN SPACE 39,221 SF

LOT 4 / ZONE 5

TOTAL SF 173,986 SF
IMPERVIOUS 23,652 SF
WETLAND 55,473 SF

OPEN SPACE 94,861 SF

LOT 3 / ZONE 5A

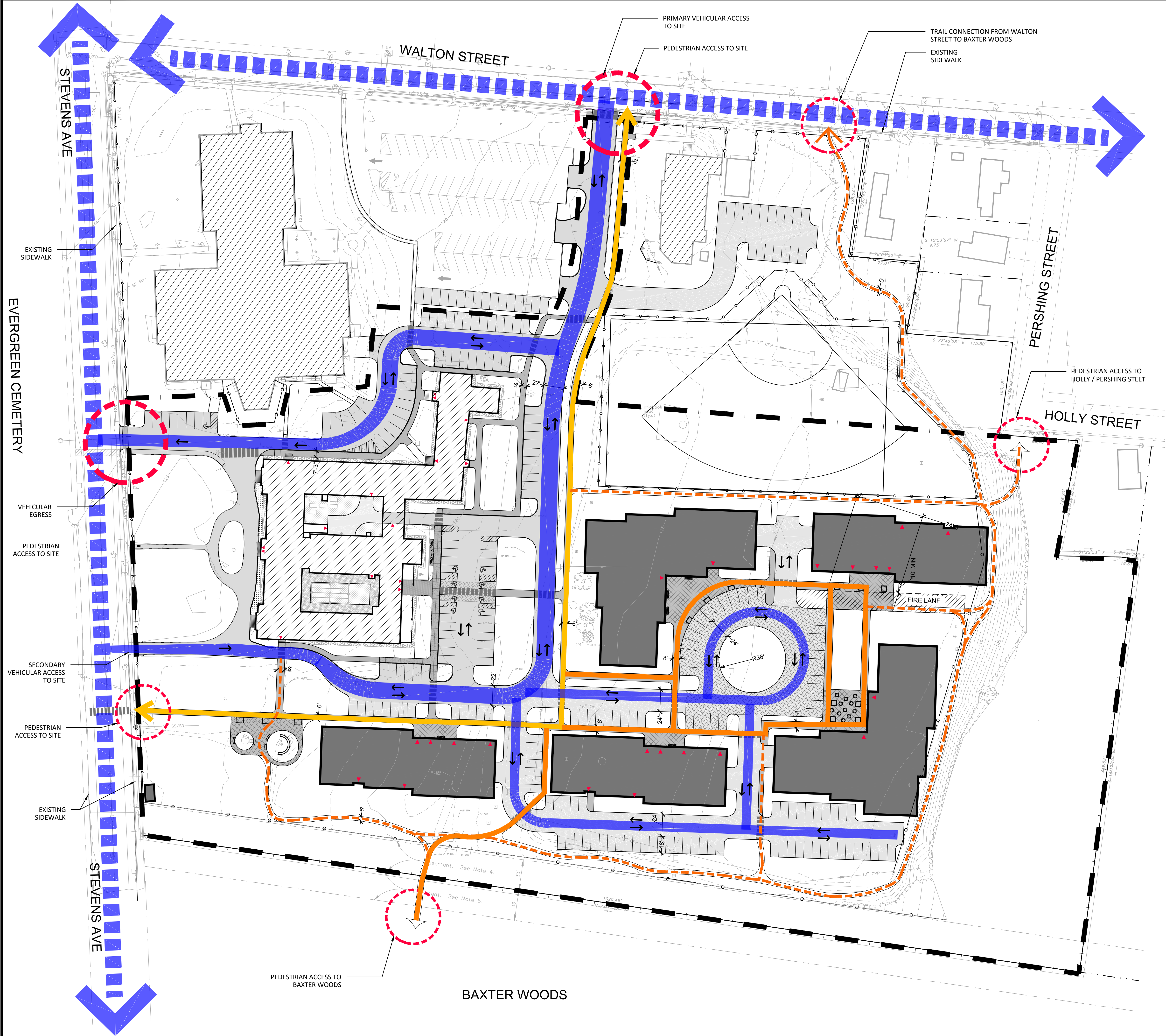
TOTAL SF 115,598 SF
IMPERVIOUS 77,391 SF

OPEN SPACE 38,207 SF

LOT 4 / ZONE 5A

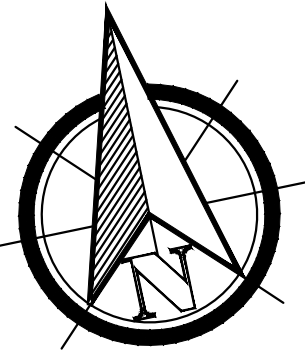
TOTAL SF 220,124 SF
IMPERVIOUS 123,898 SF
WETLAND 2,763 SF

OPEN SPACE 92,463 SF



NOTE:
REFER TO SUBDIVISION PLAN FOR LOCATION
OF ALL EASEMENTS

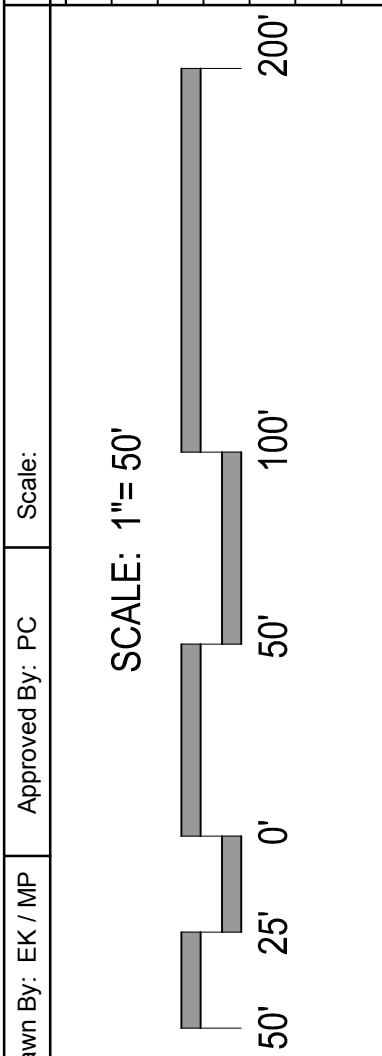
- LEGEND
- PROPERTY LINE
 - ZONE BOUNDARY
 - LOT LINE
 - EXISTING BUILDING
 - PROPOSED BUILDING
 - EXISTING TREES
 - PROPOSED TREES
 - PROPOSED BIT CONC (ROADWAY)
 - PROPOSED BIT CONC (SIDEWALK)
 - SPECIAL PAVING
 - PERMEABLE PAVING
 - STONEDUST TRAIL
 - EDGE OF PAVING
 - CURB
 - CROSSWALK STRIPING
 - POLE LIGHT
 - EXISTING WETLAND
 - STEEP SLOPES >25%
 - PURPOSED RAIN GARDEN
 - BUILDING ACCESS POINT
 - EXISTING FENCE
- LEGEND (CIRCULATION DIAGRAM)
- TWO WAY VEHICULAR TRAFFIC
 - ONE WAY VEHICULAR TRAFFIC
 - PRIMARY VEHICULAR CIRCULATION (EXISTING)
 - PRIMARY VEHICULAR CIRCULATION (PROPOSED / IMPROVED)
 - SECONDARY VEHICULAR CIRCULATION (PROPOSED)
 - PRIMARY PEDESTRIAN ROUTE
 - SECONDARY / INTERNAL PEDESTRIAN ROUTE
 - TERTIARY / TRAIL PEDESTRIAN ROUTE
 - SITE ACCESS POINT



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207.772.7673

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
CIRCULATION PLAN

Revisions	Date	Description
1	3.8.2016	PLANNING BOARD SUBMISSION
2	3.16.2016	PLANNING BOARD SUBMISSION
3	4.11.2016	REVISED SITE PLAN AND ZONE BOUNDARY
4	6.1.2016	FINAL PLAN SUBMITTAL TO CITY

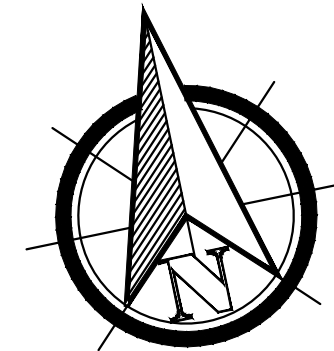


Phase:
PERMITTING



Date:
FEBRUARY 16, 2016

Sheet No:
L-3.0



Evergreen Cemetery

Stevens Avenue

Walton Street

Pershing Street

Holly Street

Baxter Woods

SEE NOTE # 3

LOT 2
138,760 SF
3.18 AC

LOT 1
102,919 SF
2.36 AC

LOT 3
191,066 SF
4.39 AC

LOT 4
394,110 SF
9.05 AC

McAULEY
HIGH SCHOOL

ST. CATHERINE'S
RESIDENCE

MOTHERHOUSE RESIDENCE
88 D.U.
73 PARKING SPACES

BUILDING 5
42 D.U.
45 PARKING SPACES

BUILDING 4
28 D.U.
31 PARKING SPACES

BUILDING 1
21 D.U.
31 PARKING SPACES

BUILDING 2
28 D.U.
31 PARKING SPACES

BUILDING 3
42 D.U.
45 PARKING SPACES

MASTER PLAN PARKING IS
NOT INCLUDED IN
APPROVED MOTHERHOUSE
SITE PLAN

McAULEY H.S. FIELDS
SOCCER / FIELD HOCKEY 180' X 300'
SOFTBALL 200' OUTFIELD
(TO BE RELOCATED IN
FINAL PHASE)

KEY	BUILDING	DU	# OF PARKING SPACES COVERED / SURFACE = TOTAL	LOT #	PHASE
	MOTHERHOUSE	88	0 / 73 = 73	3	1
	1	21	31 / 12 = 43	4	2
	2	28	31 / 25 = 56	4	3 & 6
	3	42	45 / 39 = 84	4	4 & 6
	4	28	31 / 25 = 56	4	5
	5	42	45 / 39 = 84	4	6

NOTES:

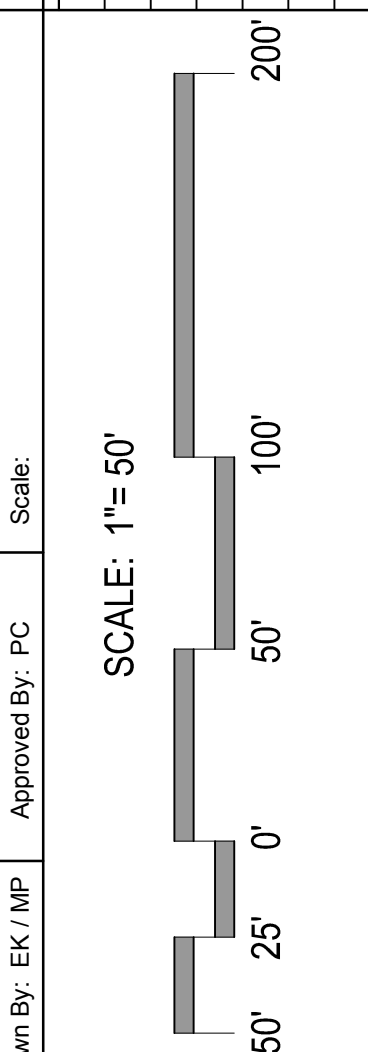
1. LOCATION OF PARKING IS SUBJECT TO CHANGE
2. MASTER PLAN PARKING IS NOT INCLUDED IN APPROVED MOTHERHOUSE SITE PLAN
3. PARKING IS SHOWN BETWEEN BUILDINGS 2/3 AND BAXTER WOODS TO MEET ZONING REQUIREMENT OF 2.0 SPACES/DU. THIS PARKING WILL BE CONSTRUCTED IF MARKET DEMANDS OR PLANNING BOARD ACTION REQUIRES SUCH.

APPLICANT:

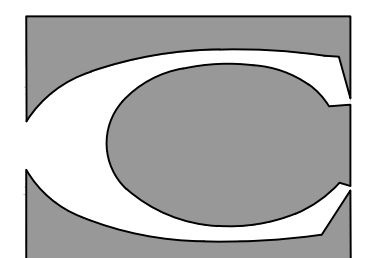
SEA COAST AT
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605 Stevens Ave.
MASTER DEVELOPMENT PLAN
PARKING DIAGRAM

Revisions	Date	Description
1	3.6.2016	PLANNING BOARD SUBMISSION
2	3.16.2016	PLANNING BOARD SUBMISSION
3	4.11.2016	REVISED SITE PLAN AND ZONE BOUNDARY
4	6.1.2016	FINAL PLAN SUBMITTAL TO CITY



PERMITTING

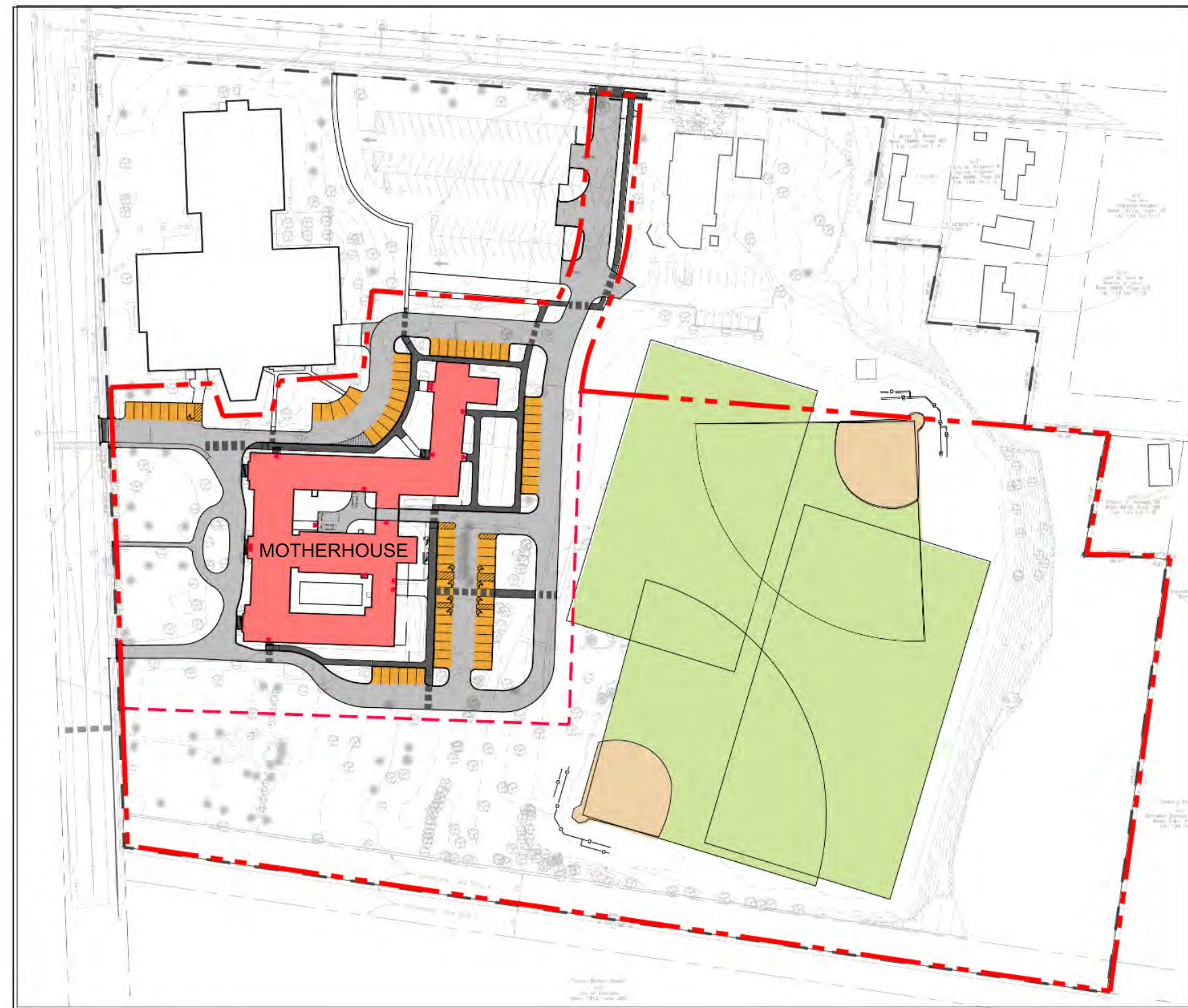


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
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Date:
FEBRUARY 16, 2016

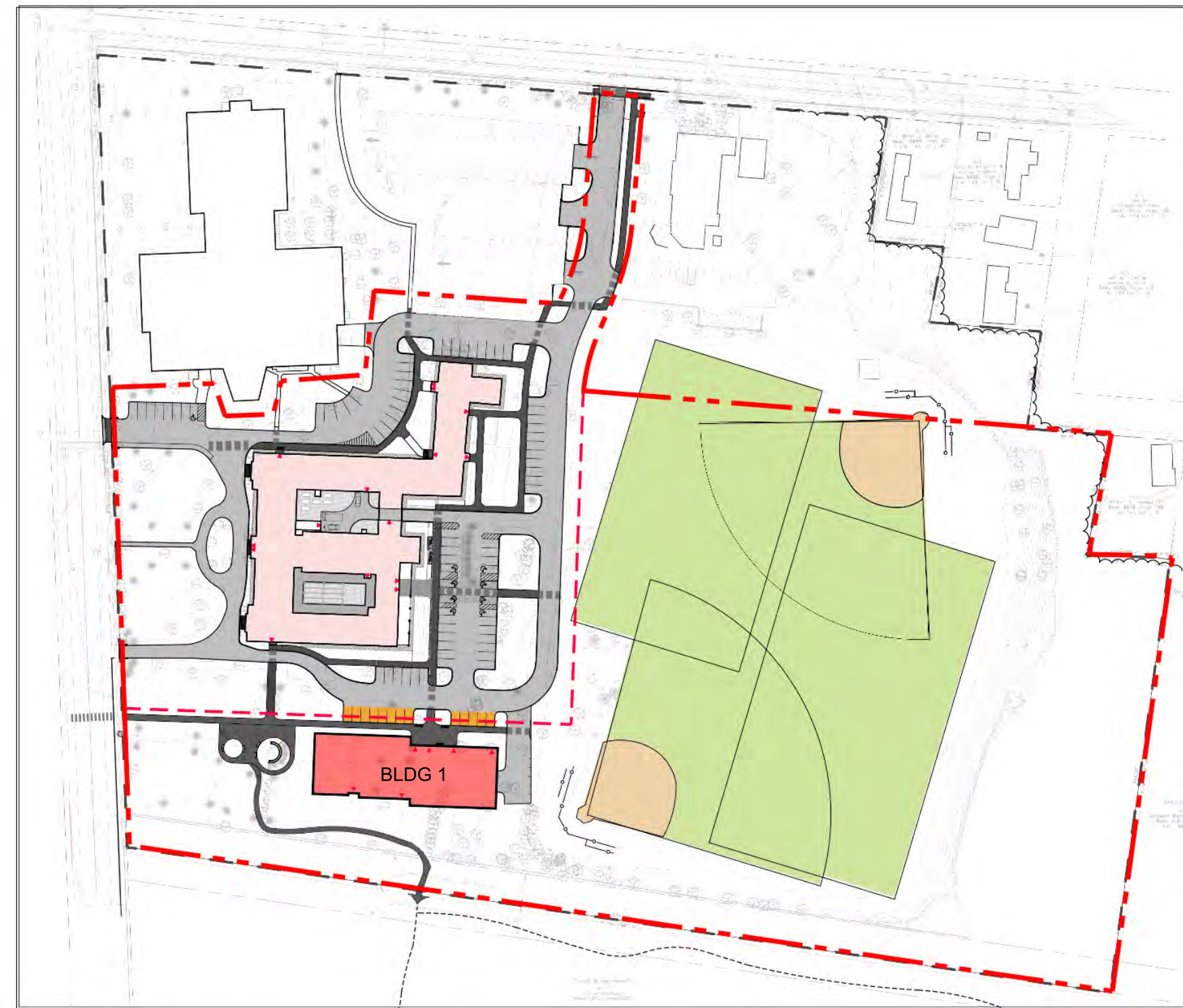
Sheet No:

L-3.1



PHASE I MOTHERHOUSE RENOVATION
ALL FIELDS REMAIN INTACT

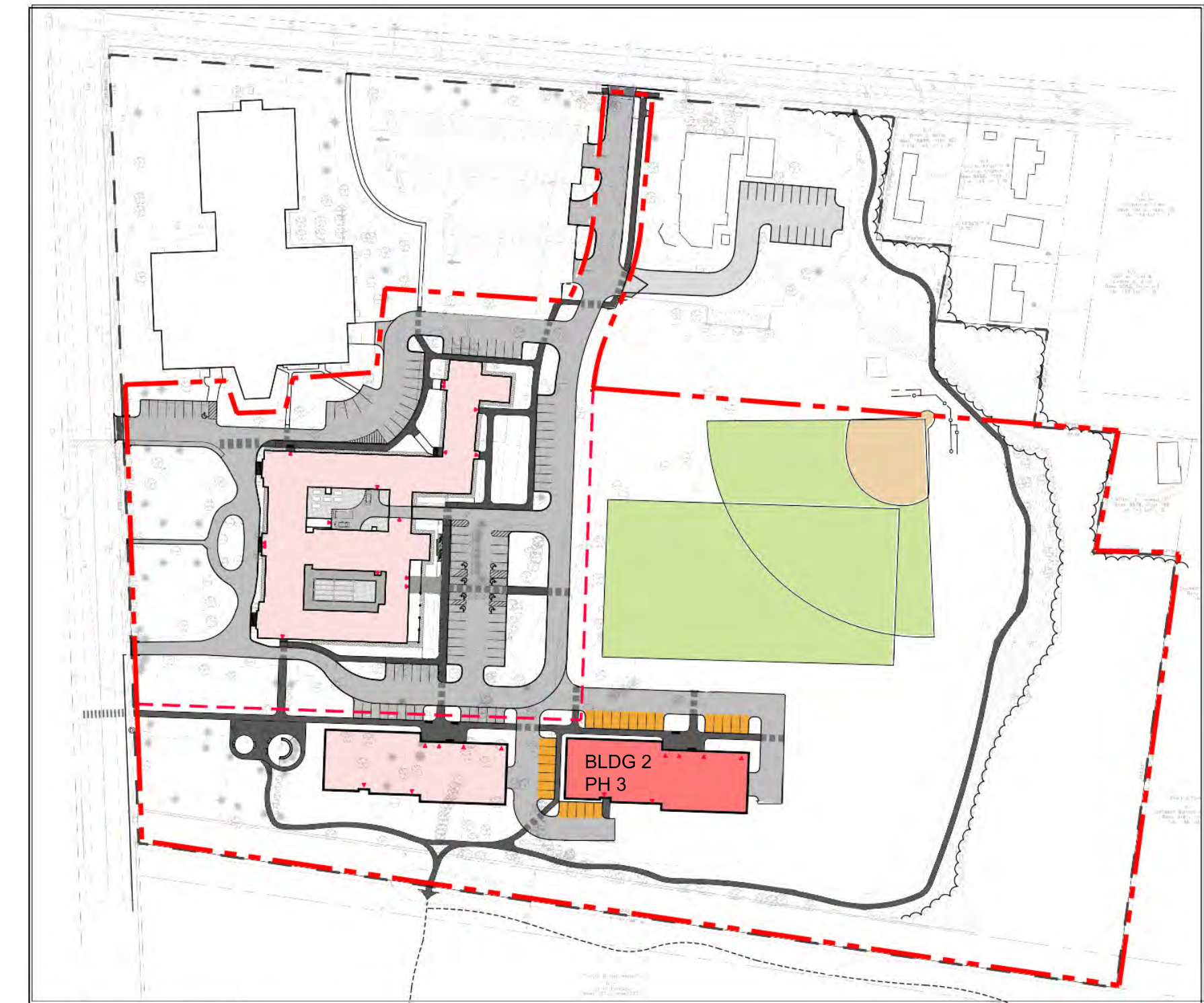
88 DU
73 SURFACE P.S.



PHASE II FIRST NEW BUILDING CONSTRUCTED (21 DU)
ALL FIELDS REMAIN INTACT

21 DU
31 COVERED P.S.
11 SURFACE P.S.

84 TOTAL SURFACE
115 TOTAL SPACES



PHASE III BUILDING #2 CONSTRUCTED (28 DU)
LOWER FIELDS LOST, UPPER FIELDS REMAIN,
(SOCCER RECONFIGURED)

28 DU
31 COVERED P.S.
25 SURFACE P.S.

109 TOTAL SURFACE
171 TOTAL SPACES



PHASE IV BUILDING #3 CONSTRUCTED (42 DU)
LOWER FIELDS LOST, UPPER FIELDS REMAIN,
(SOCCER RECONFIGURED)

42 DU
45 COVERED P.S.
39 SURFACE P.S.

148 TOTAL SURFACE
255 TOTAL SPACES



PHASE V BUILDING #4 CONSTRUCTED (28 DU)
NEW FIELDS CONSTRUCTED

28 DU
31 COVERED P.S.
25 SURFACE P.S.

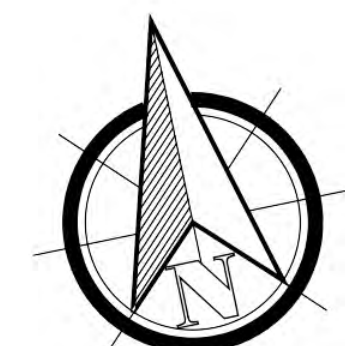
173 TOTAL SURFACE
311 TOTAL SPACES



PHASE VI BUILDING #5 CONSTRUCTED (42 DU)
NEW FIELDS CONSTRUCTED

42 DU
45 COVERED P.S.
39 SURFACE P.S.

212 TOTAL SURFACE
395 TOTAL SPACES



NOTE:
APPLICANT IS NOT OBLIGATED
TO CONSTRUCT BUILDINGS IN
EXACT ORDER OF THE
NUMERICALLY INDEXED
PHASING PLAN. FLEXIBILITY IN
BUILDING PHASING SHALL BE
ALLOWED TO MEET MARKET
DEMANDS AND RESIDENCES'
NEEDS.

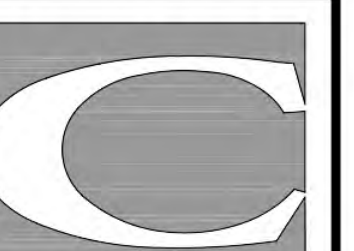
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605 Stevens Ave.
ALTERNATE PHASING
PLAN

Revisions	Date	Description
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		FINAL PLAN SUBMITTAL TO CITY

PERMITTING



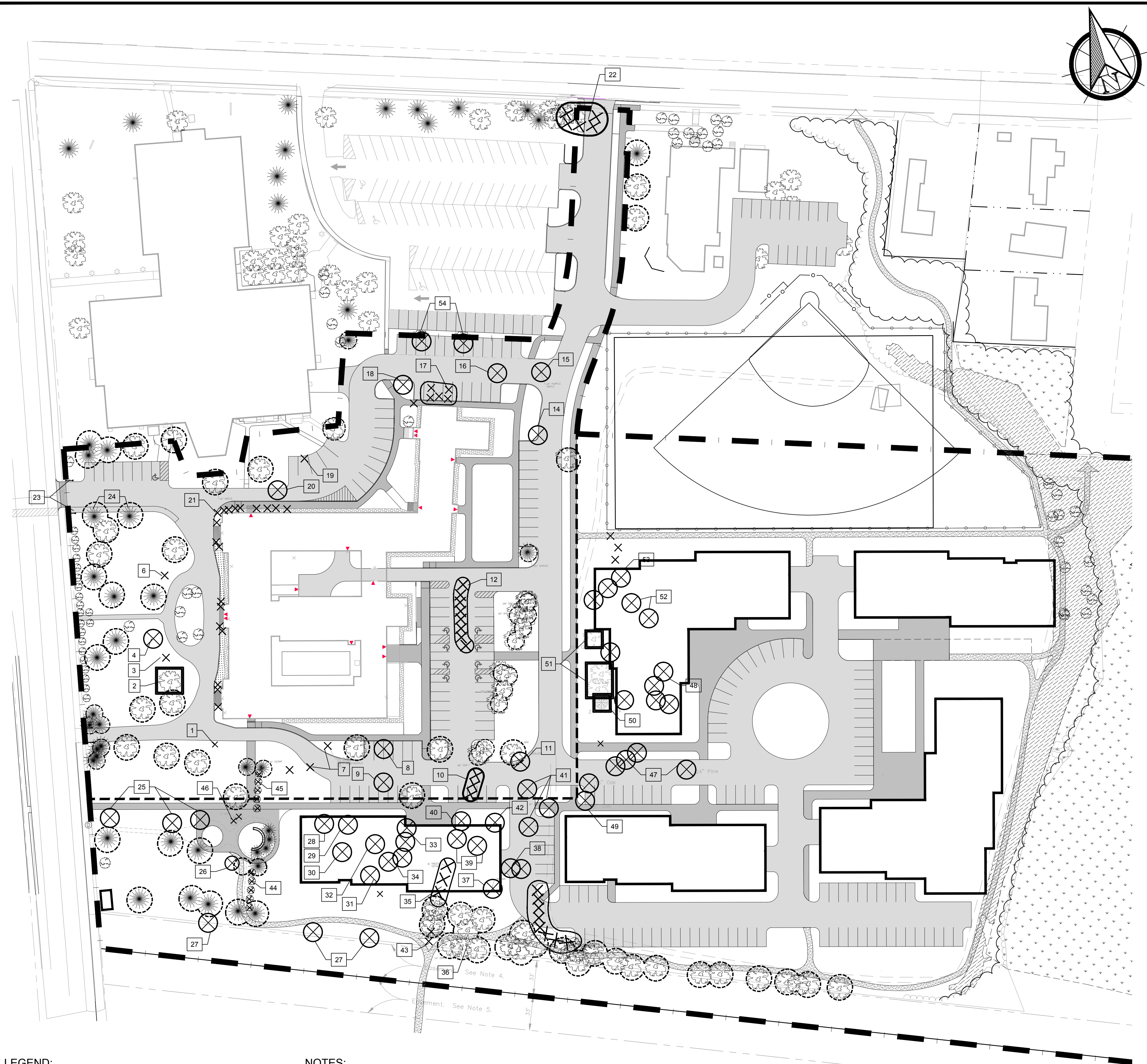
CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS

217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
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Date:
FEBRUARY 16, 2016

Sheet No:

L-4a



LEGEND:

(TREE REMOVAL)

TREE TO BE REMOVED

GROUP OF TREES TO BE REMOVED

SHRUB TO BE REMOVED

TREE TO BE PRUNED OR RELOCATED

TREES TO BE PRESERVED

NOTES:

1. ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITHIN APPROVED FENCING OR BARRIERS AT THE EXISTING DRIPLINE, SEE DETAIL 1, SHEET L3.0
2. NO EQUIPMENT OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED DRIPLINE AREA OF PRESERVED TREES
3. ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE TREE CARE SHALL BE INITIATED IMMEDIATELY.
4. OWNER SHALL RETAIN A LICENSES ARBORIST TO PREPARE A TREE CARE PROGRAM FOR ALL PRESERVED TREES TO INCLUDE PRE, DURING AND POST CONSTRUCTION MANAGEMENT.
5. TREE MANAGEMENT SHALL CONSIST OF SELECT PRUNING, WATERING, FERTILIZATION, AND AERATION AS REQUIRED AND SPECIFIED TO EACH TREE SPECIES.

TREE REMOVAL ANALYSIS - PHASE 1

SYM	NOTES	SIZE / TYPE	REMOVE Y / N
1	SCRAPPY HONEYSUCKLE - MAY WANT TO REMOVE	8" DEC	Y
2	PRUNE	4" V	N
3	DEAD SHRUB W/ INVASIVES GROWING IN IT	5" DEC	Y
4	SPRUCE IN BAD SHAPE	10" EVERGREEN	Y
6	SHRUB IN POOR CONDITION W/ INVASIVES GROWING IN IT	5" DEC	Y
7	SHRUBS TO BE REMOVED	DEC	Y
8	OAK TREE TO BE REMOVED FOR DEVELOPMENT	28" DEC	Y
9	SPRUCE TO BE REMOVED AND RELOCATED	3" EVERGEEN	Y
10	(3) OAK TO BE REMOVED FOR DEVELOPMENT	18",18",12" DEC	Y
11	HEMLOCK TO BE REMOVED FOR DEVELOPMENT	10"	Y
12	(8) EVERGREEN TREES TO BE REMOVED (1 PINE, 7 CEDAR)	(1) 20", (7) 7"	Y
14	MAPLES IN POOR SHAPE TO BE REMOVED FOR DEVELOPMENT	24" DEC	Y
15	NORWAY MAPLE W/ SOME TRUNK ROT TO BE REMOVED FOR DEVELOPMENT	15" DEC	Y
16	NORWAY MAPLE TO BE REMOVED	24" DEC	Y
17	SHRUBS TO BE REMOVED (5 YEWS, 1 LILAC)	5' HT +/-	Y
18	CRABAPPLE TO BE REMOVED	5" DEC	Y
19	LILAC SHRUB TO BE RMOVED	5' HT +/-	Y
20	CRIMSON KING NORWAY MAPLE	26" DEC	Y
21	(19 SHRUBS) REMOVE ALL FOUNDATION PLANTING SHRUBS, MOSTLY YEWS	3-4' HT	Y
22	(5-6) OAK TREES TO BE REMOVED	MULTI SIZE DEC	Y
23	HEDGE TO BE REMOVED FOR SITE VISIBILITY	6' EVERGREEN	Y
24	(2) SPRUCE TO BE LIMBED UP TO +/-8' HT. FOR PEDESTRIAN PASSAGE	8" EVERGREEN	N

TREE REMOVAL ANALYSIS - PHASE 2

25	(3) OVERGROWN CEDAR TREES TREE TO BE REMOVED FOR DEVELOPMENT	6" EVERGREEN	Y
26	STANDING DEAD WOOD TO BE REMOVED	12" EVERGREEN	Y
27	(3) INVASIVE NORWAY MAPLES TO BE REMOVED	8", 12",12" DEC	Y
28	TREE TO BE REMOVED FOR DEVELOPMENT	4" DEC	Y
29	TREE TO BE REMOVED FOR DEVELOPMENT	8" DEC	Y
30	TREE TO BE REMOVED FOR DEVELOPMENT	4" DEC	Y
31	TREE TO BE REMOVED FOR DEVELOPMENT	6" EVERGREEN	Y
32	TREE TO BE REMOVED FOR DEVELOPMENT	8" EVERGREEN	Y
33	TREE TO BE REMOVED FOR DEVELOPMENT	(3) 3" CON	Y
34	TREE TO BE REMOVED FOR DEVELOPMENT	8", 5" DEC	Y
35	(6) OAKS TO BE REMOVED FOR DEVELOPMENT	12-28" DEC	Y
36	(6) OAK TO BE PROTECTED	7-14" DEC	N
37	OAK TO BE REMOVED FOR DEVELOPMENT	15" DEC	Y
38	(2) OAKS TO BE REMOVED FOR DEVELOPMENT	8", 12" DEC	Y
39	(2) DECIDUOUS TREES TO BE REMOVED FOR DEVELOPMENT	(2) 12" DEC	Y
40	(2) OAKS TREES TO BE REMOVED FOR DEVELOPMENT	(2) 12" DEC	Y
41	(3) OAK TO BE REMOVED FOR DEVELOPMENT	(3) 12" DEC	Y
42	OAK TO BE REMOVED FOR DEVELOPMENT	8" DEC	Y
43	(2) YEW SHRUBS TO BE REMOVED FOR DEVELOPMENT	(2) 3' WIDTH EV	Y
44	(5) PRIVET SHRUBS TO BE REMOVED FOR DEVELOPMENT	4' HT DEC	Y
45	(5) PRIVET SHRUBS TO BE REMOVED FOR DEVELOPMENT	4' HT DEC	Y
46	(2) YEW SHRUBS TO BE REMOVED FOR DEVELOPMENT	(2) 3' WIDTH EV	Y

TREE REMOVAL ANALYSIS - PHASE 3

47	(4) PINE TREES TO BE REMOVED	24" EVERGREEN	Y
48	(4) OAKS TO BE REMOVED	(3) 18", 16"	Y
49	(2) TO BE REMOVED FOR DEVELOPMENT	12", 16" DEC	Y
50	HEMLOCK TO BE PRUNED TO ACCOMMODATE DEVELOPMENT	24" EVERGREEN	Y
51	(3) OAKS TO BE PRUNED AS NECESSARY	(2) 16" DEC	Y

TREE REMOVAL ANALYSIS - PHASE 4

52	(2) OAKS TO BE REMOVED	(2) 16" DEC	Y
53	(3) OAKS TO BE REMOVED	(2)18", 24" DEC	Y
54	(2) CATALPA TREES TO BE REMOVED	(2) 20" DEC	Y

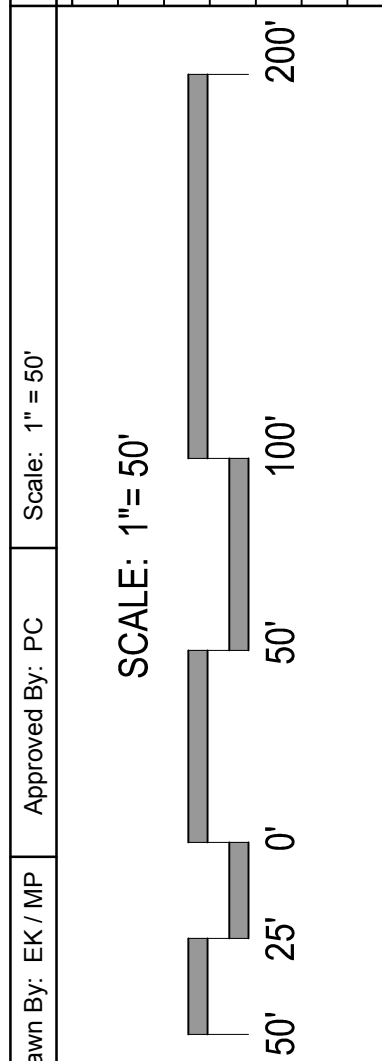
APPLICANT:

SEA COAST AT
BAXTER WOODS
ASSOCIATES, LLC
&
MOTHERHOUSE
ASSOCIATES LP
100 COMMERCIAL
STREET SUITE 414
PORTLAND, ME 04101
207.772.7673

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
LANDSCAPE PRESERVATION PLAN

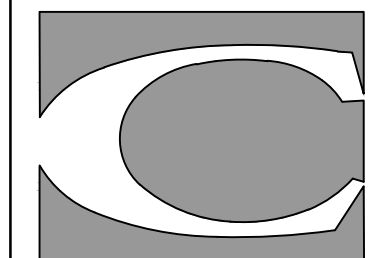
Project:

Revisions	Date	Description
1	3.8.2016	PLANNING BOARD SUBMISSION
2	3.16.2016	PLANNING BOARD SUBMISSION
3	4.11.2016	PERMIT PLAN AND ZONE
4	6.1.2016	FINAL PLAN SUBMITTAL TO CITY



Phase:

PERMITTING

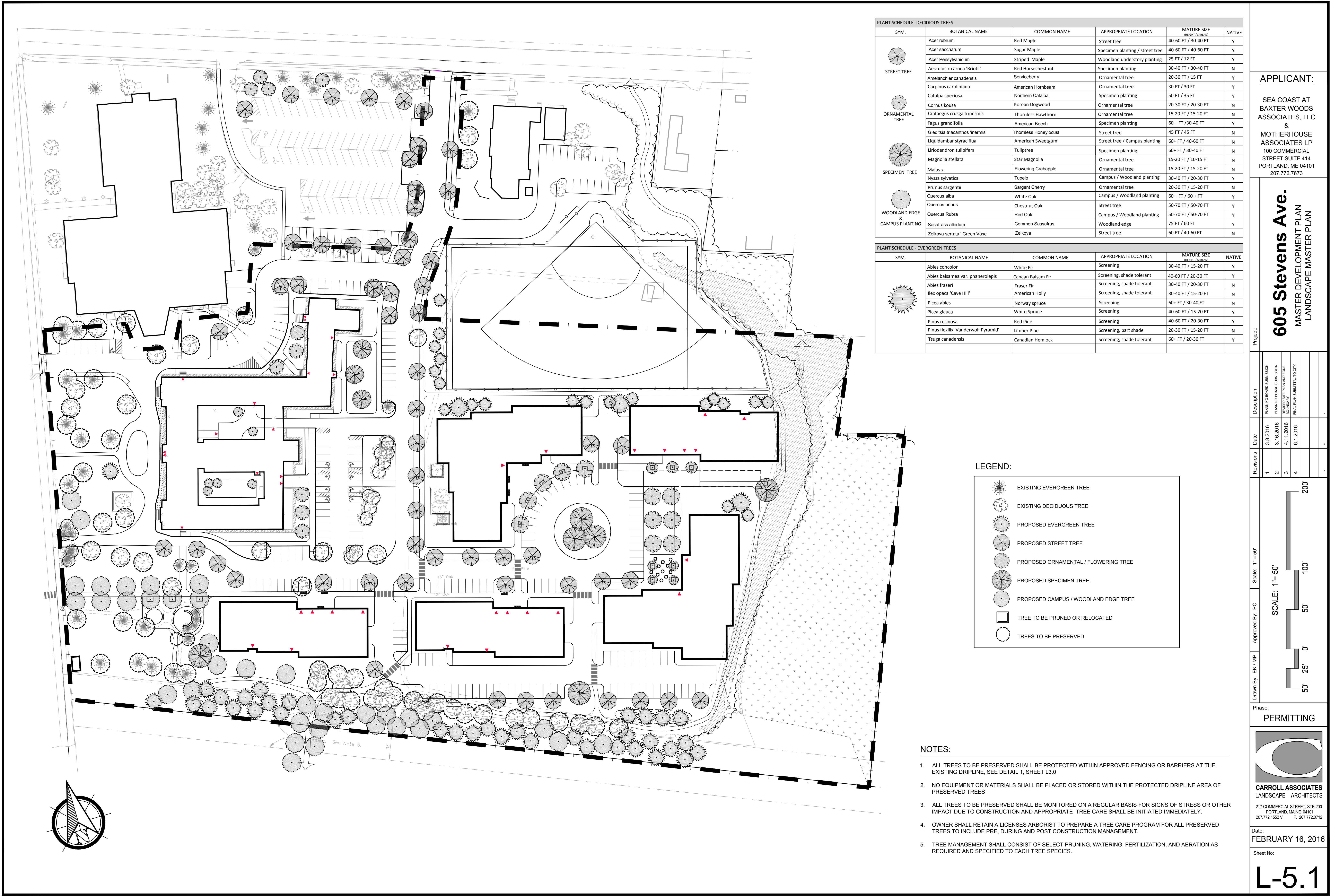


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1952 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet No:

L-5.0



PLANT SCHEDULE - DECIDUOUS TREES					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT / SPREAD)	NATIVE
	Acer rubrum	Red Maple	Street tree	40-60 FT / 30-40 FT	Y
	Acer saccharum	Sugar Maple	Specimen planting / street tree	40-60 FT / 40-60 FT	Y
	Acer Pensylvanicum	Striped Maple	Woodland understory planting	25 FT / 12 FT	Y
	Aesculus x carnea 'Briotii'	Red Horsechestnut	Specimen planting	30-40 FT / 30-40 FT	N
	Amelanchier canadensis	Serviceberry	Ornamental tree	20-30 FT / 15 FT	Y
	Carpinus caroliniana	American Hornbeam	Ornamental tree	30 FT / 30 FT	Y
	Catalpa speciosa	Northern Catalpa	Specimen planting	50 FT / 35 FT	Y
	Cornus kousa	Korean Dogwood	Ornamental tree	20-30 FT / 20-30 FT	N
	Crataegus crusgalli inermis	Thornless Hawthorn	Ornamental tree	15-20 FT / 15-20 FT	N
	Fagus grandifolia	American Beech	Specimen planting	60 + FT / 30-40 FT	Y
	Gleditsia triacanthos 'inermis'	Thornless Honeylocust	Street tree	45 FT / 45 FT	N
	Liquidambar styraciflua	American Sweetgum	Street tree / Campus planting	60+ FT / 40-60 FT	N
	Liriodendron tulipifera	Tuliptree	Specimen planting	60+ FT / 30-40 FT	N
	Magnolia stellata	Star Magnolia	Ornamental tree	15-20 FT / 10-15 FT	N
	Malus x	Flowering Crabapple	Ornamental tree	15-20 FT / 15-20 FT	N
	Nyssa sylvatica	Tupelo	Campus / Woodland planting	30-40 FT / 20-30 FT	Y
	Prunus sargentii	Sargent Cherry	Ornamental tree	20-30 FT / 15-20 FT	N
	Quercus alba	White Oak	Campus / Woodland planting	60 + FT / 60 + FT	Y
	Quercus prinus	Chestnut Oak	Street tree	50-70 FT / 50-70 FT	Y
	Quercus Rubra	Red Oak	Campus / Woodland planting	50-70 FT / 50-70 FT	Y
	Sassafras albidum	Common Sassafras	Woodland edge	75 FT / 60 FT	Y
	Zelkova serrata 'Green Vase'	Zelkova	Street tree	60 FT / 40-60 FT	N

PLANT SCHEDULE - EVERGREEN TREES					
SYM.	BOTANICAL NAME	COMMON NAME	APPROPRIATE LOCATION	MATURE SIZE (HEIGHT / SPREAD)	NATIVE
	Abies concolor	White Fir	Screening	30-40 FT / 15-20 FT	Y
	Abies balsamea var. phanerolepis	Canaan Balsam Fir	Screening, shade tolerant	40-60 FT / 20-30 FT	Y
	Abies fraseri	Fraser Fir	Screening, shade tolerant	30-40 FT / 20-30 FT	N
	Ilex opaca 'Cave Hill'	American Holly	Screening, shade tolerant	30-40 FT / 15-20 FT	N
	Picea abies	Norway spruce	Screening	60+ FT / 30-40 FT	N
	Picea glauca	White Spruce	Screening	40-60 FT / 15-20 FT	Y
	Pinus resinosa	Red Pine	Screening	40-60 FT / 20-30 FT	Y
	Pinus flexilis 'Vanderwolf Pyramid'	Limber Pine	Screening, part shade	20-30 FT / 15-20 FT	N
	Tsuga canadensis	Canadian Hemlock	Screening, shade tolerant	60+ FT / 20-30 FT	Y

LEGEND:

- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED STREET TREE
- PROPOSED ORNAMENTAL / FLOWERING TREE
- PROPOSED SPECIMEN TREE
- PROPOSED CAMPUS / WOODLAND EDGE TREE
- TREE TO BE PRUNED OR RELOCATED
- TREES TO BE PRESERVED

- NOTES:
- ALL TREES TO BE PRESERVED SHALL BE PROTECTED WITHIN APPROVED FENCING OR BARRIERS AT THE EXISTING DRIPLINE, SEE DETAIL 1, SHEET L3.0
 - NO EQUIPMENT OR MATERIALS SHALL BE PLACED OR STORED WITHIN THE PROTECTED DRIPLINE AREA OF PRESERVED TREES
 - ALL TREES TO BE PRESERVED SHALL BE MONITORED ON A REGULAR BASIS FOR SIGNS OF STRESS OR OTHER IMPACT DUE TO CONSTRUCTION AND APPROPRIATE TREE CARE SHALL BE INITIATED IMMEDIATELY.
 - OWNER SHALL RETAIN A LICENSED ARBORIST TO PREPARE A TREE CARE PROGRAM FOR ALL PRESERVED TREES TO INCLUDE PRE, DURING AND POST CONSTRUCTION MANAGEMENT.
 - TREE MANAGEMENT SHALL CONSIST OF SELECT PRUNING, WATERING, FERTILIZATION, AND AERATION AS REQUIRED AND SPECIFIED TO EACH TREE SPECIES.

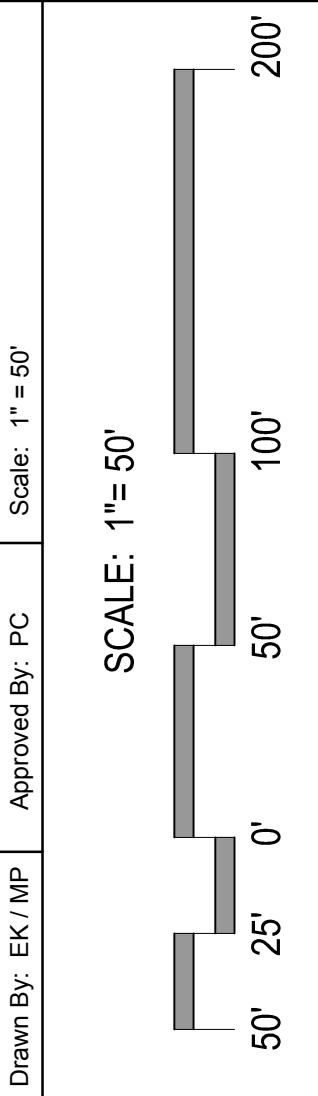
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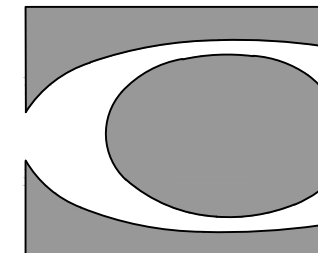
Project:

605 Stevens Ave.
MASTER DEVELOPMENT PLAN
LANDSCAPE MASTER PLAN

Revisions	Date	Description
1	3.8.2016	PLANNING BOARD SUBMISSION
2	3.16.2016	PLANNING BOARD SUBMISSION
3	4.11.2016	PLANNING BOARD SUBMISSION
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Phase:
PERMITTING

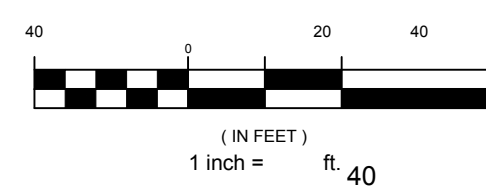
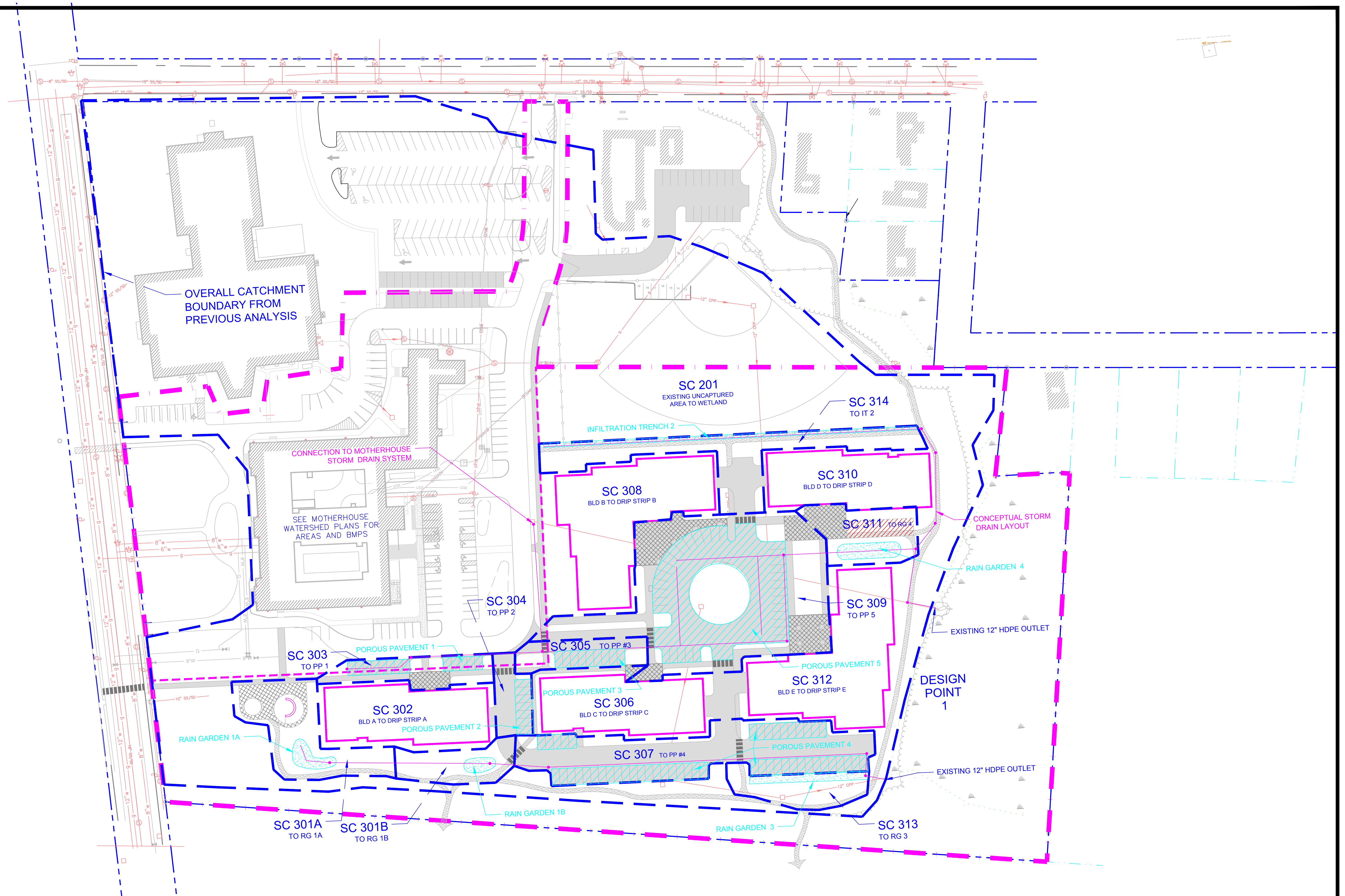


CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET, STE 200
PORTLAND, MAINE 04101
207.772.1952 V. F. 207.772.0712

Date:
FEBRUARY 16, 2016

Sheet No:

L-5.1



PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT 605 STEVENS AVE. MASTER DEVELOPMENT PLAN			STANTEC CONSULTING SERVICES INC. 482 PAYNE ROAD, SCARBOROUGH, MAINE 04074 WWW.STANTEC.COM	
SHEET TITLE CONCEPT STORMWATER LAYOUT AND POST DEVELOPMENT WATERSHED PLAN			DRAWN: DED	DATE: MAY 2016
CLIENT SEA COAST AT BAXTER WOODS, ASSOC., LLC & MOTHERHOUSE ASSOCIATES, LP			DESIGNED: ADJ	SCALE: 1" = 40'
FILE NAME: SP-M162 UTILITY			CHECKED: ADJ	JOB NO.
SHEET			C1.0	

1	05-16-16	ISSUED FOR MASTER PLAN REVIEW	P.E.
REV	DATE	DESCRIPTION	LIC. #
REVISIONS			



CONNECTIONS TO
WATER AND GAS MAINS
FROM MOTHERHOUSE
PROJECT

NEW PRIMARY ELECTRIC
FROM DROP POLE (SEE
MOTHERHOUSE PLANS)

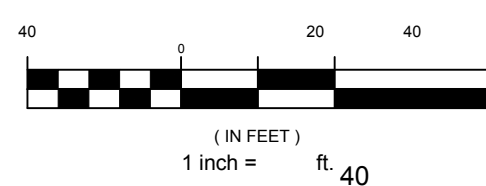
NEW SEWER
TO CONNECT
AT EXISTING
MANHOLE

NEW SEWER LINE

NEW GAS MAIN

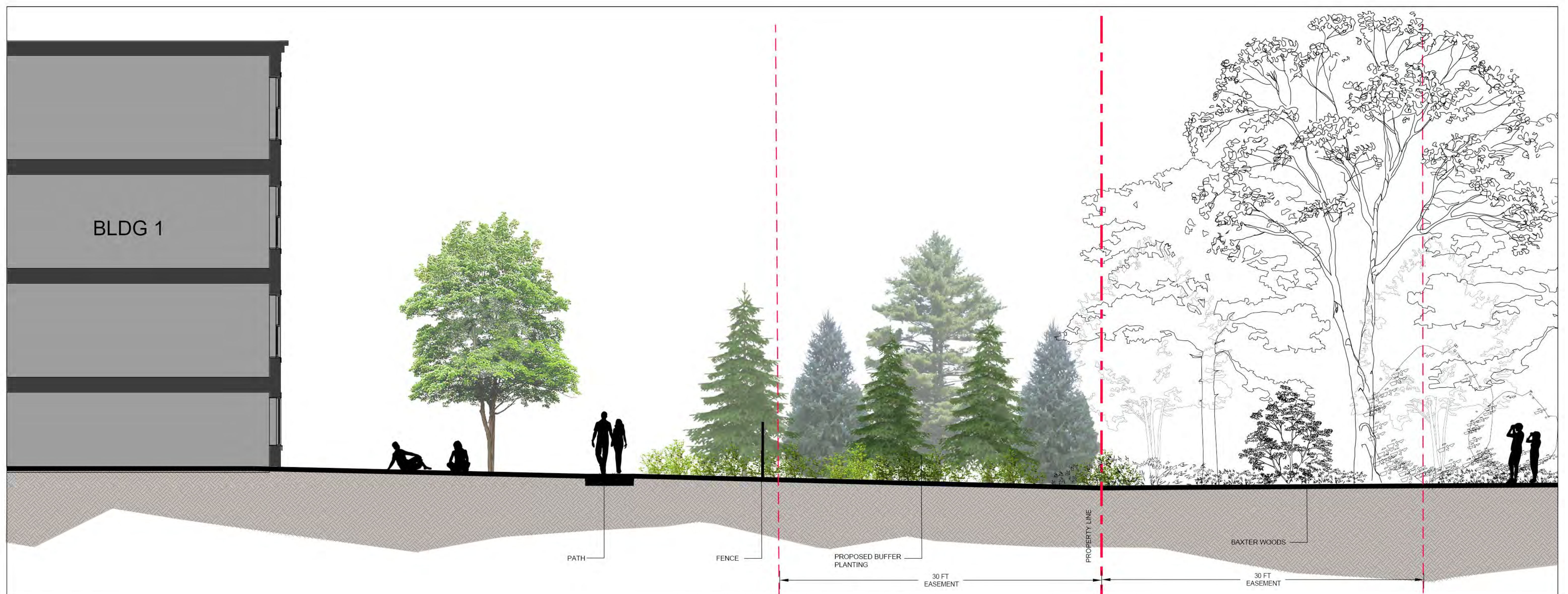
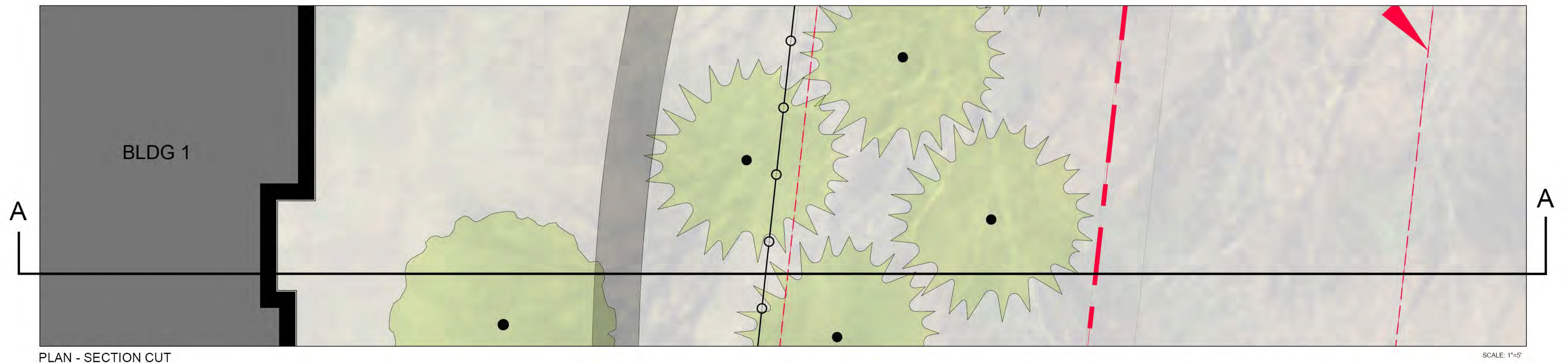
NEW WATER MAIN

HYDRANT (TYP)



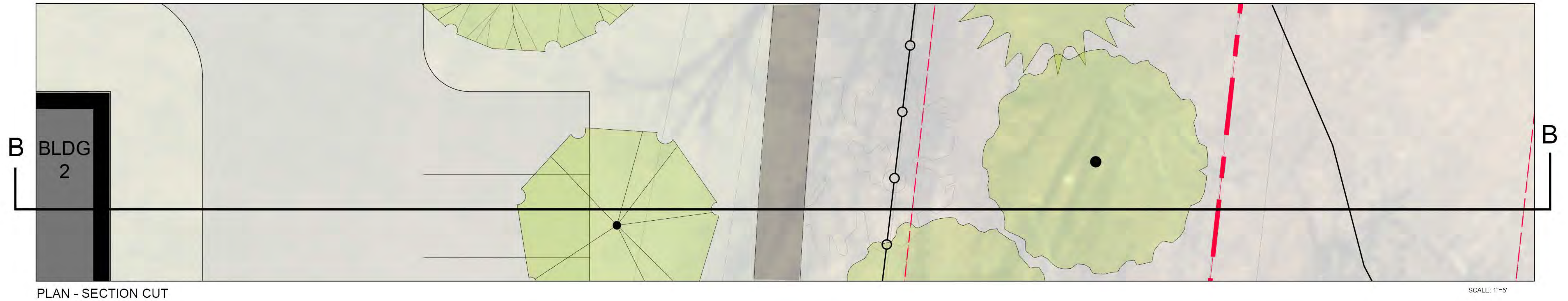
PRELIMINARY - NOT FOR CONSTRUCTION

			PROJECT 605 STEVENS AVE. MASTER DEVELOPMENT PLAN		STANTEC CONSULTING SERVICES INC. 482 PAYNE ROAD, SCARBOROUGH, MAINE 04074 WWW.STANTEC.COM	
			SHEET TITLE CONCEPT UTILITY PLAN		DRAWN: DED DESIGNED: ADJ CHECKED: ADJ	
			CLIENT SEA COAST AT BAXTER WOODS, ASSOC., LLC & MOTHERHOUSE ASSOCIATES, LP		DATE: MAY 2016 SCALE: 1" = 40' JOB NO. FILE NAME: SP-M162 UTILITY	
					SHEET C2.0	
1	05-16-16	ISSUED FOR MASTER PLAN REVIEW				
REV	DATE	DESCRIPTION				
			P.E.			
			REVISIONS		LIC. #	



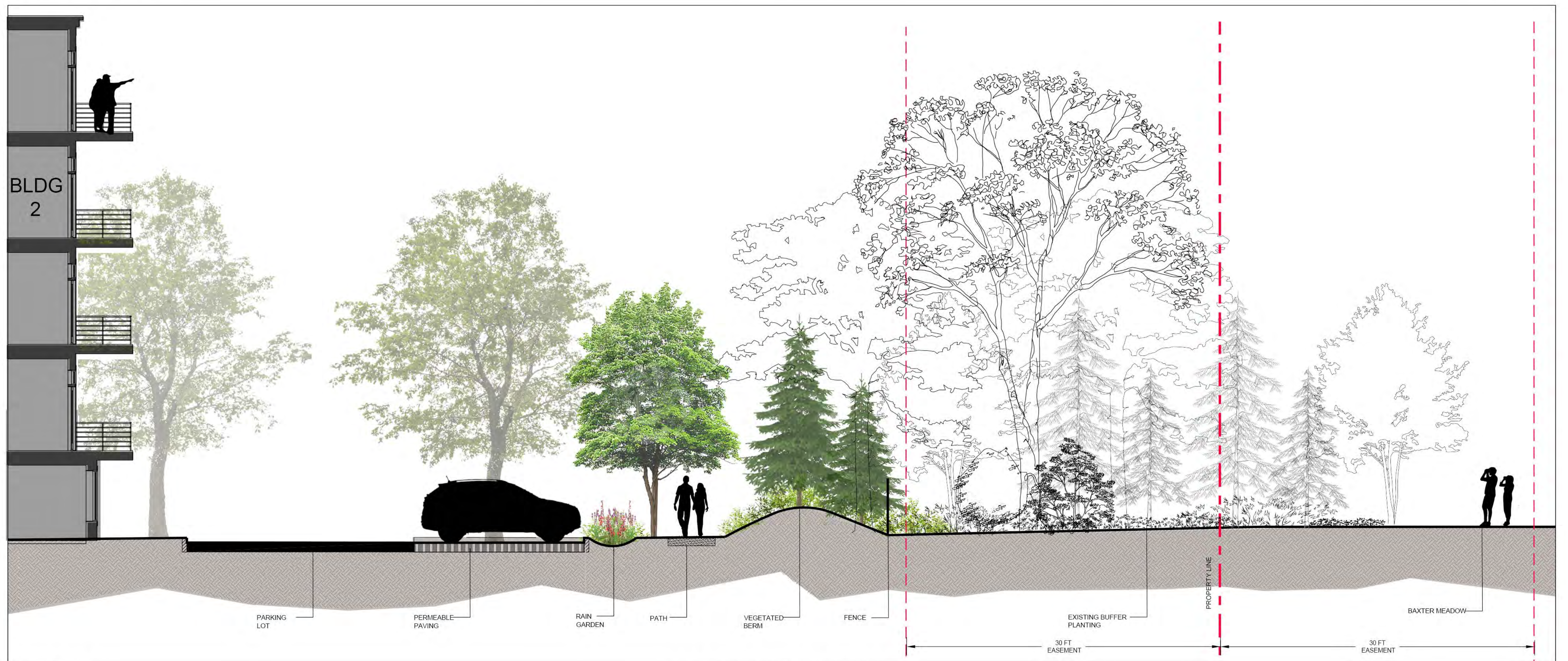
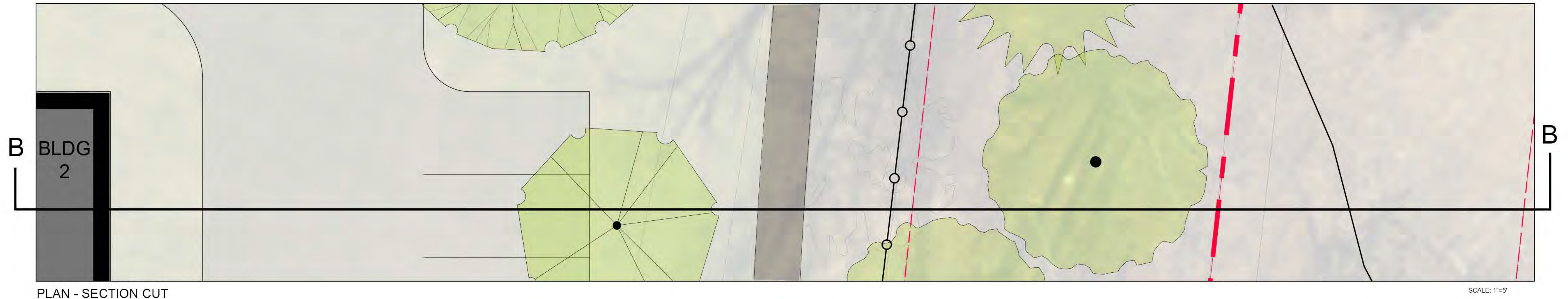
605 STEVENS AVE
BUILDING 1

L-6.0



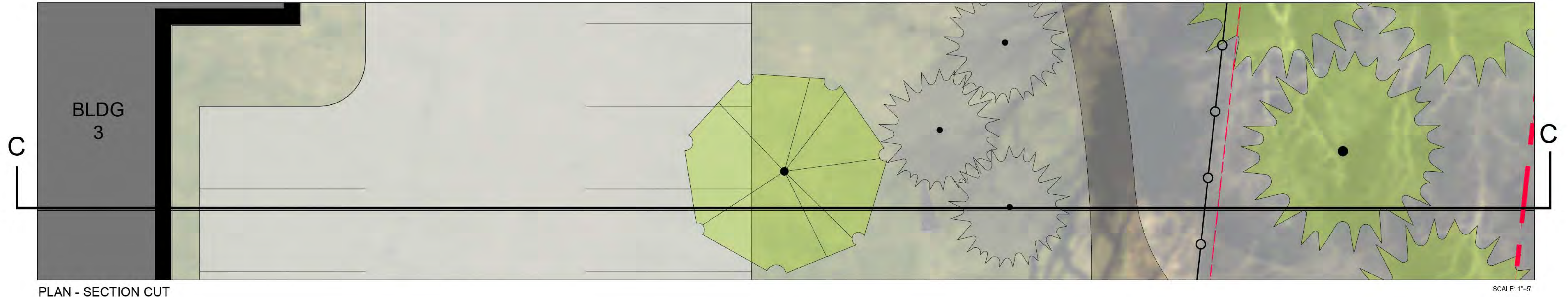
605 STEVENS AVE
BUILDING 2

L-6.1



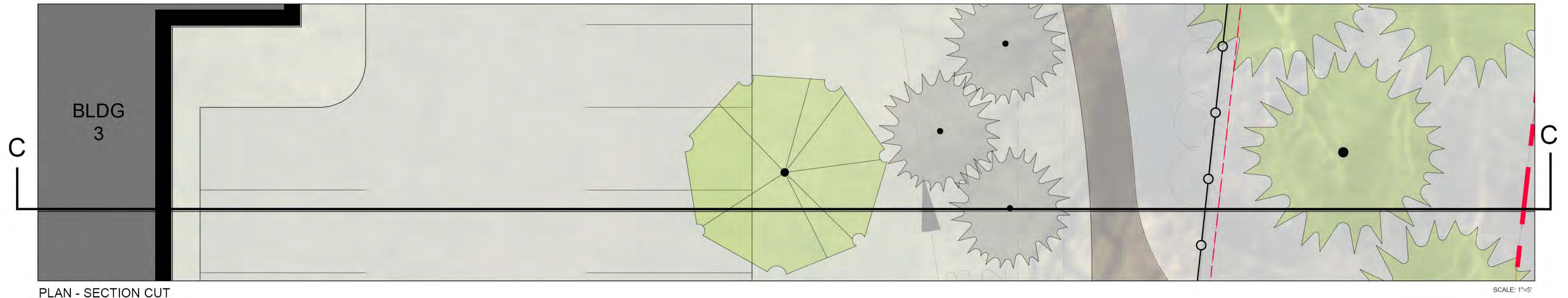
605 STEVENS AVE
BUILDING 2 - WITH PARKING

L-6.2



605 STEVENS AVE
BUILDING 3

L-6.3



605 STEVENS AVE
BUILDING 3 - WITH PARKING

EXHIBIT B

URBAN DESIGN & ARCHITECTURE

Exhibit B contains the following materials:

- Architectural Plans, Archetype, PA
 - 4-Story Rendering
 - 5-Story Rendering
 - L-Building Rendering
 - A2.1 4 –Story Elevation
 - A2.1 5 - Story Elevation
 - A2.2 4 - Story Elevation
 - A 2.2 5 – Story Elevation
- Architectural Characteristics Summary, *Exhibit B.1*, attached.

EXHIBIT B.1

605 STEVENS AVENUE

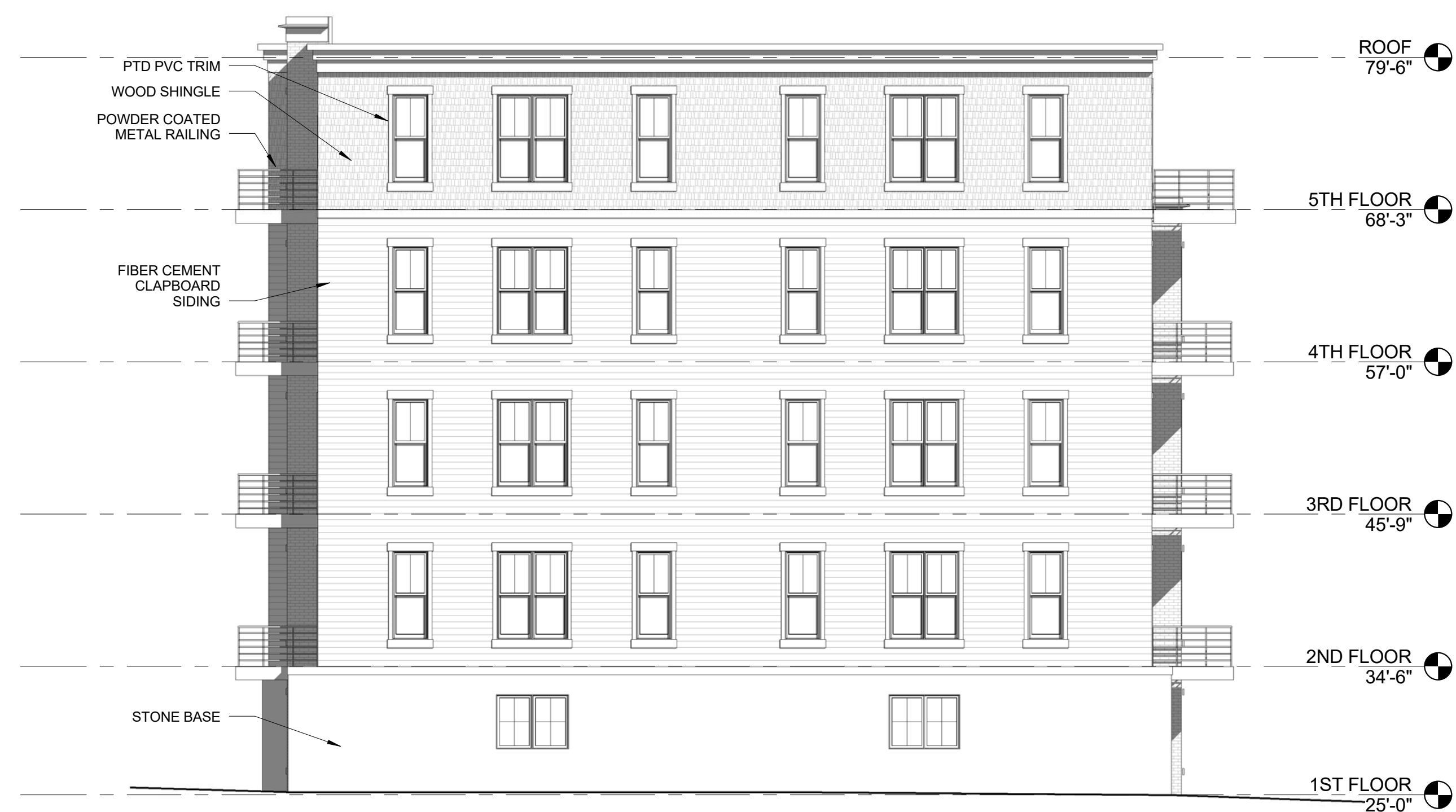
ARCHITECTURAL CHARACTERISTICS

The following design guidelines are proposed to describe the context of the architectural program for the 605 Stevens Avenue Master Development Plan Architecture. Final details may vary as submitted with individual LIII Site Plans for each building phase but shall incorporate the following design elements into the overall campus masterplan for the site:

1. Final building footprints will generally follow the approved footprints and massing shown on the Site Master Development Plans.
2. All Gable roofs have been eliminated in favor of flat roofs. This has the effect of calming down the architecture and is more reflective of an honest architecture.
3. Elements of the Motherhouse have been reflected in the new buildings such as the granite base of the Mother house will be incorporated into the new designs . A modern version of the mansard on the Motherhouse will be incorporated, but in a vertical, not sloped version , with a zinc faced metal shingle to identify the top floor. Brick elements with brick matching the Mother house are incorporated into the design .
4. The colors of the new buildings are all natural toned, brick, granite and grey clapboard.
5. The entry ways into each building are clearly delineated with welcoming porch elements.
6. Each unit will have its own deck space which also works to help break down the building massing and add interest.
7. Parking is located under each building structure allowing more open green space . The facades of the parking garage are fenestrated with window openings which are similar to a living space yielding a more inviting look to the exterior .



1 | ENTRY ELEVATION - 5 STORY BUILDING
1/8" = 1'-0"



2 | LEFT ELEVATION - 5 STORY BUILDING
1/8" = 1'-0"

605 STEVENS AVENUE

PORTLAND, MAINE

01 JUN. 2016

A2.1



605 STEVENS AVENUE

PORTLAND, MAINE

1 APR 2016

A2.1



2 | REAR ELEVATION - 5 STORY BUILDING
1/8" = 1'-0"



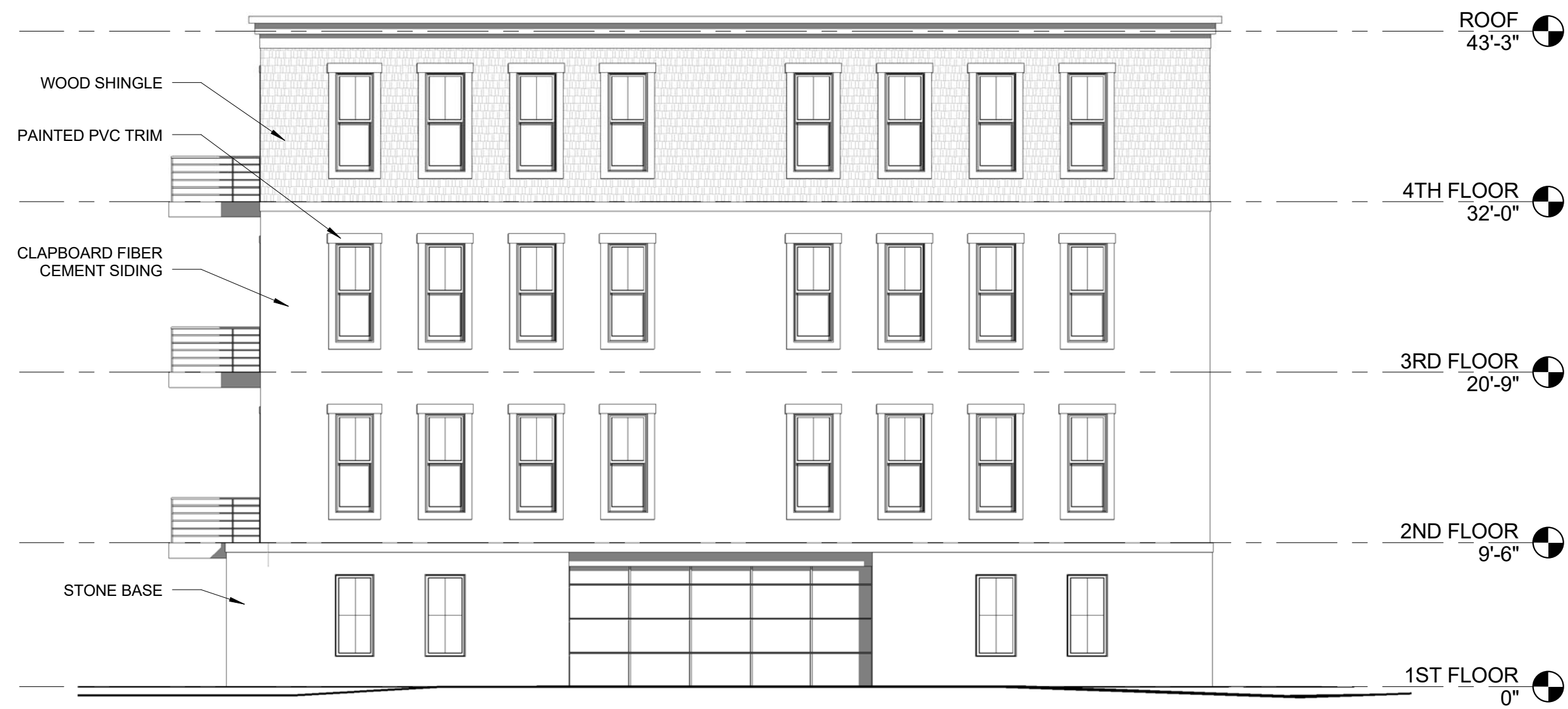
1 | RIGHT ELEVATION - 5 STORY BUILDING
1/8" = 1'-0"

605 STEVENS AVENUE

PORTLAND, MAINE

01 JUN. 2016

A2.2



1 | LEFT ELEVATION - 4 STORY BUILDING
 1/8" = 1'-0" 0 2'-0" 4'-0" 8'-0" 16'-0"



2 | RIGHT ELEVATION - 4 STORY BUILDING
 1/8" = 1'-0"

605 STEVENS AVENUE

PORTLAND, MAINE

1 APR 2016

A2.2













Google earth

Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO



Google earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Data LCED-Columbia, N&F, NOAA





PROPOSED BIRDSEYE VIEW - VIEW FROM THE SOUTH WEST

EXISTING VIEWS



VIEW FROM WALTON STREET ENTRANCE



VIEW FROM STEVENS AVENUE



INTERIOR CAMPUS VIEW

PROPOSED VIEWS - Summer



PROPOSED VIEWS - Winter





EXISTING VIEW - VIEW FROM EVERGREEN CEMETERY



PROPOSED VIEW - VIEW FROM EVERGREEN CEMETERY

605 STEVENS AVENUE

PERSPECTIVE VIEWS



EXISTING VIEW - VIEW FROM BAXTER WOODS MEADOW



PROPOSED VIEW - VIEW FROM BAXTER WOODS MEADOW

605 STEVENS AVENUE

PERSPECTIVE VIEWS



EXHIBIT 'B'

PROJECT MEMO: 605 Stevens Ave

TO: Jean Fraser

FROM: Pat Carroll

DATE: June 8, 2016

RE: Urban Design- Massing Relationship to Baxter Woods

The massing of the five proposed buildings at 605 Stevens Avenue is a direct response to the many constraints of the property, including the following:

1. The R-5A Zone Boundary was established with the understanding that all building development would occur within this Zone boundary. The zone line runs at an angle to Baxter Woods, providing a setback that varies from 76.58 ft at the southwest corner to 128.67 ft at the southeast corner.
2. The R-5A Zone boundary on the north side of the property coincides with the property line between 605 Stevens Ave and Lot 1, retained by the Sisters of Mercy. The Applicant recognizes that ultimate buildout of the project will impact the McAuley HS athletic fields, and so had reserved land at the north side of the parcel to allow construction of new fields for the High School in its final phases of development. This further restricts development to the north by 75 ft to 100 ft.
3. The eastern portion of the site drops off significantly from the existing playfields towards Deering Pavilion, and most of this land below the slope is classified as freshwater wetlands. Thus, the eastern side of the parcel is restricted by steep slopes and wetlands.

The building program envisions two building types, a rectangular building containing 21-28 DU, and an L-shaped building containing 42 DU. These have been carefully arranged within the development area to provide appropriate circulation and arrival to the site, organized around an interior courtyard that will provide a strong sense of community and relationship between the individual buildings. It is envisioned that common facilities (like a gym, meeting room, or café) will be spread out in each building, and orienting in this way provides a vibrant, pedestrian oriented space for the residents to share. The building orientation also provides residents with views of either the courtyard or open space, which is a strong marketing desire of the Owners.

Several options for the massing were explored, and the final arrangement of buildings represents the best balance between circulation and parking, building orientation and access, and proximity to Baxter Woods. The buildings do line Baxter Woods, but there are breaks of 50-60 ft between buildings and they step back from west to east, providing a setback that exceeds 140 ft at the eastern side of the property. The rear yard space between the buildings and Baxter Woods is envisioned to be heavily planted, with a pedestrian trail extending through the site connecting the 605 trails to Baxter Woods at the location of the historic Carriage Road behind Building #1. If future parking is located in this area, it is expected that the parking will be further screened from view in Baxter Woods by earth berms and additional landscape plantings.

Given that this is a semi-urban environment and a multi-faceted campus, it is clear that the new buildings will be visible from Baxter Woods. However, the generous setbacks, under-building parking and variation of building size, color and layout all combine to create a balanced relationship between the campus and the woods.



PLANNING BOARD REPORT PORTLAND, MAINE

Waterfront Marketplace at Ocean Gateway
Conditional Use Review
City of Portland, Applicant
2016-138

Submitted to: Portland Planning Board Public Hearing Date: June 14, 2016	Prepared by: Nell Donaldson, Planner CBLs: 444-A-003 and 004
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I. INTRODUCTION

The City of Portland's Department of Parks, Recreation, and Facilities and Economic Development Department have submitted an application for a conditional use review for the creation of a seasonal Waterfront Marketplace at Ocean Gateway. The marketplace, which would occupy a sliver of undeveloped property on the south side of Commercial Street between the Maine State Pier and the Ocean Gateway Terminal, would provide a centralized location for temporary retail associated with artists and vendors seeking to capitalize on seasonal cruise ship traffic. In creating this space, the city hopes to relieve congestion where these vendors currently congregate to the west on Commercial Street. As a retail enterprise, the marketplace would qualify as a conditional use under the Eastern Waterfront Port Zone.

This application is being referred to the Planning Board for conditional use review under the Eastern Waterfront Port Zone (EWPZ). A total of 86 notices were sent to property owners within 500 feet of the site and the legal ad ran on June 6 and 7, 2016.

Applicant: City of Portland Department of Parks, Recreation, and Facilities and Economic Development Department

II. REQUIRED REVIEWS

Review	Applicable Standards
Conditional Use	14-474; 14-300.1; 14-301.1

III. USE DATA

Existing Zoning	Eastern Waterfront Port Zone (EWPZ)
Existing Use	Marine Transportation, Vacant
Proposed Use	Seasonal Passenger Support Retail
Parcel Size	10.2 acres

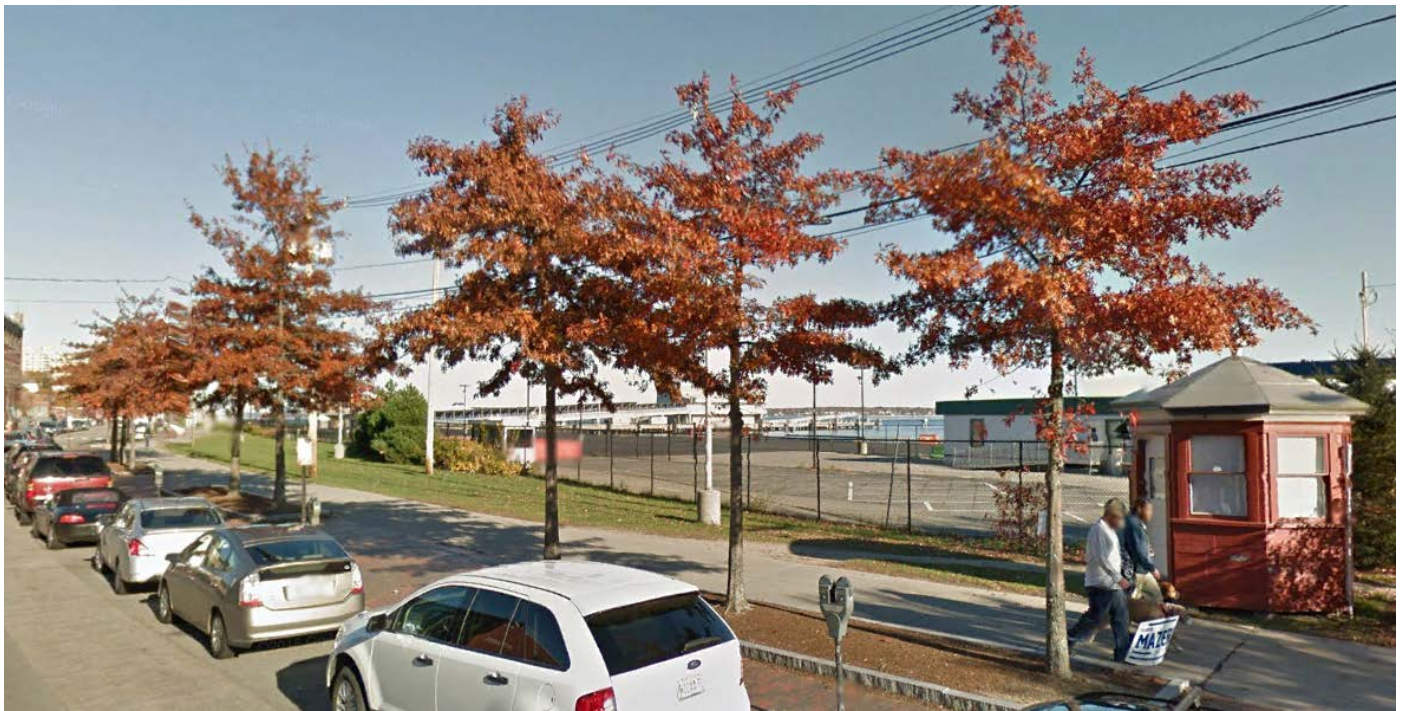


Figure 1: Waterfront Marketplace location in current condition from Commercial Street looking east (top), and from above (left).

IV. BACKGROUND & EXISTING CONDITIONS

The current application is the product of several forces which have emerged over recent years as the city's cruise ship traffic has steadily increased. First, the city has seen a surge of interest in seasonal business in the area around the Ocean Gateway Terminal and Maine State Pier, often in temporary structures. Second, artists and vendors seeking to capitalize on cruise ship passengers have established themselves on Commercial Street sidewalks to the west of Maine State Pier, which has led to congestion and related concerns about pier access and public safety. The marketplace is designed to address both of these issues by providing a clearly defined location for both of these entities. The applicant states that the marketplace will create a fixed location for seasonal vending and that, while street artists "have wide latitude [regarding location] in the city code," the intent is to "use the fixed stall vendors as anchor tenants to attract both the table artists and their patrons to an area that can accommodate crowds without congestion" (*Attachment 1*).

Currently, the market location exists as a grassed area between Commercial Street/Thames Street and the Ocean Gateway/Portland Ocean Terminal complex fence. There is minimal landscaping, some lighting, several utility poles, and an existing gazebo in the space. The Eastern Promenade Trail runs along Commercial Street through the proposed market area (*Figures 1 and 2*).

V. PROPOSED DEVELOPMENT

The city has proposed the first phase of the market on the portion of the property south of Commercial Street and west of India Street (*Figure 3*). This phase of the market would consist of a 6,800 SF "initial market stall cluster," designated for use by up to five individual lessees, and adjacent "artist vending areas," which would serve street artists as defined under *Section 19-23*. Artists would not be subject to individual leases. Portions of the first phase would fall on the Ocean Gateway property, and portions would lie within the city's Commercial Street right-of-way. The conceptual plan shows the location of two initial leases, one of which is located in the right-of-way (*Attachment 5*). Total interior space in the initial leased area would be limited to 320 SF per use and 1,620 SF in aggregate. Vendors would be required to provide space within their leased stalls to process customers without impacting other lessees or public access to the Commercial Street sidewalk and Eastern Promenade Trail.

The conceptual plan also shows "future phase market stall clusters" and artist vending areas extending east to Hancock Street from the initial cluster, in an area partially owned by the Maine Department of Transportation. These future

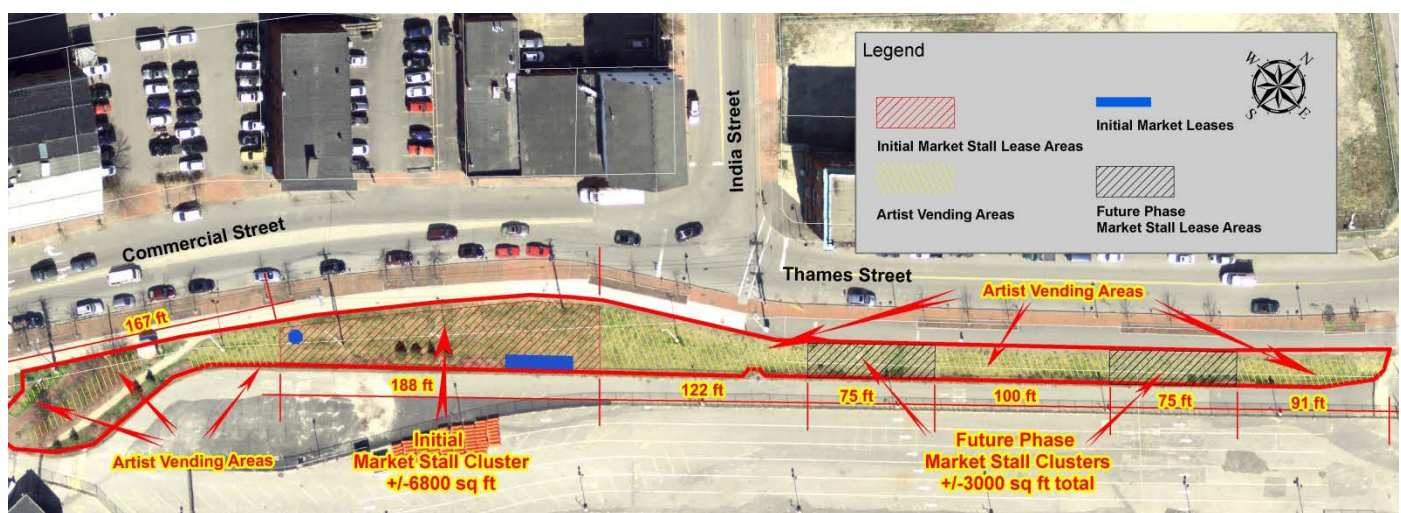


Figure 3: Waterfront Marketplace conceptual plan

clusters would be leased in a fashion similar to the initial market stall cluster, and limited to a total, combined interior floor area of 1,500 SF. Artist vending areas would be interspersed.

It should be noted that, as proposed, the marketplace would not involve any permanent physical changes to the site. There would be no permanent structures, no utility connections, and no increase in impervious surface area. As such, the conceptual plan for the marketplace is not subject to site plan review at this time. Any permanent site changes in the future, however, would trigger site plan review. A condition of approval has been suggested to address this possibility.

VI. PUBLIC COMMENT

The Planning Division received no public comments on the proposal.

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

The City of Portland owns the Ocean Gateway site, where portions of the marketplace are proposed. The application includes a subdivision map depicting this property under city ownership (*Attachment 3*). As noted above, a portion of the proposed marketplace also lies in the Commercial Street right-of-way. Last, the market's future phase is planned, at least partially, within land owned by the Maine DOT. The city does not currently have right, title, and interest in this area. Staff has consulted with Corporation Counsel on the matter of approving a use for which right, title, and interest has not been established, and Corporation Counsel has advised that the right, title, and interest requirement is largely intended to minimize the potential for reviews which may or may not come to fruition. As such, Corporation Counsel has suggested that the question of whether to defer the right, title, and interest requirement as a condition of approval is a matter of the Board's discretion. Staff has suggested a condition of approval requiring the applicant to provide evidence of right, title, and interest prior to commencing the marketplace's future phase.

VIII. CONDITIONAL USE REVIEW

The Waterfront Marketplace would be located in the Eastern Waterfront Port Zone (EWPZ), a zone which stretches along the harbor side of Commercial/Thames Street from the Maine State Pier to the Eastern Promenade. The zone is fundamentally designed to "nurture deepwater dependent activity." However, the zone's purpose statement also acknowledges that "[n]on-marine uses that complement the marine passenger industry, are compatible with existing and future water-dependent uses, and provide opportunities for residents and visitors alike to enjoy the Eastern Waterfront throughout the year, are encouraged" (*Section 14-300*).

In keeping with this purpose statement, the EWPZ lists "passenger support services," including retail, as a conditional use, subject to the conditional use standards of both the zone and the land use code more generally. The applicant has provided an analysis which addresses these conditional use standards in turn (*Attachment 4*). The following is a summary of that analysis.

1. Conditional Use Standards for Eastern Waterfront Port Zone (Section 14-301.1(a))

The following uses shall be permitted as conditional uses in the Eastern Waterfront Port Zone, provided that...in addition to the provision of Section 14-474(c)(2) [Conditional Uses] such uses:

- *Will not impede or preclude existing or potential water-dependent development within the zone,* The applicant's narrative states that the marketplace will be located "well away from the water" and existing water-dependent uses on the remainder of the Ocean Gateway site. Existing fencing which separates the use from the adjacent terminal will be maintained. Further, the applicant emphasizes that

the stalls associated with the use will be temporary and subject to leases with the city, such that future development for alternative use remains an option.

- *Will allow for adequate right-of-way access to the water,*
There is no existing access to the water through the marketplace area. Stalls and vendors are proposed to be located outside the fence of the Ocean Gateway Terminal, and all within the block from the Maine State Pier to Hancock Street.
- *Are compatible with marine uses, and*
The applicant has stressed that the marketplace “will provide cruise ship and ferry passengers, as well as tourists and residents of Portland, access to a range of goods and services” and “is intended to complement marine passenger use.” Further, the applicant notes that, by relieving existing congestion on Commercial Street, the marketplace would benefit marine uses beyond the immediate area.
- *Meet all additional standards set forth below:*
 1. *Conditional use standard:*
 - a. *Marine compatibility: The proposed use shall be compatible with existing and potential marine uses in the vicinity, as required by section 14-304(n) and (o) (compatibility of non-marine uses with marine uses and functional utility of piers and access to the water’s edge);*
As noted above, the applicant has argued that the marketplace will serve passengers associated with the Ocean Gateway’s marine use. The applicant has also argued that, by mitigating sidewalk congestion to the west on Commercial Street, the marketplace will serve marine uses in those areas as well.
 - b. *Parking and traffic circulation: All applications for conditional use in the EWPZ shall submit a parking and circulation plan for review and approval by the planning board. The parking and circulation plan shall show the location of all existing and proposed structures, travel ways and parking under the common ownership and/or control of the subject pier or property. The plan shall demonstrate that the parking and circulation of the conditional use does not interfere with the functional marine utility of the property and otherwise meets the standards and conditions of the EWPZ.*
The applicant has provided a plan which shows pedestrian access to the marketplace from Commercial/Thames Street, with its existing on-street parking, sidewalk, and trail (*Attachment 5*). No modification to this existing access, or access to adjacent piers, is proposed. Further, no vehicular circulation or off-street parking is proposed on the site. The applicant writes, “parking for the individual uses is not required as they...will be catering to pedestrians. Market stall vendors and employees will be required to utilize offsite legal parking and will not interrupt the use of the trail or sidewalk system.” Since all access is expected to and from the adjacent, existing street, with no possibility of encroachment onto the adjacent Ocean Gateway terminal due to the existing fence, no impact to the functional marine utility of the property is anticipated.

2. *Conditional uses:*

- ...
- b. *Commercial:*
- ...

- c. *Passenger support services supporting a marine passenger use listed under 14-301(a)(marine passenger). The total ground floor area occupied by any combination of the following uses (regardless of ownership) shall not exceed 35% of the gross floor area of the principle associated marine passenger use and no more than 35,000 square feet cumulative within the EWPZ:*
 - i. *Retail...*

The applicant states that total ground floor interior area under the proposed Waterfront Marketplace will not exceed 3,100 SF, or approximately 2% of the total gross floor area of the Ocean Gateway/Portland Ocean Terminal complex.

2. General Standards for Uses in EWPZ (Section 14-300.1)

No use shall be permitted, approved or established in this zone if it will have an impermissible adverse impact on future marine development opportunities. A proposed non-water dependent component of a development will have an impermissible adverse impact if it will result in any one (1) or more of the following:

- a. *The proposed use will displace an existing water-dependent use;*
The marketplace will occupy an open green space on the south side of Commercial/Thames Streets. No water dependent use would be displaced.
- b. *The proposed use will reduce existing commercial vessel berthing space;*
The marketplace would not be located near existing berthing space. The proposal will have no impact on commercial vessel berthing space.
- c. *The proposed use, structure or activities, including but not limited to access, circulation, parking, dumpsters, exterior storage or loading facilities, and other structures, will unreasonably interfere with the activities and operation of existing water-dependent uses or significantly impede access to vessel berthing or other access to the water by water-dependent uses; or*
The marketplace is proposed to be separated from Ocean Gateway by fence. All market functions would occur between this fence and Commercial Street/Thames Street. No impact to the existing marine activities on the water side of the property are anticipated.
- d. *The siting of a proposed use will substantially reduce or inhibit existing public access to marine or tidal waters.*
There is no immediate access to the water from the proposed market area. However, the Eastern Promenade Trail runs adjacent to the proposed marketplace and provides an important link to the water and water views to the east. The conceptual plan shows the marketplace with a five foot buffer from the southerly side of the trail. The applicant also notes on the plan that “market stalls will not use the trail for loading and unloading” and that all customer queuing must occur without impact to the trail (*Attachment 5*). Given the importance of the trail as public access to the waterfront, a condition of approval has been drafted to address the potential for trail impacts.

3. Conditional Use Standards (Section 14-474(c)2)

The Board shall, after review of required materials, authorize issuance of a conditional use permit, upon a showing that the proposed use, at the size and intensity contemplated at the proposed location, will not have substantially greater negative impacts than would normally occur from surrounding uses or other

allowable uses in the same zoning district. The Board shall find that this standard is satisfied if it finds that:

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

The standards narrative states that the marketplace “will cater to patrons already brought to this area by the cruise ship industry, international ferry, or general tourism in the area. Aside from the minor traffic needed to service the stalls, the use is not anticipated to generate significant new additional traffic.” As noted above, no off-street parking or paving is proposed. Thus, the traffic and parking impacts are not anticipated to be greater than that which currently occurs on the site.

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

The narrative states that “no harmful or obnoxious conditions are anticipated.” It notes that individual vendors will be responsible for solid waste collection and disposal. It also allows that there may be some impact on existing grass in the area, and suggests restoration as necessary through a condition of approval. To address this, a condition has been drafted that requires the applicant to provide a report evaluating impacts of the marketplace and identify any modifications to the management plan which might be necessary to address these impacts within one month of the close of the first season.

- 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.*

No landscaping, screening, signs, or permanent structures are currently proposed. The applicant states that deliveries will not occur on the trail, that vendors are responsible for solid waste collection and disposal, and that no exterior storage is permitted. However, as noted above, staff has drafted a condition of approval to address the potential for unforeseen impacts in this regard.

IX. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the Waterfront Marketplace at Ocean Gateway as a conditional use.

X. PROPOSED MOTION

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 June 14, 2016 for application 2016-138 relevant to the conditional use application and regulations and the testimony presented at the Planning Board hearing; the Planning Board finds the conditional use for Waterfront Marketplace at Ocean Gateway **is/is not** in conformance with the conditional use standards of the land use code, subject to the conditions below:

1. Prior to making any permanent changes associated with the marketplace, the applicant shall provide plans and supporting documentation relevant to the City of Portland’s site plan ordinance, as applicable, for review and approval by the Planning Authority. Changes include but are not limited to permanent structures, increases in impervious areas, or utility connections;

2. Prior to commencing future phases of the Waterfront Marketplace as depicted in *Attachment 5*, the applicant shall provide evidence of right, title, and interest for use of the Maine DOT's right-of-way for review and approval by the Planning Authority and Corporation Counsel;
3. As noted on the conceptual plan (*Attachment 5*), the proposed use shall not result in any detrimental impact to the public's access to the Eastern Promenade Trail;
4. Within one month of the close of the Waterfront Marketplace, the applicant shall provide a report evaluating the impacts of the market with respect to the conditional use standards and identify necessary modifications to the management plan for review and approval by the Planning Authority; and
5. The use is limited to that described in the application herein. Any modifications to the proposed use, as presented in the conceptual plan (*Attachment 5*), shall be subject to review and approval by the Planning Authority.

XI. ATTACHMENTS
APPLICANT'S SUBMITTALS

1. Cover memo
2. Conditional use application
3. Right, title, and interest
4. Conditional use standards narrative
5. Conceptual plan

Portland, Maine



Yes. Life's good here.

Economic Development Department

Memorandum**To:** Chair Boepple and Members of the Planning Board**From:** Bill Needelman, Waterfront Coordinator**Date:** May 31, 2016**Re:** Waterfront Marketplace at Ocean Gateway, Conditional Use Application

Introduction

On behalf of the Department of Parks, Recreation, and Facilities, the Economic Development Department is submitting an application for Conditional Use approval to initiate a Waterfront Marketplace at Ocean Gateway.

The marketplace will have a limited number of leased retail market stall opportunities set within an area accessible to the growing street artist community.

The proposed Marketplace will provide cruise ship and ferry passengers, as well as tourists and residents of Portland, access to a range of goods and services in an outside market environment located between the Ocean Gateway and the Maine State Pier. The Waterfront Marketplace will additionally provide congestion relief on larger cruise ship days for the sidewalks on Commercial Street where informal vending of art currently concentrates.

The Board is requested to review the proposal as a Conditional Use in the Eastern Waterfront Port Zone (Passenger Support Services, Retail.)

Background

The success of the City's Cruise Ship program has generated the need to address the demands of passengers and the congestion on waterfront sidewalks. The Waterfront Marketplace at Ocean Gateway attempts to address both of these issues by assigning a location for two forms of retail: fixed market stalls, and street artist tables. The market stalls will be established on designated leaseholds with seasonal leases. Artist table vendors will have full access to the marketplace on vacant land and on unleased market stall areas.

Market Stalls and Artists Working Together

With increased numbers of cruise ship passengers landing at the Portland Ocean Terminal and Ocean Gateway, the City has received significant interest from small scale retailers and tour operators looking to locate on land associated with the terminals. While not looking draw business away from the Old Port, the Facilities Division sees the strip of land located on the south side of the Eastern Prom Trail as a natural market area and gateway to the City for visiting passengers.

In addition to meeting an unmet retail demand, the city is simultaneously looking to address a significant safety issue on the Old Port – sidewalk congestion. Currently, artists use the Old Port sidewalks for selling products from tables as allowed by City code (Sec. 19-23.) However, on Commercial Street during larger cruise ship days the number of street artist tables has far exceeded the capacity of the sidewalks to serve both pedestrian needs and street artist tables. The congestion has resulted in gridlock on the sidewalks, interrupted vehicle and truck access to working piers, and many pedestrians having no choice but to walk in Commercial Street.

In response to safety concerns for pedestrians, the City Manager has issued restrictions on street artist vending between Ocean Gateway and Dana Street on the south (water) side of Thames and Commercial Streets. On larger cruise ship days (over 1000 passengers,) the artists have been directed to use the Marketplace site and stay off the most congested sidewalks.

The vision of the Waterfront Market at Ocean Gateway is to use the fixed stall vendors as anchor tenants to attract both the table artists and their patrons to an area that can accommodate crowds without congestion. While the artist tables have wide latitude in the City Code and do not require Conditional Use review, the market stalls are fixed facilities and warrant approval by the Planning Board.

The City is requesting that the Board approve the Waterfront Market Place as shown in Attachment A as a Conditional Use within the EWPZ as a means to serve the growing marine passenger market, and help to relieve congestion on waterfront sidewalks.

Supporting Material.

In support of this application, please see the following:

- Conditional Use Application
- Ocean Gateway Subdivision Map - right, title and interest
- Conditional Use Standards Narrative
- Exhibit A: Waterfront Marketplace at Ocean Gateway – Map and Notes

NOTE: Exhibit A is intended to include all relevant information needed to administer the conditional use. Individual market stall leases will be executed to implement the restrictions described in the Exhibit. The applicant is amenable to having each lease reviewed by the Planning Authority for consistency with the Exhibit A as a condition of approval.



Conditional Use for Planning Board Review Development Review Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Conditional Use where the Planning Board is listed as the reviewing authority rather than the Zoning Board of Appeals. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

A. Conditional Use: Standards and Criteria – Section 14-474 and Zone Related Criteria

Conditional uses are listed in the Zoning Ordinance for each zone and these proposed uses must address the criteria contained in Section 14-474 in the written application. In addition to the criteria in Section 14-474, each application must address any applicable conditional use standards contained in the applicable zone and the proposed specific use. The Zoning Ordinance 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.

Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- 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.

B. Site Plan Application: Please submit the Conditional Use Application in addition to the applicable Site Plan Application.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: <http://me-portland.civicplus.com/DocumentCenter/Home/View/1080>

Design Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2355>

Technical Manual: <http://me-portland.civicplus.com/DocumentCenter/View/2356>

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

PROJECT NAME: The Waterfront Market Place at Ocean Gateway

PROPOSED DEVELOPMENT ADDRESS:

Commercial Street/Thames Street, southerly sideline between Maine State Pier and Ocean Gateway

ASSESSOR'S CHART/BLOCK/LOT (s): 444-A004, 444-A003(portions) **Applicable Zone:** EWpz

Contact Information

Applicant	Applicant Contact Information
Name: Bill Needelman, Waterfront Coordinator	Work # 207-874-8722
City of Portland, Maine	Home#
Address: 389 Congress Street, Portland, Maine 04101	Cell # Fax#
City/State : Portland, ME Zip Code:	e-mail: wbn@portlandmaine.gov

RIGHT, TITLE OR INTEREST:

Att. 3

See the attached Subdivision Map

VICINITY MAP: See attached

EXISTING USE: Describe the existing use of the subject property.

Marine Transportation, vacant

PROPOSED USE: Describe the proposed use of the subject property.

Occupying a strip of vacant land bounded on the west by the entrance to the Maine State Pier, on the north by the Eastern Promenade Trail, on the east by the Hancock Street entrance to Ocean Gateway, and on the south by the Ocean Gateway fence, the City of Portland proposes to establish a seasonal market greenway to support cruise ship and ferry visitations. Currently, uses such as street artists, tour operators, and food vendors compete for sidewalk space with pedestrians and sidewalk café seating. The Waterfront Market at Ocean Gateway intends to provide a location for seasonal vending while relieving congestion on the sidewalks most impacted by marine passenger operations. The Marketplace intends to mix informal pop-up street artist tables with a limited number of fixed leaseholds for seasonal food, art, and tour vending.

Informal street artist vending currently may use this area (and any sidewalk area) as allowed under City Code, Sec. 19-23. The proposal would continue and promote use of the Marketplace by artists. In addition to artist tables, “market stall clusters” will allow for limited use of portions of the land for fixed leasehold seasonal vendors.

Implementation of the Marketplace is proposed for two phases. The initial phase is proposed on City land located between Maine State Pier and India Street, south of the Eastern Promenade Trail. Occupying up to 6800 sq ft of land, the “initial market stall cluster” will be populated with no more than 5 seasonal leaseholds totaling no more than 1600 sq ft of interior spaces. Street artists will be invited to fill in areas between the leaseholds and in areas outside of the stall clusters.

A future phase of up to two additional market clusters are proposed east of India Street. Ownership of the vacant green strip east of India Street is divided between the State of Maine, on a remnant of the historic rail right of way located south of the Eastern Promenade Trail, and the City. No market stall leases would be executed east of India Street until right title and interest to do so is received from the Maine Department of Transportation. Future phases of market stall clusters would be limited to no more than 3000 sq ft of land occupied by no more than 1500 sq ft of interior space.

For both initial and future phases, booths, kiosks, tents, trucks, trailers, prefabricated storage containers, and all similar fixed or mobile structures would be considered interior space and subject to the limitations described above.

TYPE OF CONDITIONAL USE PROPOSED (Refer To Specific Provisions Of Land Use Code Authorizing The Proposed Conditional Use).

Eastern Waterfront Port Zone, 14-301.1, Conditional Use14-301.1b.c:

c. Passenger support services supporting a marine passenger use listed under 14- 301(a)(marine passenger). The total ground floor area occupied by any combination of the following uses (regardless of ownership) shall not exceed 35% of the gross floor area of the principle associated marine passenger use and no more than 35,000 square feet cumulative within the EWPZ:

- i. Retail;
- ii. Restaurants/food service other than street vendors;
- iii. Retail service;
- iv. Passenger information services.

SITE PLAN: See attached

CONDITIONAL USE STANDARDS AND CONDITIONS – 14-474

Address the following criteria in your written application and any applicable conditional use standards contained in the zoning code for the specific use. Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

- a. The volume and type of vehicle traffic to be generated, hours of operation, expanse of pavement, and the number of parking spaces required are not substantially greater than would normally occur at surrounding uses or other allowable uses in the same zone; and
- b. The proposed use will not create unsanitary or harmful conditions by reason of noise, glare, dust, sewage disposal, emissions to the air, odor, lighting, or litter; and
- 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.

CONDITIONAL USE AUTHORIZED BY: SECTION 14- _____

Address any specific conditional use standards for the specific use contained in the zoning code in the written submission.

APPLICATION FEES:

(Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

___ Conditional Use Review (\$100.00) (Please submit a separate application for the applicable site plan review. Fees and charges are listed within the application)	The City invoices separately for the following: • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.
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APPLICATION SUBMISSION:

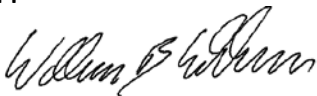
1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the Electronic Plan and Document Submittal page of the City's website at <http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal>
2. In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.
3. The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:
 1. **One (1) full size site plans** that must be **folded**.
 2. One (1) copy of all written materials or as follows, unless otherwise noted:

Applicant Checklist	Planner Checklist	# of Copies	
		1	Application form that is completed and signed.
		1	Cover letter stating the nature of the project.
		1	Evidence of right, title and interest.
		1	Written Submittals that address the conditional use standards of Sec. 14-474.
		1	Written submittals that address any applicable standards of review contained in the zoning code for the specific use.
		1	A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet and containing the information required for the applicable level of site plan review.
		1	An accompanying site plan application, as applicable.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Conditional Use Review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant: 	Date: 5-26-16
---	-------------------------

PLAN REFERENCES

- LAND TITLE SURVEY AND SUBDIVISION PLAN IN PORTLAND, MAINE, USA MADE FOR THE TRUST FOR PUBLIC LAND THE CITY OF PORTLAND THE MAINE DEPARTMENT OF TRANSPORTATION THE CANADIAN NATIONAL RAILWAY COMPANY-OWNERS DATED FEB. 19, 1993 REVISED THROUGH 3-11-93 BY OWEN HASKELL, INC. RECORDED IN PLAN BOOK 193 PAGE 187.
- PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR BATH IRON WORKS DATED OCT. 19, 1981 BY H.J. AND E.C. JORDAN.
- PLAN OF LAND IN PORTLAND, MAINE MADE FOR BATH IRON WORKS DATED OCT. 19, 1981 REVISED THROUGH NOV. 20, 1981 BY H.J. AND E.C. JORDAN.
- MAINE STATE PIER AND VICINITY CITY OF PORTLAND CUMBERLAND COUNTY STATE OF MAINE DATED NOV. 7, 1985 BY STEVENS MORTON ROSE AND THOMPSON.
- CITY OF PORTLAND, ME DEPARTMENT OF PUBLIC WORKS COMMERCIAL, INDIA, FRANKLIN, CUSTOM HOUSE AND PEARL STREETS STREET LINES NEAR STATE PIER SITE DATED FEB. 6, 1922 CITY PLAN 454/19.
- STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP "COMMERCIAL STREET" DATED AUGUST 1985 DOT FILE NO. 3-339.
- DRAWINGS ON FILE WITH THE CITY OF PORTLAND DEPARTMENT OF PUBLIC WORKS ENGINEERING DEPARTMENT SHOWING AREAS COMPUTED FOR BIW AND CITY - APPEARS TO BE BASED ON PLAN REFERENCE 2.
- PLAN OF PROPERTY IN PORTLAND MAINE MADE FOR MAINE WHARF ASSOCIATES LAND TITLE SURVEY DATED DEC. 8, 1989 BY H.J. AND E.C. JORDAN.
- STANDARD BOUNDARY SURVEY PLAN OF LAND ON FORE, INDIA, MIDDLE, NEWBURY, HANCOCK AND MOUNTFORT STREETS FOR AMERICAN HOST AND DERRICK CO. DATED APRIL 1987 REVISED THROUGH 2-13-92 BY OWEN HASKELL, INC.
- SUBDIVISION PLAN OF MAINE STATE PIER AND VICINITY CITY OF PORTLAND CUMBERLAND COUNTY FOR STEVENS ASSOCIATES DATED NOV. 7, 1985 REVISED DEC. 10, 1985 BY MORTON AND ROSE ASSOCIATES.
- BOUNDARY SURVEY ON COMMERCIAL STREET AND FORE STREET, PORTLAND, MAINE MADE FOR OCEAN GATEWAY PROJECT DATED SEPT. 23, 2003 BY OWEN HASKELL, INC.

APPROVED BY THE
CITY OF PORTLAND PLANNING BOARD

Dr. Linda E. Dalgarno
John C. Shippen
Michael J. Shippen
Thomas H. Hill

DATE: August 24, 2004

CURVE TABLE FOR SHEET 1

No.	Delta	Radius	Arc Length	Chord Length	Chord Bearing
C1	10°01'16"	434.53	75.00	75.90	N35°16'03"E
C2	97°21'06"	15.00	25.49	22.53	N77°32'06"E
C3	94°22'55"	12.00	19.77	17.61	S06°35'54"E
C4	05°49'25"	971.00	98.70	98.65	S43°30'16"W
C5	18°06'40"	274.33	86.71	86.35	S80°29'48"E
C6	82°20'31"	12.00	17.25	15.80	N85°02'23"E

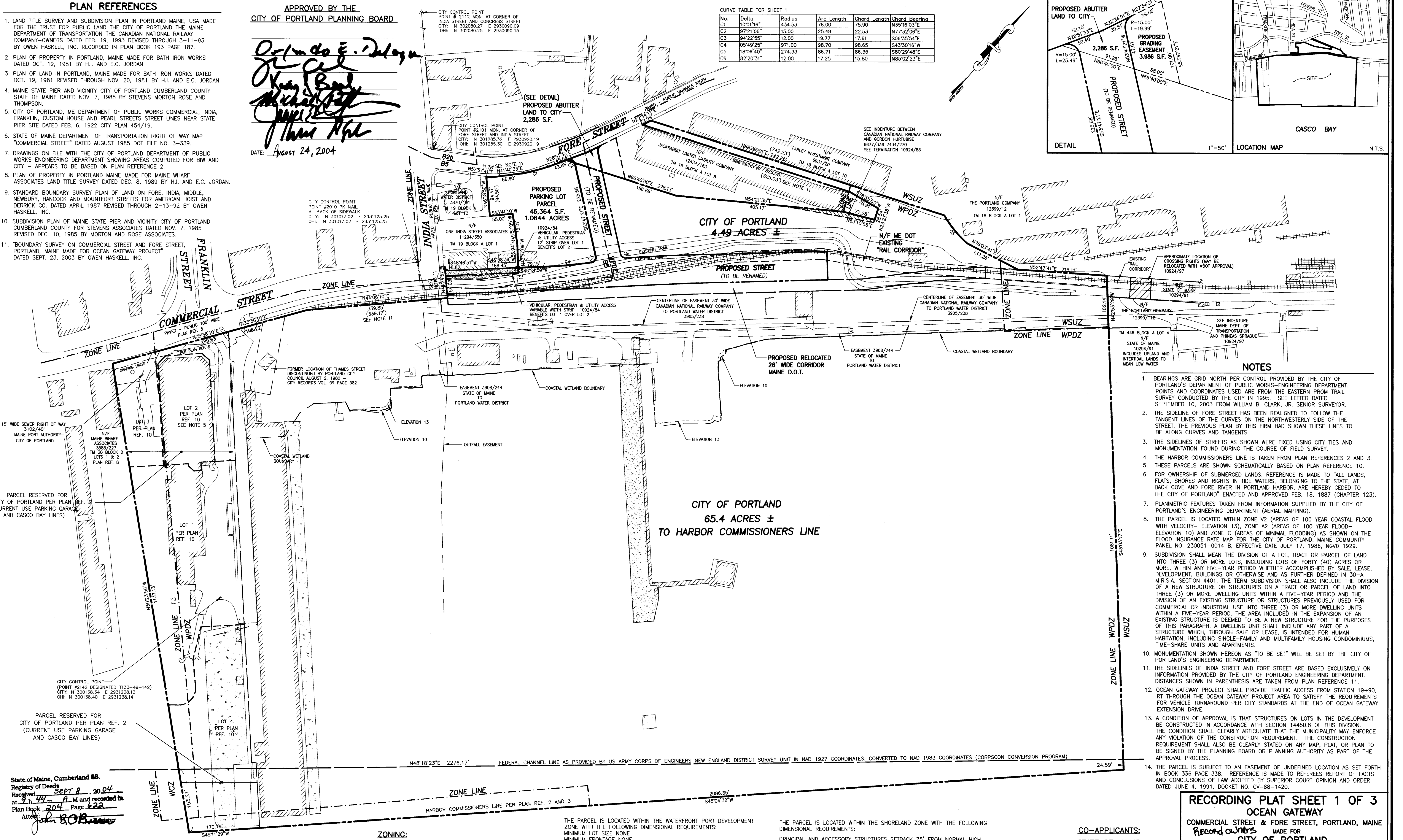
PROPOSED ABUTTER
LAND TO CITY

PROPOSED
GRADING
EASEMENT
3,986 S.F.

PROPOSED STREET
(TO BE RENAMED)

LOCATION MAP

N.T.S.



NOTES

- BEARINGS ARE GRID NORTH PER CONTROL PROVIDED BY THE CITY OF PORTLAND'S DEPARTMENT OF PUBLIC WORKS-ENGINEERING DEPARTMENT. POINTS AND COORDINATES USED ARE FROM THE EASTERN PROM TRAIL SURVEY CONDUCTED BY THE CITY IN 1995. SEE LETTER DATED SEPTEMBER 10, 2003 FROM WILLIAM B. CLARK, JR. SENIOR SURVEYOR.
- THE SIDELINE OF FORE STREET HAS BEEN REALIGNED TO FOLLOW THE TANGENT LINES OF THE CURVES ON THE NORTHWESTERLY SIDE OF THE STREET. THE PREVIOUS PLAN BY THIS FIRM HAS SHOWN THESE LINES TO BE ALONG CURVES AND TANGENTS.
- THE SIDELINES OF STREETS AS SHOWN WERE FIXED USING CITY TIES AND MONUMENTATION FOUND DURING THE COURSE OF FIELD SURVEY.
- THE HARBOR COMMISSIONERS LINE IS TAKEN FROM PLAN REFERENCES 2 AND 3.
- THESE PARCELS ARE SHOWN SCHEMATICALLY BASED ON PLAN REFERENCE 10.
- FOR OWNERSHIP OF SUBMERGED LANDS, REFERENCE IS MADE TO "TALL LANDS, FLATS, SHORES AND RIGHTS IN TIDE WATERS, BELONGING TO THE STATE, AT BACK COVE AND FORE RIVER IN PORTLAND HARBOR, ARE HEREBY CEDED TO THE CITY OF PORTLAND" ENACTED AND APPROVED FEB. 18, 1887 (CHAPTER 123).
- PLANIMETRIC FEATURES TAKEN FROM INFORMATION SUPPLIED BY THE CITY OF PORTLAND'S ENGINEERING DEPARTMENT (AERIAL MAPPING).
- THE PARCEL IS LOCATED WITHIN ZONE V2 (AREAS OF 100 YEAR COASTAL FLOOD WITH VELOCITY- ELEVATION 13), ZONE A2 (AREAS OF 100 YEAR FLOOD- ELEVATION 10) AND ZONE C (AREAS OF MINIMAL FLOODING) AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF PORTLAND, MAINE COMMUNITY PANEL NO. 230051-0014 B, EFFECTIVE DATE JULY 17, 1986, NGVD 1929.
- SUBDIVISION SHALL MEAN THE DIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE, WITHIN ANY FIVE-YEAR PERIOD WHETHER ACCOMPLISHED BY SALE, LEASE, DEVELOPMENT, BUILDINGS OR OTHERWISE AND AS FURTHER DEFINED IN 30-A M.R.S.A. SECTION 4401. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE EXPANSION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSES OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH, THROUGH SALE OR LEASE, IS INTENDED FOR HUMAN HABITATION, INCLUDING SINGLE-FAMILY AND MULTIFAMILY HOUSING CONDOMINIUMS, TIME-SHARE UNITS AND APARTMENTS.
- MONUMENTATION SHOWN HEREON AS "TO BE SET" WILL BE SET BY THE CITY OF PORTLAND'S ENGINEERING DEPARTMENT.
- THE SIDELINES OF INDIA STREET AND FORE STREET ARE BASED EXCLUSIVELY ON INFORMATION PROVIDED BY THE CITY OF PORTLAND ENGINEERING DEPARTMENT. DISTANCES SHOWN IN PARENTHESIS ARE TAKEN FROM PLAN REFERENCE 11.
- OCEAN GATEWAY PROJECT SHALL PROVIDE TRAFFIC ACCESS FROM STATION 19+90, RT THROUGH THE OCEAN GATEWAY PROJECT AREA TO SATISFY THE REQUIREMENTS FOR VEHICLE TURNAROUND PER CITY STANDARDS AT THE END OF OCEAN GATEWAY EXTENSION DRIVE.
- A CONDITION OF APPROVAL IS THAT STRUCTURES ON LOTS IN THE DEVELOPMENT BE CONSTRUCTED IN ACCORDANCE WITH SECTION 14450.8 OF THIS DIVISION. THE CONDITION SHALL CLEARLY ARTICULATE THAT THE MUNICIPALITY MAY ENFORCE ANY VIOLATION OF THE CONSTRUCTION REQUIREMENT. THE CONSTRUCTION REQUIREMENT SHALL ALSO BE CLEARLY STATED ON ANY MAP, PLAN, OR PLAN TO BE SIGNED BY THE PLANNING BOARD OR PLANNING AUTHORITY AS PART OF THE APPROVAL PROCESS.
- THE PARCEL IS SUBJECT TO AN EASEMENT OF UNDEFINED LOCATION AS SET FORTH IN BOOK 338 PAGE 338. REFERENCE IS MADE TO REFERRED REPORT OF FACTS AND CONCLUSIONS OF LAW ADOPTED BY SUPERIOR COURT OPINION AND ORDER DATED JUNE 4, 1991, DOCKET NO. CV-88-1420.

RECORDING PLAT SHEET 1 OF 3 OCEAN GATEWAY

COMMERCIAL STREET & FORE STREET, PORTLAND, MAINE
Record owners MADE FOR
CITY OF PORTLAND
389 CONGRESS STREET, PORTLAND, MAINE 04101
AND STATE OF MAINE
16 STATE HOUSE STATION, AUGUSTA, MAINE 04333

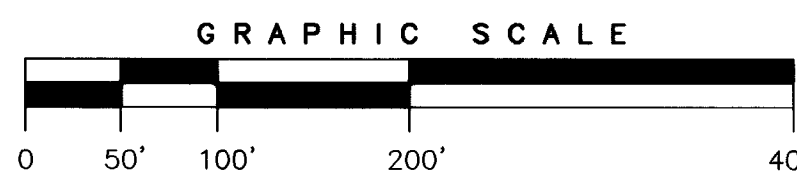
OWEN HASKELL, INC.
16 CASCO ST., PORTLAND, ME 04101 (207) 774-0424
PROFESSIONAL LAND SURVEYORS

Drawn By	WCS	Date	Job No.
Trace By	ULW	AUGUST 4, 2004	2003-165P
Check By	WCS	Scale	Drwg. No.
Book No.	FILE	1" = 100'	1 OF 3

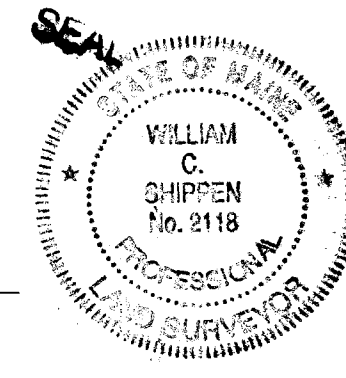
SEE SHEETS 2 AND 3
FOR 1"=40' DETAIL

CERTIFICATION

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.



WILLIAM C. SHIPPEN, P.S. #2118
DATE 8-20-04



ZONING:

THE PARCEL IS LOCATED WITHIN THE B5 ZONE WITH THE FOLLOWING DIMENSIONAL REQUIREMENTS:
MINIMUM LOT SIZE NONE
MINIMUM FRONTAGE NONE
MINIMUM LOT COVERAGE 100%
MINIMUM BUILDING HEIGHT 45'
SIDE NONE
REAR NONE
MAXIMUM LOT COVERAGE 100%
MAXIMUM RESIDENTIAL DENSITY 60 DWELLING UNITS PER ACRE
MAXIMUM BUILDING HEIGHT 65'

THE PARCEL IS LOCATED WITHIN THE WATERFRONT PORT DEVELOPMENT ZONE, WITH THE FOLLOWING DIMENSIONAL REQUIREMENTS:

MINIMUM LOT SIZE NONE
MINIMUM FRONTAGE NONE
MINIMUM YARD DIMENSIONS FRONT, SIDE, REAR NONE
SETBACK FROM PIER LINE 5'
MAXIMUM LOT COVERAGE 100%
MAXIMUM BUILDING HEIGHT 45'

THE PARCEL IS LOCATED WITHIN THE WATERFRONT SPECIAL USE ZONE WITH THE FOLLOWING DIMENSIONAL REQUIREMENTS:

MINIMUM LOT SIZE NONE
MINIMUM FRONTAGE NONE
MINIMUM YARD DIMENSIONS FRONT NONE
SIDE NONE (25' IF ADJACENT TO RESIDENTIAL ZONE)
REAR NONE (25' IF ADJACENT TO RESIDENTIAL ZONE)
SETBACK FROM PIER LINE 5'
MAXIMUM LOT COVERAGE 100%
MAXIMUM BUILDING HEIGHT 45'

THE PARCEL IS LOCATED WITHIN THE SHORELAND ZONE WITH THE FOLLOWING DIMENSIONAL REQUIREMENTS:

PRINCIPAL AND ACCESSORY STRUCTURES SETBACK 75' FROM NORMAL HIGH WATER LINE. IN THE W-PD ZONE THERE ARE NO SETBACKS FROM NORMAL HIGH WATER. THE FIRST FLOOR ELEVATION OR OPENINGS OF ALL BUILDINGS AND STRUCTURES INCLUDING BASEMENTS SHALL BE ELEVATED AT LEAST ONE (1) FOOT ABOVE THE ELEVATION OF THE ONE HUNDRED (100) YEAR FLOOD. BUILDINGS LOCATED WITHIN SPECIAL FLOOD HAZARD ZONES SHALL HAVE A BASE ELEVATION AT LEAST TWO (2) FEET ABOVE THE ELEVATION OF THE 100 YEAR FLOOD PLAIN.

REFERENCE IS MADE TO THE CITY OF PORTLANDS LAND USE ORDINANCE FOR ADDITIONAL DIMENSIONAL REQUIREMENTS, DEFINITIONS AND USE REQUIREMENTS.

ZONING:

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YARDS FRONT NONE
SIDE NONE
REAR NONE
MAXIMUM LOT COVERAGE 100%
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REFERENCE IS MADE TO THE CITY OF PORTLAND'S LAND USE ORDINANCE FOR ADDITIONAL DIMENSIONAL REQUIREMENTS, DEFINITIONS AND USE REQUIREMENTS.

W&C BASELINE CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CHORD BRG	CHORD DIST
BLC1	350.00'	95.01'	15° 33' 10"	S 49° 22' 13" W	94.71'
BLC2	200.00'	18.50'	5° 17' 58"	N 54° 29' 49" E	18.49'
BLC3	200.00'	18.01'	5° 09' 36"	N 49° 16' 02" E	18.01'
BLC4	1000.00'	114.08'	6° 32' 11"	N 43° 08' 54" E	114.02'
BLC5	1000.00'	32.84'	1° 52' 53"	S 40° 49' 15" W	32.83'
BLC6	1000.00'	81.24'	4° 39' 18"	S 44° 05' 20" W	81.22'

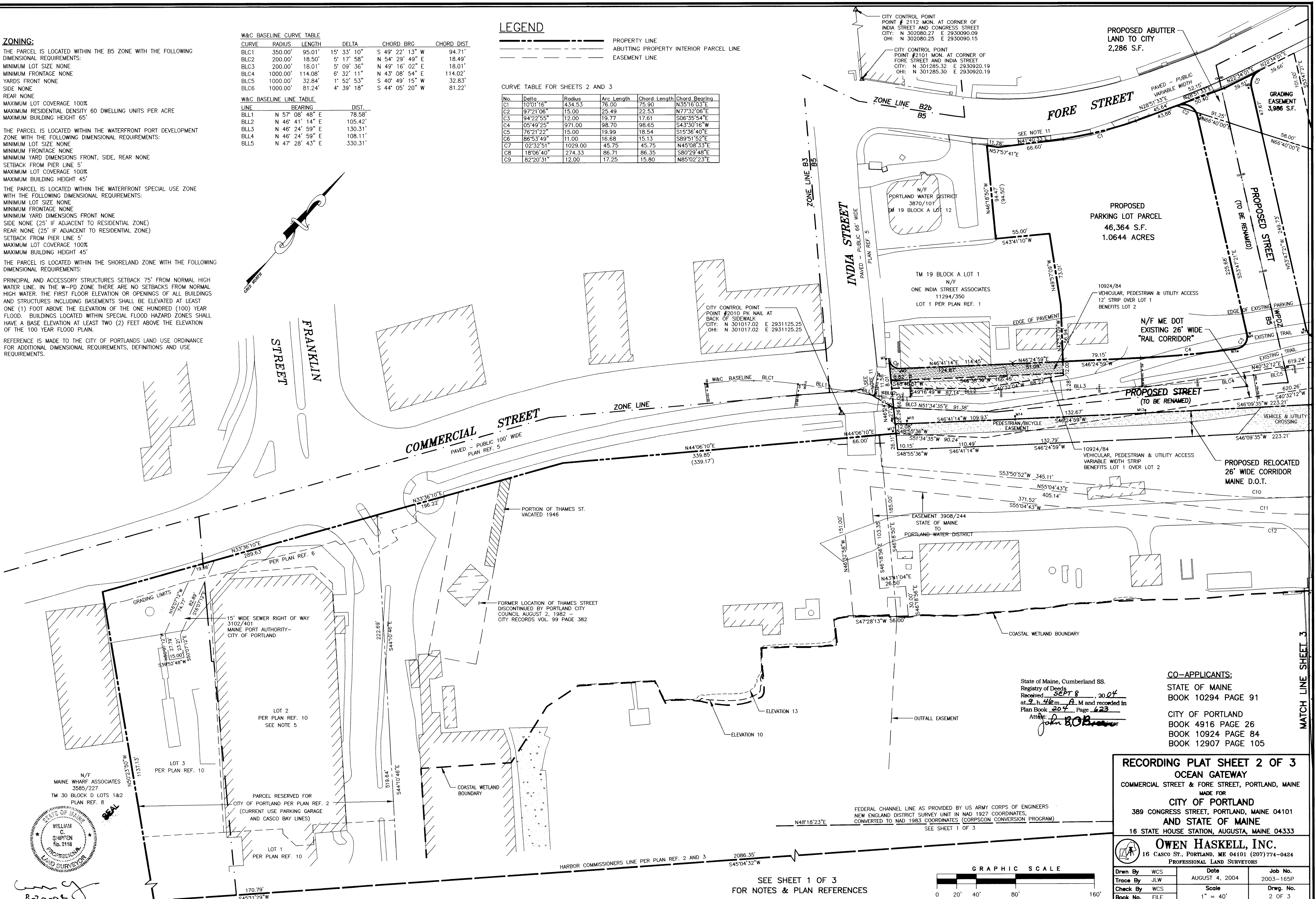
W&C BASELINE LINE TABLE		
LINE	BEARING	DIST.
BLL1	N 57° 08' 48" E	78.58'
BLL2	N 46° 41' 14" E	105.42'
BLL3	N 46° 24' 59" E	130.31'
BLL4	N 46° 24' 59" E	108.11'
BLL5	N 47° 28' 43" E	330.31'

LEGEND

PROPERTY LINE
ABUTTING PROPERTY INTERIOR PARCEL LINE
EASEMENT LINE

CURVE TABLE FOR SHEETS 2 AND 3

No.	Delta	Radius	Arc Length	Chord Length	Chord Bearing
C1	10°01'16"	434.53	76.00	75.90	N35°16'03"E
C2	9°21'06"	15.00	25.49	22.53	N77°32'06"E
C3	94°22'55"	12.00	19.77	17.61	S06°35'54"E
C4	05°49'25"	971.00	98.70	98.65	S43°30'16"W
C5	76°21'22"	15.00	19.99	18.54	S15°36'40"E
C6	86°53'49"	11.00	16.68	15.13	S89°51'52"E
C7	02°32'51"	1029.00	45.75	45.75	N45°08'33"E
C8	18°06'40"	274.33	86.71	86.35	S80°29'48"E
C9	82°20'31"	12.00	17.25	15.80	N85°02'23"E



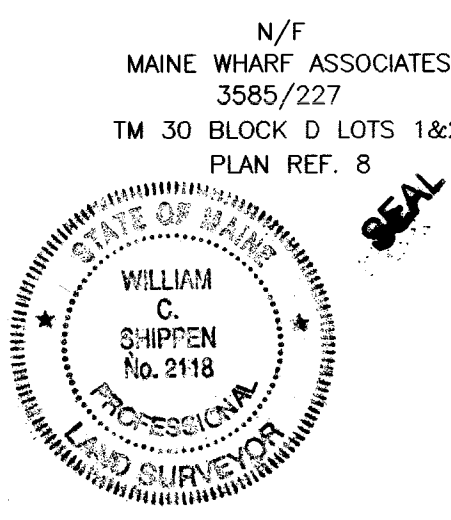
State of Maine, Cumberland SS.
Registry of Deeds
Received SEPT 8, 2004
at 9 h. 46 m. A.M. and recorded in
Plan Book 204 Page 623
Att: John BOB

CO-APPLICANTS:
STATE OF MAINE
BOOK 10294 PAGE 91
CITY OF PORTLAND
BOOK 4916 PAGE 26
BOOK 10924 PAGE 84
BOOK 12907 PAGE 105

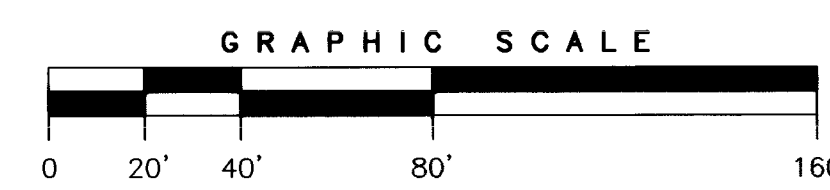
RECORDING PLAT SHEET 2 OF 3
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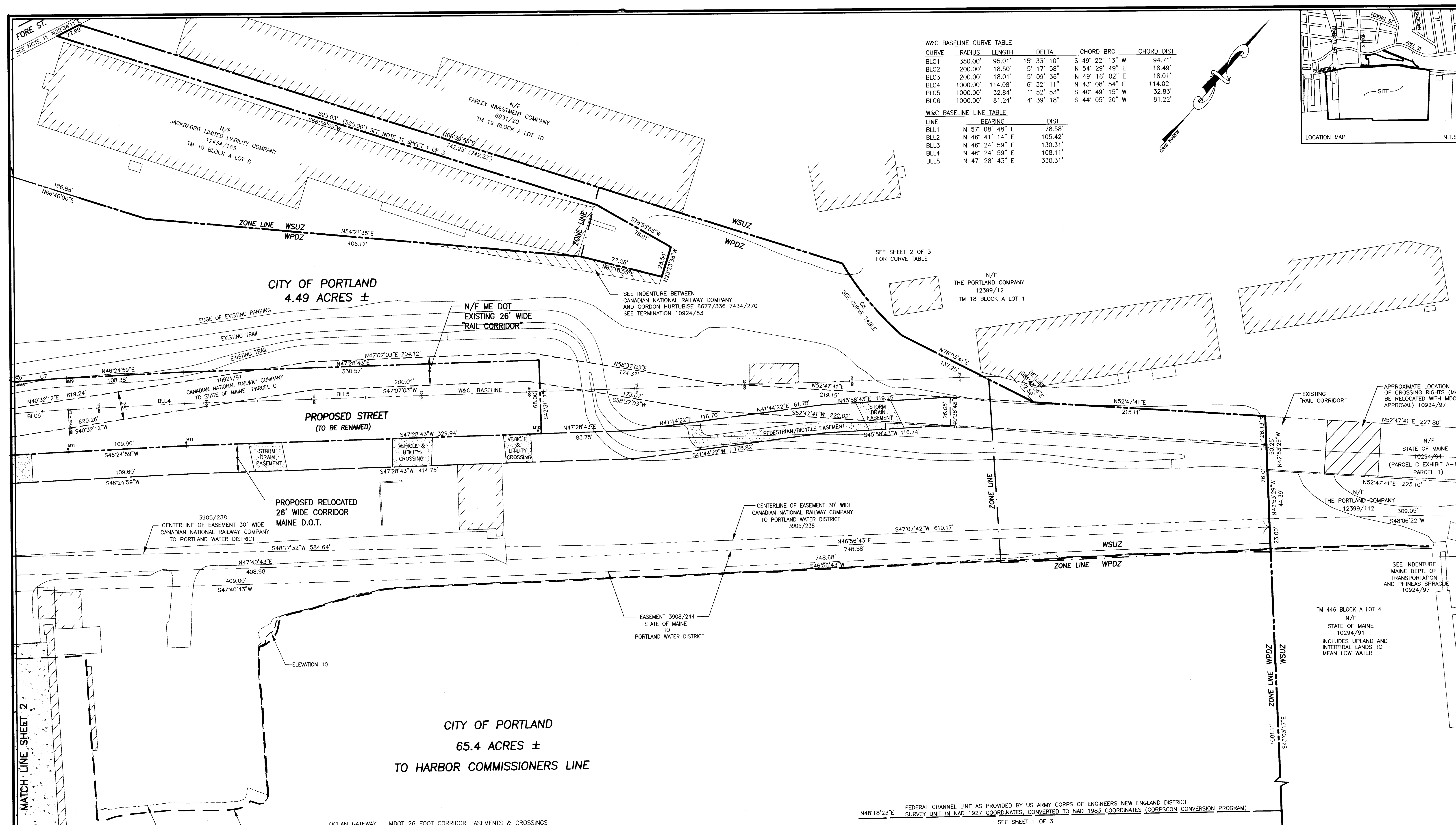
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Check By	WCS	Scale	Drwg. No.
Book No.	FILE	1" = 40'	2 OF 3



SEE SHEET 1 OF 3
FOR NOTES & PLAN REFERENCES



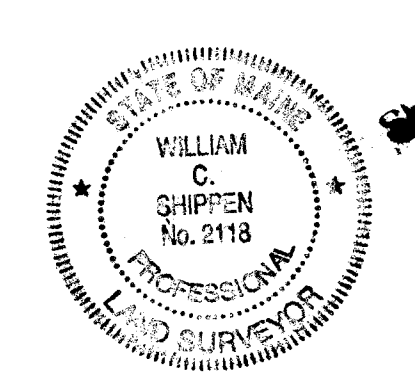
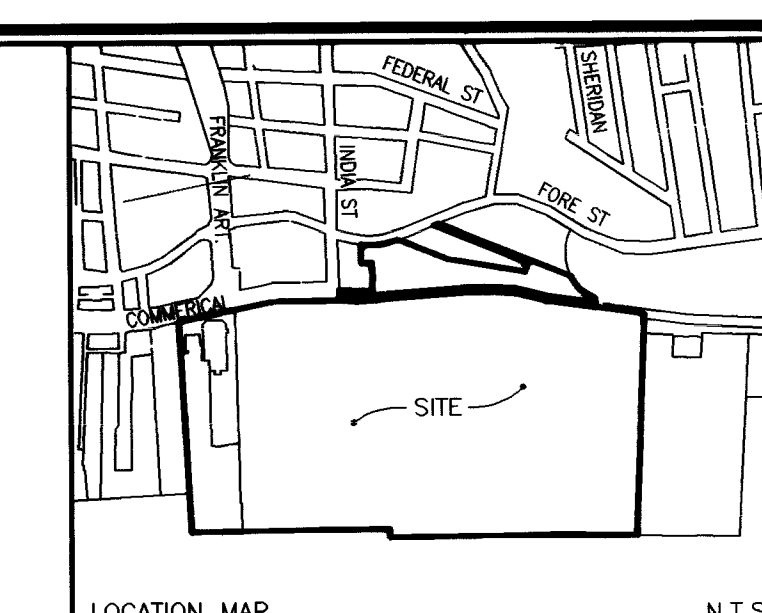


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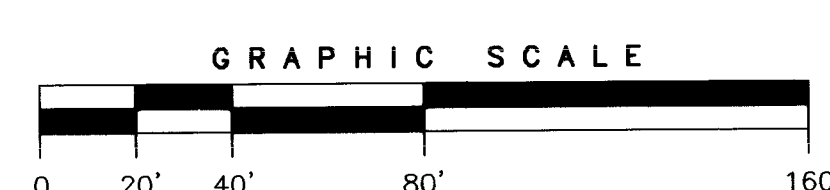
OCEAN GATEWAY - MDOT 26 FOOT CORRIDOR EASEMENTS & CROSSINGS

- VARIABLE WIDTH PEDESTRIAN AND BICYCLE EASEMENTS
- NORTHEASTERLY LINE OF INDIA ST AT 11+95.81, 39.00' RT TO SOUTHEASTERLY LINE OF PROPOSED STREET RUNNING NORTHEASTERLY FROM INDIA STREET AT PT 16+73.98, 39.00' RT.
 - CROSSING RAILWAY STARTING AT 22+40.61, 34.53' RT TO MATCH POINT WITH EXISTING EASTERN PROMENADE TRAIL AT 24+31.45, 51.39' RT.
- VEHICULAR TRAFFIC, PEDESTRIAN, & UTILITY CROSSINGS
- OPPOSITE PROPOSED STREET RUNNING SOUTHEASTERLY FROM FORE STREET LINE 15+36.64, 56.94' RT/15+62.51, 33.47' RT TO LINE 16+35.36, 64.45' RT/16+36.29, 38.47' RT.
 - OCEAN GATEWAY NORTHERLY ENTRANCE LINE 19+73.19, 65.00' RT/19+74.12, 39.00' RT TO LINE 20+09.29, 65.00' RT/20+11.14, 39.00' RT.
 - CROSSING TO NORTHERLY PARKING AREA LINE 20+77.02, 39.00' RT/20+78.99, 65.00' RT TO LINE 21+02.58, 39.00' RT/21+03.00, 65.00' RT.

- 30 FOOT WIDE STORM DRAIN EASEMENT FROM DMH-5 LINE 18+40.48, 39.00' RT/ 18+44.99, 65.00' RT TO LINE 18+70.93, 39.00' RT/ 18+75.43, 65.00' RT.
- 30 FOOT WIDE STORM DRAIN EASEMENT (15' & 36" STORM DRAINS) LINE 24+05.00, 20.33' RT/ 24+16.83, 46.03' RT TO LINE 24+37.63, 19.48' RT/ 24+49.46, 45.18' RT.
- EXISTING OVERHEAD ELECTRIC - LIGHTING ALONG FORMER BIW FENCE 11+96.54, 36.33' RT TO 12+85.89, 41.51' RT TO 14+24.36, 38.21' RT TO 15+57.96, 32.98' RT.
- EXISTING OVERHEAD ELECTRIC TO PROPOSED PARKING GARAGE PARCEL 12+79.49, 42.72' RT TO 13+09.38, 27.00' RT.
- EXISTING OVERHEAD ELECTRIC - NORTHERLY PARKING AREA LIGHTING 21+01.66, 39.00' RT TO 21+60.86, 65.00' RT.

FEDERAL CHANNEL LINE AS PROVIDED BY US ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT SURVEY UNIT IN NAD 1927 COORDINATES, CONVERTED TO NAD 1983 COORDINATES (CORPSCON CONVERSION PROGRAM)
N48°18'23"E
SEE SHEET 1 OF 3

SEE SHEET 1 OF 3
FOR NOTES & PLAN REFERENCES



State of Maine, Cumberland SS.
Registry of Deeds
Received SEPT 8, 2004
at 2:48 m. A M and recorded in
Plan Book 204 Page 624
Attest John B. O'Brien Register

RECORDING PLAT SHEET 3 OF 3
OCEAN GATEWAY
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Book No.	FILE	1" = 40'	3 OF 3

Waterfront Marketplace at Ocean Gateway

Conditional Use Review by the City of Portland Planning Board: *Standards Compliance Narrative*

Introduction:

The Waterfront Marketplace at Ocean Gateway requires review by the Planning Board as a conditional use in the Eastern Waterfront Port Zone. The specific program elements triggering conditional use are the fixed market stalls. Review by the Planning Board is requested under Sec. 14-301.1.c. EWPZ Conditional uses, Passenger support services...retail.

Conditional Use Requirements and Standards:

Conditional Uses in the EWPZ are required to meet several requirements unique to the zone and additional standards specific to the proposed use. These requirements are in addition to the typical standards applied to all Conditional Uses under City Code Sec. 14-274.

Below please find the applicable code citation, summary excerpt, and brief narrative describing the Waterfront Marketplace's adherence to the applicable standard. NOTE: The standards excerpts are shown below in **Bold** and the applicant's response is provided in *italics*.

Summarized excerpts from: Sec. 14-301.1. EWPZ Conditional uses.

14-301.1(a) Conditional uses:

Will not impede or preclude existing or potential water-dependent development within the zone,

Located well away from the water, the Waterfront Marketplace will not interfere with existing or potential water dependent uses. The uses are additionally small, movable, and temporary. Long-term leases are not anticipated. If water-dependent use opportunities present themselves or are pursued by the City, the Marketplace will not be a barrier given reasonable (seasonal) notice.

Will allow for adequate right-of-way access to the water,

The Waterfront Marketplace will have no impact on access to the water.

Are compatible with marine uses,

The Waterfront Marketplace is intended to complement marine passenger use and relieve congestion on Commercial Street, benefiting off-site marine uses.

14-301.1(a)1. Conditional use standards:

a. *Marine compatibility:* The proposed use shall be compatible with existing and potential marine uses in the vicinity, as required by section 14-304(n) and (o) (compatibility of non-marine uses with marine uses and functional utility of piers and access to the water's edge);

As noted above, the Waterfront Marketplace is intended to complement marine passenger use and relieve congestion on Commercial Street, benefiting off-site marine uses.

Access to the Marketplace will be from Commercial Street and Thames Street, having no impact to the functional utility of piers or access to the water's edge.

b. *Parking and traffic circulation:*

i. *Parking and traffic circulation plan:* All applications for conditional use in the EWPZ shall submit a parking and circulation plan for review and approval by the planning board. The parking and circulation plan shall show the location of all existing and proposed structures, travel ways and parking under the common ownership and/or control of the subject pier or property. The plan shall demonstrate that the parking and circulation of the conditional use does not interfere with the functional marine utility of the property and otherwise meets the standards and conditions of the EWPZ.

The Exhibit A shows that all access to the Market Place shall take place from Commercial and Thames street. Parking for the individual uses is not required as they are small scale and will be catering to pedestrians. Market Stall vendors and employees will be required to utilize offsite legal parking and will not interrupt use of the trail or sidewalk system. The stalls themselves will be set back from the trail to ensure free flow for pedestrians, bikers and joggers. Vehicle loading from the trail will not be permitted.

c. *Passenger support services supporting a marine passenger use listed under 14-301(a)(marine passenger).* The total ground floor area occupied by any combination of the following uses (regardless of ownership) shall not exceed 35% of the gross floor area of the principle associated marine passenger use and no more than 35,000 square feet cumulative within the EWPZ:

The combined area of the Ocean Gateway and Portland Ocean Terminal complex is over 140,000 square feet. The total maximum buildout of the initial and future phase market stall interior space will not exceed 3100 square feet resulting in +/-2 % of the total gross floor area. No other Passenger Support Service uses have been approved in the zone, leaving 31,900 additional square feet of area available to such uses in the EWPZ should they develop in the future.

14-274, Conditional Use Standards: All Conditional Uses

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

The Market Stall retail will be minor accessory to the primary marine passenger use, and will cater to patrons already brought to the area by the cruise ship industry, the international ferry, or general tourism in the area. Aside from the minor traffic needed to service the stalls, the use is not anticipated to generate significant new additional traffic.

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

No harmful or obnoxious conditions are anticipated. Each market stall vendor will be responsible for having solid waste receptacles and collecting and disposing of trash generated.

Planning Staff has raise concerns over abuse of the grass resulting in potential muddy/dusty conditions. The applicant is willing to accept a condition of approval requiring a post-season monitoring and remediation plan if such a problem develops

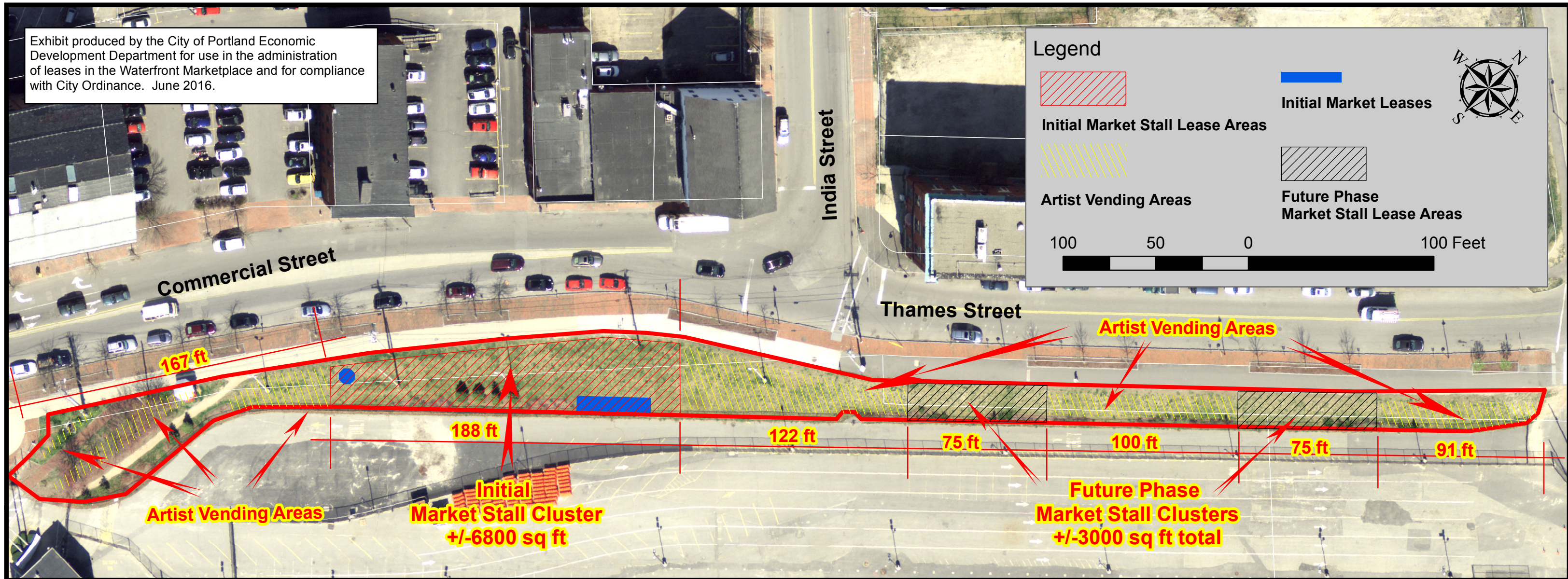
c. The design and operation of the proposed use, including but not limited to landscaping, screening, signs, loading, deliveries, trash or waste generation, arrangement of structures, and materials storage will not have a substantially greater effect / impact on surrounding properties than those associated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

The design and operation of the proposed Marketplace is intended to complement the primary marine passenger uses promoted in the EWPZ and to be compatible with the retail, office, and hospitality uses of the nearby commercial zones. As small individual uses that are limited in aggregate, the potential area of interior space for entire market place will be no more than 3100 square feet – a modest total compared with many retail and restaurant uses in the Old Port and India Street districts. For example, Maine Wharf

next to Buoy Park, houses Scales, Flatbread, RiRa, and the Drydock restaurants. These restaurants on this one wharf and adjacent uplands totals over 20,000 square feet of food service use.

Impacts of the Marketplace will be mitigated through placement of stalls and management of vending activity away from and off the travel way of the Trail.

Exhibit produced by the City of Portland Economic Development Department for use in the administration of leases in the Waterfront Marketplace and for compliance with City Ordinance. June 2016.



Notes:

- Uses
1. Vendors within the Waterfront Marketplace will be limited to Tour Operators, Food Service, and Artists retail.
 2. Market Stall Vendors are subject to individual leases within Market Stall Cluster areas shown herein
 3. Occupancy of the Future Phase Market Stall Clusters will not occur until the City has secured right title and interest to use the Maine DOT rail right of way for such purposes.

- Performance
4. Market Stall Vendors will not set up fixed or movable features outside of designated leaseholds.
 5. No Vendors will set up fixed or movable features within 5 feet of the southerly sideline of the Eastern Prom Trail.
 6. All Vendors are responsible for securing off-site legal parking for all motor vehicles other than licensed food trucks and self-contained vending trucks and trailers (vehicles set up as the vender's point of sale.)
 7. All Vendors will provide space within their leased stall to process and queue customers without trespass onto adjacent leaseholds, artist vending areas, or the Trail.
 8. Market Stall Vendors will accommodate the reasonable needs of street artists as maybe sharing space within the Waterfront Marketplace, outside of Market Stall Vender leaseholds.
 9. Non-lease holding artists may set up vending tables, as compliant with City Code Sec. 19-23, within vacant or un-leased portions of Market Stall Cluster areas.

10. All Vendors are responsible for the collection and disposal of solid waste generated on-site and will provide and maintain trash and recycling receptacles as needed to control litter.
 11. Market Stalls will not use the Trail for loading and unloading.
 12. Exterior storage of goods and materials is not permitted within Market Stall leaseholds.
- Layout
13. Market Stalls will be subject to individual leases and limited to no more than 320 sq ft of interior space per use.
 14. Initial Market Stall Cluster will occupy +/-6300 sq ft and will be limited to not more than 5 separate leaseholds.
 15. Aggregated uses within the Initial Market Stall Cluster will occupy not more than 1600 sq ft of interior space.
 16. Future Phase Market Stall Clusters will occupy no more than 3000 sq ft.
 17. Aggregated uses within Future Phase Market Stall Clusters will occupy not more than 1500 sq ft of interior space.

Exhibit A
The Waterfront Marketplace
at
Ocean Gateway