

City of Biddeford
Planning Board
June 07, 2023 6:00 PM City Hall
Council Chambers, & Zoom
<https://biddeford.zoom.us/j/98200601229?pwd=MXpvUFdjNXdkL3NienI4UWIDVVZKZz09>
Webinar ID 982 0060 1229; Passcode 556617

STATUS: Planning Board Meeting, Wednesday, June , 2023, 6:00 PM, City Council Chambers & Zoom

- 1. PLEDGE OF ALLEGIANCE**
- 2. DECLARATION OF QUORUM/VOTING MEMBERS**
- 3. ADJUSTMENTS TO THE AGENDA**
- 4. PLANNER'S BUSINESS**
- 5. UNFINISHED BUSINESS**
- 6. NEW BUSINESS**

- 6.A. 2023.31 Public Hearing and take comments to review a Sketch Plan Subdivision Application for Diversacorp Holdings, LLC. The property is located at 20 Clifford Street (Tax Map 39, Lots 303-1 & 304) in the R2 Zone. The applicants propose to construct a building containing 4 residential units.

[Sketch Plan Staff Review- 20 Clifford Street.pdf](#)
[Sketch Plan Submission - 20 Clifford St 5-4-23.pdf](#)
[Sketch Plan 5-4-23.pdf](#)
[Saucier 5-9-23.pdf](#)

- 6.B. 2023.28 Public Hearing and take comments to review an Amended Subdivision Application for Tom Watson & Co. The property is located at 10, 20 & 30 Upper Falls Road formerly known as Gooch Street (Tax Map 40, Lots 55, 55-3, & 56-1) in the MSRD-3 Zone and in the Shoreland Zone GD-1. The applicants would like to amend the previously approved request approved in January 2023. The amendment to the application includes increasing the unit count at 20 Upper Falls Road from the previously approved 16-unit building to 20-units. The revised building will include (12) 2-bedroom units and (8) 1-bedroom units. Additionally, a division of land to formally divide 26 Upper Falls Road from 20 Upper Falls Road is included as part of the amendment request. 26 Upper Falls Road will be the location of the previously approved (11) townhomes.

[2022.11 10_20_30 Upper Falls Way_Amendment SP.docx.pdf](#)
[Title Page.pdf](#)
[Cover Letter.pdf](#)
[Amendment Application.pdf](#)
[20 UPPER FALLS ROAD 032923 PLANS AND ELEVATIONS ONLY.pdf](#)
[Civil Plan Set 5-16-23.pdf](#)
[Site Plan - 1.pdf](#)
[Site Plan - 2.pdf](#)

[Subdivision Plat.pdf](#)
[23.05.15-UFA LA Comment response IV.pdf](#)
[Comment Response Letter IV_5-16-23.pdf](#)
[Heil 5-16-23.pdf](#)
[Section 28 Traffic Overview.pdf](#)
[Section 38.1 IDF curve information.pdf](#)
[Army Corp of Engineers 4-28-23.pdf](#)
[NRPA 4-28-23.pdf](#)
[Section 17 Wastewater Disposal.pdf](#)
[Hydraflow Storm Sewers.pdf](#)
[Stormwater Report.pdf](#)
[Water Supply.pdf](#)

- 6.C. 2023.24 Continued discussion of the proposed "Back Lot" ordinance in preparation to send it to the City Council.

[City of Saco Back Lot Ordinance Attachment 1 6-1-23.pdf](#)
[BL Ordinance Draft.pdf](#)
[Council Workshop Memo.pdf](#)

7. OTHER BUSINESS

8. ADJOURN

The Board reserves the right to halt official business at 9:30 p.m. Items not heard at tonight's meeting shall be rescheduled to the next meeting of the Board. All materials pertaining to items on the agenda are available for public review at the Biddeford Planning Department, second floor, Biddeford City Hall during normal business hours.



CITY OF BIDDEFORD

Planning and Development Department

David C.M. Galbraith
Interim Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
David.Galbraith@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Patoine and Members of the Biddeford Planning Board

FROM: Eric Freeman, Assistant City Planner & Deputy Director of the Planning & Development Dept.

DATE: June 1st, 2023

RE: **2023.31 Site Plan Application for Diversacorp Holdings LLC to construct four (4) residential condominium units. Property is located at 20 Clifford Street (Tax Map 39, Lots 301-1 & 304) in the Residential-2 zone.**

MEETING DATE: June 7th, 2023 at 6:00 PM

1. INTRODUCTION

Diversacorp Holdings LLC is proposing to construct four (4) residential condominium units each measuring 32' x 40' With associated driveways at 20 Clifford Street. (Tax Map 39, Lots 301-1 and 304) Access to all driveways would be via Tibbets Avenue.

The project will be served by public utilities from Clifford Street.



Project Location

Case 2023.31: 20 Clifford Street, Sketch Plan Review, Minor Subdivision (Tax Map 39, Lots 303-1 & 304) in the R2 zone.

Planning Board Hearing Date: June 7, 2023.

Staff and peer-review engineers have identified areas of concern that should be elaborated upon by the applicant. Given the gradients of the site, stormwater and runoff are of particular concern. Since the site is currently fully vegetated, the applicant should clarify how much existing vegetation will be removed as part of this project and how that may impact erosion and soil stability. Additionally, planning staff noted that although the address of the property is 20 Clifford Street, driveway access for all four units will be on Tibbetts Ave. The applicant should address how addressing will be handled.

2. PROJECT DATA/INFORMATION

1.	Applicant:	Diverscorp Holdings, LLC 5 Stone Pony Circle Saco, ME 04072
2.	Owner of Property:	Same as Applicant
3.	Agent:	Walter Pelkey, BH2M 380 B Main Street Gorham, ME 04038 (207) 839-2771
4.	Surveyor:	Austin G. Fagan , BH2M 380 B Main Street Gorham, ME 04038
5.	Project Location:	20 Clifford Street.
6.	Project Tax Map #/Lot #:	Tax Map 39, Lots 301-1 and 304
7.	Lot Size:	27, 953 Sq. Ft.
8.	Base Zoning:	Residential-2
9.	Overlay Zoning:	N/A
10.	Existing Use:	Undeveloped
11.	Proposed Use:	Four (4) single family units 32'x40'
12.	Approvals Required:	Minor subdivision, Site Plan
13.	Uses in the Vicinity:	Multifamily residential, Single Family residential
14.	Waivers Needed:	a. None
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	
23.	LDR Attachment A: Fees Paid:	Yes
25.	Planning Board Review History:	N/A

3. REVIEW PROCESS

Per City ordinance, this application is subject to Site Plan (Land Development Regulations, Article XI) review and approval by the Planning Board.

4. Departmental Review Comments:

Case 2023.31: 20 Clifford Street, Sketch Plan Review, Minor Subdivision (Tax Map 39, Lots 303-1 & 304) in the R2 zone.

Planning Board Hearing Date: June 7, 2023.

A. Planning:

- The condos are proposed to access Tibbett's Ave utilizing 4 separate driveways, one serving each unit.
- Tibbett's Avenue is only a 35' wide ROW and the access points are located in close proximity to the Clifford / Tibbett's intersection.
- The property slopes down toward both Clifford Street & Tibbett's and appears to be fairly steep, so questions regarding stormwater and runoff is a concern. The developed properties on the west side of Tibbett's are below the project site as the slope continues in that direction.
- Very tight site especially with the existing grades and not, at this point, knowing what their plans are for grading.
- Sight lines for driveway / roadway safety. Emergency vehicle access.
- Only garage and driveway parking (4 stalls max per lot) and due to the width of Tibbett's Ave. No on street parking on Tibbett's.
- Tree Removal. Since the site is fully vegetated, The applicant should clarify how many trees on the parcel will be removed. And how that may impact erosion.

B. Code Enforcement:

1. No Comments

C. Public Works:

1. No Comments

D. Engineering:

- Future plans should include topography and stormwater / sewer connections
- Site is within the MS4 urbanized area.

E. Police:

1. No Comments

F. Fire:

1. No Comments

G. Traffic Peer Review:

1. No Comments

H. Engineering Peer Review:

Case 2023.31: 20 Clifford Street, Sketch Plan Review, Minor Subdivision (Tax Map 39, Lots 303-1 & 304) in the R2 zone.

Planning Board Hearing Date: June 7, 2023.

- The application does not list any waiver requests, but given the corner clearance and drive spacing there may be some required, including Part III Article VI. Section 20. and Part II. Chapter 62 Article IV section 62-111.

1. STAFF REVIEW

- **APPLICATION COMPLETENESS:** The applicant has submitted a complete application, featuring all required elements as specified under Section 66-35 (Required Information for Final Plan Submissions). As part of the staff's review comments, we have identified aspects of the plan submission to be revised or clarified, which we suggest being made a condition of approval.
- **ZONING:** The proposed uses are permitted uses within the R-2 Zone, Similarly, with respect to applicable dimensional requirements, the project would comply with all applicable requirements, including building height, building setback, frontage, and lot coverage requirements.

- **REVIEW STANDARDS:**

In general, staff found the application to satisfy City site plan requirements. The major site details such as building, parking, landscaping, designs and locations have been finalized so the plan being reviewed the Board are what will be constructed on the face of the earth. However, City Staff and the City's third party civil engineer, identified a number of technical plan elements which need to be addressed by the Applicant prior to preliminary and final site plan approval.

Maine DEP Stormwater Permit: The project requires a Maine DEP Stormwater Permit.

WAIVERS: No waivers requested as part of this project.

2. STAFF RECOMMENDATION

Staff recommends that the applicant address concerns brought up by planning staff and the engineering peer-review comments. and moving forward with the Board's Preliminary and Final Approval of the project, with the understanding that the remaining engineering issues will be resolved, to the satisfaction of the Public Works Director and Engineering Director, prior to a Preconstruction Meeting being scheduled. A Condition of Approval (COA), of this nature, has been included within the Findings of Fact (FOF) / COA. Therefore, Staff recommends the Planning Board approve the project plans as presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA).

May 3, 2023

David Galbraith
City Planner
205 Main Street
Biddeford, ME 04005

Re: Sketch Plan Application
4-Unit Condominium
20 Clifford Street

Dear David;

On behalf of the applicant, Diversacorp Holdings, LLC, we are submitting a Sketch Plan Application for a 4-unit condominium at 20 Clifford Street. In support of the application, we have enclosed 10 copies of the proposed sketch plan and supporting documents.

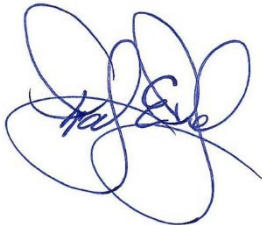
- Sketch Plan Application
- Attachment 1 – Figures (USGS, Tax Map, FEMA, and Soils)
- Attachment 2 – Parcel Deed
- Attachment 3 – Abutter's List
- Attachment 4 – Sketch Plan

The project will consist of a 4-residence unit multiunit condominium. Access for each unit will be along Tibbetts Avenue with all units being served by public utilities.

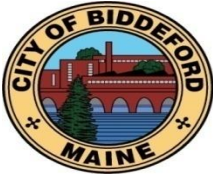
We are requesting the initial pre-app meeting with the Staff Review Committee and to be placed on the next available Planning Board agenda to review this Sketch Plan and receive direction from City Staff.

Please call me if you have any questions or need any additional information.

Sincerely,



Walter Pelkey
Project Manager



City of Biddeford – Planning Department

Planning Board Application

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

☐ Shoreland Zoning Permit ☒ Site Plan Review ☐ Extraction
☐ Conditional Use Permit ☒ Subdivision ☐ Private Way
☐ Other: _____

Applicant Information:

Name: Diversacorp Holdings, LLC
 Mailing Address: 5 Stone Pony Circle, Saco, ME
 Telephone: _____
 Email: _____

What is your legal interest in the property?

☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Information:

Name: _____ Same as Applicant
 Mailing Address: _____
 Telephone: _____
 Email: _____

Agent's Information:

Name: Walter Pelkey, BH2M
 Mailing Address: 380B Main Street, Gorham, ME 04038
 Telephone: (207) 839-2771
 Email: wpelkey@bh2m.com

Engineer/Surveyor's Information:

Name: Austin G. Fagan, PE#16523, BH2M
 Mailing Address: 380B Main Street, Gorham, ME 04038
 Telephone: (207) 839-2771
 Email: afagan@bh2m.cm

Project Location and Lot Information:

Street Address: 20 Clifford Street Drainage Watershed: Saco River
Tax Map: 39 Lot: 303-1 & 304
Current Zoning: Residential 2 (R2) Shoreland Zoning: N/A
 Size of Lot: 27,953 () acres ☒ s.f. Lot Frontage: _____
 Existing Use of Property: A portion of the property has an existing house, garage, and driveway.
The remainder of the property is undeveloped.

Property currently serviced by:

☒ City Road ☒ Public Sewer ☒ Public Water ☐ Public Trash
☐ Private Road ☐ Septic System ☐ Private Well ☐ Private Hauler

Slope Conditions in Area of Construction (if applicable):

☐ Flat (0-3% slope) ☐ Rolling (3-8% slope) ☒ Hilly (8-15% slope) ☐ Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? ☐ (Yes) ☒ (No) if yes attach information

Is the project within the 100-year floodplain? ☐ (Yes) ☒ (No) if yes attach information

Do you plan to bring fill onto the lot? ☐ (Yes) ☒ (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

The applicant is proposing to construct 4 units, each being 32'x40', with associated driveways.

Property to be Serviced by:

☒ City Road ☒ Public Sewer ☒ Public Water ☐ Public Trash
☐ Private Road ☐ Septic System ☐ Private Well ☐ Private Hauler

Limits of Disturbance: 27,953 () acres (☒)s.f.

Net change in impervious cover: 7,232 () acres (☒)s.f.

Is this project part of a larger project? ☐ (Yes) ☒ (No)

Is the project proposing a new Private or Public Road? ☐ (Yes, Private) ☐ (Yes, Public) ☒ (No)

Is this project within the Urbanized Area/MS4 (see [City Drainage Map](#)) ☐ (Yes) ☒ (No)

Is the project proposing any Stormwater facilities/BMPs? ☐ (Yes) ☒ (No)

Will a Traffic Movement Permit (TMP) be required?: ☐ (Yes) ☒ (No)

If in a Shoreland Zone:

Percent of residential lot coverage (Max 20%): _____

Percent of structure expansion (Max 30%): _____

If Subdivision Review, number of lots proposed: _____

If a Private Way is proposed, number of lots served: _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: +/- 5,120 sf.

Total new square feet paving/parking: +/- 2,112 sf.

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

- A. Letters of Approval
 - ☐ Fire Department – Contact Chief or Deputy Chief – 282-9986
 - ☐ Ability to Serve for Water Service – Maine Water – 282-1543
 - ☐ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118
 - ☐ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127
- B. Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.
- C. Photographs of Site.
- D. Architectural renderings/drawings of proposed buildings, as required.
- E. Engineering Plans, as required.
- F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- \$75 Nonrefundable Administration Fee is required for every application.
- Refer to “Attachment A Fees and Charges” of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

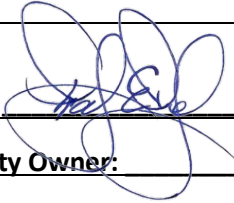
By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance?: ☐ (Yes) ☒ (No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Agent:



Date 5/3/2023

Signature of Property Owner:

Date _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- *Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'*

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- *All drawings & CAD reference files must be to-scale and within the following coordinate systems:*

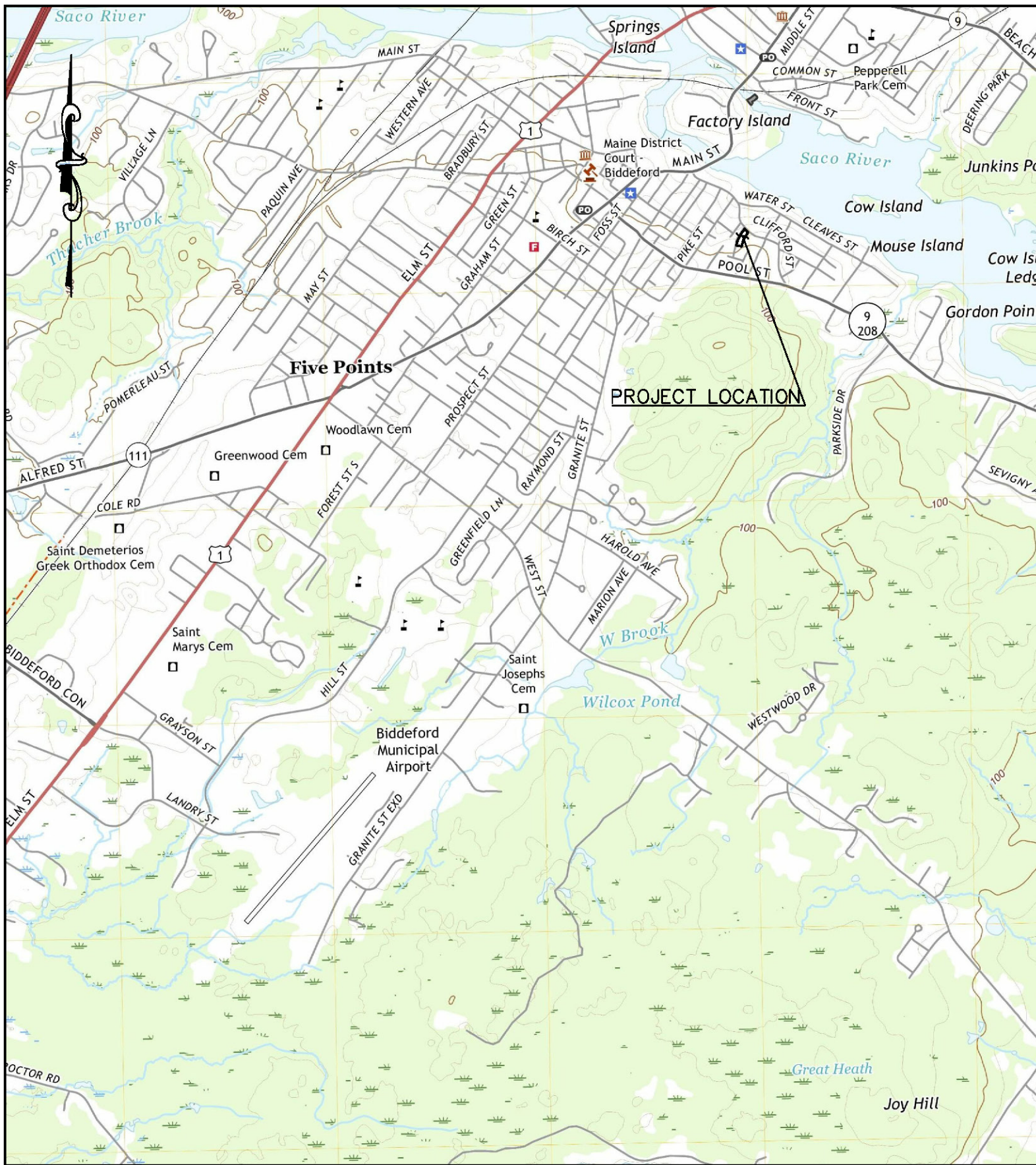
- *MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)*

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



REFERENCES:

1. USGS QUADRANGLE BIDDEFORD, ME 2021

Scale: 1" = 2000'

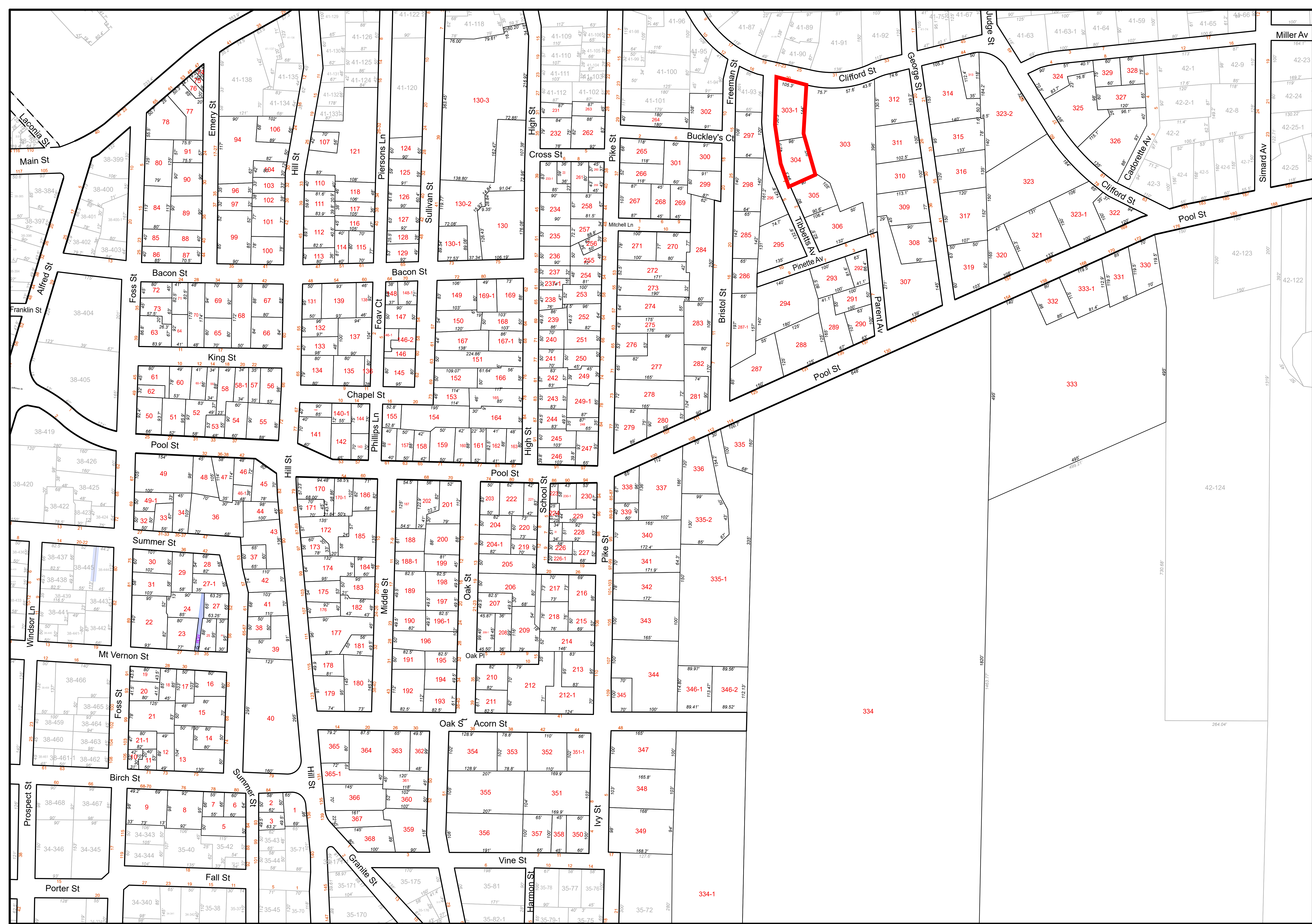


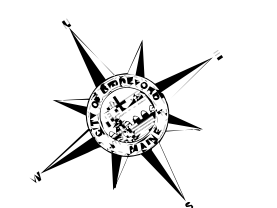
BH2M

Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

380B Main Street
Gorham, Maine 04038

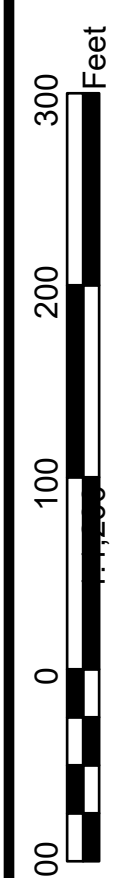
Tel. (207) 839-2771
Fax (207) 839-8250





North is based on the
Maine State
Coordinate System
NAD 1983

North Rotation is -34°



Feet

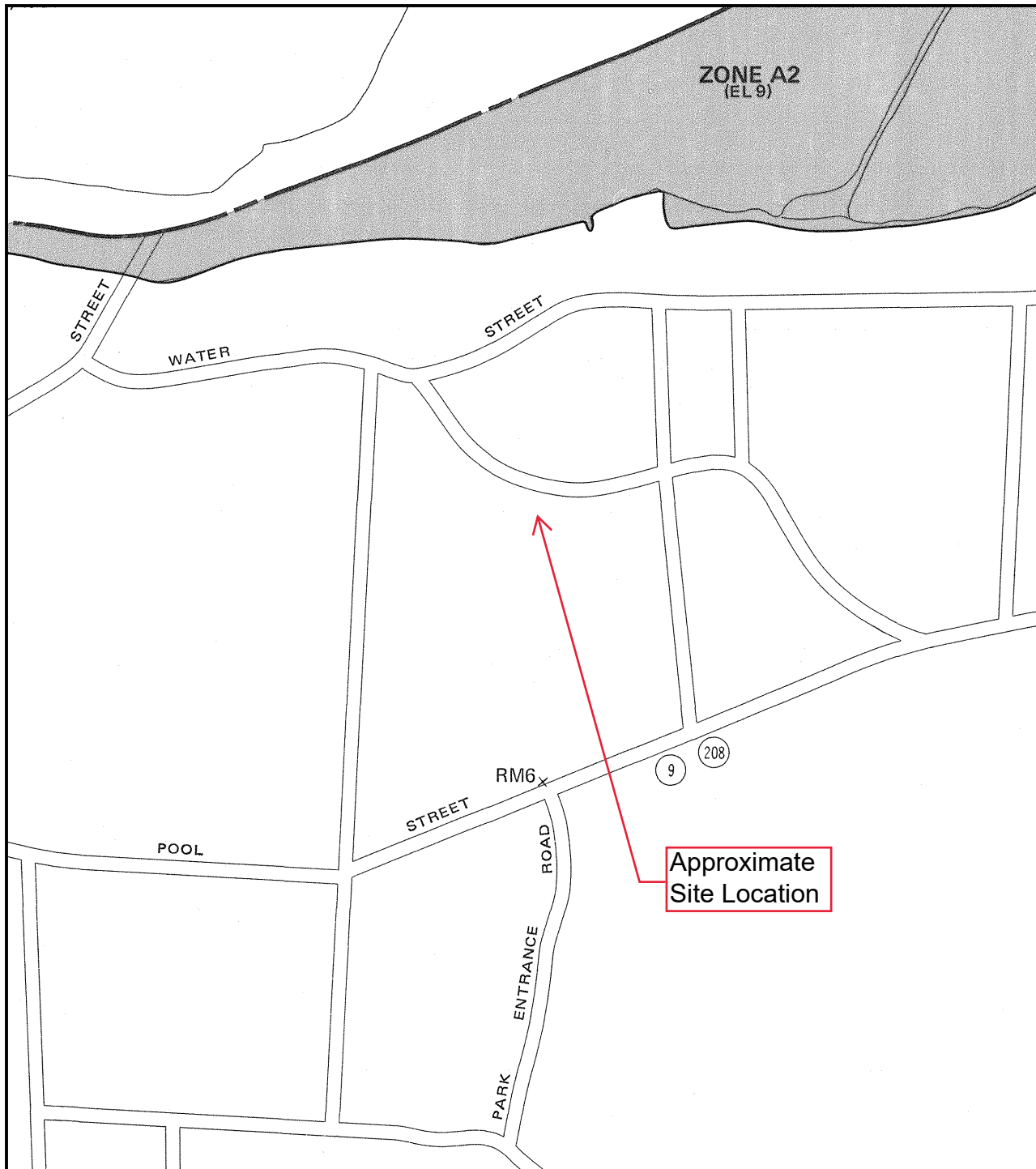
100 0 100 200 300

UPDATED THROUGH APRIL 1, 2021
FOR ASSESSMENT PURPOSES ONLY
NOT TO BE USED FOR CONVEYANCES

The City of Biddeford, Maine
OFFICIAL TAX MAP
Office of The Tax Assessor
Nicholas D. Desjardins, CMA
Assessor

This Map is Prepared By
The City of Biddeford, Maine
Technology Department
GIS Division
205 Main Street - P.O. Box 386 - Biddeford, Maine 04005
207-571-0660 - gis@biddefordmaine.org

39
Tax Map



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
BIDDEFORD,
MAINE
YORK COUNTY

PANEL 4 OF 11
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230145 0004 B

EFFECTIVE DATE:
MAY 15, 1984



Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

Soil Map—York County, Maine (Tibbetts Avenue)



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

4/20/2023
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine

Survey Area Data: Version 21, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LyE	Lyman-Rock outcrop complex, 15 to 80 percent slopes	0.1	18.4%
Ur	Urban land	0.5	81.6%
Totals for Area of Interest		0.6	100.0%

After recording return to:
Diversacorp Holdings, LLC
5 Stone Pony Circle
Saco, ME 04072

(space above is reserved for recording information)

WARRANTY DEED
Maine Statutory Short Form
DLN: 1002240192094

KNOW ALL PERSONS BY THESE PRESENTS, That **DENISE M. POIRIER**, formerly Denise P. Doherty, having a mailing address of 4 Tibbetts Avenue, Biddeford, ME 04005 for consideration paid, grants to **DIVERSACORP HOLDINGS, LLC**, a Maine Limited Liability Company, having a mailing address of 5 Stone Pony Circle, Saco, ME 04072 with **WARRANTY COVENANTS**, the land in Biddeford in, the County of York and State of Maine, described as follows:

A certain lot or parcel of land together with the buildings thereon, situated in said Biddeford, County of York and State of Maine, and being lot numbered Sixteen (16) on a plan of Sunrise Heights, Biddeford, Maine, property of Oscar Parent drawn by Libby & Johnson, C.E. November 1922, said plan being recorded in the York Registry of Deeds, in Plan Book 9, Page 11, together with a right of way Eleven (11) feet in width, extending from the Northeasterly corner of the lot herein conveyed to Parent Avenue.

Also another certain lot or parcel of land together with the buildings thereon situated in said Biddeford and being lot numbered Seventeen (17) on said plan, together with a right of way Eleven (11) feet wide extending from the Northwesterly corner of the lot herein conveyed to Parent Avenue.

Also another certain lot or parcel of land, situated in the City of Biddeford, bounded and described as follows:

Beginning at an iron pipe driven into the ground at the intersection of the Southwesterly side of Clifford Street with the Southeasterly side of Tibbetts Avenue;

Thence South 52° 06' West by the Southeasterly side of Tibbetts Avenue, One Hundred Fifty Six and Twenty-five hundredths (156.25) feet to the Northerly corner of lot #17 as shown on a plan entitled "Sunrise Heights" made by Libby and Johnson dated November 1922, and recorded in the York County Registry of Deeds, in Plan Book 9, Page 11, it being the Northerly corner of land of grantor;

Thence South 37° 54' East by said land now or formerly of Robert Nolette and Theresa Nolette, Ninety and no hundredths (90.00) feet to an iron pipe driven into the ground;

Thence South 52° 06' West by said other land said Nolette, Fourteen and Thirty-seven hundredths (14.37) feet to an iron pipe driven into the ground;

Thence South 29° 58' West by said land of said Nolette, Twenty-seven and Twenty-nine hundredths (27.29) feet to an iron pipe driven into the ground;

Thence South 24° 14' West by said land of grantor, Fifty and no hundredths (50) feet to an iron pipe driven in the ground at most Southerly corner of said land of Nolette;

Thence South 65° 46' East by remaining land now or formerly of Robert R. Nolette, et al Thirteen and Twelve hundredths (13.12) feet to an iron pipe driven into the ground;

Thence North 36° 40' East by said remaining land now or formerly of Nolette One Hundred Thirty-two and Fifty hundredths (132.50) feet to an iron pipe driven into the ground;

Thence North 54° 36" East by said remaining land of Nolette Eighty Nine and Seventy-two hundredths (89.72) feet to an iron pipe driven into the ground and said Clifford Street;

Thence North 28° 49' West by said Clifford Street One Hundred Five and Twenty-three hundredths (105.23) feet to the point of beginning.

Containing 17,171 square feet.

Meaning and intending to convey all of Lots #18, 19, and 20 and a strip of land lying Southeasterly of and adjoining lots #16, 17 and 18 as shown of said plan.

The above bearings refer to the 1959 magnetic meridian.

For Grantor's source of title reference is made to Divorce Judgment recorded in York Registry of Deeds in Book 18987, Page 787, and deed from Roland L. Poirier and Cecile T. Poirier to Michael J. Doherty and Denise P. Doherty, now know as Denise Poirier, dated August 18, 1998 and recorded in the York County Registry of Deeds in Book 9000, Page 287.

WITNESS my hand this 3rd day of May, 2022.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF:

[Signature]
Witness

[Signature]
Denise M. Poirier

STATE OF MAINE

Cumberland, ss.

May 3, 2022

Personally appeared the above named Denise M. Poirier, formerly Denise P. Doherty, and acknowledged the foregoing instrument to be her free act and deed.

Before me,

[Signature]
Notary Public/Maine Attorney at Law

Printed Name: Nathan Beasley

L:\clients\19806\000\deed:fd

Nathan J. Beasley
Notary Public, Maine
My Commission Expires July 23, 2025

Abutting Properties for
20 CLIFFORD ST & 4 TIBBETTS AVE
39/ 303/ 1 & 39/ 304/
(100 Feet)

Location:
39/ 296/ / /
5 TIBBETTS AVE
Owner:
RYDER, STEVEN P
ESPOSITO, LISA
5 TIBBETTS AVE
BIDDEFORD, ME 04005

Location:
39/ 303/ / /
13 PARENT AVE
Owner:
THE PARENT REALTY TRUST
CASEY, TIMOTHY JR & KIMBERLY,
TRUSTEES
1 SIRIUS LN
PEPPERELL, MA 04163

Location:
41/ 87/ / /
17 CLIFFORD ST
Owner:
SHAW, GLEN R
1438 MAIN ST
MAPLETON, ME 04757

Location:
41/ 91/ / /
31 CLIFFORD ST
Owner:
FECTEAU, PATRICIA A
31 CLIFFORD ST
BIDDEFORD, ME 04005-2733

Location:
39/ 297/ / /
15 FREEMAN ST
Owner:
JXJ PROPERTIES, LLC
5 LEDGEWOOD CIR
SCARBOROUGH, ME 04074

Location:
39/ 303/ 1/ /
20 CLIFFORD ST
Owner:
DIVERSACORP HOLDINGS, LLC
5 STONE PONY CIR
SACO, ME 04072

Location:
41/ 88/ / /
19 CLIFFORD ST
Owner:
CANNON, LEGRAND
893 SAWYER ST
SOUTH PORTLAND, ME 04106

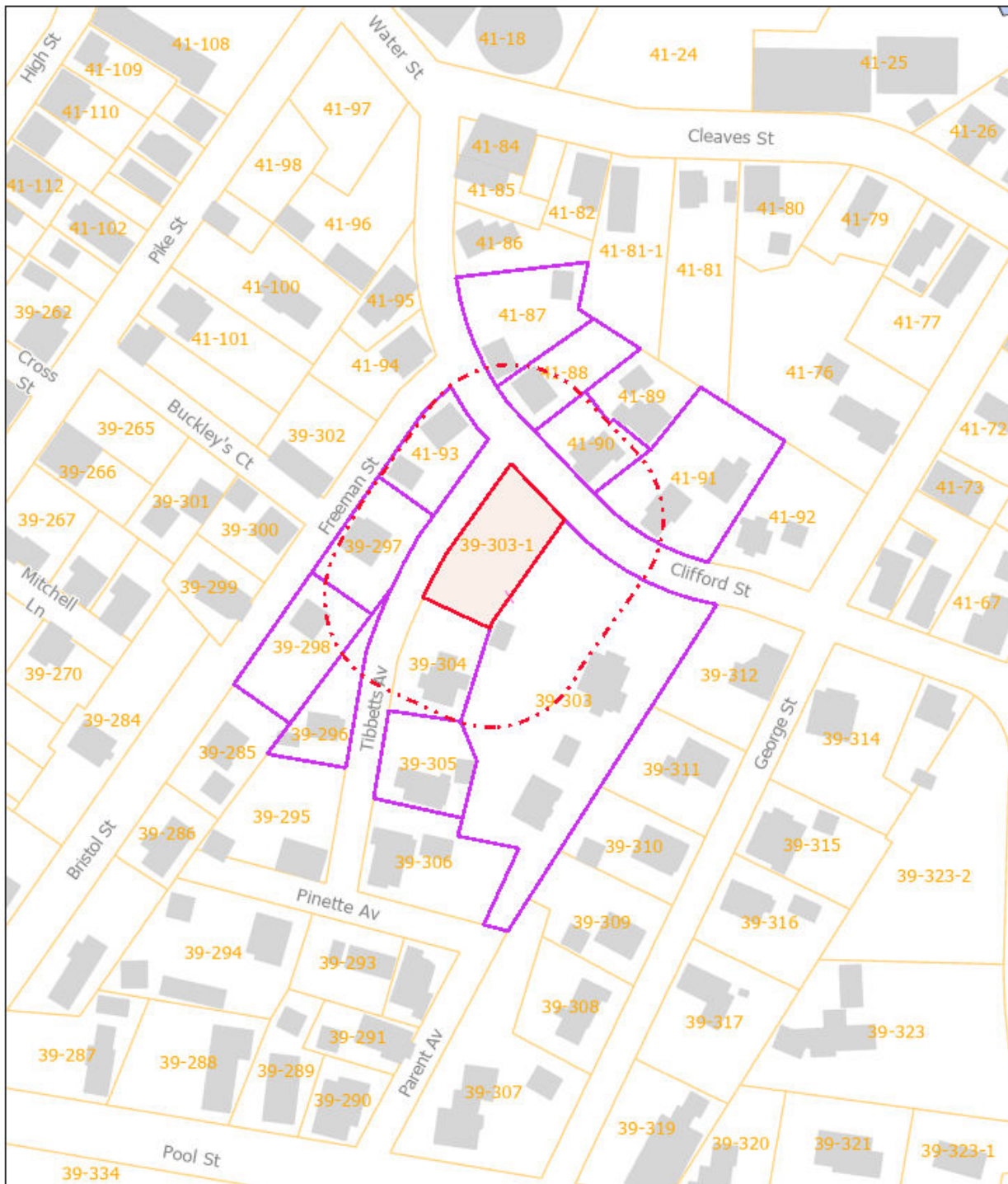
Location:
41/ 93/ / /
16 CLIFFORD ST
Owner:
GIROUX, JOANNE M
GIROUX-HEFT, LISA
16 CLIFFORD ST
BIDDEFORD, ME 04005

Location:
39/ 298/ / /
25 FREEMAN ST
Owner:
KIRONGOZI, CAMILLE
25 FREEMAN ST
BIDDEFORD, ME 04005

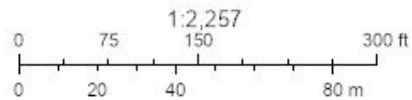
Location:
39/ 305/ / /
2 TIBBETTS AVE
Owner:
METCALF, LISA M & DALE B
2 TIBBETTS AVE
BIDDEFORD, ME 04005-2728

Location:
41/ 90/ / /
25 CLIFFORD ST
Owner:
TENG, BARRY
25 CLIFFORD ST
BIDDEFORD, ME 04005

Abutter's List Map



April 20, 2023

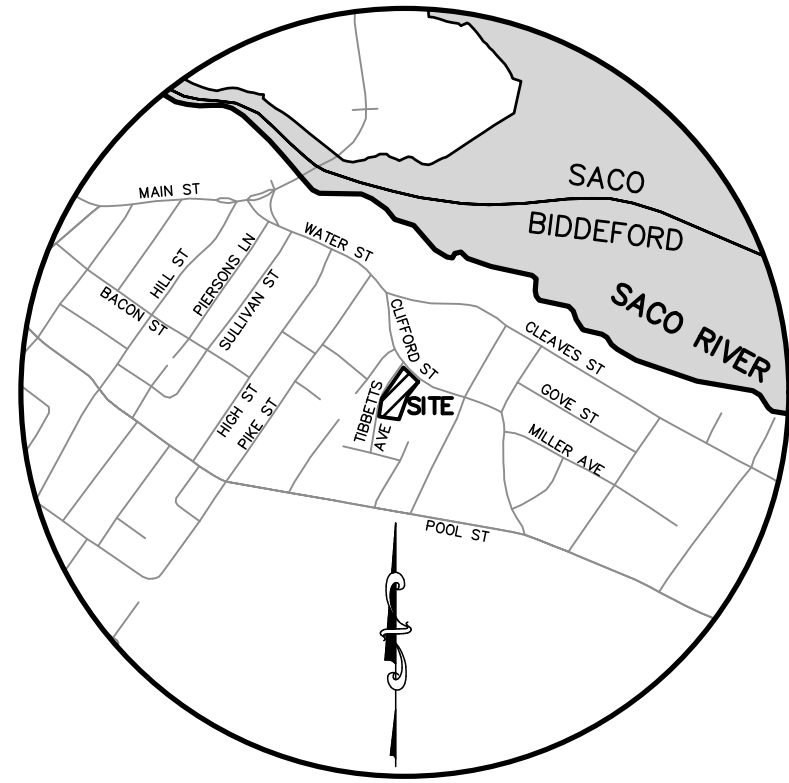
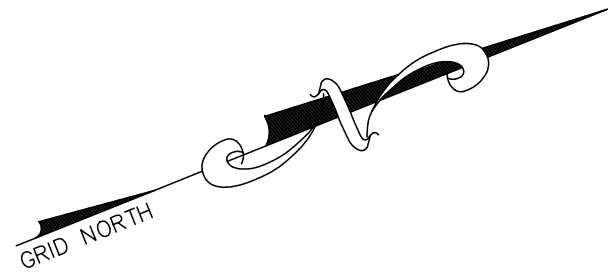


Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

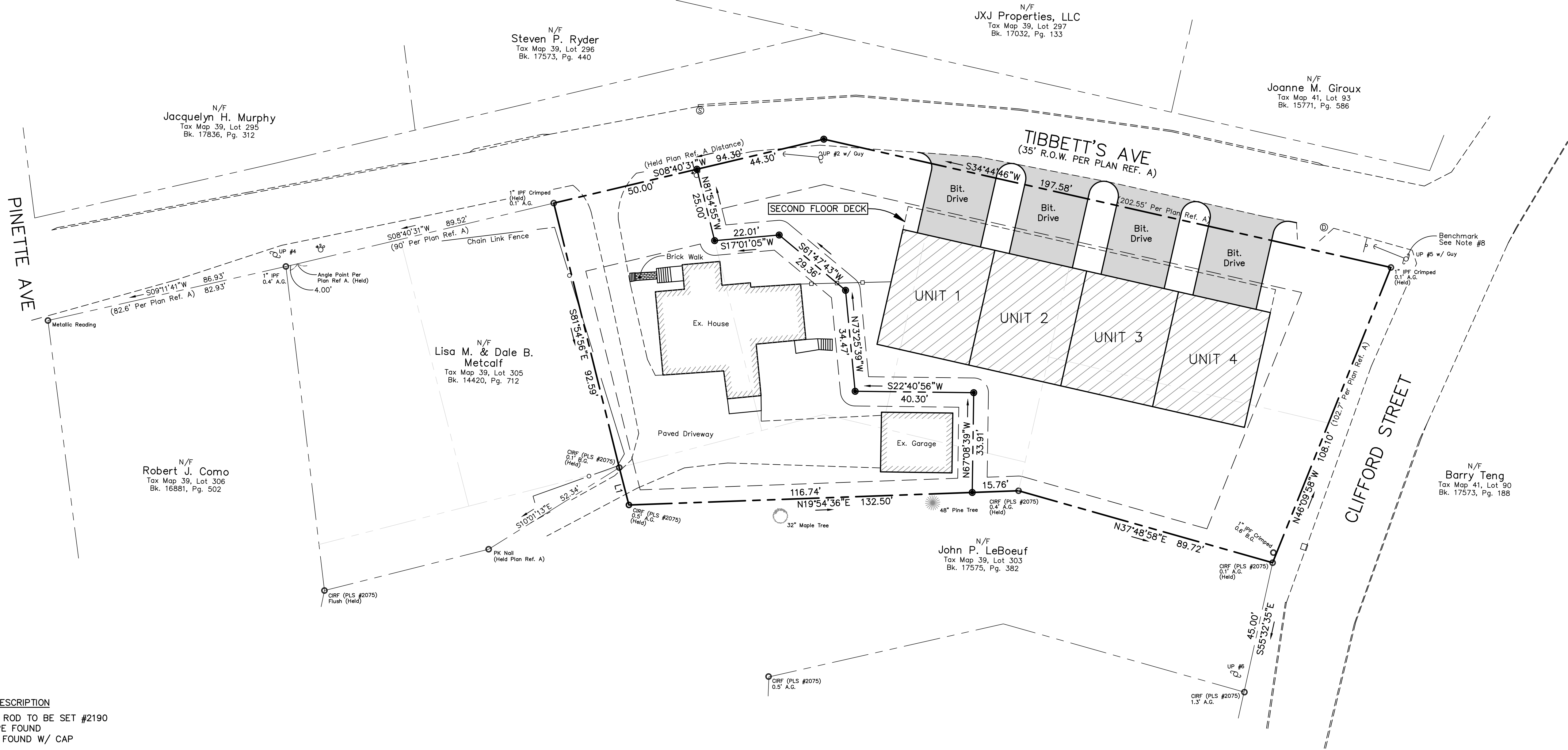
Data and scale shown on this map are provided for planning and
Powered by Esri Technology

NOTES

1. OWNER: DIVERSACORP HOLDINGS, LLC
5 STONE PONY CIRCLE
SACO, ME 04072
2. ENGINEER: AUSTIN G. FAGAN, PE#16523
BH2M
380B MAIN STREET
GORHAM, MAINE
3. SURVEYOR: ROBERT LIBBY, JR. PLS #2190
BH2M
4. DEED REFERENCE: BK. 19016, PG. 347
5. TAX MAP REFERENCE: MAP 39, LOT 304
MAP 39, LOT 303-1
6. ZONING: RESIDENTIAL 2 (R2)
7. ZONING REQUIREMENTS: FRONTAGE - 45'
SETBACKS - 15' (FRONT), 5' (SIDE/REAR)
8. PARCEL AREA: 27,953 S.F. (0.642 ACRES)
9. PROPOSED USE: 4-UNIT APARTMENT
10. COORDINATES: BEARINGS REFER TO GRID NORTH (NAD83), MAINE
STATE PLANE COORDINATES (ME W-1802) USING A
BRX7 ROVER.
11. PLAN REFERENCES:
A. "SUNRISE HEIGHTS, BIDDEFORD ME., PROPERTY
OF OSCAR PARENT" DATED NOVEMBER 1922,
MADE BY LIBBY & JOHNSON, ENGINEERS,
RECORDED IN THE Y.C.R.D. IN PLAN BOOK 9,
PAGE 11.
B. "BOUNDARY SURVEY & DIVISION" DATED
OCTOBER 2020, MADE FOR JOHN LEBOEUF, MADE
BY R.W. EATON ASSOCIATES, JOB NUMBER 878.

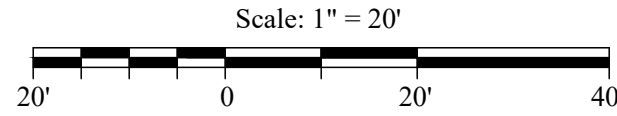


LOCATION MAP
SCALE: 1" = 1000'



SYMBOL	DESCRIPTION
●	CAPPED IRON ROD TO BE SET #2190
○ REF / RRF	IRON ROD/PIPE FOUND
○ CIRF	#5 IRON ROD FOUND W/ CAP
○	UTILITY POLE
A.G./B.G.	ABOVE GROUND/BELOW GROUND
N/F	NOW OR FORMERLY
+	WATER SHUTOFF VALVE
□	CATCH BASIN
⊙	DRAIN MANHOLE
⊙	SEWER MANHOLE
—	SIGN
---	PROPERTY LINE
- - -	ABUTTER PROPERTY LINE
- - - -	EXISTING EDGE OF PAVEMENT

LINE DATA
L1 - S82°24'29"E 13.12'



NO.	DATE	REVISION	DESCRIPTION

BH2M

Barry, Huff, McDonald, Milfigan Inc.
Engineers, Surveyors

380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Diversacorp Holdings, LLC
5 Stone Pony Circle
Saco, Maine 04072

SKETCH PLAN
4-UNIT CONDOMINIUM
20 CLIFFORD STREET
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE April 2023
DRAWN Dept.	SCALE 1" = 20'
CHECKED A. Fagan	JOB. NO. 22079

SHEET
1

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DOCUMENT WITHOUT THE
EXPRESSED WRITTEN CONSENT
OF BH2M INC. IS PROHIBITED

Whitten, Nan

From: Tom Saucier <tsaucier@sitedesignassociates.biz>
Sent: Tuesday, May 9, 2023 4:31 PM
To: Galbraith, David
Cc: Whitten, Nan; Chekan, Craig
Subject: RE: 20 Clifford Street - 4 Condo Subdivision.

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello

We reviewed the sketch plan submission. All good points below. Do we have a feel for how much traffic uses Tibbetts? The application does not list any waiver requests, but given the corner clearance and drive spacing there may be some required, including Part III Article VI. Section 20. and Part II. Chapter 62 Article IV section 62-111.

Thanks
Tom

Tom Saucier, P.E.
Site Design Associates
23 Whitney Way
Topsham, Maine 04086
207-449-4275

From: Galbraith, David <David.Galbraith@biddefordmaine.org>
Sent: Monday, May 8, 2023 4:37 PM
To: Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Chekan, Craig <Craig.Chekan@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Dexter, Edward <Edward.Dexter@Biddefordmaine.org>; Fisk, JoAnne <JoAnne.Fisk@Biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Freeman, Eric <Eric.Freeman@biddefordmaine.org>
Cc: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>
Subject: 20 Clifford Street - 4 Condo Subdivision.
Importance: High

The attached "Sketch Plan" for a 4 unit condo, to be located on the northeast corner of Clifford Street and Tibbett's Ave., which came in last Thursday. It is scheduled for a "sketch plan" and site plan discussion before the Planning Board on June 7th. I looked at the site using Google Earth, our GIS and I did a quick site visit after work that day. Although only a "sketch plan" there are a number of items that popped out to me as potential issues / concerns, namely:

1. The condos are proposed to access Tibbett's Ave utilizing 4 separate driveways, one serving each unit.
2. Tibbett's Avenue is only a 35' wide ROW and the access points are located in close proximity to the Clifford / Tibbett's intersection.
3. The property slopes down toward both Clifford Street & Tibbett's and appears to be fairly steep, so questions regarding stormwater, site runoff (ice on roadways etc.) is a concern. The developed properties on the west side of Tibbett's are below the project site as the slope continues in that direction.
4. Very tight site especially with the existing grades and not, at this point, knowing what their plans are for grading (homes & driveways).

5. Tibbett's seems to have sewer line running down it but the plans don't show waterlines.
6. Trash removal / storage. I am assuming that they will be proposing garbage cans in garages with curbside pick-up, but...
7. Traffic - Sight lines for driveway / roadway safety. Emergency access??? Hydrant locations?
8. Only garage and driveway parking (4 stalls max per lot) and due to the width of Tibbett's Ave. no on street parking.
9. Homeowner's Association / property maintenance (could be a challenge due to the small size of the lot)

Although we have a month to review the plans before Planning Board, and as it is "only a sketch plan" I saw enough potential issues that I wanted to give you all a heads up so you can familiarize yourselves with the site.
Thanks
David

From: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Sent: Monday, May 8, 2023 3:41 PM
To: Tom Saucier <tsaucier@sitedesignassociates.biz>
Cc: Galbraith, David <David.Galbraith@biddefordmaine.org>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Freeman, Eric <Eric.Freeman@biddefordmaine.org>
Subject: 4 Condo Subdivision.
Importance: High

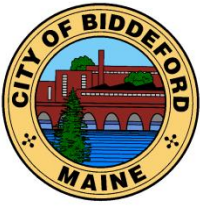
Good Afternoon:

Please take a look at the attached for the sketch plan submittal. We expect this to go to Planning Board on June 6th so can we please get your comments by May 30th? Thank you

***Nan Whitten
City of Biddeford
Office Manager
Planning & Development
207-284-9115***

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CITY OF BIDDEFORD

Planning and Development Department

David C.M. Galbraith
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

David.Galbraith@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Patoine and Members of the Biddeford Planning Board

FROM: David C.M. Galbraith, Deputy Director/City Planner

DATE: May 31, 2023

RE: **2022.11 Site Plan and Subdivision Amendment Review for Tom Watson & Co. at 10, 20, 26 and 30 Upper Falls Way (formerly Gooch Street) (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.**

MEETING DATE: June 7, 2023 at 6:00 PM

1. INTRODUCTION

Tom Watson & Co., have submitted an amendment application including revised plans and documents related to the redevelopment of 10, 20, 26, and 30 Upper Falls Way (formally known as Gooch Street). The parcels are mapped as Map: 40, Block: 55, 55-3, 56-1 and located in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning Districts. The project proposes to construct a 6-story building containing 56 residential units with a restaurant space on 10 Upper Falls Way, a 5-story, 20-unit residential building on 20 Upper Falls Way, 11 townhome units on 26 Upper Falls Way, and a partial demolition and redevelopment of the existing building located at 30 Upper Falls Way to accommodate a commercial use (potentially a brewery / taproom / restaurant). The project will include associated parking and landscaped areas.

The amendment to the application includes increasing the unit count at 20 Upper Falls Road from the previously approved 16-unit building to 20-units. The revised building will include (12) 2-bedroom units and (8) 1-bedroom units. Additionally, a division of land to formally divide 26 Upper Falls Road from 20 Upper Falls Road is included as part of the amendment request. 26 Upper Falls Road will be the location of the previously approved (11) townhomes. As part of this revision to the application we have reached out the Maine Water Company and the City of Biddeford Department of Public Works to obtain updated ability to serve letters for the revised unit count. Additionally, the increased unit count will result in additional residential parking requirements. The applicant is coordinating with the City's Pearl Street Parking Garage manager to secure an agreement for 7 parking spaces to satisfy the residential parking requirement for 10 and 20 Upper Falls Road.

**Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.**



**10 Upper Falls Way- 6-story building - 55 residential units with a restaurant space
(No Exterior Modifications Proposed)**



**20 Upper Falls Way - 5-story, 16-unit residential building
(Reconfigured interior, no external change)**

Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.



26 Upper Falls Way - 11 townhome units - Proposed Subdivision



30 Upper Falls Road- Partial demolition and redevelopment of existing building located at, to accommodate a commercial use (Photos: L to R: Historic, Existing & Proposed). (No Proposed Changes)

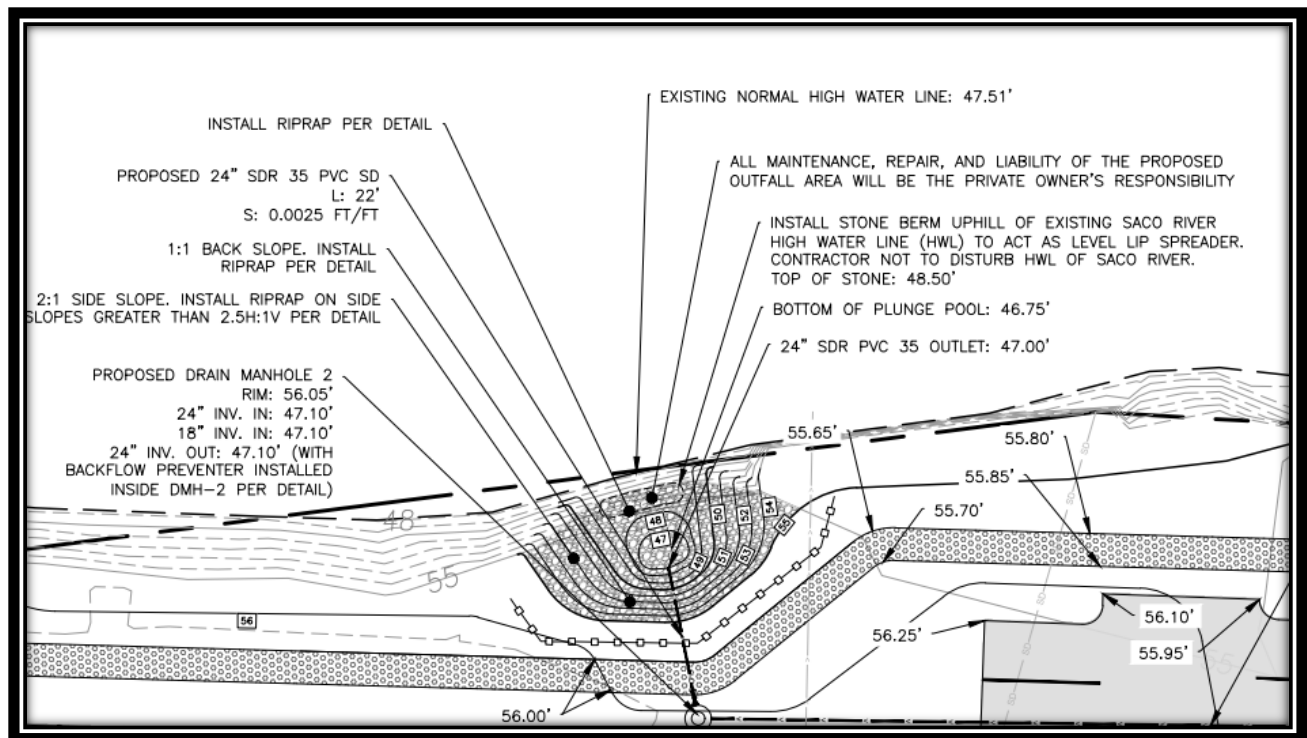
Joint Development Agreement with the City of Biddeford:

The City Council has entered into a Joint Development Agreement (JDA) with the applicant in support of this project. See attached JDA. On December 20, 2022, the City Council approved an amendment to the JDA to provide the applicant the city-owned property located at the end of Upper Falls Road which is included in this project in exchange for the applicant constructing the Riverwalk through the applicant's site along with adjusting developer performance timeframes. A copy of the City Council approved JDA Amendment is attached. The JDA Amendment is in the process of being signed.

Site Design Modification:

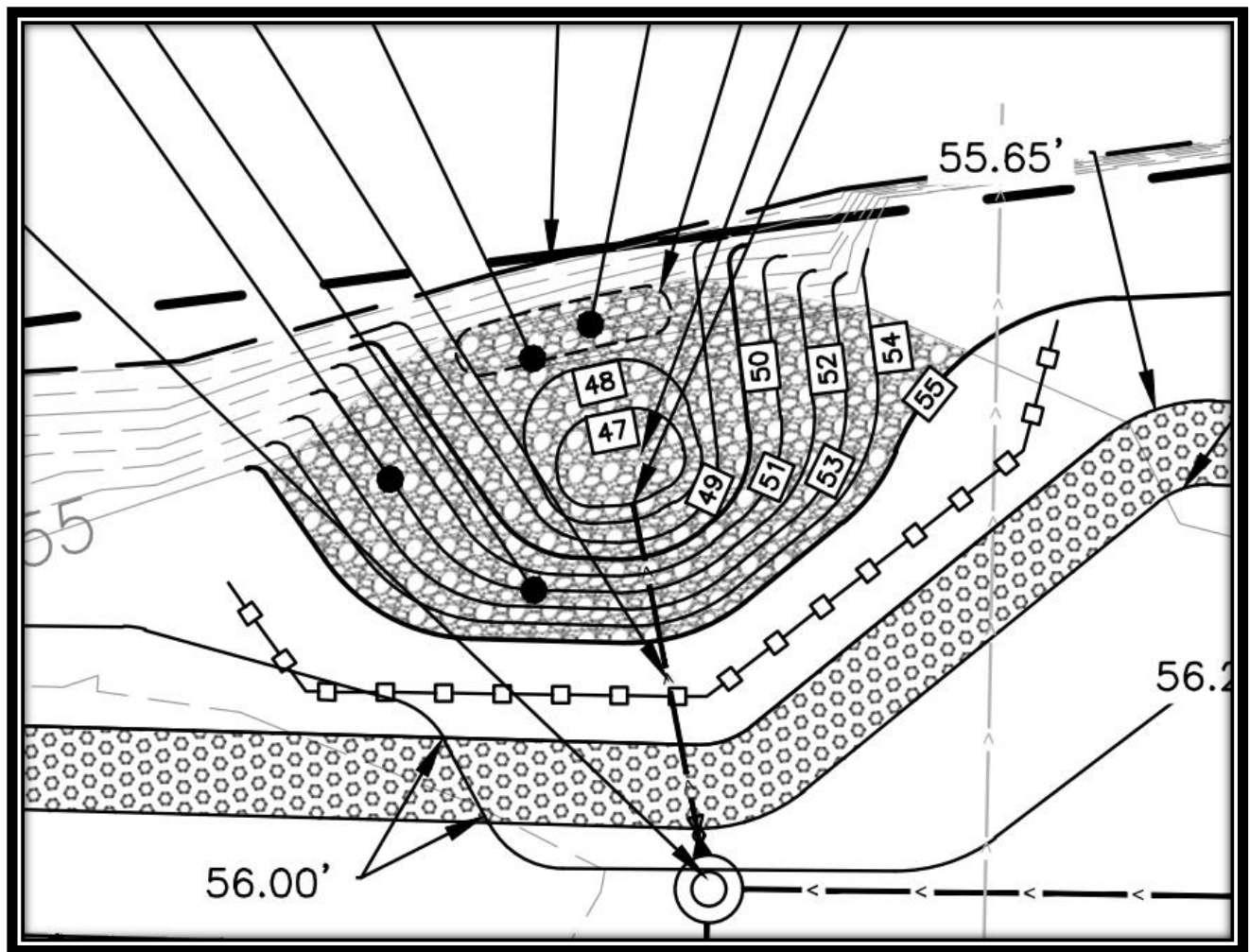
The plunge pool is designed as stormwater discharge point which will have 21" of standing water, during non-storm events, but will collect the discharge and slow release the discharge into the Saco River. In simple terms, the plunge pool is designed similar to a bathtub as it temporally holds the stormwater, during storm events and slowly discharges as the plunge pool begins to fill. As proposed, the top plunge pool elevation begins at a 55 foot (55') elevation above the normal high water mark and down to a 47 foot elevation (8 foot grade change). The plunge pool is designed with rip-wrap for erosion control / containment. The plunge pool will also include a four foot (4') tall, above grade, fence adjacent to the River Walk and additional landscaping / plantings are also being proposed around the plunge pool for screening and additional safety at the top of the plunge pool.

Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.

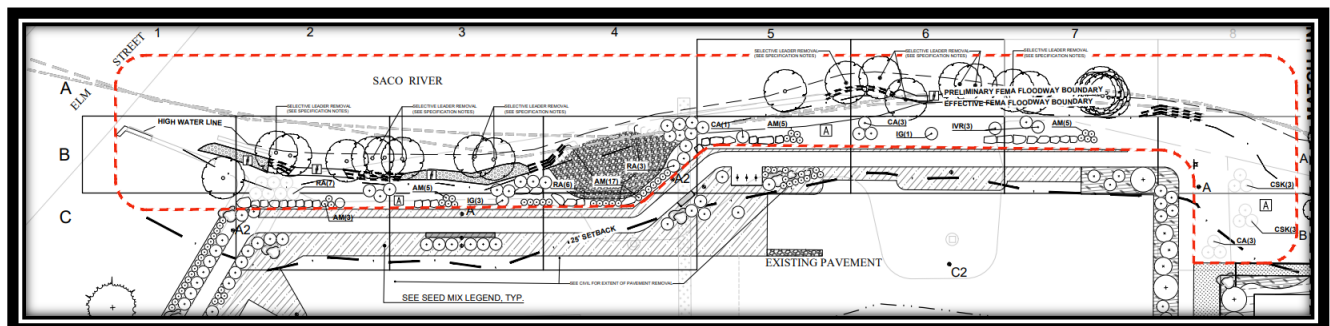


Plunge Pool Design – Civil Plan Set 5-16-23 – Drawing No. C-30

Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.

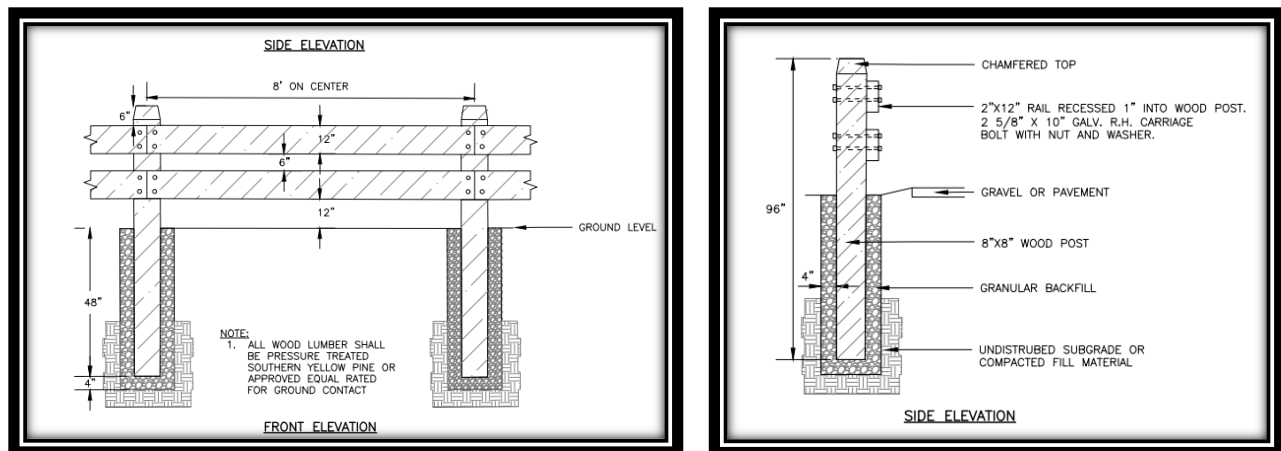


Plunge Pool Design – Civil Plan Set 5-16-23 – Drawing No. C-30 (Detail)



Plan Sheet No. L3.3 Illustrated on Plan Set Name 23.05.15 – UFA LA

Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.



Safety Fencing at Plunge Pool – Civil Plan Set 5-16-23 – Drawing No. C-42 (Detail)

2. PROJECT DATA/INFORMATION

1.	Applicant:	Tom Watson & Co. 188 State Street Portland, ME 04101
2.	Owner of Property:	Same as Applicant
3.	Agent:	Peter Heil, P.E. Acorn Engineering 500 Washington Ave, Suite #202 Portland, ME 04103
4.	Surveyor:	Owen Haskell 390 US Route 1. Unit #10 Falmouth, ME 04105
5.	Project Location:	10, 20 & 30 Upper Falls Way
6.	Project Tax Map #/Lot #:	Tax Map 40, Lot 55, 55-3, 56-1
7.	Lot Size:	2.49 acres (All 3 properties)
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	GD-1 Shoreland – Proposed Waterfront Renaissance
10.	Existing Use:	Parking Lots/Existing Commercial Buildings
11.	Proposed Use:	Mixed-use Residential and Commercial
12.	Approvals Required:	Site Plan Amendment. Subdivision Amendme
13.	Uses in the Vicinity:	City of Biddeford Downtown and Mill District, Mixed-Use
14.	Waivers Needed:	a. Parking Waiver b. Openspace
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	Maine DEP Stormwater, Maine DOT Traffic Movement Permit (TMP)
23.	LDR Attachment A: Fees Paid:	Yes
25.	Planning Board Review History:	Sketch Plan Review - February 2, 2022; Prelimin Review November 2, 2022; Final Plan Review January 18, 2023.

3. REVIEW PROCESS

Per City ordinance, this application is subject to Subdivision review and approval (Code of Ordinances, Chapter 66). Subdivision applications generally follow a three-tier approval process beginning with a Sketch Plan review, and followed by a preliminary plan review and approval and a final plan approval. The Planning Board is now considering an Amendment to the Site Plan and Subdivision approved by the Board on January 18th, 2023.

4. STAFF REVIEW:

- **APPLICATION COMPLETENESS:** The applicant has submitted a complete application, featuring all required elements for a Site Plan and Subdivision Amendment.
- **ZONING:** The proposed uses, Commercial, Residential, and Restaurant, are permitted uses within the MSRD-3 Zone, and the proposed Waterfront Renaissance Shoreland Zone Overlay District. Similarly, with respect to applicable dimensional requirements, the project would comply with all applicable requirements, including building height, building setback, frontage, and lot coverage requirements.
- **REVIEW STANDARDS:**

In general, staff found the application to satisfy City subdivision and site plan requirements. The major site details such as building, parking, landscaping, designs and locations have been finalized so the plan being reviewed the Board are what will be constructed on the face of the earth. However, City Staff and the City's engineer, identified a number of technical plan elements related to stormwater and drainage which need to be addressed by the Applicant in a future Planning Board meeting.

- Maine DEP Stormwater Permit: The project requires a Maine DEP Stormwater Permit. The Applicant has the City a copy of the application for the City's records.
- Maine Site Law Review: The City of Biddeford is classified as having capacity to review projects triggering the Maine Site Location of Development Act (SLODA) in areas of the City designated for priority growth as part of the Comprehensive Plan. As clarified in a recent email by Maine DEP, capacity review authority, permits certain municipalities to review projects triggering site location reviews under their local land use regulations (i.e. site plan, subdivision, shoreland zone, etc.), without formal review by the DEP. Therefore, the project was reviewed under applicable local review standards.
- Traffic Movement Permit (TMP): The applicant has initiated the traffic movement permit (TMP) process with Maine DOT, and has held the required Scoping Meeting for the project, which is detailed in the submitted application. The City has engaged a third-party traffic consultant, to participate in the TMP process and provide input to the City. These improvements will be implemented upon TMP approval by the Maine DOT and the City.
- Off-Street Parking Requirements: The applicant is requesting a waiver from the Planning Board for its commercial off-street parking requirements. The ordinance requires that an applicant provide 1 space per dwelling unit, plus an additional 5% for visitors, plus 1 space per every 3 restaurant seats. Based upon the development program, this equates to 120 spaces. The plans provided indicate that there will be 108 on-site parking spaces distributed across the development site, with additional parking located within a City lot at

Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.

the end of Upper Falls Way. The applicant is requesting a parking waiver for its commercial uses, to allow for those required spaces to be met through the adjacent off-site parking. Staff is supportive of this waiver request.

- WAIVERS: The applicant has requested a waiver of the off-street parking requirements as detailed above. Staff are also recommending that the Planning Board waive the open space requirement for new residential development, as required by the City's site plan ordinance.
- Engineering Review Comments: The City's third party reviewer has provided comments on this application, many of which are covered as part of staff's report to the Planning Board. The majority of comments are technical in nature, and can be seen in the comment letter from Site Design Associates. As indicated by the City's Peer Review Engineer, Engineering Director and the Director of Public Works the plan and material revisions in response to these comments should not impact the overall design of the project or delay the approval of this application.

5. STAFF RECOMMENDATION:

Staff is comfortable moving forward with the Board's approval of the amended Site Plan and Subdivision application, with the understanding that the remaining engineering issues will be resolved to the satisfaction of the Public Works Director and Engineering Director prior to a the construction of the proposed plunge pool, safety fencing and proposed landscaping.

6. STAFF RECOMMENDED CONDITIONS OF APPROVAL:

- A. All previously adopted Conditions of Approval (COA) for the 10, 20, 26 & 30 Upper Falls Road project, Case # 2022.11, are hereby reaffirmed and remain in effect unless specifically granted by the Planning Board with this approval.
- B. The Applicant shall provide the Planning and Engineering Departments completely updated plan sets that reflect the approval of the Board. These plans shall be provided within 60 days and an approved copy of the plan set shall be kept on-site until the project has been completed.
- C. For the storm profiles, the applicant provided a stormwater model export for the drainage pipes and outfall design. This stormwater model export does not classify as construction-level engineered drawings. Formal stormwater profiles shall be drafted and included on the Construction Drawings and signed by a PE.

7. SAMPLE MOTIONS:

A. Motion to Approve:

I motion to APPROVE the Final Site Plan and Subdivision amendment for the proposal located at 10, 20, 26 & 30 Upper Falls Road (Tax Map 40, Lots 55, 55-3, and 56-1), within the Main Street Revitalization District 3 (MSRD-3) zoning district, including the Staff recommended Conditions of Approval (COA).

- B. Motion to Approve – Parking Waiver Requests: The applicant has requested a waiver of the off-street parking requirements as detailed above.

**Case 2022.11: 10, 20, 26 and 30 Upper Falls Road Site Plan Amendment (Tax Map 40, Lots 55, 55-3, and 56-1) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.
Planning Board Hearing date: June 7, 2023.**

I motion to APPROVE the parking waiver request for the proposal located at 20 Upper Falls Road (Tax Map 40, Lots 55), within the Main Street Revitalization District 3 (MSRD-3) zoning district.

- C. Motion to Approve: Waiver Requests Open Space: The Applicant is seeking a waiver request for the open space requirement for new residential development, as required by the City's site plan ordinance. This is a similar request that has previously been approved with surrounding downtown development / redevelopment. Staff is supportive of this waiver request.
- D. *I motion to APPROVE the waiver request of the open space requirement for new residential development, as required by the City's site plan ordinance due to the project being located within Biddeford's urban core.*
- E. Motion to Deny I motion to DENY Final Site Plan and Subdivision amendment for the proposal located at 10, 20, 26 & 30 Upper Falls Road (Tax Map 40, Lots 55, 55-3, and 56-1), within the Main Street Revitalization District 3 (MSRD-3) zoning district, for the following reasons:

- 1) _____.
- 2) _____.
- 3) _____.

- A. Motion to Table: I motion to TABLE the Site Plan and Subdivision amendment approval for the proposal to be located at 10, 20, 26 & 30 Upper Falls Road (Tax Map 40, Lots 55, 55-3, and 56-1), within the Main Street Revitalization District 3 (MSRD-3) zoning district, for the following reasons:

- 1) _____.
- 2) _____.
- 3) _____.

Electronic Attachments:

1. Plan Set File Name: Civil Plan Set 5-16-23
2. Plan Set File Name: 23.05.15 UFA LA



SITE PLAN APPLICATION AMENDMENT

10, 20, 26 & 30

UPPER FALLS WAY REDEVELOPMENT

CITY OF BIDDEFORD, MAINE



Prepared By:

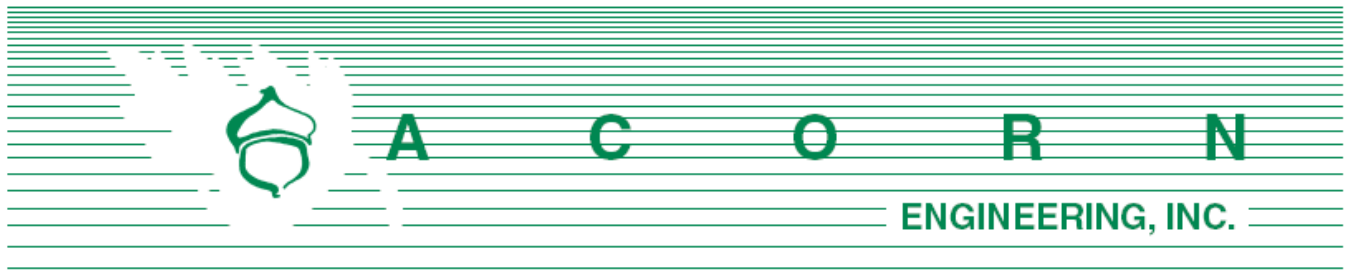
ACORN ENGINEERING, INC.

For:

TOM WATSON & CO.

April, 2023





Planning Board & Planning Department
Attn: David Galbraith
City of Biddeford, Maine
205 Main Street
Biddeford, ME 04005

April 3, 2023

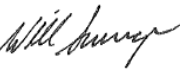
Subject: Subdivision & Site Plan Application Amendment
Redevelopment of 10, 20, 26 and 30 Upper Falls Way, Biddeford

Members of the Board, & Mr. Galbraith:

On behalf of Tom Watson & Co., we are pleased to submit an amendment application including revised plans and documents related to the redevelopment of 10, 20, 26, and 30 Upper Falls Way (formally known as Gooch Street). The parcels are mapped as Map: 40, Block: 55, 55-3, 56-1 and located in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning Districts. The project proposes to construct a 6-story building containing 56 residential units with a restaurant space on 10 Upper Falls Way, a 5-story, 20-unit residential building on 20 Upper Falls Way, 11 townhome units on 26 Upper Falls Way, and a partial demolition and redevelopment of the existing building located at 30 Upper Falls Way to accommodate a commercial use (potentially a brewery/taproom/restaurant). The project will include associated parking and landscaped areas.

The amendment to the application includes increasing the unit count at 20 Upper Falls Road from the previously approved 16-unit building to 20-units. The revised building will include (12) 2-bedroom units and (8) 1-bedroom units. Additionally, a division of land to formally divide 26 Upper Falls Road from 20 Upper Falls Road is included as part of the amendment request. 26 Upper Falls Road will be the location of the previously approved (11) townhomes. As part of this revision to the application we have reached out the Maine Water Company and the City of Biddeford Department of Public Works to obtain updated ability to serve letters for the revised unit count. Additionally, the increased unit count will result in additional residential parking requirements. The applicant is coordinating with the City's Pearl Street Parking Garage manager to secure an agreement for 7 parking spaces to satisfy the residential parking requirement for 10 and 20 Upper Falls Road. If you have any questions regarding these materials or the completeness of the application materials, please do not hesitate to contact us.

Sincerely,


William H. Savage, P.E.
Principal
Acorn Engineering, Inc.


Peter F. Heil P.E.
Project Manager
Acorn Engineering, Inc.

TABLE OF CONTENTS

Revised Plans:

Civil:

- Site Plan – 1
- Site Plan – 2
- Subdivision Plat

Architectural

- 20 Upper Falls Road Floor Plans and Elevations

Revised Documents:

- Section 16: Water Supply
- Section 17: Wastewater Disposal
- Section 28: Traffic Overview



**City of Biddeford – Planning Department****Planning Board Application**

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

☒ Shoreland Zoning Permit ☒ Site Plan Review ___ Extraction
___ Conditional Use Permit ☒ Subdivision ☒ Private Way
☒ Other: Amendment Application to 10,20,30 Upper Falls Road Development (2022.11)

Applicant Information:

Name: Tom Watson & Co.
Mailing Address: 188 State Street, Portland, ME 04101
Telephone: 207-699-2219
Email: john@bushwatson.com

What is your legal interest in the property?

☒ Owner ___ Potential Buyer with Contract ___ Lease/Rental Agreement

Owner's Information:

Name: Same as Applicant
Mailing Address: _____
Telephone: _____
Email: _____

Agent's Information:

Name: Acorn Engineering - Peter F. Heil, PE, CPESC
Mailing Address: 500 Washington Avenue, Suite #202 Portland, ME, 04103
Telephone: 207-775-2655
Email: pheil@acorn-engineering.com

Engineer/Surveyor's Information:

Name: Acorn Engineering / Owen Haskell
Mailing Address: 500 Washington Avenue, Suite #202 Portland, ME, 04103 / 390 U.S. Rt 1. Unit #10 Falmouth, ME, 04105
Telephone: 207-775-2655 / 207-774-0424
Email: rloubier@owenhaskell.com

Project Location and Lot Information:

Street Address: 10,20,26, and 30 Upper Falls Road Drainage Watershed: Saco River - Main Stem
Tax Map: 40 Lot: 55,55-3,56-1
Current Zoning: MSRD3 Shoreland Zoning: YES
Size of Lot: See Site Plan () acres () s.f. Lot Frontage: See Site Plan
Existing Use of Property: Vacant Industrial buildings adjacent to the Saco River.

Property currently serviced by:

___ City Road ☒ Public Sewer ☒ Public Water ___ Public Trash
☒ Private Road ___ Septic System ___ Private Well ___ Private Hauler

Slope Conditions in Area of Construction (if applicable):

☒ Flat (0-3% slope) ___ Rolling (3-8% slope) ___ Hilly (8-15% slope) ☒ Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? ___ (Yes) ☒ (No) if yes attach information

Is the project within the 100-year floodplain? ☒ (Yes) ___ (No) if yes attach information

Do you plan to bring fill onto the lot? ☒ (Yes) ___ (No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

See the attached cover letter for the proposed use and the Amendment request.

Property to be Serviced by:

☐ City Road ☒ Public Sewer ☒ Public Water ☐ Public Trash
☒ Private Road ☐ Septic System ☐ Private Well ☒ Private Hauler

Limits of Disturbance: 3.33 (x)acres ()s.f.

Net change in impervious cover: -0.4 (x)acres ()s.f.

Is this project part of a larger project? ☒ (Yes) ☐ (No)

Is the project proposing a new Private or Public Road? ☐ (Yes, Private) ☐ (Yes, Public) ☒ (No)

Is this project within the Urbanized Area/MS4 (see [City Drainage Map](#)) ☒ (Yes) ☐ (No)

Is the project proposing any Stormwater facilities/BMPs? ☒ (Yes) ☐ (No)

Will a Traffic Movement Permit (TMP) be required?: ☒ (Yes) ☐ (No)

If in a Shoreland Zone:

Percent of residential lot coverage (Max 20%): See Sheet C-10

Percent of structure expansion (Max 30%):

If Subdivision Review, number of lots proposed: 4

If a Private Way is proposed, number of lots served: 4

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: Net = -1,218 sf

Total new square feet paving/parking: Net = -26,053 sf

Waiver Requests (attach details):

1. See Section 34. Waivers

2.

3.

4.

5.

Required Submittal Attachments:

A. Letters of Approval

☒ Fire Department – Contact Chief or Deputy Chief – 282-9986

☒ Ability to Serve for Water Service – Maine Water – 282-1543

☒ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118

☐ Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127

B. Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.

C. Photographs of Site.

D. Architectural renderings/drawings of proposed buildings, as required.

E. Engineering Plans, as required.

F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- \$75 Nonrefundable Administration Fee is required for every application.
- Refer to “Attachment A Fees and Charges” of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance?: X(Yes) (No)

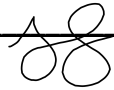
- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: _____



Date 4.3.2023

Signature of Property Owner: _____



Date 4.3.2023

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- *Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'*

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- *All drawings & CAD reference files must be to-scale and within the following coordinate systems:*

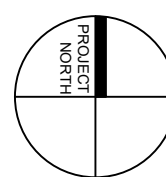
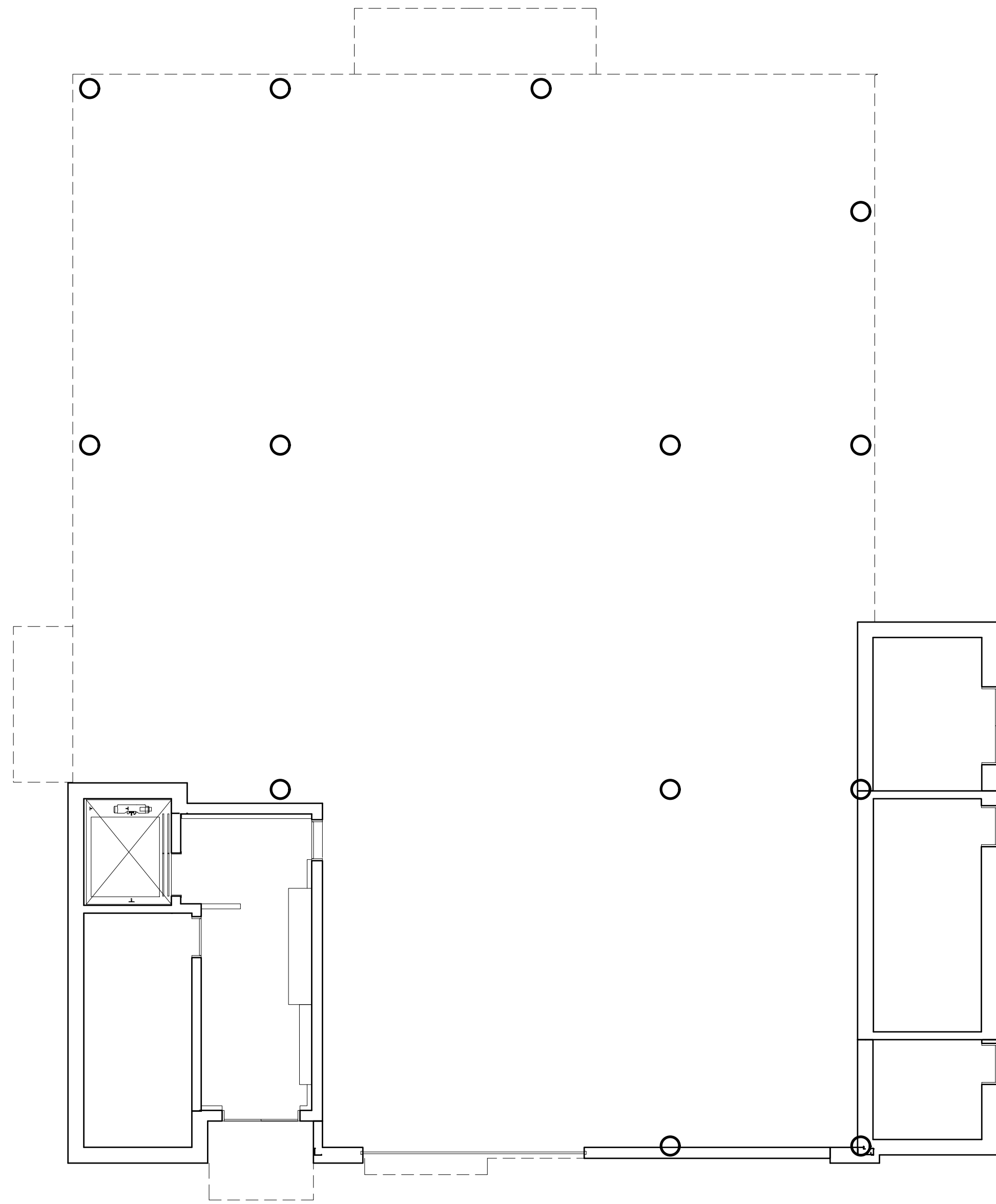
- *MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)*

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

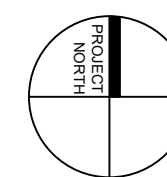
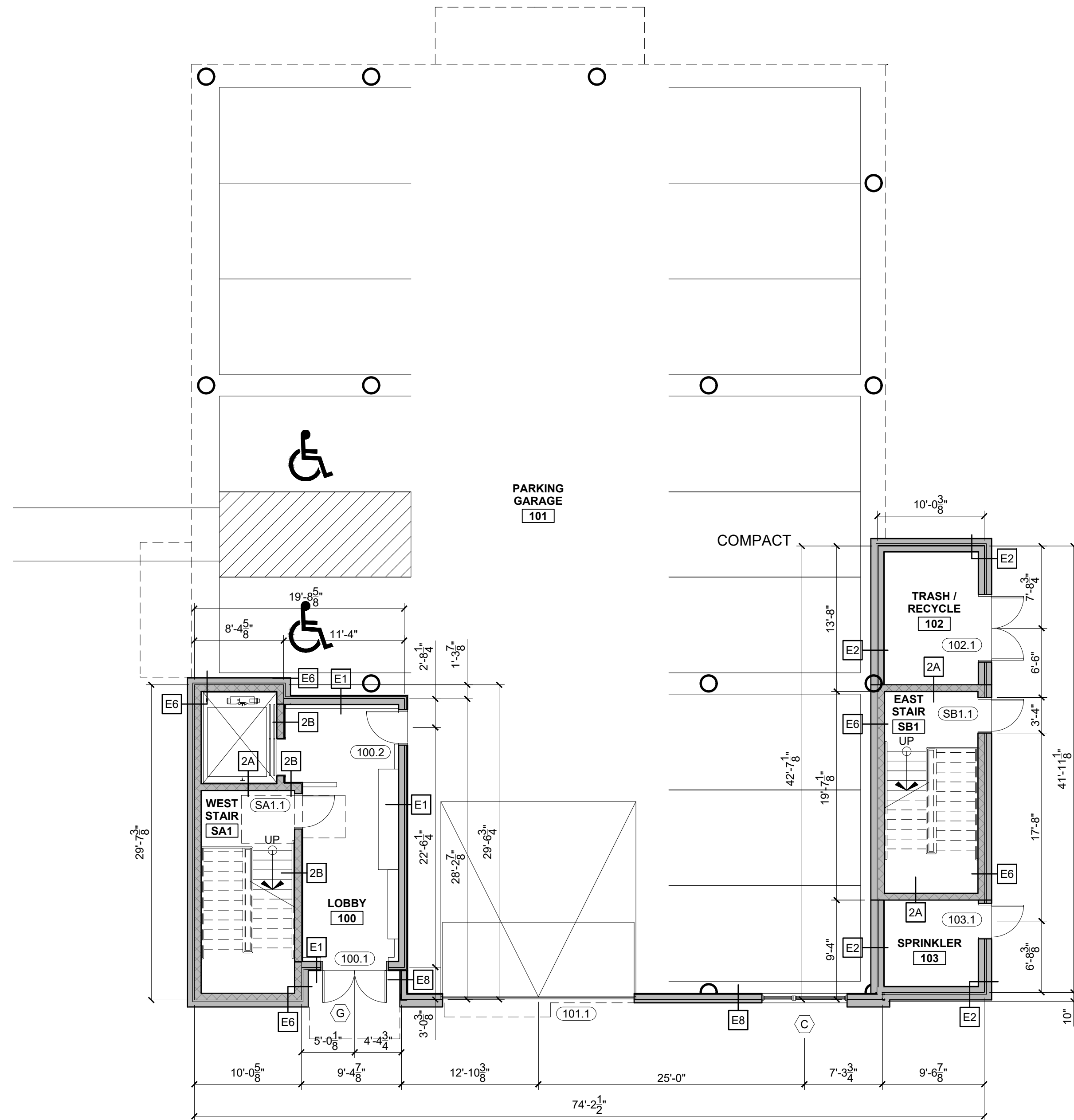
A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



2 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



1 FIRST FLOOR PLAN
1/8" = 1'-0"

RESIDENTIAL BUILDING
20 UPPER FALLS ROAD
BIDDEFORD, MAINE



RYAN SENATORE
ARCHITECTURE
500 CONGRESS STREET, SUITE 2
PORTLAND, MAINE 04101
O: 207-747-5159
C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISION:

PROGRESS PLOT ONLY
Not for Construction
03-29-23

DATE:

PROJECT No. 2256

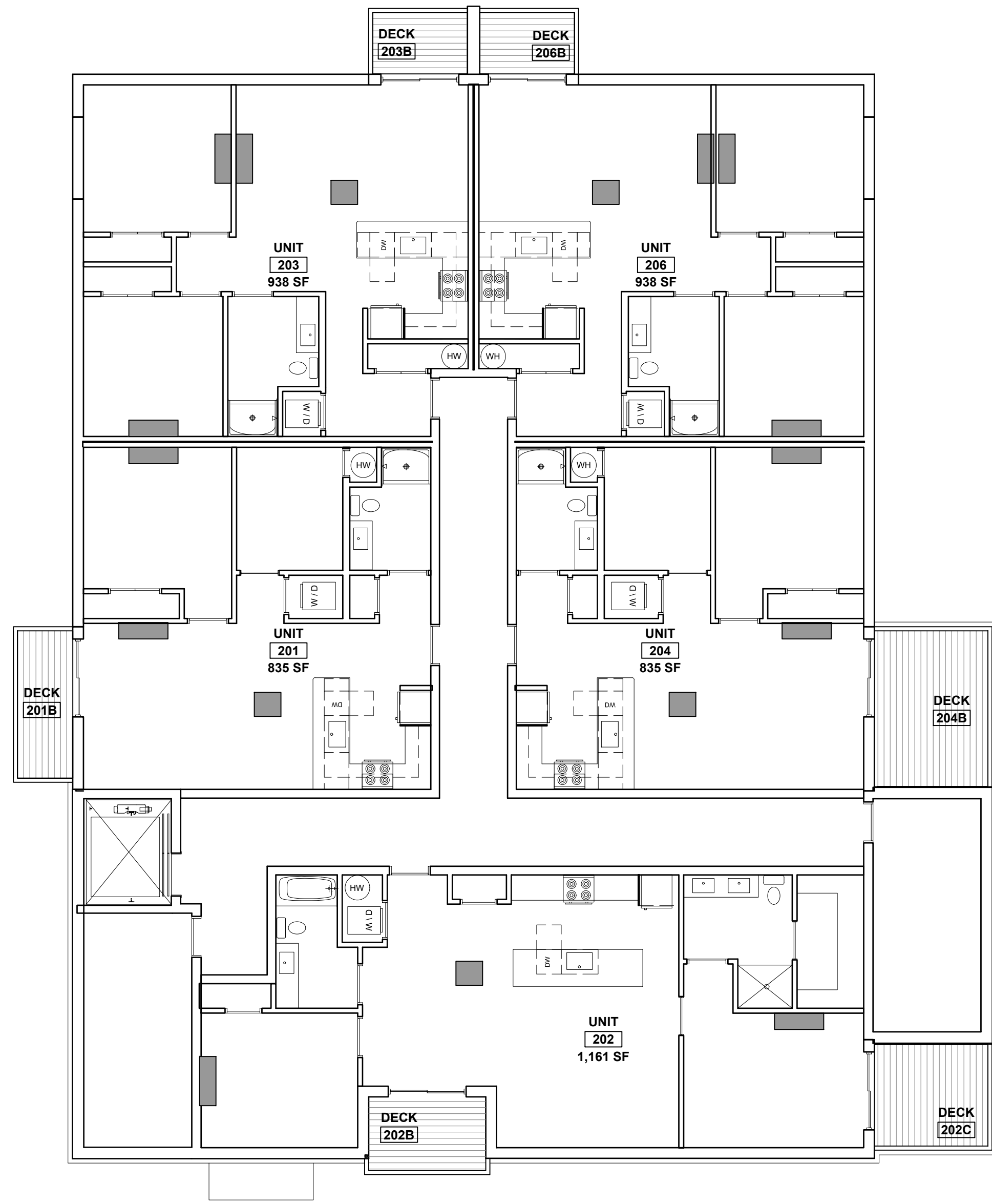
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CHECKED BY: RJS

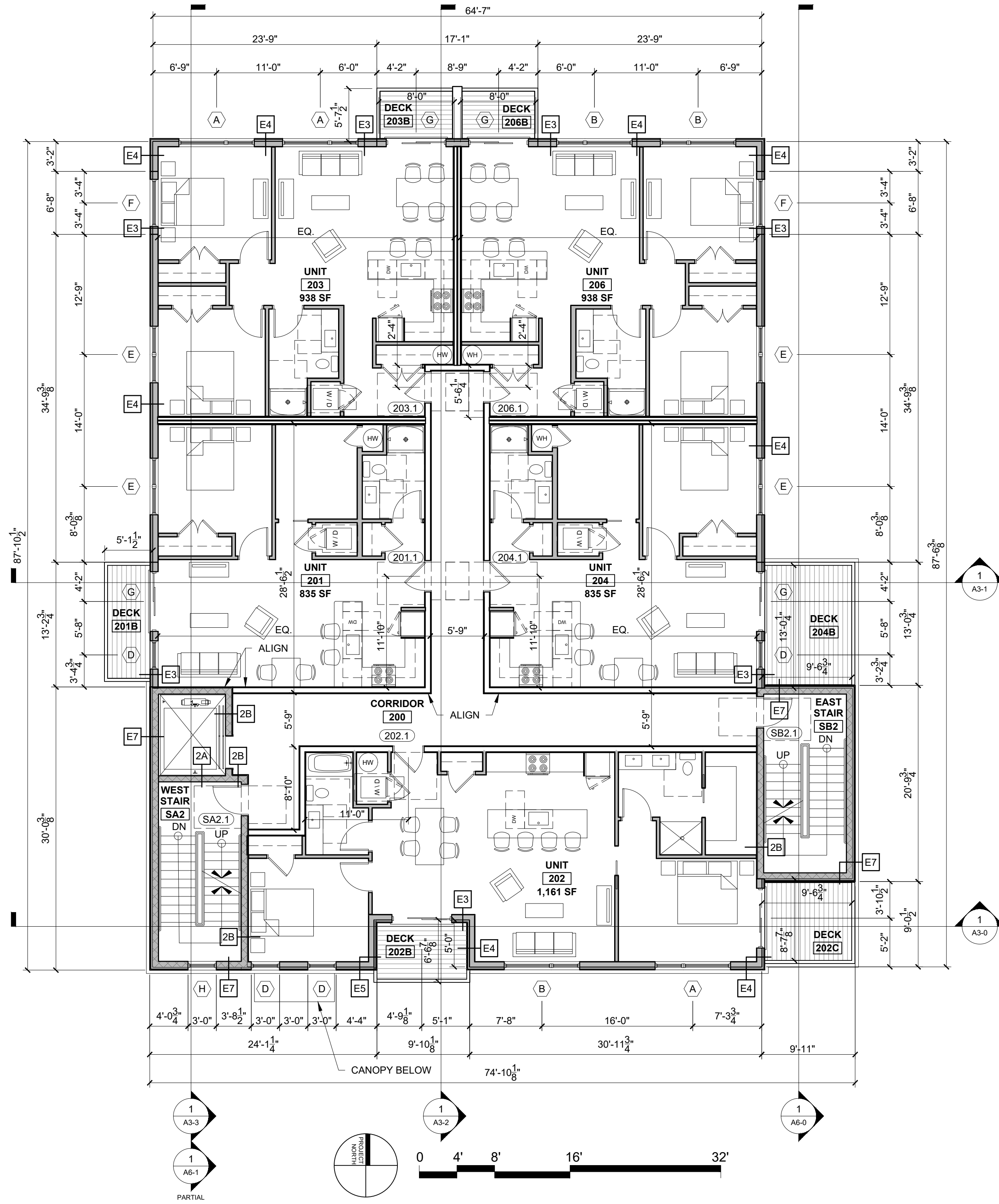
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SHEET TITLE:
FIRST FLOOR
PLAN

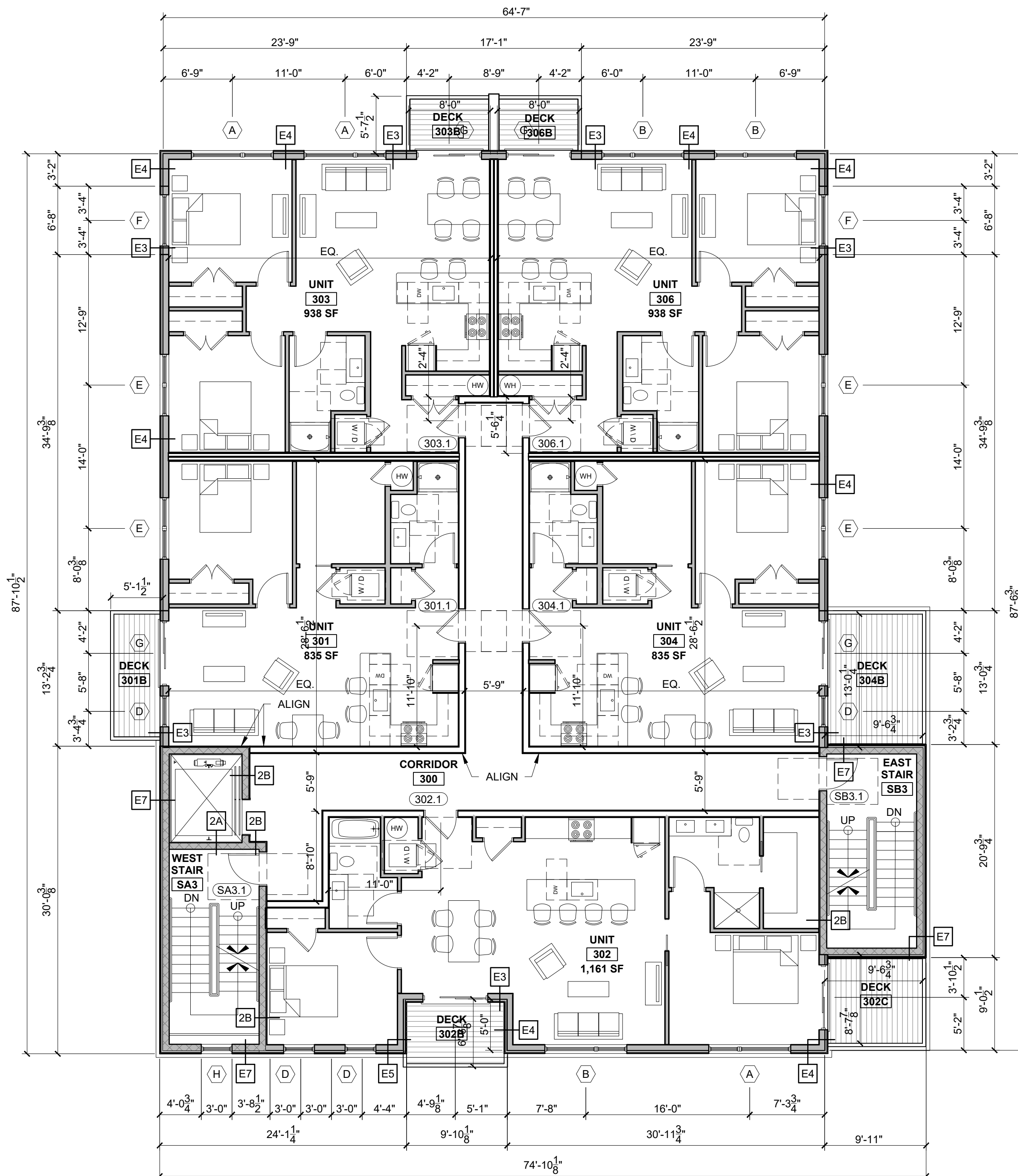
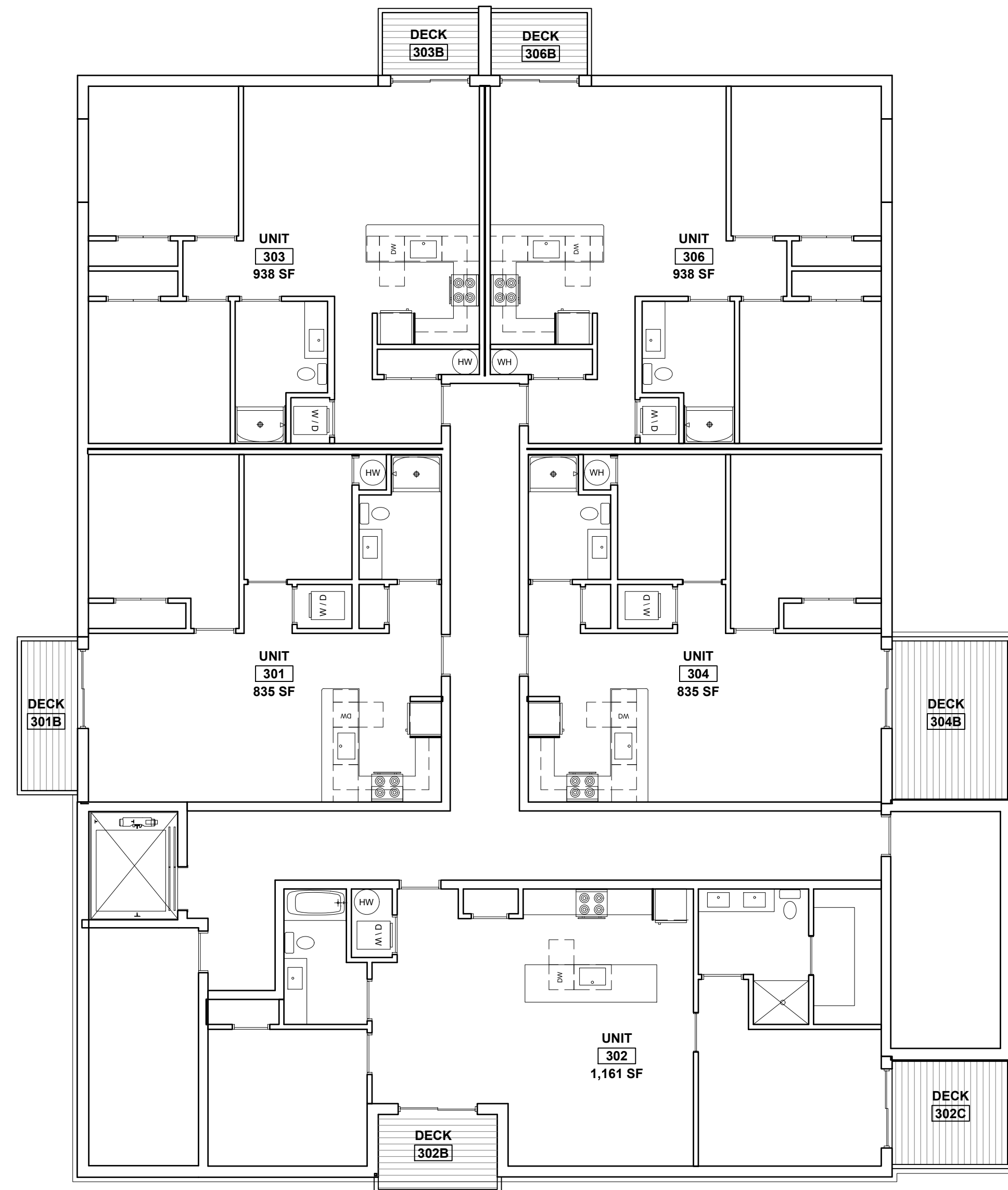
A1-1

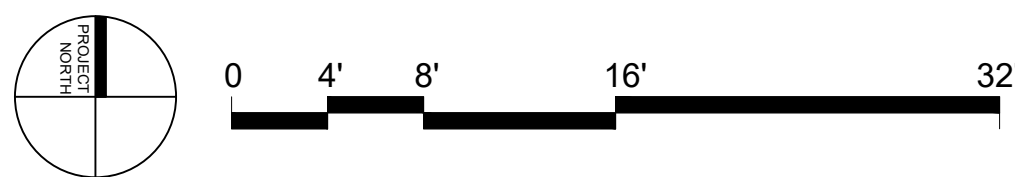
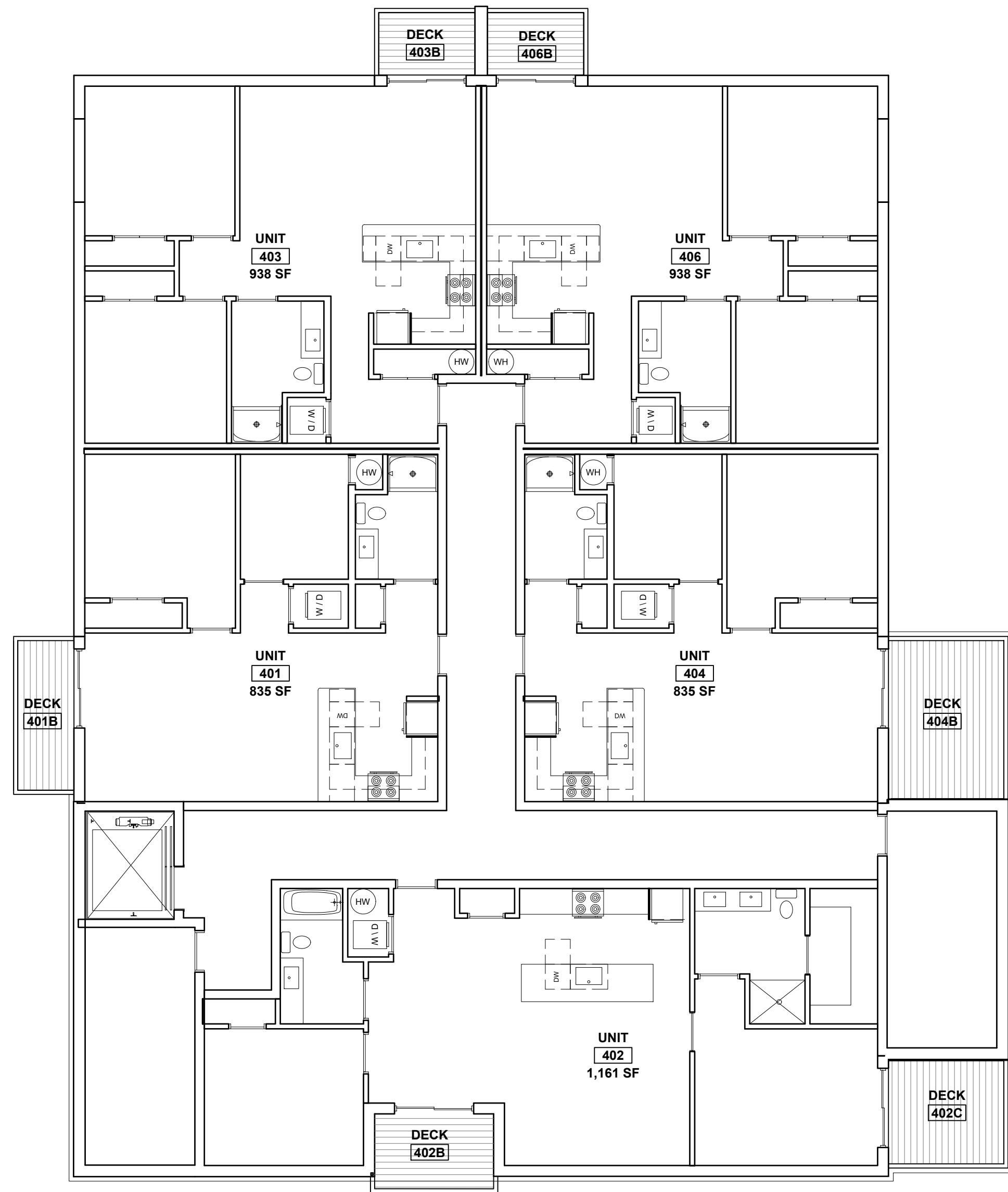


2 SECOND FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

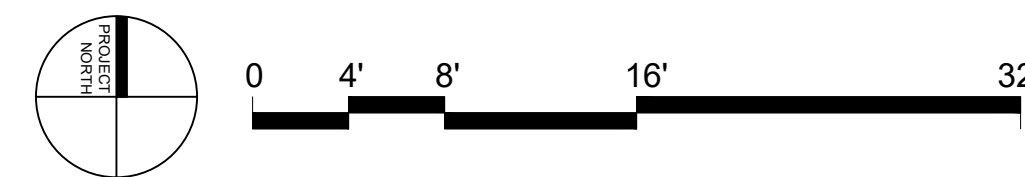
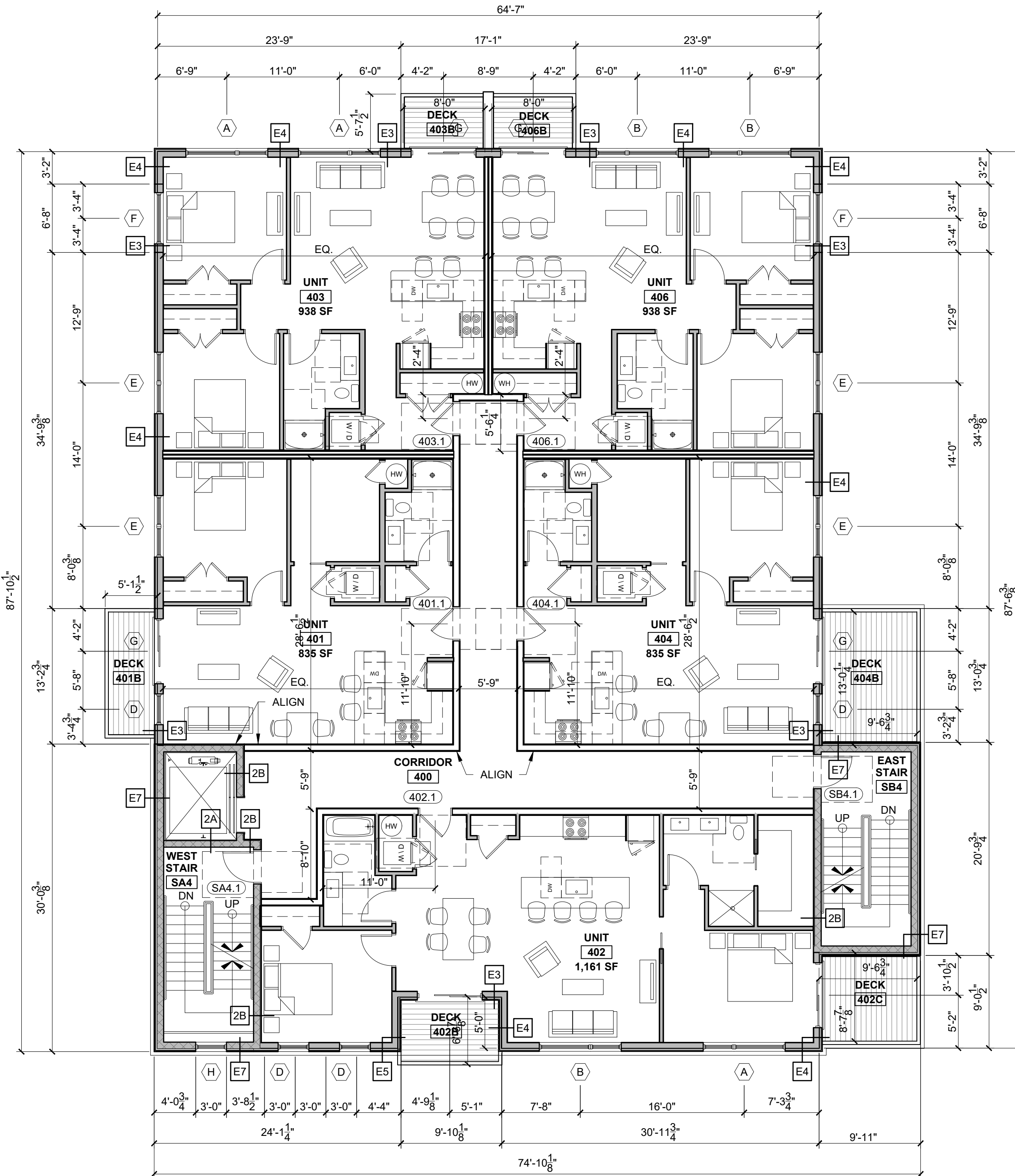


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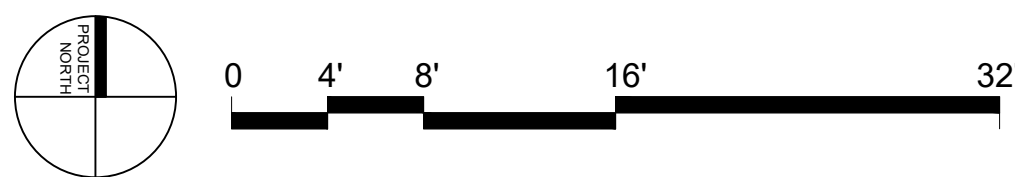
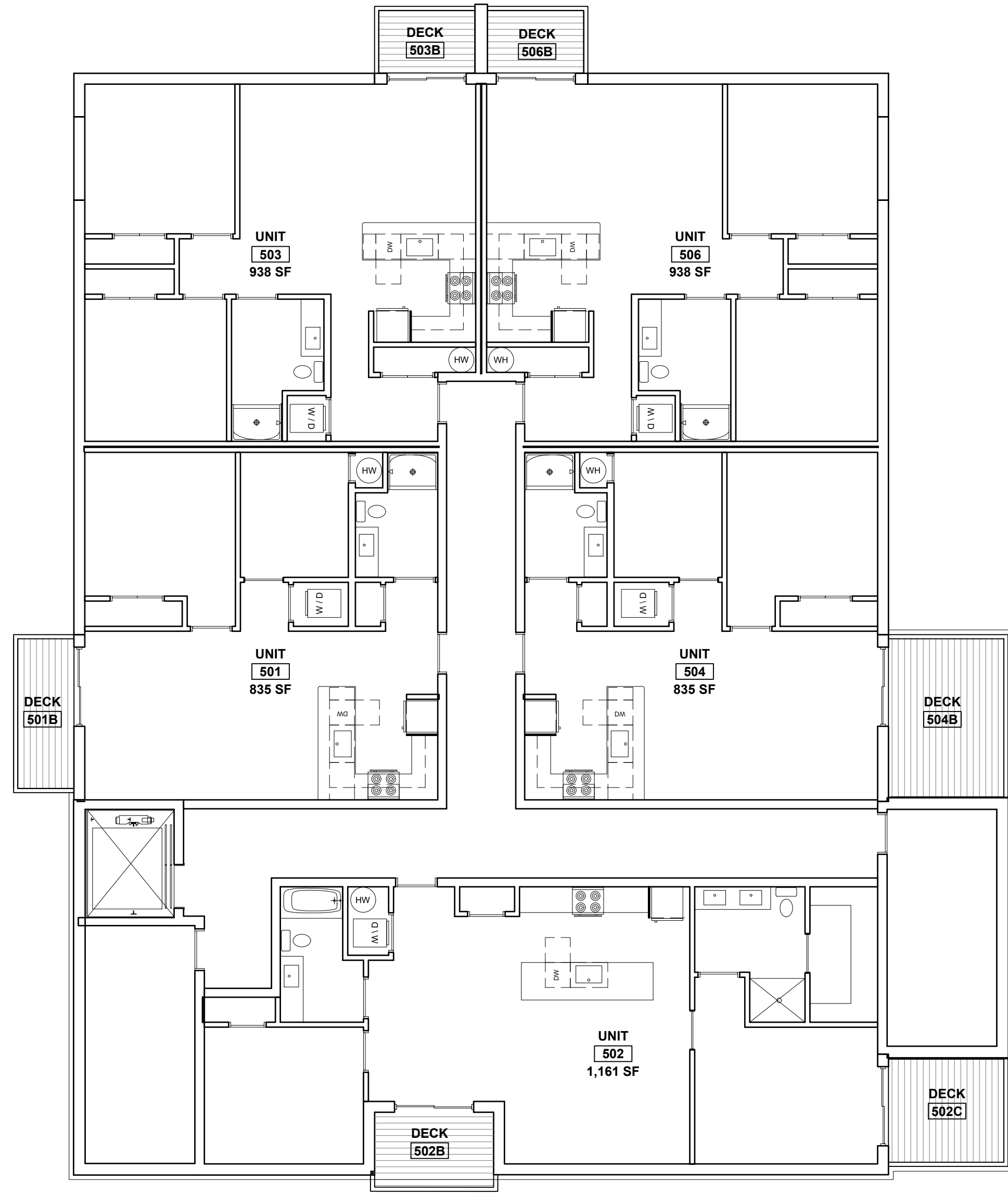




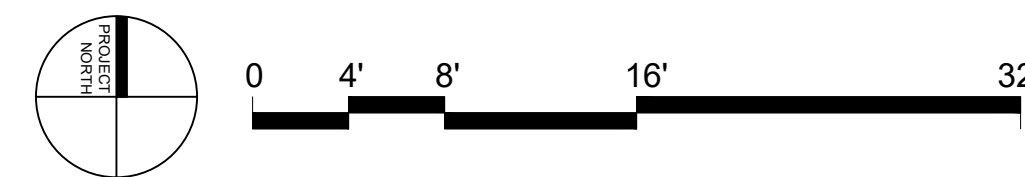
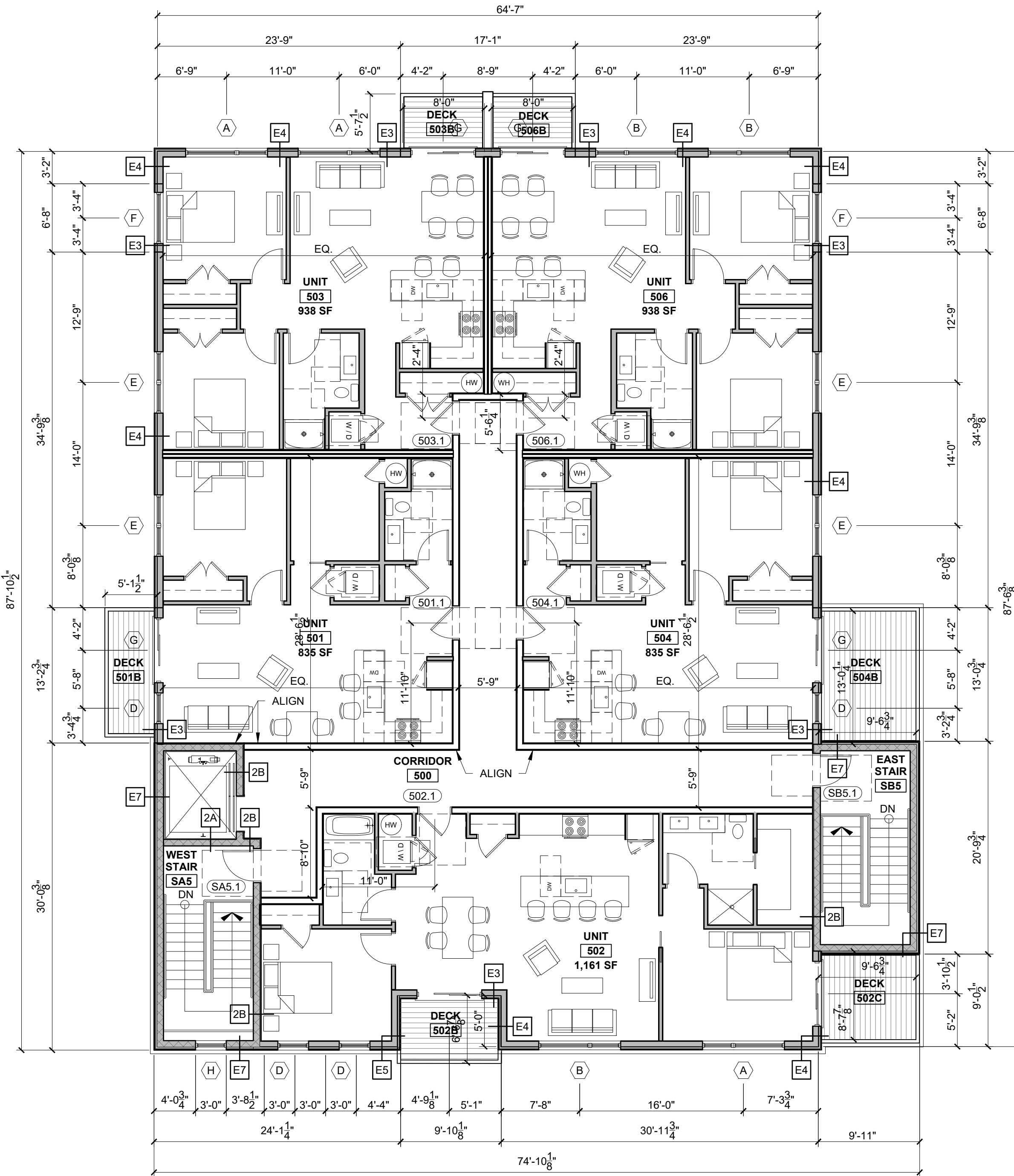
2 FOURTH FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



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



2 FIFTH FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



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



1 SOUTH ELEVATION
1/4" = 1'-0"

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C: 207-650-6414
senatorearchitecture.com

CONSULTANTS:

REVISION
PROGRESS ONLY
Not for Construction
03-29-23

DATE:
PROJECT No. 2256
DRAWN BY: ES
CHECKED BY: RJS
SCALE: AS NOTED

SHEET TITLE:
ELEVATIONS

A2-0



1 EAST ELEVATION
1/4" = 1'-0"

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SHEET TITLE:
ELEVATIONS

A2-1



1 NORTH ELEVATION
1/4" = 1'-0"

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DRAWN BY: ES

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
ELEVATIONS

A2-2

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ARCHITECTURE



1 WEST ELEVATION
1/4" = 1'-0"

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03-29-23

DATE:

PROJECT No. 2256

DRAWN BY: ES

CHECKED BY: RJS

SCALE: AS NOTED

SHEET TITLE:
ELEVATIONS

A2-3

TOM WATSON & CO.
BIDDEFORD, MAINE

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITIES COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF BIDDEFORD AND SERVING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DW FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED ATLA / NSPS LAND TITLE SURVEY PREPARED BY OWEN HASKELL, INC., DATED 3/30/2023, PLAN TITLED ATLA / NSPS LAND TITLE SURVEY PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020, AND PLAN TITLED LOT SPLIT PLAN PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE BIDDEFORD PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
9. CONSTRUCTION MANAGEMENT PLAN BY ACORN ENGINEERING INC. SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
11. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM FOR ADJACENT STRUCTURES AND STRONGLY RECOMMENDED FOR STRUCTURES DIRECTLY ACROSS THE SITE ALONG ELM STREET AND UPPER FALLS ROAD. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
13. THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO ACORN ENGINEERING.
14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.
10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILL, PROVIDE CURING OF CONCRETE FOR 28 DAYS OR AS DIRECTED BY MATERIALS TESTING ENGINEER.
11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650--.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAYER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.
2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.

- C-02

Flood Zone Note

BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE A8 & ZONE B, ON THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 2301450004B, WHICH BEARS AN EFFECTIVE DATE OF MAY 15, 1984.

Zoning Information

ZONING SOLUTIONS, INC., 836 WASHINGTON STREET, BRAintree, MA 02185 ZONING CERTIFICATE DATE: DECEMBER 7, 2020

ZONING DISTRICT: HIGH DENSITY MIXED USE (MSRD3) AND THE GENERAL DEVELOPMENT (GD-1) OVERLAY DISTRICT

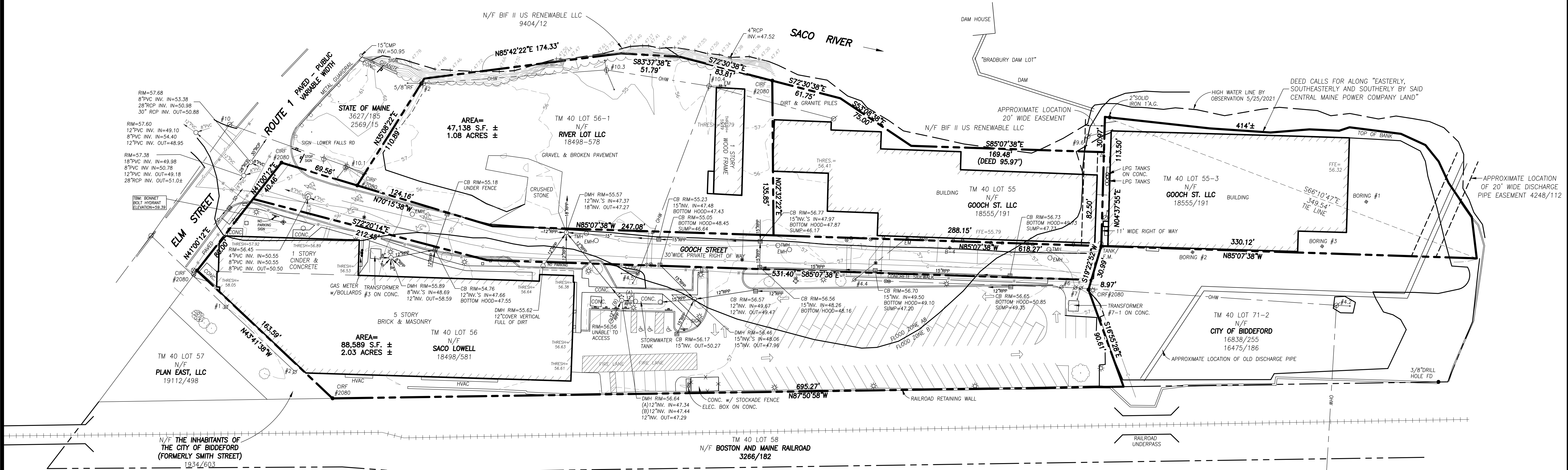
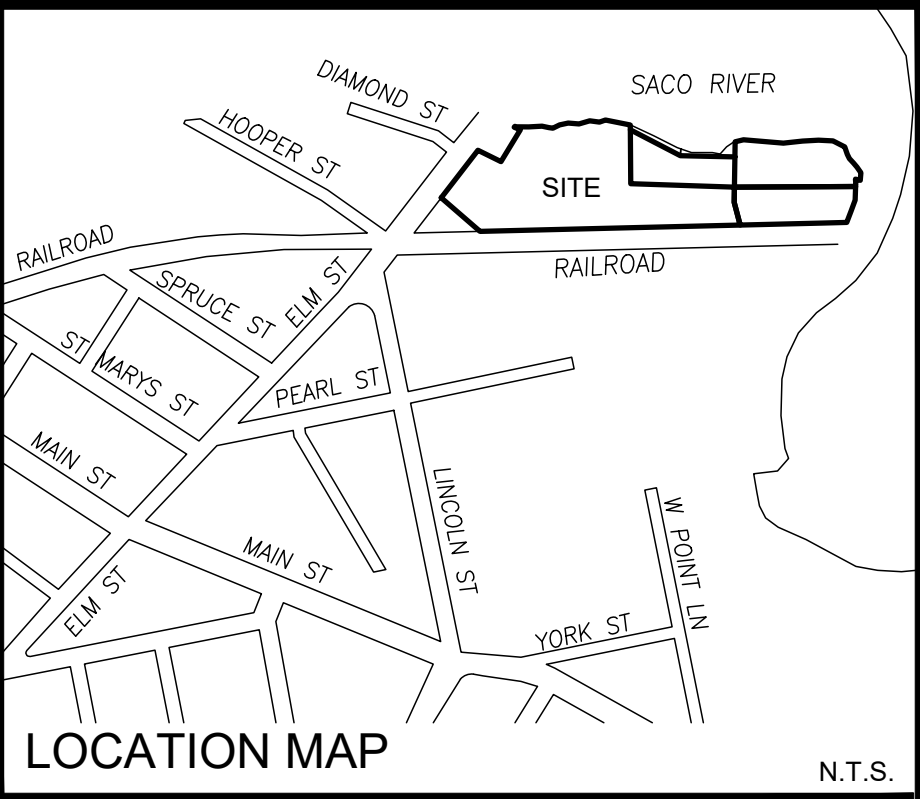
MINIMUM LOT SIZE: NONE
FRONTAGE: NONE
FRONT SETBACK: NONE
SIDE SETBACK: NONE
REAR SETBACK: NONE
MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

Utility Note

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

Legend

- IRON PIPE OR ROD FOUND
- UTILITY POLE
- LIGHT POLE
- MANHOLE
- ELECTRIC METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- GAS VALVE
- CONIFEROUS TREE
- DECIDUOUS TREE
- FENCE
- CURB
- OVERHEAD WIRES
- 1" CONTOUR
- STORM DRAIN
- UNDERGROUND COMMUNICATIONS
- SANITARY SEWER
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- IRON PIPE OR ROD FOUND
- NOW OR FORMERLY
- DEED BOOK / PAGE
- CONCRETE
- SPOT ELEVATION



Plan References

- "BOUNDARY & TOPOGRAPHIC SURVEY AT 59 ELM STREET & 10 GOOCH STREET, BIDDEFORD, MAINE MADE FOR PORT PROPERTY MANAGEMENT" DECEMBER 14, 2020 BY OWEN HASKELL, INC.
- "ALTA/NSPS LAND TITLE SURVEY 59 ELM STREET, BIDDEFORD, MAINE PREPARED FOR PORT PROPERTY MANAGEMENT BY NORTH EAST CIVIL SOLUTIONS" DATED NOV. 4, 2020.
- "ALTA/ACSM LAND TITLE SURVEY MADE FOR THE CITY OF BIDDEFORD, MAINE BY DOW & COULOMB, INC. LOCATED AT LINCOLN ST., ELM. ST. AND SACO RIVER" DATED NOV. 14, 2012.
- "PLAN OF LAND OF THE SACO-LOWELL SHOPS AND PEPPERELL MANUFACTURING CO." BY LIBBY & DOW DATED JUNE, 1092 RECORDED IN PLAN BOOK 11, PAGE 31.
- "PLAN SHOWING LAND SOLD BY THE BIDDEFORD & SACO DEVELOPMENT CORP. TO GRONDIN SUPPLY CO. INC." BY LIBBY & DOW DATED JAN. 18, 1962 RECORDED IN PLAN BOOK 32, PAGE 12.
- "ALTA/NSPS LAND TITLE SURVEY, 59 ELM STREET & 10 GOOCH STREET, BIDDEFORD, YORK COUNTY, MAINE MADE FOR PORT PROPERTY MANAGEMENT, INC." DECEMBER 23, 2020, REVISED MAY 26, 2021 BY OWEN HASKELL, INC.

Owners of Record

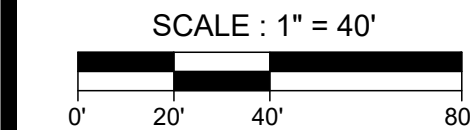
20 & 30 GOOCH STREET
TAX MAP 40 LOT 55 & 55-3
GOOCH STREET LLC
82 HANOVER STREET, SUITE 5, PORTLAND, MAINE
Y.C.R.D. BOOK 18555 PAGE 191

59 ELM STREET
TAX MAP 40 LOT 56
SACO LOWELL LLC
82 HANOVER STREET, SUITE 5, PORTLAND, MAINE
Y.C.R.D. BOOK 18498, PAVE 581

10 GOOCH STREET
TAX MAP 40 LOT 56-1
RIVER LOT LLC
82 HANOVER STREET, SUITE 5, PORTLAND, MAINE
Y.C.R.C. BOOK 18498, PAVE 578

General Notes

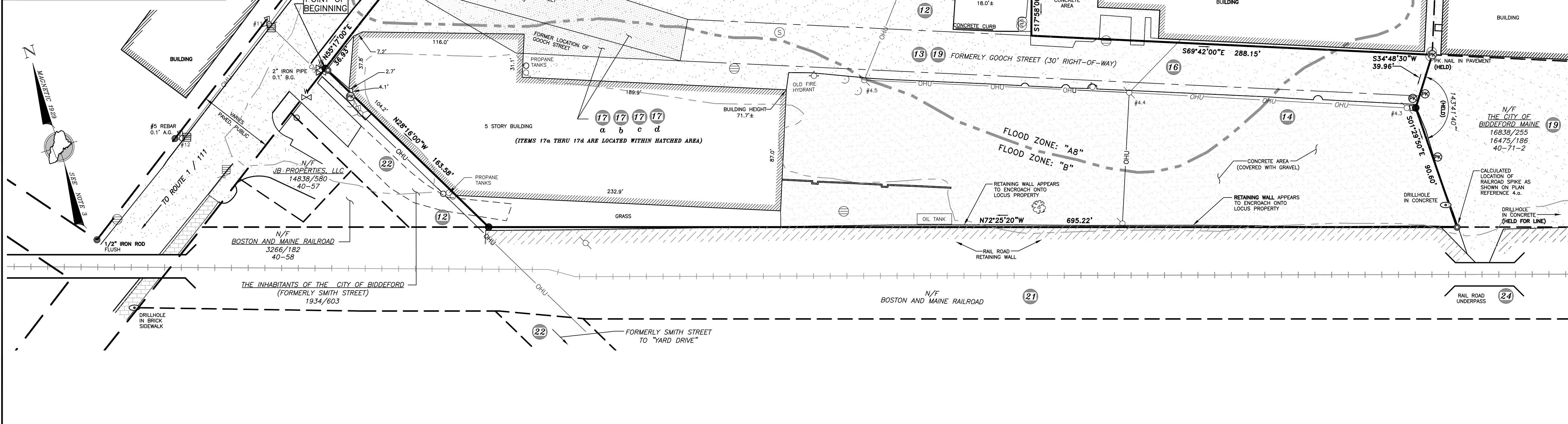
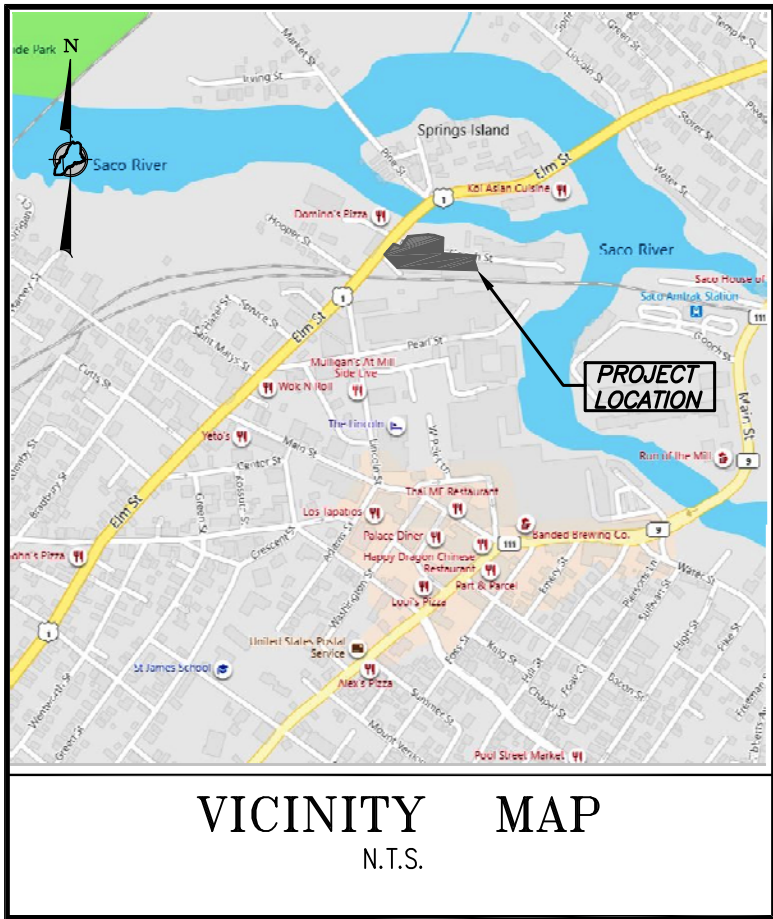
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- ELEVATIONS ARE BASED ON NAVD 88 DATUM PER STATIC GPS OBSERVATIONS.
- THE SUBJECT PROPERTY HAS ACCESS TO ELM ST., A PUBLIC WAY VIA THE FORMER GOOCH ST. RIGHT OF WAY.



Topographic Survey
At
59 Elm Street & 10, 20 & 30 Gooch Street
Biddeford, Maine
Made for
Port Property Management, Inc.
188 State Street, Suite 303, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: JLW	DATE: MARCH 30, 2023	JOB NO. 2020-295 B-Y
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1-T



NOTES

- RECORD OWNER OF THE PARCEL SURVEYED IS FIFTY NINE ELM STREET, LLC, AS DESCRIBED A DEED FROM PIONEER CAPITAL CORPORATION, DATED JUNE 24, 2009 AND RECORDED IN BOOK 15667, PAGE 590 IN THE YORK COUNTY REGISTRY OF DEEDS.
TOTAL LOT AREA IS: 3.64± AC.
- THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF BIDDEFORD TAX ASSESSOR'S MAP 40, PARCEL 56.
- THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON MAGNETIC NORTH 1929. TAKEN FROM PLAN REFERENCE 4.o.
- PLAN REFERENCES:
 - "STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY FOR RAYMOND E. CRONKITE" BY OEST ASSOCIATES, INC., DATED NOVEMBER, 2002 (MARCH 15, 2006) UNRECORDED.
 - "ALTA/ACSM LAND TITLE SURVEY (URBAN) FOR MAINE ENERGY RECOVERY COMPANY" BY DOW & COULOMBE, INC., DATED MARCH 1, 1996 (REV. APRIL 29, 1996) UNRECORDED.
 - "PLAN OF LAND OF THE SACO-LOWELL SHOPS AND THE PEPPERELL MANUFACTURING CO." BY LIBBY & DOW, EN'GRS, DATED JUNE, 1929 (REV. FEBRUARY 21, 1930) RECORDED IN PLAN BOOK 11, PAGE 31.
 - "MAINE DEPARTMENT OF TRANSPORTATION, RIGHT OF WAY MAP, STATE HIGHWAY "1", FEDERAL AID PROJECT NO. BR-01-1(74)" DATED JANUARY, 1985, UPDATED MAY, 1985, D.O.T. FILE NO. 16289, RECORDED IN PLAN BOOK 161, PAGE 16.
 - "PLAN SHOWING LAND SOLD BY THE BIDDEFORD & SACO DEVELOPMENT CORP. TO GRONDIS SUPPLY CO. INC." BY LIBBY & DOW-EN'GRS, DATED JANUARY 18, 1962, RECORDED IN PLAN BOOK 32, PAGE 12.
 - "PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY" BY DOW & COULOMBE, INC., DATED JANUARY 15, 1985, RECORDED IN PLAN BOOK 134, PAGE 28.
 - "SACO-LOWELL SHOPS SACO & BIDDEFORD, MAINE" SURVEYED BY H.H. WEST, TRACING BY C.M. LIDDEN, SURVEYED JULY 26, 1949, LAST REVISED MARCH 27 1958, UNRECORDED.
 - "STATION MAP-LANDS, BOSTON AND MAINE R.R. OPERATED BY THE BOSTON AND MAINE R.R. STATION 5212+40 TO STATION 5265+20" DATED JUNE 30, 1914, PLAN NUMBER V2ME/S198, UNRECORDED.
- THE WIDTH OF ELM STREET VARIES BASED ON PLAN REFERENCE 4.d. THE LAYOUT OF THE RIGHT-OF-WAY LIMITS IS BASED ON PLAN REFERENCE 4.d. AND MONUMENTATION FOUND.
- REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
(SEE SCHEDULE B-II EXCEPTIONS)
-
- THE UTILITIES SHOWN ON THIS PLAN WERE FROM FIELD OBSERVATION ONLY. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTACT DIG-SAFE (888)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.
- RIPARIAN RIGHTS BETWEEN HIGH WATER AND LOW WATER WERE NOT DETERMINED DURING THIS SURVEY.
- THE PROPERTY DESCRIBED IN TITLE COMMITMENT FOR NO. 091620-01, EFFECTIVE DATE OF SEPTEMBER 8, 2020, IS THE SAME AS THE PROPERTY SHOWN HEREON.
- TO THE BEST OF OUR KNOWLEDGE, BASED ON EXISTING MONUMENTATION FOUND, PLANS REFERENCED IN NOTE 4 AND RESEARCH CONDUCTED, THERE ARE NO GAPS OR GORES IN THE LOCUS PARCEL.

ZONING CRITERIA

AS OF THE ORIGINAL DATE OF THIS PLAN, THE PARCEL SURVEYED IS LOCATED IN THE WESLEY DISTRICT AND THE GENERAL DEVELOPMENT (GD-1) OVERLAY DISTRICT OF THE SHORELAND ZONE. PORTIONS OF BULK & SPACE REQUIREMENTS ARE AS FOLLOWS:

MINIMUM LOT AREA = N/A (SEE BIDDEFORD ESTABLISHMENT OF ZONES-TABLE B)
MINIMUM FRONTAGE = NONE
SETBACKS:
FRONT = NONE
SIDE = NONE
REAR = NONE

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

THIS INFORMATION TAKEN FROM A ZONING CERTIFICATE FROM ZONING SOLUTIONS, INC., 836 WASHINGTON STREET, BRAINTREE, MASSACHUSETTS 02185, PROVIDED TO NCS BY OUR CLIENT.

SCHEDULE B-II EXCEPTIONS

- 1-8 - ITEMS ARE NOT SURVEY MATTERS.**
- 9** SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON PLAN ENTITLED "PLAN OF LAND OF THE SACO-LOWELL SHOPS AND THE PEPPERELL MANUFACTURING CO., BIDDEFORD, MAINE," PREPARED BY LIBBY & DOW ENGINEERS DATED JUNE, 1929, LAST REVISED APRIL 24, 1930.
- AS SHOWN ON ABOVE REFERENCED PLAN.
- 10** SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON UNRECORDED PLAN ENTITLED "PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVER COMPANY" BY DOW & COULOMBE INC. DATED JANUARY 15, 1983 WITH FINAL REVISION DATE OF OCTOBER 4, 1986.
- AS SHOWN IN ABOVE REFERENCED PLAN.
- 11** SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON PLAN ENTITLED "PLAN SHOWING LAND SOLD BY BIDDEFORD & SACO DEVELOPMENT CORP. TO GRONDIS SUPPLY CO. INC., PREPARED BY LIBBY & DOW ENGINEERS, DATED JANUARY 18, 1962 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 32, PAGE 12.
- AS SHOWN IN ABOVE REFERENCED PLAN.
- 12** COVENANTS, CONDITIONS, AND RESTRICTIONS, TOGETHER WITH THE RIGHTS AND EASEMENTS GRANTED TO OTHERS OR RESERVED IN INDENTURE BY AND BETWEEN BIDDEFORD & SACO DEVELOPMENT CORPORATION AND GRAFTON LUMBER COMPANY DATED APRIL 6, 1962 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1484, PAGE 121.
- A PORTION OF THE ABOVE IS SHOWN ON THIS PLAN.
- 13** RIGHTS OF OTHERS IN AND TO THE USE OF THE PRIVATE WAY KNOWN AS GOOCH STREET LOCATED WITHIN THE BOUNDARIES OF THE INSURED LAND.
- LOCATION SHOWN ON THIS PLAN.
- 14** RIGHTS AND EASEMENTS GRANTED BY STORAGE REALTY CORPORATION TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY INSTRUMENT DATED JANUARY 23, 1970 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1489, PAGE 500.
- LOCATION SHOWN ON THIS PLAN.
- 15** RIGHTS AND EASEMENTS GRANTED BY STORAGE REALTY CORPORATION TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY INSTRUMENT DATED NOVEMBER 17, 1969 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1489, PAGE 501.
- POLE #9.4 (ELM STREET) AND POLE #9.41 NOT FOUND DURING THIS SURVEY.
- 16** RIGHTS AND EASEMENTS GRANTED BY STORAGE REALTY CORPORATION TO CENTRAL MAINE POWER COMPANY AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY INSTRUMENT DATED FEBRUARY 2, 1970 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1871, PAGE 442.
- LOCATION SHOWN ON THIS PLAN.
- RIGHTS, EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS SET FORTH IN THE FOLLOWING:
- 17 a** AGREEMENT BY AND BETWEEN CENTRAL MAINE POWER COMPANY AND STORAGE REALTY CORP. DATED MARCH 18, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 182.
- LOCATION SHOWN ON THIS PLAN.
- 17 b** AGREEMENT BY AND BETWEEN BIDDEFORD & SACO DEVELOPMENT CORPORATION AND STORAGE REALTY CORP. DATED MARCH 18, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 186.
- LOCATION SHOWN ON THIS PLAN.
- 17 c** AGREEMENT BY AND BETWEEN METAL-TECH INC. AND STORAGE REALTY CORP. DATED MARCH 25, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 190.
- LOCATION SHOWN ON THIS PLAN.
- 17 d** AGREEMENT BY AND BETWEEN GRONDIS SUPPLY CO. AND STORAGE REALTY CORP. DATED MARCH 18, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 195.
- LOCATION SHOWN ON THIS PLAN.
- 18** RIGHTS AND EASEMENTS SET FORTH IN QUITCLAIM DEED WITH COVENANT GRANTED BY STORAGE REALTY CORP. TO THE CITY OF BIDDEFORD DATED OCTOBER 29, 1984 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 3403, PAGE 20.
- NOT LOCATED WITHIN LOCUS PARCEL.

SCHEDULE B-II EXCEPTIONS CONTINUED

- 19** RIGHTS AND EASEMENTS SET FORTH IN QUITCLAIM DEED WITH COVENANT GRANTED BY STORAGE REALTY CORP. TO MAINE ENERGY RECOVERY COMPANY DATED AUGUST 13, 1985 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 3611, PAGE 161.
- LOCATION SHOWN ON THIS PLAN.
- 20** NOTICE OF LAYOUT AND TAKING BY THE STATE OF MAINE BY ITS DEPARTMENT OF TRANSPORTATION DATED AUGUST 27, 1985 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 3627, PAGE 185
- LOCATION SHOWN ON THIS PLAN.
- 21** LAND OF BOSTON & MAINE R.R.
- LOCATION SHOWN ON THIS PLAN.
- 22** RIGHTS OF OTHERS IN AND TO THE USE OF SMITH STREET.
- SEE SMITH STREET SHOWN ON THIS PLAN.
- 23** RIPARIAN RIGHTS OF OTHERS; THE FINAL POLICY WILL NOT ENSURE THE STATUS OF RIPARIAN RIGHTS OF THE OWNER OF THE INSURED PREMISES.
- RIPARIAN RIGHTS NOT DETERMINED AS PART OF THIS SURVEY.
- 24** TITLE TO AND RIGHTS OF OTHERS IN AND TO THE UNDERPASS WHICH CROSSES THE BOSTON & MAINE R.R.
- LOCATION OF AN UNDERPASS IS SHOWN ON THIS PLAN.

SURVEY LEGAL DESCRIPTION

A CERTAIN LOT, OR PARCEL OF LAND, LOCATED ON THE SOUTHERLY SIDE OF ELM STREET, IN THE CITY OF BIDDEFORD, COUNTY OF YORK, STATE OF MAINE, BEING BOUND AND DESCRIBED AS FOLLOWS:

BEGINNING ON THE SOUTHERLY SIDE OF ELM STREET, AT A #5 REBAR W/CAP STAMPED "NCS 2080", AT THE INTERSECTION OF THE SOUTHERLY SIDE OF ELM STREET AND THE EASTERLY SIDE OF LAND NOW OR FORMERLY (N/F) INHABITANTS OF THE CITY OF BIDDEFORD (BEING A PORTION OF LAND FORMALLY KNOWN AS SMITH STREET), AS DESCRIBED IN BOOK 1934, PAGE 603;

THENCE: N 55°17'00" E, ALONG SAID ELM STREET, 36.93', TO A POINT;

THENCE: FOLLOWING A CURVE TO THE RIGHT, ALONG SAID ELM STREET, HAVING A RADIUS OF 1446.48', AN ARC LENGTH OF 83.53', A CHORD BEARING OF N 56°56'16" E, AND A CHORD DISTANCE OF 83.52', TO A #5 REBAR W/CAP STAMPED "NCS 2080";

THENCE: S 54°50'00" E, ALONG LAND N/F STATE OF MAINE, AS DESCRIBED IN BOOK 3569, PAGE 015, 69.55', TO A #5 REBAR W/CAP STAMPED "NCS 2080";

THENCE: N 50°34'00" E, ALONG SAID STATE OF MAINE, 110.88', TO LAND N/F FPL ENERGY MAINE HYDRO LLC;

THENCE: S 78°52'00" E, ALONG SAID FPL ENERGY MAINE HYDRO LLC, 174.32', TO A POINT;

THENCE: S 68°12'00" E, ALONG SAID FPL ENERGY MAINE HYDRO LLC, 51.79', TO A POINT;

THENCE: S 57°05'00" E, ALONG SAID FPL ENERGY MAINE HYDRO LLC, 83.80', TO A #5 REBAR W/CAP STAMPED "NCS 2080";

THENCE: S 17°58'00" W, ALONG N/F PRECISION SCREW MACHINE PRODUCTS, INC., AS DESCRIBED IN BOOK 15535, PAGE 402, 135.84', TO A POINT;

THENCE: S 69°42'00" E, ALONG SAID PRECISION SCREW MACHINE PRODUCTS, INC., 288.15', TO A P/K NAIL FOUND;

THENCE: S 34°48'30" W, ALONG LAND N/F CITY OF BIDDEFORD MAINE, AS DESCRIBED IN BOOK 16838, PAGE 255, AND BOOK 16475, PAGE 186, 39.96', TO A #5 REBAR W/CAP STAMPED "NCS 2080";

THENCE: S 01°29'50" E, ALONG SAID CITY OF BIDDEFORD MAINE, 90.60', TO A POINT;

THENCE: N 72°25'20" W, ALONG LAND N/F BOSTON AND MAINE RAILROAD, 695.22', TO A #5 REBAR W/CAP STAMPED "NCS 2080";

THENCE: N 28°16'00" W, ALONG SAID CITY OF BIDDEFORD, 163.58', TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 3.64 ACRES, MORE OR LESS.

LEGEND

- #5 REBAR W/CAP (NCS 2080) SET ON NOVEMBER 4, 2020
○ FOUND IRON (SIZE & TYPE AS NOTED)
○ FOUND DRILL HOLE
○ UTILITY POLE (NUMBER AS NOTED)
○ GUY WIRE ANCHOR
○ FOUND DECIDUOUS TREE (SIZE & TYPE AS NOTED)
- BOUNDARY LINE
--- EASEMENT LINE
--- EDGE OF WATER
--- EDGE OF GRAVEL
--- EDGE OF PAVEMENT
--- RIGHT-OF-WAY LINE
--- ABUTTER LINE
--- OVERHEAD UTILITY
--- FORMER DEED LINES
--- NOW OR FORMERLY OWNED BY
--- DEED BOOK AND PAGE
--- TAX MAP-LOT
--- PARENTHESIS DENOTE RECORD DATA
- N/F
1234/567
12-34
(123.45)

FLOOD ZONE CRITERIA

COUNTY: YORK
COMMUNITY: BIDDEFORD
COMM NO: 230145
PANEL NO: 0004 B
EFFECTIVE DATE: MAY 15, 1984

FLOOD ZONE: PORTIONS BELOW ELEVATION 57 ARE WITHIN FLOOD ZONE A8. REMAINDER OF AREA IS IN FLOODZONE B

ALTA CERTIFICATION

CATIC TITLE INSURANCE COMPANY
TITLE NO: 091620-01
EFFECTIVE DATE: SEPTEMBER 8, 2020

TO: TOM WATSON & CO., LLC, ITS SUCCESSORS AND ASSIGNS LENDER AND CATIC TITLE INSURANCE COMPANY AND THE SUCCESSORS AND ASSIGNS OF EACH:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 1, 2, 3, 4, 6b, 7a & b(1), 8, 9, 11, 13, 14, 16, 17, 19, 20 AND 21 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON 10/19/2020.

DATE OF PLAT OR MAP: 10/28/2020

TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR. No. 2080

10/28/2020
DATE

Revision	By	Date	Change
1	JAP	11/20/2020	REVISED LEGAL DESCRIPTION TO REFLECT PNG SET
2	JAP	11/19/2020	REVISED PER ATTORNEY COMMENTS

PROJECT: 42267	DRAWING NAME: 42267.dwg
ISSUED: NOVEMBER 4, 2020	SCALE: 1"=40' FB # 438
FIELD BY: ASF/CJB	FIELD DATE: 10/19/2020
CHECKED BY: DMV/TFM	

Drawing Name and Location:
ALTA/NSPS LAND TITLE SURVEY
59 ELM STREET, BIDDEFORD, MAINE

Owner:
FIFTY NINE ELM STREET, LLC
380 WARREN AVENUE, PORTLAND, MAINE

Prepared For:
PORT PROPERTY MANAGEMENT

SURVEYING • ENGINEERING • LAND PLANNING

Northeast Civil Solutions
INCORPORATED

381 PAYNE ROAD, SCARBOROUGH, MAINE 04074

tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com

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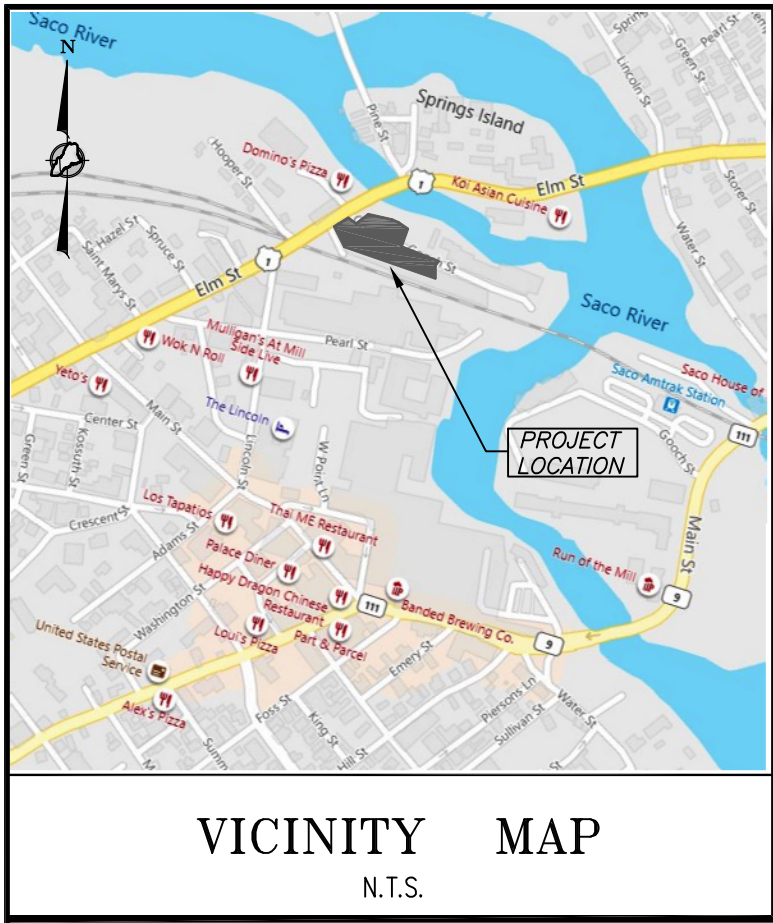
TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR. No. 2080

10/28/2020
DATE

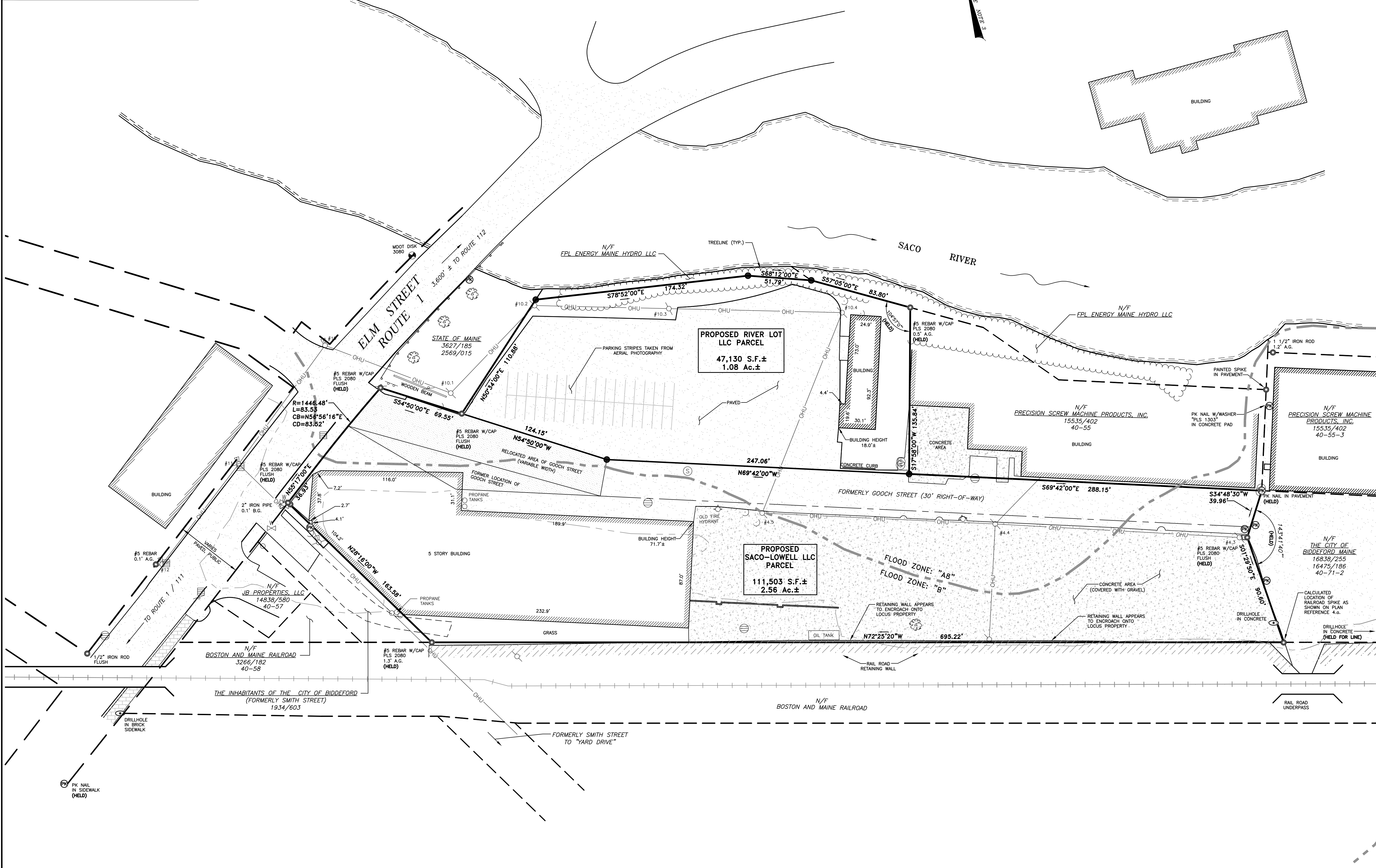
TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR. No. 2080

10/28/2020
DATE

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



VICINITY MAP
N.T.S.



LEGEND

- #5 REBAR WITH CAP (PROPOSED)
- FOUND IRON (SIZE & TYPE AS NOTED)
- FOUND DRILL HOLE
- UTILITY POLE (NUMBER AS NOTED)
- GUY WIRE ANCHOR
- FOUND DECIDUOUS TREE (SIZE & TYPE AS NOTED)
- BOUNDARY LINE
- EASEMENT LINE
- EDGE OF WATER
- EDGE OF GRAVEL
- EDGE OF PAVEMENT
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- OVERHEAD UTILITY
- FORMER DEED LINES
- NOW OR FORMERLY OWNED BY
- DEED BOOK AND PAGE
- TAX MAP-LOT
- PARENTHESIS DENOTE RECORD DATA

NOTES

- RECORD OWNER OF THE PARCEL SURVEYED IS FIFTY NINE ELM STREET, LLC, AS DESCRIBED IN A DEED FROM PIONEER CAPITAL CORPORATION, DATED JUNE 24, 2009 AND RECORDED IN BOOK 15667, PAGE 590 IN THE YORK COUNTY REGISTRY OF DEEDS. TOTAL LOT AREA IS: 3.64± Ac.
- THE PARCEL SURVEYED IS IDENTIFIED ON THE CITY OF BIDDEFORD TAX ASSESSOR'S MAP 40, PARCEL 56.
- THE BEARINGS SHOWN ON THIS PLAN ARE BASED ON MAGNETIC NORTH 1929. TAKEN FROM PLAN REFERENCE 4.5.
- PLAN REFERENCES:
G. ALTA / NSPS LAND TITLE SURVEY, 59 ELM STREET, BIDDEFORD, MAINE BY NORTHEAST CIVIL SOLUTIONS, INC., DATED NOVEMBER 4, 2020, LAST REVISED NOVEMBER 20, 2020, NCS PROJECT NO. 42267.
- THE WIDTH OF ELM STREET VARIES BASED ON PLAN REFERENCE 4.d. THE LAYOUT OF THE RIGHT-OF-WAY LIMITS IS BASED ON PLAN REFERENCE 4.d. AND MONUMENTATION FOUND.
- REFERENCE IS MADE TO THE FOLLOWING EASEMENTS OF RECORD:
(SEE SCHEDULE B-II EXCEPTIONS)
- THE UTILITIES SHOWN ON THIS PLAN WERE FROM FIELD OBSERVATION ONLY. THERE MAY BE OTHER UTILITIES EXISTING THAT ARE NOT SHOWN. CONTACT DIG-SAFE (888)DIG-SAFE PRIOR TO ANY EXCAVATION WORK.
- RIPARIAN RIGHTS BETWEEN HIGH WATER AND LOW WATER WERE NOT DETERMINED DURING THIS SURVEY.

Revision	By	Date	Change
PROJECT:	42267	DRAWING NAME:	42267 Lot Split.dwg
ISSUED:	DECEMBER 18, 2020	SCALE:	1"=40'
FIELD BY:	ASF / CJB	FIELD DATE:	10/19/2020
DRAWN BY:	JAP	CHECKED BY:	DMM / TFM
Drawing Name and Location:			
LOT SPLIT PLAN			
59 ELM STREET, BIDDEFORD, MAINE			
Owner:			
FIFTY NINE ELM STREET, LLC			
380 WARREN AVENUE, PORTLAND, MAINE 04101			
Prepared For:			
PORT PROPERTY MANAGEMENT			



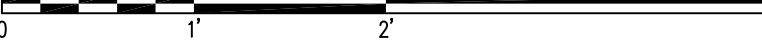
SURVEYING • ENGINEERING • LAND PLANNING

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INCORPORATED

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tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com



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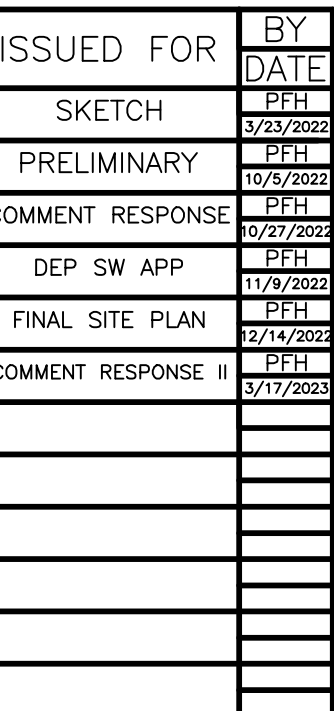
TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR No. 2080

12/18/2020
DATE



2. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
4. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CONTRACTOR SHALL MAINTAIN ALL UTILITIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH ALL EXISTING UTILITIES.
6. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
7. CONTRACTOR TO MAINTAIN EXISTING DRIVE TO THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
8. CONTRACTOR SHALL PROVIDE EROSION PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
9. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE ACCORDING TO THE CITY OF FORT COLLINS QUALITY STANDARD.
10. CONTRACTOR TO PROVIDE ACCESS TO EXISTING BUSINESSES ALONG UPPER FALLS ROAD THROUGHOUT THE DURATION OF CONSTRUCTION.
11. CONTRACTOR TO PROVIDE C-30 FOR PROPOSED STORMWATER INFRASTRUCTURE IMPROVEMENTS. CONTRACTOR TO ENSURE ANY EXISTING UNDERDRAIN OR FOOTING DRAIN CONNECTIONS REMAIN OPERATIONAL. CONTRACTOR TO NOTIFY ENGINEER IF ANY SUBSURFACE STORM DRAINS NOT SHOWN ON PLAN ARE ENCOUNTERED DURING CONSTRUCTION.
12. CONTRACTOR IS REQUIRED TO MAINTAIN ALL PERMITS, EROSION CONTROL MEASURES, AND DISTURBANCE FOR AN INITIAL E&SC INSPECTION ONCE ALL PERMITTER CONTROL DEVICES HAVE BEEN INSTALLED.
13. CONTRACTOR IS REQUIRED TO PROPERLY MAINTAIN ALL E&SC BMPs THROUGHOUT CONSTRUCTION AND AFTER COMPLETION OF CONSTRUCTION.
14. CONTRACTOR TO IMPLEMENT DUST CONTROL MEASURES AND KEEP SEDIMENT FROM ACCUMULATING IN ELM STREET AND PHASE 1'S SECTION OF UPPER FALLS ROAD.

1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
2. "ATLA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.



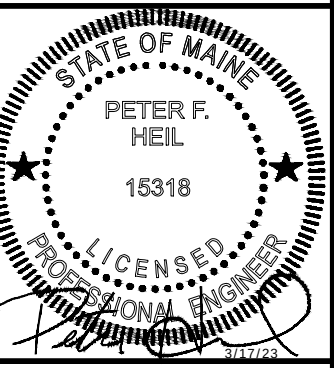
CONSTRUCTION MANAGEMENT PLAN - 1

PROJECT NAME/ADDRESS:
10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD

CLIENT/OWNER OF RECORD:
TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101


P A C O R N
— ENGINEERING, INC. —
 PACOR ENGINEERING, INC.
 FROM PACOR ENGINEERING, INC. AND AFFILIATES, AUTHORIZED
 TO SELL AND SERVICE PACOR PRODUCTS. PACOR'S SOLE RISK AND
 WITHOUT LIABILITY TO PACOR ENGINEERING, INC.
 P.O. BOX 3372, PORTLAND, MAINE 04101
 (207) 779-2655

FILE:	1093.11_CIVIL
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DESIGNED BY:	PFH
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CHECKED BY:	WHS



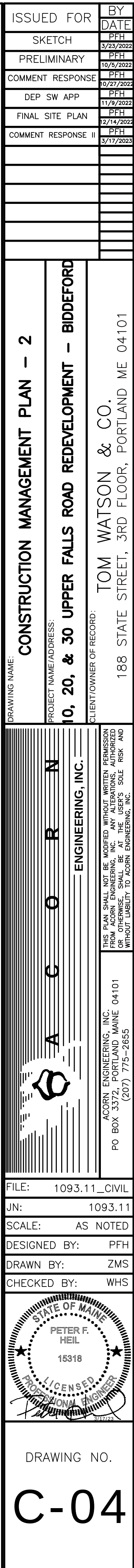
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2. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
4. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. BEFORE CONTRACTOR CALLS THE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXIST FIELD LOCATION FOR UTILITIES, OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH EXISTING FIELD LAYOUT PLANS.
6. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
7. SIGNAGE TO BE PLACED TO PROTECT EXISTING CATCH BASIN AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
8. CONTRACTOR SHALL PROVIDE PROTECTIVE PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
9. DEMOLITION IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WALKS WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH CITY BIDDING REGULATIONS.
10. CONTRACTOR TO PROVIDE ACCESS TO EXISTING BUSINESSES ALONG UPPER FALLS ROAD THROUGH THE DURATION OF CONSTRUCTION.
11. PER DETAIL TO C-30 FOR PROPOSED STORMWATER INFRASTRUCTURE IMPROVEMENTS, CONTRACTOR TO ENSURE ANY EXISTING UNDERDRAIN OR FOOTING DRAIN CONNECTIONS REMAIN OPERATIONAL, CONTRACTOR TO NOTIFY ENGINEER IF ANY SUBSURFACE STORM DRAINS NOT SHOWN ON PLAN ARE ENCOUNTERED DURING CONSTRUCTION.
12. CONTRACTOR IS REQUIRED TO MAINTAIN ALL EXISTING E&SC BMP'S THROUGHOUT CONSTRUCTION AND DISTURBANCE, FOR AN INITIAL E&SC INSPECTION ONCE ALL PERIMETER CONTROL DEVICES HAVE BEEN INSTALLED.
13. CONTRACTOR IS REQUIRED TO PROPERLY MAINTAIN ALL E&SC BMP'S THROUGHOUT CONSTRUCTION AND AFTER RAINFALL EVENTS VIA A PROPER INSPECTION LOGS/REPORTING.
14. CONTRACTOR TO IMPLEMENT EROSION CONTROL MEASURES AND KEEP SEDIMENT FROM ACCUMULATING IN ELM STREET AND PHASE 1'S SECTION OF UPPER FALLS ROAD.

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3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.

SCHEDULE OF SUBMITTALS FOR UPPER FALLS ROAD - BIDDEFORD			SUBMITTAL 1		REVISION 1	
ITEM #	ITEM	SUBMITTAL	APPROVAL STATUS	RETURN DATE	APPROVAL STATUS	RETURN DATE
1	WORK SCHEDULE	WEEKLY WORK SCHEDULE				
2	PAVEMENT	HMA MIX DESIGN MDOT 403 207 GRADE B (19.0 MM) HMA MIX DESIGN MDOT 403 208 GRADE C (12.5 MM) BASE GRAVEL 703.06 TYPE B SIEVE ANALYSIS SUBBASE GRAVEL MDOT 703.06 TYPE D SIEVE ANALYSIS				
3	GRANITE CURB	GRANITE CURB MANUFACTURER'S PRODUCT SHEET GRANITE HEADSTONE MANUFACTURER'S PRODUCT SHEET				
4	STORM DRAIN	DRAIN PIPING MANUFACTURER'S PRODUCT SHEET SAND MDOT 703.22 TYPE B SIEVE ANALYSIS BEDDING AND BACKFILL MATERIAL SIEVE ANALYSIS				
5	CATCH BASIN	CATCH BASIN MANUFACTURER'S SHOP DRAWING BASIN COVERS AND FRAMES MANUFACTURER'S PRODUCT SHEET CATCH BASIN HOOD MANUFACTURER'S PRODUCT SHEET				
6	PRECAST OIL & WATER SEPARATOR	PRECAST MANHOLE MANUFACTURER'S SHOP DRAWING COVERS AND FRAMES MANUFACTURER'S PRODUCT SHEET OIL, SAND AND WATER SEPARATOR				
7	CLEANOUT	CLEANOUT MANUFACTURER'S PRODUCT SHEET CLEANOUT COVER MANUFACTURER'S PRODUCT SHEET CLEANOUT PIPE MANUFACTURER'S PRODUCT SHEET				
8	FIELD INLET / FLOOR DRAIN	FIELD INLET MANUFACTURER'S PRODUCT SHEET F.I. GRATE & FRAME MANUFACTURER'S PRODUCT SHEET				
9	WATER PIPE	PIPE MANUFACTURER'S PRODUCT SHEET MDOT 703.22 TYPE B UD BACKFILL SIEVE ANALYSIS 3/4" CRUSHED STONE SIEVE ANALYSIS				
10	SERVICE CONNECTION	WATER SERVICE CONNECTION PLAN WATER SERVICE MANUFACTURER'S PRODUCT SHEET SERVICE SADDLE				
11	WATER VALVE	WATER VALVE MANUFACTURER'S PRODUCT SHEET AIR RELEASE VALVE MANUFACTURER'S PRODUCT SHEET VALVE BOX MANUFACTURER'S PRODUCT SHEET BOX COVER MANUFACTURER'S PRODUCT SHEET				
12	GUARDRAIL	GUARDRAIL MANUFACTURER'S PRODUCT SHEET				
13	FENCE INSTALLED IN CIP WALL	MANUFACTURER'S PRODUCT SHEET				
14	BACKFLOW VALVE ASSEMBLY	MANUFACTURER'S PRODUCT SHEET				
15	CONNECTION TO EXISTING WATER	CONNECTION PLAN SHOP DRAWING				
16	FOUNDATION DRAINAGE	CONNECTION & INSTALLATION PLAN SHOP DRAWING				
17	THRUST BLOCKING	THRUST BLOCKING PLAN THRUST BLOCKING SHOP DRAWING				
18	UTILITY TRENCH LINES	CONDUIT MANUFACTURER'S PRODUCT SHEET				
19	CONNECTION TO EXISTING SEWER	SEWER CONNECTION PLAN SEWER CONNECTION SHOP DRAWINGS				
20	SANITARY MANHOLE	MANHOLE MANUFACTURER'S SHOP DRAWING M.H. COVERS AND FRAMES MANUFACTURER'S PRODUCT SHEET				
21	BICYCLE RACK	EXTERIOR BIKE RACK MANUFACTURER'S PRODUCT SHEET INTERIOR BIKE RACK MANUFACTURER'S PRODUCT SHEET				
22	SIDEWALK	SIDEWALK CONCRETE MANUFACTURER'S SHEET SHOP DRAWING OF CHIPSEAL WALKWAY				
23	PAVERS	PAVER MANUFACTURER'S PRODUCT SHEET				
24	PERVIOUS PAVERS	PAVER MANUFACTURER'S PRODUCT SHEET FILTER AND STONE SIEVE ANALYSIS				
25	DETECTABLE WARNING PANEL	D.W.P. MANUFACTURER'S PRODUCT SHEET				
26	HANDRAIL	HANDRAIL MANUFACTURER'S PRODUCT SHEET				
27	STREET LIGHTS	MANUFACTURER'S SHEET LIGHT POLE BASE SHOP DRAWING				
28	TRANSFORMER	TRANSFORMER MANUFACTURER'S PRODUCT SHEET				
29	SPLICE BOX	SPLICE BOX MANUFACTURER'S PRODUCT SHEET				
30	FORCE MAIN	FORCE MAIN TRENCH SHOP DRAWINGS				
31		FORCE MAIN SHUT-OFF MANUFACTURER'S PRODUCT SHEET				
32	SANITARY PUMP	SUBMERSIBLE GRINDER PUMP MANUFACTURER'S PRODUCT SHEET GRATE MANUFACTURER'S PRODUCT SHEET SANITARY SEWER PUMP STATION PRODUCT SHEET FITTING MANUFACTURER'S PRODUCT SHEET SYSTEM STORAGE MANUFACTURER'S PRODUCT SHEET VENT PIPE MANUFACTURER'S PRODUCT SHEET				
33	DEWATERING (IF REQUIRED)	DEWATERING PLAN MEETING CITY REQUIREMENTS				



1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILD TO CITY OF BIDEFORD STANDARD.
2. CITY-OWNED STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD STANDARDS.
3. ANY ASPHALT AND CONCRETE TO BE REMOVED SHALL BE STRIPPED AND REPAVED TO MEET CITY OF BIDEFORD STANDARD.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. SLOPE TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE, SIGNAGE & PAVEMENT MARKINGS TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE WITH THE DISTRICT.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, TRASH REMOVAL AND SNOW.
8. PER SECTION 66-20 OF THE SUBDIVISION ORDINANCE, NO CITY SERVICES SHALL BE PROVIDED TO LOTS FRONTING UPRAR FALLS ROAD, AS IT IS A PRIVATE WAY.
9. UPRAR FALLS ROAD IS NOT TO BE MAINTAINED AND IS NOT ANTICIPATED TO BE SUBMITTED FOR PUBLIC ACCEPTANCE IN THE FUTURE.

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2. "ATLA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
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10 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	56	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 56 SPACES	—
MULTIFAMILY DEVELOPMENTS	—	INCREASE OF 5% (OF 56 SPACES) TO ALLOW FOR VISITORS = 3 SPACES	—
RESTAURANT**	—	1 SPACE / 3 SEATS * 49 SEATS = 17 SPACES**	—
ADA (8'x18')	—	—	3
STANDARD (9'x18')	—	—	36
TOTAL DEGREE (8.5'x18.42')	—	—	22
60 SPACES	—	76	61*

*6 SPACES LOCATED AT 10 UPPER FALLS ROAD TO BE DESIGNATED FOR 20 UPPER FALLS ROAD APARTMENT BUILDING

**WAVIER FOR COMMERCIAL PARKING SPACES TO BE REQUESTED. 4 PARKING SPACES TO BE REQUESTED FROM THE CITY OF BIDEFORD PARKING GARAGE TO SATISFY THE PARKING REQUIREMENT FOR 10 UPPER FALLS ROAD.

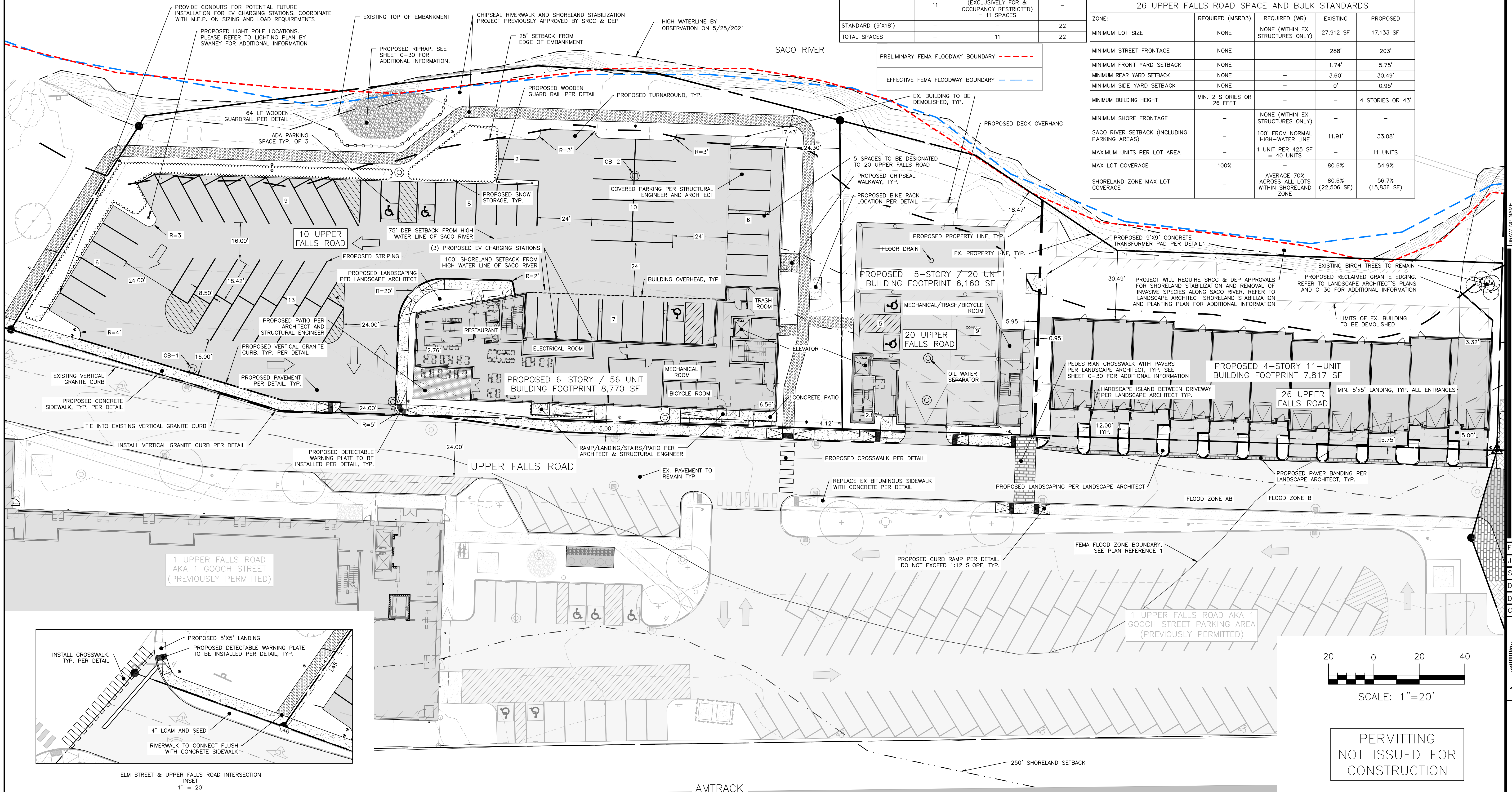
10 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	47,138 SF	47,138 SF
MINIMUM STREET FRONTAGE	NONE	—	371.24'	371.24'
MINIMUM FRONT YARD SETBACK	NONE	—	34.88'	8.56'
MINIMUM REAR YARD SETBACK	NONE	—	13.33'	17.43'
MINIMUM SIDE YARD SETBACK	NONE	—	23.89'	24.30'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	6 STORIES 70'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	10.71'	26.33'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 110 UNITS	—	56 UNITS
MAX LOT COVERAGE	100%	—	79.6%	73.6%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	79.6% (37,526 SF)	72.9% (34,360 SF)

20 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	20	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 20 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 20 SPACES) TO ALLOW FOR VISITORS = 1 SPACES	-
ADA (8'x18')	-	-	2
COMPACT (8'x18')	-	-	1
STANDARD (9'x18')	-	-	11
60 DEGREE (8.5'x18.42')	-	-	-
TOTAL SPACES	-	21	14*
*6 SPACES AT 10 UPPER FALLS ROAD TO BE DESIGNATED FOR 20 UPPER FALLS ROAD APARTMENT BUILDING			
**1 PARKING SPACES TO BE REQUESTED FROM THE CITY OF BIDEFORD PARKING GARAGE TO SATISFY THE PARKING REQUIREMENT FOR 20 UPPER FALLS ROAD.			

26 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	11	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 11 SPACES	-
STANDARD (9'X18')	-	-	22
TOTAL SPACES	-	11	22

20 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	27,912 SF	10,780
MINIMUM STREET FRONTAGE	NONE	—	288'	85'
MINIMUM FRONT YARD SETBACK	NONE	—	1.74'	2.89'
MINIMUM REAR YARD SETBACK	NONE	—	3.60'	18.47'
MINIMUM SIDE YARD SETBACK	NONE	—	0'	4.12'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	5 STORIES OR 60'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	11.91'	25.17'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 25 UNITS	—	20 UNITS
MAX LOT COVERAGE	100%	—	80.6%	54.9%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.6% (22,506 SF)	56.7% (15,836 SF)

26 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	27,912 SF	17,133 SF
MINIMUM STREET FRONTAGE	NONE	—	288'	203'
MINIMUM FRONT YARD SETBACK	NONE	—	1.74'	5.75'
MINIMUM REAR YARD SETBACK	NONE	—	3.60'	30.49'
MINIMUM SIDE YARD SETBACK	NONE	—	0'	0.95'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	4 STORIES OR 43'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	11.91'	33.08'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 40 UNITS	—	11 UNITS
MAX LOT COVERAGE	100%	—	80.6%	54.9%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.6% (22,906 SF)	56.7% (15,836 SF)



GENERAL NOTES:

1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDEFORD STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD STANDARDS.
3. ANY ASPHALT AND CONCRETE TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE & PAVEMENT MARKINGS TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

PLAN REFERENCES:

1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
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3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.

PRELIMINARY FEMA FLOODWAY BOUNDARY - - - - -

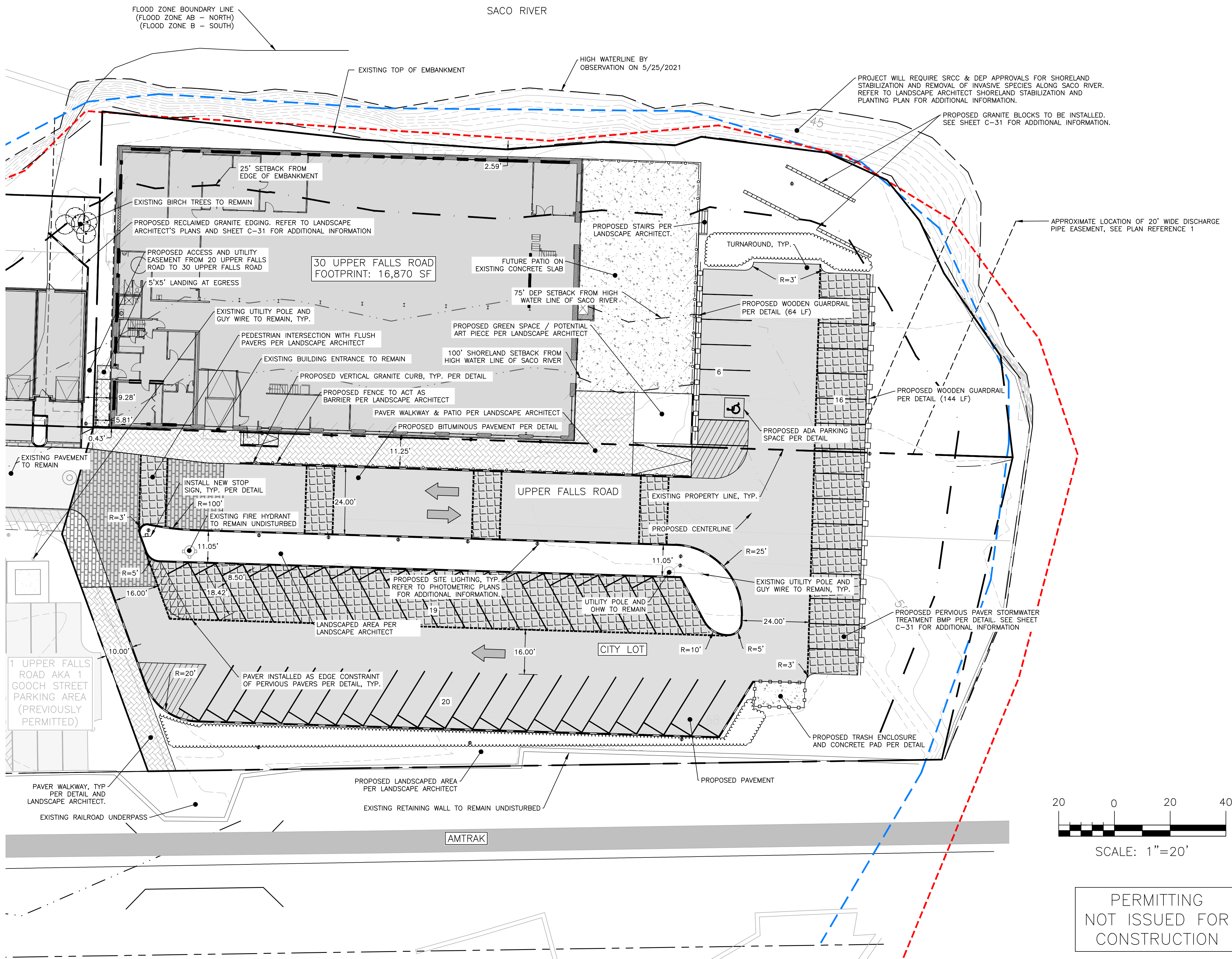
EFFECTIVE FEMA FLOODWAY BOUNDARY - - - - -

30 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	33,401 SF	33,401 SF
MINIMUM STREET FRONTAGE	NONE	-	330'	330'
MINIMUM FRONT YARD SETBACK	NONE	-	0.43'	0.43'
MINIMUM REAR YARD SETBACK	NONE	-	2.59'	2.59'
MINIMUM SIDE YARD SETBACK	NONE	-	5.81'	5.81'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26'	-	TBD	TBD
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	397'±	397'±
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	100' FROM NORMAL HIGH-WATER LINE	17.94'	41.13'
SACO RIVER NO-CUT ZONE (SRCC)	-	75'	-	-
MAX LOT COVERAGE	100%	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	87.5% (29,236 SF)	74.4% (24,851 SF)

30 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESTAURANT	-	1 SPACE / 3 SEATS x 123 SEATS = 39 SPACES	-
ADA (8'x18')	-	-	1
STANDARD (9'x18')	-	-	12
TOTAL SPACES	-	41	13
*WAIVER FOR RESTAURANT SPACE TO BE REQUESTED.			

CITY LOT SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	36,748 SF	36,748 SF
MINIMUM STREET FRONTAGE	NONE	-	330'±	330'±
MINIMUM FRONT YARD SETBACK	NONE	-	N/A	N/A
MINIMUM REAR YARD SETBACK	NONE	-	N/A	N/A
MINIMUM SIDE YARD SETBACK	NONE	-	N/A	N/A
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26'	-	N/A	N/A
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	113'±	113'±
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	100' FROM NORMAL HIGH-WATER LINE	9.65'	42.20'
SACO RIVER NO-CUT ZONE (SRCC)	-	75'	-	-
MAX LOT COVERAGE	100%	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.9% (29,713 SF)	69.9% (25,693 SF)

CITY LOT PARKING SUMMARY		
	EXISTING	PROPOSED
STANDARD (9'x18')	30±	9
60 DEGREE (8.5'x18.42')	N/A	39
TOTAL SPACES		48



ISSUED FOR	BY
SKETCH	PFH
PRELIMINARY	PFH
COMMENT RESPONSE	PFH
DEP SW APP	PFH
FINAL SITE PLAN	PFH
SITE PLAN AMENDMENT	PFH
COMMENT RESPONSE	WHS

SITE PLAN - 2	
PROJECT NAME/ADDRESS:	10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDEFORD
CLIENT/OWNER OF RECORD:	TOM WATSON & CO.
	188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

ACORN ENGINEERING, INC.	ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101	(207) 775-2655
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.	

FILE:	1093.11_CIVIL
JN:	1093.11
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

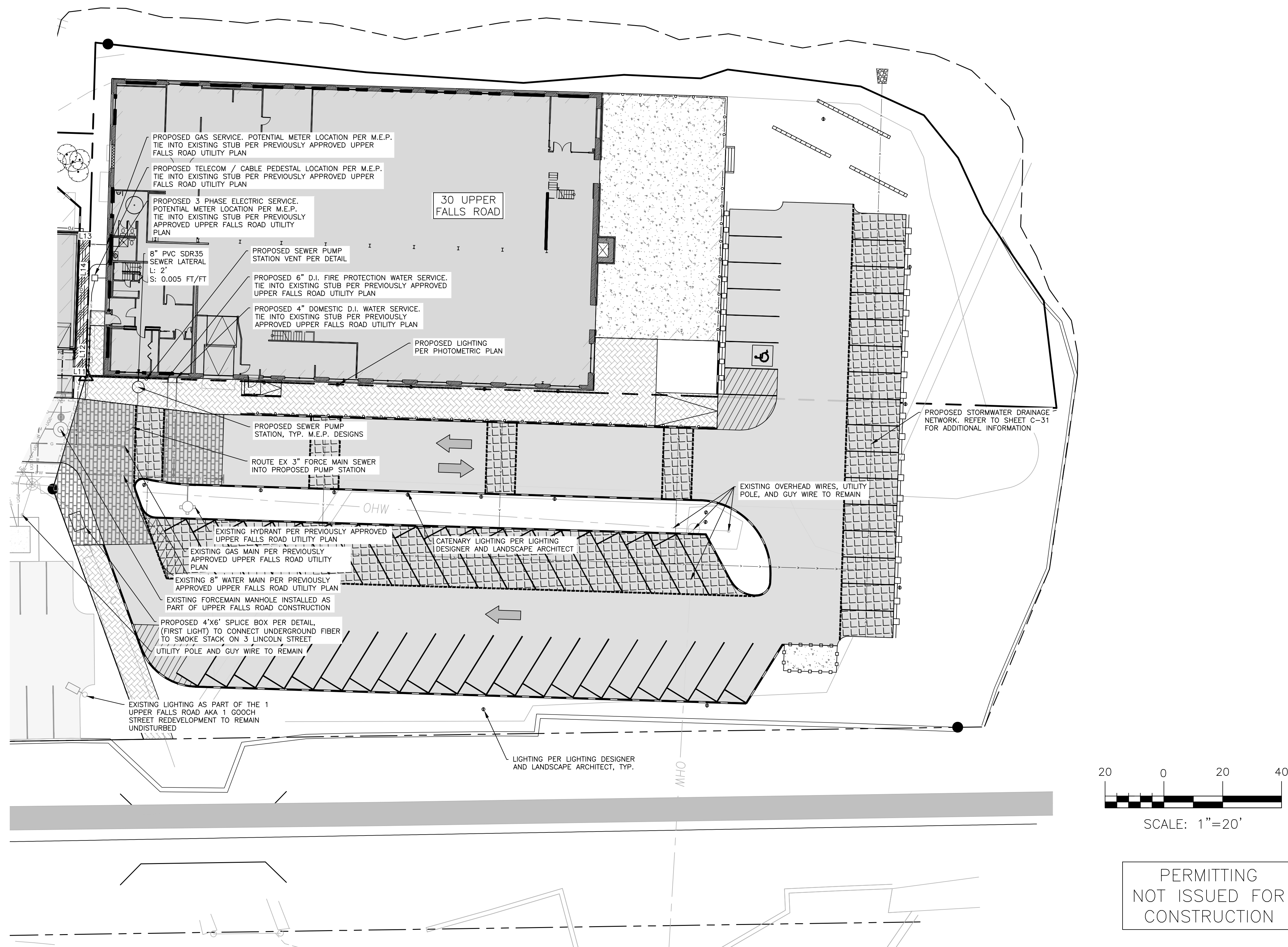


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3. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
4. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
5. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
6. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
7. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BIDEFORD TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
8. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE MAINE WATER COMPANY STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF MAINE WATER COMPANY AND CITY OF BIDEFORD.
9. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNTIL.
10. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONNECTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
11. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY SPECTRUM AND CONSOLIDATED COMMUNICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITIES INVOLVED.
12. EXISTING SANITARY SEWER LINE TO BE ABANDONED IN PLACE PER CITY DEPT. OF PUBLIC WORKS STANDARDS. CONTRACTOR TO COORDINATE PROPOSED FORCEMAIN SERVICE CONNECTIONS TO RESPECTIVE LOTS ALONG UPPER FALLS ROAD AND ABANDON EX. SERVICE CONNECTIONS ONCE FORCEMAIN SERVICES ARE OPERATIONAL.
13. EXISTING WATER TO BE REMOVED PER MAINE WATER COMPANY STANDARDS. CONTRACTOR TO COORDINATE SHUT OFF & REMOVAL OF WATER MAIN AND PIPE. TEMPORARY WATER SERVICE TO ALL BUILDINGS OFF UPPER FALLS ROAD UNTIL NEW WATERMAIN INSTALLATION HAS BEEN INSTALLED, TESTED & DISINFECTED AND SERVICES RESTORED TO THE SATISFACTION OF MAINE WATER.
14. PLAN REFERENCES:
 - 12.1. 1 GOOCH STREET REDEVELOPMENT PLAN SET DATED APRIL 13, 2022 ISSUED FOR CONSTRUCTION BY ACORN ENGINEERING. SEE PLANS TITLED UTILITY PLAN (C-20) & PLAN AND PROFILE (C-31).

MINIMUM HORIZONTAL UTILITY SEPARATION					
UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	—	6'	5'	4'	6'
WATER	6'	—	5*	6'	3'
SEWER	5'	5*	—	5'	10'
GAS	4'	6'	5'	—	3'
STORMWATER	6'	3'	10'	3'	—

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.

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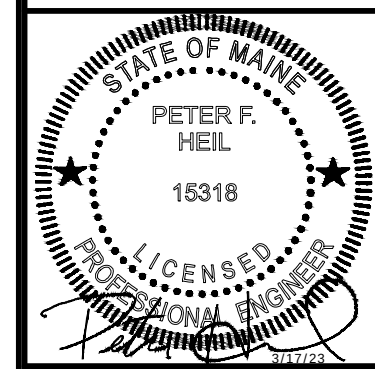
DRAWING NAME:	UTILITY PLAN - 2
PROJECT NAME/ADDRESS:	0, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD
CLIENT/OWNER OF RECORD:	TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101


ACORN ENGINEERS, INC.
 P.O. BOX 3372, PORTLAND, MAINE 04101
 (207) 775-2655

A C O R N
ENGINEERING, INC.

*THIS PLAN SHALL NOT BE ASSURED WITHOUT ACTIVE PROMOTION BY
 PRIMA ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED
 OR UNAUTHORIZED, TO THIS PLAN SHALL BE THE SOLE RISK AND
 WITHOUT LIABILITY TO ACORN ENGINEERING.

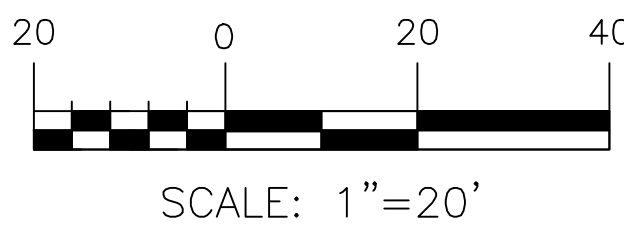
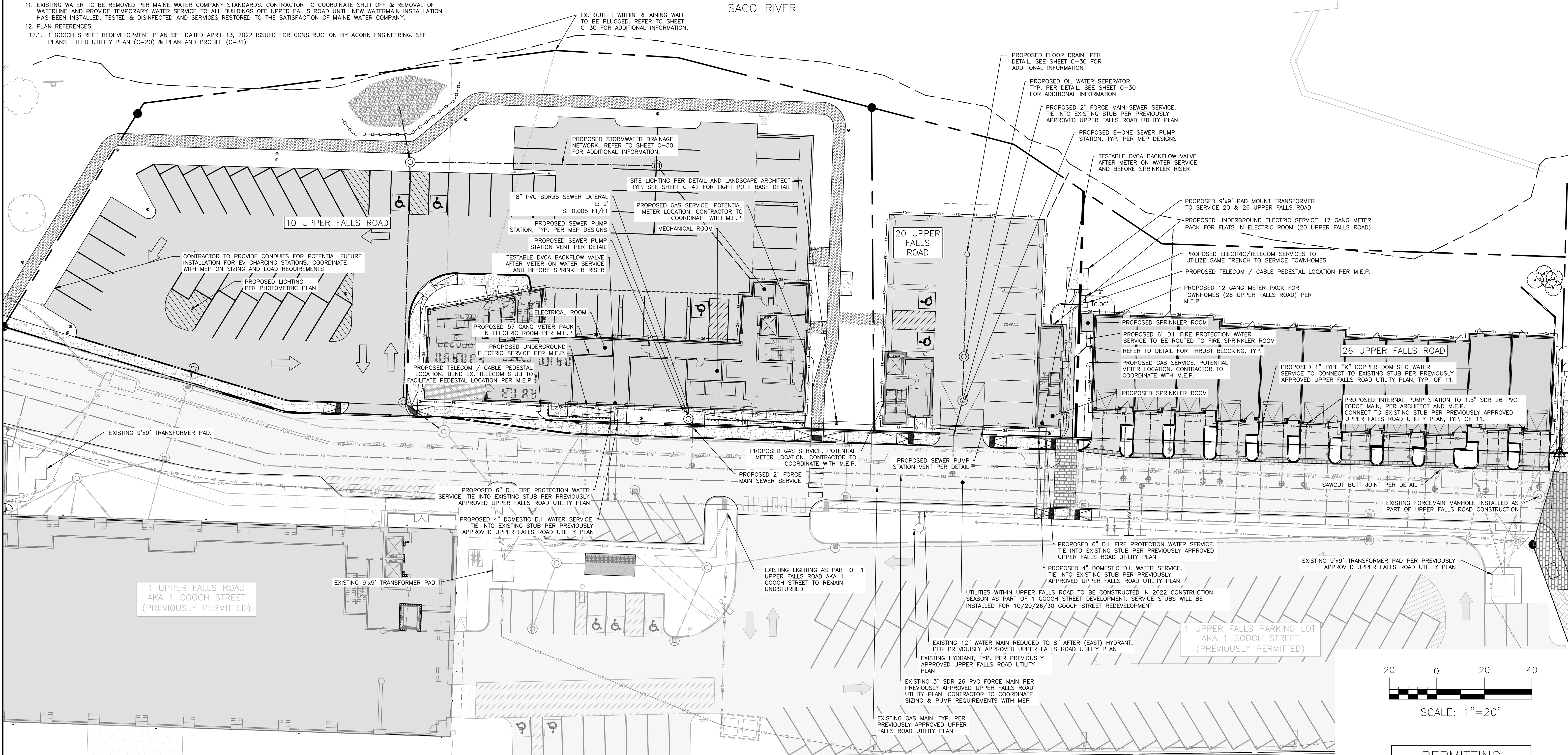
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JN:	1093.11
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-21

GENERAL NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. **SEWER UTILITIES:** CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BIDDEFORD TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
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7. **GAS UTILITIES:** PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNIFIL.
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12. PLAN REFERENCES:
 - 12.1. 1 GOOCH STREET REDEVELOPMENT PLAN SET DATED APRIL 13, 2022 ISSUED FOR CONSTRUCTION BY ACORN ENGINEERING. SEE PLANS TITLED UTILITY PLAN (C-20) & PLAN AND PROFILE (C-31).



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

SACO RIVER

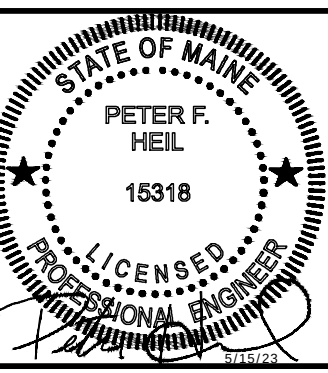
AMTRACK

ISSUED FOR	BY
SKETCH	PHH
PRELIMINARY	PHH
COMMENT RESPONSE	PHH
DEP SW APP	PHH
FINAL SITE PLAN	PHH
SITE PLAN AMENDMENT	PHH
COMMENT RESPONSE II	WHS

UTILITY PLAN - 1	PROJECT NAME/ADDRESS: 10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD
DRAWING NAME:	CLIENT/OWNER OF RECORD: TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND, ME 04101

ACORN ENGINEERING, INC.	THIS PLAN SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, ADDITIONS, OR DELETIONS SHALL BE THE SOLE RESPONSIBILITY OF ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND, MAINE 04101	(207) 775-2655

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JN:	1093.11
SCALE:	AS NOTED
DESIGNED BY:	PHH
DRAWN BY:	ZMS
CHECKED BY:	WHS

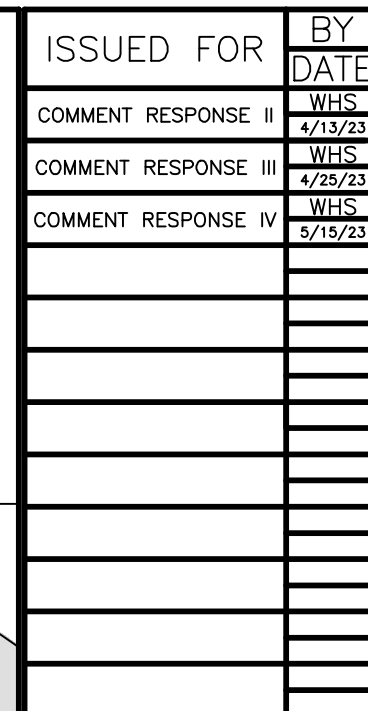


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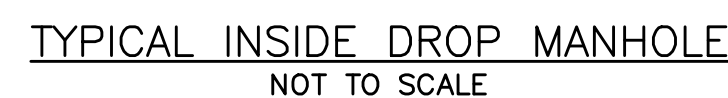
C-20

1. "ALTA/NPS/LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED
DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
2. "ALTA / NPS/LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED
12/20/2020
3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.
A GROUND STREET REDEVELOPMENT PLAN SET DATED APRIL 13, 2022 ISSUED FOR
CONSTRUCTION BY ACORN ENGINEERING. SEE PLANNED TITLE UTILITY PLAN (C-20) &
PROFILE (C-51).
5. PLAN AND PROFILE PREPARED BY WRIGHT-PIERCE (DRAWING C-6) ON 5/8/14 AND
LAST DATED ON 7/16/14

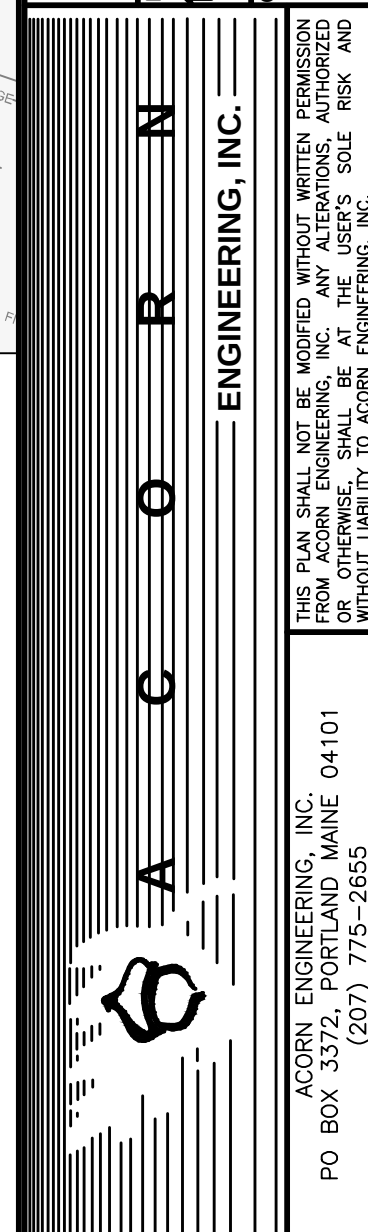
	SEWER MAIN TO BE REMOVED
	NEW SEWER MAIN & SEWER MANHOLE TO BE INSTALLED
	COMBINED SEWER OVERFLOW INTO THE SACO RIVER



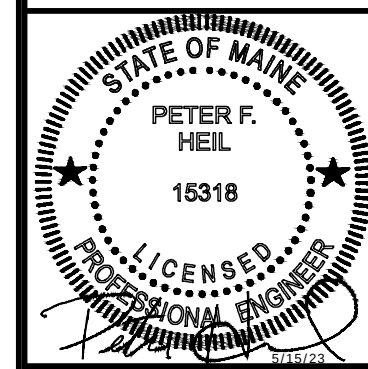
DRAWING NAME ELM STREET SEWER CONNECTION P&P
PROJECT NAME/ADDRESS 10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT – BIDDEFORD
CLIENT/OWNER OF RECORD: 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101



PERMITTING
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CONSTRUCTION



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JN:	1093.11
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.

C-22

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF BIDEFDOWN STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK OFFER FROM PROPERTY LINES TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. SURVEYOR TO CONFIRM THE LOWEST FLOOR ELEVATION BEFORE CONCRETE IS PLACED TO CONFIRM THE STRUCTURE WILL MEET THE CITY'S FREEBOARD REQUIREMENT.

ISSUED FOR	BY DATE
SKETCH	PHF 3/2/2002
PRELIMINARY	PHF 10/5/2002
COMMENT RESPONSE	PHF 10/27/2002
DEP SW APP	PHF 11/9/2002
FINAL SITE PLAN	PHF 12/14/2002
SITE PLAN AMENDMENT	PHF 3/29/2003
COMMENT RESPONSE III	WHS 4/28/2003
COMMENT RESPONSE IV	WHS 5/15/2003

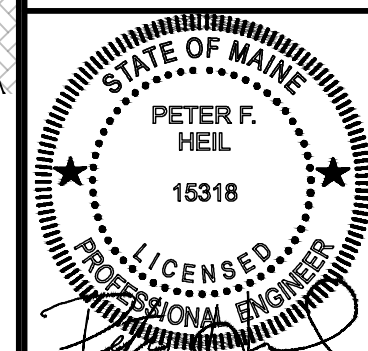
INNER OF RECORD: **TOM WATSON & CO.**
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

R N
ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

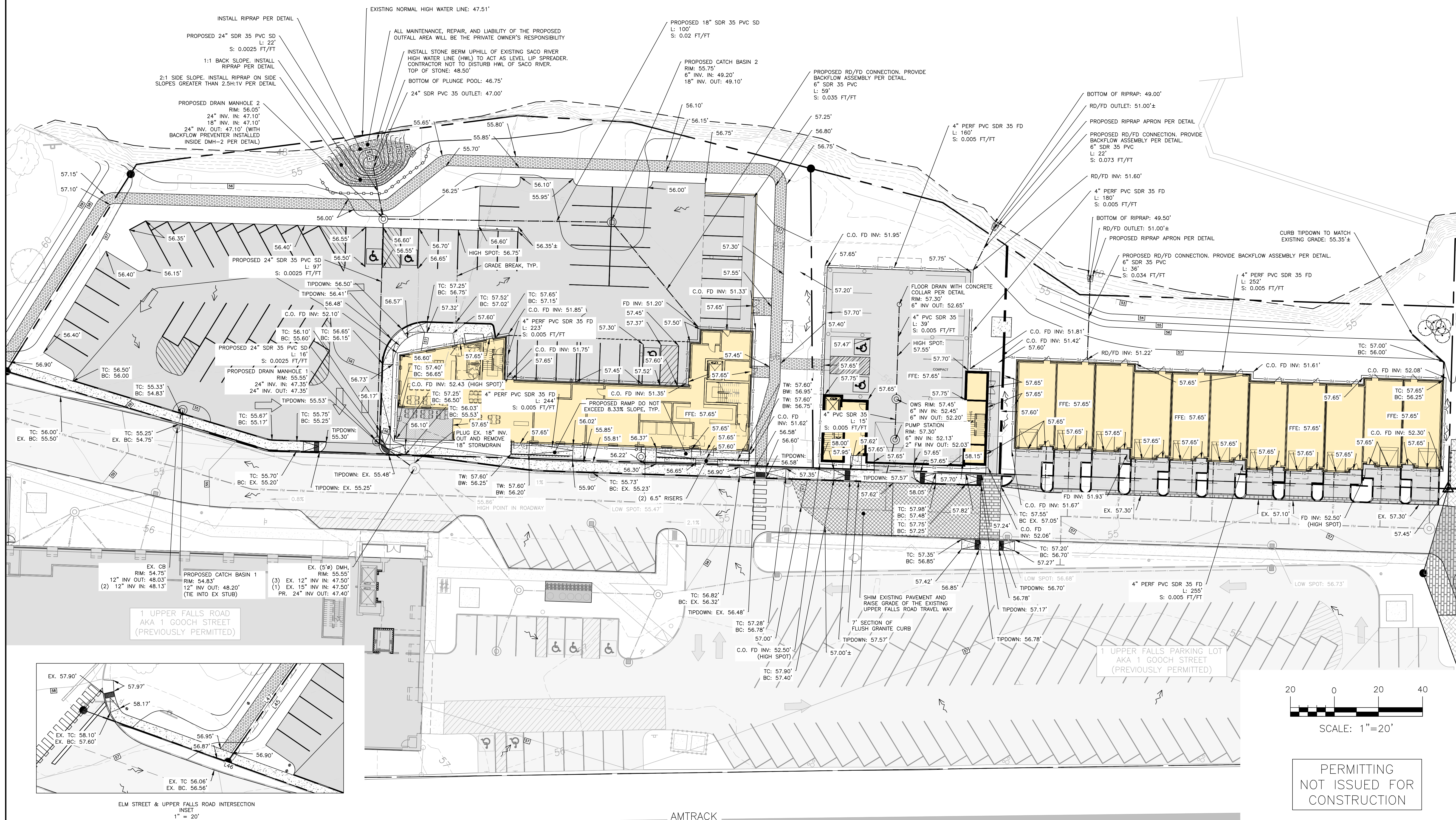
ACORN ENGINEERING, INC.
P.O. BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

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DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



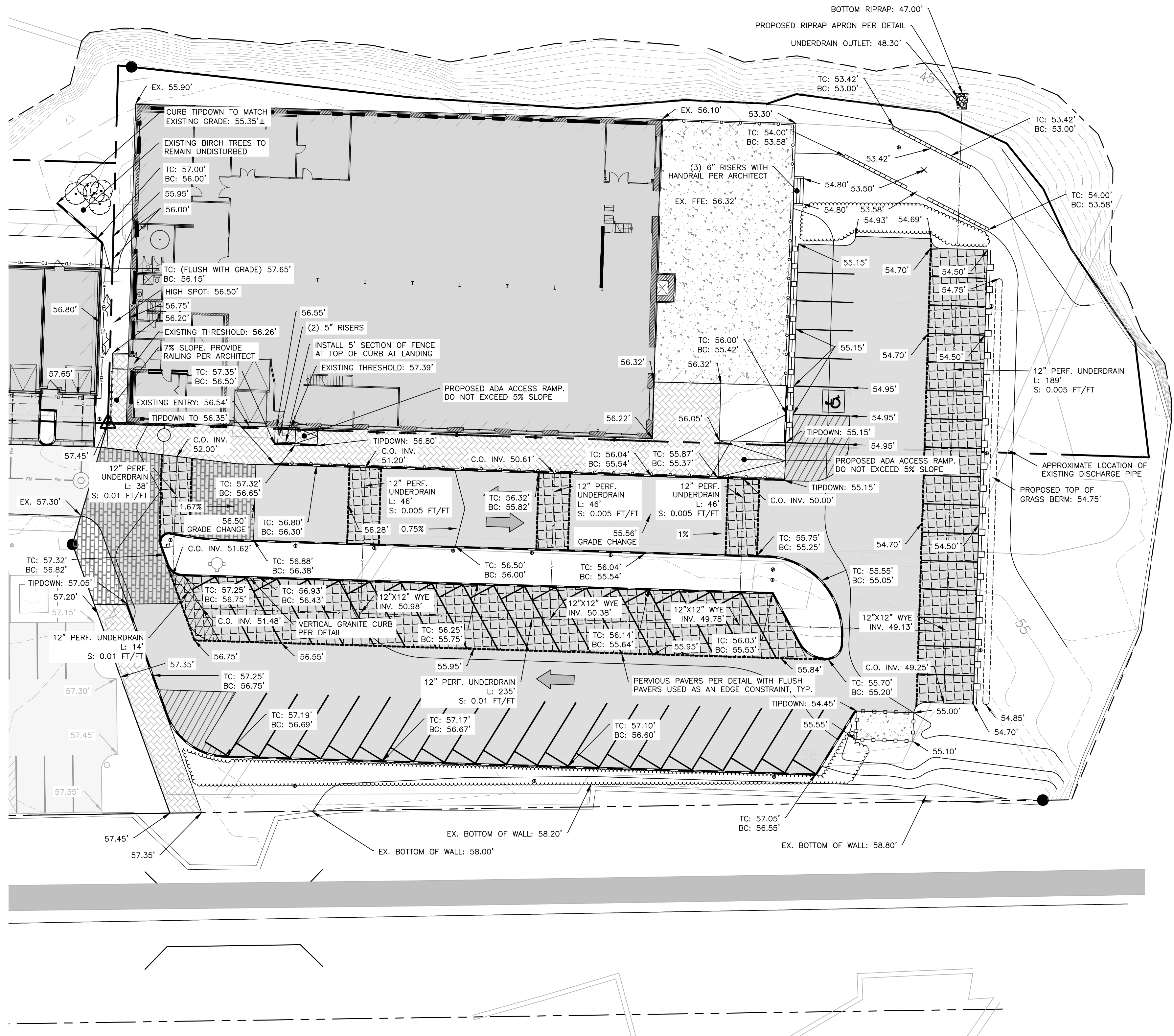
DRAWING NO.

C-30



GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF BIDDEFORD STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADEMENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADEMENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.



SACO RIVER



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

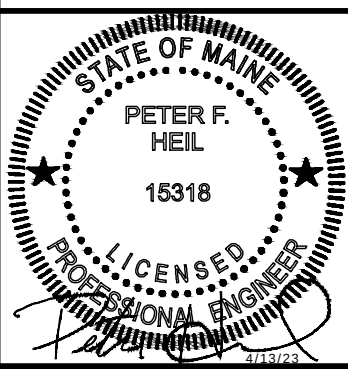
ISSUED FOR	BY
SKETCH	PFH
PRELIMINARY	PFH
COMMENT RESPONSE	PFH
DEP SW APP	PFH
FINAL SITE PLAN	PFH
SITE PLAN AMENDMENT	PFH
COMMENT RESPONSE	WHS

PROJECT NAME/ADDRESS:	GRADING PLAN - 2
CLIENT/OWNER OF RECORD:	TOM WATSON & CO.
	188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

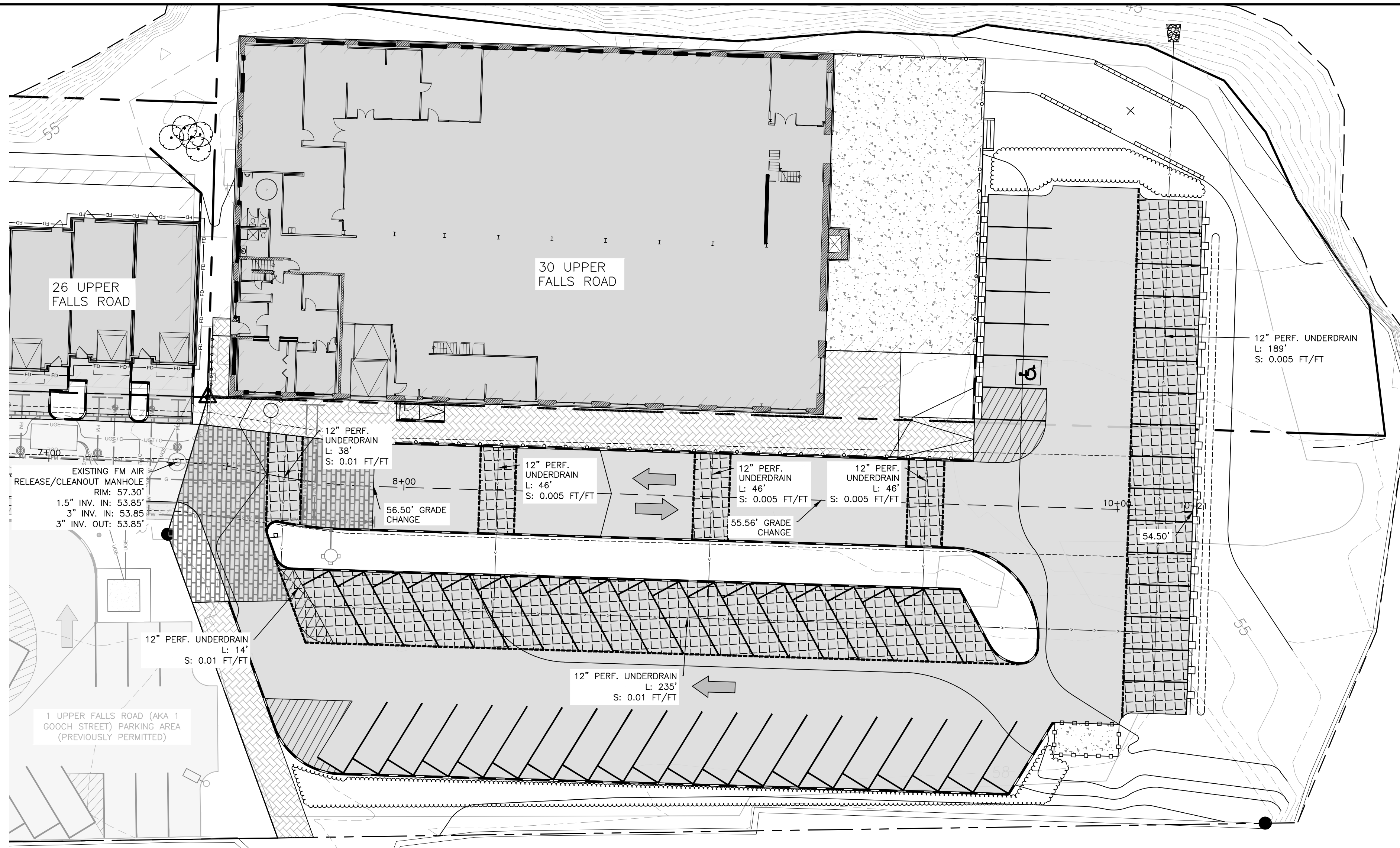
ACOENGINEERING, INC.
ACO ENGINEERING, INC. SHALL NOT BE HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THIS PLAN WITHOUT WRITTEN PERMISSION FROM ACOB ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACOB ENGINEERING, INC.

ACO ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

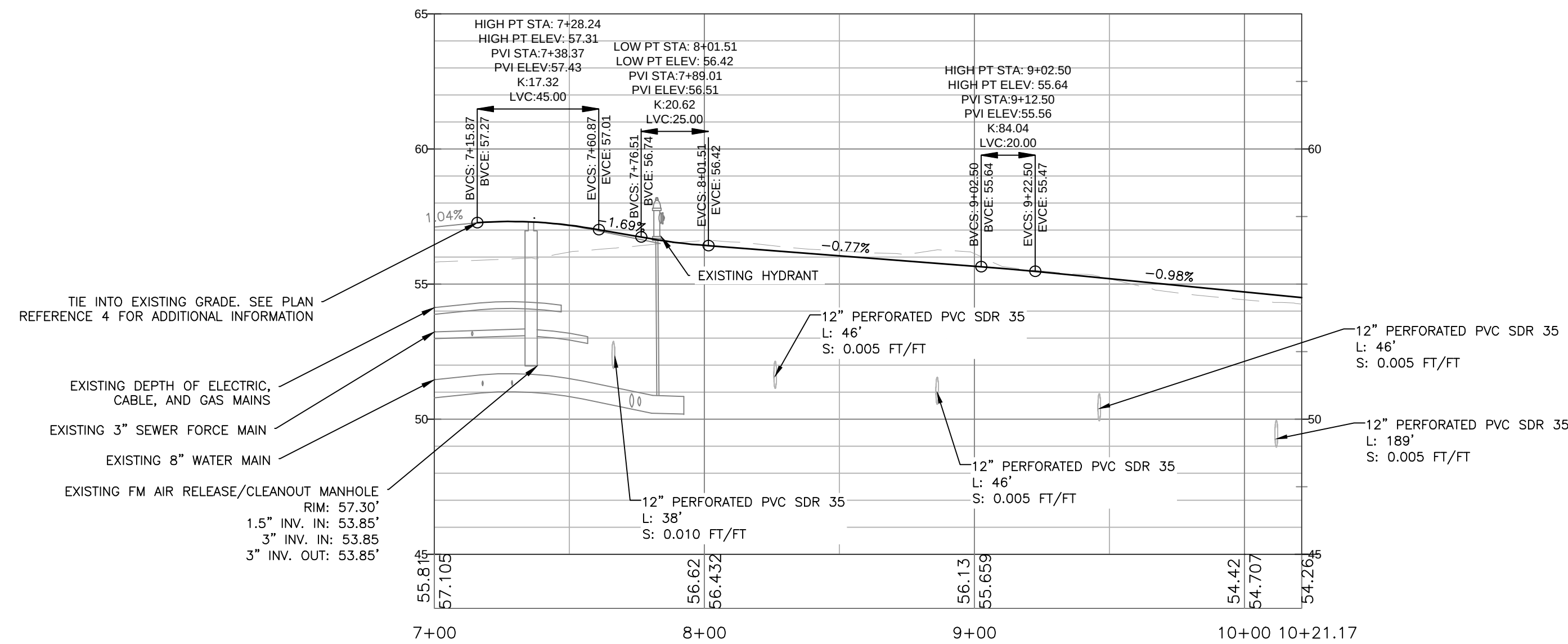
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DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-31

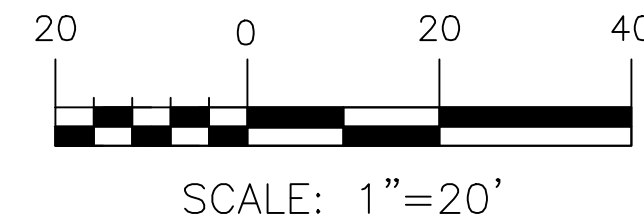


UPPER FALLS ROAD PLAN
SCALE 1"=20'



UPPER FALLS ROAD CENTERLINE PROFILE

HORIZONTAL SCALE 1"=40'
VERTICAL SCALE 1"=4'



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

PLAN REFERENCES:

1. "ATLA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
2. "ATLA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.
4. 1 GOOCH STREET REDEVELOPMENT PLAN SET DATED APRIL 13, 2022 ISSUED FOR CONSTRUCTION BY ACORN ENGINEERING. SEE PLANS TITLED UTILITY PLAN (C-20) & PLAN AND PROFILE (C-31).

ISSUED FOR	BY
SKETCH	PFH
PRELIMINARY	PFH
COMMENT RESPONSE	PFH
DEP SW APP	PFH
FINAL SITE PLAN	PFH
SITE PLAN AMENDMENT	PFH
COMMENT RESPONSE III	WHS

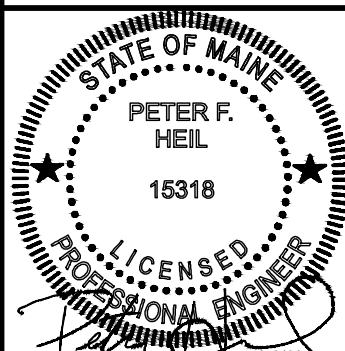
DRAWING NAME:	PLAN AND PROFILE
	PROJECT NAME/ADDRESS: 10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDEFORD
CLIENT/OWNER OF RECORD:	TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

ACORN ENGINEERING, INC.
PO BOX 337
PORTLAND, MAINE 04101
(207) 775-2855

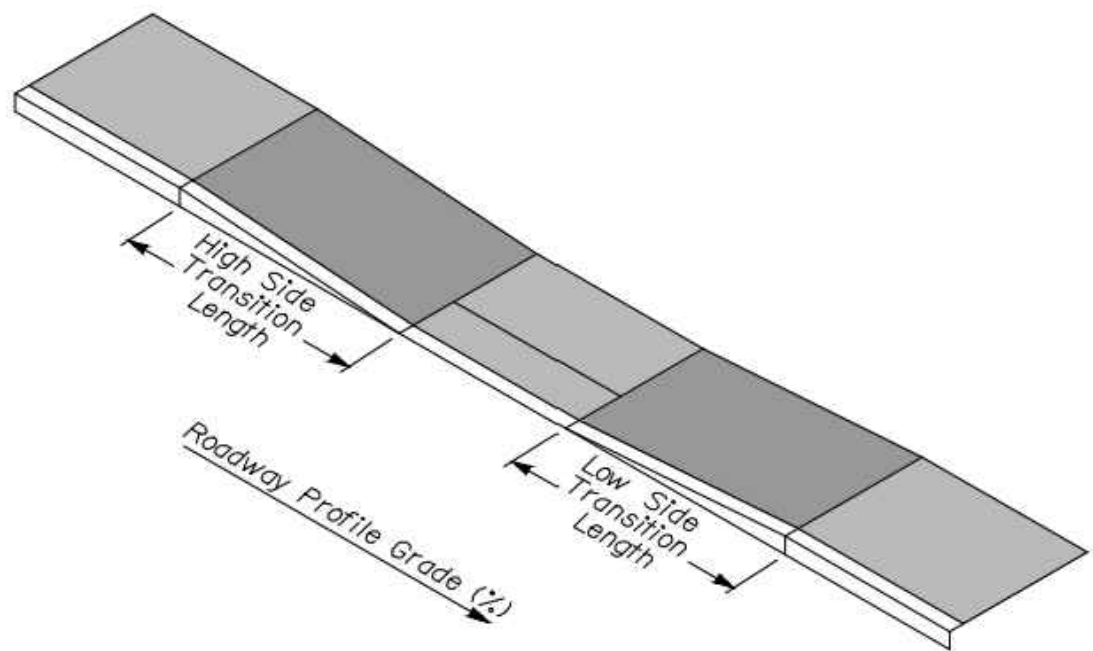
ENGINEERING, INC.

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SCALE:	AS NOTED
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CHECKED BY:	WHS



DRAWING NO.
C-32

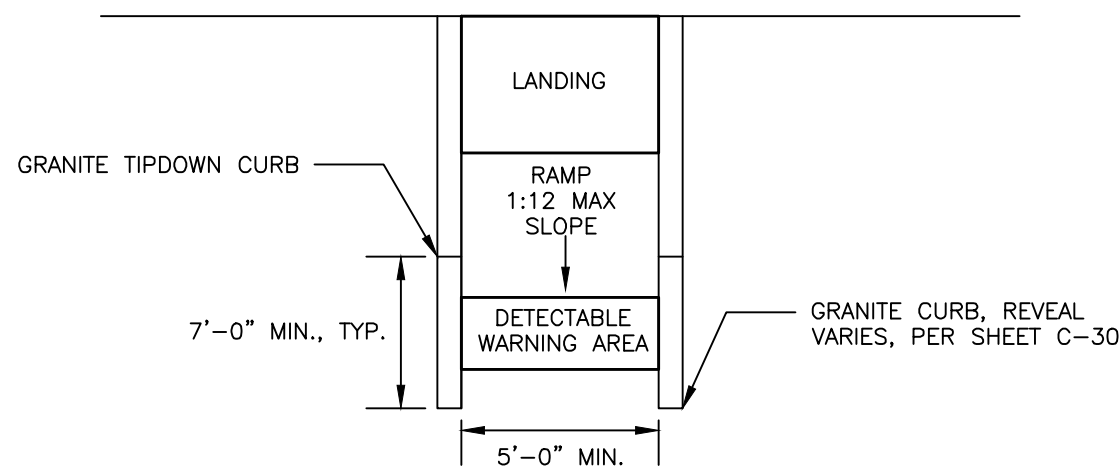


Pedestrian Ramp Length Table						
Curb Reveal (Inches)		7	6	5	4	3
	Roadway Profile Grade	Minimum Transition Length Required (Feet)				
	-7% and Lower	4.0	4.0	4.0	4.0	4.0
Low Side Transition Length	-6%	8.0	4.0	4.0	4.0	4.0
	-5%	8.0	4.0	4.0	4.0	4.0
	-4%	8.0	8.0	4.0	4.0	4.0
	-3%	8.0	8.0	4.0	4.0	4.0
	-2%	8.0	8.0	8.0	4.0	4.0
	-1%	8.0	8.0	8.0	4.0	4.0
	0%	8.0	8.0	8.0	8.0	4.0
High Side Transition Length	1%	8.0	8.0	8.0	8.0	4.0
	2%	10.0	8.0	8.0	8.0	4.0
	3%	12.0	10.0	8.0	8.0	8.0
	4%	14.0	12.0	10.0	8.0	8.0
	5%	15.0	15.0	14.0	10.0	8.0
	6%	15.0	15.0	15.0	15.0	12.0
	7% and Higher	15.0	15.0	15.0	15.0	15.0

Choose roadway profile grade by rounding up for positive grades and down for negative grades. Round to the nearest whole integer. If constraints prevent placement of the ramp length required by the table, place the maximum length possible and check the slope. If above the maximum allowable slope, consider design modifications before considering technical infeasibility.

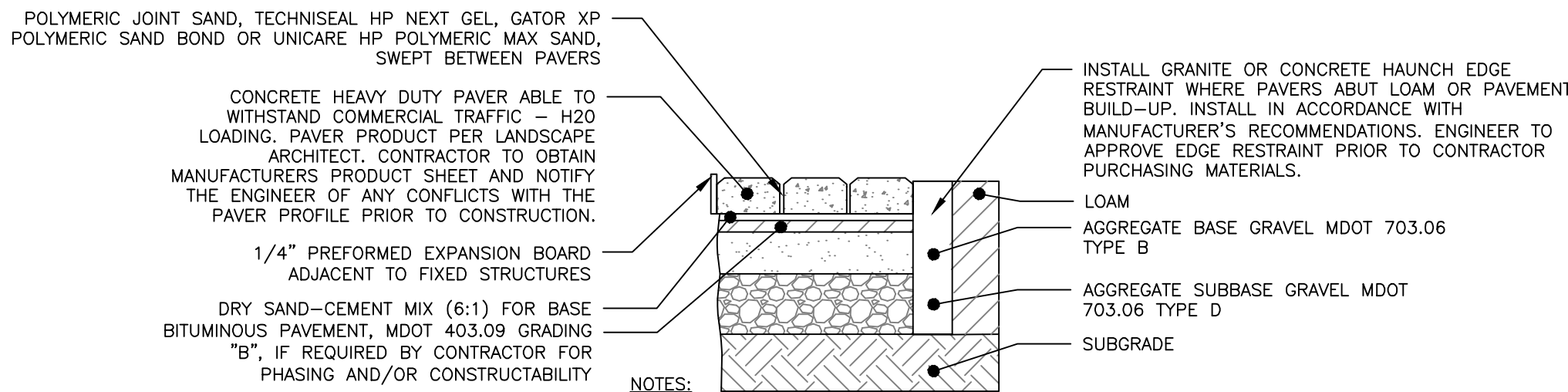
RAMP LENGTH TABLE FOR SIDEWALK RAMPS
NOT TO SCALE

- NOTES:
- ALL RAMPS SHALL COMPLY WITH CITY OF BIDDEFORD AND ADA STANDARDS.
 - SIDEWALK MATERIAL SHALL BE PER CITY SIDEWALK MATERIAL POLICY.
 - FLARED SECTIONS SHOULD MATCH SURFACE MATERIAL USED FOR SIDEWALK CONSTRUCTION.



DESIGN ELEMENT	SLOPE IN DIRECTION OF TRAVEL	CROSS SLOPE
APPROACH	8.33% MAX	2%
LANDING	2%	2%
RAMP	8.33% MAX	MATCH STREET GRADE
SIDEWALK	PER C-30	2%

SIDEWALK RAMP LAYOUT
NOT TO SCALE



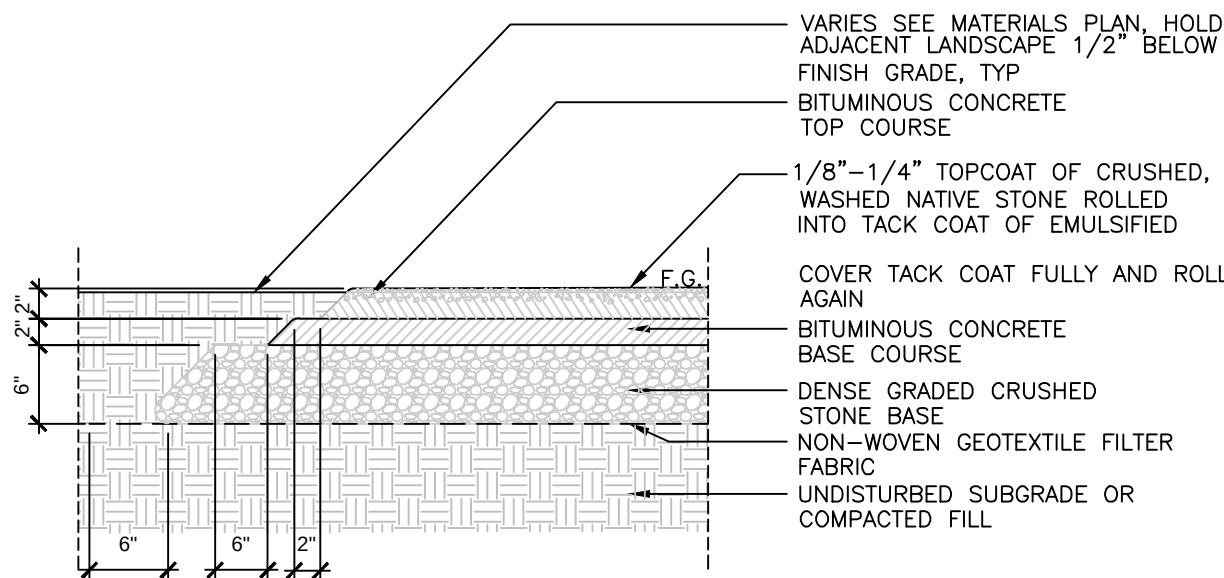
NOTES:

- COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
- SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.
- JOINT SAND COMPRESSION STRENGTH: PROVEN RESISTANCE TO COMPRESSION OF 550 PSI AFTER DRYING FOR 7 DAYS UNDER CONTROLLED CONDITIONS (73 DEGREE F AT 50% HUMIDITY)

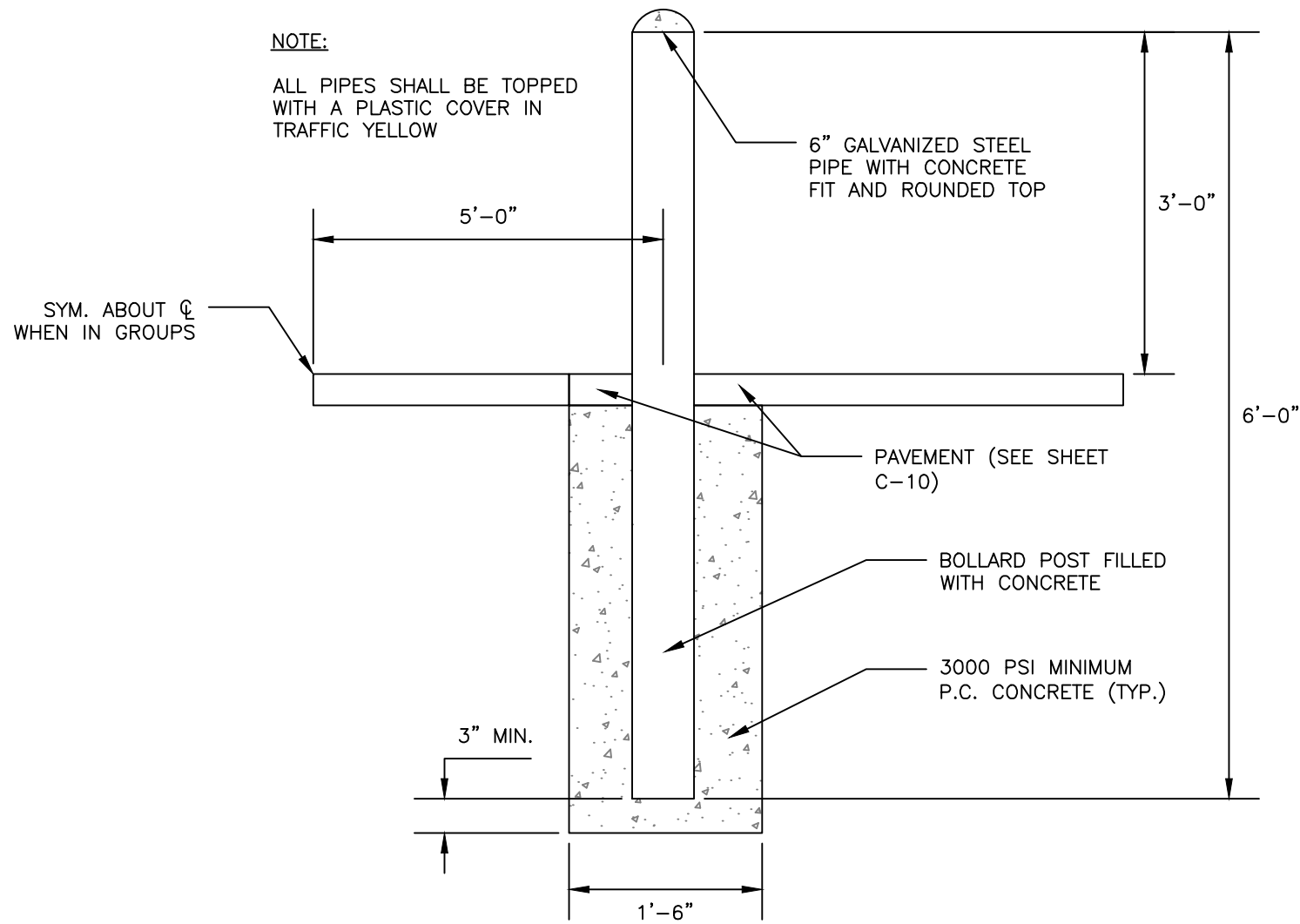
GRADATION REQUIREMENTS FOR JOINT SAND		
SIEVE SIZE	NATURAL SAND PERCENT PASSING	MANUFACTURED SAND PERCENT PASSING
NO. 4 (4.75mm)	100	100
NO. 8 (2.36mm)	95-100	95-100
NO. 16 (1.18mm)	70-100	70-100
NO. 30 (0.60mm)	40-75	40-75
NO. 50 (0.30mm)	10-30	20-40
NO. 100 (0.15mm)	2-15	10-25
NO. 200 (0.075)	0-1	0-10

THICKNESS OF LAYERS	
STANDARD	LAYERS
3.149"	CONCRETE PAVER (DEPTH TBD BASED UPON MANUFACTURER)
1"	DRY SAND-CEMENT MIX (6:1)
2"	BITUMINOUS MDOT 403.09 GRADING "B"
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

PAVER PROFILE
NOT TO SCALE

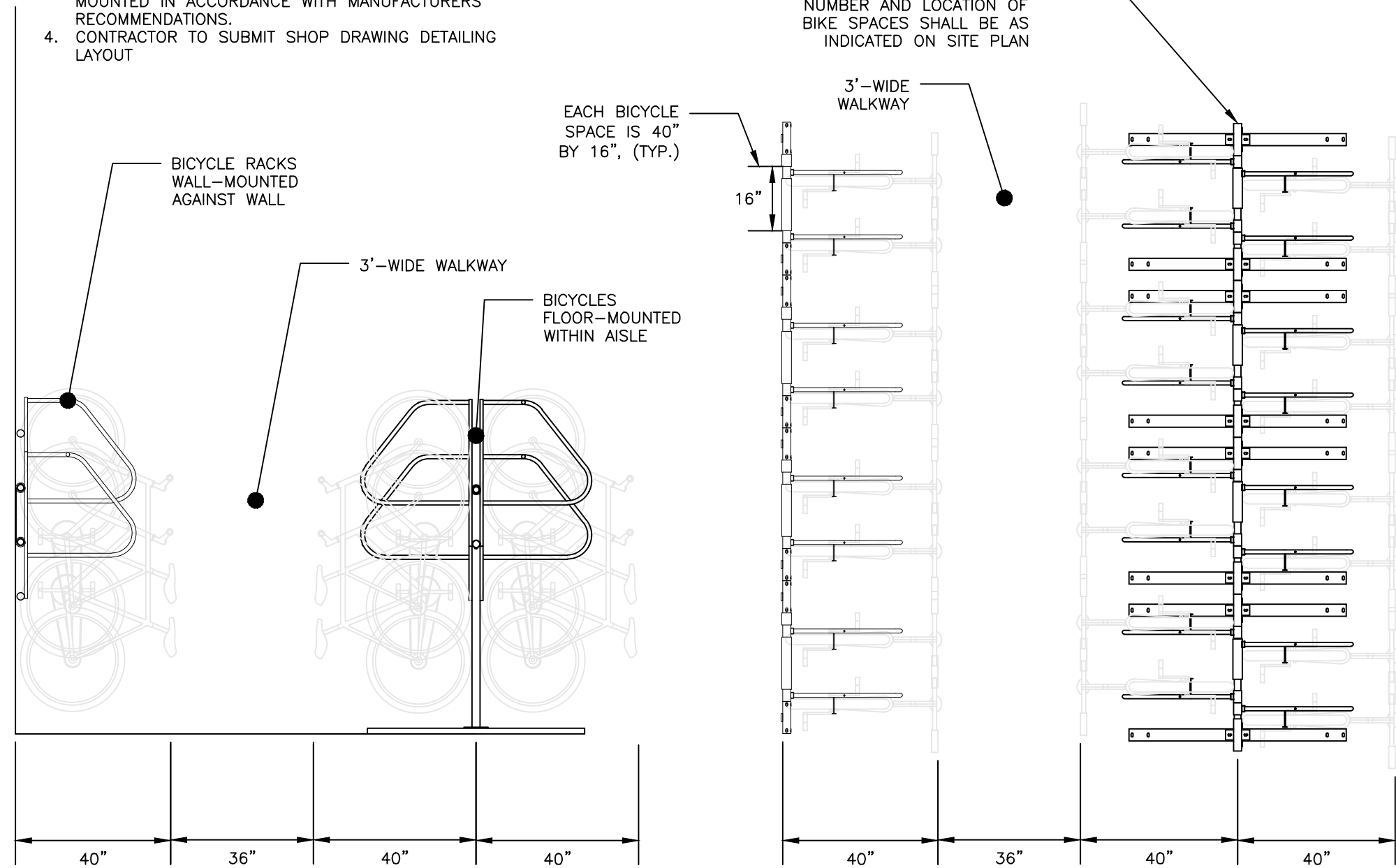


CHIPSEAL WALKWAY
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE

- NOTES:
- FINAL LOCATION OF INTERIOR BICYCLE RACKS SHALL CONFORM TO ALL ARCHITECTURAL DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER AND ARCHITECT WITH ANY DISCREPANCIES.
 - BICYCLE MOUNT SHALL BE ULTRA SPACE SAVER AS MANUFACTURED BY DERO, OR APPROVED EQUAL.
 - BICYCLES SHALL BE WALL MOUNTED OR FLOOR MOUNTED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
 - CONTRACTOR TO SUBMIT SHOP DRAWING DETAILING LAYOUT

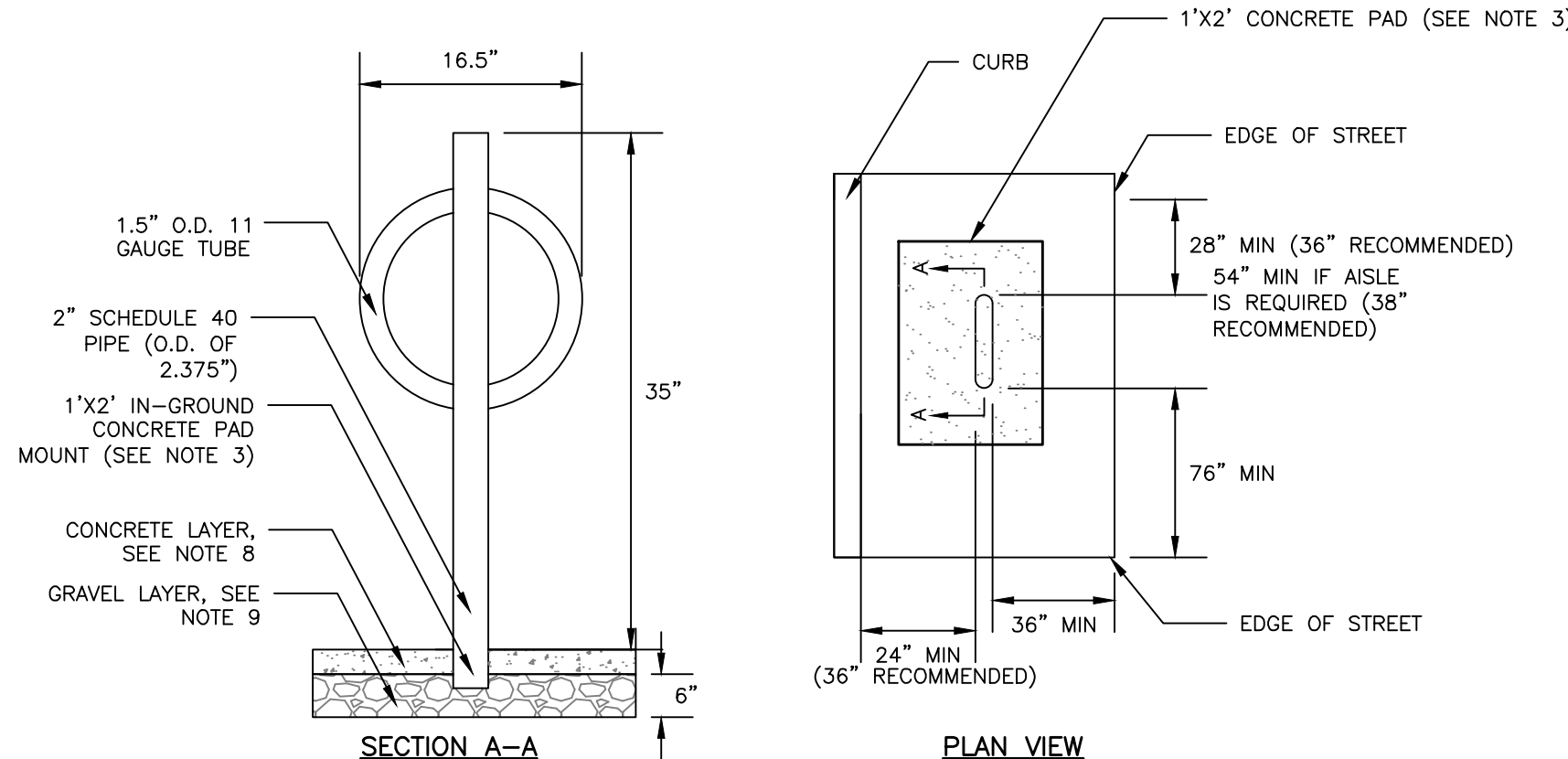


CROSS SECTION VIEW

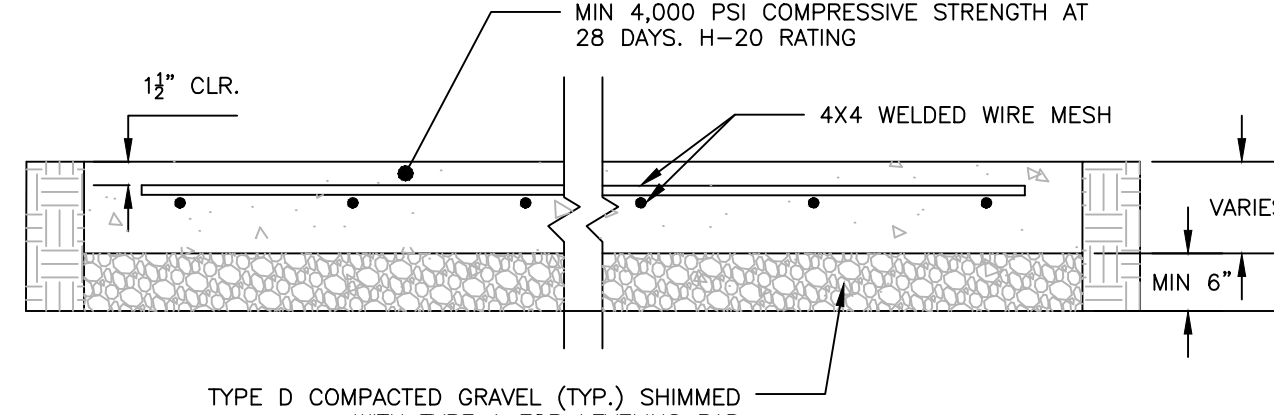
INTERIOR BICYCLE STORAGE LAYOUT
NOT TO SCALE

NOTES:

- BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
- BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
- BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION.
- BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN-GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
- MINIMUM OFFSETS SHOWN. MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.
- MINIMUM DISTANCE BETWEEN BICYCLE RACKS SHALL BE 24". RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
- ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
- CONCRETE SHALL BE 4000 PSI @28 DAYS. BOTTOM OF CONCRETE SHALL BE AT TOP OF SIDEWALK GRAVEL ELEVATION. DEPTH VARIES APPROX. 4"-7".
- GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH CONCRETE SIDEWALK DETAIL, AND SHALL BE MAINTENED 703.06 TYPE B.



DERO BIKE HITCH
NOT TO SCALE



CONCRETE PAD DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SKETCH	DATE
PRELIMINARY	DATE
COMMENT RESPONSE	DATE
DEP SW APP	DATE
FINAL SITE PLAN	DATE
COMMENT RESPONSE II	DATE

SITE DETAILS - 2	
DRAWING NAME:	PROJECT NAME/ADDRESS:
	10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD
	CLIENT/OWNER OF RECORD:
	TOM WATSON & CO.
	188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

ACORN ENGINEERING, INC. ENGINEERING, INC.

ACORN ENGINEERING, INC. ENGINEERING, INC.

PO BOX 33701 PORTLAND, ME 04101

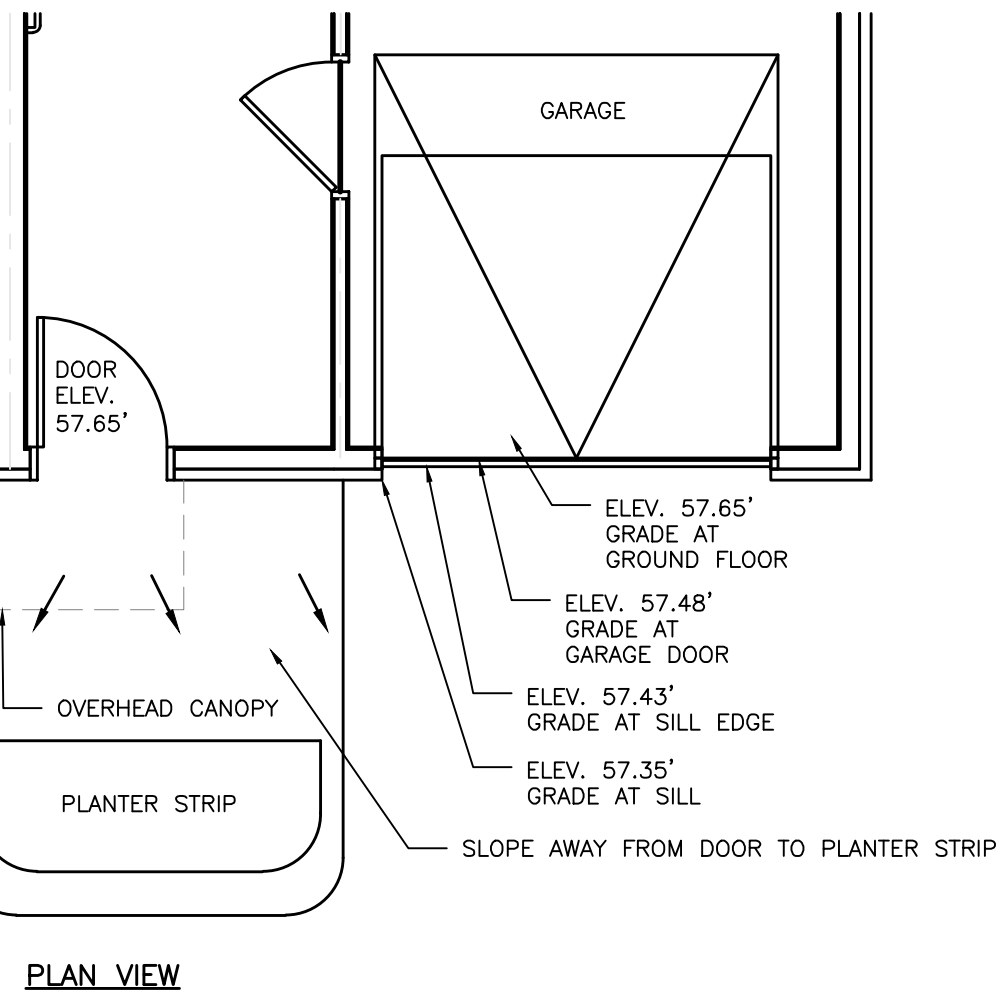
(207) 775-2855

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CHECKED BY:	WHS



DRAWING NO.
C-41

1) ELEVATIONS SHOWN IN EACH DETAIL ARE BASED ON A GARAGE WITH A GROUND FLOOR ELEVATION OF 57.65'.
2) THE DISTANCE BETWEEN THE EDGE OF EACH BUILDING AND THE UPPER FALLS TRAVELWAY VARIES. SEE THE GRADING PLAN AND SITE PLAN FOR ADDITIONAL INFORMATION.



SIDE ELEVATION

CHAMFERED TOP

2"x12" RAIL RECESSED 1" INTO WOOD POST.
2 5/8" X 10" GALV. R.H. CARRIAGE
BOLT WITH NUT AND WASHER.

96"

GRAVEL OR PAVEMENT

8"x8" WOOD POST

4"

GRANULAR BACKFILL

UNDISTURBED SUBGRADE OR
COMPACTED FILL MATERIAL

FRONT ELEVATION

8" ON CENTER

6"

12"

6"

12"

GROUND LEVEL

48"

4"

NOTE:
1. ALL WOOD LUMBER SHALL
BE PRESSURE TREATED
SOUTHERN YELLOW PINE OR
APPROVED EQUAL RATED
FOR GROUND CONTACT

4'-0" MIN.

6'-0" MIN.

DRIPLINE OF TREE

DRIPLINE LIMITS MARKED AND MAINTAINED BY ORANGE CONSTRUCTION FENCING

CALVANIZED STEEL POST @ 6' O.C. MAXIMUM (TYP.)

NOTES:

- NOTES:
1. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
 2. INSTALL PROTECTIVE FENCING TO LIMIT OF DRIPLINE ON TREE OR A MINIMUM OF 6' FROM TRUNK WHEN NECESSARY, WITH PRIOR PERMISSION OF LANDSCAPE ARCHITECT.
 3. DO NOT STORE CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, ETC. WITHIN PROTECTIVE FENCING.
 4. MAINTAIN FENCING IN A NEAT AND ORDERLY FASHION THROUGHOUT CONSTRUCTION PERIOD.

1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WITH THE CITY OF BIDDEFORD TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING RED FESCUE, 20% CHEWINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
6. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
7. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.
8. NEW TREES TO BE INSTALLED WITH A SLOW RELEASE WATERING BAG.
9. CONTRACTOR TO BE HELD RESPONSIBLE FOR THE WATERING AND MAINTENANCE OF ALL PLANT MATERIAL AND LANDSCAPING IMPROVEMENTS FOR AT LEAST 30 DAYS FOLLOWING INSTALLATION. FOLLOWING THIS PERIOD, THE LANDOWNER OR PROPERTY MANAGEMENT SHALL BE RESPONSIBLE FOR CONTINUED WATERING AND MAINTENANCE. CONTRACTOR TO MAINTAIN A ONE YEAR WARRANTY ON ALL PLANTINGS FOLLOWING FINAL INSTALLATION.
10. ALL PROPOSED PLANTS SHALL BE LOCATED AS SHOWN ON THE PLANS. CONTRACTOR TO NOTIFY ENGINEER WHEN PLANTINGS HAVE BEEN MOBILIZED ON SITE. ENGINEER TO INSPECT AND ACCEPT OR REJECT ANY SPECIMENS ON THE BASIS OF APPARENT HEALTH, HARDINESS, AND CONFORMANCE WITH THE PLANTING SCHEDULE. REJECTED SPECIMENS ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER. ACCEPTANCE DOES NOT WAIVE THE REQUIRED ONE YEAR PLANTING WARRANTY.
11. GEOTEXTILE MARKER LAYER REQUIRED IN AREAS WHERE EXISTING SUBGRADE IS COMPRISED OF URBAN FILL - SEE ENVIRONMENTAL MEDIA MANAGEMENT PLAN.

1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. REMOVE EXCESSIVE SOIL FROM THE HOLE. REMOVE ALL LARGER FRAGMENTS OF SOIL. REMOVE THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A PH VALUE OF 5.5 TO 6.5.
3. FILL THE HOLE WITH TOPSOIL TO THE TOP OF THE ROOT BALL. THERE SHALL BE NO AIR SPACE IN THE CONTAINER GROWN STOCK. - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE TOPSOIL.
4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER, DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE SOIL. PLANTS SHALL BE WATERED DAILY FOR 10 DAYS. CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE DURING THE FIRST TWENTY-FOUR HOURS OF PLANTING.

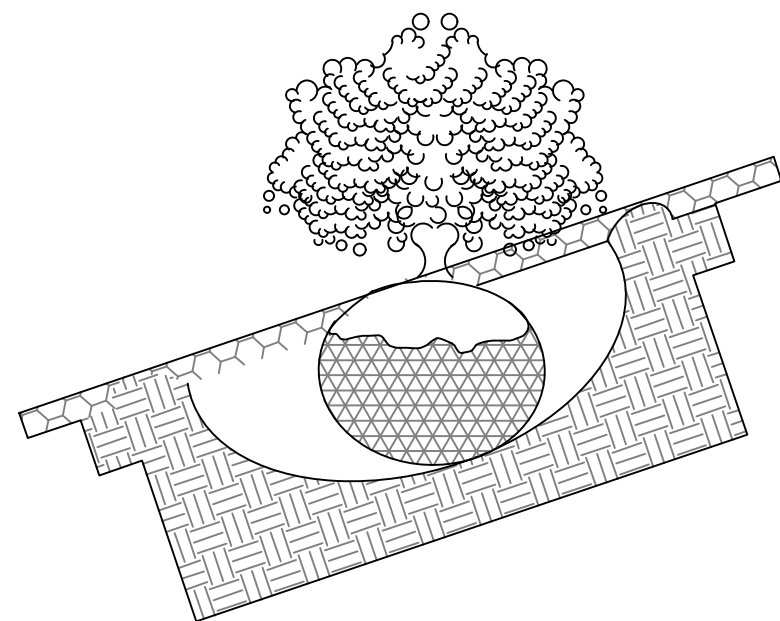


Diagram illustrating the Perennial Planting Detail. The detail shows a cross-section of the planting area with the following layers and components:

- GROUNDCOVER OR PERENNIAL**: The top layer, showing three plants.
- DOUBLE SHREDDED HARDWOOD BARK MULCH**: A layer below the groundcover, indicated by a dimension of **4" MIN**.
- PLANTING SOIL, 6" NOMINAL 12" AT PLANTINGS**: The soil layer below the mulch, indicated by a dimension of **6" MIN**.
- GEOTEXTILE MARKER LAYER. SEE PLANTING NOTE 11.**: A layer below the planting soil.
- UNDISTURBED EXISTING OR COMPACTED SUBGRADE**: The base layer below the geotextile.

Additional details include:

- AS NOTED ON PLANS**: Dimension indicating the spacing between plants.
- PERENNIAL PLANTING DETAIL**: The title of the diagram.
- NOT TO SCALE**: A note indicating that the diagram is not to scale.

SPACING AS SHOWN ON PLANS

4" HARDWOOD MULCH LAYER

3" EARTHEN SAUCER

CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL

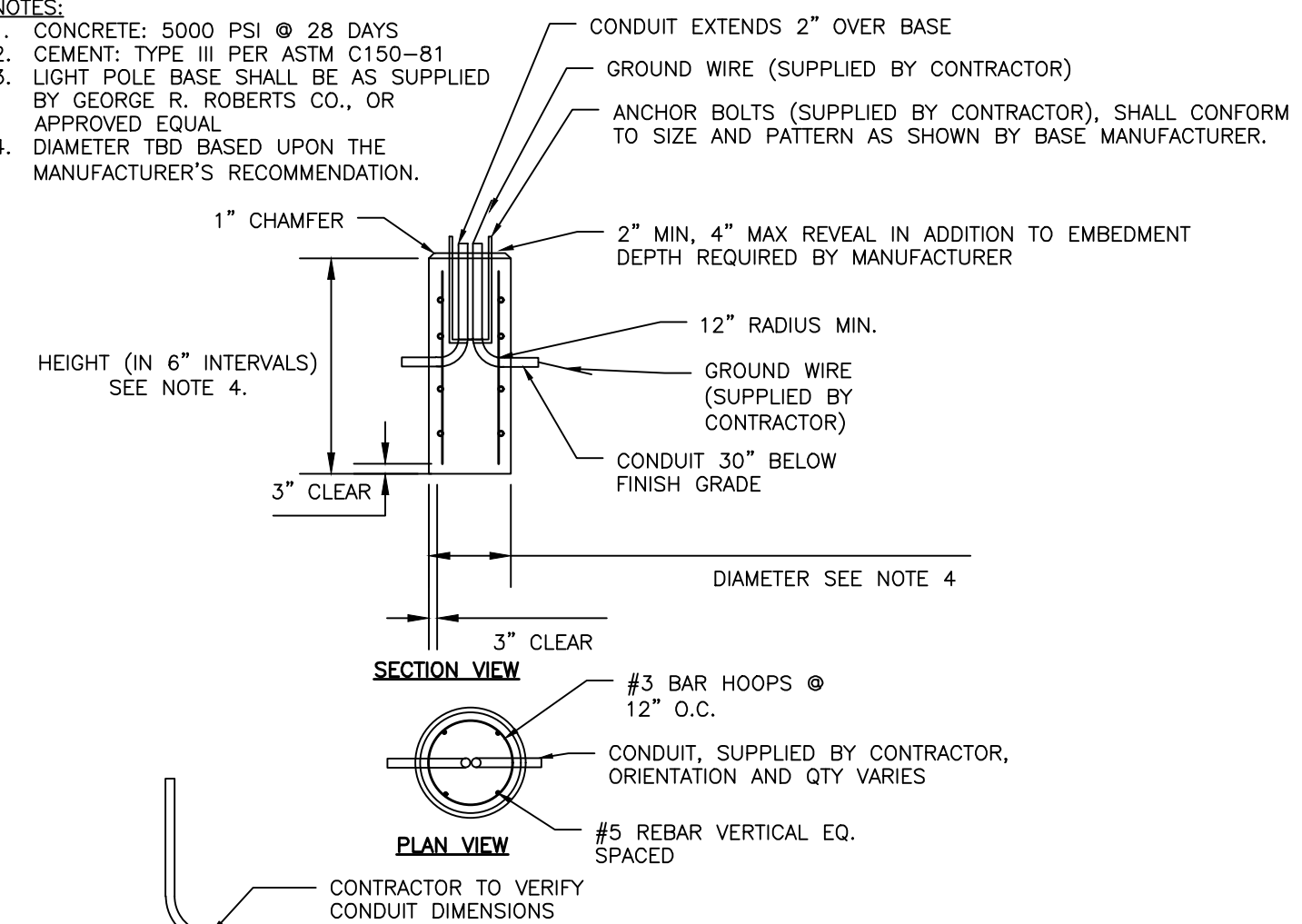
TOPSOIL MIXTURE

GEOTEXTILE MARKER LAYER. SEE PLANTING NOTE 11.

COMPACTED TOPSOIL MIXTURE

SCHEDULE		
HEIGHT OF POLE	MIN DIAMETER	MIN EMBEDMENT
<20'	18"	5'
20'-40'	2'	6'
>40'	3'	8'

- NOTES:
1. CONCRETE: 5000 PSI @ 28 DAYS
 2. CEMENT: TYPE III PER ASTM C150-81
 3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL
 4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.
- CONDUIT EXTENDS 2" OVER BASE
- GROUND WIRE (SUPPLIED BY CONTRACTOR)
- ANCHOR BOLTS (SUPPLIED BY CONTRACTOR), SHALL CONFORM TO SIZE AND PATTERN AS SHOWN BY BASE MANUFACTURER.



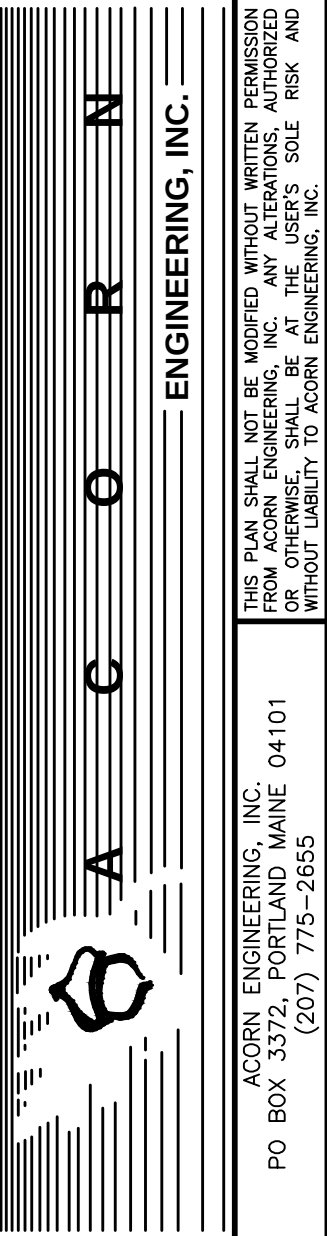
PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
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PRELIMINARY	PFH 10/5/2022
COMMENT RESPONSE	PFH 10/27/2022
DEP SW APP	PFH 11/9/2022
FINAL SITE PLAN	PFH 12/14/2022
SITE PLAN AMENDMENT	PFH 3/22/2023
COMMENT RESPONSE IV	WHS 3/19/23

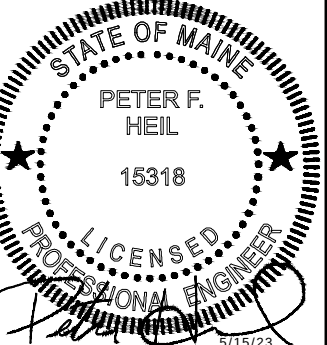
SITE DETAILS - 3

PROJECT NAME/ADDRESS: **10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD**

CLIENT/OWNER OF RECORD: **TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101**

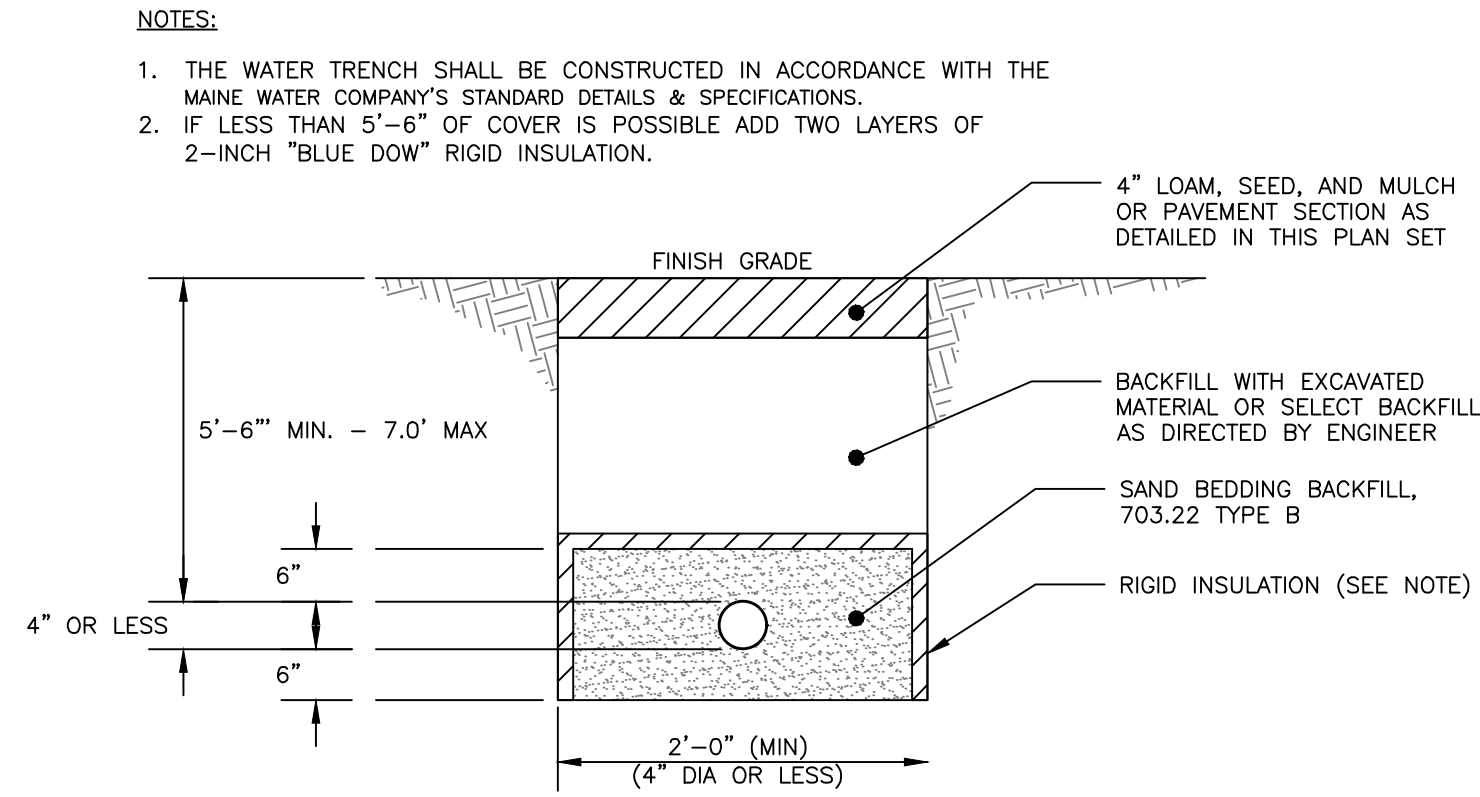


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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

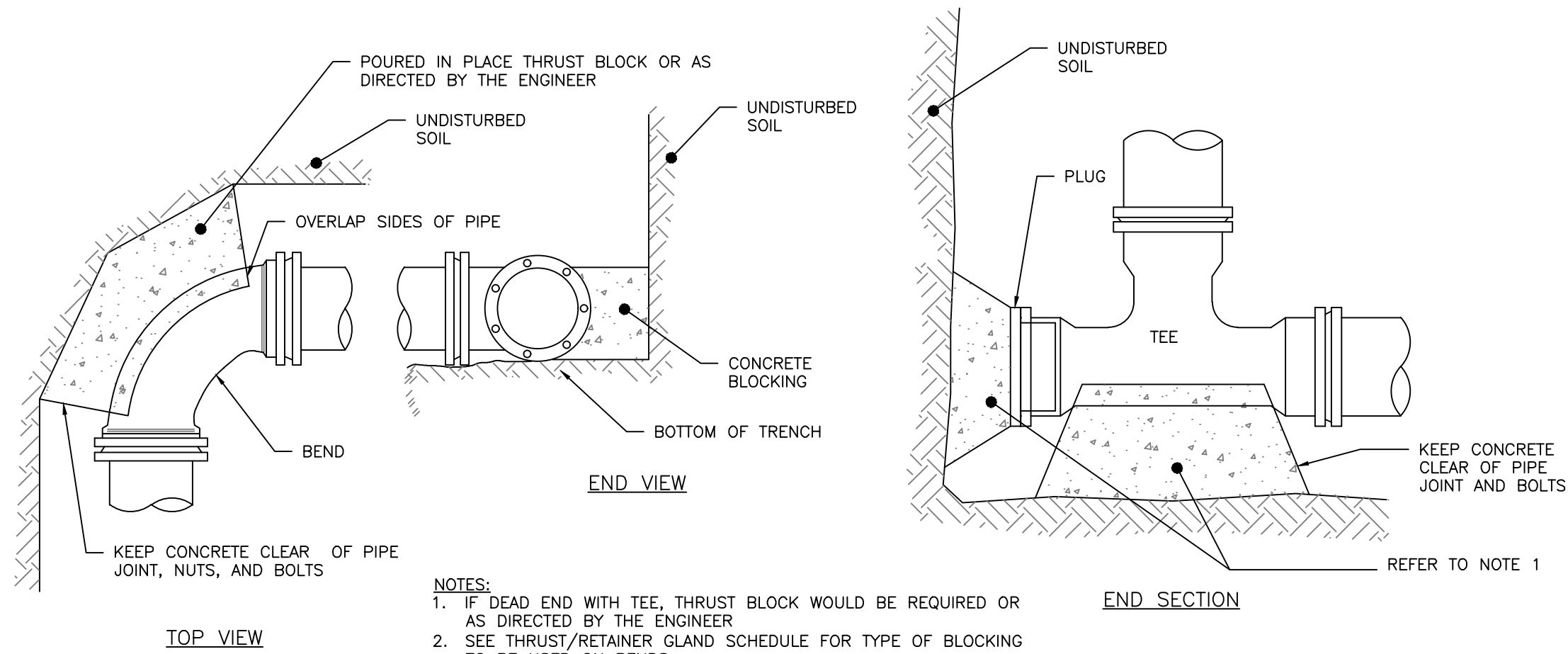


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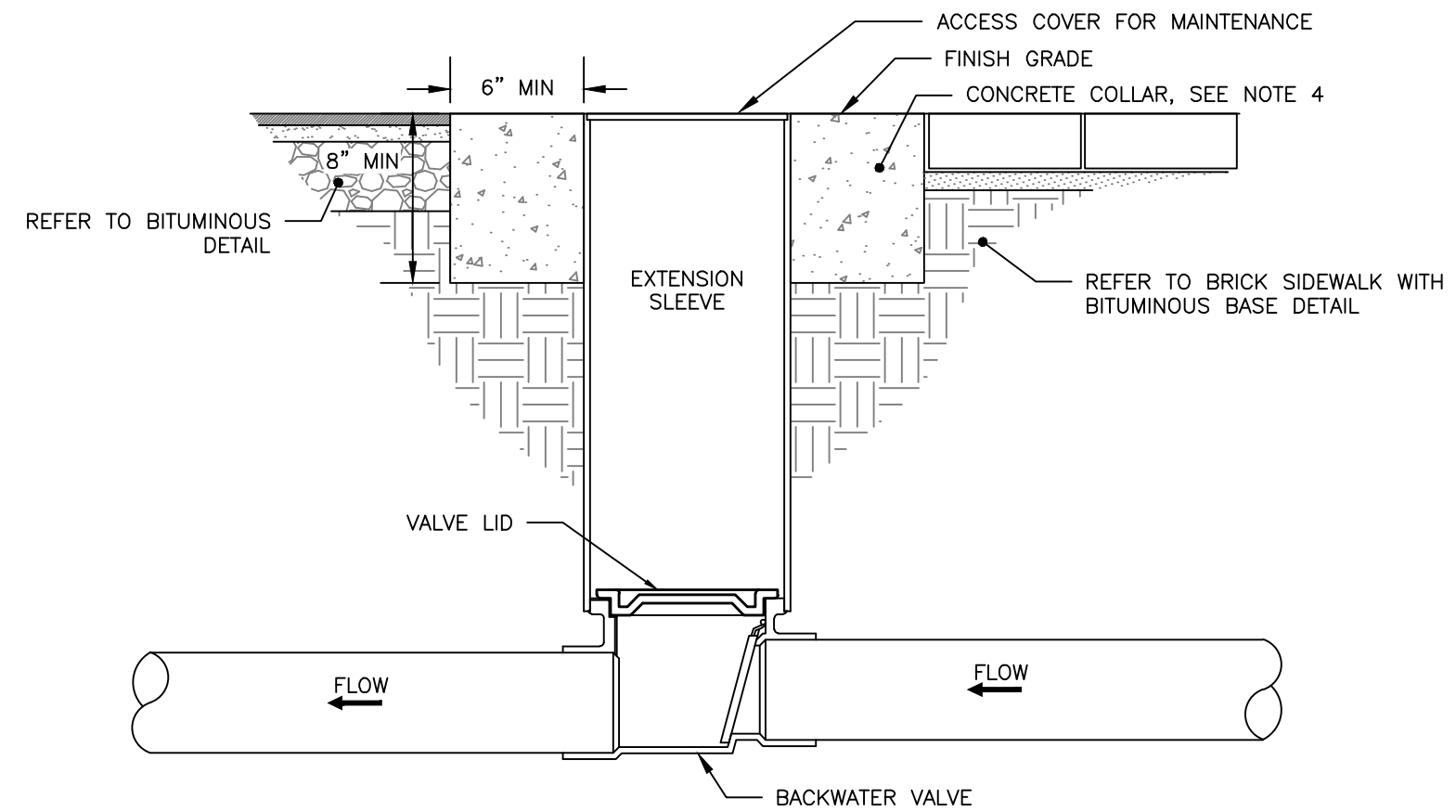
C-42



WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE

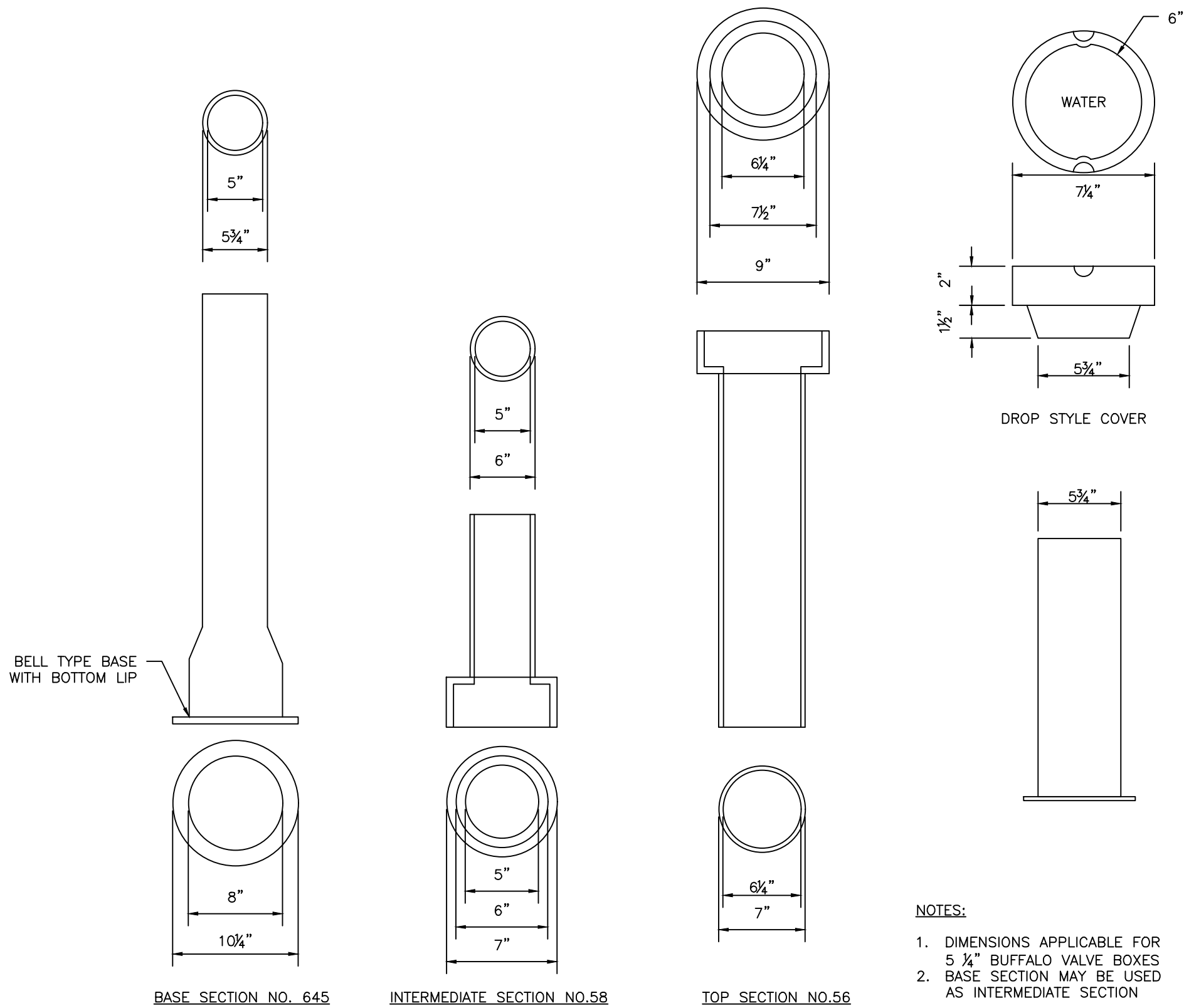


THRUST BLOCKING: REGULAR BEND
NOT TO SCALE

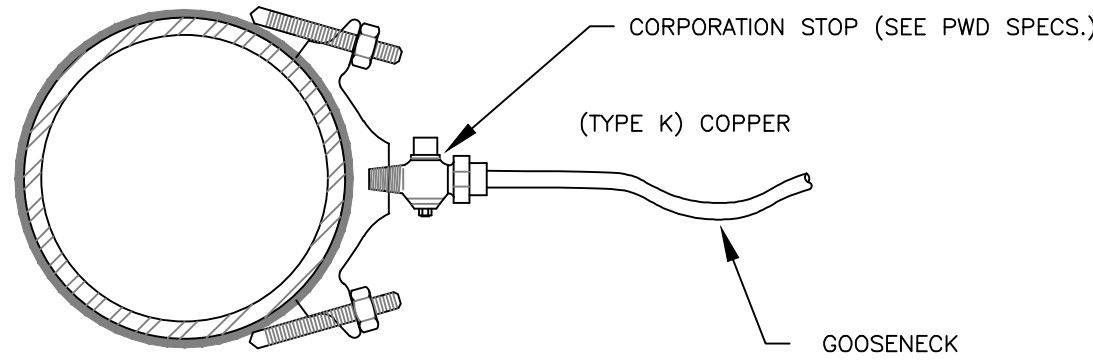


- NOTES:
1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
 2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF BIDDEFORD TECHNICAL MANUAL.
 3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE "SEWER" ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
 4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

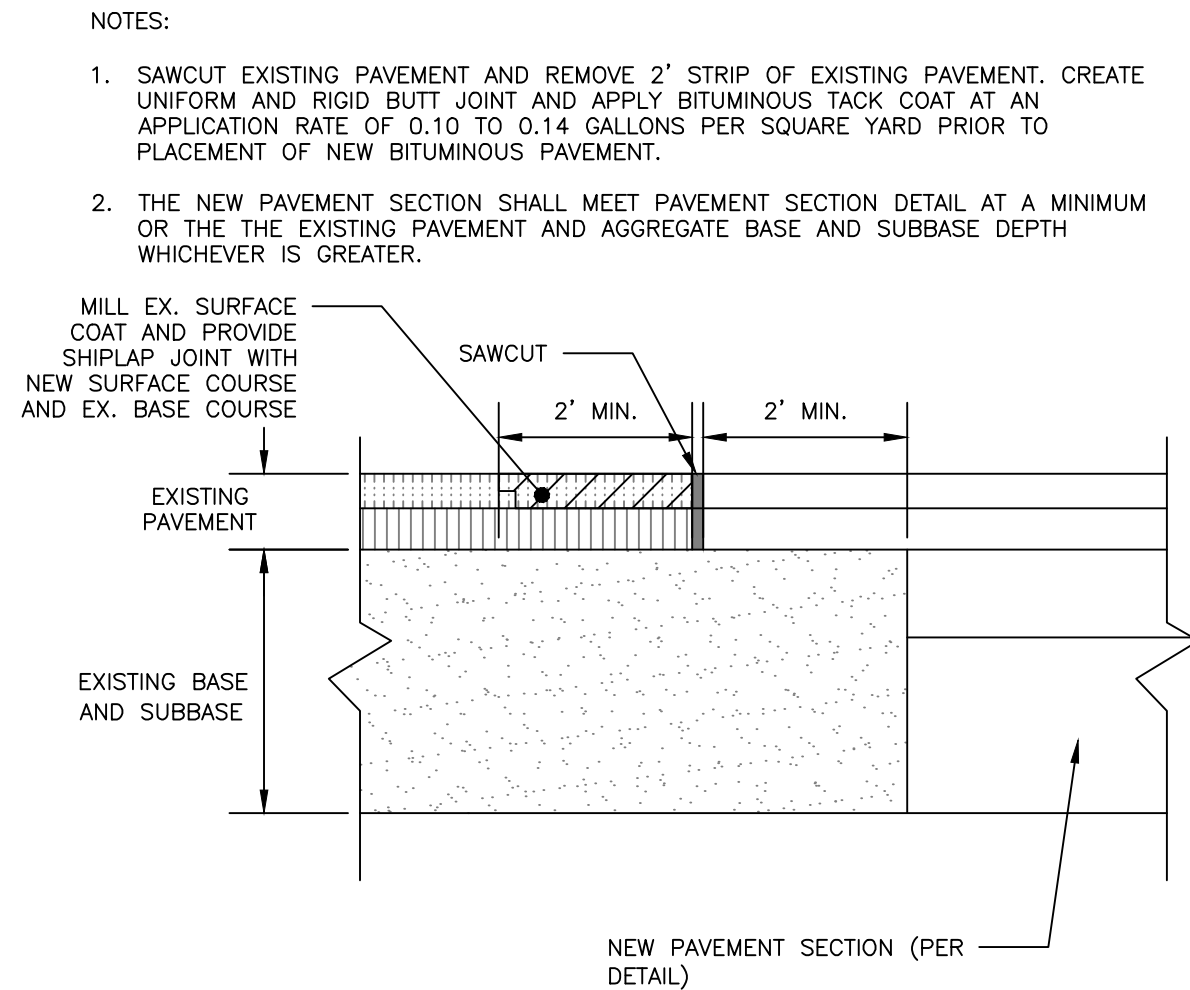
BACKFLOW VALVE ASSEMBLY
NOT TO SCALE



VALVE BOX & COVER
NOT TO SCALE



SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD
NOT TO SCALE



PAVEMENT SAWCUT DETAIL
NOT TO SCALE

ISSUED FOR	BY
SKETCH	DATE
PRELIMINARY	DATE
COMMENT RESPONSE	DATE
DEP SW APP	DATE
FINAL SITE PLAN	DATE
COMMENT RESPONSE II	DATE

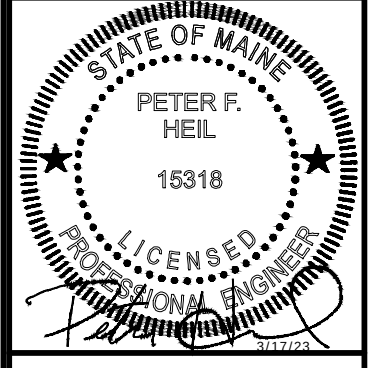
UTILITY DETAILS - 1	PROJECT NAME/ADDRESS:
10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD	CLIENT/OWNER OF RECORD:
TOM WATSON & CO.	188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

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ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

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SCALE:	AS NOTED
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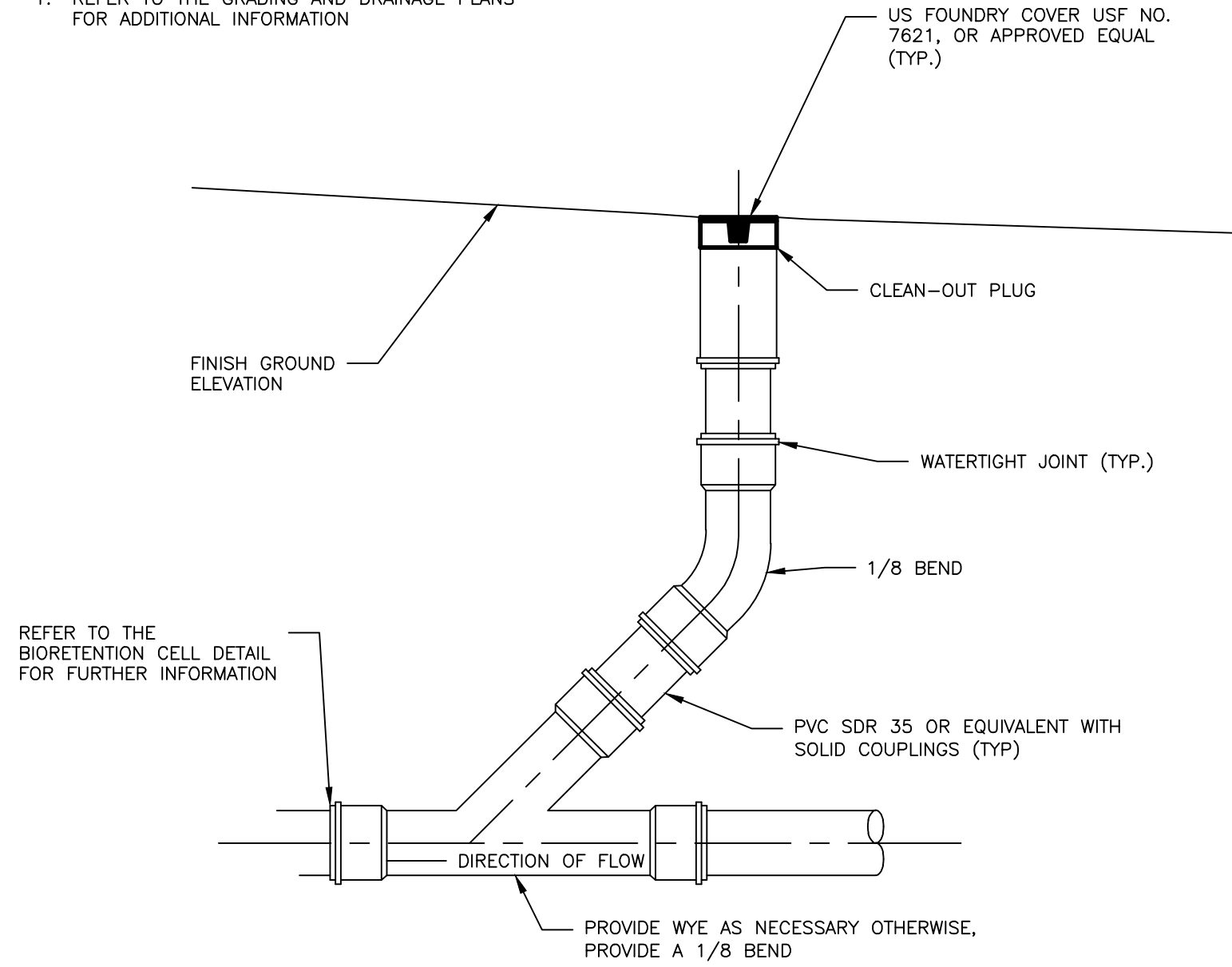


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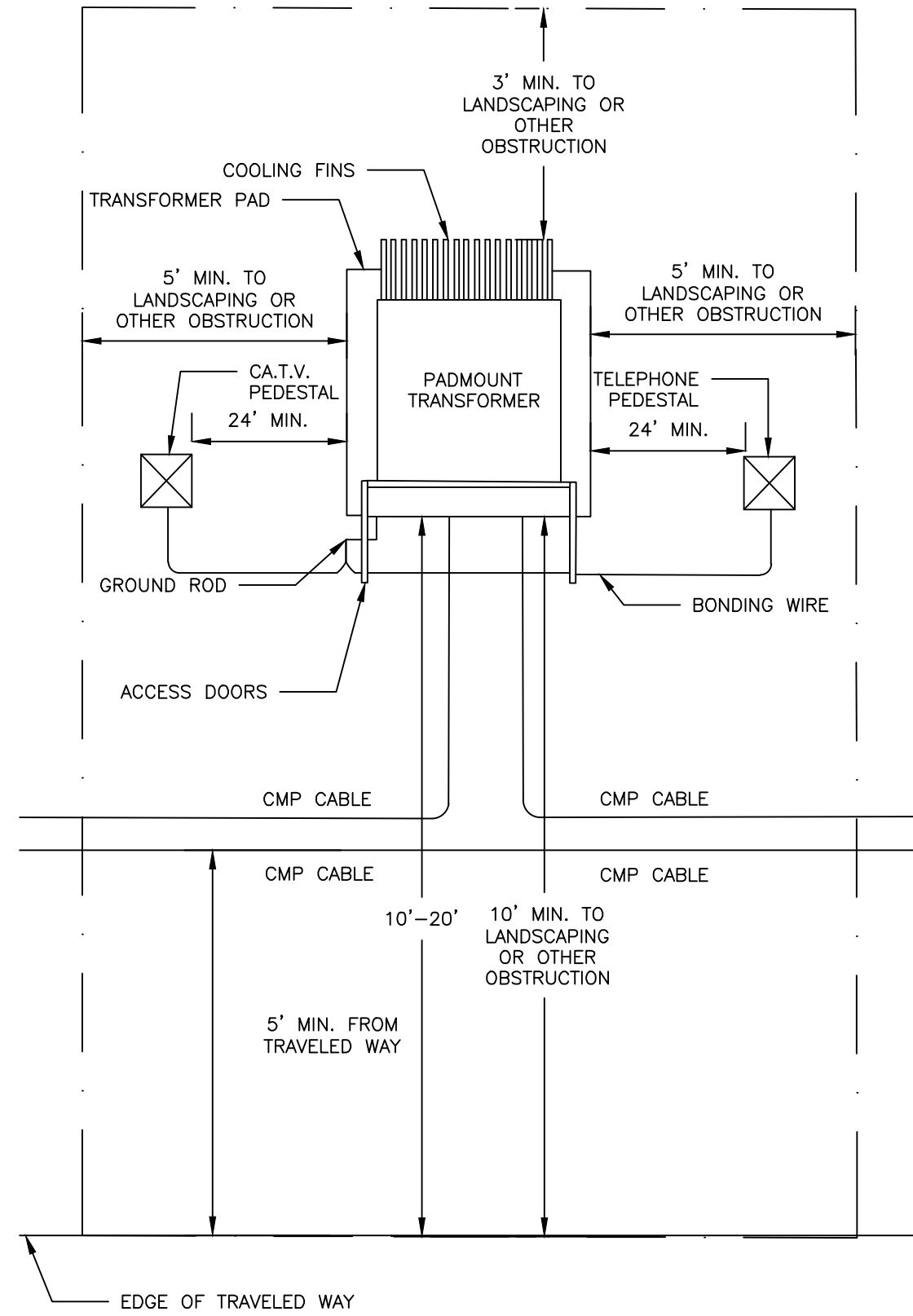
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CONSTRUCTION

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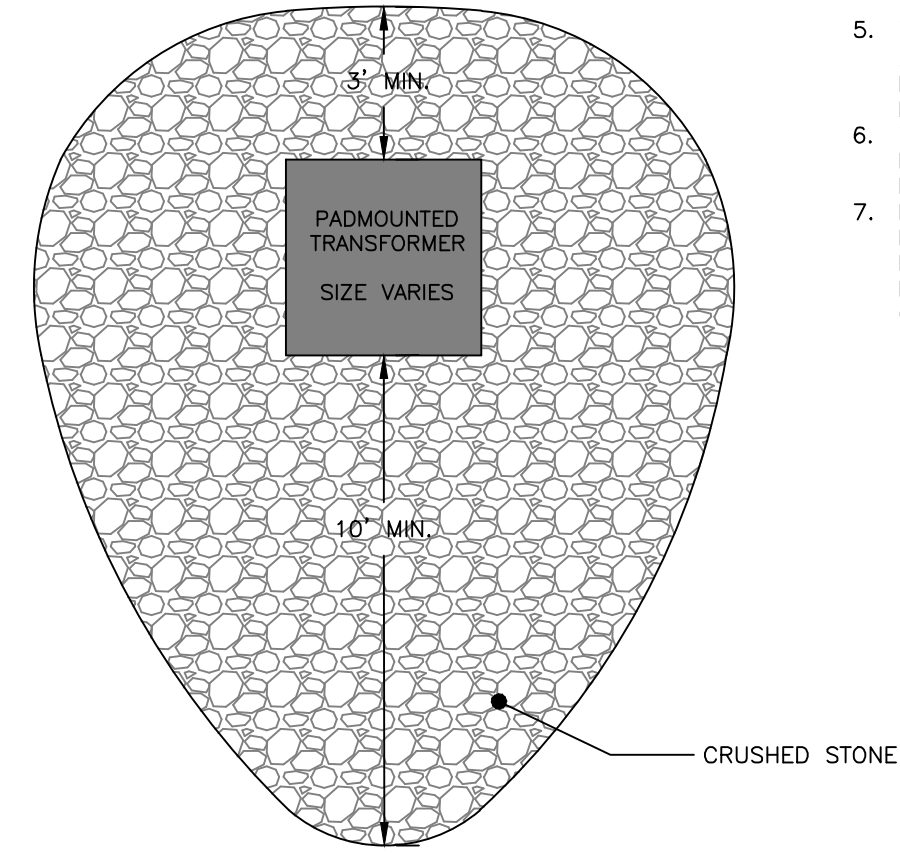
1. REFER TO THE GRADING AND DRAINAGE PLANS FOR ADDITIONAL INFORMATION



CLEANOUT DETAIL
NOT TO SCALE



PAD MOUNTED TRANSFORMER
NOT TO SCALE



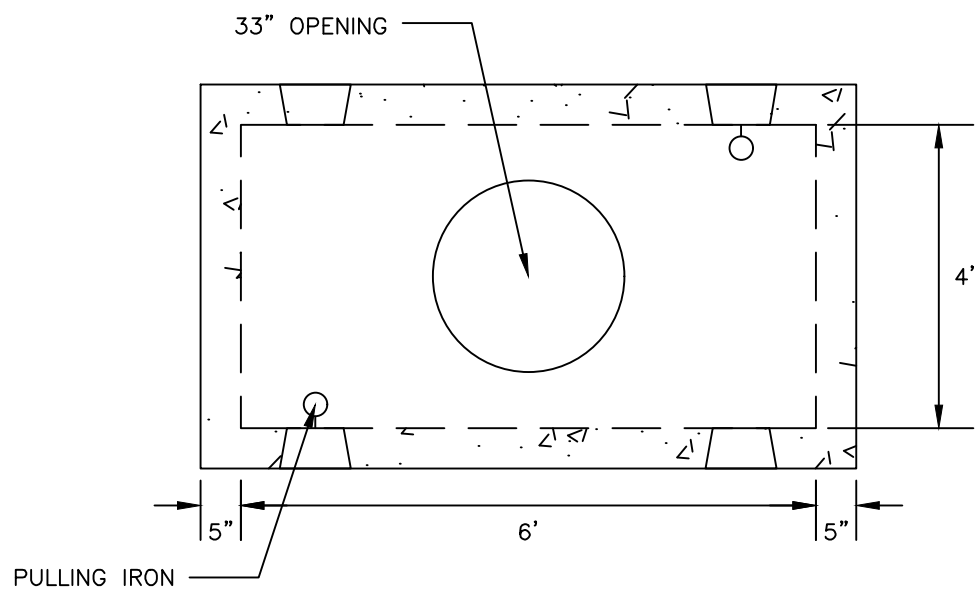
CMP TRANSFORMER SETBACKS
NOT TO SCALE

NOTES:

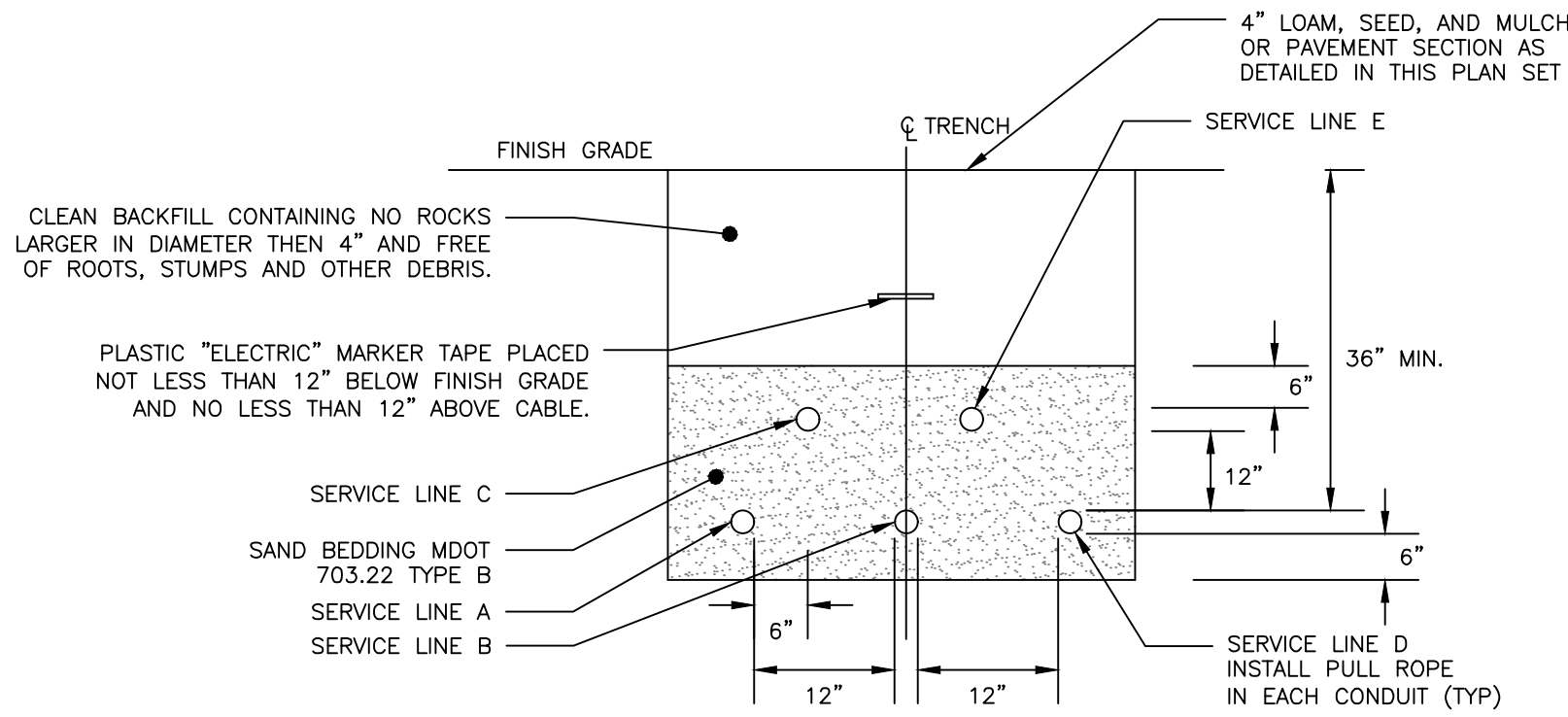
1. WHERE DANGER OF FLOW OR TRAFFIC DAMAGE EXISTS, BARRIERS CONSISTING OF CONCRETE FILLED 6 INCH IPS STEEL POSTS SET 4 FEET DEEP SHALL BE PROVIDED FOR PROTECTION (PRESSURE TREATED 6X6 INCH MIN. TIMBER POSTS MAY BE SUBSTITUTED IN RESIDENTIAL AREAS). POSTS SHALL NOT INTERFERE WITH TRANSFORMER ACCESS. GENERALLY THE POSTS SHALL BE LOCATED NEAR THE CORNERS OF THE TRANSFORMERS WITH A MINIMUM CLEARANCE OF 2' FROM EDGE OF POST TO EDGE OF PAD. THE SETBACKS DEPICT CLEARANCES FROM OBSTRUCTIONS INCLUDING TREES, SHRUBS, AND FENCES.
2. THERE SHALL BE NO OPENINGS IN THE BUILDING WALL IN BACK OF, BESIDE, OR OVER THE TRANSFORMER UNLESS THE TRANSFORMER IS A MIN. OF 10 FEET FROM THE BUILDING.
3. SIDE CLEARANCES FROM DOORS OR WINDOWS SHALL NOT BE LESS THAN 10 FEET.
4. THERE SHALL BE A MIN. OF 10 FEET BETWEEN THE TRANSFORMER AND ANY GAS METER/REGULATOR, GAS RELIEF VALVE, GAS VENT DISCHARGE, GAS FILLING CONNECTION, OR PROPANE TANK. SOME INSURANCE COMPANIES MAY REQUIRE INCREASED CLEARANCES.
5. TRANSFORMER SHALL BE LOCATED FAR ENOUGH AWAY FROM BUILDING OVERHANGS SO THAT THEY WILL NOT BE SUBJECT TO DAMAGE BY FALLING ICE AND SNOW.
6. IF TRANSFORMER IS NOT INSTALLED IMMEDIATELY UPON THE INSTALLATION OF THE CABLE IN THE PAD, THE CONTRACTOR SHALL PROVIDE AND INSTALL A CMP APPROVED CONCRETE, STEEL, OR FIBERGLASS COVER OVER THE PAD OPENING TO ELIMINATE EXPOSURE OF THE CABLE.

NOTES:

1. SPLICE BOX SHALL BE DESIGNED TO WITHSTAND H2O LOADING WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEERING UPON REQUEST.
2. FOR USE WITH 32" COVER MARKED CMP CO., S/C62-1830 (MIN. ONE COURSE OF BRICK TO GRADE.)
3. SPLICE BOX AND SLAB SHALL BE SET ON A SUITABLE GRAVEL BASE.



CMP 4' X 6' SPLICE BOX
NOT TO SCALE



CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
D	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	SEE NOTE 1
E	2-4"	SCHEDULE 40 PVC	CABLE	-

NOTES:

1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE CITY RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

UTILITY TRENCH - PRIMARY AND SECONDARY POWER,
TELEPHONE, AND CABLE
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SKETCH	PHH
PRELIMINARY	PHH
COMMENT RESPONSE	PHH
DEP SW APP	PHH
FINAL SITE PLAN	PHH
COMMENT RESPONSE II	PHH

UTILITY DETAILS - 2	PROJECT NAME/ADDRESS: 10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD
DRAWING NAME:	CLIENT/OWNER OF RECORD: TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

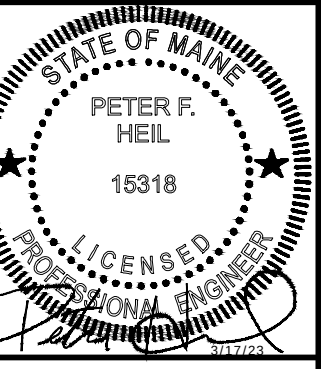
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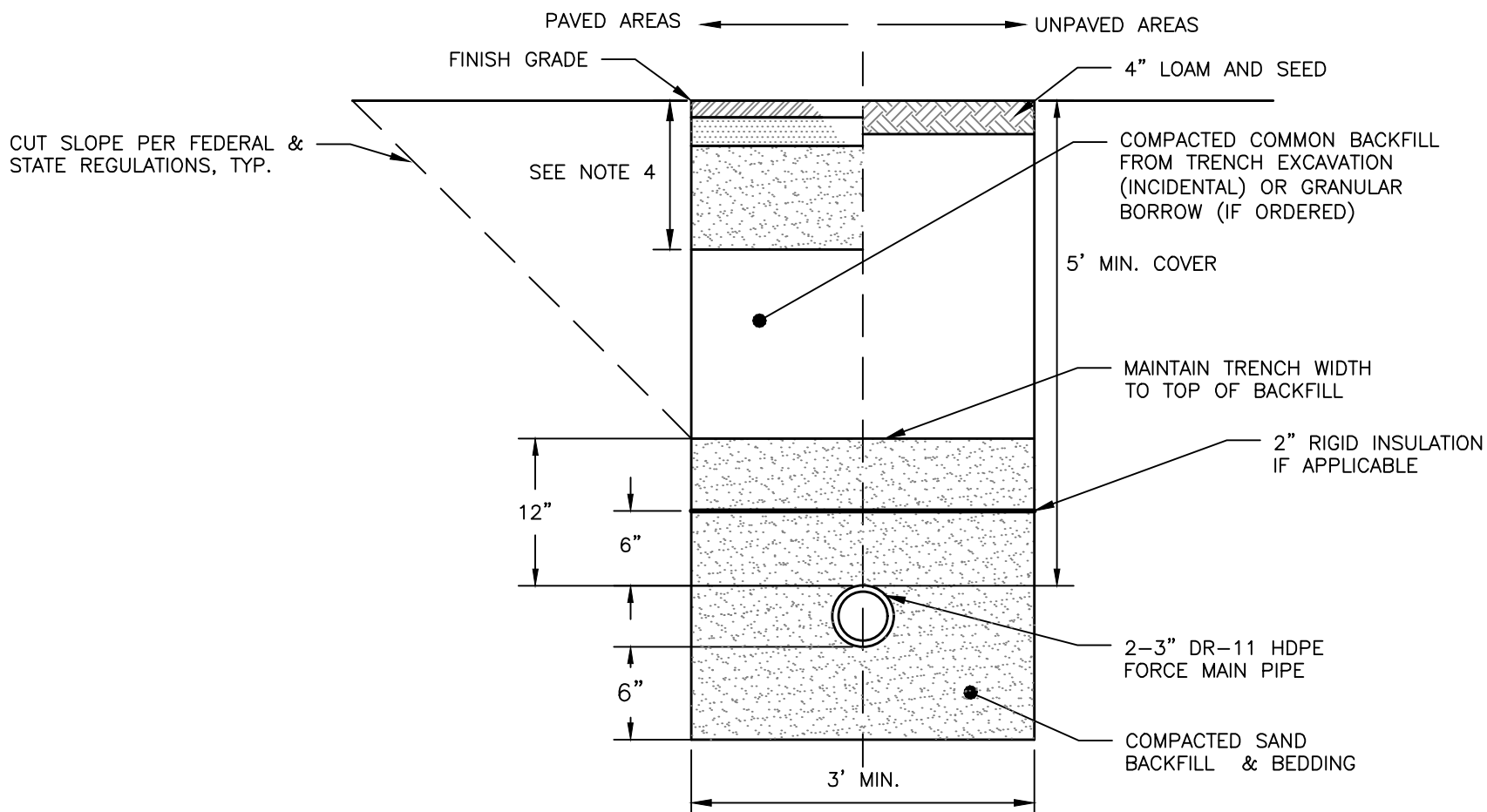
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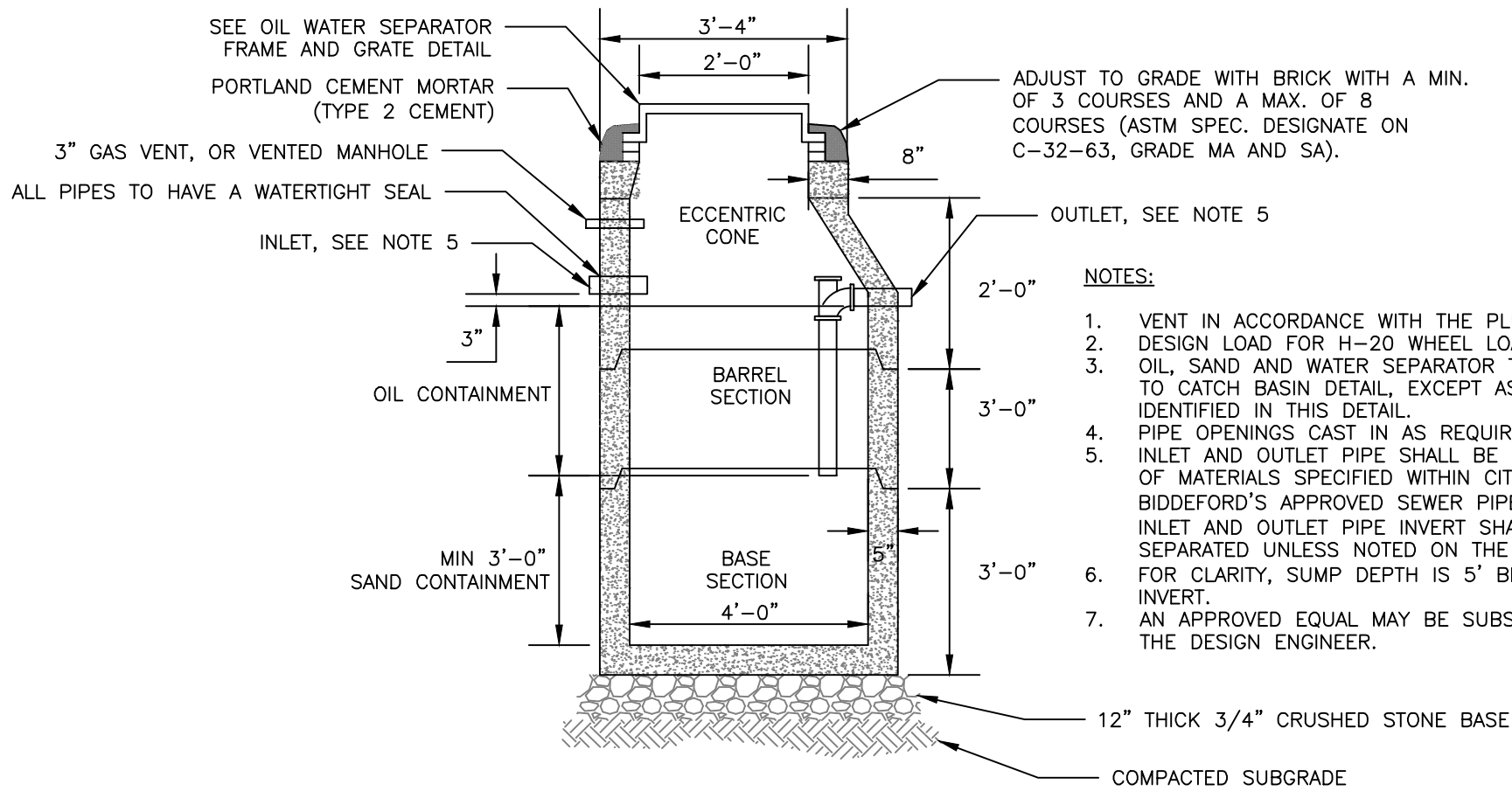
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NOTES:

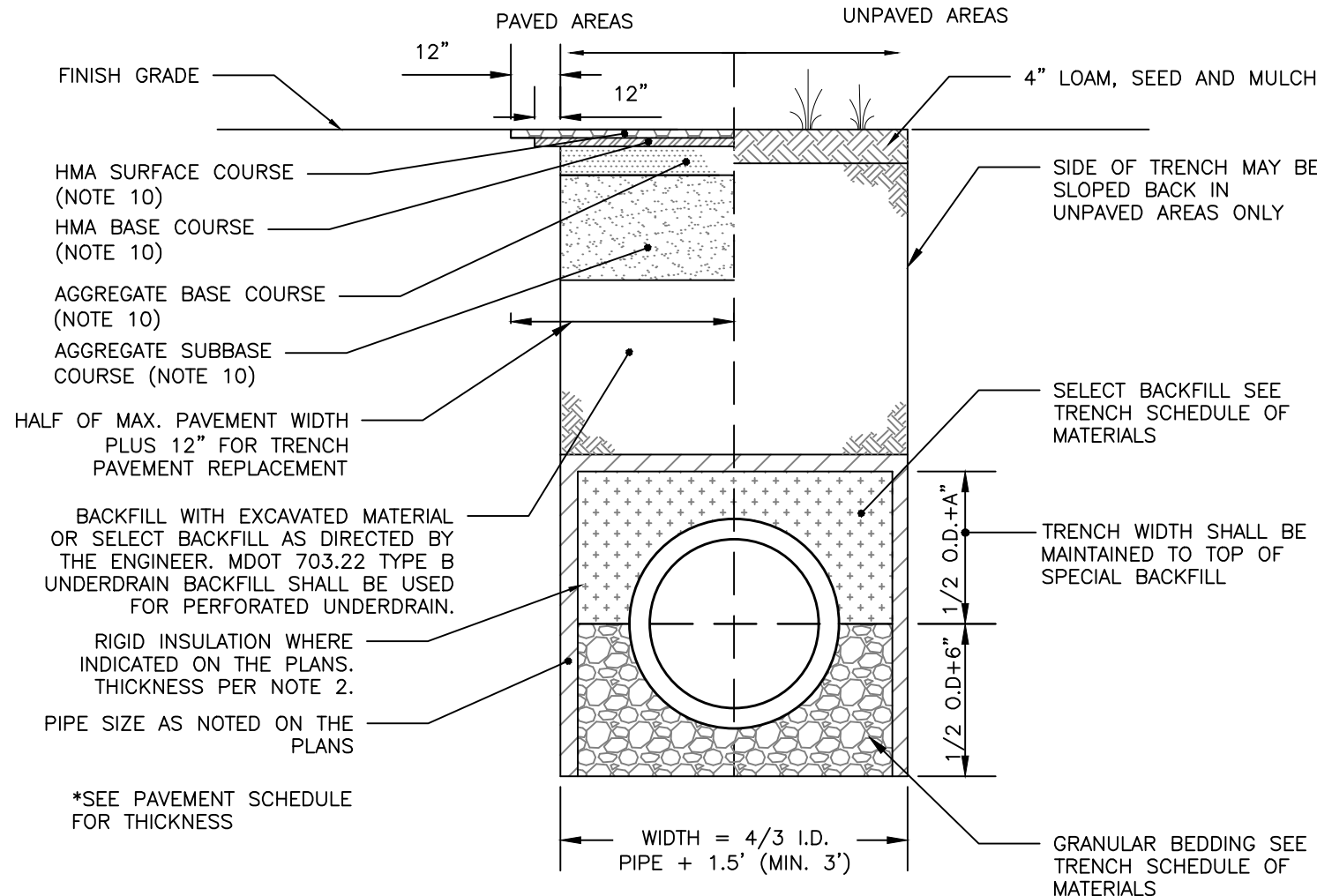
1. PLACE TRENCH BACKFILL MATERIAL IN 12" LIFTS.
2. COMPACT MATERIAL LIFTS TO 92% OF MAX. DRY DENSITY.
3. PAVED AREAS SHALL MATCH TYPICAL ROAD SECTION WHEN LOCATED WITHIN PAVED AREAS.
4. WORK WITHIN UPPER FALLS ROAD SHALL BE COORDINATED WITH THE DEPARTMENT OF PUBLIC WORKS DIRECTOR. PAVEMENT CUT IN UPPER FALLS ROAD SHALL BE RESTORED TO EXISTING CONDITIONS OR THE MAJOR RESIDENTIAL STREETS PAVEMENT PROFILE, WHICHEVER IS MORE STRINGENT.
5. MIN 2" OF RIGID INSULATION WHERE COVER IS LESS THAN 5'.



FORCE MAIN TRENCH
NOT TO SCALE



4'-0" DIAMETER PRECAST OIL AND WATER SEPARATOR
NOT TO SCALE



STORM DRAIN AND SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

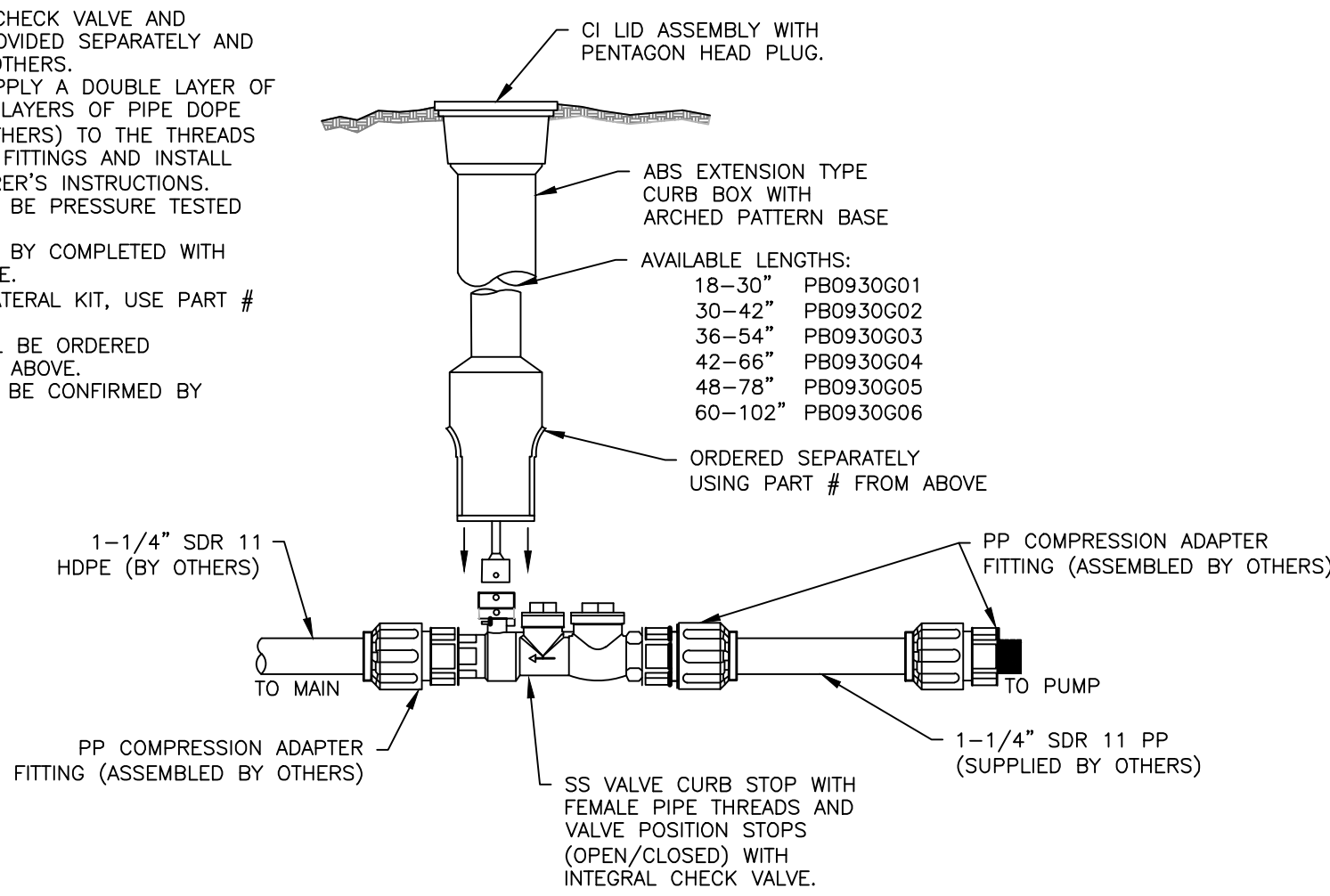
SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

NOTES:

1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF BIDEFORD TECHNICAL STANDARDS FIGURE II-2.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
6. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
6. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. MINIMUM COVER
- 7.1. 2'-0" - STORM DRAIN
- 7.2. 5'-0" - SEWER
8. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE.
9. THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF BIDEFORD ROW.
10. THICKNESS AS NOTED BY SURFACE DETAILS.
11. ALL PROPOSED TREES PLANTED WITHIN 10' OF A STORM OR SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.

NOTES:

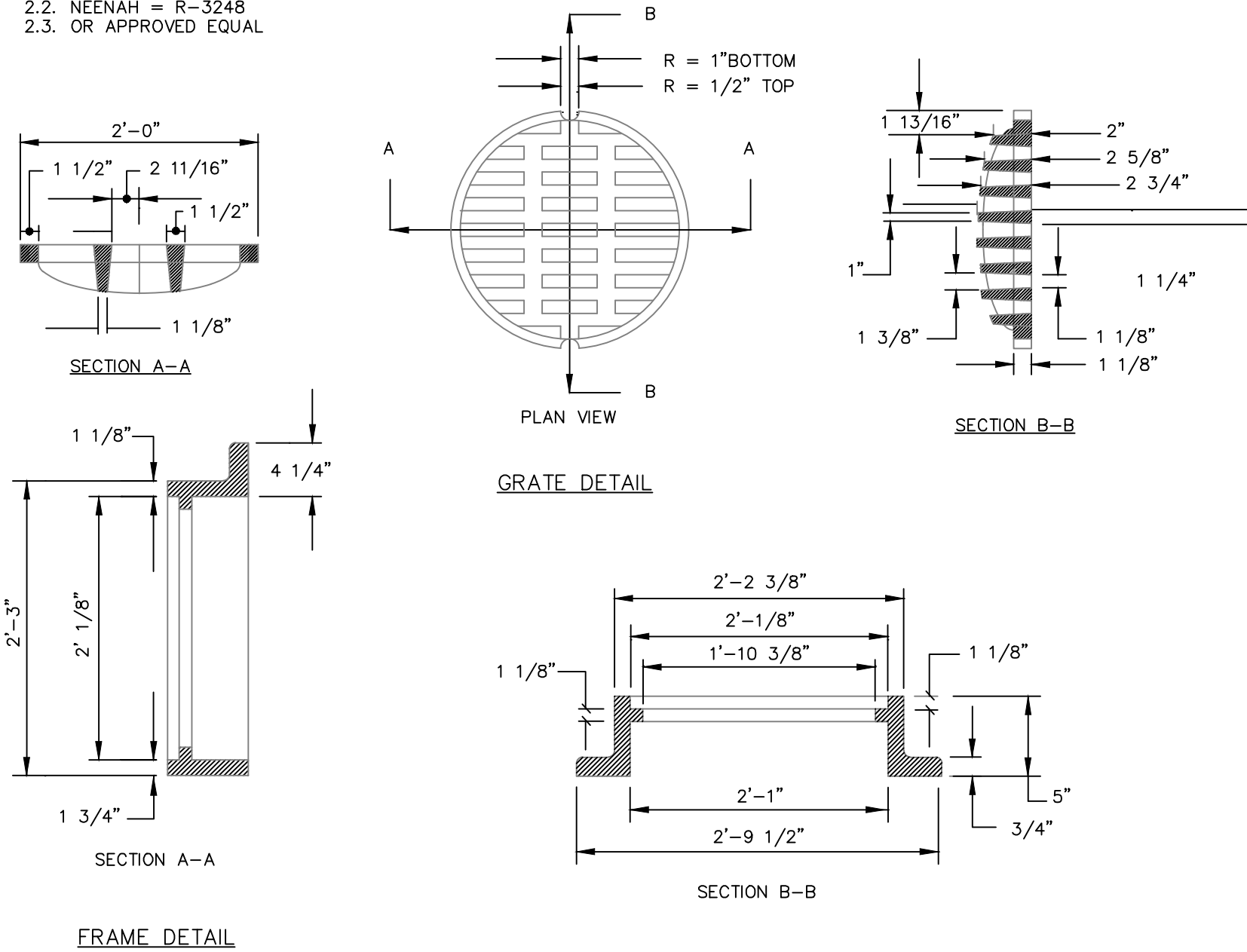
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY AND ASSEMBLED BY OTHERS.
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, A LAYERS OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.
3. ASSEMBLY SHALL BE PRESSURE TESTED BY OTHERS.
4. ASSEMBLY SHALL BE COMPLETED WITH SDR11 HDPE PIPE.
5. TO ORDER SS LATERAL KIT, USE PART # NC0193G0.
6. CURB BOX SHALL BE ORDERED SEPARATELY, SEE ABOVE.
7. PIPE SIZE SHALL BE CONFIRMED BY OTHERS.



FORCE MAIN SHUT-OFF DETAIL
NOT TO SCALE

NOTES:

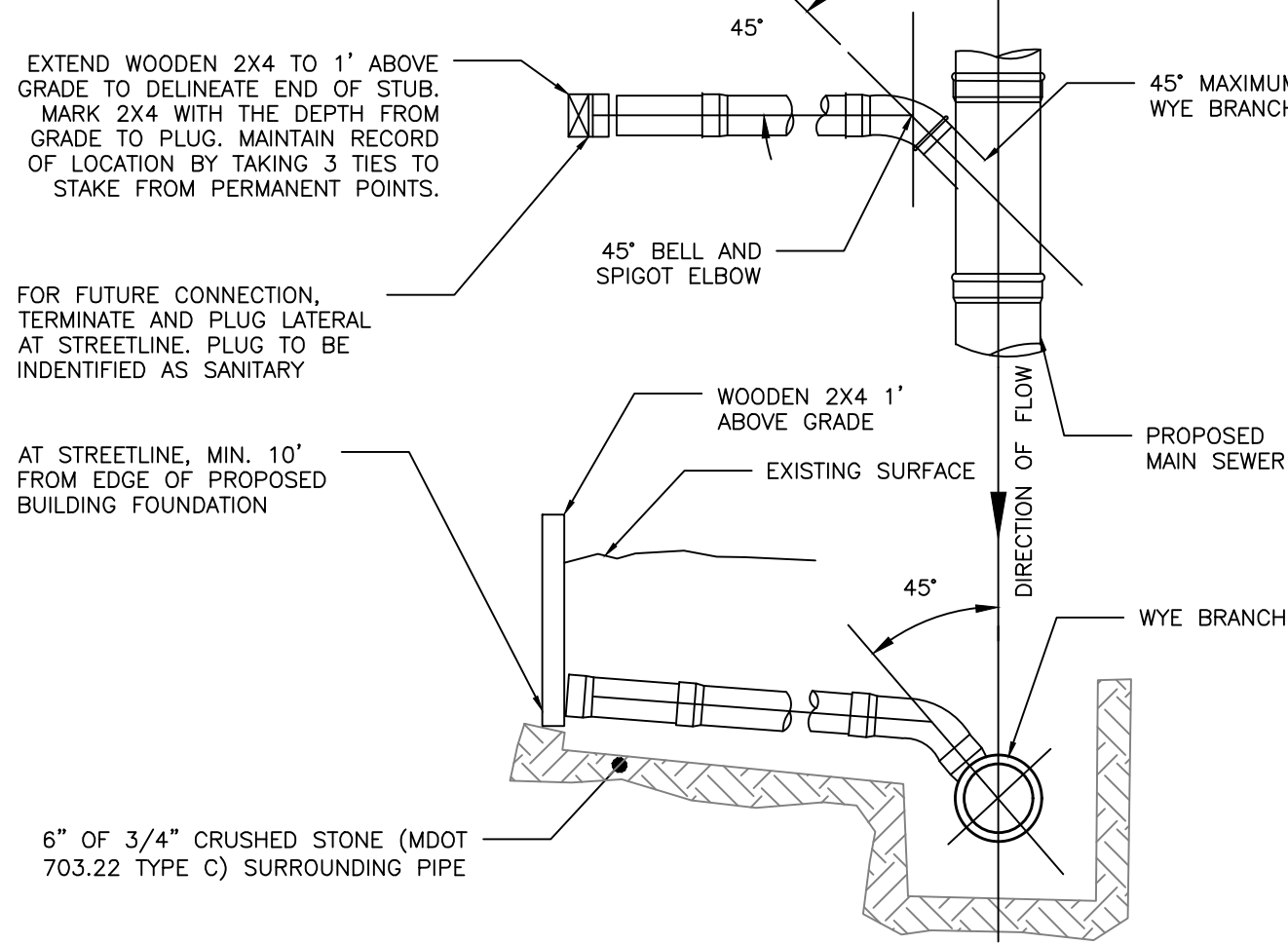
1. APPROVED CATCH BASIN FRAMES:
1.1. EAST JORDAN = 7375Z
1.2. NEENAH = R-3248
1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES:
2.1. EAST JORDAN = 2440M
2.2. NEENAH = R-3248
2.3. OR APPROVED EQUAL



OIL AND WATER SEPARATOR FRAME & GRATE
NOT TO SCALE

NOTES:

1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO STRUCTURE PLUMBING WITH ARCHITECTURAL CONTRACTOR.
3. CONNECTION OF PROPOSED SEWER LATERAL TO STRUCTURE PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNCO FLEXIBLE COUPLING SHALL BE USED.



SEWER TEE/WYE CONNECTION DETAIL
NOT TO SCALE

PERMITTING
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CONSTRUCTION

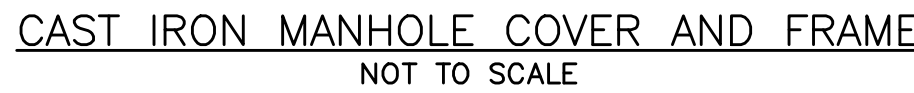
ISSUED FOR	BY
SKETCH	PHF
PRELIMINARY	PHF
COMMENT RESPONSE	PHF
DEP SW APP	PHF
FINAL SITE PLAN	PHF
COMMENT RESPONSE II	PHF
UTILITY DETAILS - 3	
PROJECT NAME/ADDRESS:	
10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDEFORD	
CLIENT/TOWNER OF RECORD:	
TOM WATSON & CO.	
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101	

ACORN ENGINEERING, INC.	ENGINEERING, INC.
ACORN ENGINEERING, INC.	ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101	PO BOX 3372, PORTLAND MAINE 04101
(207) 775-6555	(207) 775-6555

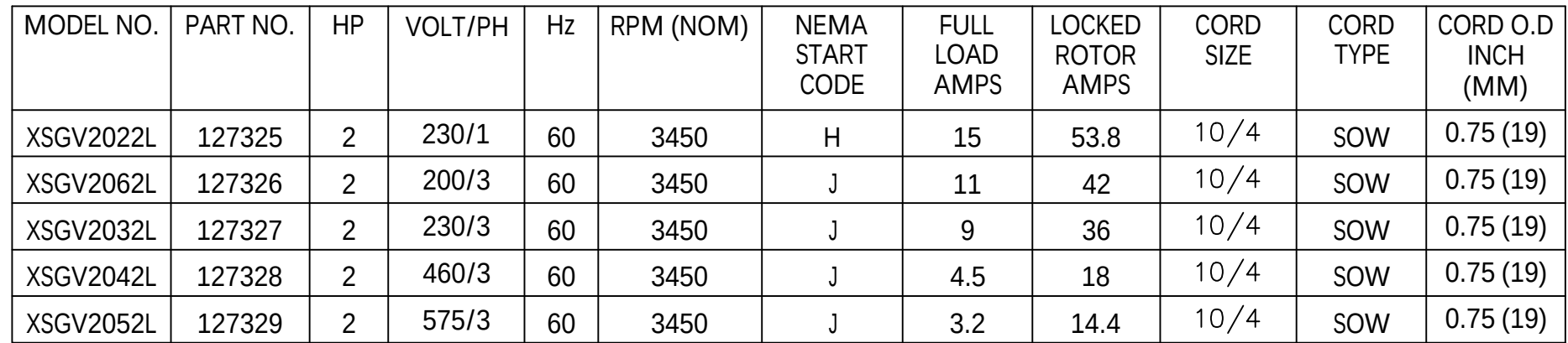
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SCALE:	AS NOTED
DESIGNED BY:	PHF
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.
C-45



1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" X 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES:
 - 5.1. EAST JORDAN = 1690Z
 - 5.2. NEENAH = R-1496
 - 5.3. OR APPROVED ALIKE
6. APPROVED MANHOLE COVERS:
 - 6.1. EAST JORDAN = 2160A
 - 6.2. NEENAH = R-1496
 - 6.3. OR APPROVED ALIKE



SUBMERSIBLE GRINDER
NOT TO SCALE

1. MANHOLE COVER FOR SEWER MANHOLE SHALL BE ENGRAVED "SEWER", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960002 AS MANUFACTURED BY NEENAH FOUNDRY. MANHOLE COVER FOR STORM SEWER BE ENGRAVED "DRAIN", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960003 AS MANUFACTURED BY NEENAH FOUNDRY.
2. MANHOLE FRAME SHALL BE EITHER ITEM # 14960001, AS MANUFACTURED BY NEENAH FOUNDRY, OR ITEM # 19602, AS MANUFACTURED BY EAST JORDAN CO.
3. WITHIN CITY OF PORTLAND ROW, STORM DRAIN MANHOLE SHALL CONFORM WITH "STANDARD PRECAST SEWER MANHOLE DETAIL", WITH THE EXCEPTION THAT THE COVER SHALL BE MARKED AS "DRAIN". REFER TO CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 – SANITARY SEWER AND STORM DRAIN, FIGURE II-1
4. SUBMITTAL REQUIRED FOR MANHOLES, MANHOLE FRAMES & MANHOLE COVERS
5. STRUCTURE TO BE APPLIED WITH WATER PROOF COATING



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

DRAWING NAME	UTILITY DETAILS - 4
PROJECT NAME/ADDRESS	010, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD
CLIENT/OWNER OF RECORD	TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

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(207) 775-2655

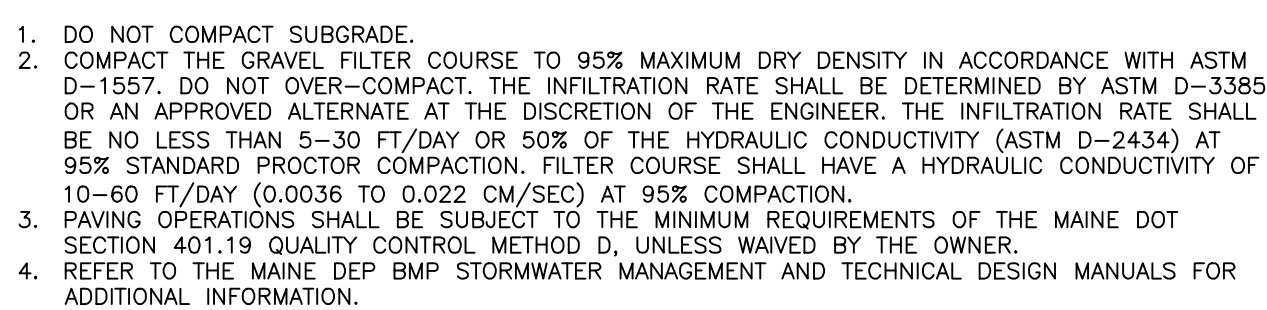
A C O R N
ENGINEERING, INC.

STATE OF MAINE
PETER F. HEIL
15318
LICENSED
PROFESSIONAL ENGINEER

DRAWING NO.

C-46

1. INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS WITH A 12" OR GREATER OUTLET PIPE.
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS



PERVIOUS PAVER PROFILE
NOT TO SCALE



1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLD AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF BIDEFORD.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP PER DETAIL.

CATCH BASIN FRAME SHALL BE EITHER ITEM # 2440M AS MANUFACTURED BY EAST-JORDAN CO., OR ITEM # 32480002 AS MANUFACTURED BY NEEHAH FOUNDRY. SUBMITTAL REQUIRED.

PORTLAND CEMENT MORTAR (TYPE 2 CEMENT)

3'-4"

2'-0"

8"

ECCENTRIC CONE

3'-0"

4'-0"

4'-0"

BARREL SECTION

6"

2'-0" MIN.

BASE SECTION

AT CURB, CATCH BASIN FRAME SHALL BE ITEM # 7375Z AS MANUFACTURED BY EAST-JORDAN CO., OR ITEM # 32480001 AS MANUFACTURED BY NEEHAH FOUNDRY. OTHERWISE, CATCH BASIN FRAME SHALL MEET FRAME STANDARDS FOR MANHOLE DETAIL. SUBMITTAL REQUIRED.

ADJUST TO GRADE WITH BRICK WITH A MIN. OF 3 COURSES AND A MAX. OF 8 COURSES (ASTM SPEC. DESIGNATE ON C-52-63, GRADE MA AND SA).

DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEX GASKET OR EQUAL.
5. POLYPROPYLENE STEPS 12" O.C.
6. EXTERIOR WATERPROOFING.
7. CASCO TRAPS SHALL BE PROVIDED ON ALL PIPES 15" OR LESS.
8. ALL CATCH BASINS AND MANHOLES SHALL MEET THE APPLICABLE CITY OF BIDDFORD.
9. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE. FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS

ALL PIPES TO HAVE A WATERTIGHT SEAL

12" THICK 3/4" CRUSHED STONE BASE

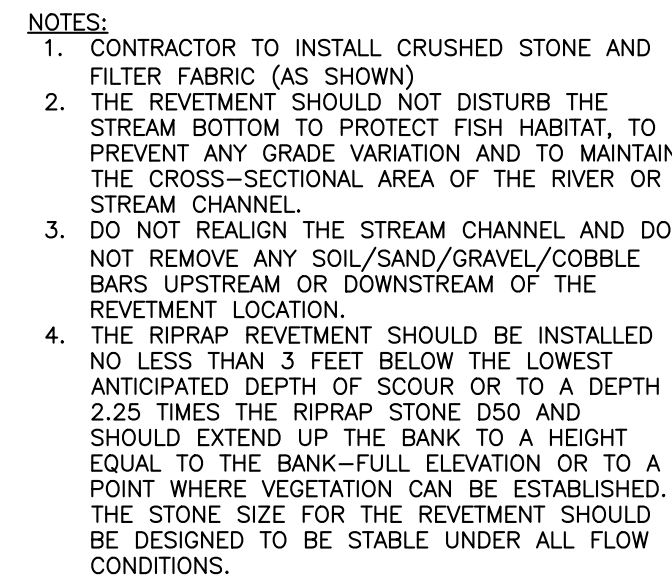
COMPACTED SUBGRADE

1. REFER TO GRADING AND DRAINAGE PLANS FOR CLEANOUT LOCATIONS.
2. CONTRACTOR TO CONFIRM NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.
3. EACH CLEANOUT RIM SHALL BE DEPRESSED 1" FROM FINISH FLOOR GROUND ELEVATION.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

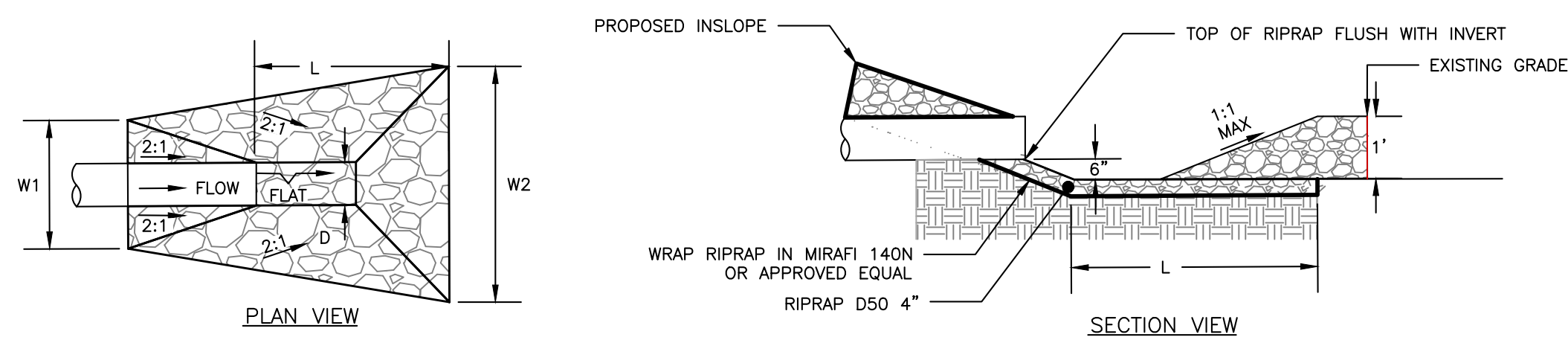
1. APPROVED CATCH BASIN FRAMES:
 - 1.1. EAST JORDAN = 73752
 - 1.2. NEENAH = R-3248
 - 1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
 - 2.1. EAST JORDAN = 2440M
 - 2.2. NEENAH = R-3248
 - 2.3. OR APPROVED EQUAL
3. PROVIDE 24" SQUARE GRATE FOR CATCH BASINS ADJACENT TO CURB





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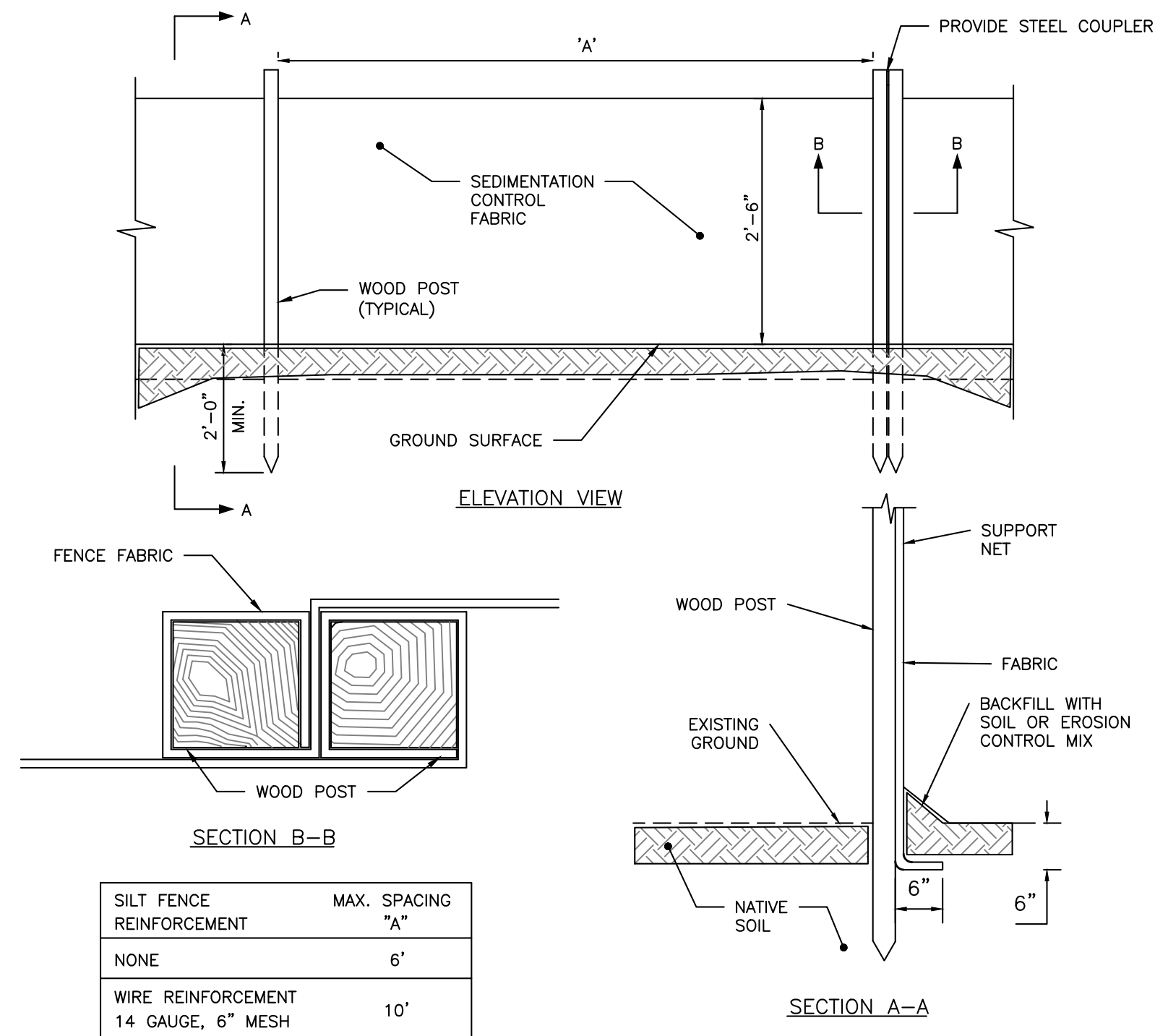
EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE



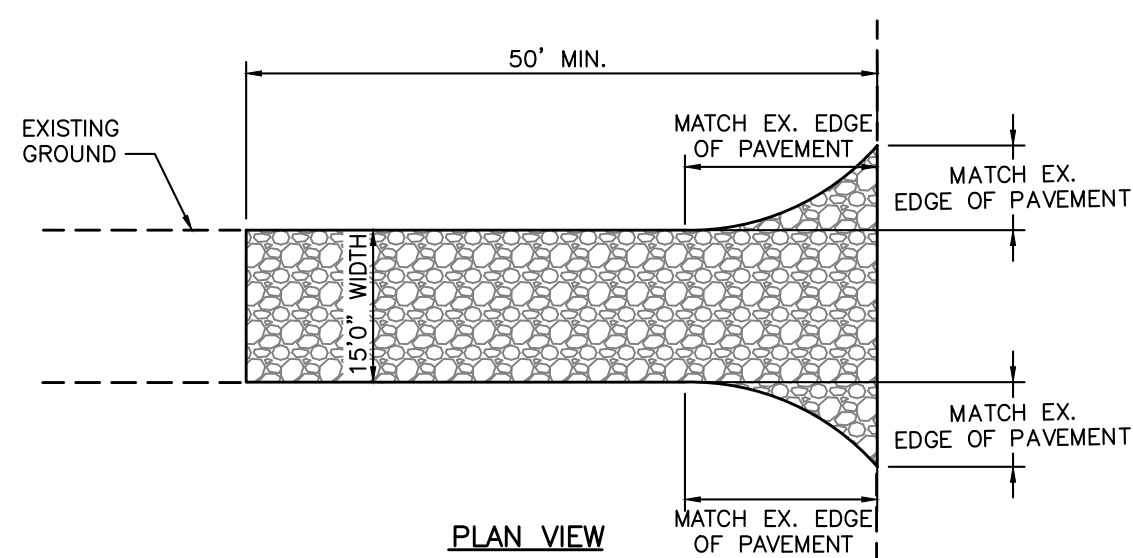
SCHEDULE -- SINGLE CULVERT			
CULVERT DIAMETER (D)	LENGTH (L)	WIDTH (W1)	WIDTH (W2)
2 FT	3 FT	6 FT	8 FT
1 FT	2 FT	3 FT	4 FT
0.5 FT	1.5 FT	2 FT	3 FT

- NOTES:
1. RIPRAP SHALL BE DESCRIBED BY M.D.O.T. 703.26 EXCEPT SIZE SHALL BE AS SHOWN.
 2. REFERENCE FOR ADDITIONAL INFORMATION: BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL – CULVERT INLET/OUTLET PROTECTION.

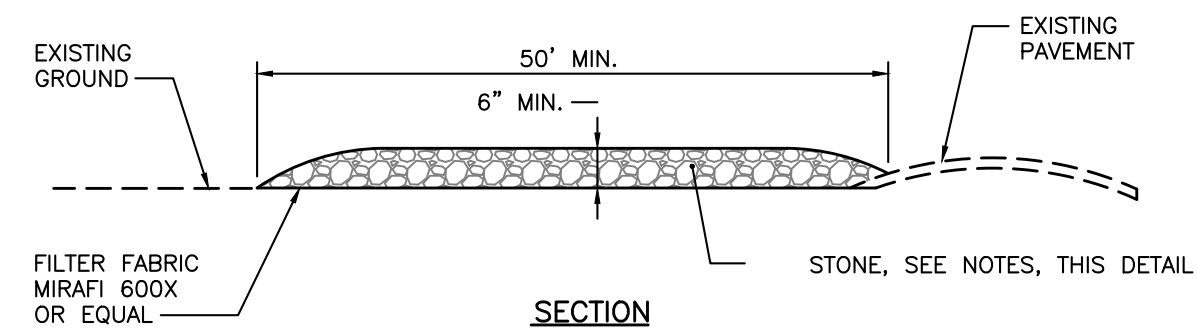
RIPRAP OUTLET APRON DETAIL
NOT TO SCALE



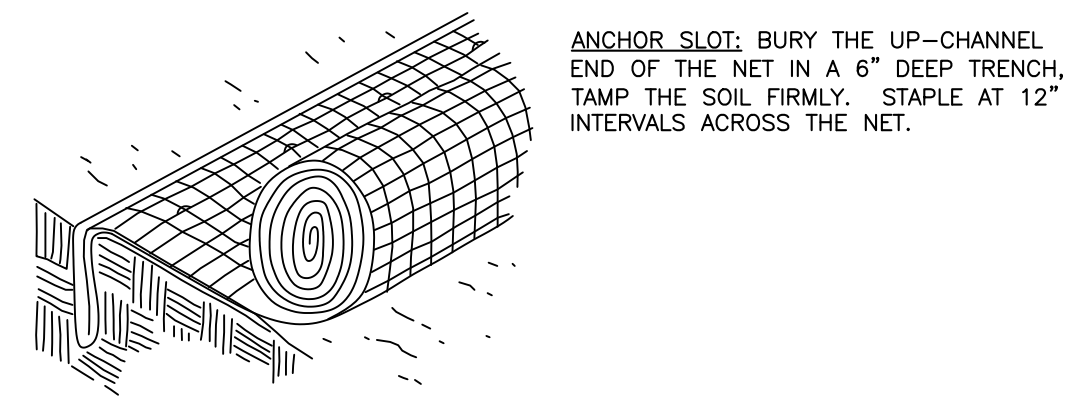
SILTATION FENCE DETAIL
NOT TO SCALE



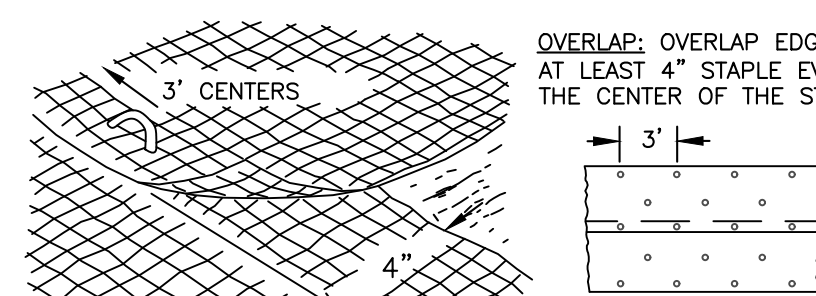
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



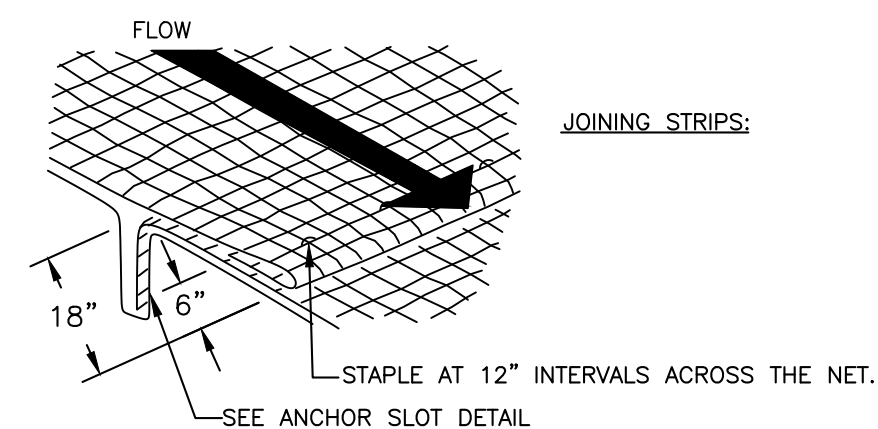
- NOTES:**
1. STONE SHALL BE 2" - 3" COARSE AGGREGATE
 2. CONSTRUCTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
 3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR TREATED AND DISCHARGED IN A MANNER APPROVED BY ENGINEERS
 4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
 5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY



ANCHOR SLOT: BURY THE UP-CHANNEL END OF THE NET IN A 6" DEEP TRENCH, TAMP THE SOIL FIRMLY. STAPLE AT 12" INTERVALS ACROSS THE NET.



OVERLAP: OVERLAP EDGES OF THE STRIPS
AT LEAST 4" STAPLE EVERY 3 FEET DOWN
THE CENTER OF THE STRIP.

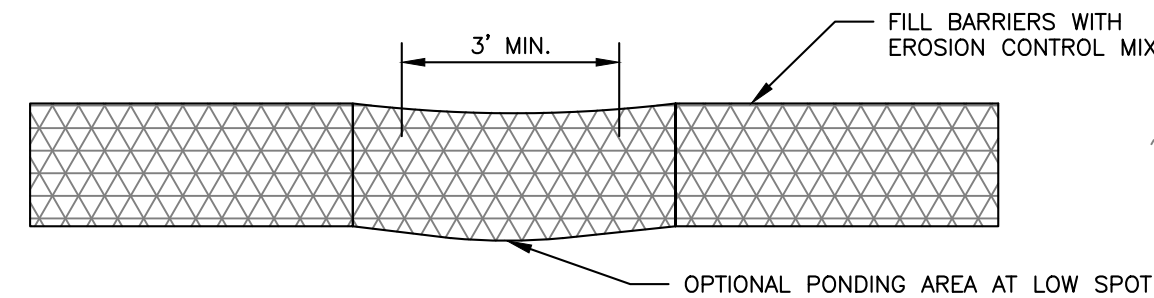


JOINING STRIPS:

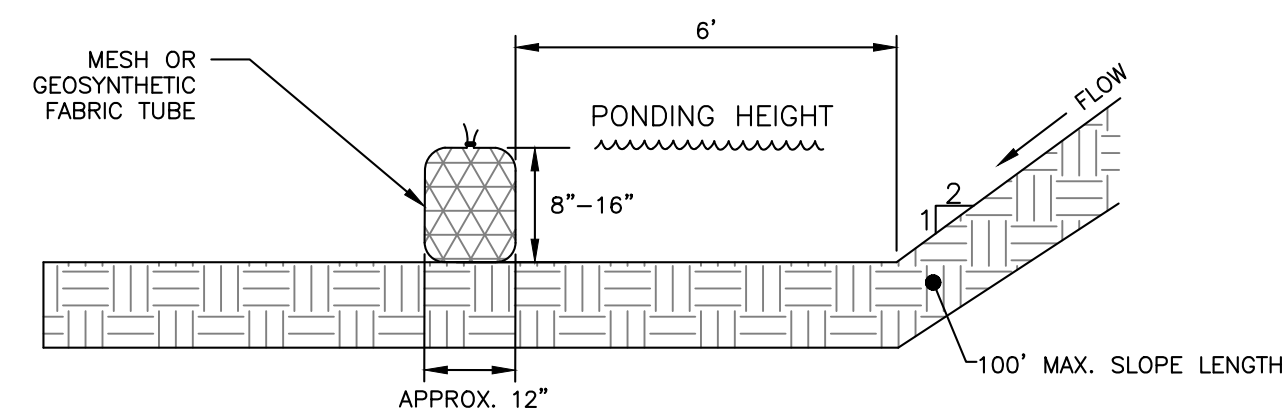
- NOTES:**
1. THE SOIL SURFACE SHOULD BE FINELY GRADED AND SMOOTH FOR THE BLANKET TO HAVE DIRECT CONTACT WITH THE SOIL AND TO PREVENT UNDERMINING. EROSION CONTROL BLANKETS PERFORM BEST ON LOAMY SOILS AND SHOULD NOT BE USED ON ROCKY SITES OR SHALLOW SOILS.
 2. SEED SHOULD BE SOWN BEFORE INSTALLING THE EROSION CONTROL BLANKET.
 3. ALWAYS UNROLL THE BLANKET DOWNHILL WITHOUT STRETCHING AND ANCHOR THE DOWNHILL END IN A 12 INCH DEEP TRENCH THAT IS BACKFILLED AND TAMPED.

EROSION CONTROL BLANKET DETAIL
NOT TO SCALE

- NOTES:**
1. FULL CONTACT WITH THE GROUND IS CRITICAL TO PREVENT SHORT CIRCUITING UNDER THE TUBE - THE GROUND SURFACE SHOULD BE SMOOTH AND LEVEL. IN WOODED AREAS, PROTRUDING ROOTS AND DEBRIS MAY NEED TO BE REMOVED. IN GRASSED AREAS, THE GRASS NEEDS TO BE EITHER MOWED OR COMPRESSED DOWN.
 2. STAKING MAY BE NECESSARY ON STEEP SLOPES.
 3. UPON FINAL STABILIZATION, THE TUBE CAN BE CUT OPEN AND THE MATERIAL SPREAD OUT ONTO THE GROUND. THE MESH MATERIAL SHOULD BE REMOVE.
 4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

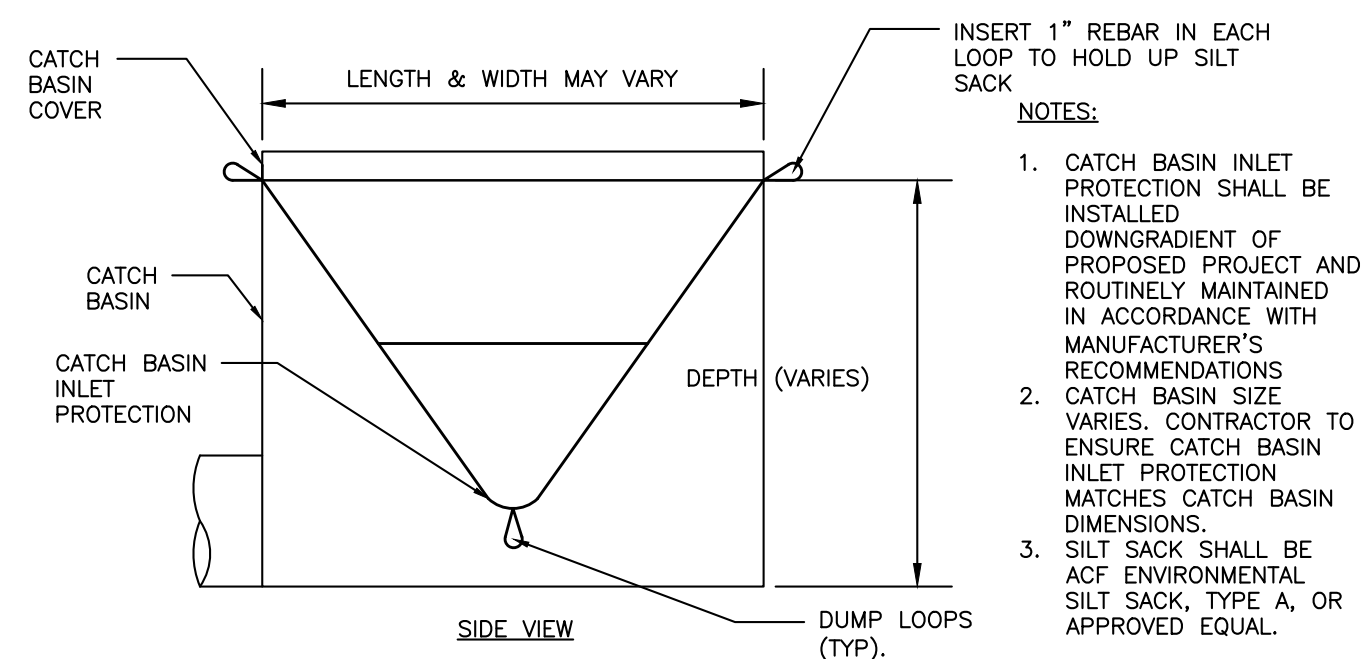


FRONT VIEW



SIDE VIEW

FILTER SOCK DETAIL
NOT TO SCALE



CATCH BASIN INLET PROTECTION
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

[illegible]

DRAWING NAME: **EROSION & SEDIMENTATION CONTROL DETAILS**

PROJECT NAME/ADDRESS:

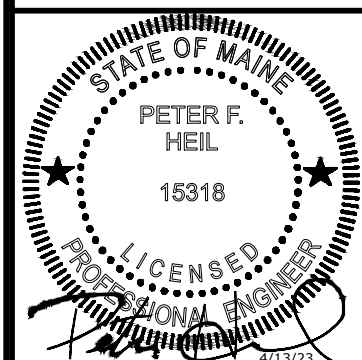
THOMLANDSON 28, CLOC
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101



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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.

C-48

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

- 1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE THICKNESS STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS.
- 1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.
- 1.1.5 ELM STREET AND UPPER FALLS ROAD SHALL BE SWEEP TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.
- 1.1.6 DURING CONSTRUCTION, CEMENT AND CONCRETE SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.
- 1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.
- 1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT.
- 1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.
- 1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.
- 1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.
- 1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

- 1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM AND SHALL BE LIMED, AND MULCHED.
- 1.2.2 ALL EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.
- 1.2.3 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.
- 1.2.4 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

- 3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SOIL SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH STONE RIPRAP - PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY WEEK, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT: CONTACT: WILL SAVAGE, PE TELEPHONE: (207) 775-2655 QUALIFICATIONS:

- ø MAINE PROFESSIONAL ENGINEERING LICENSE #11419
- ø MAINE DEP - CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT #14
- ø CERTIFIED EROSION, SEDIMENT AND STORM WATER INSPECTOR (CESSWI) CERT #0293
- ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #4620

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB-BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMPLEATE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE-VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P205-K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

TEMPORARY SEED APPLICATION RATES			
SEED	LBS / ACRE	RECOMMENDED SEEDING DATES	
WINTER RYE	2.57	8/15 TO 10/1	
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15	
ANNUAL RYGRASS	0.92	4/1 TO 7/1	
SUDANGRASS	0.92	5/15 TO 8/15	
PERENNIAL	0.92	8/15 TO 9/15	
TOTAL	7.17 LBS/ACRE		

7.4 MULCHING

MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS - 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

HOUSEKEEPING

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4684 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : [HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGENCYSPILLS/](http://WWW.MAINE.GOV/DEP/SPILLS/EMERGENCYSPILLS/)

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAMINANT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

SEE APPENDIX D FOR LICENSE BY RULE STANDARDS FOR INFILTRATION OF STORMWATER.

NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPs) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465-C(1).

3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE NATURAL RESOURCES PROTECTION ACT.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISION OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES, MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

5. EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION SITE. THE RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE. LIKE A COFFERDAM SEDIMENTATION BASIN, AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE "MAINE EROSION AND SEDIMENT CONTROL BMPs, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION."

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

(a) DISCHARGES FROM FIREFIGHTING ACTIVITY;

(b) FIRE HYDRANT FLUSHINGS;

(c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);

(d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);

(e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;

(f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;

(g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;

(h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;

(i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;

(j) UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));

(k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND

(l) LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

(a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

(b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

(c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND

(d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. POLLUTION PREVENTION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADE BUFFER AREAS TO THE EXTENT PRACTICABLE. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, UPLAND, OR COASTAL OR FRESHWATER WETLANDS.

INSPECTION & MAINTENANCE STANDARDS

1. INSPECT DISTURBED AND IMPEVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT EXPOSED TO PRECIPITATION AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND AFTER RAIN EVENTS OF 0.25 INCH OR MORE, AND PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT SHALL CONDUCT THE INSPECTIONS.

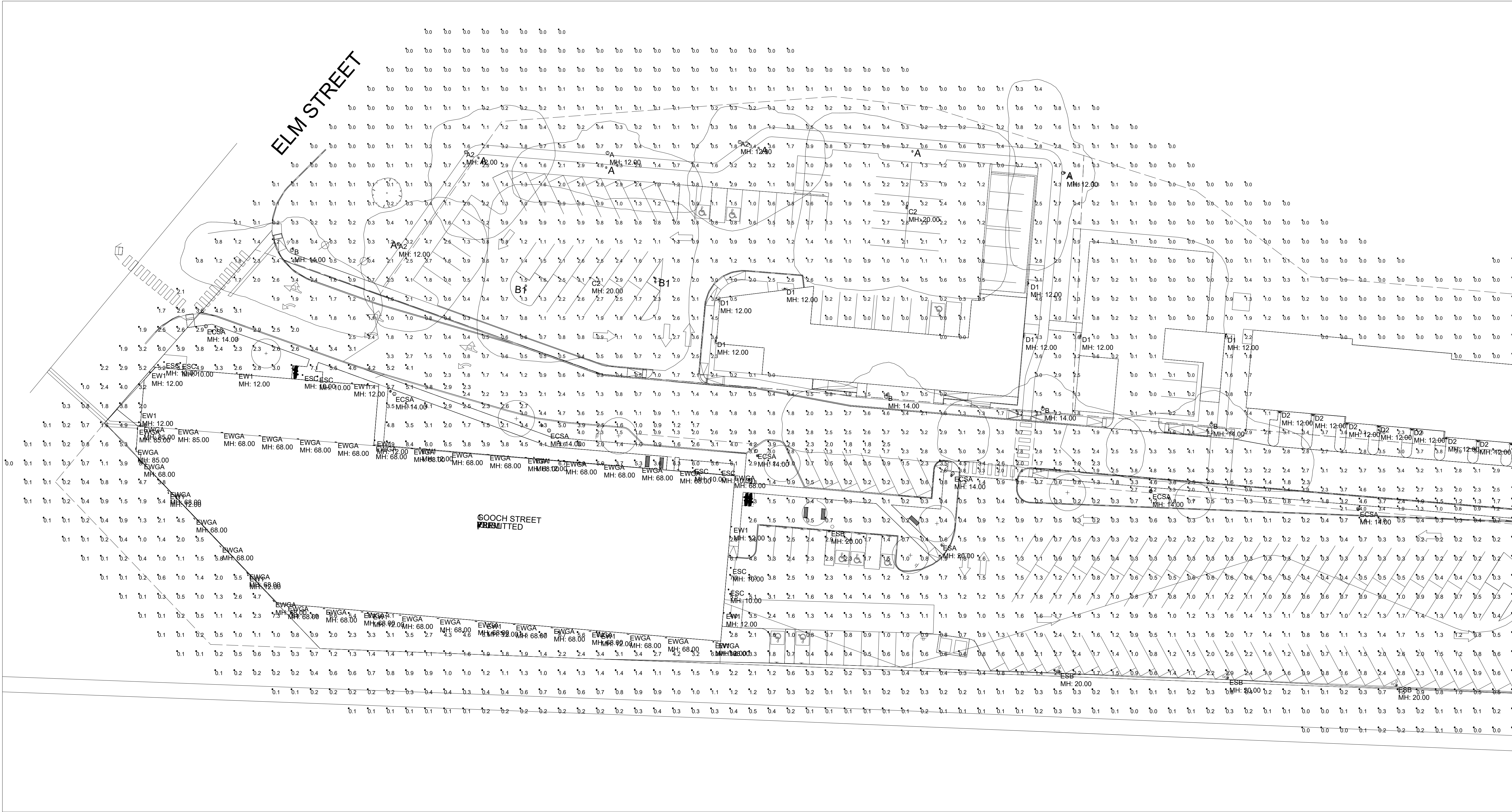
2. MAINTAIN ALL MEASURES IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED. IF BEST MANAGEMENT PRACTICES (BMPs) NEED TO BE MAINTAINED OR MODIFIED, ADDITIONAL BMPs ARE NECESSARY, OR OTHER CORRECTIVE ACTION IS NEEDED, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY RAIN EVENT.

3. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTIONS TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTION AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MA

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
existing SITE	1.48	8.4	0.0	N.A.	N.A.
SITE	1.20	5.3	0.0	N.A.	N.A.

Luminaire Schedule (note fixture catalogue numbers are not complete)					
Type	Lum. Lumens	LLF	Lum. Watts	Mounting Height	Description
A	5744	0.900	57	12	URB-XXXX-21-24L-55-3K7-3-U
A2	5703	0.900	57	12	URB-XXXX-21-24L-55-3K7-4W-U
B	5744	0.900	57	14	URB-XXXX-21-24L-55-3K7-3-U
B1	5744	0.900	57	14	TWIN URB-XXXX-21-24L-55-3K7-3-U
B2	5703	0.900	57	14	URB-XXXX-21-24L-55-3K7-4W-U
C2	12316	0.900	120.9	20	VP-1-36L-120-3K7-5RW
C4	9026	0.900	83.6	20	VP-1-36L-85-3K7-4F
CA1	731	0.900	10.886	18	AR-LED-x54-WFL-12
D1	3538	0.900	28	12	RWL1-48L-25-3K7-4W-U
D2	1861	0.900	14.5	12	RWL1-48L-15-3K7-4W-U
ECSA	5744	0.900	57	14	URB-XXXX-21-24L-55-3K7-3-U - existing
ESA	7908	0.900	80.52	20	VP-S-36L-80-3K7-4W - existing
ESB	8100	0.900	81	20	VP-S-36L-80-3K7-4 - existing
ESC	2846	0.900	22.6	10	SRT1-20-3K7-5QW-UNV - existing
EW1	3538	0.900	28	12	RWL1-48L-25-3K7-4W-U - existing
EWGA	6316	0.225	18	68, 85	ME_HO_40k_10"x10_12_0-10 - prorated to 1ft

- NOTES:
- 1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
 - 2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
 - 3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
 - 4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO SWANEY LIGHTING ASSOCIATES AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
 - 5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 - 6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
 - 7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.



PLAN VIEW

59 ELM ST and UPPER FALLS WAY
BIDDEFORD, ME
SITE LIGHTING LAYOUT

GENERATED FOR:
MITCHELL &
ASSOCIATES
SCALE NOT TO SCALE



NOTICE: THIS DRAWING IS THE EXCLUSIVE PROPERTY OF SWANEY LIGHTING ASSOCIATES. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF SWANEY LIGHTING ASSOCIATES. THIS DRAWING IS TO BE USED FOR NO PURPOSE OTHER THAN AS DETAILED HEREIN. IT IS THE RESPONSIBILITY OF THE USER TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AUTHORITIES. SWANEY LIGHTING ASSOCIATES ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS. ANY VARIATION IN THE PERFORMANCE OF THE SYSTEMS SHOWN IN THIS DRAWING IS NOT THE RESPONSIBILITY OF SWANEY LIGHTING ASSOCIATES. FOR ANY OTHER PURPOSE IS NOT AUTHORIZED BY SWANEY LIGHTING ASSOCIATES.

1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILD TO CITY OF BIDEFORD STANDARD.
2. CITY-OWNED STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD STANDARDS.
3. ANY ASPHALT AND CONCRETE TO BE REMOVED SHALL BE STRIPPED AND REPAVED TO MEET CITY OF BIDEFORD STANDARD.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. SLOPE TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE, SIGNAGE & PAVEMENT MARKINGS TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE WITH THE DISTRICT.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, TRASH REMOVAL AND SNOW.
8. PER SECTION 66-20 OF THE SUBDIVISION ORDINANCE, NO CITY SERVICES SHALL BE PROVIDED TO LOTS FRONTING UPPER FALLS ROAD, AS IT IS A PRIVATE WAY.
9. UPPER FALLS ROAD IS NOT TO BE MAINTAINED AND IS ANTICIPATED TO BE SUBMITTED FOR PUBLIC ACCEPTANCE IN THE FUTURE.

1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
2. "ATLA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.

10 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	56	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 56 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 56 SPACES) TO ALLOW FOR VISITORS = 3 SPACES	-
RESTAURANT**	-	1 SPACE / 3 SEATS x 49 SEATS = 17 SPACES**	-
ADA (8'x18')	-	-	3
STANDARD (9'x18')	-	-	36
60 DEGREE (8'x18.42')	-	-	22
TOTAL SPACES	-	76	61*

*5 SPACES LOCATED AT 10 UPPER FALLS ROAD TO BE DESIGNATED FOR 20 UPPER FALLS ROAD APARTMENT BUILDING

**WAIVER FOR COMMERCIAL PARKING SPACES TO BE REQUESTED. 3 PARKING SPACES TO BE REQUESTED FROM THE CITY OF BIDDEFORD PARKING GARAGE TO SATISFY THE PARKING REQUIREMENT FOR 10 UPPER FALLS ROAD.

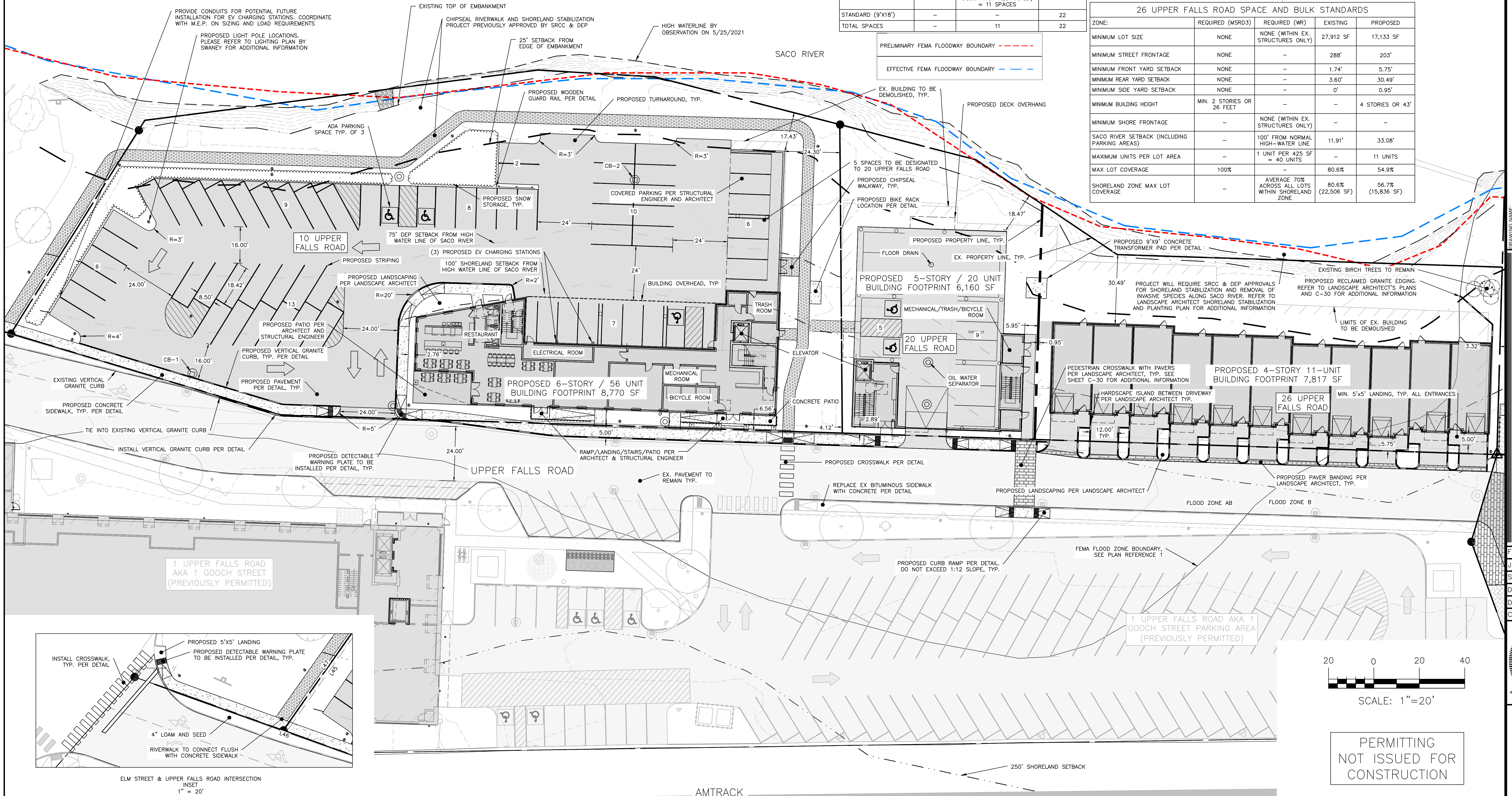
10 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	47,138 SF	47,138 SF
MINIMUM STREET FRONTAGE	NONE	—	371.24'	371.24'
MINIMUM FRONT YARD SETBACK	NONE	—	34.88'	8.56'
MINIMUM REAR YARD SETBACK	NONE	—	13.33'	17.43'
MINIMUM SIDE YARD SETBACK	NONE	—	23.89'	24.30'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	6 STORIES 70'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	10.71'	26.33'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 110 UNITS	—	56 UNITS
MAX LOT COVERAGE	100%	—	79.6%	73.6%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	79.6% (37,526 SF)	72.9% (34,360 SF)

20 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	20	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 20 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 20 SPACES) TO ALLOW FOR VISITORS = 1 SPACES	-
ADA (8'X18')	-	-	2
STANDARD (9'X18')	-	-	10
60 DEGREE (8.5'X18.42')	-	-	-
TOTAL SPACES	-	21	12*
*5 SPACES AT 10 UPPER FALLS ROAD TO BE DESIGNATED FOR 20 UPPER FALLS ROAD APARTMENT BUILDING			
**4 PARKING SPACES TO BE REQUESTED FROM THE CITY OF BIDEFORD PARKING GARAGE TO SATISFY THE PARKING REQUIREMENT FOR 20 UPPER FALLS ROAD.			

26 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	11	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 11 SPACES	-
STANDARD (9'X18')	-	-	22
TOTAL SPACES	-	11	22

20 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	27,912 SF	10,780
MINIMUM STREET FRONTAGE	NONE	—	288'	85'
MINIMUM FRONT YARD SETBACK	NONE	—	1.74'	2.89'
MINIMUM REAR YARD SETBACK	NONE	—	3.60'	18.47'
MINIMUM SIDE YARD SETBACK	NONE	—	0'	4.12'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	5 STORIES OR 60'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	11.91'	25.17'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 25 UNITS	—	20 UNITS
MAX LOT COVERAGE	100%	—	80.6%	54.9%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.6% (22,506 SF)	56.7% (15,836 SF)

26 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	27,912 SF	17,133 SF
MINIMUM STREET FRONTAGE	NONE	—	288'	203'
MINIMUM FRONT YARD SETBACK	NONE	—	1.74'	5.75'
MINIMUM REAR YARD SETBACK	NONE	—	3.60'	30.49'
MINIMUM SIDE YARD SETBACK	NONE	—	0'	0.95'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	—	4 STORIES OR 43'
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	11.91'	33.08'
MAXIMUM UNITS PER LOT AREA	—	1 UNIT PER 425 SF = 40 UNITS	—	11 UNITS
MAX LOT COVERAGE	100%	—	80.6%	54.9%
SHORELAND ZONE MAX LOT COVERAGE	—	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.6% (22,506 SF)	56.7% (15,836 SF)



1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDEFORD STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD STANDARDS.
3. ANY ASPHALT AND CONCRETE TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. ANY CURB TO BE REMOVED, STRIPPED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE & PAVEMENT MARKINGS TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020 AND LAST REVISED MAY 26, 2021
2. "ATLA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
3. "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.

PRELIMINARY FEMA FLOODWAY BOUNDARY - - - - -

EFFECTIVE FEMA FLOODWAY BOUNDARY — — — — —

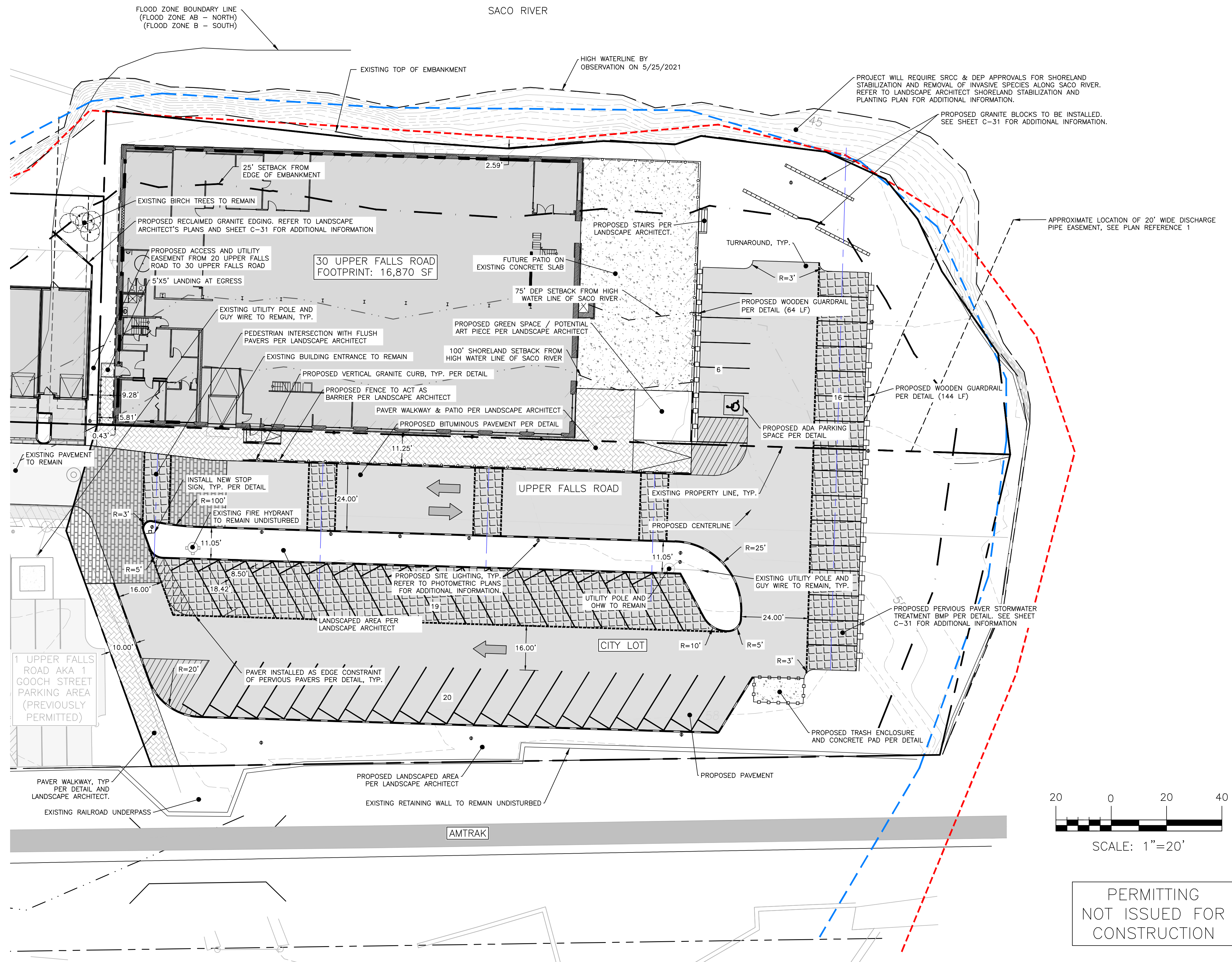
30 UPPER FALLS ROAD SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	33,401 SF	33,401 SF
MINIMUM STREET FRONTAGE	NONE	—	330'	330'
MINIMUM FRONT YARD SETBACK	NONE	—	0.43'	0.43'
MINIMUM REAR YARD SETBACK	NONE	—	2.59'	2.59'
MINIMUM SIDE YARD SETBACK	NONE	—	5.81'	5.81'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26'	—	TBD	TBD
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	397'±	397'±
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH—WATER LINE	17.94'	41.13'
SACO RIVER NO—CUT ZONE (SRCC)	—	75'	—	—
MAX LOT COVERAGE	100%	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	87.5% (29,236 SF)	74.4% (24,851 SF)

30 UPPER FALLS ROAD PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESTAURANT	—	1 SPACE / 3 SEATS x 123 SEATS = 39 SPACES	—
ADA (8'x18')	—	—	1
STANDARD (9'x18')	—	—	12
TOTAL SPACES	—	41	13

*WAIVER FOR RESTAURANT SPACE TO BE REQUESTED.

CITY LOT SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	36,748 SF	36,748 SF
MINIMUM STREET FRONTAGE	NONE	—	330'±	330'±
MINIMUM FRONT YARD SETBACK	NONE	—	N/A	N/A
MINIMUM REAR YARD SETBACK	NONE	—	N/A	N/A
MINIMUM SIDE YARD SETBACK	NONE	—	N/A	N/A
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26'	—	N/A	N/A
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	113'±	113'±
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH—WATER LINE	9.65'	42.20'
SACO RIVER NO-CUT ZONE (SRCC)	—	75'	—	—
MAX LOT COVERAGE	100%	AVERAGE 70% ACROSS ALL LOTS WITHIN SHORELAND ZONE	80.9% (29,713 SF)	69.9% (25,693 SF)

CITY LOT PARKING SUMMARY		
	EXISTING	PROPOSED
STANDARD (9'X18')	30±	9
60 DEGREE (8.5'X18.42')	N/A	39
TOTAL SPACES		48



ISSUED FOR	BY DATE
SKETCH	PFH 3/23/2022
PRELIMINARY	PFH 10/6/2022
COMMENT RESPONSE	PFH 10/27/2022
DEP SW APP	PFH 11/9/2022
FINAL SITE PLAN	PFH 12/14/2022
SITE PLAN AMENDMENT	PFH 3/29/2023

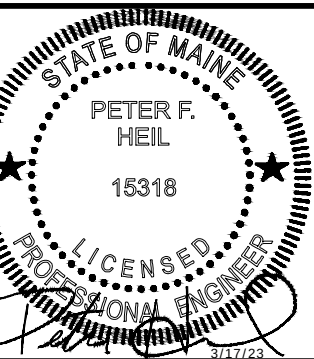
SITE PLAN - 2

PROJECT NAME/ADDRESS: **10, 20, & 30 UPPER FALLS ROAD REDEVELOPMENT - BIDDEFORD**

CLIENT/OWNER OF RECORD: **TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101**

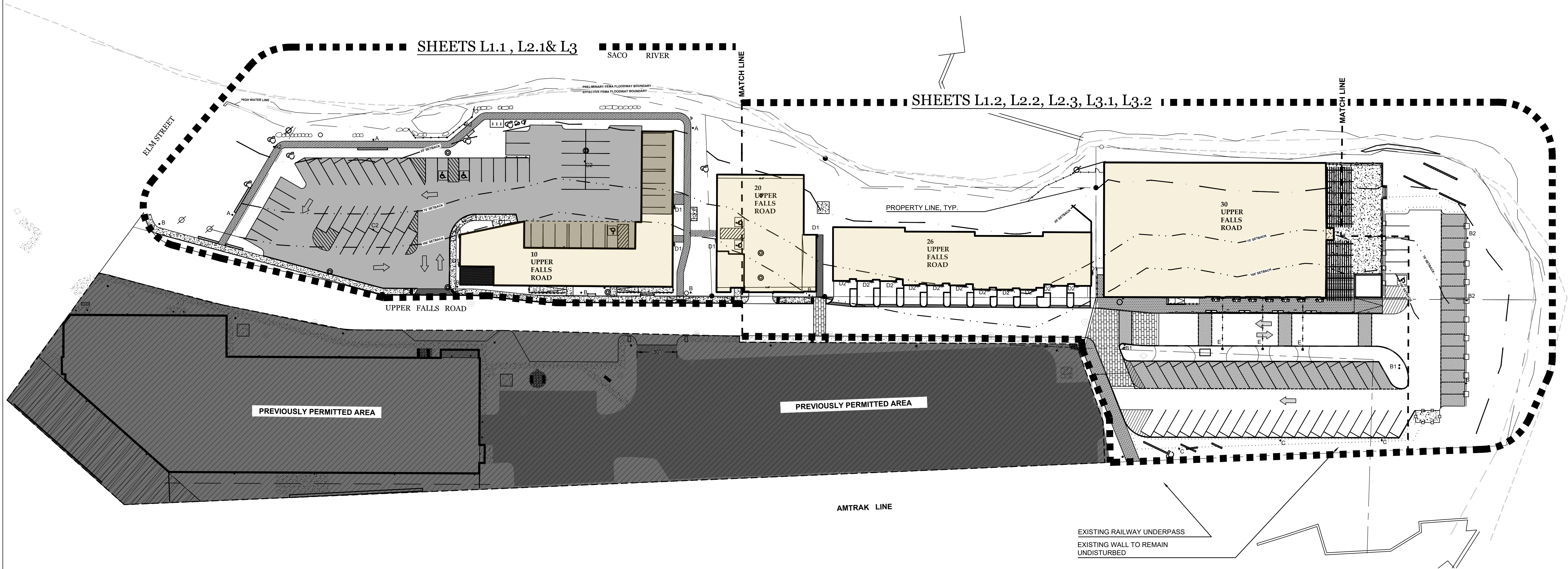

ACORN ENGINEERS 'N'
PO BOX 33372 PORTLAND, OREGON 97201
(503) 775-2655
TEL: 503 775 2655 FAX: 503 775 2655
TELETYPE: 503 775 2655
TELEFAX: 503 775 2655
WWW.ACORN-ENG.COM
ACORN ENGINEERING, INC. AUTHORIZED
REPRESENTATIVE FOR THE U.S. SOLE RISK
AND RESPONSIBILITY TO MOORE ENGINEERING.

FILE:	1093.11_CIVIL
FILE#:	1093.11
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.

C-11



GENERAL NOTES

ZONING DISTRICT: HIGH DENSITY MIXED USE (MSRD3) AND THE (WR) OVERLAY DISTRICT

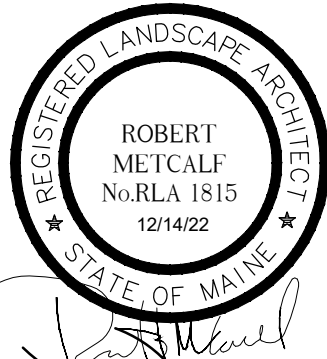
MINIMUM LOT SIZE: NONE
FRONTAGE: NONE
FRONT SETBACK: NONE
SIDE SETBACK: NONE
REAR SETBACK: NONE
MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

THIS PLAN REPRESENTS THE FRAMEWORK SET FORTH BY THE SACO RIVER CORRIDOR COMMISSION (SRCC) USING 20X20 GRIDS FOR SPECIES IDENTIFICATIONS AND RECOMMENDATIONS. FOR THE PURPOSED ON INVENTORY AND ANALYSIS THE 20X20 GRID SET FORTH BY SRCC PROVIDED THE MOST RESTRICTIVE GUIDELINES. THE FOLLOWING PLAN SET ALSO OUTLINES RECOMMENDATIONS FOR REMOVALS BASED ON THE CITY OF BIDDEFORD SHORELAND OVERLAY GUIDELINES BASED OFF A 25X50' GRID- SEE SHEET. ALL SPECIFICATIONS FALL WITHIN THE PARAMETERS SET BY THE TWO REGULATORY OVERSIGHT BODIES.

ALL VEGETATION HAS BEEN FIELD LOCATED

- ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OF OR INSTALLATION OF ANY PART OF THIS WORK. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONTRACTOR SHALL NOTIFY DIG SAFE (1-888-344-7233) PRIOR TO EXCAVATION.
- CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS AND SHALL PRESERVE EXISTING VEGETATION.
- CONTRACTOR SHALL LOAM AND SEED ALL GRADED AND DISTURBED AREAS NOT OTHERWISE IMPROVED.
- ALL WORK ASSOCIATED WITH THE PROPOSED WATER SERVICE MUST ADHERE TO CITY OF BIDDEFORD WATER DISTRICT STANDARDS. ALL WORK ASSOCIATED WITH THE PROPOSED SANITARY SEWER LINE MUST ADHERE TO THE CITY OF BIDDEFORD DEPARTMENT OF WASTEWATER CONTROL STANDARDS.
- THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR UNDERTAKING THE WORK IN A SAFE AND EFFICIENT MANNER, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. ALL WORK AREAS SHALL BE DELINEATED CLEARLY AND FENCED AS APPROPRIATE TO PREVENT UNAUTHORIZED ACCESS. THE SITE SHALL BE LEFT IN A SAFE, ORDERLY AND TIDY MANNER AT THE END OF EACH WORK DAY.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND PERFORM ALL WORK NECESSARY TO REGULATE TRAFFIC IN THE AREA OF THE SITE, AND SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO AND FROM PUBLIC AND PRIVATE PROPERTIES AND RIGHTS OF WAY DURING CONSTRUCTION.

Luminaire Schedule						
Tag	Qty	Watts	Lumens	LLF	Mounting Height	Description
A	2	57	5744	0.900	12	URB-XXXX-21-24L-55-3K7-3-U
A2	3	57	5703	0.900	12	URB-XXXX-21-24L-55-3K7-4W-U
B	5	57	5744	0.900	14	URB-XXXX-21-24L-55-3K7-3-U
B1	2	57	5744	0.900	14	TWIN URB-XXXX-21-24L-55-3K7-3-U
B2	2	57	5703	0.900	14	URB-XXXX-21-24L-55-3K7-4W-U
C2	2	120.9	12316	0.900	20	VP-1-36L-120-3K7-5RW
C4	3	83.6	9026	0.900	20	VP-1-36L-85-3K7-4F
D1	9	28	3538	0.900	12	RWL1-48L-25-3K7-4W-U
D2	10	14.5	1861	0.900	12	RWL1-48L-15-3K7-4W-U
E	15				18	CY-TR-15-3K7-4W-U
ECSA	9	57	5744	0.900	14	URB-XXXX-21-24L-55-3K7-3-U - existing
ESA	1	80.52	7908	0.900	20	VP-S-36L-80-3K7-4W - existing
ESB	5	81	8100	0.900	20	VP-S-36L-80-3K7-4 - existing
ESC	8	22.6	2846	0.900	10	SRT1-20-3K7-5QW-UNV - existing
EW1	15	28	3538	0.900	12	RWL1-48L-25-3K7-4W-U - existing
EWGA	36	18	6316	0.225	68, 85	ME_HO_40k_10"x10_12_0-10 - prorated to 1ft



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Prepared For:
Applicant:
TOM WATSON & CO.
188 STATE STREET
Portland, Maine

Prepared By:
MITCHELL & ASSOCIATES
Landscape Architects
The Staples School, 70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

ACORN ENGINEERING INC.
PO BOX 3372, Portland, Maine 04104
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UPPER FALLS ROAD REDEVELOPMENT

TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

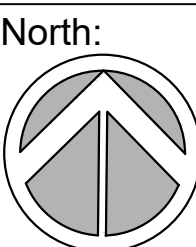
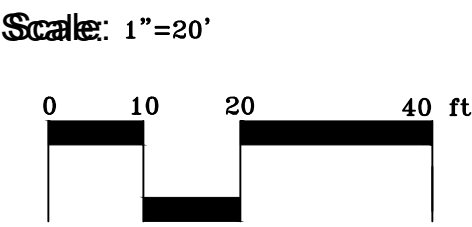
Date: OCTOBER 05, 2022

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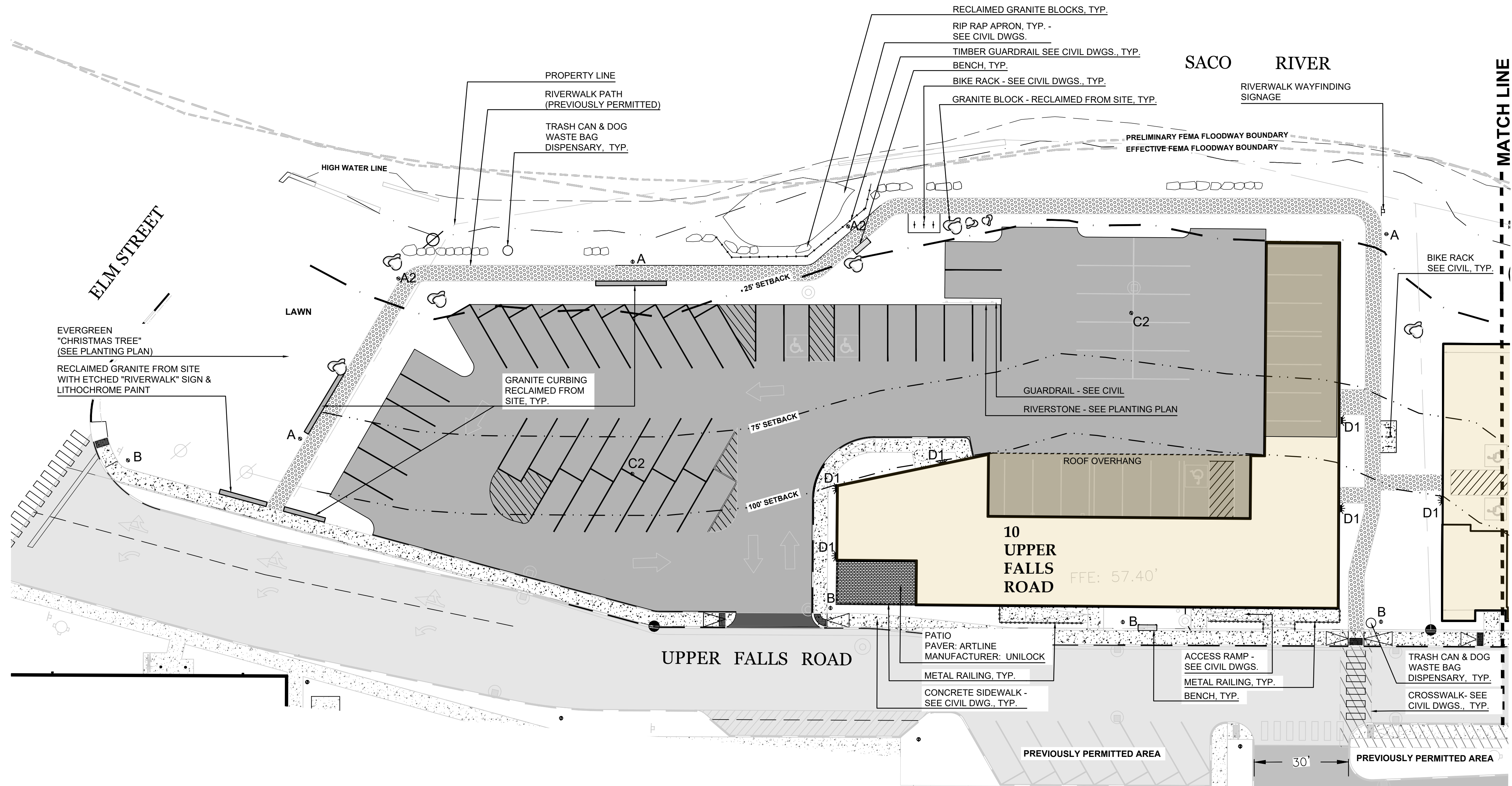
Revisions:
SRCC SUBMISSION 11.08.2022
FINAL SITE PLAN 12.14.2022
COMMENT RESPONSE IV 05.15.23

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Title:
SITE KEY PLAN



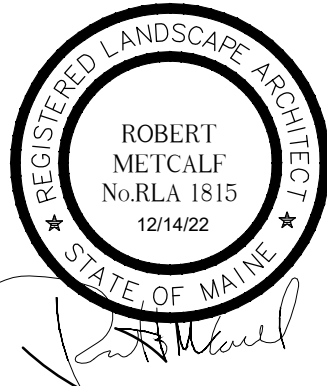
Sheet No.:
L1



LAYOUT NOTES

1. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND. ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION PRIOR TO ANY FURTHER WORK.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO EXCAVATION OF OR INSTALLATION OF ANY PART OF THIS WORK. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. CONTRACTOR SHALL NOTIFY DIG SAFE (1-888-344-7233) PRIOR TO EXCAVATION.
5. CONTRACTOR SHALL AVOID ALL AREAS NOT REQUIRING GRADING. CONTRACTOR SHALL NOT DISTURB THESE AREAS AND SHALL PRESERVE EXISTING VEGETATION.
6. CONTRACTOR SHALL LOAM AND SEED ALL GRADED AND DISTURBED AREAS NOT OTHERWISE IMPROVED.
7. ALL WORK ASSOCIATED WITH THE PROPOSED WATER SERVICE MUST ADHERE TO CITY OF BIDDEFORD WATER DISTRICT STANDARDS. ALL WORK ASSOCIATED WITH THE PROPOSED SANITARY SEWER LINE MUST ADHERE TO THE CITY OF BIDDEFORD DEPARTMENT OF WASTEWATER CONTROL STANDARDS.
8. THE CONTRACTOR SHALL BE HELD SOLELY RESPONSIBLE FOR UNDERTAKING THE WORK IN A SAFE AND EFFICIENT MANNER, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. ALL WORK AREAS SHALL BE DELINEATED CLEARLY AND FENCED AS APPROPRIATE TO PREVENT UNAUTHORIZED ACCESS. THE SITE SHALL BE LEFT IN A SAFE, ORDERLY AND TIDY MANNER AT THE END OF EACH WORK DAY.
9. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND PERFORM ALL WORK NECESSARY TO REGULATE TRAFFIC IN THE AREA OF THE SITE, AND SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO AND FROM PUBLIC AND PRIVATE PROPERTIES AND RIGHTS OF WAY DURING CONSTRUCTION.

Luminaire Schedule						
Tag	Qty	Watts	Lumens	LLF	Mounting Height	Description
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D1	9	28	3538	0.900	12	RWL1-48L-25-3K7-4W-U
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ESA	1	80.52	7908	0.900	20	VP-S-36L-80-3K7-4W - existing
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UPPER FALLS ROAD REDEVELOPMENT

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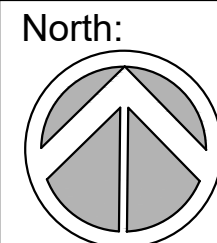
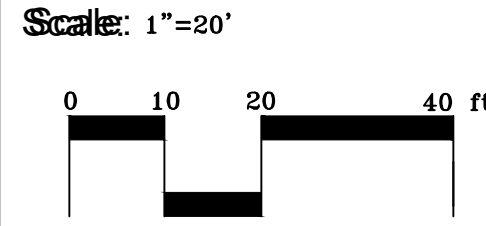
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Title:
SITE MATERIAL PLAN

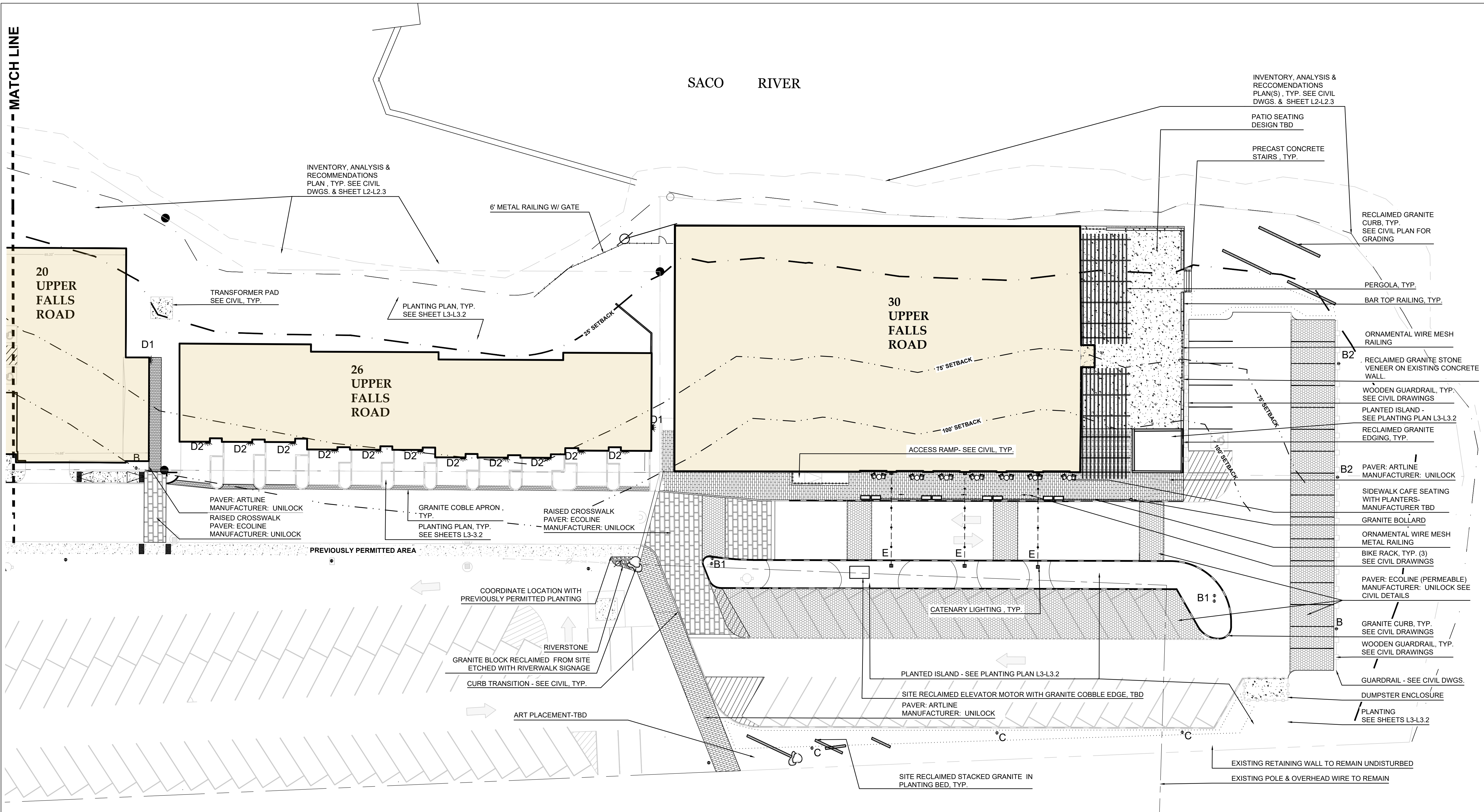


Sheet No.:
L1.1

UPPER FALLS ROAD REDEVELOPMENT

TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

North: 	Sheet No.: L1.2
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REGISTERED LANDSCAPE ARCHITECT
ROBERT METCALF
No. RLA 1815
12/14/22
STATE OF MAINE

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Applicant:
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Portland, Maine

Prepared By:
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UPPER FALLS ROAD REDEVELOPMENT

TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: OCTOBER 05, 2022

Issued For:
PERMIT SET

Revisions:
SRCC SUBMISSION 11.08.2022
FINAL SITE PLAN 12.14.2022
COMMENT RESPONSE IV 05.15.23

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Title:
**VEGETATION INVENTORY
& ANALYSIS PLAN**

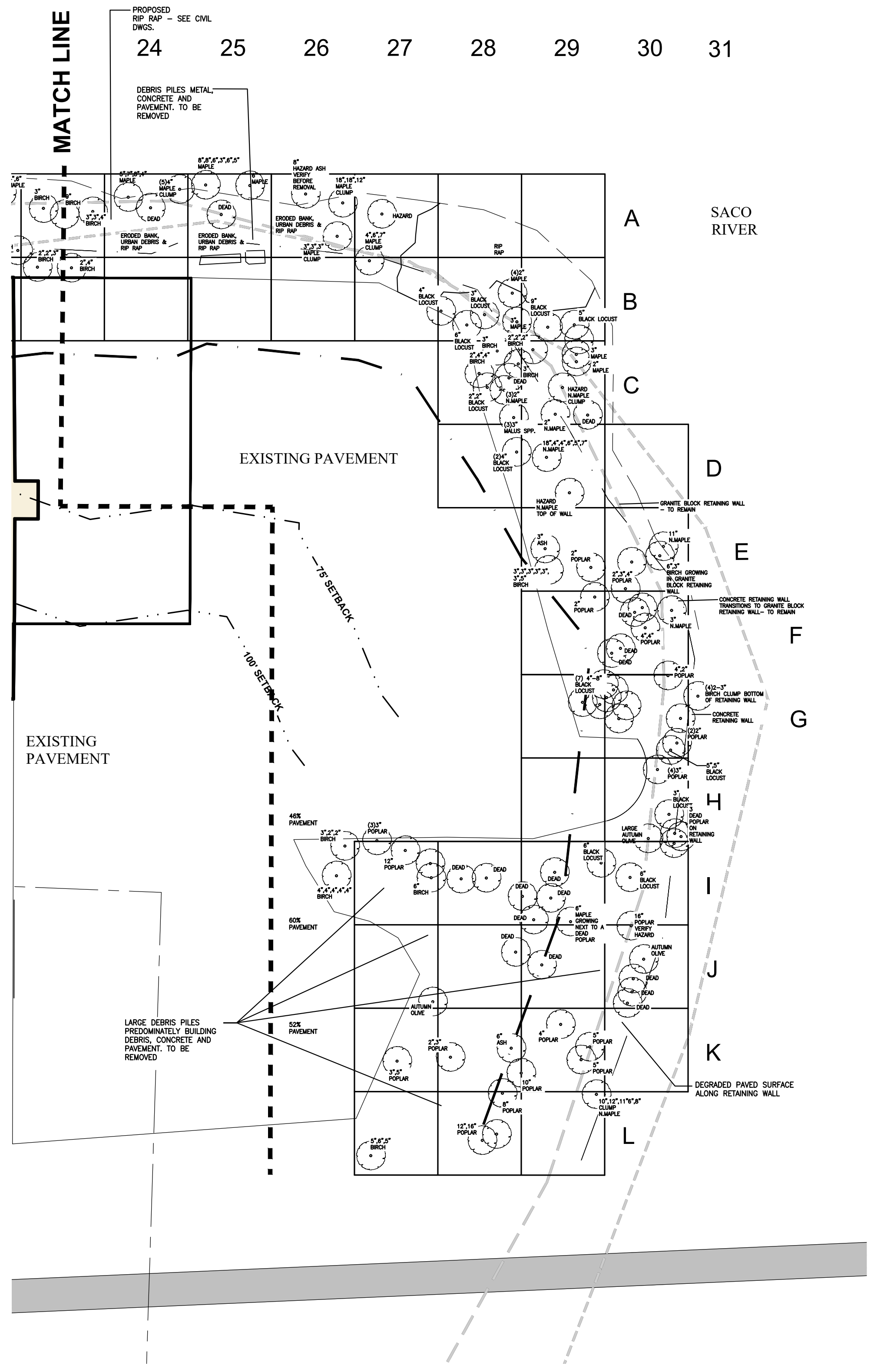
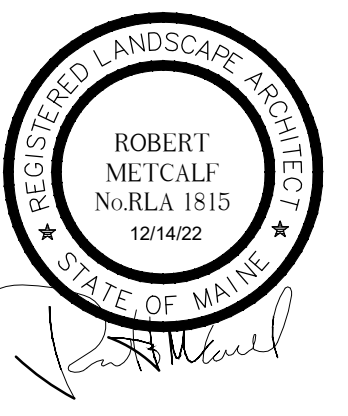
Scale: 1"=20'

0 10 20 40 ft.

North:

Sheet No.:
L2.1

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GRID 24 B: Larger rip-rap and granite blocks remain evident along the bank here. Pipes and concrete debris evident with erosion begin to undermine the slope. Silver Maple Clumps dominate the larger trees here. GRID 24 C: The existing building dominates this grid with minimal vegetation- moss and low growing vegetation can be found along the building face.	GRID 28 A: Limited vegetated canopy- predominately 3-8" rip rap with some evidence of sapling growing through erosion control GRID 28 B: Limited vegetated canopy- predominately 3-8" rip rap with some evidence of sapling growing through erosion control. Trees that are growing are predominately Black locust. Black locust stands become evident along the Saco river from this grid on. GRID 28 C: Grid is approximately 47% paved surface. Birch and Black Locust prevail in unhealthy soil conditions here. GRID 28 D: Grid is approximately 75% paved surface. Black Locust prevail in unhealthy soil conditions here. GRID 28 I: Larger group of dead and hazard trees. Overgrown debris piles predominately building debris, concrete and pavement with mixed invasive and smaller saplings. GRID 28 J: Larger group of dead and hazard trees. Overgrown debris piles predominately building debris, concrete and pavement with mixed invasive and smaller saplings. GRID 28 K: Predominately Poplars grow inn this location. Evidence od trash and construction debris throughout grid. GRID 28 L: Large overgrown debris piles predominately building debris, concrete and pavement with mixed invasive and smaller saplings.	GRID 30 D: Granite block retaining wall encumbered by vegetation growth. GRID 30 E: Granite block retaining wall encumbered by vegetation growth. GRID 30 F: Granite block retaining transitions to concrete retaining wall- heavy vegetation growth at top of wall and bottom of wall at rivers edge. GRID 30 G: Concrete retaining wall- heavy vegetation growth at top of wall. GRID 30 H: Concrete retaining wall- heavy vegetation growth at top of wall. Dead & hazard trees are evident. GRID 30 I: Concrete retaining wall- Moderate vegetation growth at top of wall. Dead & hazard trees noted on plan. GRID 30 J: Concrete retaining wall- Minimal vegetation growth at top of wall due to pavement and concrete. Dead & hazard trees noted on plan. GRID 30 K: Concrete retaining wall- Minimal vegetation growth at top of wall due to pavement and concrete. Dead & hazard trees noted on plan. GRID 30 L: Concrete retaining wall- Moderate vegetation growth at top of wall. Dead & hazard trees noted on plan.
GRID 25 A: Mixed invasive shrub & natives- predominately bittersweet & alder bushes. Maple clumps dominate the area both Silver and Norway. Plants along the bank have been undercut due to erosion and large granite blocks and rip rap define the area. GRID 25 B: Predominately paved area (70% +/-) with erosion notable on top of bank where larger granite blocks can be found.	GRID 29 A: Limited vegetated canopy- predominately 3-8" rip rap with some evidence of sapling growing through erosion control GRID 29 B: Limited vegetated canopy- predominately 3-8" rip rap with Black locust stands GRID 29 C: Limited vegetated canopy- 3-8" rip rap begins to be less prevalent with Black locust stands and Maples GRID 29 D: Denser understory mostly invasive, Autumn Olive, Honeysuckle, and Bittersweet. Granite block retaining wall begins edge of the Saco River GRID 29 E: Successional growth of varying species form invasive to native. predominately Black Locust, Bittersweet, Multiflora Rose, Barberry, and Autumn Olive. Concrete debris, stone block scattered here for potential bank retention, GRID 29 F: Grid is approximately 33% paved surface. Birch and Black Locust prevail in unhealthy soil conditions here. GRID 29 G: Grid is approximately 69% paved surface. Birch and Black Locust prevail in unhealthy soil conditions here. GRID 29 H: Grid is approximately 90% paved surface. GRID 29 I: Large group of dead trees. Ground plane predominately building debris, concrete, and pavement under forest duff. GRID 29 J: Large group of dead trees. Ground plane predominately building debris, concrete, and pavement under forest duff. GRID 29 K: Relatively healthy stand of Poplar trees growing in mixed soil with pavement and debris. GRID 29 L: Corner of the lot abutting the Amtrak parcel. concrete retaining wall persists through this grid with variable ground plan from soil to remnant hardscape.	
GRID 26 A: Mixed invasive shrub & natives- predominately Honeysuckle & Autumn Olive. Maple clumps dominate the area both Silver and Norway. Plants along the bank have been undercut due to erosion and large granite blocks and rip rap define the area . GRID 26 B: Predominately paved (70% +/-) area with erosion notable on top of bank.		
GRID 27 A: Mixed invasive shrub & natives- predominately Honeysuckle & Autumn Olive. Maple clumps dominate the area both Silver and Norway. Plants along the bank have been undercut due to erosion and large granite blocks and rip rap define the area. GRID 27 B: Predominately paved area (70% +/-) with erosion notable on top of bank. GRID 27 I: Large overgrown debris piles predominately remnant building debris, concrete and pavement with mixed invasive and larger trees. GRID 27 J: Large overgrown debris piles predominately building debris, concrete and pavement with mixed invasive and smaller saplings. GRID 27 K: Large overgrown debris piles predominately building debris, concrete and pavement with mixed invasive and smaller saplings.		

LEGEND

TREES OVER 4" DBH

EXISTING UTILITY POLE

PRELIMINARY FLOODWAY BOUNDARY

EFFECTIVE FLOODWAY BOUNDARY

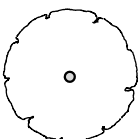
APPROXIMATE LOCATION OF GRANITE BLOCK RETAINING WALLS

25' SETBACK FROM EDGE OF EMBANKMENT

GENERAL NOTES

- THIS PLAN REPRESENTS THE FRAMEWORK. SET FORTH BY THE SACO RIVER CORRIDOR COMMISSION (SRCC) - USING 20X20 GRIDS FOR SPECIES IDENTIFICATIONS AND RECOMMENDATIONS. FOR THE PURPOSED ON INVENTORY AND ANALYSIS THE 20X20 GRID SET FORTH BY SRCC PROVIDED THE MOST RESTRICTIVE GUIDELINES. THE FOLLOWING PLAN SET ALSO OUTLINES RECOMMENDATIONS FOR REMOVALS BASED ON THE CITY OF BIDDEFORD SHORELAND OVERLAY GUIDELINES BASED OFF A 25X50' GRID- SEE SHEET. ALL SPECIFICATIONS FALL WITHIN THE PARAMETERS SET BY THE TWO REGULATORY OVERSIGHT BODIES.
 - ALL VEGETATION HAS BEEN FIELD LOCATED
Shoreland Zoning Point System
DIAMETER OF TREE AT 4 1/2 FEET ABOVE GROUND LEVEL
MINIMUM 16 POINT PER 25' X 50' GRID.
- | POINTS DICTATED BY MEASUREMENTS OF TREE AT DIAMETER AT BREAST HEIGHT (DBH) | |
|--|--------|
| Inches | Points |
| 2" to < 4" | 1 |
| 4" to < 6" | 2 |
| 6" to < 12" | 4 |
| 12" or greater | 8 |

LEGEND



TREES OVER
4" DBH



EXISTING
UTILITY POLE



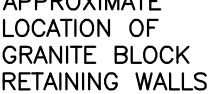
TREE REMOVAL



PRELIMINARY
FLOODWAY
BOUNDARY



EFFECTIVE
FLOODWAY
BOUNDARY



APPROXIMATE
LOCATION OF
GRANITE BLOCK
RETAINING WALLS



PROPOSED
RIVERWALK
LOCATION

REMOVAL NOTES:

1. MANUAL REMOVAL
- 1.1. Hand pulled
- 1.2. Hand digging
- 1.3. Covering
2. MECHANICAL REMOVAL
- 2.1. Mowing
- 2.2. Cutting
- 2.3. Digging
- 2.4. Covering
3. Mechanical & manual methods for removal are recommended - herbicide application NOT PERMITTED. Invasive removal maintenance shall be carried out two times a year for three years to adequately remove invasive re-sprouting.
4. Mechanical removals shall not be permitted within the 25' shoreland setback
- 4.1 Manual Removal of all Autumn Olive, Multiflora Rose, Japanese Barberry, Honeysuckle and Bittersweet, cutting vines at comfortable height will kill canopy infestations, the entire plant shall be removed from tree trunks and branches including the entirety of the root system to prohibit re-sprouting.
- 4.2 Selectively prune dead or hazard clump leaders no more than 40% of existing tree canopy,
- 4.3 Remove dead and hazard trees. Verify locations with Stabilization Plans.
- 4.4 Remove all metal, concrete, pavement, bricks and rebar debris from embankment.
- 4.5 NOTE locations where CMP poles and active lines exists and remove vegetation and materials with caution.
- SEE PLANTING PLAN FOR RE-VEGETATION IN ALL AREAS IN THE 25' SETBACK INCLUDING AREAS LACK VEGETATION DUE TO BUILDING CONSTRAINTS (EXAMPLE D4,D5).
5. The applicant must provide adequate protection for non-target species.
6. SEE STABILIZATION PLAN AND PLANTING PLAN FOR TREATMENT

THIS PLAN REPRESENTS THE FRAMEWORK SET FORTH BY THE STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL SERVICES AND THE CITY OF BIDDEFORDS SHORELAND ZONING REGULATIONS- USING 25X50' GRIDS FOR SPECIES IDENTIFICATIONS AND RECOMMENDATIONS.

LANDSCAPE ARCHITECT SHALL BE CONTACTED BY THE LANDSCAPE CONTRACTOR PRIOR TO REMOVAL OF TREES AND SHRUBS TO CONDUCT A SITE VISIT TO INSPECT THE PLANT MATERIAL AND EXISTING CONDITIONS.

GENERAL NOTES

ZONING DISTRICT: HIGH DENSITY MIXED USE (MSRD3) AND THE (WR) OVERLAY DISTRICT

MINIMUM LOT SIZE: NONE

FRONTAGE: NONE

FRONT SETBACK: NONE

SIDE SETBACK: NONE

REAR SETBACK: NONE

MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

Shoreland Zoning Point System

DIAMETER OF TREE AT 4 1/2 FEET ABOVE GROUND LEVEL

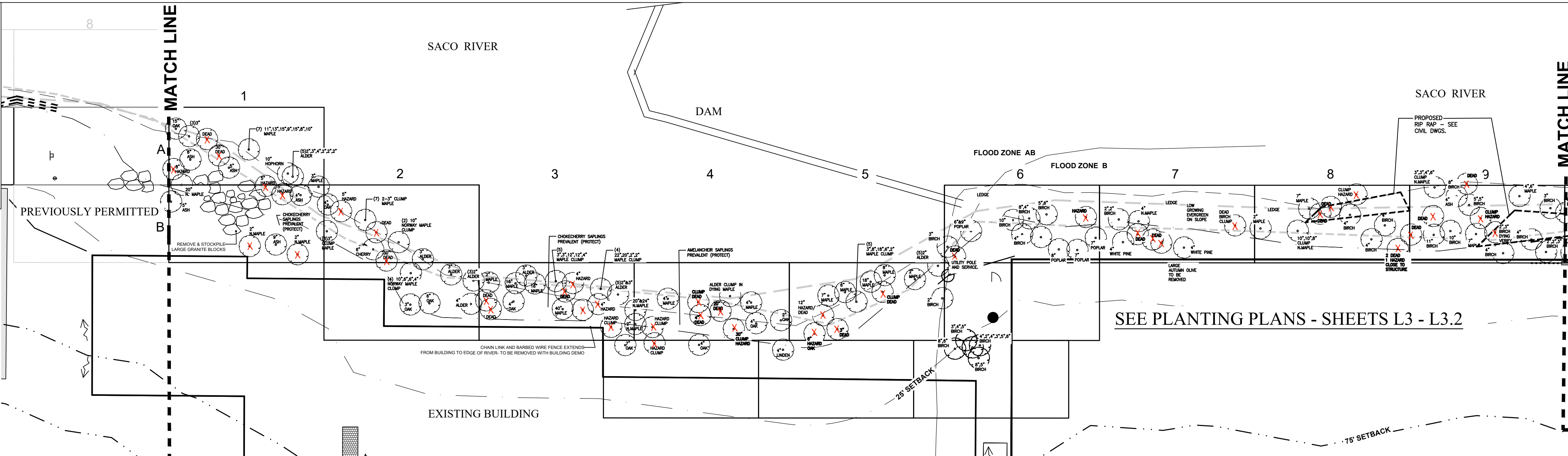
MINIMUM 16 POINT PER 25' X 50' GRID.

POINTS DICTATED BY MEASUREMENTS OF TREE AT DIAMETER AT BREAST HEIGHT (DBH)

Inches	Points
2" to < 4"	1
4" to < 8"	2
8" to < 12"	4
12" or greater	8

GRID 6B: SEE PLANTING PLAN

GRID 6D: SEE PLANTING PLAN



EXISTING CONDITION GRID 1A: TOTAL PLANT UNITS PER 1250 SF = 67 ALDER TREE=7 POINTS MAPLE TREES = 40 POINTS 2",3",4",2",2",2" 11",13",15",9",15",8",10" ASH TREE = 8 POINTS HOPHORN=4 8",5",4" 10" OAK = 8 15" GRID 1B: TOTAL PLANT UNITS PER 1250 SF =18 ASH TREE =8 POINTS 9",4",5" MAPLE TREES = 10 POINTS 20",2",2" PROPOSED CONDITION GRID 1A: PROPOSED MANUAL REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. PROPOSED CONDITION GRID 1B: 16 points PROPOSED MANUAL REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. GRANITE BLOCK TO BE REMOVED & STOCKPILED ONSITE FOR REUSE.	EXISTING CONDITION GRID 2B: TOTAL PLANT UNITS PER 1250 SF = 27 ALDER TREE = 1 POINTS OAK = 2 6" MAPLE TREES = 22 POINTS 2",3",3",2",3",2",3",10",10",3",3",3" OAK =2 4" GRID 2C: TOTAL PLANT UNITS PER 1250 SF = 17 ALDER TREE=2 4",2",2",2",3" MAPLE TREES = 22 POINTS 10",6",4",4" OAK=3 3",6" PROPOSED CONDITION GRID 2B: PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN. GRID 2C: PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, SHORELAND STABILIZATION PLANS.	EXISTING CONDITION GRID 3C: TOTAL PLANT UNITS PER 1250 SF = 73 ALDER TREE = 6 POINTS 3",2",3",2",3",3" MAPLE TREES = 81 POINTS 40",3",3",12",12",4",20",20",2",2",16",16",4",2" OAK TREE = 2 POINTS 4" PROPOSED CONDITION GRID 3C: PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, AND SHORELAND STABILIZATION PLANS.	EXISTING CONDITION GRID 4C: TOTAL PLANT UNITS PER 1250 SF = 24 MAPLE TREE = 21 POINTS 20",24",4",8",2" OAK TREE = 3 POINTS 4",2" GRID 4D: TOTAL PLANT UNITS PER 1250 SF = 4 OAK TREE = 4POINTS 4",7" PROPOSED CONDITION GRID 4C: PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, AND SHORELAND STABILIZATION PLANS. GRID 4D: THIS AREA IS VOID OF SUFFICIENT BUFFER DUE TO THE BUILDING BISECTING THE AREA. PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, AND SHORELAND STABILIZATION PLANS.	EXISTING CONDITION GRID 5C: TOTAL PLANT UNITS PER 1250 SF = 43 ALDER TREE = 5 2",2",2",2",2" BIRCH TREE = 1 2" MAPLE TREES = 37 POINTS 7",6",18",8",2",3",8",18",6",2" GRID 5D: TOTAL PLANT UNITS PER 1250 SF = 2 LINDEN TREE = 2 4" PROPOSED CONDITION GRID 5C: REMOVAL OF DEAD OR HAZARD TREES TO MAINTAIN THE HEALTH OF THE EXISTING NATIVE TREES. NO MORE THAN 40% OF THE EXISTING CANOPY SHALL BE REMOVED. THE GRID SHALL MAINTAIN A MINIMUM 16 POINTS WITHIN THE GRID. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN. GRID 5D: SEE PLANTING PLAN
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EXISTING CONDITION GRID 6B: TOTAL PLANT UNITS PER 1250 SF = 29 BIRCH = 15 3",10",5",6",8",4" POPLAR TREE = 14 6",9",8",7",7" GRID 6C: TOTAL PLANT UNITS PER 1250 SF = 0 GRID 6D: TOTAL PLANT UNITS PER 1250 SF = 28 BIRCH = 28 4",2",4",3",5",6",3",4",5",6",6",8",8",5" PROPOSED CONDITION GRID 6B: REMOVAL OF DEAD OR HAZARD TREES & LEADERS TO MAINTAIN THE HEALTH OF THE EXISTING NATIVE TREES. NO MORE THAN 40% OF THE EXISTING CANOPY SHALL BE REMOVED. THE GRID SHALL MAINTAIN A MINIMUM 16 POINTS WITHIN THE GRID. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN. SELECTIVE PRUNING OF LIMBS AROUND EXISTING UTILITY LINE SERVICE RECOMMENDED. GRID 6C: SEE PLANTING PLAN GRID 6D: SEE PLANTING PLAN	EXISTING CONDITION GRID 7B: TOTAL PLANT UNITS PER 1250 SF = 8 BIRCH TREE = 2 2",2" MAPLE TREE = 2 4" WHITE PINE = 4 4", 4" PROPOSED CONDITION GRID 7B: SELECTIVE REMOVAL OF DEAD OR HAZARD TREES AND BRANCHES TO MAINTAIN THE HEALTH OF THE EXISTING NATIVE TREES. NO MORE THAN 40% OF THE EXISTING CANOPY SHALL BE REMOVED. SUFFICIENT NATIVE SAPLINGS PRESENT TO RESTORE BUFFER. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN.	EXISTING CONDITION GRID 8B: TOTAL PLANT UNITS PER 1250 SF = 22 MAPLE TREE = 16 8",10",10",7",2" BIRCH TREE = 6 4",4",4" PROPOSED CONDITION GRID 8B: SELECTIVE REMOVAL OF DEAD OR HAZARD TREES AND BRANCHES TO MAINTAIN THE HEALTH OF THE EXISTING NATIVE TREES. NO MORE THAN 40% OF THE EXISTING CANOPY SHALL BE REMOVED. SUFFICIENT NATIVE SAPLINGS PRESENT TO RESTORE BUFFER. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN.	EXISTING CONDITION GRID 8B: TOTAL PLANT UNITS PER 1250 SF = 21 MAPLE TREE = 9 3",3",4",6",6",7" BIRCH TREE = 12 4",4",2",2",10",11" PROPOSED CONDITION GRID 8B: SELECTIVE REMOVAL OF DEAD OR HAZARD TREES AND BRANCHES TO MAINTAIN THE HEALTH OF THE EXISTING NATIVE TREES. NO MORE THAN 40% OF THE EXISTING CANOPY SHALL BE REMOVED. SUFFICIENT NATIVE SAPLINGS PRESENT TO RESTORE BUFFER. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES AND PLANTING PLAN. SIGNIFICANT URBAN DEBRIS IS PRESENT AND SHOULD BE REMOVED. EMBANKMENT BEGINS TO BE UNDERCUT AND AN ARMORED RIP RAP STABILIZATION IS SUGGESTED.
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Prepared For:

Applicant:

TOM WATSON & CO.

188 STATE STREET

Portland, Maine

Prepared By:

MITCHELL & ASSOCIATES

Landscape Architects

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UPPER FALLS ROAD REDEVELOPMENT

TOM WATSON & CO.

188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: October 5, 2022

Issued For:

PERMIT SET

Revisions:

SRCC SUBMISSION 11.08.2022

FINAL SITE PLAN 12.14.2022

COMMENT RESPONSE IV 05.15.23

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Title: SHORELAND ZONING EXISTING VEGETATION REMOVAL & RECOMMENDATION PLAN

Scale: 1"=20'

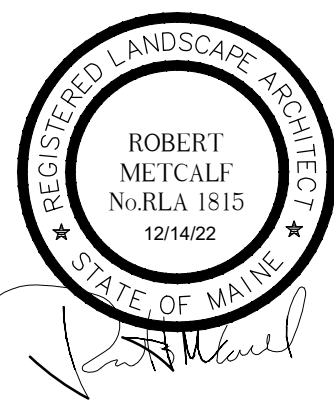
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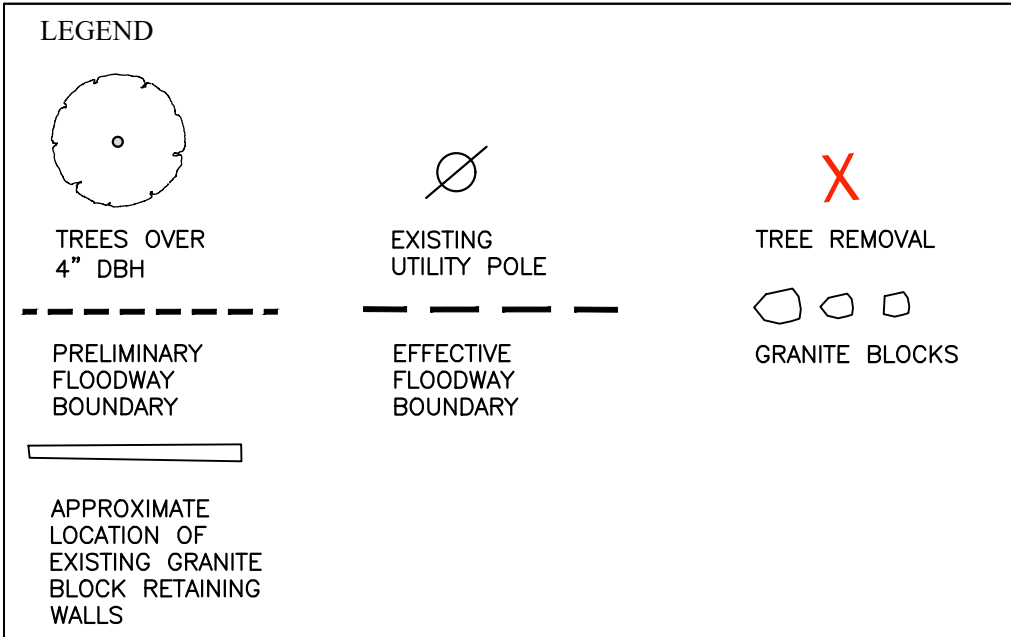
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REMOVAL METHODS:

- MANUAL REMOVAL
 - Hand pulled
 - Hand digging
 - Covering
 - MECHANICAL REMOVAL
 - Mowing
 - Cutting
 - Digging
 - Covering
 - Mechanical & manual methods for removal are recommended - herbicide application NOT PERMITTED. Invasive removal maintenance shall be carried out two times a year for three years to adequately remove invasive re-sprouting.
 - Mechanical removals shall not be permitted within the 25' shoreland setback
 - Manual Removal of all Autumn Olive, Multiflora Rose, Japanese Barberry, Honeysuckle and Bittersweet. cutting vines at comfortable height will kill canopy infestations. the entire plant shall be removed including the entirety of the root system to prohibit re-sprouting.
 - Selectively prune dead or hazard clump leaders no more than 40% of existing tree canopy.
 - Remove 1 clump maples on toe of slope where root systems are impacting the retaining wall, Root system to remain. Verify locations with Stabilization Plans.
 - Remove all concrete, pavement, bricks and rebar debris from embankment.
- SEE PLANTING PLAN FOR RE-VEGETATION
5. The applicant must provide adequate protection for non-target species.
6. SEE STABILIZATION PLAN AND PLANTING PLAN FOR TREATMENT

- THIS PLAN REPRESENTS THE FRAMEWORK SET FORTH BY THE CITY OF BIDDEFORDS SHORELAND ZONING REGULATIONS. USING 25X50' GRIDS FOR SPECIES IDENTIFICATIONS AND RECOMMENDATIONS.
- LANDSCAPE ARCHITECT SHALL BE CONTACTED BY THE LANDSCAPE CONTRACTOR PRIOR TO REMOVAL OF TREES AND SHRUBS TO CONDUCT A SITE VISIT TO INSPECT THE PLANT MATERIAL AND EXISTING CONDITIONS.

GENERAL NOTES

ZONING DISTRICT: HIGH DENSITY MIXED USE (MSRD3) AND THE GENERAL DEVELOPMENT (GD-1) OVERLAY DISTRICT

MINIMUM LOT SIZE: NONE
FRONTAGE: NONE
FRONT SETBACK: NONE
SIDE SETBACK: NONE
REAR SETBACK: NONE
MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

Shoreland Zoning Point System
DIAMETER OF TREE AT 4 1/2 FEET ABOVE GROUND LEVEL
MINIMUM 16 POINT PER 25' X 50' GRID.

POINTS DICTATED BY MEASUREMENTS OF TREE AT DIAMETER AT BREAST HEIGHT (DBH)

Inches	Points
2" to < 4"	1
4" to < 8"	2
8" to < 12"	4
12" or greater	8

EXISTING CONDITION
GRID 10A: TOTAL PLANT UNITS PER 1250 SF =46

BIRCH TREE = 11 POINTS
2",4",3",3",4",9"
MAPLE TREE = 35 POINTS
5",7",8",4",4",4",4",4",8",8",6",3",6",5",6"

PROPOSED CONDITION GRID 10A:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
ALL INVASIVE SPECIES TO BE REMOVED. SEE REMOVAL NOTES. RECOMMENDED REMOVAL OF ALL TRASH AND DEBRIS. SAPLINGS PERSIST IN THIS LOCATION- DIFFICULT GROWING CONDITIONS DUE TO RIP RAP AND CONCRETE.

EXISTING CONDITION
GRID 11A: TOTAL PLANT UNITS PER 1250 SF =33

MAPLE TREE = 2 POINTS
18",18",12",3",3",3",4",6",7"

PROPOSED CONDITION GRID 11A:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES. REMOVAL OF ALL TRASH AND DEBRIS REQUIRED. SAPLINGS PERSIST IN THIS LOCATION- DIFFICULT GROWING CONDITIONS DUE TO RIP RAP AND CONCRETE.

EXISTING CONDITION - 46% PAVEMENT
GRID 11G: TOTAL PLANT UNITS PER 1250 SF =27
-Grid is outside of the 75' setback- 46% PAVEMENT

BIRCH TREE = 13 POINTS
4",4",4",4",4",2",2",2"
POPLAR TREE = 14 POINTS
12",3",3",3",2",2",3"

PROPOSED CONDITION GRID 11G:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES. PLANTING PLAN, AND SHORELAND STABILIZATION PLANS. REMOVAL OF ALL EXISTING BITUMINOUS PAVEMENT.

EXISTING CONDITION- 60% PAVEMENT
GRID 11H: TOTAL PLANT UNITS PER 1250 SF =0
Grid is outside of the 75' setback

WHILES SAPLINGS EXISTS THIS GRID IS PREDOMINATELY PAVEMENT (60%) AND THE VEGETATION IS GROWING THROUGH LARGE DEBRIS PILES AND BROKEN PAVEMENT

PROPOSED CONDITION GRID 11H:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, AND CIVIL LAYOUT PLANS. REMOVAL OF ALL EXISTING BITUMINOUS PAVEMENT.

EXISTING CONDITION - 52% PAVEMENT
GRID 11I: TOTAL PLANT UNITS PER 1250 SF =5
Grid is outside of the 75' setback 52% PAVEMENT

POPLAR TREE = 5 POINTS
3",5",2",3"

PROPOSED CONDITION GRID 11I:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY, WITHIN THIS GRID. MAINTAIN THE EXISTING FIVE POINTS WHILE ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. REMOVAL OF ALL EXISTING BITUMINOUS PAVEMENT AND DEBRIS PILES. PRESERVE NATIVE SAPLINGS.

EXISTING CONDITION 56% IS OUTSIDE OF THE PROPERTY
GRID 11J: TOTAL PLANT UNITS PER 1250 SF =3
BIRCH TREE = 3 POINTS
5",6",5"

PROPOSED CONDITION GRID 11J:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING FIVE POINTS WHILE ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.

EXISTING CONDITION
GRID 12A: TOTAL PLANT UNITS PER 1250 SF =0
PLEASE NOTE THE GRID ONLY COVERS A SMALL CORNER OF THE LAND AREA WHICH CONSIST OF RIP RAP EROSION CONTROL, FROM A DEDED DRAINAGE EASEMENT.

PROPOSED CONDITION GRID 12A:

SAPLINGS PERSIST IN THIS LOCATION- DIFFICULT GROWING CONDITIONS DUE TO RIP RAP EROSION CONTROL. SEE PLANTING PLAN AND SHORELAND STABILIZATION PLANS.

EXISTING CONDITION- 12% PAVEMENT
GRID 12B: TOTAL PLANT UNITS PER 1250 SF =16

BIRCH TREE = 10 POINTS
2",4",4",3",2",2",2",3"
MAPLE TREE = 6 POINTS
2",2",2",2",2",3"

PROPOSED CONDITION GRID 12B:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
PROPOSED REMOVALS WOULD MAKE GRID DEFICIENT- APPLICANT PROPOSES TO RE-VEGETATE WITH NATIVE SAPLINGS. ALL INVASIVE SPECIES TO BE REMOVED- SEE REMOVAL NOTES, PLANTING PLAN, AND SHORELAND STABILIZATION PLANS. REMOVAL OF ALL TRASH AND DEBRIS. SAPLINGS PERSIST IN THIS LOCATION- DIFFICULT GROWING CONDITIONS DUE TO RIP RAP AND CONCRETE.

EXISTING CONDITION - 30% PAVEMENT
GRID 12C: TOTAL PLANT UNITS PER 1250 SF =24

BLACK LOCUST TREE = 6 POINTS
4",4",2",2"
MAPLE TREE = 24 POINTS
2",2",2",2",18",4",4",6",5",7"

PROPOSED CONDITION GRID 12C:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD, AND DEAD TREES ONLY WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.

EXISTING CONDITION - 21% PAVEMENT
GRID 12D: TOTAL PLANT UNITS PER 1250 SF =22

ASH TREE = 1 POINTS
3"
BIRCH TREE = 11 POINTS
6",3",3",3",3",3",3",5",3"
MAPLE TREE= 5 POINTS
11",3"
POPLAR TREE=5 POINTS
2",2",3",4"

PROPOSED CONDITION GRID 12D:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY, WITHIN THIS GRID. MAINTAIN THE EXISTING FIVE POINTS WHILE ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. REMOVAL OF ALL EXISTING BITUMINOUS PAVEMENT.

EXISTING CONDITION - 28% PAVEMENT
GRID 12E: TOTAL PLANT UNITS PER 1250 SF =20

BIRCH TREE=4
2",2",3",3"
MAPLE TREE= 1 POINTS
3"
POPLAR TREE=7 POINTS
2",4",4",4"
BLACK LOCUST (INVASIVE)=8 POINTS
5",4",4",4"

PROPOSED CONDITION GRID 12E:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY, ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION. REMOVAL OF ALL EXISTING BITUMINOUS PAVEMENT.

EXISTING CONDITION - 66% PAVEMENT
GRID 12F: TOTAL PLANT UNITS PER 1250 SF =6
POPLAR TREE=6 POINTS
3",3",3",3",2",2"

PROPOSED CONDITION GRID 12F:

PROPOSED REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES WITHIN THIS GRID. MAINTAIN THE EXISTING HEALTHY TREES. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.
DUE TO THE NUMBER OF INVASIVE BLACK LOCUST THE PROPOSED REMOVALS WOULD MAKE GRID DEFICIENT. THE APPLICANT PROPOSES TO RE-VEGETATE WITH NATIVE SAPLINGS. ALL INVASIVE SPECIES TO BE REMOVED. REMOVAL OF ALL TRASH AND DEBRIS.

EXISTING CONDITION
GRID 12G: TOTAL PLANT UNITS PER 1250 SF =5
BLACK LOCUST (INVASIVE)=5 POINTS
6",6",3"

PROPOSED CONDITION GRID 12G:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY WITHIN THIS GRID. NATIVE SAPLINGS EXIST TO HELP TO RESTORE THE BUFFER THIS AREA HAS MANY DEAD AND DYING TREES. THE GRID IS DEFICIENT OF THE 16 POINT OF EXISTING HEALTHY TREES- THE APPLICANT IS PROPOSING THE REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES AND A NATIVE PLANTING PLAN TO RESTORE THE VEGETATION BUFFER AND CANOPY. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.

EXISTING CONDITION
GRID 12H: TOTAL PLANT UNITS PER 1250 SF =10

MAPLE = 2 POINTS
6"
POPLAR TREE = 8 POINTS
8"

PROPOSED CONDITION GRID 12H:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY WITHIN THIS GRID. SOME NATIVE SAPLINGS EXIST TO HELP TO RESTORE THE BUFFER THIS AREA HAS MANY DEAD AND DYING TREES. THE GRID IS DEFICIENT OF THE 16 POINT TO ALLOW REMOVALS- THE APPLICANT IS PROPOSING THE REMOVAL OF INVASIVE SPECIES, HAZARD TREES, AND DEAD TREES AND A NATIVE PLANTING PLAN TO RESTORE THE VEGETATION BUFFER AND CANOPY. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.

EXISTING CONDITION
GRID 12I: TOTAL PLANT UNITS PER 1250 SF =38

ASH TREE= 2
6"
MAPLE TREE = 22 POINTS
10",12,11",6",8"
POPLAR TREE = 14 POINTS
10",8",4",5",5"

PROPOSED CONDITION GRID 12I:

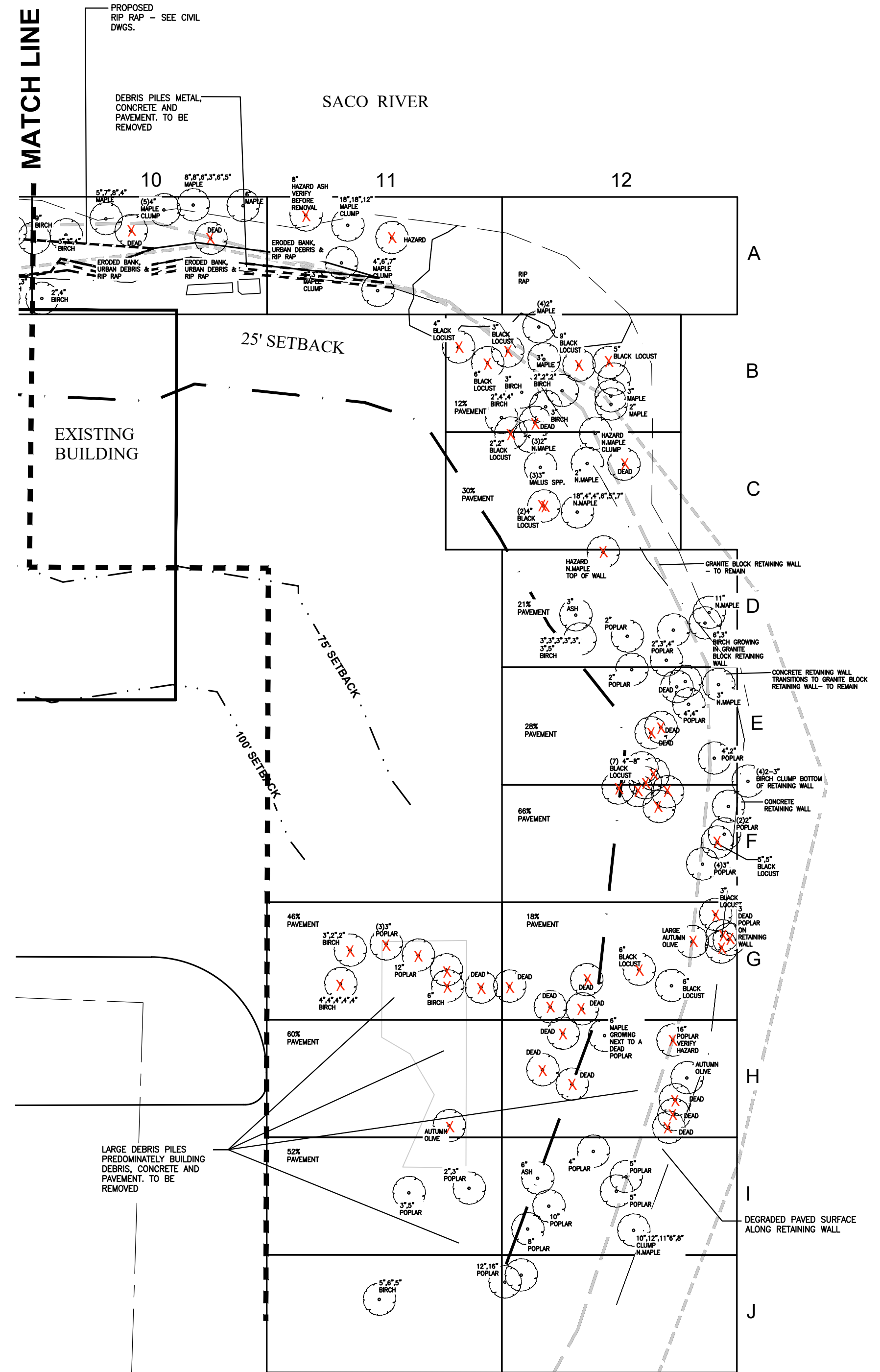
PROPOSED REMOVAL OF INVASIVE SPECIES ONLY WITHIN THIS GRID WHILE ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.

EXISTING CONDITION - 77% IS OUTSIDE OF THE PROPERTY
GRID 12J: TOTAL PLANT UNITS PER 1250 SF =16

POPLAR TREE = 16 POINTS
16",12"

PROPOSED CONDITION GRID 12J:

PROPOSED REMOVAL OF INVASIVE SPECIES ONLY WITHIN THIS GRID WHILE ALLOWING EXISTING NATIVE SAPLINGS TO RESTORE THE BUFFER. SEE PLANTING AND STABILIZATION PLAN FOR ADDITIONAL INFORMATION.



SEE PLANTING PLANS - SHEETS L3 - L3.2

Prepared For:
Applicant:
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188 STATE STREET
Portland, Maine

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UPPER FALLS ROAD REDEVELOPMENT
TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: OCTOBER 05, 2022

Issued For:
PERMIT SET

Revisions:
SRCC SUBMISSION 11.08.2022
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COMMENT RESPONSE IV 05.15.23

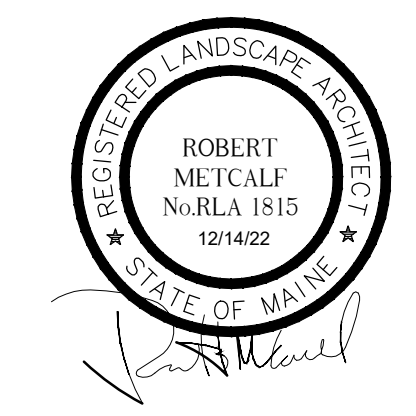
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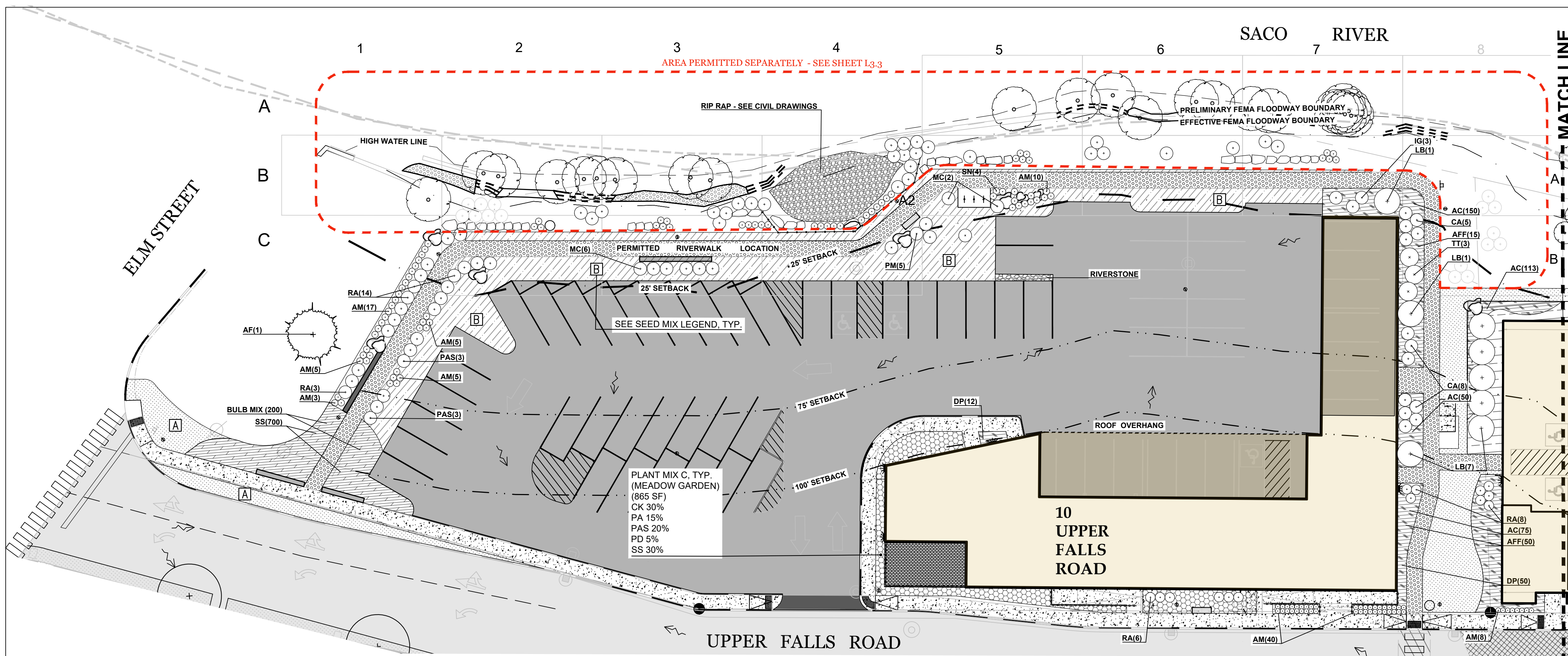
Title: SHORELAND ZONING
EXISTING
VEGETATION REMOVAL &
RECOMMENDATION PLAN

Scale: 1"=20'
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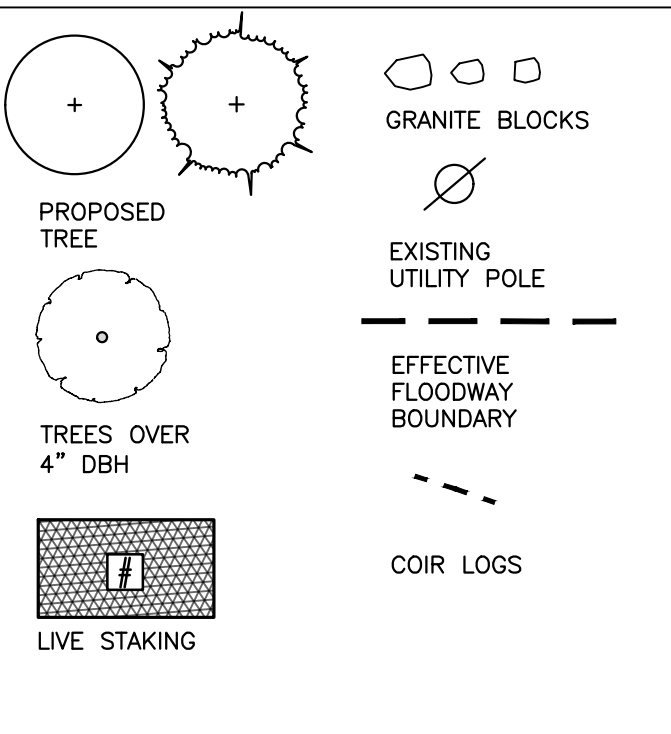
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LEGEND



PLANT NOTES

- CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
- PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
- CONTRACTOR SHALL USE NATIVE DUFF TO RE-NATURALIZE DISTURBED AREAS AS NOTED ON PLANS.
- CONTRACTOR SHALL FURNISH AND PLACE 18 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITS, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
- ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN" LATEST EDITION.
- ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
- ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
- EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH (DO NOT EXCEED 3" DEPTH).
- ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION ON SITE.
- WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
- DAMAGE TO EXISTING SITE IMPROVEMENTS DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- PROVIDE SLOW-RELEASE WATER BAGS ON ALL NEW TREE PLANTINGS AT THE TIME OF PLANTING. WATER ALL TREES TWICE A WEEK IN THE SPRING, SUMMER AND FALL OF FIRST YEAR OF PLANTINGS.
- LANDSCAPE ARCHITECT SHALL BE CONTACTED BY THE LANDSCAPE CONTRACTOR PRIOR TO PLANTING OF TREES AND SHRUBS TO CONDUCT A SITE VISIT TO INSPECT THE PLANT MATERIAL AND EXISTING CONDITIONS.

PLANT SCHEDULE

CODE	TREES	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
AF		<i>Abies balsamea</i>	Balsam Fir	1	12-14'	as shown	
AM		<i>Amelanchier x grandiflora</i>	Robin Hill Serviceberry	8	1.75"		
CW		<i>Crataegus spp.</i>	Winterking Hawthorn	3	1.75"		
BN		<i>Betula nigra 'Heritage'/'Cully'</i>	River Birch 'Heritage'/'Cully'	1	14'	as shown	Multi-stem trunk
PT		<i>Populus tremuloides</i>	Quaking Aspen	23	Sapling		
PLANT MIX A: Shade (SF +/-)							
AC		<i>Asarum canadense</i>	Wild ginger	1310	plug	18" OC	
AFF		<i>Athyrium filix-femina</i>	Lady Fern	97	#1 CONT.	18" OC	" "
CT		<i>Campanula Americana</i>	Tall bellflower	65	plug	18" OC	
CA		<i>Clethra alnifolia</i>	Sweet-pepperbush	23	#3 CONT.	36" OC	" "
DP		<i>Donostadina punctilobula</i>	Eastern hay-scented fern	120	#1 CONT.	18" OC	
LB		<i>Lindera benzoin</i>	Spicebush	9	#3 CONT.	8" OC	" "
PA		<i>Puckeria aurea</i>	Golden groundsel	120	PLUG	18" OC	
PAC		<i>Polystichum acrostichoides</i>	Christmas fern	95	PLUG	18" OC	straight native species preferred
PLANT MIX B: Shrub Mosaic (SF +/-)							
AH		<i>Amsonia hubertii</i>	Hubert's Blue Star	27	#2 CONT.	36" OC	straight native species preferred
AM		<i>Aronia melanocarpa 'Low Scape Hedger'</i>	Black Chokeberry 'Low Scape Hedger'	93	2.5-3' H	36" OC	
CP		<i>Comptonia peregrina</i>	Sweetfern	169	#2 CONT.	36" OC	straight native species preferred
HV		<i>Hammamelis virginiana</i>	Common Witchazel	1	4-5' H	8"	straight native species preferred
IG		<i>Ilex glabra</i>	Inkberry	3	#3 CONT.	48" OC	
LYR		<i>Ilex verticillata 'Red Sprite'</i>	Winterberry 'Red Sprite'	6	2.5-3' H	48" OC	female dwarf cultivar
LYRJ		<i>Ilex verticillata 'Jim Dandy'</i>	Winterberry 'Jim Dandy'	1	2.5-3' H	48" OC	male dwarf cultivar
MC		<i>Morella carolinensis</i>	Small Bayberry	36	2.5-3' H	30" OC	straight native species preferred
OC		<i>Osmundrastum cinnamomea</i>	Cinnamon Fern	58	#1 CONT.	24" OC	" "
RA		<i>Rhus aromatica 'lo-pro'</i>	Lo-Pro Sumac	377	#2 CONT.	36" OC	" "
PM		<i>Prunus maritima</i>	Beach Plum	24	2' H	36" OC	
SL		<i>Symphoricarum laeve</i>	Smooth Blue Aster	170	#2 CONT.	24" OC	straight native species preferred
TT		<i>Taxus x media 'Everlow'</i>	Everlow yew	3	2' H	72" OC	
PLANT MIX C: Meadow Garden (SF +/-)							
AC		<i>Allium cernuum</i>	Nodding Onion	26	#1 CONT.	15" OC	straight native species preferred
AT		<i>Asclepias tuberosa</i>	Butterflyweed	TBD	#1 CONT.	15" OC	" "
BG		<i>Bouteloua gracilis</i>	Mosquito Grass	TBD	plug	15" OC	" "
CJ		<i>Conanthus americanus</i>	New Jersey Tea	TBD	#1 CONT.	24" OC	" "
CK		<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	Karl Foerster Grass	64	#1 CONT.	24" OC	
PD		<i>Pennisetum digitalis</i>	Foxglove Beardtongue	27	#1 CONT.	15" OC	" "
PA		<i>Pennisetum alopecuroides</i>	Fountain Grass	24	#1 CONT.	36" OC	
PAS		<i>Perovskia atriplicifolia</i>	Russian Sage	203	#1 CONT.	18" OC	" "
RH		<i>Rudbeckia hirta</i>	Black-eyed Susan	50	plug	18" OC	
SN		<i>Salvia nemorosa</i>	Sage	4	#1 CONT.	24" OC	
SS		<i>Schizachyrium scoparium</i>	Little Bluestem	2,940	plug	15" OC	" "
SP		<i>Solidago pubescens</i>	Downy Goldenrod	10	#1 CONT.	15" OC	" "
SO		<i>Symphoricarum oblongifolium</i>	Aromatic Aster	10	#1 CONT.	15" OC	" "
Coir Logs - See Detail							
		BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING	NOTES
		<i>Cornus amomum</i>	Silky Dogwood	30			
BULBS							
		<i>Camassia leichtlinii 'Alba'</i>	Camassia alba	400			5 BULBS PER SF.
		<i>Narcissus spp.</i>	Daffodil	400			5 BULBS PER SF.

SEED MIX LEGEND

- EXISTING VEGETATION**
- A** SEED MIX #1, (MOWN GRASS) TYP.; AREA W/ TEMPORARY IRRIGATION; INSTALL 5" TOPSOIL FOR SEED MIXES AREAS, TYP.
- B** NEW ENGLAND CONSERVATION/ WILDLIFE MIX CONTROL MIX #2, (TALL GRASS) TYP.; AREA W/ TEMPORARY IRRIGATION; INSTALL 5" TOPSOIL FOR SEED MIXES AREAS, TYP.
- C** NEW ENGLAND WILDFLOWER SEED MIX #4, (TALL GRASS, SHRUBS) TYP.; AREA W/ TEMPORARY IRRIGATION; INSTALL 6" TOP SOIL FOR SEED MIXES AREAS, TYP.
- "NEW ENGLAND CONSERVATION/WILDLIFE MIX"**
mfg. NEW ENGLAND WETLAND PLANTS
newp.com/catalog/seed-mixes/#wildlife
- "NEW ENGLAND WILD FLOWER SEED MIX"**
mfg. NEW ENGLAND WETLAND PLANTS
newp.com/catalog/seed-mixes/#wildlife

Prepared For:
Applicant:
TOM WATSON & CO.
188 STATE STREET
Portland, Maine

Prepared By:
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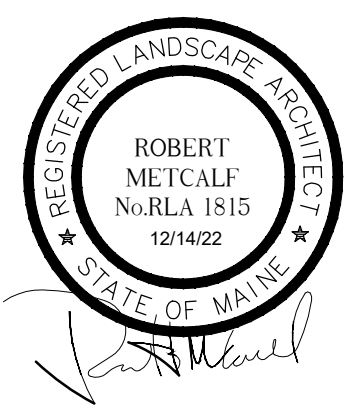
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Title:
PLANTING PLAN

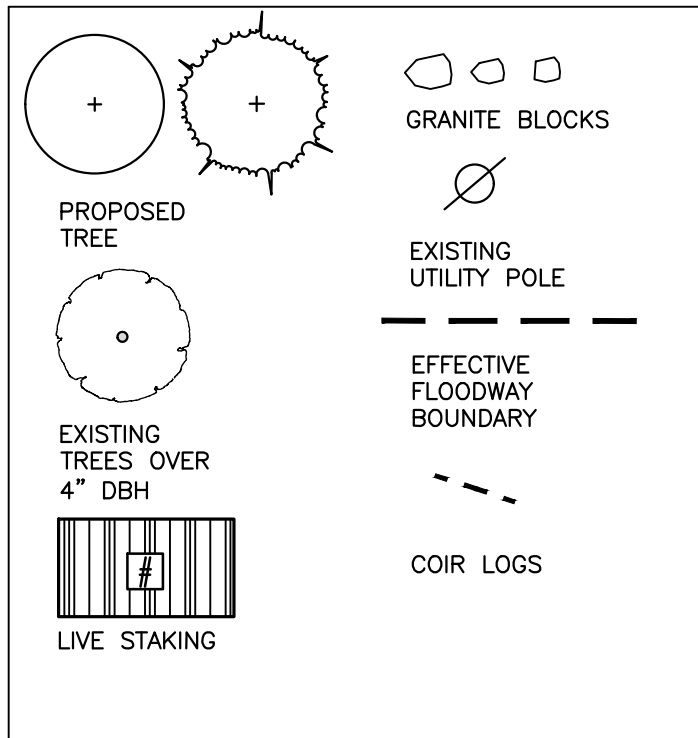
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North:
Sheet No.:
L3

NOTE: This drawing is PRELIMINARY ONLY. It is NOT intended for use as a construction document.



LEGEND



GENERAL NOTES

ZONING DISTRICT: HIGH DENSITY MIXED USE (MSRD3) AND THE GENERAL DEVELOPMENT (GD-1) OVERLAY DISTRICT

PLANTING PLAN IS COORDINATED WITH REGULATIONS DICTATED BY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, THE SACO RIVER CORRIDOR COMMISSION, AND THE CITY OF BIDDEFORD - SEE SHEETS

SHORELAND ZONING POINT SYSTEM
DIAMETER OF TREE AT 4 1/2 FEET ABOVE GROUND LEVEL
MINIMUM 16 POINT PER 25' X 50' GRID.

POINTS DICTATED BY MEASUREMENTS OF TREE AT
DIAMETER AT BREAST HEIGHT (DBH)

INCHES	POINTS
2" TO < 4"	1
4" TO < 8"	2
8" TO < 12"	4
12" OR GREATER	8

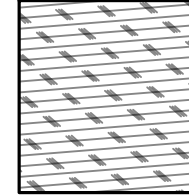
PLANT NOTES

- CALL DIG-SAFE (1-888-344-7233) PRIOR TO BEGINNING WORK. THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES PAVING, WALKS, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.
- DO NOT SCALE FROM DRAWINGS. ANY OMISSIONS IN DIMENSIONING SHALL BE REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, NOTES AND SPECS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT FOR FURTHER DIRECTION AND RESOLUTION BEFORE ANY ADDITIONAL WORK PROCEEDS.
- PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.
- CONTRACTOR SHALL USE NATIVE DUFF TO RE-NATURALIZE DISTURBED AREAS AS NOTED ON PLANS.
- CONTRACTOR SHALL FURNISH AND PLACE 18 INCHES OF LOAM IN ALL SHRUB BEDS, 30 INCHES IN ALL TREE PITs, AND 6 INCHES UNDER ALL TURF AREAS. THE LANDSCAPE CONTRACTOR SHALL COORDINATE SUBGRADE PREPARATION WITH THE GENERAL CONTRACTOR PRIOR TO PLACING LOAM.
- ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN" LATEST EDITION.
- ALL PLANT MATERIAL SHALL BE FREE FROM INSECTS AND DISEASE.
- ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING, STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM THE OWNER.
- ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.
- EXISTING TREES TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION AND SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- ALL SHRUB BEDS AND TREE PITs SHALL BE MULCHED WITH 3" CLEAN SHREDDED BLACK MULCH (DO NOT EXCEED 3" DEPTH).
- ANY DEVIATION FROM THE LANDSCAPE PLAN, INCLUDING PLANT LOCATION, SELECTION, SIZE, QUANTITY, OR CONDITION SHALL BE REVIEWED AND APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO INSTALLATION ON SITE.
- WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.
- DAMAGE TO EXISTING SITE IMPROVEMENTS DURING INSTALLATION OF LANDSCAPE MATERIAL SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- PROVIDE SLOW-RELEASE WATER BAGS ON ALL NEW TREE PLANTINGS AT THE TIME OF PLANTING. WATER ALL TREES TWICE A WEEK IN THE SPRING, SUMMER AND FALL OF FIRST YEAR OF PLANTINGS.
- LANDSCAPE ARCHITECT SHALL BE CONTACTED BY THE LANDSCAPE CONTRACTOR PRIOR TO PLANTING OF TREES AND SHRUBS TO CONDUCT A SITE VISIT TO INSPECT THE PLANT MATERIAL AND EXISTING CONDITIONS.

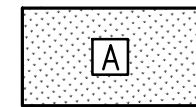
PLANT SCHEDULE

TREES					
CODE	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
AF	<i>Abies balsamea</i>	Balsalm Fir	1	12-14'	as shown
AM	<i>Amelanchier x grandiflora</i>	Robin Hill Serviceberry	8	1-75"	
CW	<i>Crataegus spp.</i>	Winterking Hawthorn	3	1-75"	
BN	<i>Betula nigra 'Heritage'/Cully'</i>	River Birch 'Heritage'/Cully'	1	14'	as shown
PT	<i>Populus tremuloides</i>	Quaking Aspen	23	Sapling	
PLANT MIX A: Shade (SF +/-)					
AC	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
AC	<i>Asarum canadense</i>	Wild ginger	1310	plug	18" OC
AF	<i>Athyrium filix-femina</i>	Lady Fern	97	#1 CONT.	18" OC
CT	<i>Campanula Americana</i>	Tall bellflower	65	plug	18" OC
CA	<i>Clethra alnifolia</i>	Sweet-pepperbush	23	#3 CONT.	36" OC
DP	<i>Demissaefia punctilobula</i>	Eastern bay-scented fern	120	#1 CONT.	18" OC
LB	<i>Lindera benzoin</i>	Spicebush	9	#5 CONT.	8" OC
PA	<i>Packera aurea</i>	Golden groundsel	120	PLUG	18" OC
PAC	<i>Polystichum acrostichoides</i>	Christmas fern	95	PLUG	18" OC
PLANT MIX B: Shrub Mosaic (SF +/-)					
AH	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
AH	<i>Amsonia hubrechtii</i>	Hubrecht's Blue Star	27	#2 CONT.	36" OC
AM	<i>Aronia melanocarpa 'Low Scape Hedger'</i>	Black Chokeberry 'Low Scape Hedger'	93	2-5-3' H	36" OC
CP	<i>Comptonia peregrina</i>	Sweetfern	169	#2 CONT.	36" OC
HV	<i>Hammamelis virginiana</i>	Common Witchazel	1	4-5' H	8'
IG	<i>Ilex glabra</i>	Inkberry	3	#3 CONT.	48" OC
LVR	<i>Ilex verticillata 'Red Sprite'</i>	Winterberry 'Red Sprite'	6	2-5-3' H	48" OC
LVRJ	<i>Ilex verticillata 'Jim Dandy'</i>	Winterberry 'Jim Dandy'	1	2-5-3' H	48" OC
MC	<i>Morrellia carolinensis</i>	Small Bayberry	36	2-5-3' H	36" OC
OC	<i>Osmundastrum cinnamomea</i>	Cinnamon Fern	58	#1 CONT.	24" OC
RA	<i>Rhus aromatica 'to-gro'</i>	Lo-Gro Sumac	377	#2 CONT.	36" OC
PM	<i>Prunus maritima</i>	Beach Plum	24	2' H	36" OC
SL	<i>Symphotrichum laeae</i>	Smooth Blue Aster	170	#2 CONT.	24" OC
TY	<i>Taxus x media 'Everlow'</i>	Everlow yew	3	2' H	72" OC
PLANT MIX C: Meadow Garden (SF +/-)					
AT	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
AT	<i>Allium cernuum</i>	Nodding Onion	26	#1 CONT.	15" OC
BG	<i>Asclepias tuberosa</i>	Butterflyweed	TBD	#1 CONT.	15" OC
BJ	<i>Bouteloua gracilis</i>	Mosquito Grass	TBD	plug	15" OC
CJ	<i>Ceanothus americanus</i>	New Jersey Tea	TBD	#1 CONT.	24" OC
CK	<i>Calamagrostis x acutiflora 'Karl Foerster'</i>	Karl Foerster Grass	64	#1 CONT.	24" OC
PD	<i>Penstemon digitalis</i>	Foxglove Beardtongue	27	#1 CONT.	15" OC
PA	<i>Pennisetum alopecuroides</i>	Fountain Grass	24	#1 CONT.	36" OC
PAS	<i>Penovskia atriculisfolia</i>	Russian Sage	203	#1 CONT.	18" OC
RH	<i>Rudbeckia hirta</i>	Black-eyed Susan	30	plug	18" OC
SN	<i>Salvia nemerosa</i>	Sage	4	#1 CONT.	24" OC
SS	<i>Schizachyrium scoparium</i>	Little Bluestem	2,940	plug	15" OC
SP	<i>Solidago pubescens</i>	Downy Goldenrod	10	#1 CONT.	15" OC
SO	<i>Symphotrichum oblongifolium</i>	Aromatic Aster	10	#1 CONT.	15" OC
Coir Logs - See Detail					
BT	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
BT	<i>Cornus amomum</i>	Silky Dogwood	30		
BULBS					
	<i>Camassia leichtlinii 'Alba'</i>	Camassia alba	400		5 BULBS PER SF.
	<i>Narcissus spp.</i>	Daffodil	400		5 BULBS PER SF.

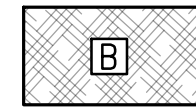
PLANT MIX LEGEND



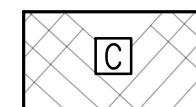
SEED MIX LEGEND



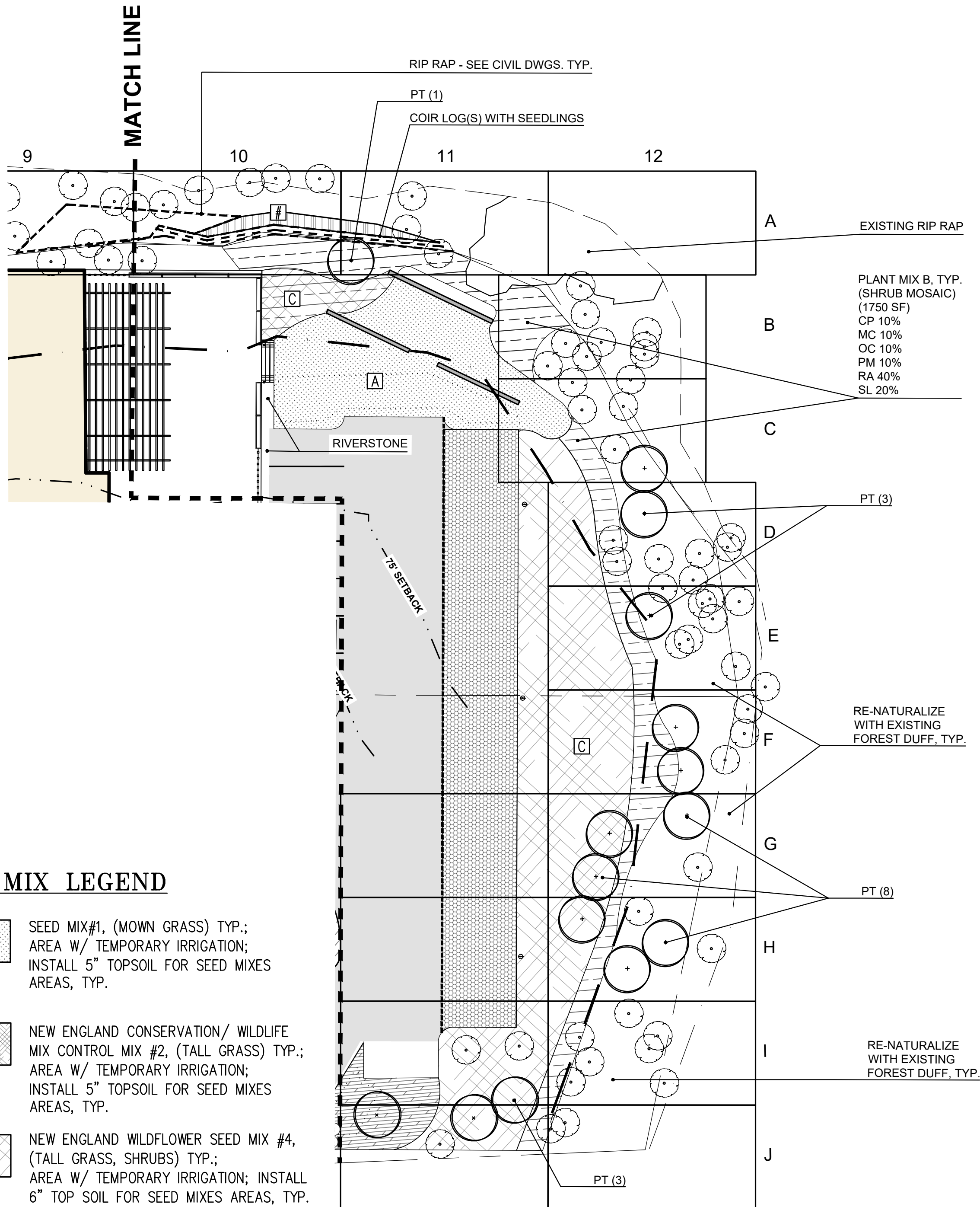
SEED MIX #1, (MOWN GRASS) TYP.;
AREA W/ TEMPORARY IRRIGATION;
INSTALL 5" TOPSOIL FOR SEED MIXES
AREAS, TYP.



NEW ENGLAND CONSERVATION/ WILDLIFE
MIX CONTROL MIX #2, (TALL GRASS) TYP.;
AREA W/ TEMPORARY IRRIGATION;
INSTALL 5" TOPSOIL FOR SEED MIXES
AREAS, TYP.



NEW ENGLAND WILDFLOWER SEED MIX #4,
(TALL GRASS, SHRUBS) TYP.;
AREA W/ TEMPORARY IRRIGATION; INSTALL
6" TOP SOIL FOR SEED MIXES AREAS, TYP.



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Portland, Maine

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UPPER FALLS ROAD REDEVELOPMENT
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188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: OCTOBER 05, 2022

Issued For:
PERMIT SET

Revisions:
SRCC SUBMISSION 11.08.2022
FINAL SITE PLAN 12.14.2022
COMMENT RESPONSE IV 05.15.23

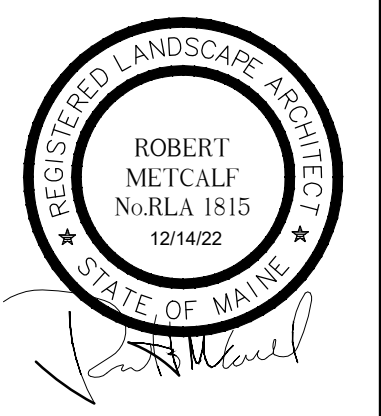
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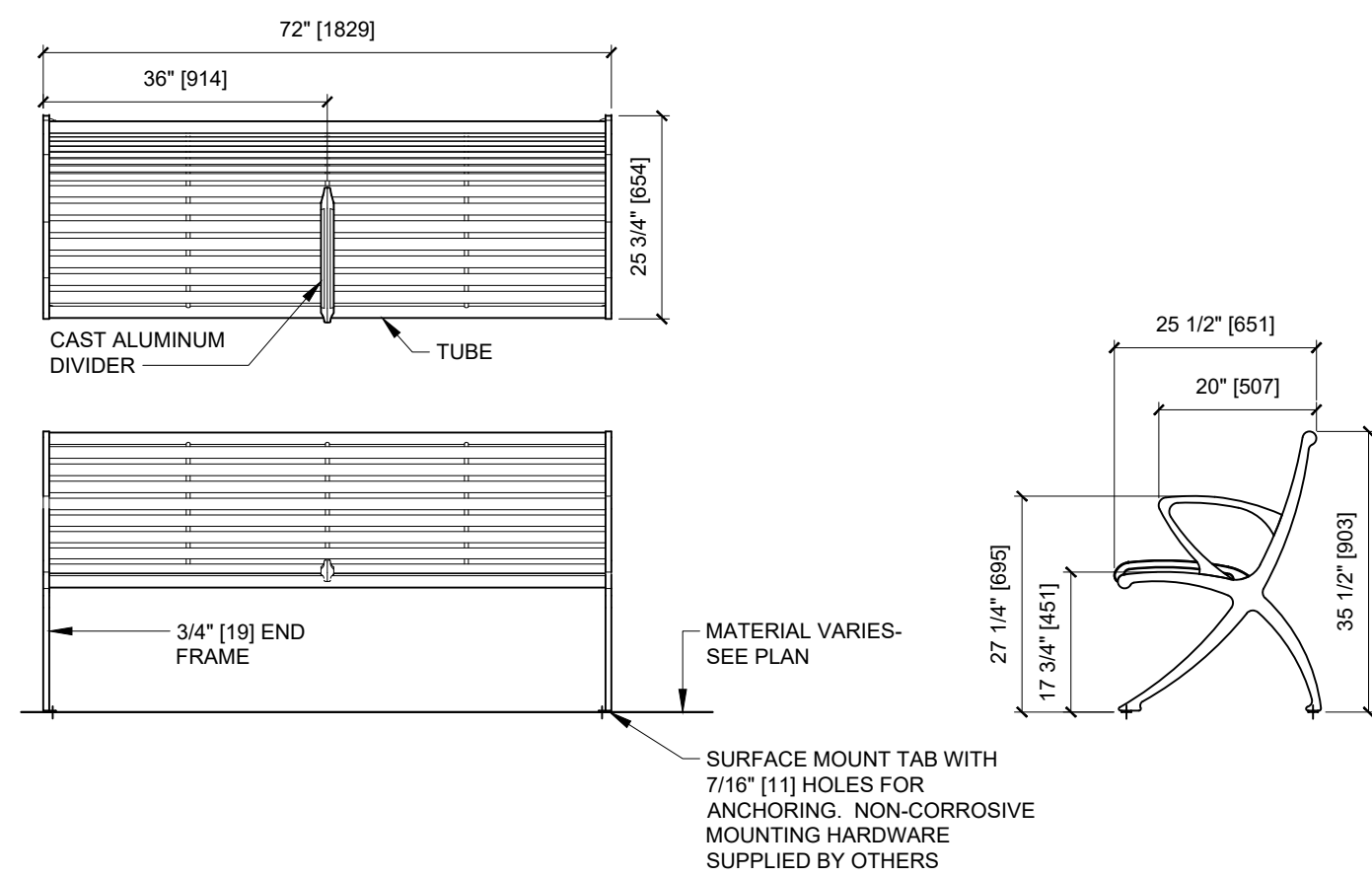
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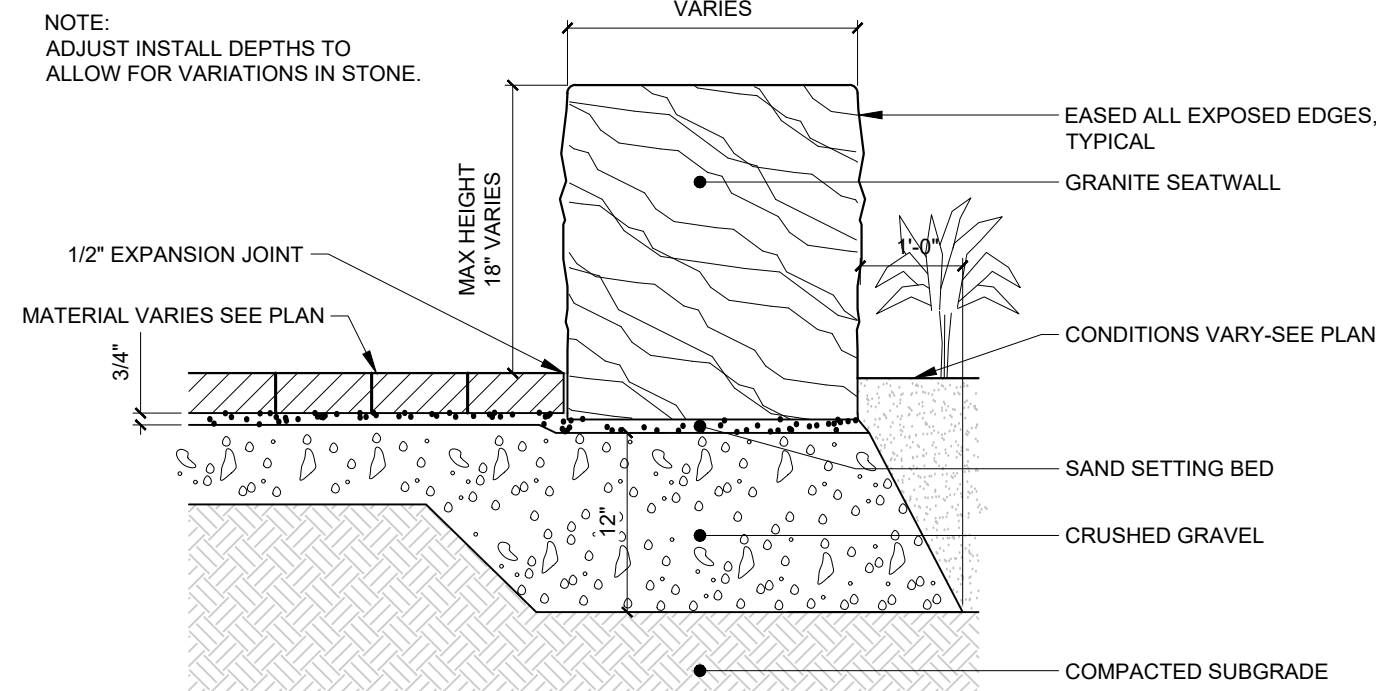
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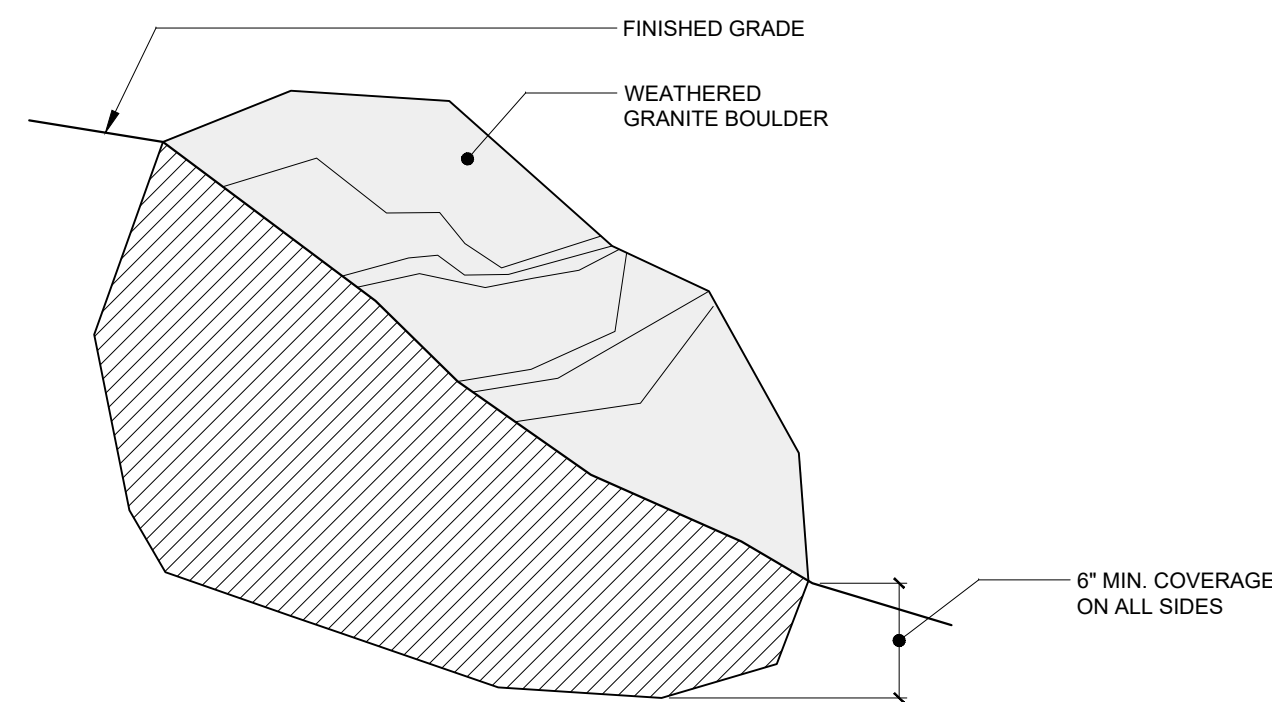




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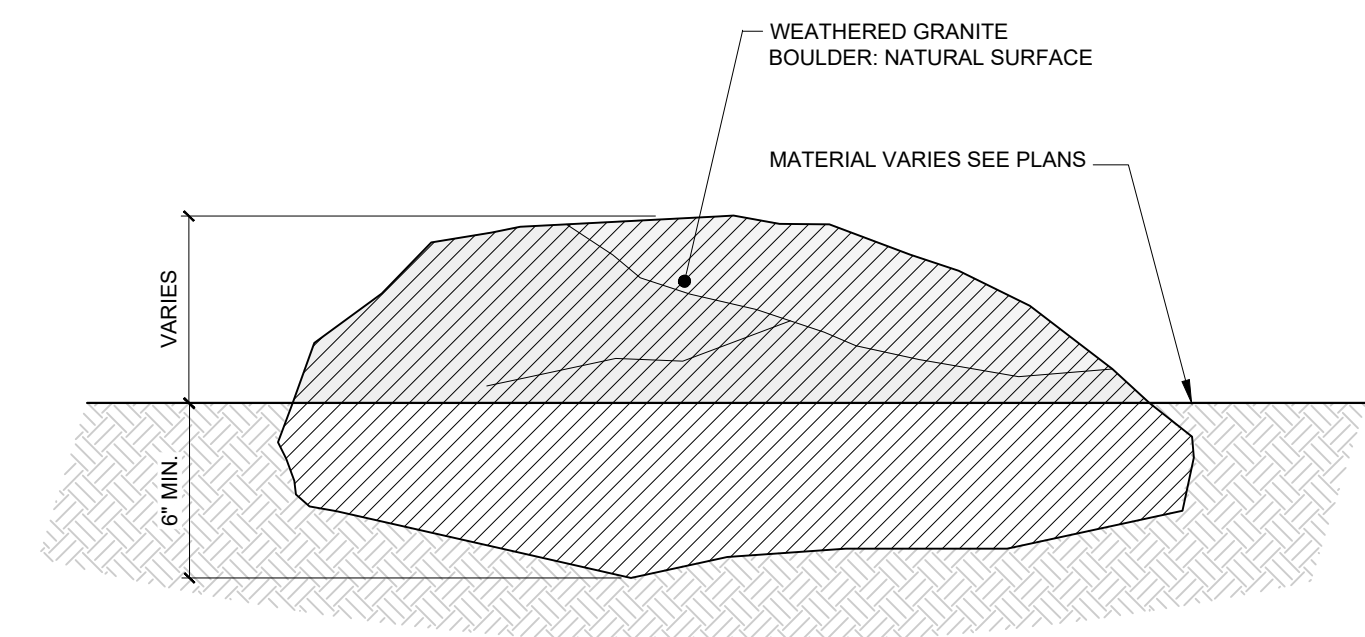


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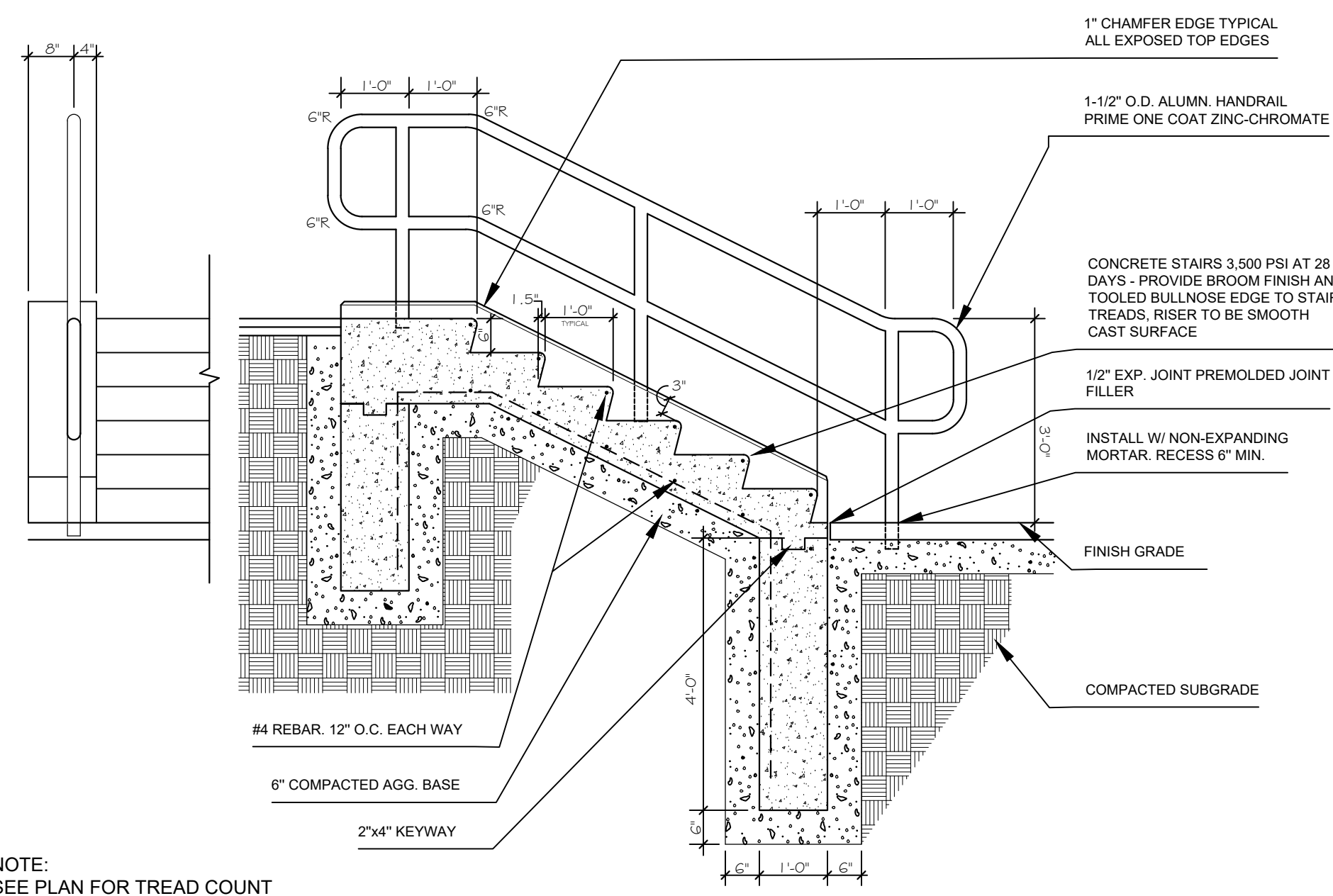
- NOTES:**
1. LOCATIONS OF GRANITE BOULDERS TO BE STAKED IN THE FIELD BY LANDSCAPE ARCHITECT.
 2. GRANITE BOULDERS SHALL BE REMOVED AND STOCKPILED ON SITE IN A METHOD TO AVOID DAMAGE/SCRATCHING DURING REMOVAL, TRANSIT, AND RESETTING.
 3. GRANITE BOULDERS SHALL BE PLACED USING STRAPS. DAMAGED AND SCRATCHED BOLLARDS WILL NOT BE ACCEPTED.

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-16



- NOTES:**
1. LOCATIONS OF GRANITE BOULDERS TO BE STAKED IN THE FIELD BY LANDSCAPE ARCHITECT.
 2. GRANITE BOULDERS SHALL BE REMOVED AND STOCKPILED ON SITE IN A METHOD TO AVOID DAMAGE/SCRATCHING DURING REMOVAL, TRANSIT, AND RESETTING.
 3. GRANITE BOULDERS SHALL BE PLACED USING STRAPS. DAMAGED AND SCRATCHED BOLLARDS WILL NOT BE ACCEPTED.

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-16

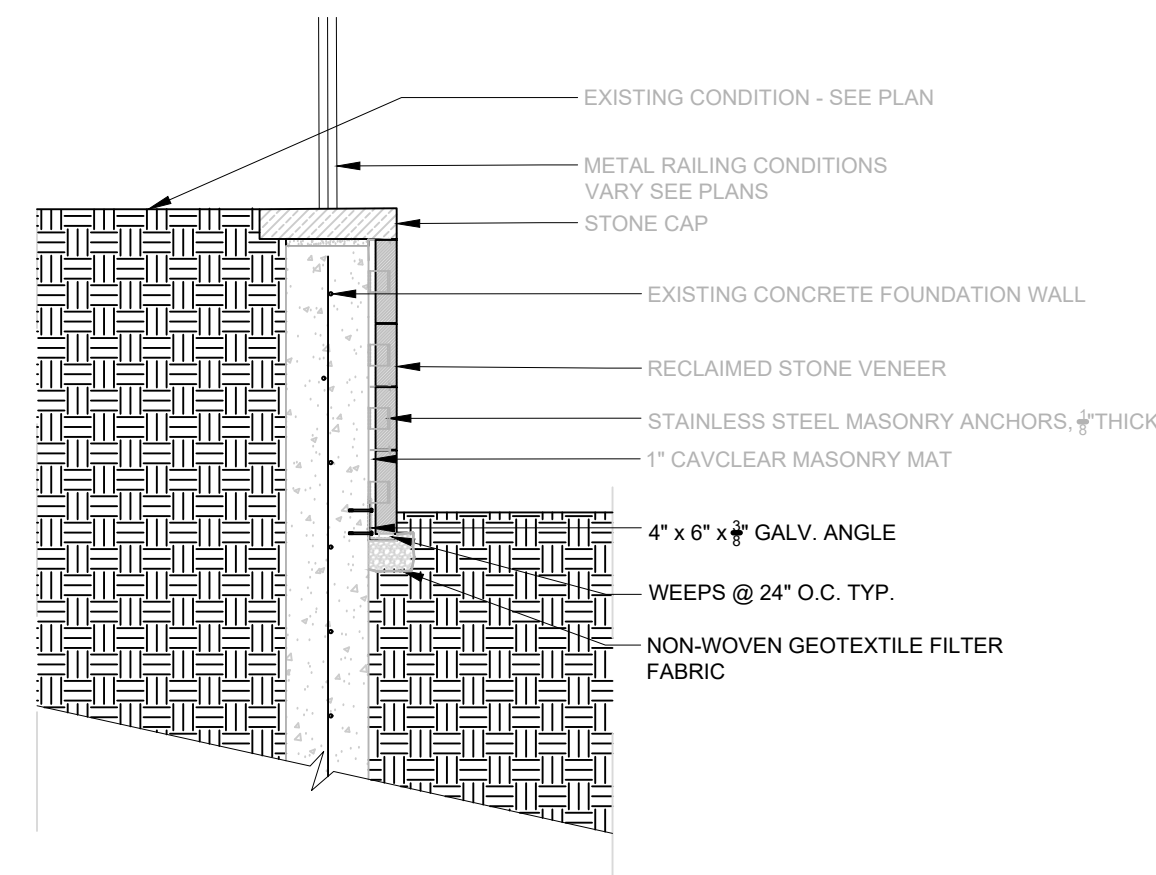


SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-22



NOTE:
EXAMPLE OF CURRENT WAYFINDING SIGN
TREATMENT ALONG THE SACO/BIDDEFORD
RIVERWALK - PROPOSED WAYFINDING
SIGNAGE TO MATCH

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-23



SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-22

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FINAL SITE PLAN	12.14.2022
COMMENT RESPONSE IV	05.15.23

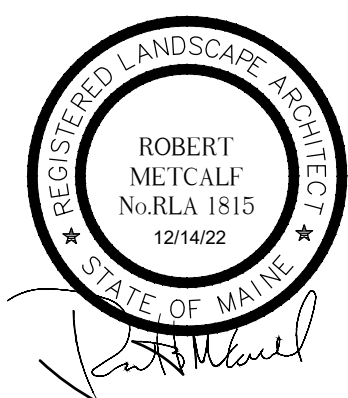
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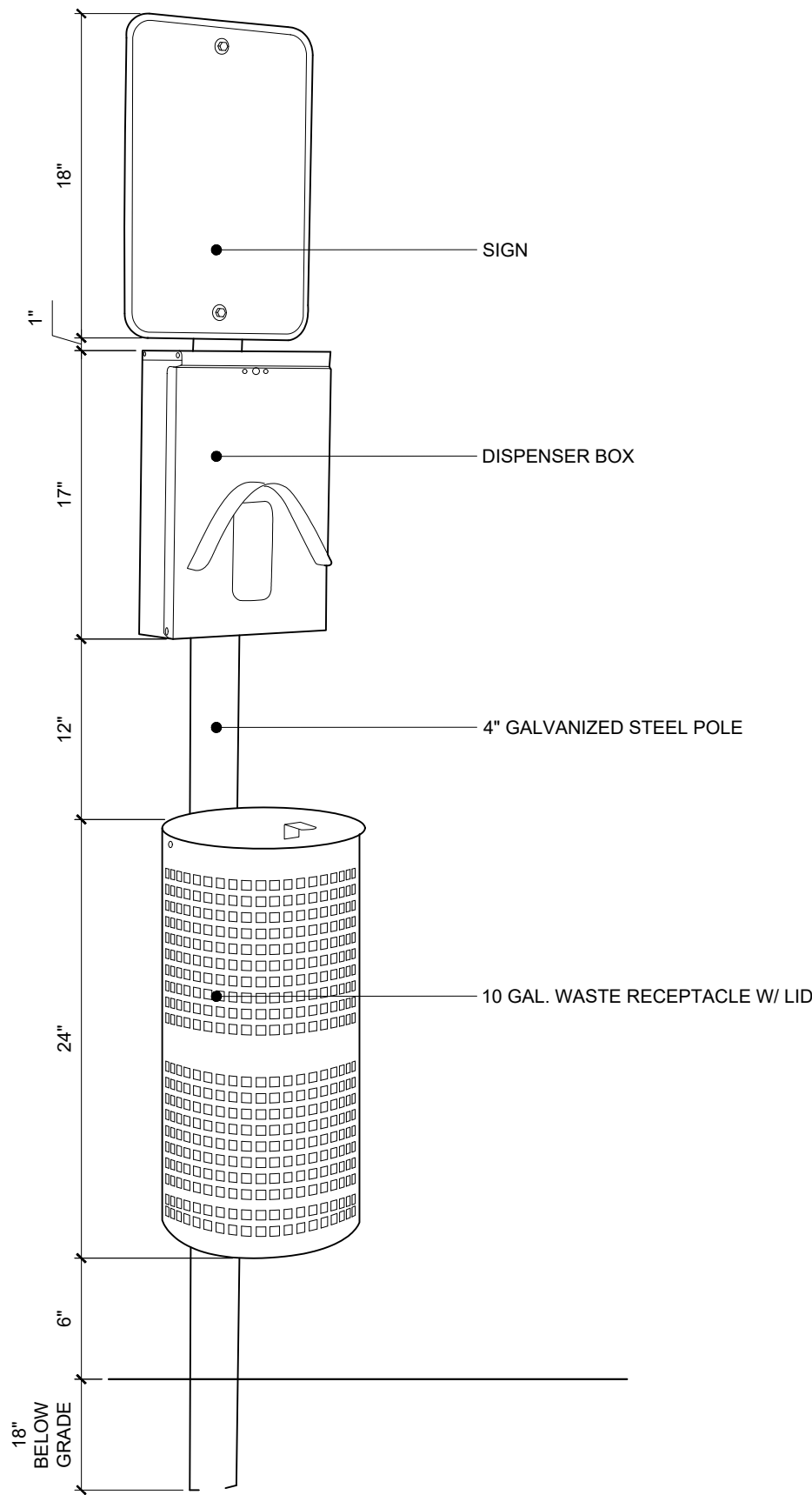
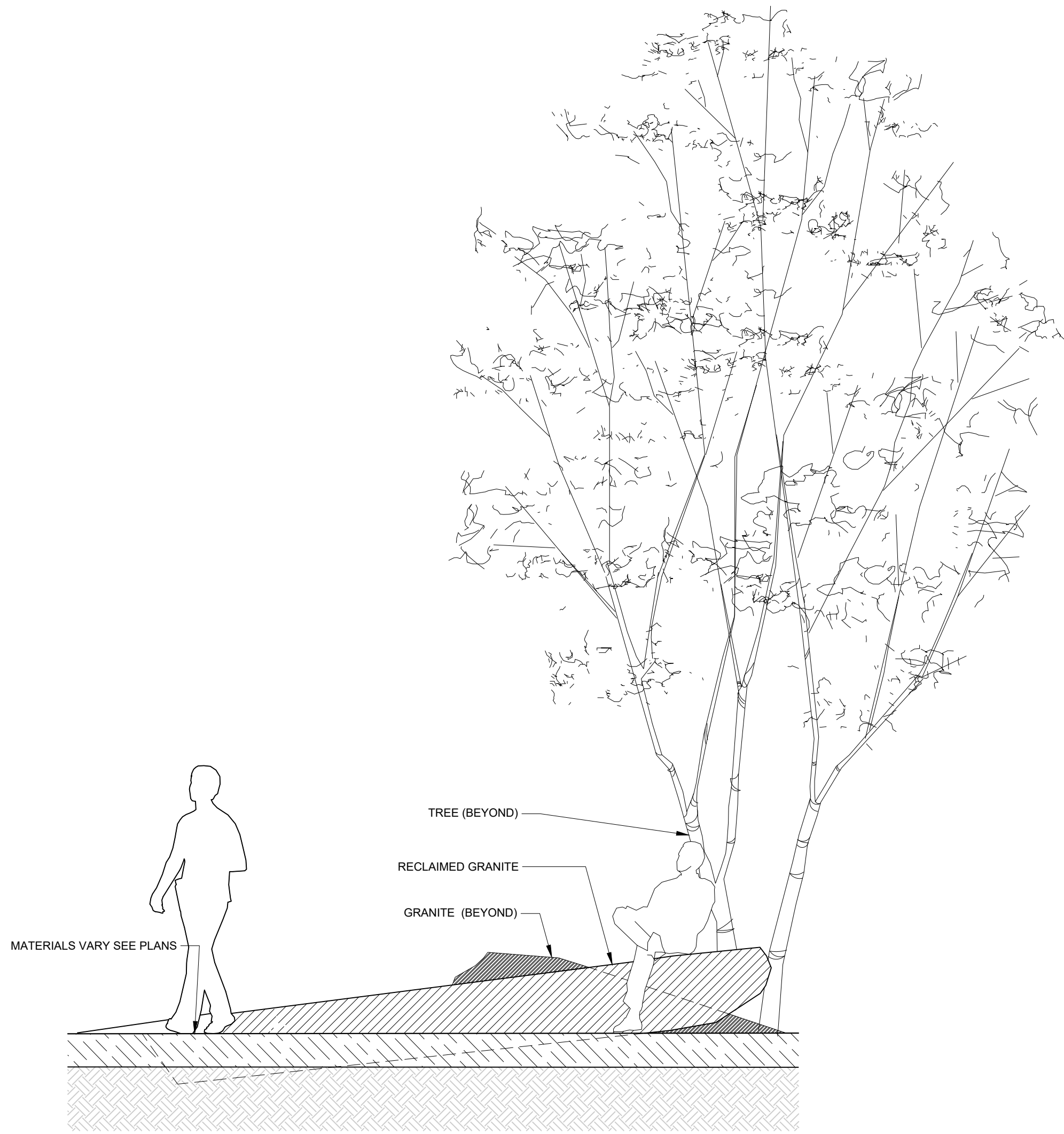
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Scale: AS NOTED

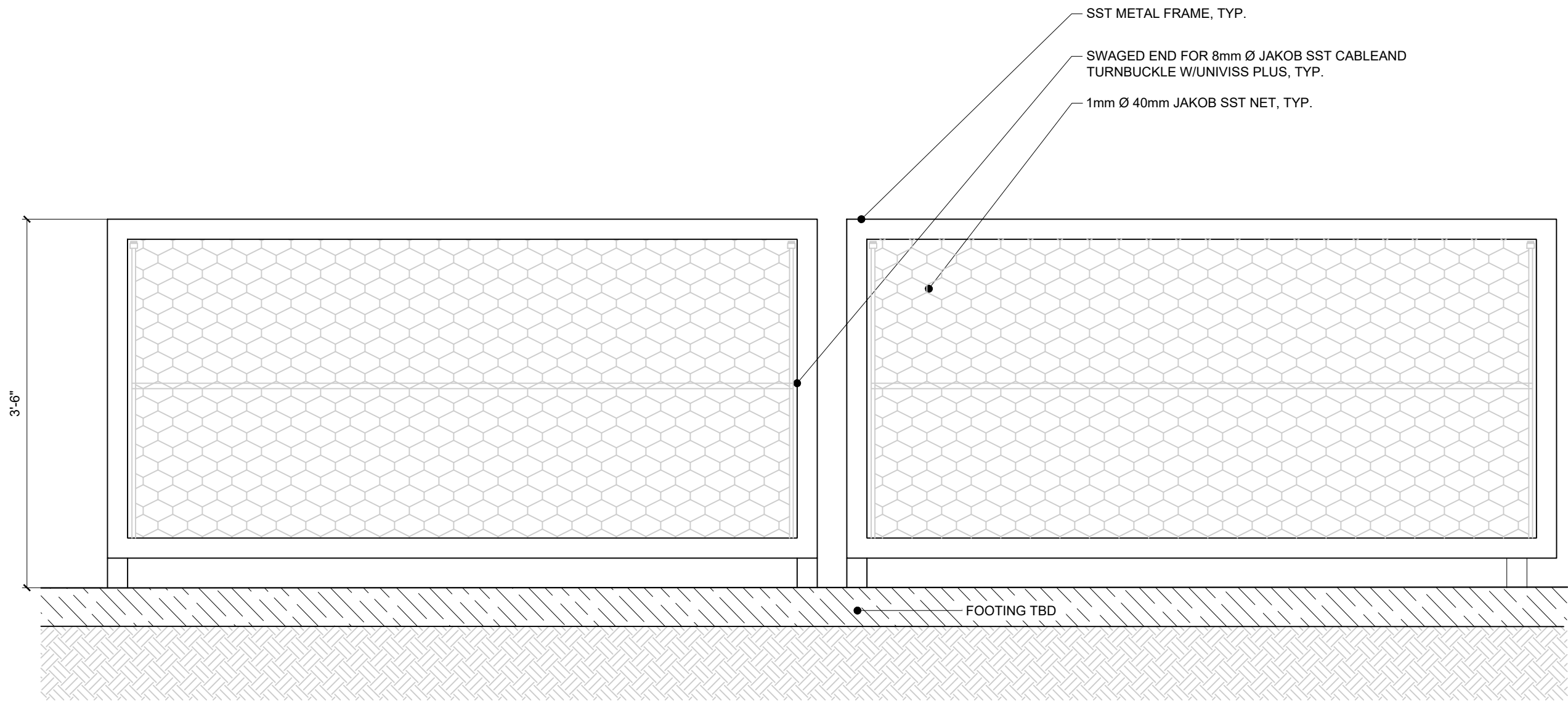
Sheet No.:
L4

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PERSPECTIVE



01 RECLAIMED GRANITE BLOCKS

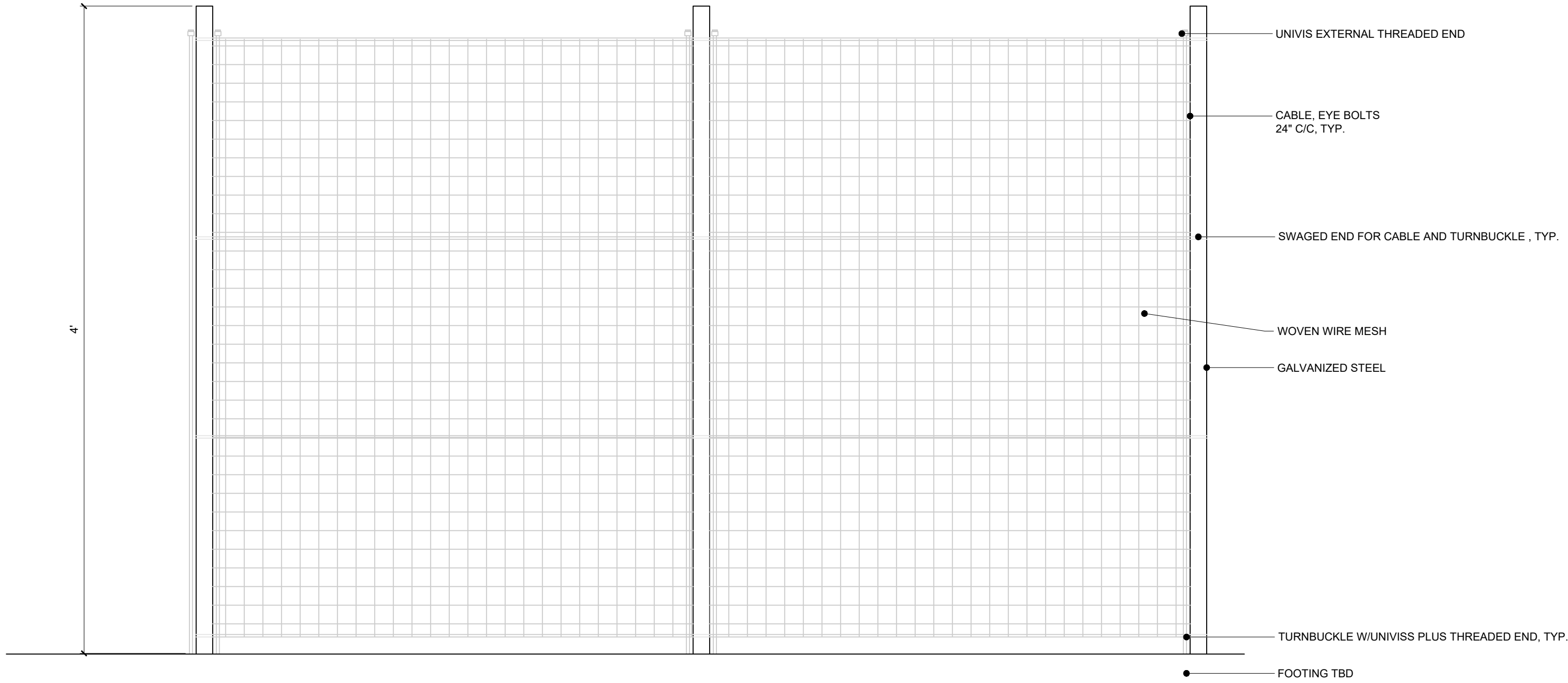
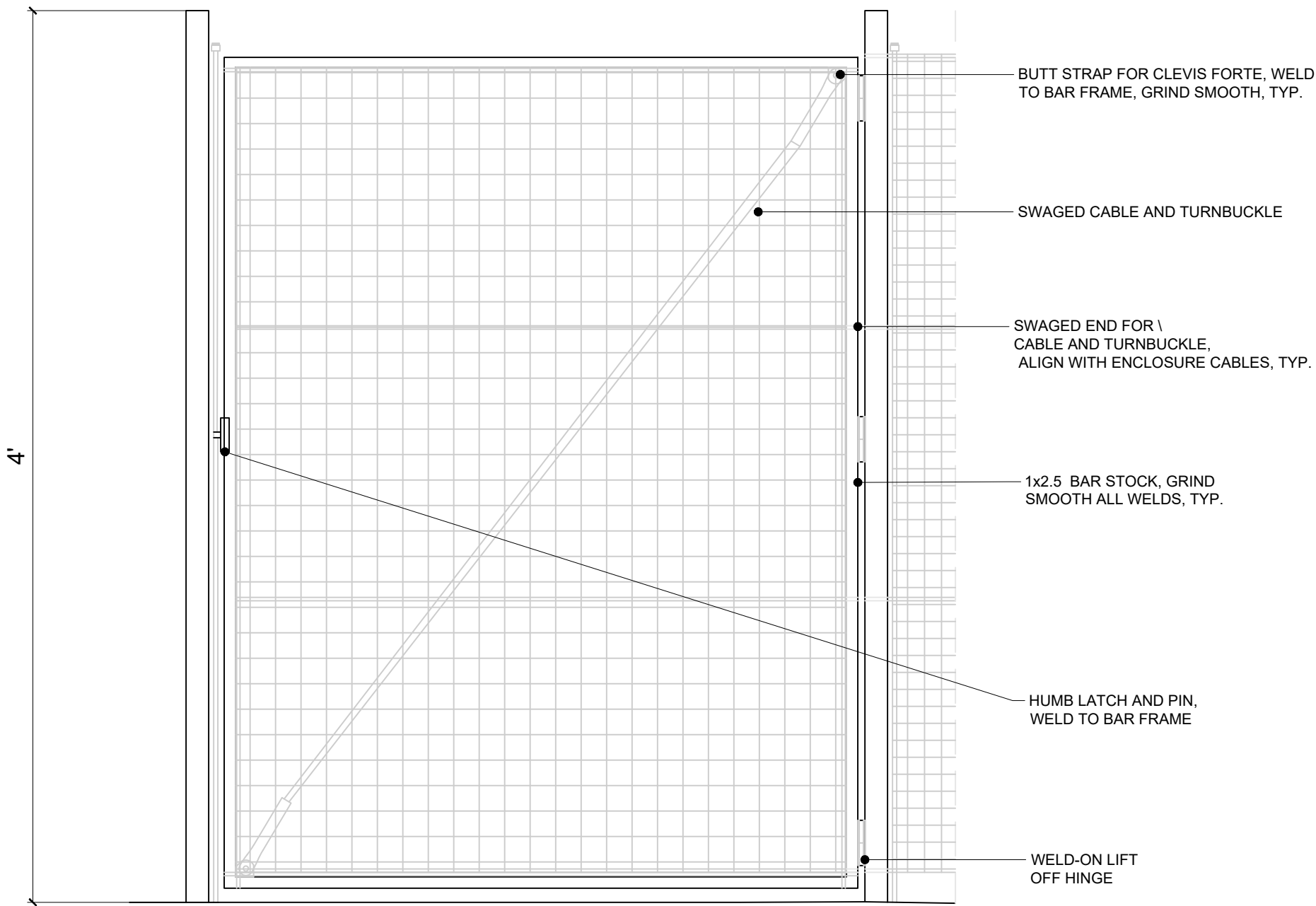
SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-22

02 TRASH RECEPTACLE WITH DOG WASTE BAG DISPENSER

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-22

03 METAL RAILING

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-16



04 METAL FENCE AND GATE DETAIL

SCALE: N.T.S. SOURCE: MITCHELL & ASSOCIATES LAST UPDATED: 2022-09-16

Prepared For:

Applicant:
TOM WATSON & CO.
188 STATE STREET
Portland, Maine

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
The Staples School, 70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

ACORN ENGINEERING INC.

PO BOX 3372, Portland, Maine 04104
Tel: (207) 775-2655

UPPER FALLS ROAD REDEVELOPMENT
TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: OCTOBER 05, 2022

Issued For:
PERMIT SET

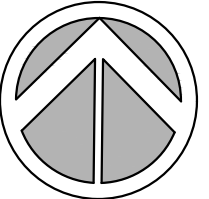
Revisions:
SRCC SUBMISSION 11.08.2022
FINAL SITE PLAN 12.14.2022
COMMENT RESPONSE IV 05.15.23

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Title: DETAILS

Scale: AS NOTED

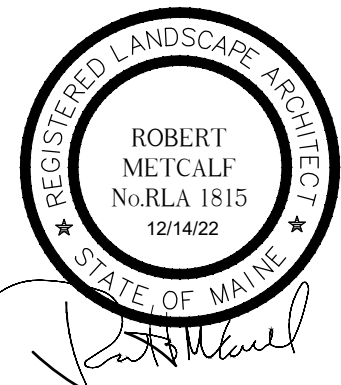
North:

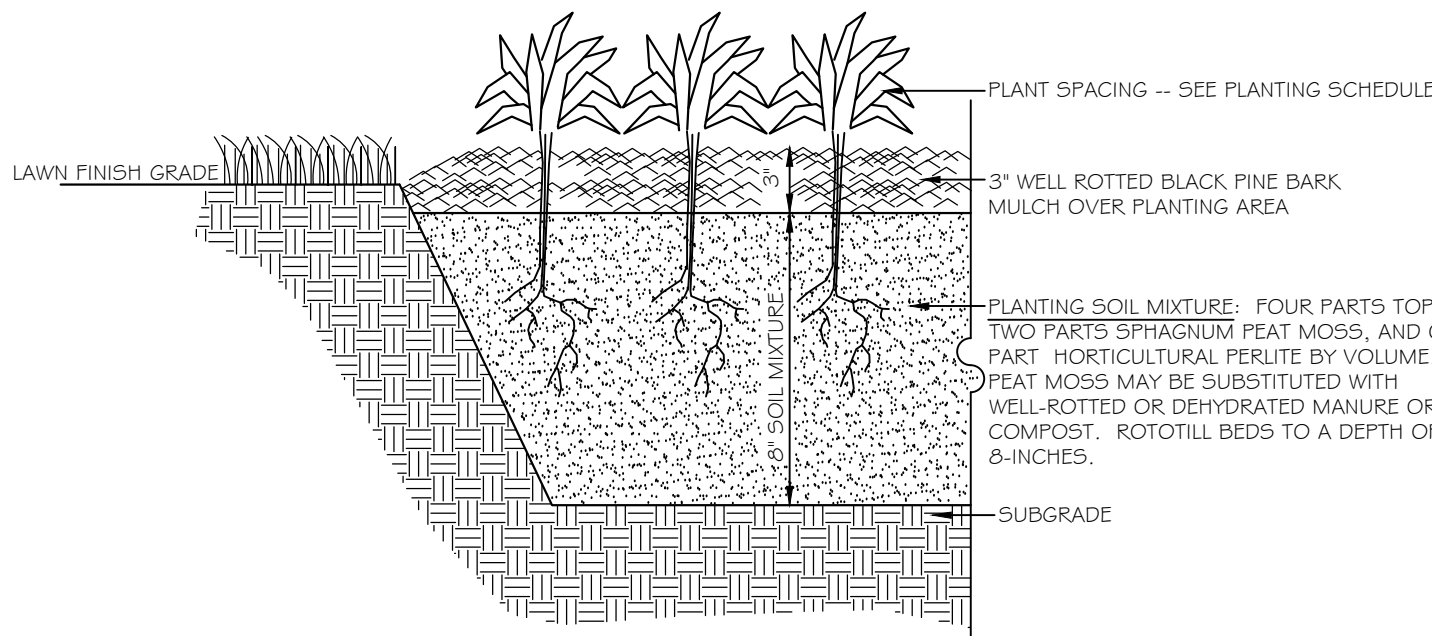


Sheet No.:

L5

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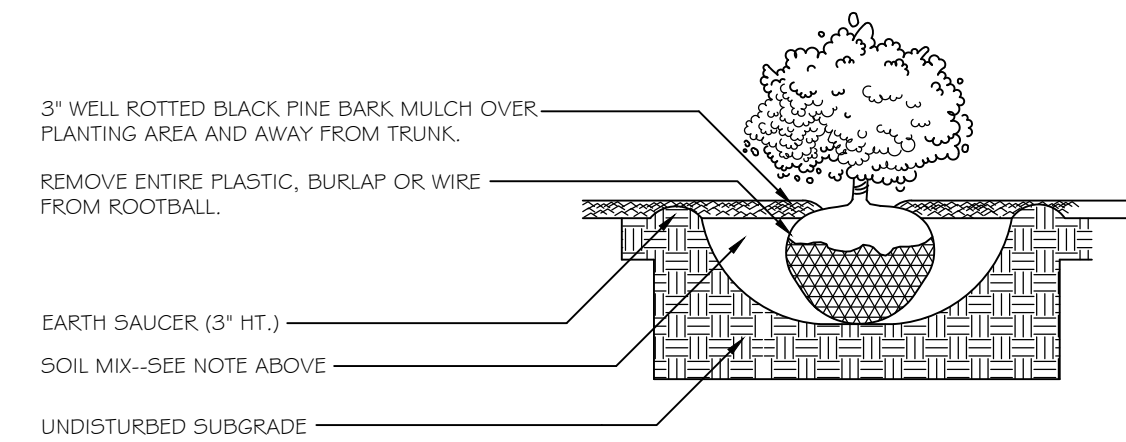


01 PLANTING BED AND MULCH DETAIL

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

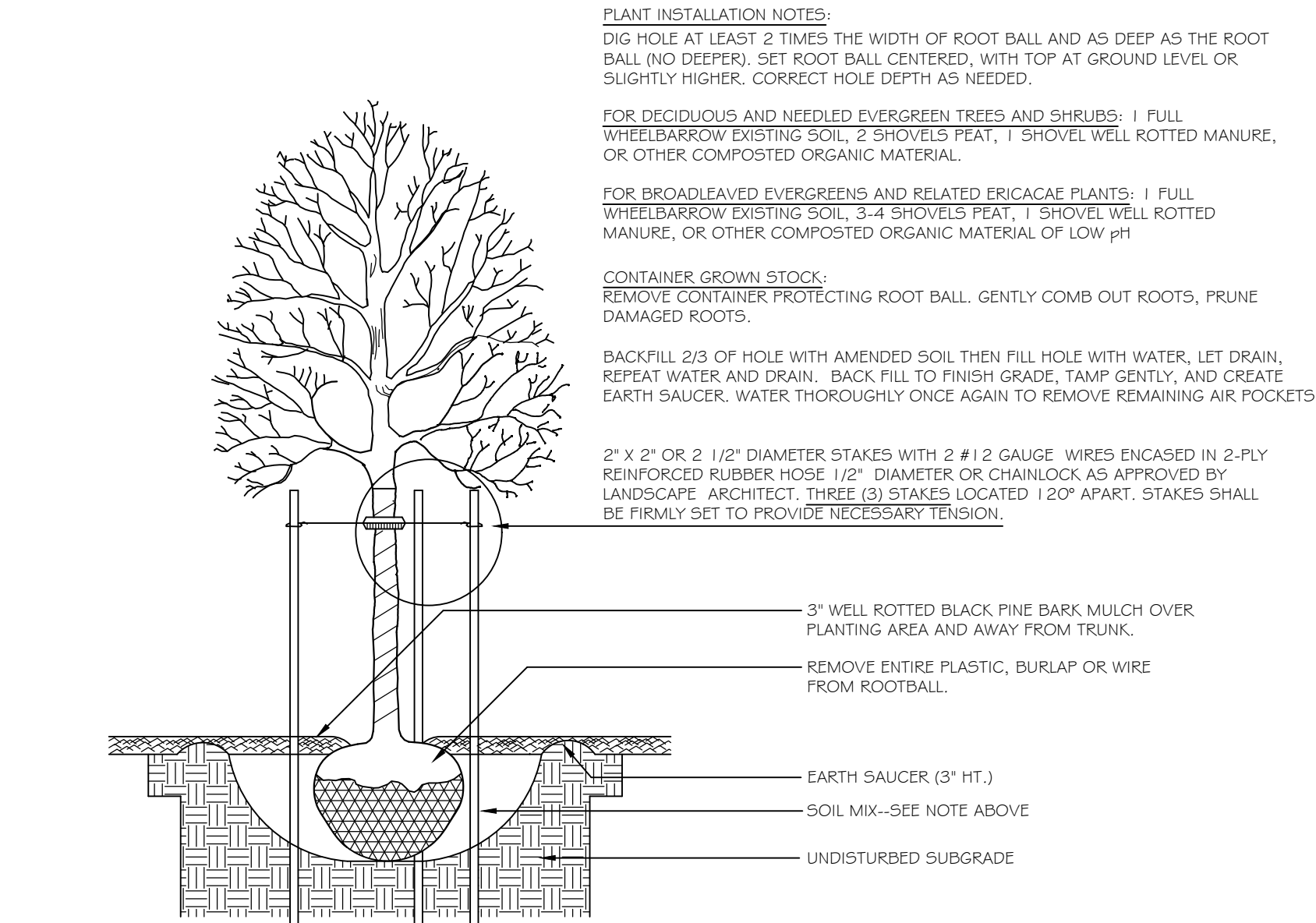


02 SHRUB INSTALLATION

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

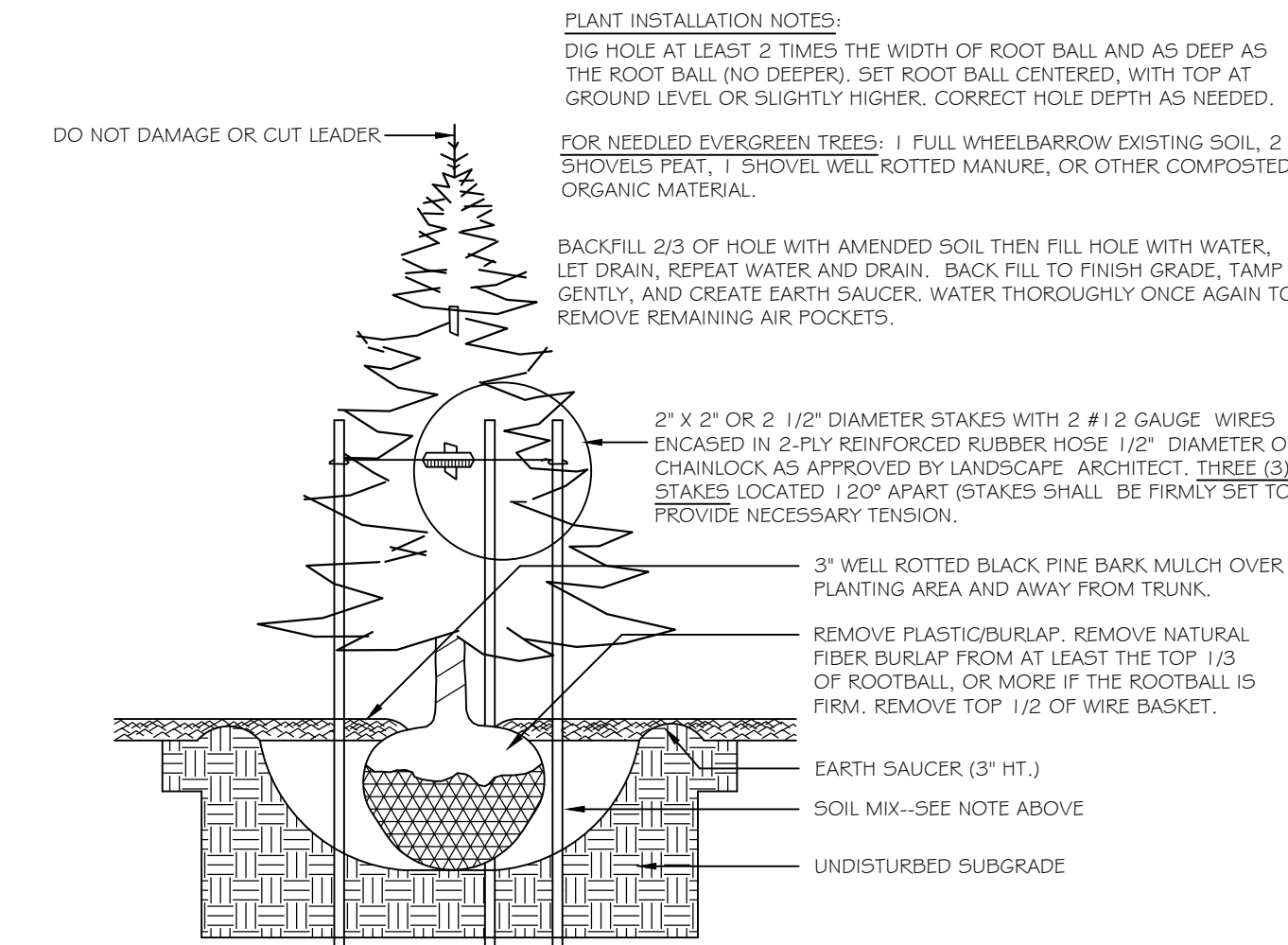


03 DECIDUOUS TREE DETAIL

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

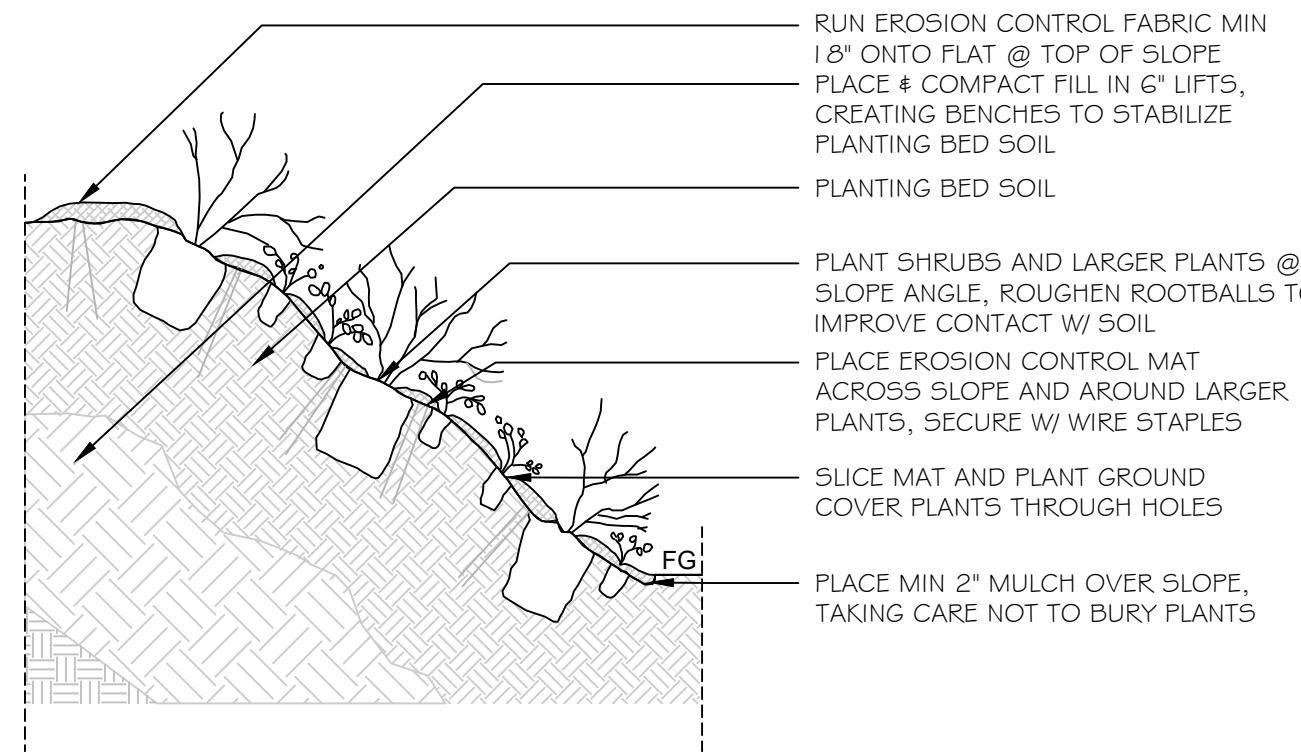


04 CONIFEROUS TREE DETAIL

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

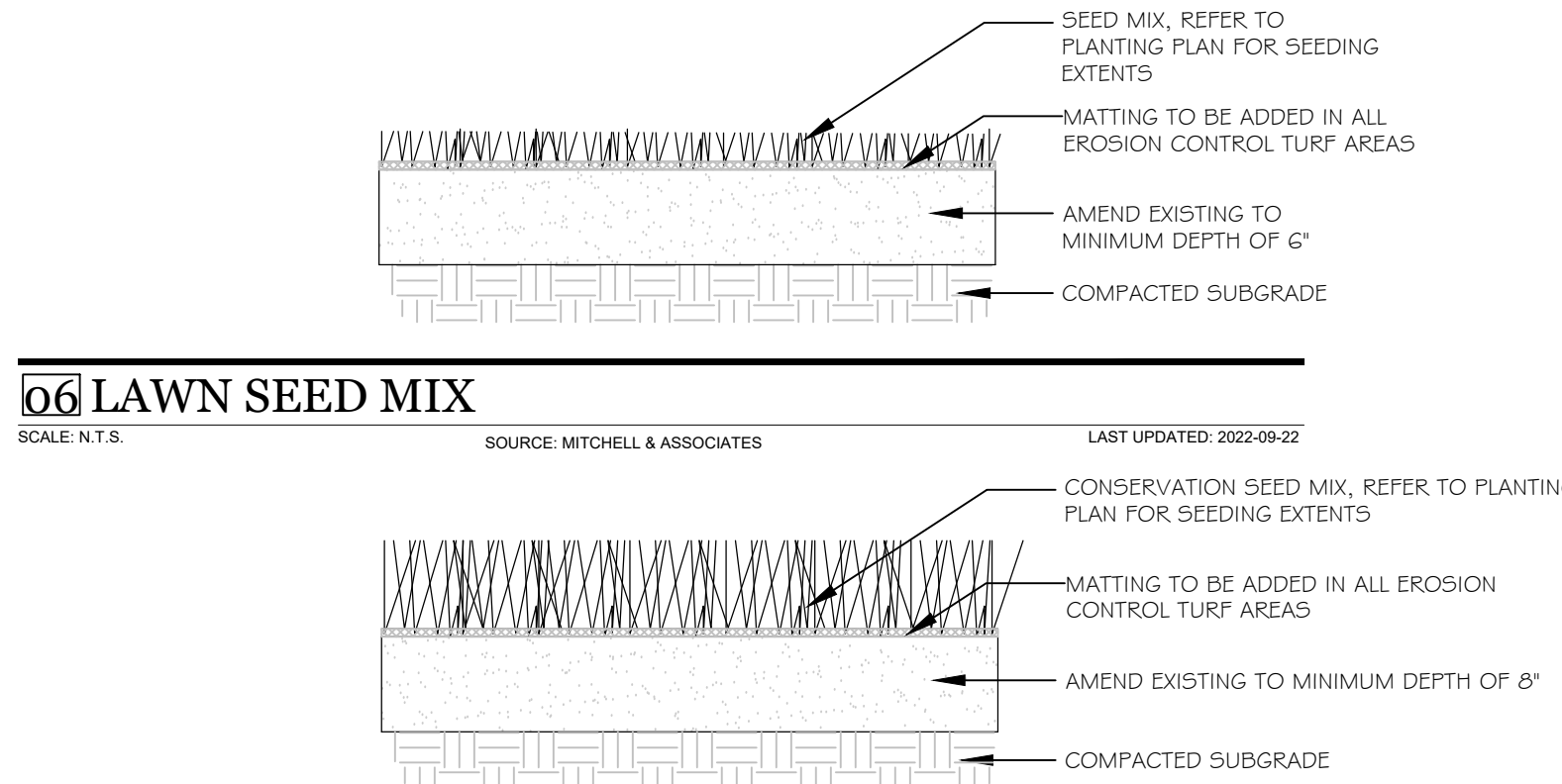


05 SLOPE PLANTING DETAIL

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

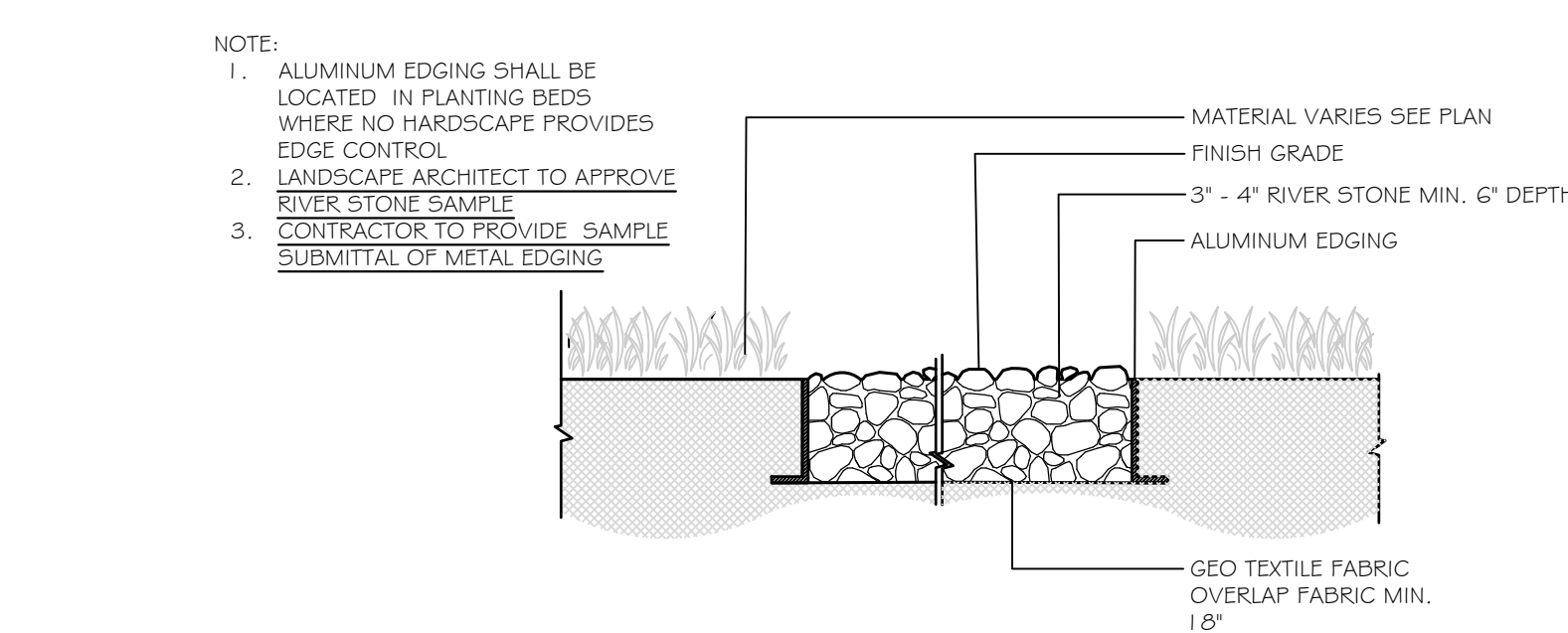


07 MEADOW SEED MIX

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

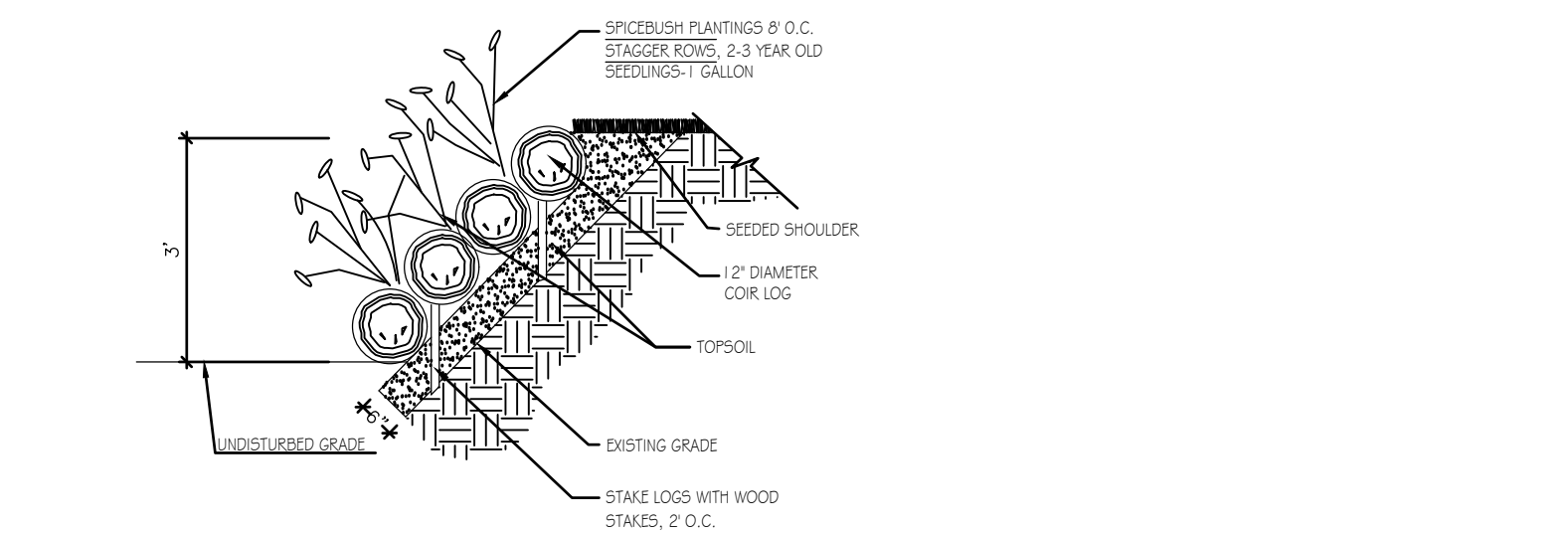


08 RIVERSTONE WITH METAL EDGING

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

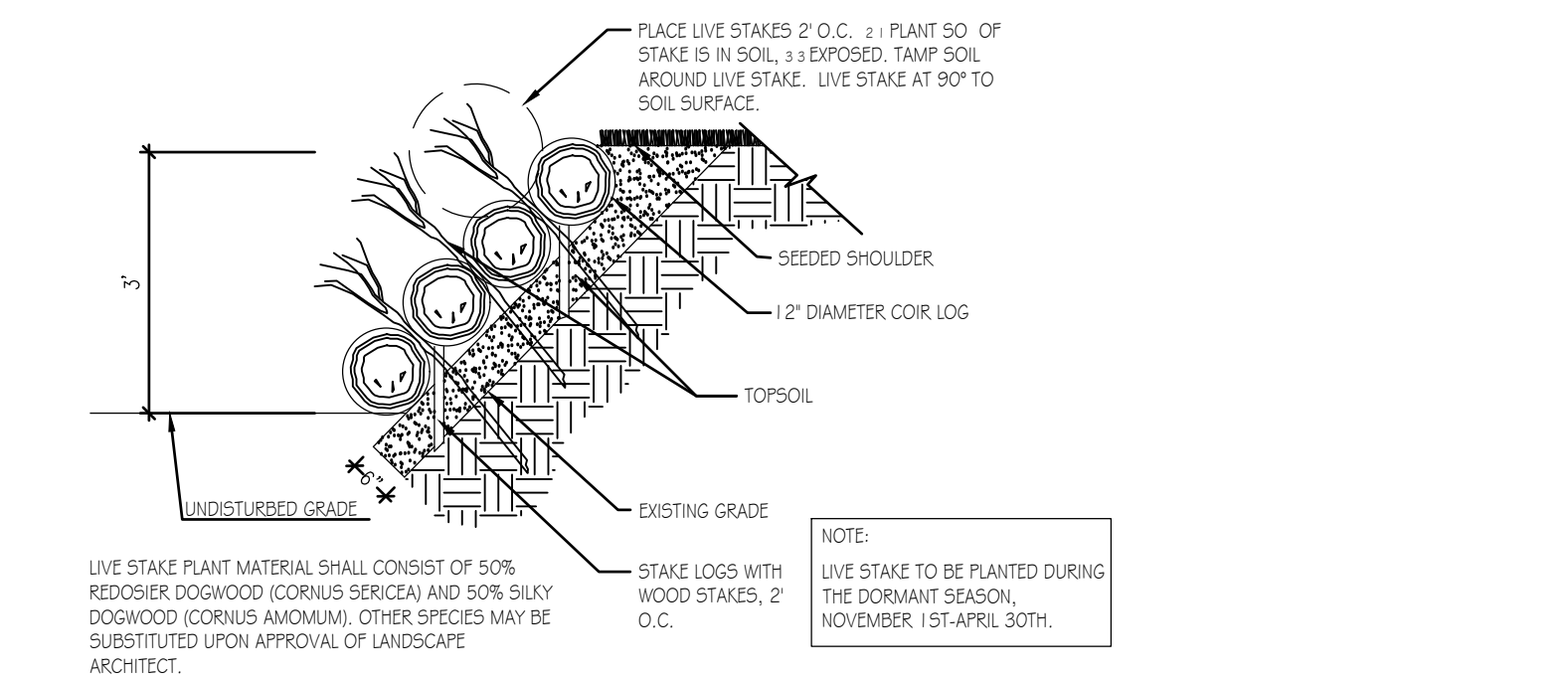


09 BANK STABILIZATION WITH SEEDLINGS

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22



10 BANK STABILIZATION WITH LIVE STAKE

SCALE: N.T.S.

SOURCE: MITCHELL & ASSOCIATES

LAST UPDATED: 2022-09-22

Prepared For:

Applicant:
TOM WATSON & CO.
188 STATE STREET
Portland, Maine

Prepared By:

MITCHELL & ASSOCIATES
Landscape Architects
The Staples School, 70 Center Street
Portland, Maine 04101
Tel: (207) 774-4427

ACORN ENGINEERING INC.
PO BOX 3372, Portland, Maine 04104
Tel: (207) 775-2655

UPPER FALLS ROAD REDEVELOPMENT
TOM WATSON & CO.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

Date: OCTOBER 05, 2022

Issued For:
PERMIT SET

Revisions:

SRCC SUBMISSION 11.08.2022
FINAL SITE PLAN 12.14.2022
COMMENT RESPONSE IV 05.15.23

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Title: DETAILS

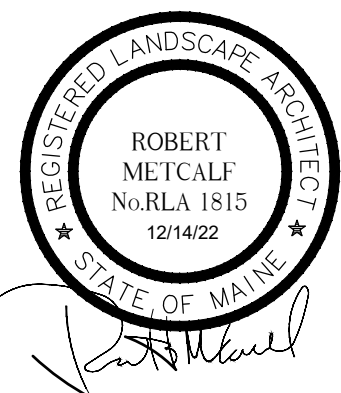
Scale: AS NOTED

North:

Sheet No.:

L6

NOTE: This drawing is PRELIMINARY
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City Engineer Comments (from email, dated 5/10/23):

Comment – *Per the attached markup, can you revise the core opening sizes for the new SMH-2?*

Response – Please find the revised Elm Street Sewer Connection Plan & Profile attached incorporating the core opening sizes for SMH-2 as requested.

Comment – *As the applicant, a number of your comment responses took the liberty of telling the City what we are able to review.*

- a. *A friendly reminder this project is under the City' SLODA review, versus going through a year-long DEP review*
- b. *Resisting to show any storm drain profiles because they are 'on private property' or 'connect to Phase 1' do not seem like valid reasons.*
- c. *To clarify future City submittal requirements, the City created and implemented a [series of checklists](#). These will be required for any future submittals/development in Biddeford.*

Response –

- a) Noted.
- b) As requested, A hydraulic report (Storm Sewers) for a 25-year storm is provided for the previously approved and constructed storm drain network. Please let us know if you have any questions.
- c) Noted.

Comment – *Revised Outfall Design*

- a. *The outdated outfall design is still shown on every drawing other than C-30; please QC the full set of drawings to show a unified design*
- b. *The new outfall's plunge pool will have 18" of sitting water and a $\pm 9'$ vertical drop from the adjacent Riverwalk at 1:1 slopes*
 - i. *The following callout should be added to the plans: "all maintenance, repair, and liability of the proposed outfall area will be the private owner's responsibility"*
 - ii. *The maintenance of this outfall and riprap plunge pool should be added to the SWM Inspection & Maintenance Plan, including:*
 1. *Replacing any riprap/stone berm that wash out during risen river elevations*
 2. *Resolving any trash, mosquito/insect, or overgrown weed issues*
- c. *Confirm the wooden guard rail will provide sufficient safety measures for pedestrians and children from falling into the 9' plunge pool*
- d. *Additional landscaping around the proposed area is needed to screen the riprap hole and provide added fall protection*
 - i. *The revised outfall area impacts the approved landscape plan; therefore, a new landscape plan will need to be submitted*

Response –

- a) See attached Civil Plan Set dated 5/15/2023 which shows the updated outfall designs on all sheets. Please refer to the plan set for additional information.



- b) The recommended callouts have been added to the Grading Plan as well as the Stormwater Inspection and Maintenance Report. See attached for additional information.
- c) The wooden guardrail detail has been revised to increase total height and add a second mid-rail to address proper safety measures for pedestrians and children, working in tandem with reclaimed granite blocks to provide a buffer for cars and pedestrians.
- d) See attached for the revised Landscape Plan set prepared by Mitchel & Associates that includes the updated outfall design.

Comment – *A formal Minor Modification request will need to be submitted to Planning, including an explanation of why the modification is necessary.*

Response – The plans have been updated to address remaining engineering comments and per the project's Site Plan amendment application currently under review and preliminary Staff Report ahead of the Planning Board Meeting, we understand Planning has included all remaining engineering comments to be addressed prior to final approval of the amendment application.

Comment – *The Saco River Corridor Commission (SRCC) will need to sign-off on this design change.*

Response – Understood, a copy of the updated plans have been sent to the SRCC for their review & approval.



Whitten, Nan

From: Pete Heil <pheil@acorn-engineering.com>
Sent: Tuesday, May 16, 2023 2:25 PM
To: Chekan, Craig
Cc: John Laliberte; Michael Barton; Zach Stevens; David Horne; William Savage; Galbraith, David; Tom Saucier; Mitchell, Gregory; Demers, Jeff; Milligan, Tom; Fecteau, Roby; Whitten, Nan
Subject: RE: Gooch Street connection At Elm St.
Attachments: Comment Response Letter IV_5-16-23.pdf

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Craig,

Please find the attached comment response letter addressing your remaining comments below, as well as the link below to download the latest plan sets and supporting documentation. Please confirm you're comments have been satisfied once you have a chance to review in order to move forward with the Site Plan amendment Planning Board (tabled to 6/7/23) and scheduling the pre-construction meeting. Thanks,

<https://we.tl/t-ia2eBEHQup>

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>
Sent: Wednesday, May 10, 2023 12:46 PM
To: Pete Heil <pheil@acorn-engineering.com>
Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Zach Stevens <zstevens@acorn-engineering.com>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>; Galbraith, David <David.Galbraith@biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Subject: RE: Gooch Street connection At Elm St.

Peter

The City has reviewed your resubmittal package; I've compiled the City's feedback below:

- 1) Per the attached markup, can you revise the core opening sizes for the new SMH-2?
- 2) As the applicant, a number of your comment responses took the liberty of telling the City what we are able to review.
 - a. A friendly reminder this project is under the City' SLODA review, versus going through a year-long DEP review
 - b. Resisting to show any storm drain profiles because they are 'on private property' or 'connect to Phase 1' do not seem like valid reasons.
 - c. To clarify future City submittal requirements, the City created and implemented a [series of checklists](#). These will be required for any future submittals/development in Biddeford.
- 3) Revised Outfall Design

- a. The outdated outfall design is still shown on every drawing other than C-30; please QC the full set of drawings to show a unified design
 - b. The new outfall's plunge pool will have 18" of sitting water and a $\pm 9'$ vertical drop from the adjacent Riverwalk at 1:1 slopes
 - i. The following callout should be added to the plans: "all maintenance, repair, and liability of the proposed outfall area will be the private owner's responsibility"
 - ii. The maintenance of this outfall and riprap plunge pool should be added to the SWM Inspection & Maintenance Plan, including:
 1. Replacing any riprap/stone berm that wash out during risen river elevations
 2. Resolving any trash, mosquito/insect, or overgrown weed issues
 - c. Confirm the wooden guard rail will provide sufficient safety measures for pedestrians and children from falling into the 9' plunge pool
 - d. Additional landscaping around the proposed area is needed to screen the riprap hole and provide added fall protection
 - i. The revised outfall area impacts the approved landscape plan; therefore, a new landscape plan will need to be submitted
- 4) A formal Minor Modification request will need to be submitted to Planning, including an explanation of why the modification is necessary
 - 5) The Saco River Corridor Commission (SRCC) will need to sign-off on this design change

Craig Chekan, PE

City of Biddeford | P.O. Box 586, Biddeford, ME 04005

207-571-0636 | craig.chekan@biddefordmaine.org (Office Hours: Mon-Thu, Closed Fri)

-----Original Message-----

From: Pete Heil <pheil@acorn-engineering.com>

Sent: Tuesday, May 2, 2023 10:58 AM

To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>

Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Zach Stevens <zstevens@acorn-engineering.com>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>; Galbraith, David <David.Galbraith@biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Whitten, Nan <Nan.Whitten@Biddefordmaine.org>

Subject: RE: Gooch Street connection At Elm St.

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Craig (and all),

Please use the below link to download the latest and greatest comment response, addressing your remaining comments and updated plans and supporting documentation. With your email below regarding the tailwater conditions and confirmation from DEP and ACOE no additional permitting is necessary, I believe we've satisfied the remaining comments to start scheduling the pre-construction meeting.

Per my request to schedule a meeting last week, at this time with the updated information, I think we're all set and do not need to meet, but if there are any further comments or requests, I would be happy to schedule a meeting to wrap things up. Thanks,

<https://we.tl/t-u3zC7xnoKw>

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

-----Original Message-----

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>

Sent: Thursday, April 27, 2023 8:25 AM

To: Pete Heil <pheil@acorn-engineering.com>

Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Zach Stevens <zstevens@acorn-engineering.com>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>; Galbraith, David <David.Galbraith@biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Whitten, Nan <Nan.Whitten@Biddefordmaine.org>

Subject: Re: Gooch Street connection At Elm St.

Hi Pete - I'm in meetings all morning but will give you a call this afternoon to catchup.

For the tailwater, the different times in peaks makes sense. If you want to use the MHW as the starting tailwater condition, I will defer that to your judgement.

Sent from my iPhone

On Apr 26, 2023, at 2:03 PM, Pete Heil <pheil@acorn-engineering.com> wrote:

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Craig,

Yes, part of the issue is based on the rivers elevation during a 25-year storm event, but challenging to model as there would be different peak crest times associated with the river and the runoff leaving the site, as well as considering existing conditions we need to tie into both up and downstream. As we're trying to satisfy the Planning approval conditions, including addressing all remaining engineering comments, I'd like to have everyone there so we can all be on the same page and agree on a solution together.

While the outfall is shown below the elevation of the MHW, we're not proposing to perform work directly within the river, and have submitted various applications to the DEP which were reviewed and approved for the 1 UFR stormwater permit, separate riverwalk NRPA PBR, and full remaining UFR stormwater and NRPA PBR applications (along with the DEP Shoreland review). Per the attached cover letter we submitted to the DEP for the UFR NRPA PBR, which justified are rationale for the proposed conditions which we never received any comments back and approvals granted by the DEP for all permits. We defer to the DEP's review, approvals and jurisdictional permitting requirements for the project.

Thanks,

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>
Sent: Wednesday, April 26, 2023 1:45 PM
To: Pete Heil <pheil@acorn-engineering.com>
Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Zach Stevens <zstevens@acorn-engineering.com>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>; Galbraith, David <David.Galbraith@biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Subject: RE: Gooch Street connection At Elm St.

Hi Pete

I assume you are running into hydraulic issues when modeling the 25-year storm event. Would an informal 'technical' meeting with Tom Saucier & I be more beneficial?

For the time being, can you provide a response to our permitting question highlighted below (about working below the river's MHW)?

Craig Chekan, PE

City of Biddeford | P.O. Box 586, Biddeford, ME 04005

207-571-0636 | craig.chekan@biddefordmaine.org (Office Hours: Mon-Thu, Closed Fri)

From: Pete Heil <pheil@acorn-engineering.com>
Sent: Wednesday, April 26, 2023 1:21 PM
To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>
Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Zach Stevens <zstevens@acorn-engineering.com>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>; Galbraith, David <David.Galbraith@biddefordmaine.org>; Tom Saucier <tsaucier@sitedesignassociates.biz>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org>; Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Subject: RE: Gooch Street connection At Elm St.

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Hi Craig,

Thanks for the review comments. We've gone through and started to address and model, but feel it would be beneficial at this point to all meet and review the conditions together to address the comments and come to an agreement with how to move forward, including the outfall considerations, as there is an existing outfall today which we're improving the existing conditions. I've put together a poll for everyone's availability, if you could please respond so we can set something up. (Or Nan, do you want to handle the scheduling?). Appreciate your help with this important project for the City. Thanks,

<https://doodle.com/meeting/participate/id/engl1rDa>

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org<mailto:Craig.Chekan@Biddefordmaine.org>>
Sent: Wednesday, April 19, 2023 9:45 AM
To: Pete Heil <pheil@acorn-engineering.com<mailto:pheil@acorn-engineering.com>>
Cc: John Laliberte <john@bushwatson.com<mailto:john@bushwatson.com>>; Michael Barton <mbarton@bushwatson.com<mailto:mbarton@bushwatson.com>>; Zach Stevens <zstevens@acorn-engineering.com<mailto:zstevens@acorn-engineering.com>>; David Horne <dhorne@acorn-engineering.com<mailto:dhorne@acorn-engineering.com>>; William Savage <wsavage@acorn-engineering.com<mailto:wsavage@acorn-engineering.com>>; Galbraith, David <David.Galbraith@biddefordmaine.org<mailto:David.Galbraith@biddefordmaine.org>>; Tom Saucier <tsaucier@sitedesignassociates.biz<mailto:tsaucier@sitedesignassociates.biz>>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org<mailto:gregory.mitchell@biddefordmaine.org>>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org<mailto:Tom.Milligan@Biddefordmaine.org>>; Fecteau, Roby <Roby.Fecteau@Biddefordmaine.org<mailto:Roby.Fecteau@Biddefordmaine.org>>
Subject: RE: Gooch Street connection At Elm St.

Good Morning Pete
The City has finished its review of your resubmittal and has the attached feedback.

Items to note:

1. Your proposed storm outfall and 'plunge pool' is set below the river's MHW (EL 47.63)

* Please confirm why a full NRPA/USACE permit has not been acquired for this work within 25' of the Saco River and below its MHW

1. The 25-year hydraulic analysis provided is insufficient; see comments for details
2. Thanks for updating the Elm Street sewer connection; we noted one callout discrepancy

* The City will need an advanced notice prior to construction to order the structures

Once you've reviewed, please let us know your feedback.

Thanks
Craig

Craig Chekan, PE
City of Biddeford | P.O. Box 586, Biddeford, ME 04005
207-571-0636 | craig.chekan@biddefordmaine.org<mailto:craig.chekan@biddefordmaine.org> (Office Hours: Mon-Thu, Closed Fri)

From: Pete Heil <pheil@acorn-engineering.com<mailto:pheil@acorn-engineering.com>>
Sent: Thursday, April 13, 2023 3:34 PM
To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org<mailto:Craig.Chekan@Biddefordmaine.org>>

Cc: John Laliberte <john@bushwatson.com<mailto:john@bushwatson.com>>; Michael Barton <mbarton@bushwatson.com<mailto:mbarton@bushwatson.com>>; Zach Stevens <zstevens@acorn-engineering.com<mailto:zstevens@acorn-engineering.com>>; David Horne <dhorne@acorn-engineering.com<mailto:dhorne@acorn-engineering.com>>; William Savage <wsavage@acorn-engineering.com<mailto:wsavage@acorn-engineering.com>>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org<mailto:gregory.mitchell@biddefordmaine.org>>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org<mailto:Tom.Milligan@Biddefordmaine.org>>; Buechner, Alex <Alex.Buechner@Biddefordmaine.org<mailto:Alex.Buechner@Biddefordmaine.org>>; rlobier@owenhaskell.com<mailto:rlobier@owenhaskell.com>
Subject: RE: Gooch Street connection At Elm St.

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Craig,

Per your requests below, and the updated information provided by Owen Haskell today, please find the attached revised Elm Street Sewer Connection Plan & Profile. Please let me know if you have any questions or need anything else. Thanks,

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org<mailto:Craig.Chekan@Biddefordmaine.org>>
Sent: Monday, April 10, 2023 2:52 PM
To: Pete Heil <pheil@acorn-engineering.com<mailto:pheil@acorn-engineering.com>>
Cc: John Laliberte <john@bushwatson.com<mailto:john@bushwatson.com>>; Michael Barton <mbarton@bushwatson.com<mailto:mbarton@bushwatson.com>>; Zach Stevens <zstevens@acorn-engineering.com<mailto:zstevens@acorn-engineering.com>>; David Horne <dhorne@acorn-engineering.com<mailto:dhorne@acorn-engineering.com>>; William Savage <wsavage@acorn-engineering.com<mailto:wsavage@acorn-engineering.com>>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org<mailto:gregory.mitchell@biddefordmaine.org>>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org<mailto:Tom.Milligan@Biddefordmaine.org>>; Buechner, Alex <Alex.Buechner@Biddefordmaine.org<mailto:Alex.Buechner@Biddefordmaine.org>>
Subject: RE: Gooch Street connection At Elm St.

Hi Peter – two things:

1. Is your survey crew available this Wednesday (4/12) at 9am?

- * To avoid needing to do a test pit in the middle of Elm Street, our wastewater crew is willing to perform a confined-entry of the sewer manholes to assist your surveyor in getting the overflow pipe's inverts
- * Please confirm and I can put you in touch with our wastewater superintendent (Alex Buechner)

1. Can you call out a 6' diameter downstream sewer manhole with a 48" outlet opening?

- * The City is looking at potentially upsizing the existing 12" sewer pipe within Diamond Lot to 48"; having an existing 48" core opening would avoid replacing this structure again
- * The City can provide the necessary 48"x12" fitting to tie-into the existing 12" outlet pipe

Let me know – thanks
Craig

Craig Chekan, PE
City of Biddeford | P.O. Box 586, Biddeford, ME 04005
207-571-0636 | craig.chekan@biddefordmaine.org (Office Hours: Mon-Thu,
Closed Fri)

From: Pete Heil <pheil@acorn-engineering.com>
Sent: Tuesday, April 4, 2023 12:25 PM
To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>
Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Zach Stevens <zstevens@acorn-engineering.com>; Mitchell, Gregory <gregory.mitchell@biddefordmaine.org>; David Horne <dhorne@acorn-engineering.com>; William Savage <wsavage@acorn-engineering.com>
Subject: RE: Gooch Street connection At Elm St.

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.
Hi Craig,

Please find the attached updated Sewer Connection P&P, incorporating the latest MWC information, and updates based on the discussion yesterday. We still show a test pit at the crossing of the CSO overflow to confirm, but do not anticipate a conflict. Also attached is our comment response letter, addressing all the engineering comments received associated with the Conditions of Approval. Please utilize the link below to download the full comment response package, including updated applications sections, supplemental information, and revised plan set. Once you have a chance to review everything, please let me know if you have any questions or outstanding comments. Happy to schedule another meeting if you prefer, as it was beneficial to get in the same room to review together yesterday. Thanks again for working with us on this project, and excited to see what's to come in Biddeford.

<https://we.tl/t-9hXocWDcVb>

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Pete Heil
Sent: Tuesday, April 4, 2023 9:43 AM
To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org>
Cc: John Laliberte <john@bushwatson.com>; Michael Barton <mbarton@bushwatson.com>; Demers, Jeff <Jeff.Demers@Biddefordmaine.org>; Milligan, Tom <Tom.Milligan@Biddefordmaine.org>; Zach Stevens <zstevens@acorn-engineering.com>
Subject: RE: Gooch Street connection At Elm St.

Hi Craig,

Awesome, we'll add this info to the P&P and double check conflicts again. We're also updating the minor layout revisions we discussed yesterday and will forward along the plan for your final review before we issue for construction, along with the remaining comment responses and supplemental info.

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Chekan, Craig <Craig.Chekan@Biddefordmaine.org<mailto:Craig.Chekan@Biddefordmaine.org>>
Sent: Tuesday, April 4, 2023 9:38 AM
To: Pete Heil <pheil@acorn-engineering.com<mailto:pheil@acorn-engineering.com>>
Cc: John Laliberte <john@bushwatson.com<mailto:john@bushwatson.com>>; Michael Barton
<mbarton@bushwatson.com<mailto:mbarton@bushwatson.com>>; Demers, Jeff
<Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>; Milligan, Tom
<Tom.Milligan@Biddefordmaine.org<mailto:Tom.Milligan@Biddefordmaine.org>>
Subject: FW: Gooch Street connection At Elm St.

Good Morning Pete
Thanks for meeting yesterday

As a follow-up, attached are MWC's cutsheets for Gooch Street's 12" water main installation (November 2022)

- * It shows the existing 16" water main having 6- to 6.25' of cover
- * Since this was a recent installation and the notes are fairly detailed, I'd assume the elevations are pretty reliable

Once you have a chance to update the sewer design, let us know if any test pits are still recommended.

Also – happy to work through the final approval comments with you when ready, just let me know.

Thanks again
Craig

Craig Chekan, PE
City of Biddeford | P.O. Box 586, Biddeford, ME 04005
207-571-0636 | craig.chekan@biddefordmaine.org<mailto:craig.chekan@biddefordmaine.org> (Office Hours: Mon-Thu,
Closed Fri)

From: Demers, Jeff <Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>
Sent: Tuesday, April 4, 2023 9:21 AM
To: Chekan, Craig <Craig.Chekan@Biddefordmaine.org<mailto:Craig.Chekan@Biddefordmaine.org>>
Subject: FW: Gooch Street connection At Elm St.

From: Michael Hall <Michael.Hall@MaineWater.com<mailto:Michael.Hall@MaineWater.com>>
Sent: Tuesday, April 4, 2023 9:15 AM
To: Demers, Jeff <Jeff.Demers@Biddefordmaine.org<mailto:Jeff.Demers@Biddefordmaine.org>>

Subject: FW: Gooch Street connection At Elm St.

EXTERNAL: This email originated from outside of the City of Biddeford email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jeff, I found this we got together for Tom a few months ago, let me know if you need more that we can help with,

Mickey Hall
Superintendent Maine Water Company
93 Industrial Park Rd
Saco ME 04072
1-800-287-1643
Cell 207-615-2518
Office 207-294-6904
Upcoming time off: March 16-27
<image001.jpg>

From: Michael Hall
Sent: Wednesday, January 11, 2023 12:30 PM
To: Milligan, Tom <Tom.Milligan@Biddefordmaine.orgmailto:Tom.Milligan@Biddefordmaine.org>>
Subject: FW: Gooch Street connection At Elm St.

Tom, see attached and below, we offset to miss existing storm already.

Mickey Hall
Superintendent Maine Water Company
93 Industrial Park Rd
Saco ME 04072
1-800-287-1643
Cell 207-615-2518
Office 207-294-6904
Upcoming time off:

<image001.jpg>

From: Gordie Smith <Gordie@arc-maine.commailto:Gordie@arc-maine.com>>
Sent: Wednesday, January 11, 2023 12:11 PM
To: Michael Hall <Michael.Hall@MaineWater.commailto:Michael.Hall@MaineWater.com>>
Cc: Travis Dyer <Travis.Dyer@MaineWater.commailto:Travis.Dyer@MaineWater.com>>; Brendon Joyce <Brendon.Joyce@MaineWater.commailto:Brendon.Joyce@MaineWater.com>>; Keegan Smith <keegan@arc-maine.commailto:keegan@arc-maine.com>>
Subject: Gooch Street connection At Elm St.

CAUTION: This email originated outside the SJWG organization.
Mickey

Here are plan view and profile sketches for the 12" work in Elm Street coming off the 16" main with the tapping sleeve to the 12" - 22 ½ deg bend on site. These are drawn by hand from the info in Keegans book and the GPS info. They are to scale +/- . The depths are listed and should be pretty good. There was 2' +/- from the sewer and SD inverts to the top of the 12" DI water main. The water line is stationed from the 16" main this stationing also includes the sewer and SD that the water went under.

Please call or email with any questions.

Thanks

Gordie

Gordie Smith

Construction Manager

(207) 504-6613

gordie@arc-maine.com<<mailto:gordie@arc-maine.com>>

www.arc-maine.com<<http://www.arc-maine.com>>

<image002.png>

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Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

<0.1 PBR Cover Letter.pdf>

Section 28: Traffic & Parking Overview

The project proposes to construct a 6-story building containing 56 residential units with a restaurant space on 10 Upper Falls Road, a 5-story 20-unit residential building on 20 Upper Falls Road, 11 townhome units on 26 Upper Falls Road, and a partial demolition and change of use to the existing building located at 30 Upper Falls Road to accommodate a commercial use (potentially a brewery). The project will include associated parking and landscaped areas.

The preliminary trip generation for the proposed project has been estimated using the Institute of Transportation Engineers (ITE) “Trip Generation” 10th Edition publication. The land uses utilized in the calculations include: Land Use Code 221 Multifamily housing (mid-rise) apartments and Land Use Code 932 High-Turnover (Sit-Down Restaurant). Accordingly, the preliminary trip analysis yields a weekday AM peak hour increase of approximately 61 trips and a weekday PM peak hour increase of approximately 220 trips, and 225 trips during the Saturday peak hour. As the project is expected to generate over 100 peak hour trips, a Traffic Movement Permit (TMP) from the Maine Department of Transportation (MDOT) is required. Please see attached. The applicant, in conjunction with the City, MaineDOT, and surrounding developments are also preparing concept designs for the Route 1 corridor to address an increase in anticipated trip generations associated with the multiple developments going through the permitting process at the same time. Further information will be provided as designs progress.

In accordance with the City’s Land Development Regulations, Performance Standards for off-street parking and loading, Table 6-49B: Parking space requirements, the project parking demand requires 1 space per dwelling unit (with the residential spaces designed exclusively for, and occupancy restricted to each unit), an increase of 5% of total spaces for multifamily developments, and 1 space per 3 restaurant seats, resulting in a total of 149 spaces required. For 10 Upper Falls Road: $((1 \text{ space/D.U.} \times 56) + (0.05 \times 56)) + (1 \text{ space}/3 \text{ seats} \times 49 \text{ seats}) = 76 \text{ spaces}$. For 20 Upper Falls Road Parking: $((1 \text{ space/D.U.} \times 20) + (0.05 \times 20)) = 21 \text{ spaces}$. For 26 Upper Falls Road Parking: $(1 \text{ space/D.U.} \times 11) = 11 \text{ spaces}$. For 30 Upper Falls Road Parking: $(1 \text{ space}/3 \text{ seats} \times 123 \text{ seats}) = 41 \text{ spaces}$.

The project proposes to construct a total of 156 parking spaces to serve the development. Please refer to the space and bulk tables provided on Sheet C-10 and C-11 for a breakdown of each lots available parking spaces. 5 of the spaces located within the 10 Upper Falls Road parking lot are to be designated for the 20 Upper Falls Road Apartment Building. The applicant is coordinating with the City’s Pearl Street Parking Garage manager to secure an agreement for 7 parking spaces to satisfy the residential parking requirement for 10 and 20 Upper Falls Road.

The applicant will be requesting a waiver for parking requirements for the proposed the multi-family residential visitors and commercial uses. It should be noted that the City Lot located at the End of Upper Falls Road contains 48 parking spaces and per the City’s Joint Development Agreement with the developers, will be available to accommodate parking for the multi-family residential visitors and commercial uses.





NOAA Atlas 14, Volume 10, Version 3
Location name: Biddeford, Maine, USA*
Latitude: 43.4969°, Longitude: -70.4553°
Elevation: m/ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	3.67 (2.86-4.74)	4.42 (3.42-5.69)	5.63 (4.34-7.27)	6.62 (5.09-8.62)	8.00 (5.96-10.8)	9.05 (6.60-12.5)	10.1 (7.19-14.5)	11.4 (7.64-16.5)	13.1 (8.52-19.7)	14.6 (9.23-22.3)
10-min	2.60 (2.02-3.35)	3.13 (2.42-4.03)	3.98 (3.08-5.15)	4.69 (3.61-6.10)	5.67 (4.22-7.67)	6.41 (4.67-8.84)	7.18 (5.09-10.2)	8.05 (5.42-11.7)	9.30 (6.02-14.0)	10.3 (6.53-15.8)
15-min	2.04 (1.58-2.63)	2.45 (1.90-3.16)	3.12 (2.41-4.04)	3.68 (2.83-4.78)	4.45 (3.31-6.02)	5.02 (3.66-6.93)	5.63 (4.00-8.04)	6.32 (4.25-9.18)	7.29 (4.72-10.9)	8.10 (5.12-12.4)
30-min	1.33 (1.03-1.71)	1.61 (1.25-2.07)	2.06 (1.59-2.67)	2.44 (1.88-3.17)	2.96 (2.20-4.01)	3.35 (2.45-4.63)	3.77 (2.67-5.37)	4.23 (2.84-6.14)	4.88 (3.16-7.33)	5.42 (3.43-8.28)
60-min	0.818 (0.634-1.05)	0.994 (0.770-1.28)	1.28 (0.990-1.66)	1.52 (1.17-1.98)	1.85 (1.38-2.50)	2.10 (1.53-2.89)	2.36 (1.67-3.36)	2.65 (1.78-3.85)	3.06 (1.98-4.59)	3.39 (2.15-5.18)
2-hr	0.556 (0.434-0.712)	0.677 (0.528-0.868)	0.876 (0.680-1.13)	1.04 (0.802-1.34)	1.27 (0.948-1.71)	1.44 (1.06-1.98)	1.62 (1.16-2.30)	1.83 (1.23-2.64)	2.13 (1.38-3.18)	2.39 (1.52-3.63)
3-hr	0.440 (0.344-0.562)	0.537 (0.420-0.686)	0.695 (0.541-0.890)	0.826 (0.639-1.06)	1.01 (0.756-1.35)	1.14 (0.840-1.57)	1.28 (0.922-1.83)	1.45 (0.982-2.09)	1.70 (1.11-2.53)	1.92 (1.22-2.90)
6-hr	0.291 (0.229-0.370)	0.355 (0.279-0.451)	0.460 (0.360-0.586)	0.546 (0.425-0.700)	0.665 (0.502-0.890)	0.754 (0.559-1.03)	0.849 (0.613-1.20)	0.962 (0.653-1.38)	1.13 (0.739-1.67)	1.28 (0.814-1.92)
12-hr	0.184 (0.145-0.232)	0.224 (0.177-0.284)	0.291 (0.229-0.369)	0.346 (0.271-0.441)	0.422 (0.320-0.562)	0.479 (0.356-0.650)	0.540 (0.391-0.761)	0.612 (0.416-0.871)	0.721 (0.472-1.06)	0.814 (0.521-1.22)
24-hr	0.109 (0.087-0.137)	0.135 (0.107-0.170)	0.177 (0.140-0.223)	0.212 (0.167-0.269)	0.261 (0.199-0.346)	0.296 (0.222-0.402)	0.335 (0.245-0.472)	0.383 (0.261-0.542)	0.456 (0.300-0.665)	0.519 (0.333-0.770)
2-day	0.061 (0.048-0.076)	0.077 (0.061-0.096)	0.103 (0.082-0.129)	0.124 (0.098-0.157)	0.154 (0.118-0.204)	0.176 (0.133-0.238)	0.200 (0.148-0.282)	0.231 (0.158-0.325)	0.280 (0.184-0.405)	0.323 (0.208-0.476)
3-day	0.044 (0.035-0.055)	0.055 (0.044-0.069)	0.074 (0.059-0.093)	0.090 (0.071-0.113)	0.111 (0.086-0.147)	0.127 (0.096-0.171)	0.144 (0.107-0.203)	0.167 (0.114-0.234)	0.203 (0.134-0.293)	0.235 (0.152-0.345)
4-day	0.036 (0.029-0.044)	0.044 (0.036-0.055)	0.059 (0.047-0.074)	0.071 (0.056-0.089)	0.088 (0.068-0.116)	0.100 (0.076-0.135)	0.113 (0.084-0.160)	0.131 (0.090-0.183)	0.159 (0.105-0.230)	0.185 (0.119-0.270)
7-day	0.024	0.030	0.038	0.046	0.056	0.063	0.071	0.081	0.098	0.113

	(0.020-0.030)	(0.024-0.037)	(0.031-0.048)	(0.036-0.057)	(0.043-0.073)	(0.048-0.084)	(0.053-0.099)	(0.056-0.113)	(0.065-0.141)	(0.073-0.165)
10-day	0.020 (0.016-0.025)	0.024 (0.019-0.029)	0.030 (0.024-0.037)	0.035 (0.028-0.044)	0.042 (0.033-0.055)	0.048 (0.036-0.063)	0.053 (0.040-0.074)	0.061 (0.042-0.084)	0.072 (0.048-0.103)	0.083 (0.054-0.120)
20-day	0.014 (0.011-0.017)	0.016 (0.013-0.020)	0.020 (0.016-0.024)	0.022 (0.018-0.028)	0.026 (0.021-0.034)	0.029 (0.022-0.038)	0.032 (0.024-0.044)	0.036 (0.025-0.049)	0.041 (0.027-0.058)	0.045 (0.030-0.065)
30-day	0.012 (0.010-0.014)	0.013 (0.011-0.016)	0.016 (0.013-0.019)	0.018 (0.014-0.022)	0.021 (0.016-0.026)	0.023 (0.017-0.029)	0.025 (0.018-0.033)	0.027 (0.019-0.037)	0.030 (0.020-0.043)	0.033 (0.021-0.047)
45-day	0.010 (0.008-0.012)	0.011 (0.009-0.013)	0.013 (0.010-0.015)	0.014 (0.011-0.017)	0.016 (0.013-0.020)	0.018 (0.013-0.023)	0.019 (0.014-0.025)	0.021 (0.015-0.028)	0.023 (0.015-0.032)	0.024 (0.016-0.035)
60-day	0.008 (0.007-0.010)	0.009 (0.008-0.011)	0.011 (0.009-0.013)	0.012 (0.010-0.015)	0.014 (0.011-0.017)	0.015 (0.011-0.019)	0.016 (0.012-0.021)	0.017 (0.012-0.023)	0.019 (0.013-0.026)	0.020 (0.013-0.028)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical

Whitten, Nan

From: Greenan, Colin M CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>
Sent: Friday, April 28, 2023 2:37 PM
To: Pete Heil; Richardson, Marybeth; Aubrey Strause
Cc: William Savage; Zach Stevens; Michael Barton; John Laliberte; Chekan, Craig; roby.fecteau
Subject: RE: Upper Falls Road (aka Gooch Street) permitting

Hi Peter,

Thank you for the revised design; no Corps permit will be required. We'll get you an official letter indicating as such as soon as possible.

--

Colin M. Greenan
Senior Project Manager
Maine Project Office
U.S. Army Corps of Engineers
442 Civic Center Drive, Suite 350
Augusta, Maine 04330

desk (978) 318-8676

In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey/>

From: Pete Heil <pheil@acorn-engineering.com>
Sent: Friday, April 28, 2023 12:03 PM
To: Richardson, Marybeth <Marybeth.Richardson@maine.gov>; Aubrey Strause <astrause@acorn-engineering.com>; Greenan, Colin M CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>
Cc: William Savage <wsavage@acorn-engineering.com>; Zach Stevens <zstevens@acorn-engineering.com>; Michael Barton <mbarton@bushwatson.com>; John Laliberte <john@bushwatson.com>; Chekan, Craig <Craig.Chekan@Biddefordmaine.org>; roby.fecteau <roby.fecteau@biddefordmaine.org>
Subject: [URL Verdict: Neutral][Non-DoD Source] RE: Upper Falls Road (aka Gooch Street) permitting

Hi Marybeth & Colin,

Thanks for your quick responses. Per the attached (Colin, I'll upload the plan and letter to the portal link you sent yesterday), we have revised the outfall to pull back the end of the outlet pipe and associated plunge pool/level lip spreader to avoid installation of any rip rap at the rivers edge (and below the HWL). Also attached is an updated cover letter for the NPRA PBR, formally requesting a reduction of the full buffer strip and provides a narrative as to why a full buffer strip would be impractical due to existing conditions.

We appreciate your review and consideration. Please let us know if there are any recommendations that should be incorporated into the proposed design as you outline below. If agreeable, please confirm no additional permitting will be required for the proposed project. We're also happy to have a meeting or schedule a zoom call if it would be beneficial to review together. Thanks,

Peter F. Heil, PE

Acorn Engineering, Inc

B. 207.775.2655
C. 802.238.7409

From: Richardson, Marybeth <Marybeth.Richardson@maine.gov>

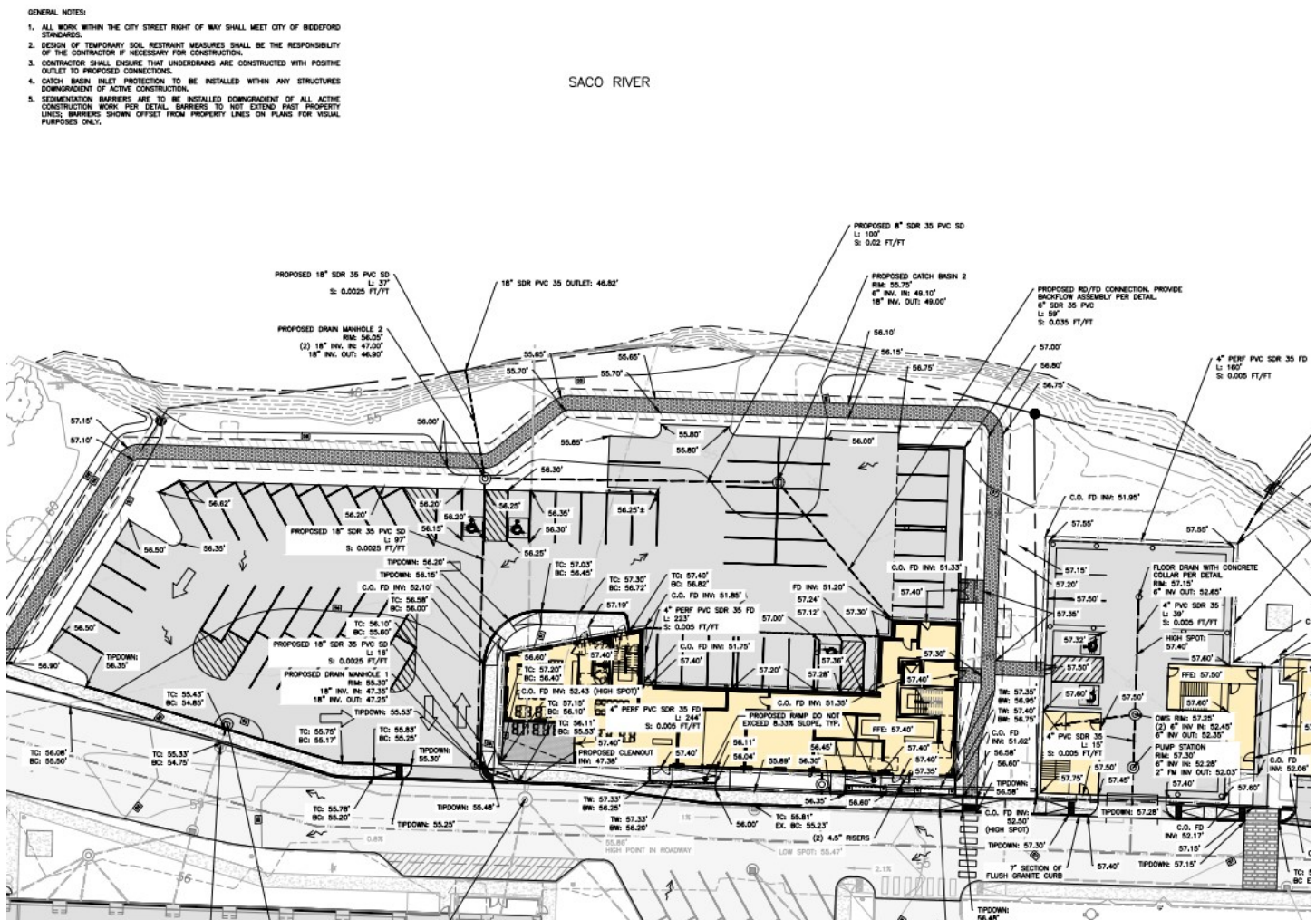
Sent: Thursday, April 27, 2023 3:07 PM

To: Aubrey Strause <astrause@acorn-engineering.com>; Pete Heil <pheil@acorn-engineering.com>; Greenan, Colin M
CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>

Cc: William Savage <wsavage@acorn-engineering.com>; Zach Stevens <zstevens@acorn-engineering.com>; Michael
Barton <mbarton@bushwatson.com>; John Laliberte <john@bushwatson.com>; Chekan, Craig
<Craig.Chekan@Biddefordmaine.org>; roby.fecteau <roby.fecteau@biddefordmaine.org>

Subject: RE: Upper Falls Road (aka Gooch Street) permitting

Hello – the plans submitted with the stormwater application lacked the specific details of the outfall:



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Marybeth Richardson (she/her [Why Pronouns Matter](#))
Maine Department of Environmental Protection
Director, Southern Maine Regional Office
c (207)592-1692; land (207) 822-6317
www.maine.gov/dep

From: Aubrey Strause <astrause@acorn-engineering.com>
Sent: Thursday, April 27, 2023 2:44 PM
To: Pete Heil <pheil@acorn-engineering.com>; Richardson, Marybeth <Marybeth.Richardson@maine.gov>; Greenan, Colin M CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>
Cc: William Savage <wsavage@acorn-engineering.com>; Zach Stevens <zstevens@acorn-engineering.com>; Michael Barton <mbarton@bushwatson.com>; John Laliberte <john@bushwatson.com>
Subject: RE: Upper Falls Road (aka Gooch Street) permitting

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That has us confused, and is specifically what we would appreciate clarification on.

-als

Aubrey L. Strause, PE
Municipal Services Coordinator

C. 207.641.7704

From: Pete Heil <pheil@acorn-engineering.com>
Sent: Thursday, April 27, 2023 2:37 PM
To: Marybeth Richardson <Marybeth.Richardson@maine.gov>; Greenan, Colin M CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>
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Subject: Upper Falls Road (aka Gooch Street) permitting

Hi Marybeth & Colin,

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<https://we.tl/t-N50we4o5qA>

Peter F. Heil, PE
Project Manager

Licensed in Maine, Vermont, & New Hampshire

Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104

[Website](#) | [LinkedIn](#) | [Instagram](#)

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Whitten, Nan

From: Richardson, Marybeth <Marybeth.Richardson@maine.gov>
Sent: Friday, April 28, 2023 2:50 PM
To: Pete Heil; Aubrey Strause; Greenan, Colin M CIV USARMY CENAE (USA)
Cc: William Savage; Zach Stevens; Michael Barton; John Laliberte; Chekan, Craig; roby.fecteau; Kalinich, Jeffrey C
Subject: RE: Upper Falls Road (aka Gooch Street) permitting

Peter – based on the existing conditions at the site and the reconstruction plan I concur that it would be impracticable to maintain a 25-foot setback. Therefore no additional NRPA permitting is required for the outfall.

Marybeth Richardson (she/her [Why Pronouns Matter](#))
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From: Pete Heil <pheil@acorn-engineering.com>
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Subject: RE: Upper Falls Road (aka Gooch Street) permitting

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Hi Marybeth & Colin,

Thanks for your quick responses. Per the attached (Colin, I'll upload the plan and letter to the portal link you sent yesterday), we have revised the outfall to pull back the end of the outlet pipe and associated plunge pool/level lip spreader to avoid installation of any rip rap at the rivers edge (and below the HWL). Also attached is an updated cover letter for the NPRA PBR, formally requesting a reduction of the full buffer strip and provides a narrative as to why a full buffer strip would be impractical due to existing conditions.

We appreciate your review and consideration. Please let us know if there are any recommendations that should be incorporated into the proposed design as you outline below. If agreeable, please confirm no additional permitting will be required for the proposed project. We're also happy to have a meeting or schedule a zoom call if it would be beneficial to review together. Thanks,

Peter F. Heil, PE

Acorn Engineering, Inc
B. 207.775.2655
C. 802.238.7409

From: Richardson, Marybeth <Marybeth.Richardson@maine.gov>

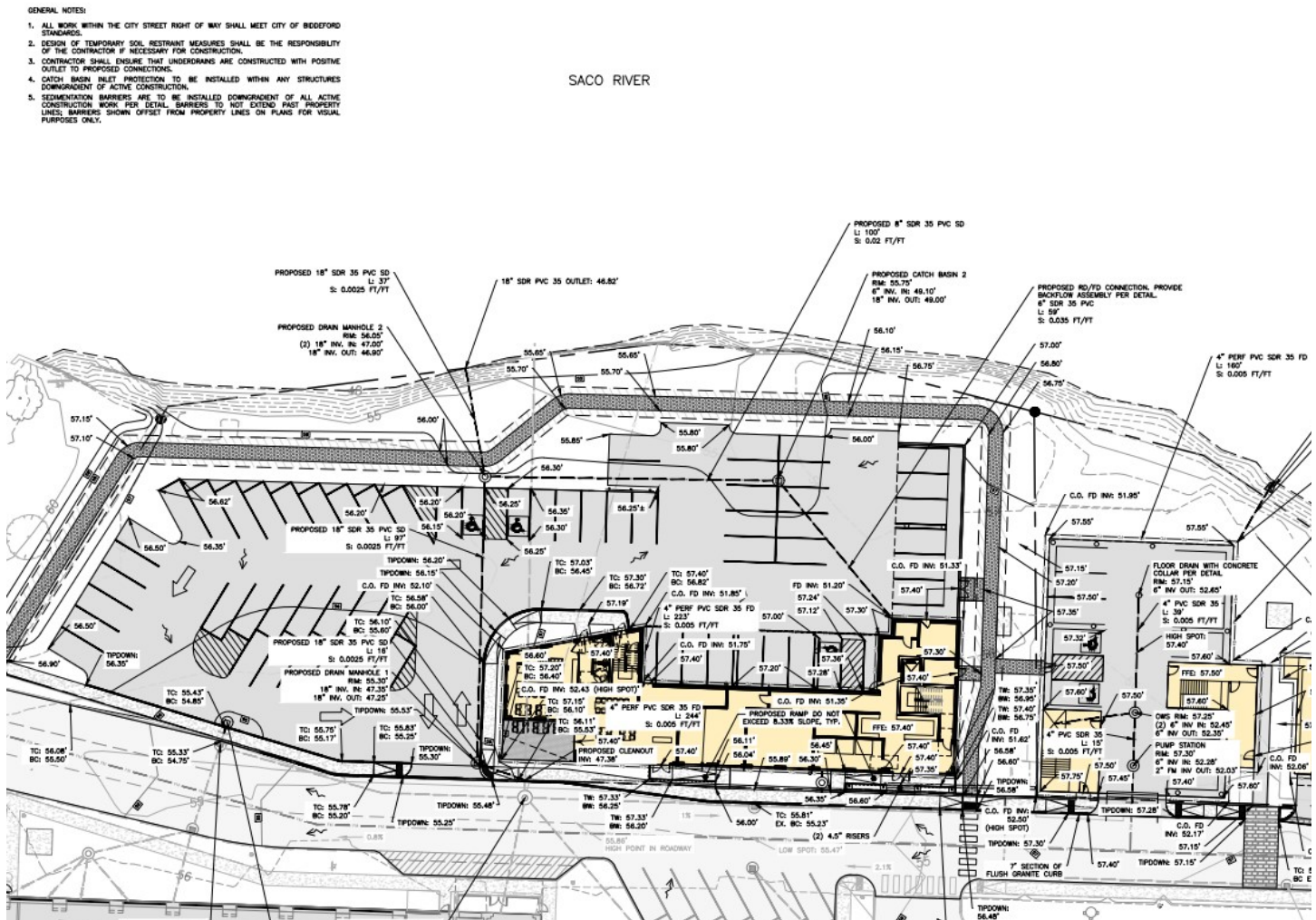
Sent: Thursday, April 27, 2023 3:07 PM

To: Aubrey Strause <astrause@acorn-engineering.com>; Pete Heil <pheil@acorn-engineering.com>; Greenan, Colin M CIV USARMY CENAE (USA) <Colin.M.Greenan@usace.army.mil>

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Section 17

Wastewater Disposal

17. Wastewater Disposal

A. On-Site Subsurface Wastewater Disposal System

The project will not be serviced by individual on-site subsurface sewage disposal systems. However, pump stations will be included in the design to route sewage to the existing municipal sewer system.

B. Nitrate-Nitrogen Impact Assessment

Not applicable.

C. Municipal Facility or Utility Company Letter

An Ability to Serve Letter from the City's Engineering Department is attached. The proposed project includes multiple pump stations to be installed to convey sewage to the existing force main within Upper Falls Road. See the Civil Plan Set for additional information.

D. Wastewater discharge information

Not applicable.

E. Storage or Treatment Lagoons

Not applicable.



Based upon the Section 4 of the Maine Subsurface Water Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
10 Upper Falls Road				
Warehouse	N/A	1	100	100
Total Gallons per Day (Existing)				100
20 Upper Falls Road				
Manufacturing Operations	18,185sf	1	50gpd/1,000sf	910
Total Gallons per Day (Existing)				910
30 Upper Falls Road				
Manufacturing Operations	40,815sf	1	50gpd/1,000sf	2,040
Total Gallons per Day (Existing)				2,040
Total Gallons per Day (Existing)				3,050 GPD
Proposed Flow				
10 Upper Falls Road				
Residential Units	Studio / 1-Bedroom	56	200	11,200
Commercial Use	Restaurant	~49 seats ~4 Employees,	20gpd per seat + 12gpd per employee	1,028
Total Gallons per Day (Proposed)				12,228
20 Upper Falls Road				
Residential Units	2-Bedroom	12	200	2,400
Residential Units	1-Bedroom	8	200	1,600
Residential Units	Townhomes	11	200	2,200
Total Gallons per Day (Proposed)				6,200
30 Upper Falls Road				
Commercial Use	Restaurant	41 seats 10 Employees,	20gpd per seat + 12gpd per employee	940
Commercial Use	Restaurant	41 seats 4 Employees	20gpd per seat + 12gpd per employee	868

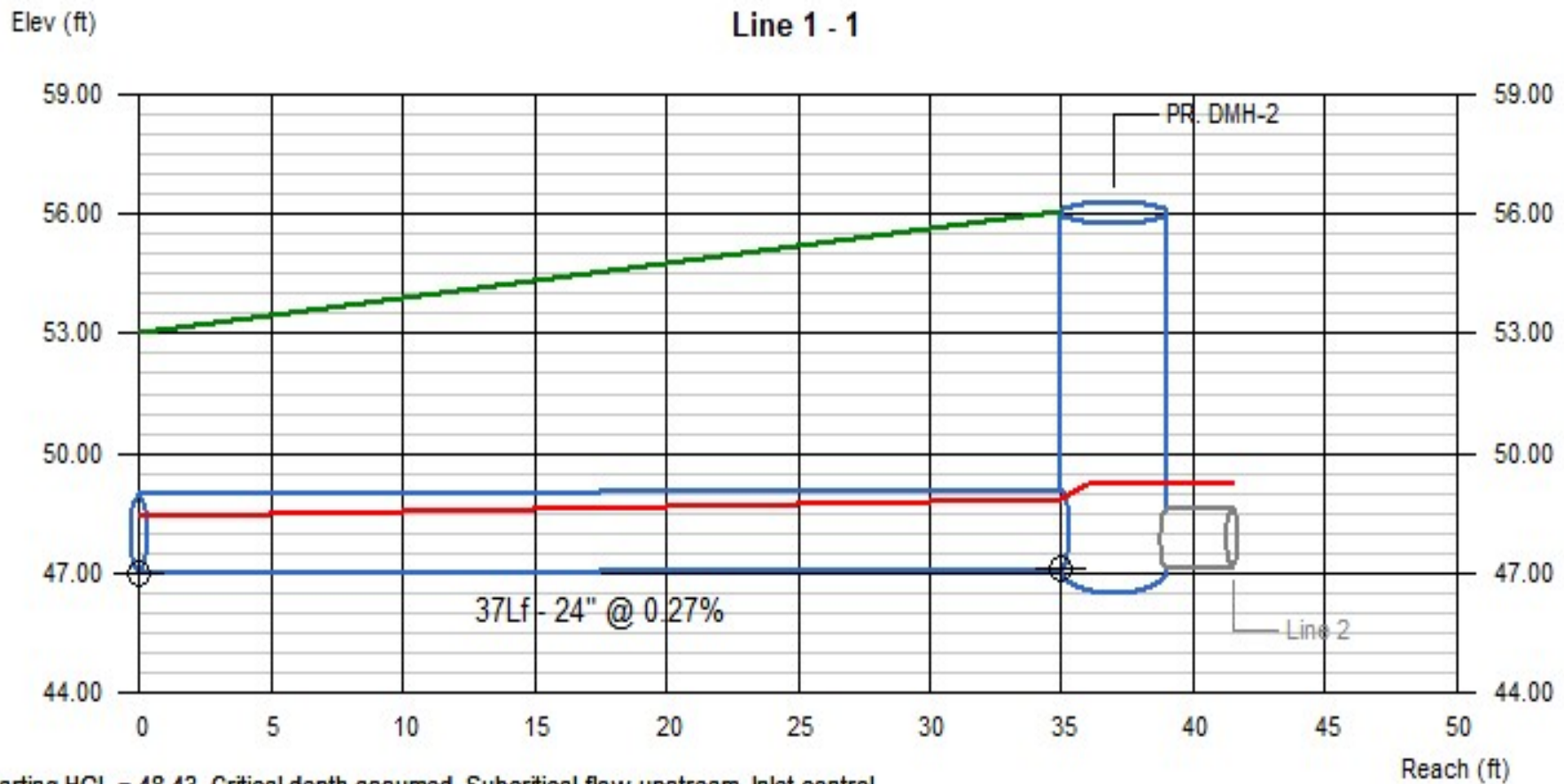


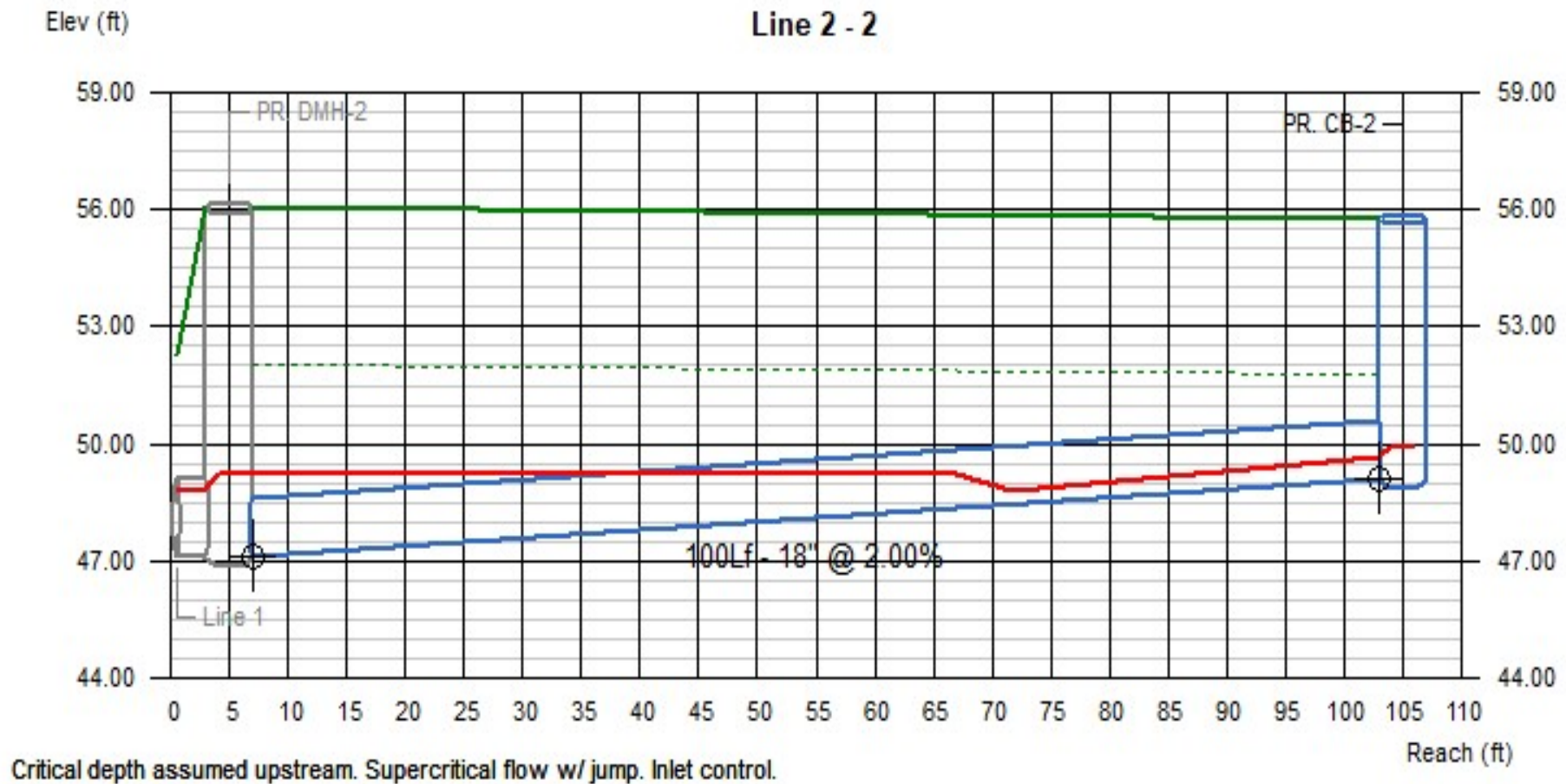
Commercial Use*	Brewery	41 seats 10 Employees	20gpd per seat + 2,500gpd* + 12gpd per employee	3,440
Total Gallons per Day (Proposed)				5,248
Total Gallons per Day (Proposed)				23,676 GPD
Net Change				20,626 GPD
* Values obtained directly from potential Brewery				

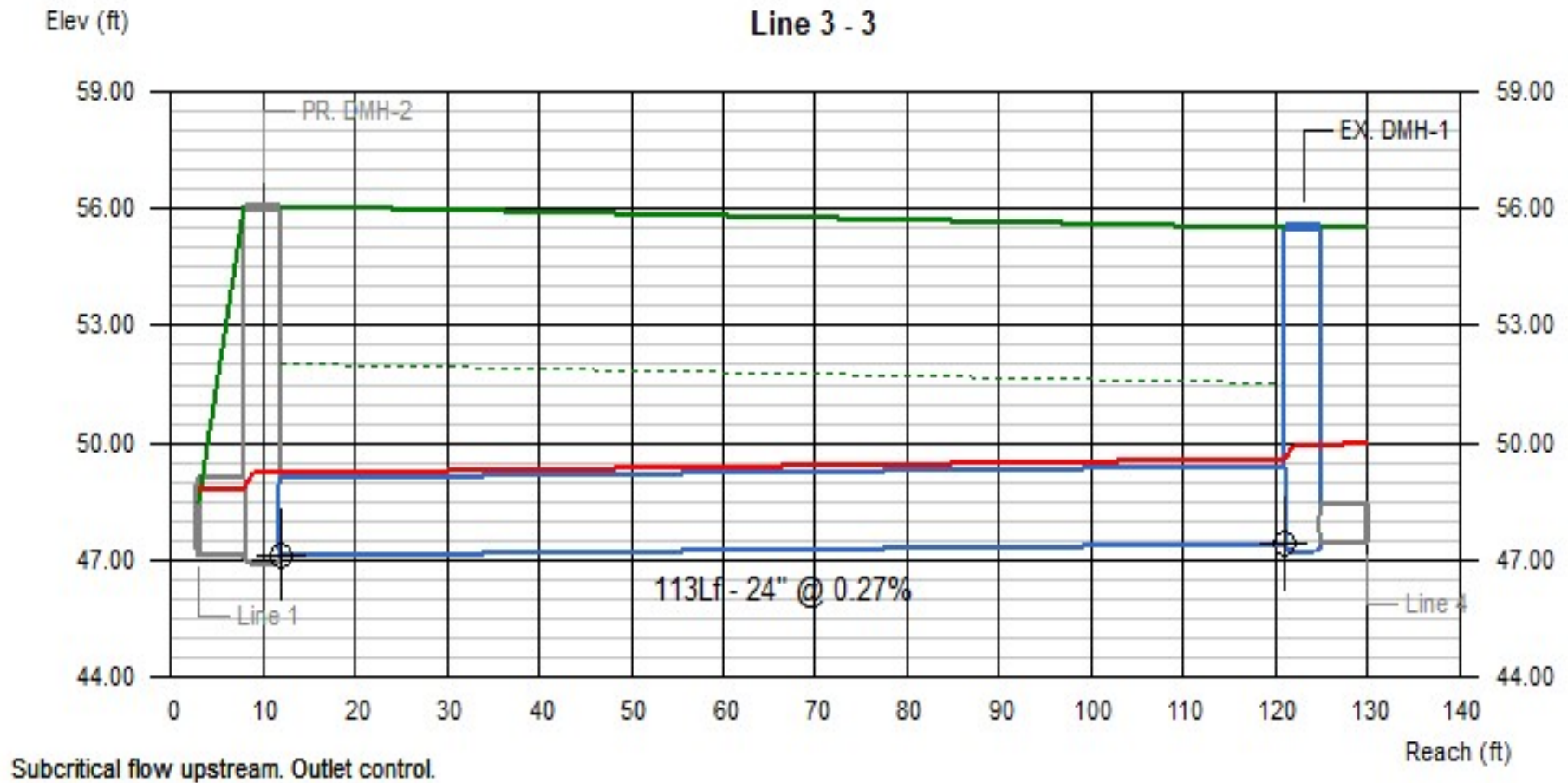


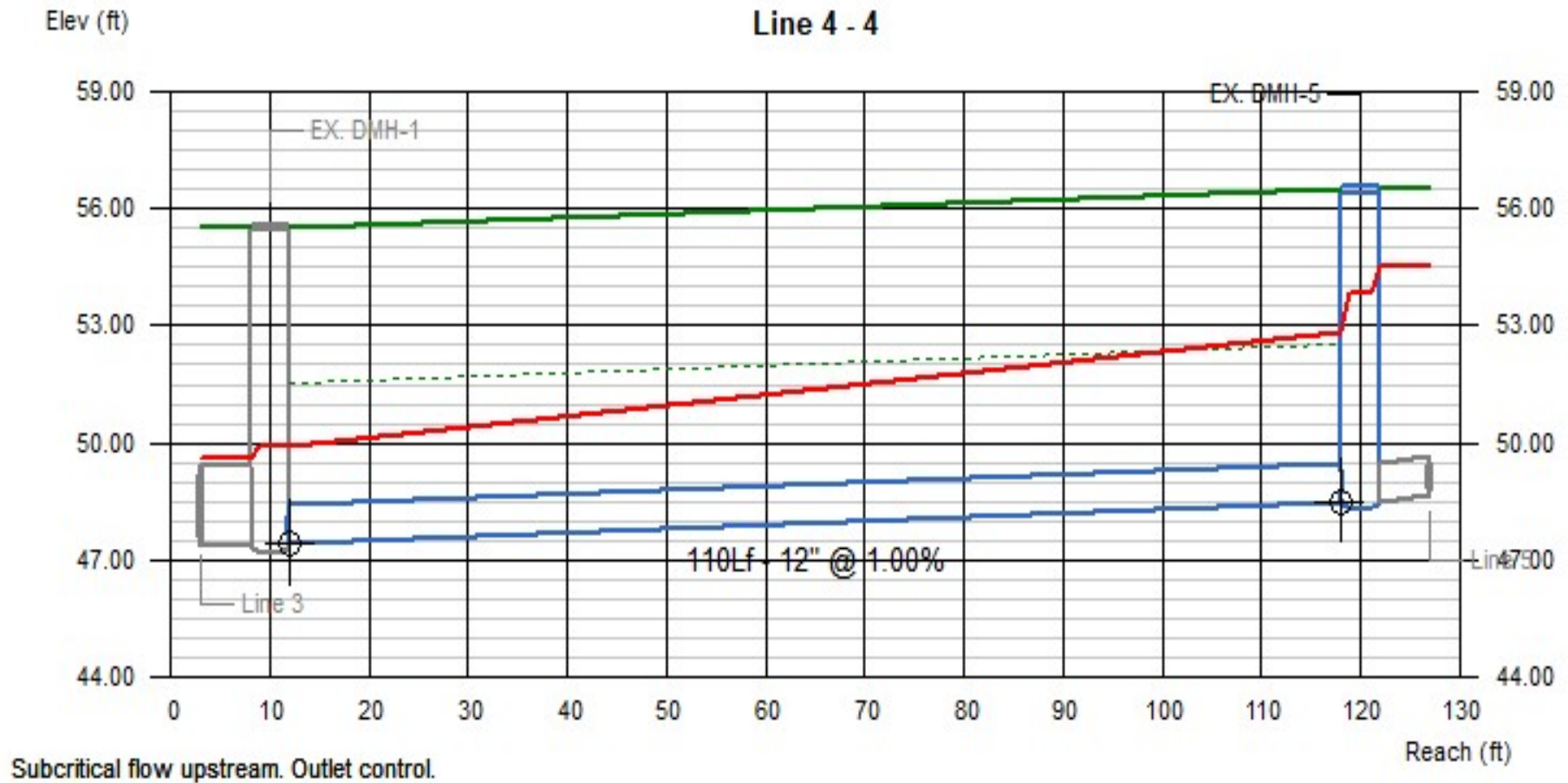
The diagram illustrates a water distribution network with the following components and connections:

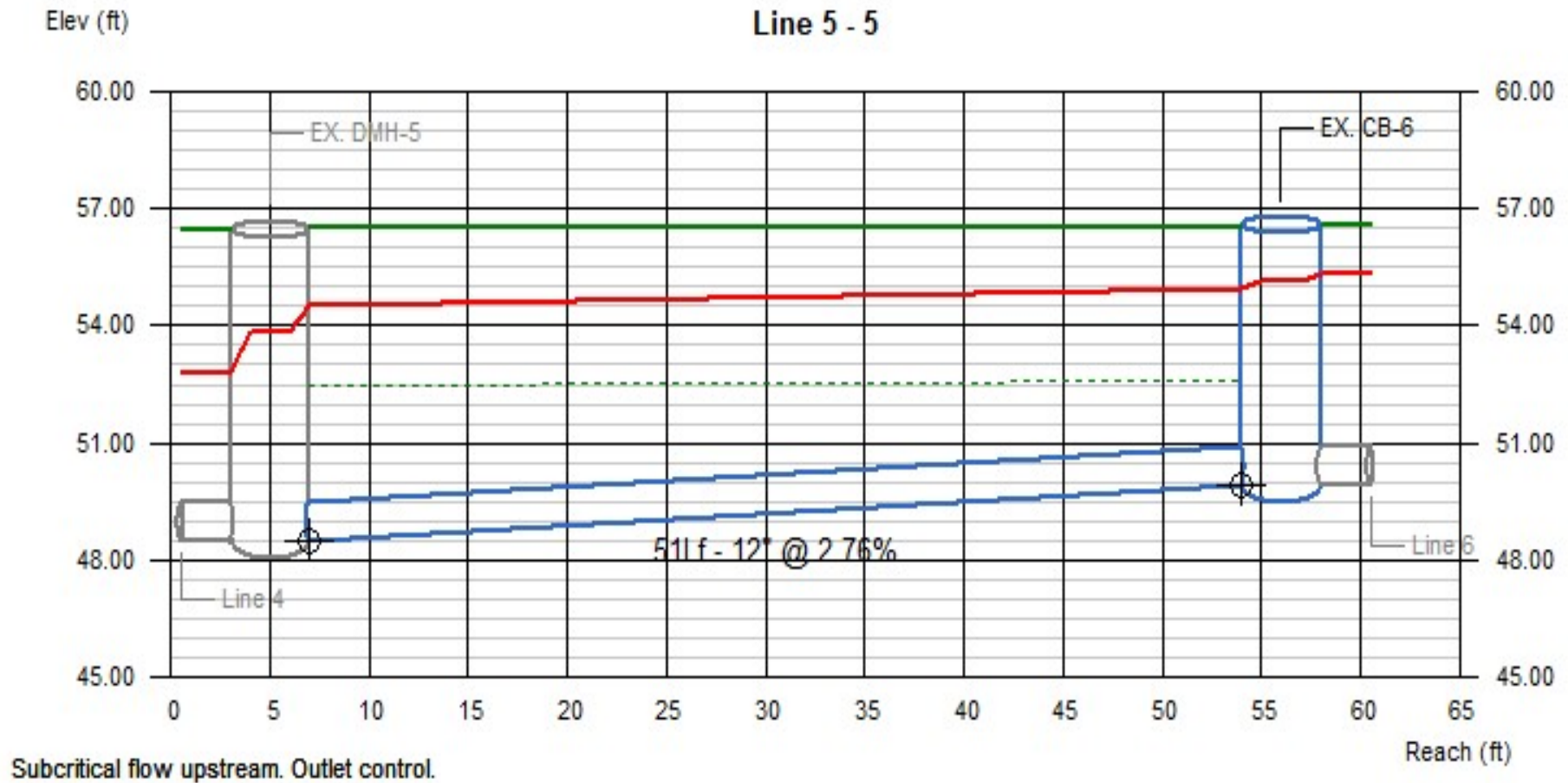
- Main Horizontal Line:**
 - Starts at an **Outfall** node (black dot).
 - Passes through **PR. DMH-2** (blue dot).
 - Continues through **EX. DMH-1** (blue dot).
 - Passes through **EX. DMH-5** (blue dot).
 - Continues through **EX. CB-6** (blue dot).
 - Ends at **EX. CB-5** (blue dot).
- Vertical Branches from EX. DMH-1:**
 - Upward:** EX. CB-4 (10), EX. CB-3 (10.5), EX. CB-10 (11.5), EX. CB-11 (12.5).
 - Downward:** EX. CB-2 (14.5), EX. CB-1 (15.5).
- Horizontal Branches from EX. DMH-5:**
 - Upward:** EX. CB-9 (8.5), EX. CB-7 (7.5).
- Horizontal Branches from EX. CB-6:**
 - Rightward:** PAVERS (16).
- Horizontal Branches from EX. CB-5:**
 - Rightward:** 26 UFR Roof (18), 20 UFR Roof (17).
- Horizontal Branches from EX. CB-1:**
 - Rightward:** 14, 15, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.
- Other Connections:**
 - PR. CB-2** (9.5) is connected to **PR. DMH-2** (2).
 - EX. CB-1** (15.5) is connected to **PR CB-1** (15).

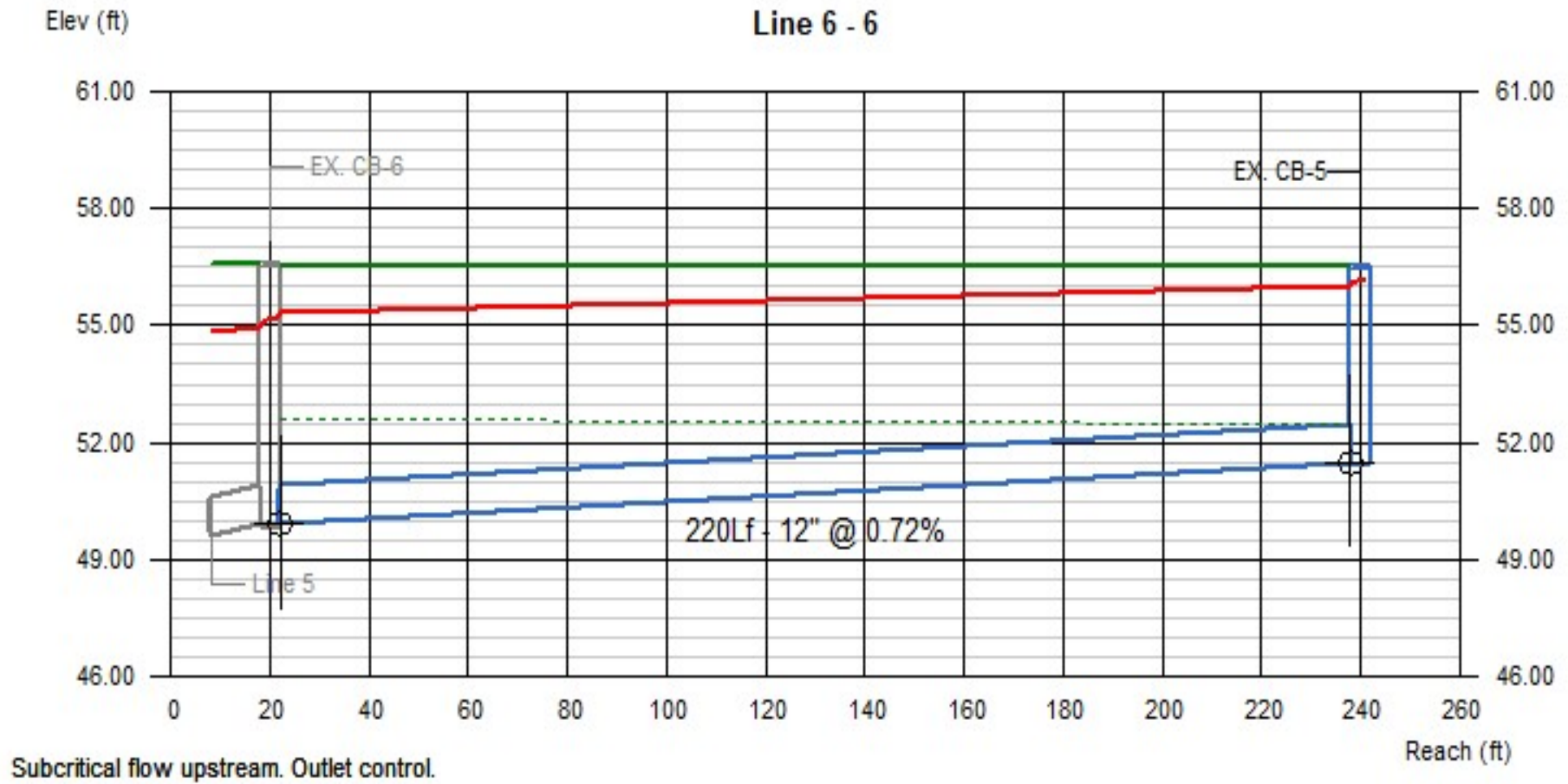


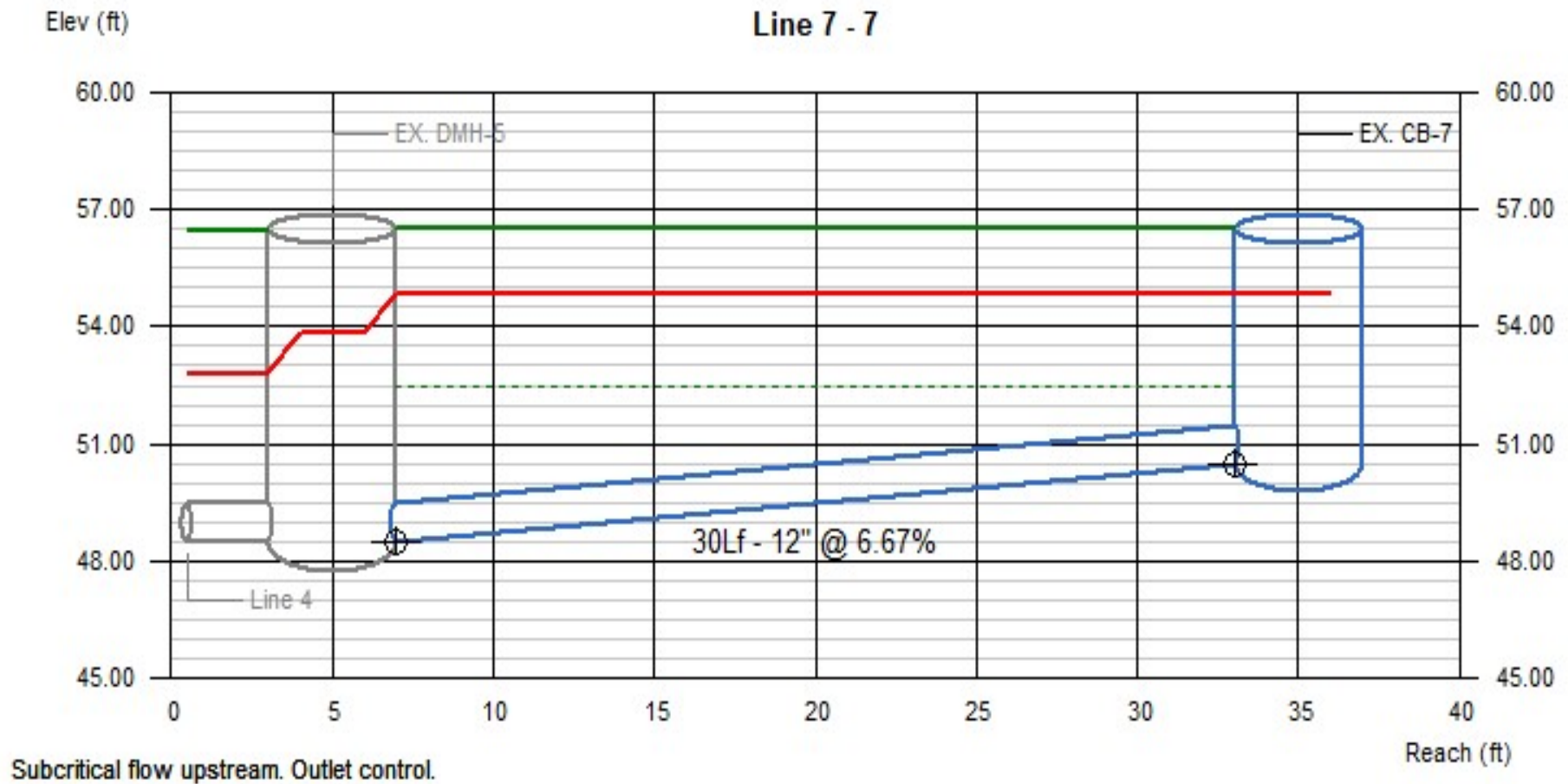


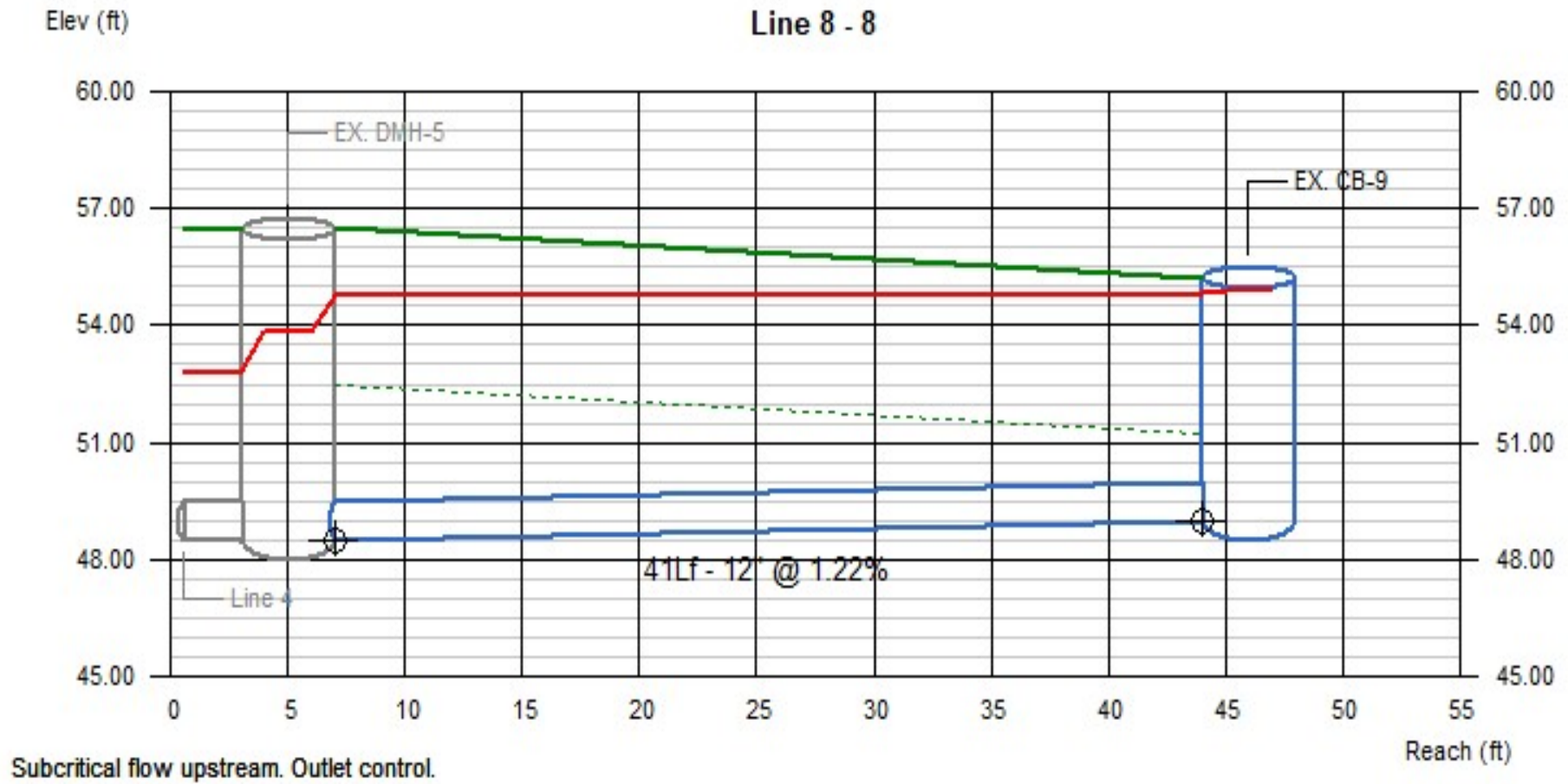


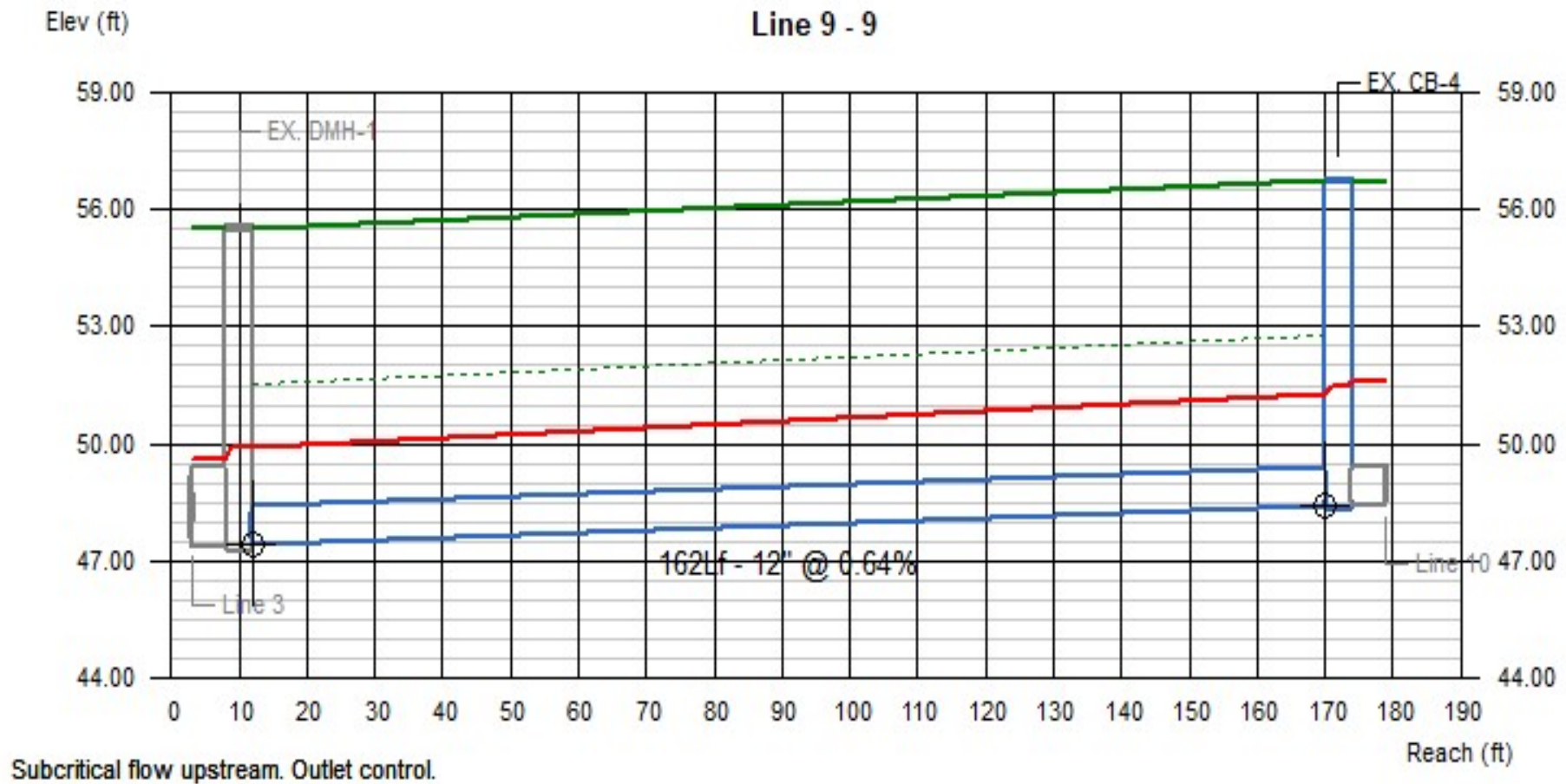


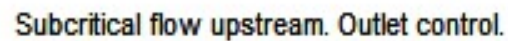


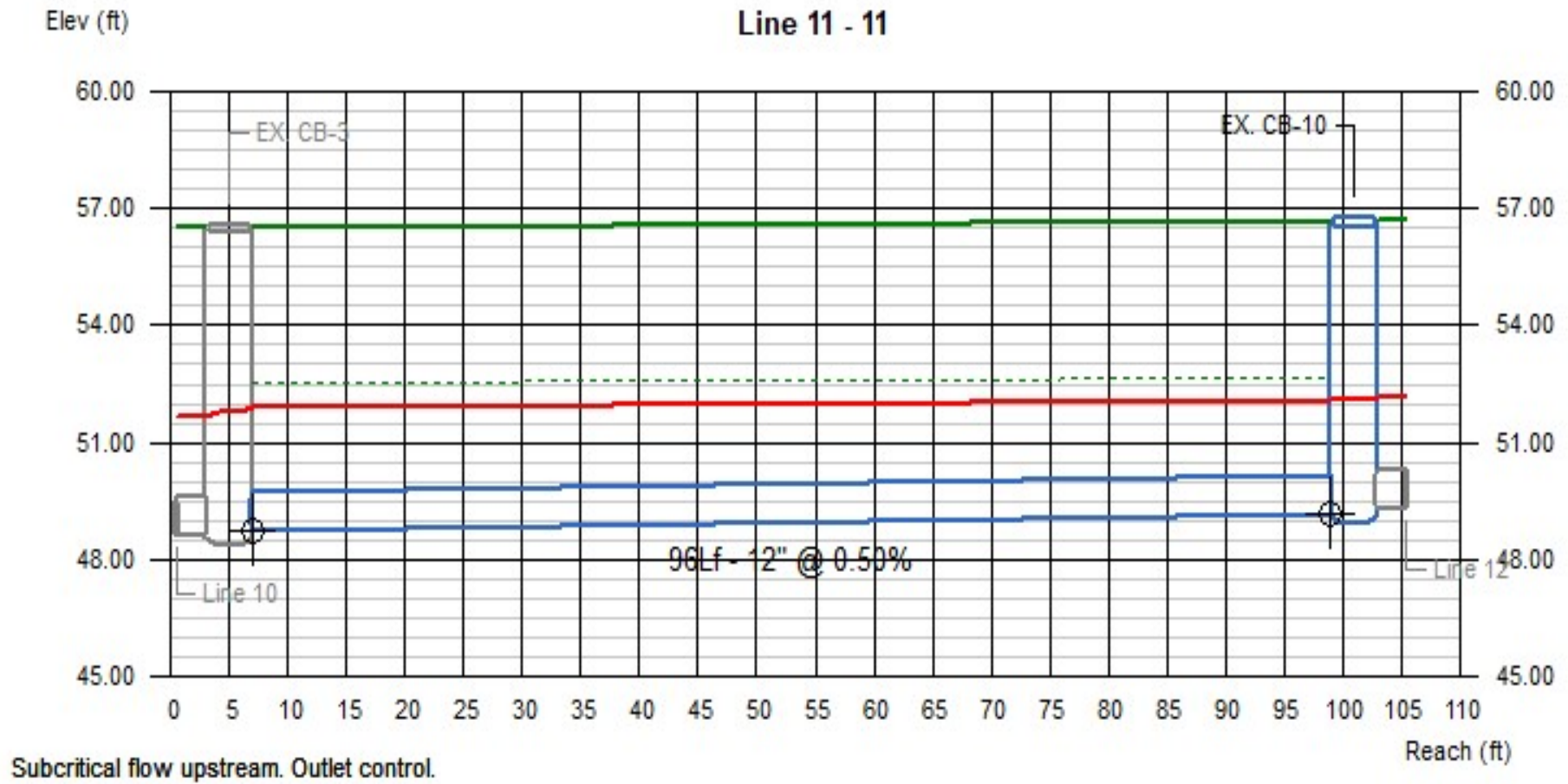


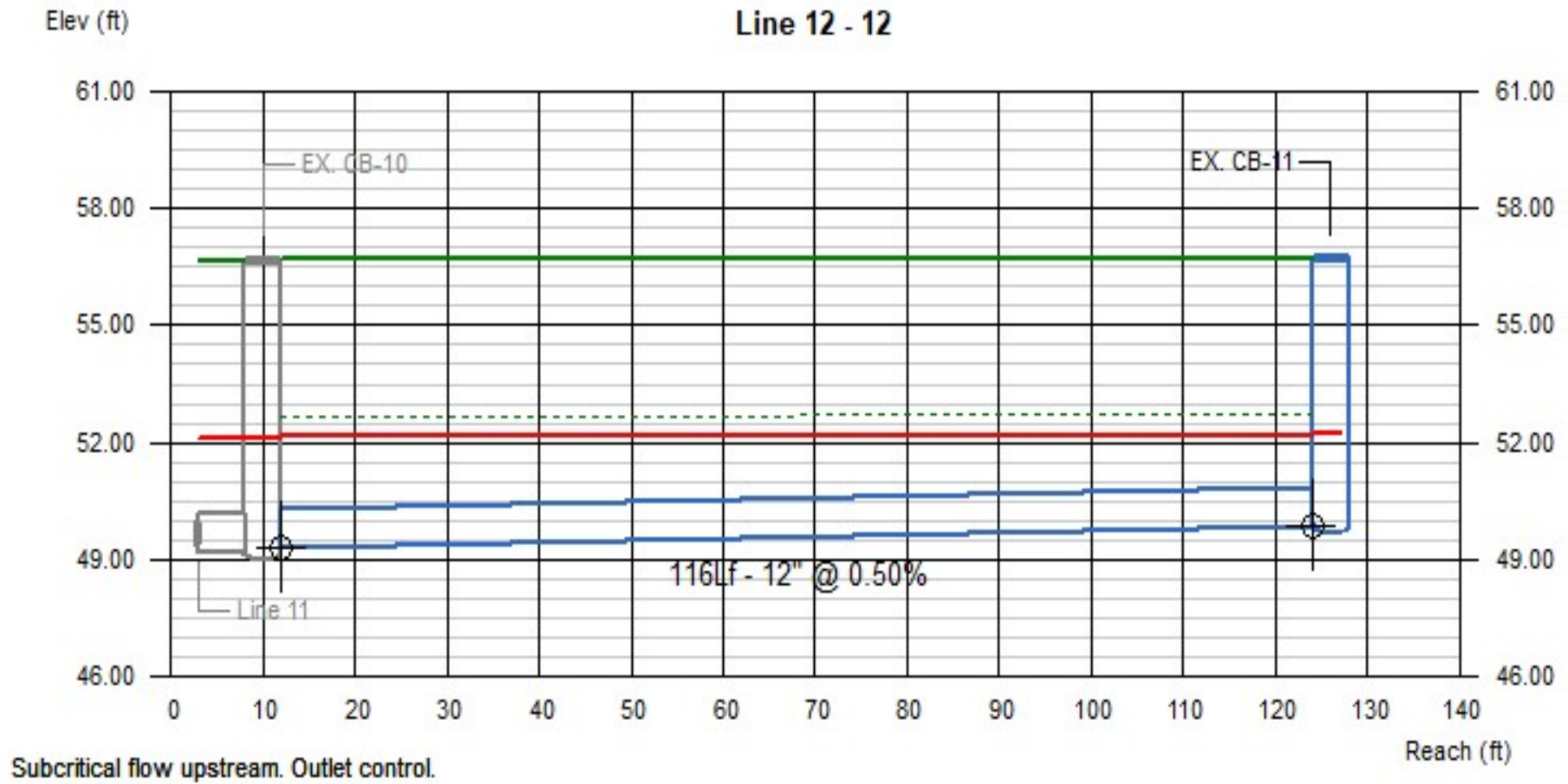


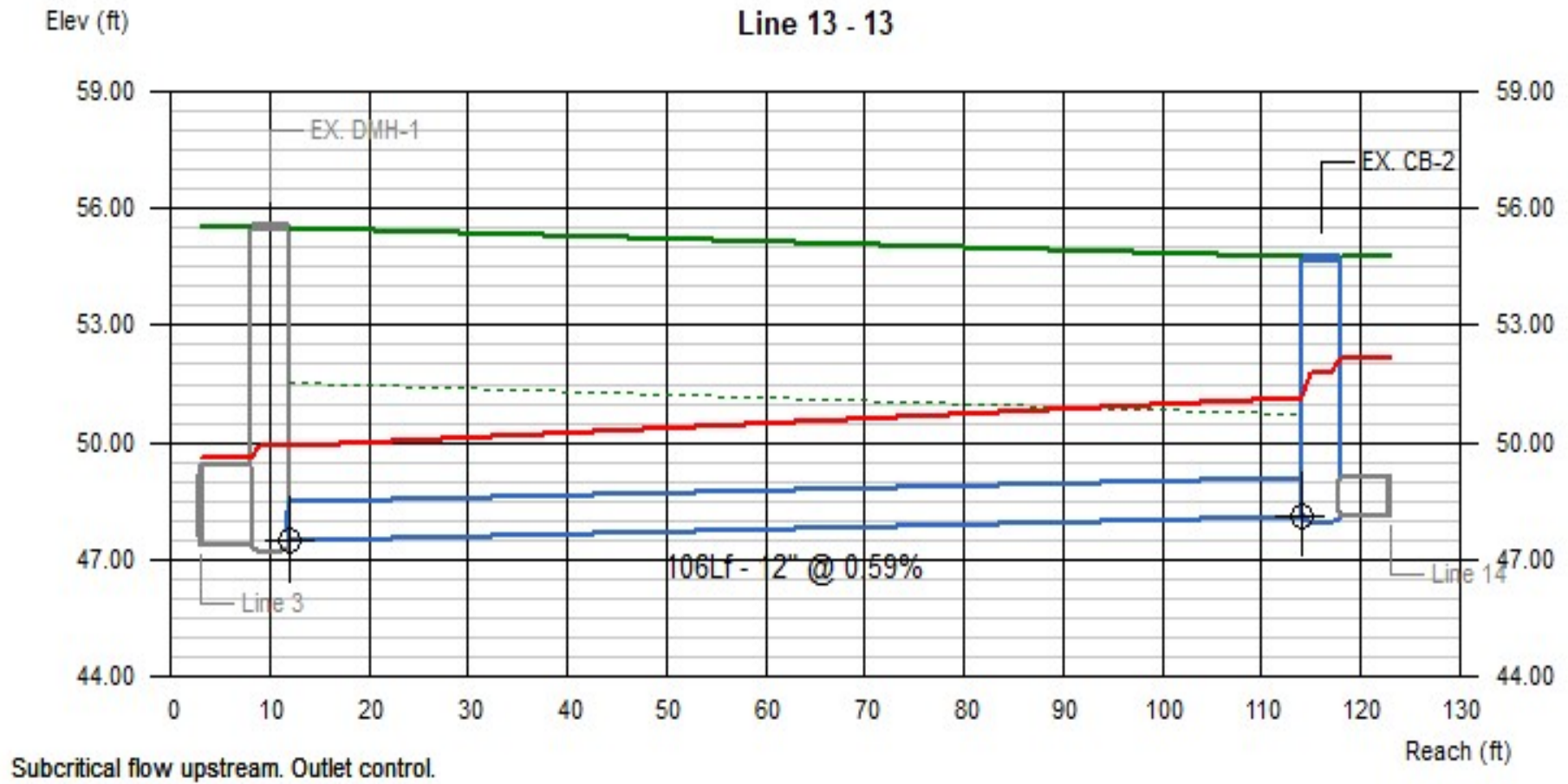


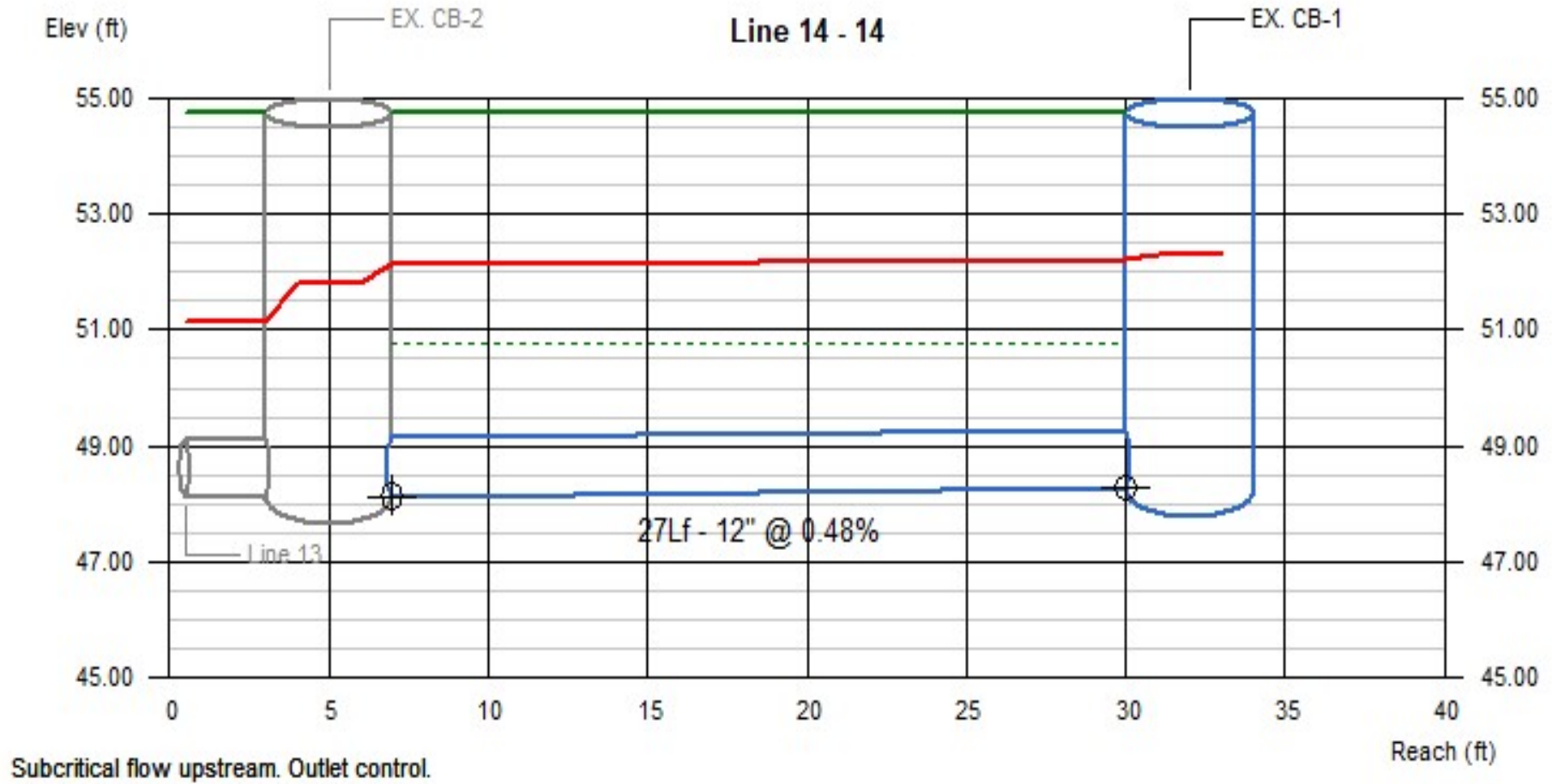


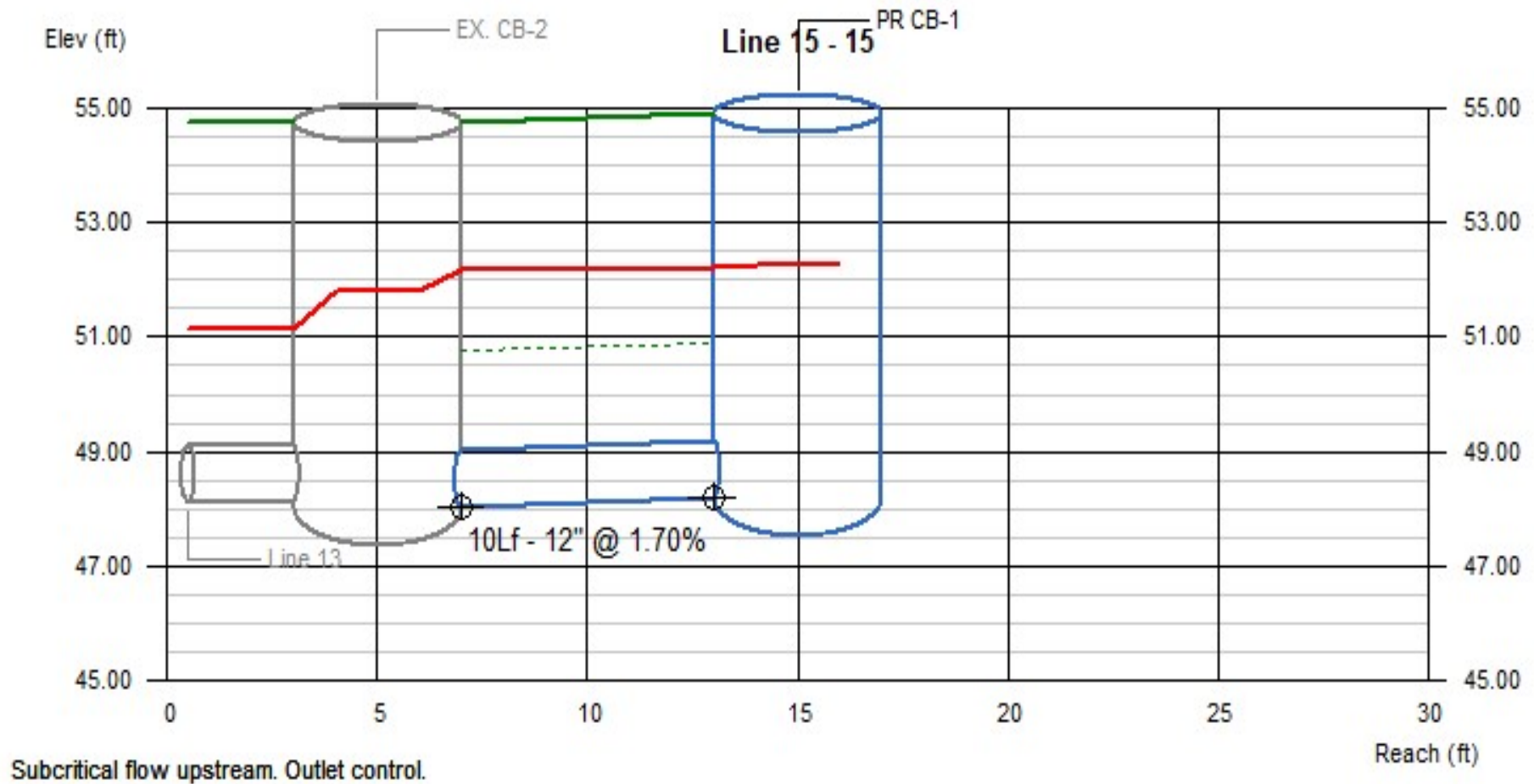


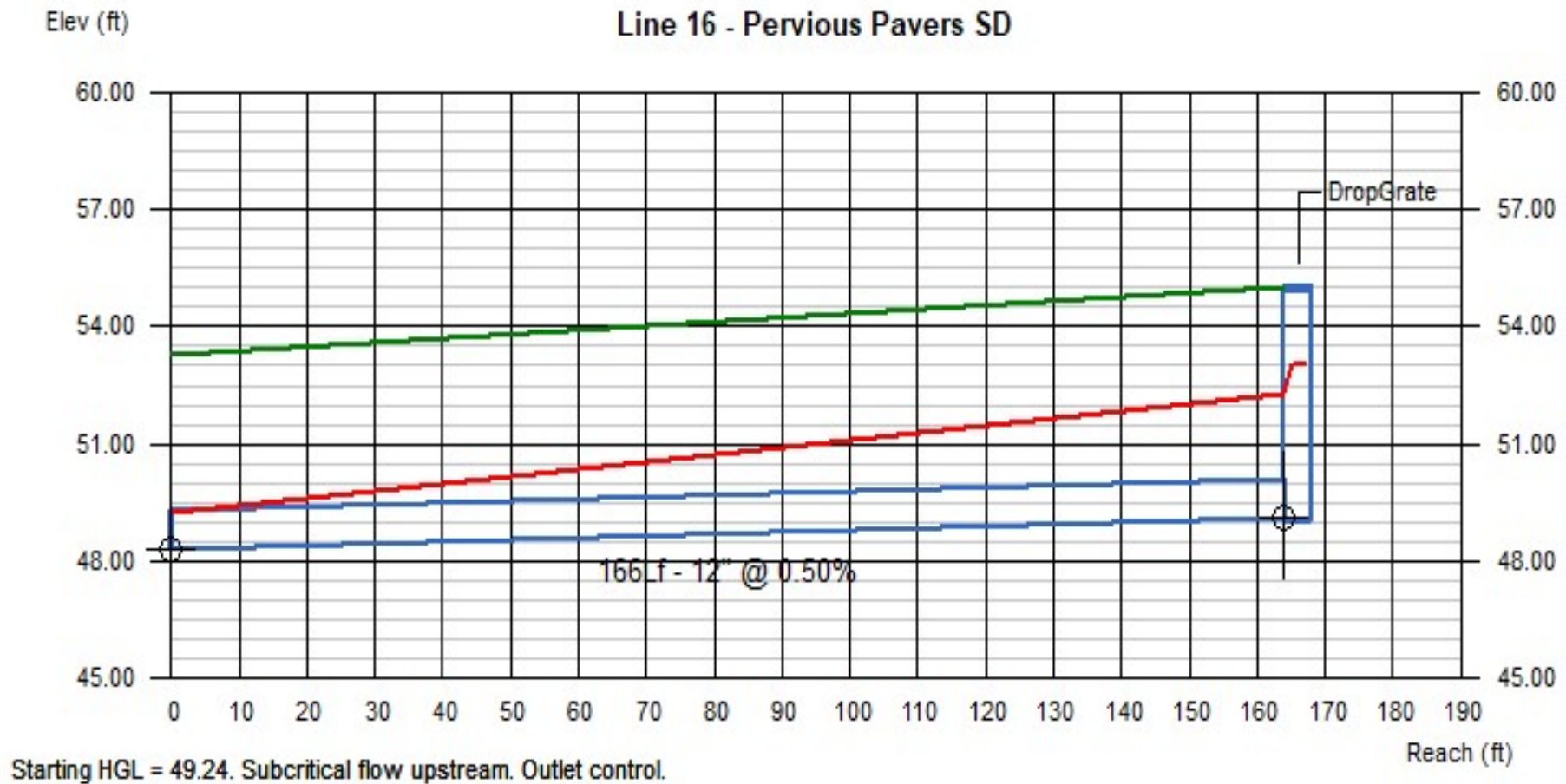


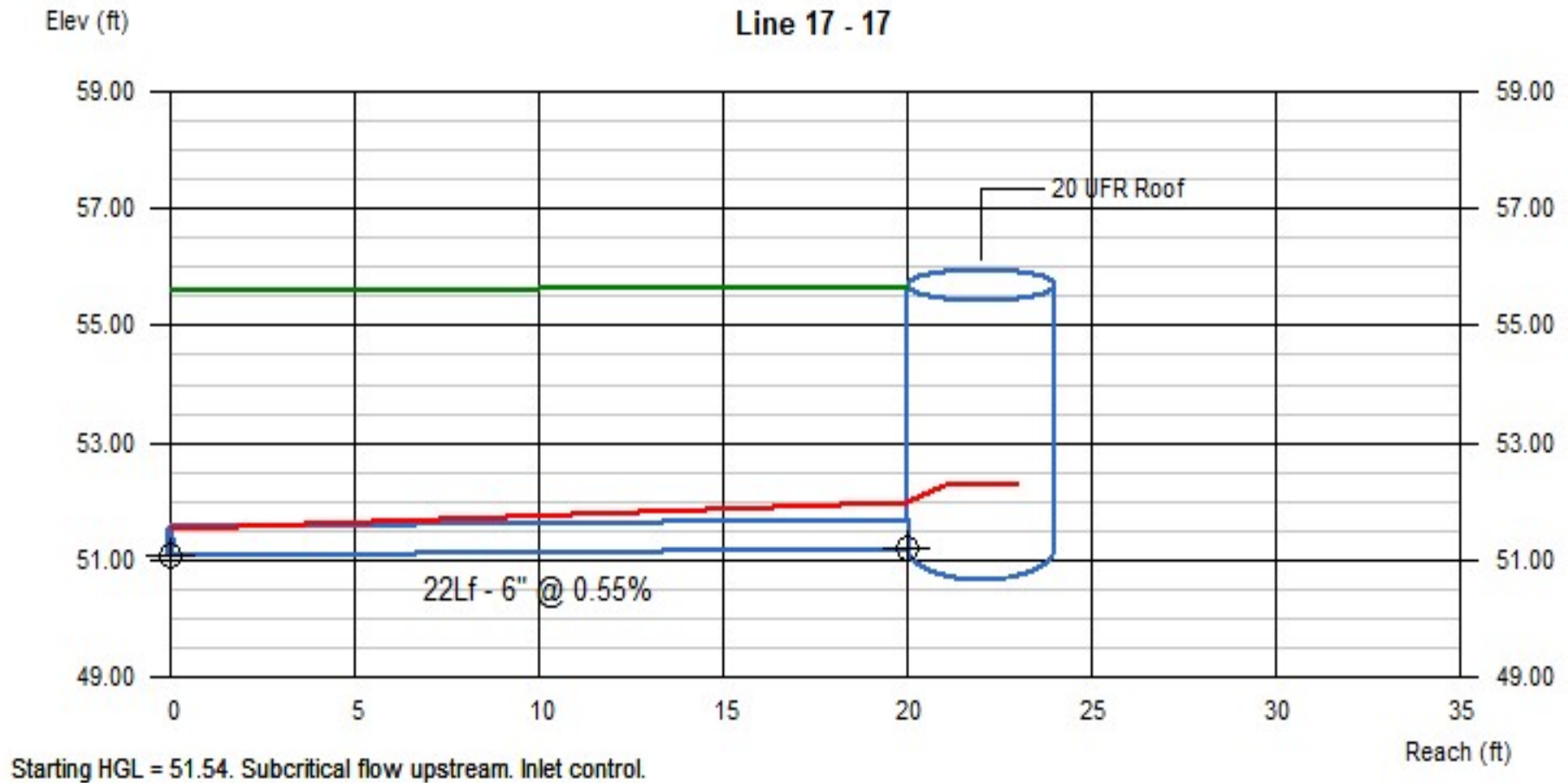


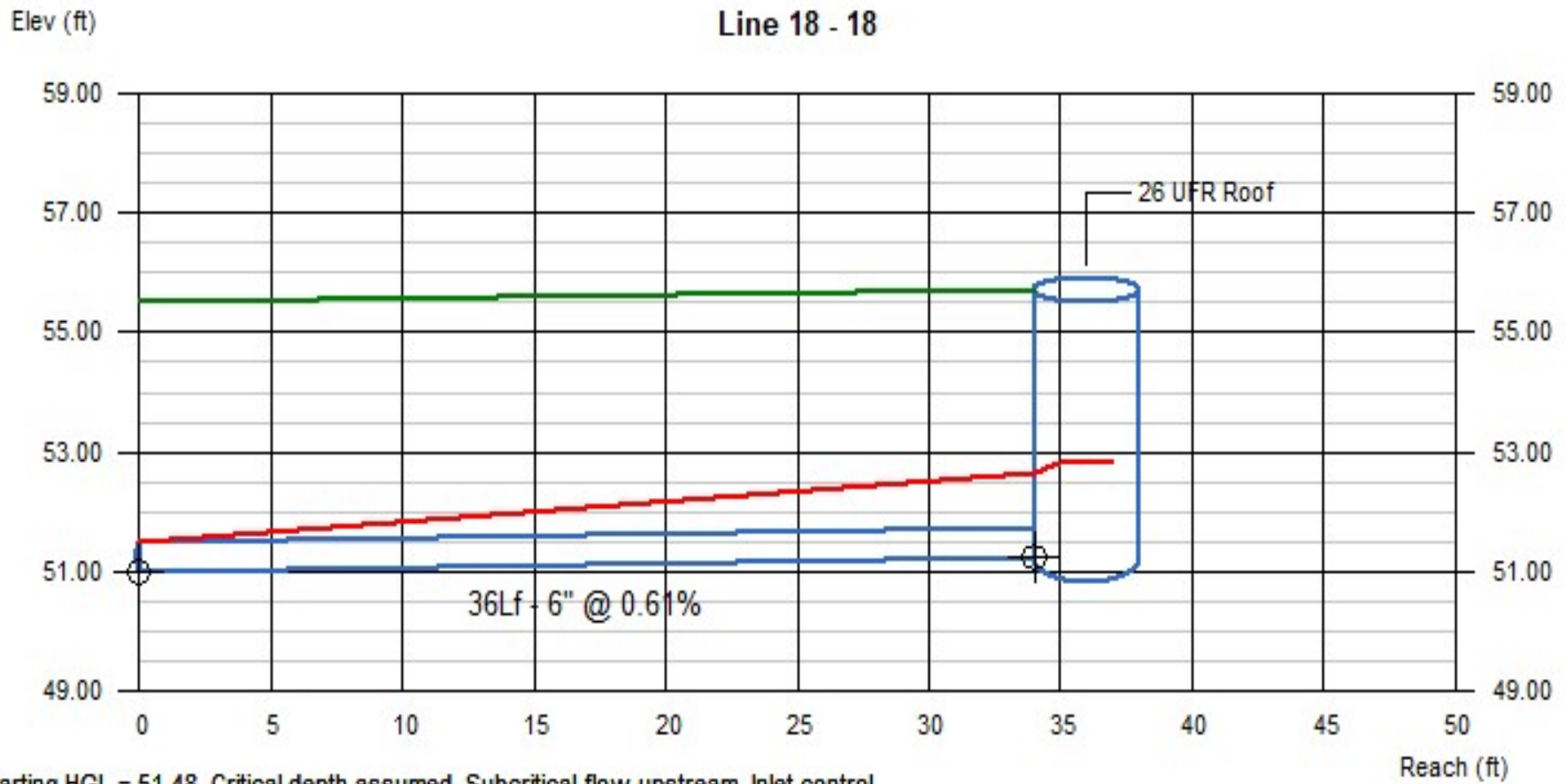












Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line slope (%)	HGL down (ft)	HGL up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns line No.	Junction Type
1	1	16.32	24	Cir	37	47.00	47.10	0.270	48.43	48.84	n/a	49.25 i	End	Manhole
2	2	2.32	18	Cir	100	47.10	49.10	2.000	49.25	49.68	n/a	49.93 i	1	DropGrate
3	3	14.00	24	Cir	113	47.10	47.40	0.265	49.25*	49.62*	0.31	49.93	1	Manhole
4	4	6.28	12	Cir	110	47.40	48.50	1.000	49.93*	52.84*	1.00	53.84	3	Manhole
5	5	3.65	12	Cir	51	48.50	49.91	2.765	54.50*	54.96*	0.17	55.12	4	DropGrate
6	6	2.16	12	Cir	220	49.91	51.50	0.723	55.34*	56.03*	0.12	56.15	5	DropGrate
7	7	1.00	12	Cir	30	48.50	50.50	6.667	54.81*	54.83*	0.03	54.85	4	DropGrate
8	8	1.63	12	Cir	41	48.50	49.00	1.220	54.77*	54.84*	0.07	54.91	4	DropGrate
9	9	3.56	12	Cir	162	47.40	48.43	0.636	49.93*	51.31*	0.16	51.47	3	DropGrate
10	10	2.89	12	Cir	17	48.43	48.61	1.059	51.58*	51.67*	0.11	51.78	9	DropGrate
11	11	1.51	12	Cir	96	48.71	49.19	0.500	51.93*	52.08*	0.03	52.11	10	DropGrate
12	12	0.81	12	Cir	116	49.29	49.87	0.500	52.15*	52.20*	0.02	52.21	11	DropGrate
13	13	4.15	12	Cir	106	47.50	48.13	0.594	49.93*	51.16*	0.65	51.81	3	DropGrate
14	14	2.06	12	Cir	27	48.13	48.26	0.481	52.14*	52.21*	0.11	52.32	13	DropGrate
15	15	1.35	12	Cir	10	48.03	48.20	1.700	52.20*	52.21*	0.05	52.26	13	DropGrate
16	Pervious Pavers SD	5.39	12	Cir	166	48.30	49.13	0.500	49.24*	52.30*	0.73	53.03	End	DropGrate
17	17	0.88	6	Cir	22	51.08	51.20	0.545	51.54*	51.99*	n/a	52.26 i	End	DropGrate
18	18	1.13	6	Cir	36	51.00	51.22	0.611	51.48*	52.66*	n/a	52.80 i	End	DropGrate

Project File: 10,20,30 Upper Falls Pipe Sizing.stm

Number of lines: 18

Run Date: 05-16-2023

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; i - Inlet control.

Hydraulic Grade Line Computations

Line	Size	Q	Downstream								Len	Upstream								Check		JL coeff	Minor loss
			Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)		Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
1	24	16.32	47.00	48.43	1.43	2.40	6.79	0.72	49.15	n/a	37	47.10	48.84	1.74	2.90	5.62	0.49	49.33i	n/a	n/a	-0.305	1.00	n/a
2	18	2.32	47.10	49.25	1.50	1.77	1.31	0.03	49.27	n/a	100	49.10	49.68 j	0.58**	0.63	3.67	0.21	49.89i	n/a	n/a	n/a	1.00	n/a
3	24	14.00	47.10	49.25	2.00	3.14	4.46	0.31	49.56	0.327	113	47.40	49.62	2.00	3.14	4.46	0.31	49.93	0.326	0.326	0.369	1.00	0.31
4	12	6.28	47.40	49.93	1.00	0.79	8.00	1.00	50.92	2.654	110	48.50	52.84	1.00	0.79	8.00	1.00	53.84	2.653	2.653	2.918	1.00	1.00
5	12	3.65	48.50	54.50	1.00	0.79	4.65	0.34	54.83	0.897	51	49.91	54.96	1.00	0.79	4.65	0.34	55.29	0.896	0.897	0.457	0.50	0.17
6	12	2.16	49.91	55.34	1.00	0.79	2.75	0.12	55.46	0.313	220	51.50	56.03	1.00	0.79	2.75	0.12	56.15	0.313	0.313	0.688	1.00	0.12
7	12	1.00	48.50	54.81	1.00	0.79	1.28	0.03	54.83	0.068	30	50.50	54.83	1.00	0.79	1.28	0.03	54.85	0.068	0.068	0.020	1.00	0.03
8	12	1.63	48.50	54.77	1.00	0.79	2.07	0.07	54.83	0.178	41	49.00	54.84	1.00	0.79	2.07	0.07	54.91	0.178	0.178	0.073	1.00	0.07
9	12	3.56	47.40	49.93	1.00	0.79	4.54	0.32	50.25	0.852	162	48.43	51.31	1.00	0.79	4.53	0.32	51.63	0.852	0.852	1.381	0.50	0.16
10	12	2.89	48.43	51.58	1.00	0.79	3.68	0.21	51.79	0.561	17	48.61	51.67	1.00	0.79	3.68	0.21	51.88	0.561	0.561	0.095	0.50	0.11
11	12	1.51	48.71	51.93	1.00	0.79	1.92	0.06	51.99	0.154	96	49.19	52.08	1.00	0.79	1.92	0.06	52.13	0.153	0.154	0.147	0.50	0.03
12	12	0.81	49.29	52.15	1.00	0.79	1.03	0.02	52.16	0.044	116	49.87	52.20	1.00	0.79	1.03	0.02	52.21	0.044	0.044	0.051	1.00	0.02
13	12	4.15	47.50	49.93	1.00	0.79	5.29	0.44	50.36	1.160	106	48.13	51.16	1.00	0.79	5.29	0.44	51.59	1.160	1.160	1.230	1.50	0.65
14	12	2.06	48.13	52.14	1.00	0.79	2.63	0.11	52.24	0.286	27	48.26	52.21	1.00	0.79	2.63	0.11	52.32	0.286	0.286	0.077	1.00	0.11
15	12	1.35	48.03	52.20	1.00	0.79	1.72	0.05	52.24	0.122	10	48.20	52.21	1.00	0.79	1.72	0.05	52.26	0.122	0.122	0.012	1.00	0.05
16	12	5.39	48.30	49.24	0.94	0.77	7.03	0.77	50.01	1.687	166	49.13	52.30	1.00	0.79	6.86	0.73	53.03	1.952	1.819	3.020	1.00	0.73
17	6	0.88	51.08	51.54	0.46	0.19	4.64	0.34	51.88	n/a	22	51.20	51.99	0.50	0.20	4.47	0.31	52.30i	n/a	n/a	0.118	1.00	n/a
18	6	1.13	51.00	51.48	0.48*	0.19	5.81	0.52	52.01	n/a	36	51.22	52.66	0.50	0.20	5.75	0.51	53.17i	n/a	n/a	0.651	1.00	n/a

Project File: 10,20,30 Upper Falls Pipe Sizing.stm

Number of lines: 18

Run Date: 05-16-2023

Notes: * Normal depth assumed.; ** Critical depth.; j-Line contains hyd. jump. ; c = cir e = ellip b = box

General Procedure: Hydraflow computes the HGL using the Bernoulli energy equation. Manning's equation is used to determine energy losses due to pipe friction. In a standard step, iterative procedure, Hydraflow assumes upstream HGLs until the energy equation balances. If the energy equation cannot balance, supercritical flow exists and critical depth is temporarily assumed at the upstream end. A supercritical flow Profile is then computed using the same procedure in a downstream direction using momentum principles. The computed HGL is checked against inlet control.

Col. 1 The line number being computed. Calculations begin at Line 1 and proceed upstream.

Col. 2 The line size. In the case of non-circular pipes, the line rise is printed above the span.

Col. 3 Total flow rate in the line.

Col. 4 The elevation of the downstream invert.

Col. 5 Elevation of the hydraulic grade line at the downstream end. This is computed as the upstream HGL + Minor loss of this line's downstream line.

Col. 6 The downstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 7 Cross-sectional area of the flow at the downstream end.

Col. 8 The velocity of the flow at the downstream end, (Col. 3 / Col. 7).

Col. 9 Velocity head (Velocity squared / 2g).

Col. 10 The elevation of the energy grade line at the downstream end, HGL + Velocity head, (Col. 5 + Col. 9).

Col. 11 The friction slope at the downstream end (the S or Slope term in Manning's equation).

Col. 12 The line length.

Col. 13 The elevation of the upstream invert.

Col. 14 Elevation of the hydraulic grade line at the upstream end.

Col. 15 The upstream depth of flow inside the pipe (HGL - Invert elevation) but not greater than the line size.

Col. 16 Cross-sectional area of the flow at the upstream end.

Col. 17 The velocity of the flow at the upstream end, (Col. 3 / Col. 16).

Col. 18 Velocity head (Velocity squared / 2g).

Col. 19 The elevation of the energy grade line at the upstream end, HGL + Velocity head, (Col. 14 + Col. 18) .

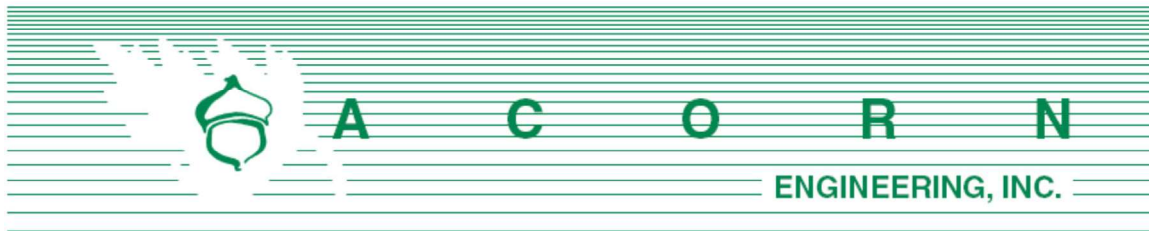
Col. 20 The friction slope at the upstream end (the S or Slope term in Manning's equation).

Col. 21 The average of the downstream and upstream friction slopes.

Col. 22 Energy loss. Average $Sf/100 \times \text{Line Length}$ (Col. 21/100 x Col. 12). Equals (EGL upstream - EGL downstream) +/- tolerance.

Col. 23 The junction loss coefficient (K).

Col. 24 Minor loss. (Col. 23 x Col. 18). Is added to upstream HGL and used as the starting HGL for the next upstream line(s).



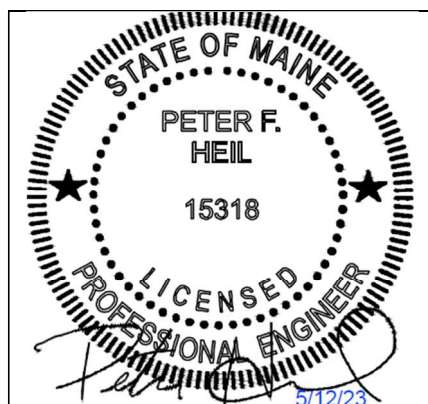
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

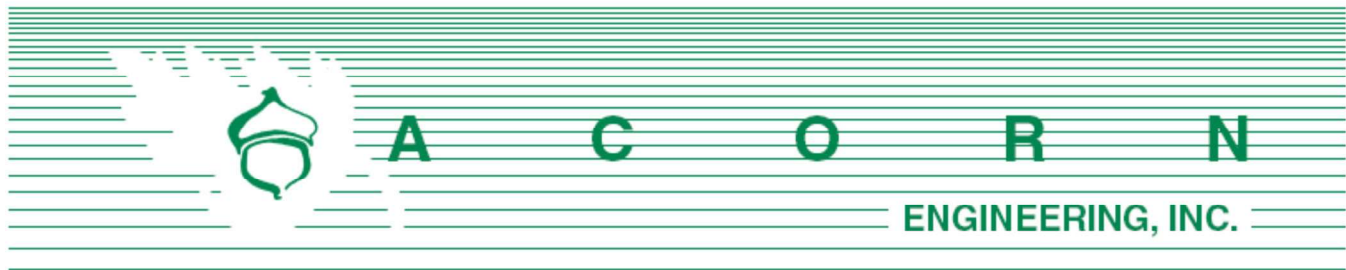
**Tom Watson & Co.
Portland, ME 04101**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Ave, Suite #202
Portland, Maine 04103**



**December 2022
*Revised March 2023
Revised May 2023***



RESPONSIBLE PARTY

The owner, Tom Watson & Co., and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Department of Public Services prior to June 15th.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Acorn Engineering, Inc.
Attn: Peter F. Heil, PE
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria is based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years. The Department of Environmental Protection's 5-year recertification will apply to this permit.

OPERATION AND MAINTENANCE ACTIVITY

A storm size of 1-inch or greater rainfall in 24 hours is considered a storm event that triggers a post-construction inspection of the below BMP's.

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Catch Basin / Floor Drain and Oil Water Separator:

Catch basins shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
- Appropriately dispose of all collected material.

Landscaped and Vegetated Areas:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the contract documents.

Pervious Pavers:

The maintenance of the pervious pavers is crucial to its functionality as a stormwater system and shall be in accordance with the following activities identified below and the most recent version of the Maine DEP Volume III BMPs Technical Design Manual Chapter 7.7 Manmade Pervious Surfaces. General maintenance and guidelines are as follows:

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the functionality of the pervious pavers should be inspected at least once every year to ensure that it is draining as designed.
- The pervious pavers shall not be subject to winter sanding. Raise plow blade 1" above surface.
- Prevent sedimentation due to the erosion of areas upgradient the pervious paver structures.
- Vehicles with muddy tired should be prevented from accessing the pervious paver area.



- Vacuum pervious pavers twice annually (at a minimum) with a pure vacuum, vacuum-assisted, or regenerative air sweeper. Do not pressure wash unless advised by the manufacturer of the pavers.
- Remove leaves and organic debris in the fall.
- When BMP is maintained, and maintenance is required. See below:
 - Fill potholes with patching mix unless >10% of surface
 - It is acceptable to drill 0.5" holes in the paver where there is spot clogging.

Riprap Plunge Pool & Outfall:

- Inspect the presence of accumulated sediment or debris that shall be removed.
- Replacing any riprap/stone berm that wash out during risen river elevations.
- Resolving mosquito/insect, or overgrown weed issues

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Sweeping	X			X
Catch Basin / Floor Drain and Oil Water Separator			X	X
Landscaped/Vegetated Areas		X		
Pervious Pavers	X			X
Riprap Plunge Pool & Outfall	X			X



Section 16

Water Supply

16. Water Supply

A. Water Supply Method

The development will be serviced by the existing 12" ductile iron water main that transitions to an 8" water main within Upper Falls Road supplied by the Maine Water Company. An ability to serve letter from Maine Water Company is attached.

B. Subsurface Wastewater Disposal

Not applicable. The development will be serviced by a 3" force main sewer within Upper Falls Road that transitions to a gravity main prior to connecting to the municipal system within Elm Street.

C. Total Usage

This project anticipates an estimated water supply of 21,936 (net change 18,886) gallons per day (GPD).



Based upon the Section 4 of the Maine Subsurface Water Disposal Rules, the project anticipates the following design flows:

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
10 Upper Falls Road				
Warehouse	N/A	1	100	100
Total Gallons per Day (Existing)				100
20 Upper Falls Road				
Manufacturing Operations	18,185sf	1	50gpd/1,000sf	910
Total Gallons per Day (Existing)				910
30 Upper Falls Road				
Manufacturing Operations	40,815sf	1	50gpd/1,000sf	2,040
Total Gallons per Day (Existing)				2,040
Total Gallons per Day (Existing)				3,050 GPD
Proposed Flow				
10 Upper Falls Road				
Residential Units	Studio / 1-Bedroom	56	180	10,080
Commercial Use	Restaurant	~49 seats ~4 Employees,	20gpd per seat + 12gpd per employee	1,028
Total Gallons per Day (Proposed)				11,108
20 & 26 Upper Falls Road				
Residential Units	2-Bedroom	12	180	2,160
Residential Units	1-Bedroom	8	180	1,440
Residential Units	Townhomes	11	180	1,980
Total Gallons per Day (Proposed)				5,580
30 Upper Falls Road				
Commercial Use	Restaurant	41 seats 10 Employees,	20gpd per seat + 12gpd per employee	940



Commercial Use	Restaurant	41 seats 4 Employees	20gpd per seat + 12gpd per employee	868
Commercial Use*	Brewery	41 seats 10 Employees	20gpd per seat + 2,500gpd* + 12gpd per employee	3,440
Total Gallons per Day (Proposed)				5,248
Total Gallons per Day (Proposed)				21,936 GPD
Net Change				18,886 GPD
* Values obtained directly from potential Brewery				

City of Saco, Maine

§ 230-402 Dimensional requirements.

Subsection I (Back Lots)

ATTACHMENT # 1

Article XXI Definitions:

Back Lot: (Saco's Zoning Ordinance does a definition)

Flag Lot: A parcel that lies at the end of a long driveway.

§ 230-402 Dimensional requirements.

Subsection I (Back Lots)

Back lots. One new back lot may be created from any lot of record that existed on July 17, 1989 and conforms to the lot requirements of Table 4-1 except for the lot frontage requirement, provided that:

(1) Each will be limited to one single or one two-family dwelling.

(2) The back lot and front lot will conform to the minimum lot area and minimum lot area per dwelling unit required in the district.

(3) The back lot is at least as wide at the site of the proposed dwelling as the frontage measurement required in the district.

(4) The back lot has a deeded access to a publicly accepted street. This access may be obtained by:

- (a)** A right-of-way that is a minimum of 20 feet wide across the front lot that is deeded to the owner of the back lot; or
- (b)** Extension of the back lot to the public street so that the back lot has at least 25 feet of frontage on the street. The creation of the back lot shall not make the front lot more nonconforming in street frontage or make the front lot nonconforming with respect to street frontage if it is conforming.

(5) The back lot and the front lot shall share the same driveway entrance if access to the back lot is obtained through a right-of-way or the street frontage of the front lot is located on a road functionally classified as an arterial or collector, except in cases where it is not possible because of the location of the existing structure on the lot or because of difficult terrain.

(6) Each dwelling unit on the back lot is served by a residential sprinkler system meeting the requirements of NFPA and approved by the Saco Fire Department or each dwelling unit is less than 500 feet from a public road or less than 1,000 feet from a hydrant approved by the Fire Department. These measurements shall be made along the driveway and roadway, not cross-country.

City of Saco, Maine

§ 230-402 Dimensional requirements.

Subsection I (Back Lots)

ATTACHMENT # 1

(7) The back lot is accessed by a minimum of a twelve-foot-wide driveway. If the road is curved additional width may be required by the Fire Department to allow for the safe passage of emergency vehicles.

(8) A turnaround area approved by the Fire Department shall be provided for public safety vehicles.

(9) Street numbering shall be approved by the City's emergency departments and the Assessor. A sign or mailbox clearly stating the street number shall be posted at the street before occupancy.

(10) If a public sewer line passes in the street in front of the lot from which the back lot will be created, the back lot shall be required to connect to the sewer when the house is built.

(11) If a public water line passes in the street in front of the lot from which the back lot will be created, the back lot shall be required to connect to the public water when the house is built.

J. Lot standards. The following apply to new lots created after April 18, 2001:

(1) Lots in which a narrow strip(s) of land, with a width of less than 25% of the required minimum street frontage for the zoning district in which the lot is located, is used to join other portions of the lot in order to meet the minimum lot area, minimum lot area per dwelling unit, or minimum street frontage requirements are prohibited.

(2) Narrow strips of land along a street with a depth of less than the minimum front yard requirement for the zoning district in which the lot is located shall not be counted in meeting the minimum street frontage requirement.

(3) Prior to issuance of a building permit, the Code Enforcement Officer may request that a wetlands delineation be submitted to verify that a portion of a proposed building lot adequate for building construction and septic system installation consists of upland. If an area of wetlands equal to or greater than Maine Department of Environmental Protection Natural Resource Protection Act thresholds for development review is proposed for alteration, a copy of the NRPA permit shall be submitted prior to issuance of a building permit.

DRAFT BELOW:

- A. Back lots. One new back lot may be created from any lot of record that existed on ~~July 17, 1989~~ (Ordinance adoption date) and conforms to the lot requirements of Table B Dimensional Requirements ~~4-~~ 4 except for the lot frontage requirement, provided that:
1. A new back lot may only be created on residentially zoned properties identified as “growth areas” in the City’s Comprehensive Plan and within the City’s Rural Farm (RF) zoning district.
 2. Backlots are prohibited in residential lots in the Coastal Residential (CR) Zoning District.
 3. Back lots are prohibited in previously approved subdivisions without subdivision amendment review and approval by the Planning Board. Projects / divisions of this nature need to adhere to all subdivision standards, dimensional regulations and stormwater management regulations.
 4. Lots utilizing the Back Lot Ordinance may not be further subdivided including the creation of additional “back lots”.
 5. Each will be limited to one single or one two-family dwelling.
 6. The back lot and front lot will conform to the minimum lot area and minimum lot area per dwelling unit required in the district.
 7. The back lot is at least as wide at the site of the proposed dwelling as the frontage measurement required in the district.
 8. The back lot has a deeded access to a publicly accepted street. This access may be obtained by:
 - a) A right-of-way / easement that is a minimum of ~~20~~ 25 feet wide across the front lot that is deeded to the owner of the back lot; or
 - b) Extension of the back lot to the public street so that the back lot has at least 25 feet of frontage on the street. The creation of the back lot shall not make the front lot more nonconforming in street frontage or make the front lot nonconforming with respect to street frontage if it is conforming.
 - c) The 25 foot right-of-way (ROW) / easement area shall be designed to meet the following:
 - 1) There shall be a five (5) foot wide minimum driveway setback from the existing master lot to the existing structure.
 - 2) There shall be a five (5) foot wide minimum, driveway setback the length of the proposed driveway, along the abutting property line. This area shall remain vegetated.
 - 3) The proposed driveway shall be a minimum of twelve feet (12) in width, must remain unobstructed.
 - 4) The driveway width may be required to exceed the twelve foot (12’) width if necessary to accommodate passage of emergency vehicles. Driveway/s exceeding 150’ in length may

- be required to provide an emergency vehicle turn around. This determination and approval of access designs shall be made in writing by the Biddeford Fire Department.
- 5) For safety reasons, driveways may be required to meet “private road construction requirements”, Table 6-50, as determined by the City’s Code Enforcement Office, Planning Director and Fire Department.
- 6) The Code Enforcement Office may require additional information / studies to be provided by the Applicant prior to the issuance of a building permit.
9. The back lot and the front lot shall may share the same driveway and driveway roadway entrance providing the following conditions are met:
- a) Proof of a recorded non-exclusive access easement, a minimum of twenty-five (25) feet in width, which will run with the land in perpetuity; the interior lot of record may only utilized as a single-family or two-family Use and shall meet all dimensional requirements within the zoning district in which they are located).
- b) The access easement shall include provisions for snow removal, access maintenance, driveway replacement / reconstruction and maintenance responsibilities of each party of the lot division.
- c) If 3 or more units are created, Subdivision review by the Staff Review Committee (SRC) may be required.
10. ~~Each dwelling unit on the back lot is served by a residential sprinkler system meeting the requirements of NFPA and approved by the Biddeford Fire Department or each dwelling unit is less than 500 feet from a public road or less than 1,000 feet from a hydrant (?) approved by the Fire Department. These measurements shall be made along the (means of travel to) driveway and roadway, not cross-country.~~
11. ~~The back lot is accessed by a minimum of a twelve-foot-wide driveway. If the road is curved additional width may be required by the Fire Department to allow for the safe passage of emergency vehicles.~~ The driveway shall be maintained in a passable condition, free of potholes, ruts, debris, snow, and shall not cause damage to municipal vehicles nor hinder emergency vehicle access.
12. A turnaround area ~~approved by the Fire Department shall be provided~~ may be required, by the Biddeford Fire Chief, or their assignee, for the safe maneuvering of public safety vehicles. Written approval from the Department shall be submitted to the Code Enforcement Office with building permit application.

Attachment # 2

13. Street numbering shall be approved by the City's E-911 Addressing Officer prior to the issuance of any required permits are issued ~~emergency departments and the Assessor~~. A sign or mailbox clearly stating the assigned street number shall be posted at the street ~~before occupancy~~, prior to issuance of the required Building Permit.
 14. If a public sewer line passes in the street in front of the lot from which the back lot will be created, the back lot shall be required to connect to the sewer, when the house is built and be functional and operational, to the satisfaction of the City, prior to the issuance of a Certificate of Occupancy Permit being issued.
 15. If a public water line passes in the street in front of the lot from which the back lot will be created, the back lot shall be required to connect to the public water when the house is built, and be functional and operational, to the satisfaction of the City, prior to the issuance of a Certificate of Occupancy Permit being issued.
- B. Lot standards. The following apply to new lots created after (insert Ordinance Passage Date):
1. ~~Lots in which a narrow strip(s) of land, with a width of less than 25% of the required minimum street frontage for the zoning district in which the lot is located, is used to join other portions of the lot in order to meet the minimum lot area, minimum lot area per dwelling unit, or minimum street frontage requirements are prohibited.~~
 2. Narrow strips of land along a street with a depth of less than the minimum front yard requirement for the zoning district in which the lot is located shall not be counted in meeting the minimum street frontage requirement.
 3. Prior to issuance of a building permit, the Code Enforcement Officer, Director of Engineering or City Planner may require that a wetlands delineation, prepared by a State of Maine Professional Licensed Engineer, be submitted to verify that the portion of a proposed building lot and proposed structures are adequate for building construction and the septic system installation consists of upland areas. If an area of wetlands equal to or greater than Maine Department of Environmental Protection Natural Resource Protection Act (NERPA) thresholds for development review is proposed for alteration, a copy of the NRPA permit shall be submitted prior to issuance of a building permit.
- C. Existing interior lots of record without any road frontage as of (Ordinance passage date?, in existence since XYZ) January 2, 1985, shall be eligible for a building permit, notwithstanding the absence of street frontage, providing the lot has a dedicated right-of-way (ROW) / Easement, meeting the standards of this Ordinance, to a City accepted street.
- D. All driveways serving the master lot and back lot shall be paved (Including / excluding RF zone?).

~~L. If a single point of access (curb cut) to Route 1 is shared between two or more parcels, frontage may be reduced to 150 feet for each parcel in the Portland Road District.~~

~~M. Elder/disability housing density bonus. Notwithstanding the minimum lot area per dwelling unit requirements of the dimensional standards table:~~

~~(1) For elder/disability housing uses and elder/disability care facility uses connected to City sewer and public water in the LDR, MDR, GB, MB, HB, SI, and PR, a modified per dwelling unit density shall be available, as follows, provided that the average number of bedrooms per dwelling unit remains at or below 1.5, as follows:~~

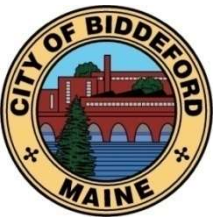
~~(a) Five thousand square feet per dwelling unit in the LDR;~~

~~(b) One thousand square feet per dwelling unit in the MDR; GB; MB; HB; SI; and PR.~~

~~§ 230-403~~ **Multiple dwellings or uses on one lot.**

~~**A.** Except as permitted under Subsection **B** below, no more than one single-family or two-family dwelling may be located on a lot, except in the case of multiunit residential projects that meet all other applicable sections of this chapter. Commercial buildings may be permitted on the same lot as single-family and two-family dwellings in business districts, provided that the buildings are in the same ownership remain in the same ownership and meet the minimum lot size standard in **Table 4-1**.~~

~~**B.** A second single-family dwelling, or two-family dwelling in the same ownership as the first, may be located on a lot only if the street frontage requirement is met, and the placement of the buildings would allow division of the lot in conformance with the minimum lot and setbacks specified in [Table B - Dimensional Requirements](#). **Table 4-1**. An accessory dwelling unit (ADU) permitted under Article VI – Performance Standards, Section 78 Accessory Dwelling Units (ADU) ~~§ 230-701~~ shall not be considered a single-family residence for purposes of this section.~~



CITY OF BIDDEFORD

PLANNING DEPARTMENT

David C.M. Galbraith
Deputy Director/City Planner
205 Main Street
Biddeford, ME 04005
(207) 284-9115

David.Galbraith@Biddefordmaine.org

Planning Board Memorandum

TO: Chair Patoine and Members of the Biddeford Planning Board

FROM: David C.M. Galbraith, Deputy Director / City Planner

DATE: May 30, 2023

RE: **Planning Board Workshop - Back Lot Ordinance**

MEETING DATE: June 7, 2023

1. **INTRODUCTION:**

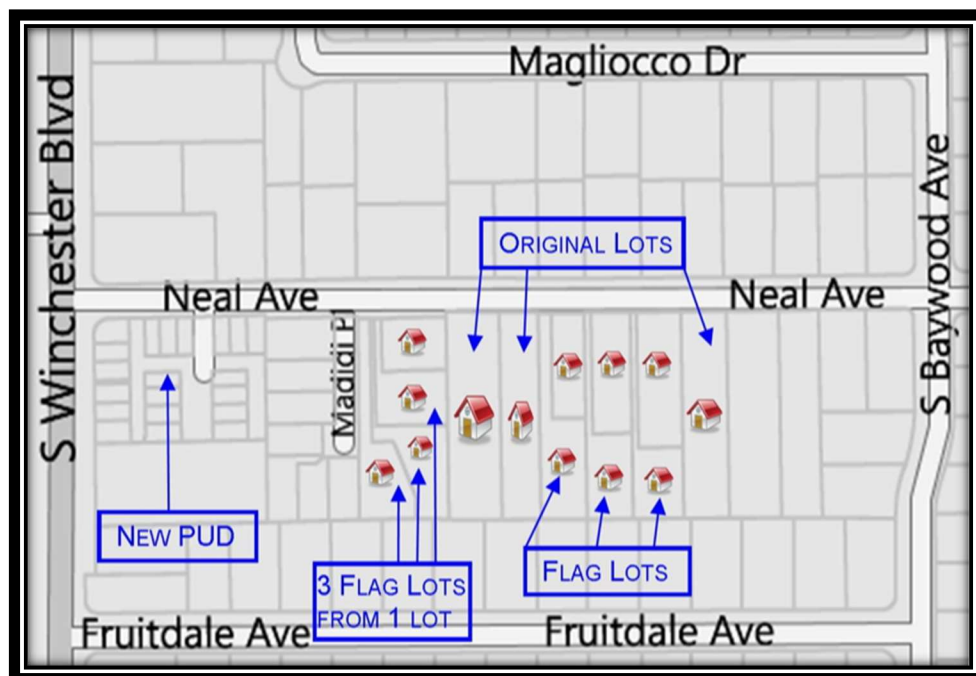
At previous City Council meetings / workshops the Council has expressed their desire to discuss the possibility of the City adopting a residential "Back Lot" Ordinance similar to the existing City of Saco Ordinance and other Maine municipalities such as Brunswick, Gorham, Lisbon, and Readfield. The purpose of "back lots" is to allow residential property owners the ability to create additional density on their parcel, behind or in front of, their existing dwelling by relaxing the Zoning Ordinance frontage requirements while maintaining the minimum lot dimensional requirements of the zoning district. On April 11, 2023 the Planning Department discussed this matter with the City Council who directed Staff to continue drafting a Back Lot Ordinance, based upon the City of Saco's Back Lot Ordinance, with input from other City Departments and workshop the Ordinance with the Planning Board. The Council was supportive of the back lot concept and their desire was for the Planning Board to forward a recommendation of Ordinance adoption to the Council as expediently as possible.

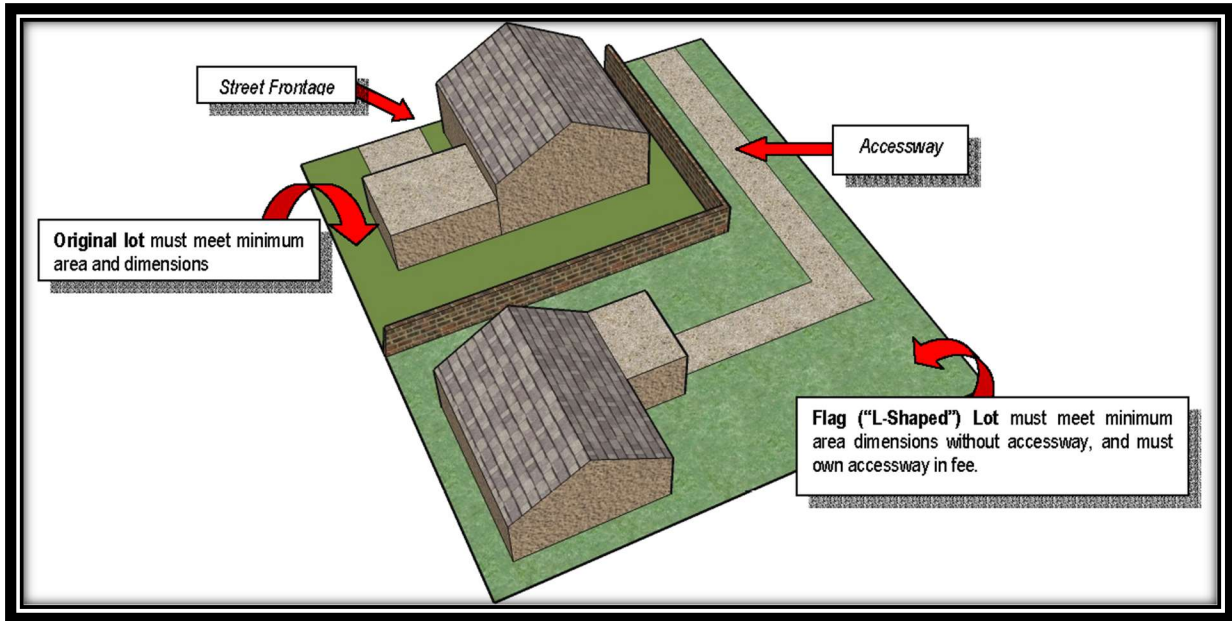
2. **Defining a Back Lot:** Back lots are often also referred to as "flag lots", so the first question to answer is, what exactly are back lots / flag lots? Definitions for these types of lots vary greatly and provided below are a few examples of back / flag Lot definitions from a variety of municipalities around the United States:

- A. Means a lot that is mostly separated from the street, located behind another lot, and connected to the street by an extension of land that reaches to the street.
- B. Means a lot located behind a frontage another lot, plus a strip out to the street for an access drive. A flag lot results from the subdivision or partitioning of a lot or parcel which is more than twice as large as the minimum allowed in the underlying zone, but has insufficient frontage to allow two dwellings to front along a public street.
- C. A lot not fronting or abutting a public roadway and where access to the public roadway is limited to a narrow private right-of-way. (Schaumburg, Ill.)

- D. A large lot not meeting minimum lot frontage requirements and where access to a public or private street is provided by means of a long, narrow driveway between abutting lots. (Clarkdale, Ariz.).
 - E. A lot so shaped and designed that the main building site area is set back from the street on which it fronts and includes an access strip connecting the main building site with the frontage street. (North Liberty, Iowa)
 - F. A lot that has access to a public right-of-way by means of a narrow strip of land. (Sandy, Ore.)
 - G. A lot having only its access strip fronting on a private or public street. (Santa Rosa, Calif.)
 - H. A lot not fronting on or abutting a public road and where access to the public road is by a narrow, private right-of-way. (Bondurant, Iowa).
 - I. A lot or parcel which includes a private driveway as part thereof. (Multnomah County, Ore.)
 - J. A parcel that lies at the end of a long driveway. (Saco, Me)
 - K. A lot that lacks adequate lot frontage on a street or private way to meet the minimum lot dimensional requirements of the Zoning district. (Town of Arundel, Me)
3. What do "Back Lots" / "Flag Lots" look like?

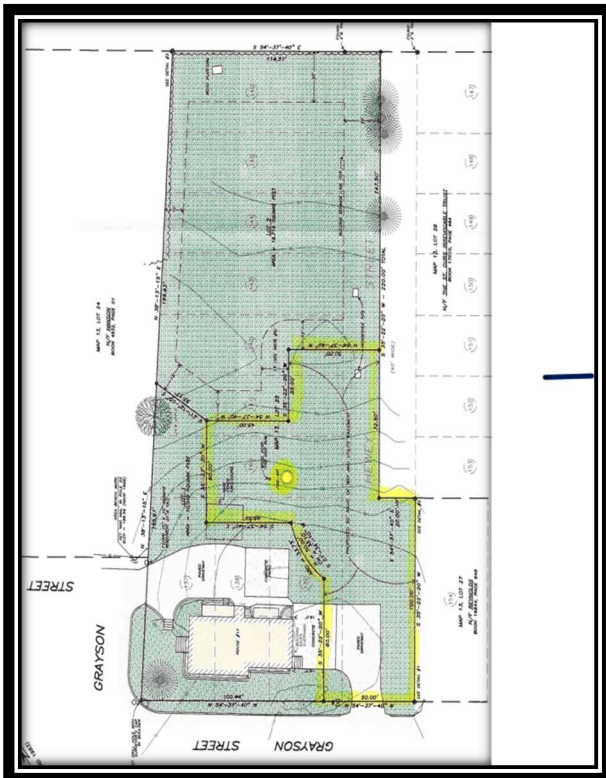
As one might expect from the definitions discussed above, back lots generally have a configuration that resembles a fully outstretched flag at the top of a flag pole and where the "pole" portion of the lot contains the required lot frontage and lot access. Below are a couple of examples of these types of lot configurations.





4. Side by Side Comparison:

The City of Biddeford does not currently allow the creation / development of back lots however, the City does allow for the development of rear portions of residential lots by the creation of a “private way”.



Example: Private Way Approval – Allowed

Private ways require the creation of a fifty (50) foot private right-of-way (ROW) through the front lot, and designed to City private way standards, with the existing and proposed lots complying with all dimensional standards in the underlying zoning district, including frontage and setback requirements. Due to these requirements, many existing developed lots are unable to “create” legal street frontage or accommodate the required fifty (50) foot right-of-way which includes a required vehicle maneuvering area to accommodate emergency vehicle access and maneuverability. Shown left is an existing property in the city where the property owners are trying to develop a private way. In this typical example, the proposed ROW (in yellow) area is subtracted from the overall lot area thus significantly increasing the land area required for the creation of private ways.

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TOPIC: Back Lot Ordinance
MEETING DATE: June 7, 2023



Seeking approval of a private way requires the submittal of a formal application, including fully engineered plans, and Planning Board review and approval. In many cases the expense of the review process, and the hiring of design professionals (surveyors, engineers, etc.) is cost prohibitive for the property owner. Using the same property shown above, if a Back Lot Ordinance was adopted by the City, the access to the rear property could be accommodated utilizing a significantly smaller area for the access way via an easement (or ownership) rather than requiring a fifty (50) foot wide ROW. The allowance of a back lot provision would be a significantly less expensive project in regards to design, construction and approval required.

Flag / Back Lot – Currently Not Allowed

5. Preliminary Review:

When preparing for the Council Workshop, Staff began by reviewing and evaluating the City of Saco's Back Lot Ordinance, and similar ordinances, to determine what, if any, modifications would be desirable to include in our local ordinance. From this initial review we identified a number of areas in Saco's ordinance that we believe should be edited, expanded upon to meet the needs of Biddeford. Included as Attachment # 2 of this memorandum, is a document titled "City of Biddeford Back Lot Ordinance - Working Document Draft #2". The base framework of this document is the City of Saco's Ordinance which illustrates deleted text in ~~red-strikethrough~~, new text as blue.

6. Next Steps:

At this time Staff is seeking input and direction from the Planning Board related to the draft ordinance. Ideally, the Board will provide staff direction / ordinance modification at the June 7, 2023 meeting so that a revised ordinance, addressing the Board's concerns can have the final ordinance review on the June 21, 2023 Planning Board Agenda.

ATTACHMENTS

1. Attachment # 1: City of Saco - Back Lot Ordinance
2. Attachment # 2: City of Biddeford – Working Document #1 - Back Lot Ordinance