

City of Biddeford

Planning Board

April 28, 2022 6:00 PM Zoom: Apr 28, 2022 06:00 PM Eastern Time (US and Canada)

Topic: Planning Board

Please click the link below to join the webinar:

<https://biddeford.zoom.us/j/96340223028?pwd=ZXZVQi9iTkoxSG9kYVNaQUxqMFNvQT09>

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Webinar ID: 963 4022 3028

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1. DECLARATION OF QUORUM/VOTING MEMBERS

2. ADJUSTMENTS TO THE AGENDA

3. PLANNER'S BUSINESS

4. CONSENT AGENDA

4.A. Approval of Meeting Minutes from 4-6-22

[PB Minutes 040622-DRAFT.pdf](#)

[PB Minutes 040922-DRAFT.pdf](#)

4.B. Approval of Meeting Minutes from 4-9-22

5. UNFINISHED BUSINESS

6. NEW BUSINESS

6.A. 2022.16 After the Fact Subdivision Amendment to create an additional lot out of Lot 3 in an approved subdivision for Alexandra Quigley and James Jamieson, located on the easterly side of River Road (Tax Map 6, Lot 23-2) in the RF Zone. Original Subdivision Plan by Nadeau & Lodge for Michael Mininni recorded in Book 222, Page 26 York County Registry of Deeds.

Applicant: Alexandria Quigley & James Jamieson

Agent: N/A

Tax Map/Lot: Tax Map 6, Portion of Lot 23-2

Zone: Rural Farm, Limited Residential Overlay

Defined Land Use: Single Family

Application Type: Other: After the Fact Subdivision Amendment

Application Status: Request for Final Approval

Public Comment will be accepted for this item.

[2022.16 Jameison River Road After the Fact Subdivision Amendment SR.pdf](#)
[2022.16 Jameison amended Subdivision FOF.pdf](#)
[Cover Letter.pdf](#)
[Application.pdf](#)
[Locus Deed.pdf](#)
[Amended Subdivision Plan.pdf](#)
[Recorded Plan 3 Lot Subdivision-Original Subdivision Plan.pdf](#)
[HHE200.pdf](#)

- 6.B. 2022.11 Conceptual Site Plan for Tom Watson & Co of 10,20 & 30 Gooch Street (Tax Map 40, Lots 55,55-3 & 56-1) in the MSRD-3 & GD1 zones and Shoreland overlay. The proposed project is to construct a 6-story building containing 55 residential units with a restaurant space on 10 Gooch Street, a 5-story, 16 unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and redevelopment of the existing building located at 30 Gooch Street to accommodate a commercial use (potentially a brewery). The project will include associated parking & landscaped areas.

Applicant: Tom Watson & Co.
Agent: Acorn Engineering-Peter F. Heil PE, CPESC
Tax Map/Lot: Tax Map 40, Lots 55,55-3, 56-1
Zone: Main Street Revitalization District-High Density (MSRD-3),
Overlay: Shoreland Overlay Zoning, GD1
Defined Land Use: Mill Conv-Comm MDL-94
Application Type: Shoreland, Subdivision & Private Way
Application Status: Conceptual Site Plan Review
Public Comment will be accepted for this item.
[2022.11 Tom Watson & Co - 10, 20 & 30 Gooch St Sketch SR.pdf](#)
[Section 0.1 Title Page.pdf](#)
[Section 0.2 Cover Letter.pdf](#)
[Section 0.3 Sketch Application Form.pdf](#)
[Section 1 Right Title Interest.pdf](#)
[Section 2 Declaration of Easements, Covenants, and Restrictions.pdf](#)
[Section 3 Financial & Technical Capacity.pdf](#)
[Section 4 Stormwater Management Report.pdf](#)
[Section 5 Erosion & Sedimentation Control Report.pdf](#)
[Section 6 Traffic & Parking Overview.pdf](#)
[Section 7 Utility Cover.pdf](#)
[Section 8 Public Safety Letter of Approval Requests.pdf](#)
[Section 9 Lighting.pdf](#)
[Section 10 Solid Waste.pdf](#)
[Section 11 Photographs.pdf](#)
[Section 12 Vicinity Map.pdf](#)
[Architectural Plan_3-16-22.pdf](#)
[Civil Plans 3-23-22.pdf](#)

[Landscape Architect Site Improvement slides pt 2.pdf](#)

[Landscape Architect Site Improvement slides.pdf](#)

- 6.C. 2021.50 Conditional Use Permit for Central Maine Power to replace the substation at 466-468 South Street (Tax Map 2, Lot 40-1) in the SR-1 zone. The proposal is to rebuild and upgrade the South Street Substation. The purpose of this rebuild is to maintain and improve electrical service for now and the future. The existing facility is below reliability standards and cannot support the community and future growth due to the age and condition of the current substation.
- Applicant: Central Maine Power Company
Agent: TRC Companies LLC
Tax Map/Lot Tax map 2, Lot 40-1
Zone: Suburban Residential 1
No Overlay Zone
Defined Use: IND Office
Application Type: Conditional Use Permit
Application Status: Request for Final Approval
Public Comment will be accepted for this item.

[Board Report - CMP Substation Final Plan 042022.pdf](#)

[Planning Board Additional Information FINAL 3-16-22.pdf](#)

[Draft FOF for CMP South St Substation \(4-20-22\).pdf](#)

[1050-0003-004 SH001 Rev 0-0 FACILITY GRADING PLAN.pdf](#)

[1050-0003-004 SH002 Rev 0-0 DRAINAGE PLAN.pdf](#)

[1050-0003-004 SH003 Rev 0-0 WATERSHED PLAN \(PROPOSED\).pdf](#)

[1050-0003-004 SH004 Rev 0-0 WATERSHED PLAN \(EXISTING\).pdf](#)

[1050-0003-004 SH005 Rev 0-0 DEMOLITION PLAN.pdf](#)

[1050-0003-004 SH006 Rev 0-0 PAD CROSS SECTIONS.pdf](#)

[1050-0003-004 SH007 Rev 0-0 DETENTION POND DETAILS.pdf](#)

[1050-0003-005 SH001 Rev 0-0 EROSION CONTROL PLAN.pdf](#)

[1050-0003-005 SH002 Rev 0-0 DETAILS.pdf](#)

[1050-0002-001 Rev 0-0 GENERAL ARRANGEMENT.pdf](#)

[1050-0002-002 SH 001 Rev 0-0 SECTIONS A B C D.pdf](#)

[1050-0002-002 SH 002 Rev 0-0 SECTIONS E F G I.pdf](#)

[1050-0002-002 SH 003 Rev 0-0 SECTIONS J K L M.pdf](#)

[1050-0002-002 SH 004 Rev 0-0 SECTIONS N O P Q.pdf](#)

[1050-0002-002 SH 005 Rev 0-0 SECTIONS R S T U V.pdf](#)

[1050-0002-002 SH 006 Rev 0-0 SECTIONS H & W.pdf](#)

[1050-0003-001 Rev 0-0 CIVIL SITE PLAN.pdf](#)

[1050-0003-003 Rev 0-0 DIMENSIONAL CONTROL PLAN.pdf](#)

[2022-02-25 Drainage Report.pdf](#)

[CMP Drainage Easement DRAFT 2-02-22.pdf](#)

[040822 CMP Response to Abutters.pdf](#)

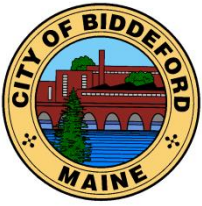
[Abutter comments summary 4-7-22.pdf](#)

[BP_PB_Sitewalk_Signin_04092022.pdf](#)
[Comments from Chicco.pdf](#)
[Comments from Councilor Belanger.pdf](#)
[Abutter TC comments response 4-21-22.pdf](#)
[Letter to Biddeford PB.pdf](#)
[MWC Site Location Application Section 7.pdf](#)
[MWC Site Location Application Section 8.pdf](#)
[MWC Site Location Application Section 9.pdf](#)
[22-04-26 Biddeford Pump Alternate Layout Visualizations.pdf](#)
[CMP Response dated 4-27-22.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

Greg Tansley, A.I.C.P.
City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 282-7119 or (207) 284-9115
Greg.Tansley@biddefordmaine.org

Planning Board Meeting Minutes **DRAFT**

Date: April 6, 2022
Time: 6:00 PM
Location: REMOTE ACCESS MEETING (1MRSA § 403-B permits public proceedings through remote access during the declaration of state of emergency due to COVID-19).

1. Declaration of Quorum/Voting Members
Quorum Present: Bill Southwick (Chair), Roch Angers, Bruce Benway, Sean Tarpey, Alexa Plotkin and Michael Cantara (Alternate)
Staff Present: Hannah Bonine (Asst. Planner), Nan Whitten, & Abigail Smallwood

Chair Southwick opened the meeting at 6:00 PM

2. Adjustments to the Agenda
3. Planner's Business
4. Consent Agenda

4 A. Approval of Planning Board Meeting Minutes from March 16 & March 23, 2022

MOTIONS: 6:03 PM

Benway-Motion- to approve the Meeting Minutes from March 16 & March 23, 2022

Angers-Second

Chair Southwick-Roll Call for Vote-Motion Passed, 4-0 (Angers, Benway, Tarpey & Plotkin)

5. New Business

5.A. 2022.09 The Planning Board will hold a Public Hearing for proposed zoning

Amendments to the property at Tax Map 17, Lot 16 -3, located off the south side of Cole Road, from I-1 to R-1-A. This parcel is owned by Richard M. Lowe. The parcel appears to have originally been zoned R-1-A, however it may have been incorrectly classified as I-1 through zoning map changes.

Applicant: Richard M. Lowe

Surveyor: John Bruckler

Tax Map/Lot: Map 17, Lot 16-3

Zone: I-1 (Request is to change to R-1-A)

Description of Land: Residential Vacant Land (Per Tax Card)

Application Request: To respond to Planning Board with Favorable Recommendation

Public Comment will be accepted for this item

- This item was sent to Planning Board by the City Council.

- There were no public comments for this item
- The applicant did not attend the meeting therefore, questions from the Board were directed to the Assistant Planner.
- There was confusion where Mr. Bruckler who is identified as a surveyor is assisting Mr. Lowe, but no survey was necessary for this request.
- The street frontage for the lot was discussed.

MOTIONS: 6:13 PM

Benway-Motion- Propose that the zone for the lot on Tax Map 17, Lot 16-3 be changed from I-1 to R-1-A and recommend passage to the City Council.

Angers-Second

Chair Southwick-Roll Call for Vote-Motion Passed, 4-0 (Angers, Benway, Tarpey & Plotkin)

6. Other Business

6.A. 2021.50 Discussion of expectations and rules of conduct for both the Board and the public for Site Walk of CMP's South Street Substation Site. This Site Walk is scheduled for Saturday, April 9, 2022 at 10:00 AM.

No public input is anticipated.

- Chair Southwick went over expectations and rules of conduct for Saturday's site walk.

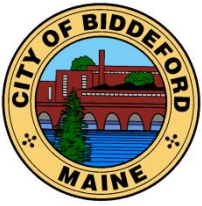
6.B. Meeting became Comprehensive Plan Workshop. The Planning Board discussed the procedures and expectations for the Public Sessions.

Meeting adjourned at 7:35 PM

Planning Board Chair/Vice Chair

Date

These minutes are summary and are not intended to be verbatim. Archived meetings are viewable on the City's website: www.biddefordmaine.org.



CITY OF BIDDEFORD

Planning and Development Department

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Planning Board Meeting Minutes **DRAFT**

Date: April 9, 2022
Time: 10:00 AM
Location: Site Walk of Proposed New Substation for CMP on South Street

Attending from Planning Board:

Bill Southwick (Chair), Roch Angers, Bruce Benway, Sean Tarpey, Michael Cantara, and Larry Patoine

Staff Present: Hannah Bonine (Asst. Planner), Nan Whitten, & Chris Di Matteo

The CMP Team presented their new substation project to the Planning Board in order to clear up any questions or concerns.

The Planning Board was able to see the site and how it will be laid out.

Other proposed locations were discussed and why they were not favorable choices.

Height of proposed new facility was shown to the Board using balloons.

The CMP team told the Planning Board what abutters, neighbors and people driving by would be able to see from their homes and the road.

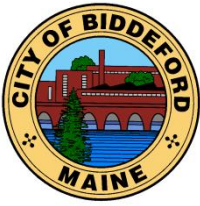
The noise levels of the new stations were addressed, with new technology they will not reach maximum level of noise as described in the ordinance.

Setbacks and buffers were described and shown to the Board.

Planning Board Chair/Vice Chair

Date

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CITY OF BIDDEFORD

Planning and Development Department

Hannah Bonine
Assistant City Planner
205 Main Street
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Biddeford, ME 04005
(207) 284-9115
Hannah.Bonine@biddefordmaine.org

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Hannah Bonine, Assistant City Planner

DATE: April 21, 2022

RE: 2022.16 After the Fact Subdivision Amendment to create an additional lot out of Lot 3 in an approved subdivision for Alexandria Quigley and James Jamieson, located on the easterly side of River Road (Tax Map 6, Lot 23-2) in the RF Zone.

MEETING DATE: Thursday, April 28, 2022 at 6:00 pm

1. INTRODUCTION

In 1995, Michael Mininni received Planning Board approval for a 3-lot subdivision off of River Road (Tax Map 6, Lots 23, 23-1, and 23-2). On April 7, 2022 Mr. Mininni sold a portion of Lot 3 in the subdivision (Tax Map 6, Lot 23-2) to Alexandria Quigley and James Jamieson. Planning Board approval to amend the subdivision was not sought prior to the sale. The applicants are before the Board to receive an after-the-fact subdivision amendment to formally create a new lot (Lot 4) within the subdivision.

This was brought to the department's attention when the applicant's Loan Officer notified them that the lot they had purchased was a portion of a lot in an approved subdivision. The previous owner, Mr. Mininni, had not received Planning Board approval for the additional lot. The applicants were unaware of this necessary step, that should have taken place prior to the sale of the lot.

2. PROJECT INFORMATION

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant	Alexandria Quigley and James Jamieson 18 Lindale Ave Biddeford, ME 04005
2.	Property Owner	Alexandria Quigley and James Jamieson
3.	Agent	N/A
4.	Engineer/Surveyor	Jim Nadeau Land Surveys 918 Brighton Ave Portland, ME 04102

5.	Project Location	Off of River Road
6.	Map/Lot	Map 6, Lot 23-2
7.	City Approvals Required	After the Fact Subdivision amendment
8.	Existing Zoning	RF
9.	Overlay Zoning	None
10.	Existing Use	Vacant, undeveloped
11.	Proposed Use	Single family home
12.	Uses in the Vicinity	Residential
13.	Parcel Size	1.1 acres
14.	Water Supply	Private well
15.	Sewerage Disposal	Private septic
16.	Solid Waste Disposal	Public
17.	Fire Protection	City of Biddeford
18.	Ownership of Road	Public
19.	Waivers Needed/Requested	None
20.	Waivers Granted	None
21.	Additional Approvals/Permits Needed	None
22.	Fees Paid (LDR Attachment A)	All fees paid

3. COMPLIANCE WITH CITY ORDINANCES

LDR Article V *Establishment of Zones, Table B Dimensional Requirements*

Minimum Lot Size: 40,000 square feet (no water, no sewer)

Frontage: 200 feet (no water, no sewer)

Dimensional requirements have been satisfied.

Chapter 66 *Subdivisions, Section 79 Subdivision in the Rural Farm (RF) Zone*

As the original subdivision was created prior to the adoption of these standards, the new lot is not subject to these design standards.

Chapter 66 *Subdivisions, Section 1 Definitions*

With the addition of Lot 4, the subdivision is still considered a minor subdivision, as it does not propose a new roadway, extend public water or sewer lines, or contain more than 4 lots.

4. WAIVER REQUESTS

None

5. OUTSTANDING ITEMS TO BE ADDRESSED PRIOR TO APPROVAL

Signature block on the plan should be amended to read:

Hannah Bonine, Assistant City Planner, Duly authorized to sign on behalf of the Biddeford Planning Board.

With a note to read:

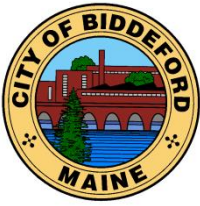
Note: This plan is signed by the Assistant City Planner on behalf of the Biddeford Planning Board and shall be deemed to have been signed by the individual members of the Planning board evidencing approval of the final plans.

6. STAFF RECOMMENDATIONS

Staff recommends the Planning Board grant the after-the-fact approval to amend the previously approved subdivision.

7. ATTACHMENTS

1. Cover Letter
2. Application
3. Plan Depicting a Land Division of Lot 3, Made for Michael A. Mininni, Easterly Sideline of River Road, Biddeford, Maine. Prepared by Nadeau Land Surveys. Dated 4/20/2022
4. Plan showing a Standard Boundary Survey and Topographic Survey of a division of land made for Michael A. Mininni, Located on the easterly sideline of the River Road in Biddeford, Maine. Prepared by Nadeau & Lodge Professional Land Surveyors. Dated 11/21/1994
5. Warranty Deed, as Recorded in the YCRD, Book 18998, Page 331



CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Subdivision Amendment

RE: 2022.16 After the Fact Subdivision Amendment to create an additional lot out of Lot 3 in an approved subdivision for Alexandria Quigley and James Jamieson, located on the easterly side of River Road (Tax Map 6, Lot 23-2) in the RF Zone.

Pursuant to the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Chapter 66 (Subdivisions), the Biddeford Planning Board has considered the application of Alexandria Quigley and James Jamieson to amend the previously approved subdivision by Michael Mininni on River Road to add a fourth lot. Based on its review, including supportive data, public hearing testimony and related materials contained in the record, the Planning Board makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT:

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant	Alexandria Quigley and James Jamieson 18 Lindale Ave Biddeford, ME 04005
2.	Property Owner	Alexandria Quigley and James Jamieson
3.	Agent	N/A
4.	Engineer/Surveyor	Jim Nadeau Land Surveys 918 Brighton Ave Portland, ME 04102
5.	Project Location	Off of River Road
6.	Map/Lot	Map 6, Lot 23-2
7.	City Approvals Required	After the Fact Subdivision amendment
8.	Existing Zoning	RF
9.	Overlay Zoning	None
10.	Existing Use	Vacant, undeveloped
11.	Proposed Use	Single family home
12.	Uses in the Vicinity	Residential
13.	Parcel Size	1.1 acres
14.	Water Supply	Private well
15.	Sewerage Disposal	Private septic

16.	Solid Waste Disposal	Public
17.	Fire Protection	City of Biddeford
18.	Ownership of Road	Public
19.	Waivers Needed/Requested	None
20.	Waivers Granted	None
21.	Additional Approvals/Permits Needed	None
22.	Fees Paid (LDR Attachment A)	All fees paid

CONCLUSIONS OF LAW:

1. The proposed use meets specific requirements set forth in this ordinance and would be in compliance with applicable state or federal laws;
2. The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles and would not create hazards through the storage of chemicals and wastes;
3. The proposed exterior lighting, where allowed, would not create hazards to motorists traveling on adjacent public streets or is adequate for the safety of occupants or users of the site or would not damage the value and diminish the usability of adjacent properties;
4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;
6. The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
7. The proposed use would generate a volume of traffic that can reasonably be accommodated by the existing road network, or would not create unreasonable traffic hazards or would not exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;
8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties which could be avoided by reasonable modification of the proposal;

9. The proposed use would not have an adverse impact on the privacy of the residents of the immediate area (within 500 feet) which could be avoided by reasonable modification of the proposal;
10. The proposed use would be in compliance with Biddeford's Comprehensive Plan;
11. The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;
12. The design of the site would not result in significant flood hazards or flood damage or would be in conformance with applicable flood hazard protection requirements;
13. Adequate provision has been made for disposal of wastewater or solid waste or for the prevention of ground or surface water contamination;
14. Adequate provision has been made to control erosion or sedimentation;
15. Adequate provision has been made to handle stormwater runoff or other drainage problems on the site; and the proposed development will not unduly burden off-site surface water systems;
16. The proposed water supply would meet the demands of the proposed use for fire protection purposes;
17. Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
18. The proposed use would not have an adverse impact on scenic vistas or on significant wildlife habitat or wetland areas and water bodies which could be avoided by reasonable modification of the proposal;
19. When located in the Shoreland Zone, the proposed use would meet the purposes of Shoreland Zoning as identified in Article XIV, Section 1 (Purposes) of this ordinance.

APPROVAL GRANTED:

Based on the evidence available and the conclusions above, the Biddeford Planning Board approves the proposed project summarized above, located off River Road (Tax Map 6, Lot 23-2) in accordance with the submitted application, supporting data, representations made, other related materials on file, and the following Conditions of Approval:

1. **Standard Conditions of Approval apply.**
2. **The applicant shall obtain all other pertinent local, state and federal permits/licenses/insurance such as building, electrical, plumbing, etc., prior to commencing business.**

Planning Board Chairperson

Date

Dear Planning Board Committee,

My name is Alexandria Quigley and I am writing to you in request to receive an approval from the Planning Board for an "After the Fact Subdivision Amendment". James and I have recently purchased 1.1 acres from a relative, Michael Mininni, off the River Road in Biddeford. While being first time home buyers, we have struggled to compete in this tough competitive housing market. We are very fortunate to have been given the opportunity to purchase an acre of land from James uncle Michael. Without this option, who knows when we would have been able to get into our first home together.

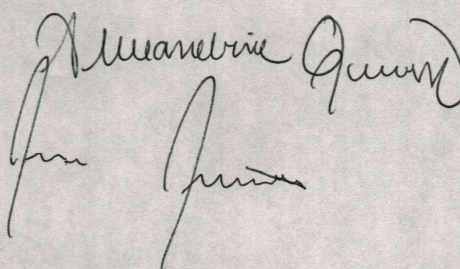
Unfortunately, building a home has not been an easy task. We have spent the last 13 months working hard together to come up with future construction plans and locking in a "low" interest rate at Saco Biddeford Savings. We are scheduled to FINALLY close for our new construction loan Monday May 16, 2022. After ordering an appraisal during our finance process, we were informed that our land split from Michael's subdivision had never been approved by the Planning Board. As you can imagine, we were completely unaware of this step and would have had this done BEFORE purchasing any property. Now that money has crossed the table, papers have been signed, even a building permit from the code office was given to us, we are in complete panic mode. We fear that having missed this CRUCIAL step puts us at risk for not being able to build our home after thousands have been spent from James and I. Without your approval, we will no longer be able to close on our loan, miss out on our interest rate, and resulting in no longer being able to build our home. This has been a very difficult process and we are feeling truly defeated. We will do anything for your approval.

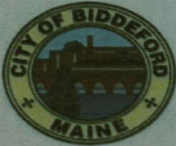
Thank you for all your hard work this past week and we look forward to hearing from you.

Sincerely,

Alexandria Quigley

James Jamieson

 4/20/2022



City of Biddeford
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: After the Fact Subdivision Amendment

Applicant Information:

Name: Alexandria Quigley + James Jamieson
Mailing Address: 18 Lindale Ave Biddeford, ME 04005
Telephone: (207) 590-4546
Email: aquigley2@unc.edu
What is your legal interest in the property?
☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Information:

Name: Alexandria Quigley + James Jamieson
Mailing Address: 18 Lindale Ave Biddeford, ME 04005
Telephone: (207) 590-4546
Email: aquigley2@unc.edu

Agent's Information:

Name: _____
Mailing Address: _____
Telephone: _____
Email: _____

Engineer/Surveyor's Information:

Name: Jim Nadeau Land Surveys
Mailing Address: 918 Brighton Ave, Portland, ME 04102
Telephone: (207) 878-7870
Email: jim@nadeaulandsurveys.com

Project Location and Lot Information:

Street Address: River Road Biddeford, ME
Tax Map: 10 Lot: 23-2
Current Zoning: _____ Shoreland Zoning: NONE
Size of Lot: 1.1 Acres () s.f. Lot Frontage: _____
Existing use of Property: undeveloped existing lot

Property currently serviced by: N/A

☐ 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 *see site des*

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

Description of proposed use of property:

Project/Proposed Use:

New Construction for 3 bedroom Ranch.

Property to be Serviced by:

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

Is this project part of a larger project? ☐ (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:** 1

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

Total new square feet footprint of structure: 1.1 Acres for 1,680 sq ft home

Total new square feet paving/parking: N/A

Waiver Requests (attach details):

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

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 Dept – 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, ect.
- C. Photographs of Site.
- D. Architectural renderings/drawings of proposed buildings, as required.
- E. Engineering Plans, as required.

Fees (Due at time of Submission):

- \$40 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.

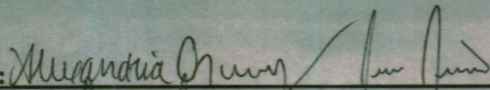
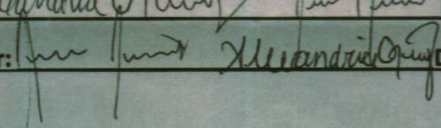
Required Signatures:

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 it's 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.

___ Project proposed to have 1 acre or more of Site disturbance:

-Project may need to apply for a Maine Construction General Permit and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.

Signature of Applicant:  Date 4/19/2022
 Signature of Property Owner:  Date 4/19/2022

IF PLAN APPROVAL IS ANTICIPATED, PROVIDE 2 FULL SIZE MYLARS & 2 FULL SIZE PAPER COPIES FOR BOARD SIGNATURE (AS APPLICABLE) CHECKWITH PLANNING STAFF FOR CLARIFICATION.

DLN: _____

1002240189297

Space Above This Line For Recording Data

WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS, that **MICHAEL A. MININNI AND KIRSTIN Z. MININNI**, having a mailing address of 1 Scotland Dr., Biddeford, ME 04005, FOR CONSIDERATION PAID, hereby grants to **JAMES JAMIESON AND ALEXANDRIA QUIGLEY**, as joint tenants, having a mailing address of 2 James St., Biddeford, ME 04005, with Warranty Covenants, a certain lot or parcel of land, together with any improvements thereon, located in the City of Biddeford, York County, State of Maine, being more particularly described as follows:

SEE "EXHIBIT A" ATTACHED HERETO AND
INCORPORATED HEREIN BY REFERENCE

IN WITNESS WHEREOF, We, Michael A. Mininni and Kirstin Z. Mininni have hereunto set our hands and seal this 7th day of April, 2022.

**SIGNED, SEALED, AND DELIVERED
IN THE PRESENCE OF:**

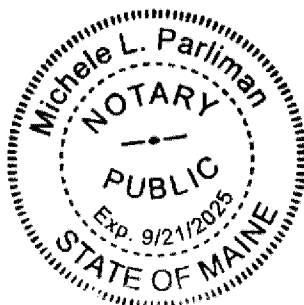
[Signature]
Witness

By: [Signature]
Michael A. Mininni
[Signature]
Kirstin Z. Mininni

**STATE OF MAINE
YORK COUNTY, SS.**

Dated: 4/7/22

Then personally appeared the above-named Michael A. Mininni and Kirstin Z. Mininni and acknowledged the foregoing instrument to their free act and deed.



Before me,
[Signature]
Notary Public
Michele L. Parlman, Paralegal

Maine R.E. Transfer Tax Paid

EXHIBIT A

Beginning at a point on the apparent easterly sideline of River Road, at the northwesterly corner of the herein described parcel, being S 09° 40' 20" E along said easterly sideline of River Road, a distance of two hundred (200.00) feet from a found #5 steel rebar with survey cap #2057 marking the northwesterly corner of Lot 3 and the southwesterly corner of Lot 2 as depicted on a plan entitled "Plan Showing a Standard Boundary Survey and Topographic Survey of a Division of Land made from Michael A. Mininni located on the Easterly side of River Road in Biddeford, Maine" prepared by Nadeau & Lodge dated November 21, 1994, revised December 3, 1994, and recorded on January 10, 1995 in the York County Registry of Deeds in Plan Book 222, Page 26.

Thence S 09° 40' 20" E along said easterly sideline of River Road, a distance of one hundred forty-six and forty hundredths (146.40) feet to a point;

Thence S 06° 14' 00" E continuing along said easterly sideline of River Road, a distance of fifty-three and sixty hundredths (52.60) feet to a point at the southwesterly corner of the herein described parcel at remaining land of the herein grantor;

Thence N 54° 38' 53" E along said remaining land of the herein grantor, a distance of two hundred thirty-seven and eleven hundredths (237.11) feet to a point at the southeasterly corner of the herein described parcel;

Thence N 06° 13' 59" W continuing along said remaining land of the herein grantor, a distance of one hundred seventy-nine and fifty hundredths (179.50) feet to a 16" walnut tree at the northeasterly corner of the herein described parcel;

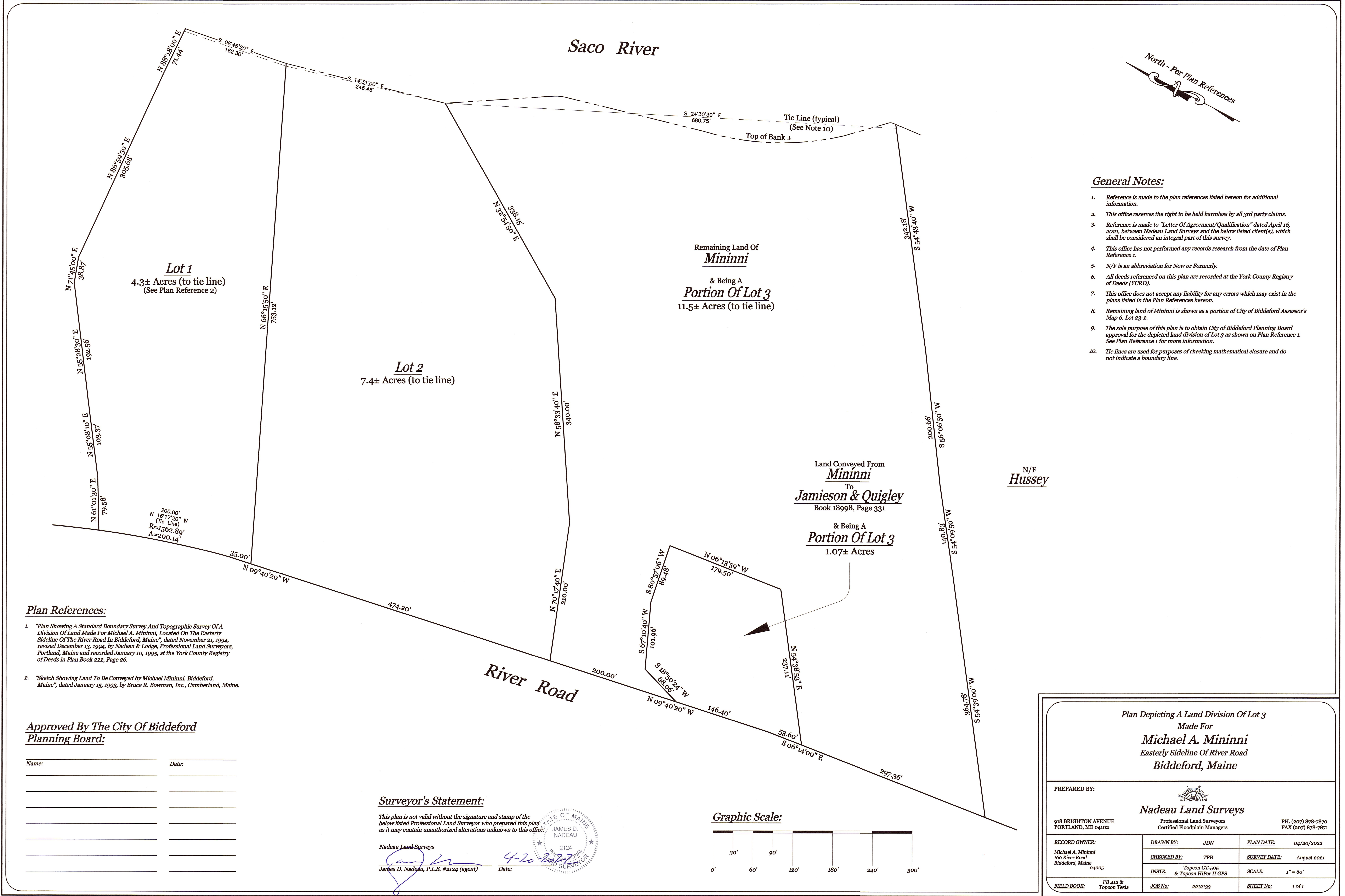
Thence S 80° 57' 06" W continuing along said remaining land of the herein grantor, a distance of eighty-nine and forty-eight hundredths (89.48) feet to a point;

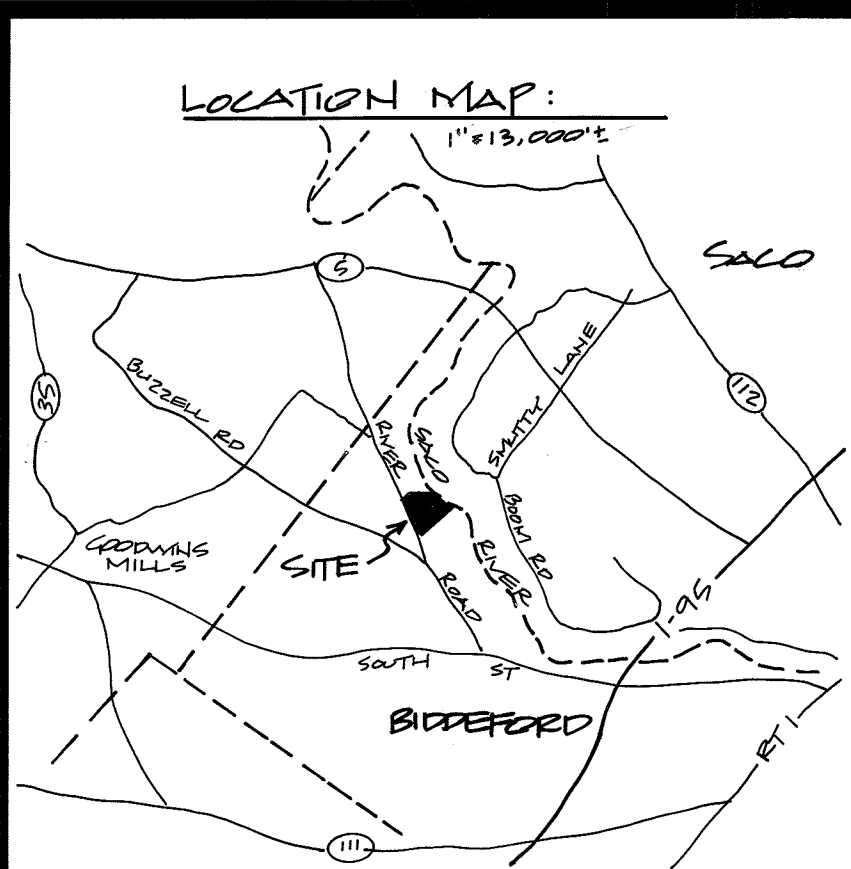
Thence S 67° 10' 40" W continuing along said remaining land of the herein grantor, a distance of one hundred one ninety-six hundredths (101.96) feet to a 9" apple tree;

Thence S 18° 50' 24" W continuing along said remaining land of the herein grantor, a distance of sixty-eight and six hundredths (68.06) feet to the point of beginning.

Bearings are based on Magnetic Meridian as depicted on a plan entitled, "Plan Showing a Standard Boundary Survey and Topographic Survey of a Division of Land made from Michael A. Mininni located on the easterly sideline of River Road in Biddeford, Maine" prepared by Nadeau & Lodge dated November 21, 1994, revised December 3, 1994, and recorded on January 10, 1995 in the York County Registry of Deeds in Plan Book 222, Page 26.

Meaning and intending to describe a portion of the land described in a deed from Michael A. Mininni to Kirstin Mininni and Michael A. Mininni, dated November 28, 2000, and recorded in the York County Registry of Deeds in Book 10366, Page 251.





LEGEND:

- ② PROPOSED LOT NUMBER
- APPROXIMATE EDGE OF WETLANDS
- SET #5 STEEL REBAR W/ CAP
- UTILITY POLE
- OH — OVERHEAD UTILITY LINE
- 80 — CONTOUR LINE (UNLESS OTHERWISE NOTED)
- 88.7 SPOT ELEVATION
- X — AREA OF WET
- X — REMAINS OF WIRE FENCE
- X — EXISTING TEST PIT

MAG. NORTH - PER PLAN REF

APPROVED BY THE CITY OF
BIDDEFORD PLANNING BOARD:

DATE: 11/95
Janet A. DePaul
James J. DePaul
William J. DePaul
Vanessa L. DePaul
Michael A. Mininni

General Notes:

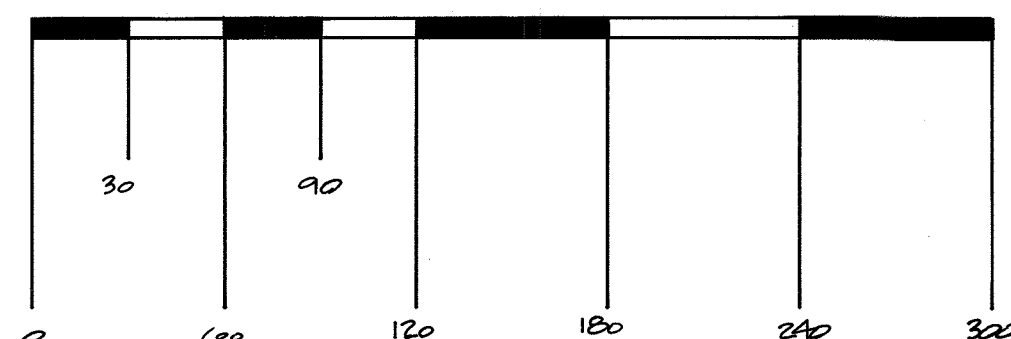
- THE ORIGINAL DIVISION OF LOT #1 FROM LOCUS TRACT PER PLAN REFERENCE.
- PARCEL IS ZONED RF & SHORELAND (250' FROM RIVER)
RF 40' - MAJOR ACCESS ROAD - FRONT
25' - MINOR ACCESS ROAD - FRONT
25' - SIDE & REAR
100' - FROM RIVER W/ SHORELAND ZONE PERMIT
- PARCEL IS SHOWN ON MAP 6 AS LOT 23 PER THE CITY OF BIDDEFORD ASSESSORS MAP.
- ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON AN ASSUMED DATUM.
- WETLANDS DELINEATED BY NADEAU & LODGE, PROFESSIONAL LAND SURVEYORS AND ARE APPROXIMATE ONLY.
- CONSULT SACO RIVER CORRIDOR PRIOR TO CONSTRUCTION.
- PARCEL FALLS IN FLOOD ZONES C, B & AII PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL # 230145 - 0002B, DATED MAY 15, 1984.
- PROPOSED USE: SINGLE FAMILY RESIDENCE.
- DUE TO THE STEEPNESS OF THE RIVER BANK, CONTOUR LINES ARE SHOWN TO THE TOP OF BANK FOR CLARITY PURPOSES.
- CLIENT'S MIDDLE INITIAL TAKEN FROM LOCUS DEED REFERENCE & PLAN REFERENCE IS INCORRECT. CLIENT'S MIDDLE INITIAL IS A.
- EDGE OF 100 YEAR FLOOD BOUNDARY DEPICTED ON THIS PLAN WAS SCALED FROM F.I.R.M. MAP PER NOTE # 7 ABOVE.
- TOTAL AREA OF PROPOSED SUBDIVISION (TO TIE LINE) EQUALS 24.3 ACRES ±.
- THE FOLLOWING ARE SACO LANDOWNERS ADJACENT TO THE SACO RIVER AND OPPOSITE THIS SITE.
A. BARNABAS MERCIER, 45 LAKESIDE DRIVE, CUMBERLAND ME.
B. WILLIAM ALLCORN, BOX 347, BIDDEFORD, ME.
C. CHESTER EMERSON, BOOM RD, SACO, ME.
D. THOMAS HARRIS, 448 BOOM RD, SACO, ME.
14. TOTAL NET DEVELOPABLE LAND OUTSIDE 100 YEAR FLOOD ZONE - SEE NOTES # 7 & 11.
LOT #1 = 42,500 S.F. ±
LOT #2 = 4.8 ACRES ±
LOT #3 = 11.0 ACRES ±
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE APPROVED BY THE CODE ENFORCEMENT OFFICE PRIOR TO ISSUING BUILDING PERMITS ON INDIVIDUAL LOTS.
- THE FOLLOWING WAIVERS WERE GRANTED BY THE PLANNING BOARD:
A. WAIVED SCALE OF LOCATION MAP TO 1:13,000.
B. WAIVED FULL SUBDIVISION APPROVAL PROCESS FOR THIS MINOR SUBDIVISION AS ALLOWED BY CITY SUBDIVISION ORDINANCE.

N/E
ROBERTS
BOOK 4816, PG. 274

N/E
HUSSEY
BOOK 2460, PG. 2000

LAND TO BE RETAINED BY
MICHAEL A. MININNI

Graphic Scale:



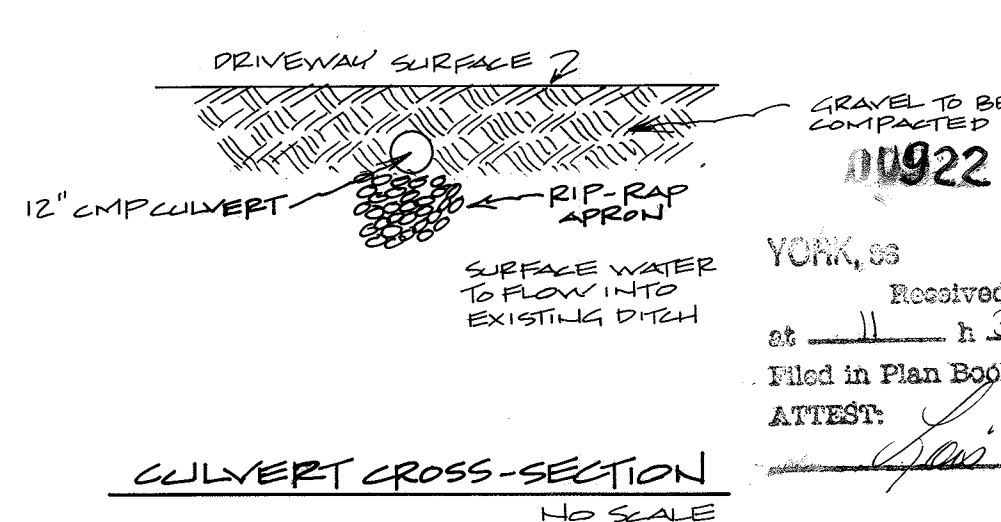
Plan Reference:

"Sketch showing land to be conveyed by Michael A. Mininni", Biddeford, Maine, dated January 15, 1993 by Bruce R. Bowman, Inc., Cumberland, Maine.

LOCUS DEED REFERENCE:

SUSAN CAGNE (FORMERLY MININNI)
TO
MICHAEL A. MININNI

DATED DECEMBER 15, 1993 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 4808, PG. 110



Surveyors Certification:

I hereby certify that this survey conforms to the Maine Board of Licensure for Professional Land Surveyors Standards for category 1, condition 3 surveys with exception. There is no written report with this survey.

YORK, ME
Received Jan 10 1995
at 11:32 a.m. by
Filed in Plan Book 222 Page 26
ATTEST:
Janet A. DePaul
SEAL
Brad R. Lodge

REVISIONS: 12-13-94 ADDED NOTES #15 & 16.

Plan showing a Standard Boundary Survey and Topographic Survey of a division of land made for

Michael A. Mininni

Located on the easterly sideline of the River Road in Biddeford, Maine

By:

NADEAU & LODGE
PROFESSIONAL LAND SURVEYORS
85 BACKLIFT STREET
PORTLAND, MAINE 04103
(207) 780-6613

CLIENT: Michael A. Mininni 160 River Road Biddeford, Maine 04005	DRAWN BY: JDN	DATE: Nov 21, 1994
	CHKD BY: JDN/BRL	SCALE: 1" = 60'
BOOK NO. 20	JOB NO. 4053	SHEET NO: 1 of 1

**Maine Dept. Health & Human Services
Div of Environmental Health, 11 SHS
(207) 287-2070 FAX (207) 287-4172**

PERMIT INFORMATION					
TYPE OF APPLICATION ☒ 1. First Time System ☐ 2. Replacement System Type Replaced: _____ Year Installed: _____ ☐ 3. Expanded System ☐ a. <25% Expansion ☐ b. >25% Expansion ☐ 4. Experimental System ☐ 5. Seasonal Conversion		THIS APPLICATION REQUIRES ☒ 1.No Rule Variance ☐ 2.First Time System Variance ☐ a. Local Plumbing Inspector Approval ☐ b. State & Local Plumbing Inspector Approval ☐ 3.Replacement System Variance ☐ a. Local Plumbing Inspector Approval ☐ b. State & Local Plumbing Inspector Approval ☐ 4.Minimum Lot Size Variance ☐ 5.Seasonal Conversion Permit		DISPOSAL SYSTEM COMPONENTS ☒ 1. Complete Non-Engineered System ☐ 2. Primitive System(graywater & alt toilet) ☐ 3. Alternative Toilet, specify: _____ ☐ 4. Non-Engineered Treatment Tank (only) ☐ 5. Holding Tank, _____ gallons ☐ 6. Non-Engineered Disposal Field (only) ☐ 7. Separated Laundry System ☐ 8. Complete Engineered System(2000gpd+) ☐ 9. Engineered Treatment Tank (only) ☐ 10. Engineered Disposal Field (only) ☐ 11. Pre-treatment, specify: _____ ☐ 12. Miscellaneous components	
SIZE OF PROPERTY PROPOSED 1. 1 +/- ☐ SQ. FT. ☒ ACRES		DISPOSAL SYSTEM TO SERVE ☒ 1. Single Family Dwelling Unit, No. of Bedrooms: <u>3</u> ☐ 2. Multiple Family Dwelling, No of Units: _____ ☐ 3. Other: _____ (specify)			
SHORELAND ZONING ☐ Yes ☒ No		Current Use ☐ Seasonal ☐ Year Round ☒ Undeveloped		PROPOSED TYPE OF WATER SUPPLY ☒ 1. Drilled Well ☐ 2. Dug Well ☐ 3. Private ☐ 4. Public ☐ 5. Other: _____	

TREATMENT TANK ☒ 1. Concrete ☒ a. Regular ☐ b. Low Profile ☐ 2. Plastic ☐ 3. Other: _____ CAPACITY: <u>1000</u> GAL. SEE NOTE ON PAGE 3	DISPOSAL FIELD TYPE & SIZE ☐ 1. Stone Bed ☐ 2. Stone Trench ☒ 3. Proprietary Device ☐ a. Cluster array ☒ c. Linear ☒ b. Regular ☐ d. H-20 loaded ☐ 4. Other: _____ SIZE: <u>1344</u> ☒ sq. ft. ☐ lin. ft. 28 ELJEN GSF UNITS	GARBAGE DISPOSAL UNIT ☒ 1. No ☐ 2. Yes ☐ 3. Maybe If Yes or Maybe, specify one below: ☐ a. Multi-compartment tank ☐ b. _____ tanks in series ☐ c. Increase in tank capacity ☐ d. Filter on tank outlet	DESIGN FLOW <u>270</u> gallons per day BASED ON: ☒ 1. Table 4A (dwelling unit(s)) ☐ 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS PROFILE CONDITION <u>8</u> / <u>C</u> at Observation Hole # <u>TP 1</u> Depth <u>16</u> " of Most Limiting Soil Factor	DISPOSAL FIELD SIZING ☐ 1. Medium - 2.6 sq.ft./gpd ☐ 2. Medium-Large - 3.3 sq.ft./gpd ☒ 3. Large - 4.1 sq.ft./gpd ☐ 4. Extra-Large - 5.0 sq.ft./gpd	EFFLUENT/EJECTOR PUMP ☐ 1. Not required ☒ 2. May be required ☐ 3. Required Specify only for engineered systems: SEE NOTE ON PAGE 3 DOSE: _____ gallons	3 BEDROOMS AT 90 GALLONS PER DAY EACH ☐ 3. Section 4G (meter readings) ATTACH WATER-METER DATA
LATITUDE AND LONGITUDE at center of disposal area Lat. <u>N43</u> ° <u>31</u> ' <u>1.18</u> " S Lon. <u>W70</u> ° <u>31</u> ' <u>37.85</u> " S if a.p.s., state margin of error			

I certify that on <u>8/5/21</u> (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed sytem is in compliance with the Subsurface Wastewater Disposal Rules (10-144A CMR 241).		
<u>Matthew Logan</u> Site Evaluator Signature	<u>324</u> SE #	<u>8-24-2021</u> Date
<u>MATTHEW LOGAN</u> Site Evaluator Name Printed	<u>(207) 756-9118</u> Telephone Number	<u>MATTLOGAN.MLE@GMAIL.COM</u> E-mail Address

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health and Human Services
Division of Environmental Health
(207) 287-2070 FAX (207) 287-4172

Town, City, Plantation BIDDEFORD	Street, Road Subdivision RIVER ROAD	Owner's Name JAMES JAMIESON (N/F MININI)
--	---	--

****ML ENVIRONMENTAL, LLC ARE NOT SURVEYORS**.**
 PROPERTY INFORMATION APPROXIMATED PER
 DRAFT PLAN BY JIM NADEAU, SURVEYOR,
 TOWN TAX MAP AND AERIAL PHOTOGRAPH.
 VERIFY PROPERTY LINES TO ASSURE ACCURATE
 LOCATION PRIOR TO SYSTEM INSTALLATION

SITE PLAN

Scale 1" = **60** Ft.
 or as shown

SITE LOCATION PLAN
 (Attach Map from Maine Atlas Recommended)

APPROX. PROPOSED PROPERTY LINES (TO BE ESTABLISHED PRIOR TO SYSTEM INSTALLATION TO ASSURE SETBACKS SHOWN)

APPROX. PROPOSED DWELLING (MIN. 20' FROM DISPOSAL AREA)

PROPOSED DRIVEWAY

SCOTLAND DRIVE

PROPOSED EASEMENT

UTILITY POLE

OHE

RIVER ROAD

PROPOSED DISPOSAL AREA

TP 1

TB A

50'

129'

100'

(ERP) 8" DIA. FLAGGED CHERRY TREE

APPROX. MAN-MADE PONDED AREA (WETLAND)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)												
Observation Hole TP 1 ☒ Test Pit ☐ Boring " Depth of Organic Horizon Above Mineral Soil					Observation Hole TB A ☐ Test Pit ☒ Boring " Depth of Organic Horizon Above Mineral Soil							
DEPTH BELOW MINERAL SOIL SURFACE (inches)	0	Texture	Consistency	Color	Mottling	DEPTH BELOW MINERAL SOIL SURFACE (inches)	0	Texture	Consistency	Color	Mottling	
	10	FINE SANDY LOAM	FRIABLE	DARK BROWN			10					
	20			LIGHT OLIVE BROWN	FEW, FAINT		20					
	30	LOAMY FINE SAND AND SILT	FIRM	OLIVE BROWN	COMMON, DISTINCT		30					
	40						40					
	50						50					
	Soil Classification 8 C Profile Condition						Soil Classification Profile Condition					
	Slope 0-3 %						Slope %					
	Limiting Factor 16"						Limiting Factor 24"					
	☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth						☐ Ground Water ☐ Restrictive Layer ☒ Bedrock ☐ Pit Depth					

Math
 Site Evaluator Signature

324

SE *

8-24-2021

Date

Page 2 of 3

HHE-200 Rev. 02/11

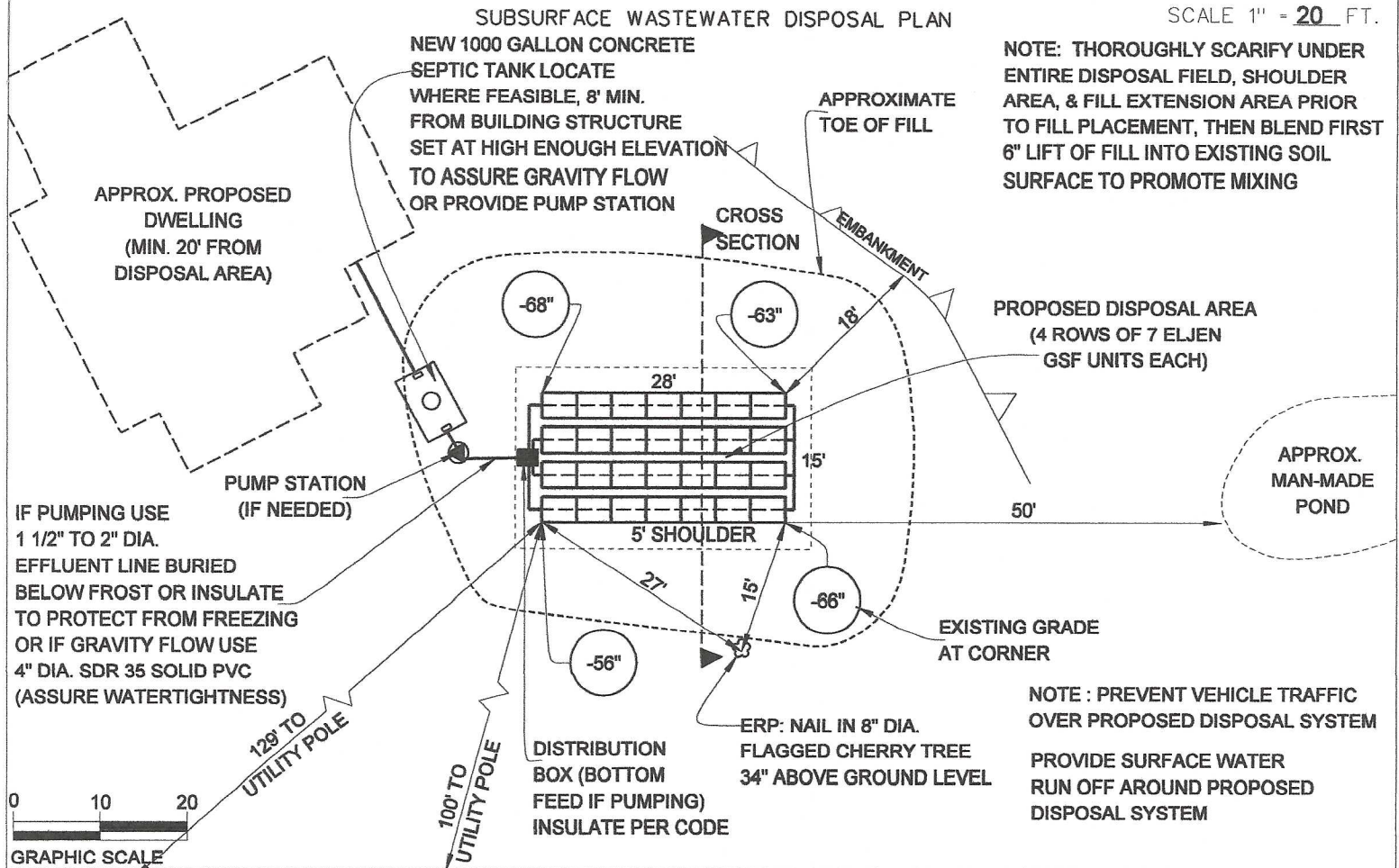
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Health and Human Services
Division of Environmental Health
(207) 287-2070 FAX (207) 287-4172

Town, City, Plantation
BIDDEFORD

Street, Road, Subdivision
RIVER ROAD

Owner's Name
JAMES JAMIESON (N/F MININI)



FILL REQUIREMENTS

Depth of Fill (Upslope) : 23" - 33"
Depth of Fill (Downslope) : 30" - 35"
DEPTHS AT CROSS-SECTION (shown below)

CONSTRUCTION ELEVATIONS

Finished Grade Elevation
Top of Distribution Pipe or Proprietary Device
Bottom of Disposal Area

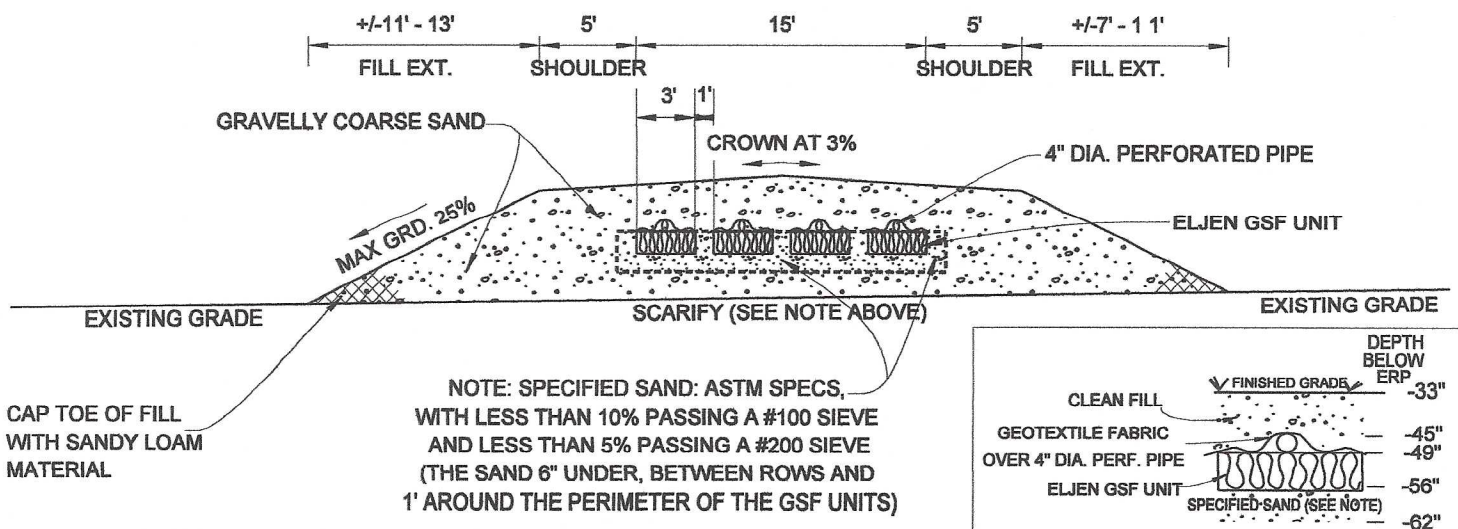
SEE
DETAIL
BELOW

ELEVATION REFERENCE POINT

Location & Description 8" DIA. FLAGGED CHERRY TREE, NAIL 34" ABOVE BASE
Reference Elevation is: 0.0" or -----

SCALE:
VERTICAL: 1" = 5 FT
HORIZONTAL: 1" = 10 FT

DISPOSAL AREA CROSS SECTION



Math

Site Evaluator Signature

324
SE *

8-24-2021
Date

Page 3 of 3
HHE-200 Rev. 02/11

M.L. Environmental, LLC - P.O. Box 167, Bar Mills, Maine 04004 - (207) 756-9118

BIDDEFORD	RIVER ROAD	JAMES JAMIESON
TOWN	LOCATION	APPLICANT'S NAME

1) The Plumbing and Subsurface Wastewater Disposal Rules adopted by the State of Maine, Division of Health and Human Services pursuant to 22 M.R.S.A. § 42 (the "Rules") are incorporated herein by reference and made a part of this application and shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system Installer should contact ML Environmental, L.L.C. at 756-9118, if there are any questions concerning materials, procedures or designs. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the Rules and with all state and municipal laws and ordinances pertaining to the permitting, inspection and construction of subsurface wastewater disposal systems.

2) This application is intended to represent facts pertinent to the Rules only. It shall be the responsibility of the owner/applicant, system Installer and/or building contractor to determine compliance with and to obtain permits under all applicable local, state and/or federal laws and regulations (including, without limitation, Natural Resources Protection Act, wetland regulations, zoning ordinances, subdivision regulations, Site Location of Development Act and Minimum Lot Size law) before installing this system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations. Prior to the commencement of construction/installation, the local plumbing inspector or Code Enforcement Officer shall inform the owner/applicant and M. L. Environmental, L.L.C. of any local ordinances which are more restrictive than the Rules in order that the design may be amended. All designs are subject to review by local, state and/or federal authorities. M.L Environmental, L. L. C.'s liability shall be limited to revisions required by regulatory agencies pursuant to laws or regulations in effect at the time of preparation of this application.

3) All information shown on this application relating to property lines, well locations, subsurface structures and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based upon information provided by the owner/applicant and has been relied upon by M. L. Environmental, L.L.C. in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties but not readily visible above grade should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4) Installation of a garbage (grinder) disposal is not recommended. If one is installed, an additional 1000 gallon septic tank or a septic tank filter shall be connected in series to the proposed septic tank. Risers and covers should be installed over the septic tank outlet per the "Rules" to allow for easy maintenance of filter.

5) The septic tank should be pumped within two years of installation and subsequently as recommended by the pump service, but in no event should the septic tank be pumped less often than every three years.

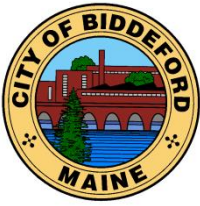
The system user shall avoid introducing kitchen grease or fats into this system. Chemicals such as septic tank cleaners and/or chlorine or water treatment backwash and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life.

6) All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion to within 6" of a finished ground surface.

Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

BIDDEFORD	RIVER ROAD	JAMES JAMIESON
TOWN	LOCATION	APPLICANT'S NAME

- 7) The actual waste water flow or number of bedrooms shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed
- 8) The general minimum setbacks between a well (public or private) and septic system serving a single family residence is 100-300 feet, unless the local municipality has a more stringent requirement. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.
- 9) When a gravity system is proposed: BEFORE CONSTRUCTION/INSTALLATION BEGINS, the system installer or building contractor shall review the elevations of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum pitch requirements. In gravity systems, the invert of the septic tank(s) outlet(s) should be at least 4 inches above the invert of the distribution box outlet at the disposal area.
- 10) When an effluent pump is required: Pump stations should be sized per manufacturer's specifications to meet lift requirements and friction loss. Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and lid at or above grade. An alarm device warning of a pump failure shall be installed. Also, when pumping is required of a chamber system, install a 'T' connection in the distribution box and place 3 inches of stone or a splash plate in the first chamber. Insulate gravity pipes, pump lines and the distribution box as necessary to prevent freezing.
- 11) On all systems, remove the vegetation, organic duff and old fill material from under the disposal area and any fill extension. Additional fill beyond indicated on plan may be necessary to replace organic matter. On sites where the proposed system is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal and fill extension area to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper than 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or differential settling). Do not use wheeled equipment on the scarified soil area until after 12 inches of fill is in place. Keep equipment off proprietary devices. Divert the surface water away from the disposal area by ditching or shallow landscape swales.
- 12) Unless noted otherwise, fill shall be gravelly coarse sand, which contains no more than 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process.
- 13) Do not install systems on loamy, silty, or clayey soils during wet periods since soil smearing/glazing may seal off the soil interface.
- 14) Seed all filled and disturbed surfaces with perennial grass seed, with 4" min. soil or soil amendment mix suitable for growing, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover system. Woody trees or shrubs are not permitted on the disposal area or fill extensions.
- 15) If an advanced wastewater treatment unit is part of the design, the system shall be operated and maintained per manufacturer's specifications.



CITY OF BIDDEFORD

Planning and Development Department

Hannah Bonine
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Hannah.Bonine@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Southwick and Members of the Biddeford Planning Board

FROM: Hannah Bonine, Assistant City Planner

DATE: April 14, 2022

RE: **2021.51 Subdivision, Site Plan, and Shoreland Zoning Sketch Plan Review for Tom Watson & Co. at 10, 20, and 30 Gooch Street (Tax Map 40, Lots 55, 55-3, and 56-1)**

MEETING DATE: April 20, 2022 at 6:00 PM

1. Introduction

This application proposes to construct a 6-story building with 55 residential units and a restaurant space at 10 Gooch Street, a 5-story building with 16 residential units and 11 townhome units on 20 Gooch Street, and the redevelopment of the existing building on 30 Gooch Street for a commercial tenant.

Please see the applicant's submission package for more information.

2. Review Process

Per City ordinance, this application is subject to Site Plan Review (Land Development Regulations, Article XI) and Subdivision Review (Code of Ordinances, Chapter 66). All subdivision applications must undergo a three-tier approval process beginning with a Sketch Plan review and followed by a preliminary plan approval and approval and a final plan

approval. Site Plan applications are subject to a two stage process consisting of a Sketch Plan approval and a final approval.

The information contained in this Sketch Plan application satisfies the requirements stated in City ordinances for the Planning Board to review. The board then may offer comments and concerns regarding the project and overall community impact.

Lastly, it should be noted that City Staff are working with Maine DEP to amend Biddeford's Shoreland Zoning in the Downtown and Mill District areas. Future review of this project will be determined through how the amendment process with Maine DEP progresses. While a considerable amount of information has been provided by the applicant above and beyond many Sketch Plan applications, no actions can be made without the Shoreland Zoning in place to permit the desired scale and density of development. At this time, we see this as an opportunity for the applicant to present their proposal and obtain initial feedback as to provide a direction for future submissions and review.

3. Waiver Requests

Parking requirements for 20 Gooch Street

4. Staff Comments and Recommendations

Staff recommends that this application be reviewed with a 3-step process in mind, with this meeting being a Sketch Plan review, and a Preliminary and Final approval to follow. Without the Shoreland Zoning in place, no action can be taken to approve, disapprove, or approve with conditions.

The following are comments for the Board and the Applicant to consider in the discussion and future submissions:

1. Temporary parking along Gooch Street: Angled parking on Gooch Street was discussed and permitted in the applicant's previous application for 1 Gooch Street. It is noted in Staff reports and in the approved plans that this parking was intended to

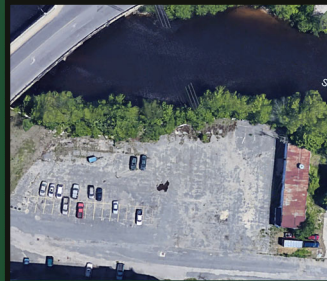
be temporary and to be under reconsideration by the Board with future development. This item should be addressed.

Staff provides this brief report to introduce the project to the Board. We recommend the Board listen to the applicant's presentation and public feedback. We also recommend the Board provide initial comments back to the applicant for further consideration.



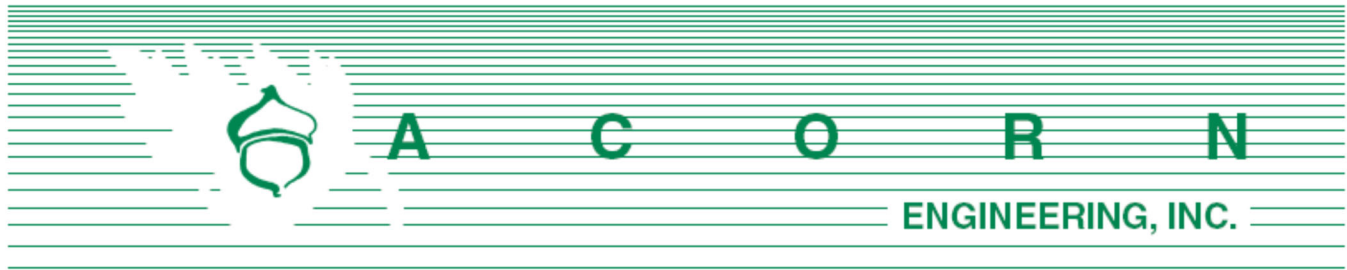
SKETCH PLAN APPLICATION

10, 20, & 30 GOOCH STREET REDEVELOPMENT CITY OF BIDDEFORD, ME



Prepared By:
ACORN ENGINEERING, INC.
For:
TOM WATSON & CO.

MARCH, 2022



Planning Board & Planning Department
Attn: Mr. Chris Di Matteo
City of Biddeford, Maine
205 Main Street
Biddeford, ME 04005

March 23, 2022

Subject: Sketch Site Plan Application
Redevelopment of 10, 20, and 30 Gooch Street, Biddeford

Members of the Board, & Mr. Di Matteo:

On behalf of Tom Watson & Co., we are pleased to submit the accompanying package of submission materials related to the proposed redevelopment at 10, 20, and 30 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), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to construct a 6-story building containing 55 residential units with a restaurant space on 10 Gooch Street, a 5-story, 16-unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and redevelopment of the existing building located at 30 Gooch Street to accommodate a commercial use (potentially a brewery). The project will include associated parking and landscaped areas.

The redevelopment plans will consist of:

- 10 Gooch: 6-story, 55 residential units
 - Footprint: 8,643 SF
- 20 Gooch: 5-story, 16 residential units & (11) 4-story townhomes
 - Footprint: 6,150 SF & 7,893 SF
- 30 Gooch: Change of use to Commercial (potentially a brewery)
 - Footprint: 16,870 SF

Overall, this project aims to provide housing to a much-needed housing stock and build on the developing culture of Gooch Street through the addition of mixed-use developments, including a restaurant and commercial space. The site will be enhanced with the extension of the Saco River Riverwalk. The project also proposes an overall reduction of impervious areas within the Shoreland Zone and proposes water quality treatment for the stormwater runoff that ultimately discharges into the Saco River. The team's vision for this site is to foster a community-based space for living adjacent to the scenic river. One of many redevelopments within the Mill district, this project will further increase the activity within the City's flourishing downtown.

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



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CITY OF BIDDEFORD, MAINE
PLANNING BOARD
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

APPLICATION FORM

Type of Application:

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

Applicant Information:

Applicant's Name: Tom Watson & Co.
Applicant's Mailing Address: 188 State Street, Portland, ME 04101
Applicant's Telephone: 207-699-2219

What is Applicant's legal interest in the property?

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

Owner's Name: Same as Applicant
Owner's Address: Same as Applicant
Owner's Telephone: Same as Applicant

Agent's Name: Acorn Engineering - Peter F. Heil, PE, CPESC
Agent's Address: 65 Hanover Street, Portland, ME, 04101
Telephone: 207-775-2655

Engineer/Surveyor: Acorn Engineering / Owen Haskell
Engineer/Surveyor's Address: 65 Hanover Street, Portland, ME, 04101 / 390 U.S. Rt 1. Unit #10 Falmouth, ME, 04105
Telephone: 207-775-2655 / 207-774-0424

Project Location and Lot Information:

Street Address: 10, 20 & 30 Gooch Street, Biddeford, ME
Tax Map: 40 Lot: 55, 55-3, 56-1
Current Zoning: MSRD3 Shoreland Zoning: Yes

Size of lot: 30 Gooch: 0.77 ☒ acres ☐ s.f.

Lot Frontage: _____

Existing Use on Property: Parking lots/ existing commercial buildings

Property currently serviced by:

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

Do you plan to bring fill onto the lot?

☐ Yes ☒ No

If yes, attach information

Description of proposed use of property:

Project/Proposed Use Description:

The project proposes to construct a 6-story building containing 55 residential units with a commercial space on 10 Gooch Street, a 5-story 16-unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and change of use/redevelopment to the existing building located at 30 Gooch Street to accommodate a commercial use (potentially a brewery). The project will include associated parking and landscaped areas.

Property to be serviced by:

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

Is this project part of a larger project?

☐ Yes ☒ No

☒ If in a Shoreland Zone:Percent of residential lot coverage (Max. 20%): See sheet C-10Percent of structure expansion (Max. 30%): ☒ If Subdivision Review, number of lots proposed: 3 lots - 71 residential units☐ 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 structures: Net = -1,345 sfTotal new square feet paving/parking: Net = -17,568 sf*Not including City owned Lot*

Waiver Requests (attach details):

1.
2.
3.
4.
5.

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 Dept (Sewer) - 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. Engineered Plans, as required.

Fees (due at time of 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:

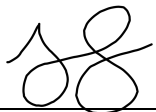
By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and it's 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 review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting this 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.

☒ Project proposed to have 1 acre or more of site disturbance:

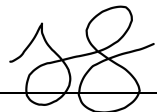
-Project may need to apply for a Maine Construction General Permit and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.

Signature of applicant:



Date: 3.17.22

Signature of owner of property:



Date: 3.17.22

**IF PLAN APPROVAL IS ANTICIPATED, PROVIDE 2 FULL SIZE MYLARS & 2 FULL SIZE PAPER COPIES FOR BOARD SIGNATURE (AS APPLICABLE).
CHECK WITH PLANNING STAFF FOR CLARIFICATION.**

CHECKLIST FOR ***SITE PLAN*** REQUIREMENTS

YES **NO**

- | | | |
|-------------------------------------|-------------------------------------|--|
| ☒ | ☐ | Be on sheet size of 24 by 36 inches. |
| ☒ | ☐ | The scale of said plan shall be not less than one inch equals 50 feet and shall be indicated on the plat by use of a bar scale. |
| ☒ | ☐ | The plan shall bear the date, title, north point. |
| ☒ | ☐ | The plan shall contain a location or vicinity sketch (suggested scale one inch equals 800 feet). |
| ☒ | ☐ | The plan shall contain the name and address of the developer and applicant. |
| ☒ | ☐ | All appropriate dimensional requirements. |
| ☒ | ☐ | Existing and proposed easements. |
| ☒ | ☐ | Plan of the site showing existing watercourses and water bodies, seasonal wet areas. |
| ☒ | ☐ | Plan of the site showing soil type and location of test borings. |
| ☒ | ☐ | Location of all existing and proposed utilities. |
| ☒ | ☐ | Topographic contours (every five percent for zero to three percent slope; or every two feet for steeper areas). |
| ☐ | ☒ | Plan should include preservation and supplementation of existing dominant vegetation. |
| ☒ | ☐ | Plan shall indicate which features are to be retained and which are to be removed or altered. |
| ☒ | ☐ | Location of stonewalls, graveyards, fences, stands of trees, and other important unique natural areas and site features, including but not limited to floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, sand and gravel aquifers, and historic and/or archaeological resources, together with description of such features. |
| ☒ | ☐ | Plan view of all buildings with their use, size, location, and first-floor elevation in respect to grade. |
| ☒ | ☐ | Standard elevation view of existing and proposed buildings or structures on-site. |

YES NO

- ☒ ☐ Outline of any buildings located within 200 feet of such existing or proposed buildings or structures indicating their shape, size, location, heights and volume.
- ☒ ☐ Existing use of abutting properties shall be identified with approximate location of any structures thereon including access roads.
- ☒ ☐ Location, width, curbing, and paving of access ways, egress ways, and streets within the site for both pedestrian and vehicular use.
- ☒ ☐ The location of off-street parking and loading spaces with a layout of the parking indicated.
- ☒ ☐ The size and proposed location of water mains and sanitary sewerage facilities will all necessary engineering data.
- ☒ ☐ The size and location of all other existing and proposed public service connections including, without limitation, gas lines, power lines, telephone lines, and fire alarm connections and locations, indicating whether above or below ground.
- ☒ ☐ The type, nature, and composition of all solid, liquid, and gaseous waste, industrial or otherwise, and the location, type, and design criteria of the storage and disposal facilities dealing with such waste.
- ☒ ☐ A landscape plan and open space areas indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening; plus size, location, purpose and type of vegetation.
- ☒ ☐ A drainage plan including location, elevation, layout of catch basins and other surface and subsurface drainage features.
- ☒ ☐ Location, size and design of proposed signs and other advertising or instructional devices.
- ☒ ☐ Existing and proposed contours and finished grade elevations as well as the type, extent, and location of existing and proposed landscaping and open space areas which will be retained.
- ☒ ☐ Location and type of lighting for outdoor facilities.
- ☒ ☐ Lines of existing and proposed abutting streets showing width.
- ☒ ☐ Surveyed property lines showing their bearing and distances and monument locations.
- ☒ ☐ If subdivision is involved, the lines and names of all proposed streets, lanes, ways, or easements intended to be dedicated for public or private use.

YES **NO**

- | | | |
|-------------------------------------|-------------------------------------|---|
| ☒ | ☐ | Provide copies of any covenants or restrictions that are intended to cover all or part of the land area to be developed. |
| ☒ | ☐ | Indicate limits of the wetland areas on the property. |
| ☐ | ☒ | Delineate existing zoning boundaries within 1,000 feet of the site. |
| ☒ | ☐ | Stamp and signature of either a Maine licensed land surveyor, professional engineer, or architect responsible for said plan. |
| ☒ | ☐ | Any other exhibits or data deemed necessary by the Planning Board to evaluate the proposed development for site plan review purposes. |

Section 1: Right Title Interest

Please see attached for a copy of the Quitclaim Deeds for the rights of the applicant to the property as recorded at the York County Registry of Deeds, Book: 18498 and 18555, Page 578 & 191



DLN: 1002040126137

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, **FIFTY NINE ELM STREET LLC**, a Maine limited liability company with a principal place of business and mailing address of 380 Warren Avenue, Portland, Maine 04103, for consideration paid, grants to **RIVER LOT LLC**, a Maine limited liability company with a mailing address of c/o Port Property Management, 82 Hanover Street, Suite 5, Portland, Maine 04101 (the "Grantee"), with QUITCLAIM COVENANT, the land and improvements in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

A certain lot, or parcel of land, located southeasterly of Elm Street, in the City of Biddeford, County of York, State of Maine, being bound and described as follows:

Beginning at a #5 rebar w/cap stamped "NCS 2080" at the southerly corner of land now or formerly (N/F) of State of Maine, as described in Book 3627, Page 185 and Book 2569, Page 015;

THENCE: N 50°34'00" E, along said State of Maine, 110.88', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set on the southwesterly line of land N/F of FPL Energy Maine Hydro LLC;

THENCE: S 78°52'00" E, along said FPL Energy Maine Hydro LLC, 174.32', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

THENCE: S 68°12'00" E, along said FPL Energy Maine Hydro LLC, 51.79', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

THENCE: S 57°05'00" E, along said FPL Energy Maine Hydro LLC, 83.80', to a #5 rebar w/cap stamped "NCS 2080" at the northerly corner of land N/F of Precision Screw Machine Products, Inc., as described in Book 15535, Page 402;

THENCE: S 17°58'00" W, along said Precision Screw Machine Products, Inc., 135.84', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set on the northeasterly line of Saco-Lowell LLC Parcel, as shown on plan entitled "Lot Split Plan, 59 Elm Street, Biddeford, Maine", by Northeast Civil Solutions, Inc., dated December 15, 2020, NCS Project No. 42267;

THENCE: N 69°42'00" W, along said Saco-Lowell LLC Parcel, 247.06', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

Maine R.E. Transfer Tax Paid

THENCE: N 54°50'00" W, along said Saco-Lowell LLC Parcel, 124.15', to the POINT of BEGINNING.

The above described parcel contains 1.08 acres, more or less.

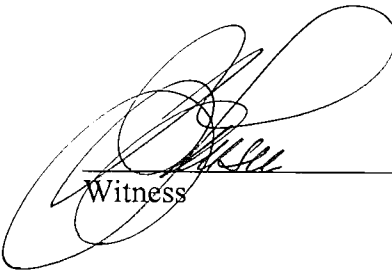
The bearings for the above described parcel are based on Magnetic North 1929.

TOGETHER WITH all rights, benefits, privileges and easements and SUBJECT TO same covenants and obligations to the extent the same are in force and effect, as contained in a deed from Biddeford & Saco Dev. Corp. to Grafton Lumber Co., Inc. dated April 6, 1962 and recorded in the York County Registry of Deeds in Book 1484, Page 121.

TOGETHER WITH, and subject to the rights of others in and to, a right of way from the easterly sideline of the said above described lot to Elm Street, said right of way to be adjoining said lot on the southerly side and to be thirty (30) feet wide along said lot and known or formerly known as Gooch Street, for all purposes of an easement, including ingress to and egress from the property of the Grantee, and for the laying, relaying, maintenance, repair, and improvement of utility lines, pipes, wires and other conduits, and all appurtenances necessary thereto.

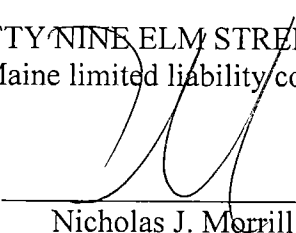
Being a portion of the premises conveyed to Fifty Nine Elm Street LLC by Quitclaim Deed from Pioneer Capital Corporation, dated June 24, 2009, and recorded in the York County Registry of Deeds in Book 15667, Page 590.

IN WITNESS WHEREOF, Fifty Nine Elm Street LLC has caused this instrument to be signed and sealed in its company name by Nicholas J. Morrill, its Authorized Attorney, thereunto duly authorized this 22nd day of December, 2020.



Witness

FIFTY NINE ELM STREET LLC,
a Maine limited liability company

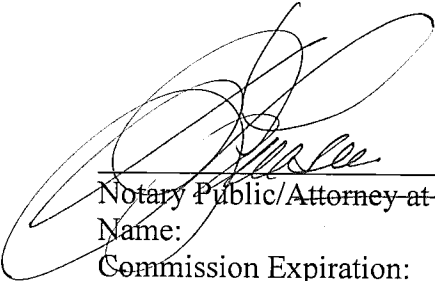
By: 

Nicholas J. Morrill
Title: Authorized Attorney

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

December 22, 2020

Then personally appeared before me the above named Nicholas J. Morrill, Authorized Attorney of Fifty Nine Elm Street LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of Fifty Nine Elm Street LLC.



Notary Public/Attorney at Law
Name:
Commission Expiration:

DEBRA J. LAUSIER
Notary Public, Maine
My Commission Expires: January 12, 2024

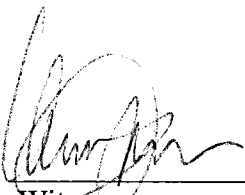
DLN : 1002140131882

QUITCLAIM DEED

PRECISION SCREW MACHINE PRODUCTS, INC., a Maine corporation with a mailing address of PO Box 1944, Biddeford, ME 04005 ("Grantor"), for consideration paid, grants to **GOOCH STREET LLC**, a Maine limited liability company with a mailing address of c/o Port Property Management, Inc. 82 Hanover Street, Suite 5, Portland, ME 04101 ("Grantee"), with **QUITCLAIM COVENANT**, a certain lot or parcel of land, together with the improvements thereon, in the City of Biddeford, County of York, and State of Maine, being more particularly bound and described on Exhibit A attached hereto and made a part hereof.

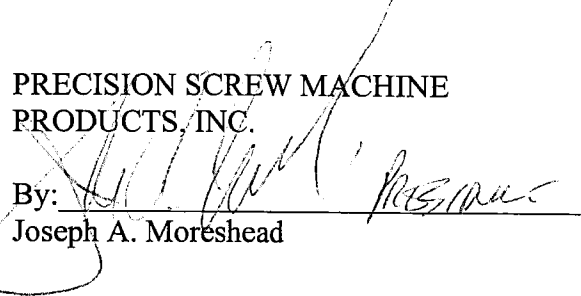
Being the same premises conveyed to Grantor by virtue of a Corrective Quitclaim Deed with Covenant granted by Joseph A. Moreshead and Andrea C. Moreshead dated December 11, 2008 and recorded in the York County Registry of Deeds in Book 15535, Page 402.

IN WITNESS WHEREOF, Precision Screw Machine Products, Inc. has caused this instrument to be executed by Joseph A. Moreshead, its President thereunto duly authorized as of this 10 day of February, 2021.



Witness

**PRECISION SCREW MACHINE
PRODUCTS, INC.**

By: 

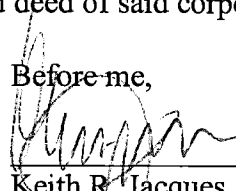
Joseph A. Moreshead

STATE OF MAINE
COUNTY OF YORK, SS.

February 10, 2021

Personally appeared the above-named Joseph A. Moreshead, President of Precision Screw Machine Products, Inc. and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,



Keith R. Jacques
Attorney at Law, Bar # 2962

KEITH R. JACQUES, ESQ.
WOODMAN EDMANDS DANYLIK AUSTIN
SMITH & JACQUES, P.A.
234 MAIN ST. , P.O. BOX 468
BIDDEFORD, ME 04005
(207) 284-4581

Maine R.E. Transfer Tax Paid

EXHIBIT A

Parcel 1 (30 Gooch Street):

A certain lot or parcel of land with the buildings thereon, situated in Biddeford, County of York, State of Maine, bounded and described as follows:

BEGINNING at a spike driven into the Bituminous Concrete pavement at the southerly corner of land conveyed by the Biddeford and Saco Development Corporation to Grondin Supply Co., Inc., said spike being a line which is forty-seven (47) feet northeasterly from and parallel with the northeasterly face of the original buildings of the Saco-Lowell Shops, and formerly known as 30-A, B, C and D; thence N 20° 04' E by said Grondin land eighty-two and 50/100 (82.50) feet to a spike driven into the pavement, said line being parallel with and five and 88/100 (5.88) feet northwesterly of the northwesterly face of the water tables on the pilasters existing on the northwesterly side of the brick building standing on the land hereby conveyed formerly known as Building #24; thence the same course by remaining land of the Biddeford and Saco Development Corporation or owner, thirty-seven (37) feet, more or less, or to land of the Central Maine Power Company; thence easterly, southeasterly and southerly by said Central Maine Power Company land to a point in said line which is forty-seven (47) feet northeasterly from and parallel to the northeasterly face of said original buildings of the Saco-Lowell Shops; thence N 69° 42' W by said line three hundred thirty and 12/100 (330.12) feet to the point of beginning.

The above bearings refer to the 1929 Magnetic Meridian.

Subject to a right of way over a strip of land five and 5/10 (5.5) feet wide which lies easterly of and adjoining the first and second described lines above. Together with a right of way over a strip of land five and 5/10 (5.5) feet wide which lies westerly of and adjoining said first described line above and westerly of and adjoining so much of the second described line above as the Biddeford and Saco Development Corporation may own, said eleven (11) foot right of way to be used in common. Said premises are also conveyed subject to any right of way which may exist in the Central Maine Power Company across said premises.

Also together with a right of way from the easterly sideline of the above described lot westerly to Elm Street, said right of way to be adjoining said lot on the southerly side and to be thirty (30) feet wide along said lot and for six hundred sixty and 82/100 (660.82) feet westerly from the southwesterly corner of said lot to a large spike driven into the Bituminous Concrete paving. From thence the northerly sideline runs N 32° 55' W by land formerly of the Biddeford and Saco Development Corporation eighty-three and 75/100 (83.75) feet to Elm Street where said right of way is to be forty and 88/100 (40.88) feet wide measured along said Elm Street, said last described right of way is to be used by Precision Screw Machine Products, Inc. and the Biddeford and Saco Development Corporation, their respective successors and assigns and othe

Parcel 2 (20 Gooch Street)

A certain lot or parcel of land together with the buildings thereon, situated in said Biddeford, bounded and described as follows:

Beginning at a spike driven into the bituminous concrete pavement at the junction of a line which is forty-seven (47) feet Northeasterly from and parallel with the Northeasterly face of the main original buildings of the Saco-Lowell Shops and formerly known as 30-A, B, C and D and a line which runs along the Northwesterly edge of the concrete platform on which the building formerly known as #33 stood; thence S 69° 42' E by said forty-seven (47) foot line two hundred eighty-eight and 15/100 (288.15) to a spike driven in the pavement and remaining land of Biddeford & Saco Development Corporation; thence N 20° 04' E by said remaining land of Biddeford & Saco Development Corporation eighty-two and 50/100 (82.50) feet to a spike driven into the pavement; the last described line being parallel with and five and 88/100 (5.88) feet Northwesterly of the Northwesterly face of the water tables on the pilasters existing on the Northwesterly side of the brick building standing on said other land of Biddeford & Saco Development Corporation formerly known as Building #24; thence N 69° 42' W by remaining land of said Biddeford & Saco Development Corporation and by land of the Central Maine Power Company ninety-five and 97/100 (95.97) feet to an iron pipe driven into the ground; thence N 37° 43' W by said land of the Central Maine Power Company seventy-five (75) feet to an iron pipe driven into the ground; thence N 57° 05' W by said land of the Central Maine Power Company sixty-one and 75/100 (61.75) feet to an iron pipe driven into the ground and remaining land of said Biddeford & Saco Development Corporation; thence S 17° 58' W by said remaining land of Biddeford & Saco Development Corporation one hundred thirty-five and 84/100 (135.84) feet to the point of beginning.

TOGETHER WITH all rights, benefits, privileges and easements and SUBJECT TO the following:

1. Rights, easements, covenants, conditions, and restrictions set forth in Quitclaim Deed granted by Saco-Lowell Shops to Biddeford & Saco Development Corporation dated April 9, 1959 and recorded in the York County Registry of Deeds in Book 1398, Page 145.
2. Rights and easements granted by Biddeford & Saco Development Corporation to Central Maine Power Company by instrument dated March 22, 1961 and recorded in the York County Registry of Deeds in Book 1461, Page 460.
3. Rights and easements granted by Biddeford & Saco Development Corporation to Central Maine Power Company by instrument Saco-Lowell Shops to Central Maine Power Company by instrument dated June 23, 1944 and recorded in the York County Registry of Deeds in Book 1017, Page 409.
4. Rights, easements, covenants, conditions, and terms set forth in Deed granted by Biddeford & Saco Development Corporation to Grondin Supply Co. Inc. dated January 18, 1962 and recorded in the York County Registry of Deeds in Book 1478, Page 465.
5. Rights of others and terms and conditions pursuant to the following:
 - a. Agreement by and between Central Maine Power Company and Storage Realty Corp., dated April 1, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 182;
 - b. Agreement by and between Biddeford & Saco Development Corporation and Storage Realty Corp., dated March 10, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 186;
 - 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; and

- d. Agreement by and between Grondin Supply Co. and Storage Realty Corp. dated March 23, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 195.
6. Rights, easements, conditions, and restrictions set forth in Warranty Deed granted by Metal-Tech Inc. dated January 2, 1974 and recorded in the York County Registry of Deeds in Book 2023, Page 253.
7. Rights and easements granted by Precision Screw Machin Products Inc. to Central Maine Power and New England Telephone and Telegraph Company by instrument dated and recorded in the York County Registry of Deeds 2375, Page 50.
8. Easement Deed granted by Precision Screw Machine Products, Inc. to Maine Energy Recovery Company dated April 14, 1987 and recorded in the York County Registry of Deeds in Book 4248, Page 112.

Also releasing, without covenants, all Grantor's right, title, and interest in and to the premises described as follows (hereinafter referred to as the "Surveyed Description"):

A CERTAIN LOT OR PARCEL OF LAND ON THE EASTERLY SIDE OF, BUT NOT ADJACENT TO ELM STREET IN THE CITY OF BIDDEFORD, COUNTY OF YORK AND STATE OF MAINE BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF FIFTY-NINE ELM STREET LLC AS DESCRIBED IN DEED BOOK 15667, PAGE 590 ON THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF BIF II US RENEWABLE LLC AT A CAPPED IRON ROD STAMPED "PLS 2080";

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG LAND OF SAID BIF II US RENEWABLE LLC:

S 72°30'38" E A DISTANCE OF 61.75 FEET;
S 53°08'38" E A DISTANCE OF 75.00 FEET;
S 85°07'38" E A DISTANCE OF 169.48 FEET;
N 04°37'55" E A DISTANCE OF 31 FEET, MORE OR LESS TO LAND NOW OR FORMERLY OF CENTRAL MAINE POWER COMPANY;

THENCE, EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTRAL MAINE POWER COMPANY LAND 414 FEET, MORE OR LESS TO THE NORTHERLY SIDELINE OF A CERTAIN 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET, POINT BEING S 66°10'47" E A DISTANCE OF 349.54 FEET FROM THE LAST MENTIONED COURSE;

THENCE, N 85°07'38" W ALONG THE NORTHERLY SIDELINE OF SAID 30 FOOT WIDE RIGHT OF WAY 618.27 FEET TO LAND OF SAID FIFTY-NINE ELM STREET LLC;

THENCE, N 02°32'22" E ALONG THE LAND OF FIFTY-NINE ELM STREET LLC 135.85 FEET TO THE POINT OF BEGINNING, CONTAINING 61,314 S.F. OR 1.14 ACRES, MORE OR LESS.

Section 2: Declaration of Easements, Covenants, and Restrictions

The project does not propose any covenants or restrictions at this time. Please refer the attached plans for the existing easements across the property.

1. ALTA/NSPS Land Title Survey dated 12/23/2020 and last revised 5/26/2021, prepared by Owen Haskell, Inc.
2. ALTA/NSPS Land Title Survey field dated 10/19/2020 and last revised 11/20/2020, prepared by Northeast Civil Solutions.
3. Lot Split Plan field dated 10/19/2020 and last revised 12/18/2020, prepared by Northeast Civil Solutions.

As Gooch Street will remain a private ROW, new easements to the respective utility companies were proposed as part of the previously approved “1 Gooch Street Redeveloped” for maintenance and access, including:

1. Access and utility easement from Saco-Lowell LLC to Central Maine Power Company for access and maintenance of proposed pad mounted transformers, subsurface electric structures, and associated electric utility conduits.
2. Access and utility easement from Saco-Lowell LLC to Maine Water for access and maintenance of proposed hydrants and associated subsurface water lines.
3. Access and utility easement from Saco-Lowell LLC to the City of Biddeford for access and maintenance of proposed sanitary and stormwater sewer structures and associated subsurface collection lines.
4. Access easement from Saco-Lowell LLC to the City of Biddeford over the proposed sidewalk for access along Gooch Street.
5. Access and utility easement from Saco-Lowell LLC to Unitil Corporation for access and maintenance of proposed natural gas services and associated infrastructure.
6. Access and maintenance easement from the City of Biddeford to Saco-Lowell LLC for the access and maintenance of the existing building along the City owned parcel formerly Smith Street.



Section 3: Financial and Technical Capacity

Financial Capacity

Please refer to the attached letter from the Applicant's bank confirming financial capacity for the project.

Technical Capacity

Tom Watson & Co., a Bush Watson affiliate, has a long and successful history of redeveloping properties. Its success is due to its horizontal structure. Since its founding, the company has woven together the acquisition and development team, the property management group and the construction group on every project. All have an active seat at the table during the feasibility stage, due diligence period, closing and program implementations phase. We have successfully redeveloped smaller units throughout Portland and South Portland and have begun larger projects such as Riverdam Mills in Biddeford, 82 Hanover Street Building in Portland and The Linden (formerly Bayside Village) in Portland.

MICHAEL BARTON, CONGRESS GROUP OF MAINE

The Congress Group of Maine provides customized services for client including pre-development, feasibility, design team selection, cost estimation, contractor selection, project administration, and post development support. Taking advantage of intimate knowledge of the Greater Portland and surrounding real estate and construction happenings. The Congress Group of Maine looks to provide property owners and real estate developers with streamlined services for facility procurement, development and/or construction oversight.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting, and construction administration. Together, Acorn Engineering, Inc. and Ryan Senatore Architecture have successfully designed and permitted more than 20 level II/III projects in Portland during the past 5 years, including four for Redfern Properties: Munjoy Heights, East Bayside Lofts, The Hiawatha, 70 Anderson, and 1 Gooch Street.

Ryan Senatore Architecture has designed several important multifamily residential projects in Southern and Central Maine, including the nine-story, 139-unit, concrete and steel framed high-rise apartment building known as the Hiawatha (for Redfern Properties). RSA's residential clients include private developers as well as public housing authorities, and completed projects include both new construction and adaptive reuse of existing historic structures.





March 18, 2022

City of Biddeford
Planning Office
205 Main Street
Biddeford, ME 04005

RE: Tom Watson & Co. | Redevelopment of 20-30 Gooch Street

I am pleased to provide this financial capacity letter in support of Tom Watson & Co. Based on my direct experience with the principal owners as it relates to projects of similar size and scope, I believe that Tom Watson & Co. has the financial capacity and technical expertise to successfully complete this project.

I have known and worked with the principals of Tom Watson & Co. for more than 10 years and have been involved with the financing of numerous projects. Bar Harbor Bank & Trust currently has a lending relationship with the principals of Tom Watson & Co. and is interested in providing financing for the subject project.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Delano", with a stylized flourish at the end.

Joe Delano
Senior Vice President

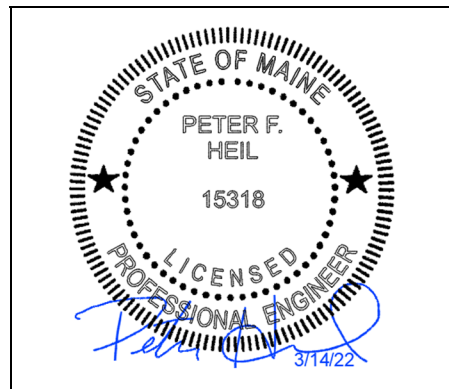
Section 4: STORMWATER MANAGEMENT REPORT

Prepared For:

**Tom Watson & Co
Portland, ME 04101**

Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



March 2022

INTRODUCTION

Acorn Engineering, Inc. has been retained by Tom Watson & Co. to provide civil engineering services for the proposed redevelopment of 10, 20, and 30 Gooch Street. The project proposes to add a residential unit building with surface and covered parking to 10 Gooch, a residential unit building and townhomes with garage parking to 20 Gooch, and the redevelopment of the existing 30 Gooch building to accommodate a commercial use such as a brewery, taproom, brewpub, eatery, etc.

PROPOSED DEVELOPMENT

As part of the proposed project approximately 12,060 square feet of impervious area (including 10,20,30, Gooch Street and the City Lot) will be removed and replaced with landscaped area. Utility improvements for 10 Gooch Street include installation of new catch basins and a storm drain network that will tie into the existing storm drain system that ultimately discharges into the Saco River. 20 Gooch Street is anticipated to have a floor drain and an oil water separator within the covered parking area that will utility outlet into the existing force main within Gooch Street. 30 Gooch Street is anticipated to maintain existing drainage patterns with no utility improvements as this phase of the design. Stormwater and Erosion Control Best Management Practices will be implemented during construction.

The project proposes to install pervious pavers at the end of Gooch Street to provide water quality treatment for the stormwater runoff prior to discharging into the Saco River. Designs and calculations of the BMPs will be provided as part of the Preliminary application submission.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County

The area within and surrounding the project includes soils types listed in the table below. The susceptibility of soils to erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 1 - “K” Value		
Soils Type	Subsurface	Substratum
Urban Land (Ur)	0.27	0.27

The soil “K” values for the soils, listed above, show a low to moderate susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance, given the proximity to the Saco River.

Please refer to Section 5. for the erosion and sedimentation control narrative.



Conclusion

The project will reduce overall impervious coverage and improve drainage throughout the site. The project does not anticipate creating erosion, drainage, or runoff problems for the development, the City, or abutting properties. Please let me know if you have any questions or comments.





United States
Department of
Agriculture

NRCS

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A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for York County, Maine

10 Gooch Street



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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 20, Aug 31, 2021

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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
Ur	Urban land	1.1	100.0%
Totals for Area of Interest		1.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

York County, Maine

Ur—Urban land

Map Unit Composition

Urban land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Properties and qualities

Slope: 0 to 8 percent

Drainage class: Moderately well drained

Depth to water table: About 24 to 72 inches

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff (10 Gooch Street)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff (10 Gooch Street)

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—York County, Maine			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
Ur—Urban land			
Urban land	90	— —	



United States
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Natural
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A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for York County, Maine

20 Gooch Street



Preface

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Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

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Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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 20, Aug 31, 2021

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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
Ur	Urban land	0.6	100.0%
Totals for Area of Interest		0.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

York County, Maine

Ur—Urban land

Map Unit Composition

Urban land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Properties and qualities

Slope: 0 to 8 percent

Drainage class: Moderately well drained

Depth to water table: About 24 to 72 inches

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff (20 Gooch Street)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff (20 Gooch Street)

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—York County, Maine			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
Ur—Urban land			
Urban land	90	— —	



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **York County, Maine**

30 Gooch Street



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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.

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Soil Survey Area: York County, Maine
Survey Area Data: Version 20, Aug 31, 2021

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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
Ur	Urban land	0.8	98.0%
W	Water bodies	0.0	2.0%
Totals for Area of Interest		0.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

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An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

York County, Maine

Ur—Urban land

Map Unit Composition

Urban land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Properties and qualities

Slope: 0 to 8 percent

Drainage class: Moderately well drained

Depth to water table: About 24 to 72 inches

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

W—Water bodies

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Hills

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff (30 Gooch Street)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

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Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff (30 Gooch Street)

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—York County, Maine			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
Ur—Urban land			
Urban land	90	— —	
W—Water bodies			
Water	100	— —	

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Natural
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A product of the National
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participants

Custom Soil Resource Report for York County, Maine

City area



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

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Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



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 20, Aug 31, 2021

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

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
Ur	Urban land	0.8	99.3%
W	Water bodies	0.0	0.7%
Totals for Area of Interest		0.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

York County, Maine

Ur—Urban land

Map Unit Composition

Urban land: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Linear

Across-slope shape: Linear

Typical profile

H1 - 0 to 6 inches: variable

Properties and qualities

Slope: 0 to 8 percent

Drainage class: Moderately well drained

Depth to water table: About 24 to 72 inches

Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

W—Water bodies

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform: Hills

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

Hydrologic Soil Group and Surface Runoff (City Lot)

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or

soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

Report—Hydrologic Soil Group and Surface Runoff (City Lot)

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—York County, Maine			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
Ur—Urban land			
Urban land	90	—	—
W—Water bodies			
Water	100	—	—

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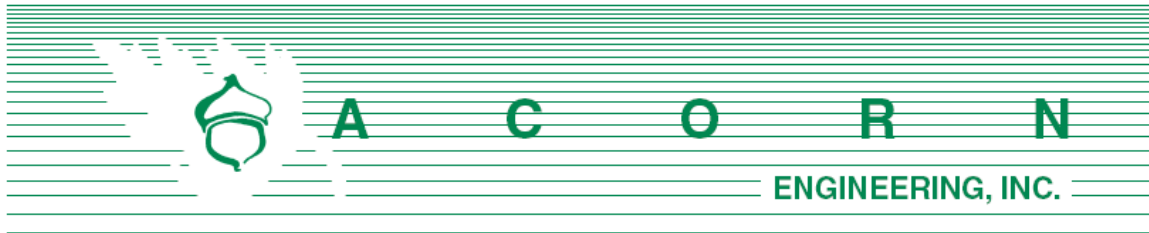
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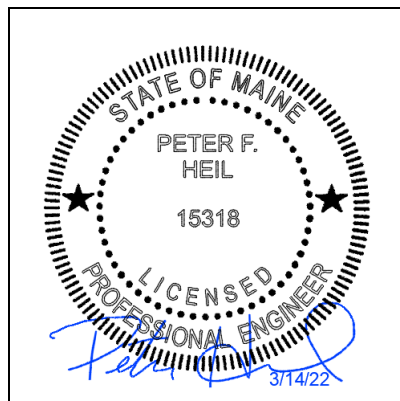
Section 5: EROSION & SEDIMENTATION CONTROL REPORT

Prepared For:

**Tom Watson & Co.
Portland, ME 04101**

Prepared By:

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March 2022

INTRODUCTION

Acorn Engineering, Inc. has been retained by Tom Watson & Co. to provide civil engineering services for the proposed redevelopment of 10, 20, and 30 Gooch Street. The project proposes to add a residential unit building with surface and covered parking to 10 Gooch, a residential unit building and townhomes with garage parking to 20 Gooch, and the redevelopment of the existing 30 Gooch building to accommodate a commercial use such as a brewery, taproom, brewpub, eatery, etc.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Biddeford Land Development Regulations, Article VI: Performance Standards, Section 26: Erosion Control and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The proposed project site is located at the corner of Elm Street and Gooch Street adjacent to the Saco River. An ALTA / NSPS Land Title Survey has been prepared by Own Haskell Inc. Falmouth; Maine dated May 26, 2021.

Abutting Uses:

- | | | |
|---------|-------|-----------------------|
| ➤ North | N/A | Saco River |
| ➤ East | MSRD3 | Saco River |
| ➤ South | MSRD3 | Residential / Storage |
| ➤ West | MSRD3 | Commercial |

Gooch Street is a private ROW providing access to the eastern properties towards the river. The site is mostly impervious area (approx. 82%) currently being utilized as parking lots and building structures no longer in use. The existing grades on site are relatively flat with steeper slopes at the edge of the Saco River.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 1 - "K" Value		
Soils Type	Subsurface	Substratum
Urban Land (Ur)	0.27	0.27

The soil “K” values for the soils, listed above, show a low to moderate susceptibility to erosion. The site’s susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil “K” values for the soils show a low susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the proximity of the site to the Saco River.

1.2 Existing Erosion Problems

There are no signs of existing erosion.

1.3 Critical Areas

Portions of the site are mapped within the A8 Flood Zone per FEMA FIRM mapping, dated 5/15/84.

1.4 Protected Natural Resource

The site is located adjacent to the Saco River, which is a Protected Natural Resource. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

The previously approved existing building at 1 Gooch Street and Gooch Street, located across from the site, is currently under construction. Acorn is unaware of any other construction activity in the last 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project’s construction period:

- 2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:
- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
 - The thickness of the entrance stone layer shall be no less than 6 inches.
 - The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
 - Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.
- 2.1.2 Erosion control berm mix with hay bale reinforcement shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.
- 2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 Elm Street and Gooch Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6



inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.

- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be “toed” into the ground.
- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.
- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4” of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.



2.2.2 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.

2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be



anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.



- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.



6.1 Sediment Barriers

Hay bale barriers and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.



6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- 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.



7.0 **IMPLEMENTATION SCHEDULE**

The following implementation sequence is intended to maximize the effectiveness of the above-described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter erosion control berm with hay bale reinforcement
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence earthwork operations, associated with the roadway construction.
5. Commence installation of any utility work.
6. Continue earthwork and grading to subgrade as necessary for construction.
7. Complete installation of utilities.
8. Complete remaining earthwork operations.
9. Install sub-base and base gravels in paved areas.
10. Install paving, curbing and brickwork.
11. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
12. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
13. Touch up areas without a vigorous catch of grass with loam and seed.
14. Complete site signage and striping.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 **CONCLUSION**

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

9.0 **ATTACHMENTS**

- Temporary Seeding Plan
- Permanent Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.

Section 6: Traffic & Parking Overview

The project proposes to construct a 6-story building containing 55 residential units with a restaurant space on 10 Gooch Street, a 5-story 16-unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and change of use to the existing building located at 30 Gooch Street 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 119 spaces required. For 10 Gooch Street: $((1 \text{ space/D.U.} \times 55) + (0.05 \times 55)) + (1 \text{ space/3seats} \times 49 \text{ seats}) = 75 \text{ spaces}$. For 20 and 26 Gooch Street Parking: $((1 \text{ space/D.U.} \times 16) + (0.05 \times 16)) + ((1 \text{ space/D.U.} \times 11) = 28 \text{ spaces}$. For 30 Gooch Street $(1 \text{ space/3seats} \times 49 \text{ seats}) = 16 \text{ spaces}$. The project proposes to construct a total of 111 parking spaces to serve the development. 5 of the spaces located at 10 Gooch Street are to be designated for the 20 Gooch Street Apartment Building. The applicant will be requesting a waiver for parking requirements for the proposed commercial uses. It is anticipated that parking for these uses will be met by parking within the City parking garage on Pearl Street. The applicant will reach out to the parking garage manager to confirm availability within the garage and will provide additional information as part of the preliminary submission.



**MAINE DEPARTMENT OF
TRANSPORTATION
TRAFFIC MOVEMENT PERMIT
APPLICATION
REQUEST FOR SCOPING MEETING**

Gooch Street Redevelopment Project
Residential/Self Storage/Brewery/Restaurant

Biddeford, Maine

January 10, 2022

Submitted by:

T.Y. Lin International
12 Northbrook Drive
Building A, Suite One
Falmouth, Maine 04105

T.Y. LIN INTERNATIONAL

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE
ID#

Total Fees:
Date Received:

PERMIT APPLICATION - TRAFFIC

TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A

Please type or print:

This application is for: Traffic 100-200 PCE's ____
Traffic 200+ PCE's X

Name of Applicant Tom Watson & Co.

Address: 188 State Street, 3rd floor, Portland, ME 04101

Telephone: 207.590.2029

Name of local contact or agent: Thomas A. Errico, P.E., T.Y. Lin International

Address: 12 Northbrook Drive, Falmouth, Maine

Telephone: 207.347.4354

Name and type of development: Gooch Street Redevelopment Project – Residential/Self
Storage/Brewery/Restaurant

Location of development including road, street, or nearest route number: Gooch Street

City/Town/Plantation: Biddeford, County: York, Parcel #: Map 40 / Lots 55, 55-3, and 56

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes ____ No X

Was this development started prior to obtaining a traffic permit? Yes, Phase 1 of the project has been approved
by the City and did not trigger a TMP.

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)?

Yes X No ____

Is this project located within a compact area of an urban compact municipality? Yes X No ____

Is this development or any portion of the site currently subject to state or municipal enforcement action?

No

Existing DEP or MDOT permit number (if applicable): DEP Stormwater Management Law, L-29178-
NJ-A-N

Name(s) of DOT staff person(s) contacted concerning this application: N/A

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: N/A

CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: Thomas A. Errico

Re/Cert/Lic No.: ME 6618

Name (print): Thomas A. Errico, PE

Date: January 10, 2022

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

11

11 - 29 - 21

NOTICE OF INTENT TO FILE

Please take notice that Tom Watson & Co., 188 State Street, 3rd floor, Portland ME 04101, (207) 590-2029 is intending to file a Traffic Movement Permit application with the Maine Department of Transportation pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about January 10, 2022.

The application is for:

The development of 320 self-storage units, 166 residential units and 16,880SF of restaurant/brewery floor area. The project is expected to generate 61 trips during the weekday AM peak hour, 370 trips during the weekday PM peak hour and 283 trips during the Saturday peak hour. Access and egress will be via Gooch Street.

At the following location:

Lots 55, 55-3, and 56 Gooch Street in Biddeford, Tax Map 40

A request for a public hearing must be received by the Department, in writing, no later than 20 days after the application is found by the Department to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the Department of Transportation Division office in Scarborough during normal working hours. A copy of the application may also be seen at the municipal offices in **Biddeford, Maine**.

Written public comments may be sent to the Department of Transportation, Traffic Engineering Division, 16 State House Station, Augusta, Maine 04333.

SECTION 1 SITE AND TRAFFIC INFORMATION

1.A. Site Plan

The project consists of the following:

1 Gooch

- 320 Self-Storage Units
- 96 Residential Apartment Units
 - (80) 1-bedroom
 - (16) 2-bedroom

10 Gooch

- 44 Residential Apartment Units
- 2,000 SF, 49 seat bar/eatery

20 A Gooch

- 16 Condo Flats (all 2-bedroom)

20 B Gooch

- 10 Townhouse Condos (all 3-bedroom)

30 Gooch (16,880 SF Mixed Use Retail)

- 7,600SF Brewery (30 employees)
- 3,800SF Bar/Eatery (4 employees)
- 3,800SF Bar Eatery (10 employees)

Parking for the project will be provided on-site off of Gooch Street. A site plan prepared by Acorn Engineering Inc. is attached.

1.B. Existing and Proposed Site Uses

The project site is located on Gooch Street located off Elm Street in Biddeford. The parcels to be developed are identified on Biddeford Tax Map #40: Lots 55, 55-3, and 56. 1 Gooch Street is currently under construction. The remaining site area is vacant and as noted above will consist of self-storage, residential and restaurant/bar/brewery land uses.

1.C. Site and Vicinity Boundaries

Figure 1 depicts a location map illustrating roads in the vicinity of the project.

1.D. Proposed Uses in the Vicinity of the Proposed Development

TYLI has contacted the Biddeford Planning office for proposed developments that may impact the study area. Projects that have been approved and not occupied will be included as background traffic in the analysis. Riverdam has a TMP and 3 Lincoln Street is currently in the TMP permit process. Trip Assignments from those projects are provided in the Appendix.

1.E. Trip Generation

Trip generation from the site was based upon information contained in the Trip Generation Manual, Institute of Transportation Engineers, 10th Edition. **Table 1** summarizes Weekday AM and PM peak hour traffic volumes

(see Appendix for supporting information). Traffic generated by the proposed project was based on Land Use Code 221 Multifamily Housing (Mid-Rise), Land Use Code 932 High-Turnover (Sit-Down Restaurant) and Land Use Code 151 Mini-Warehouse. The following summarizes the trip generation rates and trip distribution used for the project.

- Land Use Code 221 Multifamily Housing (Mid-Rise)
 - AM Peak Hour of Generator
 - Average Rate Per – 0.32 per unit
 - **$\text{Ln}(T) = 0.83 \text{Ln}(X) - 0.27$ [used for this Application]**
 - Directional Distribution: 20% Entering, 73% Exiting
 - PM Peak Hour of Generator
 - Average Rate Per – 0.41 per unit
 - **$\text{Ln}(T) = 0.83 \text{Ln}(X) - 0.05$ [used for this Application]**
 - Directional Distribution: 60% Entering, 40% Exiting
 - Saturday Peak Hour of Generator
 - Average Rate Per – 0.44 per unit
 - **$T = 0.42(X) + 6.73$ [used for this Application]**
 - Directional Distribution: 49% Entering, 51% Exiting
- Land Use Code 932 High-Turnover (Sit-Down Restaurant)
 - AM Peak Hour of Generator
 - Average Rate Per – 0.59 per seat [Restaurant will not be open and thus excluded]
 - Equation not given
 - PM Peak Hour of Generator
 - **Average Rate Per – 0.73 per seat [used for this Application]**
 - Equation not given
 - Directional Distribution: 52% Entering, 48% Exiting
 - Saturday Peak Hour of Generator
 - **Average Rate Per – 0.53 per seat [used for this Application]**
 - Equation not given
 - Directional Distribution: 53% Entering, 47% Exiting
- Land Use Code 151 Mini-Warehouse
 - AM Peak Hour of Generator
 - Average Rate Per – 2.31 per storage units (100s)
 - **$T = 2.13(X) + 0.90$ [used for this Application]**
 - Directional Distribution: 58% Entering, 42% Exiting
 - PM Peak Hour of Generator
 - Average Rate Per – 2.40 per storage units (100s)
 - **$T = 1.95(X) + 2.14$ [used for this Application]**
 - Directional Distribution: 48% Entering, 52% Exiting
 - Saturday Peak Hour of Generator
 - Average Rate Per – 3.27 per storage units (100s)
 - **$T = 1.70(X) + 12.23$ [used for this Application]**
 - Directional Distribution: 56% Entering, 44% Exiting

Given the type of land uses proposed, internal capture trip activity will occur (residents dining at the restaurant or employees of the restaurant living in the proposed housing, as examples). To estimate the internal capture influence NCHRP 684 methods were used. The NCHRP 684 method estimates approximately a 7% reduction in the PM peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, and Saturday adjustments are not provided in the NCHRP 684 document no adjustments were included. Additionally, not all traffic generated by the project are new trips to area roadways. Some site trips comprise of “Pass-By” trips. According to ITE, a pass-by trip is made as an intermediate stop on the way from an origin to a

primary trip destination without a route diversion. Pass-By trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. According to ITE a Restaurant (Land Use Code 932) has an average Pass-By trip percentage of 43 percent. Saturday Pass-By percentages are not provided. To estimate a Saturday Pass-By percentages a comparison of PM and Saturday rates for all available land use codes in ITE was reviewed. On average, Saturday Pass-By percentages are 12 less as compared to the PM peak hour. Accordingly, a Pass-By percentage of 31% was used for Saturday conditions. As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 220 new trips during the afternoon peak hour and 225 new trips during the Saturday peak hour.

Table 1 Trip Generation Peak Hour of Generator									
	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Residential Apartment (166 Units)	14	39	53	41	27	68	37	39	76
Self-Storage (320 Units)	5	3	8	4	4	8	10	8	18
Restaurant/Brewery (16,880 SF) ¹	N/A	N/A	N/A	153	141	294	96	93	189
Sub-Total	19	42	61	198	172	370	143	140	283
Internal Capture Trips	N/A	N/A	N/A	-12	-12	-24	0	0	0
Total Entering and Exiting Site	19	42	61	186	160	346	143	140	283
Restaurant Pass-By Trips (43% PM and 31% SAT) ²	N/A	N/A	N/A	-63	-63	-126	-29	-29	-58
Total New Traffic	19	42	61	123	97	220	114	111	225

1 – The restaurant/brewery is not open during the morning peak hour

2 – Saturday Pass-By trips not provided in ITE. PM reduced according to comparison of other PM to Saturday uses.

1.F Trip Distribution

The assignment of trips to the area roadway system was based upon existing traffic volume patterns from traffic counts recently conducted along Elm Street and other traffic counts in the area. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Elm Street onto Gooch Street – 50%
- Right-turn from Elm Street onto Gooch Street – 50%

Exiting Trips

- Left-turn from Gooch Street onto Elm Street – 50%
- Right-turn from Gooch Street onto Elm Street – 50%

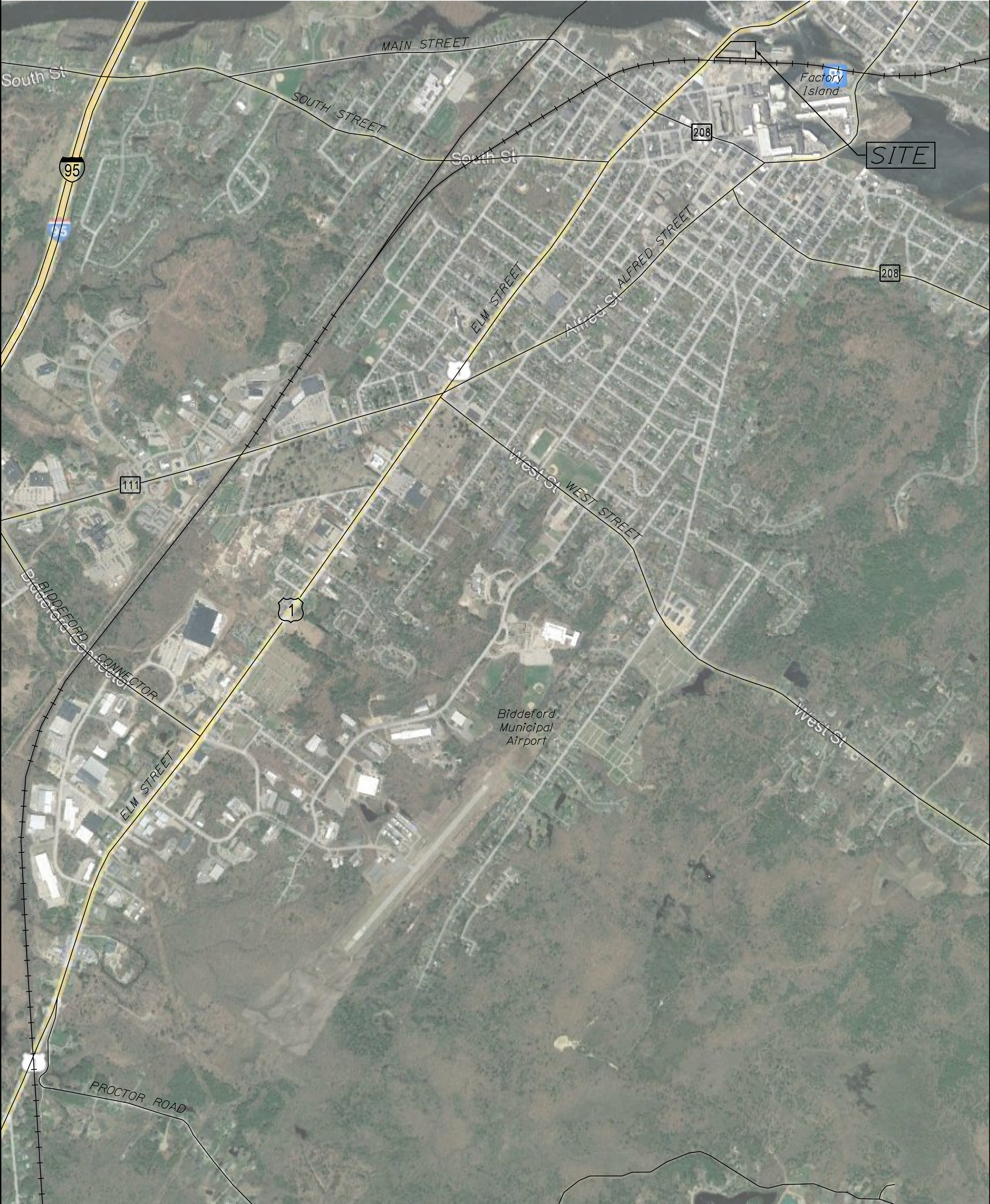
Trips distributed above were assigned to the Elm Street/Pine Street, Route 1/Lincoln Street/Water Street (Saco), Elm Street/Lincoln Street and Elm Street/Main Street intersections according to existing peak hour turning

movement volumes. The turning movements volumes are provided in the Appendix. Based upon the counts data the following assignment percentages were assumed.

- 25% to and from Pine Street
- 20% to and from Lincoln Street (Saco)
- 20% to and from Lincoln Street (Biddeford)
- 20% to and from Main Street to the west

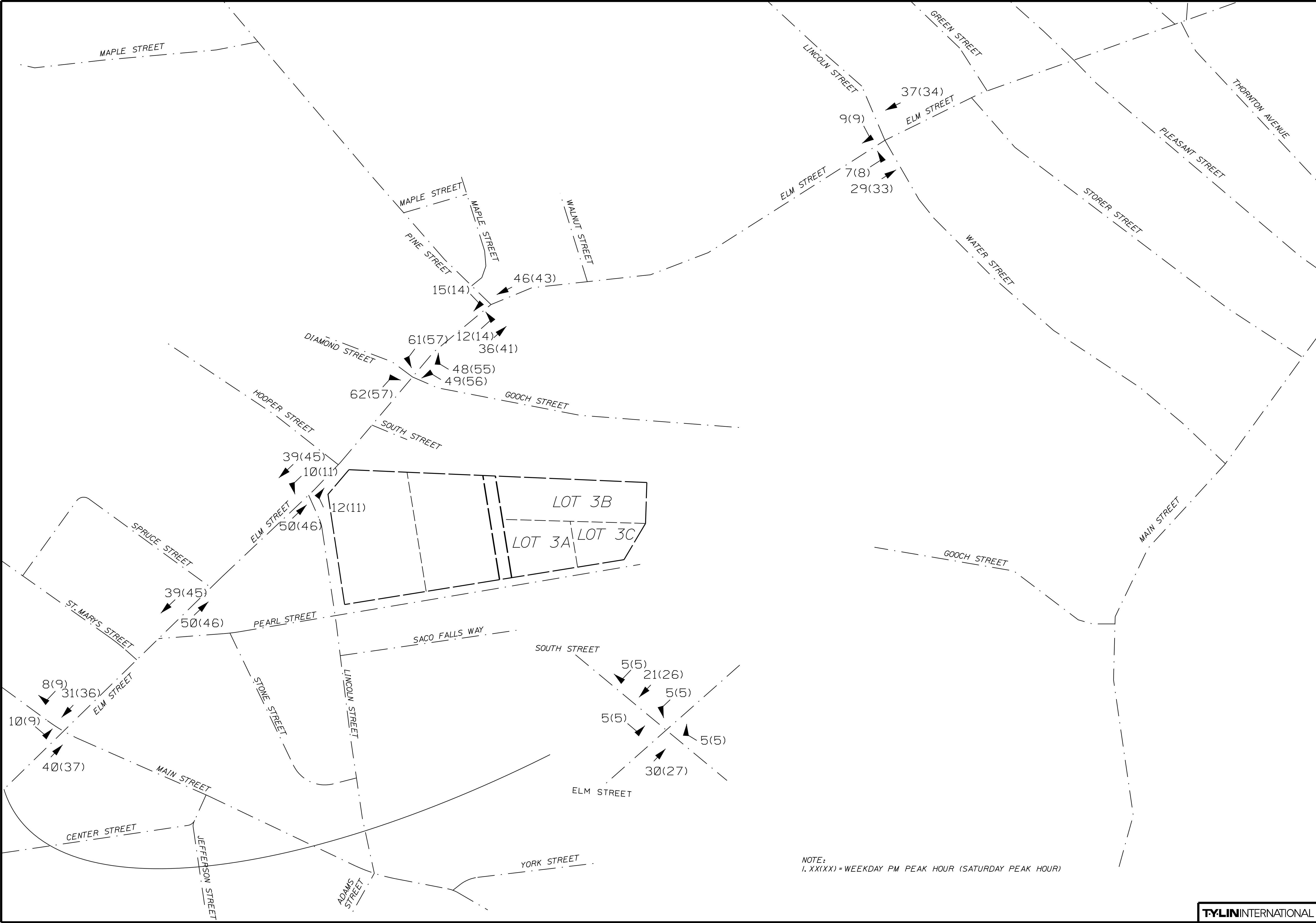
1.G Trip Assignment

Figures 2, 3 and 4 present the assignment of Primary, Pass-By and Total trips during the Weekday AM and PM peak hours and the Saturday peak hour.



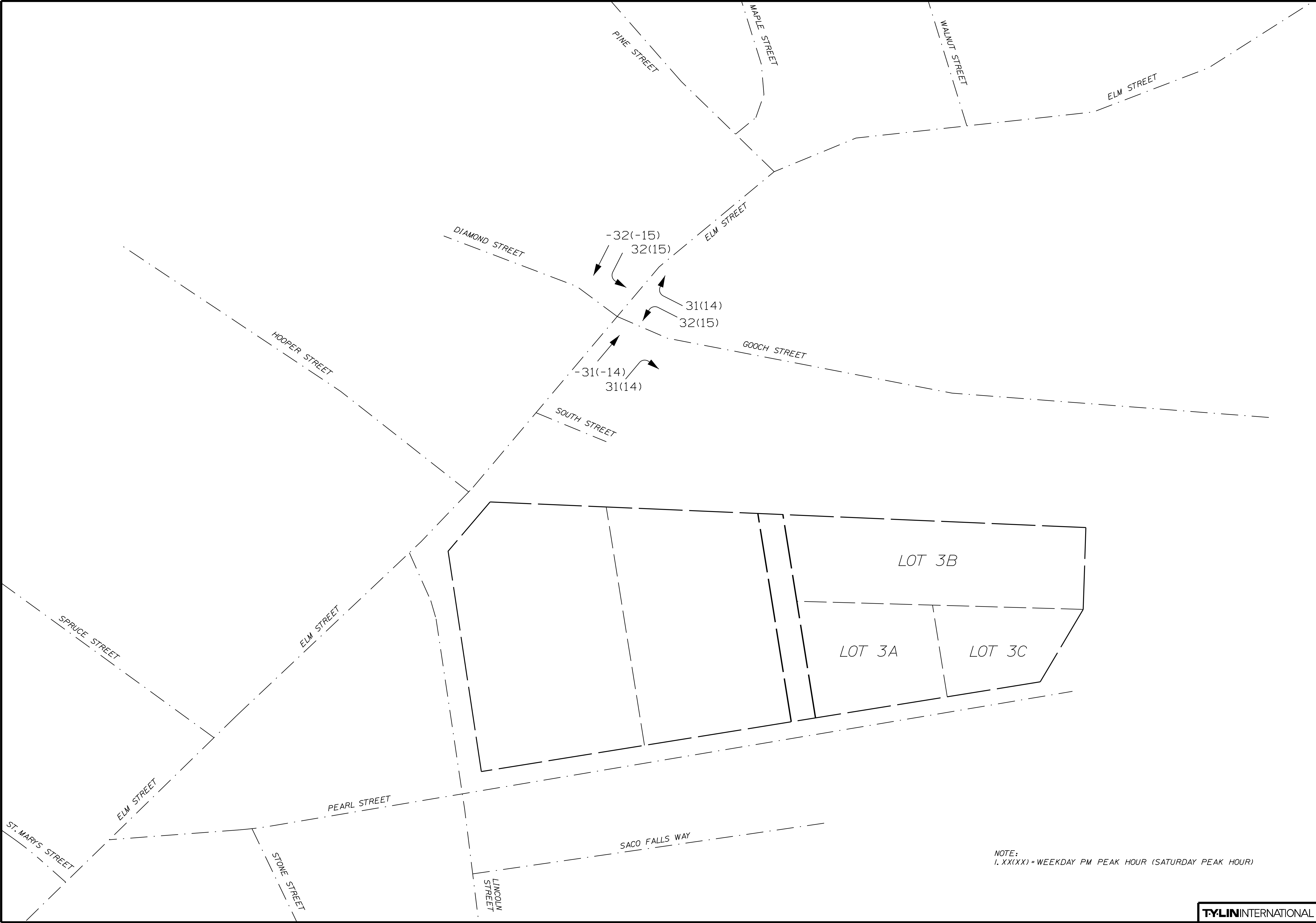
TYLININTERNATIONAL

FIGURE NUMBER 1	BIDDEFORD GOOCH ST REDEVELOPMENT	PROJ. MANAGER		T. ERRICO	BY	DATE	SIGNATURE	MaineDOT TMP APPLICATION
		DESIGN-DETAILED		S. DAVIS				
		CHECKED-REVIEWED						
		DESIGN2-DETAILED2						
		DESIGN3-DETAILED3						
	STUDY LOCATION PLAN	REVISIONS 1					P.E. NUMBER	
		REVISIONS 2						
		REVISIONS 3						
		REVISIONS 4					DATE	
		FIELD CHANGES						



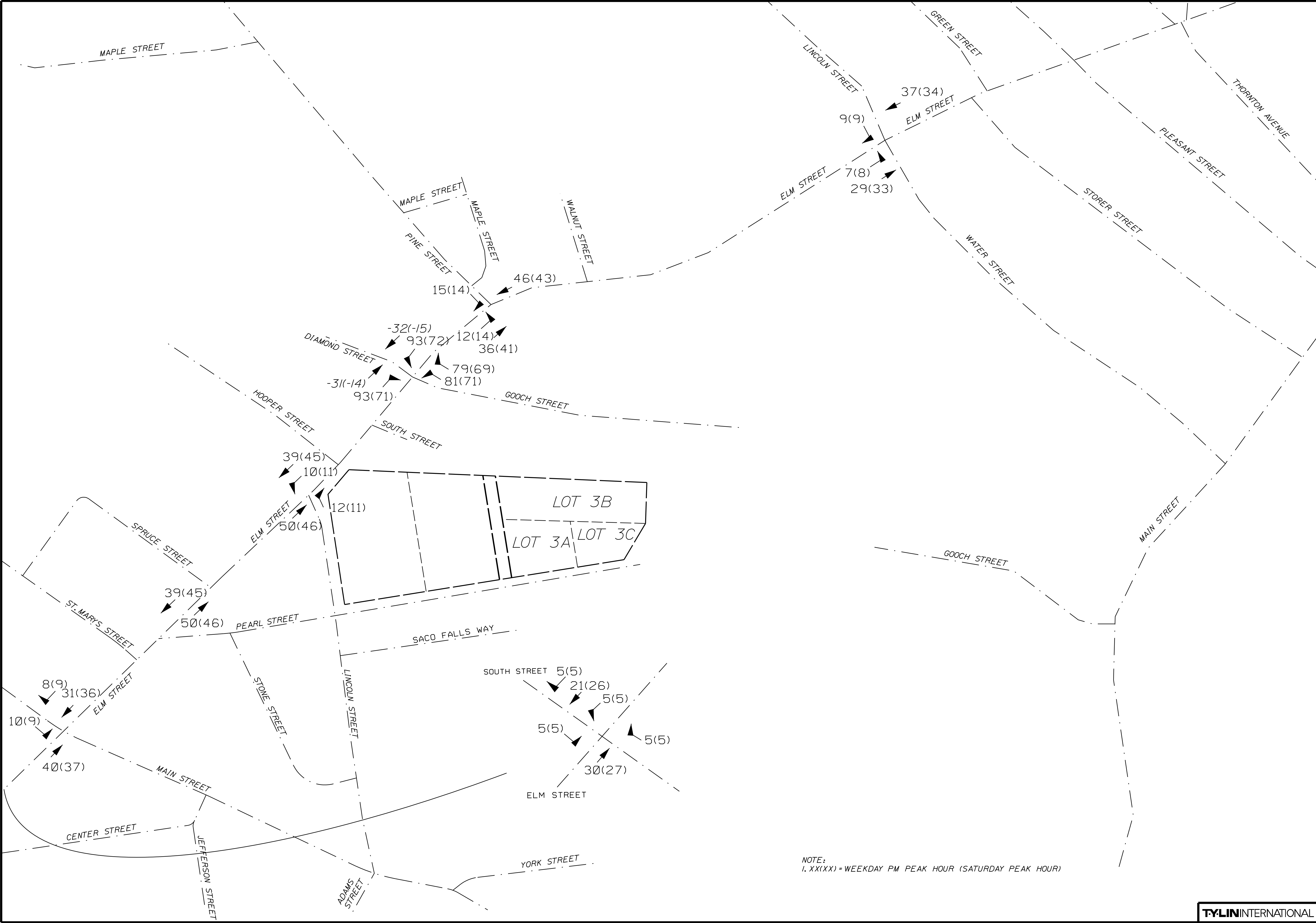
NOTE:
I, XX(XX) = WEEKDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

MaineDOT TMP APPLICATION	
BIDDEFORD GOOCH ST REDEVELOPMENT	
PRIMARY SITE TRIPS	
FIGURE NUMBER	
2	
PROJ. MANAGER T. ERICO S. DAVIS	BY DATE
CHECKED-REVIEWED DESIGNS-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE P.E. NUMBER DATE



NOTE:
1. XX(XX) = WEEKDAY PM PEAK HOUR (SATURDAY PEAK HOUR)

BIDDEFORD GOOCH ST REDEVELOPMENT		PROJ. MANAGER		T. ERICO		BY		DATE		SIGNATURE	
		DESIGN-DETAILED		S. DAVIS							
PASS-BY SITE TRIPS		CHECKED-REVIEWED								P.E. NUMBER	
		DESIGN-DETAILED2									
		DESIGN3-DETAILED3									
		REVISIONS 1									
		REVISIONS 2									
FIGURE NUMBER		REVISIONS 3								DATE	
		REVISIONS 4									
		FIELD CHANGES									
3		MaineDOT TMP APPLICATION									



TYLIN INTERNATIONAL

MaineDOT TMP APPLICATION		SIGNATURE		P.E. NUMBER		DATE	
BIDDEFORD GOOCH ST REDEVELOPMENT		PROJ. MANAGER	T. ERICO	BY	DATE	TOTAL SITE TRIPS	
		CHECKED-REVIEWED	S. DAVIS				
		DESIGNS-DETAILED					
		REVISIONS 1					
		REVISIONS 2					
FIGURE NUMBER		REVISIONS 3					
		REVISIONS 4					
4		FIELD CHANGES					

SECTION 2 ACCIDENTS

Computer crash reports and Collision Crash Diagrams for High Crash Locations (attached at the end of this section) were obtained from MaineDOT for the most recent available three-year period (2018-2020) for the following roadways in the vicinity of the project:

- Route 1/Elm Street – Main Street to Saco TL
- Pearl Street
- Lincoln Street
- Main Street – Lincoln Street to Elm Street

Table 2 summarizes the crash data at locations that are High Crash Locations (HCL) or close to meeting the criteria.

Table 2 Crash Data		
Location	2018-2020 Crashes	Critical Rate Factor
Elm Street/Main Street	22	0.94
Elm Street/St. Mary's Street	7	1.16
Elm Street/Spruce Street	17	0.92
Elm Street/Lincoln Street	9	1.32
Elm Street/Pine Street	14	2.00
Main Street/Lincoln Street/Adams Street	18	4.31
Main Street/Jefferson Street	8	2.90

As noted, there are four HCL's in the study area and a preliminary assessment is provided as follows:

- **Elm Street/Lincoln Street** – The crash diagram indicates turn crashes are the most prevalent type. Four crashes involved vehicles turning left onto Lincoln Street, one involving a vehicle turning left from Lincoln Street and one crash involving a motorist turning left into a nearby driveway. Traffic volumes turning left onto Lincoln Street are high as is the opposing volume on northbound Elm Street. Limited gaps may be contributing to crashes. While it is an HCL, only 9 crashes were reported. Sight distance is adequate. A mitigation improvement strategy is not evident at this time.
- **Elm Street/Pine Street** – A number of different types of crashes were reported at this location. Three rear-end collisions occurred on eastbound Elm Street; two angle crashes involving right-turns from Pine Street; Three single vehicle crashes; one crash involving a pedestrian; one crash avoiding a bicyclist; and two crashes involving movements to and from Pine Street. There was not a specific pattern that would warrant a mitigation improvement strategy.
- **Main Street/Lincoln Street/Adams Street** - This location was reviewed in conjunction with the Riverdam Redevelopment project and the TMP required mitigation (four-way STOP) to address safety deficiencies. It is our understanding the improvements have been implemented.
- **Main Street/Jefferson Street** – Four of the crashes involved vehicles turning from Jefferson Street. Two crashes involved bicyclists on the Jefferson Street crosswalk. It is likely parked vehicles obstructed sight for motorists turning off Jefferson Street. Recent improvements that tightened the intersection likely prevent vehicles from parking too close to the intersection and thus have reduced crashes. I would note that there are mailboxes on the southeast corner that do impact sight, and relocation may make sense. While it is an HCL, only 8 crashes were reported.

A request was made by MaineDOT to include a review of crash data at the Elm Street/Spruce Street, Elm Street/Main Street and Elm Street/Storer Street (Saco) intersections. Crash diagrams are provided in the appendix and a summary of patterns and potential mitigation strategies are noted below.

Elm Street/Storer Street (Saco) – This location had 9 crashes and a Critical Rate Factor of 1.62 for the three-year period 2018 to 2020. Five of the crashes were rear-end collisions with no specific contributing factor (following too close). No correctible pattern was identified. It is a complicated intersection area with an off-set intersection and nearby business driveways.

Elm Street/Spruce Street – This location had 17 crashes and a Critical Rate Factor of 0.92 for the three-year period (it is just under the criteria for a HCL). There are two distinct patterns for a review of the crash diagram. Five crashes involved vehicles turning left from Spruce Street and southbound Elm Street vehicles. Nine crashes were rear-end collisions on the Elm Street southbound approach. It does appear the signal head visibility is obstructed for vehicles approaching the intersection from the north on Elm Street and may be the key contributing factor.

Elm Street/Main Street – This location had 22 crashes and a Critical Rate Factor of 0.94 for the three-year period (it is just under the criteria for a HCL). The most prevalent crash pattern are rear end collisions, with the second pattern type being lane change collisions. Two factors may be contributing to the crashes. The approach and lane widths appear to be narrow and only one signal head for Elm Street through traffic is located on the mast arm with the other be post mounted (thus providing less than ideal signal head visibility). Additionally, lane assignment signs are not provided and having signs may improve motorists understanding of lane use.

Further analysis of these locations will be performed in conjunction with the Section 7 study.

SECTION 3
DEVELOPMENT ENTRANCES AND EXITS

3.A. Entrance and Exit Location

The project will utilize Gooch Street to access the project. Parking will be provided via on-site parking areas with access off of Gooch Street.

3.B. Entrance Plan

The attached plans provide information on proposed driveways to be utilized for the project including sight distances and the posted speed limit. Sight distances for the project driveways are noted below.

Location	Measured Sight Distance (Feet)		Minimum Standard (Feet)
	Looking Left	Looking Right	
4-Story/10 Unit Driveway	Sight to End of Gooch Street	Sight to Elm Street	200'
5-Story/16 Unit Driveway	Sight to End of Gooch Street	Sight to Elm Street	200'
5-Story/44 Unit Driveway	Sight to End of Gooch Street	Sight to Elm Street	200'
1 Gooch Street	Sight to Elm Street	Sight to End of Gooch Street	200'

Additionally, MaineDOT requested that sight distance be measured at Gooch Street approaching Elm Street. Based upon field measurements there is 165 feet of sight to the north and 220 feet to the south (see graphic in the appendix. This items will need discussion at the scoping meeting.

SECTION 4
TITLE, RIGHT, OR INTEREST

A copy of the deed documenting ownership rights is in the Appendix.

SECTION 5
PUBLIC OR PRIVATE RIGHTS-OF-WAY

No new right-of-way is proposed as part of this project. All work will be conducted on private property.

SECTION 6
SCHEDULE

Construction of the project is expected to be completed in 2024.

APPENDIX

TRIP GENERATION

Multifamily Housing (Mid-Rise) (221)

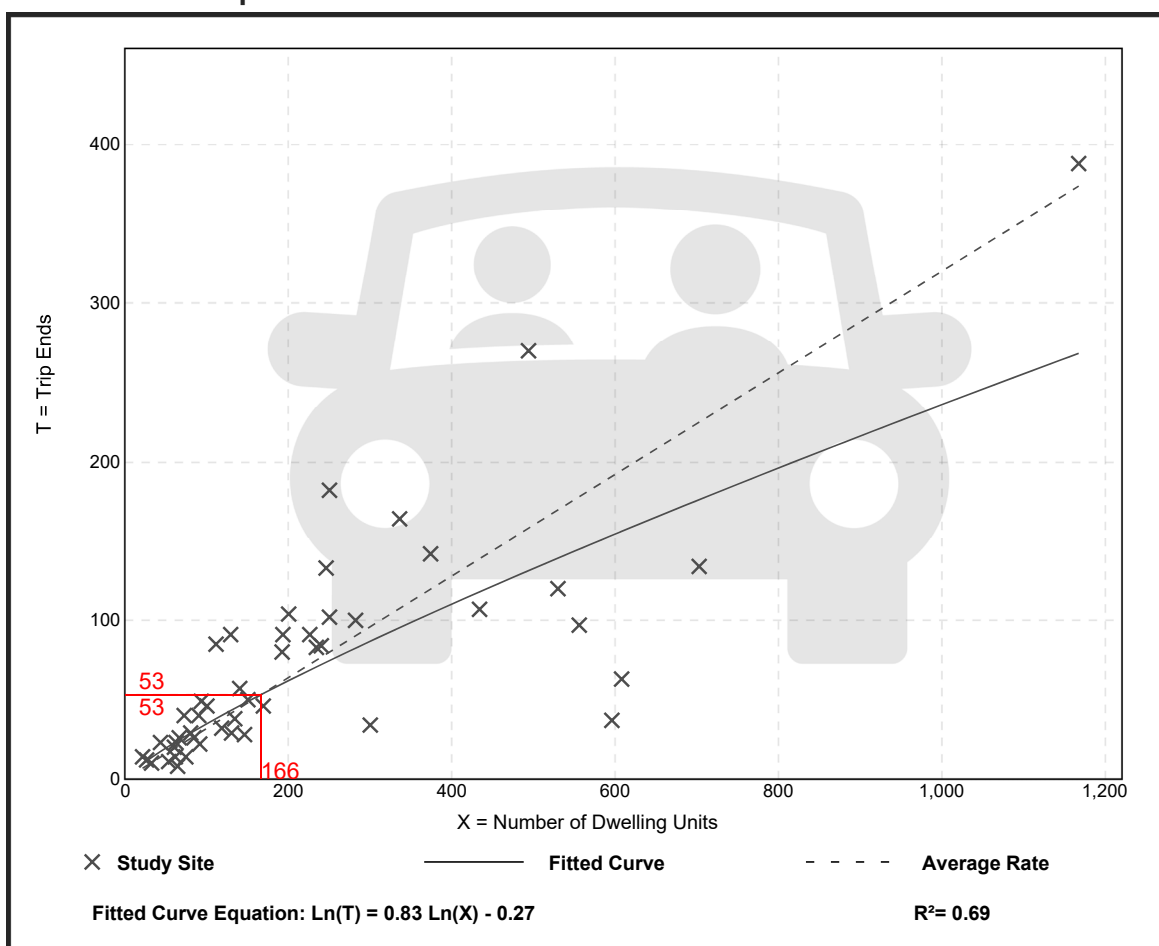
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 48
Avg. Num. of Dwelling Units: 225
Directional Distribution: 27% entering, 73% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.32	0.06 - 0.77	0.17

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise) (221)

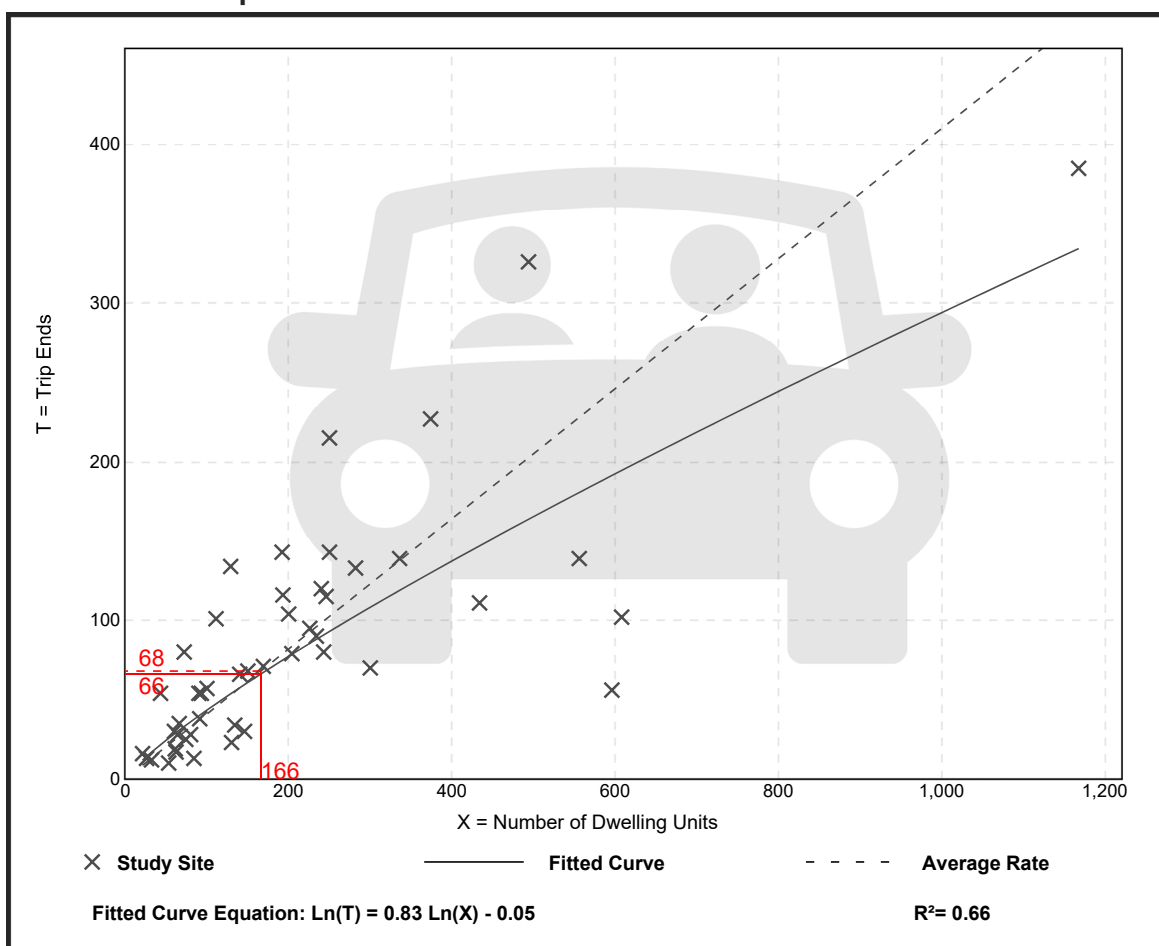
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 47
 Avg. Num. of Dwelling Units: 211
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.09 - 1.26	0.22

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Multifamily Housing (Mid-Rise) (221)

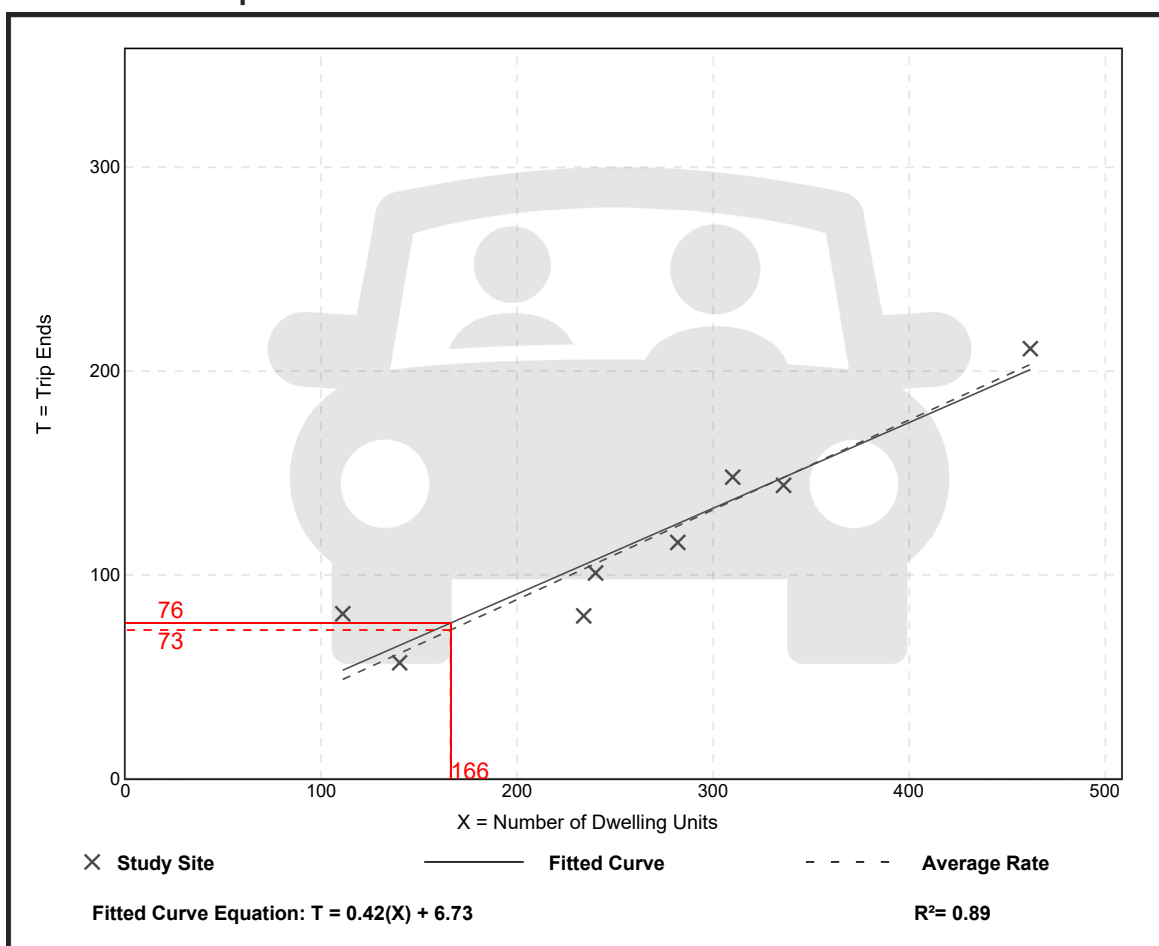
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. Num. of Dwelling Units: 264
Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.34 - 0.73	0.08

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

High-Turnover (Sit-Down) Restaurant (932)

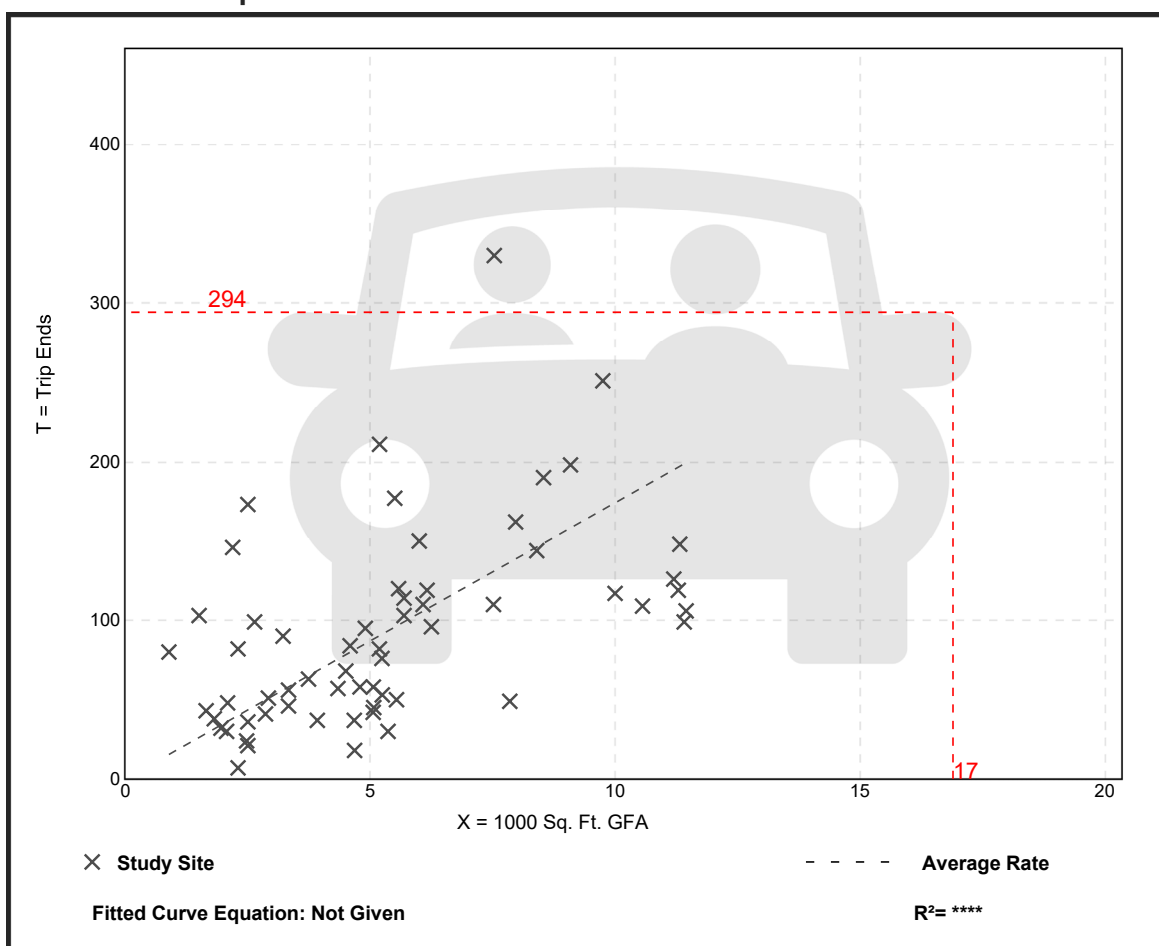
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 61
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
17.41	3.04 - 89.99	11.71

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

High-Turnover (Sit-Down) Restaurant (932)

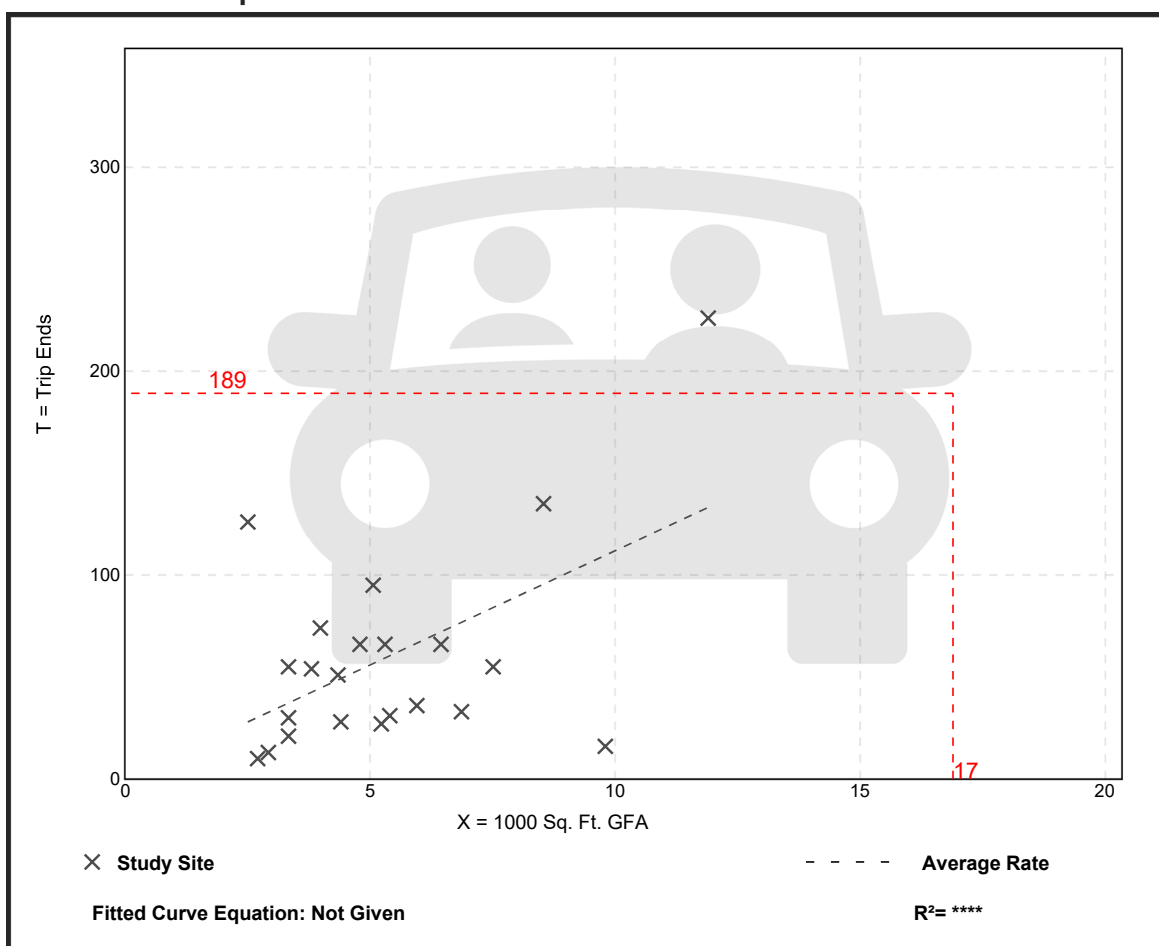
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.19	1.63 - 50.40	8.30

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Mini-Warehouse (151)

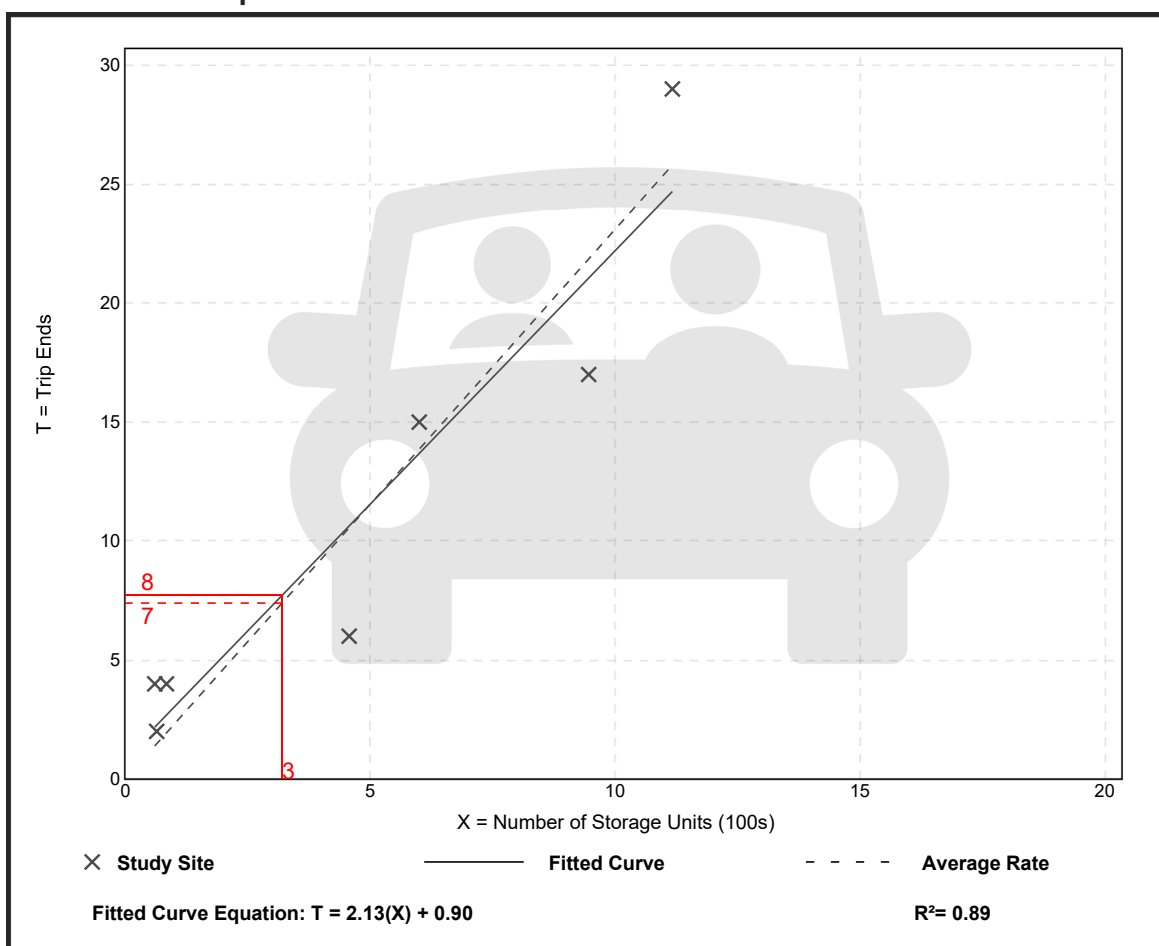
Vehicle Trip Ends vs: Storage Units (100s)
On a: Weekday,
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Storage Units (100s): 5
Directional Distribution: 58% entering, 42% exiting

Vehicle Trip Generation per Storage Unit (100s)

Average Rate	Range of Rates	Standard Deviation
2.31	1.31 - 6.67	0.94

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Mini-Warehouse (151)

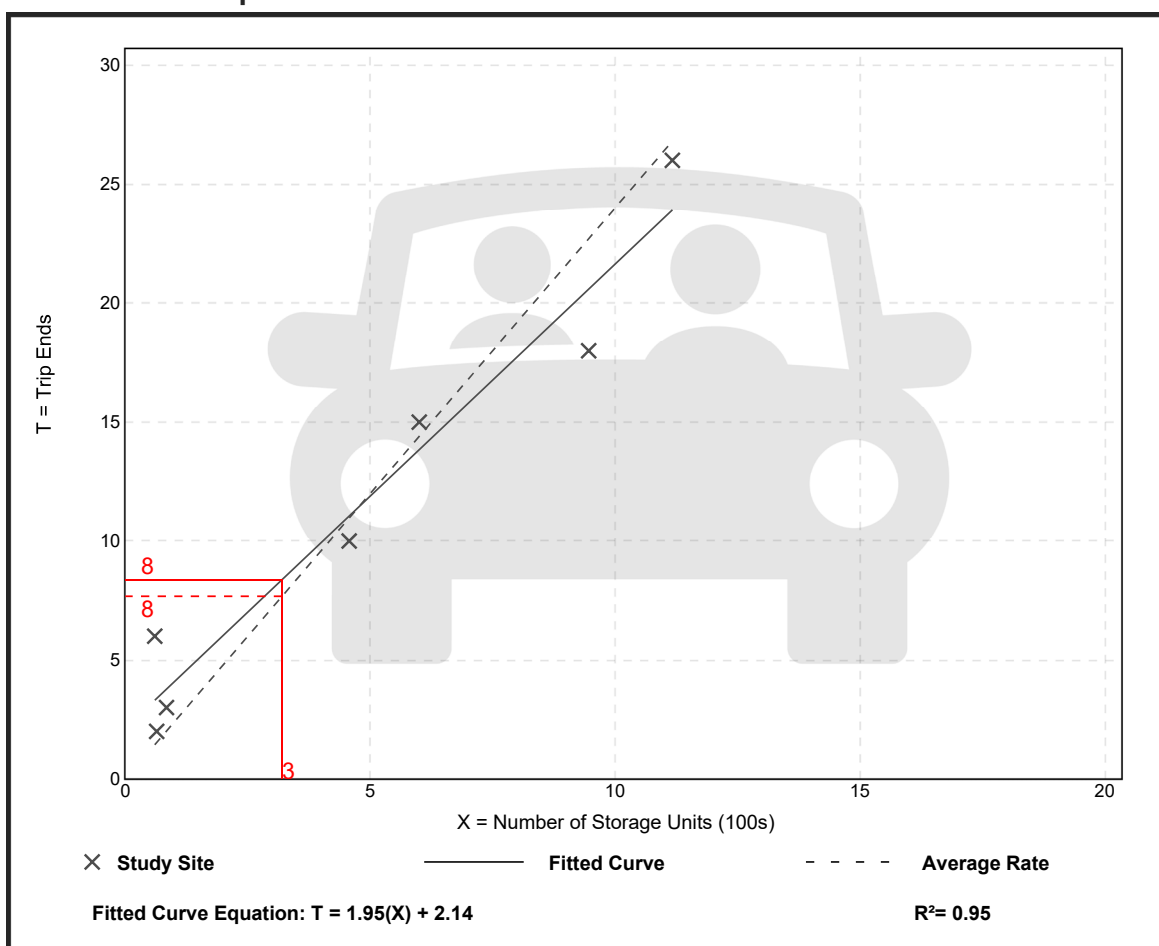
Vehicle Trip Ends vs: Storage Units (100s)
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Storage Units (100s): 5
Directional Distribution: 48% entering, 52% exiting

Vehicle Trip Generation per Storage Unit (100s)

Average Rate	Range of Rates	Standard Deviation
2.40	1.90 - 10.00	1.17

Data Plot and Equation



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

Mini-Warehouse (151)

Vehicle Trip Ends vs: Storage Units (100s)
On a: Saturday, Peak Hour of Generator

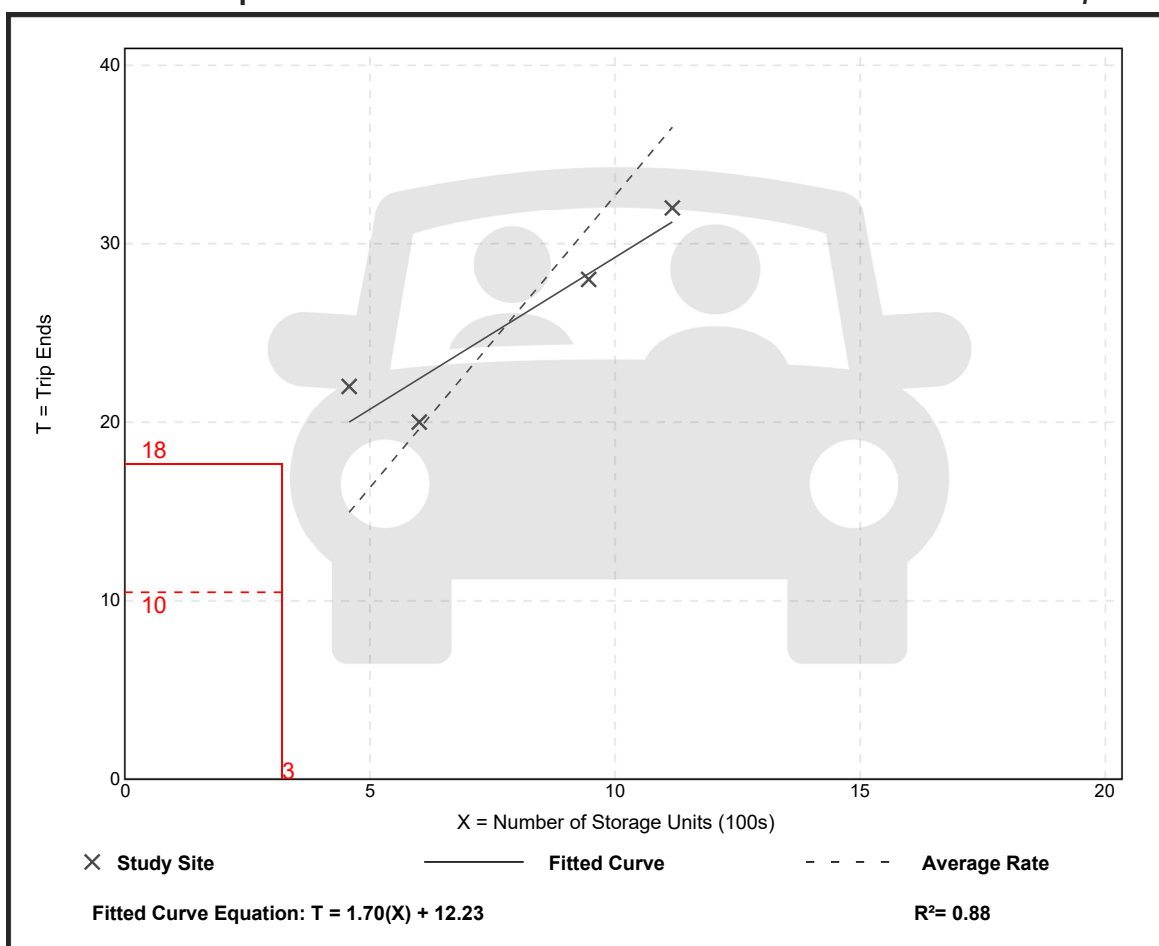
Setting/Location: General Urban/Suburban
 Number of Studies: 4
 Avg. Num. of Storage Units (100s): 8
 Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Storage Unit (100s)

Average Rate	Range of Rates	Standard Deviation
3.27	2.86 - 4.81	0.76

Data Plot and Equation

Caution – Small Sample Size



Trip Gen Manual, 10th Ed + Supplement • Institute of Transportation Engineers

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Gooch Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	7-Jan-22	
Analysis Year:	2023		Checked By:		
Analysis Period:	PM Peak Hour		Date:		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (<i>For Information Only</i>)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office						
Retail						
Restaurant	932	16,880	SF	294	153	141
Cinema/Entertainment						
Residential	221	166	Units	68	41	27
Hotel						
All Other Land Uses ²						
				362	194	168

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ. ⁴	% Transit	% Non-Motorized	Veh. Occ. ⁴	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant					500	
Cinema/Entertainment						
Residential			500			
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	7	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	5	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	362	194	168
Internal Capture Percentage	7%	6%	7%
External Vehicle-Trips ⁵	338	182	156
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	3%	5%
Cinema/Entertainment	N/A	N/A
Residential	17%	19%
Hotel	N/A	N/A

¹ Land Use Codes (LUCs) from <i>Trip Generation Manual</i> , published by the Institute of Transportation Engineers.
² Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
³ Enter trips assuming no transit or non-motorized trips (as assumed in ITE <i>Trip Generation Manual</i>).
⁴ Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
⁶ Person-Trips
*Indicates computation that has been rounded to the nearest whole number.
Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Gooch Street
Analysis Period:	PM Street Peak Hour

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends						
Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	0	0	1.00	0	0
Restaurant	1.00	153	153	1.00	141	141
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	41	41	1.00	27	27
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	4	58		11	25	10
Cinema/Entertainment	0	0	0		0	0
Residential	1	11	5	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	3	0	2	0
Retail	0		44	0	19	0
Restaurant	0	0		0	7	0
Cinema/Entertainment	0	0	5		2	0
Residential	0	0	19	0		0
Hotel	0	0	8	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)						
Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	5	148	153	148	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	7	34	41	34	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)						
Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles ¹	Transit ²	Non-Motorized ²
Office	0	0	0	0	0	0
Retail	0	0	0	0	0	0
Restaurant	7	134	141	134	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	22	27	22	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses ³	0	0	0	0	0	0

¹Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

²Person-Trips

³Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

CRASH DATA

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 56644 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of Elm St & Lincoln St

RTE # / RD #: 0001X

DATE DRAWN: 4/12/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

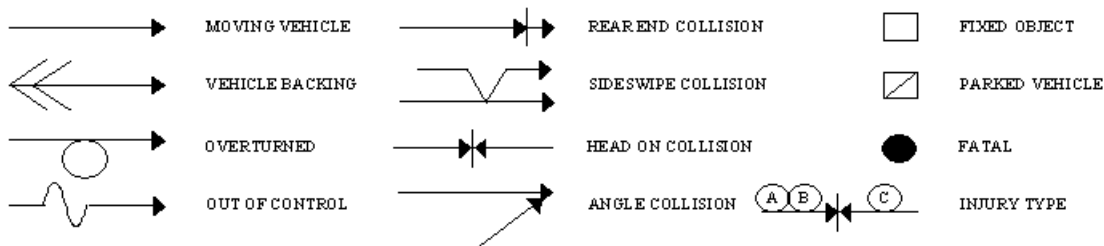
CRASH RATE: 0.49

CRF: 1.32

% INJURY: 33.3

TOTAL CRASHES: 9

LEGEND



--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

PAVEMENT: D - DRY, I - ICY, W - WET, S - SNOW

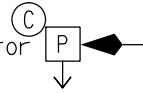
WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

TIME: A - AM, P - PM

Scrub A Dub Carwash

Elm St/US Rte 1

4083 2-1-19 8:30A W/C Ped Error



12742 5-28-20 11:35A D/C Fail To Yield

26719 9-19-18 1:50P D/CL Electronic Device

9795 3-26-18 4:15P D/C Fail To Yield

5600 2-11-18 9:55P D/C
Improper Turn

32523 12-22-20 2:20P W/C Fail To Yield

77915 12-23-19 2:25P D/C Fail To Yield

27590 9-26-18 1:30P D/CL Fail To Yield



4612 2-6-20 1:45P I/R Speed



guardrail

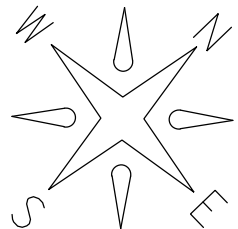
Biddeford

Node: 56644

Study Period: 2018-2020

of Crashes: 9 / CRF: 1.32

Prepared by Office of Safety (MP 4/12/21)



Lincoln St

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 56648 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of Elm St & Pine St

RTE # / RD #: 0001S

DATE DRAWN: 4/12/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

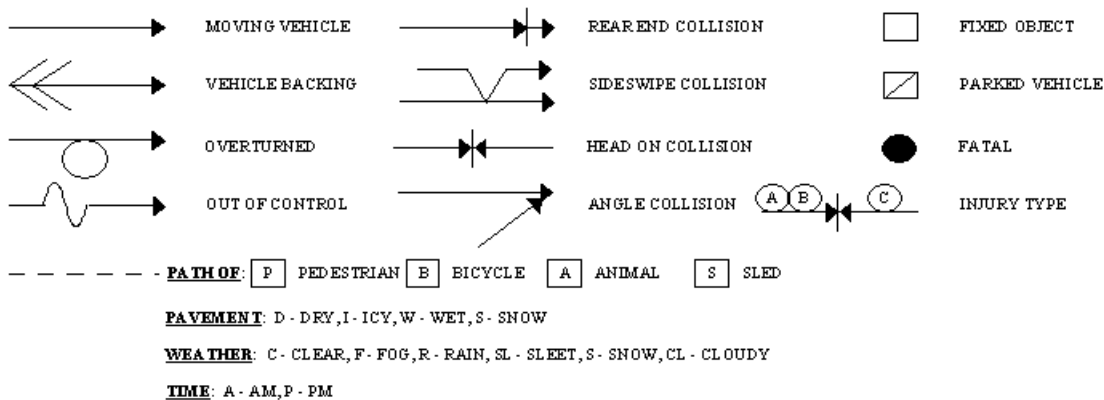
CRASH RATE: 0.74

CRF: 2

% INJURY: 14.3

TOTAL CRASHES: 14

LEGEND



Pine St.

Maple St.

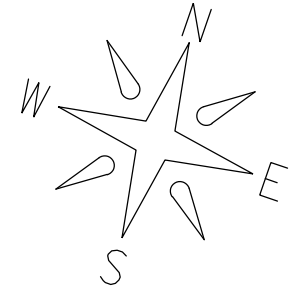
Biddeford

56648(P) 65575(A)

Study Period: 2018-2020

of Crashes: 14 /CRF: 2.00

Prepared by Office of Safety (MP 4/12/21)



65575



10347 4-18-20 6:05P D/C Fail To Yield
Yield

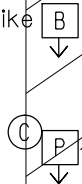
19260 7-15-18 11:35A
D/CL Fail To Yield

56648

bridge rail
curb

45838 3-14-19 5:40A
W/C Fail To Yield

9900 3-27-18 12:20A D/C Avoiding Bike



19203 7-13-18 2:45P D/C Follow Too Close

48375 4-1-19 6:50P D/C Internal Distraction

62147 8-14-19 9:55P D/C Reckless

56057 6-23-19 1:00P D/C Unknown

19398 8-14-20 9:50A D/C Fail To Yield

6586 2-22-18 3:20P W/S Fail To Yield

44312 3-4-19 6:50A S/S Follow Too Close

17886 7-29-20 1:20P D/C Follow Too Close

9257 3-31-20 6:15A D/C Follow Too Close

35037 11-21-18 10:00A D/CL
Fail To Keep In Lane

Elm St.

bridge

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 58493 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of Main St & Jefferson St

RTE # / RD #: 3110086 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

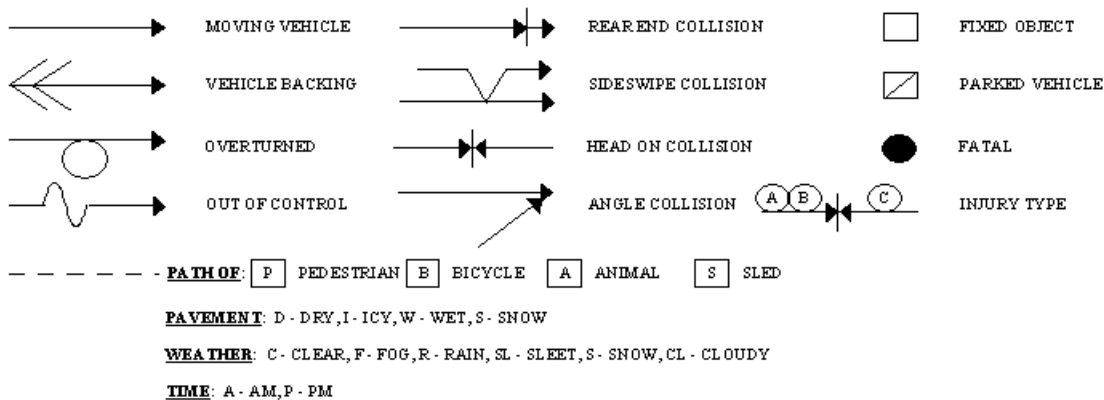
CRASH RATE: 1.39

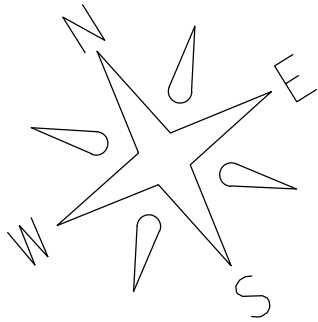
CRF: 2.9

% INJURY: 25

TOTAL CRASHES: 8

LEGEND





Biddeford

Node: 58493

Study Period: 2018-2020

of Crashes: 8 / CRF: 2.90

Prepared by Office of Safety (MP 4/9/21)

Main St.

city light pole

12286 4-12-18 1:00P D/C Other
swung wide leaving parking space

3870 1-23-20 12:30P D/CL Fail To Yield

5744 2-13-20 2:25P D/C Fail To Yield

2482 1-21-18 4:05P SL/CL Fail To Yield

23958 8-22-18 9:35A W/R Follow Too Close

Main St.

B B

30385 10-22-18 7:45A
D/C Bike Error

B C

56055 6-17-19 4:05P
D/C Fail To Yield

10542 4-23-20 3:25P D/C Fail To Yield

stop

Jefferson St.

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 58494 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of Main St & Adams St/Lincoln St

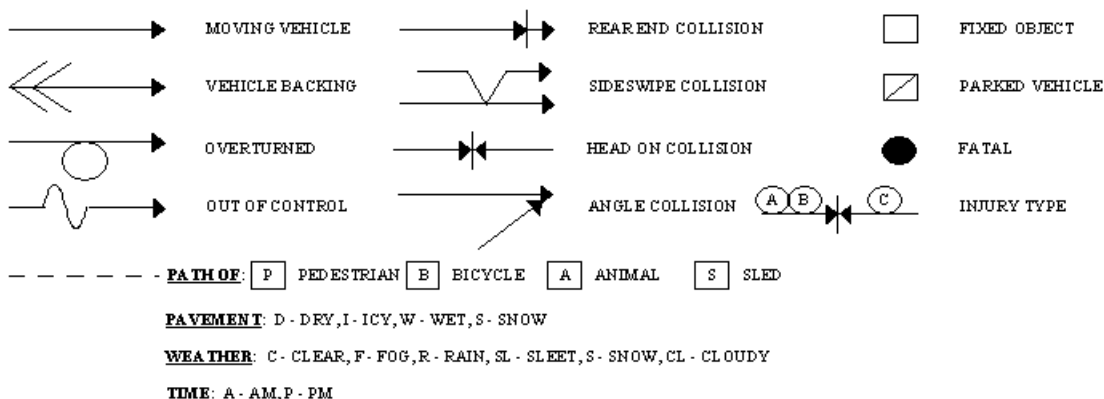
RTE # / RD #: 3110002 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

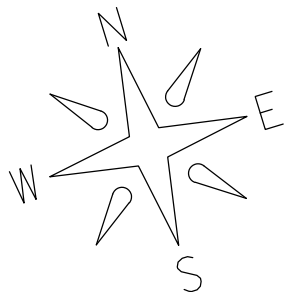
STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

CRASH RATE: 1.79 CRF: 4.31 % INJURY: 38.9 TOTAL CRASHES: 18

LEGEND





Lincoln St.

Biddeford

Node: 58494

Study Period: 2018-2020

of Crashes: 18 / CRF: 4.31

Prepared by Office Of Safety (MP 4/9/21)

Main St.

Stop

30178 11-25-20 5:10P W/C Fail To Yield
11452 5-8-20 5:10P D/C Fail To Yield
42153 12-20-18 11:25A D/C Follow Too Close

(C)

15562 6-1-18 6:20P D/C Fail To Yield
63625 8-26-19 2:55P D/C Fail To Yield

19654 7-18-18 4:25P D/C Ran Stop Sign

7978 3-13-20 12:10P W/R Fail To Yield

1135 1-8-20 1:45P D/C Fail To Yield

53999 5-31-19 12:10P D/CL Fail To Yield
M/C (B)
laid bike down

61572 8-13-19 5:05P D/CL Fail To Yield

36214 11-28-18 2:45P W/CL Fail To Yield (C)

52332 5-17-19 8:55P D/CL Fail To Yield

50613 4-22-19 3:05P D/C Fail To Yield

46554 3-22-19 5:30P W/R Fail To Yield (C)

18810 8-6-20 6:15P D/C Fail To Yield

796 1-5-18 2:10P
SL/CL Speed

22956 9-21-20 10:45A D/C Fail To Yield
32570 12-23-20 11:20A D/C Fail To Yield (C)

Main St.

Stop

Adams St.

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 56640 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct Rt 1 Elm St & Main St

RTE # / RD #: 0001X

DATE DRAWN: 12/28/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

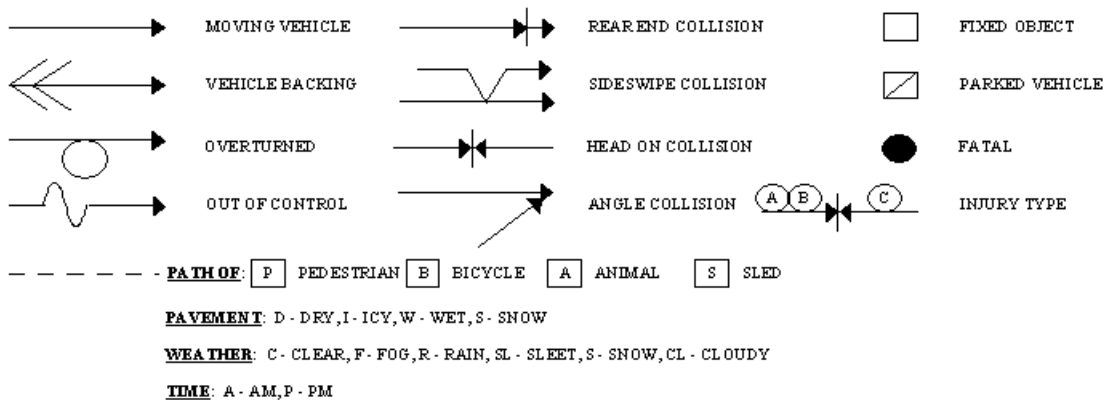
CRASH RATE: 1.19

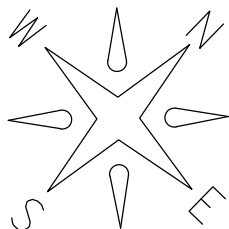
CRF: 0.94

% INJURY: 22.7

TOTAL CRASHES: 22

LEGEND





Main St

Biddeford

Node: 56640

Study Period: 2018-2020

of Crashes: 22 / CRF: .94

Prepared by Office of Safety (MP 12/28/21)

hydrant
sign
pole

55371 6-15-19 12:25P D/C Improper Turn
33341 11-9-18 7:45A D/C Follow Too Close

24597 8-31-18 12:15P D/C
Fail To Keep In Lane

14226 5-20-18 12:20A W/CL O.U.I.

Elm St
Rt 1

29417 10-14-18 10:45A D/C Fail To Keep In Lane

24444 8-29-18 7:40A D/C Fail To Keep In Lane

28218 10-3-18 4:05P D/CL Improper Pass

16926 7-16-20 3:15P D/C Follow Too Close

4273 2-3-18 2:00P D/CL Follow Too Close

7435 3-3-20 4:55P D/C Follow Too Close

26720 9-20-18 11:05A D/CL Sick

60751 8-3-19 6:25P D/C Inattention

18244 7-3-18 9:40A D/C Reckless

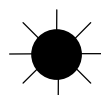
75620 11-5-19 10:10A D/CL Improper Pass

40132 12-13-18 4:35P D/C Fail To Keep In Lane

2354 1-21-18 12:30P W/CL Improper Pass

75912 10-11-19 12:30A D/C Wreckless

Elm St
Rt 1



= Traffic Signal

Main St

Getty Gas

(B) B →

(C)

8573 3-6-20 1:00P D/CL
Follow Too Close

13157 5-3-18 5:35P D/C Reckless

26718 9-17-18 12:35P D/C Reckless

26045 10-29-20 8:15A W/CL Ran Red Light

62154 8-17-19 2:25P D/CL Bike Error

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 56642 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct Rt 1 Elm St & Spruce St

RTE # / RD #: 0001X

DATE DRAWN: 12/29/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

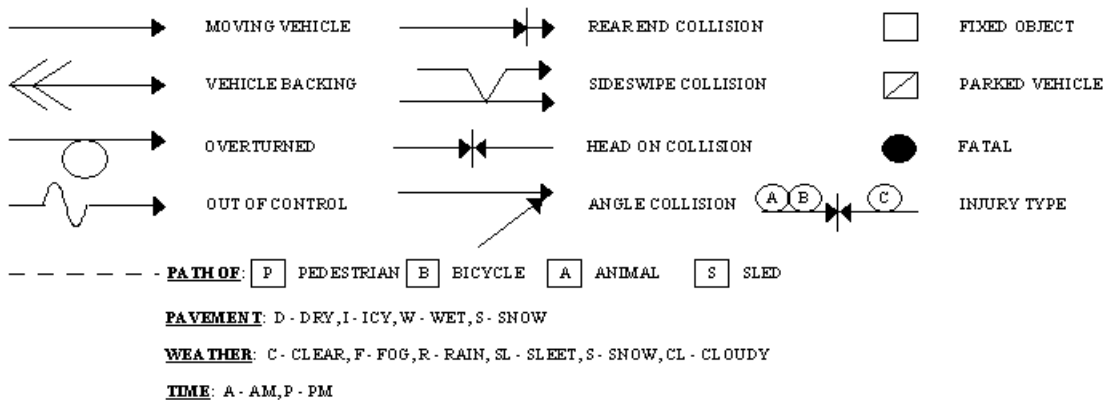
CRASH RATE: 1.24

CRF: 0.92

% INJURY: 35.3

TOTAL CRASHES: 17

LEGEND



Biddeford

Node: 56642

Study Period: 2018-2020

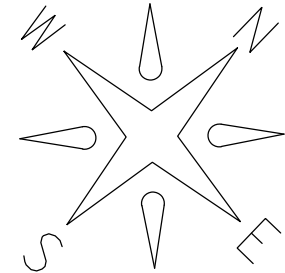
of Crashes: 17 / CRF: .92

Prepared by Office of Safety (MP 12/29/21)

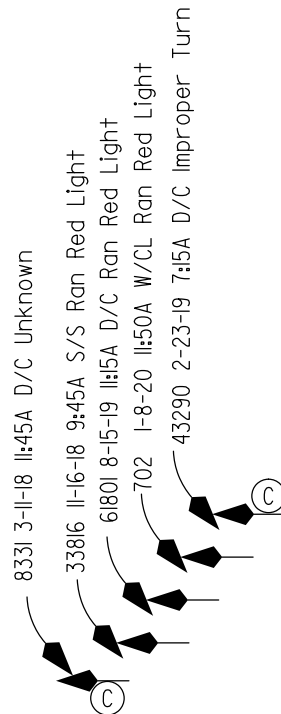
Car Care

Route 1 / Elm Street

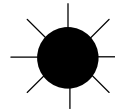
Spruce Street



Hardware Store



- 16921 7-15-20 6:20P D/C Follow Too Close
- 76072 12-8-19 3:45P D/CL Speed
- 56124 6-24-19 6:20P D/C Follow Too Close
- 16919 7-15-20 5:20P D/C Follow Too Close
- 19653 7-18-18 2:45P D/C Follow Too Close
- (C)(C) 60103 7-29-19 12:35P D/C Hit & Run
- (C)(C) 19353 8-13-20 1:45P D/CL Foot Slipped
- (C)(C) 29673 10-19-18 8:25A D/C Follow Too Close
- (C) 15773 7-1-20 5:35P D/C Follow Too Close



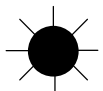
- 40107 12-15-18 7:10A D/C O.U.I./Follow Too Close
- 2950 1-26-18 7:40A D/C Hit & Run

20746 7-26-18 9:30P D/C Fail To Yield

Route 1 / Elm Street

#105

Rover Pizza



= Traffic Signal

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I
 ☐ Section Detail
 ☒ Crash Summary II
 ☐ 1320 Public
 ☐ 1320 Private
 ☐ 1320 Summary

REPORT DESCRIPTION

Biddeford
 Elm St./Lincoln St./Main St./Pearl St. Area

REPORT PARAMETERS

Year 2018, Start Month 1 through Year 2020 End Month: 12

Route: 0001X	Start Node: 56640 End Node: 56649	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☐ Exclude Last Node
Route: 3110126	Start Node: 58512 End Node: 58514	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 3110102	Start Node: 56644 End Node: 58494	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node
Route: 3110104	Start Node: 58494 End Node: 56640	Start Offset: 0 End Offset: 0	☐ Exclude First Node ☒ Exclude Last Node
Route: 0001S	Start Node: 58711 End Node: 56648	Start Offset: 0 End Offset: 0	☒ Exclude First Node ☒ Exclude Last Node

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary I

Nodes															
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF	
56640	0001X - 33.99	Int of ELM ST MAIN ST	9	22	0	0	1	4	17	22.7	6.161	1.19	1.27	0.94	
												Statewide Crash Rate:	0.77		
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	7	0	0	0	2	5	28.6	5.192	0.45	0.39	1.16	
												Statewide Crash Rate:	0.16		
58514	0001X - 34.05	Int of ELM ST PEARL ST	2	3	0	0	1	0	2	33.3	4.797	0.21	0.40	0.00	
												Statewide Crash Rate:	0.16		
56642	0001X - 34.09	Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	9	17	0	0	0	6	11	35.3	4.585	1.24	1.34	0.92	
												Statewide Crash Rate:	0.77		
58517	0001X - 34.13	Int of ELM ST THORNTON ST	2	0	0	0	0	0	0	0.0	4.588	0.00	0.40	0.00	
												Statewide Crash Rate:	0.16		
56644	0001X - 34.16	Int of ELM ST, LINCOLN ST	2	9	0	0	1	2	6	33.3	6.080	0.49	0.37	1.32	
												Statewide Crash Rate:	0.16		
56645	0001X - 34.19	Int of ELM ST HOOPER ST	2	1	0	0	0	0	1	0.0	6.086	0.05	0.37	0.00	
												Statewide Crash Rate:	0.16		
58519	0001X - 34.25	Int of DIAMOND ST ELM ST	2	6	0	0	2	2	2	66.7	6.084	0.33	0.37	0.00	
												Statewide Crash Rate:	0.16		
56647	0001X - 34.29	BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	2	0	0	0	0	0	0	0.0	2.972	0.00	0.45	0.00	
												Statewide Crash Rate:	0.16		
P56648	0001X - 34.31	Int of ELM ST PINE ST	2	14	0	0	0	2	12	14.3	6.277	0.74	0.37	2.00	
												Statewide Crash Rate:	0.16		
58711	0001X - 34.33	Non Int ELM ST	2	0	0	0	0	0	0	0.0	4.753	0.00	0.40	0.00	
												Statewide Crash Rate:	0.16		
56649	0001X - 34.48	TL - Biddeford, Saco	2	0	0	0	0	0	0	0.0	5.132	0.00	0.39	0.00	
												Statewide Crash Rate:	0.16		
58513	3110126 - 0.06	Int of PEARL ST STONE ST	2	0	0	0	0	0	0	0.0	0.519	0.00	0.63	0.00	
												Statewide Crash Rate:	0.15		
58512	3110102 - 0.07	Int of LINCOLN ST PEARL ST	2	1	0	0	0	0	1	0.0	2.008	0.17	0.47	0.00	
												Statewide Crash Rate:	0.15		
58515	3110102 - 0.17	Int of LINCOLN ST STONE ST	2	0	0	0	0	0	0	0.0	2.144	0.00	0.47	0.00	
												Statewide Crash Rate:	0.15		
58494	3110104 - 0.15	Int of ADAMS ST LINCOLN ST MAIN ST	2	18	0	0	2	5	11	38.9	3.353	1.79	0.41	4.31	
												Statewide Crash Rate:	0.15		
58493	3110104 - 0.25	Int of JEFFERSON ST MAIN ST	2	8	0	0	1	1	6	25.0	1.923	1.39	0.48	2.90	
												Statewide Crash Rate:	0.15		
Study Years: 3.00		NODE TOTALS:		106	0	0	8	24	74	30.2	72.654	0.49	0.33	1.46	

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF	
56640	56641	3130112	0 - 0.05	0001X - 33.99 US 1	0.05	2	3	0	0	0	1	2	33.3	0.00235	425.56	624.97	0.00
Int of ELM ST MAIN ST														Statewide Crash Rate: 230.30			
56641	58514	3114278	0 - 0.01	0001X - 34.04 US 1	0.01	2	0	0	0	0	0	0	0.0	0.00049	0.00	909.62	0.00
Int of ELM ST ST MARYS ST														Statewide Crash Rate: 230.30			
56642	58514	3130113	0 - 0.04	0001X - 34.05 US 1	0.04	2	1	0	0	1	0	0	100.0	0.00177	188.67	672.93	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD														Statewide Crash Rate: 230.30			
56642	58517	3944217	0 - 0.04	0001X - 34.09 US 1	0.04	2	0	0	0	0	0	0	0.0	0.00188	0.00	662.61	0.00
Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD														Statewide Crash Rate: 230.30			
56644	58517	3114282	0 - 0.03	0001X - 34.13 US 1	0.03	2	4	0	0	0	1	3	25.0	0.00133	1001.36	723.66	1.38
Int of ELM ST, LINCOLN ST														Statewide Crash Rate: 230.30			
56644	56645	3114280	0 - 0.03	0001X - 34.16 US 1	0.03	2	1	0	0	0	0	1	0.0	0.00179	186.48	670.90	0.00
Int of ELM ST, LINCOLN ST														Statewide Crash Rate: 230.30			
56645	58519	3937825	0 - 0.06	0001X - 34.19 US 1	0.06	2	2	0	0	0	0	2	0.0	0.00372	179.33	555.64	0.00
Int of ELM ST HOOPER ST														Statewide Crash Rate: 230.30			
56647	58519	3114285	0 - 0.04	0001X - 34.25 US 1	0.04	2	2	0	0	0	1	1	50.0	0.00238	280.41	623.08	0.00
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)														Statewide Crash Rate: 230.30			
56647	56648	2837611	0 - 0.02	0001X - 34.29 US 1	0.02	2	3	0	0	0	2	1	66.7	0.00119	841.23	744.72	1.13
BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)														Statewide Crash Rate: 230.30			
56648	58711	3139816	0 - 0.02	0001X - 34.31 US 1	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Int of ELM ST PINE ST														Statewide Crash Rate: 230.30			
56649	58711	3116620	0 - 0.15	0001X - 34.33 US 1	0.15	2	6	0	0	0	0	6	0.0	0.00744	268.98	469.63	0.00
TL - Biddeford, Saco														Statewide Crash Rate: 230.30			
58512	58513	239919	0 - 0.06	3110126 - 0 RD INV 31 10126	0.06	2	1	0	0	0	0	1	0.0	0.00012	2855.67	1776.07	1.61
Int of LINCOLN ST PEARL ST														Statewide Crash Rate: 411.49			
58513	58514	239921	0 - 0.04	3110126 - 0.06 RD INV 31 10126	0.04	2	1	0	0	0	0	1	0.0	0.00011	3064.57	1771.95	1.73
Int of PEARL ST STONE ST														Statewide Crash Rate: 411.49			
56644	58512	3114281	0 - 0.07	3110102 - 0 RD INV 31 10102	0.07	2	1	0	0	0	0	1	0.0	0.00123	270.11	615.24	0.00
Int of ELM ST, LINCOLN ST														Statewide Crash Rate: 180.89			
58512	58515	3114626	0 - 0.10	3110102 - 0.07 RD INV 31 10102	0.10	2	4	0	0	0	1	3	25.0	0.00206	647.69	540.79	1.20
Int of LINCOLN ST PEARL ST														Statewide Crash Rate: 180.89			
58494	58515	3132475	0 - 0.04	3110102 - 0.17 RD INV 31 10102	0.04	2	0	0	0	0	0	0	0.0	0.00066	0.00	706.27	0.00
Int of ADAMS ST LINCOLN ST MAIN ST														Statewide Crash Rate: 180.89			
58493	58494	4046830	0 - 0.06	3110104 - 0.15 RD INV 31 10104	0.06	2	6	0	0	1	1	3	40.0	0.00093	2147.29	657.37	3.27
Int of JEFFERSON ST MAIN ST														Statewide Crash Rate: 180.89			
58493	58494	4046830	0.06 - 0.10	3110104 - 0.21 RD INV 31 10104	0.04	2	0	0	0	0	0	0	0.0	0.00062	0.00	715.21	0.00
Int of JEFFERSON ST MAIN ST														Statewide Crash Rate: 180.89			

Crash Summary I

Sections																	
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	Injury Crashes				Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	58493	3114277	0 - 0.09	3110104 - 0.25	0.09	2	5	0	0	0	2	2	50.0	0.00162	1030.79	575.27	1.79
Int of ELM ST		MAIN ST		RD INV 31 10104		Statewide Crash Rate: 180.89											
58711	56648	3129094	0 - 0.02	0001S - 23.94	0.02	2	0	0	0	0	0	0	0.0	0.00045	0.00	922.12	0.00
Non Int ELM ST				US 1 SB		Statewide Crash Rate: 230.30											
Study Years:		3.00		Section Totals:		1.01	40	0	0	2	9	27	27.5	0.03258	409.23	338.05	1.21
				Grand Totals:		1.01	146	0	0	10	33	101	29.5	0.03258	1493.69	479.58	3.11

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
A	B	C	PD											
56640	56641	3130112	0 - 0.05	0001X - 33.99	3	0	0	0	1	2	2018-4672	02/07/2018	34.01	PD
											2019-44415	03/03/2019	34.02	C
											2018-25216	09/05/2018	34.02	PD
56641	58514	3114278	0 - 0.01	0001X - 34.04	0	0	0	0	0	0				
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0	2018-32156	10/30/2018	34.07	B
56642	58517	3944217	0 - 0.04	0001X - 34.09	0	0	0	0	0	0				
56644	58517	3114282	0 - 0.03	0001X - 34.13	4	0	0	0	1	3	2019-42440	02/15/2019	34.15	C
											2018-2357	01/21/2018	34.15	PD
											2020-20414	08/25/2020	34.15	PD
											2018-24502	08/24/2018	34.15	PD
56644	56645	3114280	0 - 0.03	0001X - 34.16	1	0	0	0	0	1	2018-3772	01/31/2018	34.18	PD
56645	58519	3937825	0 - 0.06	0001X - 34.19	2	0	0	0	0	2	2018-6440	02/21/2018	34.20	PD
											2019-46111	03/15/2019	34.24	PD
56647	58519	3114285	0 - 0.04	0001X - 34.25	2	0	0	0	1	1	2018-30221	10/23/2018	34.26	PD
											2018-18747	07/06/2018	34.28	C
56647	56648	2837611	0 - 0.02	0001X - 34.29	3	0	0	0	2	1	2020-15927	07/05/2020	34.30	C
											2020-16535	07/11/2020	34.30	C
											2020-25311	10/20/2020	34.30	PD
56648	58711	3139816	0 - 0.02	0001X - 34.31	0	0	0	0	0	0				
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	6	2018-26829	09/24/2018	34.34	PD
											2020-14282	06/11/2020	34.34	PD
											2018-22465	08/13/2018	34.39	PD
											2019-4073	01/25/2019	34.42	PD
											2019-75562	12/08/2019	34.43	PD
											2018-10382	04/02/2018	34.44	PD
58512	58513	239919	0 - 0.06	3110126 - 0	1	0	0	0	0	1	2020-6373	02/21/2020	0.01	PD
58513	58514	239921	0 - 0.04	3110126 - 0.06	1	0	0	0	0	1	2018-4617	02/06/2018	0.09	PD
56644	58512	3114281	0 - 0.07	3110102 - 0	1	0	0	0	0	1	2019-43804	02/18/2019	0.02	PD
58512	58515	3114626	0 - 0.10	3110102 - 0.07	4	0	0	0	1	3	2020-26347	10/31/2020	0.08	PD
											2019-48376	04/06/2019	0.09	C
											2019-67427	10/01/2019	0.16	PD
											2020-5056	02/13/2020	0.16	PD
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0	0	0	0	0	0				
58493	58494	4046830	0.06 - 0.10	3110104 - 0.15	0	0	0	0	0	0				

Crash Summary

Section Details

Section Details														
Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	Injury Crashes				Crash Report	Crash Date	Crash Mile Point	Injury Degree
							A	B	C	PD				
58493	58494	4046830	0 - 0.06	3110104 - 0.15	6	0	0	1	1	3	2018-7638	03/05/2018	0.20	PD
											2020-22459	09/18/2020	0.22	B
											2019-62667	08/24/2019	0.22	C
											2018-1561	01/16/2018	0.22	PD
											2018-32265	11/03/2018	0.23	
											2019-75926	10/21/2019	0.24	PD
56640	58493	3114277	0 - 0.09	3110104 - 0.25	5	0	0	0	2	2	2018-9686	03/17/2018	0.27	PD
											2018-26434	09/17/2018	0.28	PD
											2018-17433	06/23/2018	0.31	C
											2018-9357	03/19/2018	0.31	C
											2018-3953	02/02/2018	0.32	
58711	56648	3129094	0 - 0.02	0001S - 23.94	0	0	0	0	0	0				
Totals:					40	0	0	2	9	27				

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	AM											Hour of Day											PM											Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11											
SUNDAY	1	1	0	0	0	0	0	0	0	0	1	2	1	1	2	1	0	1	1	0	0	1	0	0	0	13									
MONDAY	0	0	0	0	0	0	1	1	1	0	3	0	3	1	3	4	3	2	2	0	0	0	0	0	0	24									
TUESDAY	1	0	0	0	0	0	1	0	0	1	4	1	1	3	1	1	3	1	0	1	0	1	0	0	0	20									
WEDNESDAY	0	1	0	0	0	0	0	1	0	1	2	4	2	4	2	0	4	3	1	0	0	1	0	0	0	26									
THURSDAY	0	0	0	0	0	1	0	0	1	0	0	4	1	4	1	3	2	1	1	0	0	1	0	0	0	20									
FRIDAY	1	0	0	0	0	1	2	3	2	3	0	0	3	2	3	0	1	4	1	0	1	0	0	1	0	28									
SATURDAY	0	0	0	0	0	0	0	1	1	1	0	1	1	0	2	1	1	1	2	2	0	0	1	0	0	15									
Totals	3	2	0	0	0	2	4	6	5	6	10	12	12	15	14	10	14	13	8	3	1	4	1	1	0	146									

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	137	23-Bicyclist	5
2-(Sport) Utility Vehicle	67	24-Witness	18
3-Passenger Van	8	25-Other	1
4-Cargo Van (10K lbs or Less)	6	26-Construction	0
5-Pickup	39	27-Farm Vehicle	0
6-Motor Home	0	Total	297
7-School Bus	1		
8-Transit Bus	1		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	1		
12-Moped	1		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	1		
17-Medium/Heavy Trucks (More than 10,000 lbs)	6		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	5		

Maine Department Of Transportation - Office of Safety, Crash Records Section

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	9	112	3	2	0	0	126
Ran Off Roadway	7	0	0	0	0	0	7
Failed to Yield Right-of-Way	38	0	0	0	0	0	38
Ran Red Light	4	0	0	0	0	0	4
Ran Stop Sign	1	0	0	0	0	0	1
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	1	0	0	0	0	0	1
Exceeded Posted Speed Limit	1	1	0	0	0	0	2
Drove Too Fast For Conditions	6	0	0	0	0	0	6
Improper Turn	3	0	0	0	0	0	3
Improper Backing	6	0	0	0	0	0	6
Improper Passing	3	0	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	34	0	1	0	0	0	35
Failed to Keep in Proper Lane	9	0	0	0	0	0	9
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	18	0	0	0	0	0	18
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	2	0	0	0	0	0	2
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	2	0	0	0	0	0	2
Unknown	1	1	0	0	0	0	2
Total	145	114	4	2	0	0	265

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	134	118	4	2	0	0	258
Physically Impaired or Handicapped	2	0	0	0	0	0	2
Emotional(Depressed, Angry, Disturbed, etc.)	1	1	0	0	0	0	2
Ill (Sick)	1	0	0	0	0	0	1
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	5	1	0	0	0	0	6
Other	0	0	0	0	0	0	0
Total	144	120	4	2	0	0	270

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	24	0	0	0	0	24
20-24	33	0	0	0	0	33
25-29	26	0	0	0	0	26
30-39	53	0	0	0	0	53
40-49	33	0	0	0	0	33
50-59	31	0	0	0	0	31
60-69	33	0	0	0	0	33
70-79	27	0	0	0	0	27
80-Over	5	0	0	0	0	5
Unknown	4	5	0	5	0	14
Total	269	5	0	5	0	279

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	1	38-Other Fixed Object (wall, building, tunnel, etc.)	2
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	0
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	1	Total	269
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	5		
10-Pedalcycle	5		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	231		
14-Parked Motor Vehicle	6		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	1		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	1		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	2		
22-Cable Barrier	0		
23-Culvert	1		
24-Curb	5		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	1		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	0		
32-Utility Pole / Light Support	6		
33-Traffic Sign Support	1		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post Pole or Support	0		

Traffic Control Devices		
Traffic Control Device	Total	
1-Traffic Signals (Stop & Go)	41	
2-Traffic Signals (Flashing)	1	
3-Advisory/Warning Sign	0	
4-Stop Signs - All Approaches	0	
5-Stop Signs - Other	60	
6-Yield Sign	9	
7-Curve Warning Sign	0	
8-Officer, Flagman, School Patrol	0	
9-School Bus Stop Arm	0	
10-School Zone Sign	0	
11-R.R. Crossing Device	0	
12-No Passing Zone	0	
13-None	32	
14-Other	3	
Total	146	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	10	11
C	33	42
PD	101	0
Total	144	53

Road Character	
Road Grade	Total
1-Level	98
2-On Grade	39
3-Top of Hill	1
4-Bottom of Hill	8
5-Other	0
Total	146

Light	
Light Condition	Total
1-Daylight	124
2-Dawn	2
3-Dusk	0
4-Dark - Lighted	19
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	146

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2018	2019	2020	Total
JANUARY	7	3	3	13
FEBRUARY	7	4	4	15
MARCH	6	6	4	16
APRIL	4	3	2	9
MAY	3	3	2	8
JUNE	3	5	2	10
JULY	7	1	7	15
AUGUST	5	8	5	18
SEPTEMBER	7	0	2	9
OCTOBER	6	3	3	12
NOVEMBER	5	3	2	10
DECEMBER	3	4	4	11
Total	63	43	40	146

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics**Crashes by Crash Type and Type of Location**

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Rear End - Sideswipe	13	0	20	29	0	6	1	0	0	0	0	0	0	0	69
Head-on - Sideswipe	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Intersection Movement	0	0	18	22	0	4	0	0	0	0	0	0	0	0	44
Pedestrians	1	0	2	1	0	1	0	0	0	0	0	0	0	0	5
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	5	2	4	2	0	2	0	0	0	0	0	0	0	0	15
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	2	2	0	1	0	0	0	0	0	0	0	0	5
Other	1	0	0	1	0	0	4	0	0	0	0	0	0	0	6
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	2	46	57	0	14	6	0	0	0	0	0	0	0	146

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

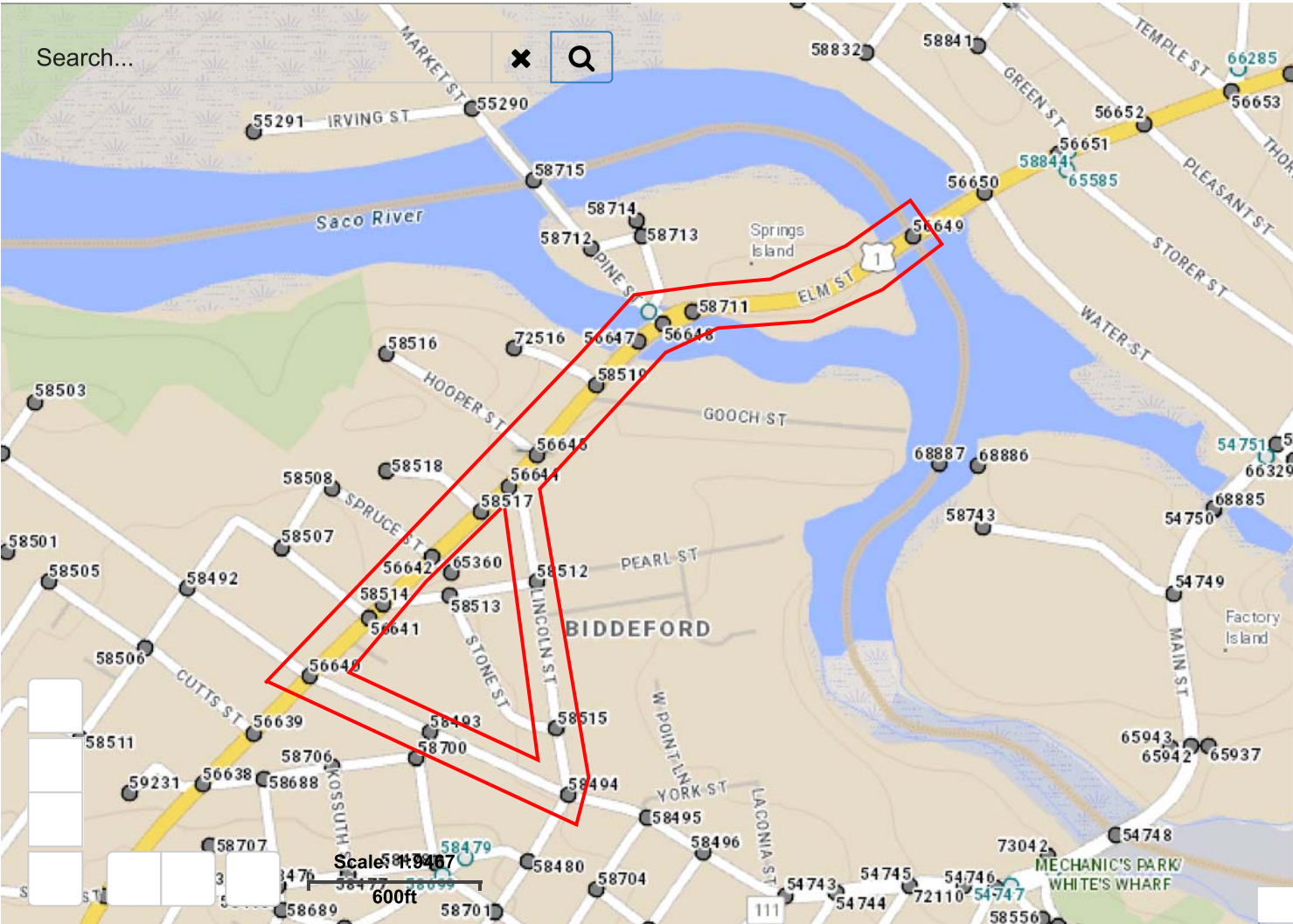
Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	13	0	0	0	0	0	0	0	0	0	2	15
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	0	1
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	1	0	0	0	0	0	0	0	0	0	1	2
Daylight	78	1	0	0	0	0	0	0	0	0	4	83
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	2	0	0	0	0	0	0	0	0	0	1	3
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	21	0	0	0	0	0	3	1	0	0	4	29
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	1	0	0	0	0	0	0	0	0	5	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics**Crashes by Weather, Light Condition and Road Surface**

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	4	0	0	2	6
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	116	2	0	0	0	0	3	6	0	0	19	146



H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: **YORK**

TOWN: **SACO**

LOW NODE: **56651** HIGH NODE: **0000**

REGION: **1**

U/R: **URBAN**

DESCRIPTION: **Jct of Elm St & Storer St/Green St**

RTE # / RD #: **0001X**

DATE DRAWN: **4/26/2021** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2018**

STUDY TO: **12/31/2020**

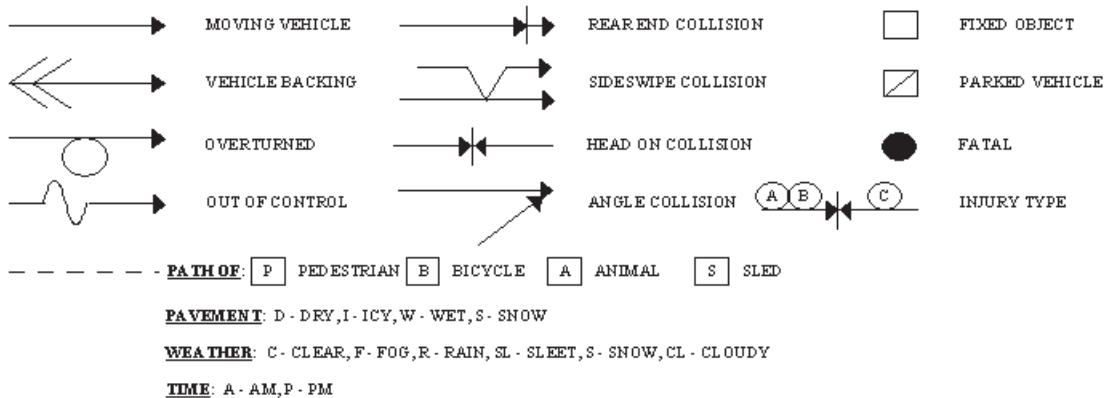
CRASH RATE: **0.65**

CRF: **1.62**

% INJURY: **0**

TOTAL CRASHES: **9**

LEGEND



Saco

Node: 56651(P) & 58844(A)

Study Period: 2018-2020

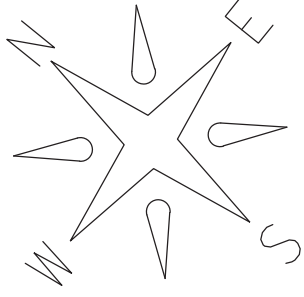
of Crashes: 9 / CRF: 1.62

Prepared by Office of Safety (MP 4/26/21)

Bob & Mikes

Stop

58844



Green St

Elm St

32824 12-22-20 3:08P D/C Follow Too Close

819 1-8-20 11:07A D/C Improper Turn

2817 1-17-20 3:28P D/CL Fail To Yield

71677 10-29-19 9:34A D/C Hit & Run

44247 2-28-19 3:41P D/C Follow Too Close

26167 10-29-20 12:39P D/CL Follow Too Close

Elm St

56651

Stop

Storer St



Report Selections and Input Parameters

REPORT SELECTIONS

☒ Crash Summary I - Single Node

☐ Section Detail

☒ Crash Summary II

☐ 1320 Public

☐ 1320 Private

☐ 1320 Summary

REPORT DESCRIPTION

Saco

Jct of Elm St & Storer St/Green St

REPORT PARAMETERS

Year 2018, Start Month 1 through Year 2020 End Month: 12

Route: 0001X

Start Node: 56651

End Node: 56651

Start Offset: 0

End Offset: 0

☐ Exclude First Node

☐ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	A	B	C	PD	Injury	Percent Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
P56651	0001X - 34.59	Int of ELM ST STORER ST	2	9	0	0	0	0	9	0.0	4.604	0.65	0.40	1.62
Statewide Crash Rate: 0.16														
Study Years: 3.00				9	0	0	0	0	9	0.0	4.604	0.65	0.40	1.62
NODE TOTALS:				9	0	0	0	0	9	0.0	4.604	0.65	0.40	1.62

Crash Summary II - Characteristics

Crashes by Day and Hour

Day Of Week	Hour of Day												PM												Un	Tot
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
SUNDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TUESDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	
WEDNESDAY	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	
FRIDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	4	
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Totals	0	0	0	0	0	0	0	0	0	1	0	1	2	0	1	3	1	0	0	0	0	0	0	0	9	

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	10	23-Bicyclist	0
2-(Sport) Utility Vehicle	5	24-Witness	0
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	26-Construction	0
5-Pickup	2	27-Farm Vehicle	0
6-Motor Home	0	Total	17
7-School Bus	0		
8-Transit Bus	0		
9-Motor Coach	0		
10-Other Bus	0		
11-Motorcycle	0		
12-Moped	0		
13-Low Speed Vehicle	0		
14-Autocycle	0		
15-Experimental	0		
16-Other Light Trucks (10,000 lbs or Less)	0		
17-Medium/Heavy Trucks (More than 10,000 lbs)	0		
18-ATV - (4 wheel)	0		
20-ATV - (2 wheel)	0		
21-Snowmobile	0		
22-Pedestrian	0		

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash							
Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	2	5	0	0	0	0	7
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	2	0	0	0	0	0	2
Ran Red Light	0	0	0	0	0	0	0
Ran Stop Sign	0	0	0	0	0	0	0
Disregarded Other Traffic Sign	0	0	0	0	0	0	0
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	0	0	0	0	0	0	0
Improper Turn	1	1	0	0	0	0	2
Improper Backing	0	0	0	0	0	0	0
Improper Passing	0	0	0	0	0	0	0
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	3	2	0	0	0	0	5
Failed to Keep in Proper Lane	0	0	0	0	0	0	0
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	0	0	0	0	0	0	0
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	0	0	0	0	0	0	0
Over-Correcting/Over-Steering	0	0	0	0	0	0	0
Other Contributing Action	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0
Total	8	8	0	0	0	0	16

Crashes by Apparent Physical Condition And Driver							
Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	8	8	0	0	0	0	16
Physically Impaired or Handicapped	0	0	0	0	0	0	0
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	0	0	0	0	0	0	0
Under the Influence of Medications/Drugs/Alcohol	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total	8	8	0	0	0	0	16

Driver Age by Unit Type					
Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV
09-Under	0	0	0	0	0
10-14	0	0	0	0	0
15-19	1	0	0	0	0
20-24	3	0	0	0	0
25-29	3	0	0	0	0
30-39	1	0	0	0	0
40-49	3	0	0	0	0
50-59	2	0	0	0	0
60-69	3	0	0	0	0
70-79	0	0	0	0	0
80-Over	1	0	0	0	0
Unknown	0	0	0	0	0
Total	17	0	0	0	0

Crash Summary II - Characteristics

Most Harmful Event				Injury Data		
Most Harmful Event	Total	Most Harmful Event	Total	Severity Code	Injury Crashes	Number Of Injuries
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0	K	0	0
2-Fire / Explosion	0	39-Unknown	0	A	0	0
3-Immersion	0	40-Gate or Cable	0	B	0	0
4-Jackknife	0	41-Pressure Ridge	0	C	0	0
5-Cargo / Equipment Loss Or Shift	0	Total	17	PD	9	0
6-Fell / Jumped from Motor Vehicle	0			Total	9	0
7-Thrown or Falling Object	0					
8-Other Non-Collision	0					
9-Pedestrian	0					
10-Pedalcycle	0					
11-Railway Vehicle - Train, Engine	0					
12-Animal	0					
13-Motor Vehicle in Transport	16					
14-Parked Motor Vehicle	0					
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0					
16-Work Zone / Maintenance Equipment	0					
17-Other Non-Fixed Object	0					
18-Impact Attenuator / Crash Cushion	0					
19-Bridge Overhead Structure	0					
20-Bridge Pier or Support	0					
21-Bridge Rail	0					
22-Cable Barrier	0					
23-Culvert	0					
24-Curb	0					
25-Ditch	0					
26-Embankment	0					
27-Guardrail Face	0					
28-Guardrail End	0					
29-Concrete Traffic Barrier	0					
30-Other Traffic Barrier	0					
31-Tree (Standing)	0					
32-Utility Pole / Light Support	0					
33-Traffic Sign Support	1					
34-Traffic Signal Support	0					
35-Fence	0					
36-Mailbox	0					
37-Other Post Pole or Support	0					

Traffic Control Devices		
Traffic Control Device	Total	
1-Traffic Signals (Stop & Go)	0	
2-Traffic Signals (Flashing)	0	
3-Advisory/Warning Sign	0	
4-Stop Signs - All Approaches	0	
5-Stop Signs - Other	7	
6-Yield Sign	0	
7-Curve Warning Sign	0	
8-Officer, Flagman, School Patrol	0	
9-School Bus Stop Arm	0	
10-School Zone Sign	0	
11-R.R. Crossing Device	0	
12-No Passing Zone	0	
13-None	2	
14-Other	0	
Total	9	

Road Character		
Road Grade	Total	
1-Level	9	
2-On Grade	0	
3-Top of Hill	0	
4-Bottom of Hill	0	
5-Other	0	
Total	9	

Light		
Light Condition	Total	
1-Daylight	9	
2-Dawn	0	
3-Dusk	0	
4-Dark - Lighted	0	
5-Dark - Not Lighted	0	
6-Dark - Unknown Lighting	0	
7-Unknown	0	
Total	9	

Crash Summary II - Characteristics**Crashes by Year and Month**

Month	2018	2019	2020	Total
JANUARY	0	0	2	2
FEBRUARY	0	1	0	1
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	0	0	0
AUGUST	0	0	1	1
SEPTEMBER	0	0	0	0
OCTOBER	1	1	1	3
NOVEMBER	0	0	0	0
DECEMBER	0	0	1	1
Total	2	2	5	9

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics**Crashes by Crash Type and Type of Location**

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	2	0	0	1	0	0	0	0	0	0	0	0	3
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	8	0	0	1	0	0	0	0	0	0	0	0	9

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	7	0	0	0	0	0	0	0	0	0	0	7
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	2	0	0	0	0	0	0	0	0	0	0	2
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	9	0	0	0	0	0	0	0	0	0	0	9

EXISTING TURNING MOVEMENT VOLUMES

Cover

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Study Name US 1 (Elm St), Main St, 05/08/2021

Study Description US 1 (Elm St), Main St, 05/08/2021 turning movement

Date of Survey Thursday, August 5, 2021

Time Period 06:00 - 18:00

Comments -

Location



Classes

Mcl

Car

Bus

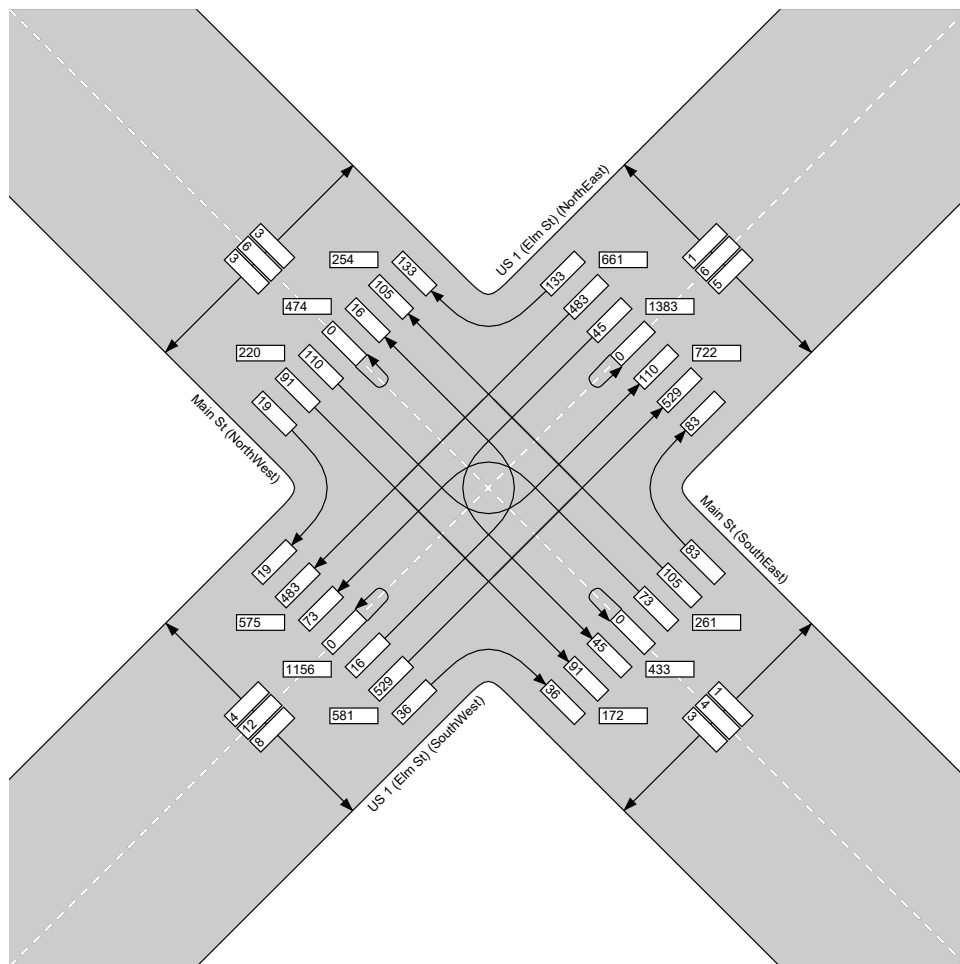
SUT

Semis

Bicycle

Diagram

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

**Time Period:**

- ☐ All times
☐ AM Peak Hour: 11:00 - 12:00
☐ PM Peak Hour: 15:30 - 16:30
☐ Overall Peak Hour: 15:30 - 16:30
☒ Custom: 16:30 - 17:30

Traffic Bins:

- ☒ Mcl
☒ Car
☒ Bus
☒ SUT
☒ Semis
☒ Bicycle

Crossing Bins:

- ☒ Bicycle
☒ Ped

Traffic total: 1723

Movements

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

From: Main St (NorthWest)								To: US 1 (Elm St) (NorthEast)								To: Main St (SouthEast)							
To: Main St (NorthWest)								To: US 1 (Elm St) (NorthEast)								To: Main St (SouthEast)							
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	
06:00	0	0	0	0	0	0	0	06:00	0	10	0	0	0	0	10	06:00	0	7	0	0	0	0	
06:15	0	0	0	0	0	0	0	06:15	0	14	0	0	0	0	14	06:15	0	5	0	0	0	0	
06:30	0	0	0	0	0	0	0	06:30	0	23	0	0	0	0	23	06:30	0	10	0	0	0	0	
06:45	0	0	0	0	0	0	0	06:45	1	26	0	0	0	0	27	06:45	0	16	0	0	0	0	
07:00	0	0	0	0	0	0	0	07:00	0	28	0	1	0	0	29	07:00	0	7	0	0	0	0	
07:15	0	0	0	0	0	0	0	07:15	0	34	0	0	0	0	34	07:15	0	16	0	0	0	0	
07:30	0	0	0	0	0	0	0	07:30	0	24	0	0	0	0	24	07:30	0	20	0	0	0	0	
07:45	0	0	0	0	0	0	0	07:45	0	34	0	0	0	0	34	07:45	0	21	0	0	0	0	
08:00	0	0	0	0	0	0	0	08:00	0	32	0	0	0	0	32	08:00	0	21	0	0	0	0	
08:15	0	0	0	0	0	0	0	08:15	0	16	0	2	0	0	18	08:15	0	16	0	1	0	0	
08:30	0	0	0	0	0	0	0	08:30	0	30	0	0	0	0	30	08:30	0	12	0	0	0	1	
08:45	0	0	0	0	0	0	0	08:45	0	22	0	0	0	0	22	08:45	0	21	0	1	1	1	
09:00	0	0	0	0	0	0	0	09:00	0	14	0	1	0	0	15	09:00	0	13	0	0	0	0	
09:15	0	0	0	0	0	0	0	09:15	0	19	0	0	1	0	20	09:15	0	14	0	0	0	0	
09:30	0	0	0	0	0	0	0	09:30	0	22	0	0	0	0	22	09:30	0	10	0	0	0	0	
09:45	0	0	0	0	0	0	0	09:45	0	22	0	0	0	0	22	09:45	0	15	0	1	0	0	
10:00	0	0	0	0	0	0	0	10:00	0	15	0	2	0	0	17	10:00	0	12	0	0	0	0	
10:15	0	0	0	0	0	0	0	10:15	0	27	0	1	0	0	28	10:15	0	17	0	0	0	0	
10:30	0	0	0	0	0	0	0	10:30	0	26	0	0	0	0	26	10:30	0	21	0	0	0	0	
10:45	0	0	0	0	0	0	0	10:45	0	16	0	0	0	0	16	10:45	0	21	0	0	0	0	
11:00	0	0	0	0	0	0	0	11:00	0	15	0	0	0	0	15	11:00	0	18	0	2	0	0	
11:15	0	0	0	0	0	0	0	11:15	0	18	0	1	0	0	19	11:15	0	14	0	0	0	0	
11:30	0	0	0	0	0	0	0	11:30	0	20	0	1	0	0	21	11:30	0	13	0	1	0	0	
11:45	0	0	0	0	0	0	0	11:45	0	22	0	0	0	0	22	11:45	0	20	0	0	0	0	
12:00	0	0	0	0	0	0	0	12:00	0	30	0	0	0	0	30	12:00	0	24	0	0	0	0	
12:15	0	0	0	0	0	0	0	12:15	0	24	0	0	0	0	24	12:15	0	19	0	0	0	0	
12:30	0	0	0	0	0	0	0	12:30	0	25	0	0	0	0	25	12:30	0	18	0	1	0	0	
12:45	0	0	0	0	0	0	0	12:45	2	27	1	1	0	0	31	12:45	0	20	0	0	0	0	
13:00	0	0	0	0	0	0	0	13:00	0	29	0	0	0	0	29	13:00	0	24	0	0	0	0	
13:15	0	0	0	0	0	0	0	13:15	0	23	0	1	0	0	24	13:15	0	23	0	0	0	0	
13:30	0	0	0	0	0	0	0	13:30	0	25	0	0	0	0	25	13:30	0	21	0	0	0	0	
13:45	0	0	0	0	0	0	0	13:45	0	19	0	0	1	0	20	13:45	0	23	0	0	0	0	
14:00	0	0	0	0	0	0	0	14:00	0	29	0	0	0	0	29	14:00	0	17	0	3	0	0	
14:15	0	0	0	0	0	0	0	14:15	1	24	0	0	0	0	25	14:15	1	13	0	0	0	0	
14:30	0	0	0	0	0	0	0	14:30	1	27	0	2	0	0	30	14:30	0	8	0	0	0	1	
14:45	0	0	0	0	0	0	0	14:45	0	18	0	0	0	0	18	14:45	0	33	0	1	0	0	

15:00	0	0	0	0	0	0	0	15:00	0	23	0	1	0	0	0	24	15:00	0	18	0	0	0	0
15:15	0	0	0	0	0	0	0	0 15:15	0	28	0	0	0	0	0	28	15:15	0	15	0	0	0	0
15:30	0	0	0	0	0	0	0	0 15:30	0	30	0	0	0	0	0	30	15:30	0	27	0	0	0	0
15:45	0	0	0	0	0	0	0	0 15:45	0	19	0	3	0	0	0	22	15:45	1	27	0	0	0	0
16:00	0	0	0	0	0	0	0	0 16:00	0	29	0	1	0	0	0	30	16:00	0	14	0	0	0	0
16:15	0	0	0	0	0	0	0	0 16:15	0	27	0	0	0	0	0	27	16:15	1	22	0	0	0	0
16:30	0	0	0	0	0	0	0	0 16:30	0	27	0	0	0	0	0	27	16:30	0	22	0	0	0	0
16:45	0	0	0	0	0	0	0	0 16:45	0	24	0	0	0	0	0	24	16:45	1	27	0	0	0	0
17:00	0	0	0	0	0	0	0	0 17:00	0	29	0	0	0	0	0	29	17:00	0	22	0	0	0	0
17:15	0	0	0	0	0	0	0	0 17:15	0	30	0	0	0	0	0	30	17:15	1	17	0	0	0	0
17:30	0	0	0	0	0	0	0	0 17:30	0	33	0	0	0	0	0	33	17:30	0	19	0	0	0	0
17:45	0	0	0	0	0	0	0	0 17:45	1	31	0	0	0	0	0	32	17:45	0	20	0	0	0	0
Total	0	0	0	0	0	0	0	0 Total	6	1159	1	18	2	0	0	1186	Total	5	853	0	11	3	0
% of Total	-	-	-	-	-	-	-	- % of Total	0.5%	97.7%	0.1%	1.5%	0.2%	0%	100%	% of Total	0.6%	97.6%	0%	1.3%	0.3%	0.2	
% of Approach	0%	0%	0%	0%	0%	0%	0%	0% % of Approach	54.5%	52.6%	100%	60%	40%	0%	52.6%	% of Approach	45.5%	38.7%	0%	36.7%	60%	100	
From: US 1 (Elm St) (NorthEast)																							
To: Main St (NorthWest)												To: US 1 (Elm St) (NorthEast)											
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	
06:00	0	7	0	0	0	0	7	06:00	0	0	0	0	0	0	0	06:00	0	4	0	0	0	0	
06:15	0	4	0	0	0	0	4	06:15	0	0	0	0	0	0	0	06:15	0	1	0	0	0	0	
06:30	0	8	0	0	0	0	8	06:30	0	0	0	0	0	0	0	06:30	0	5	0	1	0	0	
06:45	0	9	0	0	0	0	9	06:45	0	0	0	0	0	0	0	06:45	0	6	0	0	0	0	
07:00	0	11	0	0	0	0	11	07:00	0	0	0	0	0	0	0	07:00	0	4	0	0	0	0	
07:15	0	15	0	1	0	0	16	07:15	0	0	0	0	0	0	0	07:15	0	4	0	1	0	0	
07:30	0	17	0	0	0	0	17	07:30	0	0	0	0	0	0	0	07:30	0	7	0	0	0	0	
07:45	0	19	0	0	0	0	19	07:45	0	0	0	0	0	0	0	07:45	0	8	0	0	0	0	
08:00	0	12	0	0	0	0	12	08:00	0	0	0	0	0	0	0	08:00	0	4	0	0	0	0	
08:15	0	8	0	0	0	0	8	08:15	0	0	0	0	0	0	0	08:15	0	7	0	0	0	0	
08:30	0	14	0	0	0	0	14	08:30	0	0	0	0	0	0	0	08:30	0	13	0	0	0	0	
08:45	0	12	0	0	0	0	12	08:45	0	0	0	0	0	0	0	08:45	0	10	0	0	0	0	
09:00	0	15	0	0	0	0	15	09:00	0	0	0	0	0	0	0	09:00	0	10	0	0	0	0	
09:15	0	14	0	0	0	0	14	09:15	0	0	0	0	0	0	0	09:15	0	14	0	0	0	0	
09:30	0	12	0	0	0	0	12	09:30	0	0	0	0	0	0	0	09:30	0	6	0	0	0	0	
09:45	0	6	0	0	0	0	6	09:45	0	0	0	0	0	0	0	09:45	0	4	0	0	0	0	
10:00	0	14	0	0	0	0	14	10:00	0	0	0	0	0	0	0	10:00	0	5	0	0	0	0	
10:15	0	12	0	0	0	0	12	10:15	0	0	0	0	0	0	0	10:15	0	12	0	0	0	0	
10:30	0	13	0	1	0	0	14	10:30	0	0	0	0	0	0	0	10:30	0	6	0	0	0	0	
10:45	0	13	0	1	0	0	14	10:45	0	0	0	0	0	0	0	10:45	0	12	0	0	0	0	
11:00	0	13	0	0	0	0	13	11:00	0	0	0	0	0	0	0	11:00	0	13	0	0	0	0	
11:15	0	17	0	0	0	0	17	11:15	0	0	0	0	0	0	0	11:15	0	12	0	0	0	0	
11:30	0	23	0	0	0	0	23	11:30	0	0	0	0	0	0	0	11:30	0	11	0	0	0	0	
11:45	0	15	0	0	0	0	15	11:45	0	0	0	0	0	0	0	11:45	0	13	0	0	0	0	
12:00	0	18	0	1	0	0	19	12:00	0	0	0	0	0	0	0	12:00	0	11	0	0	0	0	
12:15	4	21	0	0	0	0	25	12:15	0	0	0	0	0	0	0	12:15	0	10	0	0	0	0	
12:30	2	27	0	1	0	0	30	12:30	0	0	0	0	0	0	0	12:30	0	7	0	0	0	0	
12:45	0	22	0	0	0	0	22	12:45	0	0	0	0	0	0	0	12:45	0	17	0	0	0	0	
13:00	0	21	0	0	0	0	21	13:00	0	0	0	0	0	0	0	13:00	1	7	0	0	0	0	
13:15	1	32	0	0	0	0	33	13:15	0	0	0	0	0	0	0	13:15	0	19	0	0	1	0	
13:30	0	19	0	1	0	0	20	13:30	0	0	0	0	0	0	0	13:30	1	12	0	0	0	0	
13:45	0	18	0	0	0	0	18	13:45	0	0	0	0	0	0	0	13:45	0	9	0	0	0	0	
14:00	0	26	0	0	0	0	26	14:00	0	0	0	0	0	0	0	14:00	0	9	0	0	0	0	
14:15	0	21	0	0	0	0	21	14:15	0	0	0	0	0	0	0	14:15	0	11	0	0	0	0	
14:30	0	18	0	0	0	0	18	14:30	0	0	0	0	0	0	0	14:30	0	10	0	0	0	0	
14:45	0	28	0	0	0	0	28	14:45	0	0	0	0	0	0	0	14:45	0	11	0	0	0	0	
15:00	1	27	0	1	0	0	29	15:00	0	0	0	0	0	0	0	15:00	0	11	0	0	0	0	
15:15	0	25	0	0	1	0	26	15:15	0	0	0	0	0	0	0	15:15	0	7	0	0	0	0	
15:30	0	24	0	2	0	0	26	15:30	0	0	0	0	0	0	0	15:30	1	13	0	1	0	0	
15:45	0	34	0	0	0	1	35	15:45	0	0	0	0	0	0	0	15:45	0	12	0	0	0	0	
16:00	0	29	0	0	0	0	29	16:00	0	0	0	0	0	0	0	16:00	0	10	0	0	0	0	
16:15	0	29	0	0	0	0	29	16:15	0	0	0	0	0	0	0	16:15	0	12	0	0	0	0	
16:30	1	28	0	1	0	0	30	16:30	0	0	0	0	0	0	0	16:30	0	10	0	0	0	0	
16:45	0	35	0	0	0	0	35	16:45	0	0	0	0	0	0	0	16:45	0	10	0	0	0	0	
17:00	0	36	0	0	0	0	36	17:00	0	0	0	0	0	0	0	17:00	0	12	0	0	0	0	
17:15	0	32	0	0	0	0	32	17:15	0	0	0	0	0	0	0	17:15	0	13	0	0	0	0	
17:30	0	44	0	0	0	0	44	17:30	0	0	0	0	0	0	0	17:30	0	11	0	0	0	0	
17:45	0	34	0	0	0	0	34	17:45	0	0	0	0	0	0	0	17:45	0	11	0	0	0	0	
Total	9	951	0	10	1	1	972	Total	0	0	0	0	0	0	0	0 Total	3	456	0	3	1	0	
% of Total	0.9%	97.8%	0%	1%	0.1%	0.1%	100%	% of Total	-	-	-	-	-	-	-	- % of Total	0.6%	98.1%	0%	0.6%	0.2%	0.4	
% of Approach	28.1%	14.7%	0%	6.9%	4.5%	25%	14.6%	% of Approach															

14:30	0	16	0	1	0	1	18	14:30	0	12	0	0	0	0	12	14:30	0	0	0	0	0	0
14:45	0	20	0	0	0	0	20	14:45	0	14	0	0	0	0	14	14:45	0	0	0	0	0	0
15:00	0	24	0	0	0	0	24	15:00	1	15	0	0	0	1	17	15:00	0	0	0	0	0	0
15:15	0	15	0	1	0	0	16	15:15	0	15	0	0	0	0	15	15:15	0	0	0	0	0	0
15:30	0	17	0	0	0	0	17	15:30	1	14	0	0	0	0	15	15:30	0	0	0	0	0	0
15:45	0	17	0	2	0	0	19	15:45	1	15	0	0	0	0	16	15:45	0	0	0	0	0	0
16:00	1	25	0	0	0	0	26	16:00	0	13	0	0	0	0	13	16:00	0	0	0	0	0	0
16:15	0	15	0	0	0	0	15	16:15	0	24	0	0	0	0	24	16:15	0	0	0	0	0	0
16:30	0	18	0	0	0	0	18	16:30	0	22	0	0	0	0	22	16:30	0	0	0	0	0	0
16:45	0	31	0	0	0	0	31	16:45	0	20	0	0	0	0	20	16:45	0	0	0	0	0	0
17:00	1	24	0	0	0	0	25	17:00	0	18	0	0	0	0	18	17:00	0	0	0	0	0	0
17:15	0	31	0	0	0	0	31	17:15	0	23	0	0	0	0	23	17:15	0	0	0	0	0	0
17:30	1	21	0	0	0	1	23	17:30	0	23	0	0	0	0	23	17:30	0	0	0	0	0	0
17:45	0	13	0	0	0	0	13	17:45	0	15	0	0	0	0	15	17:45	0	0	0	0	0	0
Total	7	657	0	14	1	3	682	Total	4	821	0	5	1	1	832	Total	0	0	0	0	0	0
% of Total	1%	96.3%	0%	2.1%	0.1%	0.4%	100%	% of Total	0.5%	98.7%	0%	0.6%	0.1%	0.1%	100%	% of Total	-	-	-	-	-	-
% of Approach	41.2%	30.3%	0%	45.2%	25%	75%	30.6%	% of Approach	23.5%	37.9%	0%	16.1%	25%	25%	37.4%	% of Approach	0%	0%	0%	0%	0%	0
From: US 1 (Elm St) (SouthWest)																						
To: Main St (NorthWest)							To: US 1 (Elm St) (NorthEast)							To: Main St (SouthEast)								
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle
06:00	0	0	0	0	0	0	0	06:00	0	19	0	1	0	0	20	06:00	0	3	2	0	0	0
06:15	0	0	0	0	0	0	0	06:15	0	32	0	2	0	0	34	06:15	0	0	0	0	0	0
06:30	0	1	0	0	0	0	1	06:30	0	40	0	1	1	0	42	06:30	0	1	0	1	0	0
06:45	0	1	0	0	0	0	1	06:45	0	48	0	2	2	0	52	06:45	0	3	0	0	0	0
07:00	0	0	0	0	0	0	0	07:00	0	50	0	0	0	0	50	07:00	0	6	0	0	0	0
07:15	0	2	0	0	0	0	2	07:15	0	62	0	1	0	0	63	07:15	0	8	0	0	0	0
07:30	0	2	0	0	0	0	2	07:30	0	71	0	3	1	0	75	07:30	0	4	0	0	0	0
07:45	0	0	0	0	0	0	0	07:45	0	82	0	1	0	0	83	07:45	0	6	0	1	0	0
08:00	0	0	0	1	0	0	1	08:00	0	46	0	3	3	0	52	08:00	0	6	0	0	0	0
08:15	0	1	0	0	0	0	1	08:15	0	71	0	5	0	0	76	08:15	0	5	1	0	0	0
08:30	0	1	0	0	0	0	1	08:30	1	74	0	1	2	0	78	08:30	0	3	0	0	0	0
08:45	0	2	0	0	0	0	2	08:45	0	65	0	2	1	0	68	08:45	0	12	0	0	0	0
09:00	0	0	0	0	0	0	0	09:00	0	65	0	5	2	0	72	09:00	0	8	0	1	0	0
09:15	0	1	0	0	0	0	1	09:15	0	68	0	0	1	0	69	09:15	0	10	0	0	0	0
09:30	0	4	0	0	0	0	4	09:30	0	72	0	1	2	0	75	09:30	0	7	0	0	0	0
09:45	0	1	0	0	0	0	1	09:45	0	92	0	2	1	0	95	09:45	0	8	0	0	0	0
10:00	0	4	0	0	0	0	4	10:00	0	94	0	4	0	0	98	10:00	0	3	0	0	0	0
10:15	0	2	0	0	0	0	2	10:15	0	99	0	4	0	0	103	10:15	0	12	0	0	0	0
10:30	0	1	0	0	0	0	1	10:30	0	81	0	5	0	0	86	10:30	0	8	0	1	0	0
10:45	0	2	0	0	0	0	2	10:45	0	103	0	5	0	0	108	10:45	0	19	1	0	0	0
11:00	0	2	0	0	0	0	2	11:00	0	81	0	4	1	0	86	11:00	0	2	0	0	0	0
11:15	0	0	0	0	0	0	0	11:15	0	126	0	7	0	0	133	11:15	0	13	0	0	0	0
11:30	0	1	0	0	0	0	1	11:30	0	112	0	5	1	0	118	11:30	0	13	0	0	0	0
11:45	0	2	0	0	0	0	2	11:45	0	95	0	6	0	0	101	11:45	0	15	0	1	0	0
12:00	0	3	0	0	0	0	3	12:00	2	99	0	2	2	0	105	12:00	0	17	0	0	0	0
12:15	1	1	0	0	0	0	2	12:15	0	98	0	4	1	0	103	12:15	0	8	0	0	0	0
12:30	0	1	0	0	0	0	1	12:30	0	116	0	4	0	1	121	12:30	0	10	0	0	1	0
12:45	0	7	0	0	0	0	7	12:45	2	100	0	7	1	0	110	12:45	0	13	0	0	0	0
13:00	0	2	0	0	0	0	2	13:00	0	116	0	1	0	0	117	13:00	0	10	0	0	0	0
13:15	2	3	0	0	0	0	5	13:15	0	97	0	1	1	0	99	13:15	0	10	1	0	0	0
13:30	0	2	0	1	0	0	3	13:30	1	114	1	4	0	0	120	13:30	0	9	0	0	0	0
13:45	0	4	0	0	0	0	4	13:45	5	119	0	7	0	0	131	13:45	0	15	0	0	0	0
14:00	0	2	0	0	0	0	2	14:00	0	92	1	2	0	0	95	14:00	0	7	0	0	0	0
14:15	1	2	0	0	0	0	3	14:15	1	119	0	2	1	0	123	14:15	0	16	0	0	0	0
14:30	0	3	0	0	0	0	3	14:30	0	128	0	0	2	0	130	14:30	0	14	0	0	0	0
14:45	0	5	0	0	0	0	5	14:45	1	140	0	1	1	0	143	14:45	0	13	0	0	0	0
15:00	0	2	0	0	0	0	2	15:00	1	124	1	4	2	0	132	15:00	1	15	0	0	0	0
15:15	0	2	0	1	0	0	3	15:15	1	119	0	4	1	0	125	15:15	0	12	0	0	0	0
15:30	0	2	0	0	0	0	2	15:30	4	144	0	2	0	0	150	15:30	0	5	0	0	0	0
15:45	0	2	0	0	0	0	2	15:45	1	144	0	0	0	0	145	15:45	0	15	1	0	0	0
16:00	0	1	0	0	0	0	1	16:00	1	139	0	3	1	0	144	16:00	0	11	0	0	0	0
16:15	0	2	0	0	0	0	2	16:15	0	152	0	4	1	0	157	16:15	0	11	0	0	0	0
16:30	0	1	0	0	0	0	1	16:30	0	126	0	1	0	0	127	16:30	0	10	0	0	0	0
16:45	1	2	0	0	0	0	3	16:45	2	126	0	3	0	0	131	16:45	0	9	0	0	0	0
17:00	0	7	0	0	0	0	7	17:00	1	122	0	0	1	0	124	17:00	0	9	0	0	0	0
17:15	0	5	0	0	0	0	5	17:15	1	145	0	1	0	0	147	17:15	0	8	0	0	0	0
17:30	0	2	0	0	0	0	2	17:30	1	111	0	2	0	0	114	17:30	0	9	0	0	0	0
17:45	0	2	0	0	0	0	2	17:45	0	120	0	1	0	0	121	17:45	1	8	0	0	0	0
Total	5	95	0	3	0	0	103	Total	26	4658	3	130	33	1	4851	Total	2	439	6	5	1	0
% of Total	4.9%	92.2%	0%	2.9%	0%	0%	100%	% of Total	0.5%	96%	0.1%	2.7%	0.7%	0%	100%	% of Total	0.4%	96.9%	1.3%	1.1%	0.2%	0
% of Approach	15.2%	1.8%	0%	2.2%	0%	0%	1.9%	% of Approach	78.8%	89.7%	33.3%	94.2%	97.1%	100%	89.7%	% of Approach	6.1%	8.5%	66.7%	3.6%	2.9%	0

Legs

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Main St (NorthWest)																							
Towards Junction								Away From Junction								Both Directions							
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total
06:00	0	20	0	0	0	0	20	06:00	0	8	0	0	0	0	8	06:00	0	28	0	0	0	0	28
06:15	0	22	0	0	0	0	22	06:15	0	4	0	0	0	0	4	06:15	0	26	0	0	0	0	26
06:30	0	34	0	0	0	0	34	06:30	0	11	0	0	0	0	11	06:30	0	45	0	0	0	0	45
06:45	1	44	0	0	0	0	45	06:45	0	15	0	0	0	0	15	06:45	1	59	0	0	0	0	60
07:00	0	37	0	1	0	0	38	07:00	0	21	0	0	0	0	21	07:00	0	58	0	1	0	0	59
07:15	0	50	0	0	0	0	50	07:15	0	22	0	1	0	0	23	07:15	0	72	0	1	0	0	73
07:30	0	50	0	0	0	0	50	07:30	0	29	0	1	0	0	30	07:30	0	79	0	1	0	0	80
07:45	0	57	0	0	0	0	57	07:45	0	30	0	1	0	0	31	07:45	0	87	0	1	0	0	88
08:00	0	57	0	0	0	0	57	08:00	0	23	0	1	0	0	24	08:00	0	80	0	1	0	0	81
08:15	0	33	0	3	0	0	36	08:15	0	18	0	1	0	0	19	08:15	0	51	0	4	0	0	55
08:30	0	42	0	0	1	0	43	08:30	0	20	0	1	0	0	21	08:30	0	62	0	1	1	0	64
08:45	0	49	0	1	1	0	51	08:45	0	23	0	2	0	0	25	08:45	0	72	0	3	1	0	76
09:00	0	29	0	1	0	0	30	09:00	0	28	0	0	0	0	28	09:00	0	57	0	1	0	0	58
09:15	0	36	0	0	1	0	37	09:15	0	28	0	0	0	0	28	09:15	0	64	0	0	1	0	65
09:30	0	37	0	0	0	0	37	09:30	0	26	0	0	0	0	26	09:30	0	63	0	0	0	0	63
09:45	0	43	0	1	0	0	44	09:45	0	18	0	1	0	0	19	09:45	0	61	0	2	0	0	63
10:00	0	28	0	2	0	0	30	10:00	0	25	0	0	0	0	25	10:00	0	53	0	2	0	0	55
10:15	0	48	0	1	0	0	49	10:15	0	28	0	1	0	0	29	10:15	0	76	0	2	0	0	78
10:30	0	51	0	0	0	0	51	10:30	0	26	0	1	0	0	27	10:30	0	77	0	1	0	0	78
10:45	0	42	0	0	0	0	42	10:45	0	30	0	1	0	0	31	10:45	0	72	0	1	0	0	73
11:00	0	37	0	2	0	0	39	11:00	0	24	0	1	0	0	25	11:00	0	61	0	3	0	0	64
11:15	0	34	0	1	0	0	35	11:15	0	22	0	0	0	0	22	11:15	0	56	0	1	0	0	57
11:30	0	37	0	2	0	0	39	11:30	0	39	0	0	0	0	39	11:30	0	76	0	2	0	0	78
11:45	0	49	0	0	0	0	49	11:45	0	29	0	1	0	0	30	11:45	0	78	0	1	0	0	79
12:00	0	65	0	0	0	0	65	12:00	1	36	0	1	0	0	38	12:00	1	101	0	1	0	0	103
12:15	0	45	0	0	0	0	45	12:15	5	36	0	0	0	0	41	12:15	5	81	0	0	0	0	86

12:30	0	51	0	2	0	0	53	12:30	4	45	0	1	0	1	51	12:30	4	96	0	3	0	1	104
12:45	2	52	1	1	0	0	56	12:45	0	46	0	0	0	0	46	12:45	2	98	1	1	0	0	102
13:00	0	57	0	0	0	0	57	13:00	0	39	0	0	0	0	39	13:00	0	96	0	0	0	0	96
13:15	0	49	0	1	0	0	50	13:15	4	53	0	0	0	0	57	13:15	4	102	0	1	0	0	107
13:30	0	48	0	0	0	0	48	13:30	0	39	0	2	0	0	41	13:30	0	87	0	2	0	0	89
13:45	0	44	0	0	1	0	45	13:45	0	36	0	0	0	0	36	13:45	0	80	0	0	1	0	81
14:00	0	49	0	3	0	0	52	14:00	0	42	0	0	0	0	42	14:00	0	91	0	3	0	0	94
14:15	2	42	0	0	0	0	44	14:15	1	36	0	0	1	0	38	14:15	3	78	0	0	1	0	82
14:30	1	42	0	2	1	1	47	14:30	0	37	0	1	0	1	39	14:30	1	79	0	3	1	2	86
14:45	0	61	0	1	0	0	62	14:45	0	53	0	0	0	0	53	14:45	0	114	0	1	0	0	115
15:00	0	43	0	1	0	0	44	15:00	1	53	0	1	0	0	55	15:00	1	96	0	2	0	0	99
15:15	0	46	0	0	0	0	46	15:15	0	42	0	2	1	0	45	15:15	0	88	0	2	1	0	91
15:30	0	60	0	0	0	0	60	15:30	0	43	0	2	0	0	45	15:30	0	103	0	2	0	0	105
15:45	1	49	0	3	0	0	53	15:45	0	53	0	2	0	1	56	15:45	1	102	0	5	0	1	109
16:00	0	47	0	1	0	0	48	16:00	1	55	0	0	0	0	56	16:00	1	102	0	1	0	0	104
16:15	1	55	0	0	0	0	56	16:15	0	46	0	0	0	0	46	16:15	1	101	0	0	0	0	102
16:30	0	51	0	0	0	0	51	16:30	1	47	0	1	0	0	49	16:30	1	98	0	1	0	0	100
16:45	1	56	0	0	0	1	58	16:45	1	68	0	0	0	0	69	16:45	2	124	0	0	0	1	127
17:00	0	57	0	0	0	0	57	17:00	1	67	0	0	0	0	68	17:00	1	124	0	0	0	0	125
17:15	1	53	0	0	0	0	54	17:15	0	68	0	0	0	0	68	17:15	1	121	0	0	0	0	122
17:30	0	62	0	0	0	0	62	17:30	1	67	0	0	0	1	69	17:30	1	129	0	0	0	1	131
17:45	1	55	0	0	0	0	56	17:45	0	49	0	0	0	0	49	17:45	1	104	0	0	0	0	105
Total	11	2205	1	30	5	2	2254	Total	21	1703	0	27	2	4	1757	Total	32	3908	1	57	7	6	4011
% of Total	0.5%	97.8%	0%	1.3%	0.2%	0.1%	100%	% of Total	1.2%	96.9%	0%	1.5%	0.1%	0.2%	100%	% of Total	0.8%	97.4%	0%	1.4%	0.2%	0.1%	100%

US 1 (Elm St) (NorthEast)

Towards Junction								Away From Junction								Both Directions							
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total
06:00	0	42	0	1	1	1	45	06:00	0	34	0	1	1	0	36	06:00	0	76	0	2	2	1	81
06:15	0	50	0	0	0	0	50	06:15	0	58	0	2	0	0	60	06:15	0	108	0	2	0	0	110
06:30	0	78	0	4	1	0	83	06:30	0	71	0	1	1	0	73	06:30	0	149	0	5	2	0	156
06:45	0	99	1	3	0	0	103	06:45	1	83	0	2	2	0	88	06:45	1	182	1	5	2	0	191
07:00	0	85	0	2	0	0	87	07:00	0	88	0	1	0	0	89	07:00	0	173	0	3	0	0	176
07:15	0	114	0	4	0	0	118	07:15	0	108	0	1	0	0	109	07:15	0	222	0	5	0	0	227
07:30	0	114	0	2	0	0	116	07:30	0	114	0	3	1	0	118	07:30	0	228	0	5	1	0	234
07:45	0	124	0	7	0	0	131	07:45	0	128	0	1	0	0	129	07:45	0	252	0	8	0	0	260
08:00	1	110	0	2	2	0	115	08:00	0	95	0	3	3	0	101	08:00	1	205	0	5	5	0	216
08:15	0	113	0	3	1	0	117	08:15	0	105	0	7	0	0	112	08:15	0	218	0	10	1	0	229
08:30	0	108	0	2	1	0	111	08:30	1	120	0	1	2	0	124	08:30	1	228	0	3	3	0	235
08:45	0	139	0	6	0	0	145	08:45	0	111	0	2	1	0	114	08:45	0	250	0	8	1	0	259
09:00	0	105	0	2	1	0	108	09:00	0	92	0	6	2	0	100	09:00	0	197	0	8	3	0	208
09:15	0	117	0	7	0	0	124	09:15	0	104	0	0	2	0	106	09:15	0	221	0	7	2	0	230
09:30	0	123	0	4	0	0	127	09:30	0	108	0	2	2	0	112	09:30	0	231	0	6	2	0	239
09:45	0	116	0	3	2	0	121	09:45	0	138	0	2	1	0	141	09:45	0	254	0	5	3	0	262
10:00	0	137	0	3	0	0	140	10:00	0	124	0	6	0	0	130	10:00	0	261	0	9	0	0	270
10:15	0	143	0	5	0	0	148	10:15	0	144	0	5	0	0	149	10:15	0	287	0	10	0	0	297
10:30	0	137	0	4	0	0	141	10:30	0	128	0	5	0	0	133	10:30	0	265	0	9	0	0	274
10:45	0	127	0	1	1	0	129	10:45	0	144	0	5	0	0	149	10:45	0	271	0	6	1	0	278
11:00	0	136	0	2	0	0	138	11:00	0	111	0	6	1	0	118	11:00	0	247	0	8	1	0	256
11:15	0	141	0	4	0	0	145	11:15	0	164	0	8	0	0	172	11:15	0	305	0	12	0	0	317
11:30	0	148	0	5	1	0	154	11:30	0	152	0	6	1	0	159	11:30	0	300	0	11	2	0	313
11:45	0	136	0	3	1	0	140	11:45	0	144	0	6	0	0	150	11:45	0	280	0	9	1	0	290
12:00	0	126	1	2	1	0	130	12:00	2	151	0	2	2	0	157	12:00	2	277	1	4	3	0	287
12:15	4	134	0	0	1	0	139	12:15	1	143	0	5	1	0	150	12:15	5	277	0	5	2	0	289
12:30	4	153	0	6	0	0	163	12:30	0	158	0	4	0	1	163	12:30	4	311	0	10	0	1	326
12:45	1	164	0	3	1	0	169	12:45	4	142	1	8	1	0	156	12:45	5	306	1	11	2	0	325
13:00	3	140	0	3	0	0	146	13:00	0	168	0	1	0	0	169	13:00	3	308	0	4	0	0	315
13:15	2	167	0	2	1	0	172	13:15	0	139	0	2	1	0	142	13:15	2	306	0	4	2	0	314
13:30	2	157	1	5	0	0	165	13:30	1	162	1	4	0	0	168	13:30	3	319	2	9	0	0	333
13:45	0	146	0	3	0	0	149	13:45	5	154	0	7	1	0	167	13:45	5	300	0	10	1	0	316
14:00	0	135	1	3	0	0	139	14:00	0	135	1	2	0	0	138	14:00	0	270	2	5	0	0	277
14:15	0	160	0	6	0	0	166	14:15	2	160	0	3	1	0	166	14:15	2	320	0	9	1	0	332
14:30	1	143	0	2	1	0	147	14:30	1	167	0	2	2	0	172	14:30	2	310	0	4	3	0	319
14:45	0	152	1	2	1	0	156	14:45	1	172	0	1	1	0	175	14:45	1	324	1	3	2	0	331
15:00	1	156	0	3	0	0	160	15:00	2	162	1	5	2	1	173	15:00	3	318	1	8	2	1	333
15:15	2	156	0	2	2	0	162	15:15	1	162	0	4	1	0	168	15:15	3	318	0	6	3	0	330
15:30	1	164	0	6	0	0	171	15:30	5	188	0	2	0	0	195	15:30	6	352	0	8	0	0	366
15:45	2	177	0	2	0	1	182	15:45	2	178	0	3	0	0	183	15:45	4	355	0	5	0	1	365
16:00	1	150	0	1	0	1	153	16:00	1	181	0	4	1	0	187	16:00	2	331	0	5	1	1	340
16:15	0	161	0	3	0	1	165	16:15	0	203	0	4	1	0	208	16:15	0	364	0	7	1	1	373
16:30	2	163	0	2	0	0	167	16:30	0	175	0	1	0	0	176	16:30	2	338	0	3	0	0	343
16:45	2	174	0	0	0	0	176	16:45	2	170	0	3	0	0	175	16:45	4	344	0	3	0	0	351
17:00	0	158	0	1	0	0	159	17:00	1	169	0	0	1	0	171	17:00	1	327	0	1	1	0	330

12:30	2	51	0	0	0	1	54	12:30	0	35	0	1	1	0	37	12:30	2	86	0	1	1	1	91
12:45	0	48	0	1	1	0	50	12:45	0	50	0	0	0	0	50	12:45	0	98	0	1	1	0	100
13:00	2	57	0	1	1	0	61	13:00	1	41	0	0	0	0	42	13:00	3	98	0	1	1	0	103
13:15	2	54	0	0	0	0	56	13:15	0	52	1	0	1	0	54	13:15	2	106	1	0	1	0	110
13:30	0	64	0	0	0	0	64	13:30	1	42	0	0	0	0	43	13:30	1	106	0	0	0	0	107
13:45	0	45	1	0	0	0	46	13:45	0	47	0	0	0	0	47	13:45	0	92	1	0	0	0	93
14:00	0	49	0	0	0	0	49	14:00	0	33	0	3	0	0	36	14:00	0	82	0	3	0	0	85
14:15	1	39	0	1	1	0	42	14:15	1	40	0	0	0	0	41	14:15	2	79	0	1	1	0	83
14:30	0	49	0	1	0	1	51	14:30	0	32	0	0	1	1	34	14:30	0	81	0	1	1	2	85
14:45	0	48	0	0	0	0	48	14:45	0	57	0	1	0	0	58	14:45	0	105	0	1	0	0	106
15:00	1	61	0	0	0	1	63	15:00	1	44	0	0	0	0	45	15:00	2	105	0	0	0	1	108
15:15	0	46	0	1	0	0	47	15:15	0	34	0	0	0	0	34	15:15	0	80	0	1	0	0	81
15:30	1	51	0	0	0	0	52	15:30	1	45	0	1	0	0	47	15:30	2	96	0	1	0	0	99
15:45	1	45	0	2	0	0	48	15:45	1	54	1	0	0	0	56	15:45	2	99	1	2	0	0	104
16:00	1	54	0	0	0	0	55	16:00	0	35	0	0	0	1	36	16:00	1	89	0	0	0	1	91
16:15	1	48	1	1	0	0	51	16:15	1	45	0	0	0	0	46	16:15	2	93	1	1	0	0	97
16:30	0	62	0	1	0	0	63	16:30	0	42	0	0	0	0	42	16:30	0	104	0	1	0	0	105
16:45	0	69	0	0	0	0	69	16:45	1	46	0	0	0	1	48	16:45	1	115	0	0	0	1	117
17:00	1	54	0	1	0	0	56	17:00	0	43	0	0	0	0	43	17:00	1	97	0	1	0	0	99
17:15	0	73	0	0	0	0	73	17:15	1	38	0	0	0	0	39	17:15	1	111	0	0	0	0	112
17:30	1	60	0	0	0	1	62	17:30	0	39	0	0	0	0	39	17:30	1	99	0	0	0	1	101
17:45	1	44	0	0	0	0	45	17:45	1	39	0	0	0	0	40	17:45	2	83	0	0	0	0	85
Total	17	2165	5	31	4	4	2226	Total	10	1748	6	19	5	4	1792	Total	27	3913	11	50	9	8	4018
% of Total	0.8%	97.3%	0.2%	1.4%	0.2%	0.2%	100%	% of Total	0.6%	97.5%	0.3%	1.1%	0.3%	0.2%	100%	% of Total	0.7%	97.4%	0.3%	1.2%	0.2%	0.2%	100%

US 1 (Elm St) (SouthWest)

Towards Junction									Away From Junction									Both Directions								
Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total	Period	Mcl	Car	Bus	SUT	Semis	Bicycle	Total			
06:00	0	22	2	1	0	0	25	06:00	0	35	0	1	1	0	37	06:00	0	57	2	2	1	0	62			
06:15	0	32	0	2	0	0	34	06:15	0	54	1	0	0	0	55	06:15	0	86	1	2	0	0	89			
06:30	0	42	0	2	1	0	45	06:30	0	66	0	3	1	0	70	06:30	0	108	0	5	2	0	115			
06:45	0	52	0	2	2	0	56	06:45	0	92	1	3	0	0	96	06:45	0	144	1	5	2	0	152			
07:00	0	56	0	0	0	0	56	07:00	0	75	0	2	0	0	77	07:00	0	131	0	2	0	0	133			
07:15	0	72	0	1	0	0	73	07:15	0	102	0	3	0	0	105	07:15	0	174	0	4	0	0	178			
07:30	0	77	0	3	1	0	81	07:30	0	107	0	3	0	0	110	07:30	0	184	0	6	1	0	191			
07:45	0	88	0	2	0	0	90	07:45	0	109	0	7	0	0	116	07:45	0	197	0	9	0	0	206			
08:00	0	52	0	4	3	0	59	08:00	1	103	0	2	2	0	108	08:00	1	155	0	6	5	0	167			
08:15	0	77	1	5	0	0	83	08:15	0	107	0	3	1	0	111	08:15	0	184	1	8	1	0	194			
08:30	1	78	0	1	2	0	82	08:30	0	93	0	2	1	0	96	08:30	1	171	0	3	3	0	178			
08:45	0	79	0	2	1	0	82	08:45	0	137	1	6	0	0	144	08:45	0	216	1	8	1	0	226			
09:00	0	73	0	6	2	0	81	09:00	0	101	0	2	1	0	104	09:00	0	174	0	8	3	0	185			
09:15	0	79	0	0	1	0	80	09:15	0	105	0	7	0	0	112	09:15	0	184	0	7	1	0	192			
09:30	0	83	0	1	2	0	86	09:30	0	119	0	4	0	0	123	09:30	0	202	0	5	2	0	209			
09:45	0	101	0	2	1	0	104	09:45	0	131	0	3	2	0	136	09:45	0	232	0	5	3	0	240			
10:00	0	101	0	4	0	0	105	10:00	0	138	0	4	0	0	142	10:00	0	239	0	8	0	0	247			
10:15	0	113	0	4	0	0	117	10:15	0	136	0	5	0	0	141	10:15	0	249	0	9	0	0	258			
10:30	0	90	0	6	0	0	96	10:30	0	141	0	3	0	0	144	10:30	0	231	0	9	0	0	240			
10:45	0	124	1	5	0	0	130	10:45	0	121	0	1	1	0	123	10:45	0	245	1	6	1	0	253			
11:00	0	85	0	4	1	0	90	11:00	0	134	0	2	0	0	136	11:00	0	219	0	6	1	0	226			
11:15	0	139	0	7	0	0	146	11:15	0	129	1	5	0	0	135	11:15	0	268	1	12	0	0	281			
11:30	0	126	0	5	1	0	132	11:30	0	131	0	6	1	0	138	11:30	0	257	0	11	2	0	270			
11:45	0	112	0	7	0	0	119	11:45	0	131	0	4	1	0	136	11:45	0	243	0	11	1	0	255			
12:00	2	119	0	2	2	0	125	12:00	0	135	1	1	1	0	138	12:00	2	254	1	3	3	0	263			
12:15	1	107	0	4	1	0	113	12:15	0	123	0	0	1	0	124	12:15	1	230	0	4	2	0	237			
12:30	0	127	0	4	1	1	133	12:30	2	144	0	6	0	0	152	12:30	2	271	0	10	1	1	285			
12:45	2	120	0	7	1	0	130	12:45	1	146	0	4	2	0	153	12:45	3	266	0	11	3	0	283			
13:00	0	128	0	1	0	0	129	13:00	4	134	0	4	1	0	143	13:00	4	262	0	5	1	0	272			
13:15	2	110	1	1	1	0	115	13:15	2	136	0	2	0	0	140	13:15	4	246	1	3	1	0	255			
13:30	1	125	1	5	0	0	132	13:30	1	151	1	4	0	0	157	13:30	2	276	2	9	0	0	289			
13:45	5	138	0	7	0	0	150	13:45	0	136	1	3	0	0	140	13:45	5	274	1	10	0	0	290			
14:00	0	101	1	2	0	0	104	14:00	0	124	1	3	0	0	128	14:00	0	225	2	5	0	0	232			
14:15	2	137	0	2	1	0	142	14:15	1	142	0	6	0	0	149	14:15	3	279	0	8	1	0	291			
14:30	0	145	0	0	2	0	147	14:30	1	143	0	2	1	0	147	14:30	1	288	0	2	3	0	294			
14:45	1	158	0	1	1	0	161	14:45	0	137	1	2	1	0	141	14:45	1	295	1	3	2	0	302			
15:00	2	141	1	4	2	0	150	15:00	0	142	0	2	0	0	144	15:00	2	283	1	6	2	0	294			
15:15	1	133	0	5	1	0	140	15:15	2	143	0	2	1	0	148	15:15	3	276	0	7	2	0	288			
15:30	4	151	0	2	0	0	157	15:30	0	150	0	3	0	0	153	15:30	4	301	0	5	0	0	310			
15:45	1	161	1	0	0	0	163	15:45	2	147	0	2	0	0	151	15:45	3	308	1	2	0	0	314			
16:00	1	151	0	3	1	0	156	16:00	1	131	0	1	0	0	133	16:00	2	282	0	4	1	0	289			
16:15	0	165	0	4	1	0	170	16:15	1	135	1	4	0	1	142	16:15	1	300	1	8	1	1	312			
16:30	0	137	0	1	0	0	138	16:30	1	149	0	2	0	0	152	16:30	1	286	0	3	0	0	290			
16:45	3	137	0	3	0	0	143	16:45	2	152	0	0	0	0	154	16:45	5	289	0	3	0	0	297			
17:00	1	138	0	0	1	0	140	17:00	0	128	0	2	0	0	130	17:00	1	266	0	2	1	0	270			
17:15	1	158	0	1	0	0	160	17:15	1	134	0	4	0	0	139	17:15	2	292	0	5	0	0	299			
17:30	1	122	0	2	0	0	125	17:30	1	130	0	4	2	0	137	17:30	2	252	0	6	2	0	262			
17:45	1	130	0	1	0	0	132	17:45	2	146	0	1	0	0	149	17:45	3	276	0	2	0	0	281			
Total	33	5192	9	138	34	1	5407	Total	26	5935	10	145	22	1	6139	Total	59	11127	19	283	56	2	11546			
% of Total	0.6%	96%	0.2%	2.3%	0.6%	0%	100%	% of Total	0.4%	96.7%	0.2%	2.4%	0.4%	0%	100%	% of Total	0.5%	96.4%	0.2%	2.5%	0.5%	0%	100%			

Overall Peak Hour	15:30 - 16:30	119	Overall Peak Hour	15:30 - 16:30	0	Overall Peak Hour	15:30 - 16:30	50	Overall Peak Hour	15:30 - 16:30	502
Overall PHF	0.85		Overall PHF	-		Overall PHF	0.833		Overall PHF	0.93	
From: Main St (SouthEast)											
To: Main St (NorthWest)			To: US 1 (Elm St) (NorthEast)			To: Main St (SouthEast)			To: US 1 (Elm St) (SouthWest)		
Total	682		Total	832		Total	0		Total	712	
% of Approach	30.6%		% of Approach	37.4%		% of Approach	0%		% of Approach	32%	
AM Peak Hour	11:00 - 12:00	43	AM Peak Hour	11:00 - 12:00	84	AM Peak Hour	11:00 - 12:00	0	AM Peak Hour	11:00 - 12:00	68
AM PHF	0.717		AM PHF	0.778		AM PHF	-		AM PHF	0.85	
PM Peak Hour	15:30 - 16:30	77	PM Peak Hour	15:30 - 16:30	68	PM Peak Hour	15:30 - 16:30	0	PM Peak Hour	15:30 - 16:30	61
PM PHF	0.74		PM PHF	0.708		PM PHF	-		PM PHF	0.762	
Overall Peak Hour	15:30 - 16:30	77	Overall Peak Hour	15:30 - 16:30	68	Overall Peak Hour	15:30 - 16:30	0	Overall Peak Hour	15:30 - 16:30	61
Overall PHF	0.74		Overall PHF	0.708		Overall PHF	-		Overall PHF	0.762	
From: US 1 (Elm St) (SouthWest)											
To: Main St (NorthWest)			To: US 1 (Elm St) (NorthEast)			To: Main St (SouthEast)			To: US 1 (Elm St) (SouthWest)		
Total	103		Total	4851		Total	453		Total	0	
% of Approach	1.9%		% of Approach	89.7%		% of Approach	8.4%		% of Approach	0%	
AM Peak Hour	11:00 - 12:00	5	AM Peak Hour	11:00 - 12:00	438	AM Peak Hour	11:00 - 12:00	44	AM Peak Hour	11:00 - 12:00	0
AM PHF	0.625		AM PHF	0.823		AM PHF	0.688		AM PHF	-	
PM Peak Hour	15:30 - 16:30	7	PM Peak Hour	15:30 - 16:30	596	PM Peak Hour	15:30 - 16:30	43	PM Peak Hour	15:30 - 16:30	0
PM PHF	0.875		PM PHF	0.949		PM PHF	0.672		PM PHF	-	
Overall Peak Hour	15:30 - 16:30	7	Overall Peak Hour	15:30 - 16:30	596	Overall Peak Hour	15:30 - 16:30	43	Overall Peak Hour	15:30 - 16:30	0
Overall PHF	0.875		Overall PHF	0.949		Overall PHF	0.672		Overall PHF	-	

Leg Summary

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Main St (NorthWest)											
Towards Junction			Away From Junction			Both Directions			Crossing		
Total	2254		Total	1757		Total	4011		Total	39	
AM Peak Hour	11:00 - 12:00	162	AM Peak Hour	11:00 - 12:00	116	AM Peak Hour	11:00 - 12:00	278	AM Peak Hour	11:00 - 12:00	4
AM PHF	0.827		AM PHF	0.744		AM PHF	0.88		AM PHF	0.333	
PM Peak Hour	15:30 - 16:30	217	PM Peak Hour	15:30 - 16:30	203	PM Peak Hour	15:30 - 16:30	420	PM Peak Hour	15:30 - 16:30	4
PM PHF	0.904		PM PHF	0.906		PM PHF	0.963		PM PHF	0.333	
Overall Peak Hour	15:30 - 16:30	217	Overall Peak Hour	15:30 - 16:30	203	Overall Peak Hour	15:30 - 16:30	420	Overall Peak Hour	15:30 - 16:30	4
Overall PHF	0.904		Overall PHF	0.906		Overall PHF	0.963		Overall PHF	0.333	
US 1 (Elm St) (NorthEast)											
Towards Junction			Away From Junction			Both Directions			Crossing		
Total	6670		Total	6869		Total	13539		Total	48	
AM Peak Hour	11:00 - 12:00	577	AM Peak Hour	11:00 - 12:00	599	AM Peak Hour	11:00 - 12:00	1176	AM Peak Hour	11:00 - 12:00	4
AM PHF	0.937		AM PHF	0.871		AM PHF	0.927		AM PHF	0.333	
PM Peak Hour	15:30 - 16:30	671	PM Peak Hour	15:30 - 16:30	773	PM Peak Hour	15:30 - 16:30	1444	PM Peak Hour	15:30 - 16:30	6
PM PHF	0.922		PM PHF	0.929		PM PHF	0.968		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	671	Overall Peak Hour	15:30 - 16:30	773	Overall Peak Hour	15:30 - 16:30	1444	Overall Peak Hour	15:30 - 16:30	6
Overall PHF	0.922		Overall PHF	0.929		Overall PHF	0.968		Overall PHF	0.5	
Main St (SouthEast)											
Towards Junction			Away From Junction			Both Directions			Crossing		
Total	2226		Total	1792		Total	4018		Total	62	
AM Peak Hour	11:00 - 12:00	195	AM Peak Hour	11:00 - 12:00	161	AM Peak Hour	11:00 - 12:00	356	AM Peak Hour	11:00 - 12:00	0
AM PHF	0.855		AM PHF	0.821		AM PHF	0.84		AM PHF	-	
PM Peak Hour	15:30 - 16:30	206	PM Peak Hour	15:30 - 16:30	185	PM Peak Hour	15:30 - 16:30	391	PM Peak Hour	15:30 - 16:30	4
PM PHF	0.936		PM PHF	0.826		PM PHF	0.94		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	206	Overall Peak Hour	15:30 - 16:30	185	Overall Peak Hour	15:30 - 16:30	391	Overall Peak Hour	15:30 - 16:30	4
Overall PHF	0.936		Overall PHF	0.826		Overall PHF	0.94		Overall PHF	0.5	
US 1 (Elm St) (SouthWest)											
Towards Junction			Away From Junction			Both Directions			Crossing		
Total	5407		Total	6139		Total	11546		Total	71	
AM Peak Hour	11:00 - 12:00	487	AM Peak Hour	11:00 - 12:00	545	AM Peak Hour	11:00 - 12:00	1032	AM Peak Hour	11:00 - 12:00	2
AM PHF	0.834		AM PHF	0.987		AM PHF	0.918		AM PHF	0.5	
PM Peak Hour	15:30 - 16:30	646	PM Peak Hour	15:30 - 16:30	579	PM Peak Hour	15:30 - 16:30	1225	PM Peak Hour	15:30 - 16:30	6
PM PHF	0.95		PM PHF	0.946		PM PHF	0.975		PM PHF	0.5	
Overall Peak Hour	15:30 - 16:30	646	Overall Peak Hour	15:30 - 16:30	579	Overall Peak Hour	15:30 - 16:30	1225	Overall Peak Hour	15:30 - 16:30	6
Overall PHF	0.95		Overall PHF	0.946		Overall PHF	0.975		Overall PHF	0.5	

Total Flow

MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

Traffic								Crossing			
Period	Mtd	Car	Bus	SUT	Semis	Bicycle	Total	Period	Bicycle	Ped	Total
06:00	0	91	2	2	2	1	98	06:00	0	0	0
06:15	0	122	1	2	0	0	125	06:15	0	5	5
06:30	0	164	0	6	2	0	172	06:30	0	3	3
06:45	1	215	1	5	2	0	224	06:45	0	1	1
07:00	0	201	0	3	0	0	204	07:00	0	1	1
07:15	0	260	0	6	0	0	266	07:15	0	1	1
07:30	0	281	0	7	1	0	289	07:30	0	1	1
07:45	0	302	0	10	0	0	312	07:45	0	2	2
08:00	1	252	0	6	5	0	264	08:00	0	1	1
08:15	0	258	1	12	1	0	272	08:15	0	1	1
08:30	1	261	0	4	4	0	270	08:30	1	2	3
08:45	0	314	1	11	2	0	328	08:45	0	0	0
09:00	0	252	0	9	3	0	264	09:00	0	5	5
09:15	0	275	0	7	2	0	284	09:15	0	6	6
09:30	0	276	0	6	2	0	284	09:30	0	1	1
09:45	0	314	0	7	3	0	324	09:45	0	1	1
10:00	0	307	0	10	0	0	317	10:00	0	2	2
10:15	0	349	0	11	0	0	360	10:15	0	4	4
10:30	0	330	0	10	0	0	340	10:30	1	4	5
10:45	0	347	1	7	1	0	356	10:45	0	1	1

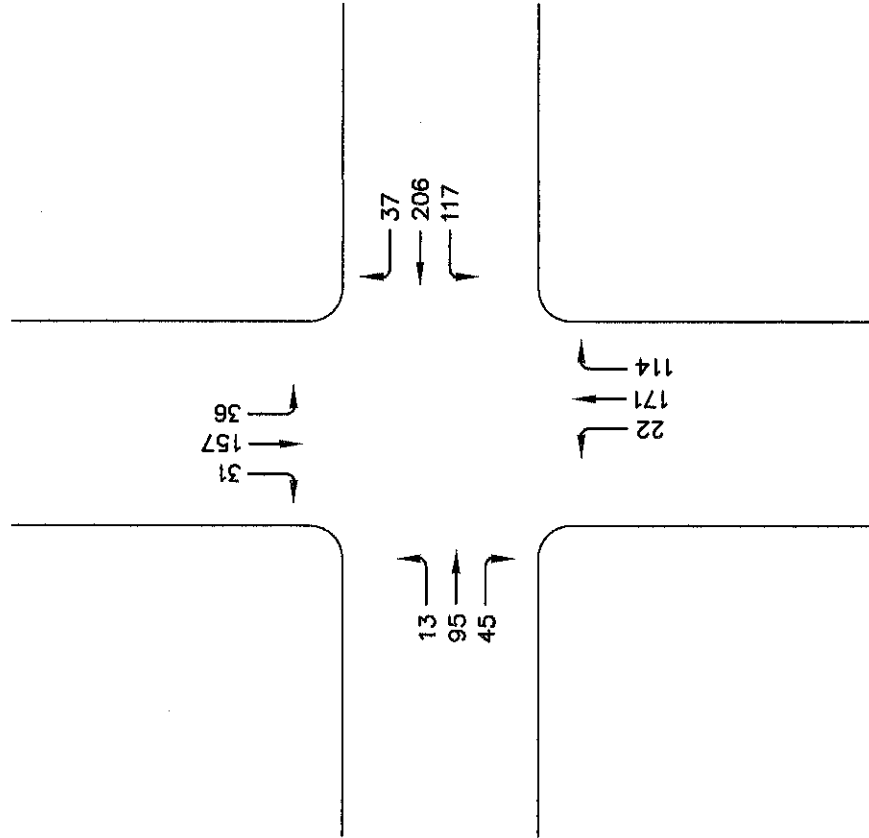
11:00	0	302	0	11	1	0	314	11:00	0	1	1
11:15	0	354	1	13	0	0	368	11:15	0	4	4
11:30	0	359	0	13	2	0	374	11:30	0	4	4
11:45	0	352	0	12	1	0	365	11:45	0	1	1
12:00	3	374	1	4	3	0	385	12:00	1	3	4
12:15	6	339	0	5	2	0	352	12:15	1	10	11
12:30	6	382	0	12	1	2	403	12:30	1	4	5
12:45	5	384	1	12	3	0	405	12:45	2	12	14
13:00	5	382	0	5	1	0	393	13:00	0	9	9
13:15	6	380	1	4	2	0	393	13:15	1	8	9
13:30	3	394	2	10	0	0	409	13:30	0	5	5
13:45	5	373	1	10	1	0	390	13:45	0	5	5
14:00	0	334	2	8	0	0	344	14:00	0	4	4
14:15	5	378	0	9	2	0	394	14:15	0	5	5
14:30	2	379	0	5	4	2	392	14:30	0	4	4
14:45	1	419	1	4	2	0	427	14:45	7	7	14
15:00	4	401	1	8	2	1	417	15:00	1	7	8
15:15	3	381	0	8	3	0	395	15:15	3	4	7
15:30	6	426	0	8	0	0	440	15:30	2	7	9
15:45	5	432	1	7	0	1	446	15:45	0	3	3
16:00	3	402	0	5	1	1	412	16:00	1	6	7
16:15	2	429	1	8	1	1	442	16:15	0	1	1
16:30	2	413	0	4	0	0	419	16:30	1	2	3
16:45	6	436	0	3	0	1	446	16:45	2	5	7
17:00	2	407	0	2	1	0	412	17:00	1	5	6
17:15	3	438	0	5	0	0	446	17:15	1	11	12
17:30	3	403	0	6	2	1	415	17:30	0	6	6
17:45	4	400	0	2	0	0	406	17:45	0	8	8
Total	93	16024	20	344	65	11	16557	Total	27	193	220
% of Total	0.6%	96.8%	0.1%	2.1%	0.4%	0.1%	100%	% of Total	12.3%	87.7%	100%

Total Summary**MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021**

Traffic Summary				Crossing Summary			
Total			16557	Total			220
AM Peak Hour	11:00 - 12:00	1421		AM Peak Hour	11:00 - 12:00	10	
AM PHF	0.95			AM PHF	0.625		
PM Peak Hour	15:30 - 16:30	1740		PM Peak Hour	15:30 - 16:30	20	
PM PHF	0.975			PM PHF	0.556		
Overall Peak Hour	15:30 - 16:30	1740		Overall Peak Hour	15:30 - 16:30	20	
Overall PHF	0.975			Overall PHF	0.556		



MAIN STREET



ADAMS STREET

LINCOLN STREET

EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1a

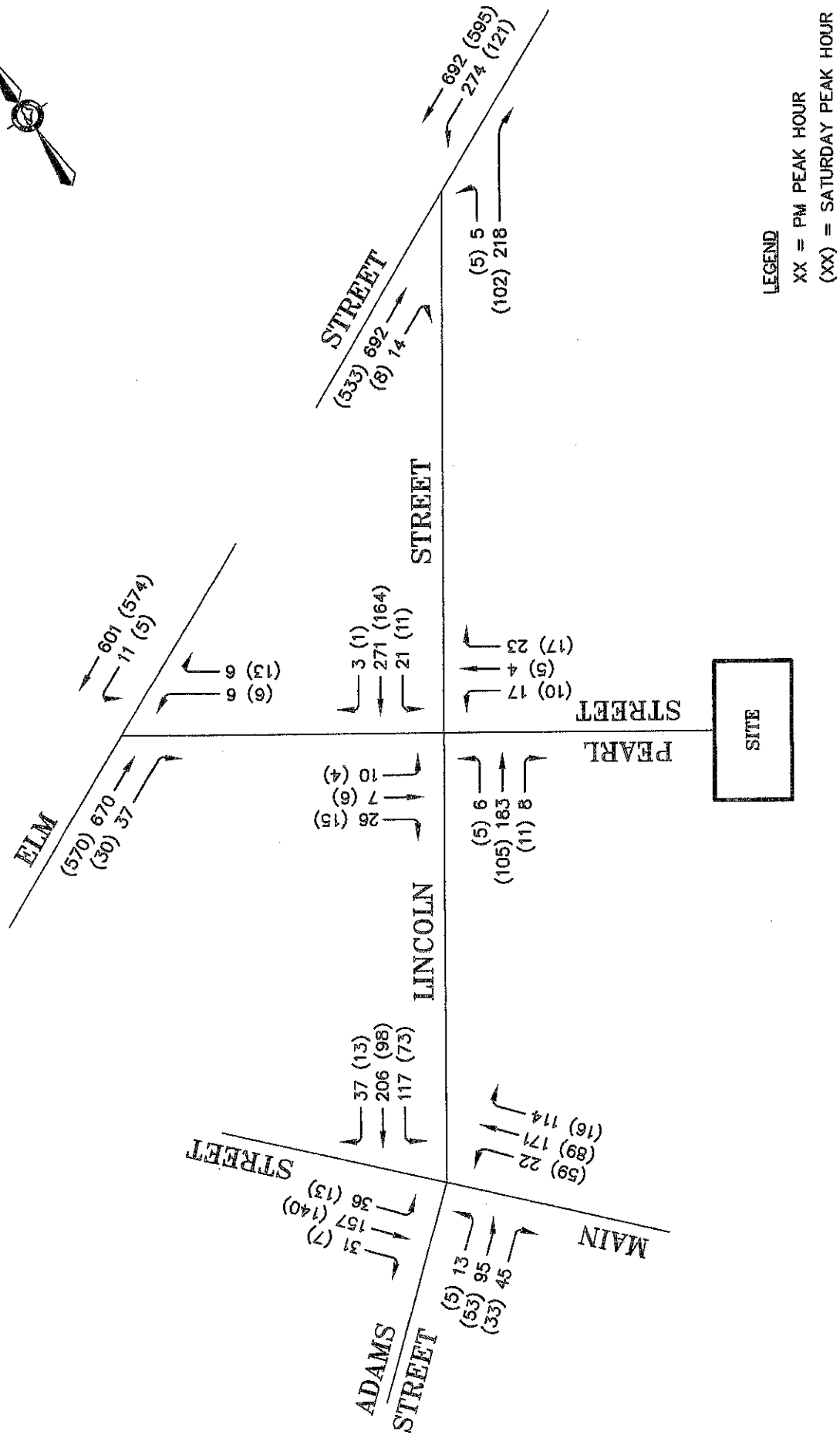
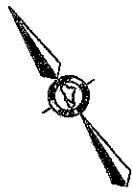
E:\LAND PROJECTS\4000\4000-1489 TRAFFIC SOLUTIONS\WEEKDAY PM PEAK HOUR\WEEKDAY OCTOBER

RIVERDAM REDEVELOPMENT
BIBBETON, MAINE

DATE: OCTOBER, 2019

FIGURE: 1a

TRAFFIC SOLUTIONS
17 MOUNTAIN DRIVE, CROTON, MAINE 04030



EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)

FIGURE 1

RIVERDAM REDEVELOPMENT		TRAFFIC SOLUTIONS	
FIELD DRAWN BY: LUCAS BROOKS, WAINE		17 NORTHVIEW DRIVE, COVINA, CALIF. 91723	
DATE: AUGUST, 2019	DRAWN: 1		

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	8	128	0	1	0	0	1	146	1	0	2	0	287
07:15 AM	3	155	3	0	0	0	1	159	1	1	0	1	324
07:30 AM	2	195	1	1	0	0	2	165	0	3	0	3	372
07:45 AM	3	213	3	0	0	2	2	180	0	1	0	3	407
Total	16	691	7	2	0	2	6	650	2	5	2	7	1390
08:00 AM	2	186	1	0	0	0	2	163	1	0	0	1	356
08:15 AM	2	198	1	0	0	0	2	157	0	1	0	2	363
08:30 AM	0	203	3	1	0	0	2	143	1	1	0	2	356
08:45 AM	2	219	1	0	0	0	1	146	0	3	0	2	374
Total	6	806	6	1	0	0	7	609	2	5	0	7	1449
Grand Total	22	1497	13	3	0	2	13	1259	4	10	2	14	2839
Apprch %	1.4	97.7	0.8	60	0	40	1	98.7	0.3	38.5	7.7	53.8	
Total %	0.8	52.7	0.5	0.1	0	0.1	0.5	44.3	0.1	0.4	0.1	0.5	
Cars	22	1463	13	3	0	2	12	1222	4	10	2	13	2766
% Cars	100	97.7	100	100	0	100	92.3	97.1	100	100	100	92.9	97.4
Trucks	0	34	0	0	0	0	1	37	0	0	0	1	73
% Trucks	0	2.3	0	0	0	0	7.7	2.9	0	0	0	7.1	2.6

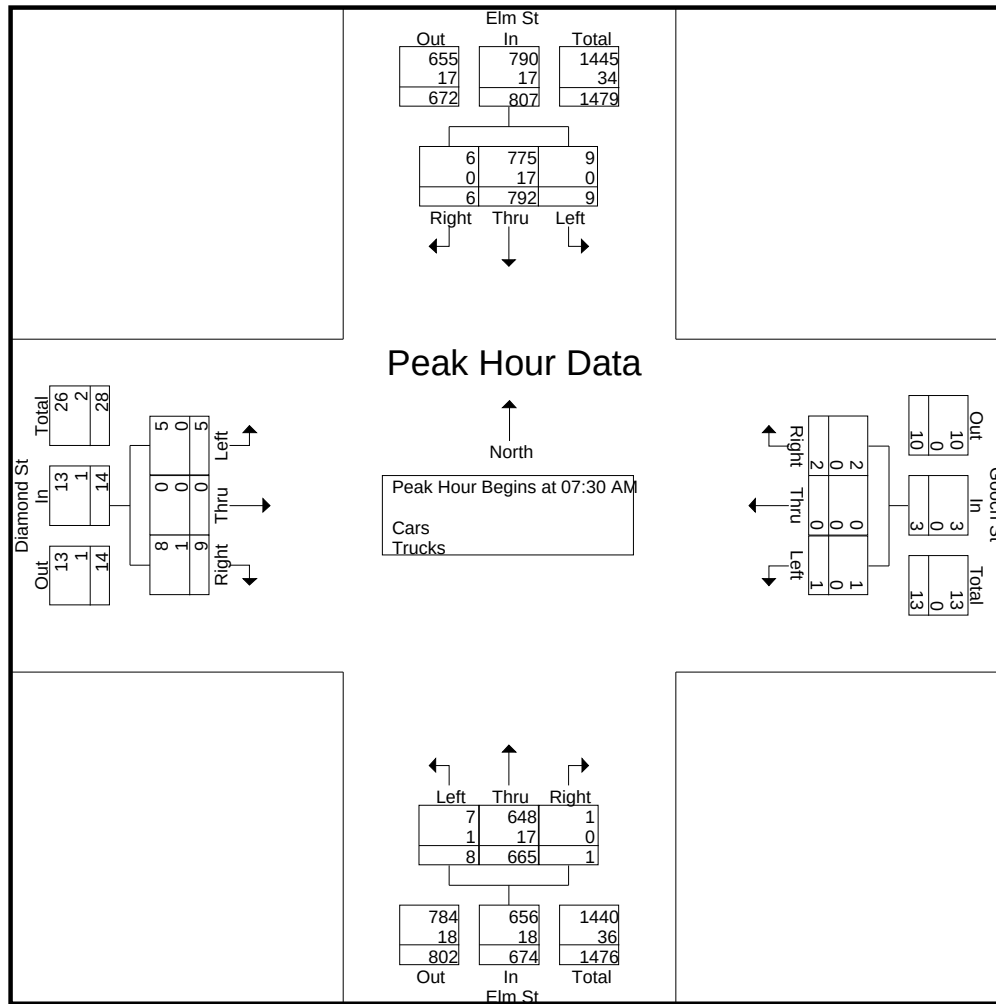
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	195	1	198	1	0	0	1	2	165	0	167	3	0	3	6	372
07:45 AM	3	213	3	219	0	0	2	2	2	180	0	182	1	0	3	4	407
08:00 AM	2	186	1	189	0	0	0	0	2	163	1	166	0	0	1	1	356
08:15 AM	2	198	1	201	0	0	0	0	2	157	0	159	1	0	2	3	363
Total Volume	9	792	6	807	1	0	2	3	8	665	1	674	5	0	9	14	1498
% App. Total	1.1	98.1	0.7		33.3	0	66.7		1.2	98.7	0.1		35.7	0	64.3		
PHF	.750	.930	.500	.921	.250	.000	.250	.375	1.00	.924	.250	.926	.417	.000	.750	.583	.920
Cars	9	775	6	790	1	0	2	3	7	648	1	656	5	0	8	13	1462
% Cars	100	97.9	100	97.9	100	0	100	100	87.5	97.4	100	97.3	100	0	88.9	92.9	97.6
Trucks	0	17	0	17	0	0	0	0	1	17	0	18	0	0	1	1	36
% Trucks	0	2.1	0	2.1	0	0	0	0	12.5	2.6	0	2.7	0	0	11.1	7.1	2.4

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 2

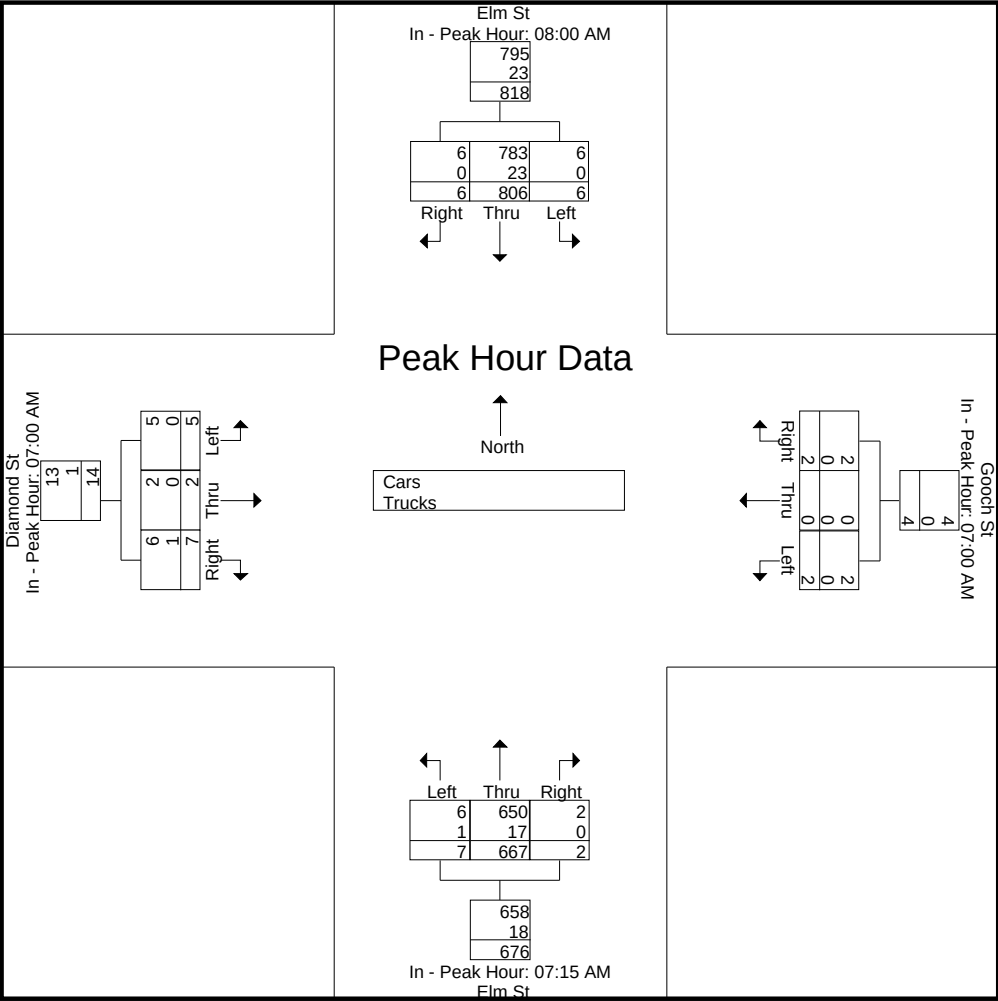


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	2	186	1	189	1	0	0	1	1	159	1	161	0	2	0	2
+15 mins.	2	198	1	201	0	0	0	0	2	165	0	167	1	0	1	2
+30 mins.	0	203	3	206	1	0	0	1	2	180	0	182	3	0	3	6
+45 mins.	2	219	1	222	0	0	2	2	2	163	1	166	1	0	3	4
Total Volume	6	806	6	818	2	0	2	4	7	667	2	676	5	2	7	14
% App. Total	0.7	98.5	0.7		50	0	50		1	98.7	0.3		35.7	14.3	50	
PHF	.750	.920	.500	.921	.500	.000	.250	.500	.875	.926	.500	.929	.417	.250	.583	.583
Cars	6	783	6	795	2	0	2	4	6	650	2	658	5	2	6	13
% Cars	100	97.1	100	97.2	100	0	100	100	85.7	97.5	100	97.3	100	100	85.7	92.9
Trucks	0	23	0	23	0	0	0	0	1	17	0	18	0	0	1	1
% Trucks	0	2.9	0	2.8	0	0	0	0	14.3	2.5	0	2.7	0	0	14.3	7.1

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 4

Groups Printed- Cars

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	8	128	0	1	0	0	1	143	1	0	2	0	284
07:15 AM	3	151	3	0	0	0	1	155	1	1	0	1	316
07:30 AM	2	193	1	1	0	0	2	163	0	3	0	2	367
07:45 AM	3	208	3	0	0	2	2	175	0	1	0	3	397
Total	16	680	7	2	0	2	6	636	2	5	2	6	1364
08:00 AM	2	182	1	0	0	0	1	157	1	0	0	1	345
08:15 AM	2	192	1	0	0	0	2	153	0	1	0	2	353
08:30 AM	0	197	3	1	0	0	2	134	1	1	0	2	341
08:45 AM	2	212	1	0	0	0	1	142	0	3	0	2	363
Total	6	783	6	1	0	0	6	586	2	5	0	7	1402
Grand Total	22	1463	13	3	0	2	12	1222	4	10	2	13	2766
Apprch %	1.5	97.7	0.9	60	0	40	1	98.7	0.3	40	8	52	
Total %	0.8	52.9	0.5	0.1	0	0.1	0.4	44.2	0.1	0.4	0.1	0.5	

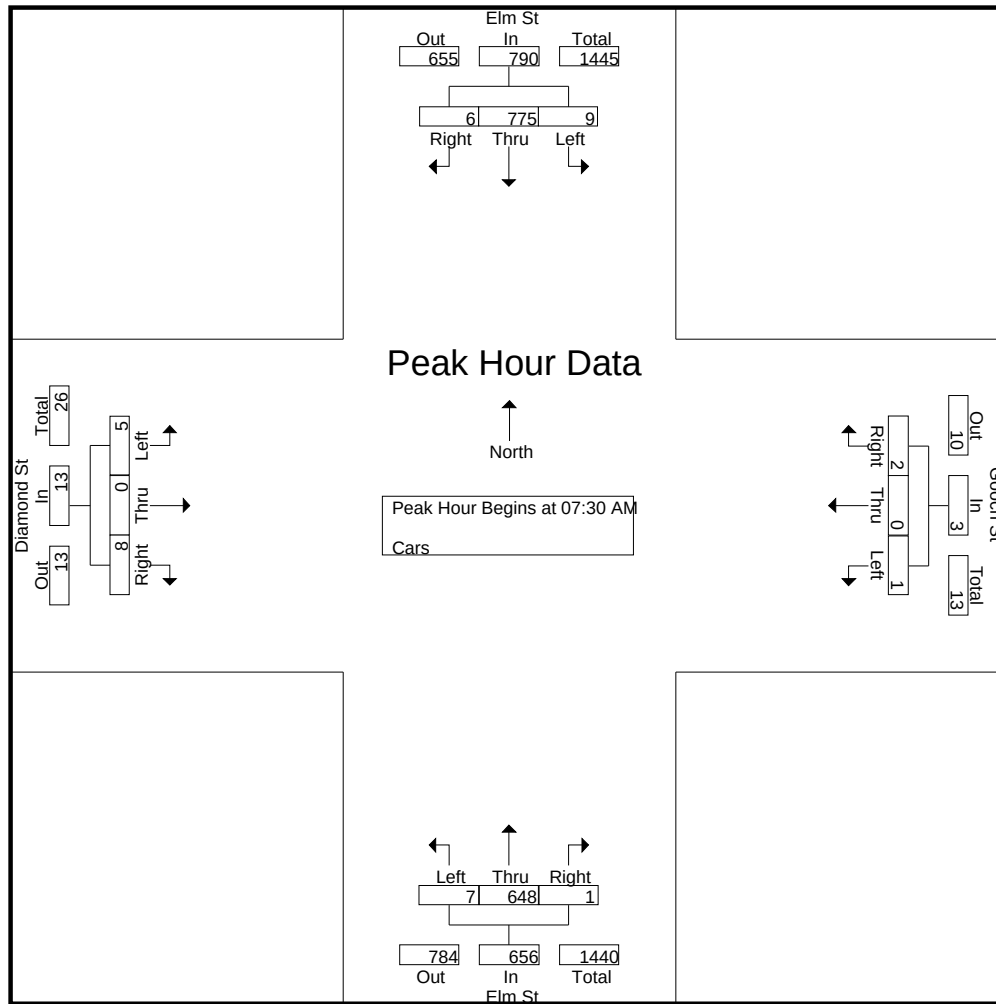
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	193	1	196	1	0	0	1	2	163	0	165	3	0	2	5	367
07:45 AM	3	208	3	214	0	0	2	2	2	175	0	177	1	0	3	4	397
08:00 AM	2	182	1	185	0	0	0	0	1	157	1	159	0	0	1	1	345
08:15 AM	2	192	1	195	0	0	0	0	2	153	0	155	1	0	2	3	353
Total Volume	9	775	6	790	1	0	2	3	7	648	1	656	5	0	8	13	1462
% App. Total	1.1	98.1	0.8		33.3	0	66.7		1.1	98.8	0.2		38.5	0	61.5		
PHF	.750	.931	.500	.923	.250	.000	.250	.375	.875	.926	.250	.927	.417	.000	.667	.650	.921

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 5



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

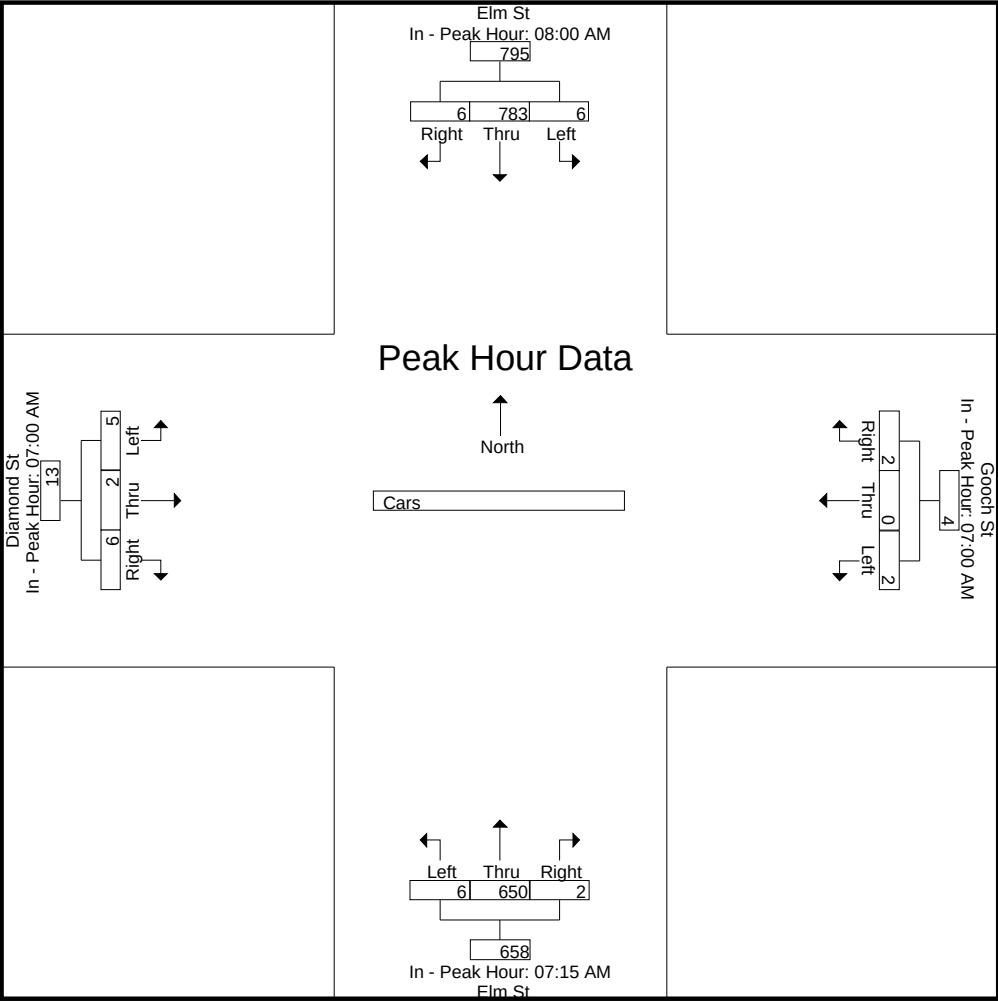
	08:00 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	2	182	1	185	1	0	0	1	1	155	1	157	0	2	0	2
+15 mins.	2	192	1	195	0	0	0	0	2	163	0	165	1	0	1	2
+30 mins.	0	197	3	200	1	0	0	1	2	175	0	177	3	0	2	5
+45 mins.	2	212	1	215	0	0	2	2	1	157	1	159	1	0	3	4
Total Volume	6	783	6	795	2	0	2	4	6	650	2	658	5	2	6	13
% App. Total	0.8	98.5	0.8		50	0	50		0.9	98.8	0.3		38.5	15.4	46.2	
PHF	.750	.923	.500	.924	.500	.000	.250	.500	.750	.929	.500	.929	.417	.250	.500	.650

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

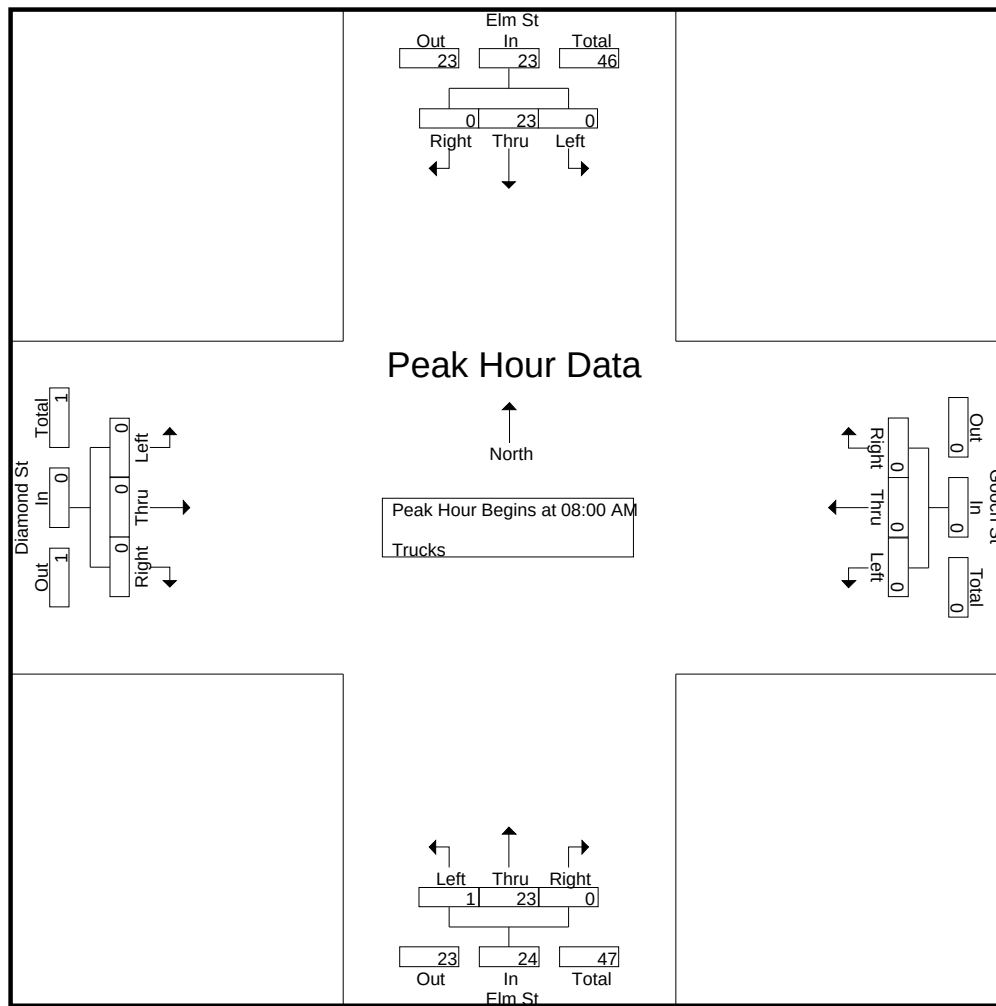
File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 7

Groups Printed- Trucks

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
07:15 AM	0	4	0	0	0	0	0	4	0	0	0	0	8
07:30 AM	0	2	0	0	0	0	0	2	0	0	0	1	5
07:45 AM	0	5	0	0	0	0	0	5	0	0	0	0	10
Total	0	11	0	0	0	0	0	14	0	0	0	1	26
08:00 AM	0	4	0	0	0	0	1	6	0	0	0	0	11
08:15 AM	0	6	0	0	0	0	0	4	0	0	0	0	10
08:30 AM	0	6	0	0	0	0	0	9	0	0	0	0	15
08:45 AM	0	7	0	0	0	0	0	4	0	0	0	0	11
Total	0	23	0	0	0	0	1	23	0	0	0	0	47
Grand Total	0	34	0	0	0	0	1	37	0	0	0	1	73
Apprch %	0	100	0	0	0	0	2.6	97.4	0	0	0	100	
Total %	0	46.6	0	0	0	0	1.4	50.7	0	0	0	1.4	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	4	0	4	0	0	0	0	1	6	0	7	0	0	0	0	11
08:15 AM	0	6	0	6	0	0	0	0	0	4	0	4	0	0	0	0	10
08:30 AM	0	6	0	6	0	0	0	0	0	9	0	9	0	0	0	0	15
08:45 AM	0	7	0	7	0	0	0	0	0	4	0	4	0	0	0	0	11
Total Volume	0	23	0	23	0	0	0	0	1	23	0	24	0	0	0	0	47
% App. Total	0	100	0		0	0	0		4.2	95.8	0		0	0	0		
PHF	.000	.821	.000	.821	.000	.000	.000	.000	.250	.639	.000	.667	.000	.000	.000	.000	.783

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

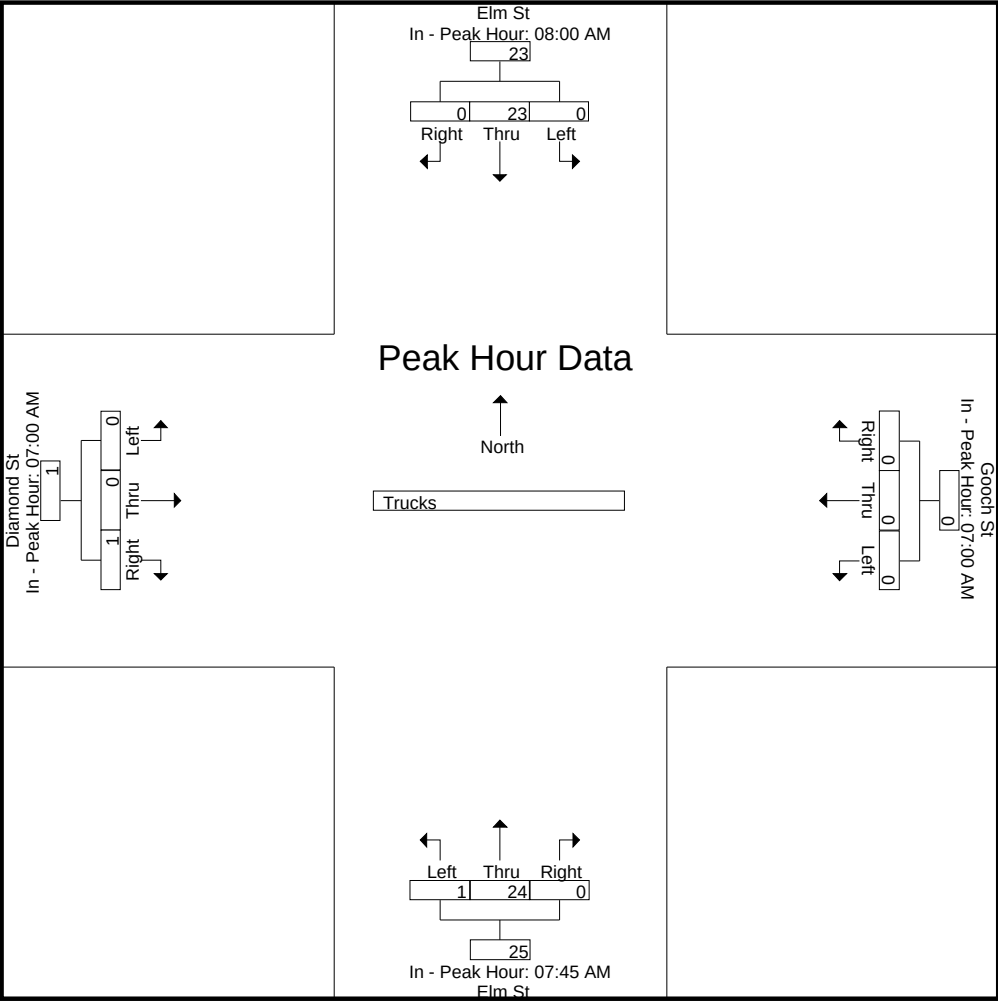


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:45 AM				07:00 AM			
+0 mins.	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0
+15 mins.	0	6	0	6	0	0	0	0	1	6	0	7	0	0	0	0
+30 mins.	0	6	0	6	0	0	0	0	0	4	0	4	0	0	1	1
+45 mins.	0	7	0	7	0	0	0	0	0	9	0	9	0	0	0	0
Total Volume	0	23	0	23	0	0	0	0	1	24	0	25	0	0	1	1
% App. Total	0	100	0		0	0	0		4	96	0		0	0	100	
PHF	.000	.821	.000	.821	.000	.000	.000	.000	.250	.667	.000	.694	.000	.000	.250	.250

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 10

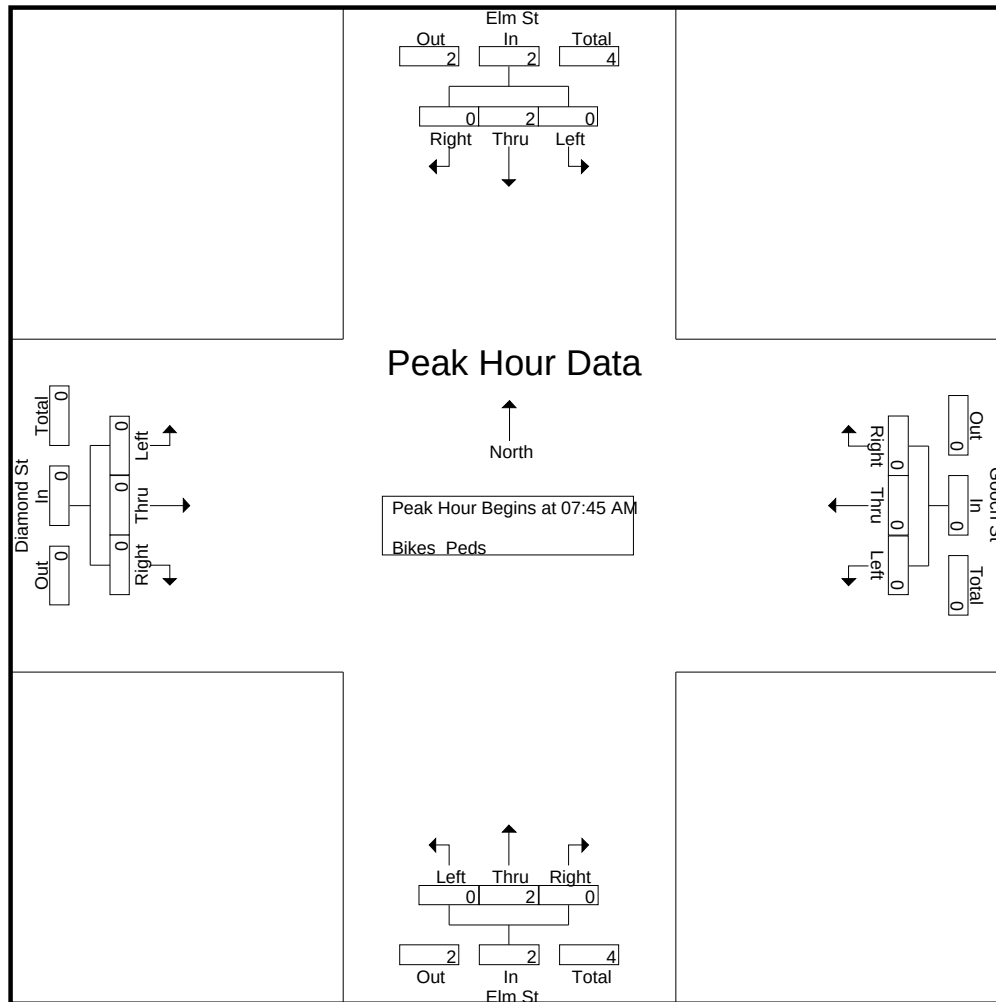
Groups Printed- Bikes Peds

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
07:45 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2
Total	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	2	3	2	5
08:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4	5	1	6
08:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2	1	3
08:45 AM	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	2	4	1	5
Total	0	3	0	0	0	0	0	1	0	1	0	2	0	0	0	9	12	4	16
Grand Total	0	4	0	1	0	0	0	1	0	2	0	2	0	0	0	11	15	6	21
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	66.7	0		0	0	0		0	33.3	0		0	0	0		71.4	28.6	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	1.00

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 11

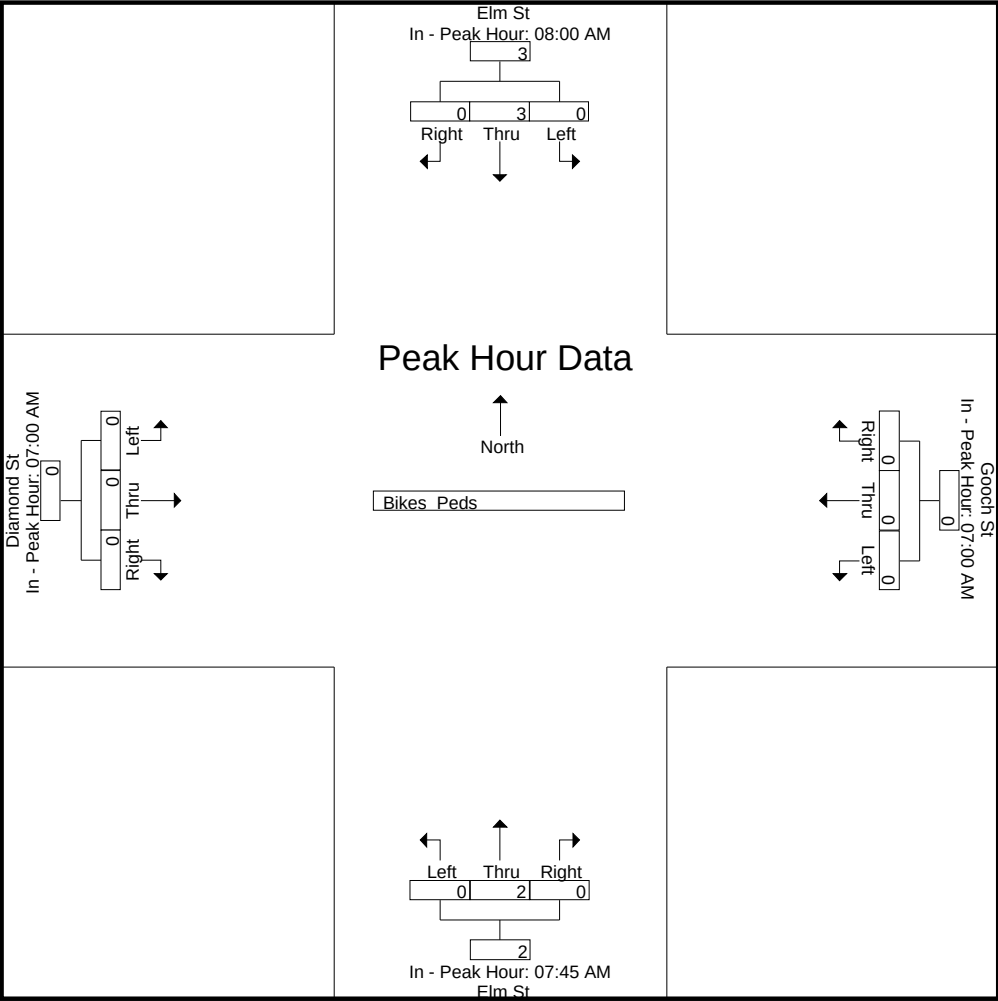


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				07:45 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.750	.000	.750	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 1

Groups Printed- Cars - Trucks

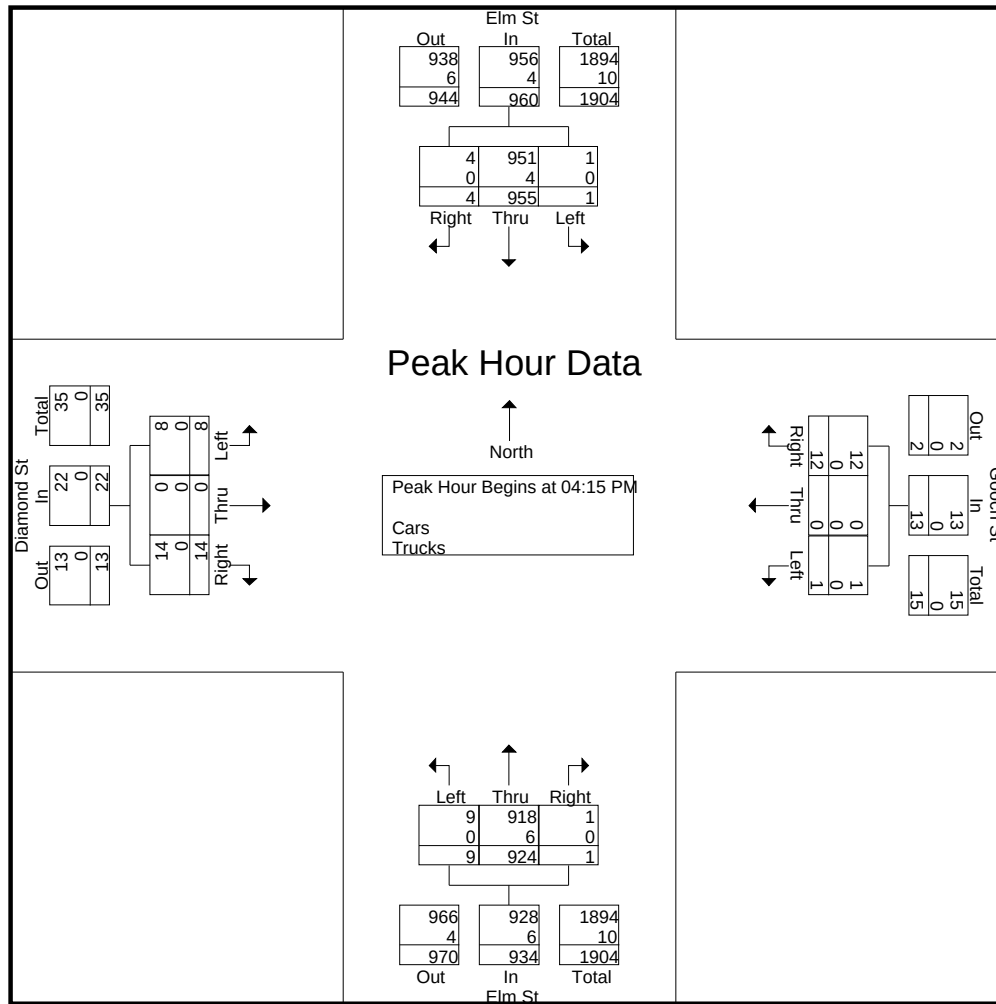
	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	0	225	1	3	0	0	0	227	0	1	0	3	460
03:15 PM	1	225	0	1	0	3	3	224	0	0	0	6	463
03:30 PM	0	243	0	2	0	8	1	207	0	1	0	4	466
03:45 PM	0	249	0	0	0	2	3	210	0	3	0	2	469
Total	1	942	1	6	0	13	7	868	0	5	0	15	1858
04:00 PM	1	240	0	0	0	1	0	218	0	2	0	1	463
04:15 PM	0	251	1	0	0	4	1	216	0	1	0	0	474
04:30 PM	0	216	0	1	0	1	3	221	0	1	0	4	447
04:45 PM	1	239	3	0	0	4	0	237	0	4	0	5	493
Total	2	946	4	1	0	10	4	892	0	8	0	10	1877
05:00 PM	0	249	0	0	0	3	5	250	1	2	0	5	515
05:15 PM	0	230	0	0	0	0	2	207	0	3	0	7	449
05:30 PM	0	223	0	1	0	3	2	203	0	1	0	4	437
05:45 PM	0	208	0	0	0	0	1	169	0	1	0	3	382
Total	0	910	0	1	0	6	10	829	1	7	0	19	1783
Grand Total	3	2798	5	8	0	29	21	2589	1	20	0	44	5518
Apprch %	0.1	99.7	0.2	21.6	0	78.4	0.8	99.2	0	31.2	0	68.8	
Total %	0.1	50.7	0.1	0.1	0	0.5	0.4	46.9	0	0.4	0	0.8	
Cars	3	2778	5	8	0	29	21	2571	1	20	0	44	5480
% Cars	100	99.3	100	100	0	100	100	99.3	100	100	0	100	99.3
Trucks	0	20	0	0	0	0	0	18	0	0	0	0	38
% Trucks	0	0.7	0	0	0	0	0	0.7	0	0	0	0	0.7

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	251	1	252	0	0	4	4	1	216	0	217	1	0	0	1	474
04:30 PM	0	216	0	216	1	0	1	2	3	221	0	224	1	0	4	5	447
04:45 PM	1	239	3	243	0	0	4	4	0	237	0	237	4	0	5	9	493
05:00 PM	0	249	0	249	0	0	3	3	5	250	1	256	2	0	5	7	515
Total Volume	1	955	4	960	1	0	12	13	9	924	1	934	8	0	14	22	1929
% App. Total	0.1	99.5	0.4		7.7	0	92.3		1	98.9	0.1		36.4	0	63.6		
PHF	.250	.951	.333	.952	.250	.000	.750	.813	.450	.924	.250	.912	.500	.000	.700	.611	.936
Cars	1	951	4	956	1	0	12	13	9	918	1	928	8	0	14	22	1919
% Cars	100	99.6	100	99.6	100	0	100	100	100	99.4	100	99.4	100	0	100	100	99.5
Trucks	0	4	0	4	0	0	0	0	0	6	0	6	0	0	0	0	10
% Trucks	0	0.4	0	0.4	0	0	0	0	0	0.6	0	0.6	0	0	0	0	0.5

Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 2

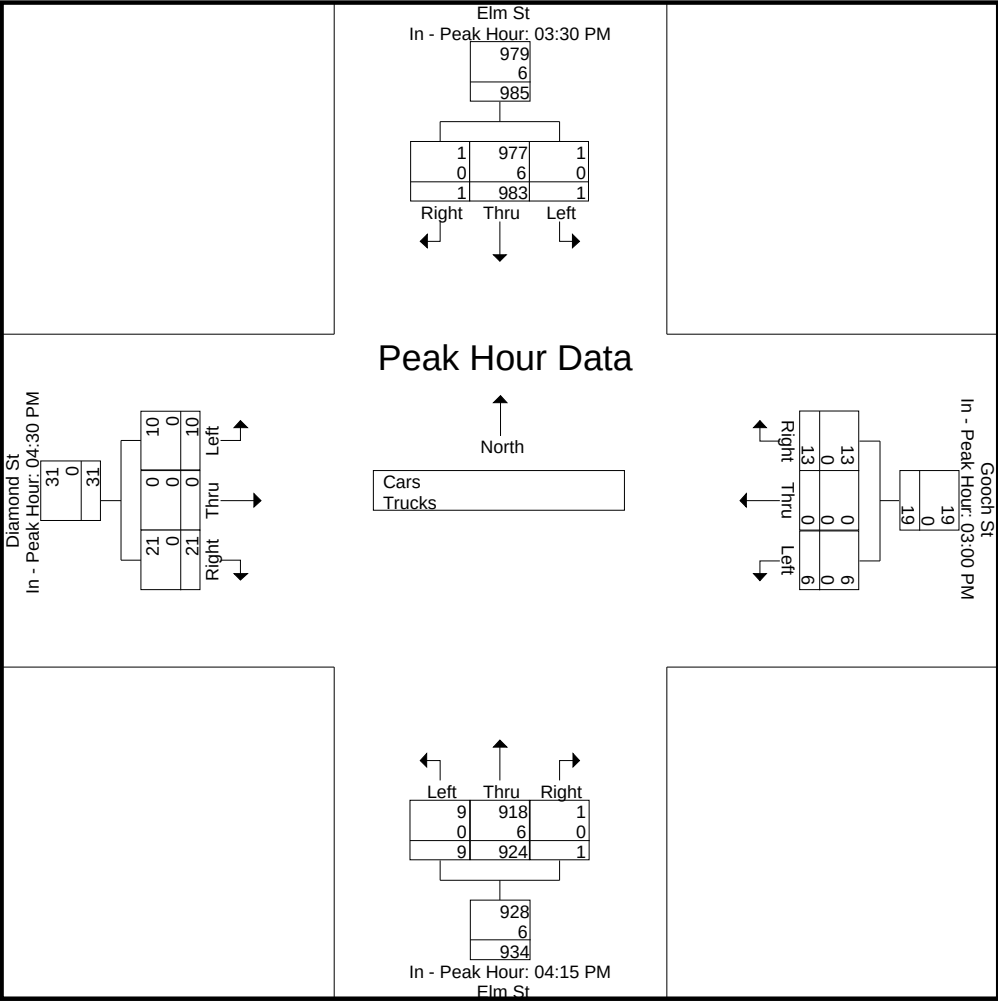


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:30 PM				03:00 PM				04:15 PM				04:30 PM			
+0 mins.	0	243	0	243	3	0	0	3	1	216	0	217	1	0	4	5
+15 mins.	0	249	0	249	1	0	3	4	3	221	0	224	4	0	5	9
+30 mins.	1	240	0	241	2	0	8	10	0	237	0	237	2	0	5	7
+45 mins.	0	251	1	252	0	0	2	2	5	250	1	256	3	0	7	10
Total Volume	1	983	1	985	6	0	13	19	9	924	1	934	10	0	21	31
% App. Total	0.1	99.8	0.1		31.6	0	68.4		1	98.9	0.1		32.3	0	67.7	
PHF	.250	.979	.250	.977	.500	.000	.406	.475	.450	.924	.250	.912	.625	.000	.750	.775
Cars	1	977	1	979	6	0	13	19	9	918	1	928	10	0	21	31
% Cars	100	99.4	100	99.4	100	0	100	100	100	99.4	100	99.4	100	0	100	100
Trucks	0	6	0	6	0	0	0	0	0	6	0	6	0	0	0	0
% Trucks	0	0.6	0	0.6	0	0	0	0	0	0.6	0	0.6	0	0	0	0

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 4

Groups Printed- Cars

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
03:00 PM	0	219	1	3	0	0	0	222	0	1	0	3	449
03:15 PM	1	224	0	1	0	3	3	223	0	0	0	6	461
03:30 PM	0	241	0	2	0	8	1	206	0	1	0	4	463
03:45 PM	0	246	0	0	0	2	3	208	0	3	0	2	464
Total	1	930	1	6	0	13	7	859	0	5	0	15	1837
04:00 PM	1	239	0	0	0	1	0	217	0	2	0	1	461
04:15 PM	0	251	1	0	0	4	1	215	0	1	0	0	473
04:30 PM	0	214	0	1	0	1	3	219	0	1	0	4	443
04:45 PM	1	238	3	0	0	4	0	236	0	4	0	5	491
Total	2	942	4	1	0	10	4	887	0	8	0	10	1868
05:00 PM	0	248	0	0	0	3	5	248	1	2	0	5	512
05:15 PM	0	229	0	0	0	0	2	206	0	3	0	7	447
05:30 PM	0	222	0	1	0	3	2	202	0	1	0	4	435
05:45 PM	0	207	0	0	0	0	1	169	0	1	0	3	381
Total	0	906	0	1	0	6	10	825	1	7	0	19	1775
Grand Total	3	2778	5	8	0	29	21	2571	1	20	0	44	5480
Apprch %	0.1	99.7	0.2	21.6	0	78.4	0.8	99.2	0	31.2	0	68.8	
Total %	0.1	50.7	0.1	0.1	0	0.5	0.4	46.9	0	0.4	0	0.8	

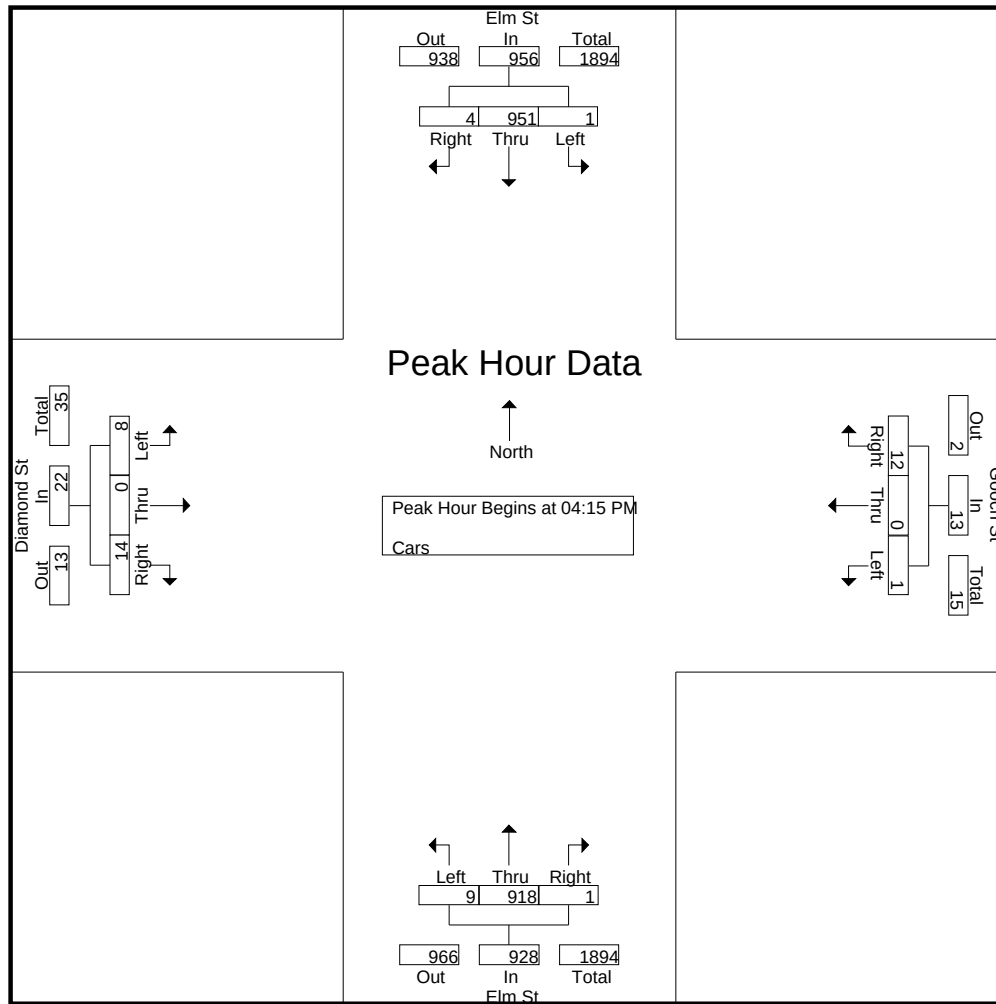
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	251	1	252	0	0	4	4	1	215	0	216	1	0	0	1	473
04:30 PM	0	214	0	214	1	0	1	2	3	219	0	222	1	0	4	5	443
04:45 PM	1	238	3	242	0	0	4	4	0	236	0	236	4	0	5	9	491
05:00 PM	0	248	0	248	0	0	3	3	5	248	1	254	2	0	5	7	512
Total Volume	1	951	4	956	1	0	12	13	9	918	1	928	8	0	14	22	1919
% App. Total	0.1	99.5	0.4		7.7	0	92.3		1	98.9	0.1		36.4	0	63.6		
PHF	.250	.947	.333	.948	.250	.000	.750	.813	.450	.925	.250	.913	.500	.000	.700	.611	.937

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 5

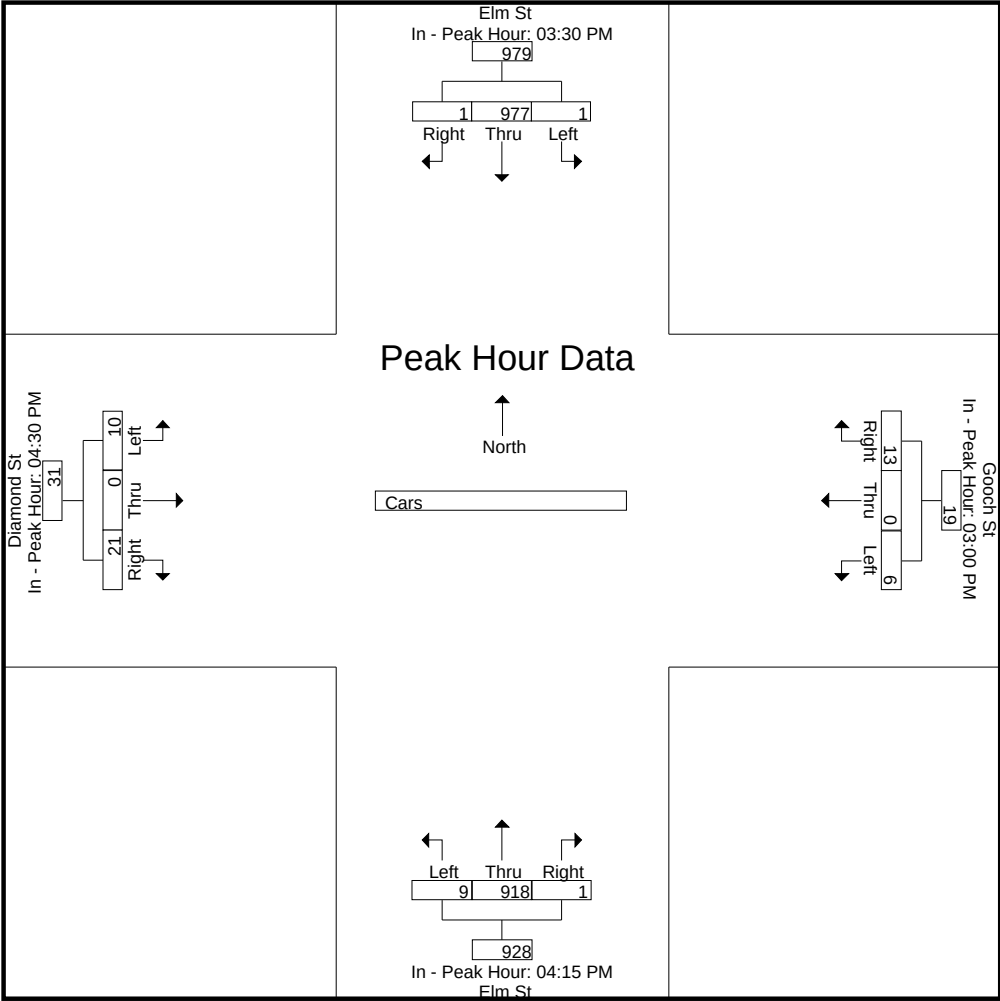


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:30 PM				03:00 PM				04:15 PM				04:30 PM			
+0 mins.	0	241	0	241	3	0	0	3	1	215	0	216	1	0	4	5
+15 mins.	0	246	0	246	1	0	3	4	3	219	0	222	4	0	5	9
+30 mins.	1	239	0	240	2	0	8	10	0	236	0	236	2	0	5	7
+45 mins.	0	251	1	252	0	0	2	2	5	248	1	254	3	0	7	10
Total Volume	1	977	1	979	6	0	13	19	9	918	1	928	10	0	21	31
% App. Total	0.1	99.8	0.1		31.6	0	68.4		1	98.9	0.1		32.3	0	67.7	
PHF	.250	.973	.250	.971	.500	.000	.406	.475	.450	.925	.250	.913	.625	.000	.750	.775

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 7

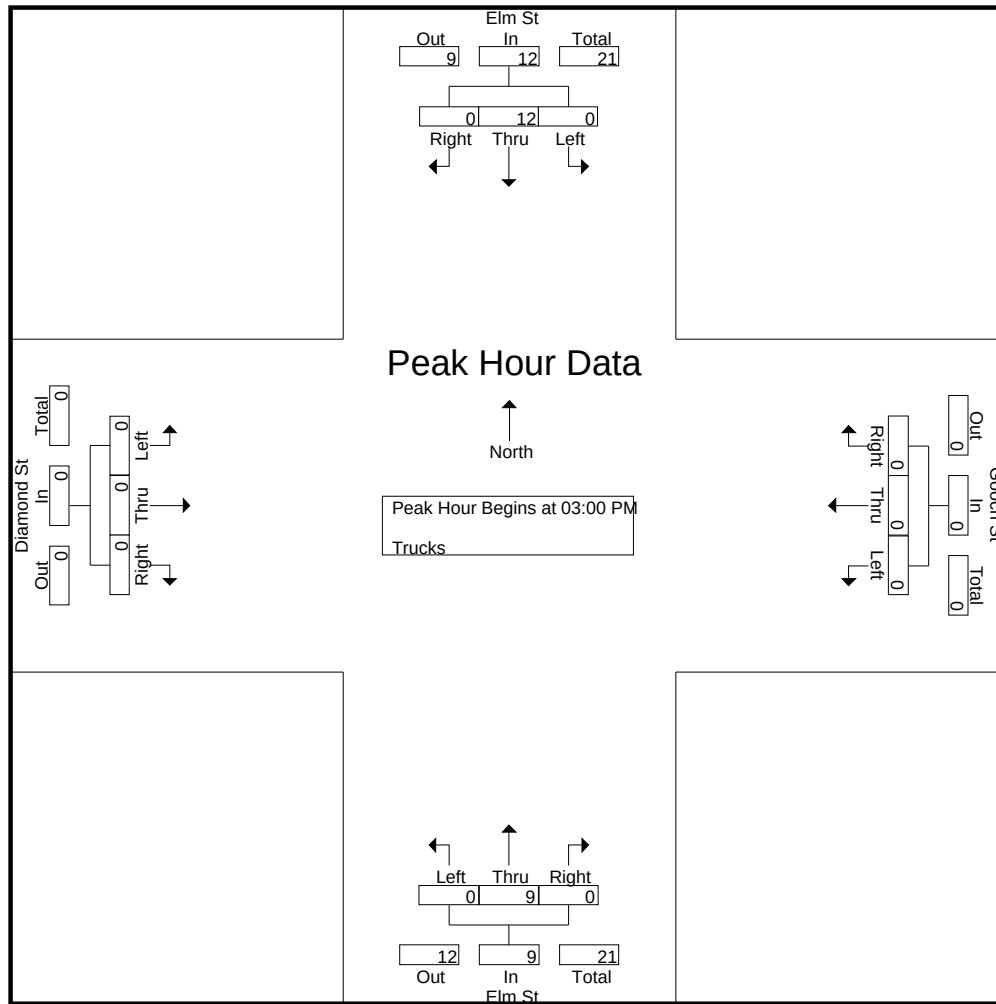
Groups Printed- Trucks

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	0	6	0	0	0	0	0	5	0	0	0	0	11
03:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
03:30 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
03:45 PM	0	3	0	0	0	0	0	2	0	0	0	0	5
Total	0	12	0	0	0	0	0	9	0	0	0	0	21
04:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
04:30 PM	0	2	0	0	0	0	0	2	0	0	0	0	4
04:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	0	4	0	0	0	0	0	5	0	0	0	0	9
05:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
05:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	0	0	0	0	4	0	0	0	0	8
Grand Total	0	20	0	0	0	0	0	18	0	0	0	0	38
Apprch %	0	100	0	0	0	0	0	100	0	0	0	0	
Total %	0	52.6	0	0	0	0	0	47.4	0	0	0	0	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	6	0	6	0	0	0	0	0	5	0	5	0	0	0	0	11
03:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
03:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
03:45 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
Total Volume	0	12	0	12	0	0	0	0	0	9	0	9	0	0	0	0	21
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000	.477

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 8

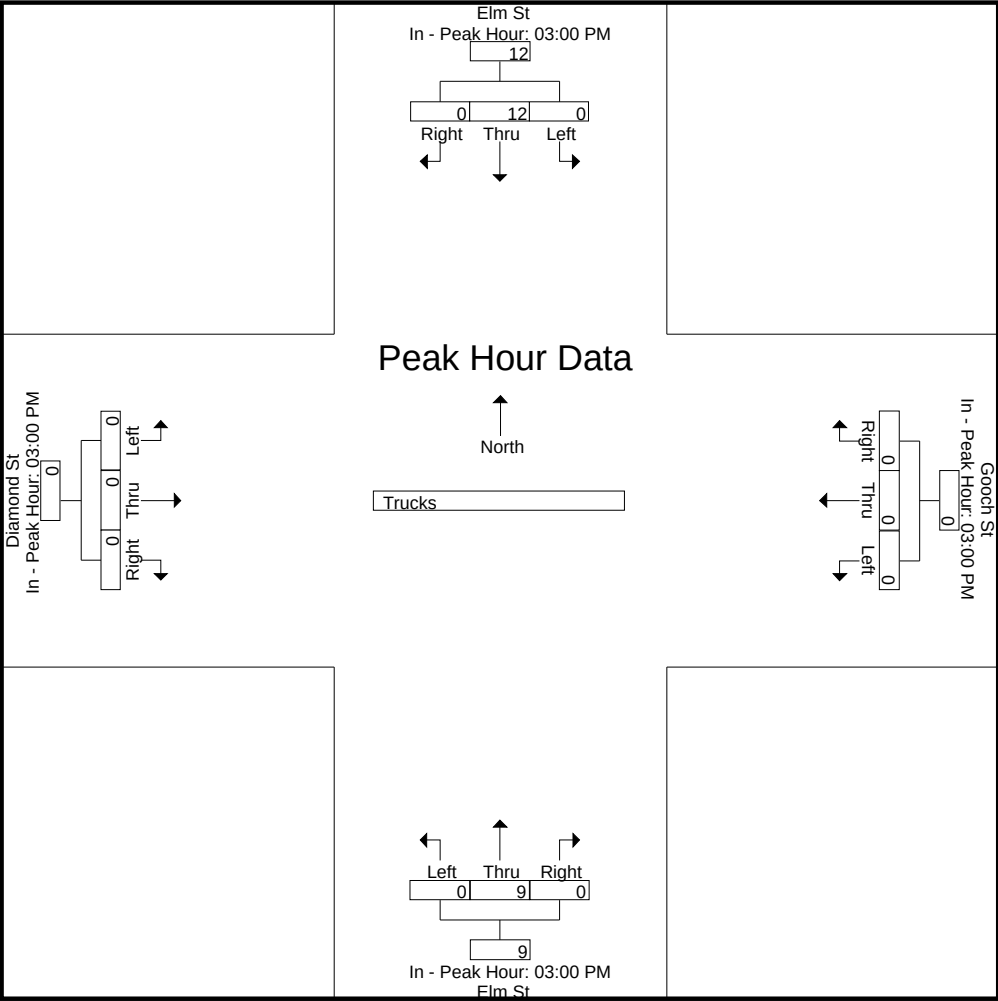


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM				03:00 PM				03:00 PM				03:00 PM			
+0 mins.	0	6	0	6	0	0	0	0	0	5	0	5	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	12	0	12	0	0	0	0	0	9	0	9	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150001
Site Code : 19150001
Start Date : 11/2/2021
Page No : 10

Groups Printed- Bikes Peds

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
03:15 PM	0	0	0	0	0	0	0	2	0	1	0	2	0	0	0	2	6	1	7
03:30 PM	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	7	9	2	11
03:45 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	10	13	2	15
Total	0	2	0	0	0	0	0	4	0	3	0	5	0	0	0	22	31	5	36
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5
04:15 PM	0	1	0	0	0	0	0	0	0	1	0	2	0	0	0	3	5	2	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	4
04:45 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	2	2	2	4
Total	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	14	16	4	20
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	6	8	1	9
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	3
05:30 PM	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	3	5	2	7
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	3	4	1	5
Total	0	2	0	0	0	0	0	0	0	2	0	6	0	0	0	14	20	4	24
Grand Total	0	6	0	0	0	0	0	4	0	7	0	13	0	0	0	50	67	13	80
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0				
Total %	0	46.2	0		0	0	0		0	53.8	0		0	0	0		83.8	16.2	

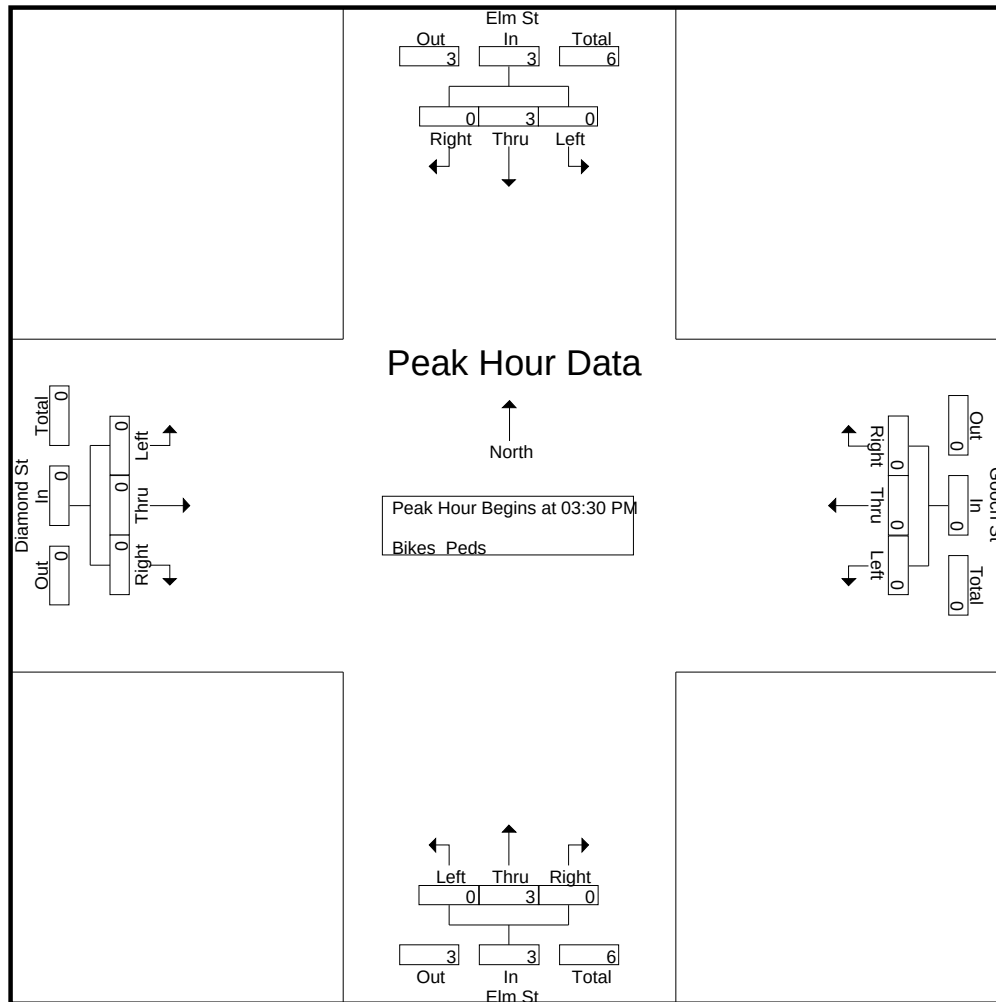
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 03:30 PM																			
03:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Total Volume	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	0	0	6
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0				
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.000	.750

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 11

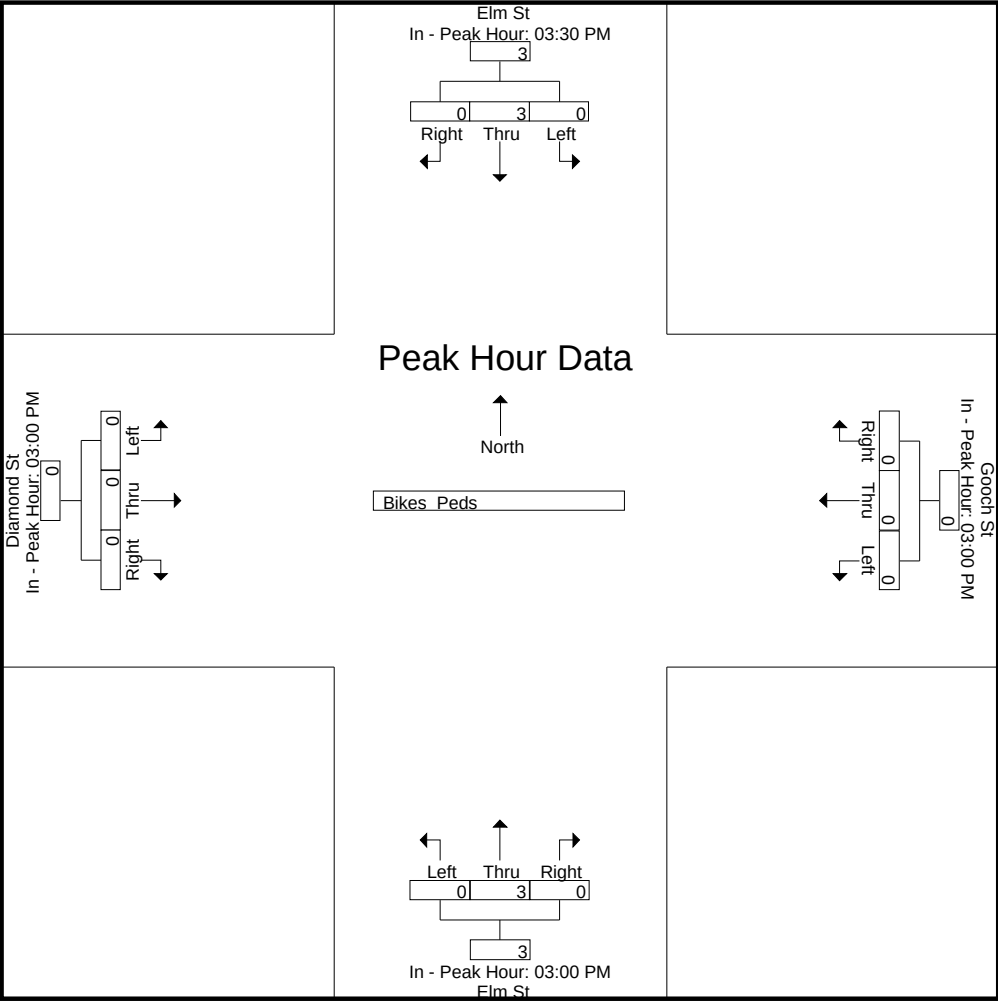


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:30 PM				03:00 PM				03:00 PM				03:00 PM			
+0 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150001
 Site Code : 19150001
 Start Date : 11/2/2021
 Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	223	1	0	0	0	0	177	0	0	0	4	405
11:15 AM	0	201	0	0	0	0	1	184	0	1	0	2	389
11:30 AM	0	211	0	0	0	0	1	189	0	0	0	3	404
11:45 AM	0	195	2	0	0	0	3	165	0	3	0	4	372
Total	0	830	3	0	0	0	5	715	0	4	0	13	1570
12:00 PM	0	202	0	0	0	0	1	159	1	4	0	1	368
12:15 PM	0	222	2	0	0	1	1	178	1	0	0	1	406
12:30 PM	0	218	0	0	0	0	1	172	0	0	0	3	394
12:45 PM	1	203	0	0	0	1	3	163	0	2	0	4	377
Total	1	845	2	0	0	2	6	672	2	6	0	9	1545
01:00 PM	0	209	0	0	0	0	1	152	0	2	0	2	366
01:15 PM	0	212	0	0	0	0	0	151	0	1	0	0	364
01:30 PM	0	213	0	0	0	0	0	137	0	0	0	1	351
01:45 PM	1	163	0	0	0	2	0	161	2	1	0	1	331
Total	1	797	0	0	0	2	1	601	2	4	0	4	1412
Grand Total	2	2472	5	0	0	4	12	1988	4	14	0	26	4527
Apprch %	0.1	99.7	0.2	0	0	100	0.6	99.2	0.2	35	0	65	
Total %	0	54.6	0.1	0	0	0.1	0.3	43.9	0.1	0.3	0	0.6	
Cars	2	2467	5	0	0	4	11	1982	4	14	0	25	4514
% Cars	100	99.8	100	0	0	100	91.7	99.7	100	100	0	96.2	99.7
Trucks	0	5	0	0	0	0	1	6	0	0	0	1	13
% Trucks	0	0.2	0	0	0	0	8.3	0.3	0	0	0	3.8	0.3

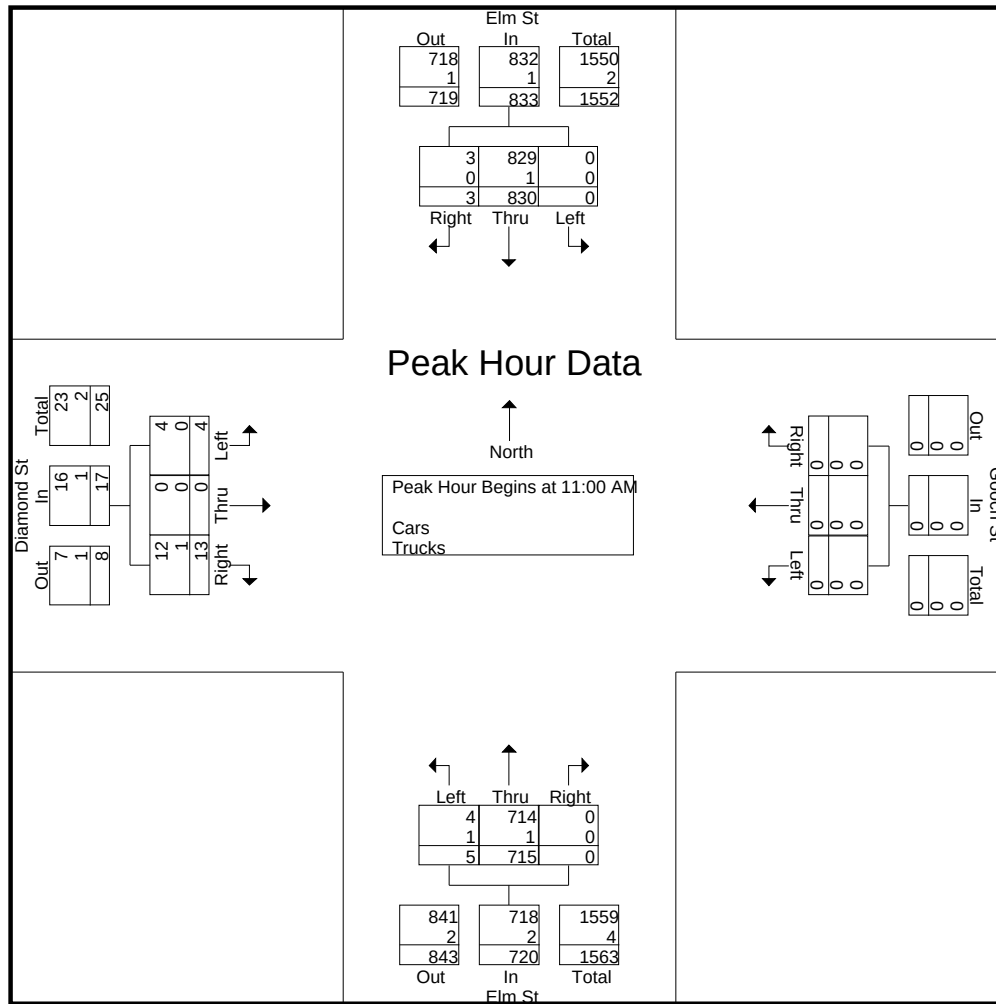
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	223	1	224	0	0	0	0	0	177	0	177	0	0	4	4	405
11:15 AM	0	201	0	201	0	0	0	0	1	184	0	185	1	0	2	3	389
11:30 AM	0	211	0	211	0	0	0	0	1	189	0	190	0	0	3	3	404
11:45 AM	0	195	2	197	0	0	0	0	3	165	0	168	3	0	4	7	372
Total Volume	0	830	3	833	0	0	0	0	5	715	0	720	4	0	13	17	1570
% App. Total	0	99.6	0.4		0	0	0		0.7	99.3	0		23.5	0	76.5		
PHF	.000	.930	.375	.930	.000	.000	.000	.000	.417	.946	.000	.947	.333	.000	.813	.607	.969
Cars	0	829	3	832	0	0	0	0	4	714	0	718	4	0	12	16	1566
% Cars	0	99.9	100	99.9	0	0	0	0	80.0	99.9	0	99.7	100	0	92.3	94.1	99.7
Trucks	0	1	0	1	0	0	0	0	1	1	0	2	0	0	1	1	4
% Trucks	0	0.1	0	0.1	0	0	0	0	20.0	0.1	0	0.3	0	0	7.7	5.9	0.3

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Rain

File Name : 191500S1
 Site Code : 19150001
 Start Date : 10/30/2021
 Page No : 2

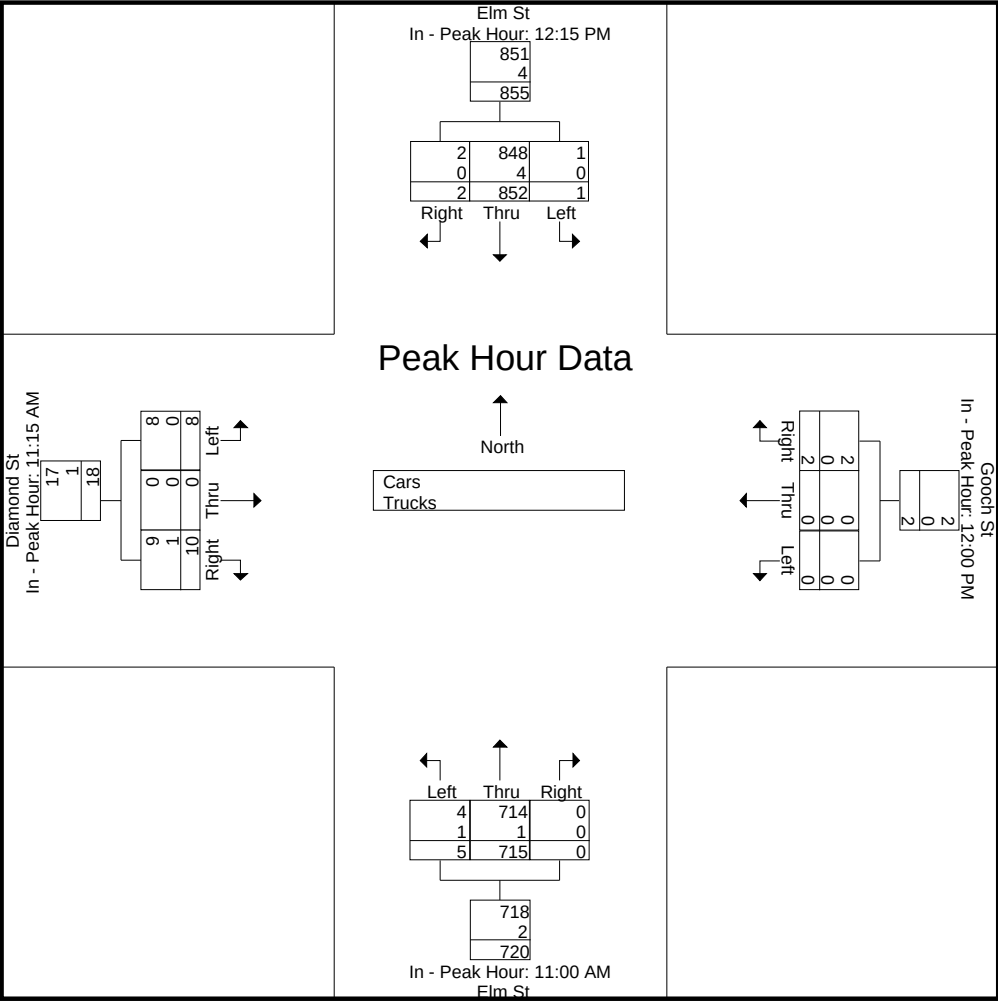


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				11:00 AM				11:15 AM			
+0 mins.	0	222	2	224	0	0	0	0	0	177	0	177	1	0	2	3
+15 mins.	0	218	0	218	0	0	1	1	1	184	0	185	0	0	3	3
+30 mins.	1	203	0	204	0	0	0	0	1	189	0	190	3	0	4	7
+45 mins.	0	209	0	209	0	0	1	1	3	165	0	168	4	0	1	5
Total Volume	1	852	2	855	0	0	2	2	5	715	0	720	8	0	10	18
% App. Total	0.1	99.6	0.2		0	0	100		0.7	99.3	0		44.4	0	55.6	
PHF	.250	.959	.250	.954	.000	.000	.500	.500	.417	.946	.000	.947	.500	.000	.625	.643
Cars	1	848	2	851	0	0	2	2	4	714	0	718	8	0	9	17
% Cars	100	99.5	100	99.5	0	0	100	100	80	99.9	0	99.7	100	0	90	94.4
Trucks	0	4	0	4	0	0	0	0	1	1	0	2	0	0	1	1
% Trucks	0	0.5	0	0.5	0	0	0	0	20	0.1	0	0.3	0	0	10	5.6

N/S Street : Elm Street
 E/W Street : Gooch St / Diamond St
 City/State : Biddeford, ME
 Weather : Rain

File Name : 191500S1
 Site Code : 19150001
 Start Date : 10/30/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 4

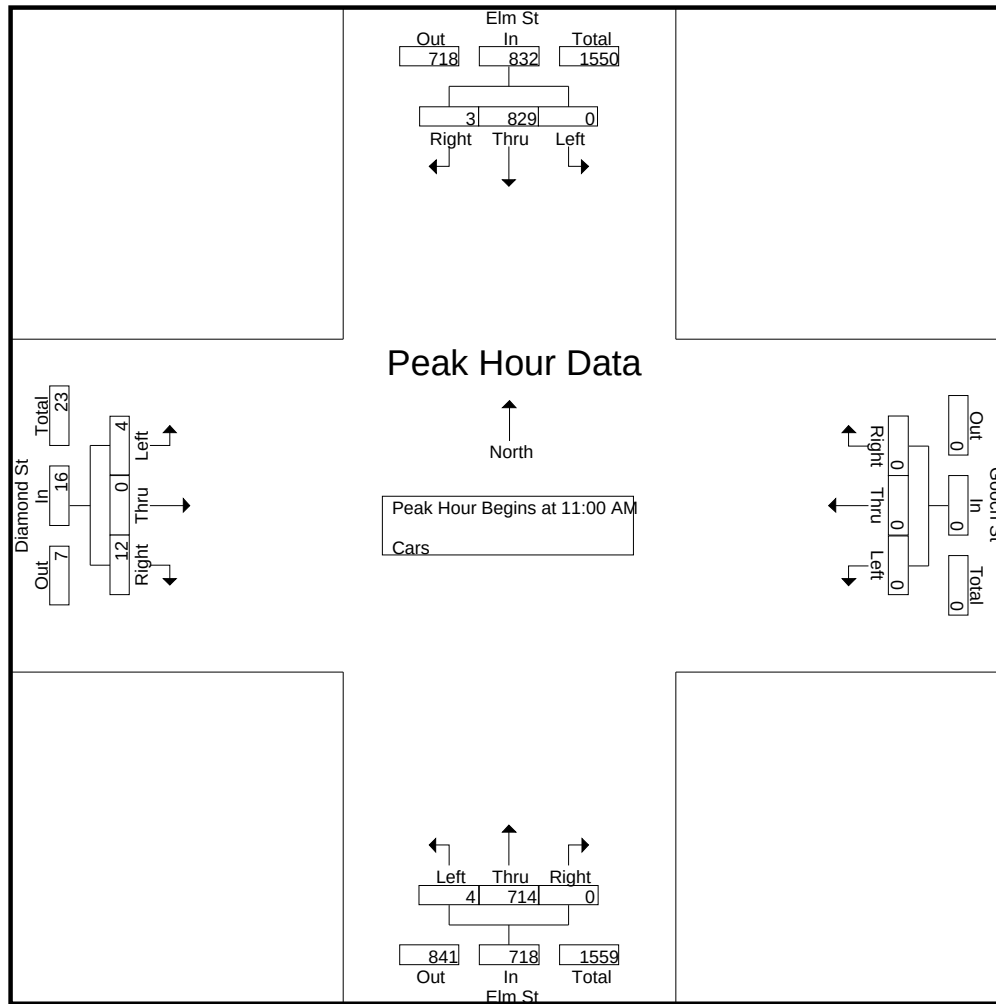
Groups Printed- Cars

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:00 AM	0	223	1	0	0	0	0	177	0	0	0	4	405
11:15 AM	0	200	0	0	0	0	0	183	0	1	0	2	386
11:30 AM	0	211	0	0	0	0	1	189	0	0	0	2	403
11:45 AM	0	195	2	0	0	0	3	165	0	3	0	4	372
Total	0	829	3	0	0	0	4	714	0	4	0	12	1566
12:00 PM	0	202	0	0	0	0	1	159	1	4	0	1	368
12:15 PM	0	222	2	0	0	1	1	177	1	0	0	1	405
12:30 PM	0	216	0	0	0	0	1	169	0	0	0	3	389
12:45 PM	1	202	0	0	0	1	3	163	0	2	0	4	376
Total	1	842	2	0	0	2	6	668	2	6	0	9	1538
01:00 PM	0	208	0	0	0	0	1	151	0	2	0	2	364
01:15 PM	0	212	0	0	0	0	0	151	0	1	0	0	364
01:30 PM	0	213	0	0	0	0	0	137	0	0	0	1	351
01:45 PM	1	163	0	0	0	2	0	161	2	1	0	1	331
Total	1	796	0	0	0	2	1	600	2	4	0	4	1410
Grand Total	2	2467	5	0	0	4	11	1982	4	14	0	25	4514
Apprch %	0.1	99.7	0.2	0	0	100	0.6	99.2	0.2	35.9	0	64.1	
Total %	0	54.7	0.1	0	0	0.1	0.2	43.9	0.1	0.3	0	0.6	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	223	1	224	0	0	0	0	0	177	0	177	0	0	4	4	405
11:15 AM	0	200	0	200	0	0	0	0	0	183	0	183	1	0	2	3	386
11:30 AM	0	211	0	211	0	0	0	0	1	189	0	190	0	0	2	2	403
11:45 AM	0	195	2	197	0	0	0	0	3	165	0	168	3	0	4	7	372
Total Volume	0	829	3	832	0	0	0	0	4	714	0	718	4	0	12	16	1566
% App. Total	0	99.6	0.4		0	0	0		0.6	99.4	0		25	0	75		
PHF	.000	.929	.375	.929	.000	.000	.000	.000	.333	.944	.000	.945	.333	.000	.750	.571	.967

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 5

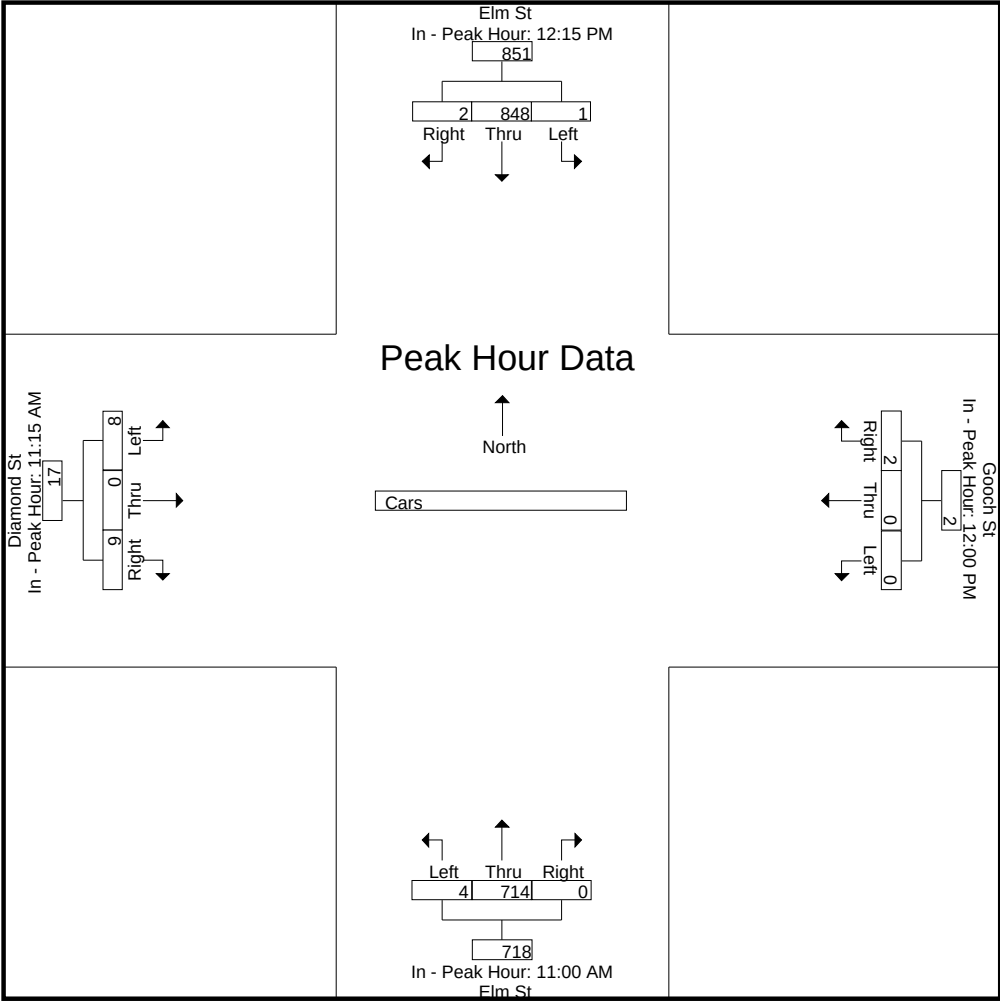


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				11:00 AM				11:15 AM			
+0 mins.	0	222	2	224	0	0	0	0	0	177	0	177	1	0	2	3
+15 mins.	0	216	0	216	0	0	1	1	0	183	0	183	0	0	2	2
+30 mins.	1	202	0	203	0	0	0	0	1	189	0	190	3	0	4	7
+45 mins.	0	208	0	208	0	0	1	1	3	165	0	168	4	0	1	5
Total Volume	1	848	2	851	0	0	2	2	4	714	0	718	8	0	9	17
% App. Total	0.1	99.6	0.2		0	0	100		0.6	99.4	0		47.1	0	52.9	
PHF	.250	.955	.250	.950	.000	.000	.500	.500	.333	.944	.000	.945	.500	.000	.563	.607

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 7

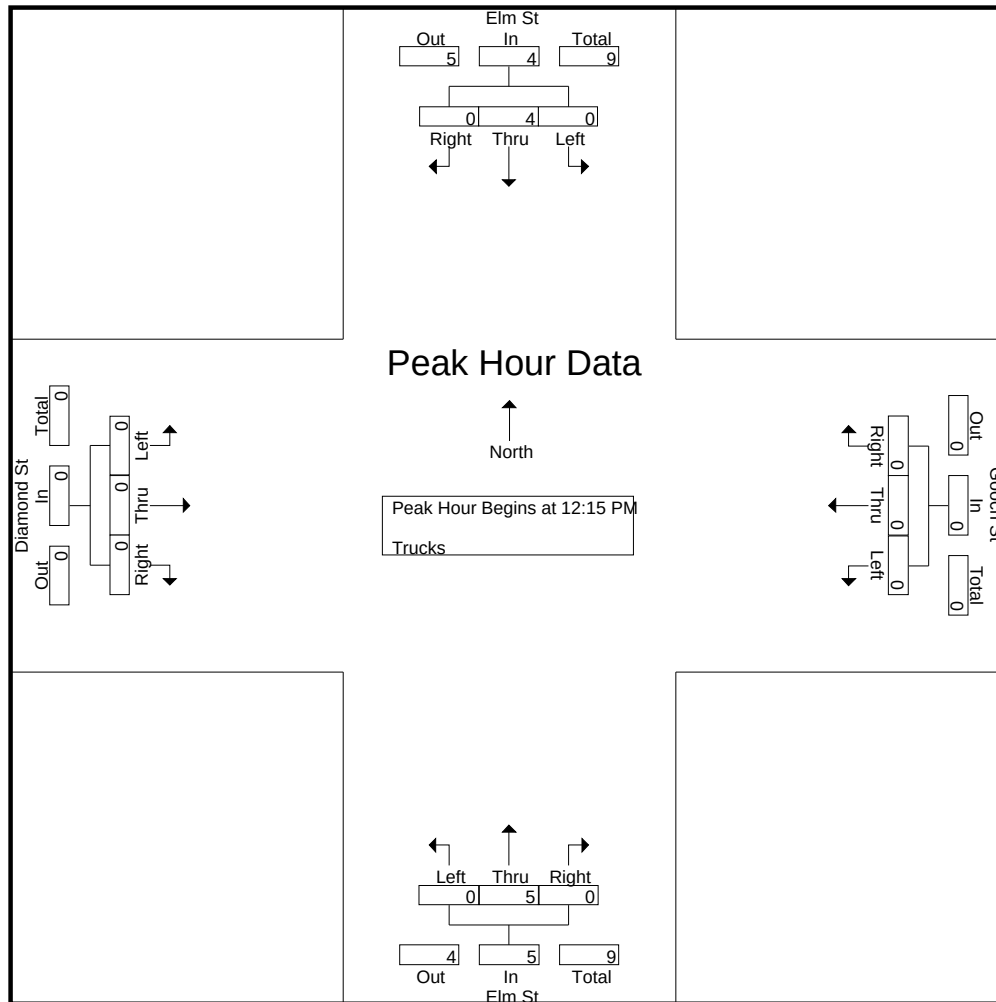
Groups Printed- Trucks

	Elm St From North			Gooch St From East			Elm St From South			Diamond St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	1	1	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	1	1	0	0	0	1	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
12:30 PM	0	2	0	0	0	0	0	3	0	0	0	0	5
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	0	0	0	4	0	0	0	0	7
01:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	1	0	0	0	0	2
Grand Total	0	5	0	0	0	0	1	6	0	0	0	1	13
Apprch %	0	100	0	0	0	0	14.3	85.7	0	0	0	100	
Total %	0	38.5	0	0	0	0	7.7	46.2	0	0	0	7.7	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
12:30 PM	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0	5
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total Volume	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0	9
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.000	.000	.000	.000	.450

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 8

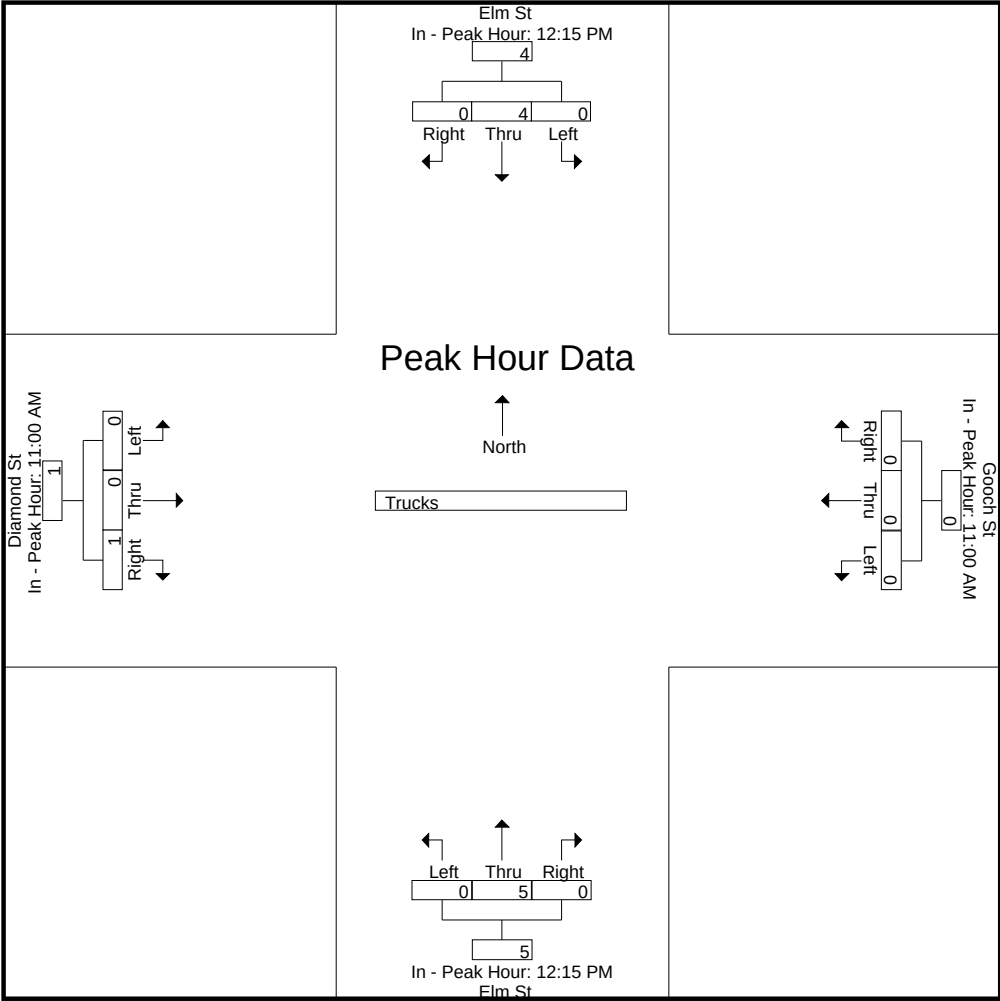


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				11:00 AM				12:15 PM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	3	0	3	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	4	0	4	0	0	0	0	0	5	0	5	0	0	1	1
% App. Total	0	100	0		0	0	0		0	100	0		0	0	100	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.000	.000	.250	.250

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 10

Groups Printed- Bikes Peds

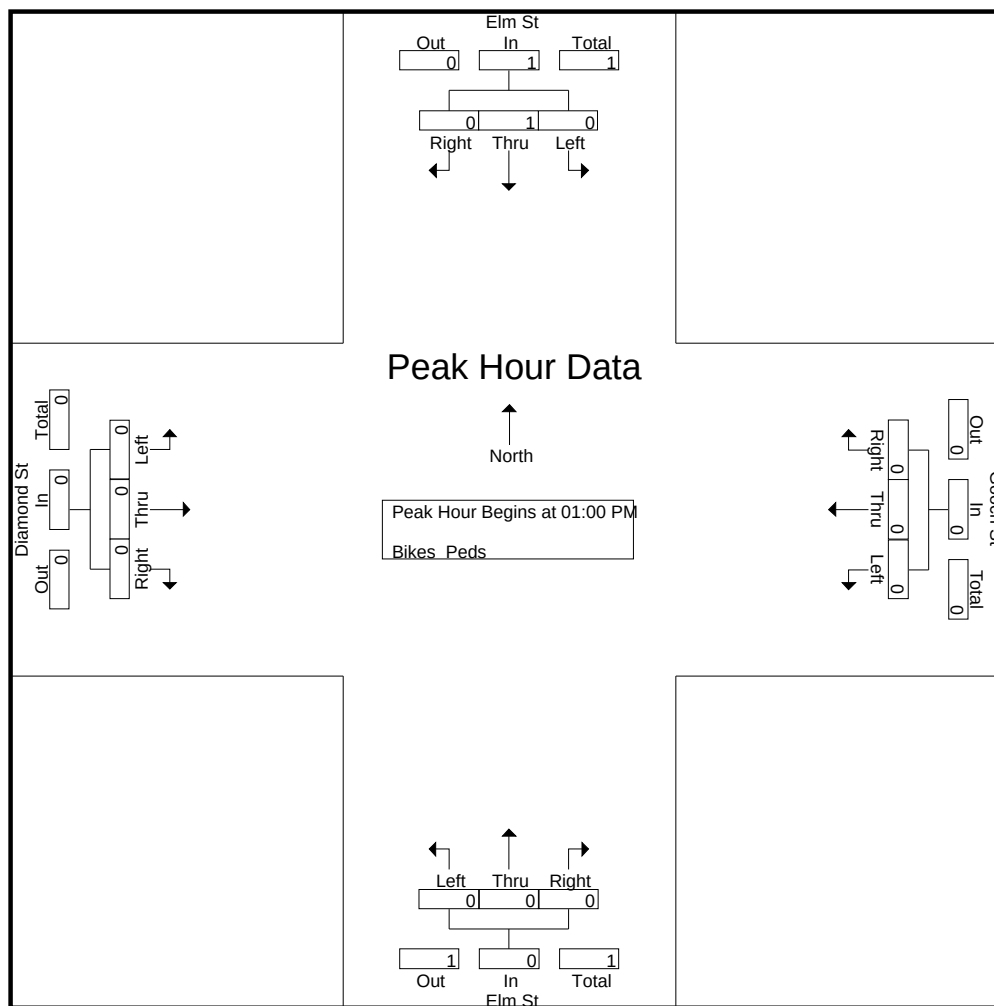
	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	5
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	7
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
12:30 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	2	6	0	6
12:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	3	0	3
Total	0	0	0	0	0	0	0	4	0	0	0	2	0	0	0	4	10	0	10
01:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	1	3
Grand Total	0	1	0	0	0	0	0	6	0	0	0	2	0	0	0	11	19	1	20
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0				
Total %	0	100	0		0	0	0		0	0	0		0	0	0		95	5	

	Elm St From North				Gooch St From East				Elm St From South				Diamond St From West						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 01:00 PM																			
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0				
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 11

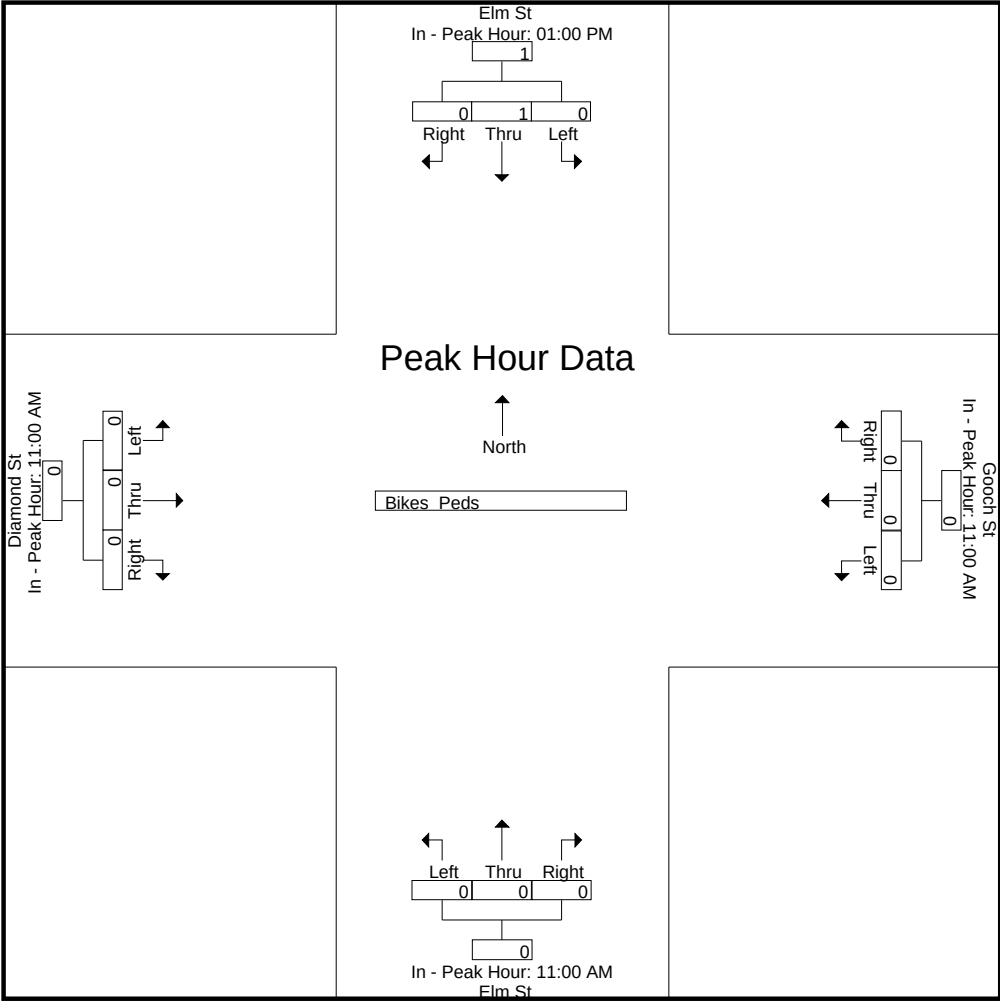


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

Peak Hour for Eater Approach Begins at:																
	01:00 PM				11:00 AM				11:00 AM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Gooch St / Diamond St
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S1
Site Code : 19150001
Start Date : 10/30/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	85	3	34	115	0	57	294
07:15 AM	99	1	29	131	5	65	330
07:30 AM	115	0	39	131	2	90	377
07:45 AM	121	3	37	147	2	97	407
Total	420	7	139	524	9	309	1408
08:00 AM	131	4	40	122	2	61	360
08:15 AM	140	0	32	125	3	60	360
08:30 AM	152	10	39	113	5	56	375
08:45 AM	152	5	26	119	2	61	365
Total	575	19	137	479	12	238	1460
Grand Total	995	26	276	1003	21	547	2868
Apprch %	97.5	2.5	21.6	78.4	3.7	96.3	
Total %	34.7	0.9	9.6	35	0.7	19.1	
Cars	967	26	268	976	19	540	2796
% Cars	97.2	100	97.1	97.3	90.5	98.7	97.5
Trucks	28	0	8	27	2	7	72
% Trucks	2.8	0	2.9	2.7	9.5	1.3	2.5

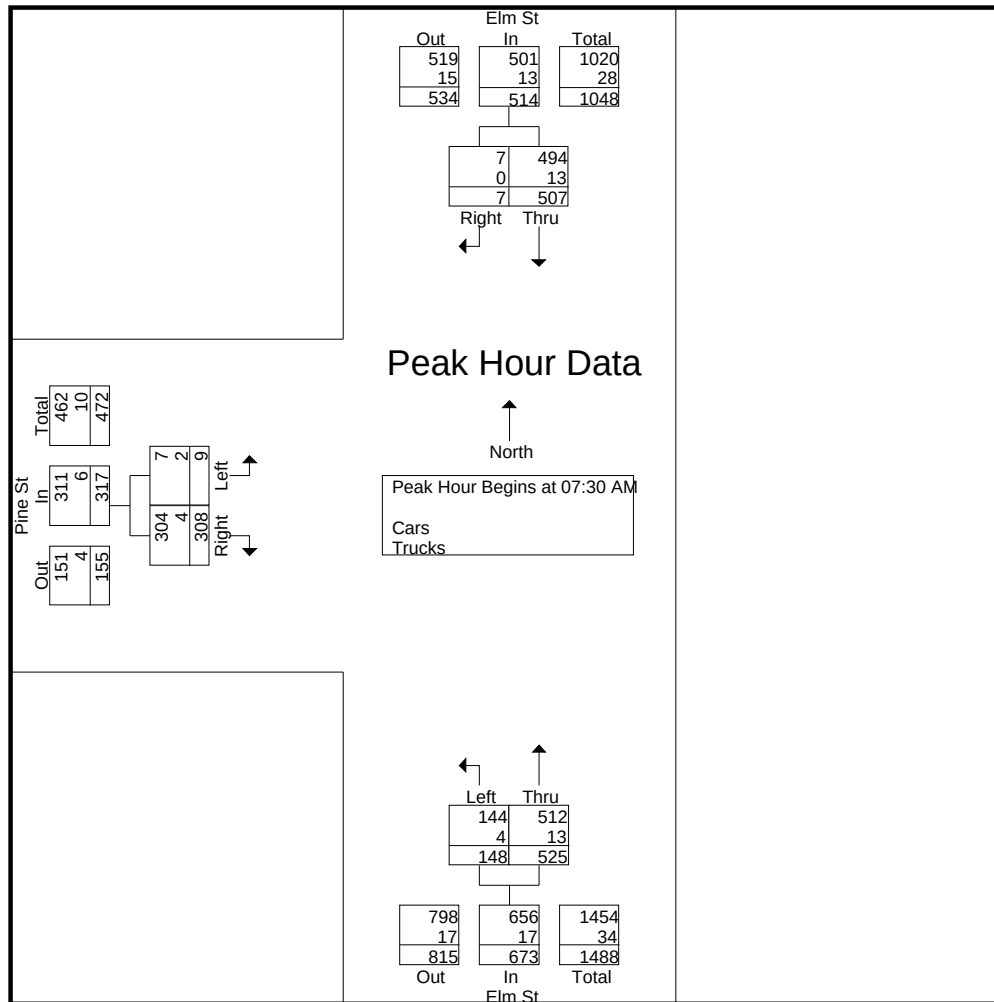
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	115	0	115	39	131	170	2	90	92	377
07:45 AM	121	3	124	37	147	184	2	97	99	407
08:00 AM	131	4	135	40	122	162	2	61	63	360
08:15 AM	140	0	140	32	125	157	3	60	63	360
Total Volume	507	7	514	148	525	673	9	308	317	1504
% App. Total	98.6	1.4		22	78		2.8	97.2		
PHF	.905	.438	.918	.925	.893	.914	.750	.794	.801	.924
Cars	494	7	501	144	512	656	7	304	311	1468
% Cars	97.4	100	97.5	97.3	97.5	97.5	77.8	98.7	98.1	97.6
Trucks	13	0	13	4	13	17	2	4	6	36
% Trucks	2.6	0	2.5	2.7	2.5	2.5	22.2	1.3	1.9	2.4

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

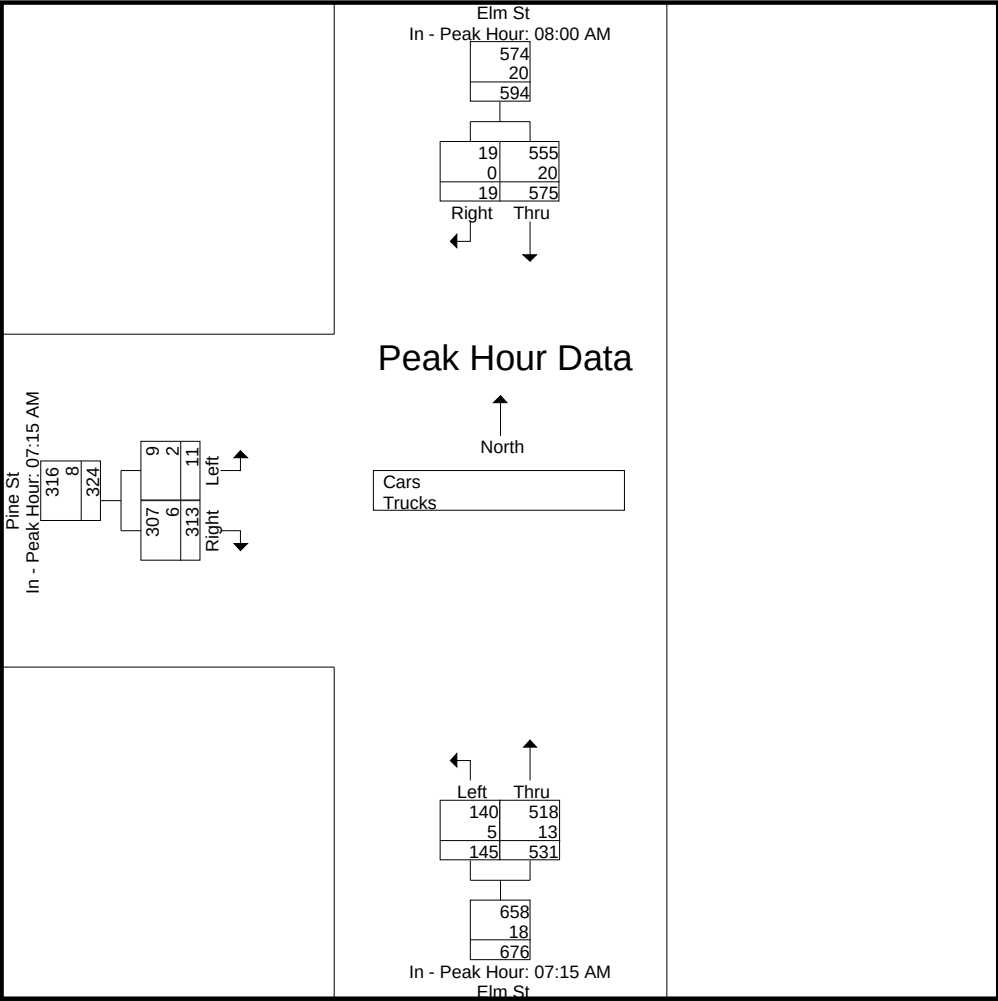
	08:00 AM			07:15 AM			07:15 AM		
+0 mins.	131	4	135	29	131	160	5	65	70
+15 mins.	140	0	140	39	131	170	2	90	92
+30 mins.	152	10	162	37	147	184	2	97	99
+45 mins.	152	5	157	40	122	162	2	61	63
Total Volume	575	19	594	145	531	676	11	313	324
% App. Total	96.8	3.2		21.4	78.6		3.4	96.6	
PHF	.946	.475	.917	.906	.903	.918	.550	.807	.818
Cars	555	19	574	140	518	658	9	307	316
% Cars	96.5	100	96.6	96.6	97.6	97.3	81.8	98.1	97.5
Trucks	20	0	20	5	13	18	2	6	8
% Trucks	3.5	0	3.4	3.4	2.4	2.7	18.2	1.9	2.5

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	85	3	34	112	0	57	291
07:15 AM	97	1	27	129	5	62	321
07:30 AM	114	0	39	129	1	90	373
07:45 AM	116	3	36	142	2	96	395
Total	412	7	136	512	8	305	1380
08:00 AM	129	4	38	118	1	59	349
08:15 AM	135	0	31	123	3	59	351
08:30 AM	145	10	37	108	5	56	361
08:45 AM	146	5	26	115	2	61	355
Total	555	19	132	464	11	235	1416
Grand Total	967	26	268	976	19	540	2796
Apprch %	97.4	2.6	21.5	78.5	3.4	96.6	
Total %	34.6	0.9	9.6	34.9	0.7	19.3	

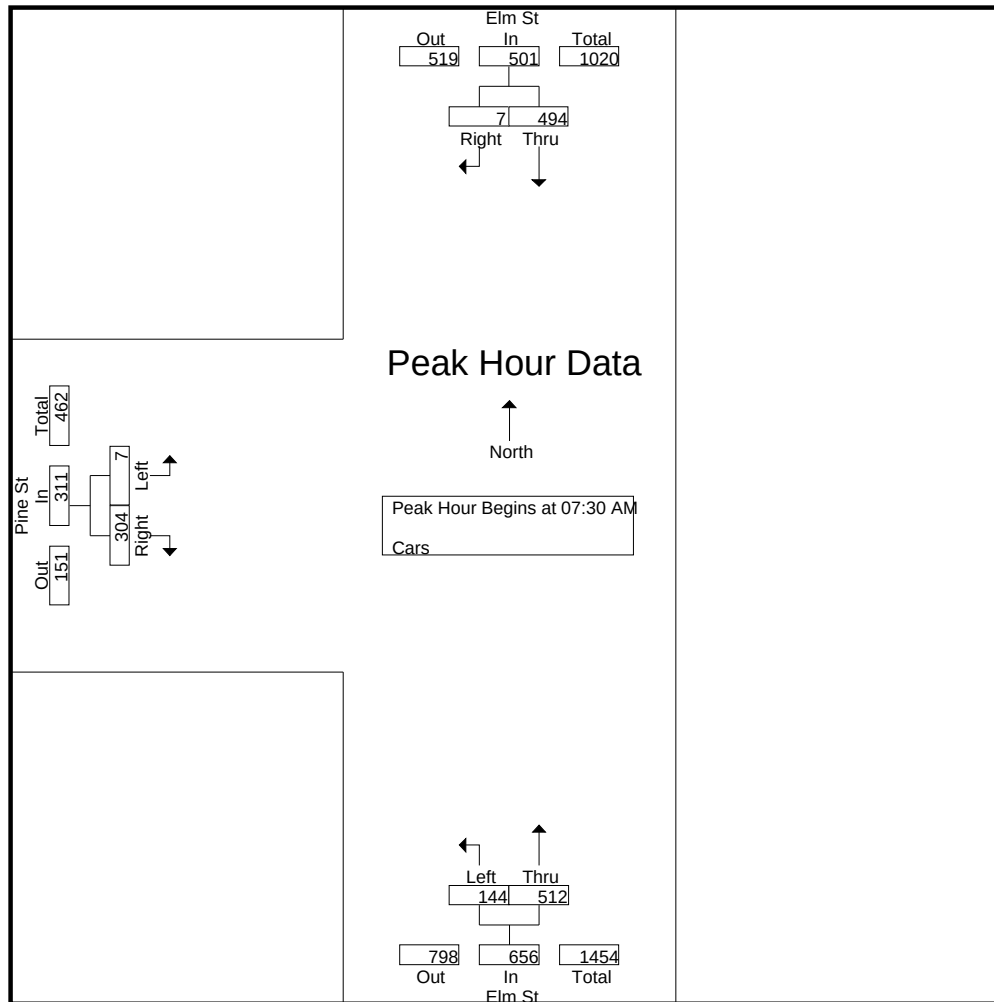
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	114	0	114	39	129	168	1	90	91	373
07:45 AM	116	3	119	36	142	178	2	96	98	395
08:00 AM	129	4	133	38	118	156	1	59	60	349
08:15 AM	135	0	135	31	123	154	3	59	62	351
Total Volume	494	7	501	144	512	656	7	304	311	1468
% App. Total	98.6	1.4		22	78		2.3	97.7		
PHF	.915	.438	.928	.923	.901	.921	.583	.792	.793	.929

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 5

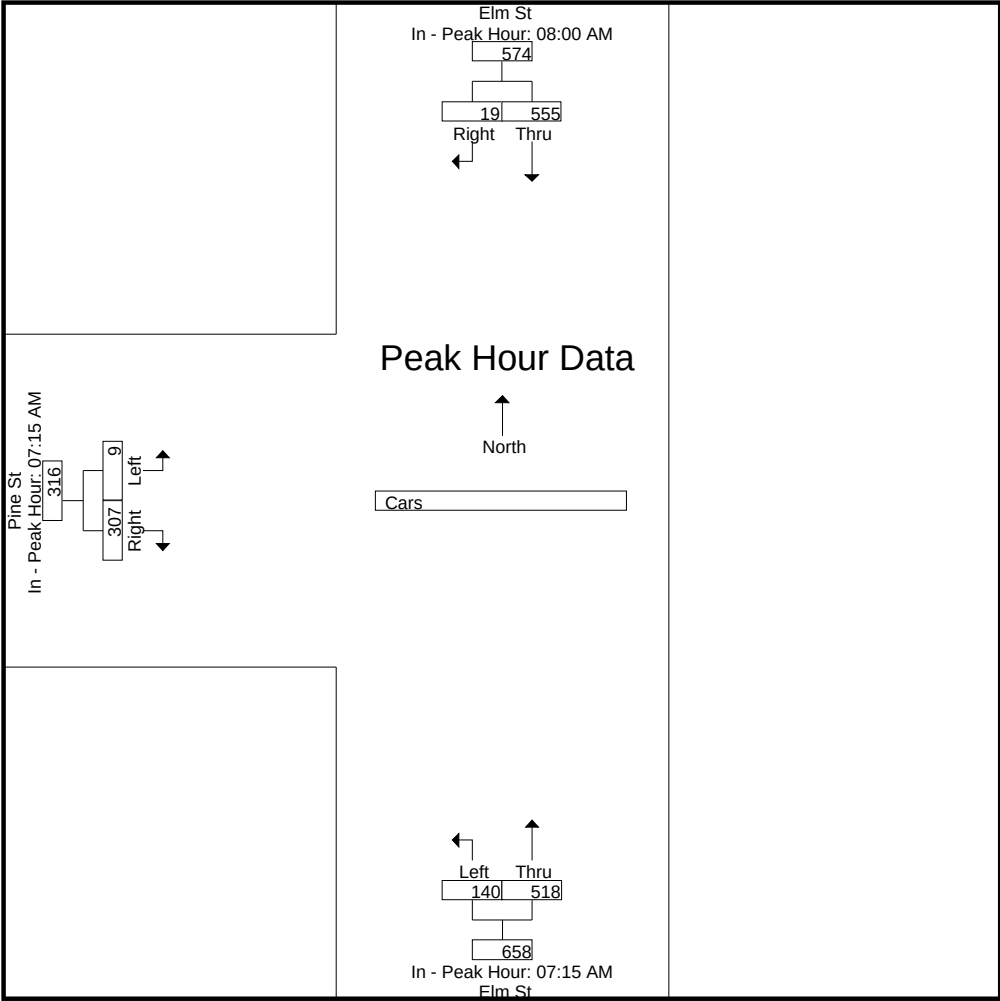


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			07:15 AM			07:15 AM		
+0 mins.	129	4	133	27	129	156	5	62	67
+15 mins.	135	0	135	39	129	168	1	90	91
+30 mins.	145	10	155	36	142	178	2	96	98
+45 mins.	146	5	151	38	118	156	1	59	60
Total Volume	555	19	574	140	518	658	9	307	316
% App. Total	96.7	3.3		21.3	78.7		2.8	97.2	
PHF	.950	.475	.926	.897	.912	.924	.450	.799	.806

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 7

Groups Printed- Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	0	0	0	3	0	0	3
07:15 AM	2	0	2	2	0	3	9
07:30 AM	1	0	0	2	1	0	4
07:45 AM	5	0	1	5	0	1	12
Total	8	0	3	12	1	4	28
08:00 AM	2	0	2	4	1	2	11
08:15 AM	5	0	1	2	0	1	9
08:30 AM	7	0	2	5	0	0	14
08:45 AM	6	0	0	4	0	0	10
Total	20	0	5	15	1	3	44
Grand Total	28	0	8	27	2	7	72
Apprch %	100	0	22.9	77.1	22.2	77.8	
Total %	38.9	0	11.1	37.5	2.8	9.7	

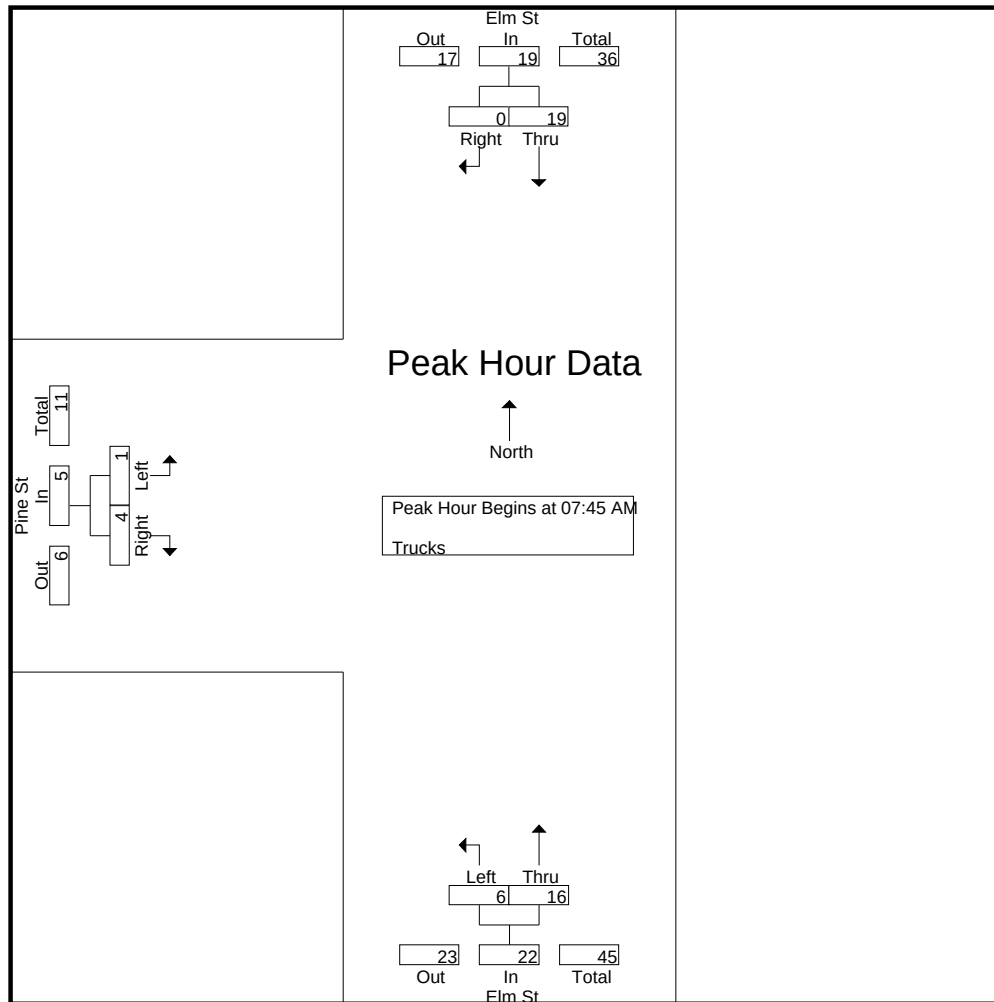
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	5	0	5	1	5	6	0	1	1	12
08:00 AM	2	0	2	2	4	6	1	2	3	11
08:15 AM	5	0	5	1	2	3	0	1	1	9
08:30 AM	7	0	7	2	5	7	0	0	0	14
Total Volume	19	0	19	6	16	22	1	4	5	46
% App. Total	100	0		27.3	72.7		20	80		
PHF	.679	.000	.679	.750	.800	.786	.250	.500	.417	.821

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 8

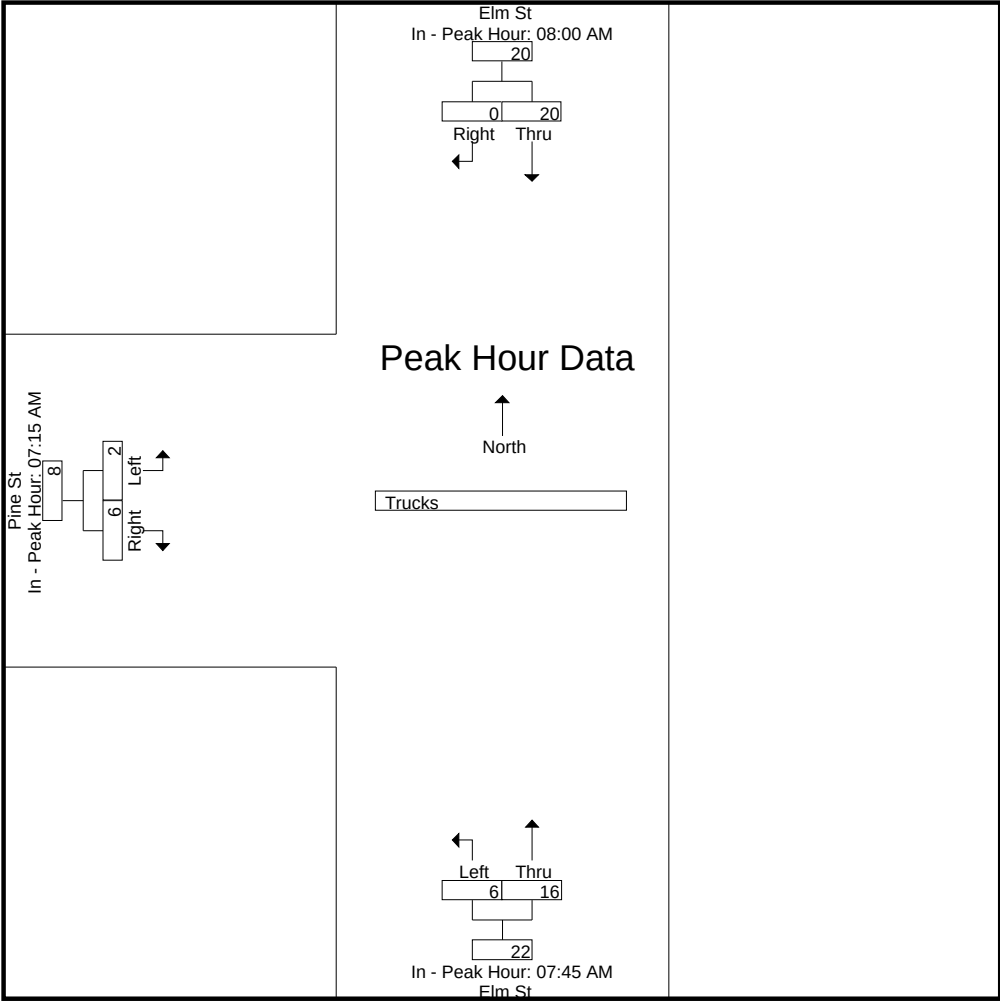


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM			07:45 AM			07:15 AM		
+0 mins.	2	0	2	1	5	6	0	3	3
+15 mins.	5	0	5	2	4	6	1	0	1
+30 mins.	7	0	7	1	2	3	0	1	1
+45 mins.	6	0	6	2	5	7	1	2	3
Total Volume	20	0	20	6	16	22	2	6	8
% App. Total	100	0		27.3	72.7		25	75	
PHF	.714	.000	.714	.750	.800	.786	.500	.500	.667

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

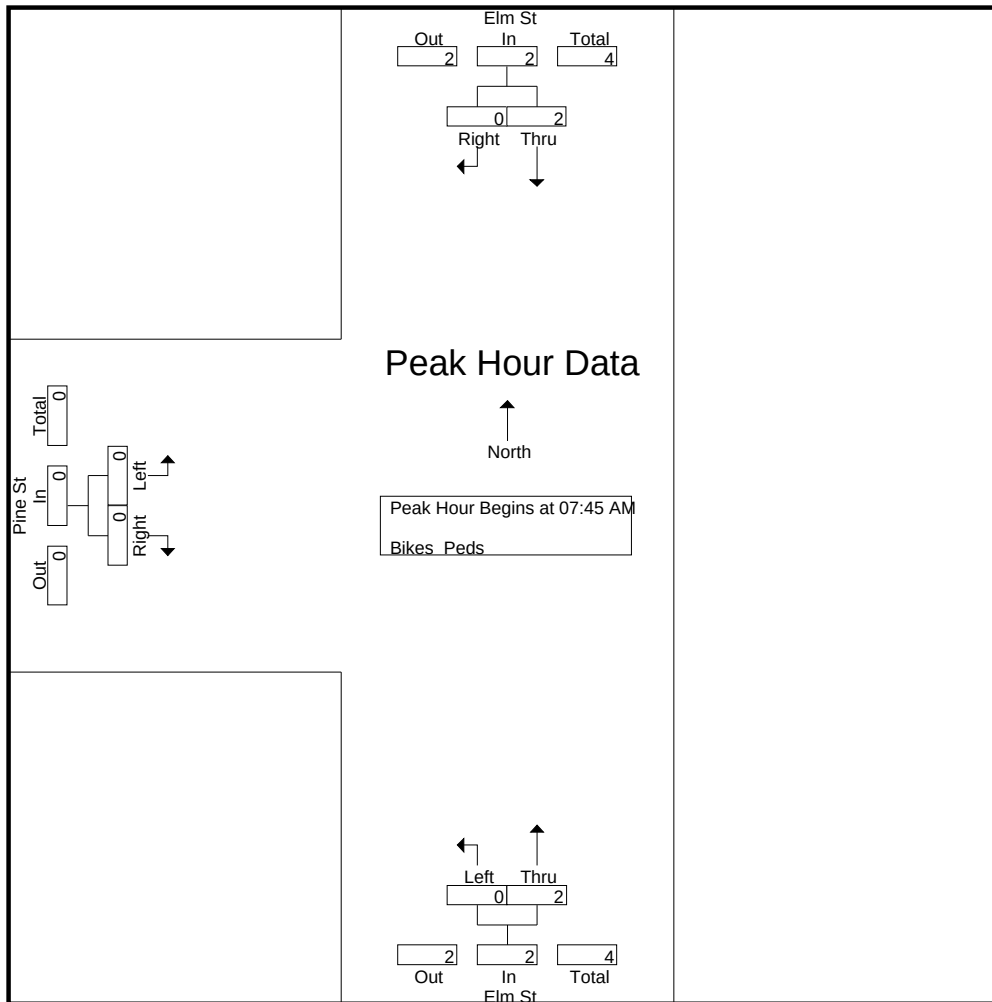
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 10

Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Pine St From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	0	0	0	1	1	1	2
Total	0	0	0	0	1	0	0	0	2	2	1	3
08:00 AM	2	0	0	0	0	0	0	0	3	3	2	5
08:15 AM	0	0	0	0	0	0	0	0	1	1	0	1
08:30 AM	0	0	0	0	1	0	0	0	1	1	1	2
08:45 AM	1	0	0	0	0	0	0	0	2	2	1	3
Total	3	0	0	0	1	0	0	0	7	7	4	11
Grand Total	3	0	0	0	2	0	0	0	9	9	5	14
Apprch %	100	0		0	100		0	0				
Total %	60	0		0	40		0	0		64.3	35.7	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	1	1	0	0	0	1
08:00 AM	2	0	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	2	0	2	0	2	2	0	0	0	4
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.500	.500	.000	.000	.000	.500

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

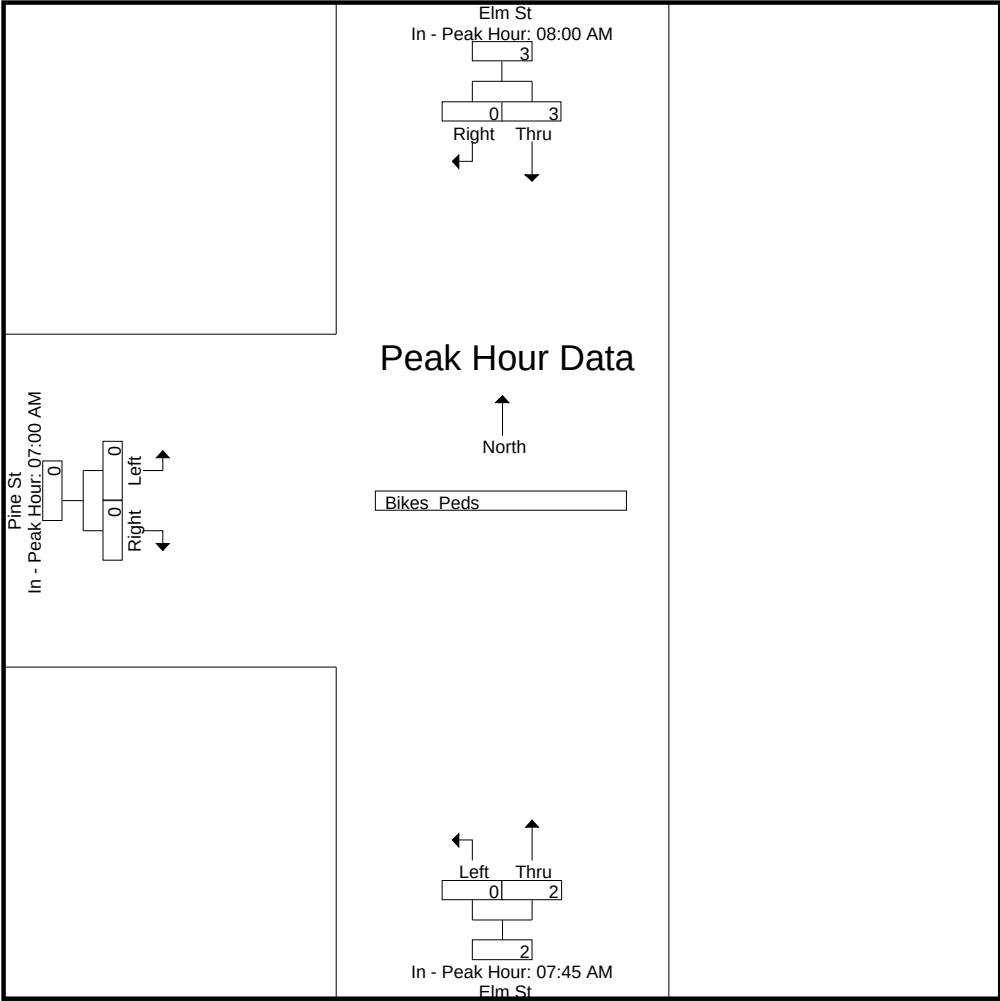


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:45 AM			07:00 AM		
+0 mins.	2	0	2	0	1	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	1	1	0	0	0
Total Volume	3	0	3	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.375	.000	.375	.000	.500	.500	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 1

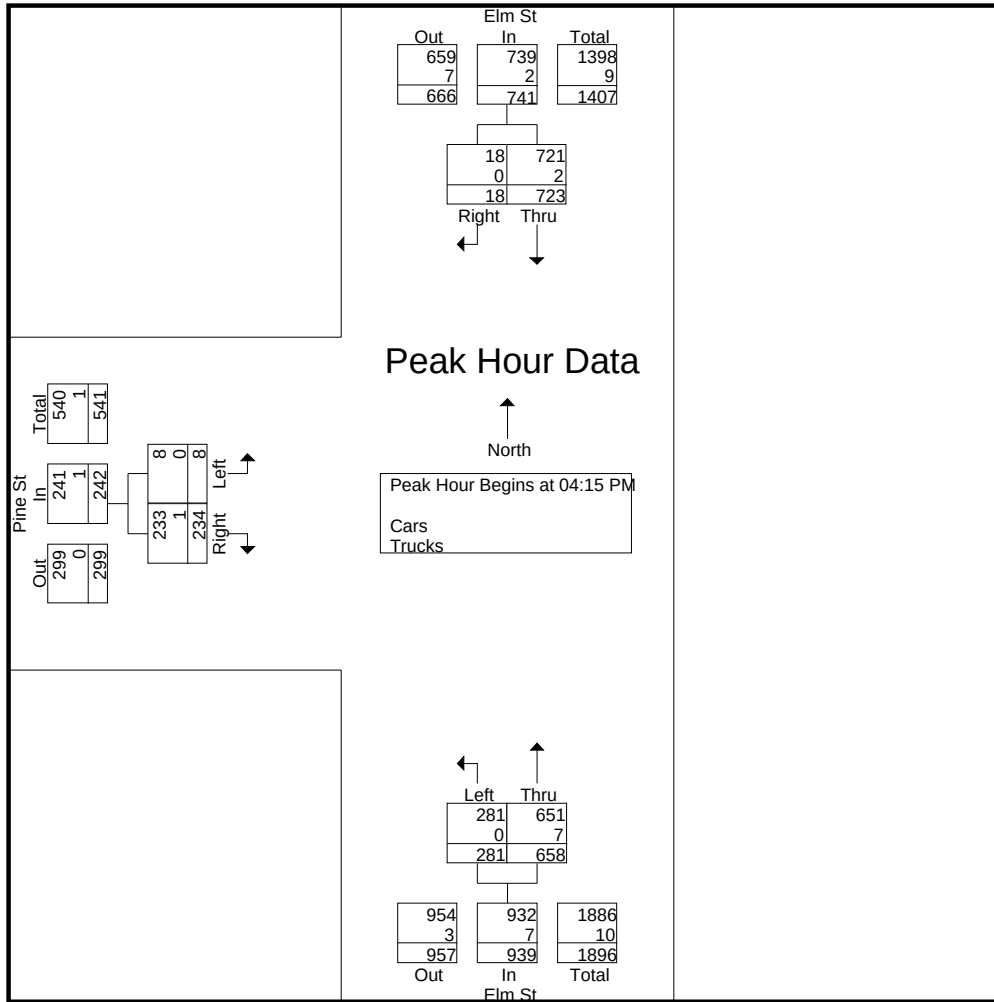
Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	179	4	51	181	0	54	469
03:15 PM	183	1	56	163	1	52	456
03:30 PM	163	5	64	155	2	76	465
03:45 PM	185	1	50	165	6	64	471
Total	710	11	221	664	9	246	1861
04:00 PM	174	5	51	169	4	70	473
04:15 PM	187	3	61	157	1	55	464
04:30 PM	158	5	78	152	2	57	452
04:45 PM	197	5	63	172	2	52	491
Total	716	18	253	650	9	234	1880
05:00 PM	181	5	79	177	3	70	515
05:15 PM	179	3	63	140	3	51	439
05:30 PM	186	1	65	136	0	49	437
05:45 PM	159	3	50	119	1	41	373
Total	705	12	257	572	7	211	1764
Grand Total	2131	41	731	1886	25	691	5505
Apprch %	98.1	1.9	27.9	72.1	3.5	96.5	
Total %	38.7	0.7	13.3	34.3	0.5	12.6	
Cars	2120	41	728	1870	25	685	5469
% Cars	99.5	100	99.6	99.2	100	99.1	99.3
Trucks	11	0	3	16	0	6	36
% Trucks	0.5	0	0.4	0.8	0	0.9	0.7

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	3	190	61	157	218	1	55	56	464
04:30 PM	158	5	163	78	152	230	2	57	59	452
04:45 PM	197	5	202	63	172	235	2	52	54	491
05:00 PM	181	5	186	79	177	256	3	70	73	515
Total Volume	723	18	741	281	658	939	8	234	242	1922
% App. Total	97.6	2.4		29.9	70.1		3.3	96.7		
PHF	.918	.900	.917	.889	.929	.917	.667	.836	.829	.933
Cars	721	18	739	281	651	932	8	233	241	1912
% Cars	99.7	100	99.7	100	98.9	99.3	100	99.6	99.6	99.5
Trucks	2	0	2	0	7	7	0	1	1	10
% Trucks	0.3	0	0.3	0	1.1	0.7	0	0.4	0.4	0.5

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 2



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

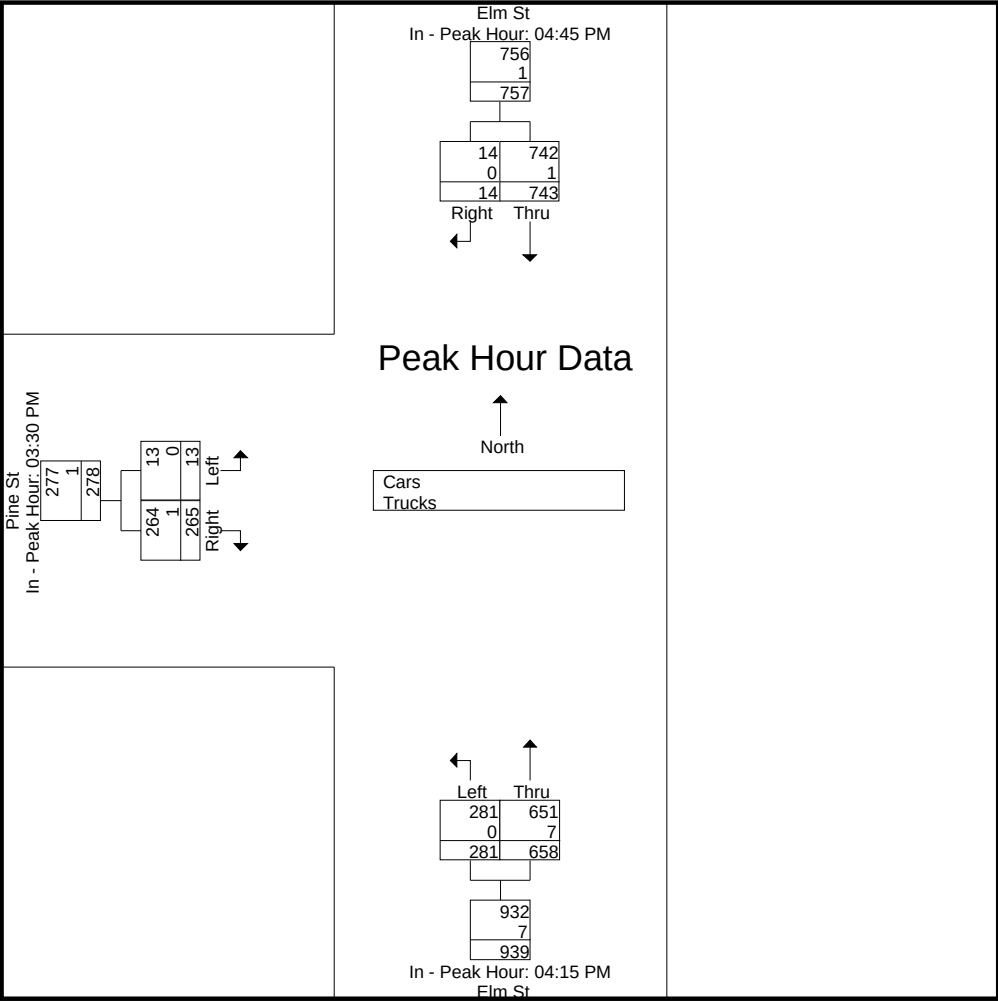
	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	197	5	202	61	157	218	2	76	78
+15 mins.	181	5	186	78	152	230	6	64	70
+30 mins.	179	3	182	63	172	235	4	70	74
+45 mins.	186	1	187	79	177	256	1	55	56
Total Volume	743	14	757	281	658	939	13	265	278
% App. Total	98.2	1.8		29.9	70.1		4.7	95.3	
PHF	.943	.700	.937	.889	.929	.917	.542	.872	.891
Cars	742	14	756	281	651	932	13	264	277
% Cars	99.9	100	99.9	100	98.9	99.3	100	99.6	99.6
Trucks	1	0	1	0	7	7	0	1	1
% Trucks	0.1	0	0.1	0	1.1	0.7	0	0.4	0.4

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

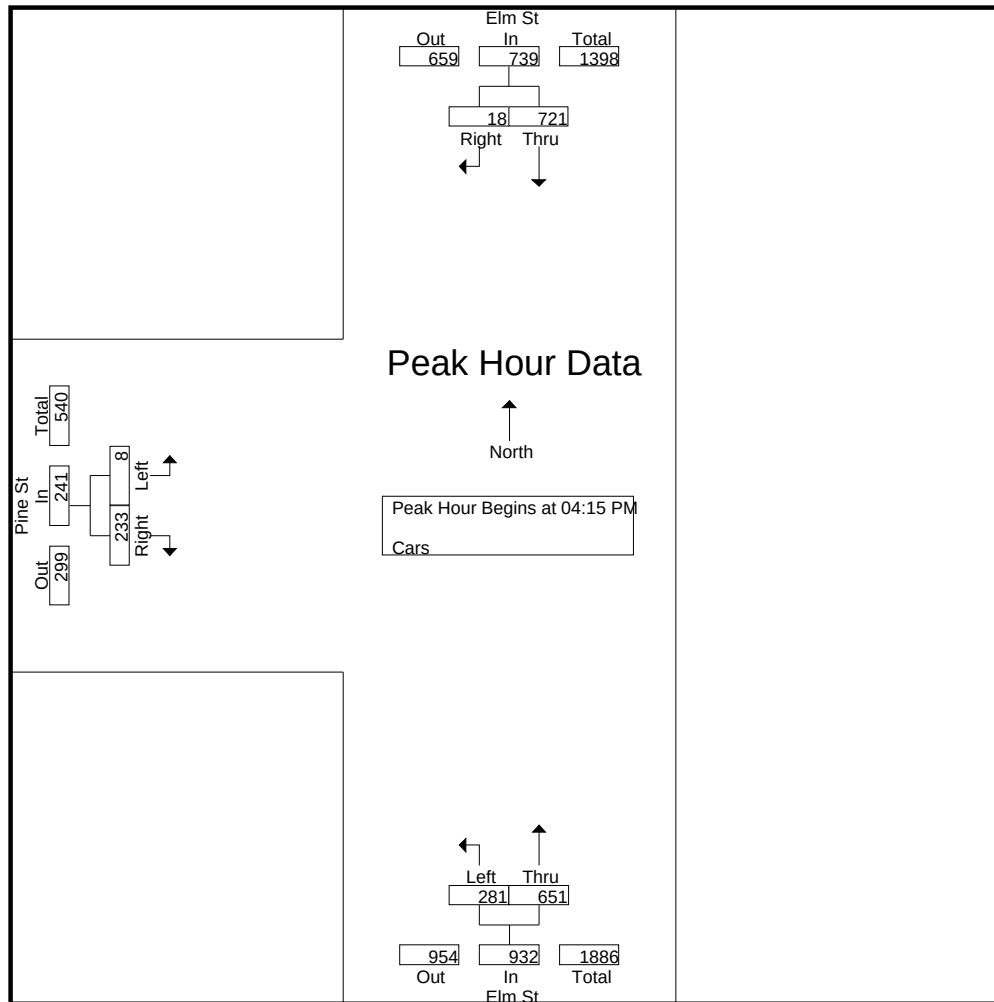
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	175	4	49	178	0	52	458
03:15 PM	182	1	56	162	1	52	454
03:30 PM	163	5	64	154	2	75	463
03:45 PM	183	1	49	164	6	64	467
Total	703	11	218	658	9	243	1842
04:00 PM	173	5	51	168	4	70	471
04:15 PM	187	3	61	155	1	55	462
04:30 PM	157	5	78	150	2	57	449
04:45 PM	196	5	63	171	2	52	489
Total	713	18	253	644	9	234	1871
05:00 PM	181	5	79	175	3	69	512
05:15 PM	179	3	63	139	3	50	437
05:30 PM	186	1	65	135	0	48	435
05:45 PM	158	3	50	119	1	41	372
Total	704	12	257	568	7	208	1756
Grand Total	2120	41	728	1870	25	685	5469
Apprch %	98.1	1.9	28	72	3.5	96.5	
Total %	38.8	0.7	13.3	34.2	0.5	12.5	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	3	190	61	155	216	1	55	56	462
04:30 PM	157	5	162	78	150	228	2	57	59	449
04:45 PM	196	5	201	63	171	234	2	52	54	489
05:00 PM	181	5	186	79	175	254	3	69	72	512
Total Volume	721	18	739	281	651	932	8	233	241	1912
% App. Total	97.6	2.4		30.2	69.8		3.3	96.7		
PHF	.920	.900	.919	.889	.930	.917	.667	.844	.837	.934

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

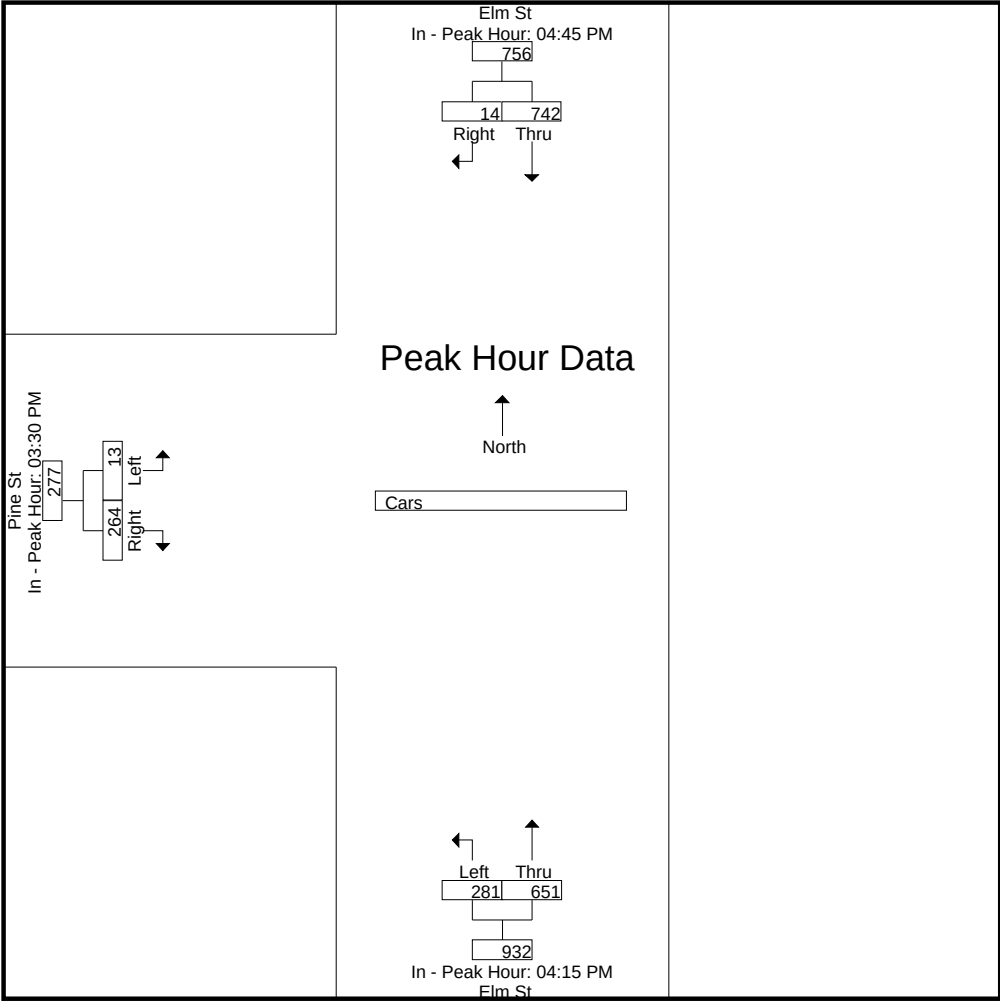


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	196	5	201	61	155	216	2	75	77
+15 mins.	181	5	186	78	150	228	6	64	70
+30 mins.	179	3	182	63	171	234	4	70	74
+45 mins.	186	1	187	79	175	254	1	55	56
Total Volume	742	14	756	281	651	932	13	264	277
% App. Total	98.1	1.9		30.2	69.8		4.7	95.3	
PHF	.946	.700	.940	.889	.930	.917	.542	.880	.899

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 7

Groups Printed- Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	4	0	2	3	0	2	11
03:15 PM	1	0	0	1	0	0	2
03:30 PM	0	0	0	1	0	1	2
03:45 PM	2	0	1	1	0	0	4
Total	7	0	3	6	0	3	19
04:00 PM	1	0	0	1	0	0	2
04:15 PM	0	0	0	2	0	0	2
04:30 PM	1	0	0	2	0	0	3
04:45 PM	1	0	0	1	0	0	2
Total	3	0	0	6	0	0	9
05:00 PM	0	0	0	2	0	1	3
05:15 PM	0	0	0	1	0	1	2
05:30 PM	0	0	0	1	0	1	2
05:45 PM	1	0	0	0	0	0	1
Total	1	0	0	4	0	3	8
Grand Total	11	0	3	16	0	6	36
Apprch %	100	0	15.8	84.2	0	100	
Total %	30.6	0	8.3	44.4	0	16.7	

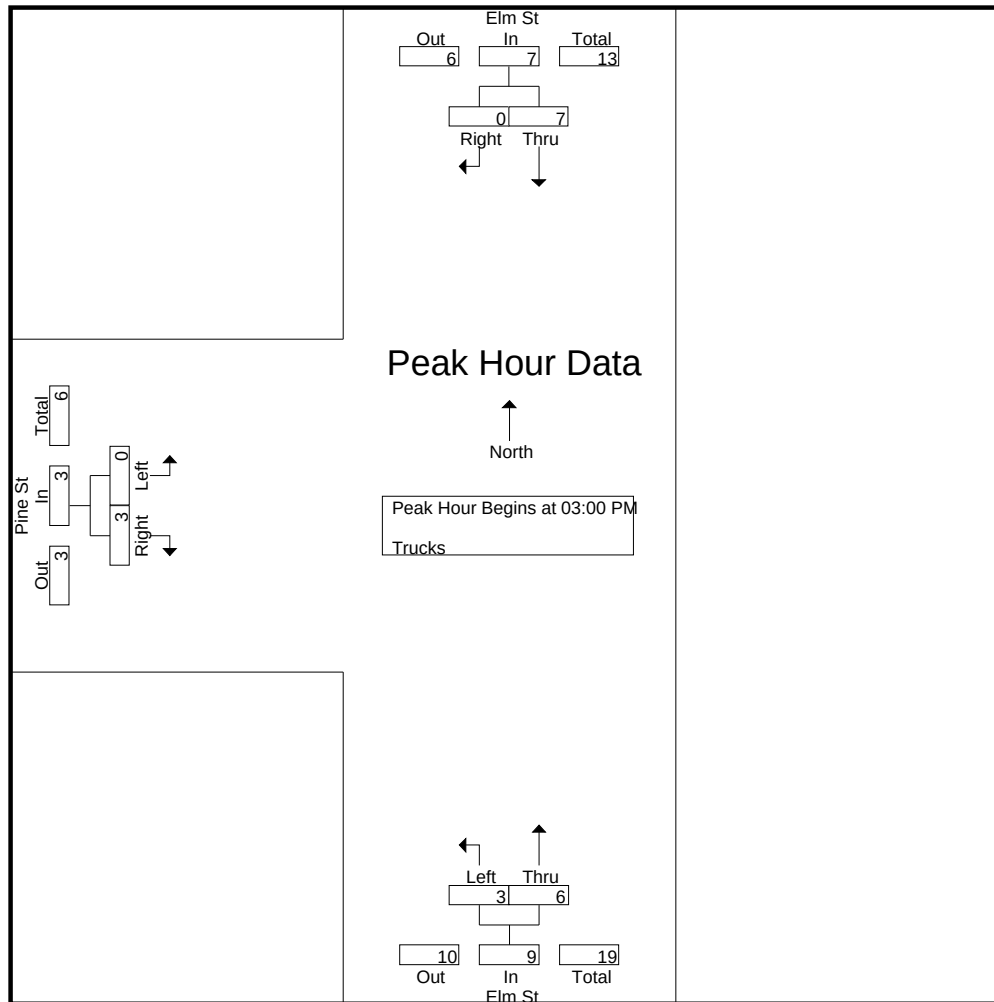
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	4	0	4	2	3	5	0	2	2	11
03:15 PM	1	0	1	0	1	1	0	0	0	2
03:30 PM	0	0	0	0	1	1	0	1	1	2
03:45 PM	2	0	2	1	1	2	0	0	0	4
Total Volume	7	0	7	3	6	9	0	3	3	19
% App. Total	100	0		33.3	66.7		0	100		
PHF	.438	.000	.438	.375	.500	.450	.000	.375	.375	.432

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150002
 Site Code : 19150002
 Start Date : 11/2/2021
 Page No : 8

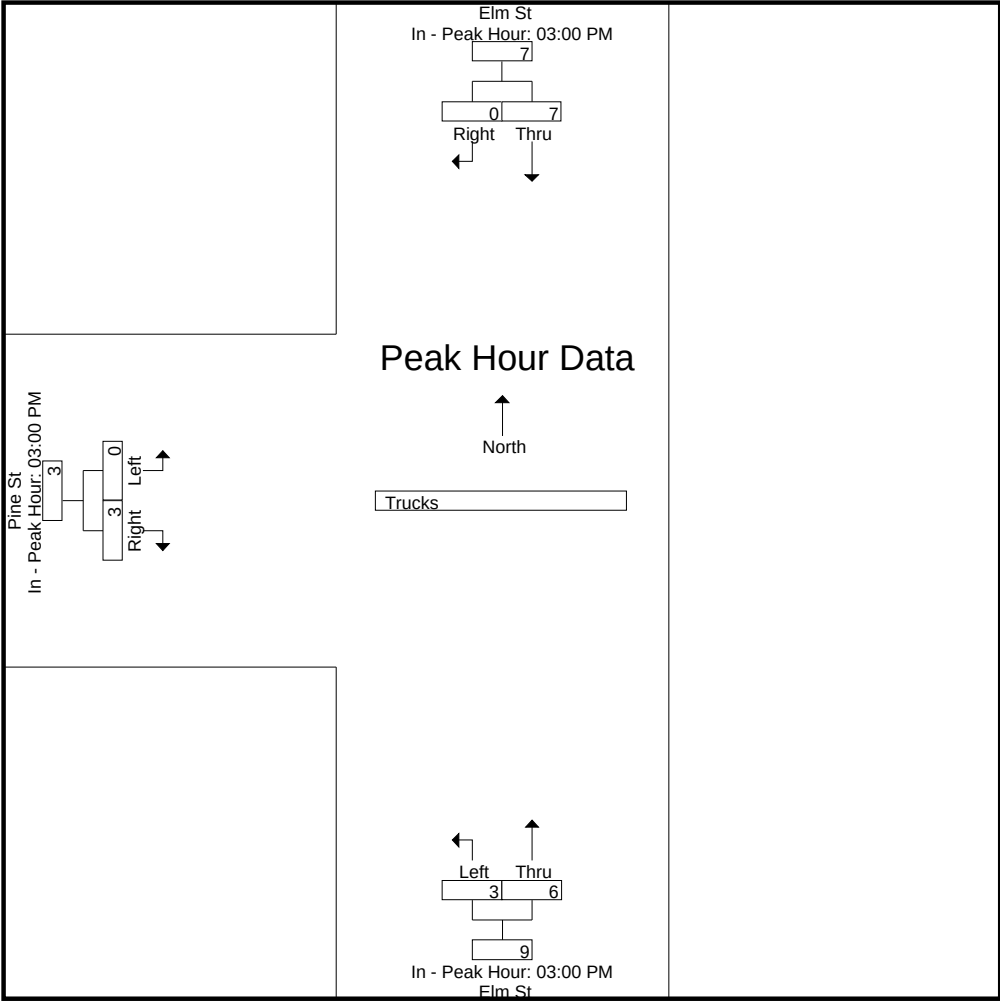


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	03:00 PM			03:00 PM			03:00 PM		
+0 mins.	4	0	4	2	3	5	0	2	2
+15 mins.	1	0	1	0	1	1	0	0	0
+30 mins.	0	0	0	0	1	1	0	1	1
+45 mins.	2	0	2	1	1	2	0	0	0
Total Volume	7	0	7	3	6	9	0	3	3
% App. Total	100	0		33.3	66.7		0	100	
PHF	.438	.000	.438	.375	.500	.450	.000	.375	.375

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

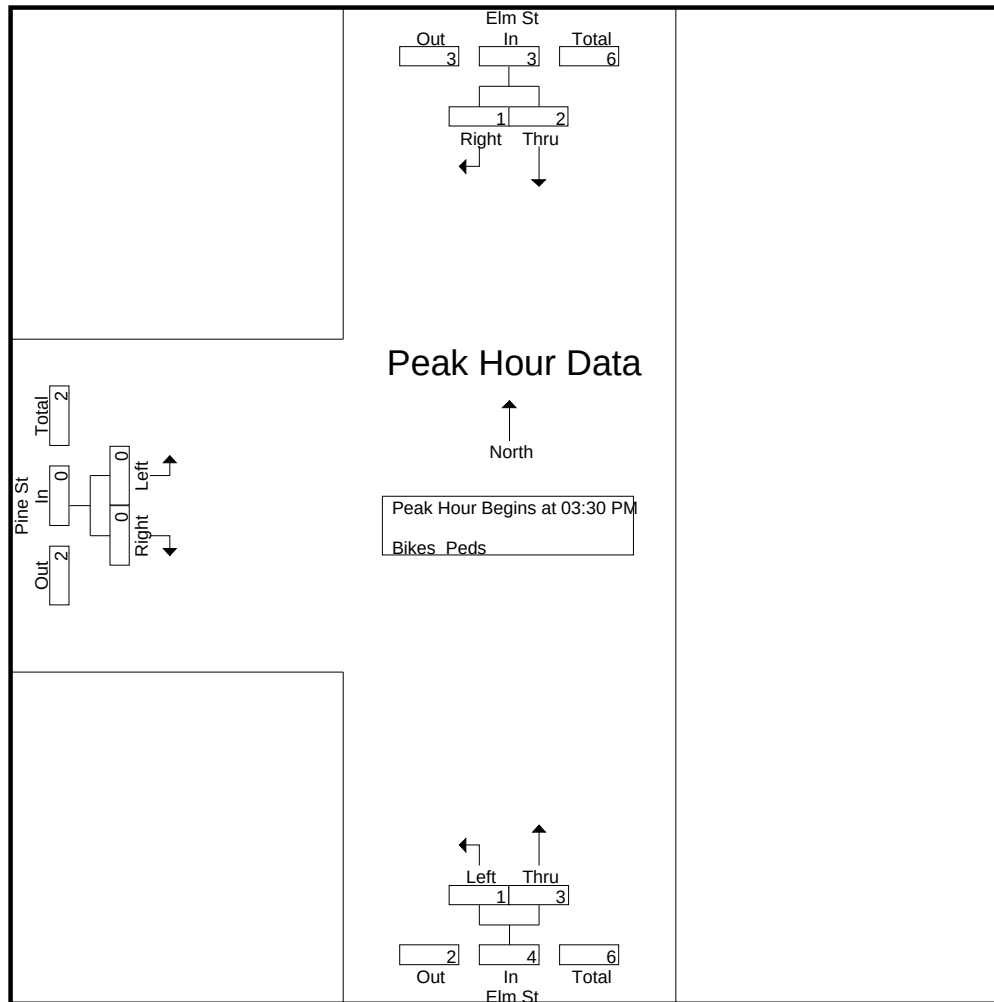
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 10

Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Pine St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	2	1	1	0	0	0	0	0	4	5	3	8
03:45 PM	0	0	0	1	2	0	0	0	5	5	3	8
Total	2	1	1	1	2	0	0	0	11	12	6	18
04:00 PM	0	0	0	0	0	0	0	0	3	3	0	3
04:15 PM	0	0	0	0	1	0	0	0	3	3	1	4
04:30 PM	1	0	0	0	0	0	0	0	6	6	1	7
04:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	1	0	0	0	1	0	0	0	14	14	2	16
05:00 PM	0	0	0	0	0	0	0	0	5	5	0	5
05:15 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:30 PM	2	0	0	0	0	0	0	0	3	3	2	5
05:45 PM	0	0	0	0	1	0	0	0	3	3	1	4
Total	2	0	0	0	1	0	0	0	13	13	3	16
Grand Total	5	1	1	1	4	0	0	0	38	39	11	50
Apprch %	83.3	16.7		20	80		0	0				
Total %	45.5	9.1		9.1	36.4		0	0		78	22	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	2	1	3	0	0	0	0	0	0	3
03:45 PM	0	0	0	1	2	3	0	0	0	3
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	2	1	3	1	3	4	0	0	0	7
% App. Total	66.7	33.3		25	75		0	0		
PHF	.250	.250	.250	.250	.375	.333	.000	.000	.000	.583

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

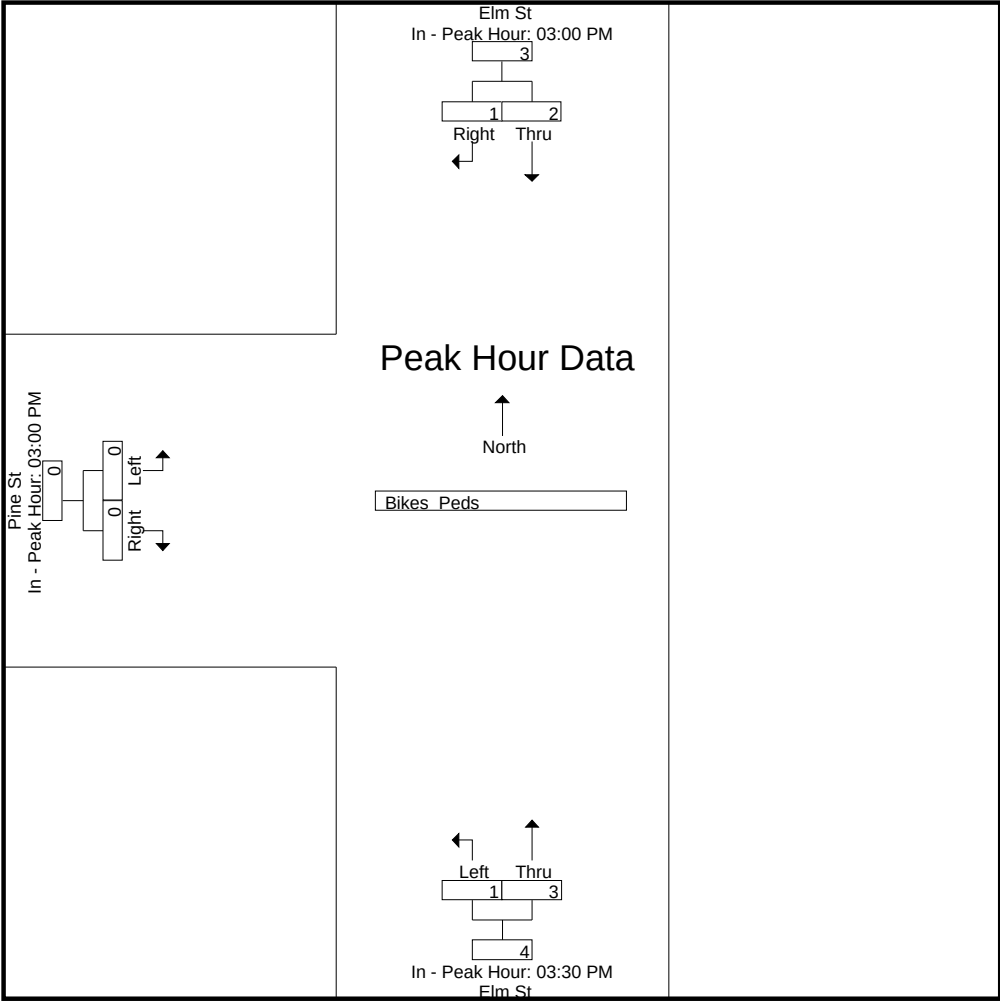


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM			03:30 PM			03:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	2	3	0	0	0
+30 mins.	2	1	3	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	2	1	3	1	3	4	0	0	0
% App. Total	66.7	33.3		25	75		0	0	
PHF	.250	.250	.250	.250	.375	.333	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 12



Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	174	9	47	130	3	59	422
11:15 AM	147	3	47	142	5	48	392
11:30 AM	177	2	43	146	2	46	416
11:45 AM	151	3	45	128	1	51	379
Total	649	17	182	546	11	204	1609
12:00 PM	147	4	35	134	6	59	385
12:15 PM	148	0	43	127	3	61	382
12:30 PM	166	5	38	136	5	52	402
12:45 PM	150	1	43	115	1	48	358
Total	611	10	159	512	15	220	1527
01:00 PM	156	4	37	116	4	61	378
01:15 PM	155	2	37	117	1	47	359
01:30 PM	155	4	40	104	1	58	362
01:45 PM	124	2	42	116	0	40	324
Total	590	12	156	453	6	206	1423
Grand Total	1850	39	497	1511	32	630	4559
Apprch %	97.9	2.1	24.8	75.2	4.8	95.2	
Total %	40.6	0.9	10.9	33.1	0.7	13.8	
Cars	1846	39	497	1507	32	630	4551
% Cars	99.8	100	100	99.7	100	100	99.8
Trucks	4	0	0	4	0	0	8
% Trucks	0.2	0	0	0.3	0	0	0.2

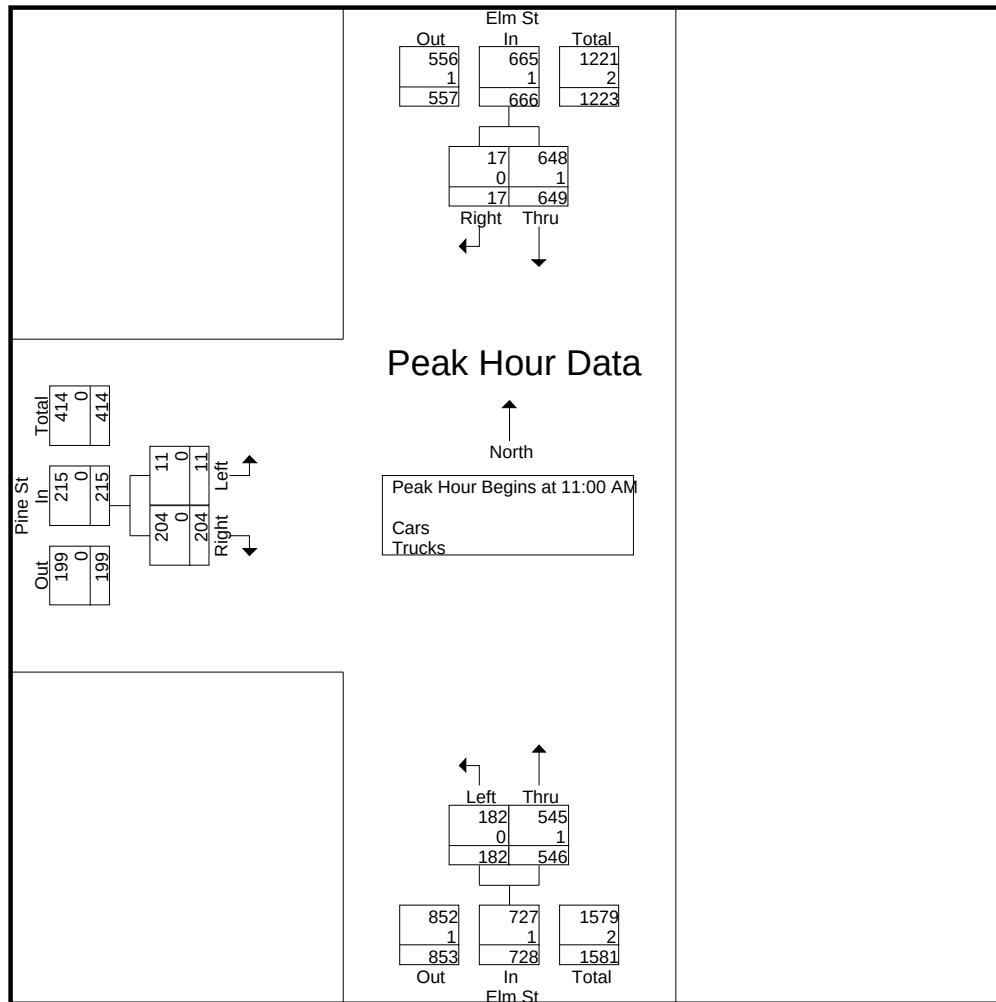
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	9	183	47	130	177	3	59	62	422
11:15 AM	147	3	150	47	142	189	5	48	53	392
11:30 AM	177	2	179	43	146	189	2	46	48	416
11:45 AM	151	3	154	45	128	173	1	51	52	379
Total Volume	649	17	666	182	546	728	11	204	215	1609
% App. Total	97.4	2.6		25	75		5.1	94.9		
PHF	.917	.472	.910	.968	.935	.963	.550	.864	.867	.953
Cars	648	17	665	182	545	727	11	204	215	1607
% Cars	99.8	100	99.8	100	99.8	99.9	100	100	100	99.9
Trucks	1	0	1	0	1	1	0	0	0	2
% Trucks	0.2	0	0.2	0	0.2	0.1	0	0	0	0.1

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 2



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

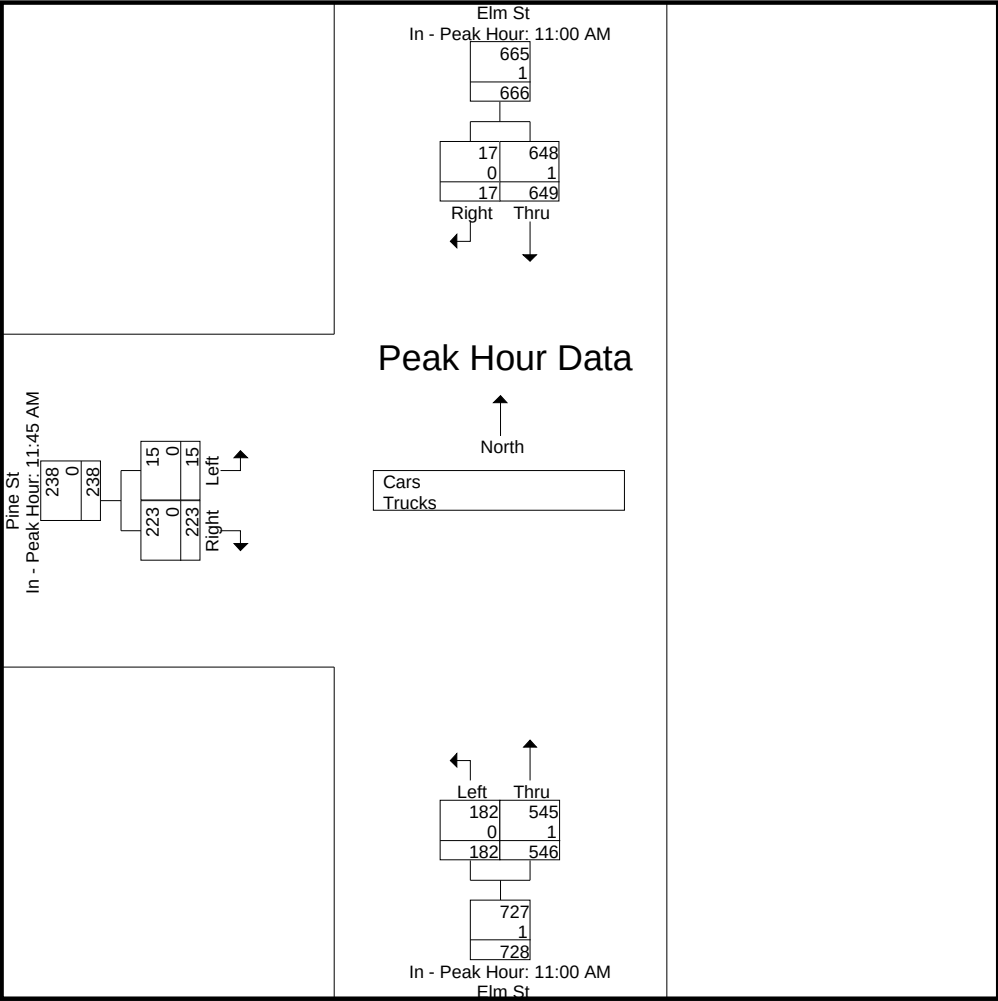
	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	9	183	47	130	177	1	51	52
+15 mins.	147	3	150	47	142	189	6	59	65
+30 mins.	177	2	179	43	146	189	3	61	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	649	17	666	182	546	728	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.917	.472	.910	.968	.935	.963	.625	.914	.915
Cars	648	17	665	182	545	727	15	223	238
% Cars	99.8	100	99.8	100	99.8	99.9	100	100	100
Trucks	1	0	1	0	1	1	0	0	0
% Trucks	0.2	0	0.2	0	0.2	0.1	0	0	0

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Rain

File Name : 191500S2
 Site Code : 19150002
 Start Date : 10/30/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	174	9	47	130	3	59	422
11:15 AM	146	3	47	141	5	48	390
11:30 AM	177	2	43	146	2	46	416
11:45 AM	151	3	45	128	1	51	379
Total	648	17	182	545	11	204	1607
12:00 PM	147	4	35	134	6	59	385
12:15 PM	148	0	43	126	3	61	381
12:30 PM	164	5	38	135	5	52	399
12:45 PM	149	1	43	115	1	48	357
Total	608	10	159	510	15	220	1522
01:00 PM	156	4	37	115	4	61	377
01:15 PM	155	2	37	117	1	47	359
01:30 PM	155	4	40	104	1	58	362
01:45 PM	124	2	42	116	0	40	324
Total	590	12	156	452	6	206	1422
Grand Total	1846	39	497	1507	32	630	4551
Apprch %	97.9	2.1	24.8	75.2	4.8	95.2	
Total %	40.6	0.9	10.9	33.1	0.7	13.8	

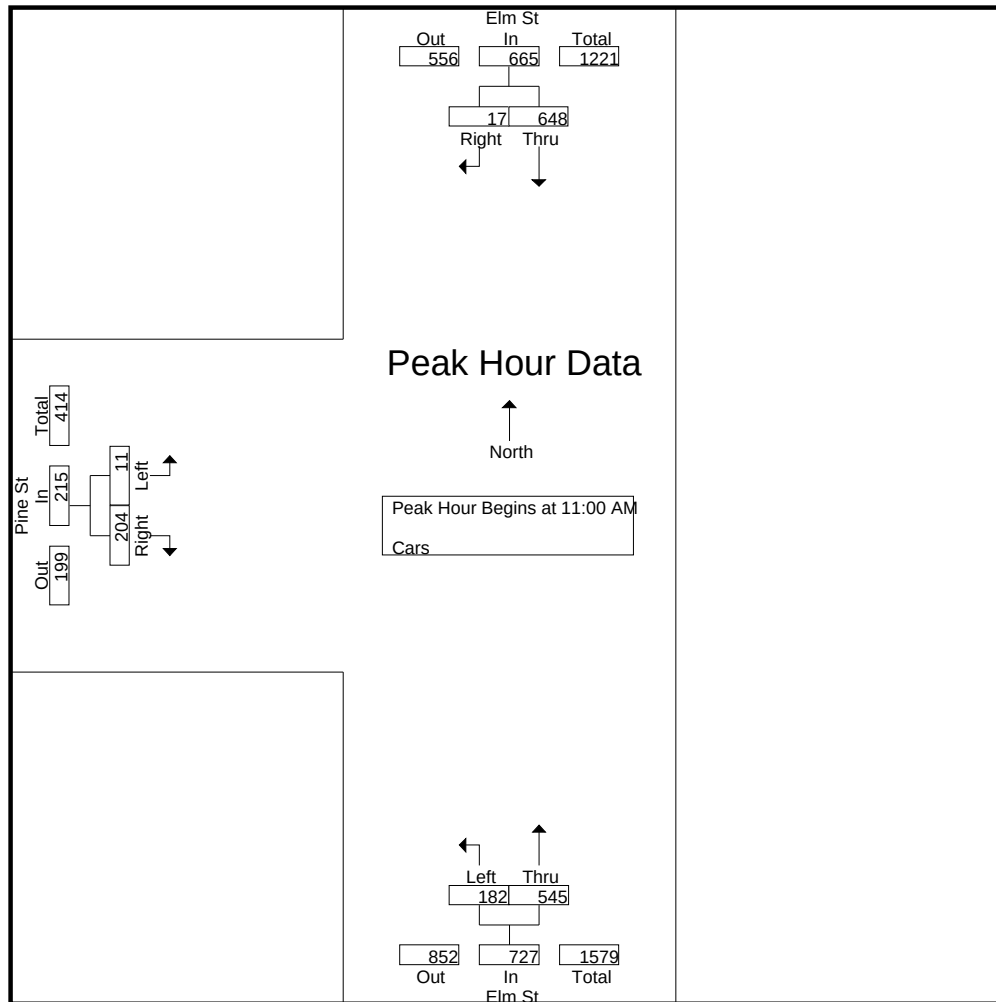
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	9	183	47	130	177	3	59	62	422
11:15 AM	146	3	149	47	141	188	5	48	53	390
11:30 AM	177	2	179	43	146	189	2	46	48	416
11:45 AM	151	3	154	45	128	173	1	51	52	379
Total Volume	648	17	665	182	545	727	11	204	215	1607
% App. Total	97.4	2.6		25	75		5.1	94.9		
PHF	.915	.472	.908	.968	.933	.962	.550	.864	.867	.952

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Pine Street
 City/State : Biddeford, ME
 Weather : Rain

File Name : 191500S2
 Site Code : 19150002
 Start Date : 10/30/2021
 Page No : 5

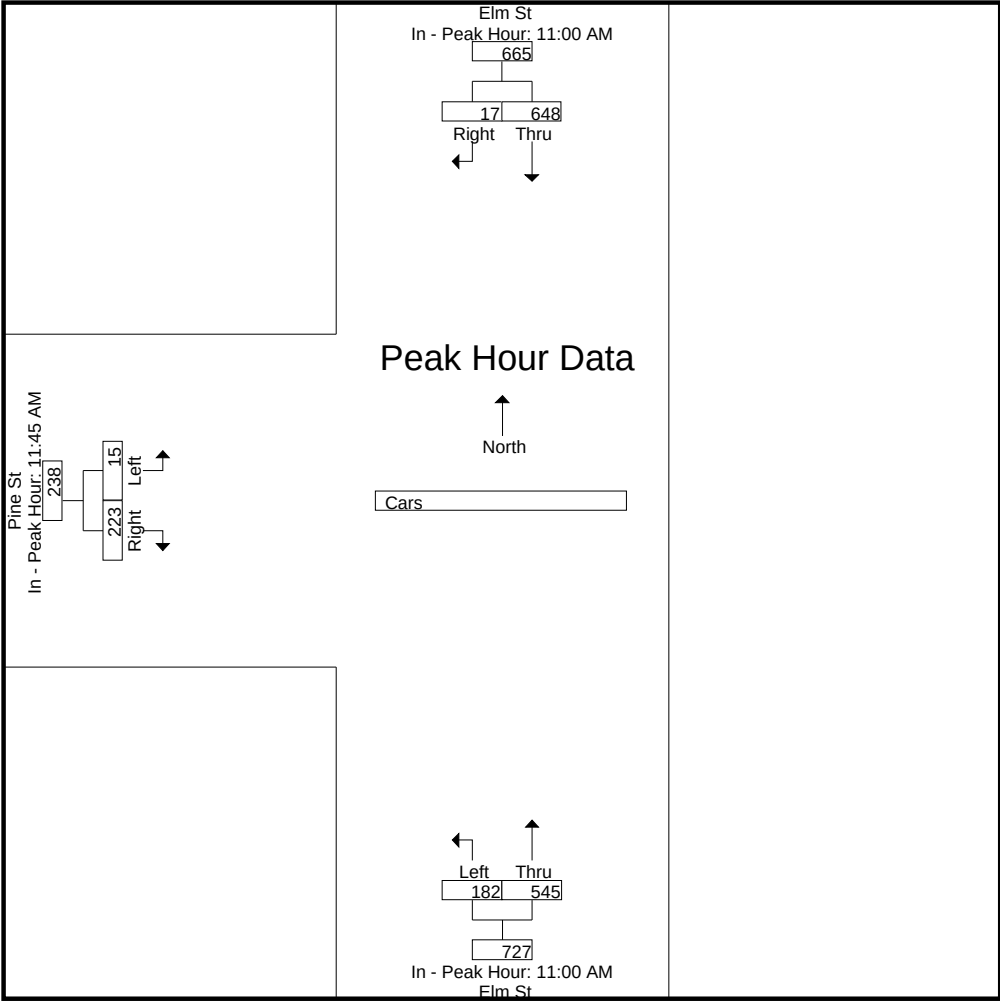


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	9	183	47	130	177	1	51	52
+15 mins.	146	3	149	47	141	188	6	59	65
+30 mins.	177	2	179	43	146	189	3	61	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	648	17	665	182	545	727	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.915	.472	.908	.968	.933	.962	.625	.914	.915

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 7

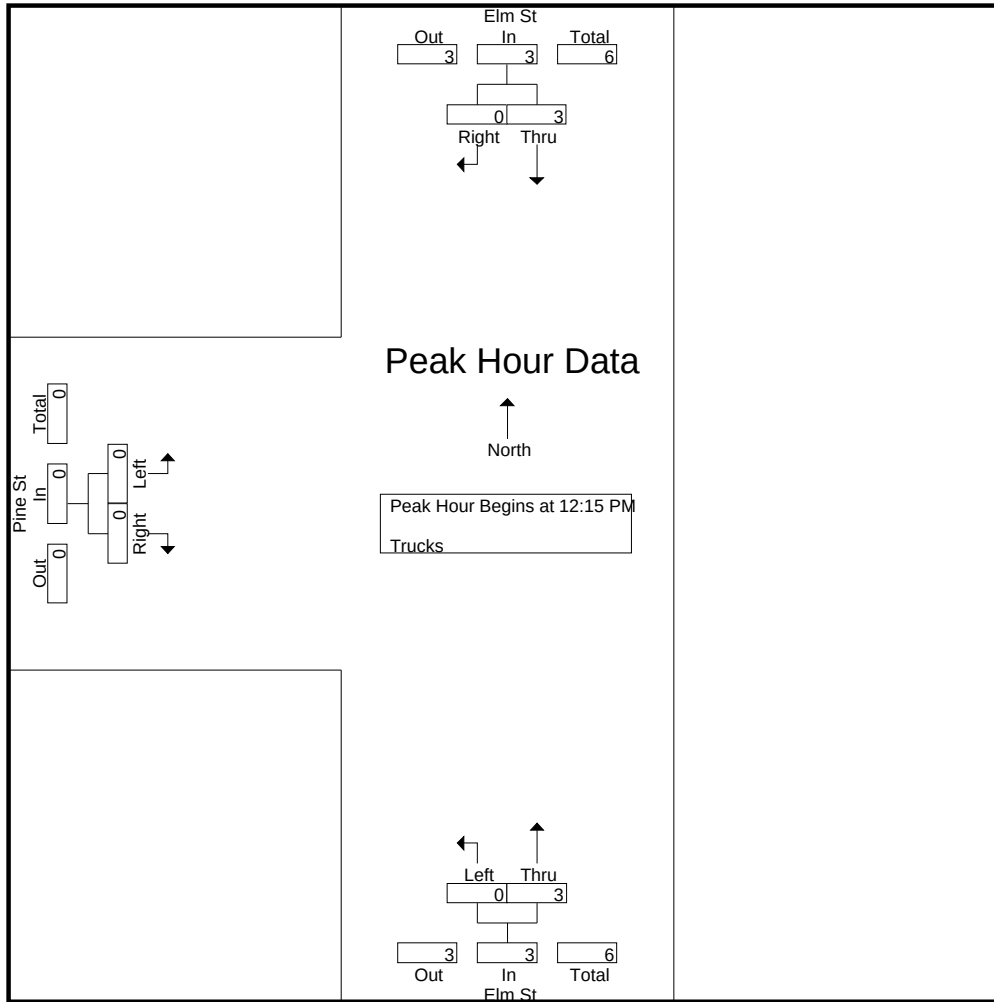
Groups Printed- Trucks

	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	0	0	0	0	0	0	0
11:15 AM	1	0	0	1	0	0	2
11:30 AM	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	2
12:00 PM	0	0	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	1
12:30 PM	2	0	0	1	0	0	3
12:45 PM	1	0	0	0	0	0	1
Total	3	0	0	2	0	0	5
01:00 PM	0	0	0	1	0	0	1
01:15 PM	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	1
Grand Total	4	0	0	4	0	0	8
Apprch %	100	0	0	100	0	0	
Total %	50	0	0	50	0	0	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	0	0	0	0	1	1	0	0	0	1
12:30 PM	2	0	2	0	1	1	0	0	0	3
12:45 PM	1	0	1	0	0	0	0	0	0	1
01:00 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	3	0	3	0	3	3	0	0	0	6
% App. Total	100	0		0	100		0	0		
PHF	.375	.000	.375	.000	.750	.750	.000	.000	.000	.500

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 8

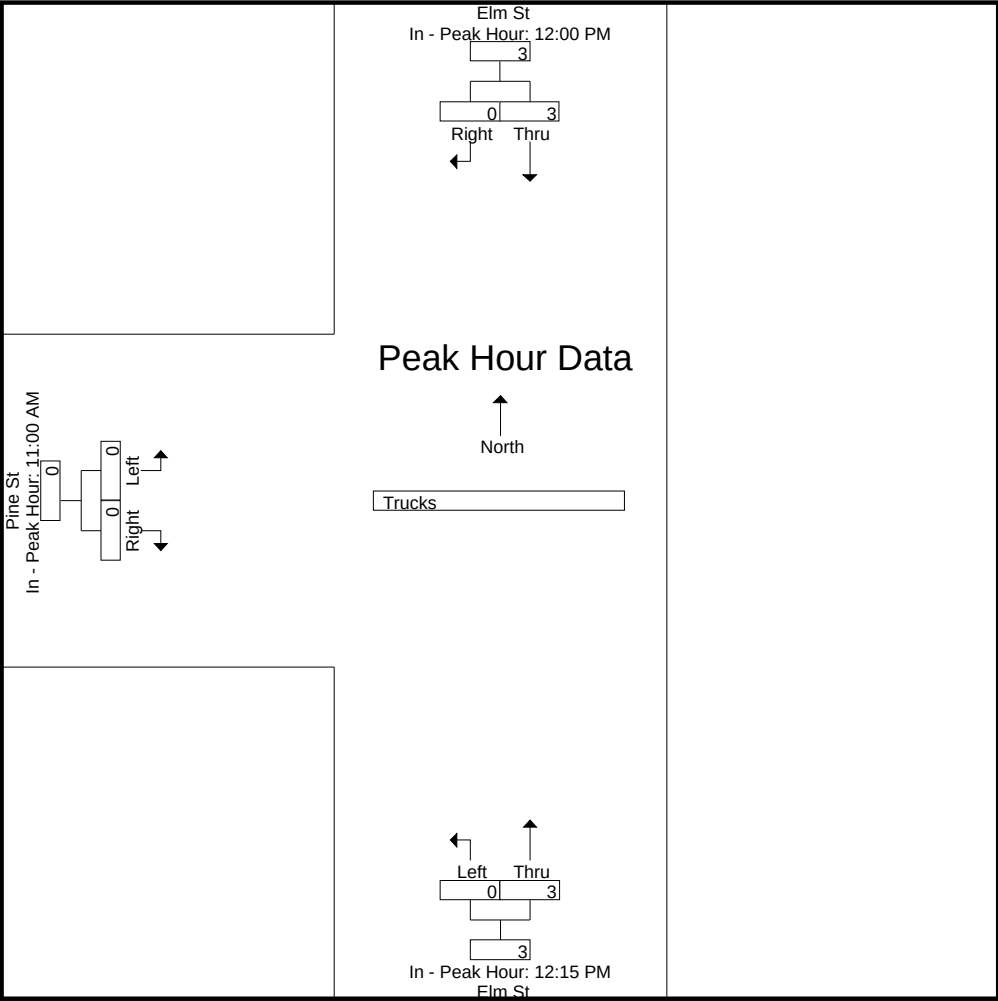


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM			12:15 PM			11:00 AM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	2	0	2	0	0	0	0	0	0
+45 mins.	1	0	1	0	1	1	0	0	0
Total Volume	3	0	3	0	3	3	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.375	.000	.375	.000	.750	.750	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 10

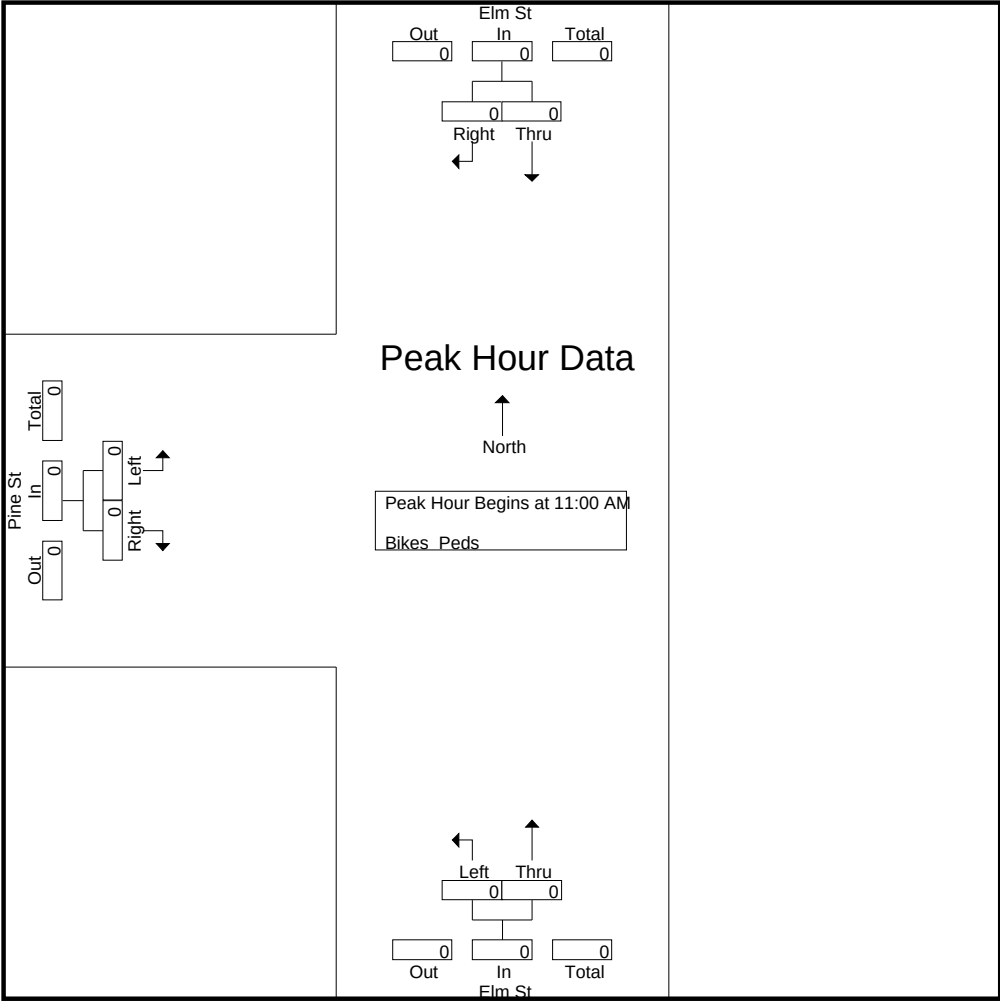
Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Pine St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	2	2	0	2
11:15 AM	0	0	0	0	0	0	0	0	3	3	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	0	7	7	0	7
12:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
12:30 PM	0	0	0	0	0	0	0	0	4	4	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	6	6	0	6
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	1	1	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	3	3	0	3
Total	0	0	0	0	0	0	0	0	4	4	0	4
Grand Total	0	0	0	0	0	0	0	0	17	17	0	17
Apprch %	0	0		0	0		0	0				
Total %										100	0	

	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 11

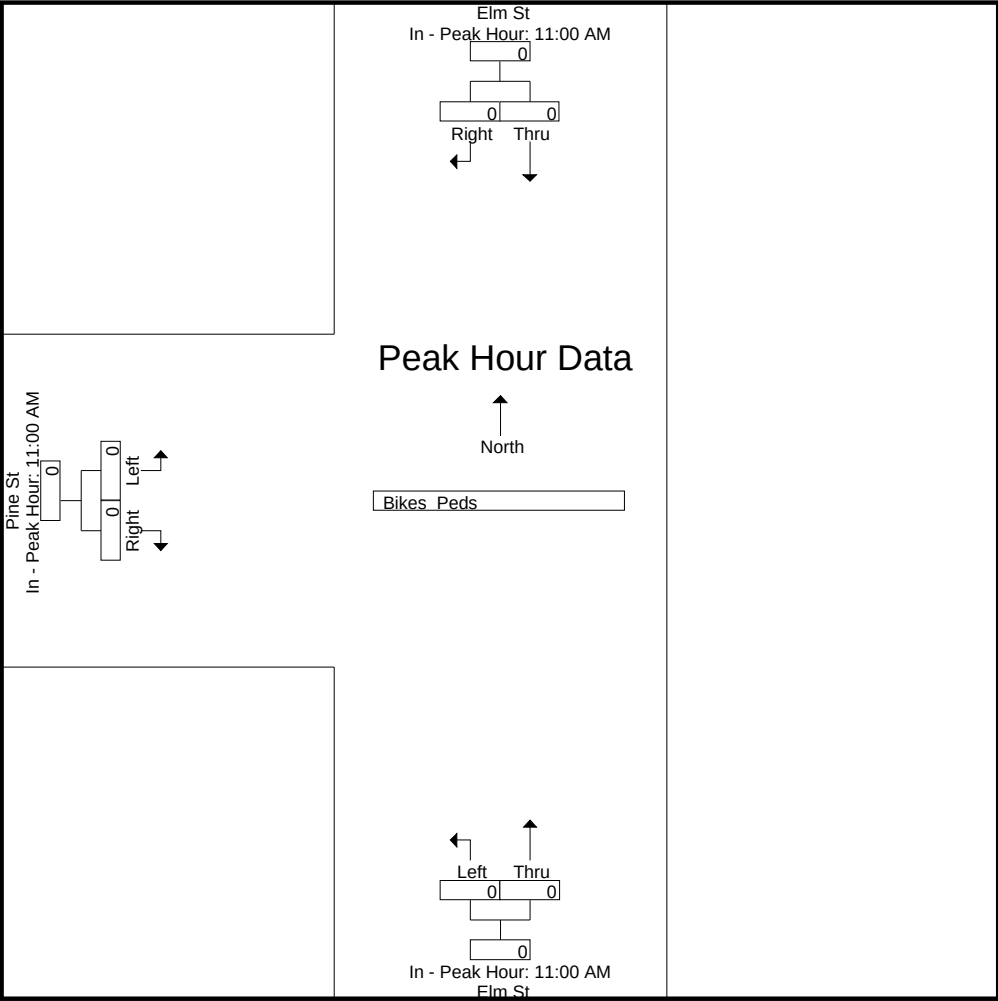


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	75	10	13	88	11	16	213
07:15 AM	119	16	16	111	28	6	296
07:30 AM	123	12	11	123	22	13	304
07:45 AM	133	25	19	106	19	7	309
Total	450	63	59	428	80	42	1122
08:00 AM	131	10	17	111	31	14	314
08:15 AM	122	15	16	122	20	10	305
08:30 AM	133	18	13	107	13	11	295
08:45 AM	109	10	19	101	17	19	275
Total	495	53	65	441	81	54	1189
Grand Total	945	116	124	869	161	96	2311
Apprch %	89.1	10.9	12.5	87.5	62.6	37.4	
Total %	40.9	5	5.4	37.6	7	4.2	
Cars	922	116	124	854	161	96	2273
% Cars	97.6	100	100	98.3	100	100	98.4
Trucks	23	0	0	15	0	0	38
% Trucks	2.4	0	0	1.7	0	0	1.6

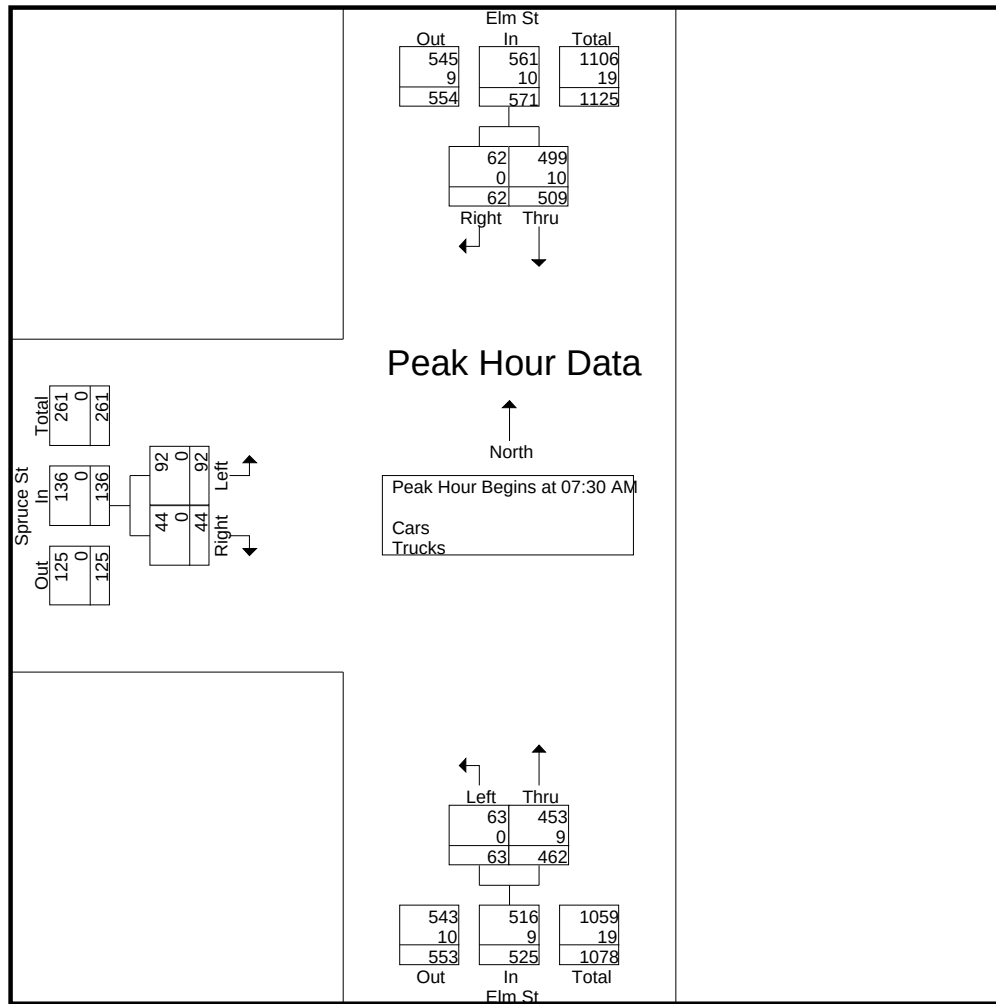
	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	123	12	135	11	123	134	22	13	35	304
07:45 AM	133	25	158	19	106	125	19	7	26	309
08:00 AM	131	10	141	17	111	128	31	14	45	314
08:15 AM	122	15	137	16	122	138	20	10	30	305
Total Volume	509	62	571	63	462	525	92	44	136	1232
% App. Total	89.1	10.9		12	88		67.6	32.4		
PHF	.957	.620	.903	.829	.939	.951	.742	.786	.756	.981
Cars	499	62	561	63	453	516	92	44	136	1213
% Cars	98.0	100	98.2	100	98.1	98.3	100	100	100	98.5
Trucks	10	0	10	0	9	9	0	0	0	19
% Trucks	2.0	0	1.8	0	1.9	1.7	0	0	0	1.5

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 2



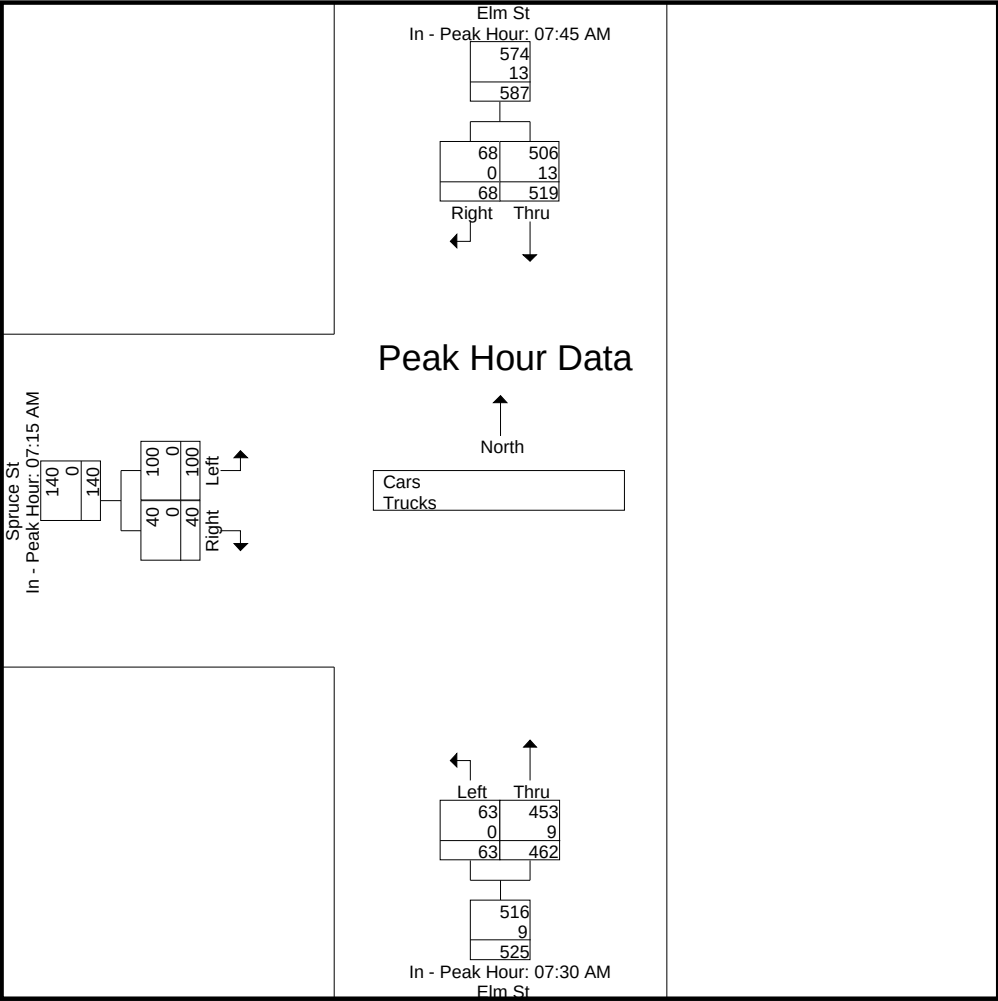
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			07:15 AM		
+0 mins.	133	25	158	11	123	134	28	6	34
+15 mins.	131	10	141	19	106	125	22	13	35
+30 mins.	122	15	137	17	111	128	19	7	26
+45 mins.	133	18	151	16	122	138	31	14	45
Total Volume	519	68	587	63	462	525	100	40	140
% App. Total	88.4	11.6		12	88		71.4	28.6	
PHF	.976	.680	.929	.829	.939	.951	.806	.714	.778
Cars	506	68	574	63	453	516	100	40	140
% Cars	97.5	100	97.8	100	98.1	98.3	100	100	100
Trucks	13	0	13	0	9	9	0	0	0
% Trucks	2.5	0	2.2	0	1.9	1.7	0	0	0

N/S Street : Elm Street
 E/W Street : Spruce Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150003
 Site Code : 19150003
 Start Date : 11/9/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

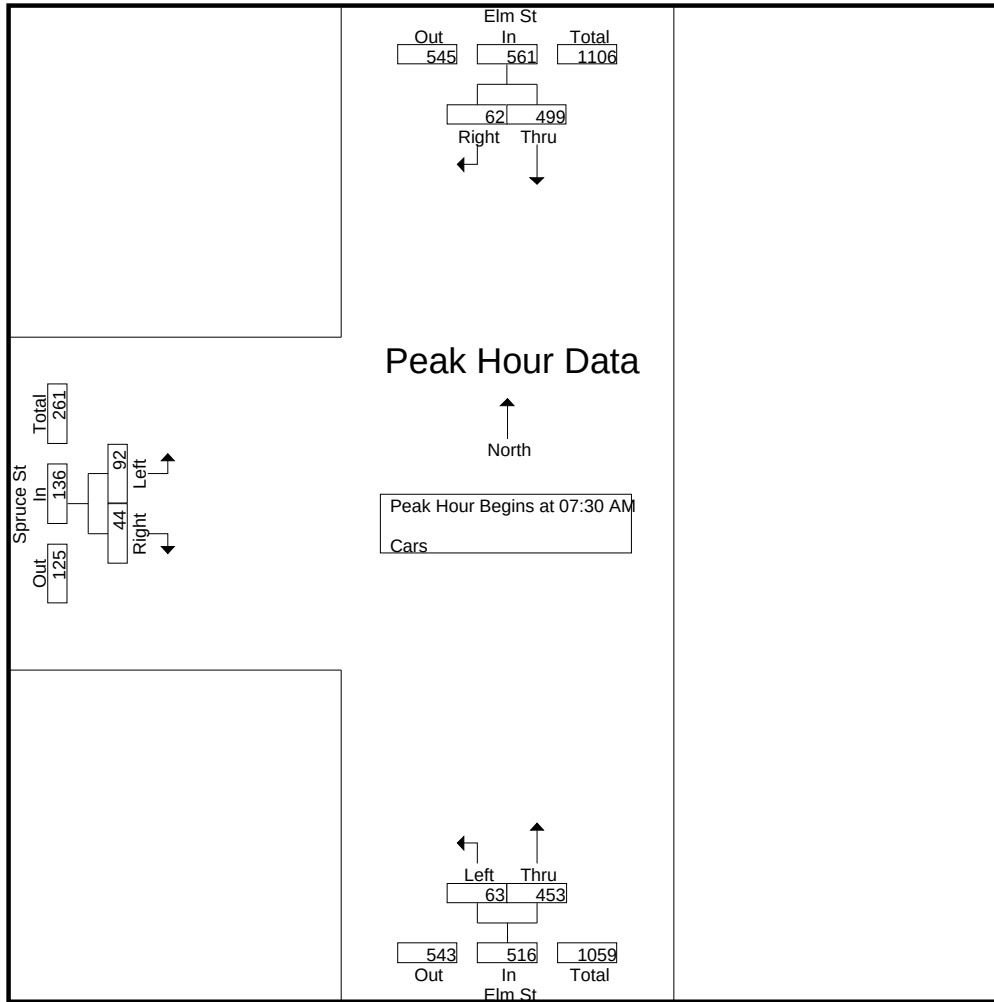
File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	71	10	13	87	11	16	208
07:15 AM	116	16	16	109	28	6	291
07:30 AM	121	12	11	122	22	13	301
07:45 AM	131	25	19	103	19	7	304
Total	439	63	59	421	80	42	1104
08:00 AM	127	10	17	109	31	14	308
08:15 AM	120	15	16	119	20	10	300
08:30 AM	128	18	13	105	13	11	288
08:45 AM	108	10	19	100	17	19	273
Total	483	53	65	433	81	54	1169
Grand Total	922	116	124	854	161	96	2273
Apprch %	88.8	11.2	12.7	87.3	62.6	37.4	
Total %	40.6	5.1	5.5	37.6	7.1	4.2	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	121	12	133	11	122	133	22	13	35	301
07:45 AM	131	25	156	19	103	122	19	7	26	304
08:00 AM	127	10	137	17	109	126	31	14	45	308
08:15 AM	120	15	135	16	119	135	20	10	30	300
Total Volume	499	62	561	63	453	516	92	44	136	1213
% App. Total	88.9	11.1		12.2	87.8		67.6	32.4		
PHF	.952	.620	.899	.829	.928	.956	.742	.786	.756	.985

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

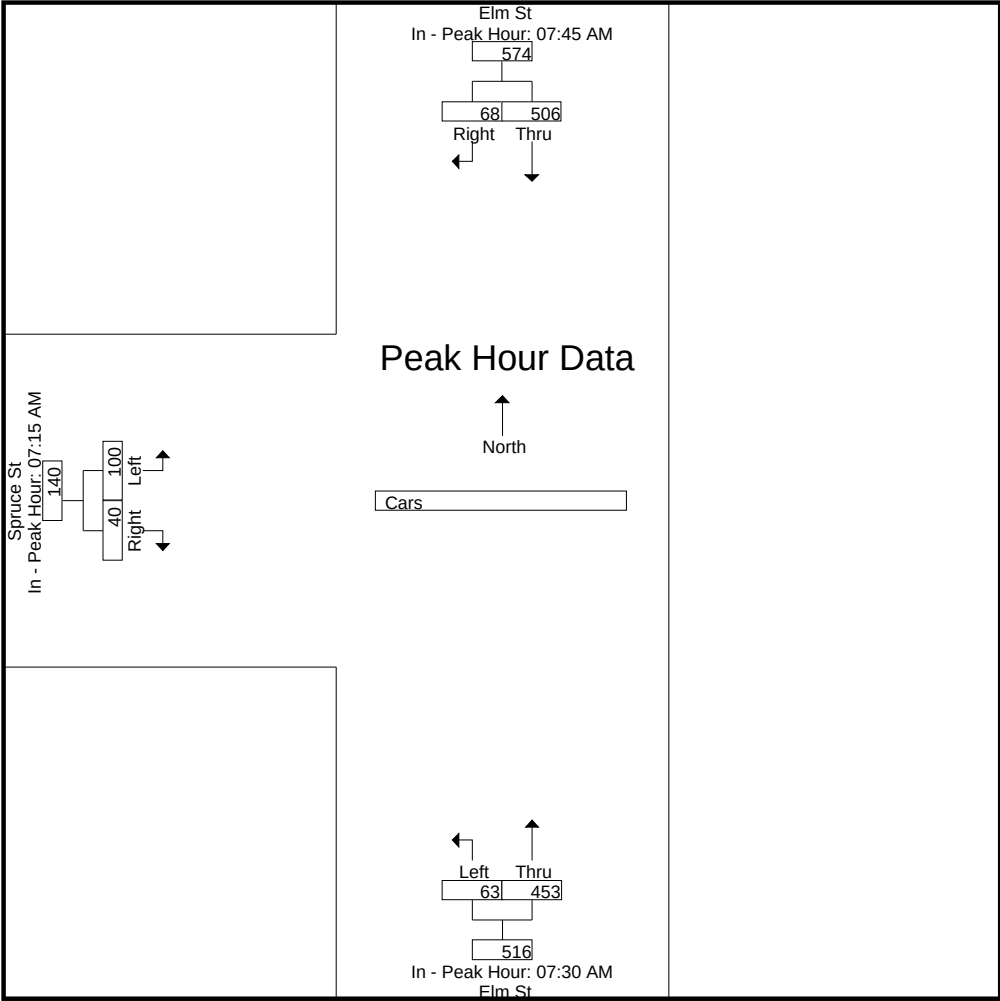


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			07:30 AM			07:15 AM		
+0 mins.	131	25	156	11	122	133	28	6	34
+15 mins.	127	10	137	19	103	122	22	13	35
+30 mins.	120	15	135	17	109	126	19	7	26
+45 mins.	128	18	146	16	119	135	31	14	45
Total Volume	506	68	574	63	453	516	100	40	140
% App. Total	88.2	11.8		12.2	87.8		71.4	28.6	
PHF	.966	.680	.920	.829	.928	.956	.806	.714	.778

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Spruce Street
 City/State : Biddeford, ME
 Weather : Clear

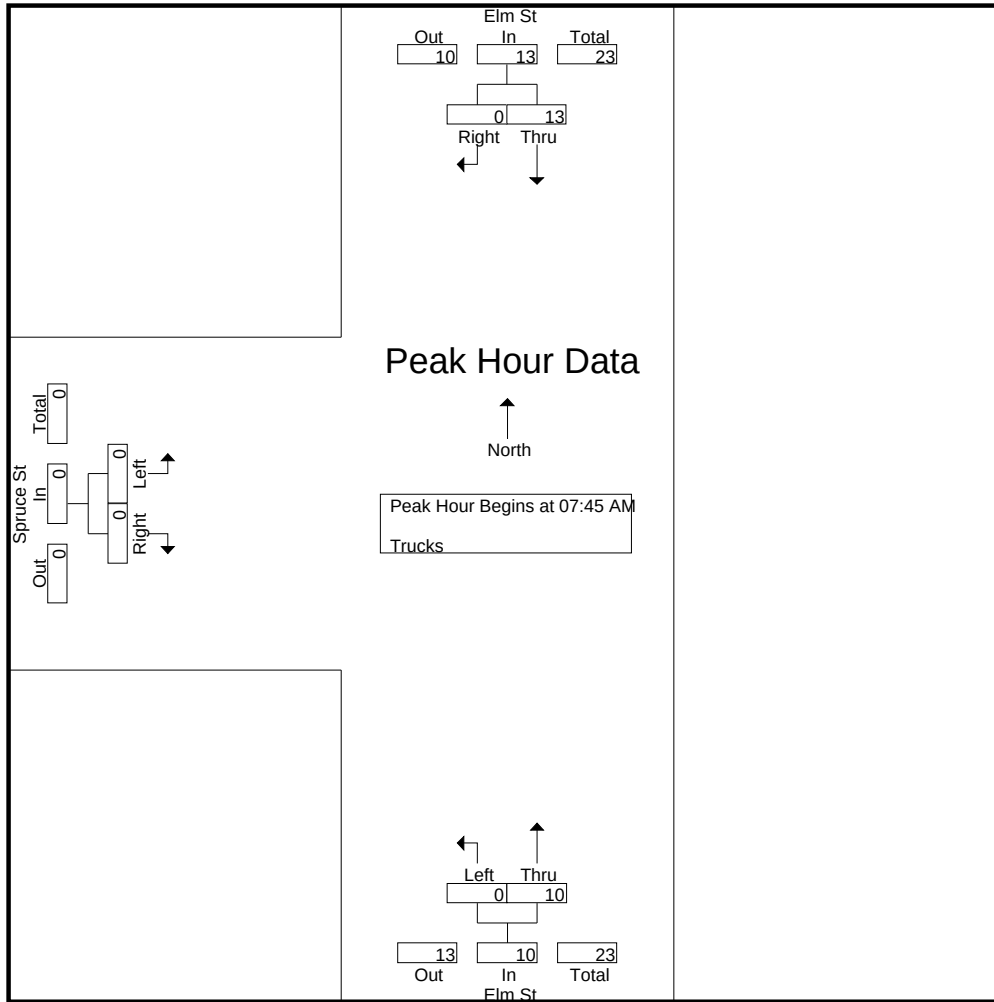
File Name : 19150003
 Site Code : 19150003
 Start Date : 11/9/2021
 Page No : 7

Groups Printed- Trucks

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
07:00 AM	4	0	0	1	0	0	5
07:15 AM	3	0	0	2	0	0	5
07:30 AM	2	0	0	1	0	0	3
07:45 AM	2	0	0	3	0	0	5
Total	11	0	0	7	0	0	18
08:00 AM	4	0	0	2	0	0	6
08:15 AM	2	0	0	3	0	0	5
08:30 AM	5	0	0	2	0	0	7
08:45 AM	1	0	0	1	0	0	2
Total	12	0	0	8	0	0	20
Grand Total	23	0	0	15	0	0	38
Apprch %	100	0	0	100	0	0	
Total %	60.5	0	0	39.5	0	0	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	2	0	2	0	3	3	0	0	0	5
08:00 AM	4	0	4	0	2	2	0	0	0	6
08:15 AM	2	0	2	0	3	3	0	0	0	5
08:30 AM	5	0	5	0	2	2	0	0	0	7
Total Volume	13	0	13	0	10	10	0	0	0	23
% App. Total	100	0		0	100		0	0		
PHF	.650	.000	.650	.000	.833	.833	.000	.000	.000	.821

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

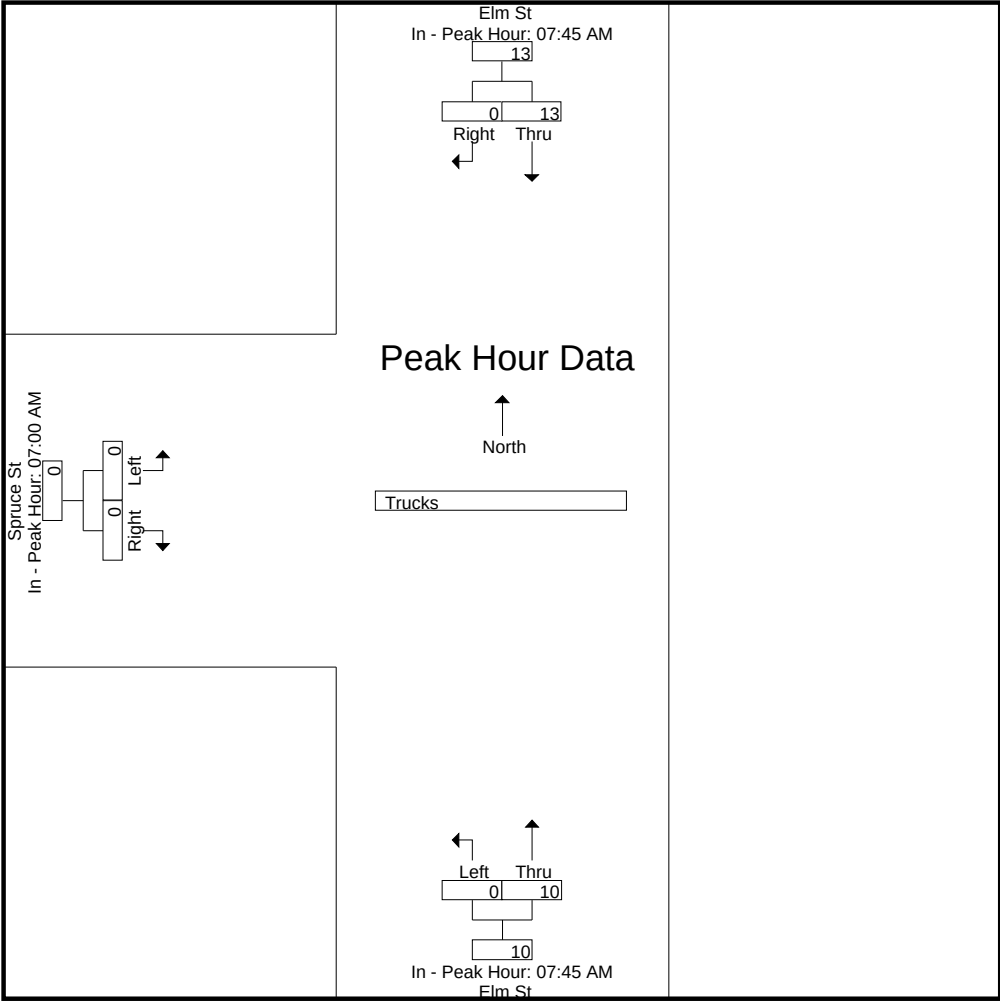


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM			07:45 AM			07:00 AM		
+0 mins.	2	0	2	0	3	3	0	0	0
+15 mins.	4	0	4	0	2	2	0	0	0
+30 mins.	2	0	2	0	3	3	0	0	0
+45 mins.	5	0	5	0	2	2	0	0	0
Total Volume	13	0	13	0	10	10	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.650	.000	.650	.000	.833	.833	.000	.000	.000

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 10

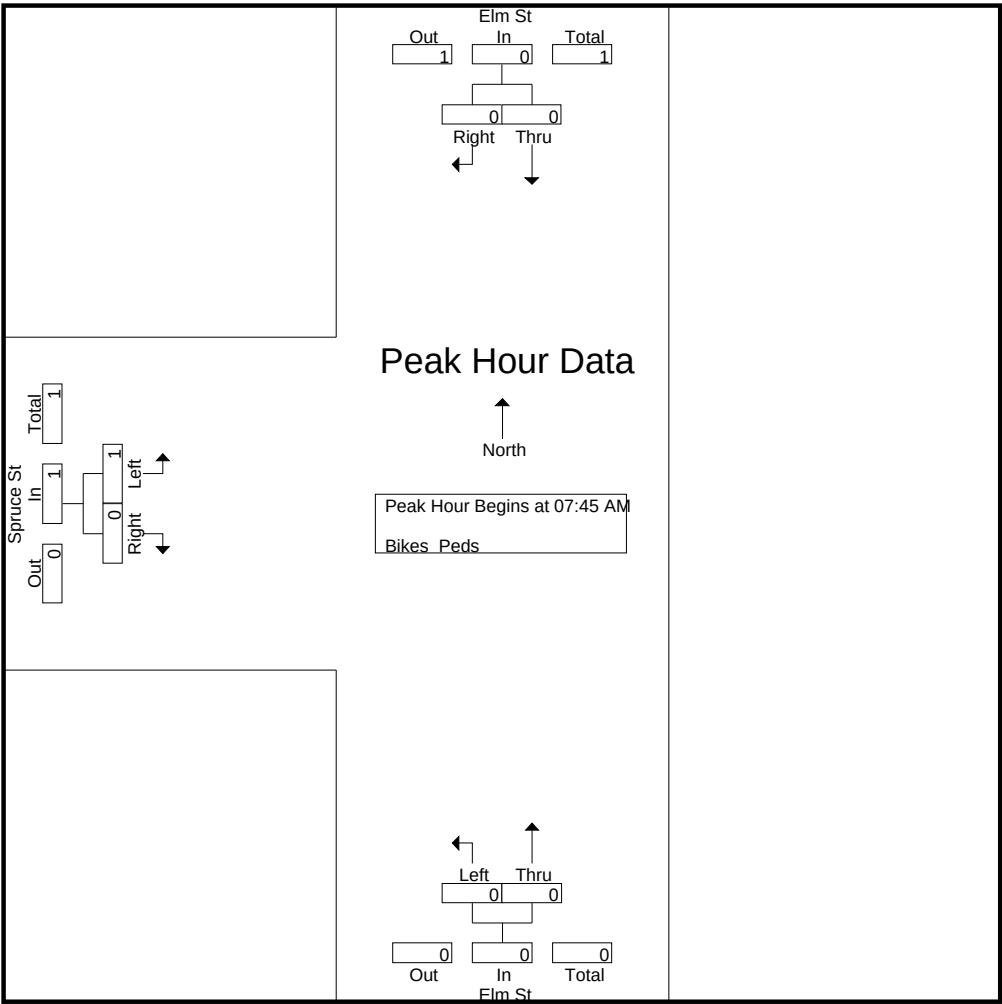
Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Spruce St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	1
08:00 AM	0	0	1	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	1	1	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	1	0	1	2	1	3
Grand Total	0	0	1	0	0	0	1	0	2	3	1	4
Apprch %	0	0		0	0		100	0				
Total %	0	0		0	0		100	0		75	25	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0		0	0		100	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 11

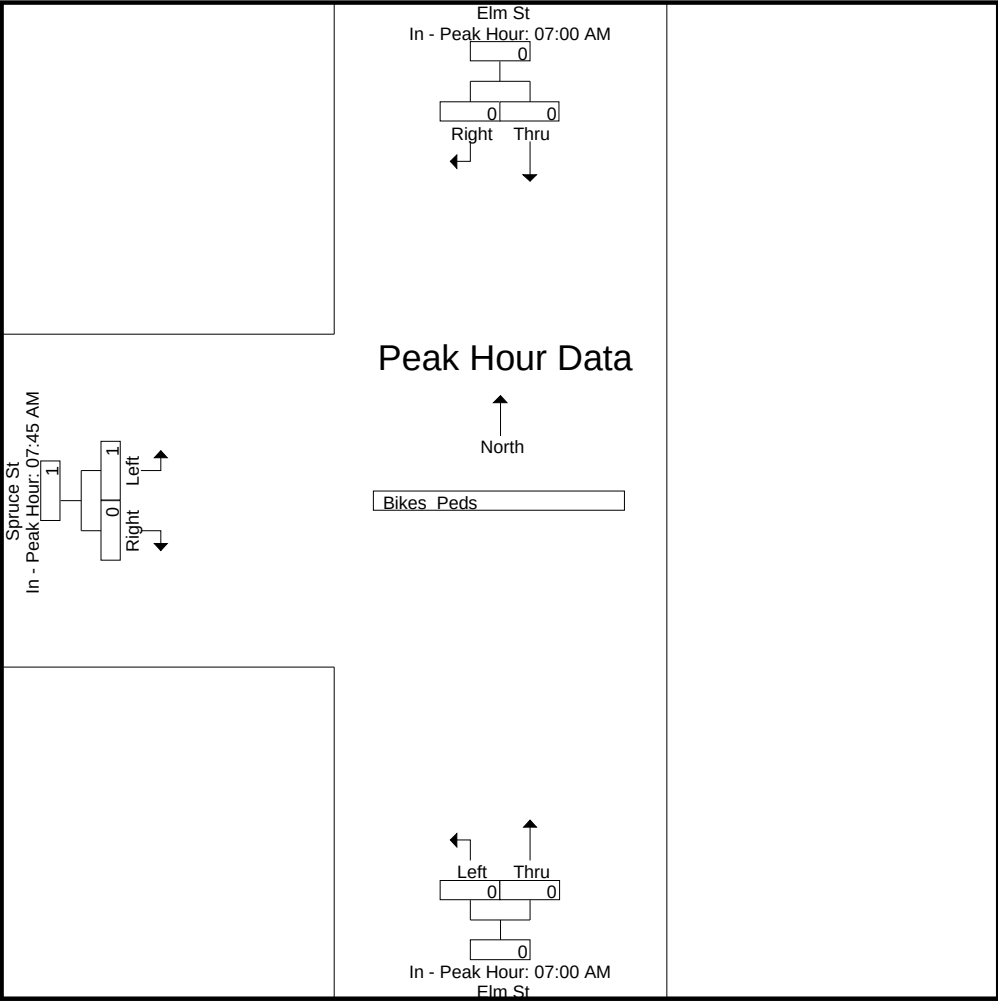


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	1	0	1
% App. Total	0	0		0	0		100	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.250

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
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Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 1

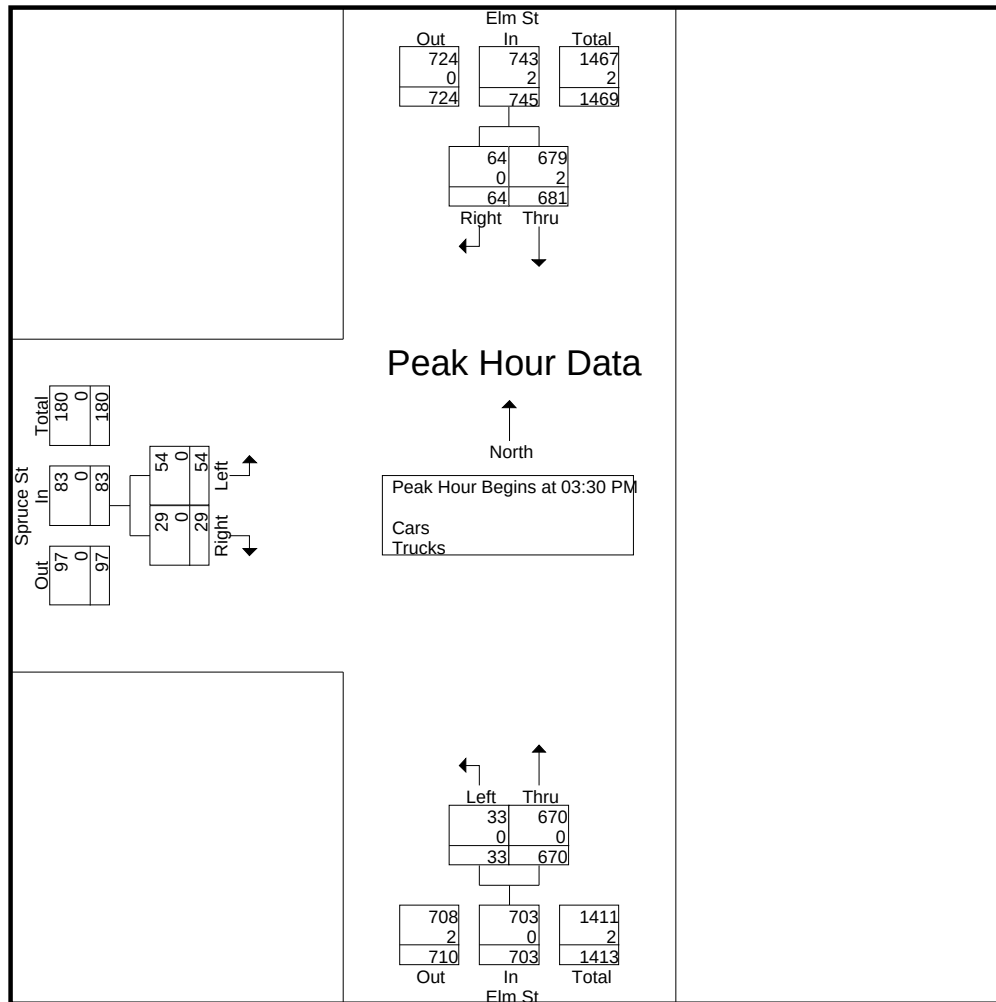
Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	146	18	8	149	9	8	338
03:15 PM	153	17	9	149	10	9	347
03:30 PM	177	15	11	167	10	7	387
03:45 PM	170	16	7	166	17	6	382
Total	646	66	35	631	46	30	1454
04:00 PM	157	22	11	161	15	10	376
04:15 PM	177	11	4	176	12	6	386
04:30 PM	172	15	2	178	5	4	376
04:45 PM	182	12	7	168	10	3	382
Total	688	60	24	683	42	23	1520
05:00 PM	148	20	6	175	10	5	364
05:15 PM	181	19	2	153	4	3	362
05:30 PM	157	13	9	118	9	6	312
05:45 PM	135	6	0	133	1	0	275
Total	621	58	17	579	24	14	1313
Grand Total	1955	184	76	1893	112	67	4287
Apprch %	91.4	8.6	3.9	96.1	62.6	37.4	
Total %	45.6	4.3	1.8	44.2	2.6	1.6	
Cars	1948	183	76	1888	112	67	4274
% Cars	99.6	99.5	100	99.7	100	100	99.7
Trucks	7	1	0	5	0	0	13
% Trucks	0.4	0.5	0	0.3	0	0	0.3

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	177	15	192	11	167	178	10	7	17	387
03:45 PM	170	16	186	7	166	173	17	6	23	382
04:00 PM	157	22	179	11	161	172	15	10	25	376
04:15 PM	177	11	188	4	176	180	12	6	18	386
Total Volume	681	64	745	33	670	703	54	29	83	1531
% App. Total	91.4	8.6		4.7	95.3		65.1	34.9		
PHF	.962	.727	.970	.750	.952	.976	.794	.725	.830	.989
Cars	679	64	743	33	670	703	54	29	83	1529
% Cars	99.7	100	99.7	100	100	100	100	100	100	99.9
Trucks	2	0	2	0	0	0	0	0	0	2
% Trucks	0.3	0	0.3	0	0	0	0	0	0	0.1

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 2

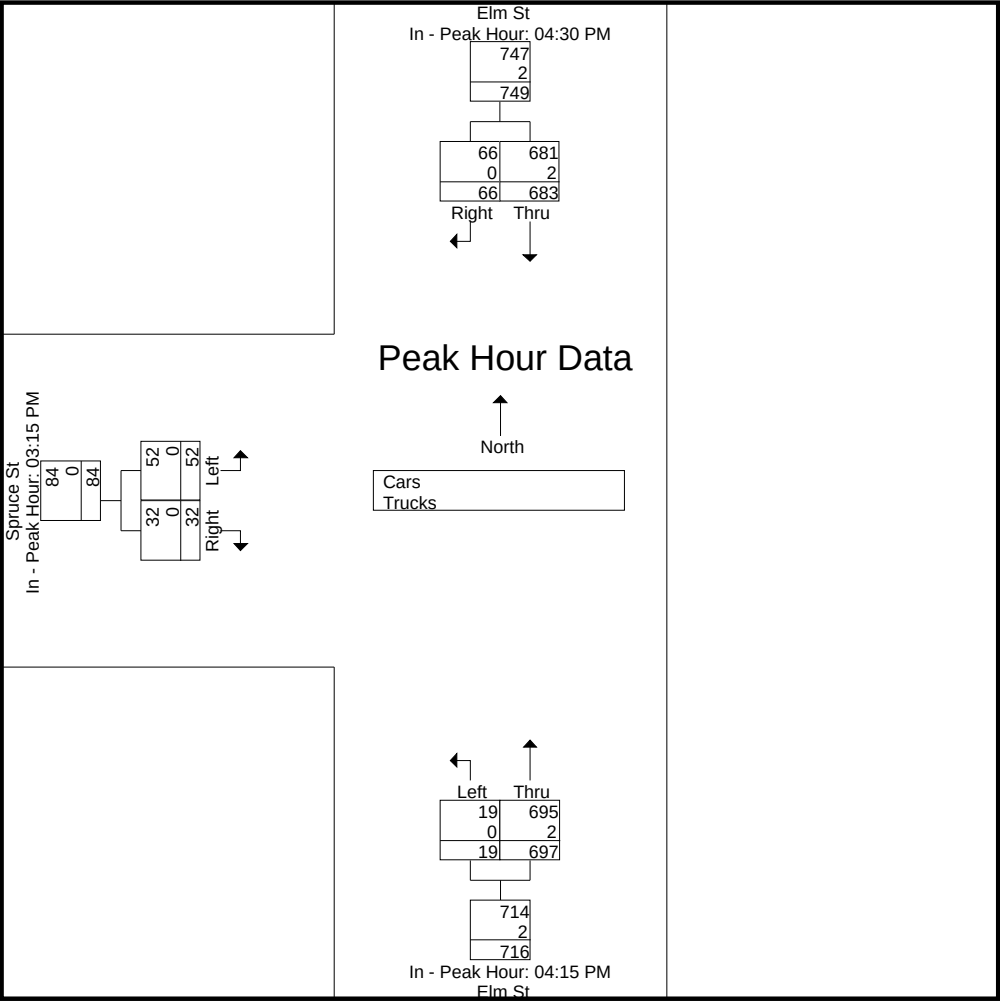


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:15 PM			03:15 PM		
+0 mins.	172	15	187	4	176	180	10	9	19
+15 mins.	182	12	194	2	178	180	10	7	17
+30 mins.	148	20	168	7	168	175	17	6	23
+45 mins.	181	19	200	6	175	181	15	10	25
Total Volume	683	66	749	19	697	716	52	32	84
% App. Total	91.2	8.8		2.7	97.3		61.9	38.1	
PHF	.938	.825	.936	.679	.979	.989	.765	.800	.840
Cars	681	66	747	19	695	714	52	32	84
% Cars	99.7	100	99.7	100	99.7	99.7	100	100	100
Trucks	2	0	2	0	2	2	0	0	0
% Trucks	0.3	0	0.3	0	0.3	0.3	0	0	0

N/S Street : Elm Street
 E/W Street : Spruce Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150003
 Site Code : 19150003
 Start Date : 11/9/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	145	17	8	148	9	8	335
03:15 PM	152	17	9	149	10	9	346
03:30 PM	177	15	11	167	10	7	387
03:45 PM	169	16	7	166	17	6	381
Total	643	65	35	630	46	30	1449
04:00 PM	157	22	11	161	15	10	376
04:15 PM	176	11	4	176	12	6	385
04:30 PM	170	15	2	177	5	4	373
04:45 PM	182	12	7	168	10	3	382
Total	685	60	24	682	42	23	1516
05:00 PM	148	20	6	174	10	5	363
05:15 PM	181	19	2	153	4	3	362
05:30 PM	156	13	9	118	9	6	311
05:45 PM	135	6	0	131	1	0	273
Total	620	58	17	576	24	14	1309
Grand Total	1948	183	76	1888	112	67	4274
Apprch %	91.4	8.6	3.9	96.1	62.6	37.4	
Total %	45.6	4.3	1.8	44.2	2.6	1.6	

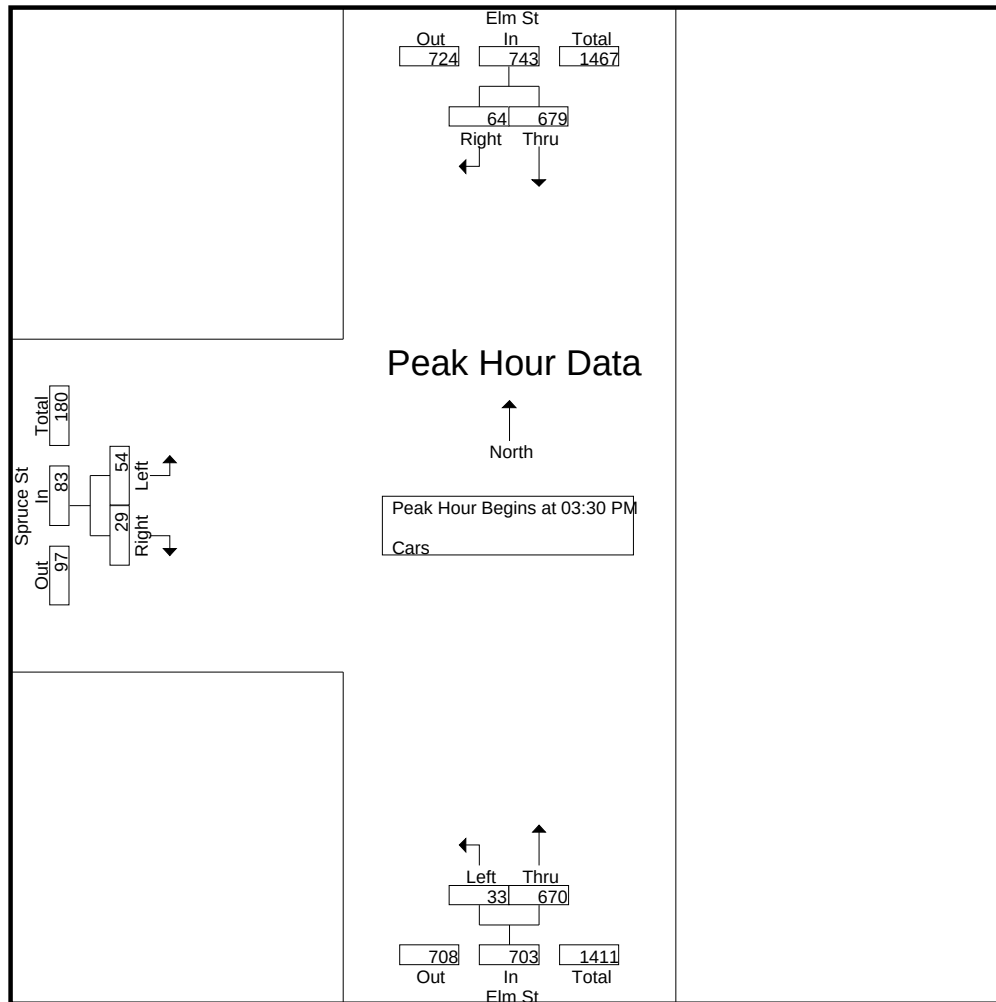
	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	177	15	192	11	167	178	10	7	17	387
03:45 PM	169	16	185	7	166	173	17	6	23	381
04:00 PM	157	22	179	11	161	172	15	10	25	376
04:15 PM	176	11	187	4	176	180	12	6	18	385
Total Volume	679	64	743	33	670	703	54	29	83	1529
% App. Total	91.4	8.6		4.7	95.3		65.1	34.9		
PHF	.959	.727	.967	.750	.952	.976	.794	.725	.830	.988

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Spruce Street
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150003
 Site Code : 19150003
 Start Date : 11/9/2021
 Page No : 5

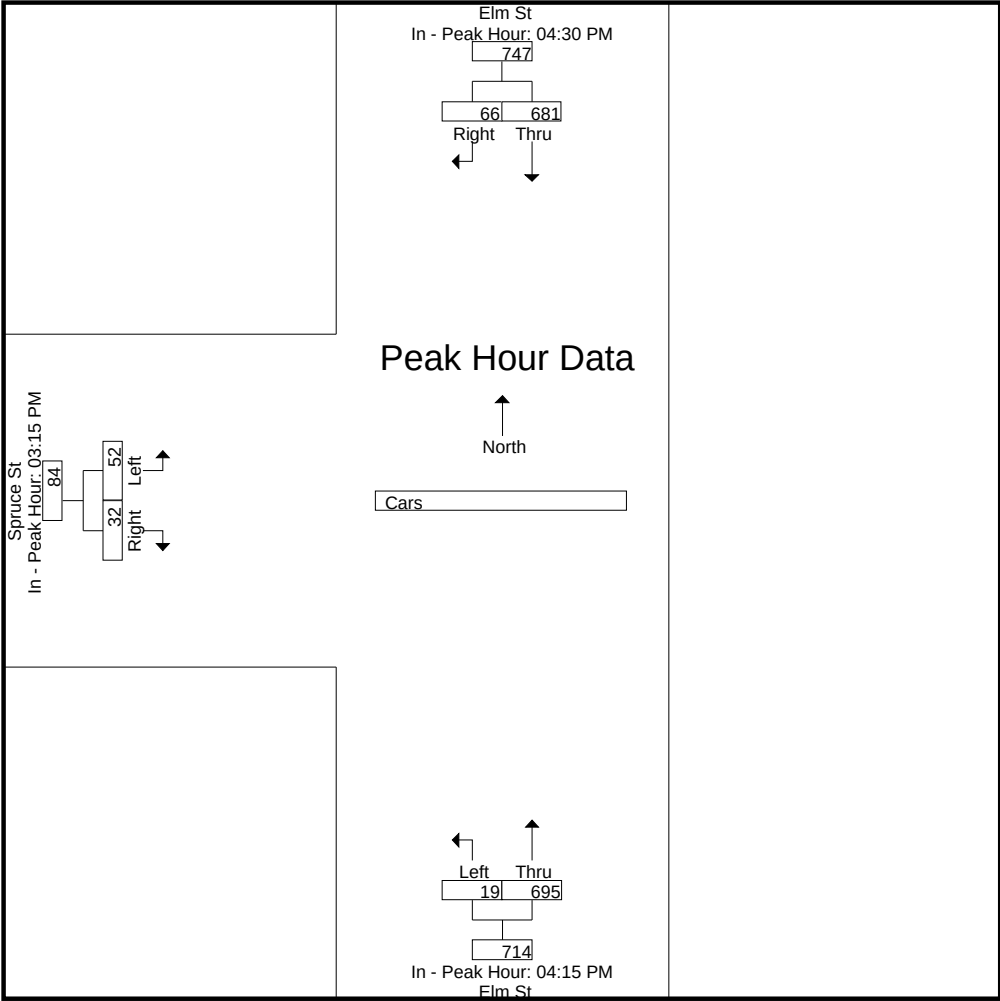


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:30 PM			04:15 PM			03:15 PM		
+0 mins.	170	15	185	4	176	180	10	9	19
+15 mins.	182	12	194	2	177	179	10	7	17
+30 mins.	148	20	168	7	168	175	17	6	23
+45 mins.	181	19	200	6	174	180	15	10	25
Total Volume	681	66	747	19	695	714	52	32	84
% App. Total	91.2	8.8		2.7	97.3		61.9	38.1	
PHF	.935	.825	.934	.679	.982	.992	.765	.800	.840

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 7

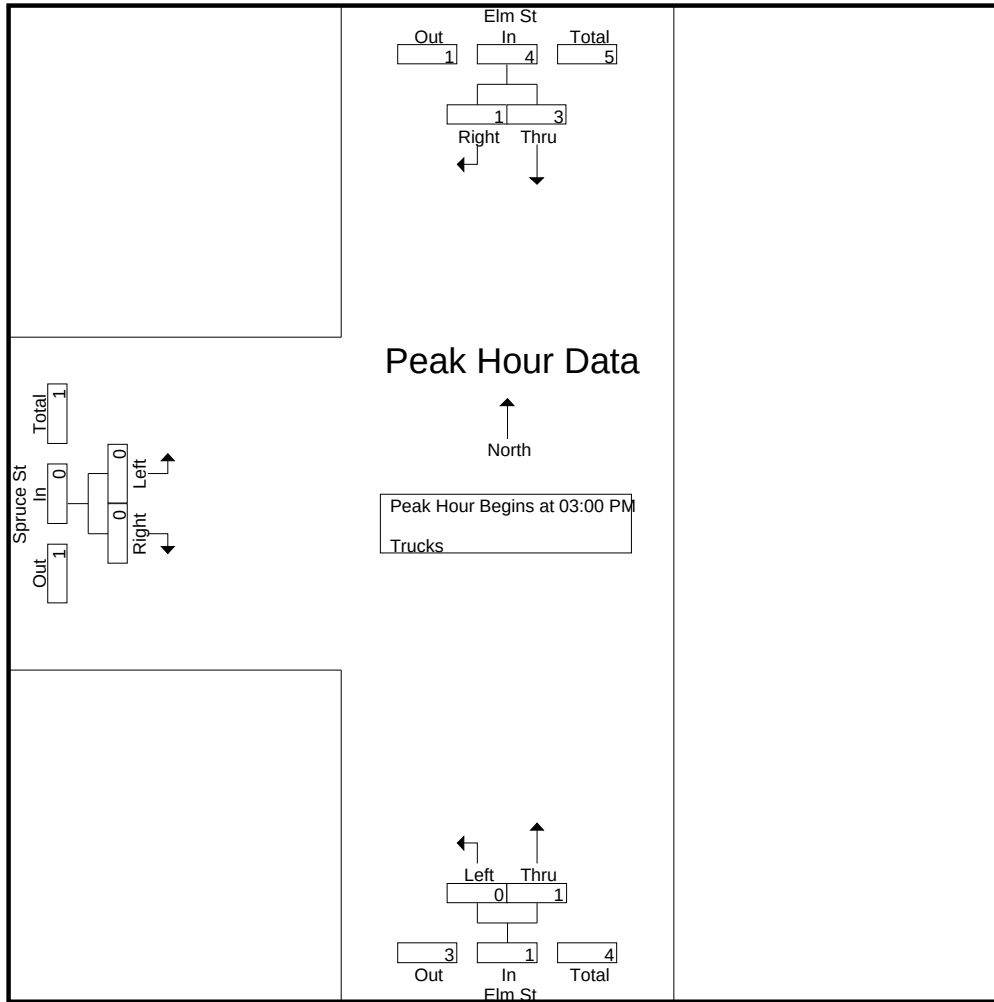
Groups Printed- Trucks

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
03:00 PM	1	1	0	1	0	0	3
03:15 PM	1	0	0	0	0	0	1
03:30 PM	0	0	0	0	0	0	0
03:45 PM	1	0	0	0	0	0	1
Total	3	1	0	1	0	0	5
04:00 PM	0	0	0	0	0	0	0
04:15 PM	1	0	0	0	0	0	1
04:30 PM	2	0	0	1	0	0	3
04:45 PM	0	0	0	0	0	0	0
Total	3	0	0	1	0	0	4
05:00 PM	0	0	0	1	0	0	1
05:15 PM	0	0	0	0	0	0	0
05:30 PM	1	0	0	0	0	0	1
05:45 PM	0	0	0	2	0	0	2
Total	1	0	0	3	0	0	4
Grand Total	7	1	0	5	0	0	13
Apprch %	87.5	12.5	0	100	0	0	
Total %	53.8	7.7	0	38.5	0	0	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:00 PM										
03:00 PM	1	1	2	0	1	1	0	0	0	3
03:15 PM	1	0	1	0	0	0	0	0	0	1
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	3	1	4	0	1	1	0	0	0	5
% App. Total	75	25		0	100		0	0		
PHF	.750	.250	.500	.000	.250	.250	.000	.000	.000	.417

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 8

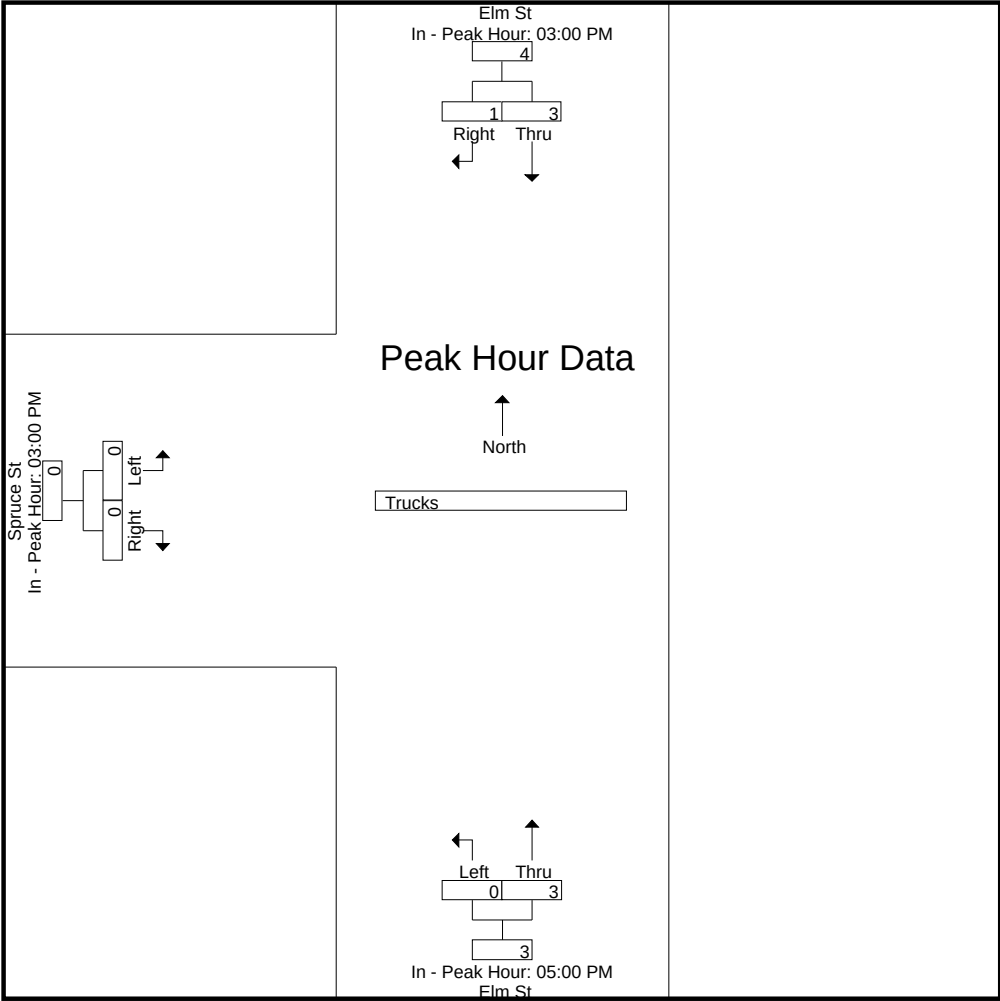


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM			05:00 PM			03:00 PM		
+0 mins.	1	1	2	0	1	1	0	0	0
+15 mins.	1	0	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	2	2	0	0	0
Total Volume	3	1	4	0	3	3	0	0	0
% App. Total	75	25		0	100		0	0	
PHF	.750	.250	.500	.000	.375	.375	.000	.000	.000

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
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Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 10

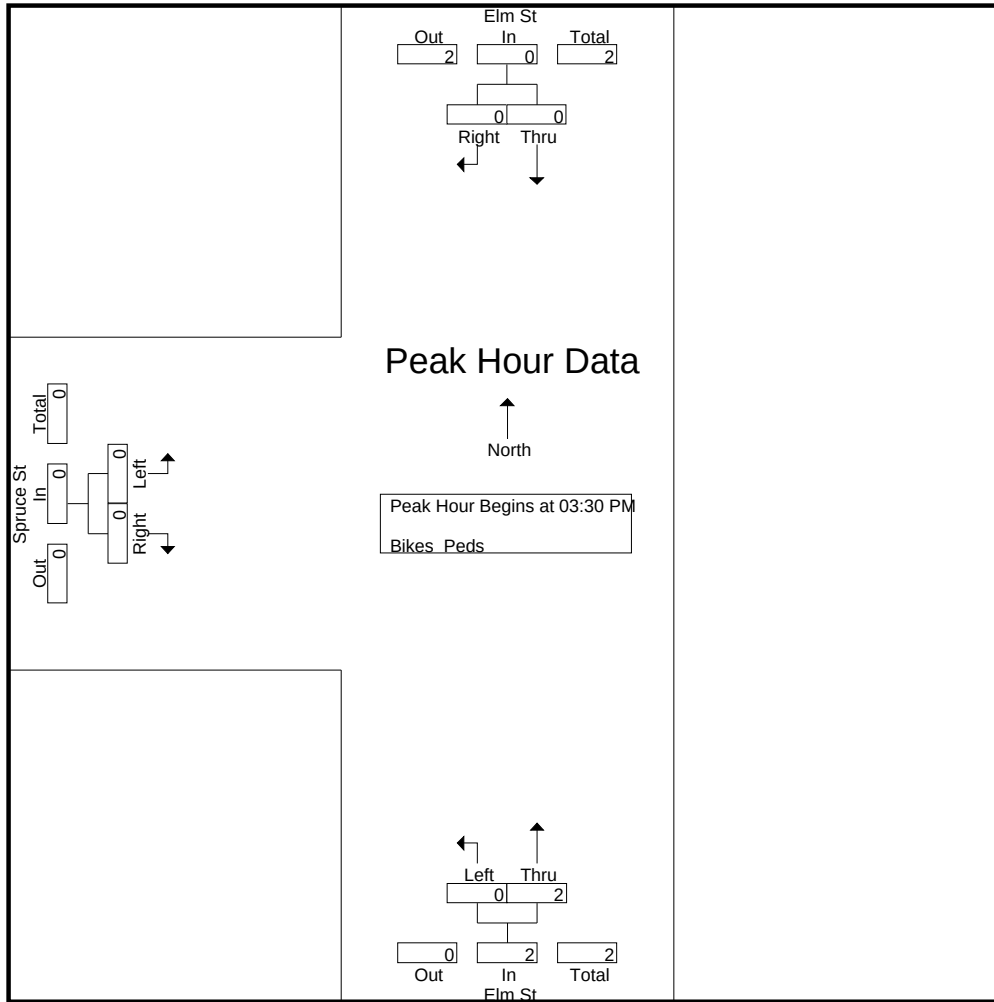
Groups Printed- Bikes Peds

	Elm St From North			Elm St From South			Spruce St From West					
Start Time	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	1	0	0	0	0	0	0	0	0	0	1	1
03:15 PM	0	0	1	0	0	0	0	0	2	3	0	3
03:30 PM	0	0	0	0	0	0	0	0	2	2	0	2
03:45 PM	0	0	2	0	0	0	0	0	1	3	0	3
Total	1	0	3	0	0	0	0	0	5	8	1	9
04:00 PM	0	0	0	0	1	0	0	0	3	3	1	4
04:15 PM	0	0	1	0	1	0	0	0	1	2	1	3
04:30 PM	0	0	0	0	0	0	0	0	3	3	0	3
04:45 PM	0	0	0	0	0	0	0	0	4	4	0	4
Total	0	0	1	0	2	0	0	0	11	12	2	14
05:00 PM	0	0	0	0	0	0	0	0	2	2	0	2
05:15 PM	0	0	0	0	0	0	0	0	3	3	0	3
05:30 PM	0	0	0	0	0	0	0	0	1	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	2	2	0	2
Total	0	0	0	0	0	0	0	0	8	8	0	8
Grand Total	1	0	4	0	2	0	0	0	24	28	3	31
Apprch %	100	0		0	100		0	0				
Total %	33.3	0		0	66.7		0	0		90.3	9.7	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 03:30 PM										
03:30 PM	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	0	0	0	0	2	2	0	0	0	2
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.500	.500	.000	.000	.000	.500

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 11

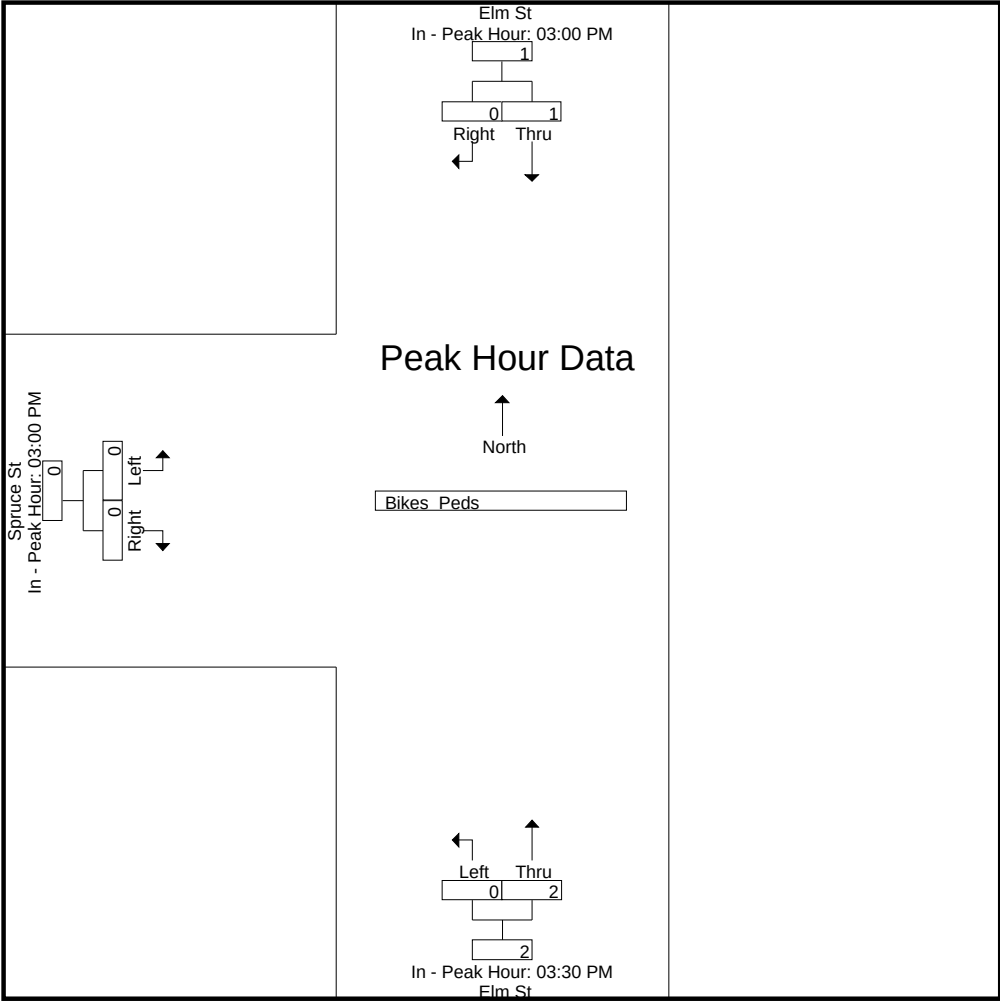


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM			03:30 PM			03:00 PM		
+0 mins.	1	0	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	1	0	1	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.500	.500	.000	.000	.000

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Clear

File Name : 19150003
Site Code : 19150003
Start Date : 11/9/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	159	16	13	123	18	17	346
11:15 AM	143	21	19	144	18	18	363
11:30 AM	156	21	14	141	12	16	360
11:45 AM	149	23	15	135	14	15	351
Total	607	81	61	543	62	66	1420
12:00 PM	135	17	7	124	12	12	307
12:15 PM	164	9	17	122	13	13	338
12:30 PM	148	21	10	137	13	11	340
12:45 PM	148	14	11	123	4	10	310
Total	595	61	45	506	42	46	1295
01:00 PM	150	15	12	108	14	18	317
01:15 PM	155	13	6	115	14	8	311
01:30 PM	155	14	8	112	8	7	304
01:45 PM	114	12	9	126	6	4	271
Total	574	54	35	461	42	37	1203
Grand Total	1776	196	141	1510	146	149	3918
Apprch %	90.1	9.9	8.5	91.5	49.5	50.5	
Total %	45.3	5	3.6	38.5	3.7	3.8	
Cars	1772	196	141	1509	146	149	3913
% Cars	99.8	100	100	99.9	100	100	99.9
Trucks	4	0	0	1	0	0	5
% Trucks	0.2	0	0	0.1	0	0	0.1

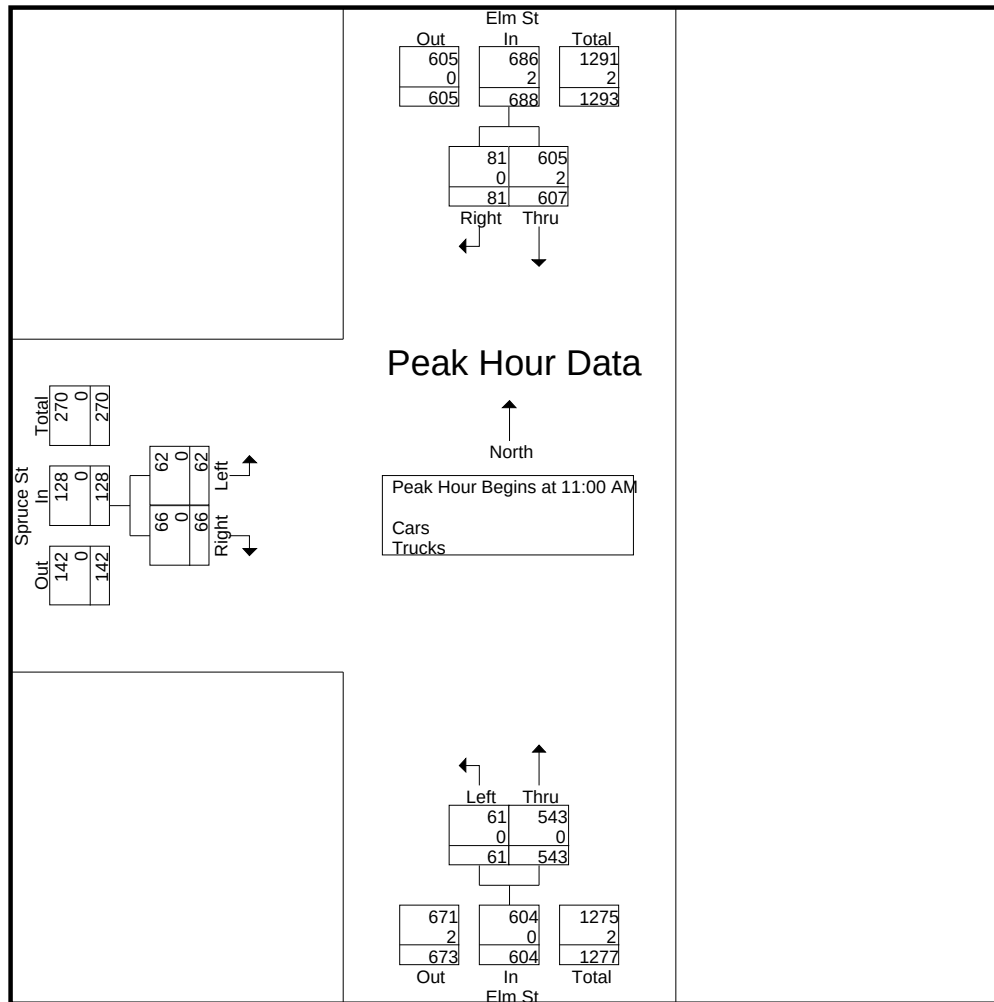
	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	159	16	175	13	123	136	18	17	35	346
11:15 AM	143	21	164	19	144	163	18	18	36	363
11:30 AM	156	21	177	14	141	155	12	16	28	360
11:45 AM	149	23	172	15	135	150	14	15	29	351
Total Volume	607	81	688	61	543	604	62	66	128	1420
% App. Total	88.2	11.8		10.1	89.9		48.4	51.6		
PHF	.954	.880	.972	.803	.943	.926	.861	.917	.889	.978
Cars	605	81	686	61	543	604	62	66	128	1418
% Cars	99.7	100	99.7	100	100	100	100	100	100	99.9
Trucks	2	0	2	0	0	0	0	0	0	2
% Trucks	0.3	0	0.3	0	0	0	0	0	0	0.1

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 2



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

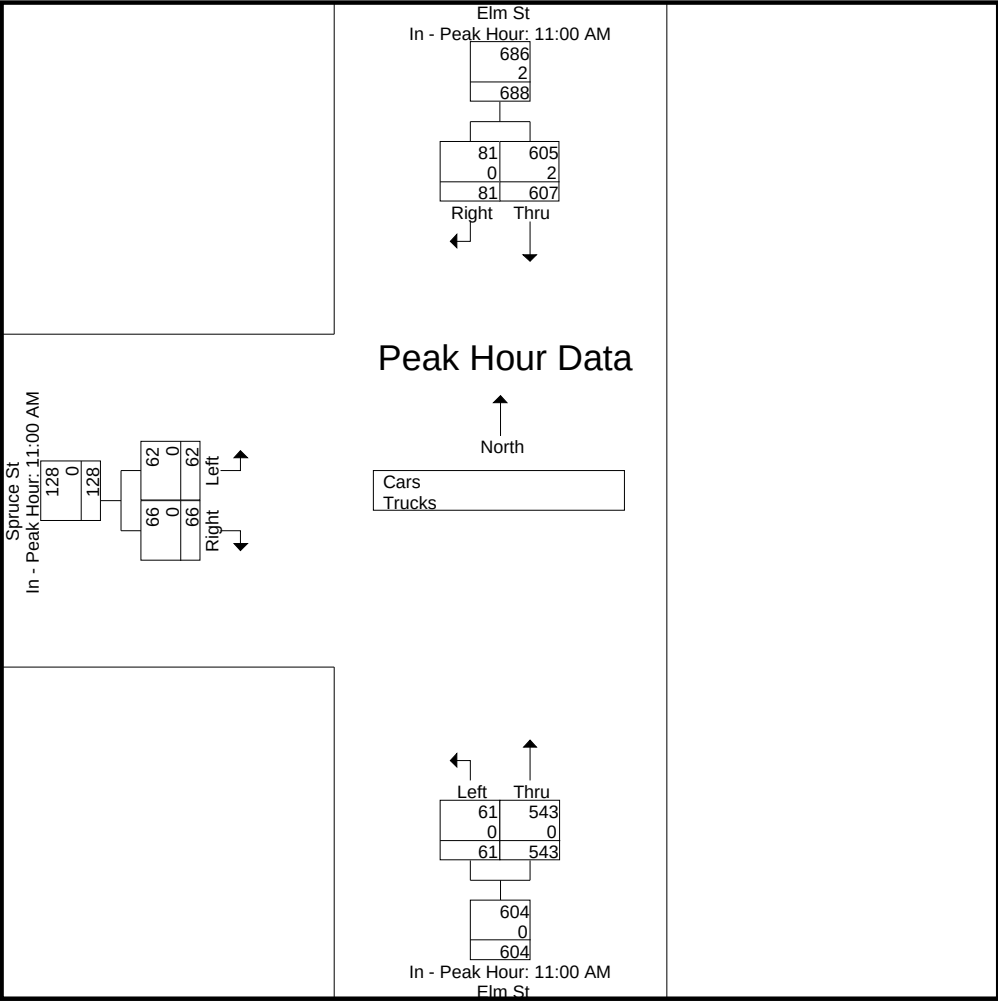
	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	159	16	175	13	123	136	18	17	35
+15 mins.	143	21	164	19	144	163	18	18	36
+30 mins.	156	21	177	14	141	155	12	16	28
+45 mins.	149	23	172	15	135	150	14	15	29
Total Volume	607	81	688	61	543	604	62	66	128
% App. Total	88.2	11.8		10.1	89.9		48.4	51.6	
PHF	.954	.880	.972	.803	.943	.926	.861	.917	.889
Cars	605	81	686	61	543	604	62	66	128
% Cars	99.7	100	99.7	100	100	100	100	100	100
Trucks	2	0	2	0	0	0	0	0	0
% Trucks	0.3	0	0.3	0	0	0	0	0	0

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Spruce Street
 City/State : Biddeford, ME
 Weather : Rain

File Name : 191500S3
 Site Code : 19150003
 Start Date : 10/30/2021
 Page No : 3



Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 4

Groups Printed- Cars

	Elm St From North		Elm St From South		Spruce St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	159	16	13	123	18	17	346
11:15 AM	142	21	19	144	18	18	362
11:30 AM	155	21	14	141	12	16	359
11:45 AM	149	23	15	135	14	15	351
Total	605	81	61	543	62	66	1418
12:00 PM	135	17	7	124	12	12	307
12:15 PM	164	9	17	122	13	13	338
12:30 PM	146	21	10	137	13	11	338
12:45 PM	148	14	11	123	4	10	310
Total	593	61	45	506	42	46	1293
01:00 PM	150	15	12	107	14	18	316
01:15 PM	155	13	6	115	14	8	311
01:30 PM	155	14	8	112	8	7	304
01:45 PM	114	12	9	126	6	4	271
Total	574	54	35	460	42	37	1202
Grand Total	1772	196	141	1509	146	149	3913
Apprch %	90	10	8.5	91.5	49.5	50.5	
Total %	45.3	5	3.6	38.6	3.7	3.8	

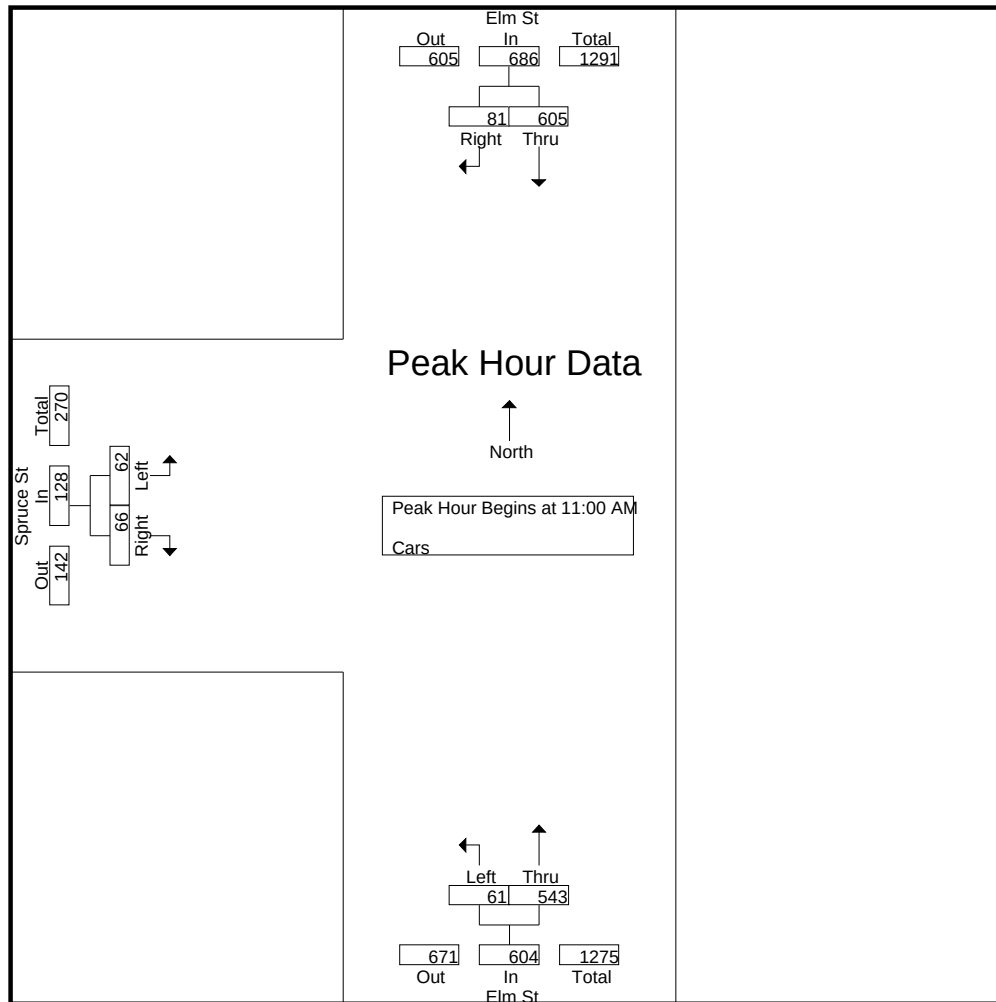
	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	159	16	175	13	123	136	18	17	35	346
11:15 AM	142	21	163	19	144	163	18	18	36	362
11:30 AM	155	21	176	14	141	155	12	16	28	359
11:45 AM	149	23	172	15	135	150	14	15	29	351
Total Volume	605	81	686	61	543	604	62	66	128	1418
% App. Total	88.2	11.8		10.1	89.9		48.4	51.6		
PHF	.951	.880	.974	.803	.943	.926	.861	.917	.889	.979

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 5

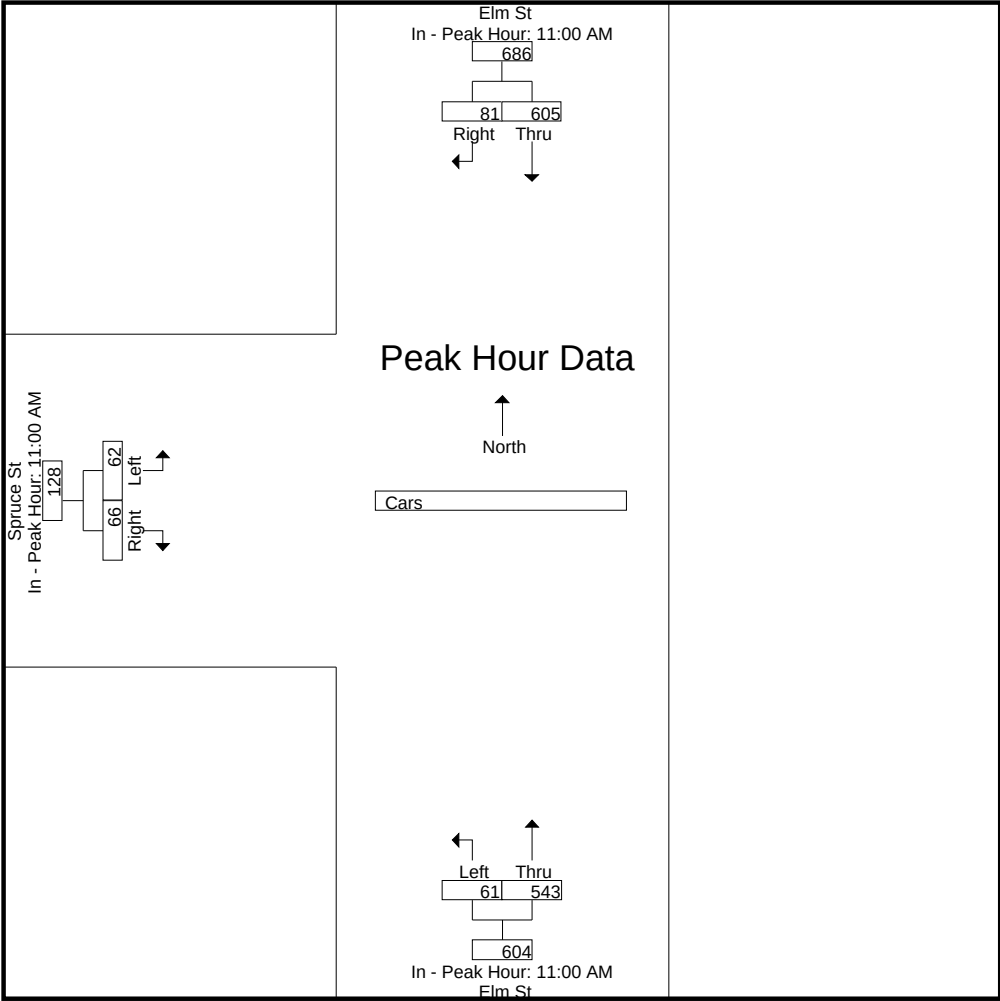


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			11:00 AM			11:00 AM		
+0 mins.	159	16	175	13	123	136	18	17	35
+15 mins.	142	21	163	19	144	163	18	18	36
+30 mins.	155	21	176	14	141	155	12	16	28
+45 mins.	149	23	172	15	135	150	14	15	29
Total Volume	605	81	686	61	543	604	62	66	128
% App. Total	88.2	11.8		10.1	89.9		48.4	51.6	
PHF	.951	.880	.974	.803	.943	.926	.861	.917	.889

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
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Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 7

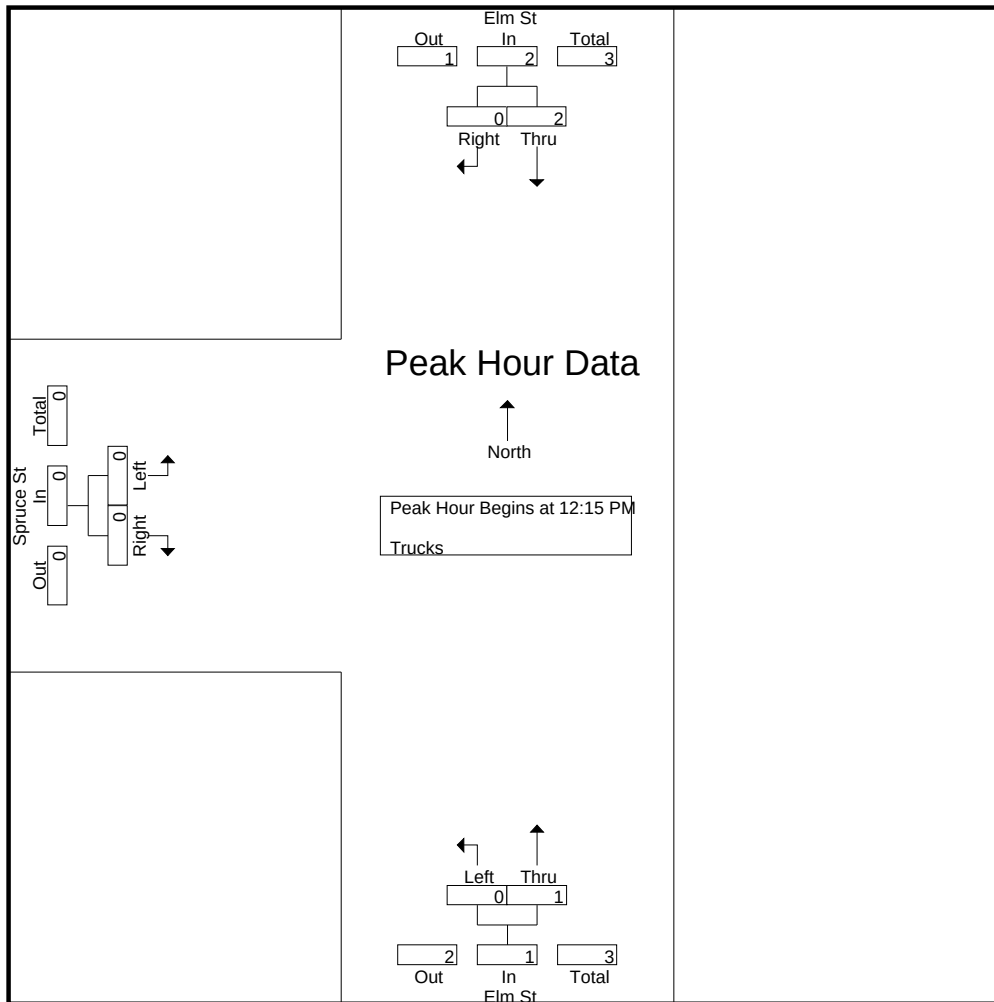
Groups Printed- Trucks

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right		Left	Thru		Left	Right		Int. Total
11:00 AM	0	0		0	0		0	0		0
11:15 AM	1	0		0	0		0	0		1
11:30 AM	1	0		0	0		0	0		1
11:45 AM	0	0		0	0		0	0		0
Total	2	0		0	0		0	0		2
12:00 PM	0	0		0	0		0	0		0
12:15 PM	0	0		0	0		0	0		0
12:30 PM	2	0		0	0		0	0		2
12:45 PM	0	0		0	0		0	0		0
Total	2	0		0	0		0	0		2
01:00 PM	0	0		0	1		0	0		1
01:15 PM	0	0		0	0		0	0		0
01:30 PM	0	0		0	0		0	0		0
01:45 PM	0	0		0	0		0	0		0
Total	0	0		0	1		0	0		1
Grand Total	4	0		0	1		0	0		5
Apprch %	100	0		0	100		0	0		
Total %	80	0		0	20		0	0		

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	0	0	0	0	0	0	0	0	0	0
12:30 PM	2	0	2	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	1	1	0	0	0	1
Total Volume	2	0	2	0	1	1	0	0	0	3
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.375

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 8

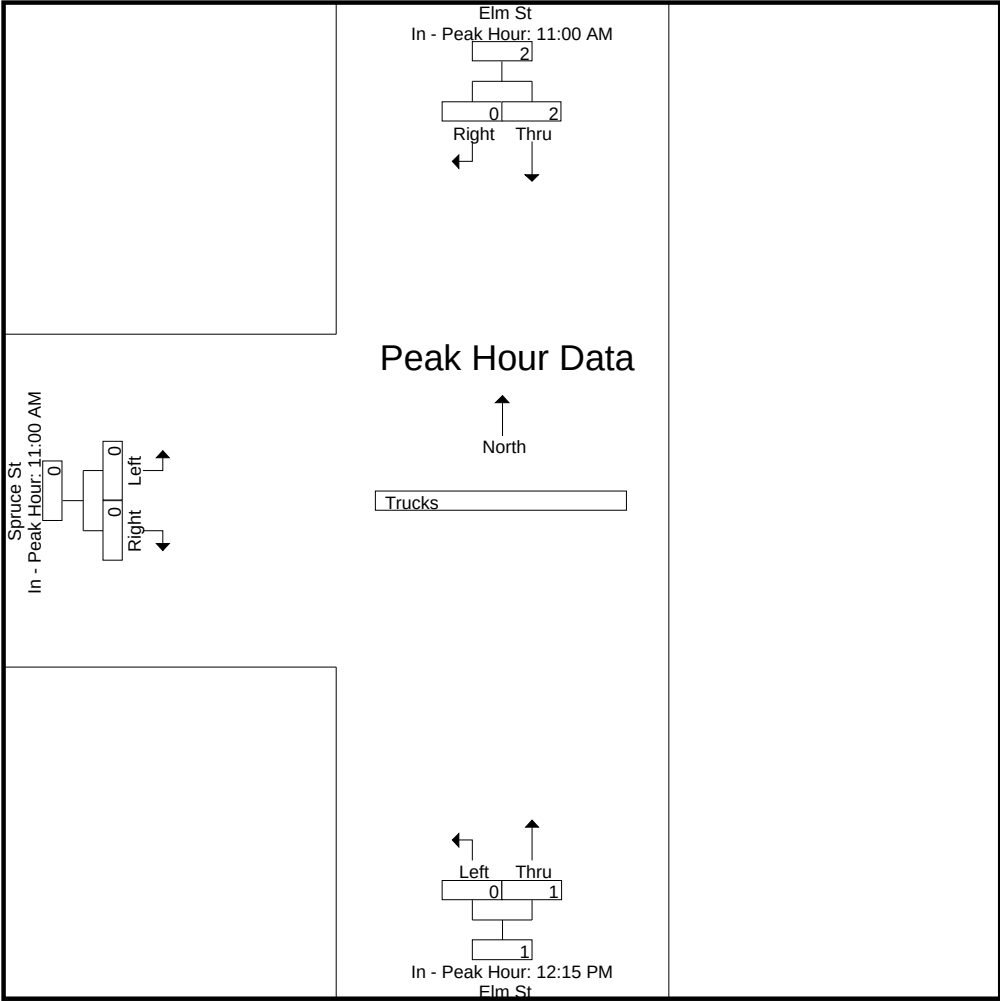


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM			12:15 PM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	0	0	0
Total Volume	2	0	2	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.500	.000	.500	.000	.250	.250	.000	.000	.000

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 10

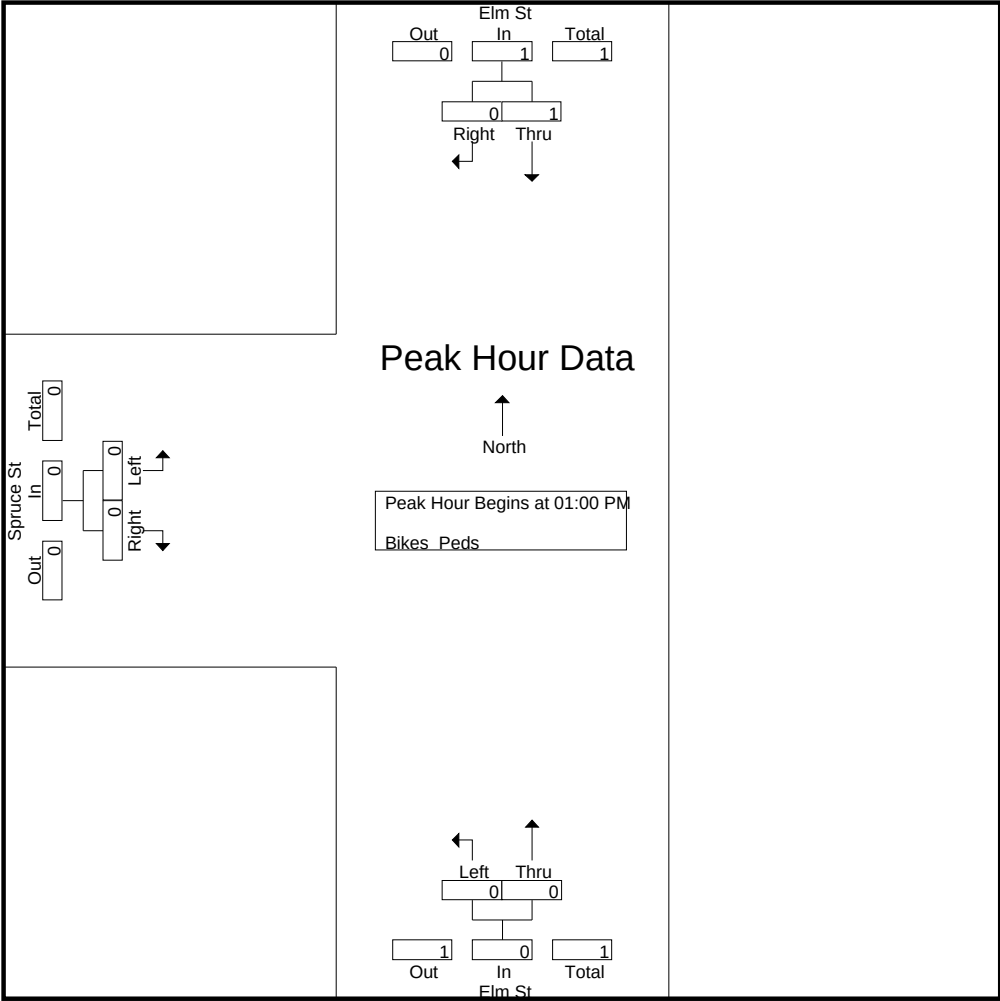
Groups Printed- Bikes Peds

Start Time	Elm St From North			Elm St From South			Spruce St From West			Exclu. Total	Inclu. Total	Int. Total
	Thru	Right	Peds	Left	Thru	Peds	Left	Right	Peds			
11:00 AM	0	0	1	0	0	0	0	0	2	3	0	3
11:15 AM	0	0	0	0	0	0	0	0	2	2	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	0	0	0	0	0	4	5	0	5
12:00 PM	0	0	2	0	0	0	0	0	2	4	0	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	2	2	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	0	4	6	0	6
01:00 PM	0	0	0	0	0	0	0	0	1	1	0	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	1	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	0	0	0	0	0	0	1	1	1	2
Grand Total	1	0	3	0	0	0	0	0	9	12	1	13
Apprch %	100	0		0	0		0	0				
Total %	100	0		0	0		0	0		92.3	7.7	

	Elm St From North			Elm St From South			Spruce St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 01:00 PM										
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0
01:45 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	1	0	1	0	0	0	0	0	0	1
% App. Total	100	0		0	0		0	0		
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 11

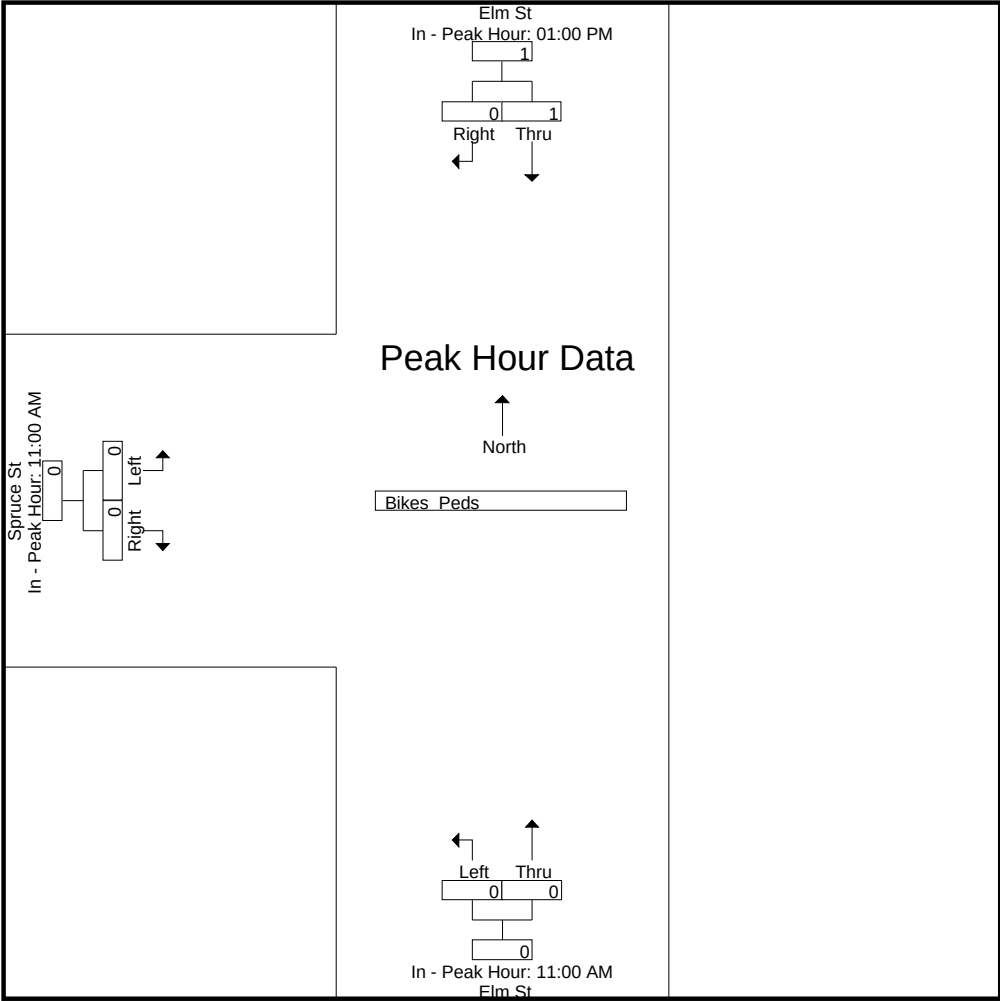


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM			11:00 AM			11:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	1	0	1	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.250	.000	.250	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Spruce Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S3
Site Code : 19150003
Start Date : 10/30/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 1

Groups Printed- Cars - Trucks

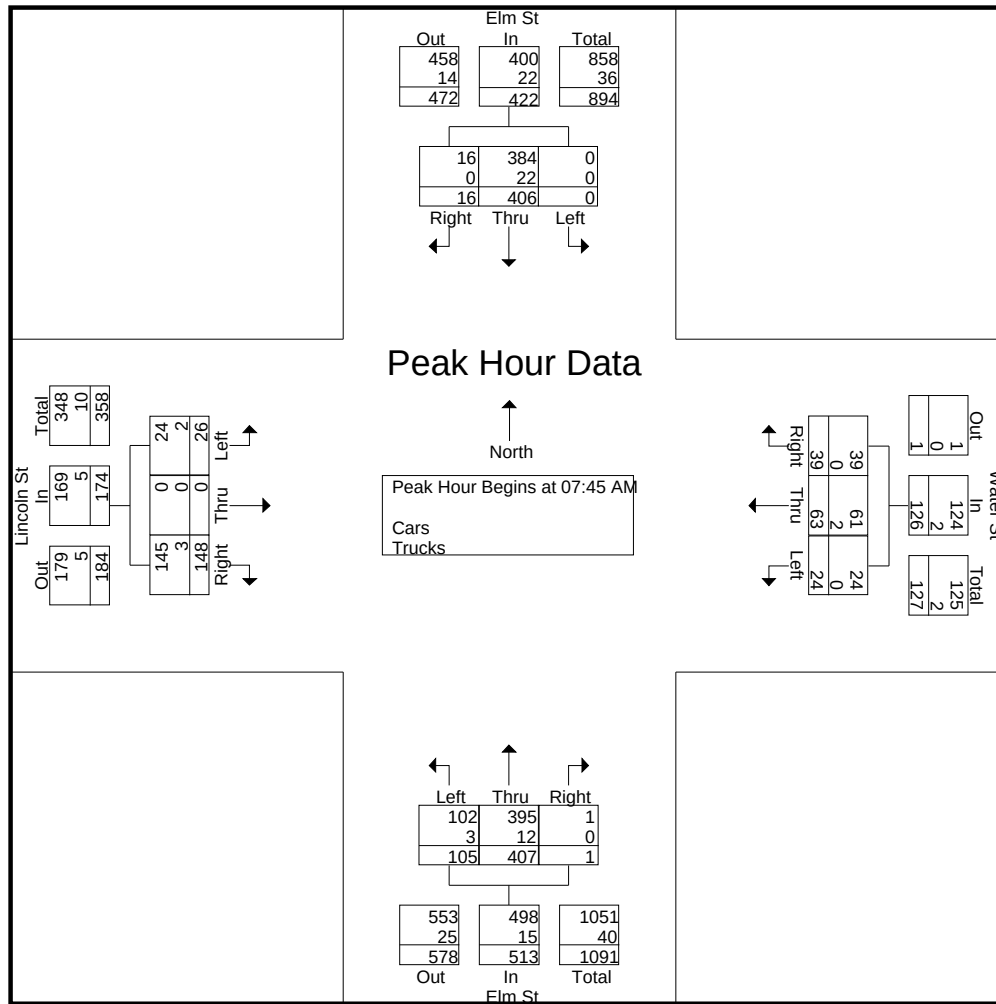
	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	67	2	6	7	5	21	86	0	6	0	21	221
07:15 AM	0	70	0	2	17	7	32	104	0	1	0	26	259
07:30 AM	0	74	5	4	17	9	25	105	0	8	0	35	282
07:45 AM	0	89	3	4	29	7	30	116	0	6	0	40	324
Total	0	300	10	16	70	28	108	411	0	21	0	122	1086
08:00 AM	0	94	4	4	13	7	23	101	1	7	0	39	293
08:15 AM	0	103	4	4	11	12	29	103	0	6	0	32	304
08:30 AM	0	120	5	12	10	13	23	87	0	7	0	37	314
08:45 AM	0	111	4	5	14	9	24	97	0	4	0	36	304
Total	0	428	17	25	48	41	99	388	1	24	0	144	1215
Grand Total	0	728	27	41	118	69	207	799	1	45	0	266	2301
Apprch %	0	96.4	3.6	18	51.8	30.3	20.6	79.3	0.1	14.5	0	85.5	
Total %	0	31.6	1.2	1.8	5.1	3	9	34.7	0	2	0	11.6	
Cars	0	703	27	41	115	68	203	776	1	41	0	261	2236
% Cars	0	96.6	100	100	97.5	98.6	98.1	97.1	100	91.1	0	98.1	97.2
Trucks	0	25	0	0	3	1	4	23	0	4	0	5	65
% Trucks	0	3.4	0	0	2.5	1.4	1.9	2.9	0	8.9	0	1.9	2.8

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	89	3	92	4	29	7	40	30	116	0	146	6	0	40	46	324
08:00 AM	0	94	4	98	4	13	7	24	23	101	1	125	7	0	39	46	293
08:15 AM	0	103	4	107	4	11	12	27	29	103	0	132	6	0	32	38	304
08:30 AM	0	120	5	125	12	10	13	35	23	87	0	110	7	0	37	44	314
Total Volume	0	406	16	422	24	63	39	126	105	407	1	513	26	0	148	174	1235
% App. Total	0	96.2	3.8		19	50	31		20.5	79.3	0.2		14.9	0	85.1		
PHF	.000	.846	.800	.844	.500	.543	.750	.788	.875	.877	.250	.878	.929	.000	.925	.946	.953
Cars	0	384	16	400	24	61	39	124	102	395	1	498	24	0	145	169	1191
% Cars	0	94.6	100	94.8	100	96.8	100	98.4	97.1	97.1	100	97.1	92.3	0	98.0	97.1	96.4
Trucks	0	22	0	22	0	2	0	2	3	12	0	15	2	0	3	5	44
% Trucks	0	5.4	0	5.2	0	3.2	0	1.6	2.9	2.9	0	2.9	7.7	0	2.0	2.9	3.6

Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 2

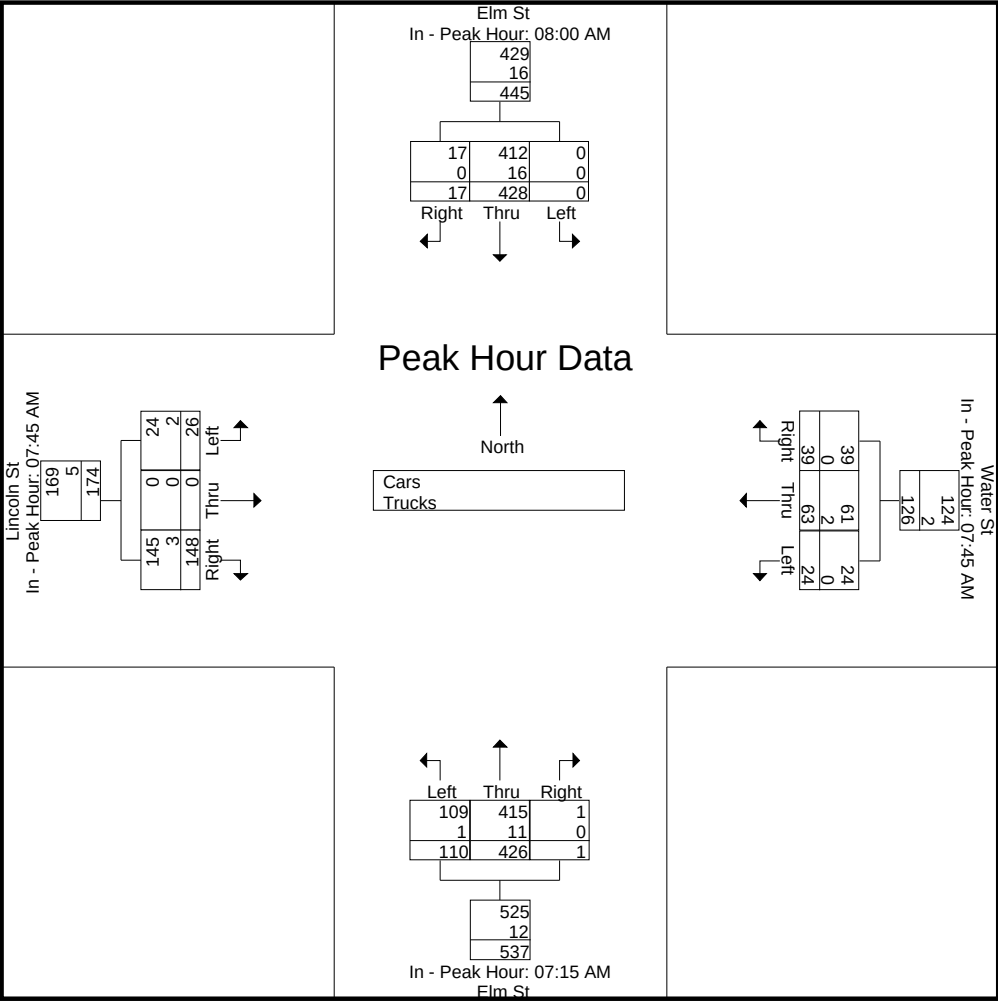


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:15 AM				07:45 AM			
+0 mins.	0	94	4	98	4	29	7	40	32	104	0	136	6	0	40	46
+15 mins.	0	103	4	107	4	13	7	24	25	105	0	130	7	0	39	46
+30 mins.	0	120	5	125	4	11	12	27	30	116	0	146	6	0	32	38
+45 mins.	0	111	4	115	12	10	13	35	23	101	1	125	7	0	37	44
Total Volume	0	428	17	445	24	63	39	126	110	426	1	537	26	0	148	174
% App. Total	0	96.2	3.8		19	50	31		20.5	79.3	0.2		14.9	0	85.1	
PHF	.000	.892	.850	.890	.500	.543	.750	.788	.859	.918	.250	.920	.929	.000	.925	.946
Cars	0	412	17	429	24	61	39	124	109	415	1	525	24	0	145	169
% Cars	0	96.3	100	96.4	100	96.8	100	98.4	99.1	97.4	100	97.8	92.3	0	98	97.1
Trucks	0	16	0	16	0	2	0	2	1	11	0	12	2	0	3	5
% Trucks	0	3.7	0	3.6	0	3.2	0	1.6	0.9	2.6	0	2.2	7.7	0	2	2.9

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150004
 Site Code : 19150004
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 4

Groups Printed- Cars

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	0	66	2	6	7	5	21	84	0	5	0	21	217
07:15 AM	0	70	0	2	17	6	32	102	0	1	0	26	256
07:30 AM	0	73	5	4	17	9	25	102	0	7	0	35	277
07:45 AM	0	82	3	4	28	7	29	112	0	5	0	39	309
Total	0	291	10	16	69	27	107	400	0	18	0	121	1059
08:00 AM	0	91	4	4	13	7	23	99	1	6	0	39	287
08:15 AM	0	99	4	4	11	12	28	100	0	6	0	31	295
08:30 AM	0	112	5	12	9	13	22	84	0	7	0	36	300
08:45 AM	0	110	4	5	13	9	23	93	0	4	0	34	295
Total	0	412	17	25	46	41	96	376	1	23	0	140	1177
Grand Total	0	703	27	41	115	68	203	776	1	41	0	261	2236
Apprch %	0	96.3	3.7	18.3	51.3	30.4	20.7	79.2	0.1	13.6	0	86.4	
Total %	0	31.4	1.2	1.8	5.1	3	9.1	34.7	0	1.8	0	11.7	

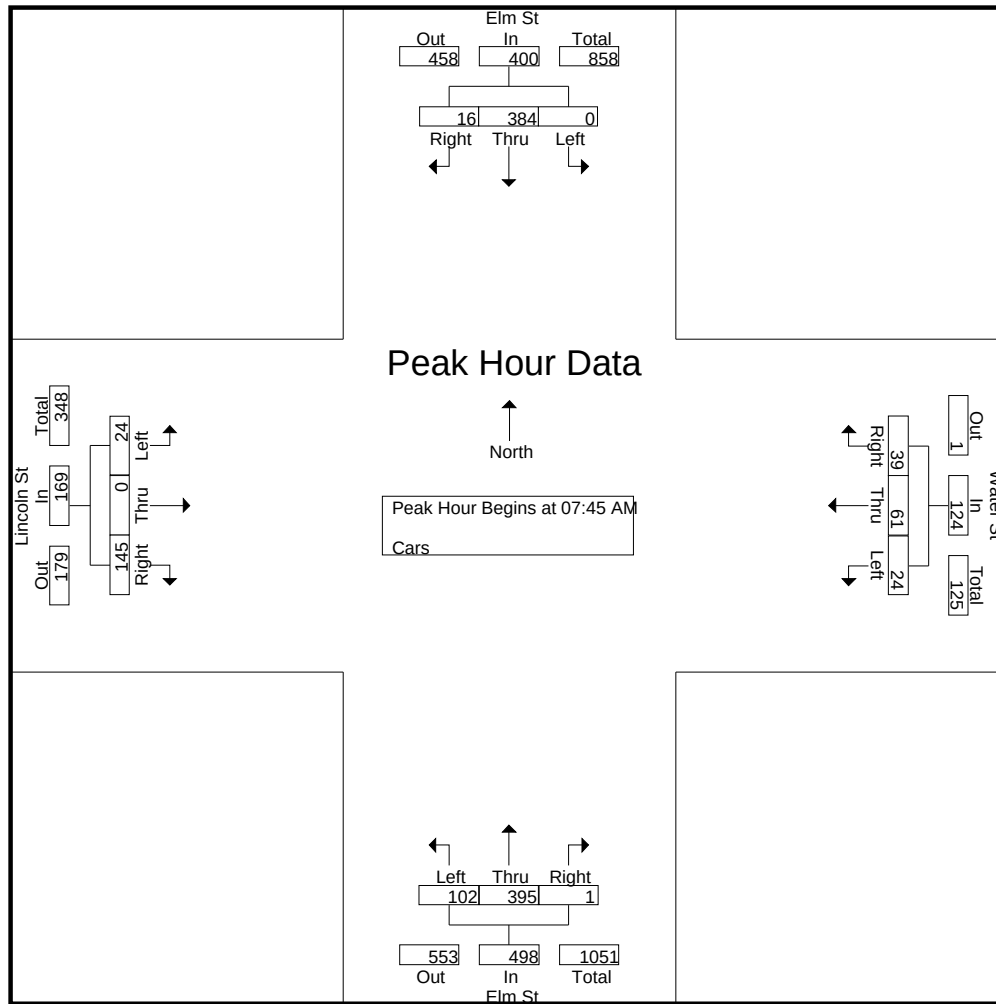
	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	82	3	85	4	28	7	39	29	112	0	141	5	0	39	44	309
08:00 AM	0	91	4	95	4	13	7	24	23	99	1	123	6	0	39	45	287
08:15 AM	0	99	4	103	4	11	12	27	28	100	0	128	6	0	31	37	295
08:30 AM	0	112	5	117	12	9	13	34	22	84	0	106	7	0	36	43	300
Total Volume	0	384	16	400	24	61	39	124	102	395	1	498	24	0	145	169	1191
% App. Total	0	96	4		19.4	49.2	31.5		20.5	79.3	0.2		14.2	0	85.8		
PHF	.000	.857	.800	.855	.500	.545	.750	.795	.879	.882	.250	.883	.857	.000	.929	.939	.964

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150004
 Site Code : 19150004
 Start Date : 11/2/2021
 Page No : 5

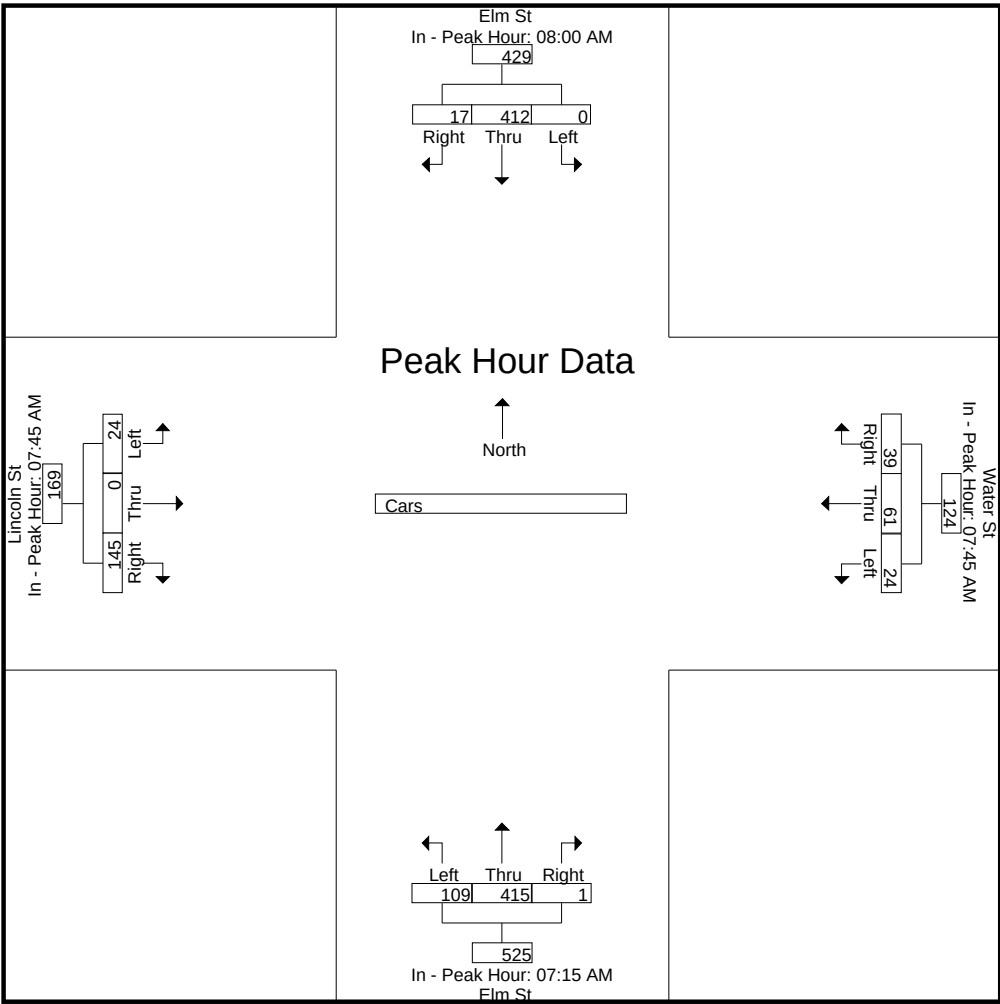


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:15 AM				07:45 AM			
+0 mins.	0	91	4	95	4	28	7	39	32	102	0	134	5	0	39	44
+15 mins.	0	99	4	103	4	13	7	24	25	102	0	127	6	0	39	45
+30 mins.	0	112	5	117	4	11	12	27	29	112	0	141	6	0	31	37
+45 mins.	0	110	4	114	12	9	13	34	23	99	1	123	7	0	36	43
Total Volume	0	412	17	429	24	61	39	124	109	415	1	525	24	0	145	169
% App. Total	0	96	4		19.4	49.2	31.5		20.8	79	0.2		14.2	0	85.8	
PHF	.000	.920	.850	.917	.500	.545	.750	.795	.852	.926	.250	.931	.857	.000	.929	.939

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150004
 Site Code : 19150004
 Start Date : 11/2/2021
 Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 7

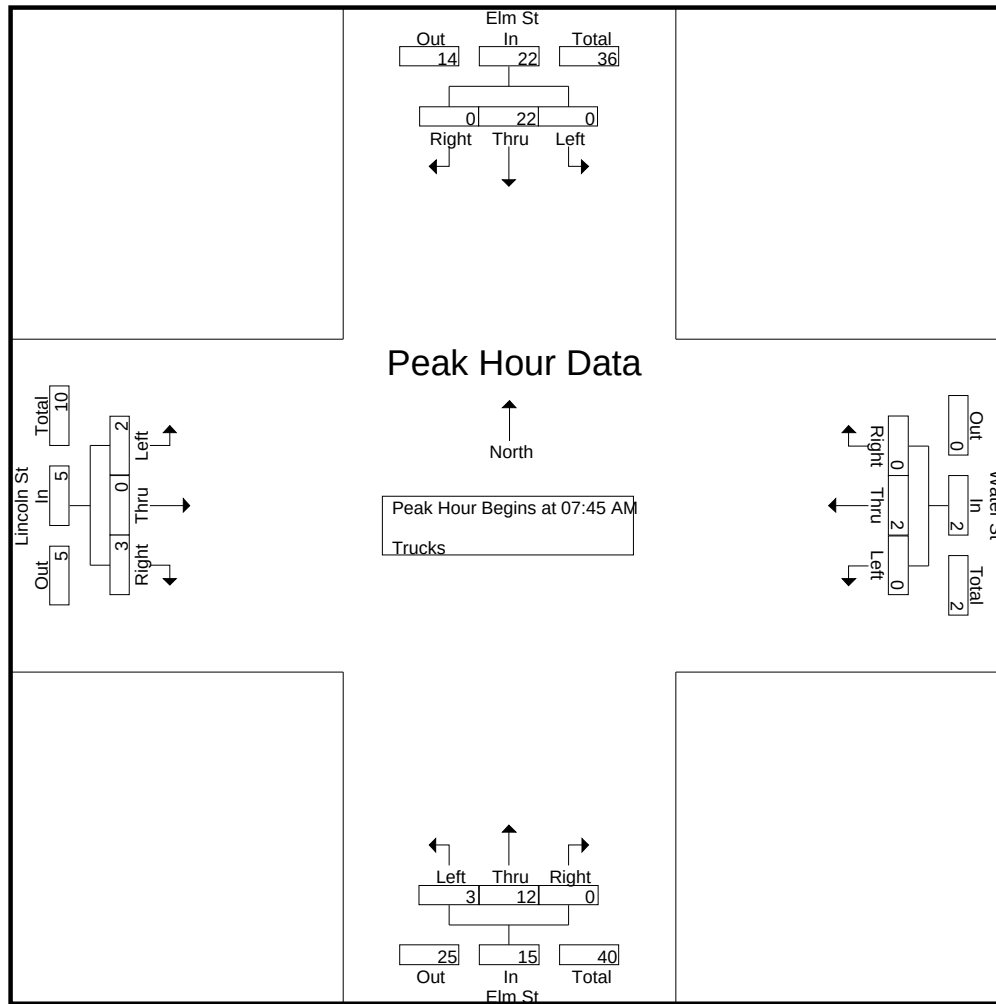
Groups Printed- Trucks

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	0	1	0	0	0	0	0	2	0	1	0	0	4
07:15 AM	0	0	0	0	0	1	0	2	0	0	0	0	3
07:30 AM	0	1	0	0	0	0	0	3	0	1	0	0	5
07:45 AM	0	7	0	0	1	0	1	4	0	1	0	1	15
Total	0	9	0	0	1	1	1	11	0	3	0	1	27
08:00 AM	0	3	0	0	0	0	0	2	0	1	0	0	6
08:15 AM	0	4	0	0	0	0	1	3	0	0	0	1	9
08:30 AM	0	8	0	0	1	0	1	3	0	0	0	1	14
08:45 AM	0	1	0	0	1	0	1	4	0	0	0	2	9
Total	0	16	0	0	2	0	3	12	0	1	0	4	38
Grand Total	0	25	0	0	3	1	4	23	0	4	0	5	65
Apprch %	0	100	0	0	75	25	14.8	85.2	0	44.4	0	55.6	
Total %	0	38.5	0	0	4.6	1.5	6.2	35.4	0	6.2	0	7.7	

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	7	0	7	0	1	0	1	1	4	0	5	1	0	1	2	15
08:00 AM	0	3	0	3	0	0	0	0	0	2	0	2	1	0	0	1	6
08:15 AM	0	4	0	4	0	0	0	0	1	3	0	4	0	0	1	1	9
08:30 AM	0	8	0	8	0	1	0	1	1	3	0	4	0	0	1	1	14
Total Volume	0	22	0	22	0	2	0	2	3	12	0	15	2	0	3	5	44
% App. Total	0	100	0		0	100	0		20	80	0		40	0	60		
PHF	.000	.688	.000	.688	.000	.500	.000	.500	.750	.750	.000	.750	.500	.000	.750	.625	.733

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 8

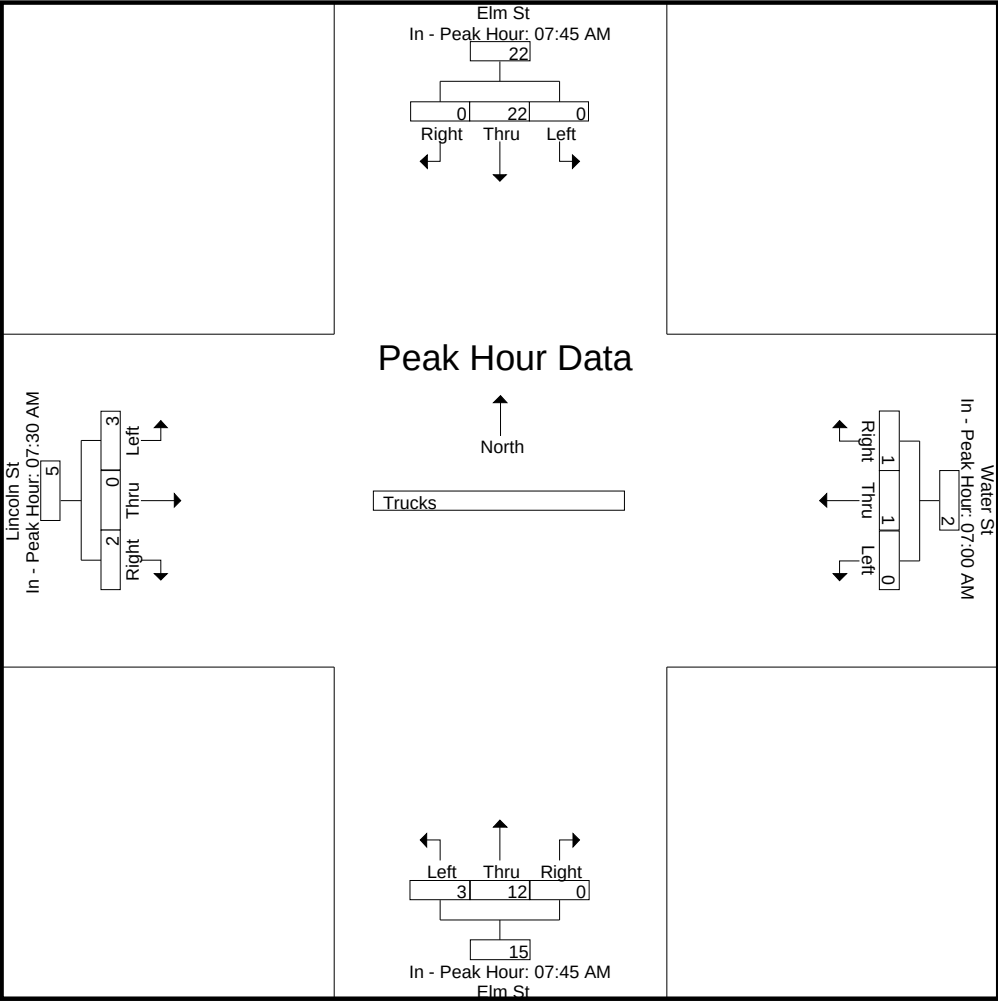


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:45 AM				07:30 AM			
+0 mins.	0	7	0	7	0	0	0	0	1	4	0	5	1	0	0	1
+15 mins.	0	3	0	3	0	0	1	1	0	2	0	2	1	0	1	2
+30 mins.	0	4	0	4	0	0	0	0	1	3	0	4	1	0	0	1
+45 mins.	0	8	0	8	0	1	0	1	1	3	0	4	0	0	1	1
Total Volume	0	22	0	22	0	1	1	2	3	12	0	15	3	0	2	5
% App. Total	0	100	0		0	50	50		20	80	0		60	0	40	
PHF	.000	.688	.000	.688	.000	.250	.250	.500	.750	.750	.000	.750	.750	.000	.500	.625

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 10

Groups Printed- Bikes Peds

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	2
07:15 AM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	5	0	5
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	3	7	1	8
08:00 AM	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	3	4	3	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2
08:30 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	2	1	3
08:45 AM	0	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0	3	1	4
Total	0	3	0	1	0	1	0	3	0	1	0	1	0	0	0	6	11	5	16
Grand Total	0	3	0	4	0	1	0	4	0	2	0	1	0	0	0	9	18	6	24
Apprch %	0	100	0		0	100	0		0	100	0		0	0	0				
Total %	0	50	0		0	16.7	0		0	33.3	0		0	0	0		75	25	

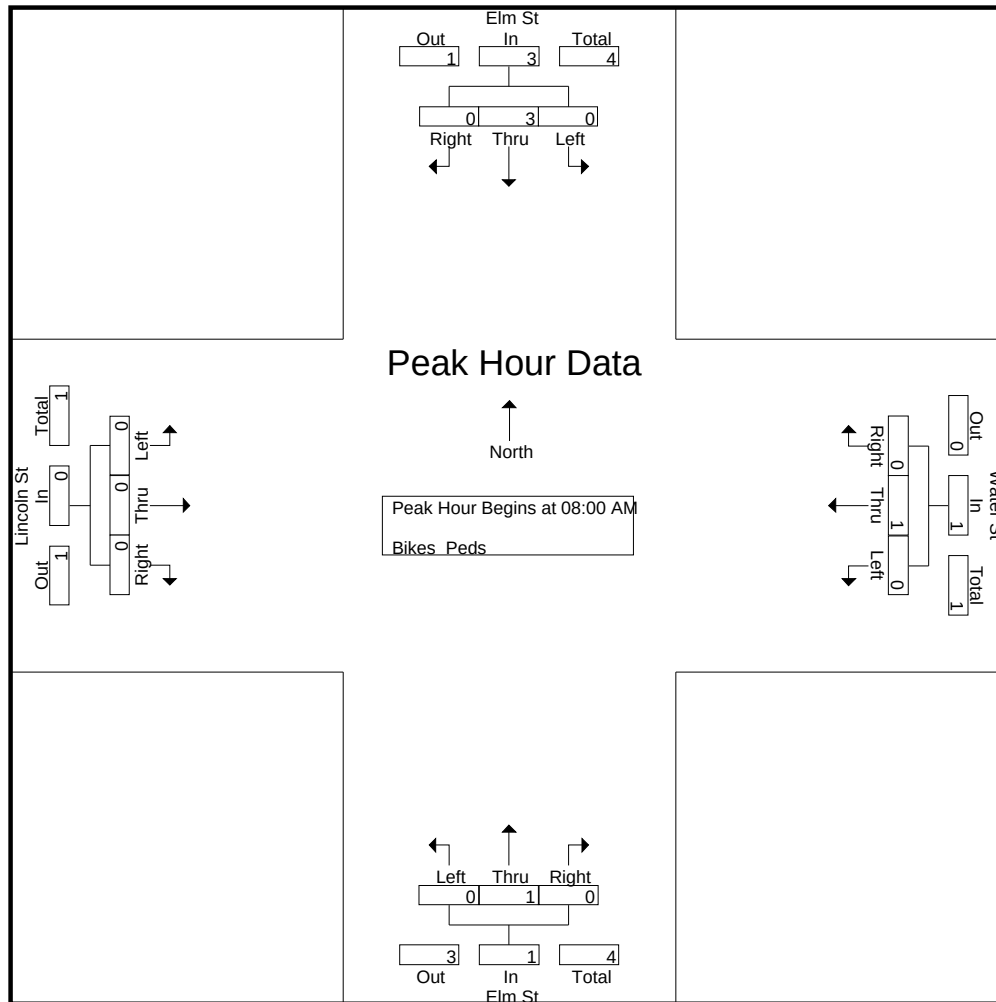
	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	3	0	3	0	1	0	1	0	1	0	1	0	0	0	0	5
% App. Total	0	100	0		0	100	0		0	100	0		0	0	0		
PHF	.000	.375	.000	.375	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.417

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150004
 Site Code : 19150004
 Start Date : 11/2/2021
 Page No : 11

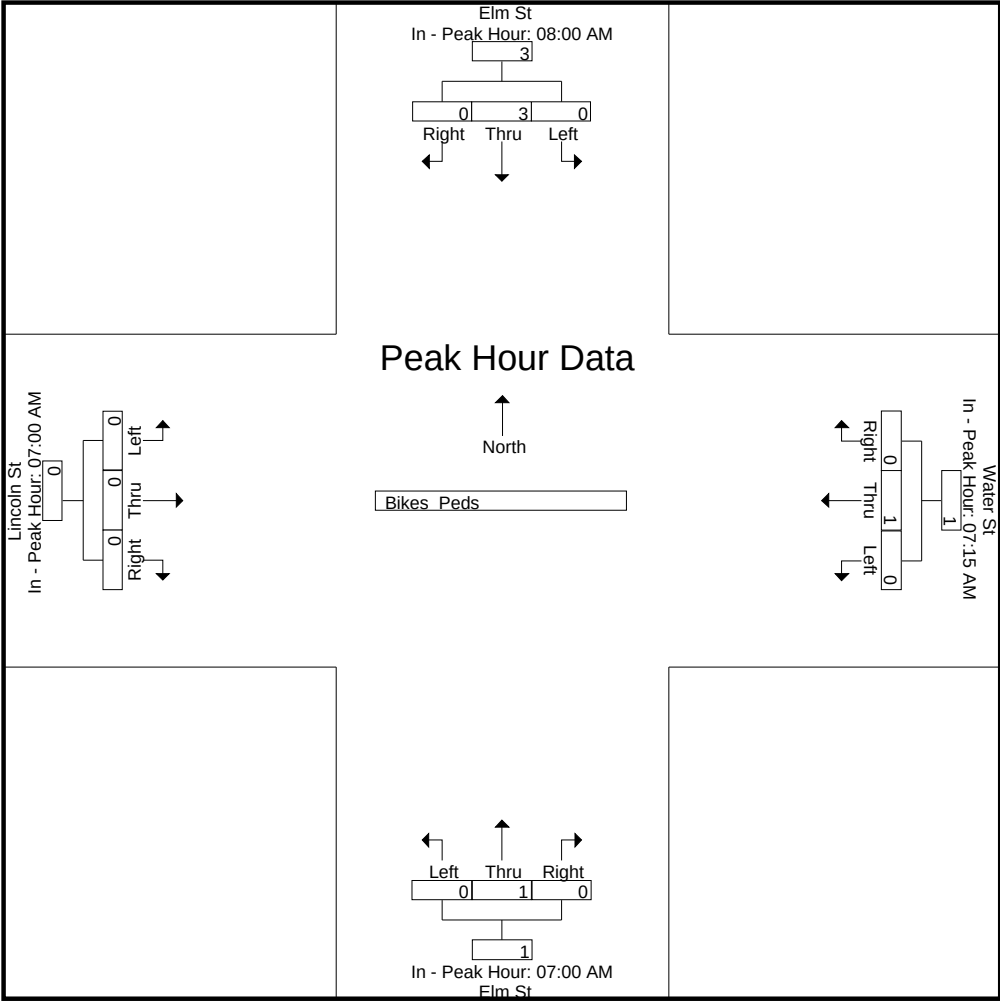


Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	08:00 AM				07:15 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	3	0	3	0	1	0	1	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	100	0		0	100	0		0	0	0	
PHF	.000	.375	.000	.375	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 1

Groups Printed- Cars - Trucks

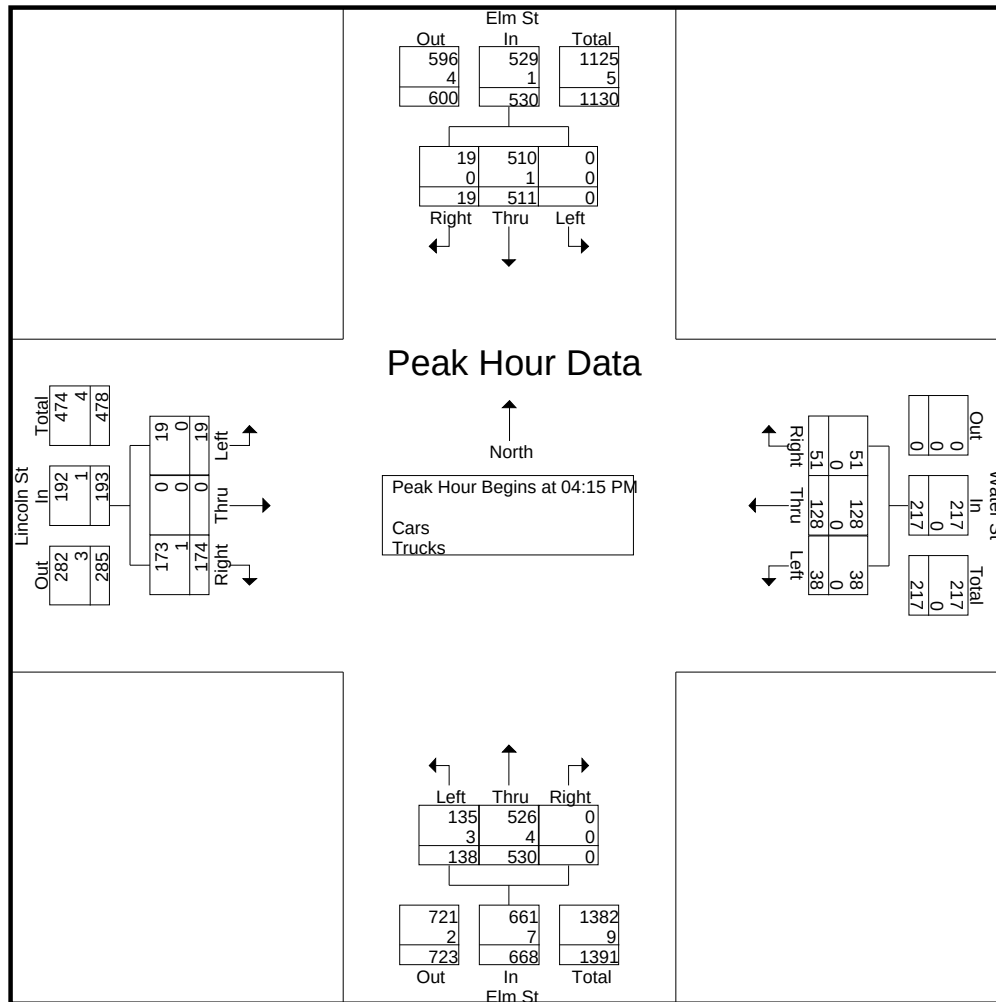
	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
03:00 PM	0	120	7	7	21	7	32	141	0	8	0	44	387
03:15 PM	0	129	8	11	23	15	37	135	0	5	0	47	410
03:30 PM	0	125	4	7	29	9	26	125	0	5	1	46	377
03:45 PM	0	115	6	10	27	19	46	122	1	3	0	47	396
Total	0	489	25	35	100	50	141	523	1	21	1	184	1570
04:00 PM	0	138	4	8	31	10	39	129	0	6	0	36	401
04:15 PM	0	134	4	8	28	19	23	135	0	3	0	43	397
04:30 PM	0	108	2	11	39	9	30	121	0	7	0	47	374
04:45 PM	0	146	7	8	26	9	45	135	0	4	0	42	422
Total	0	526	17	35	124	47	137	520	0	20	0	168	1594
05:00 PM	0	123	6	11	35	14	40	139	0	5	0	42	415
05:15 PM	0	142	6	5	20	5	39	113	0	3	0	39	372
05:30 PM	0	139	5	4	21	6	30	105	0	4	0	41	355
05:45 PM	0	107	8	6	10	9	30	91	0	4	0	46	311
Total	0	511	25	26	86	34	139	448	0	16	0	168	1453
Grand Total	0	1526	67	96	310	131	417	1491	1	57	1	520	4617
Apprch %	0	95.8	4.2	17.9	57.7	24.4	21.8	78.1	0.1	9.9	0.2	90	
Total %	0	33.1	1.5	2.1	6.7	2.8	9	32.3	0	1.2	0	11.3	
Cars	0	1516	67	96	308	131	412	1482	1	56	1	517	4587
% Cars	0	99.3	100	100	99.4	100	98.8	99.4	100	98.2	100	99.4	99.4
Trucks	0	10	0	0	2	0	5	9	0	1	0	3	30
% Trucks	0	0.7	0	0	0.6	0	1.2	0.6	0	1.8	0	0.6	0.6

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	134	4	138	8	28	19	55	23	135	0	158	3	0	43	46	397
04:30 PM	0	108	2	110	11	39	9	59	30	121	0	151	7	0	47	54	374
04:45 PM	0	146	7	153	8	26	9	43	45	135	0	180	4	0	42	46	422
05:00 PM	0	123	6	129	11	35	14	60	40	139	0	179	5	0	42	47	415
Total Volume	0	511	19	530	38	128	51	217	138	530	0	668	19	0	174	193	1608
% App. Total	0	96.4	3.6		17.5	59	23.5		20.7	79.3	0		9.8	0	90.2		
PHF	.000	.875	.679	.866	.864	.821	.671	.904	.767	.953	.000	.928	.679	.000	.926	.894	.953
Cars	0	510	19	529	38	128	51	217	135	526	0	661	19	0	173	192	1599
% Cars	0	99.8	100	99.8	100	100	100	100	97.8	99.2	0	99.0	100	0	99.4	99.5	99.4
Trucks	0	1	0	1	0	0	0	0	3	4	0	7	0	0	1	1	9
% Trucks	0	0.2	0	0.2	0	0	0	0	2.2	0.8	0	1.0	0	0	0.6	0.5	0.6

Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 2

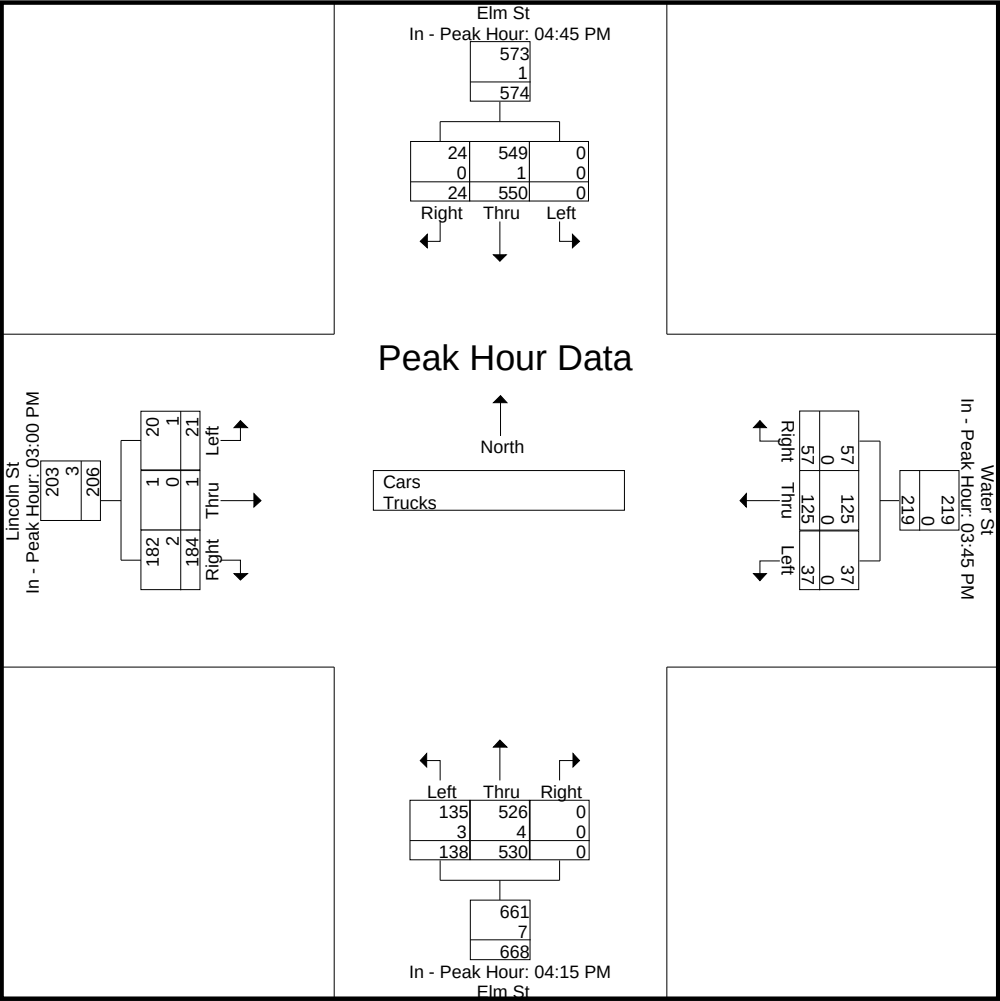


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				03:45 PM				04:15 PM				03:00 PM			
+0 mins.	0	146	7	153	10	27	19	56	23	135	0	158	8	0	44	52
+15 mins.	0	123	6	129	8	31	10	49	30	121	0	151	5	0	47	52
+30 mins.	0	142	6	148	8	28	19	55	45	135	0	180	5	1	46	52
+45 mins.	0	139	5	144	11	39	9	59	40	139	0	179	3	0	47	50
Total Volume	0	550	24	574	37	125	57	219	138	530	0	668	21	1	184	206
% App. Total	0	95.8	4.2		16.9	57.1	26		20.7	79.3	0		10.2	0.5	89.3	
PHF	.000	.942	.857	.938	.841	.801	.750	.928	.767	.953	.000	.928	.656	.250	.979	.990
Cars	0	549	24	573	37	125	57	219	135	526	0	661	20	1	182	203
% Cars	0	99.8	100	99.8	100	100	100	100	97.8	99.2	0	99	95.2	100	98.9	98.5
Trucks	0	1	0	1	0	0	0	0	3	4	0	7	1	0	2	3
% Trucks	0	0.2	0	0.2	0	0	0	0	2.2	0.8	0	1	4.8	0	1.1	1.5

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Biddeford, ME
 Weather : Clear

File Name : 19150004
 Site Code : 19150004
 Start Date : 11/2/2021
 Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 4

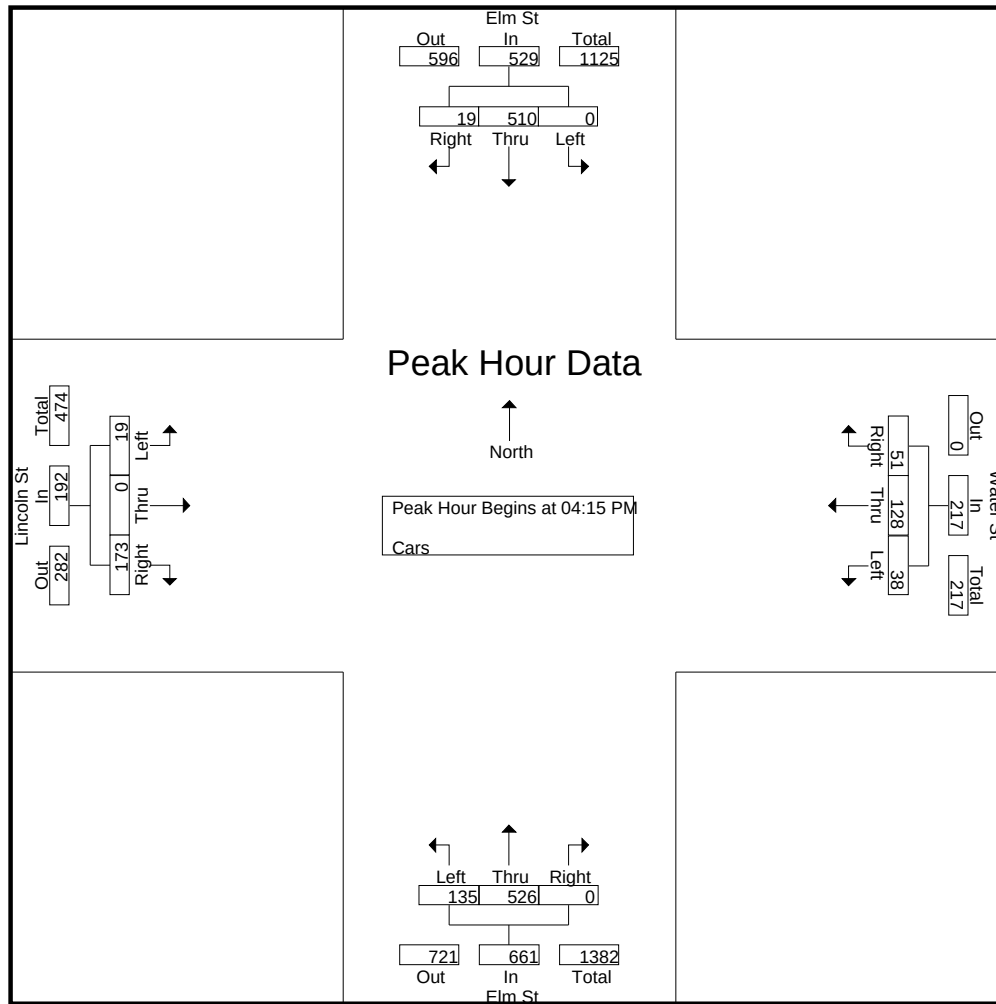
Groups Printed- Cars

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			Int. Total
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
03:00 PM	0	116	7	7	21	7	31	139	0	7	0	44	379
03:15 PM	0	129	8	11	23	15	37	134	0	5	0	46	408
03:30 PM	0	124	4	7	27	9	25	125	0	5	1	46	373
03:45 PM	0	114	6	10	27	19	46	122	1	3	0	46	394
Total	0	483	25	35	98	50	139	520	1	20	1	182	1554
04:00 PM	0	137	4	8	31	10	39	129	0	6	0	36	400
04:15 PM	0	134	4	8	28	19	22	134	0	3	0	43	395
04:30 PM	0	107	2	11	39	9	29	120	0	7	0	46	370
04:45 PM	0	146	7	8	26	9	44	135	0	4	0	42	421
Total	0	524	17	35	124	47	134	518	0	20	0	167	1586
05:00 PM	0	123	6	11	35	14	40	137	0	5	0	42	413
05:15 PM	0	141	6	5	20	5	39	112	0	3	0	39	370
05:30 PM	0	139	5	4	21	6	30	104	0	4	0	41	354
05:45 PM	0	106	8	6	10	9	30	91	0	4	0	46	310
Total	0	509	25	26	86	34	139	444	0	16	0	168	1447
Grand Total	0	1516	67	96	308	131	412	1482	1	56	1	517	4587
Apprch %	0	95.8	4.2	17.9	57.6	24.5	21.7	78.2	0.1	9.8	0.2	90.1	
Total %	0	33	1.5	2.1	6.7	2.9	9	32.3	0	1.2	0	11.3	

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	134	4	138	8	28	19	55	22	134	0	156	3	0	43	46	395
04:30 PM	0	107	2	109	11	39	9	59	29	120	0	149	7	0	46	53	370
04:45 PM	0	146	7	153	8	26	9	43	44	135	0	179	4	0	42	46	421
05:00 PM	0	123	6	129	11	35	14	60	40	137	0	177	5	0	42	47	413
Total Volume	0	510	19	529	38	128	51	217	135	526	0	661	19	0	173	192	1599
% App. Total	0	96.4	3.6		17.5	59	23.5		20.4	79.6	0		9.9	0	90.1		
PHF	.000	.873	.679	.864	.864	.821	.671	.904	.767	.960	.000	.923	.679	.000	.940	.906	.950

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 5

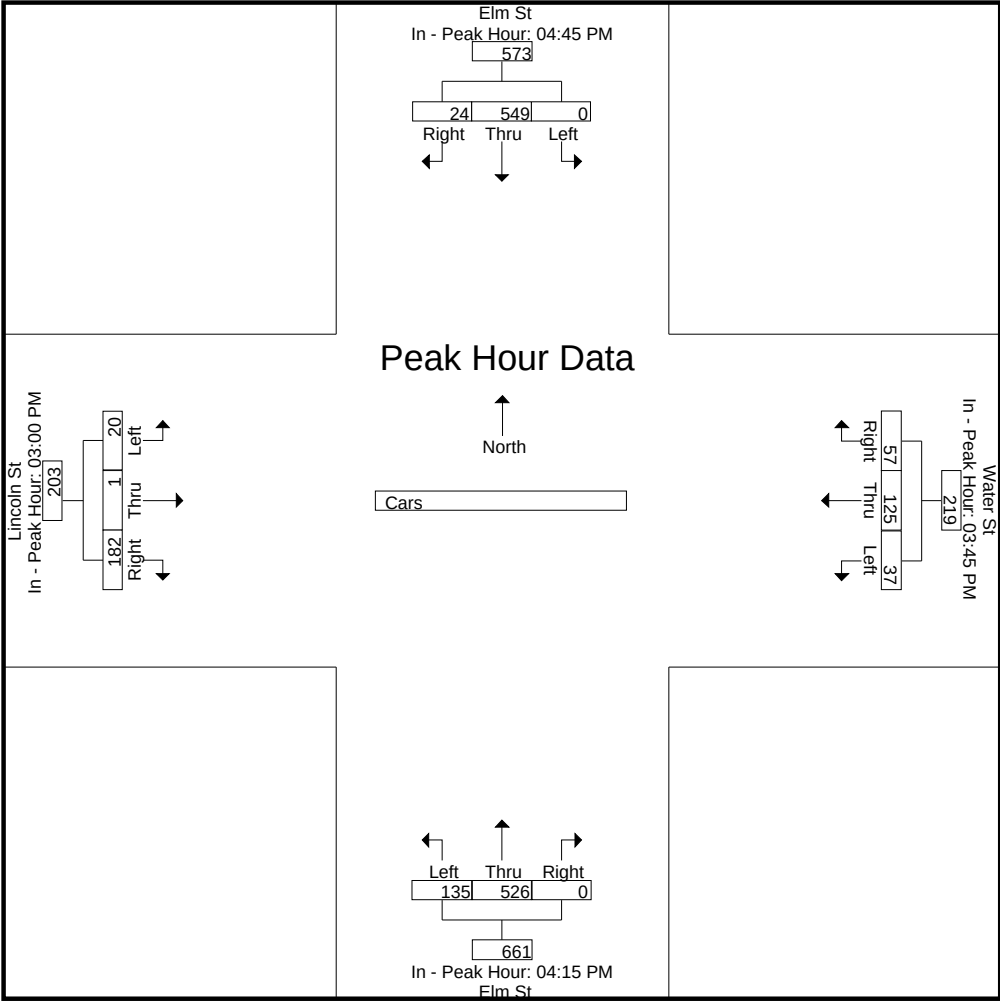


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				03:45 PM				04:15 PM				03:00 PM			
+0 mins.	0	146	7	153	10	27	19	56	22	134	0	156	7	0	44	51
+15 mins.	0	123	6	129	8	31	10	49	29	120	0	149	5	0	46	51
+30 mins.	0	141	6	147	8	28	19	55	44	135	0	179	5	1	46	52
+45 mins.	0	139	5	144	11	39	9	59	40	137	0	177	3	0	46	49
Total Volume	0	549	24	573	37	125	57	219	135	526	0	661	20	1	182	203
% App. Total	0	95.8	4.2		16.9	57.1	26		20.4	79.6	0		9.9	0.5	89.7	
PHF	.000	.940	.857	.936	.841	.801	.750	.928	.767	.960	.000	.923	.714	.250	.989	.976

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 7

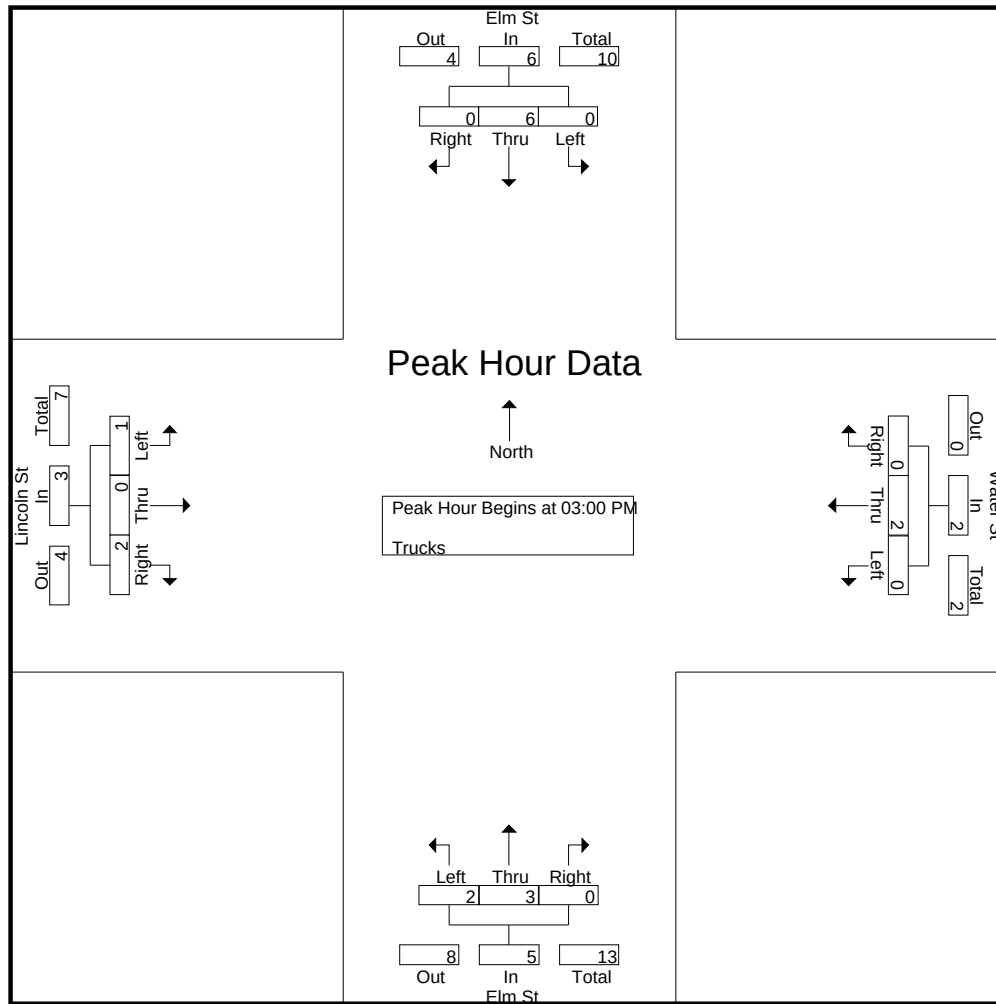
Groups Printed- Trucks

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
03:00 PM	0	4	0	0	0	0	1	2	0	1	0	0	8
03:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
03:30 PM	0	1	0	0	2	0	1	0	0	0	0	0	4
03:45 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
Total	0	6	0	0	2	0	2	3	0	1	0	2	16
04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	2
04:30 PM	0	1	0	0	0	0	1	1	0	0	0	1	4
04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	0	2	0	0	0	0	3	2	0	0	0	1	8
05:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
05:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
05:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	0	4	0	0	0	0	6
Grand Total	0	10	0	0	2	0	5	9	0	1	0	3	30
Apprch %	0	100	0	0	100	0	35.7	64.3	0	25	0	75	
Total %	0	33.3	0	0	6.7	0	16.7	30	0	3.3	0	10	

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	4	0	4	0	0	0	0	1	2	0	3	1	0	0	1	8
03:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
03:30 PM	0	1	0	1	0	2	0	2	1	0	0	1	0	0	0	0	4
03:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total Volume	0	6	0	6	0	2	0	2	2	3	0	5	1	0	2	3	16
% App. Total	0	100	0		0	100	0		40	60	0		33.3	0	66.7		
PHF	.000	.375	.000	.375	.000	.250	.000	.250	.500	.375	.000	.417	.250	.000	.500	.750	.500

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 8

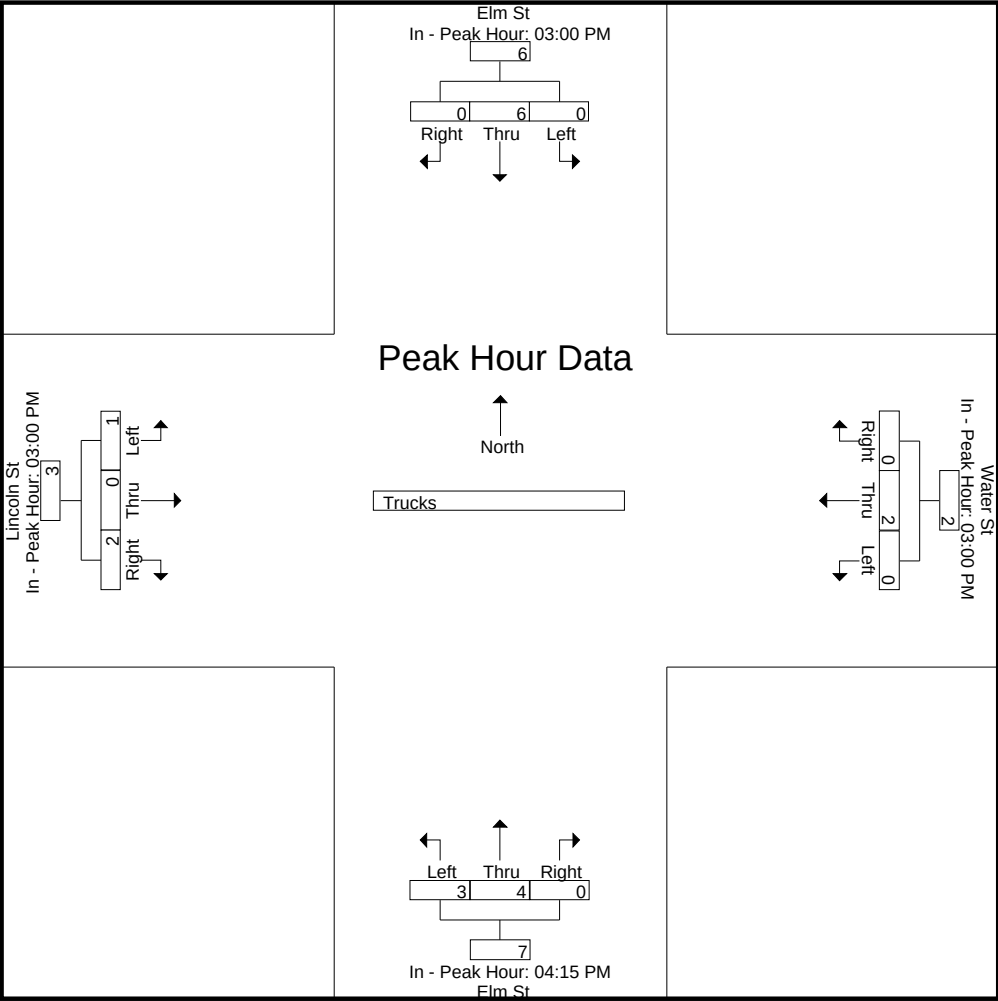


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 PM				03:00 PM				04:15 PM				03:00 PM			
+0 mins.	0	4	0	4	0	0	0	0	1	1	0	2	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1
+30 mins.	0	1	0	1	0	2	0	2	1	0	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	2	0	2	0	0	1	1
Total Volume	0	6	0	6	0	2	0	2	3	4	0	7	1	0	2	3
% App. Total	0	100	0		0	100	0		42.9	57.1	0		33.3	0	66.7	
PHF	.000	.375	.000	.375	.000	.250	.000	.250	.750	.500	.000	.875	.250	.000	.500	.750

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 10

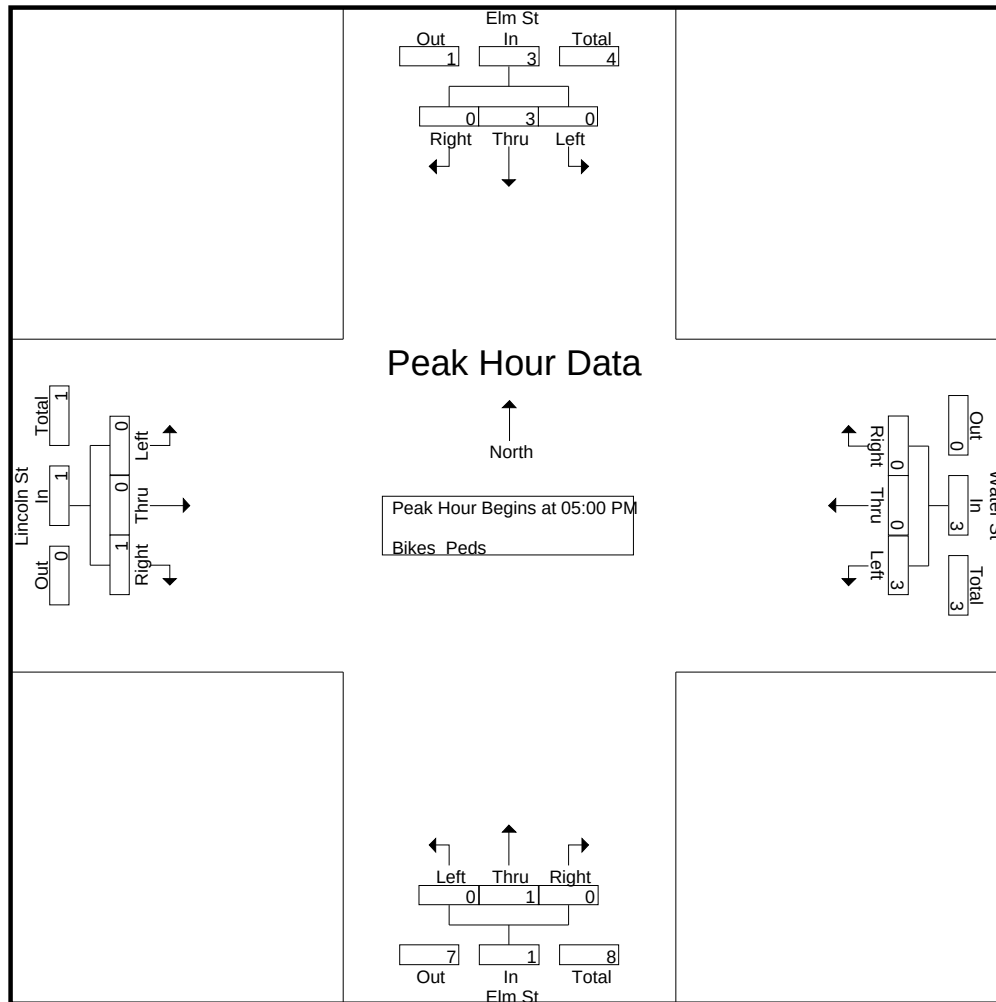
Groups Printed- Bikes Peds

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
03:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
03:30 PM	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	2	2	3	5
03:45 PM	0	0	0	2	0	0	0	0	1	1	0	0	0	0	1	4	6	3	9
Total	0	0	0	3	2	0	0	0	1	2	0	0	0	0	2	8	11	7	18
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
04:15 PM	0	0	0	2	0	0	0	0	0	1	0	2	0	0	0	3	7	1	8
04:30 PM	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	6	12	1	13
04:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2
Total	0	0	0	9	0	0	0	0	0	1	0	2	0	0	1	13	24	2	26
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	2	2	3	5
05:45 PM	0	1	0	1	2	0	0	0	0	1	0	0	0	0	0	1	2	4	6
Total	0	3	0	2	3	0	0	0	0	1	0	0	0	0	1	6	8	8	16
Grand Total	0	3	0	14	5	0	0	0	1	4	0	2	0	0	4	27	43	17	60
Apprch %	0	100	0		100	0	0		20	80	0		0	0	100				
Total %	0	17.6	0		29.4	0	0		5.9	23.5	0		0	0	23.5		71.7	28.3	

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West						
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	1	1	1	1	3
05:45 PM	0	1	0	1	2	0	0	2	0	1	0	1	0	0	0	0	0	0	4
Total Volume	0	3	0	3	3	0	0	3	0	1	0	1	0	0	1	1	1	1	8
% App. Total	0	100	0		100	0	0		0	100	0		0	0	100				
PHF	.000	.750	.000	.750	.375	.000	.000	.375	.000	.250	.000	.250	.000	.000	.250	.250			.500

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 11

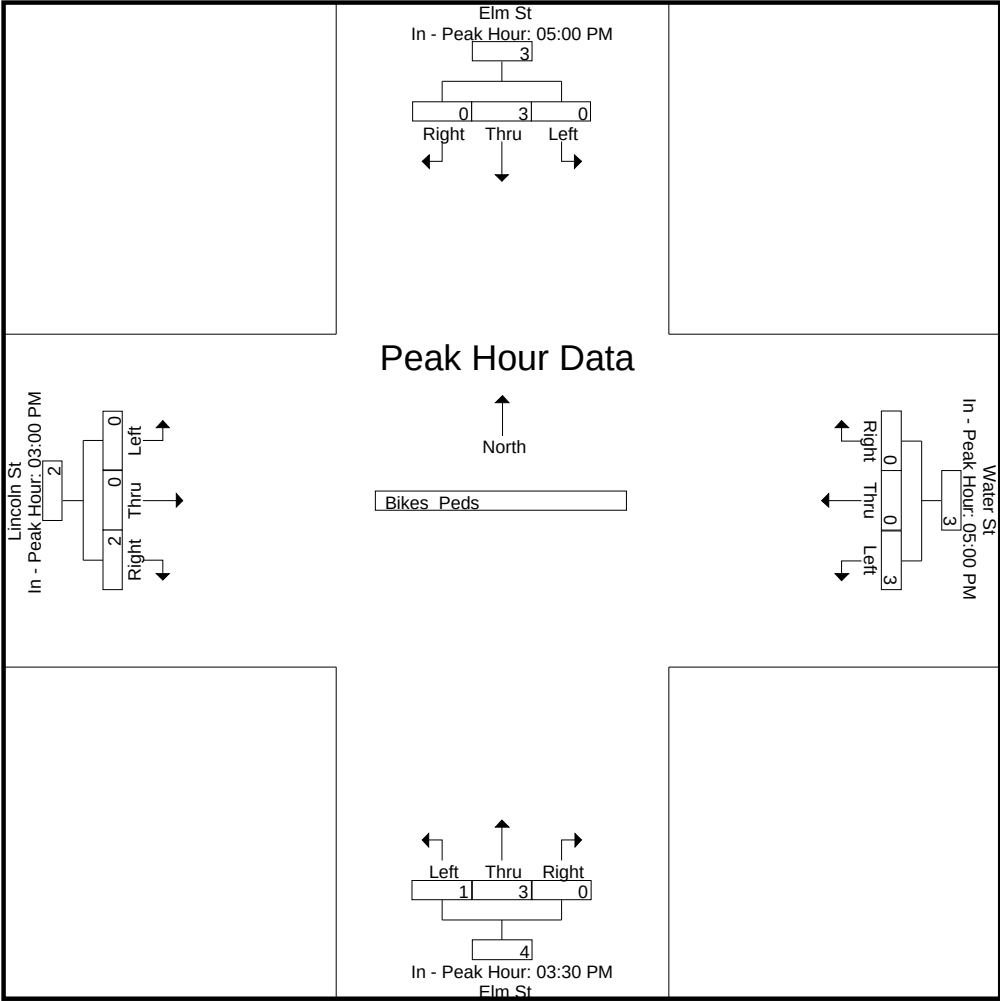


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				03:30 PM				03:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	1
+30 mins.	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	2	0	0	2	0	1	0	1	0	0	1	1
Total Volume	0	3	0	3	3	0	0	3	1	3	0	4	0	0	2	2
% App. Total	0	100	0		100	0	0		25	75	0		0	0	100	
PHF	.000	.750	.000	.750	.375	.000	.000	.375	.250	.750	.000	.500	.000	.000	.500	.500

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Biddeford, ME
Weather : Clear

File Name : 19150004
Site Code : 19150004
Start Date : 11/2/2021
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 1

Groups Printed- Cars - Trucks

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	144	6	5	8	5	33	114	0	2	0	27	344
11:15 AM	0	119	4	11	12	10	38	111	0	4	0	27	336
11:30 AM	0	135	0	6	18	10	33	119	0	5	0	36	362
11:45 AM	0	122	4	9	11	5	22	106	0	4	0	27	310
Total	0	520	14	31	49	30	126	450	0	15	0	117	1352
12:00 PM	0	110	2	8	26	11	31	101	0	4	0	34	327
12:15 PM	0	120	7	2	10	6	27	116	0	1	0	29	318
12:30 PM	0	117	1	8	18	8	33	106	0	4	0	35	330
12:45 PM	0	132	3	3	15	4	25	95	0	5	0	36	318
Total	0	479	13	21	69	29	116	418	0	14	0	134	1293
01:00 PM	0	123	3	5	20	4	24	99	0	1	0	24	303
01:15 PM	0	127	2	6	14	3	27	86	0	3	0	21	289
01:30 PM	0	113	4	6	18	3	18	87	0	0	0	32	281
01:45 PM	0	95	4	4	17	11	29	92	0	4	0	34	290
Total	0	458	13	21	69	21	98	364	0	8	0	111	1163
Grand Total	0	1457	40	73	187	80	340	1232	0	37	0	362	3808
Apprch %	0	97.3	2.7	21.5	55	23.5	21.6	78.4	0	9.3	0	90.7	
Total %	0	38.3	1.1	1.9	4.9	2.1	8.9	32.4	0	1	0	9.5	
Cars	0	1449	40	73	187	80	339	1228	0	37	0	362	3795
% Cars	0	99.5	100	100	100	100	99.7	99.7	0	100	0	100	99.7
Trucks	0	8	0	0	0	0	1	4	0	0	0	0	13
% Trucks	0	0.5	0	0	0	0	0.3	0.3	0	0	0	0	0.3

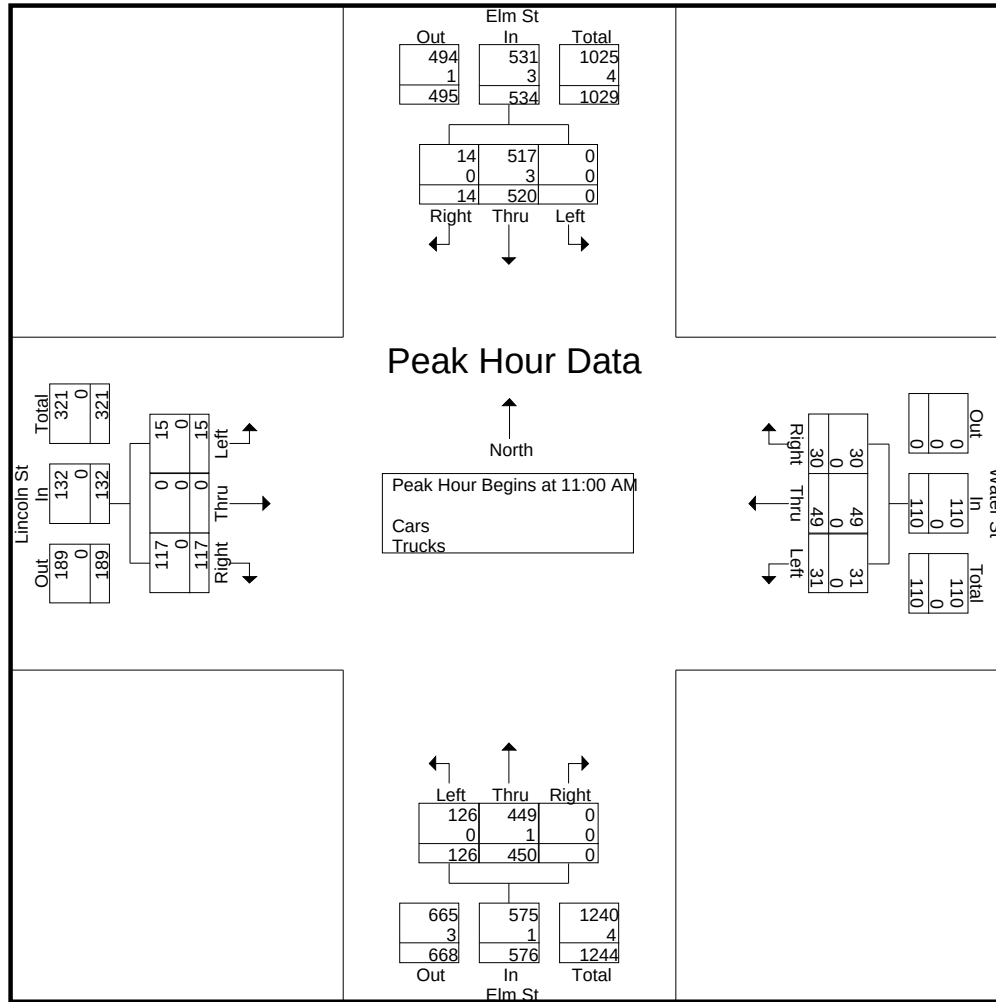
	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	144	6	150	5	8	5	18	33	114	0	147	2	0	27	29	344
11:15 AM	0	119	4	123	11	12	10	33	38	111	0	149	4	0	27	31	336
11:30 AM	0	135	0	135	6	18	10	34	33	119	0	152	5	0	36	41	362
11:45 AM	0	122	4	126	9	11	5	25	22	106	0	128	4	0	27	31	310
Total Volume	0	520	14	534	31	49	30	110	126	450	0	576	15	0	117	132	1352
% App. Total	0	97.4	2.6		28.2	44.5	27.3		21.9	78.1	0		11.4	0	88.6		
PHF	.000	.903	.583	.890	.705	.681	.750	.809	.829	.945	.000	.947	.750	.000	.813	.805	.934
Cars	0	517	14	531	31	49	30	110	126	449	0	575	15	0	117	132	1348
% Cars	0	99.4	100	99.4	100	100	100	100	100	99.8	0	99.8	100	0	100	100	99.7
Trucks	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
% Trucks	0	0.6	0	0.6	0	0	0	0	0	0.2	0	0.2	0	0	0	0	0.3

Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 2

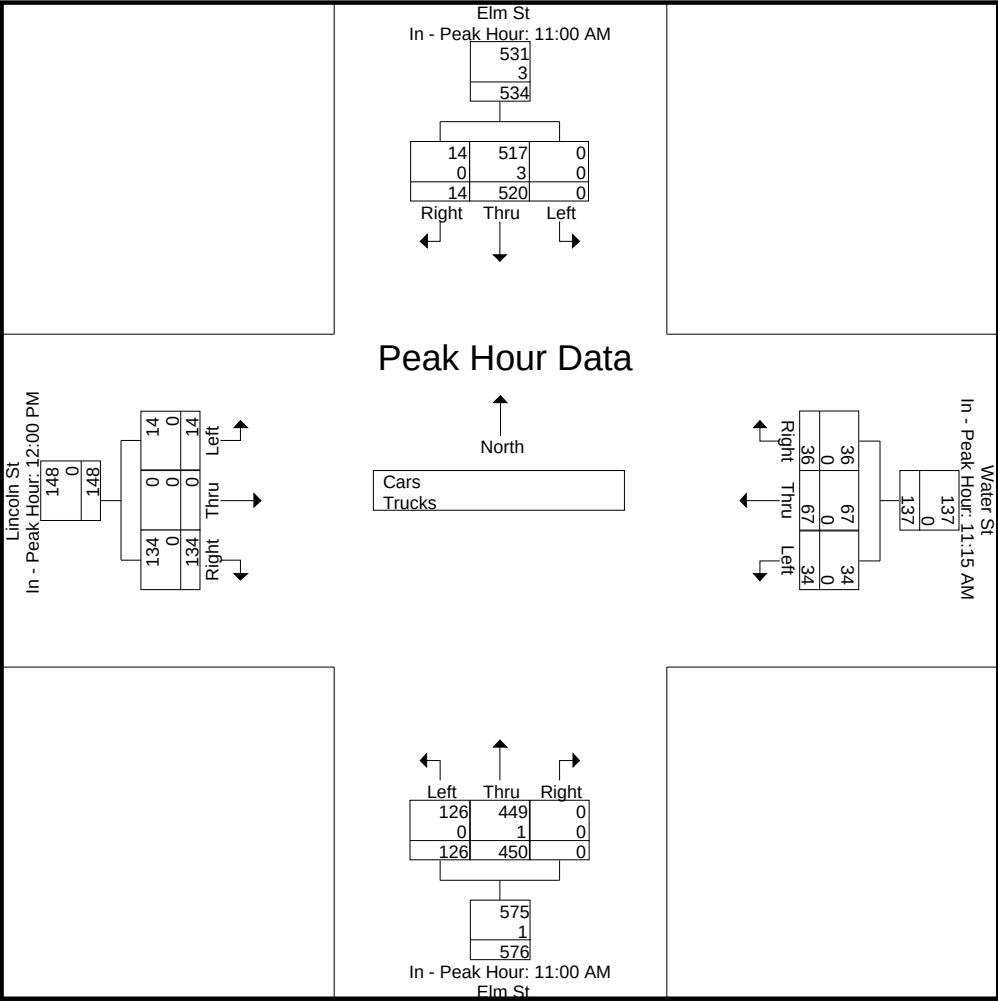


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	11:00 AM				11:15 AM				11:00 AM				12:00 PM			
+0 mins.	0	144	6	150	11	12	10	33	33	114	0	147	4	0	34	38
+15 mins.	0	119	4	123	6	18	10	34	38	111	0	149	1	0	29	30
+30 mins.	0	135	0	135	9	11	5	25	33	119	0	152	4	0	35	39
+45 mins.	0	122	4	126	8	26	11	45	22	106	0	128	5	0	36	41
Total Volume	0	520	14	534	34	67	36	137	126	450	0	576	14	0	134	148
% App. Total	0	97.4	2.6		24.8	48.9	26.3		21.9	78.1	0		9.5	0	90.5	
PHF	.000	.903	.583	.890	.773	.644	.818	.761	.829	.945	.000	.947	.700	.000	.931	.902
Cars	0	517	14	531	34	67	36	137	126	449	0	575	14	0	134	148
% Cars	0	99.4	100	99.4	100	100	100	100	100	99.8	0	99.8	100	0	100	100
Trucks	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0
% Trucks	0	0.6	0	0.6	0	0	0	0	0	0.2	0	0.2	0	0	0	0

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 3



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 4

Groups Printed- Cars

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	143	6	5	8	5	33	114	0	2	0	27	343
11:15 AM	0	118	4	11	12	10	38	110	0	4	0	27	334
11:30 AM	0	135	0	6	18	10	33	119	0	5	0	36	362
11:45 AM	0	121	4	9	11	5	22	106	0	4	0	27	309
Total	0	517	14	31	49	30	126	449	0	15	0	117	1348
12:00 PM	0	110	2	8	26	11	31	101	0	4	0	34	327
12:15 PM	0	118	7	2	10	6	27	115	0	1	0	29	315
12:30 PM	0	116	1	8	18	8	33	104	0	4	0	35	327
12:45 PM	0	130	3	3	15	4	25	95	0	5	0	36	316
Total	0	474	13	21	69	29	116	415	0	14	0	134	1285
01:00 PM	0	123	3	5	20	4	23	99	0	1	0	24	302
01:15 PM	0	127	2	6	14	3	27	86	0	3	0	21	289
01:30 PM	0	113	4	6	18	3	18	87	0	0	0	32	281
01:45 PM	0	95	4	4	17	11	29	92	0	4	0	34	290
Total	0	458	13	21	69	21	97	364	0	8	0	111	1162
Grand Total	0	1449	40	73	187	80	339	1228	0	37	0	362	3795
Apprch %	0	97.3	2.7	21.5	55	23.5	21.6	78.4	0	9.3	0	90.7	
Total %	0	38.2	1.1	1.9	4.9	2.1	8.9	32.4	0	1	0	9.5	

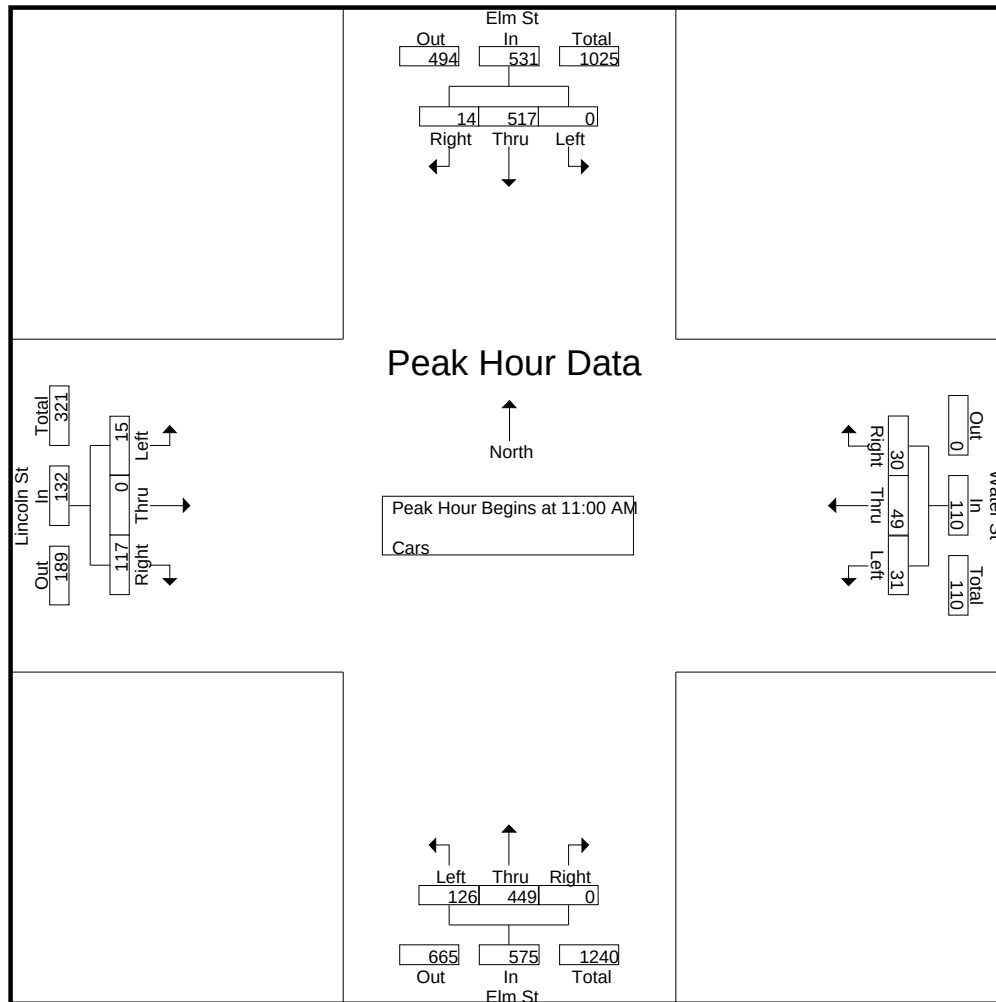
	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	143	6	149	5	8	5	18	33	114	0	147	2	0	27	29	343
11:15 AM	0	118	4	122	11	12	10	33	38	110	0	148	4	0	27	31	334
11:30 AM	0	135	0	135	6	18	10	34	33	119	0	152	5	0	36	41	362
11:45 AM	0	121	4	125	9	11	5	25	22	106	0	128	4	0	27	31	309
Total Volume	0	517	14	531	31	49	30	110	126	449	0	575	15	0	117	132	1348
% App. Total	0	97.4	2.6		28.2	44.5	27.3		21.9	78.1	0		11.4	0	88.6		
PHF	.000	.904	.583	.891	.705	.681	.750	.809	.829	.943	.000	.946	.750	.000	.813	.805	.931

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Saco, ME
 Weather : Rain

File Name : 191500S4
 Site Code : 19150004
 Start Date : 10/30/2021
 Page No : 5

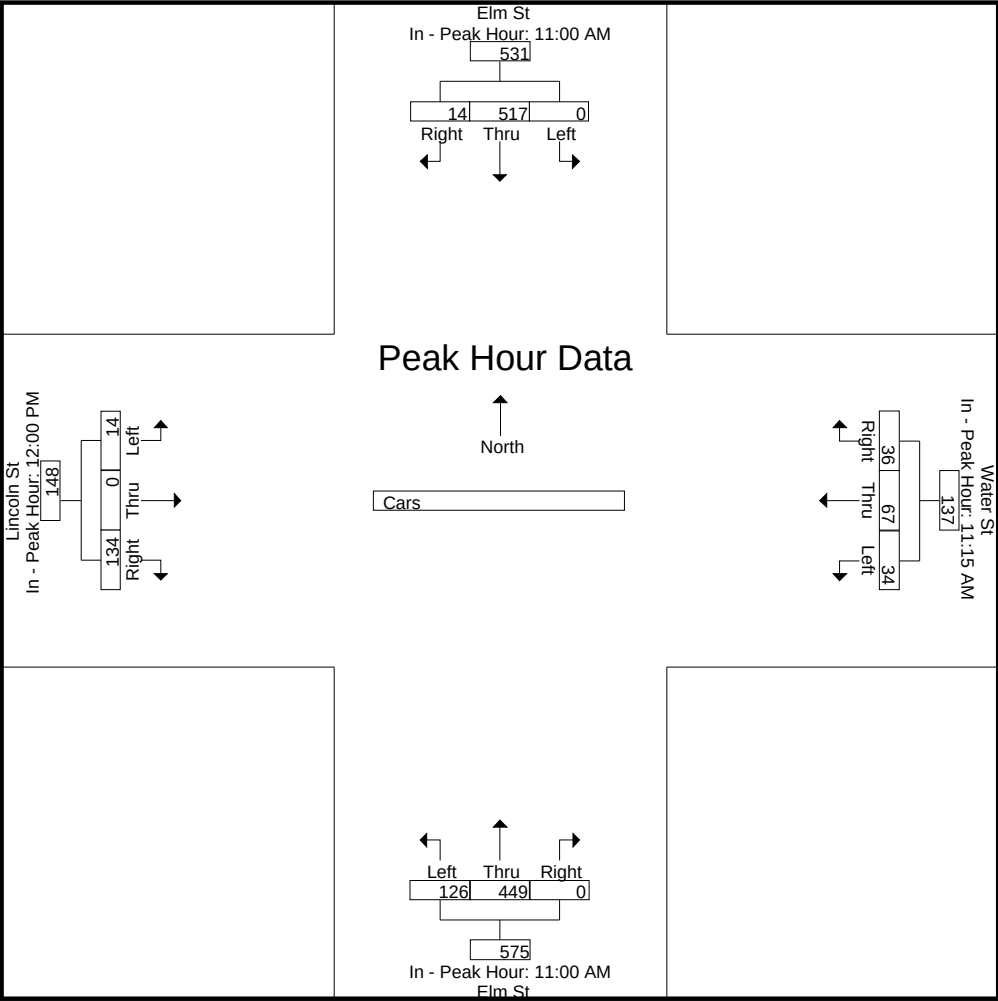


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	11:00 AM				11:15 AM				11:00 AM				12:00 PM			
+0 mins.	0	143	6	149	11	12	10	33	33	114	0	147	4	0	34	38
+15 mins.	0	118	4	122	6	18	10	34	38	110	0	148	1	0	29	30
+30 mins.	0	135	0	135	9	11	5	25	33	119	0	152	4	0	35	39
+45 mins.	0	121	4	125	8	26	11	45	22	106	0	128	5	0	36	41
Total Volume	0	517	14	531	34	67	36	137	126	449	0	575	14	0	134	148
% App. Total	0	97.4	2.6		24.8	48.9	26.3		21.9	78.1	0		9.5	0	90.5	
PHF	.000	.904	.583	.891	.773	.644	.818	.761	.829	.943	.000	.946	.700	.000	.931	.902

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 7

Groups Printed- Trucks

	Elm St From North			Water St From East			Elm St From South			Lincoln St From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	0	0	0	1	0	0	0	0	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
12:30 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
12:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	5	0	0	0	0	0	3	0	0	0	0	8
01:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	0	0	0	1
Grand Total	0	8	0	0	0	0	1	4	0	0	0	0	13
Apprch %	0	100	0	0	0	0	20	80	0	0	0	0	
Total %	0	61.5	0	0	0	0	7.7	30.8	0	0	0	0	

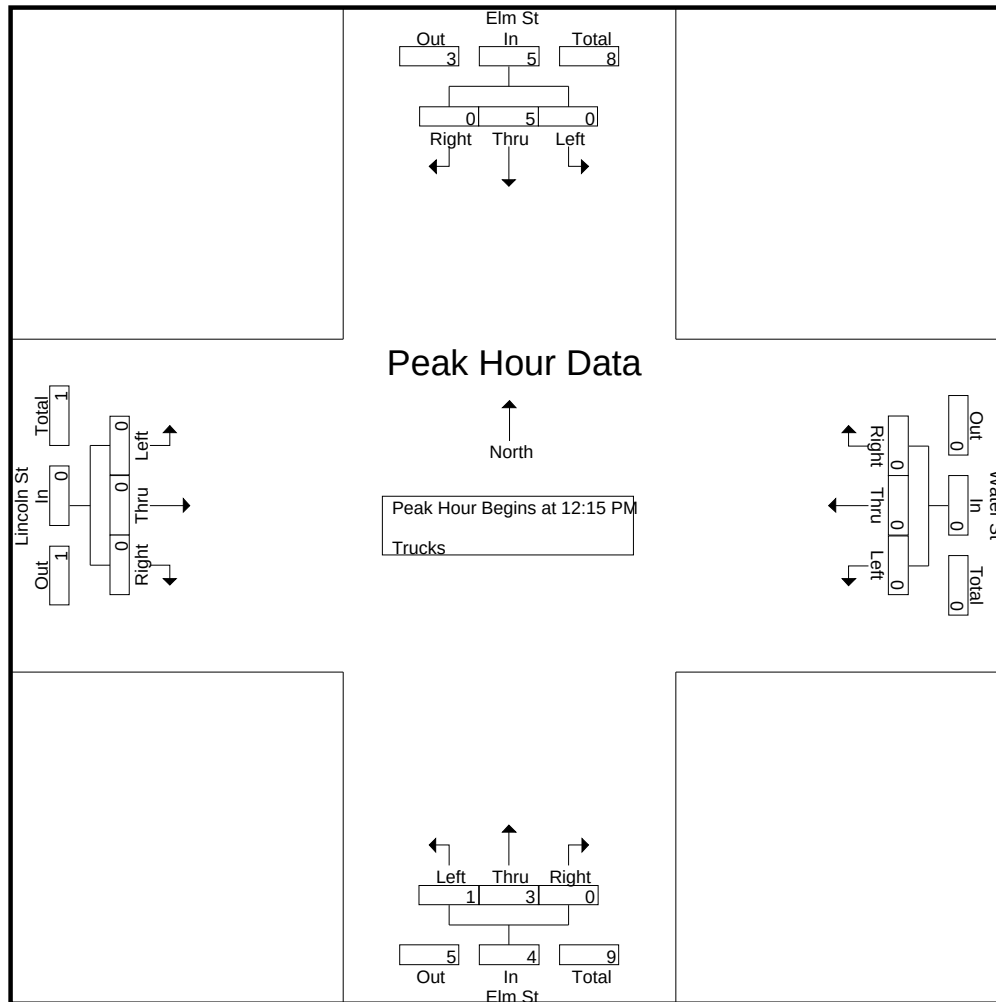
	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
12:30 PM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
12:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	5	0	5	0	0	0	0	1	3	0	4	0	0	0	0	9
% App. Total	0	100	0		0	0	0		25	75	0		0	0	0		
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.250	.375	.000	.500	.000	.000	.000	.000	.750

Accurate Counts

978-664-2565

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Saco, ME
 Weather : Rain

File Name : 191500S4
 Site Code : 19150004
 Start Date : 10/30/2021
 Page No : 8

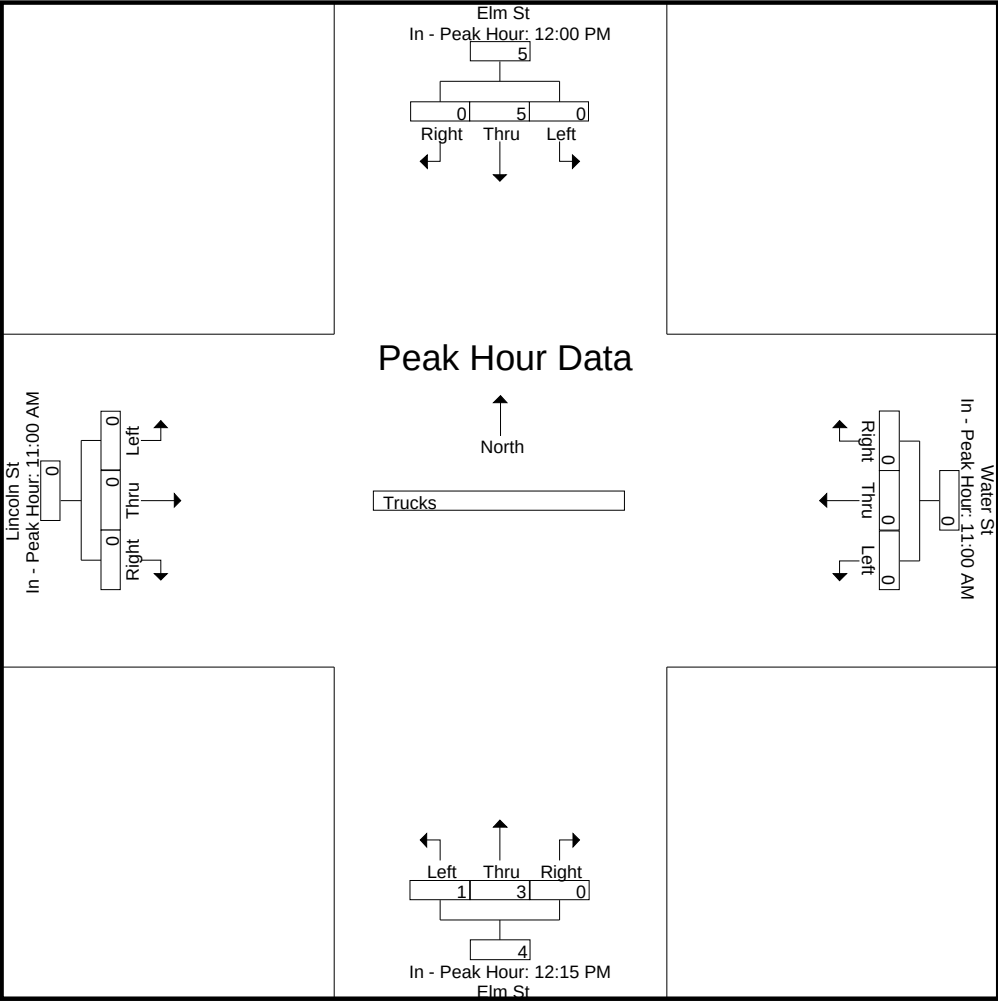


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	12:00 PM				11:00 AM				12:15 PM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	5	0	5	0	0	0	0	1	3	0	4	0	0	0	0
% App. Total	0	100	0		0	0	0		25	75	0		0	0	0	
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.250	.375	.000	.500	.000	.000	.000	.000

N/S Street : Elm Street
 E/W Street : Water St / Lincoln St
 City/State : Saco, ME
 Weather : Rain

File Name : 191500S4
 Site Code : 19150004
 Start Date : 10/30/2021
 Page No : 9



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 10

Groups Printed- Bikes Peds

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
Total	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	8	0	8
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	7
01:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3	1	4
Total	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	5	7	1	8
Grand Total	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	19	22	1	23
Apprch %	0	100	0		0	0	0		0	0	0		0	0	0				
Total %	0	100	0		0	0	0		0	0	0		0	0	0		95.7	4.3	

	Elm St From North				Water St From East				Elm St From South				Lincoln St From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

978-664-2565

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 11



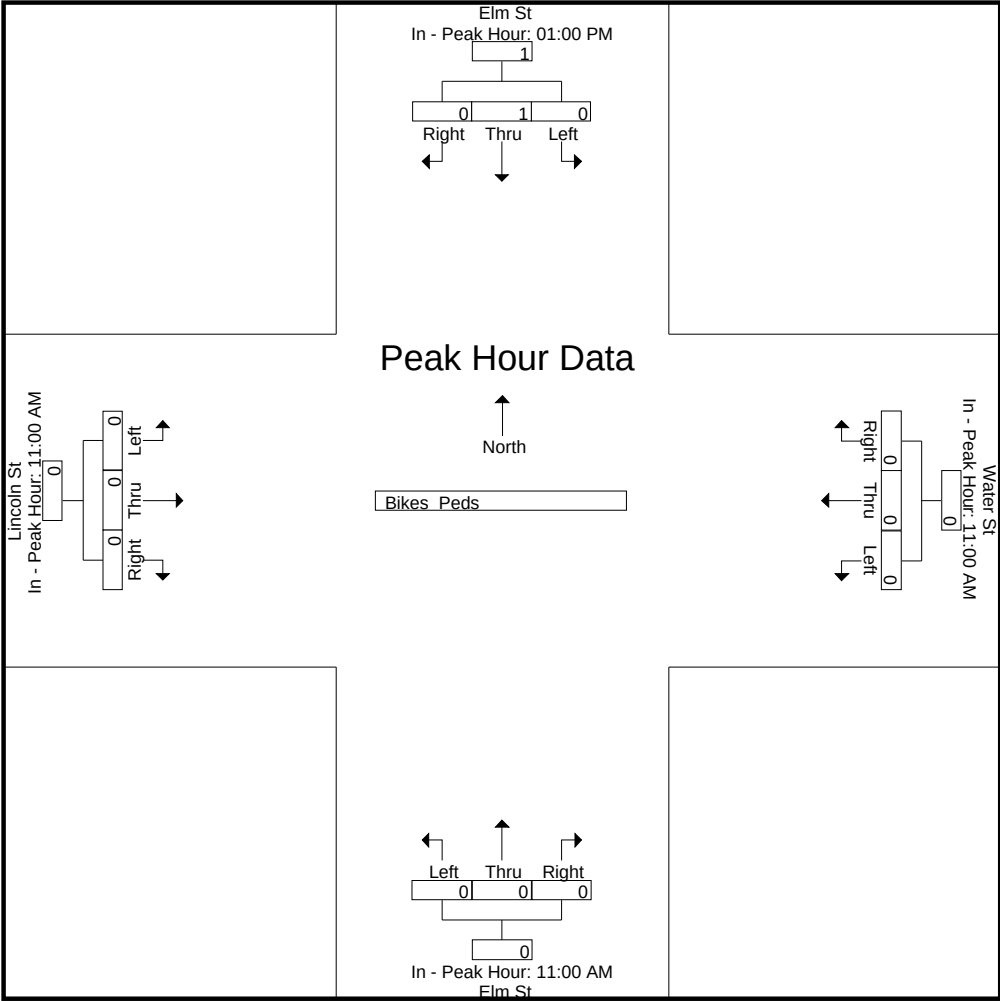
North

Peak Hour Begins at 01:00 PM
Bikes Peds

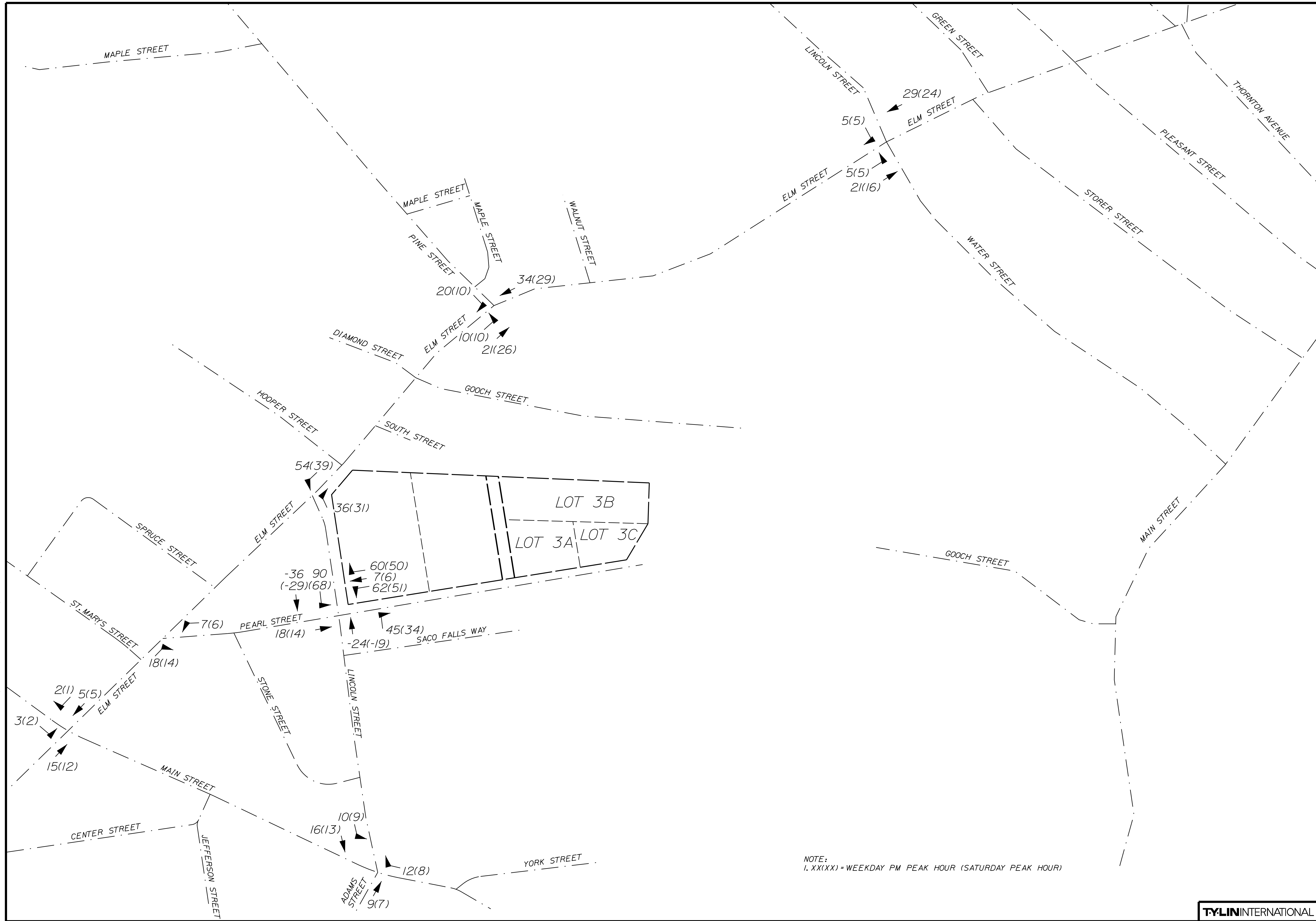
Peak Hour for Each Approach Begins at:																
	01:00 PM				11:00 AM				11:00 AM				11:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S Street : Elm Street
E/W Street : Water St / Lincoln St
City/State : Saco, ME
Weather : Rain

File Name : 191500S4
Site Code : 19150004
Start Date : 10/30/2021
Page No : 12



OTHER DEVELOPMENT TRAFFIC VOLUMES





ELM
(21) 19

7 (5)

(7) 2
(8) 8

STREET

3 (1)
19 (14)
12 (11)

5 (7)

ADAMS
STREET

(30) 10

LINCOLN

26 (26)

73 (47)

STREET

STREET
(3) 3

(47) 26

(26) 34
(15) 8
(43) 45

PEARL
STREET

SITE

(2) 2
(41) 43

70 (44)

LEGEND

XX = PM PEAK HOUR
(XX) = SATURDAY PEAK HOUR

TOTAL "NET" TRIP ASSIGNMENT
(PM PEAK HOUR & SATURDAY PEAK HOUR)

FIGURE 5

SITE PLAN AND SIGHT DISTANCE GRAPHIC

- PLAN REFERENCES:
- "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020.
 - "ALTA / NSPS LAND TITLE SURVEY" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 11/20/2020
 - "LOT SPLIT PLAN" PREPARED BY NORTHEAST CIVIL SOLUTIONS, DATED 12/18/2020.

10 GOOCH PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	44	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 44 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 44 SPACES) TO ALLOW FOR VISITORS = 3 SPACES	-
RESTAURANT**	-	1 SPACE / 3 SEATS x 49 SEATS = 17 SPACES**	-
ADA (8'X18')	-	-	3
STANDARD (9'X18')	-	-	37
60 DEGREE (8.5'X18.42')	-	-	21
TOTAL SPACES	-	64	61
*6 SPACES LOCATED AT 10 GOOCH STREET TO BE DESIGNATED FOR 20 GOOCH STREET APARTMENT BUILDING			
**RESTAURANT SPACE TO BE PROVIDED VIA OFF-SITE LEASE WITHIN CITY PARKING GARAGE			

10 GOOCH STREET SPACE AND BULK STANDARDS			
ZONE: MSRD3	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	1.08 ACRES	1.08 ACRES
MINIMUM STREET FRONTAGE	NONE	371.24'	371.24'
MINIMUM FRONT YARD SETBACK	NONE	34.88'	6.04'
MINIMUM REAR YARD SETBACK	NONE	13.33'	21.54'
MINIMUM SIDE YARD SETBACK	NONE	23.89'	23.89'
MINIMUM BUILDING HEIGHT	26'	-	TBD

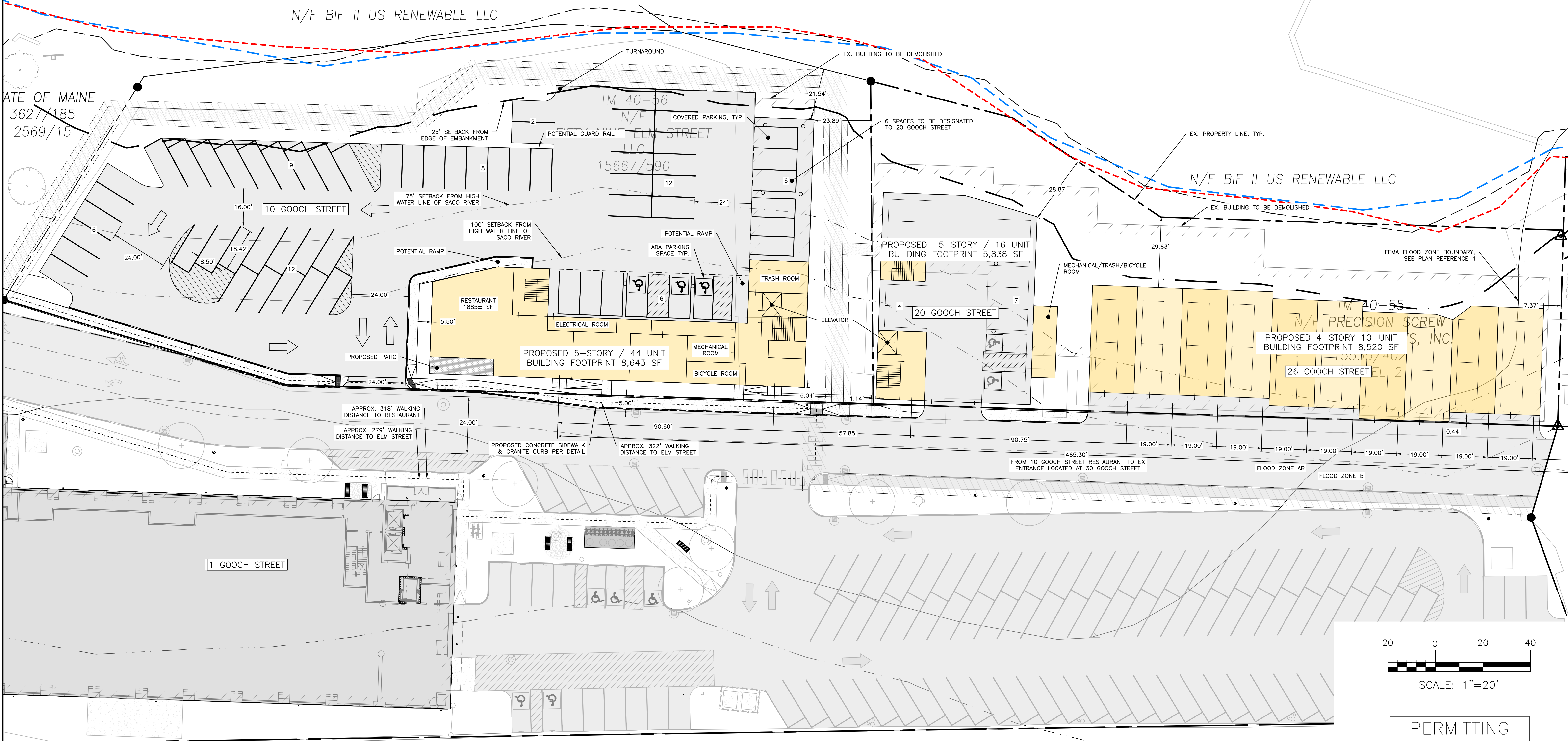
PRELIMINARY FLOODWAY BOUNDARY - - - - -

EFFECTIVE FLOODWAY BOUNDARY - - - - -

20 GOOCH PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	16	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 16 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 16 SPACES) TO ALLOW FOR VISITORS = 1 SPACES	-
ADA (8'X18')	-	-	2
STANDARD (9'X18')	-	-	9
60 DEGREE (8.5'X18.42')	-	-	-
TOTAL SPACES	-	17	11*
*6 SPACES AT 10 GOOCH STREET TO BE DESIGNATED FOR 20 GOOCH APARTMENT BUILDING			

20 GOOCH STREET SPACE AND BULK STANDARDS			
ZONE: MSRD3	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	0.64 ACRES	0.64 ACRES
MINIMUM STREET FRONTAGE	NONE	288'	288'
MINIMUM FRONT YARD SETBACK	NONE	1.74'	0.44'
MINIMUM REAR YARD SETBACK	NONE	3.60'	28.87'
MINIMUM SIDE YARD SETBACK	NONE	0'	1.14'
MINIMUM BUILDING HEIGHT	26'	-	TBD

26 GOOCH PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	10	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 10 SPACES	-
STANDARD (9'X18')	-	-	20
TOTAL SPACES	-	10	20



ISSUED FOR
TMP

BY
DATE
PFI
1/2/22

SITE PLAN

10, 20, AND 30 GOOCH STREET
REDEVELOPMENT BIDEFORD

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

ENGINEERING, INC.

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

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

FILE: 1093.11_CIVIL

JN: 1093.11

SCALE: AS NOTED

DESIGNED BY: PFI

DRAWN BY: ZMS

CHECKED BY: WHS

DRAWING NO.
C-10

- GENERAL NOTES:
1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
 2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD 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.

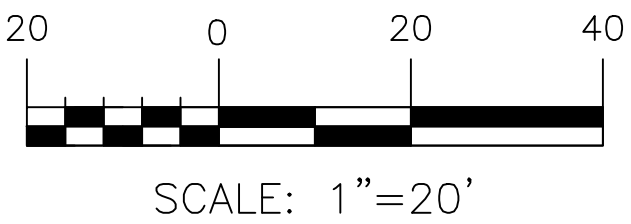
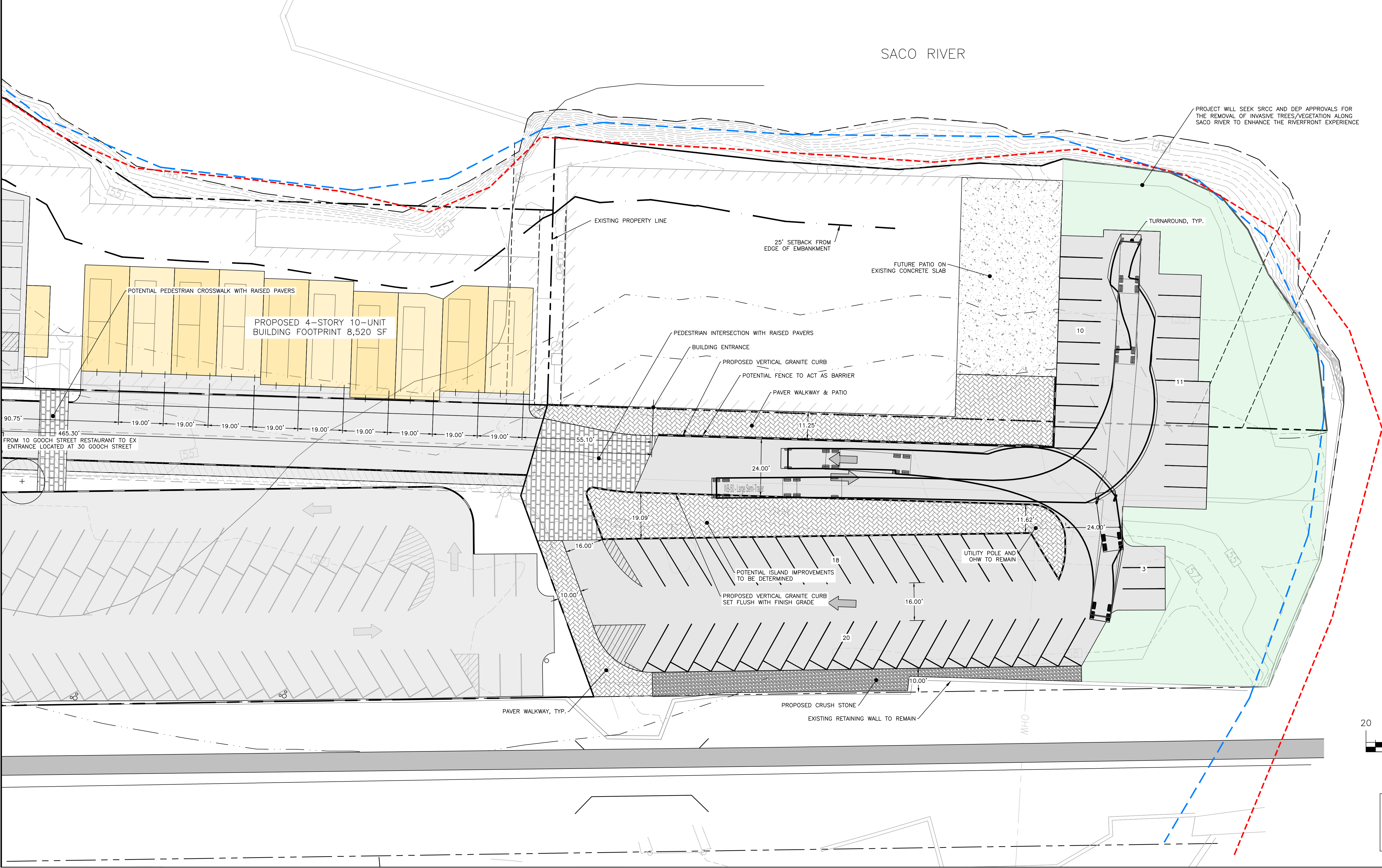
SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (G-1)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)		
MINIMUM STREET FRONTAGE	NONE			
MINIMUM FRONT YARD SETBACK	NONE			
MINIMUM REAR YARD SETBACK	NONE			
MINIMUM SIDE YARD SETBACK	NONE			
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET			
MINIMUM SHORE FRONTAGE		NONE (WITHIN EX. STRUCTURES ONLY)		
SACO RIVER SETBACK (INCLUDING PARKING AREAS)		100' FROM NORMAL HIGH-WATER LINE		
SACO RIVER NO-CUT ZONE (SRCC)		75'		
MAX LOT COVERAGE	100%	70% WITHIN SHORELAND ZONE		

PARKING SUMMARY		
	EXISTING	PROPOSED
STANDARD (9'X18')	N/A	47

BIDDEFORD FIRETRUCK
Overall Length 46.750ft
Overall Width 8.500ft
Overall Body Height 9.851ft
Min Body Ground Clearance 0.920ft
Track Width 8.333ft
Lock-to-lock time 6.00s
Max Wheel Angle 45.00°

PLAN REFERENCES:
1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 18, 2020.

PRELIMINARY FLOODWAY BOUNDARY	---
EFFECTIVE FLOODWAY BOUNDARY	---



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

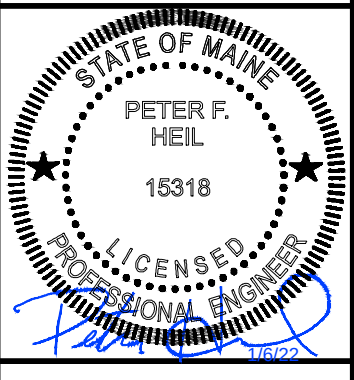
ISSUED FOR	BY
TMP	PFH
	1/6/22

DRAWING NAME:	30 GOOCH PARKING CONCEPT
PROJECT NAME/ ADDRESS:	10, 20, AND 30 GOOCH STREET REDEVELOPMENT BIDDEFORD
CLIENT/OWNER OF RECORD:	TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

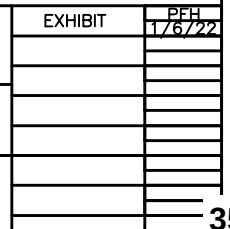
ACOORN ENGINEERING, INC.
188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101
(207) 775-2655

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACOORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED WITHOUT LIABILITY TO ACOORN ENGINEERING, INC.

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



DRAWING NO.	CT-2
-------------	------



BOUNDARY SURVEY

General Notes

- OWNER OF RECORD: PRECISION SCREW MACHINE PRODUCTS, INC.
P.O. BOX 1944, BIDDEFORD, ME 04005
TAX MAP 40 LOT 55 & 55-3
Y.C.R.D. BOOK 15535 PAGE 402
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.
- NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.
- 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.
- THE PROPERTY DESCRIBED IN FIRST AMERICAN TITLE INSURANCE COMMITMENT NO. 111220-01, EFFECTIVE NOVEMBER 5, 2020, IS THE SAME AS THE PROPERTY SHOWN HEREON.
- BASED ON EXISTING MONUMENTATION FOUND, PLANS REFERENCED AND RESEARCH CONDUCTED, THERE ARE NO GAPS OR GORES.
- PARCEL 2 IN DEED BOOK 15535, PAGE 402 DOES NOT CREATE A CLOSED MATHEMATICAL FIGURE. THE DEED DISTANCE OF 95.97 FEET IS BELIEVED TO BE 169.48 FEET BASED ON PLAN REFERENCE #5.
- THE BEARINGS IN THE RECORD DEEDS ARE BASED ON A MAGNETIC BEARING SYSTEM. THE BEARING SHOWN HEREON ARE BASED ON GRID NORTH.
- NO DETERMINATION HAS BEEN MADE TO THE STATUS OR FEE OWNERSHIP OF THE 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET.
- AREA OF PARCEL 1&2= 61,314 S.F. OR 1.14 ACRES ±

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: N/F
FRONT SETBACK: NONE
SIDE SETBACK: NONE
REAR SETBACK: NONE
MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

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.

Utility Note

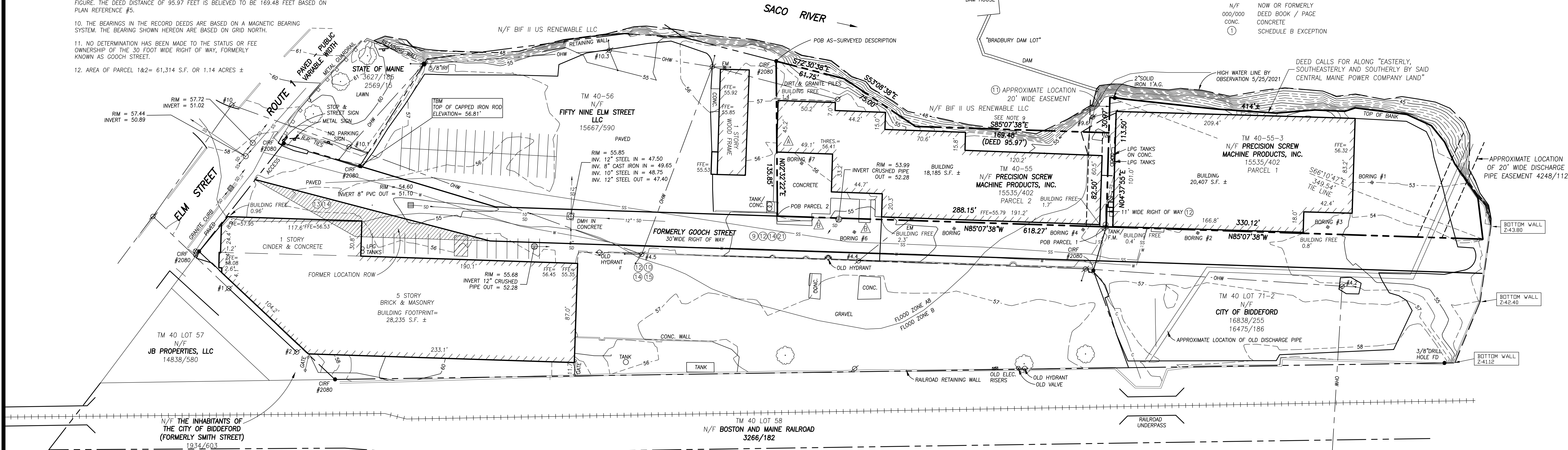
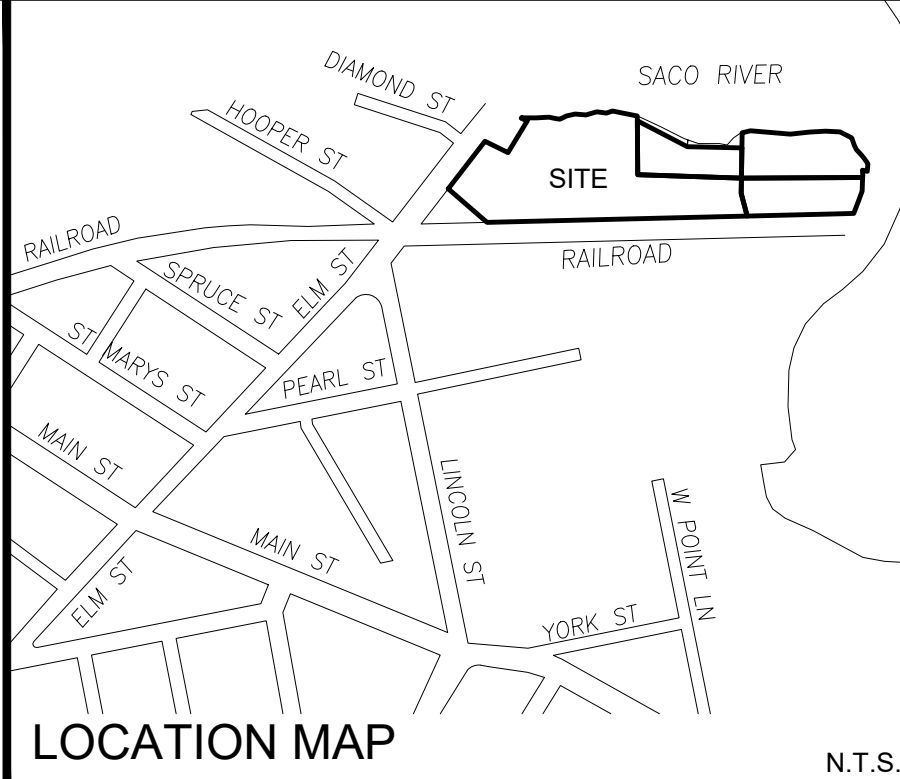
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND 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.

Possible Encroachments

- △ BUILDING ONTO ABUTTER 0.3'±
- △ CONCRETE PADS ONTO ABUTTER 3'-7'±

Legend

- IRON PIPE OR ROD FOUND
- UTILITY POLE
- MANHOLE
- ELECTRIC METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- DECIDUOUS TREE
- FENCE
- CURB
- OHW
- 100
- SD
- C
- SS
- W
- IPF/IRF
- N/F
- 000/000
- CONC.
- ①
- SCHEDULE B EXCEPTION



Legal Description

THE LAND REFERRED TO HEREIN IS SET FORTH BELOW:

PARCEL 1

A CERTAIN LOT OR PARCEL OF LAND WITH THE BUILDINGS THEREON, SITUATED IN BIDDEFORD, COUNTY OF YORK, STATE OF MAINE, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE DRIVEN INTO THE BITUMINOUS CONCRETE PAVEMENT AT THE SOUTHERLY CORNER OF LAND CONVEYED BY THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION TO GRONDIN SUPPLY CO., INC., SAID SPIKE BEING A LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL WITH THE NORTHEASTERLY FACE OF THE ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS, AND FORMERLY KNOWN AS 30-A, B, C AND D; THENCE N 20° 04' E BY SAID GRONDIN LAND EIGHTY-TWO AND 50/100 (82.50) FEET TO A SPIKE DRIVEN INTO THE PAVEMENT, SAID LINE BEING PARALLEL WITH AND FIVE AND 88/100 (5.88) FEET NORTHWESTERLY OF THE NORTHWESTERLY FACE OF THE WATER TABLES ON THE PILASTERS EXISTING ON THE NORTHWESTERLY SIDE OF THE BRICK BUILDING STANDING ON THE LAND HEREBY CONVEYED FORMERLY KNOWN AS BUILDING #24; THENCE THE SAME COURSE BY REMAINING LAND OF THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION OR OWNER, THIRTY-SEVEN (37) FEET, MORE OR LESS, OR TO LAND OF THE CENTRAL MAINE POWER COMPANY, THENCE EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTRAL MAINE POWER COMPANY LAND TO A POINT IN SAID LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL TO THE NORTHEASTERLY FACE OF SAID ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS; THENCE N 69° 42' W BY SAID LINE THREE HUNDRED THIRTY AND 12/1.00 (330.12) FEET TO THE POINT OF BEGINNING.

THE ABOVE BEARINGS REFER TO THE 1929 MAGNETIC MERIDIAN.

ALSO TOGETHER WITH A RIGHT OF WAY FROM THE EASTERLY SIDELINE OF THE ABOVE DESCRIBED LOT WESTERLY TO ELM STREET, SAID RIGHT OF WAY TO BE ADJOINING SAID LOT ON THE SOUTHERLY SIDE AND TO BE THIRTY (30) FEET WIDE ALONG SAID ELM STREET, SAID LAST DESCRIBED RIGHT OF WAY IS TO BE USED BY PRECISION SCREW MACHINE PRODUCTS, INC. AND THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION, THEIR RESPECTIVE SUCCESSORS AND ASSIGNS AND OTHERS.

PARCEL 2

A CERTAIN LOT OR PARCEL OF LAND TOGETHER WITH THE BUILDINGS THEREON, SITUATED IN SAID BIDDEFORD, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE DRIVEN INTO THE BITUMINOUS CONCRETE PAVEMENT AT THE JUNCTION OF A LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL WITH THE NORTHEASTERLY FACE OF THE MAIN ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS AND FORMERLY KNOWN AS 30-A, B, C AND D AND A LINE WHICH

RUNS ALONG THE NORTHWESTERLY EDGE OF THE CONCRETE PLATFORM ON WHICH THE BUILDING FORMERLY KNOWN AS #33 STOOD; THENCE S 69° 42' E BY SAID FORTY-SEVEN (47) FOOT LINE TWO HUNDRED EIGHTY-EIGHT AND 15/100 (288.15) TO A SPIKE DRIVEN IN THE PAVEMENT AND RETAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION; THENCE N 20° 04' E BY SAID REMAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION EIGHTY-TWO AND 50/100 (82.50) FEET TO A SPIKE DRIVEN INTO THE PAVEMENT; THE LAST DESCRIBED LINE BEING PARALLEL WITH AND FIVE AND 88/100 (5.88) FEET NORTHWESTERLY OF THE NORTHWESTERLY FACE OF THE WATER TABLES ON THE PILASTERS EXISTING ON THE NORTHWESTERLY SIDE OF THE BRICK BUILDING STANDING ON SAID OTHER LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION FORMERLY KNOWN AS BUILDING #24; THENCE N 69° 42' W BY REMAINING LAND OF SAID BIDDEFORD & SACO DEVELOPMENT CORPORATION AND BY LAND OF THE CENTRAL MAINE POWER COMPANY NINETY-FIVE AND 97/100 (95.97) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND; THENCE N 37° 43' W BY SAID LAND OF THE CENTRAL MAINE POWER COMPANY SEVENTY-FIVE (75) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND; THENCE N 57° 05' W BY SAID LAND OF THE CENTRAL MAINE POWER COMPANY SIXTY-ONE AND 75/100 (61.75) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND AND REMAINING LAND OF SAID BIDDEFORD & SACO DEVELOPMENT CORPORATION; THENCE S 17° 58' W BY SAID REMAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION ONE HUNDRED THIRTY-FIVE AND 84/100 (135.84) FEET TO THE POINT OF BEGINNING.

As-Surveyed Description

A CERTAIN LOT OR PARCEL OF LAND ON THE EASTERLY SIDE OF, BUT NOT ADJACENT TO ELM STREET IN THE TOWN OF BIDDEFORD, COUNTY OF YORK AND STATE OF MAINE BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF FIFTY NINE ELM STREET LLC AS DESCRIBED IN DEED BOOK 15667, PAGE 590 ON THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF BIF II US RENEWABLE LLC AT A CAPPED IRON ROD STAMPED "PLS 2080";

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG LAND OF SAID BIF II US RENEWABLE LLC:

S 72°30'38" E A DISTANCE OF 61.75 FEET;
S 53°08'38" E A DISTANCE OF 75.00 FEET;
S 85°07'38" E A DISTANCED OF 169.48 FEET;
N 04°37'55" E A DISTANCE OF 31 FEET, MORE OR LESS TO LAND NOW OR FORMERLY CENTRAL MAINE POWER COMPANY;

THENCE, EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTAL MAINE POWER COMPANY LAND 414 FEET, MORE OR LESS TO THE NORTHERLY SIDELINE OF A CERTAIN 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET, POINT BEING S 66°10'47" E A DISTANCE OF 349.54 FEET FROM THE LAST MENTIONED COURSE; THENCE, N 85°07'38" W ALONG THE NORTHERLY SIDELINE OF SAID 30 FOOT WIDE RIGHT OF WAY 618.27" TO LAND OF SAID FIFTY NINE ELM STREET LLC;

THENCE, N 02°32'22" E ALONG THE LAND OF FIFTY NINE ELM STREET LLC 135.85 FEET TO THE POINT OF BEGINNING, CONTAINING 61,314 S.F. OR 1.14 ACRES, MORE OR LESS.

Schedule B Section II Exceptions

FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT NO. 111220-01 EFFECTIVE DATE: NOVEMBER 5, 2020

1 - 8. NON SURVEY ITEMS

9. RIGHTS, EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS SET FORTH IN QUITCLAIM DEED GRANTED BY SACO-LOWELL SHOPS TO BIDDEFORD & SACO DEVELOPMENT CORPORATION DATED APRIL 9, 1959 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1398, PAGE 145. - AS SHOWN

10. RIGHTS AND EASEMENTS GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO CENTRAL MAINE POWER COMPANY BY INSTRUMENT DATED MARCH 22, 1961 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1461, PAGE 460. -NO POLE NUMBERED REFERENCED IN DOCUMENT, EXISTING POLES SHOWN

11. RIGHTS AND EASEMENTS GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO CENTRAL MAINE POWER COMPANY BY INSTRUMENT DATED JUNE 23, 1944 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1017, PAGE 409. - AS SHOWN ON PLAN

12. RIGHTS, EASEMENTS, COVENANTS, CONDITIONS, AND TERMS SET FORTH IN DEED GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO GRONDIN SUPPLY CO. INC. DATED JANUARY 18, 1962 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1478, PAGE 465. -AS SHOWN

13. RIGHTS OF OTHERS AND TERMS AND CONDITIONS PURSUANT TO THE FOLLOWING:

A. AGREEMENT BY AND BETWEEN CENTRAL MAINE POWER COMPANY AND STORAGE REALTY CORP., DATED APRIL 1, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 182; - AS SHOWN

B. AGREEMENT BY AND BETWEEN BIDDEFORD & SACO DEVELOPMENT CORPORATION AND STORAGE REALTY CORP., DATED MARCH 10, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 186; - AS SHOWN

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; AND - AS SHOWN

D. AGREEMENT BY AND BETWEEN GRONDIN SUPPLY CO. AND STORAGE REALTY CORP. DATED MARCH 23, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 195. - AS SHOWN

14. RIGHTS, EASEMENTS, CONDITIONS, AND RESTRICTIONS SET FORTH IN WARRANTY DEED GRANTED BY METAL-TECH INC. DATED JANUARY 2, 1974 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 2023, PAGE 253. - AS SHOWN

15. RIGHTS AND EASEMENTS GRANTED BY PRECISION SCREW MACHINE PRODUCTS INC. TO CENTRAL MAINE POWER AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY INSTRUMENT DATED AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS 2375, PAGE 50. - AS SHOWN

16. EASEMENT DEED GRANTED BY PRECISION SCREW MACHINE PRODUCTS, INC. TO MAINE ENERGY RECOVERY COMPANY DATED APRIL 14, 1987 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 4248, PAGE 112. - SHOWN ON PLAN

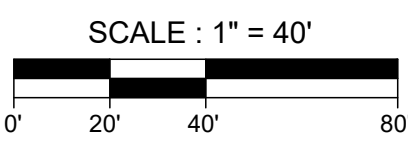
17. RIPARIAN RIGHTS OF OTHERS IN AND TO THE SACO RIVER AS THE SAME PASSES THROUGH OR BY THE INSURED PREMISES. - NOT PLOTTABLE

18. 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 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 11, PAGE 31. - ALL PERTINENT INFORMATION SHOWN HEREON

19. SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON UNRECORDED PLAN ENTITLED "PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY" BY DOW & COULOMB INC. DATED JANUARY 15, 1985 WITH FINAL REVISION DATED OF JANUARY 30, 1985. - ALL PERTINENT INFORMATION SHOWN HEREON

20. SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON PLAN ENTITLED "PLAN SHOWING LAND SOLD BY BIDDEFORD & SACO DEVELOPMENT CORP. TO GRONDIN 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. - ALL PERTINENT INFORMATION SHOWN HEREON

21. RIGHTS OF OTHERS IN AND TO THE APPURTENANT EASEMENTS KNOWN AS GOOCH STREET TO BE INSURED. - AS SHOWN



ALTA / NSPS Land Title Survey

59 Elm Street & 10 Gooch Street

Biddeford, York County, Maine

Made For

Port Property Management, Inc.

188 State Street, Suite 303, Portland, Maine

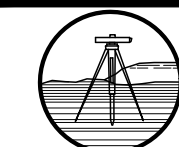
Surveyor's Certification

TO: PORT PROPERTY MANAGEMENT, INC., AND FIRST AMERICAN TITLE INSURANCE COMPANY

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, 5, 6(A), 11, 13, 14, 16, 17, 19 AND 21 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON . 2018.

Randy R. Loubier
RANDY R. LOUBIER
PROFESSIONAL LAND SURVEYOR NO. 2407

DATE OF PLAT OR MAP: DECEMBER 23, 2020
DATE OF LAST REVISION: MAY 26, 2021



OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: RRL/JLW	FIELD BOOK: FILE	JOB NO. 2020-295 B-Y
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1

TITLE, RIGHT, OR INTEREST

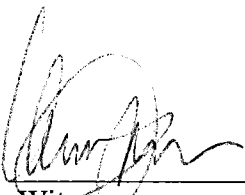
DLN : 1002140131882

QUITCLAIM DEED

PRECISION SCREW MACHINE PRODUCTS, INC., a Maine corporation with a mailing address of PO Box 1944, Biddeford, ME 04005 ("Grantor"), for consideration paid, grants to **GOOCH STREET LLC**, a Maine limited liability company with a mailing address of c/o Port Property Management, Inc. 82 Hanover Street, Suite 5, Portland, ME 04101 ("Grantee"), with **QUITCLAIM COVENANT**, a certain lot or parcel of land, together with the improvements thereon, in the City of Biddeford, County of York, and State of Maine, being more particularly bound and described on Exhibit A attached hereto and made a part hereof.

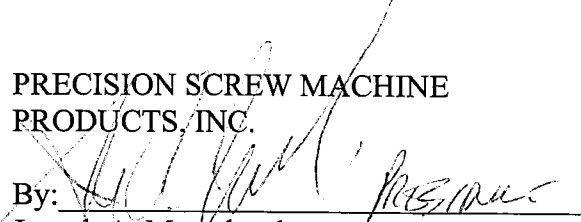
Being the same premises conveyed to Grantor by virtue of a Corrective Quitclaim Deed with Covenant granted by Joseph A. Moreshead and Andrea C. Moreshead dated December 11, 2008 and recorded in the York County Registry of Deeds in Book 15535, Page 402.

IN WITNESS WHEREOF, Precision Screw Machine Products, Inc. has caused this instrument to be executed by Joseph A. Moreshead, its President thereunto duly authorized as of this 10 day of February, 2021.



Witness

PRECISION SCREW MACHINE
PRODUCTS, INC.

By: 

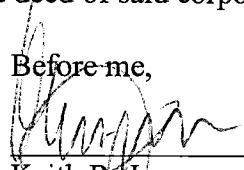
Joseph A. Moreshead

STATE OF MAINE
COUNTY OF YORK, SS.

February 10, 2021

Personally appeared the above-named Joseph A. Moreshead, President of Precision Screw Machine Products, Inc. and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,



Keith R. Jacques
Attorney at Law, Bar # 2962

KEITH R. JACQUES, ESQ.
WOODMAN EDMANDS DANYLIK AUSTIN
SMITH & JACQUES, P.A.
234 MAIN ST. , P.O. BOX 468
BIDDEFORD, ME 04005
(207) 284-4581

Maine R.E. Transfer Tax Paid

EXHIBIT A

Parcel 1 (30 Gooch Street):

A certain lot or parcel of land with the buildings thereon, situated in Biddeford, County of York, State of Maine, bounded and described as follows:

BEGINNING at a spike driven into the Bituminous Concrete pavement at the southerly corner of land conveyed by the Biddeford and Saco Development Corporation to Grondin Supply Co., Inc., said spike being a line which is forty-seven (47) feet northeasterly from and parallel with the northeasterly face of the original buildings of the Saco-Lowell Shops, and formerly known as 30-A, B, C and D; thence N 20° 04' E by said Grondin land eighty-two and 50/100 (82.50) feet to a spike driven into the pavement, said line being parallel with and five and 88/100 (5.88) feet northwesterly of the northwesterly face of the water tables on the pilasters existing on the northwesterly side of the brick building standing on the land hereby conveyed formerly known as Building #24; thence the same course by remaining land of the Biddeford and Saco Development Corporation or owner, thirty-seven (37) feet, more or less, or to land of the Central Maine Power Company; thence easterly, southeasterly and southerly by said Central Maine Power Company land to a point in said line which is forty-seven (47) feet northeasterly from and parallel to the northeasterly face of said original buildings of the Saco-Lowell Shops; thence N 69° 42' W by said line three hundred thirty and 12/100 (330.12) feet to the point of beginning.

The above bearings refer to the 1929 Magnetic Meridian.

Subject to a right of way over a strip of land five and 5/10 (5.5) feet wide which lies easterly of and adjoining the first and second described lines above. Together with a right of way over a strip of land five and 5/10 (5.5) feet wide which lies westerly of and adjoining said first described line above and westerly of and adjoining so much of the second described line above as the Biddeford and Saco Development Corporation may own, said eleven (11) foot right of way to be used in common. Said premises are also conveyed subject to any right of way which may exist in the Central Maine Power Company across said premises.

Also together with a right of way from the easterly sideline of the above described lot westerly to Elm Street, said right of way to be adjoining said lot on the southerly side and to be thirty (30) feet wide along said lot and for six hundred sixty and 82/100 (660.82) feet westerly from the southwesterly corner of said lot to a large spike driven into the Bituminous Concrete paving. From thence the northerly sideline runs N 32° 55' W by land formerly of the Biddeford and Saco Development Corporation eighty-three and 75/100 (83.75) feet to Elm Street where said right of way is to be forty and 88/100 (40.88) feet wide measured along said Elm Street, said last described right of way is to be used by Precision Screw Machine Products, Inc. and the Biddeford and Saco Development Corporation, their respective successors and assigns and othe

Parcel 2 (20 Gooch Street)

A certain lot or parcel of land together with the buildings thereon, situated in said Biddeford, bounded and described as follows:

Beginning at a spike driven into the bituminous concrete pavement at the junction of a line which is forty-seven (47) feet Northeasterly from and parallel with the Northeasterly face of the main original buildings of the Saco-Lowell Shops and formerly known as 30-A, B, C and D and a line which runs along the Northwesterly edge of the concrete platform on which the building formerly known as #33 stood; thence S 69° 42' E by said forty-seven (47) foot line two hundred eighty-eight and 15/100 (288.15) to a spike driven in the pavement and remaining land of Biddeford & Saco Development Corporation; thence N 20° 04' E by said remaining land of Biddeford & Saco Development Corporation eighty-two and 50/100 (82.50) feet to a spike driven into the pavement; the last described line being parallel with and five and 88/100 (5.88) feet Northwesterly of the Northwesterly face of the water tables on the pilasters existing on the Northwesterly side of the brick building standing on said other land of Biddeford & Saco Development Corporation formerly known as Building #24; thence N 69° 42' W by remaining land of said Biddeford & Saco Development Corporation and by land of the Central Maine Power Company ninety-five and 97/100 (95.97) feet to an iron pipe driven into the ground; thence N 37° 43' W by said land of the Central Maine Power Company seventy-five (75) feet to an iron pipe driven into the ground; thence N 57° 05' W by said land of the Central Maine Power Company sixty-one and 75/100 (61.75) feet to an iron pipe driven into the ground and remaining land of said Biddeford & Saco Development Corporation; thence S 17° 58' W by said remaining land of Biddeford & Saco Development Corporation one hundred thirty-five and 84/100 (135.84) feet to the point of beginning.

TOGETHER WITH all rights, benefits, privileges and easements and SUBJECT TO the following:

1. Rights, easements, covenants, conditions, and restrictions set forth in Quitclaim Deed granted by Saco-Lowell Shops to Biddeford & Saco Development Corporation dated April 9, 1959 and recorded in the York County Registry of Deeds in Book 1398, Page 145.
2. Rights and easements granted by Biddeford & Saco Development Corporation to Central Maine Power Company by instrument dated March 22, 1961 and recorded in the York County Registry of Deeds in Book 1461, Page 460.
3. Rights and easements granted by Biddeford & Saco Development Corporation to Central Maine Power Company by instrument Saco-Lowell Shops to Central Maine Power Company by instrument dated June 23, 1944 and recorded in the York County Registry of Deeds in Book 1017, Page 409.
4. Rights, easements, covenants, conditions, and terms set forth in Deed granted by Biddeford & Saco Development Corporation to Grondin Supply Co. Inc. dated January 18, 1962 and recorded in the York County Registry of Deeds in Book 1478, Page 465.
5. Rights of others and terms and conditions pursuant to the following:
 - a. Agreement by and between Central Maine Power Company and Storage Realty Corp., dated April 1, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 182;
 - b. Agreement by and between Biddeford & Saco Development Corporation and Storage Realty Corp., dated March 10, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 186;
 - 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; and

- d. Agreement by and between Grondin Supply Co. and Storage Realty Corp. dated March 23, 1971 and recorded in the York County Registry of Deeds in Book 1907, Page 195.
6. Rights, easements, conditions, and restrictions set forth in Warranty Deed granted by Metal-Tech Inc. dated January 2, 1974 and recorded in the York County Registry of Deeds in Book 2023, Page 253.
7. Rights and easements granted by Precision Screw Machin Products Inc. to Central Maine Power and New England Telephone and Telegraph Company by instrument dated and recorded in the York County Registry of Deeds 2375, Page 50.
8. Easement Deed granted by Precision Screw Machine Products, Inc. to Maine Energy Recovery Company dated April 14, 1987 and recorded in the York County Registry of Deeds in Book 4248, Page 112.

Also releasing, without covenants, all Grantor's right, title, and interest in and to the premises described as follows (hereinafter referred to as the "Surveyed Description"):

A CERTAIN LOT OR PARCEL OF LAND ON THE EASTERLY SIDE OF, BUT NOT ADJACENT TO ELM STREET IN THE CITY OF BIDDEFORD, COUNTY OF YORK AND STATE OF MAINE BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF FIFTY-NINE ELM STREET LLC AS DESCRIBED IN DEED BOOK 15667, PAGE 590 ON THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF BIF II US RENEWABLE LLC AT A CAPPED IRON ROD STAMPED "PLS 2080";

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG LAND OF SAID BIF II US RENEWABLE LLC:

S 72°30'38" E A DISTANCE OF 61.75 FEET;
S 53°08'38" E A DISTANCE OF 75.00 FEET;
S 85°07'38" E A DISTANCE OF 169.48 FEET;
N 04°37'55" E A DISTANCE OF 31 FEET, MORE OR LESS TO LAND NOW OR FORMERLY OF CENTRAL MAINE POWER COMPANY;

THENCE, EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTRAL MAINE POWER COMPANY LAND 414 FEET, MORE OR LESS TO THE NORTHERLY SIDELINE OF A CERTAIN 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET, POINT BEING S 66°10'47" E A DISTANCE OF 349.54 FEET FROM THE LAST MENTIONED COURSE;

THENCE, N 85°07'38" W ALONG THE NORTHERLY SIDELINE OF SAID 30 FOOT WIDE RIGHT OF WAY 618.27 FEET TO LAND OF SAID FIFTY-NINE ELM STREET LLC;

THENCE, N 02°32'22" E ALONG THE LAND OF FIFTY-NINE ELM STREET LLC 135.85 FEET TO THE POINT OF BEGINNING, CONTAINING 61,314 S.F. OR 1.14 ACRES, MORE OR LESS.

DLN: 1002040126137

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, **FIFTY NINE ELM STREET LLC**, a Maine limited liability company with a principal place of business and mailing address of 380 Warren Avenue, Portland, Maine 04103, for consideration paid, grants to **RIVER LOT LLC**, a Maine limited liability company with a mailing address of c/o Port Property Management, 82 Hanover Street, Suite 5, Portland, Maine 04101 (the "Grantee"), with QUITCLAIM COVENANT, the land and improvements in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

A certain lot, or parcel of land, located southeasterly of Elm Street, in the City of Biddeford, County of York, State of Maine, being bound and described as follows:

Beginning at a #5 rebar w/cap stamped "NCS 2080" at the southerly corner of land now or formerly (N/F) of State of Maine, as described in Book 3627, Page 185 and Book 2569, Page 015;

THENCE: N 50°34'00" E, along said State of Maine, 110.88', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set on the southwesterly line of land N/F of FPL Energy Maine Hydro LLC;

THENCE: S 78°52'00" E, along said FPL Energy Maine Hydro LLC, 174.32', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

THENCE: S 68°12'00" E, along said FPL Energy Maine Hydro LLC, 51.79', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

THENCE: S 57°05'00" E, along said FPL Energy Maine Hydro LLC, 83.80', to a #5 rebar w/cap stamped "NCS 2080" at the northerly corner of land N/F of Precision Screw Machine Products, Inc., as described in Book 15535, Page 402;

THENCE: S 17°58'00" W, along said Precision Screw Machine Products, Inc., 135.84', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set on the northeasterly line of Saco-Lowell LLC Parcel, as shown on plan entitled "Lot Split Plan, 59 Elm Street, Biddeford, Maine", by Northeast Civil Solutions, Inc., dated December 15, 2020, NCS Project No. 42267;

THENCE: N 69°42'00" W, along said Saco-Lowell LLC Parcel, 247.06', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

Maine R.E. Transfer Tax Paid

THENCE: N 54°50'00" W, along said Saco-Lowell LLC Parcel, 124.15', to the POINT of BEGINNING.

The above described parcel contains 1.08 acres, more or less.

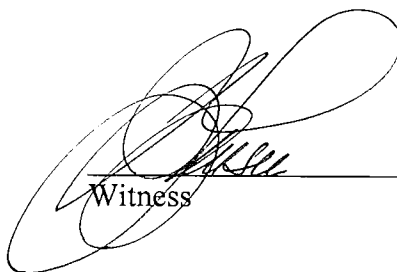
The bearings for the above described parcel are based on Magnetic North 1929.

TOGETHER WITH all rights, benefits, privileges and easements and SUBJECT TO same covenants and obligations to the extent the same are in force and effect, as contained in a deed from Biddeford & Saco Dev. Corp. to Grafton Lumber Co., Inc. dated April 6, 1962 and recorded in the York County Registry of Deeds in Book 1484, Page 121.

TOGETHER WITH, and subject to the rights of others in and to, a right of way from the easterly sideline of the said above described lot to Elm Street, said right of way to be adjoining said lot on the southerly side and to be thirty (30) feet wide along said lot and known or formerly known as Gooch Street, for all purposes of an easement, including ingress to and egress from the property of the Grantee, and for the laying, relaying, maintenance, repair, and improvement of utility lines, pipes, wires and other conduits, and all appurtenances necessary thereto.

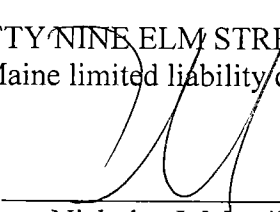
Being a portion of the premises conveyed to Fifty Nine Elm Street LLC by Quitclaim Deed from Pioneer Capital Corporation, dated June 24, 2009, and recorded in the York County Registry of Deeds in Book 15667, Page 590.

IN WITNESS WHEREOF, Fifty Nine Elm Street LLC has caused this instrument to be signed and sealed in its company name by Nicholas J. Morrill, its Authorized Attorney, thereunto duly authorized this 22nd day of December, 2020.



Witness

FIFTY NINE ELM STREET LLC,
a Maine limited liability company

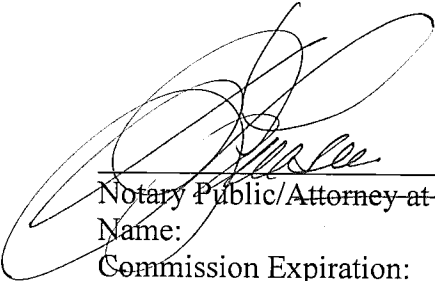
By: 

Nicholas J. Morrill
Title: Authorized Attorney

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

December 22, 2020

Then personally appeared before me the above named Nicholas J. Morrill, Authorized Attorney of Fifty Nine Elm Street LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of Fifty Nine Elm Street LLC.



Notary Public/Attorney at Law
Name:
Commission Expiration:

DEBRA J. LAUSIER
Notary Public, Maine
My Commission Expires: January 12, 2024

DLN: 1002040126141
QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, **FIFTY NINE ELM STREET LLC**, a Maine limited liability company with a principal place of business and mailing address of 380 Warren Avenue, Portland, Maine 04103 (the "Grantor"), for consideration paid, grants to **SACO-LOWELL LLC**, a Maine limited liability company with a mailing address of c/o Port Property Management, 82 Hanover Street, Suite 5, Portland, Maine 04101, with QUITCLAIM COVENANT, the land and improvements in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

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 3627, Page 185 and Book 2569, Page 015, 69.55', to a #5 rebar w/cap stamped "NCS 2080" at the westerly corner of River Lot LLC Parcel, as shown on plan entitled "Lot Split Plan; 59 Elm Street, Biddeford, Maine", by Northeast Civil Solutions, Inc., dated December 15, 2020, NCS Project No. 42267;

THENCE: continuing S 54°50'00" E, along said River Lot LLC Parcel, 124.15', to a proposed #5 rebar w/cap stamped "NCS 2080" to be set;

THENCE: S 69°42'00" E, along said River Lot LLC Parcel, 247.06', to the westerly corner of land N/F Precision Screw Machine Products, Inc., as described in Book 15535, Page 402;

THENCE: continuing 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 Inhabitants of the City of Biddeford, 163.58', to the POINT of BEGINNING.

The above described parcel contains 2.56 acres, more or less.

The bearings for the above described parcel are based on Magnetic North 1929.

TOGETHER WITH any and all interest the Grantor may have in a right of way to be used in common by Biddeford & Saco Dev. Corp. and their successors, assigns, lessors and guests over and along Smith Street, so-called, from its intersection with said Elm Street southeasterly to its intersection with southeasterly side of Yard Drive, so-called, as said Smith Street is presently laid out and customarily used together with a right of way over said Yard Drive from its intersection with said Smith Street easterly along southerly line of the within conveyed premises to the Saco River, said Yard Drive occupying the entire width between southerly face of buildings on conveyed premises and northerly face of Buildings on premises of Biddeford & Saco Dev. Corp. wherever the northerly face of said Buildings lie within twenty (20) feet of southerly face of said conveyed property and continues a width of twenty (20) feet to land of Central Maine Power Co. on or near the bank of said Saco River.

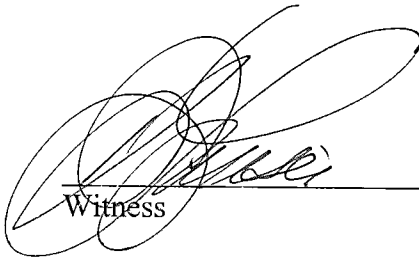
TOGETHER WITH all rights, benefits, privileges and easements and SUBJECT TO same covenants and obligations to the extent the same are in force and effect, as contained in a deed from Biddeford & Saco Dev. Corp. to Grafton Lumber Co., Inc. dated April 6, 1962 and recorded in the York County Registry of Deeds in Book 1484, Page 121.

TOGETHER WITH the right to place a building or other structures up to and along the westerly boundary of the premises described in a deed from 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, which westerly boundary extends from land now or formerly of Boston & Maine Railroad to Gooch Street, so-called; and Maine Energy Recovery Company, its successors and assigns, further agree to support any request by Storage Realty Corp., its successors and assigns, for a variance or exception from the City of Biddeford, should any be necessary for the placement of any building or structure

(otherwise conforming with zoning requirements of the City of Biddeford) along said property line.

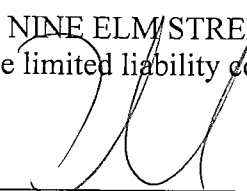
Being a portion of the premises conveyed to Fifty Nine Elm Street LLC by Quitclaim Deed from Pioneer Capital Corporation, dated June 24, 2009, and recorded in the York County Registry of Deeds in Book 15667, Page 590.

IN WITNESS WHEREOF, Fifty Nine Elm Street LLC has caused this instrument to be signed and sealed in its company name by Nicholas J. Morrill, its Authorized Attorney, thereunto duly authorized this 22nd day of December, 2020.



Witness

FIFTY NINE ELM STREET LLC,
a Maine limited liability company

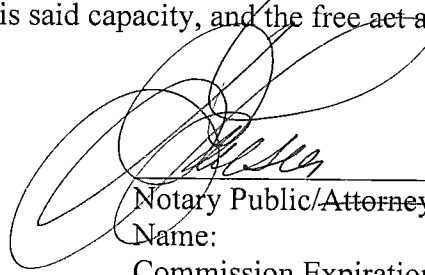
By: 

Nicholas J. Morrill
Title: Authorized Attorney

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

December 22, 2020

Then personally appeared before me the above named Nicholas J. Morrill, Authorized Attorney of Fifty Nine Elm Street LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of Fifty Nine Elm Street LLC.



Notary Public/Attorney at Law
Name:
Commission Expiration:

DEBRA J. LAUSIER
Notary Public, Maine
My Commission Expires: January 12, 2024

Section 7: Utilities Summary

The project proposes to utilize existing infrastructure in the area and provides utility upgrades for various utility lines. Summaries of each utility are as follows:

Water:

The previously approved 1 Gooch Street Redevelopment includes utility improvements within Gooch Street. Improvements included a 12-inch water main that transitions to an 8-inch water main midway down Gooch Street. The 12-inch/8-inch water main included stubs to serve the future 10, 20, and 30 Gooch Street developments. The proposed project will be designed to tie into existing domestic and fire protection stubs without having to disturb the Gooch Street travel way. Please see the Utility Plan for additional information.

Sewer:

The previously approved 1 Gooch Street Redevelopment includes utility improvements within Gooch Street. Improvements included a 2-inch force main that connects to an approximate 85 foot 8-inch gravity sewer line within Gooch Street that connects to Elm Street. The 2" force main included stubs to serve the future 10, 20, and 30 Gooch Street developments. The proposed project will be designed to tie into existing force main stubs via each buildings own associated pump station without having to disturb the Gooch Street travel way. Please see the Utility Plan for additional information

Stormwater:

Each of the proposed buildings will be constructed with roof drains and foundation drains. There are existing stormwater drains within Gooch Street that are currently collecting surface water and ultimately discharging into the Saco River. 10 Gooch Street includes installation of new catch basins that will tie into the existing storm drain system. 20 Gooch Street is anticipated to have a floor drain and an oil water separator within the covered parking area that will utility outlet into the existing force main within Gooch Street. 30 Gooch Street will propose pervious pavers to provide water quality treatment for the stormwater runoff. The project will be subject to a Maine DEP stormwater law permit. Stormwater designs will be provided as part of the preliminary submission.

Electric/ Cable/Telephone:

The previously approved 1 Gooch Street Redevelopment includes utility improvements within Gooch Street. Improvements included installing underground electric / telecom services, transformers, and 38Y manholes with future service stubs within Gooch Street. The proposed project will be designed to tie into existing stubs without having to disturb the Gooch Street travel way. Please see the Utility Plan for additional information



Gas:

The previously approved 1 Gooch Street Redevelopment includes utility improvements within Gooch Street. Improvements included installing an underground gas main with future service stubs within Gooch Street. The proposed project will be designed to tie into existing stubs without having to disturb the Gooch Street travel way. Please see the Utility Plan for additional information

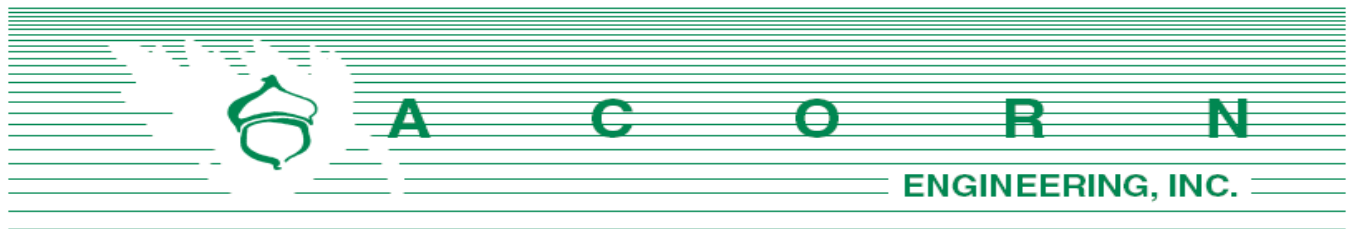
In addition to the summaries above, Ability to Serve letters are anticipated to be sent out to the respective utility companies. Future responses will be attached and any additional responses will be submitted to the Planning Department within the subsequent application.



Section 8: Public Safety Letter of Approvals

Please refer to the attached letters that were sent to the Fire and Police Departments on March 21, 2022. Responses from the Fire and Police Departments will be provided to the Planning Department upon receipt.





Biddeford Fire Dept.
Attn: Mr. Scott Gagne, Chief of Fire Department
152 Alfred St
Biddeford, ME 04005

March 21, 2022

Subject: 10, 20, & 30 Gooch Street Redevelopment
Re: Letter of Approval

Mr. Gagne:

On behalf of Tom Watson & Co., we are pleased to submit the following request for a letter of approval as required by the City of Biddeford Subdivision & Site Plan application. The project proposes to construct a 5-story building containing 55 residential units with a restaurant space on 10 Gooch Street, a 5-story 16-unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and change of use to the existing building located at 30 Gooch Street to accommodate a commercial use (potentially a brewery). The project will include associated parking and landscaped areas.

Gooch Street is currently under construction and the approved "1 Gooch Street Redevelopment" design includes installing portions of the existing overhead wires underground, which will improve clearance on Gooch Street.

From a fire protection standpoint, A 12" water main is anticipated to be installed within Gooch Street during the 2022 construction season and the proposed buildings located on 10, 20, and 30 Gooch Street will be sprinkled with a 6" D.I. fire protection water service. In addition, three new fire hydrants are scheduled to be installed on the southern side of Gooch Street during the 2022 construction season.

Please let me know if you have any questions or if you would like additional information from the sprinkler designer or code summaries from the architect.

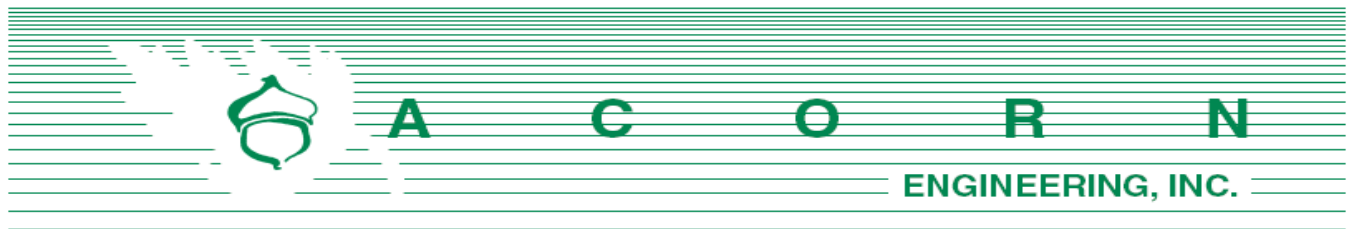
Sincerely,

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

Sincerely,

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





Biddeford Police Dept.
Attn: Roger P. Beaupre, Chief of Police
39 Alfred St
Biddeford, ME 04005

March 21, 2022

Subject: 10, 20, & 30 Gooch Street Redevelopment
Re: Letter of Approval

Mr. Beaupre:

On behalf of Tom Watson & Co., we are pleased to submit the following request for a letter of approval as required by the City of Biddeford Subdivision & Site Plan application. The project proposes to construct a 6-story building containing 55 residential units with a restaurant space on 10 Gooch Street, a 5-story 16-unit residential building and 11 townhome units on 20 Gooch Street, and a partial demolition and change of use to the existing building located at 30 Gooch Street to accommodate a commercial use (potentially a brewery). The project will include associated parking and landscaped areas.

Gooch Street is currently under construction and the approved "1 Gooch Street Redevelopment" design includes dropping 3-phase electric services underground from an existing utility pole on 10 Gooch Street to serve the entire Gooch Street redevelopment. The approved design also includes streetlights that will be installed along to enhance visibility within the right of way.

The lighting plan for the proposed site is forthcoming, though the main intent will be to increase nighttime visibility for patrons and residents. Furthermore, the additional "eyes on the street" created by the new businesses and renters of the apartments will provide another layer of security on Gooch Street and the abutting properties. Accessways for emergency vehicles will be maintained and generally provide ample opportunity to access the site. Overall, we feel the proposed plan will improve public safety when compared to the existing condition by increasing the lighting and increasing the occupancy of the buildings.

Please do not hesitate to contact me for any questions or clarifications.

Sincerely,

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

Sincerely,

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



A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Section 9: Lighting

Overall, the goal is to allow for safety at night while also minimizing glare and light pollution especially given the proximity of the site to Saco River. Fixtures are anticipated to be similar to the other redeveloped mills in Biddeford and will be in line with the character of the surrounding neighborhood and Mill District. Lighting plans and specifications will be provided in subsequent submissions.

Section 10: Solid Waste

The property management company or owner shall be responsible for managing and contracting with a private hauler to remove solid waste. The expectation is that solid waste would be collected as needed by the private hauler. All solid waste containers are anticipated to be located internally and any located externally will be screened from view.

Solid waste produced by the residential redevelopments is predictable in that it will generate a fair amount of recyclable material such as cardboard and plastic due to residents' daily needs. Garbage generation for the residential buildings is anticipated to be relatively low when compared to a typical residential use given the urban environment that provides amenities and services in proximity to the living space. Solid waste produced by the proposed commercial use redevelopment on the 30 Gooch Lot, whether it be a brewery, taproom, brewpub, eatery, etc, will be predictable in that it will generate a fair amount of trash and compostable material.



Section 11: Photographs



Figure 1: View of part of 10 and 20 Gooch Street taken from the roof of 1 Gooch Street building.



Figure 2: View of existing 10 Gooch Street parking lot taken from the roof of 1 Gooch Street building.





Figure 3: View of 30 Gooch Street and City parking lot taken from the roof of 1 Gooch Street building.



Figure 4: Standing on the existing parking lot on 10 Gooch site facing northwest toward the Saco River.





Figure 5: Standing on the existing parking lot on 10 Gooch facing east toward the existing building onsite.



Figure 6. Standing northeast of the existing 10 Gooch Street parking lot facing east.





Figure 7: Google street view of 10 and 20 Gooch Street facing east.



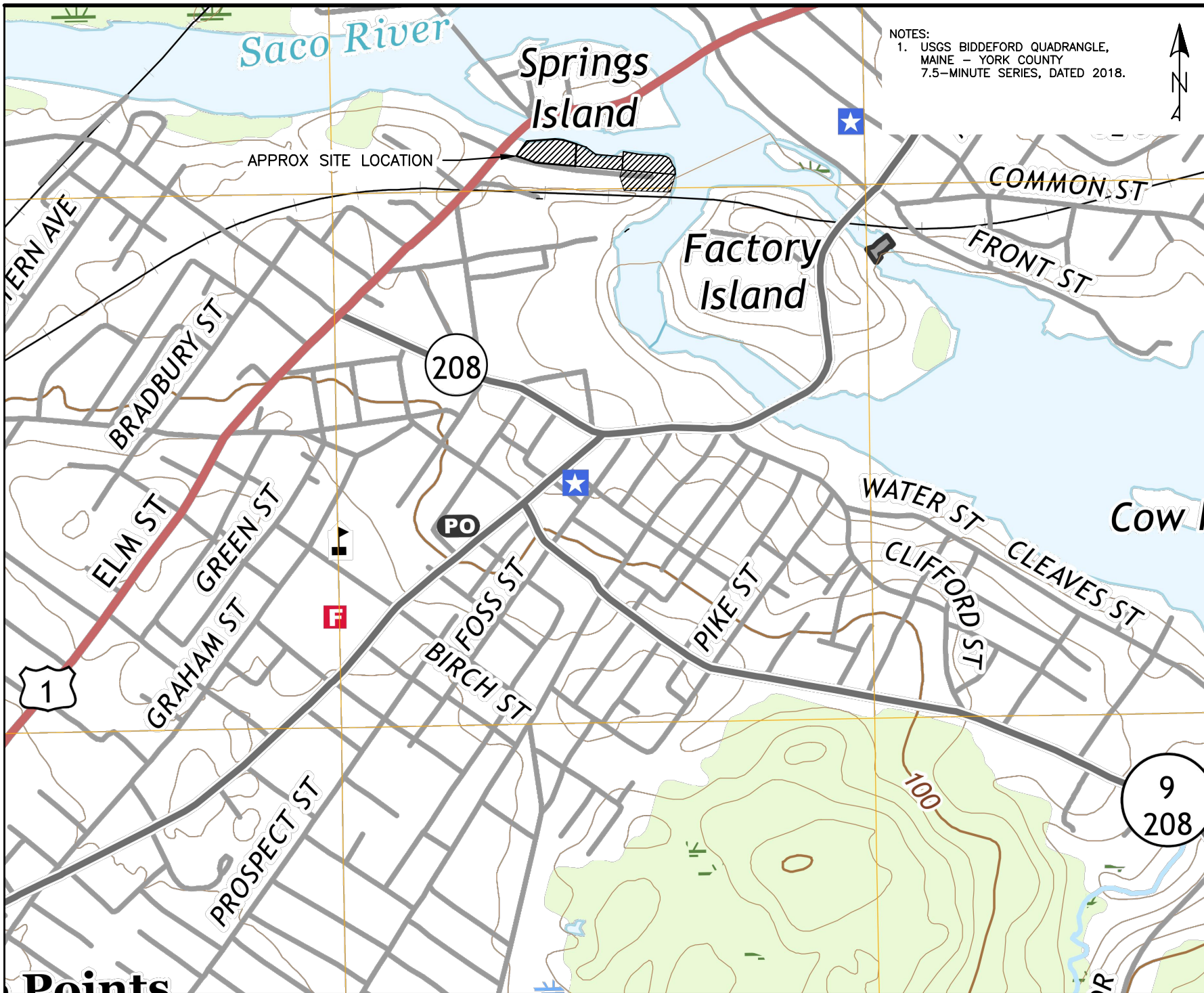
Figure 8: View of 20 Gooch Street facing east.





Figure 9: View of 30 Gooch Street facing west.





NOTES:
1. USGS BIDDEFORD QUADRANGLE,
MAINE - YORK COUNTY
7.5-MINUTE SERIES, DATED 2018.

ISSUED FOR		BY
SKETCH PLAN		DATE
		3/15/2022
DRAWING NAME:		
VICINITY MAP		
PROJECT NAME:		
10, 20, & 30 GOOCH STREET		
DEVELOPMENT		
CLIENT:		
TOM WATSON & CO.		
		
ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. P.O. BOX 3372 PORTLAND, MAINE 04104 (207) 775-2855		
FILE: 1093.11 CIVIL		
DATE: 3/15/2022		
JN: 1093.11		
SCALE: 1" = 800'		
DESIGN BY: PFM		
DRAWN BY: ZMS		
CHECKED BY: WHS		
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.		
DRAWING NO.		
VICINITY		

BIDDEFORD, MAINE

MARCH 16, 2022



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

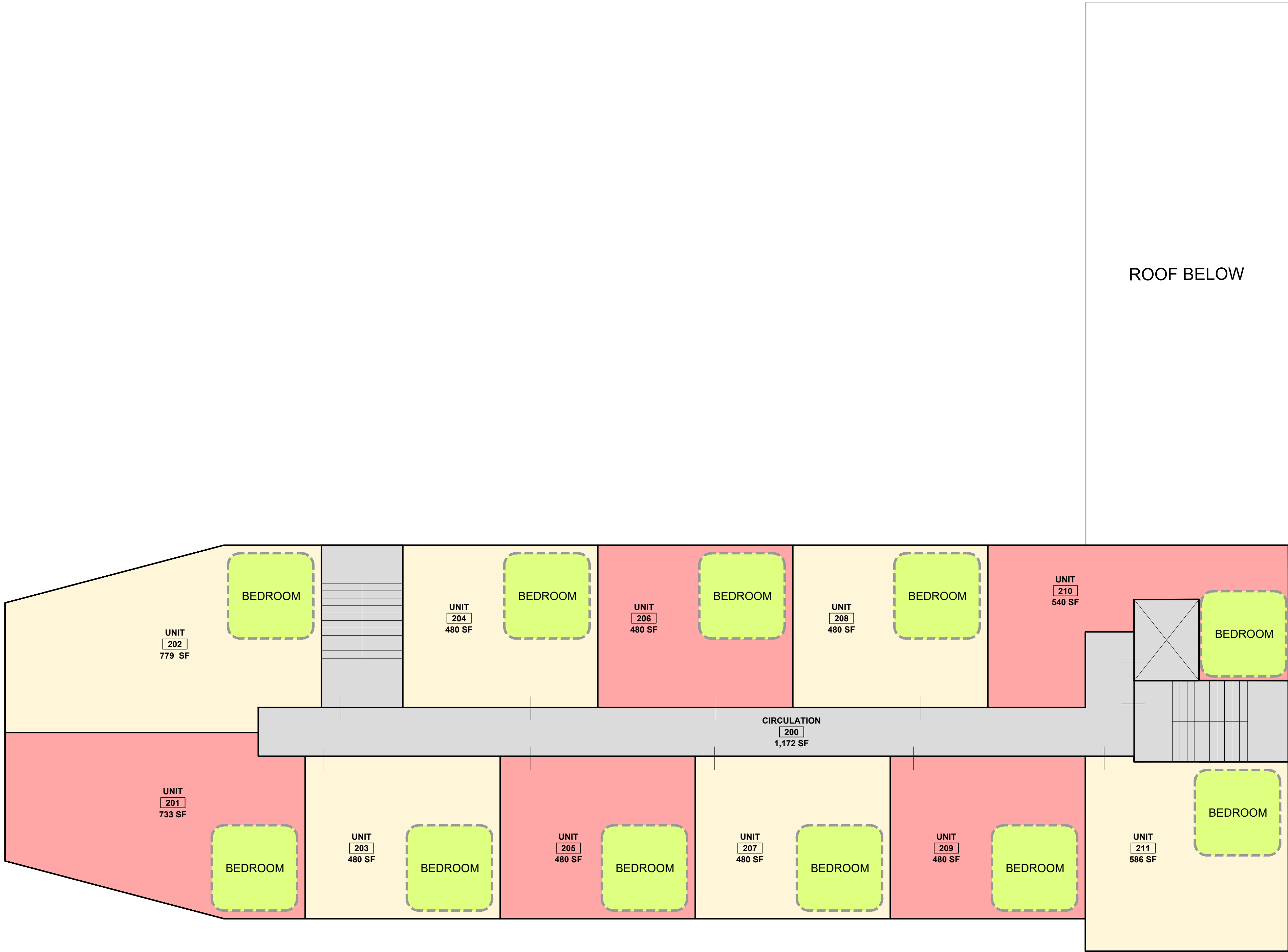
PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

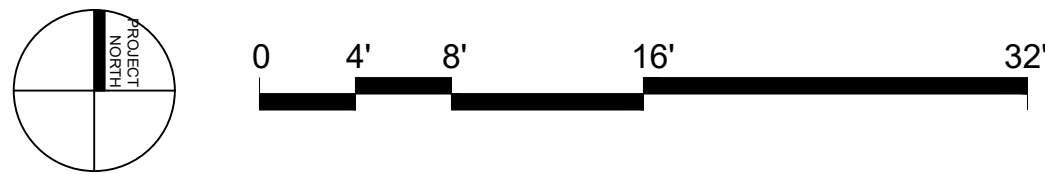
GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



7,172 SF FLOORPLATE

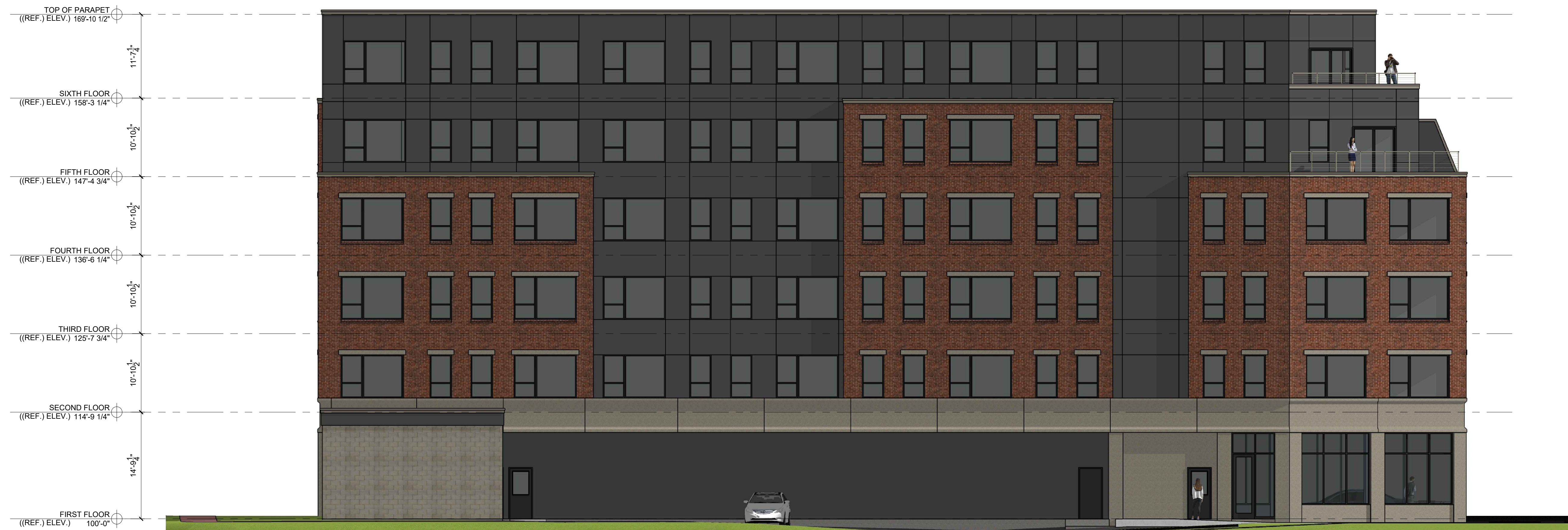


1 BUILDING A - SECOND FLOOR PLAN
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING A - NORTH EXTERIOR ELEVATION
1/8" = 1'-0"



2 BUILDING A - EAST EXTERIOR ELEVATION
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE ARCHITECTURE

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING A - SOUTH EXTERIOR ELEVATION
1/8" = 1'-0"



2 BUILDING A - WEST EXTERIOR ELEVATION
1/8" = 1'-0"

RYAN SENATORE ARCHITECTURE

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 VIEW LOOKING SOUTH EAST FROM NEW PARKING LOT
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



1 VIEW LOOKING NORTH EAST FROM GOOCH STREET
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



1 VIEW LOOKING NORTH WEST FROM GOOCH STREET
N.T.S.

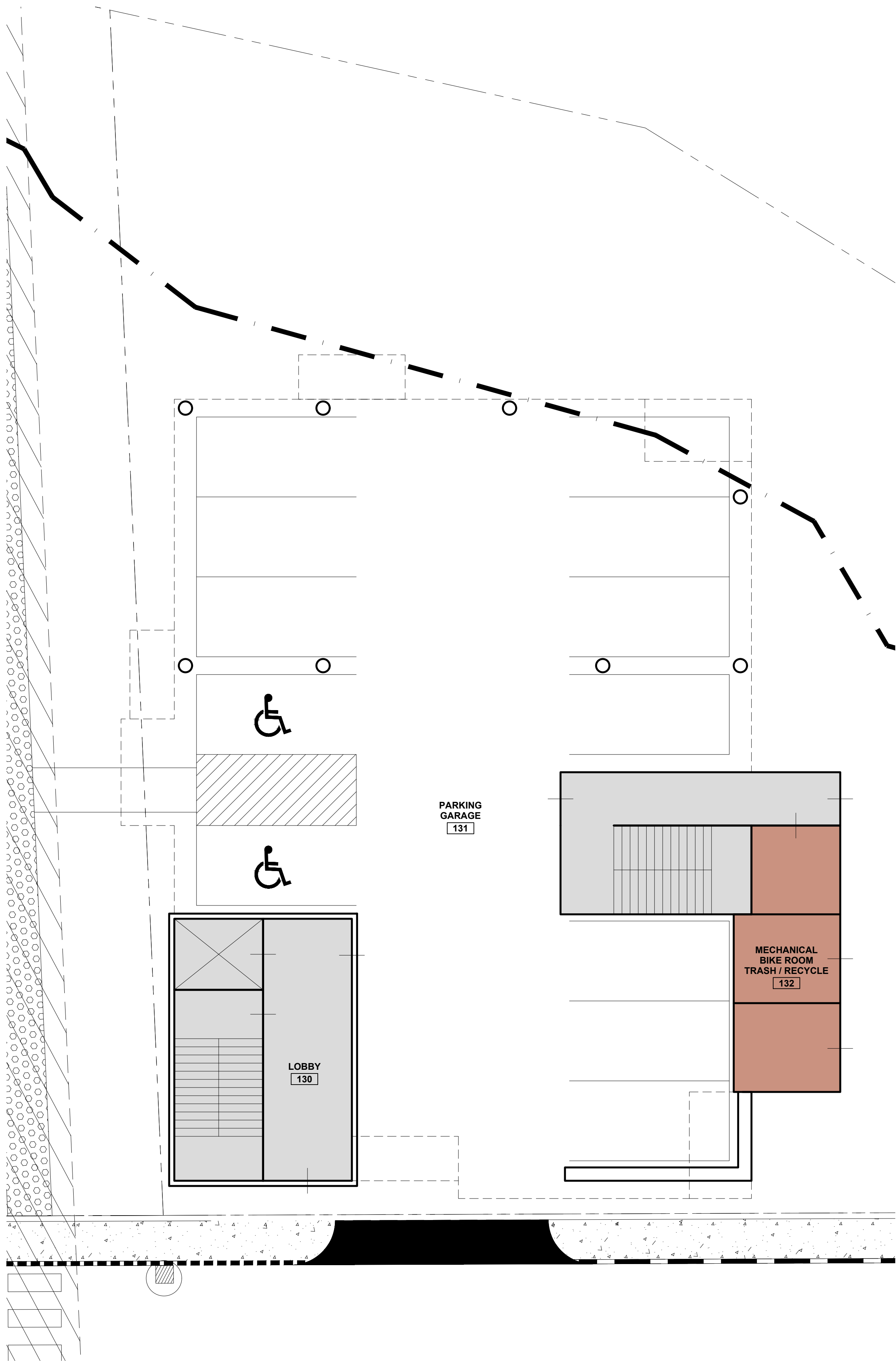
PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



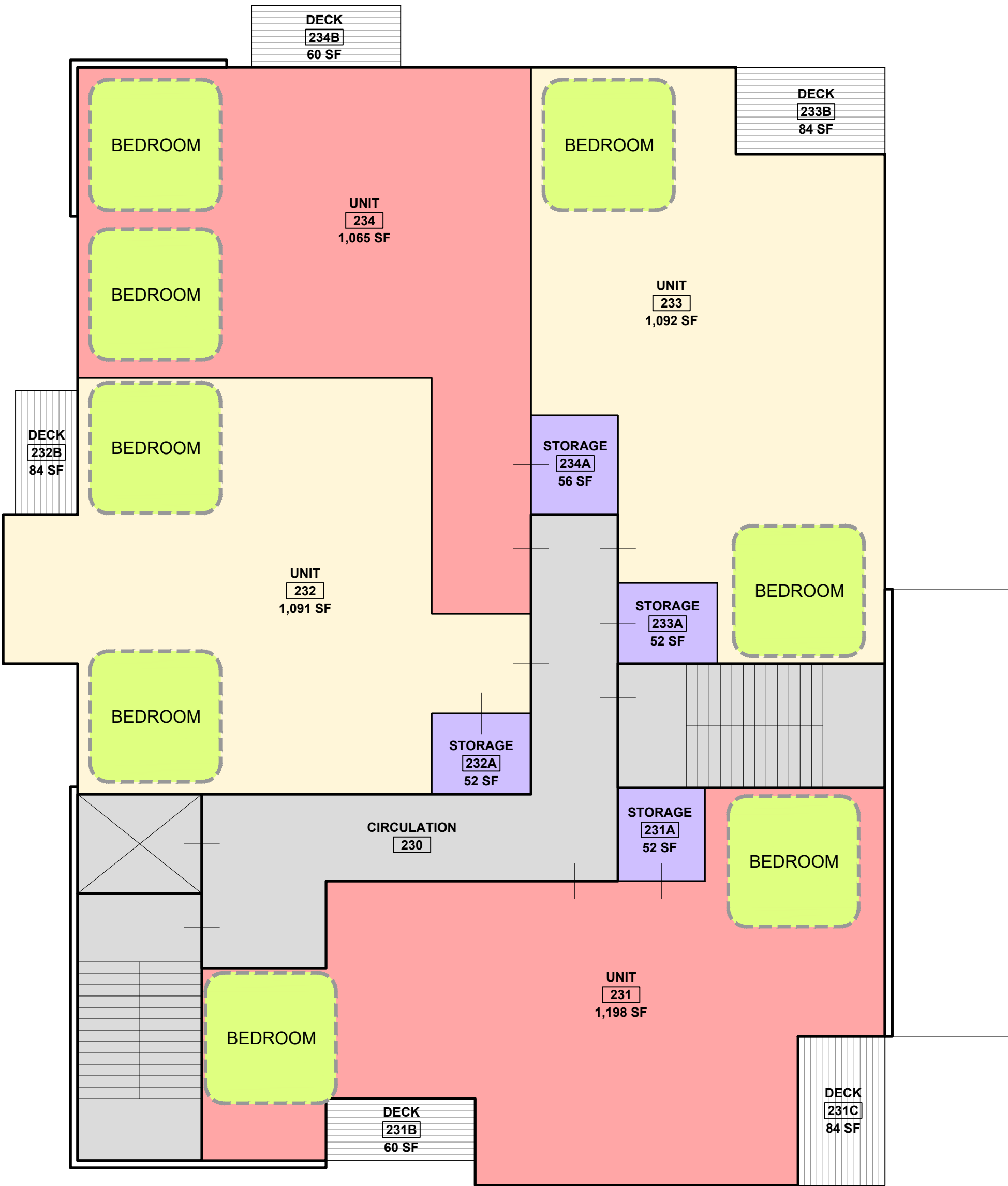
1 BUILDING B - FIRST FLOOR PLAN
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING B - SECOND FLOOR PLAN
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING B - 20 GOOCH STREET - NORTH ELEVATION
1/8" = 1'-0"



2 BUILDING B - 20 GOOCH STREET - EAST ELEVATION
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING B - 20 GOOCH STREET - SOUTH ELEVATION
1/8" = 1'-0"



2 BUILDING B - 20 GOOCH STREET - WEST ELEVATION
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE ARCHITECTURE

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING B - 20 GOOCH STREET - VIEW LOOKING SOUTH WEST
N.T.S.

RYAN SENATORE **ARCHITECTURE**

PROGRESS PRINT ONLY
Not for Construction



1 BUILDING B - 20 GOOCH STREET - VIEW LOOKING NORTH EAST
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE

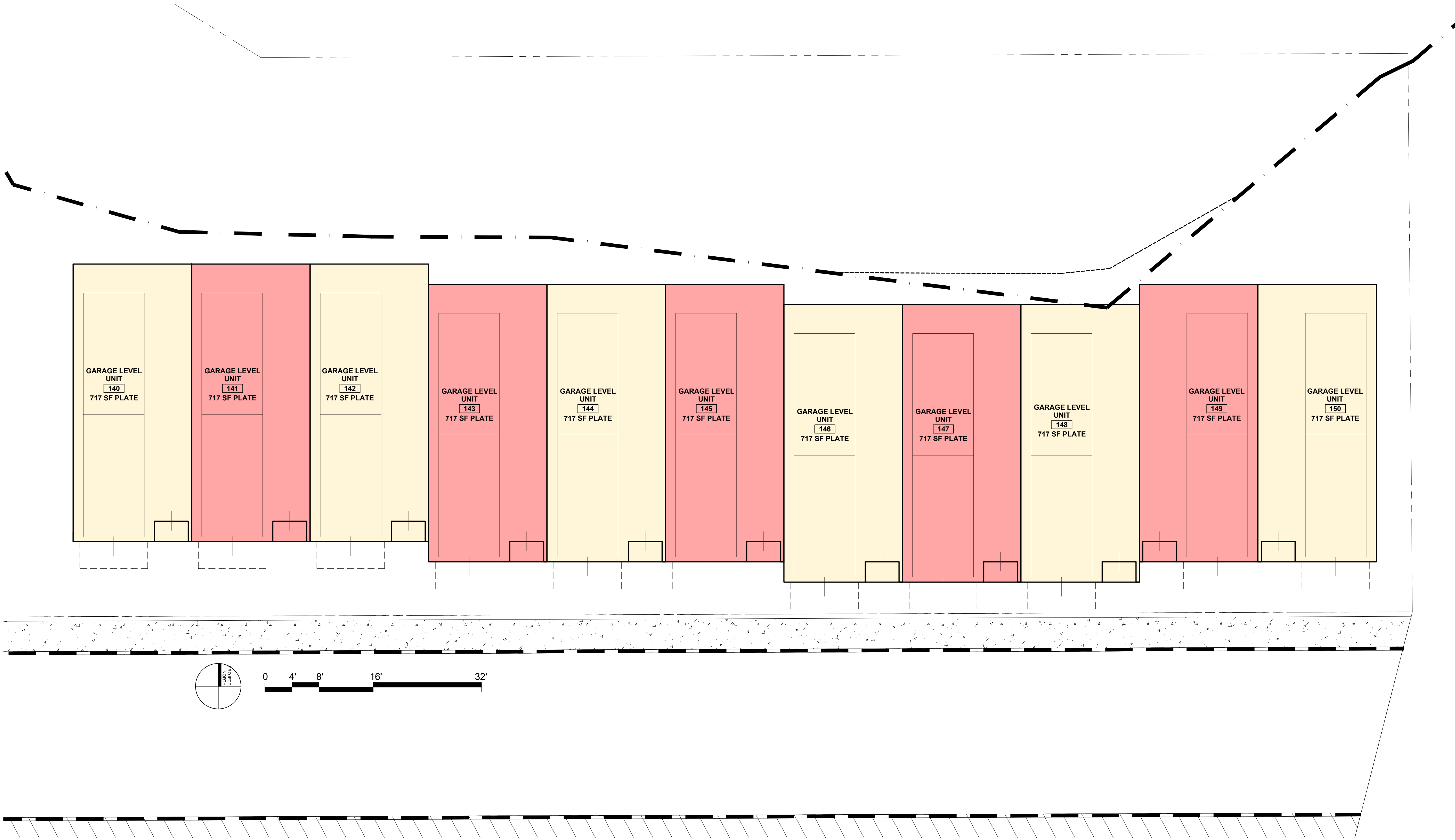
BIDDEFORD, MAINE

MARCH 16, 2022



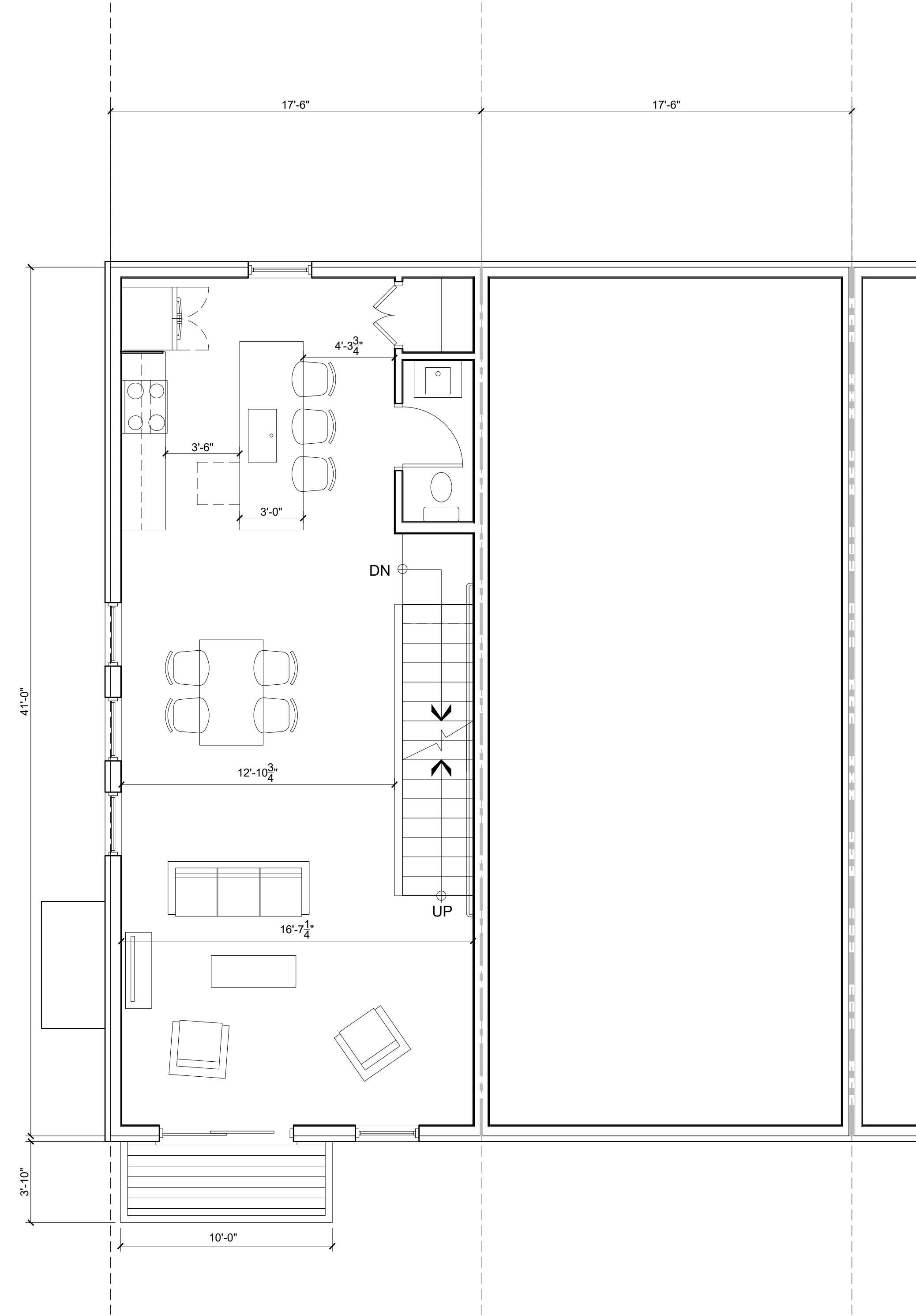
1 BUILDING B - 20 GOOCH STREET - VIEW LOOKING NORTH WEST
N.T.S.

RYAN SENATORE **ARCHITECTURE**

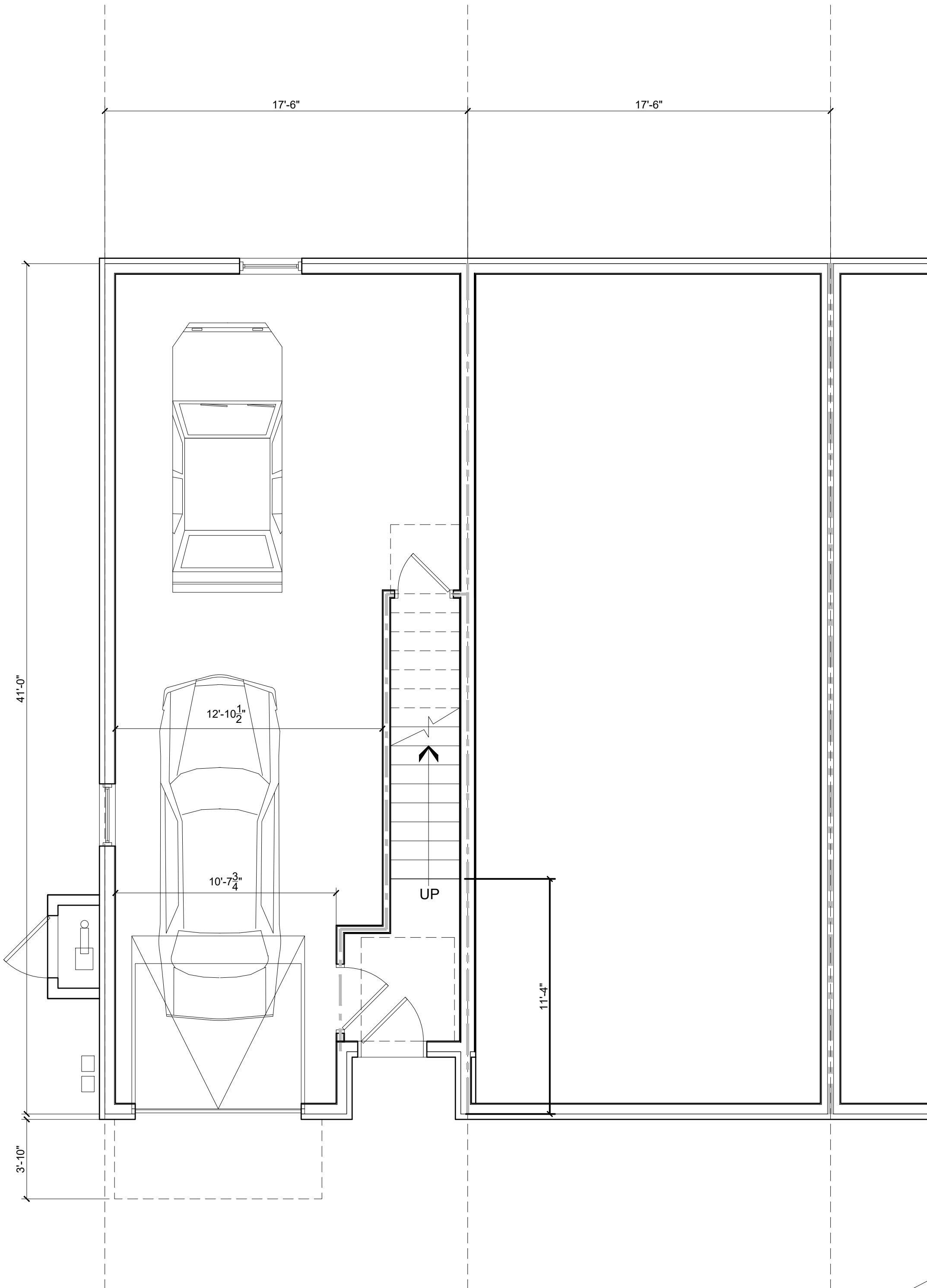


1 BUILDING C - FIRST FLOOR PLAN
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

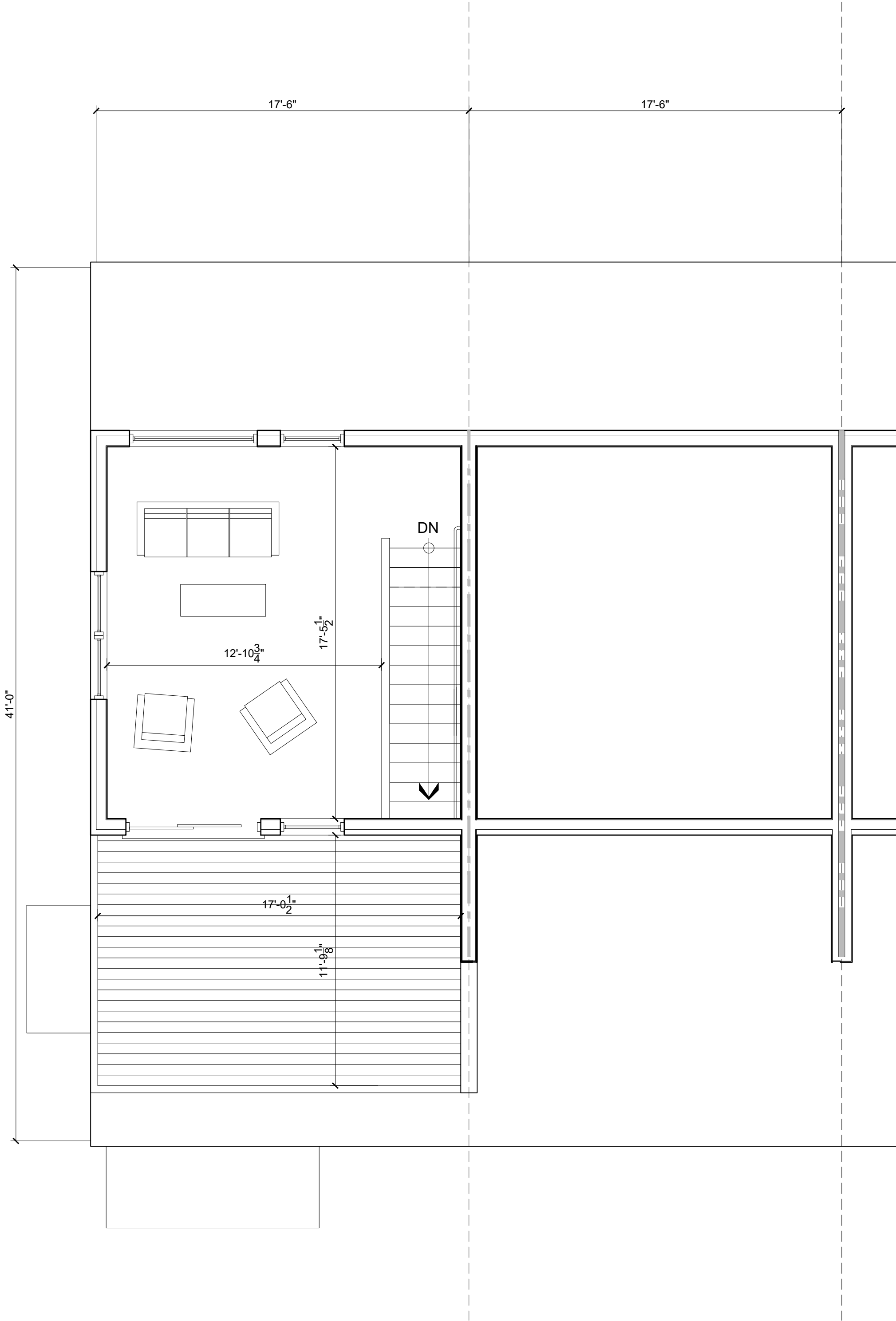


2 SECOND FLOOR PLAN
1/4" = 1'-0"

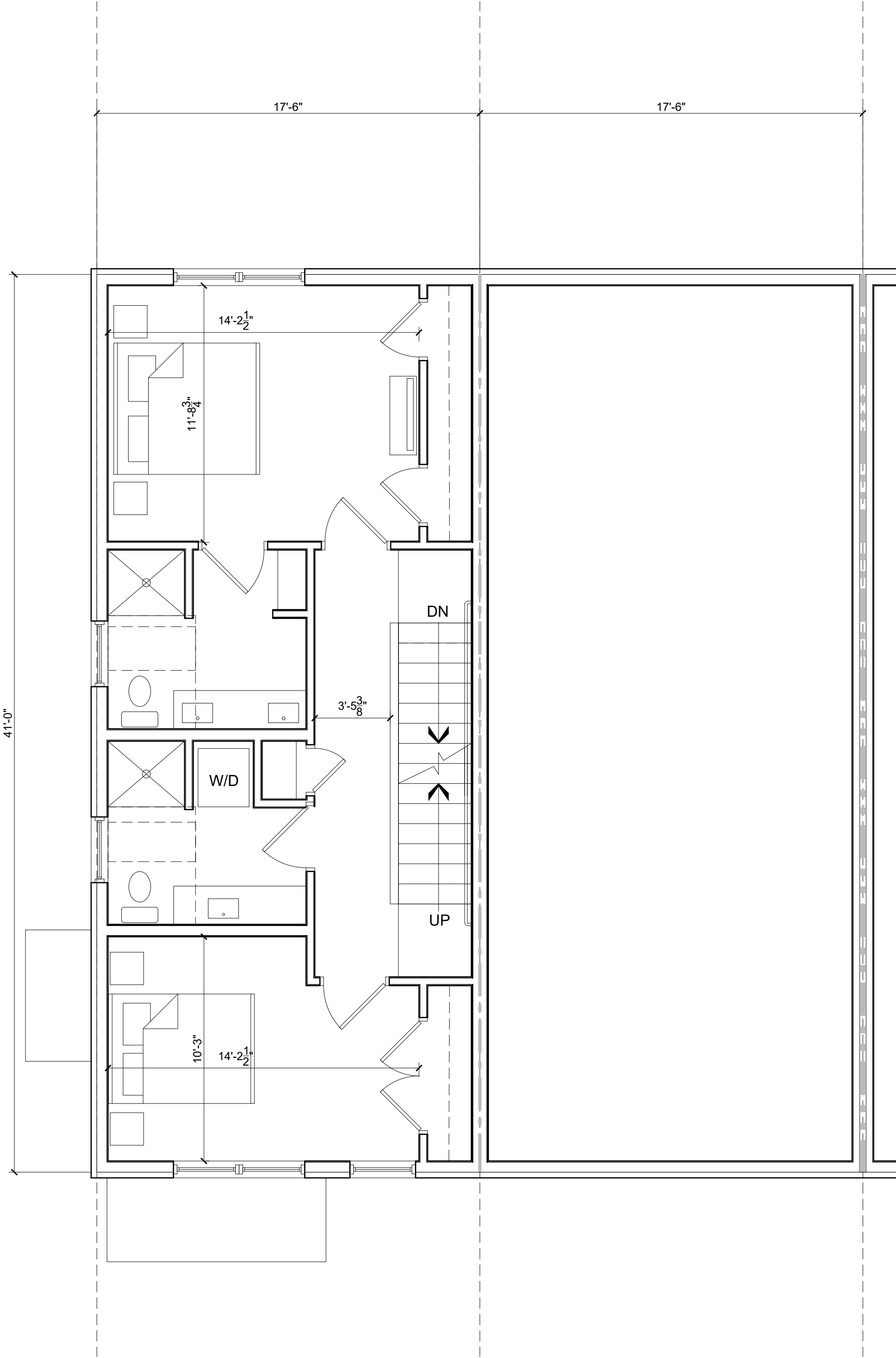


1 FIRST FLOOR PLAN
1/4" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction



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



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

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING C - NORTH ELEVATION
1/8" = 1'-0"



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

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING C - SOUTH ELEVATION
1/8" = 1'-0"



2 BUILDING C - WEST ELEVATION
1/8" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction



1 BUILDING C - VIEW LOOKING SOUTH EAST
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 BUILDING C - VIEW LOOKING NORTH EAST
N.T.S.

PROGRESS PRINT ONLY
Not for Construction



1 BUILDING C - VIEW LOOKING NORTH WEST
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



HISTORIC

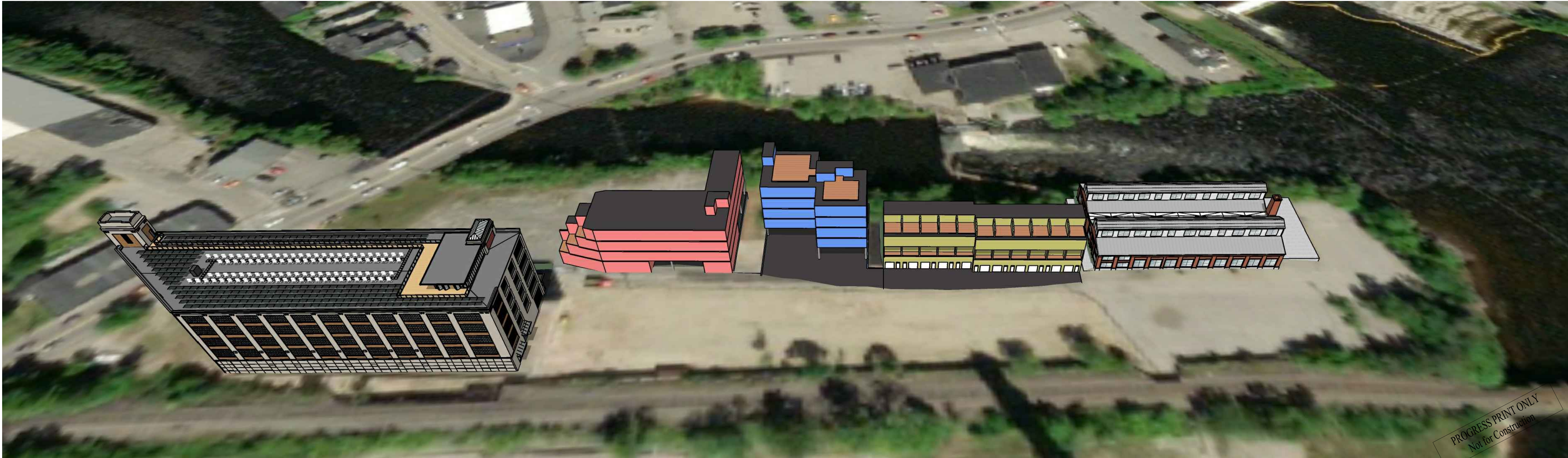


EXISTING



PROPOSED

1 VIEW LOOKING NORTH WEST FROM GOOCH STREET



1 ARIAL VIEW LOOKING NORTH

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE ARCHITECTURE

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



1 VIEW LOOKING EAST FROM GOOCH STREET

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE

BIDDEFORD, MAINE

MARCH 16, 2022



1 VIEW LOOKING NORTH-WEST FROM GOOCH STREET

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



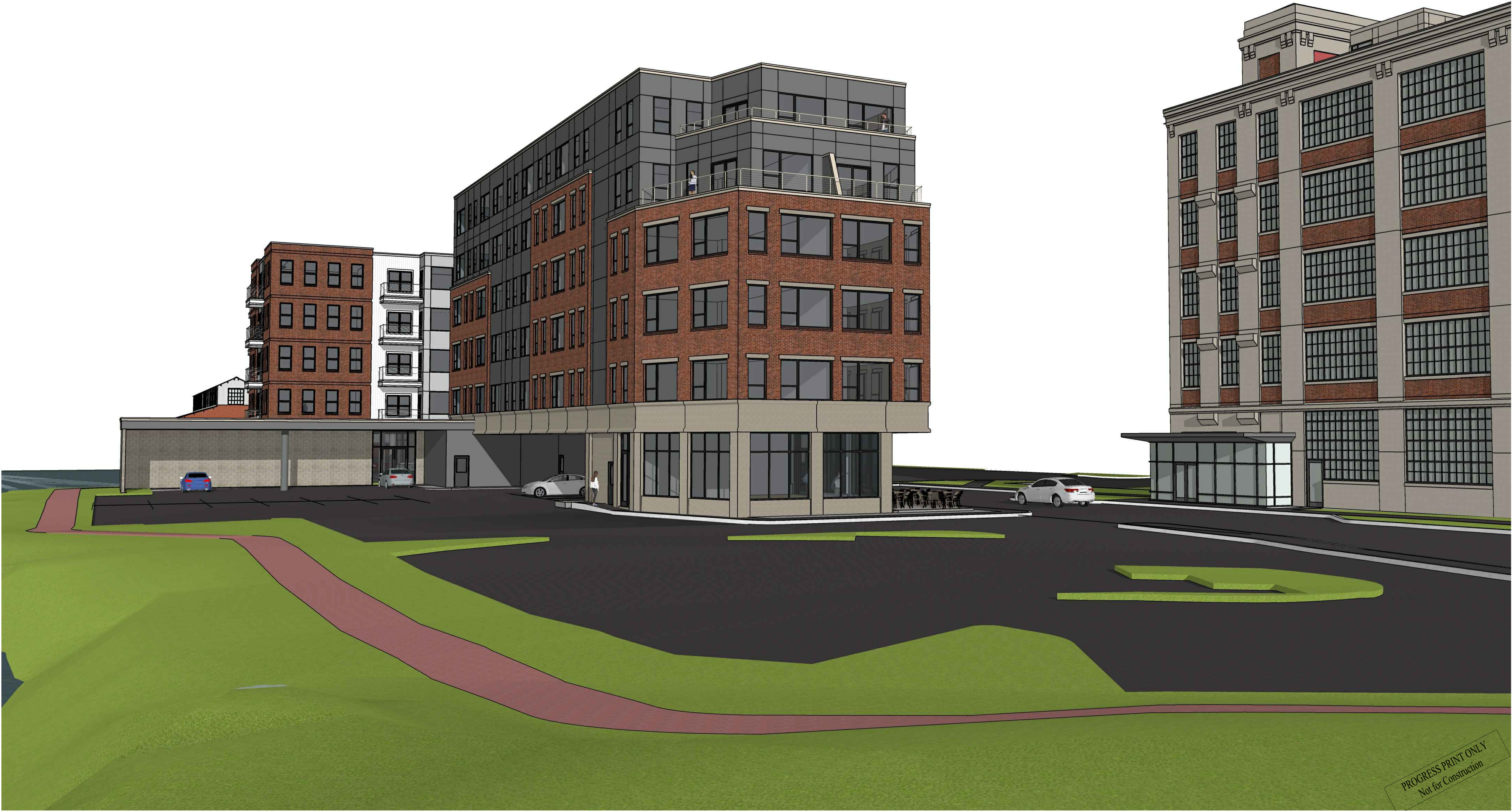
PROGRESS PRINT ONLY
Not for Construction

1 GOOCH STREET DEVELOPMENT - VIEW LOOKING EAST DOWN GOOCH STREET
N.T.S.

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



PROGRESS PRINT ONLY
Not for Construction

1 GOOCH STREET DEVELOPMENT - VIEW LOOKING SOUTH EAST FROM NEAR ELM STREET
N.T.S.

RYAN SENATORE ARCHITECTURE



PROGRESS PRINT ONLY
Not for Construction

1 GOOCH STREET DEVELOPMENT - VIEW LOOKING SOUTH WEST FROM RIVER (CONCEPT RENDERING - VEGETATION NOT SHOWN)
N.T.S.

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 GOOCH STREET DEVELOPMENT - VIEW LOOKING NORTH WEST FROM FUTURE PARKING AREA
N.T.S.

PROGRESS PRINT ONLY
Not for Construction

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 GOOCH STREET DEVELOPMENT - VIEW LOOKING NORTH EAST FROM PARKING AREA NEAR EXISTING BUILDING
N.T.S.

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 GOOCH STREET DEVELOPMENT - VIEW LOOKING NORTH EAST FROM EXISTING BUILDING ROOF
N.T.S.

RYAN SENATORE **ARCHITECTURE**

GOOCH STREET MIXED-USE
BIDDEFORD, MAINE

MARCH 16, 2022



1 GOOCH STREET DEVELOPMENT - AERIAL VIEW LOOKING NORTH FROM ABOVE TRAIN TRACKS
N.T.S.

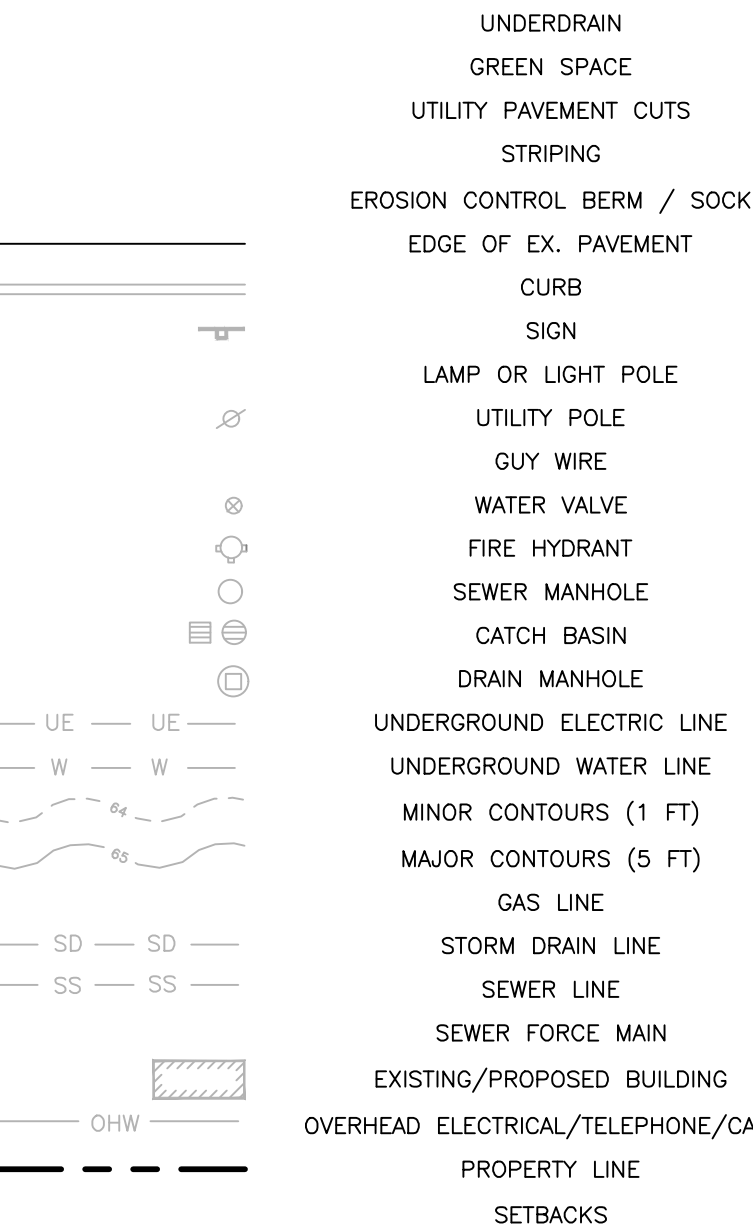
RYAN SENATORE **ARCHITECTURE**

10, 20 & 30 GOOCH STREET REDEVELOPMENT

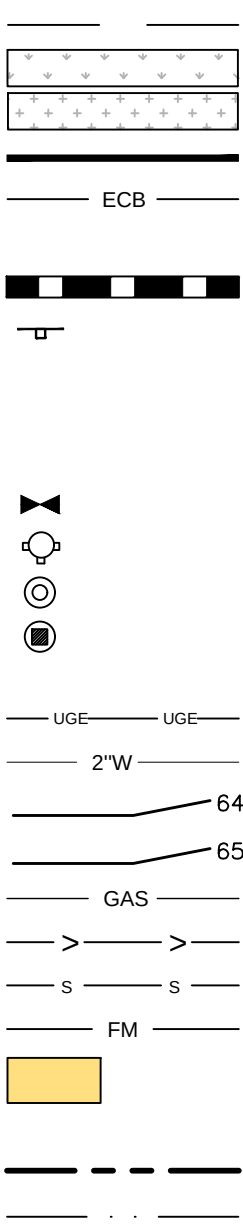
TOM WATSON & CO.
BIDDEFORD, MAINE

LEGEND

EXISTING



PROPOSED



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- C-01 COVER SHEET & LEGEND
- C-02 GENERAL NOTES
- EX ALTA / NSPS LAND TITLE SURVEY – PREPARED BY OWEN HASKELL, INC.
- EX ALTA / NSPS LAND TITLE SURVEY – PREPARED BY NORTHEAST CIVIL SOLUTIONS, INC.
- EX LOT SPLIT PLAN – PREPARED BY NORTHEAST CIVIL SOLUTIONS, INC.
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CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

UTILITIES

SEWER:

DEPARTMENT OF PUBLIC WORKS (DPW)
205 MAIN STREET
BIDDEFORD, MAINE 04005
CONTACT: TOM MILLIGAN, P.E.
(207) 284-9118



WATER:

MAINE WATER COMPANY
93 INDUSTRIAL PARK ROAD
SACO, MAINE 04072
CONTACT: MARCUS KNIPP E.I.T
(207) 282-1543



ELECTRIC:

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 207-842-2367



TELEPHONE:

CONSOLIDATED COMMUNICATIONS
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: JAY CUNHA
(207) 745-9363



CABLE:

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: DAN MINCHEV
(207) 253-2334



NATURAL GAS:

UNITIL SERVICE CORP.
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
CONTACT: BRIDGET MATHERS
(207) 541-2505



PROJECT TEAM

DEVELOPER:

TOM WATSON & CO.
PORTLAND, MAINE
CONTACT: JOHN LALIBERTE
(207) 590-2029

ARCHITECT:

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, R.A.
(207) 650-6414



SURVEYOR:

OWEN HASKELL, INC.
FALMOUTH, MAINE
CONTACT: RANDY LOUBIER, PLS
(207) 774-0424



NORTHEAST CIVIL SOLUTIONS, INC.
SCARBOROUGH, MAINE
CONTACT: TROY F MCDONALD
(207) 883-1000



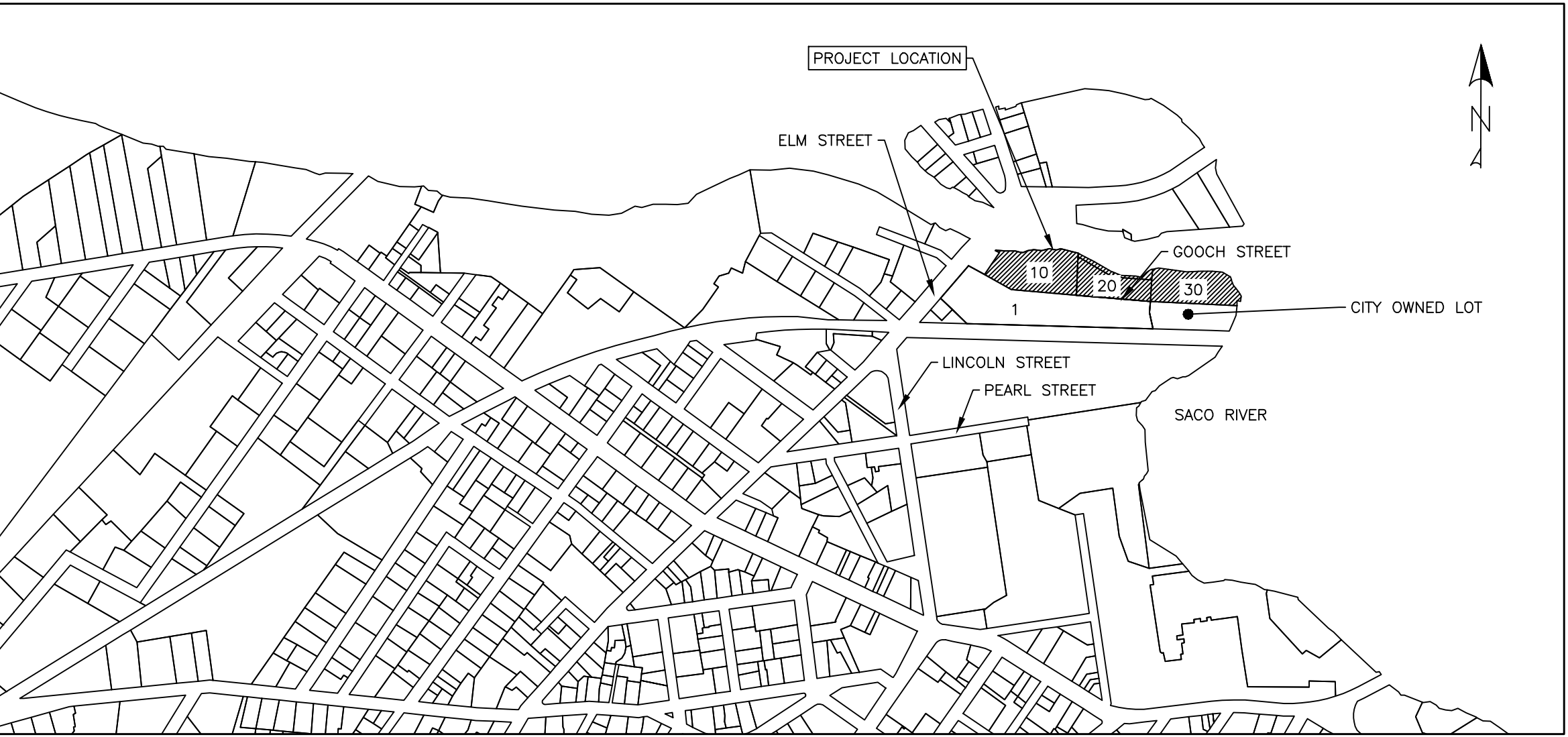
CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: PETER F HEIL, P.E.
(207) 775-2655



LANDSCAPE ARCHITECT:

MITCHELL & ASSOCIATES
PORTLAND, MAINE
CONTACT: BRADEN DRYPOLCHER
(207) 774-4427

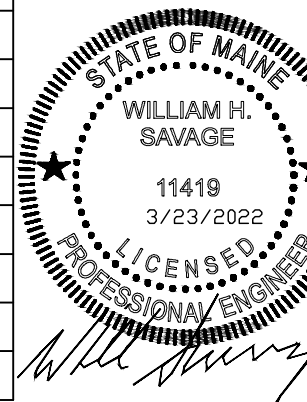


VICINITY MAP
SCALE: 1" = 500'

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR

SKETCH

DATE

3/23/2022

COVER SHEET & LEGEND

PROJECT NAME/ADDRESS

10, 20 & 30 GOOCH STREET REDEVELOPMENT

CLIENT/OWNER OF RECORD

TOM WATSON & CO.

188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

FILE:

1093.11_CIVIL

JN:

1093.11

SCALE:

AS NOTED

DESIGNED BY:

PFH

DRAWN BY:

ZMS

CHECKED BY:

WHS

DRAWING NO.

C-01

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 12/23/2020, 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 GOOCH STREET. 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.

[illegible]

General Notes

- OWNER OF RECORD: PRECISION SCREW MACHINE PRODUCTS, INC.
P.O. BOX 1944, BIDDEFORD, ME 04005
TAX MAP 40 LOT 55 & 55-3
Y.C.R.D. BOOK 15535 PAGE 402
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, BUILDING ADDITIONS, OR RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WAS OBSERVED.
- NO PROPOSED CHANGES IN STREET LINES IS KNOWN BY THIS SURVEYOR.
- 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.
- THE PROPERTY DESCRIBED IN FIRST AMERICAN TITLE INSURANCE COMMITMENT NO. 111220-01, EFFECTIVE NOVEMBER 5, 2020, IS THE SAME AS THE PROPERTY SHOWN HEREON.
- BASED ON EXISTING MONUMENTATION FOUND, PLANS REFERENCED AND RESEARCH CONDUCTED, THERE ARE NO GAPS OR GORES.
- PARCEL 2 IN DEED BOOK 15535, PAGE 402 DOES NOT CREATE A CLOSED MATHEMATICAL FIGURE. THE DEED DISTANCE OF 95.97 FEET IS BELIEVED TO BE 169.48 FEET BASED ON PLAN REFERENCE #5.
- THE BEARINGS IN THE RECORD DEEDS ARE BASED ON A MAGNETIC BEARING SYSTEM. THE BEARING SHOWN HEREON ARE BASED ON GRID NORTH.
- NO DETERMINATION HAS BEEN MADE TO THE STATUS OR FEE OWNERSHIP OF THE 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET.
- AREA OF PARCEL 1&2= 61,314 S.F. OR 1.14 ACRES ±

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: N/F
FRONT SETBACK: NONE
SIDE SETBACK: NONE
REAR SETBACK: NONE
MAXIMUM HEIGHT: MIN. 2 STORIES OR 26 FEET

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.

Utility Note

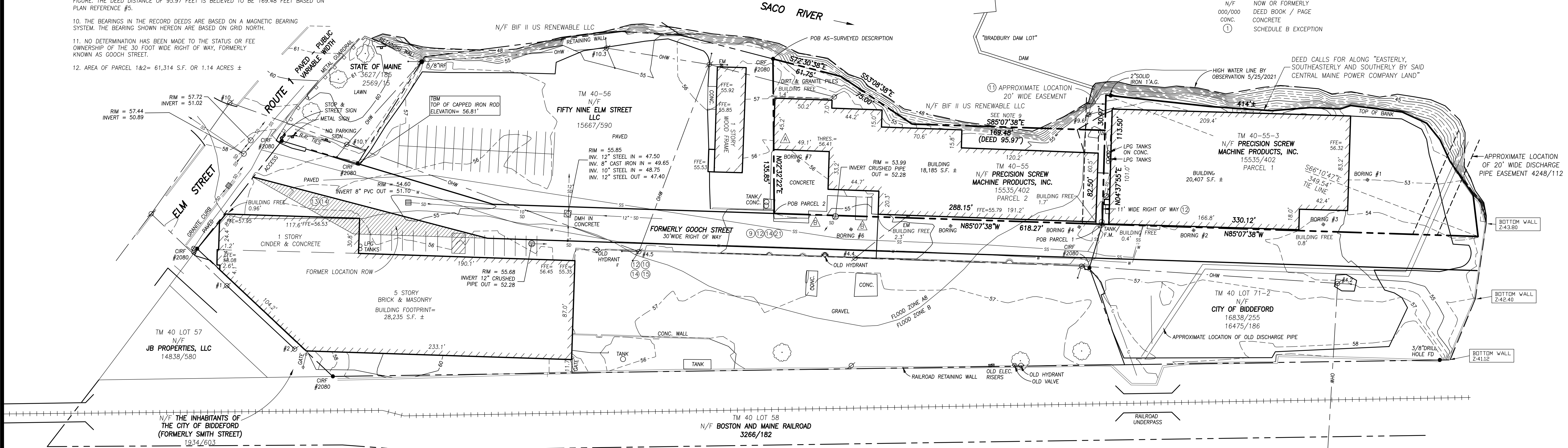
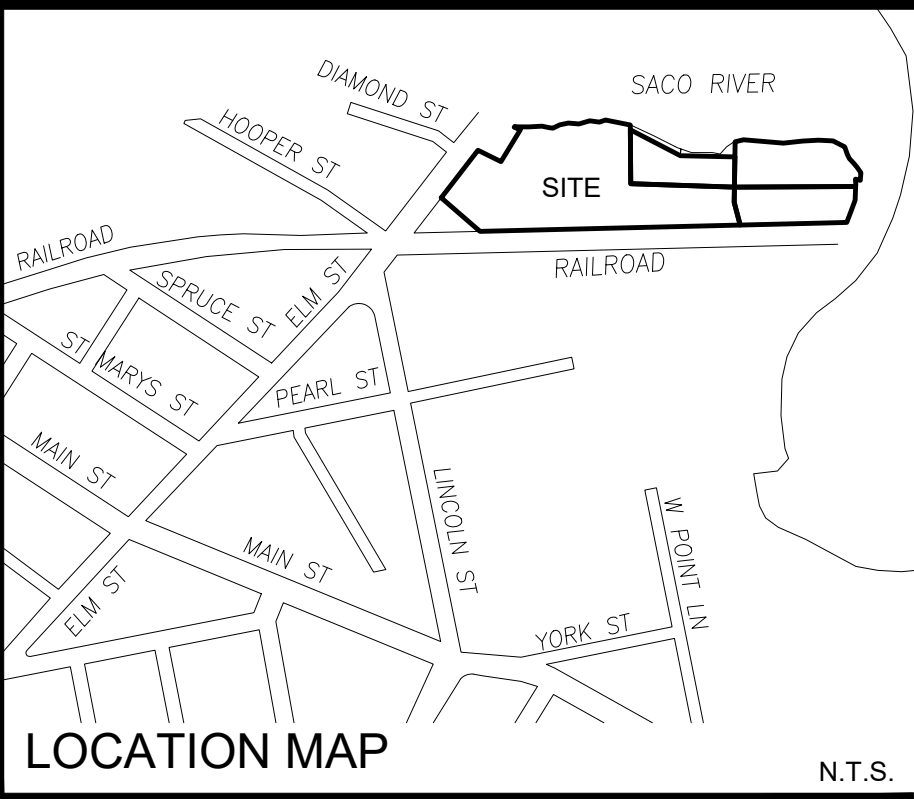
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND 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.

Possible Encroachments

- BUILDING ONTO ABUTTER 0.3'±
- CONCRETE PADS ONTO ABUTTER 3'-7'±

Legend

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



Legal Description

THE LAND REFERRED TO HEREIN IS SET FORTH BELOW:

PARCEL 1

A CERTAIN LOT OR PARCEL OF LAND WITH THE BUILDINGS THEREON, SITUATED IN BIDDEFORD, COUNTY OF YORK, STATE OF MAINE, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE DRIVEN INTO THE BITUMINOUS CONCRETE PAVEMENT AT THE SOUTHERLY CORNER OF LAND CONVEYED BY THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION TO GRONDIN SUPPLY CO., INC., SAID SPIKE BEING A LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL WITH THE NORTHEASTERLY FACE OF THE ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS, AND FORMERLY KNOWN AS 30-A, B, C AND D; THENCE N 20° 04' E BY SAID GRONDIN LAND EIGHTY-TWO AND 50/100 (82.50) FEET TO A SPIKE DRIVEN INTO THE PAVEMENT, SAID LINE BEING PARALLEL WITH AND FIVE AND 88/100 (5.88) FEET NORTHWESTERLY OF THE NORTHWESTERLY FACE OF THE WATER TABLES ON THE PILASTERS EXISTING ON THE NORTHWESTERLY SIDE OF THE BRICK BUILDING STANDING ON THE LAND HEREBY CONVEYED FORMERLY KNOWN AS BUILDING #24; THENCE THE SAME COURSE BY REMAINING LAND OF THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION OR OWNER, THIRTY-SEVEN (37) FEET, MORE OR LESS, OR TO LAND OF THE CENTRAL MAINE POWER COMPANY, THENCE EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTRAL MAINE POWER COMPANY LAND TO A POINT IN SAID LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL TO THE NORTHEASTERLY FACE OF SAID ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS; THENCE N 69° 42' W BY SAID LINE THREE HUNDRED THIRTY AND 12/1.00 (330.12) FEET TO THE POINT OF BEGINNING.

THE ABOVE BEARINGS REFER TO THE 1929 MAGNETIC MERIDIAN.

ALSO TOGETHER WITH A RIGHT OF WAY FROM THE EASTERLY SIDELINE OF THE ABOVE DESCRIBED LOT WESTERLY TO ELM STREET, SAID RIGHT OF WAY TO BE ADJOINING SAID LOT ON THE SOUTHERLY SIDE AND TO BE THIRTY (30) FEET WIDE ALONG SAID ELM STREET, SAID LAST DESCRIBED RIGHT OF WAY IS TO BE USED BY PRECISION SCREW MACHINE PRODUCTS, INC. AND THE BIDDEFORD AND SACO DEVELOPMENT CORPORATION, THEIR RESPECTIVE SUCCESSORS AND ASSIGNS AND OTHERS.

PARCEL 2

A CERTAIN LOT OR PARCEL OF LAND TOGETHER WITH THE BUILDINGS THEREON, SITUATED IN SAID BIDDEFORD, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A SPIKE DRIVEN INTO THE BITUMINOUS CONCRETE PAVEMENT AT THE JUNCTION OF A LINE WHICH IS FORTY-SEVEN (47) FEET NORTHEASTERLY FROM AND PARALLEL WITH THE NORTHEASTERLY FACE OF THE MAIN ORIGINAL BUILDINGS OF THE SACO-LOWELL SHOPS AND FORMERLY KNOWN AS 30-A, B, C AND D AND A LINE WHICH

RUNS ALONG THE NORTHWESTERLY EDGE OF THE CONCRETE PLATFORM ON WHICH THE BUILDING FORMERLY KNOWN AS #33 STOOD; THENCE S 69° 42' E BY SAID FORTY-SEVEN (47) FOOT LINE TWO HUNDRED EIGHTY-EIGHT AND 15/100 (288.15) TO A SPIKE DRIVEN IN THE PAVEMENT AND RETAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION; THENCE N 20° 04' E BY SAID REMAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION EIGHTY-TWO AND 50/100 (82.50) FEET TO A SPIKE DRIVEN INTO THE PAVEMENT; THE LAST DESCRIBED LINE BEING PARALLEL WITH AND FIVE AND 88/100 (5.88) FEET NORTHWESTERLY OF THE NORTHWESTERLY FACE OF THE WATER TABLES ON THE PILASTERS EXISTING ON THE NORTHWESTERLY SIDE OF THE BRICK BUILDING STANDING ON SAID OTHER LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION FORMERLY KNOWN AS BUILDING #24; THENCE N 69° 42' W BY REMAINING LAND OF SAID BIDDEFORD & SACO DEVELOPMENT CORPORATION AND BY LAND OF THE CENTRAL MAINE POWER COMPANY NINETY-FIVE AND 97/100 (95.97) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND; THENCE N 37° 43' W BY SAID LAND OF THE CENTRAL MAINE POWER COMPANY SEVENTY-FIVE (75) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND; THENCE N 57° 05' W BY SAID LAND OF THE CENTRAL MAINE POWER COMPANY SIXTY-ONE AND 75/100 (61.75) FEET TO AN IRON PIPE DRIVEN INTO THE GROUND AND REMAINING LAND OF SAID BIDDEFORD & SACO DEVELOPMENT CORPORATION; THENCE S 17° 58' W BY SAID REMAINING LAND OF BIDDEFORD & SACO DEVELOPMENT CORPORATION ONE HUNDRED THIRTY-FIVE AND 84/100 (135.84) FEET TO THE POINT OF BEGINNING.

As-Surveyed Description

A CERTAIN LOT OR PARCEL OF LAND ON THE EASTERLY SIDE OF, BUT NOT ADJACENT TO ELM STREET IN THE TOWN OF BIDDEFORD, COUNTY OF YORK AND STATE OF MAINE BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY CORNER OF LAND NOW OR FORMERLY OF FIFTY NINE ELM STREET LLC AS DESCRIBED IN DEED BOOK 15667, PAGE 590 ON THE SOUTHERLY LINE OF LAND NOW OR FORMERLY OF BIF II US RENEWABLE LLC AT A CAPPED IRON ROD STAMPED "PLS 2080";

THENCE, THE FOLLOWING COURSES AND DISTANCES ALONG LAND OF SAID BIF II US RENEWABLE LLC:

S 72°30'38" E A DISTANCE OF 61.75 FEET;
S 53°08'38" E A DISTANCE OF 75.00 FEET;
S 85°07'38" E A DISTANCED OF 169.48 FEET;
N 04°37'55" E A DISTANCE OF 31 FEET, MORE OR LESS TO LAND NOW OR FORMERLY CENTRAL MAINE POWER COMPANY;

THENCE, EASTERLY, SOUTHEASTERLY AND SOUTHERLY BY SAID CENTAL MAINE POWER COMPANY LAND 414 FEET, MORE OR LESS TO THE NORTHERLY SIDELINE OF A CERTAIN 30 FOOT WIDE RIGHT OF WAY, FORMERLY KNOWN AS GOOCH STREET, POINT BEING S 66°10'47" E A DISTANCE OF 349.54 FEET FROM THE LAST MENTIONED COURSE; THENCE, N 85°07'38" W ALONG THE NORTHERLY SIDELINE OF SAID 30 FOOT WIDE RIGHT OF WAY 618.27' TO LAND OF SAID FIFTY NINE ELM STREET LLC;

THENCE, N 02°32'22" E ALONG THE LAND OF FIFTY NINE ELM STREET LLC 135.85 FEET TO THE POINT OF BEGINNING, CONTAINING 61,314 S.F. OR 1.14 ACRES, MORE OR LESS.

Schedule B Section II Exceptions

FIRST AMERICAN TITLE INSURANCE COMPANY
COMMITMENT NO. 111220-01 EFFECTIVE DATE: NOVEMBER 5, 2020

1 - 8. NON SURVEY ITEMS

9. RIGHTS, EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS SET FORTH IN QUITCLAIM DEED GRANTED BY SACO-LOWELL SHOPS TO BIDDEFORD & SACO DEVELOPMENT CORPORATION DATED APRIL 9, 1959 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1398, PAGE 145. - AS SHOWN

10. RIGHTS AND EASEMENTS GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO CENTRAL MAINE POWER COMPANY BY INSTRUMENT DATED MARCH 22, 1961 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1461, PAGE 460. -NO POLE NUMBERED REFERENCED IN DOCUMENT, EXISTING POLES SHOWN

11. RIGHTS AND EASEMENTS GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO CENTRAL MAINE POWER COMPANY BY INSTRUMENT DATED JUNE 23, 1944 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1017, PAGE 409. - AS SHOWN ON PLAN

12. RIGHTS, EASEMENTS, COVENANTS, CONDITIONS, AND TERMS SET FORTH IN DEED GRANTED BY BIDDEFORD & SACO DEVELOPMENT CORPORATION TO GRONDIN SUPPLY CO. INC. DATED JANUARY 18, 1962 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1478, PAGE 465. -AS SHOWN

13. RIGHTS OF OTHERS AND TERMS AND CONDITIONS PURSUANT TO THE FOLLOWING:

A. AGREEMENT BY AND BETWEEN CENTRAL MAINE POWER COMPANY AND STORAGE REALTY CORP., DATED APRIL 1, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 182; - AS SHOWN

B. AGREEMENT BY AND BETWEEN BIDDEFORD & SACO DEVELOPMENT CORPORATION AND STORAGE REALTY CORP., DATED MARCH 10, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 186; - AS SHOWN

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; AND - AS SHOWN

D. AGREEMENT BY AND BETWEEN GRONDIN SUPPLY CO. AND STORAGE REALTY CORP. DATED MARCH 23, 1971 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 1907, PAGE 195. - AS SHOWN

14. RIGHTS, EASEMENTS, CONDITIONS, AND RESTRICTIONS SET FORTH IN WARRANTY DEED GRANTED BY METAL-TECH INC. DATED JANUARY 2, 1974 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 2023, PAGE 253. - AS SHOWN

15. RIGHTS AND EASEMENTS GRANTED BY PRECISION SCREW MACHINE PRODUCTS INC. TO CENTRAL MAINE POWER AND NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY BY INSTRUMENT DATED AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS 2375, PAGE 50. - AS SHOWN

16. EASEMENT DEED GRANTED BY PRECISION SCREW MACHINE PRODUCTS, INC. TO MAINE ENERGY RECOVERY COMPANY DATED APRIL 14, 1987 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN BOOK 4248, PAGE 112. - SHOWN ON PLAN

17. RIPARIAN RIGHTS OF OTHERS IN AND TO THE SACO RIVER AS THE SAME PASSES THROUGH OR BY THE INSURED PREMISES. - NOT PLOTTABLE

18. 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 ENGINEER'S DATED JUNE, 1929. LAST REVISED APRIL 24, 1930 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS IN PLAN BOOK 11, PAGE 31. - ALL PERTINENT INFORMATION SHOWN HEREON

19. SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON UNRECORDED PLAN ENTITLED "PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY" BY DOW & COULOMB INC. DATED JANUARY 15, 1985 WITH FINAL REVISION DATED OF JANUARY 30, 1985. - ALL PERTINENT INFORMATION SHOWN HEREON

20. SUCH STATE OF FACTS INCLUDING NOTES DISCLOSED ON PLAN ENTITLED "PLAN SHOWING LAND SOLD BY BIDDEFORD & SACO DEVELOPMENT CORP. TO GRONDIN 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. - ALL PERTINENT INFORMATION SHOWN HEREON

21. RIGHTS OF OTHERS IN AND TO THE APPURTENANT EASEMENTS KNOWN AS GOOCH STREET TO BE INSURED. - AS SHOWN

SCALE : 1" = 40'



ALTA / NSPS Land Title Survey

59 Elm Street & 10 Gooch Street
Biddeford, York County, Maine
Made For
Port Property Management, Inc.
188 State Street, Suite 303, Portland, Maine

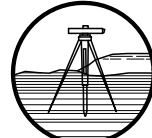
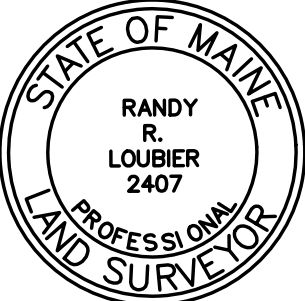
Surveyor's Certification

TO: PORT PROPERTY MANAGEMENT, INC., AND FIRST AMERICAN TITLE INSURANCE COMPANY

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, 5, 6(A), 11, 13, 14, 16, 17, 19 AND 21 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON . 2018.

Randy R. Louber
RANDY R. LOUBER
PROFESSIONAL LAND SURVEYOR NO. 2407

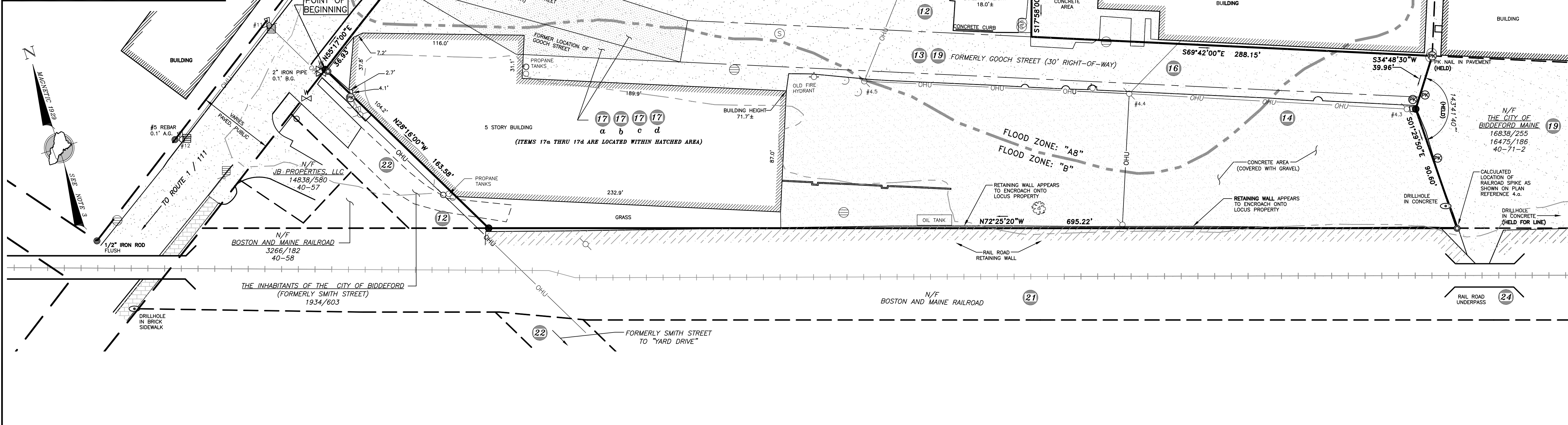
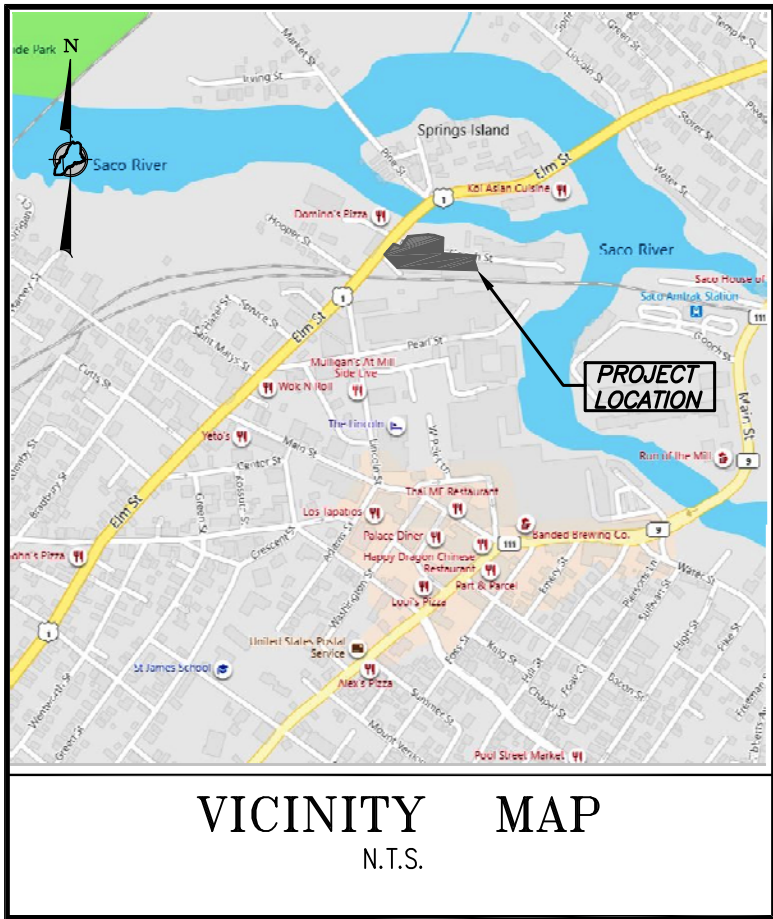
DATE OF PLAT OR MAP: DECEMBER 23, 2020
DATE OF LAST REVISION: MAY 26, 2021



OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: RRL/JLW	FIELD BOOK: FILE	JOB NO. 2020-295 B-Y
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1



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, ENGRS, 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-ENGRS, 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 ZONE AND THE GENERAL DEVELOPMENT (G0-1) 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

STAMP AND SIGNATURE



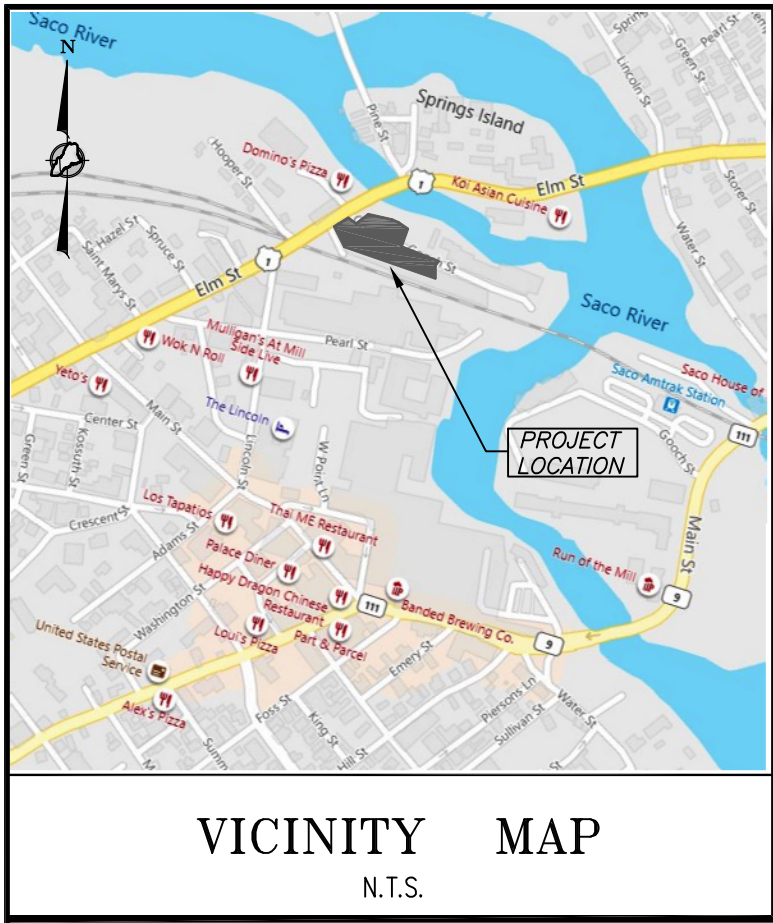
SURVEYING • ENGINEERING • LAND PLANNING
Northeast Civil Solutions
INCORPORATED
381 PAYNE ROAD, SCARBOROUGH, MAINE 04074
tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com

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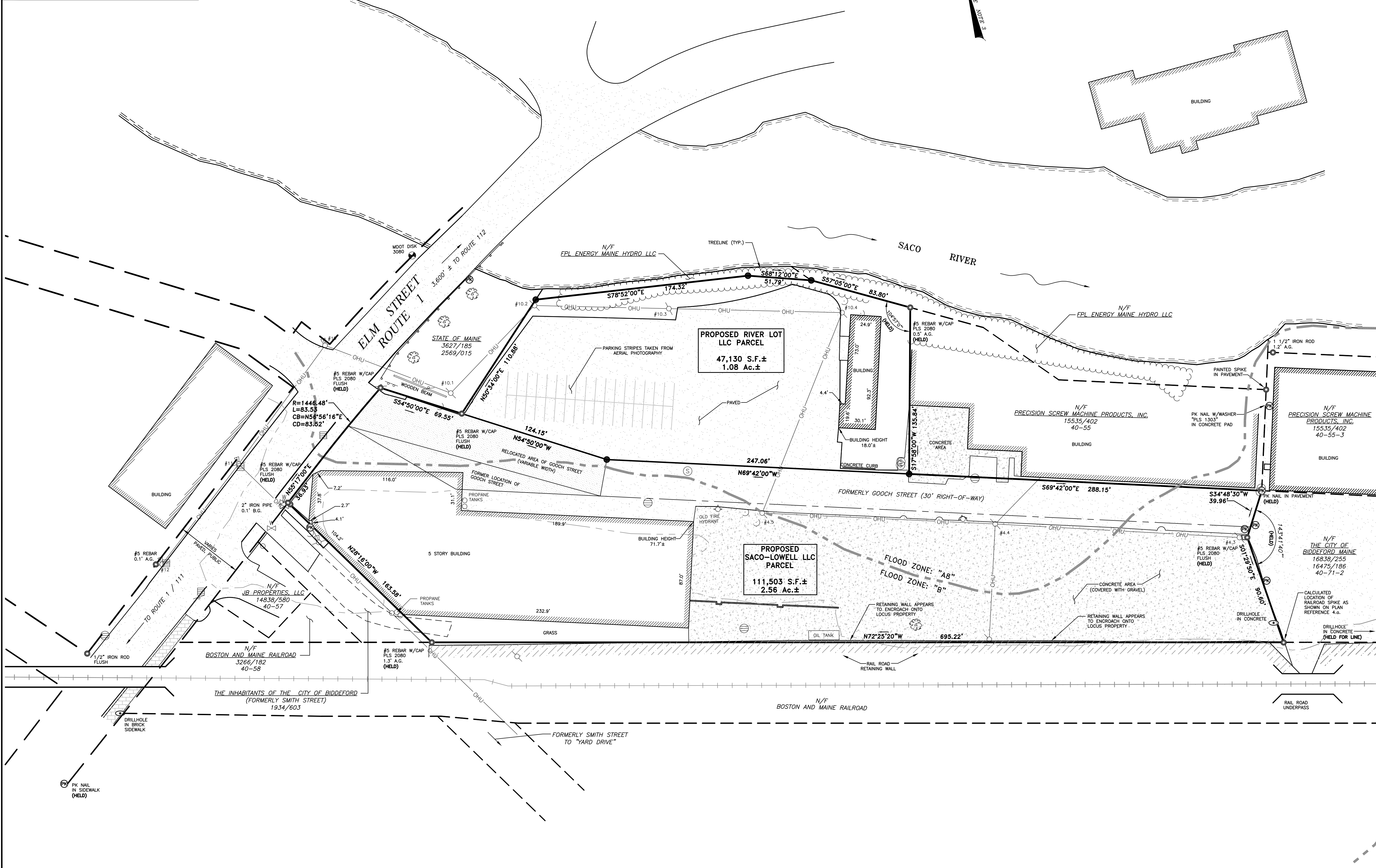


TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR. No. 2080

10/28/2020
DATE



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
- PARENTHESES 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			



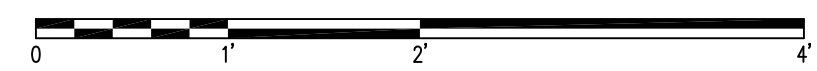
SURVEYING • ENGINEERING • LAND PLANNING

Northeast Civil Solutions

INCORPORATED

381 PAYNE ROAD, SCARBOROUGH, MAINE 04074

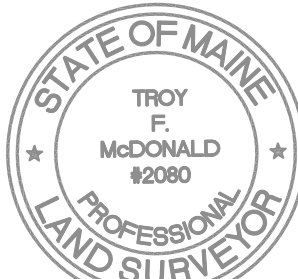
tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com



STAMP AND SIGNATURE

TROY F. McDONALD
MAINE PROFESSIONAL LAND SURVEYOR No. 2080

12/18/2020
DATE



- GENERAL NOTES:
1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
 2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD 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, TRASH REMOVAL AND SNOW REMOVAL.
 8. PER SECTION 66-20 OF THE SUBDIVISION ORDINANCE, NO CITY SERVICES SHALL BE PROVIDED TO LOTS FRONTING GOOCH STREET, AS IT IS A PRIVATE WAY.

- PLAN REFERENCES:
1. "ALTA/NSPS LAND TITLE SURVEY" PREPARED BY OWEN HASKELL, INC., DATED DECEMBER 23, 2020.
 2. "ALTA/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 GOOCH PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	55	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 55 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 55 SPACES) TO ALLOW FOR VISITORS = 3 SPACES	-
RESTAURANT**	-	1 SPACE / 3 SEATS x 49 SEATS = 17 SPACES**	-
ADA (8'X18')	-	-	3
STANDARD (9'X18')	-	-	38
60 DEGREE (8.5'X18.42')	-	-	22
TOTAL SPACES	-	75	63

*5 SPACES LOCATED AT 10 GOOCH STREET TO BE DESIGNATED FOR 20 GOOCH STREET APARTMENT BUILDING

**WAIVER FOR RESTAURANT SPACE TO BE REQUESTED. APPLICANT TO REACH OUT TO CITY PARKING GARAGE ON CURRENT AVAILABILITY

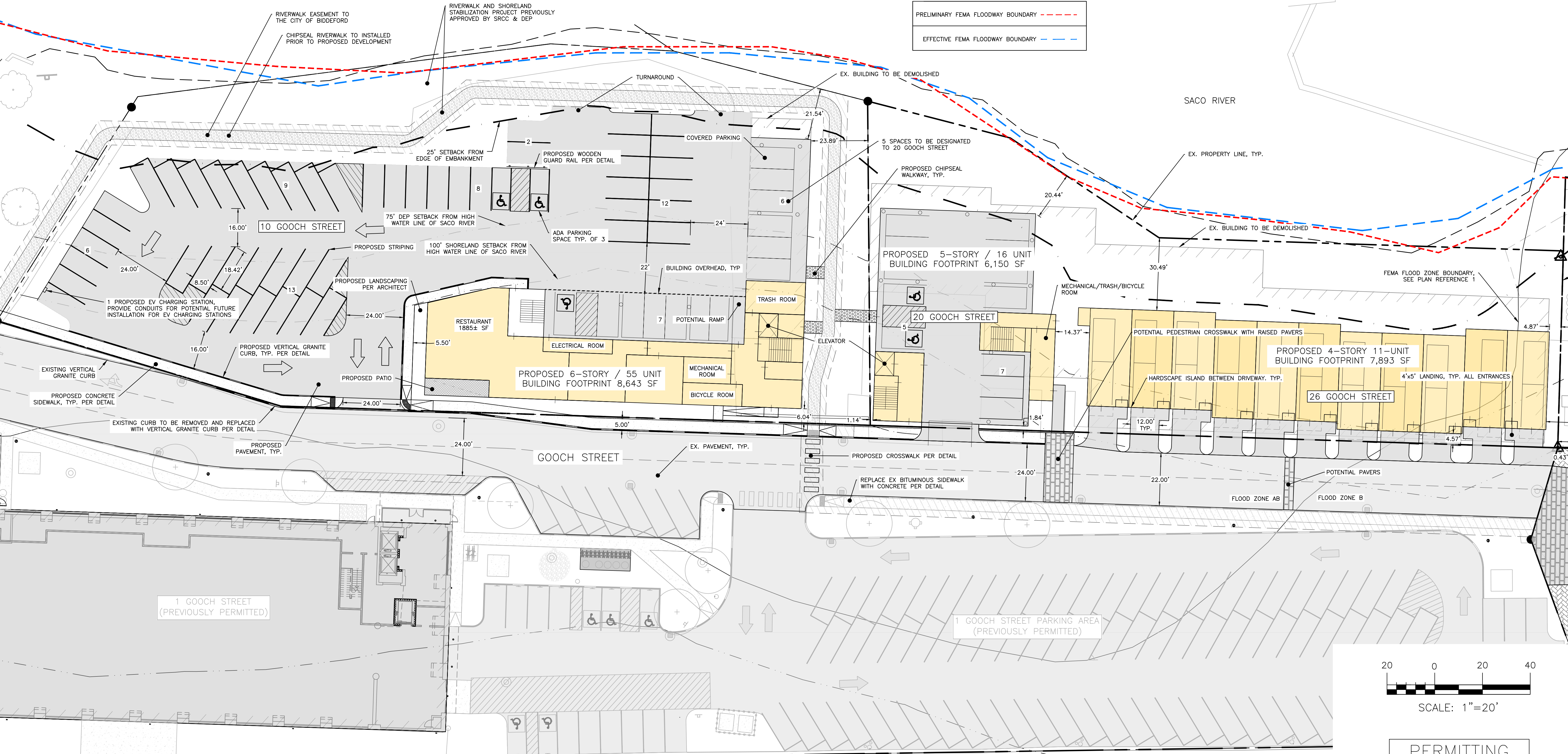
10 GOOCH STREET SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (G-1)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	47,138 SF	47,138 SF
MINIMUM STREET FRONTAGE	NONE	-	371.24'	371.24'
MINIMUM FRONT YARD SETBACK	NONE	-	34.88'	6.04'
MINIMUM REAR YARD SETBACK	NONE	-	13.33'	21.54'
MINIMUM SIDE YARD SETBACK	NONE	-	23.89'	23.89'
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'
SACO RIVER NO-CUT ZONE (SRCC)	-	75'	-	N/A
MAX LOT COVERAGE	100%	-	79.6%	73.7%
SHORELAND ZONE MAX LOT COVERAGE	-	70%	79.6%	73.7%

20 GOOCH PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
RESIDENTIAL	16	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 16 SPACES	-
MULTIFAMILY DEVELOPMENTS	-	INCREASE OF 5% (OF 16 SPACES) TO ALLOW FOR VISITORS = 1 SPACES	-
ADA (8'X18')	-	-	2
STANDARD (9'X18')	-	-	9
60 DEGREE (8.5'X18.42')	-	-	-
TOTAL SPACES	-	17	12*

*5 SPACES AT 10 GOOCH STREET TO BE DESIGNATED FOR 20 GOOCH APARTMENT BUILDING

26 GOOCH 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

20/26 GOOCH STREET SPACE AND BULK STANDARDS				
ZONE:	REQUIRED (MSRD3)	REQUIRED (G-1)	EXISTING	PROPOSED
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	27,912 SF	27,912 SF
MINIMUM STREET FRONTAGE	NONE	-	288'	288'
MINIMUM FRONT YARD SETBACK	NONE	-	1.74'	1.84'
MINIMUM REAR YARD SETBACK	NONE	-	3.60'	20.44'
MINIMUM SIDE YARD SETBACK	NONE	-	0'	1.14'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	-	-	20 GOOCH: 5 STORIES / 60' 26 GOOCH: 4 STORIES / 43'
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	-	-
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	100' FROM NORMAL HIGH-WATER LINE	11.91'	26.83'
SACO RIVER NO-CUT ZONE (SRCC)	-	75'	-	N/A
MAX LOT COVERAGE	100%	-	80.6%	54.9%
SHORELAND ZONE MAX LOT COVERAGE	-	70%	80.6%	54.9%



ISSUED FOR

SKETCH

DATE

3/23/2022

PROJECT NAME/ADDRESS:

10, 20 & 30 GOOCH STREET REDEVELOPMENT

CLIENT/OWNER OF RECORD:

TOM WATSON & CO.

188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

DRAWING NAME:

SITE PLAN - 1

ENGINEERING, INC.

ACORN ENGINEERING, INC.

THIS PLAN SHALL NOT BE USED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR UNAUTHORIZED, SHALL BE THE SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04101

(207) 775-2655

FILE:

1093.11_CIVIL

JN:

1093.11

SCALE:

AS NOTED

DESIGNED BY:

PFH

DRAWN BY:

ZMS

CHECKED BY:

WHS

STATE OF MAINE

PETER F. HEIL

15318

LICENSED PROFESSIONAL ENGINEER

DRAWING NO.

C-10

GENERAL NOTES:

1. ALL SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD 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.

PRELIMINARY FEMA FLOODWAY BOUNDARY - - - - -

EFFECTIVE FEMA FLOODWAY BOUNDARY - - - - -

30 GOOCH STREET SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	REQUIRED (G-1)	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%	70% WITHIN SHORELAND ZONE	87.5%	75.5%

30 GOOCH STREET PARKING SUMMARY

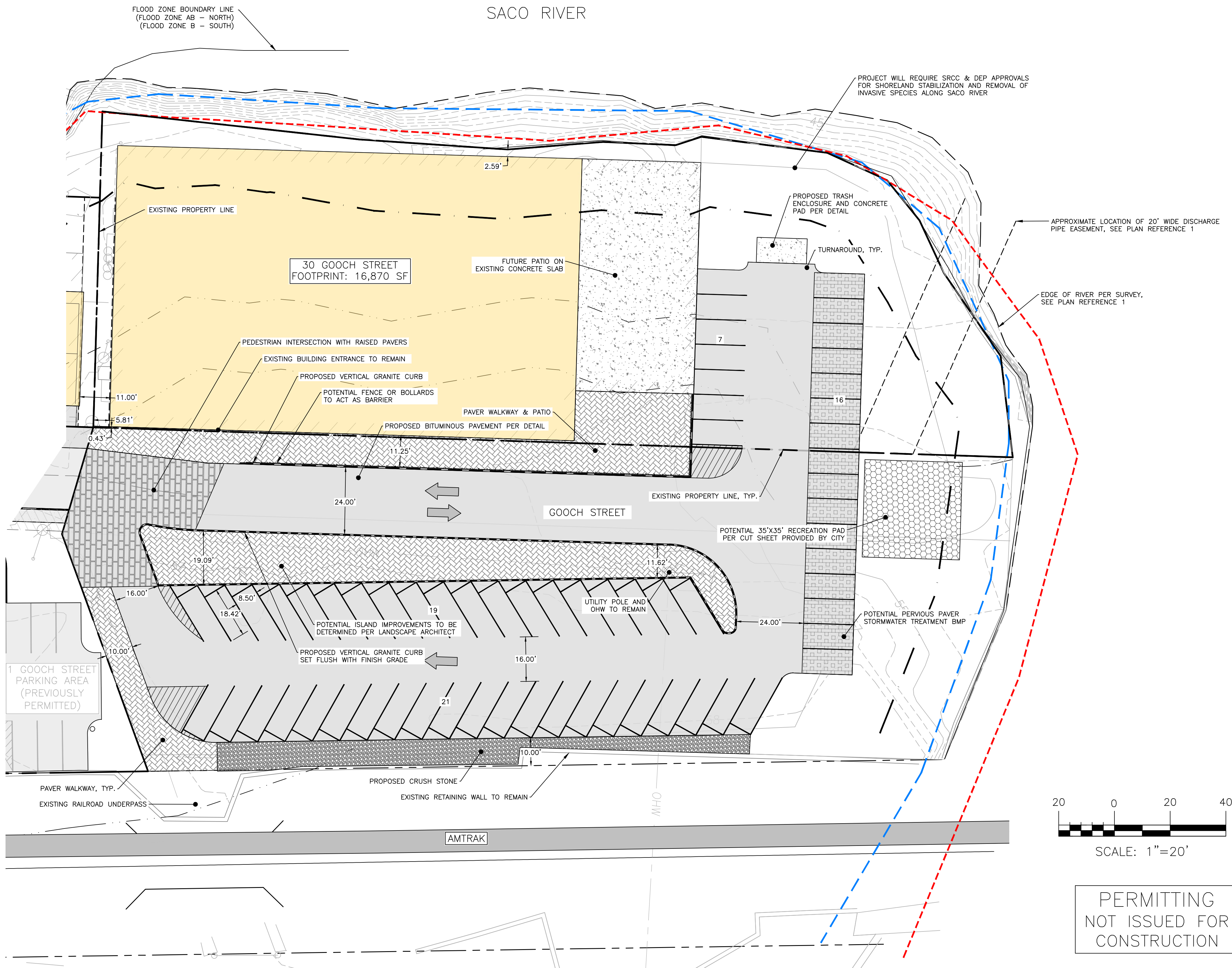
	EXISTING	PROPOSED
STANDARD (9'X18')	30±	14

CITY LOT SPACE AND BULK STANDARDS

ZONE:	REQUIRED (MSRD3)	REQUIRED (G-1)	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%	70% WITHIN SHORELAND ZONE	80.9%	86.1%

CITY LOT PARKING SUMMARY

	EXISTING	PROPOSED
STANDARD (9'X18')	30±	9
60 DEGREE (8.5'X18.42')	N/A	40



ISSUED FOR	BY
SKMPCH	DATE
	PFH
	3/7/2022

SITE PLAN - 2

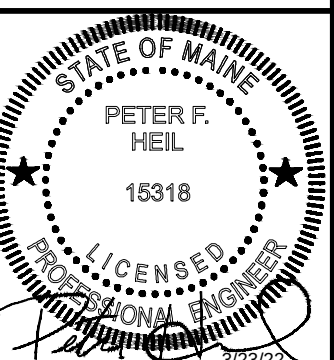
PROJECT NAME/ADDRESS:
10, 20 & 30 GOOCH STREET REDEVELOPMENT

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

DRAWING NAME:

ACORN ENGINEERING, INC.
ENGINEERING, INC.

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



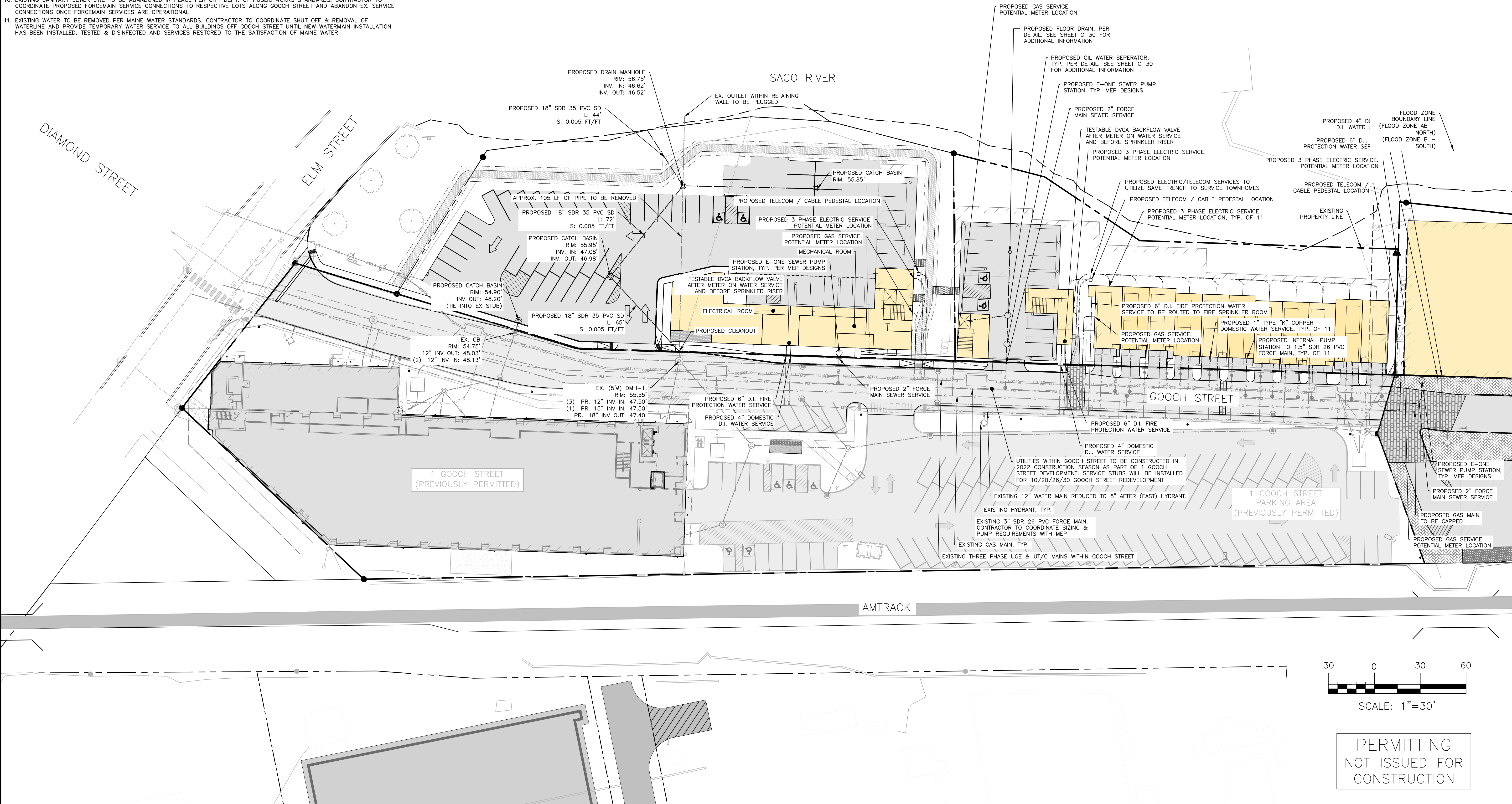
DRAWING NO.

C-11

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF EXACT INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED FOR INFORMATION OR CORRELATION 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 RELY ON EXISTING UTILITY WHICH CONFORM WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY LOCATION, 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 FOR ALL 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 BIRDEFOOD TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. **WATER UTILITIES:** FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE MAINE WATER STANDARDS. CONTRACTOR TO FOLLOW METERING SCHEDULE OF DELIVERY OF MAINE WATER AND CITY OF BIRDEFOOD.
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 UNIFIT.
8. **ELECTRIC UTILITIES:** ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METERING AND METERING SERVICE CONNECTIONS TO BE DETERMINED BY M.E.P. ENGINEER. ALL BUILDING ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY SPECTRUM AND CONSOLIDATED COMMUNICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. EXISTING SANITARY SEWER LINE TO BE ABANDONED IN PLACE PER CITY DEPT. OF PUBLIC WORKS STANDARDS. CONTRACTOR TO COORDINATE PROPOSED FOREMAIN SERVICE CONNECTIONS TO RESPECTIVE LOTS ALONG GOOCH STREET AND ABANDON EX. SERVICE CONNECTIONS. ALL FOREMAIN SERVICES ARE OPERATIONAL.
11. EXISTING WATER MAIN TO BE REMOVED PER MAINE WATER STANDARDS. CONTRACTOR TO COORDINATE SHUT OFF & REMOVAL OF WATERLINE AND PROVIDE TEMPORARY WATER SERVICE TO ALL BUILDINGS OFF GOOCH STREET UNTIL NEW WATERMAIN INSTALLATION HAS BEEN INSTALLED, TESTED & DISINFECTED AND SERVICES RESTORED TO THE SATISFACTION OF MAINE WATER.

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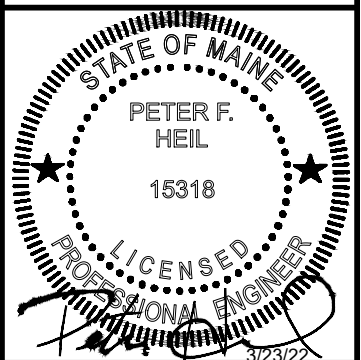
DRAWING NAME:	UTILITY PLAN
PROJECT NAME/ADDRESS:	10, 20 & 30 GOOCH STREET REDEVELOPMENT
CLIENT/OWNER OF RECORD:	TOM WATSON & CO. 188 STATE STREET, 3RD FLOOR, PORTLAND, ME 04101

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

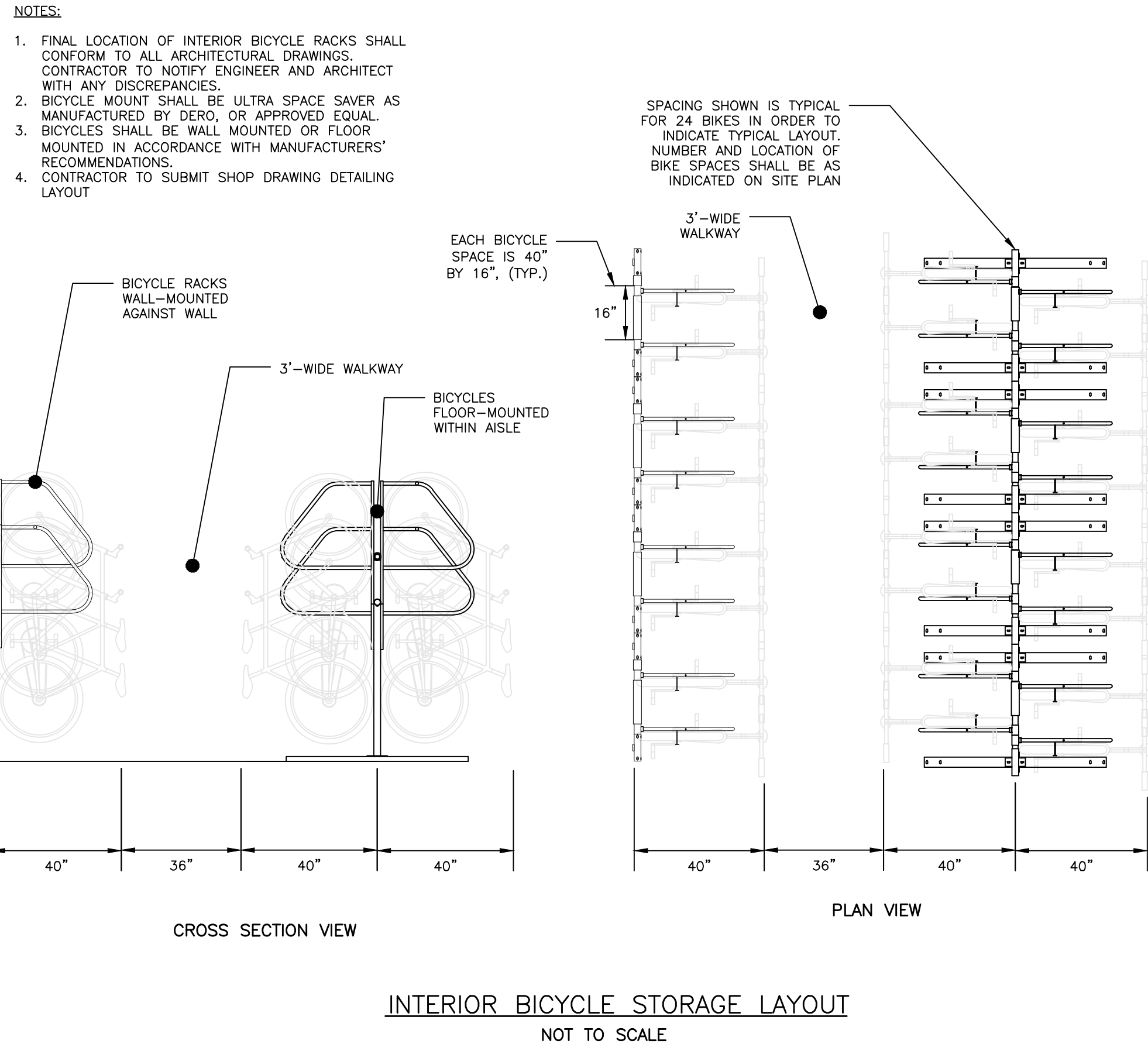
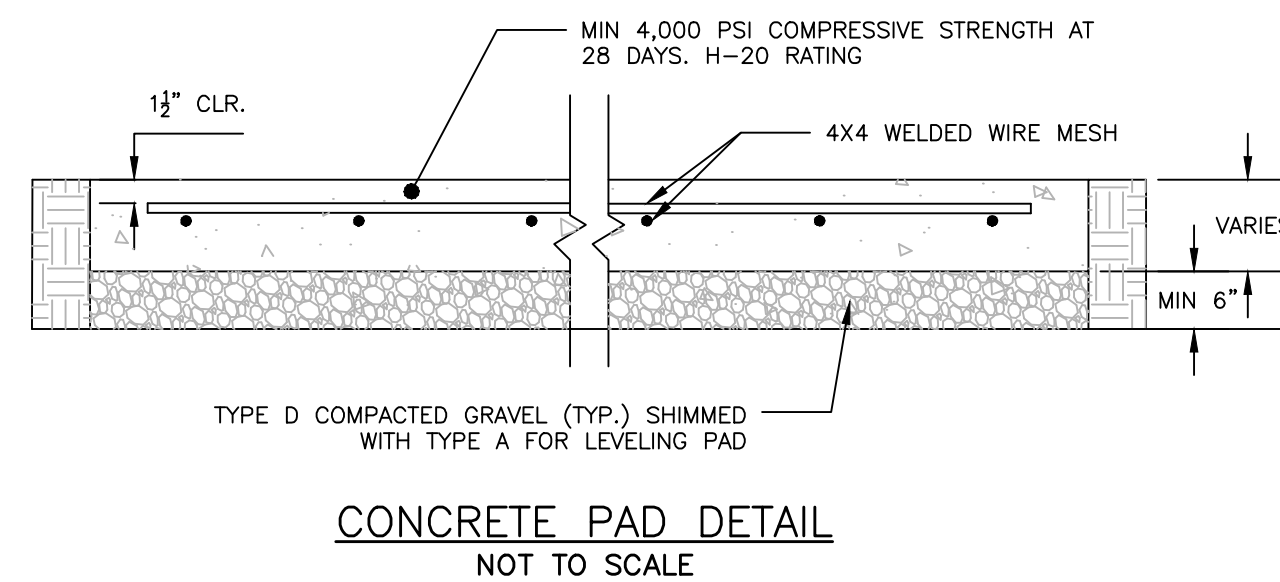
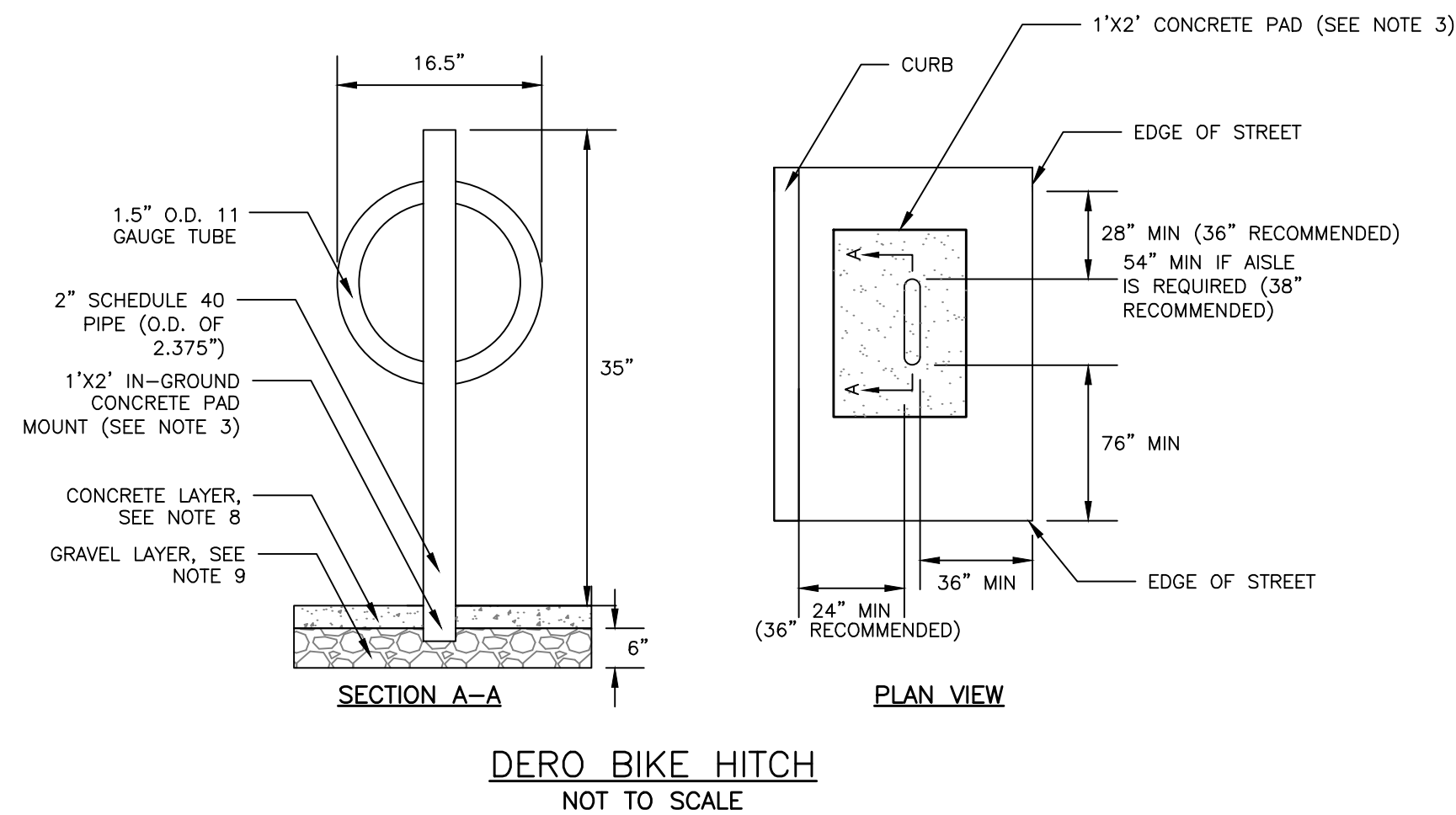
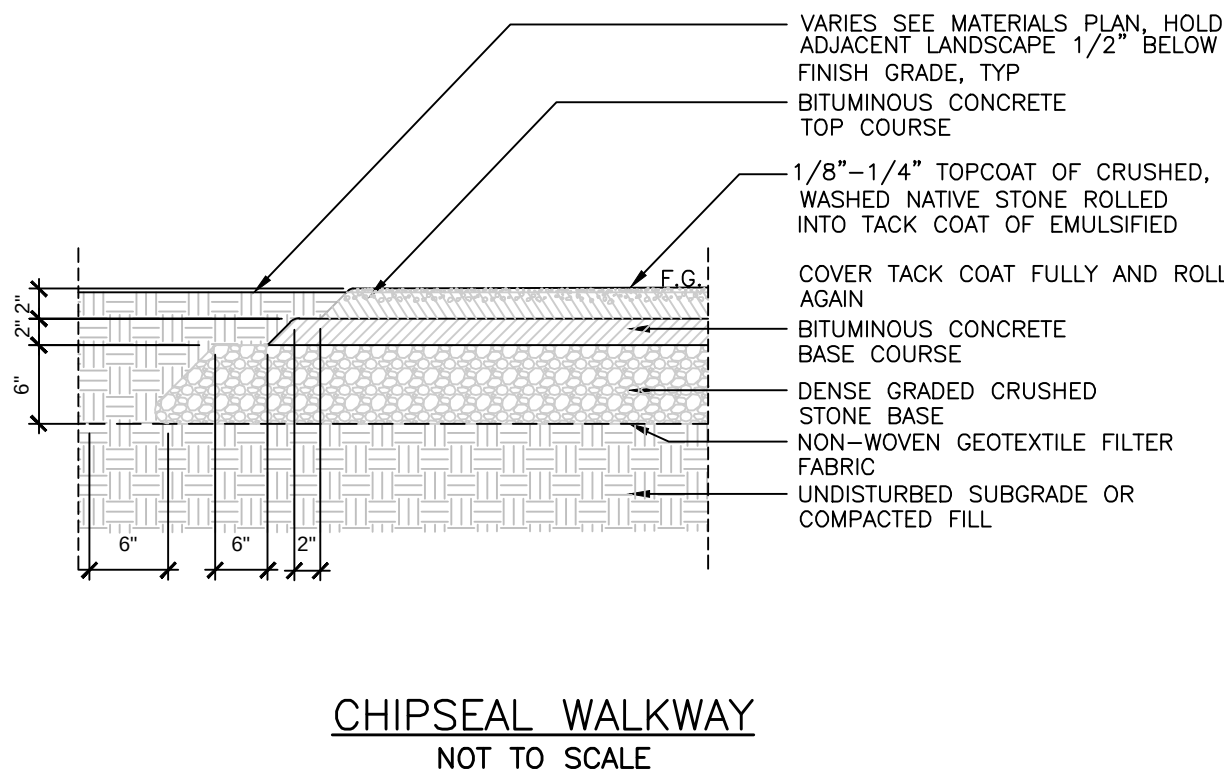
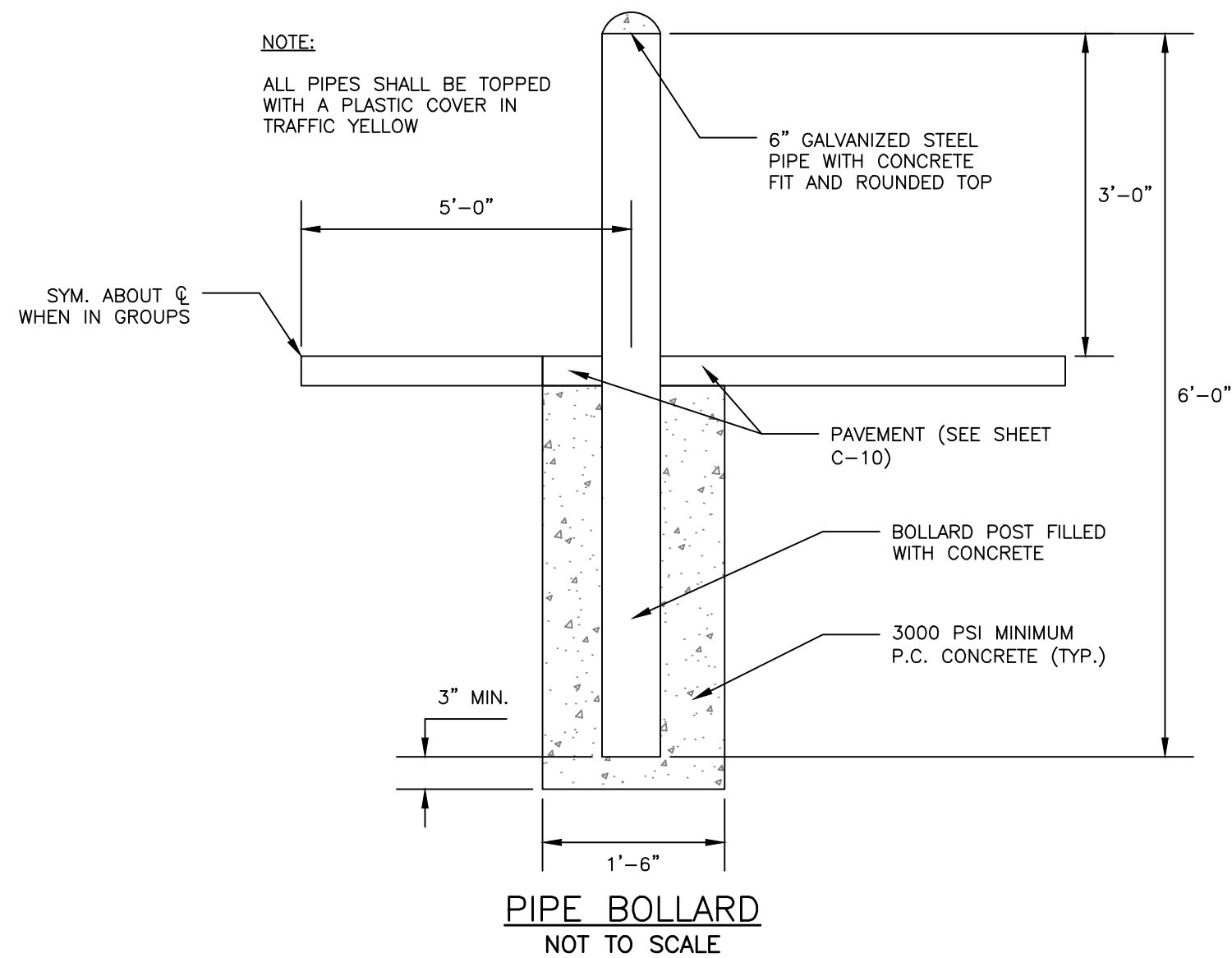
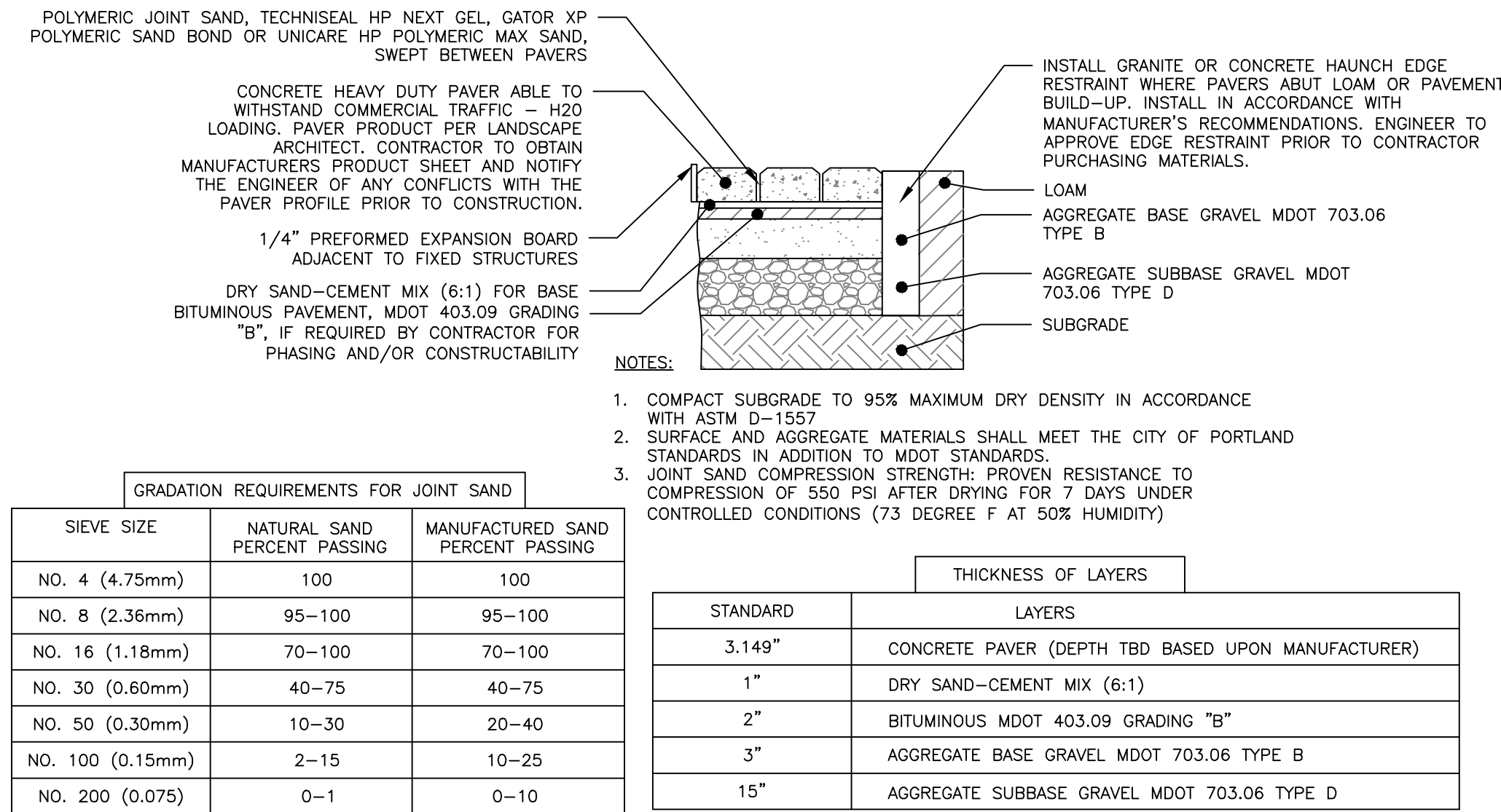
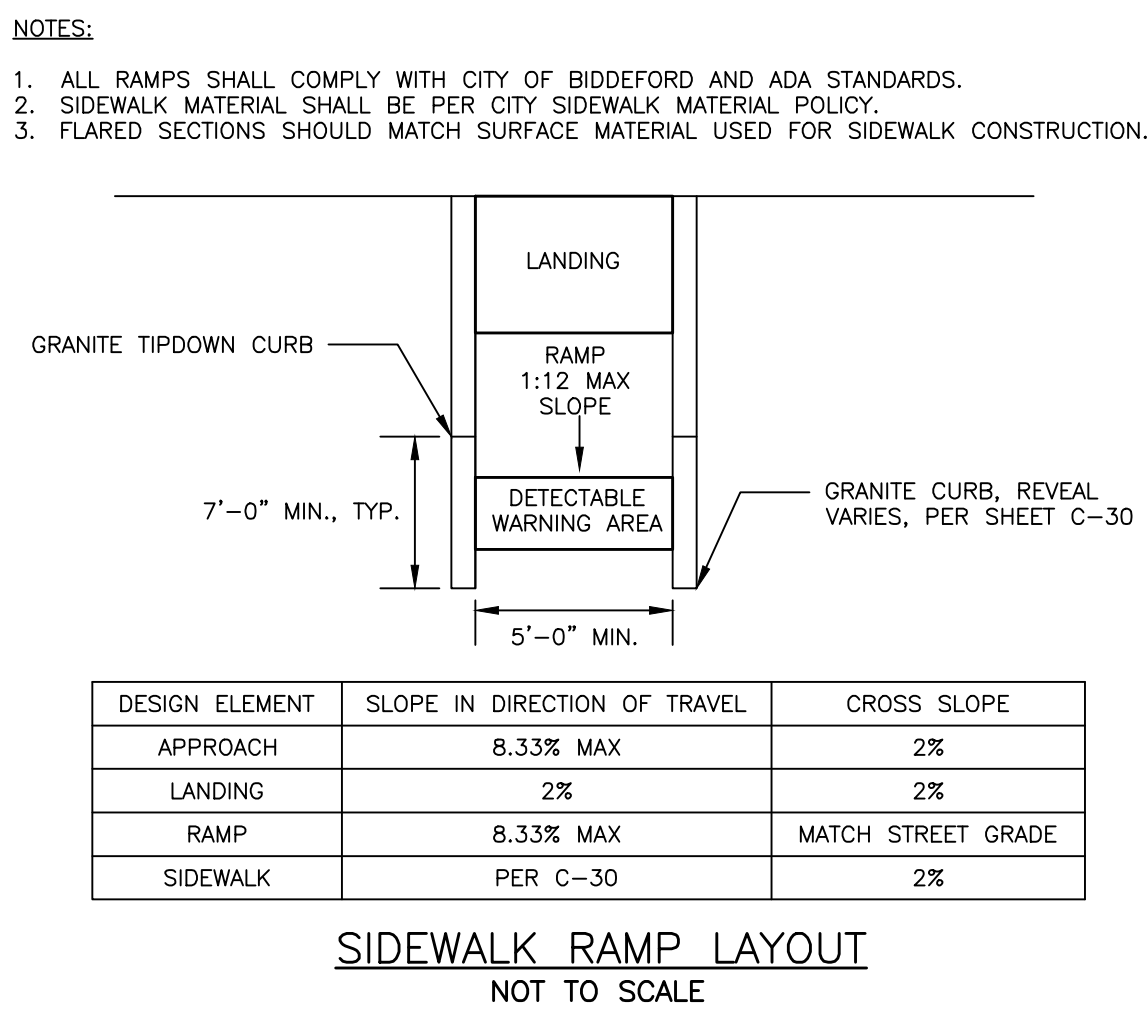
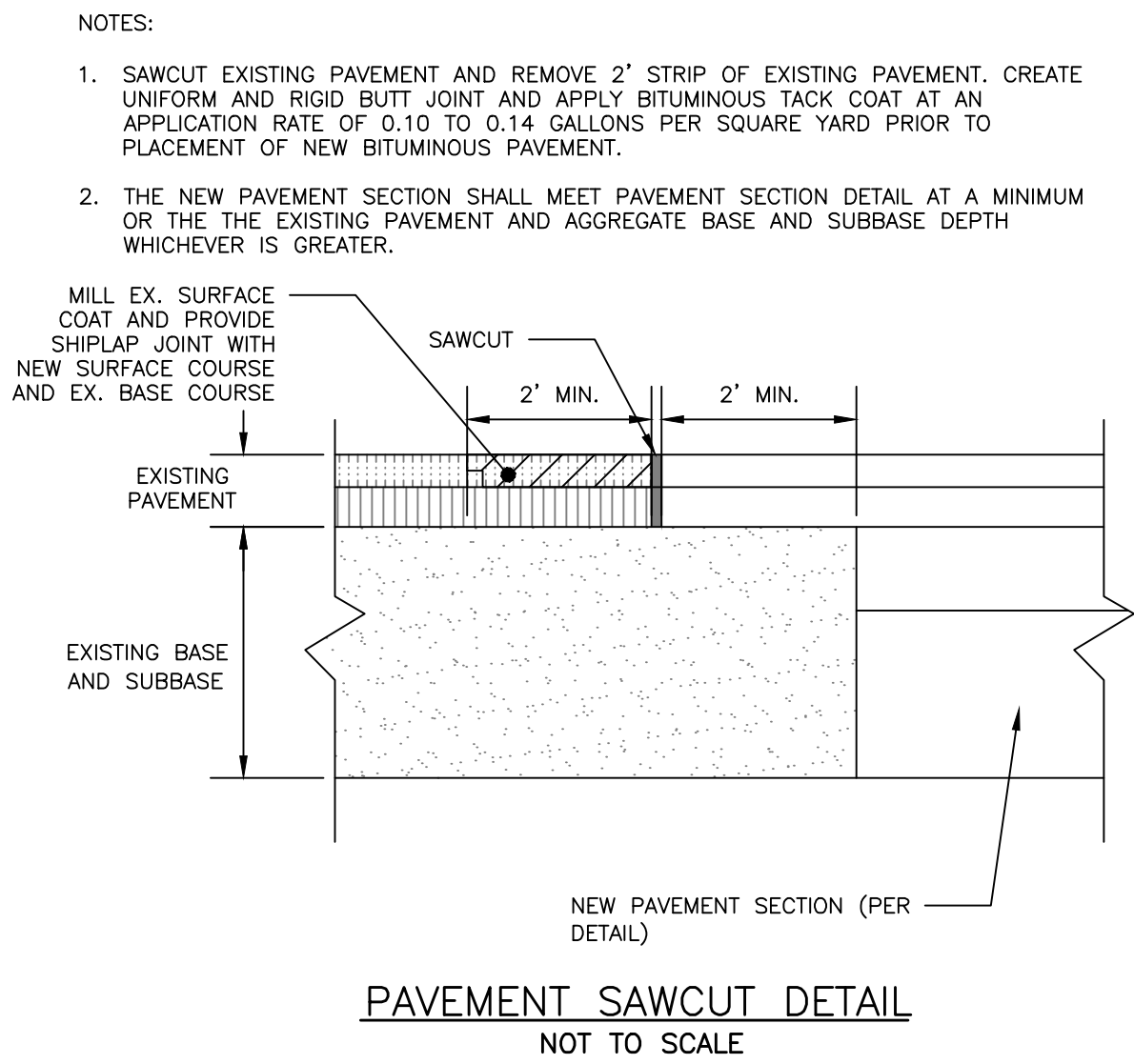
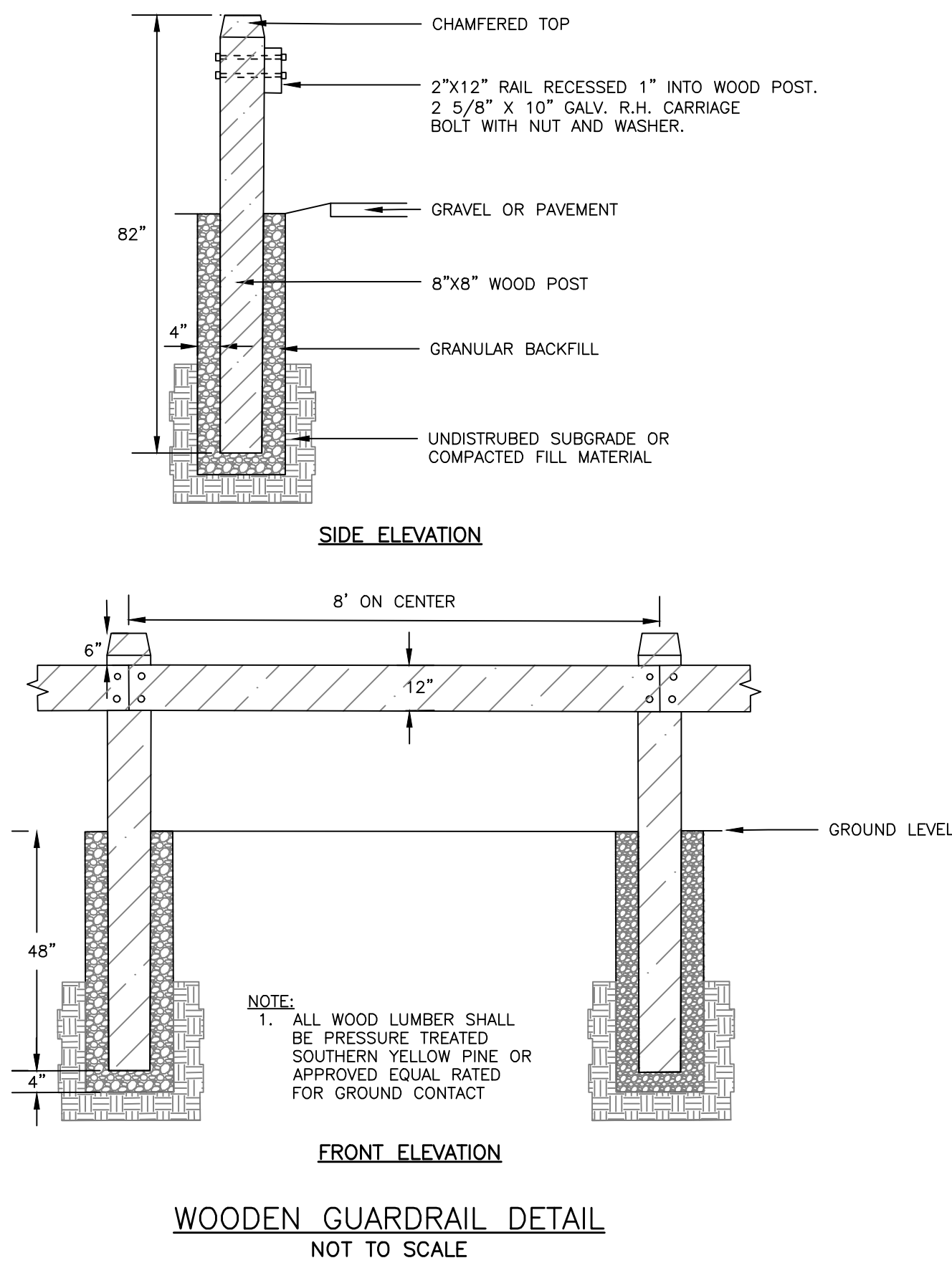
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS AUTHORIZED BY ACORN ENGINEERING, INC. SHALL BE MADE BY ACORN ENGINEERING, INC. WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

A C O R N
ENGINEERING, INC.

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



DRAWING NO.
C-20



ISSUED FOR: SKETCH

BY: PPH

DATE: 3/23/2022

SITE DETAILS - 2

PROJECT NAME/ADDRESS: 10, 20 & 30 GOOCH STREET REDEVELOPMENT

CLIENT/OWNER OF RECORD: TOM WATSON & CO.

188 STATE STREET, 3RD FLOOR, PORTLAND ME 04101

DRAWING NAME: A C O R N ENGINEERING, INC.

PO BOX 3370 PORTLAND, ME 04101

(207) 775-2855

FILE: 1093.11_CIVIL

JN: 1093.11

SCALE: AS NOTED

DESIGNED BY: PPH

DRAWN BY: ZMS

CHECKED BY: WHS

STATE OF MAINE

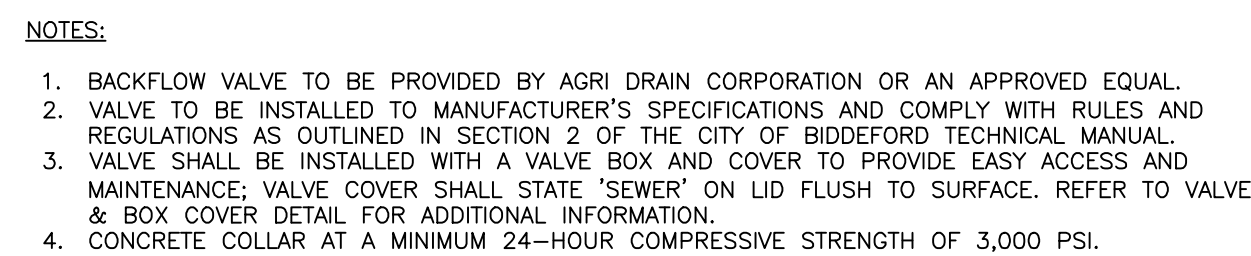
PETER F. HEIL

15318

REGISTERED PROFESSIONAL ENGINEER

DRAWING NO. C-41

PERMITTING NOT ISSUED FOR CONSTRUCTION



Technical drawing of a bell type base, showing three sections: Base Section No. 645, Intermediate Section No. 58, and Top Section No. 56. Each section includes front, side, and top views with dimensions.

Base Section No. 645:

- Front View: Bell type base with bottom lip. Dimensions: 5" (inner width), 5 1/4" (outer width).
- Side View: Shows the profile of the base. Dimensions: 8" (inner width), 10 1/4" (outer width).
- Top View: Shows the top of the base. Dimensions: 5" (inner width), 6" (outer width).

Intermediate Section No. 58:

- Front View: Bell type base with bottom lip. Dimensions: 5" (inner width), 5 1/4" (outer width).
- Side View: Shows the profile of the base. Dimensions: 8" (inner width), 10 1/4" (outer width).
- Top View: Shows the top of the base. Dimensions: 5" (inner width), 6" (outer width).

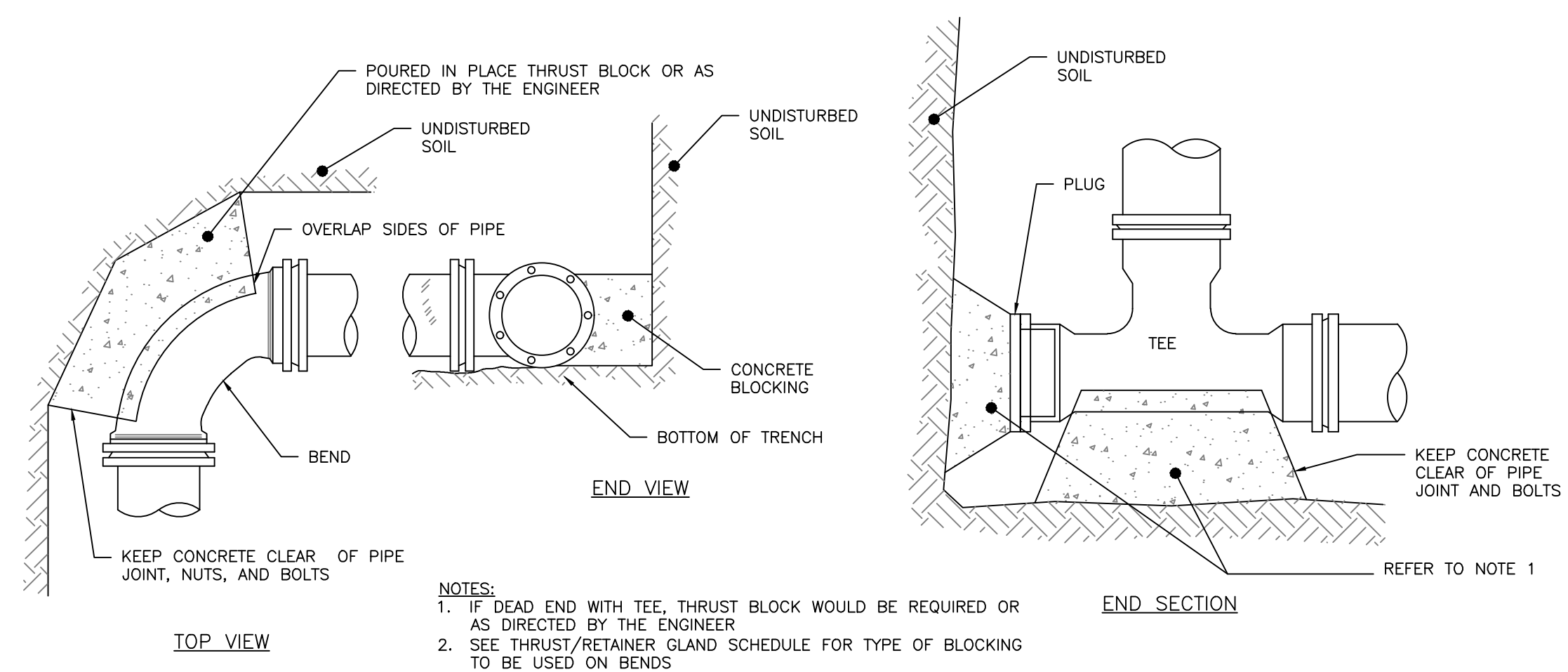
Top Section No. 56:

- Front View: Bell type base with bottom lip. Dimensions: 5" (inner width), 5 1/4" (outer width).
- Side View: Shows the profile of the base. Dimensions: 8" (inner width), 10 1/4" (outer width).
- Top View: Shows the top of the base. Dimensions: 5" (inner width), 6" (outer width).

Technical drawing of a drop style cover. The top view shows a circular lid with a central knob labeled '6' and the word 'WATER' inside. The lid has a diameter of $7\frac{1}{4}"$. The side view shows the lid is $1\frac{1}{2}"$ thick. The main body of the cover is a trapezoid with a top width of $5\frac{3}{4}"$. The text 'DROP STYLE COVER' is centered below the side view.

NOTES:

1. DIMENSIONS APPLICABLE FOR 5 1/4" BUFFALO VALVE BOXES
2. BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MAINE WATER COMPANY'S STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD TWO LAYERS OF 2-INCH "BLUE DOW" RIGID INSULATION.

4" LOAM, SEED, AND MULCH OR PAVEMENT SECTION AS DETAILED IN THIS PLAN SET

FINISH GRADE

5'-6" MIN. - 7.0' MAX

6"

4" OR LESS

6"

2'-0" (MIN)
(4" DIA OR LESS)

BACKFILL WITH EXCAVATED MATERIAL OR SELECT BACKFILL AS DIRECTED BY ENGINEER

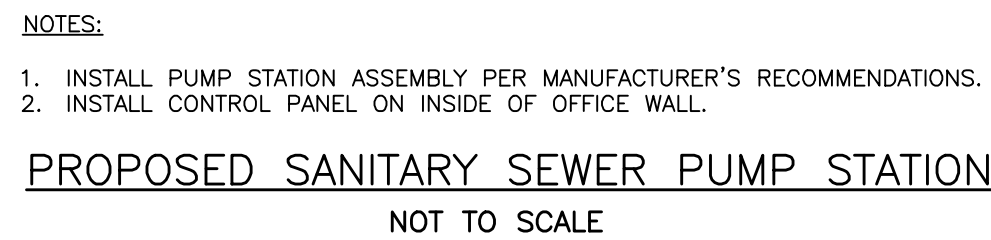
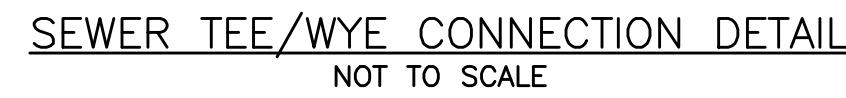
SAND BEDDING BACKFILL, 703.22 TYPE B

RIGID INSULATION (SEE NOTE)

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

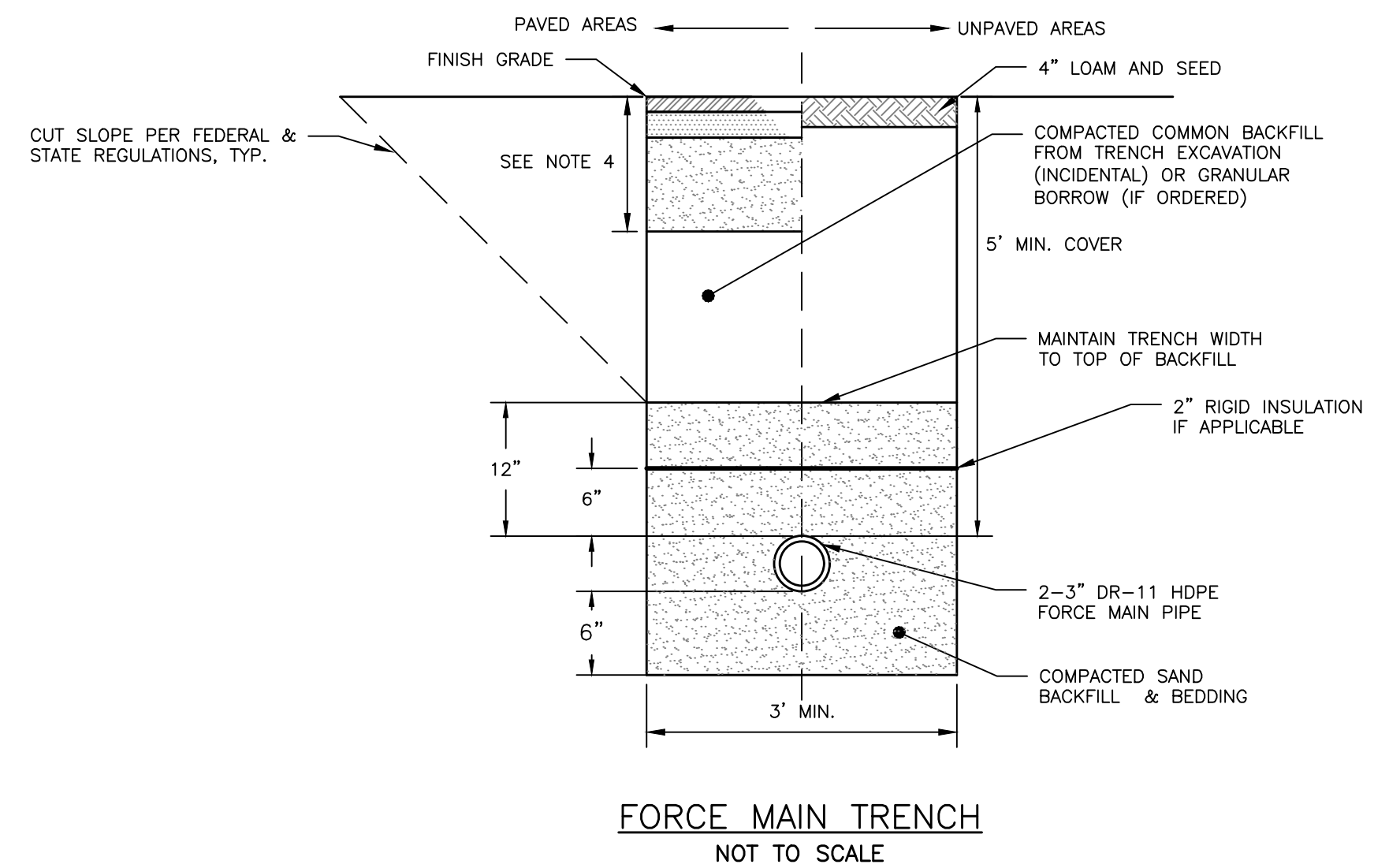
[illegible]

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.



1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 18" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES:
 - 5.1. EAST JORDAN = 1690Z
 - 5.2. NEENAH = R-1496
 - 5.3. OR APPROVED EQUAL
6. APPROVED MANHOLE COVERS
 - 6.1. EAST JORDAN = 2160A
 - 6.2. NEENAH = R-1496
 - 6.3. OR APPROVED EQUAL

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 GOOCH STREET SHALL BE COORDINATED WITH THE MAJOR STREETS PAVEMENT WORKS. PAVEMENT CURB IN GOOCH STREET 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'.



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

[illegible]

UTILITY DETAILS - 3

NAME/ADDRESS:

DRAWING NAME:

R N
ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND MAINE 04101
(207) 775-2855

FILE: 1093.11 CIVIL

JN:	1093.11
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SCALE: AS NOTED

DESIGNED BY: PFH

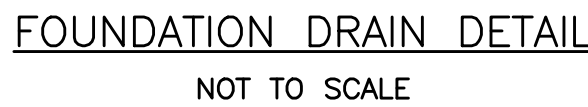
DRAWN BY: ZMS

CHECKED BY: WHS

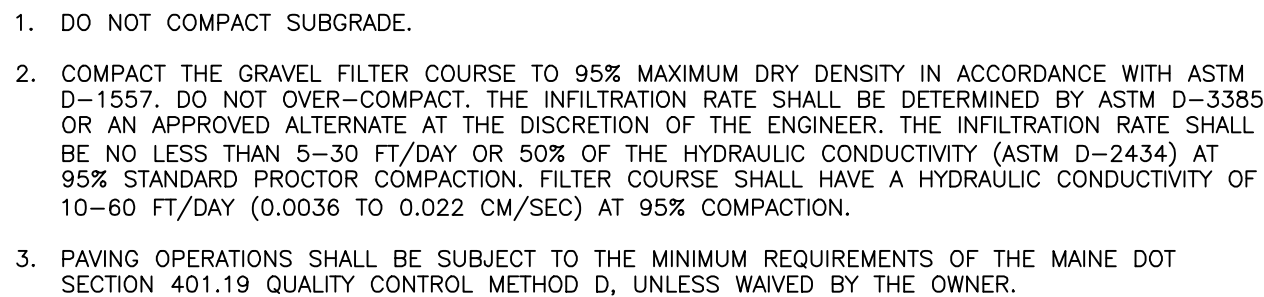


DRAWING NO.

C-45



1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORMERS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECTION OF THE ROOF EAVE.
4. FOUNDATION WALL FOOTINGS SHALL BE CONCRETE WITH A MIN. WIDTH OF 4 FT BELOW ADJACENT FINISH GRADE. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
5. FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE WITH SOLID CONCRETE GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUAL.



THICKNESS OF LAYERS	
STANDARD	LAYERS
4"	PERVIOUS PAVR PER MANUFACTURER'S SPECIFICATION
1-1/2"	ASTM NO. 8 STONE BEDDING
2-1/2"	1-1/2" STONE CHOKER COURSE MDOT 605.392
10"	GRAVEL FILTER COURSE MDOT 304.10 TYPE D
6"	3/4" CRUSHED STONE MDOT 203.35

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 # 324B0002 AS MANUFACTURED BY NEEHAH FOUNDRY. SUBMITTAL REQUIRED.

PORTLAND CEMENT MORTAR (TYPE 2 CEMENT)

3'-4"

2'-0"

ECCENTRIC CONE

8"

ADJUST TO GRADE WITH BRICK WITH A MIN. OF 3 COURSES AND A MAX. OF 8 COURSES (ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA).

DESIGN NOTES:

- ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
- DESIGN LOAD FOR H-20 WHEEL LOAD.
- CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
- REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEX GASKET OR EQUAL.
- POLYPROPYLENE STEPS 12" O.C.
- EXTERIOR WATERPROOFING.
- CASCO TRAPS SHALL BE PROVIDED ON ALL PIPES 15" OR LESS.
- ALL CATCH BASINS AND MANHOLES SHALL MEET THE APPLICABLE CITY OF BIDEFORD.
- 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

3'-0"

4'-0"

4'-0"

2'-0"

TO 6'-0"

BARREL SECTION

4'-0"

BASE SECTION

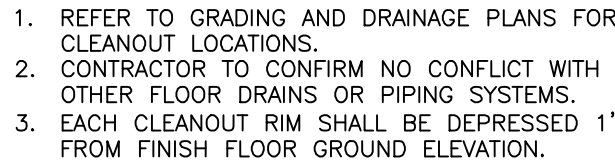
2'-0" MIN.

ALL PIPES TO HAVE A WATERTIGHT SEAL

12" THICK 3/4" CRUSHED STONE BASE

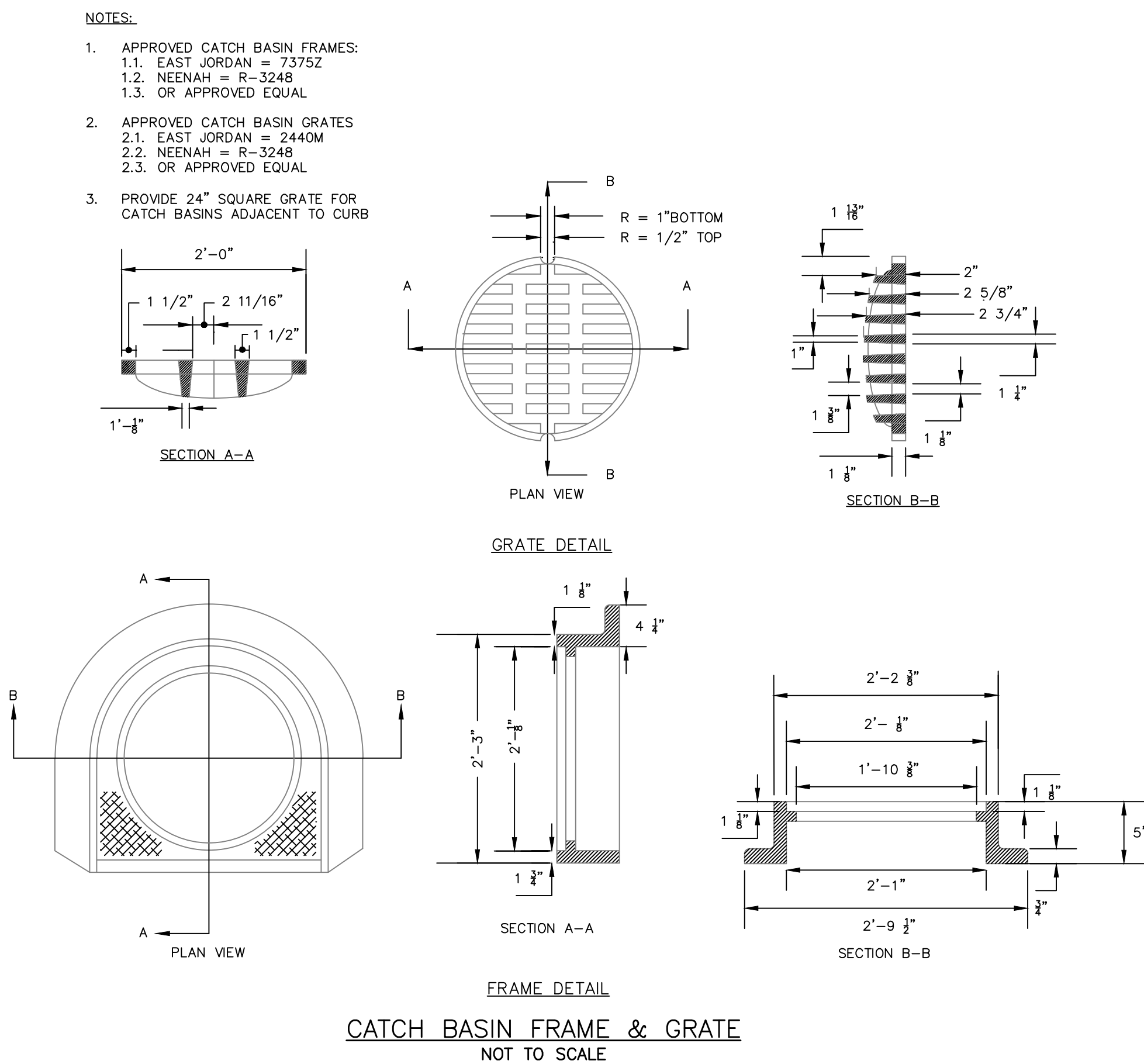
COMPACTED SUBGRADE

4'-0" DIAMETER PRECAST CATCH BASIN/MANHOLE
NOT TO SCALE



CONCRETE COLLAR FOR CLEANOUTS
IN THE TRAVEL WAY
NOT TO SCALE

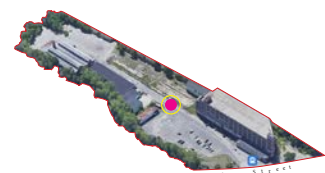
PERMITTING
NOT ISSUED FOR
CONSTRUCTION





HARDSACPE &
COLORFUL PLANTERS

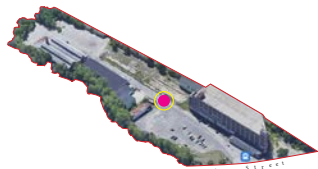
TOWNHOUSE ISLANDS - CONCEPT 1
Site Concept Development
Gooch Street| Concept Development
Biddeford, ME

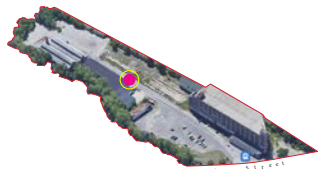


Mitchell & Associates
Landscape Architects



RIVER STONE &
PLANTING & LIGHT BOLLARD







CATENARY LIGHTING

SIDEWALK CAFE & PLANTINGS

NATURALIZED PLANTED ISLAND BUFFER





STREETSCAPE & 30 GOOCH
Site Concept Development
Gooch Street | Concept Development
Biddeford, ME



Mitchell & Associates
Landscape Architects



STREETSCAPE & 30 GOOCH
Site Concept Development
Gooch Street| Concept Development
Biddeford, ME

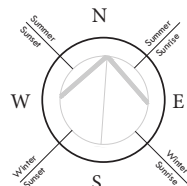
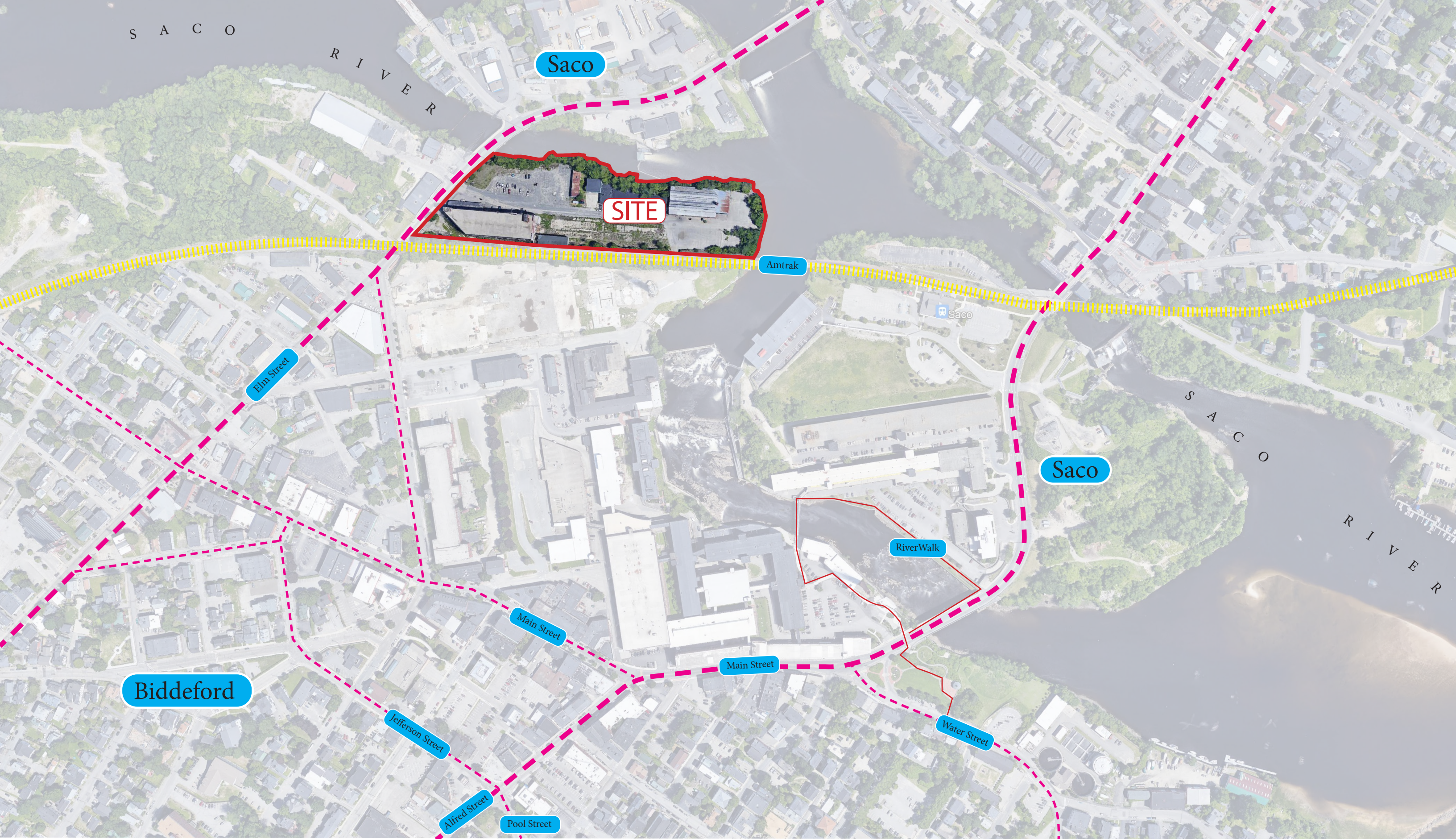


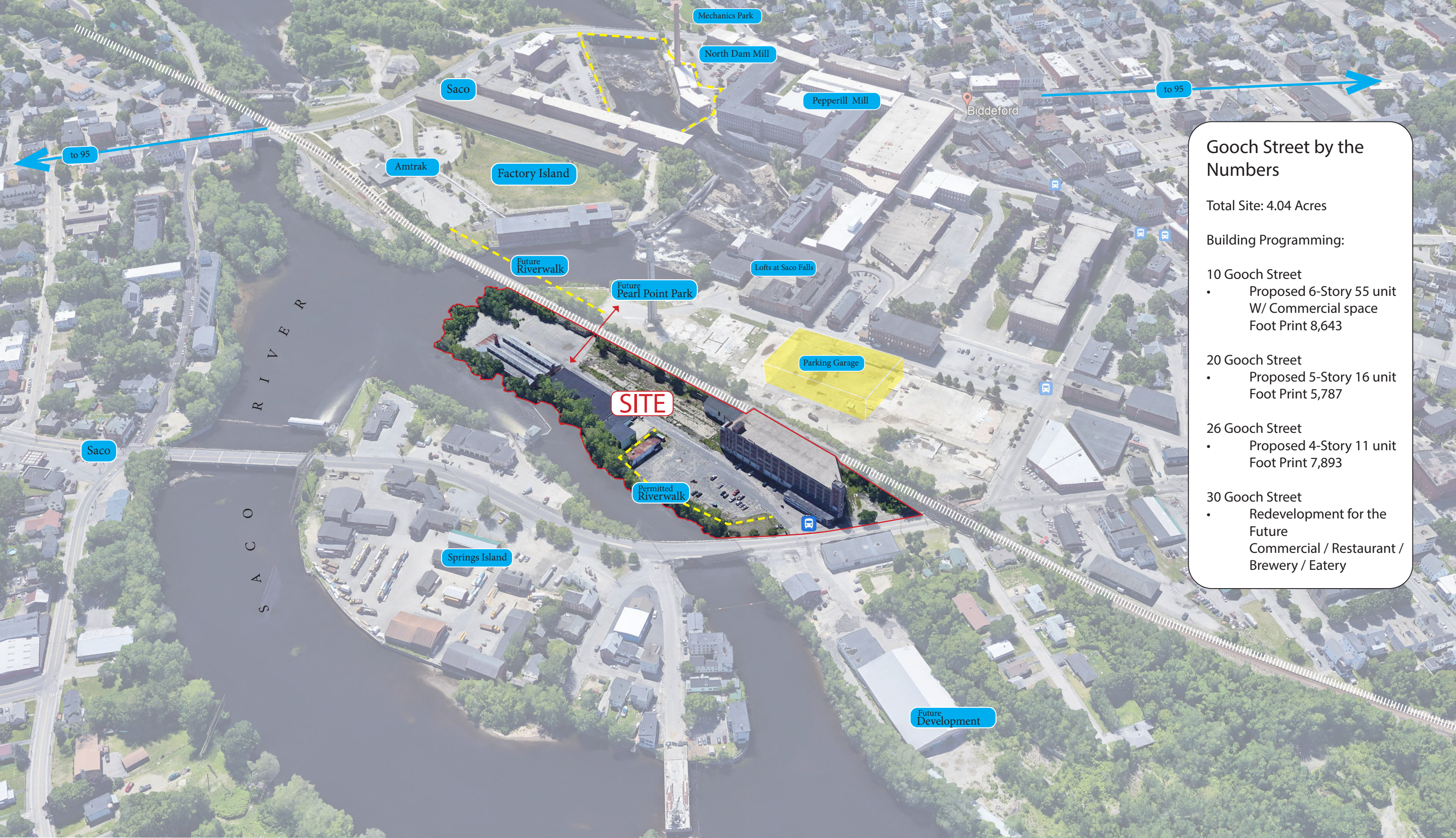
SACO RIVER

Mitchell & Associates
Landscape Architects

Gooch Street Site Plan & Landscape Guidelines

- Vibrant Public Spaces
- Connect Residents to Nature
- Multi-Modal Connectivity
- Walkable & Enjoyable
- Accessible
- Integrated Public Art
- Active use Perimeters
- Buffering
- High quality material
- Climate Change Resilient Design



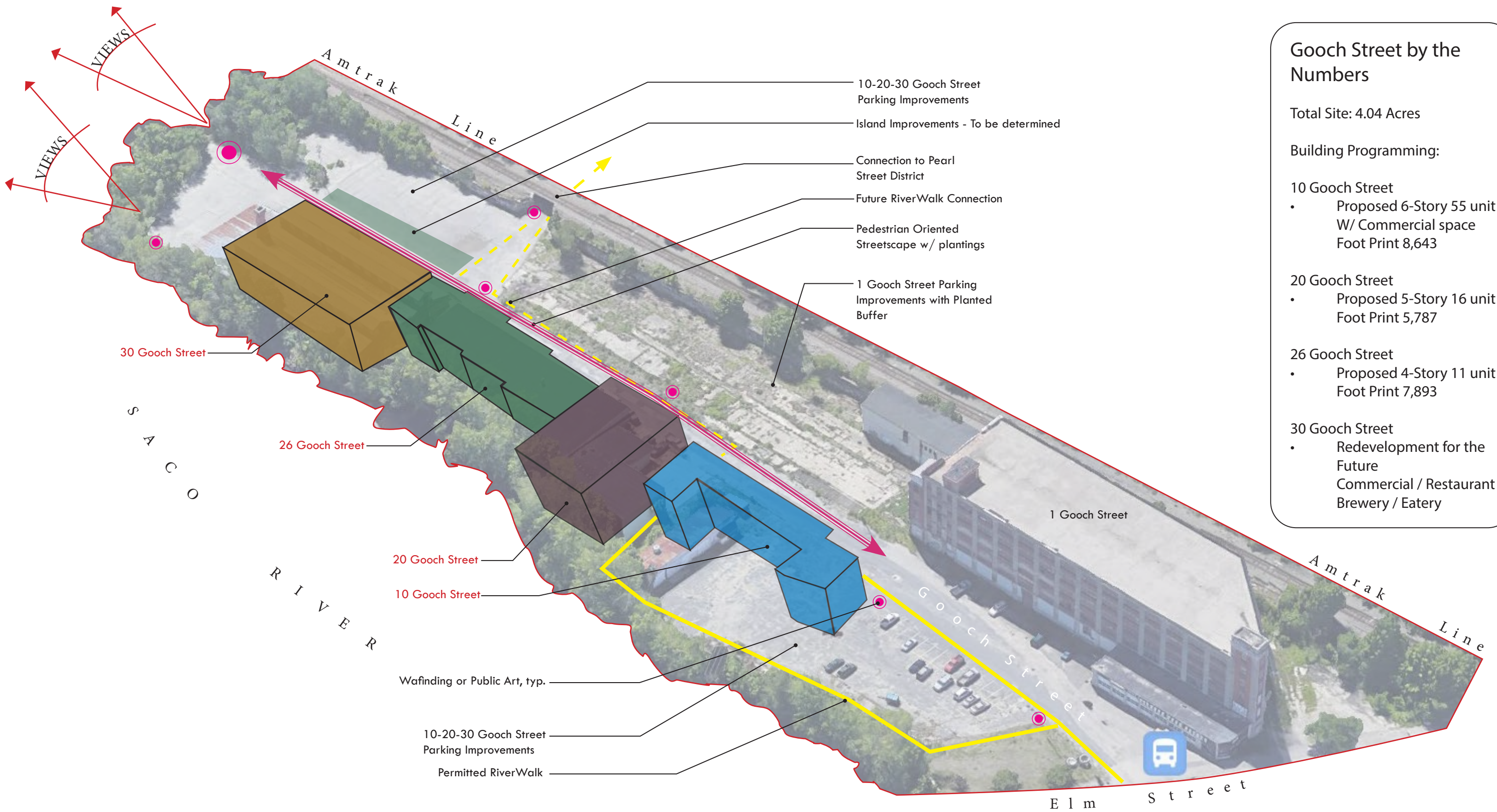


Gooch Street by the Numbers

Total Site: 4.04 Acres

Building Programming:

- 10 Gooch Street
 - Proposed 6-Story 55 unit W/ Commercial space Foot Print 8,643
- 20 Gooch Street
 - Proposed 5-Story 16 unit Foot Print 5,787
- 26 Gooch Street
 - Proposed 4-Story 11 unit Foot Print 7,893
- 30 Gooch Street
 - Redevelopment for the Future Commercial / Restaurant / Brewery / Eatery



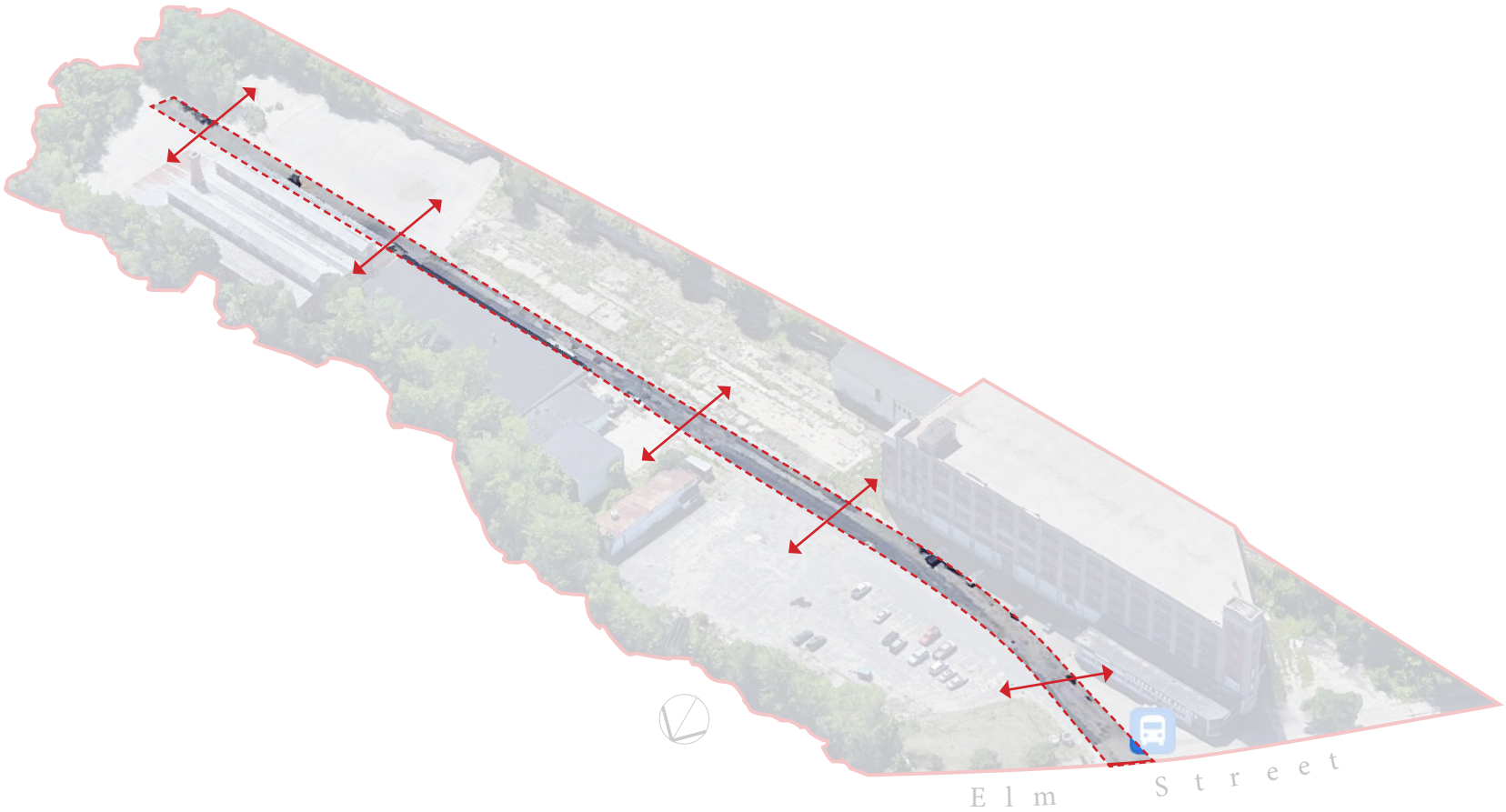
Gooch Street by the Numbers

Total Site: 4.04 Acres

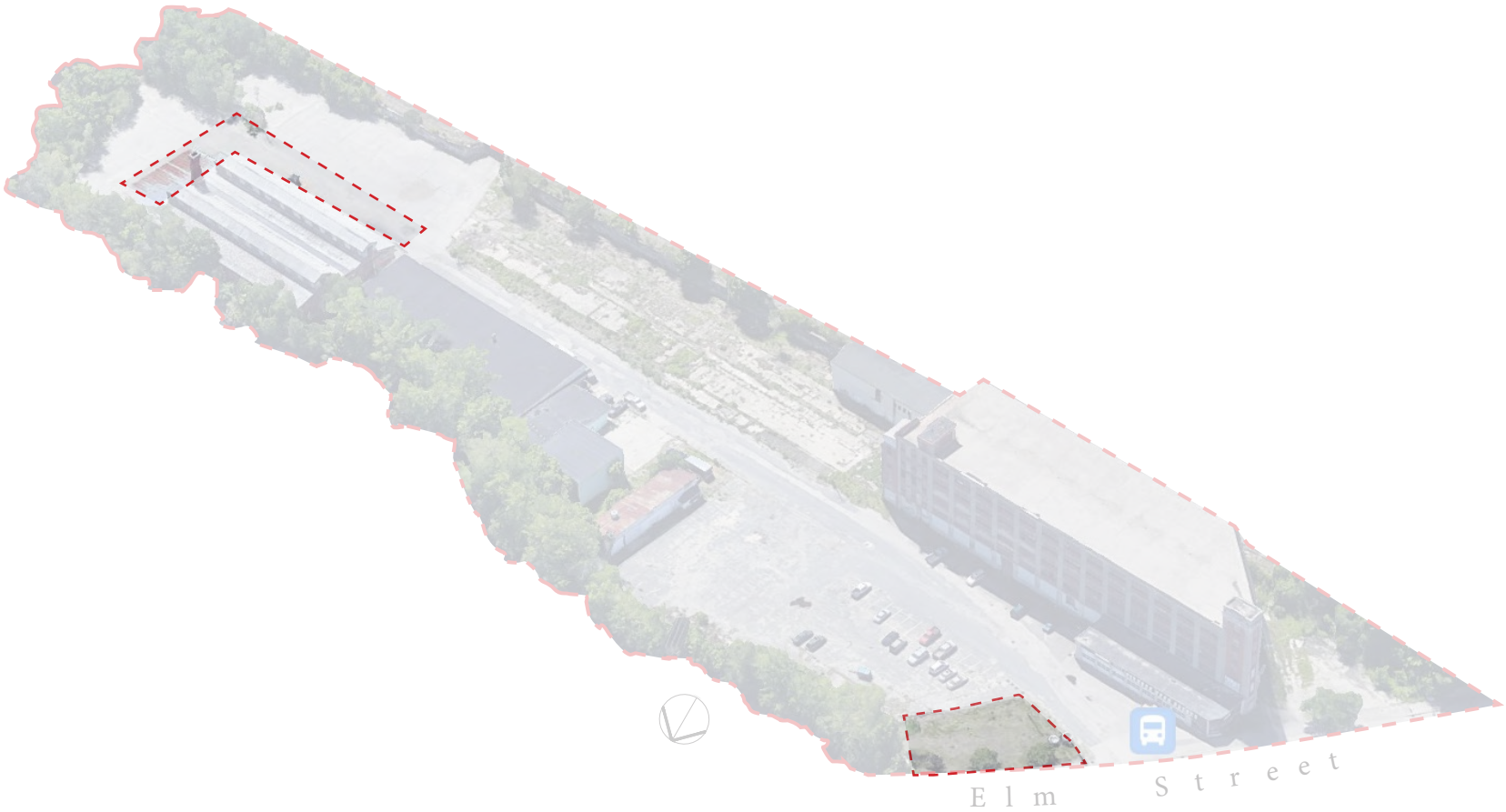
Building Programming:

- 10 Gooch Street
- Proposed 6-Story 55 unit W/ Commercial space Foot Print 8,643
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- Proposed 5-Story 16 unit Foot Print 5,787
- 26 Gooch Street
- Proposed 4-Story 11 unit Foot Print 7,893
- 30 Gooch Street
- Redevelopment for the Future Commercial / Restaurant / Brewery / Eatery

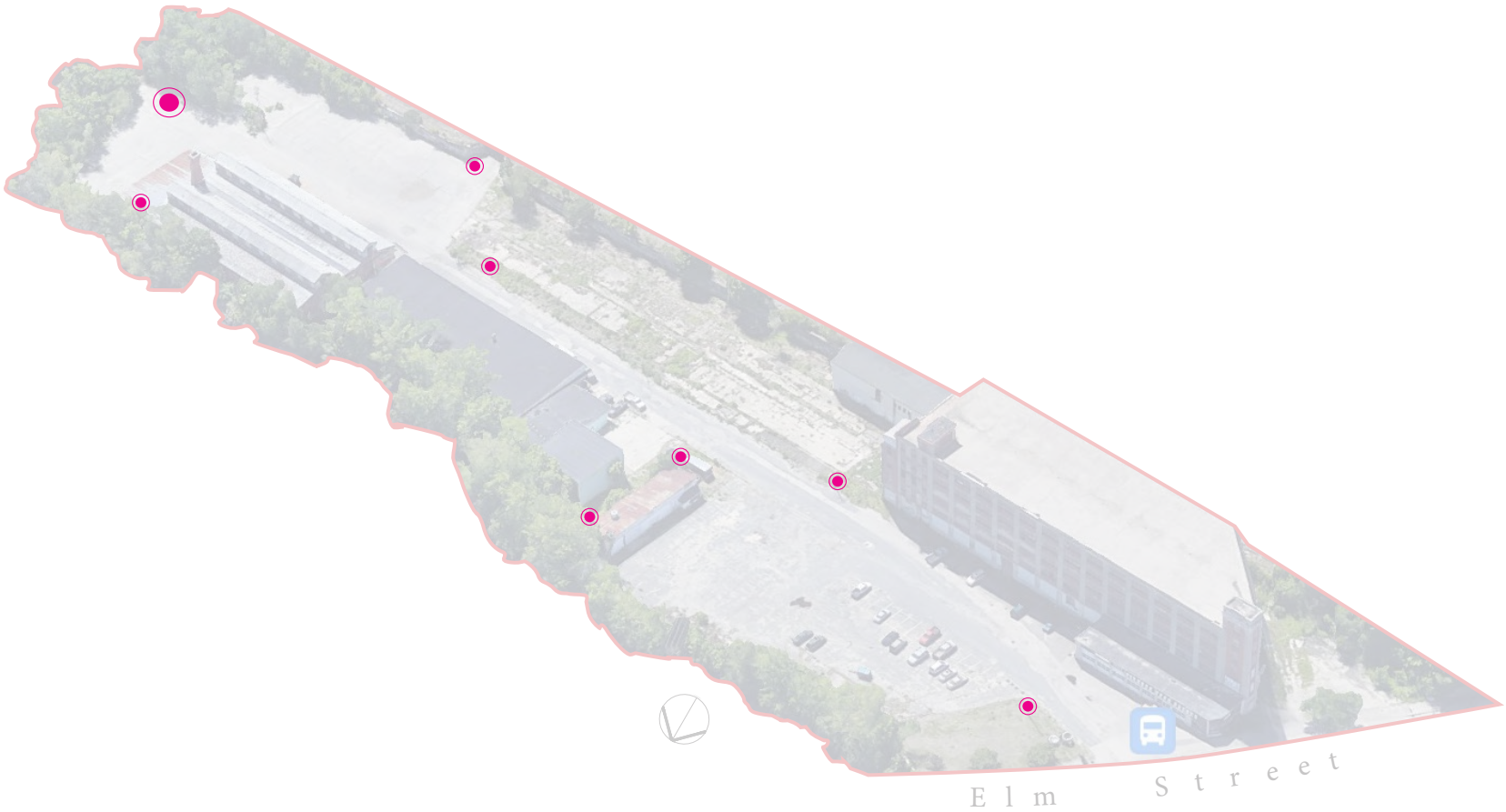
Streetscape/ Complete Streets / Flexible Streets



Site Amenities, Public Open Space & Plazas



Wayfinding, Signage & Public Art



Local Artist - Kaspar Henrici



PLANNING BOARD
REPORT

April 14, 2022

Biddeford Planning Board
Hannah Bonine, Assistant City Planner
City of Biddeford
205 Main Street
Biddeford, Maine 04005

Application: New Electrical Substation– CMPCO
466-468 South Street (Tax Map 2 Lot 401)

Final Plan Review

Review Status: Application last reviewed on 2/2/22.
(New information and comments are in red below)

Board members and Mr. Tansley,

The following application information has been provided for review:

1. Application form dated 10/12/2021.
2. Project narrative; *Central Maine Power Company Biddeford Pump Substation*, prepared by TRC Companies, LLC, dated 11/9/2021. (Includes location map)
3. Engineering Plans entitled: *Biddeford Pump S/S, Biddeford ME*. Prepared for Avangrid, prepared by Main Line Energy Consultants, LLC, that include the following drawings: *Civil Site Plan, Facility Grading Plan, Detention Pond Details, Erosion Control Plan* and *Details*, REV Date: 9/8/2021.
4. Building/Electrical Components Plans/Elevations entitled: *Biddeford Pump S/S, Biddeford ME*. Prepared for Avangrid, prepared by Main Line Energy Consultants, LLC, that include the following drawings: *General Arrangement* (plan), *General Arrangement* (sections), sheets 1 through 6. **REV Date: 2/25/2022.**
5. Visual Assessment/Rendering entitled: *Three-dimensional Model of the Biddeford Pump Substation*, and two photo simulations; *View from South Street* and *View from South Street Entrance*. Prepared for Avangrid, prepared by Westwood Professional Services. Date: 10/14/2021

6. Plan set entitled: *Biddeford Pump Biddeford, Maine.*, Landscape Buffer Screening Plan. Prepared for Avangrid, prepared by Westwood Professional Services. Date: 10/12/2021. (Includes *Overall Landscape Screening Plan* and *Landscape Screening Notes & Details*). **REV Date 3/14/2022.**
7. Sound Study prepared by Westwood Professional Services. Date: 11/8/2021.
8. Letter from TRC dated 1/11/2022; *RE: Response to Request for Information Land Use Application for the Central Maine Power Company Biddeford Pump Substation, South Street Biddeford, Maine*, and associated plans and documents.
9. Letter from TRC dated 3/16/2022; *RE: Land Use Application for the Central Maine Power Company Biddeford Pump Substation, South Street Biddeford, Maine.* (Response to Comments from Feb 2 PB meeting).
10. Easement dated 3/18/2022; *Drainage easement to be conveyed to Central Maine Power Company 16,3365.35 Sq. Ft.*
11. Photo simulations from South Street: *Biddeford Pump, Biddeford Maine.* Prepared for Avangrid, prepared by Westwood Professional Services. Date: 2/23/2022
12. Stormwater Report: *A Report for Water Resources Services Biddeford Pump Station Storm water Management Conceptual Design Report.* Prepared by Westwood, dated 2/25/2022.

With review of the above information and the Land Development Regulations, I offer the following comments on compliance with the City's ordinances. See attached for engineering related comments from Site Design Associates.

PROJECT DESCRIPTION

The project site, located on a new lot, portion of the Maine Water Company (MWC) property on South Street. The site is located in the SR-1 Zone and is outside the shoreland overlay zones associated with the Saco River and nearby Swamp Pond Brook, though falls within the 1,000-foot SRCC (Saco River Corridor Commission) Buffer. The proposal is to construct a new electrical substation, replacing an existing substation that is inadequate for MWC's new and expanded facility.

COMPLETENESS REVIEW

The proposed development is before the Planning Board as required by Article XI Site Plan Review of the City's Land Development Regulations. Per Section 4.B.II.G any development subject to a conditional use permit that will result in 5,000 SF or greater of impervious surface is subject to Major Site Plan Review. Per the Table of Land Uses in Article V, the proposed use, *Essential Services*, is a conditional use in the SR-1 Zone.

As outlined in Part II Procedure for Site Development, Sec. 3 requires major project review to be conducted in two steps; sketch plan and final plan. The sketch plan was reviewed at the 11/3 meeting.

The applicant has prepared and submitted a narrative that describes the application's compliance with applicable provisions. The applicant has also submitted engineering plans, building and equipment elevations, landscape plans for proposed screening, and visual assessment renderings/photo simulations. The Planning Board may want to consider the following for a complete application:

1. All easement information, off or on site, that pertain to the proposed development. **A drainage easement has been submitted.**

COMPLIANCE WITH THE CITY'S ORDINANCES

The proposed development is a public utility that is defined in the ordinance as *Essential Services*. In addition to Site Plan Review there are two primary regulatory provisions that this use and development are subject to: *Conditional Uses* (Art. VII) and Sec. 27 under Performance Standards (Art. VI) *Essential services and water supply systems*. Below are some, not all, the provisions the applicant will need to review and address in subsequent submissions.

CONDITIONAL USES (ART. VII)

1. Sec. 6. Standards. The applicant has provided responses in writing to each of the standards. There is reference to a Maine Water Co. application for the new treatment facility concerning potential impacts to environmental and archeological resources, however, no information was submitted. A sound study was prepared to address the potential impact from the proposed facility (see Exhibit 8, end of the submittal). **Response to the standards are found in the most recent letter submitted dated 3/16/2022 by TRC, page 5.**

PERFORMANCE STANDARDS (ART. VI)

2. Essential services and water supply systems (SEC. 27). The applicant has addressed in writing these standards. As mentioned above, a sound study has been prepared. An easement on an abutting lot is referenced in response to Sec. 27.A, requiring where feasible such development to be located in the ROW. **Response to the standards, including Sec. 12 Buffers, are found in the most recent letter submitted dated 3/16/2022 by TRC, page 3.** The applicant should elaborate on the easement and clarify on its location. Is it the easement shown on the lot n/f Martin Family Trust? (Civil Site Plan). **The applicant has submitted easement information.**

SITE PLAN REVIEW (ART. XI)

3. Sec. 5.B. Site design criteria. The applicant has addressed in writing these standards. The following are items the Board may want to further consider:
 - a. Sec. 5.B.4.c Fire protection. The applicant has addressed fire protection under the Conditional Use standards; however, it would be prudent to have the Fire Department review the proposed facility for the Board's consideration. **It is not clear if this comment has been addressed.**
 - b. Sec. 5.B.4.d Landscaping. The applicant has submitted a landscape screening plan. Considering there is a fair amount of mature trees being removed, the plant palette includes only vegetation that will mature to fairly low heights. It is understood that there are specific setback requirements for tall vegetation from the substation equipment and lines, however, there appears to be opportunities outside these setbacks.
 - i. Additional evergreen trees should be considered to augment the existing deciduous trees to be preserved on South Street and along the abutting property line. Installation should be sized at 8'- 10' high. (See attached sketch) **The plan has been revised to address the comment.**
 - ii. The Northern Bayberry (NBB) proposed should be spaced closer together to make an effective screen, such as 5 feet, less than the more than eight feet which is greater than the shrubs mature width. **The spacing has not been revised.** Along with the recommended 5-foot spacing, after seeing the trees in this vicinity of South Street to remain per the plans and the likelihood that they will not contribute much to the screening, adding to the proposed bayberry shrubs and extending their limits to the street would provide a more effective screen.
 - c. Sec. 5.B.4.m Historic and archeological resources. The applicant references prior submittal information from the MWC's previous regulatory review. Nothing has been submitted as part of this application. In the absence of something more tangible, it is difficult to determine conformance to this standard. At a minimum, and what is typically done with such applications, letters from the local and state historic preservation commissions stating there are no resources known to be located on the property. **The applicant has submitted a copy of the Maine DEP Site Law approval for Maine Water Company's Saco River Water Treatment Facility project that includes discussions on historic and archeological resources. Staff has been able to locate the previous Site Law application in the City file and it appears the site was reviewed as part of the larger permit review in 2017 and 2019, which also includes environmental review as well.**

4. **Sound Study.** The applicant has submitted a sound study for the Board's consideration. The anticipated noise level from the associated fans to cool the proposed generators is calculated and the study concludes the at the distance the abutting property line, the sound generated would be lower than the levels permitted under the noise ordinance. The Board may want to consider the following:
 - a. What is the context of the existing site and surrounding area as to the ambient noise level, is it as high as the permitted noise levels or significantly lower? In other words what is the increase of noise at the property line? Is the potential noise of approximately 40 dB(A) at the property line consistent with what the noise level is today? If not, what is the increase? Perhaps if it is a significant increase it may need to be further mitigated. **The applicant has submitted a sound study that states the noise levels generated by the proposed facility will not exceed the limits identified in the Sound Ordinance (Sec. 34-54) which is 55db (7AM to 10PM) and 45db (10PM to 7AM) measured at the property line. The ordinance includes procedures for the City's Noise Control Officer (presumably the Code Enforcement Officer) to measure and determine noise levels when there is a complaint. The same can be said for review by the environmental agencies review as well.**
5. **Utility connections.** The applicant states there are no utility connections required.
6. **Easements:** Are there easements planned or have been executed to access the existing MWC drive and use of property for the proposed driveway aprons? **Access easements have been submitted that address this comment.**
7. **Saco River Corridor Commission.** The prior approval referenced should be submitted for the City's file. **This has been submitted.**
8. **Plan revisions:** the following revisions should be considered:
 - a. All plans should be stamped by the appropriate licensed professional and signatory approval blocks provided. **Only the Site Plan was re-submitted which is stamped.**
 - b. All proposed and existing easements should be depicted on the Site Plan. **Not all easements are reflected on the plan.**
 - c. The vegetated buffer limits proposed should be depicted on the Site Plan, referencing landscape plan. **This has not been addressed.**
 - d. Address and tax map information should be provided on the Site Plan. **This has not been addressed.**
9. **Stormwater/Engineering review comments.** There remains outstanding items or insufficient information as to the comments Site Design has regarding the proposed engineering and stormwater design. **Tom Soucier's comments are attached.**

10. Lighting. There was some discussion on lighting at the last meeting, the applicant should submit information that demonstrates the proposed lighting (e.g. fixture and pole details) will not create glare and are night-sky compliant.

WAIVER REQUESTS

None requested.

CONCLUSION

The Planning Board and applicant have received comments from the abutters and neighbors and the applicant has responded in writing. The Board visited the site to provide an opportunity for context and orientation in considering issues raised. The Board should determine if those issues germane and pertinent in considering the proposed development are addressed and, if the items outlined above (summarized below), and any comments from the peer-review engineer, and city staff, can be addressed as a condition of approval or it will need to review revised plans prior to final approval.

Outstanding items reflected in the review comments above:

1. Fire Department review
2. Revisions to landscape buffer planting design
3. Housekeeping plan revisions
4. Stormwater comments from Peer-review.
5. Lighting details.

Feel free to contact me with questions.

Best regards,



Christopher Di Matteo
City of Biddeford Contract Planner.
cdimatteo@longmeadowpla.com
207.604.4245

Site Design Associates

Consulting Engineering and Land Planning

April 14, 2022

Hannah Bonine

Via email

**RE: Biddeford Pump Substation
South Street**

Dear Hannah;

Per your request Site Design Associates has undertaken a review of the revised plans and stormwater management analysis submitted in support of a site plan application for the referenced project. The documents were revised in response to our January 31, 2022 review comments. Without a cover letter from the applicant addressing each comment, it was a bit difficult to verify what has and hasn't been addressed.

Given that the disturbed area will be over one acre proposed, it appears the project will require that a stormwater PBR notification be filed with the DEP.

Based on our review we offer the following comments for your, the planning board's, and the applicant's consideration:

A. Applicant's January 11, 2022 Response Letter

1. Addressed.
2. Addressed.

B. Stormwater Management Plans, Report, and Calculations

1. The report indicates the FAA equation was used to calculate the time of concentration. We are not familiar with that method. The FAA method is typically used to estimate the time of concentration over uniform slopes and surface cover, such as airfields, and the results seem high for a site of this nature. Additionally, the pre-development calculation used a flow length of 400 ft with a 0.02 ft/ft slope, and there is no documentation of the post-development calculation. The flow path utilized should be shown on the drainage plans. **The calculation still reflects a 0.02 ft/ft slope, which is not accurate, and no post-development documentation is provided in the report.**
2. Addressed.
3. Addressed.
4. Addressed.
5. **The report continues to refer to the pre-development site as an unimproved industrial area. The existing site is primarily woods on HSG C soils, and a more reasonable coefficient was utilized in the revised analysis.**

23 Whitney Way Topsham, Maine 04086
Phone: (207) 449-4275 email: info@sitedesignassociates.biz

6. Addressed.
7. The Detention Pond Detail sheet includes several tables apparently reflecting the stormwater runoff and routing calculations. It would be beneficial if the narrative could be updated to include more explanation of the runoff and routing methodologies and calculations. **Not addressed, and no orifice flow calculations were evident.**

C. Erosion and Sediment Control Plan Narrative

1. The narrative should include a post-construction inspection plan and forms. **Not addressed. A stand-alone site Inspection and Maintenance plan should be provided.**
2. The relevant section of chapter 500 appendices A, B, and C should be included in the drawing set. **Not addressed.**

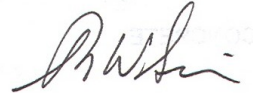
D. Drawings

1. Addressed.
2. Addressed.
3. Facility Grading Plan
 - a. The grading of the detention basin berm reflects a width of 4 ft and less. A minimum of 6 ft is required per the DEP BMP manual. **Plan has been revised. Details still show a 4 ft width and should be revised.**
 - b. Addressed.
 - c. The emergency spillway should be constructed to outlet on native soil, and if that is not possible, **be located a minimum of 20 ft from the principal outlet. Not addressed.**
 - d. Sediment pre-treatment should be provided. **Not addressed.**
 - e. **What are the plans for the existing substation?**
 - f. Inlet protection should be provided at the inlet end of the detention basin outlet. **Not addressed.**
4. Details
 - a. A typical section of the emergency spillway should be provided, showing dimensions and material specifications. Documentation that the emergency spillway can independently convey the 25 year storm and maintain one foot of freeboard should be provided as well. **Not addressed. Insufficient freeboard and no riprap specifications shown.**
 - b. Detention basin soil materials should be specified and depths noted on the detail. **Not addressed. Need material specifications and compaction requirements.**
 - c. Addressed.
 - d. A trash rack should be specified for the basin outlet. **A detail is provided. This should be called out on the pond details and/or plans.**

- e. More information is needed relative to the pond discharge/outlet calculations. **Need calculations for revised outlet configuration.**

As you will note, the remainder of our comments are technical in nature. If you and the planning board are so inclined, we suggest addressing these comments as a condition of approval would be an option. If you have any questions, or require additional information, please do not hesitate to contact me.

Sincerely,
Site Design Associates

A handwritten signature in black ink, appearing to read 'Tom Saucier', with a stylized flourish at the end.

Tom Saucier, P.E.
President

March 16, 2022

Ms. Hanna Bonine
Assistant City Planner
City of Biddeford
P.O. Box 586
205 Main Street
Biddeford, ME 04005

**RE: Land Use Application for the Central Maine Power Company Biddeford Pump Substation,
South Street Biddeford, Maine**

Dear Greg,

Based on comments received during the February 2, 2022 Planning Board meeting and comments from area residents Central Maine Power Company (CMP) is providing additional information and discussion regarding its proposed replacement Biddeford Pump Substation (Project). There have been numerous questions and comments regarding the size of the substation, heights and configuration of the equipment, and CMP's compliance with various performance standards found within the City's land use and development ordinances. The intent of this letter is to address these issues and questions to the satisfaction of the Planning Board (PB).

PROJECT PURPOSE AND NEED

The construction of the new Biddeford Pump Substation is important and necessary for maintaining and improving reliability of electrical services and providing for future needs. The Project provides a solution to an ongoing electrical distribution problem that could if not resolved adversely impacts the electrical service to areas residents and businesses. The Project adds substantial reliability, efficiency, and stability to the local distribution system. CMP plans to replace and upgrade the functions of the substation to a new state of the art facility that will provide significant improvements to the efficiency and reliability of electrical service to the local distribution system and support the new MWC facility.

The existing substation is below electrical efficiency and reliability standards and the age and condition of the facilities do not adequately support the community and potential growth. For example, the transformer is historically overloaded during peak load times of the year, as such CMP operations division installed a mobile transformer during the summer of 2021 to bypass the old transformer due to this chronic system overloading. The mobile transformer will likely return next summer and until the Project is built and commissioned.

The infrastructure of the existing substation does not conform to stormwater management, drainage, and containment standards of the State of Maine Chapter 500 Stormwater Management Regulations. The existing substation site does not have subsurface oil containment for the transformer. The new transformers will have internal secondary containment and subsurface containment that will meet state water quality standards.

Attachment 1 provides an assessment of an alternate site adjacent to and north of the existing substation, which was completed at the request of abutters during the February 26, 2022 site visit. Additional communications completed in good faith by CMP have been provided as Attachment 2.

CMP recently completed Issued For Construction level civil engineering plans (Attachment 3) and Issued For Construction level electrical component plans (Attachment 4).

SUBSTATION DESIGN CRITERIA

Substation design is subject to providing adequate protection from lightning strikes as required by the Institute of Electrical and Electronics Engineers (IEEE) 998 Standard. A lack of effective lightning protection in the design results in the major substation equipment (i.e. power transformers) not being effectively protected and this increases the probability of equipment damage and power outages from a lightning strike. The primary means of substation lightning protection are the lightning masts, tall cylinder-shaped additions to the steel structures and the standalone lightning mast steel structures. The lightning masts must be an electrical engineered based height to provide protection as determined by a Lightning Protection Study.

The existing customer load at the current Biddeford Pump Substation is above the nominal capacity of the existing transformer during certain periods of the year. Continuing to operate the station under these conditions will result in equipment failure and long power outages until a replacement or mobile transformer can be installed onsite. The mobile transformer is intended and functions for emergency and temporary critical situations and is not sufficient for long-term reliable use. It also generates sound that can be heard outside the CMP property. Furthermore, the existing substation does not have the electrical protections described above and does not meet the clearances described below.

The high-side of the Power Transformer is protected by power fuses and in the event one or several of those fused are blown, CMP's substation personnel must go to the substation to replace them, which causes a long power outage due to travel times from CMP's Service Center and the installation process. The proposed new substation has breakers with remote open and close capability, which eliminates the need of substation personnel to be on site to restore the power.

Substation steel structures and overall equipment layout need to be designed with the required electrical distances (per IEEE standards C37.32 and 1427) between the electrical conductors (phases) and between electrical conductors and the nearest grounded object(s).

The clearances are as follows:

Recommended Electrical Clearances					
Volt (kV)	Phase to Ground (in.)	Phase to Phase (in.)			
		Metal to Metal	Bus Support Vert. Break Disc.	Horiz. Break Disc. Switch	Horngap Disc. Switch
		Minimum	Recommended	Recommended	Recommended
15.5	7	12	24	30	36
34.5	13	18	36	48	60

The substation yard must have enough space between the fence, steel structures, control house and substation equipment to allow for CMP's bucket trucks to safely maneuver around the substation and take into consideration the turning radiuses of the trucks. The required installation space to set up the mobile substation inside the substation also requires fence, steel structures, control house and substation equipment to be spaced adequately from each other for maneuvering the mobile transformer into place and connecting its cables to the substation's infrastructure to restore power. In the event a power transformer fails there needs to be adequate space around the transformer to set up a crane to swap out the failed transformer with a replacement that would be brought into the substation on a tractor-trailer.

IEEE C2 (National Electric Safety Code) Article 110 impose distances which governs the separation between the Substation fence and the closest energized bus and/or equipment. Article 124 of this standard also provides the required vertical and horizontal clearances to live parts.

Oil filled equipment (i.e. Power Transformers) needs to be separated from other equipment and buildings to prevent a potential fire from damaging adjacent equipment or affecting their use in restoring or maintaining electric service.

Alternative arrangements and electrical components were considered using non-CMP-standard arrangements and equipment. These were considered to reduce the visibility of some of the electrical components primarily from South Street and to allow vegetation to grow taller at the distribution line that exits directly to South Street.

- Use of horizontal switches instead of vertical ones;
- Placing lightning arrestors at lower elevations on the 12 kV and 34.5 kV box structures;
- Re-route the 12 kV distribution lines from the north side of the new substation;
- Place the distribution line underground.

Drawbacks to these alternatives were significant but would provide only minimal benefits.

- Increased risks of lightning strikes and outages;
- Reduced reliability;
- Redesign work and project delays of procurement and critical path items of one year;
- Overload transformer would need to be used for an additional two years;
- Obtaining new easements for relocating the driveway and distribution lines;
- Increased visibility from one residence on Hayfield Road and from multiple residents on Fox Hollow Drive; and
- Increased costs.

Given these negative implications CMP will move forward with using its standard design elements.

PERFORMANCE STANDARDS

Based on Article VI Performance Standards, specifically in Section 12. Buffers 3. A. criteria are reference as follows:

No structure shall be erected or any use permitted in nonresidential districts, which abut residential districts, unless a buffer strip at least 30 feet wide is provided and maintained between any adjoining residential district or use and the nonresidential structure or use. Such buffer area shall be for the purpose of eliminating or minimizing any adverse effects upon the environmental

or aesthetic qualities of abutting properties or any type of nuisance affecting the health, safety, welfare and property values of the residents of Biddeford. This requirement may be waived by the Planning Board upon request of the applicant if it can be demonstrated that the waiver is warranted or necessary due to existing conditions and/or if other means of eliminating or minimizing any adverse impacts on residential structures or uses can achieve the same purpose, such as, but not limited to, the installation of stockade fencing or noise barriers.

The essence of this standard is to provide a buffer strip “30 feet wide” that is “minimizing any adverse effects” that a development might potentially have on abutting properties. The standard specifically holds the applicant to the standard of “minimizing” and does not specifically require eliminating visual effects or blocking visibility. CMP has demonstrated that the Project is consistent and in compliance with this performance standard by providing buffering and screening using existing vegetation and proposed landscaping. Based on site specific observations and an assessment of the expected post development conditions, the Project is adequately screened from neighboring properties through the preservation of existing vegetation and landscaping plus augmentation with plantings creating a buffer 30-feet wide (Attachment 5 landscaping plan). Retained native vegetation including canopy trees will provide year-around screening even during “leaf-off” seasons by breaking up the visual pattern of the substation components, especially given that the floor elevation of the substation yard is 10-12 feet below the grade of South Street (Attachment 6 leaf-off visual sims & 3D model). During leaf-on season the preserved and planted vegetation and natural regeneration will provide screening and will block much of the view of the substation components that are at eye level. The overhead distribution lines that extend from the substation to the roadside distribution structures must have clearance with vegetation no taller than 10 feet below the lowest sag of the lines. This requirement negates the ability to plant or allow trees unlimited growth in this area, hence there are only height limited species planted under these distribution lines.

The adjacent residences have native vegetation on their respective properties between them and the substation that provide a level of buffering in addition to that provided by the Project. The nearest residence is 158 feet on Hayfield Road west from the nearest substation component (lightning mast) and will be screened by a stand ranging in width from 30 to 80 feet of dense mature mixed hardwoods and pines both within the CMP and the abutter’s land. The next closest residence on Hayfield Road is 200 feet from the nearest substation electrical component (lightning mast) and is buffered by 160 feet of native vegetation.

The primary residence south of the project is 380 feet from the nearest substation component (distribution lines busbar) and is buffered from the substation by natural and planted vegetation on that property. Furthermore, screening is provided by the buffer of native hardwoods and pines augmented with landscape plantings on the Project. A view towards this residence from South Street near the interconnection of the distribution circuits shows that the residence is not visible from the Project and vis a vis the substation is not visible from the residence.

Residences on Fox Run Road are over 820 feet from the substation and have a buffer of native vegetation 25-70 feet along their property boundaries and will provide screening and reduce the visibility of the substation.

Based on Article VI Performance Standards, specifically in Section 27: Essential services and water supply systems.

A. Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors.

D. Essential services and water supply systems structures and facilities shall be sited and developed in accordance with the provisions stated in this ordinance.

E. All conditional use permit applications for essential services and water supply systems shall include an assessment of potential environmental and health impacts to abutting properties as a result from noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes as applicable, unless a waiver is requested by the applicant and granted by the Planning Board.

CMP has located and designed the Project to be consistent with **Section 27 A** by purchasing the current site which is adjacent to the existing 34.5 kV transmission line and local distribution line and within 100 feet of the existing substation. Options to move the substation to another adjacent location to the east and northeast provide no buffering as those areas are open fields and are partially wetland. Moving the substation to the north would put the substation in the Shoreland Zone and closer to the Saco River and create unnecessary environmental impacts (Attachment 1).

To address **Section 27 E**, the following is provided to address environmental issues. The operation and maintenance phase of the Project, which is operational fulltime (24/7, 365 days) as an essential service, will not create vibrations, fumes, odor, dust, or glare. The only noise producing equipment onsite are the transformers, both the transformers themselves and the cooling fans and the sound study provided as Attachment 9 (sound study) documents those municipal standards for noise are met by the Project and will not interfere with the quiet enjoyment of residential properties. This study shows that sound levels at various locations along the property boundary range from 29.7 to 41.0 dBA. The noise level standard during daylight hours (7am-10pm) is 55 dba and 45 dba during evening hours (10pm to 7am). The noise levels modeled for the Project are below the City's standards.

The entire substation yard is comprised of crushed rock and does not contain sand or gravel that could otherwise produce dust. The steel components are covered with a flat galvanized coating that does not create glare. The entire transformer system is secured on concrete foundations, and which are on top of crushed rock and do not produce vibrations, exhaust fumes, or odor. Mineral oil used as a coolant in the transformer is completely contained in the transformer and does not produce any odors and is prevented from leakage by internal secondary containment.

During the February 2, 2022, Planning Board meeting CMP was requested to specifically address four performance standards as discussed below.

CONDITIONAL USE

Based on Article VII Conditional Use, specifically in Section 6. Standards B. criteria are reference as follows:

4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;



The terms “detrimental” and “unsightly” are not defined in the City’s ordinances. Referring to accepted definitions these terms can be defined as “harmful or damaging” and “ugly or not pleasant to look at”, respectively. As has been discussed, the Project does not produce harmful and adverse effects on health or environmental conditions for individuals in the adjacent and surrounding areas. Whether a substation is unsightly to look at would be considered subjective. CMP has made *every reasonable effort* to buffer and screen the Project from neighboring homes. The following provides an overview of the proximity of the homes and buffering conditions on and adjacent to these homes. These homes have screening on their properties and when augmented by the buffering provided on the Project will leave only minimal visual exposure to the tallest substation components, which are slight in diameter. During the leaf-off season the buffers provide screening that breaks up the pattern, especially at “eye-level” of the substation equipment. During the “leaf-on” period the natural buffer will completely screen all but the upper portions of the tallest lightning masts.

The Project includes a 30-foot-wide buffer comprised of the preservation of existing trees and shrubs augmented with landscape plantings to provide significant year-around screening from nearby homes and South Street. To further augment the buffer there is screening provided by existing vegetation between the proposed substation and the adjacent homes, typically vegetation on or adjacent to these properties. In some areas these vegetative buffers are significant and will provide significant screening in addition to the screening on the Project. The following provides a brief discussion of the proximity of adjacent properties. The nearest private residence is 120 feet to the west of the Project (Hayfield Rd) and will be buffered by a strip of existing native vegetation and plantings 30-80 feet wide. The next closest house on Hayfield Road has a buffer of native vegetation, both on the residential property and on the Project that is greater than 100 feet wide. The next nearest home is approximately 380 feet south of the Project and is substantially buffered by vegetation on that property including trees and shrubs along the roadside and mature pine and hardwoods that directly screens the residence from the Project. Other single-family homes on Fox Hollow Road in the immediate vicinity are approximately 800 feet from the Project and are screened by existing natural vegetation, hence the Project will have only minimal visibility if any, from these homes.

5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;

The **Section 6. Standard B. 5** is the same standard referenced in **Article VI Performance Standards**, specifically in **Section 27: Essential services and water supply systems** and CMP’s response is repeated here. The operation and maintenance phase of the Project, which is operational fulltime (24/7, 365 days) as an essential service, will not create vibrations, fumes, odor, dust, or glare. The only noise producing equipment onsite are the transformers, both the transformers themselves and the cooling fans and the sound study provided as Attachment 9 documents that municipal standards for noise are met by the Project and will not interfere with the quiet enjoyment of residential properties. This study shows that sound levels at various locations along the property boundary range from 29.7 to 41.0 dBA. The noise level standard during daylight hours (7am-10pm) is 55 dba and 45 dba during evening hours (10pm to 7am). The noise levels modeled for the Project are below the City’s standards.

The entire substation yard is comprised of crushed rock and does not contain sand or gravel that could otherwise produce dust. The steel components are covered with a flat galvanized coating that does not

create glare. The entire transformer system is secured on concrete foundations, and which are on top of crushed rock and do not produce vibrations, exhaust fumes, or odor. Mineral oil used as a coolant in the transformer is completely contained in the transformer and does not produce any odors and is prevented from leakage by internal secondary containment.

8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties which could be avoided by reasonable modification of the proposal;

The Project is within a tract of land that has served essential service uses for several decades, including the buildings and infrastructure, for the production and treatment of potable water and its own substation, which was built in the 1950's. The surrounding community is a mix of essential services and residences as such the property values must have been established with consideration for the existing and reasonably foreseeable mixture of land uses.

CMP has demonstrated the need to replace the new Biddeford Pump Substation and improve the efficiency and reliability of service to the community. CMP documented the basic design criteria necessary to develop a safe and functional substation including the size of the substation yard and the arrangement, configuration, and sizes of the electrical components. CMP does not have the ability to modify these components, especially the safety setbacks, in any way that would reduce their visibility. Reducing the size of the substation yard is not an option and would otherwise compromise safety and reliability and would not reduce the heights of the electrical equipment.

11. The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;

Electrical substation components are designed for their specific engineering purposes. The sizes, setbacks, and locations of the substation equipment are based on safety and functionality of the electrical components are not subject to modifications that would reduce safety, function, and reliability. CMP has opted to include state of the art equipment to reduce the need for some equipment that would otherwise be visible in the substation yard. CMP is using gas insulated switchgear (GIS) system incorporated into the control house to reduce the presence of traditional breakers in the substation yard. Electrical conductors that connect equipment is placed underground in ducts for safety and reduces visibility.

To fit in harmoniously, the Project has significant screening and buffering created by the preservation of native trees and shrubs and will have limited visibility from adjacent residences. The visual assessment provided in Attachment 6 provide examples of how the natural and landscaped buffer will provide screening and reduces the visibility of the electrical components. Furthermore, the Project fits with the established mixed essential services and residential uses that exist in the immediate area.

SUMMARY

CMP proposes to build a new, efficient, and reliable state of the art substation to serve the community in westerly portion of Biddeford and support the regional electrical grid. The Project is located on an established essential services property, subsequently the area is a mixture of essential services and residential uses. The substation and the electrical components have been designed to meet electrical engineering and safety standards. The property obtained for the Project is adjacent to CMP transmission and distribution lines. The Project includes a 30-foot-wide buffer comprised of existing native vegetation

Ms. Hanna Bonine
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and landscaping that screens the substation from nearby residences. Furthermore, existing vegetation either native or planted, on the properties of abutters improves the screening of the Project from these homes. The Project does not produce adverse environmental conditions and sound levels are below the City enumerated maximum noise standards. The Project provides a solution to a electrical distribution and reliability problem that has been ongoing for which there are no other realistic solutions.

Thanks for your input during our interactions and communications with the Planning Board and local residents. Please call or email if you have any questions or comments.

Sincerely,



Mark W. Christopher, M.S. CWB
Project Manager
mchristopher@trccompanies.com
207-441-4225

Attachments: Attachments 1 through 9



ATTACHMENT 1

ALTERNATE SITE ANALYSIS

March 15, 2022

Sent via Email: <jeremy.pettengill@cmpco.com>

Mr. Jeremy Pettengill, PMP
Project Manager
Central Maine Power Company
83 Edison Drive 3rd Floor
Augusta, ME 04336

RE: Proposed Substation Alternative Site, Biddeford Pump Station

Dear Jeremy,

The following provides an evaluation of development potential for the property adjacent to the existing Central Maine Power Company (CMP) Biddeford Pump Substation that could be considered as an alternative for the development of the proposed Substation (Project). The premise for this evaluation is the requirement in the City's Land Use ordinance that Essential Services when feasible be located within or immediately adjacent to existing public rights-of-way or service corridors. To meet this requirement, there are three sites immediately adjacent to the existing substation and the 34.5 kV transmission line: 1) the proposed site; 2) property east of the Maine Water Company driveway; and 3) the property north and west of the substation as described herein. Option 1 is not described as it has been discussed extensively as part of CMP application to the City and through discussions with abutters. Option 2 is not evaluated as a substation to be built as it would be completely exposed visually with no trees or natural buffers and would require extensive wetland impacts. Option 3 is presented based on a discussion and request from abutters at the February 26, 2022 site visit. This evaluation considers land use, development, and permitting considerations for Option 3 as follows.

Option 3: TRC evaluated the land north and west of the existing substation, west of the Maine Water Company driveway, and extending north and downslope towards the Saco River and west towards a protected wetland and a stream delineated by others, referred to herein as Option 3. For the purpose of this evaluation, it is assumed that the MWC would have been amenable to the transfer of the property to CMP in 2019 prior to the issuance of its Site Location of Development Act order. It is also assumed that the property would not have had any encumbrances to development, such as easements, conservation, or environmental issues that could have reduced development potential.

Option 3 as a site for development of a substation has extensive limitations that make it difficult and unsuitable for development of a substation. Topography immediately adjacent to the existing substation has a gradual slope of approximately 2-4% but quickly grades downslope to approximately 8-10% and further downslope increases to 20-25% immediately above the wetland and stream. The elevation adjacent to the existing substation is 79 feet and grades down to 63 feet adjacent to the forested wetland, hence a delta of 16 feet. Compensating for these grades would require extensive "cut" at the upper portion and "fill" to build up the lower slopes and require significant grading that would extend the side-slopes into the wetland and with the toe-of-slope approaching the bank of the Saco River. It is possible that the extension of the side slopes would require fill in the wetland and stream. A civil engineering

evaluation would be necessary to determine if the cut and fill balance or perhaps more likely fill would be necessary to level the substation yard and structurally reinforce the side-slopes.

Potential development of Option 3 would require clearing mature pines and hardwoods including stream buffer vegetation as most of the property is forested and would not allow for maintaining a forested buffer along the easterly side adjacent to the MWC driveway. Some residents along Fox Hollow Road would retain visibility of the substation while visibility from other directions would be reduced.

Potential development of Option 3 would need to be evaluated by regional, local, state, and federal regulatory agencies and would create significant regulatory restrictions if not prohibitions on development of the site. Regulatory requirements and process would dictate that the currently proposed site would be far more suitable for development given the reduction of environmental and natural resources impacts. Natural resources regulations require that the applicant demonstrate that adverse impacts to protected natural resources have been avoided and minimized to the greatest extent practicable and can include an evaluation of alternative sites for which development could result in less resource impacts. The following summarizes regulations and permitting development of Option 3 which would require.

Saco River Corridor Commission (SRCC): The SRCC regulates development within 500 feet of the Normal High Water Line (NHWL) of the Saco River. The entire land area of Option 3 is within this jurisdiction and would require review and approval. The SRCC would evaluate the potential adverse impacts to the river such as direct impacts to resources that connect to the river, visual impacts, stormwater management, and erosion controls.

Maine Department of Environmental Protection (MDEP): The MDEP regulates impacts to protected natural resources through the Natural Resources Protection Act (NRPA) and Chapter 500 Stormwater Management Standards. NRPA permitting for Option 3 could take a variety of forms depending on the type and location of resource impacts. At a minimum, impacts adjacent to the stream would require a permit-by-rule (PBR), which would necessitate a minimum setback of 25 feet from the stream. Direct impacts within 25 feet of the stream and within the stream itself and fill impacts within the forested wetland would require a Tier 3 permit. Stormwater management would require a stormwater PBR depending on the surface area of impervious surfaces.

U.S. Army Corps of Engineers (USACE): The USACE regulates wetland impacts through the Section 404 of the Clean Water Act (CWA), which specifically regulates fill impacts in wetlands and streams. The CWA also requires compliance with the Endangered Species Act and the National Historic Preservation Act. The CWA requires an evaluation of avoidance and minimization of wetland impacts and can require an evaluation of alternative sites that could serve the project purpose and result in less damaging environmental impacts. It is unlikely that development of Option 3 could pass an alternative analysis evaluation and may well not be approved.

City of Biddeford (City): The City regulations have a different focus for which there are requirements for general development and land use impacts. Developing Option 3 would require the same review process

Mr. Jeremy Pettengill

March 15, 2022

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as the proposed project including Site Plan and Conditional Use approvals issued by the City Planning Board. In addition, a portion of Option 3 falls within the Limited Residential overlay zone and is regulated by the Shoreland Zone Ordinance, which includes additional review and performance standards for a project. As with the other regulatory approvals it would be very difficult to justify development of Option 3 when there is another site readily available that would have less environmental and land use impacts.

Regulatory Summary: Due to the proximity to the Saco River and the extensive earthwork that Option 3 would require, CMP would need to provide justification for development of this option, especially considering the proposed project site which would have reduced adverse impacts to protected natural resources and land use performance standards. The regulatory challenges for Option 3 would be very difficult to overcome given the potential for adverse environmental impacts.

Summary: Development of the land north and west of the existing substation has grading and structural challenges that limit the suitability for construction of a substation. Steep slopes would require extensive grading and additional fill that would likely result in stream and wetland impacts and would create the potential for erosion and sedimentation into the Saco River, thus putting the source of potable water at risk. Given that Option 3 creates the potential for adverse impacts to protected natural resources it is unlikely that regulatory agencies would issue the permits referenced above without some significant assurances and documentation that other less impactful sites were not available. These engineering constraints and regulatory encumbrances would eliminate Option 3 from consideration as a potential substation site. Furthermore, if CMP were to pursue this option it would create significant delays due to the design and regulatory efforts needed to bring the substation to fruition.

Please feel free to call or email with any questions or comments regarding this assessment of the development potential for property adjacent to the existing Biddeford Pump substation.

Sincerely,



Mark W. Christopher, MS, CWB
Project Manager
TRC Environmental Corporation
249 Western Ave
Augusta, ME 04330
207-441-4225 (c)

ATTACHMENT 2

ABUTTER COMMUNICATIONS

Biddeford Pump Substation



Name	Mailing Address & Property Location	Phone	Email
Mike Patricia Gendron	10 HAYFIELD RD, BIDDEFORD	207-229-4117 " 272-0930	mgendron4@gmail.com pgendron89@gmail.com
Mike Evans	14 Hayfield Rd, Biddeford	207-282-5777	whaldermewo@comcast.net
Alma Evans	420 South Rd	207-841-9069	Donna Linda 14@gmail.com
Christian/Donna Gordon	493 South St	207-450-1876	gordon493@maine-rr.com
Alex White	475 South St	617-417-3440	alexwhite@maine-rr.com
Wendy Phillips	2 Glenview Dr	207-283-9617	wphillips33@gmail.com
Ann + Richard Olson	6 Hayfield Rd	207-571-4995	RickOlson2015@gmail.com

5/11

Biddeford Pump Substation



Name	Mailing Address & Property Location	Phone	Email
Anthony Chicco	3 Fox Hollow Dr.	882-4364	Rmchicco@aol.com
Bill Southwicks	7100 Planning Bend	889-1544	Southwicks@comcast.net
Victoria Christopher			

Biddeford Pump Site Walk Response Letter

Certified Receipt Number	Mailed From	Mail Date	Owner Name	Address 1	City	State	Zip
70201290000079867734	Western Ave, Augusta, ME PO	3/15/2022	CHRISTINE L & DANIEL P ALDRICH	2 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079867871	Western Ave, Augusta, ME PO	3/15/2022	Biddeford City Council	P.O. Box 586	Biddeford	ME	04005
70201290000079867864	Western Ave, Augusta, ME PO	3/15/2022	Biddeford City Planner Greg Tansley	P.O. Box 586	Biddeford	ME	04005
70201290000079867857	Western Ave, Augusta, ME PO	3/15/2022	Biddeford Clerk Carmen Morris	P.O. Box 586	Biddeford	ME	04005
70201290000079867840	Western Ave, Augusta, ME PO	3/15/2022	Biddeford Mayor Alan Casavant	205 Main Street, Suite 107	Biddeford	ME	04005
70201290000079867833	Western Ave, Augusta, ME PO	3/15/2022	Biddeford Planning Board	P.O. Box 586	Biddeford	ME	04005
70201290000079867826	Western Ave, Augusta, ME PO	3/15/2022	GERALD E BOUTIN JR	7 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079867819	Western Ave, Augusta, ME PO	3/15/2022	ANTHONY M & ROSEMARIE T CHICCO	3 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079867802	Western Ave, Augusta, ME PO	3/15/2022	ANTHONY & HEATHER L CIAMPI	3 HAYFIELD RD	Biddeford	ME	04005
70201290000079867796	Western Ave, Augusta, ME PO	3/15/2022	CITY OF BIDDEFORD	205 MAIN ST	Biddeford	ME	04005
70201290000079867789	Western Ave, Augusta, ME PO	3/15/2022	ROGER DUCHESNE	436 SOUTH ST	Biddeford	ME	04005
70201290000079867772	Western Ave, Augusta, ME PO	3/15/2022	ARTHUR R & BARBARA M GAGNE	1 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079867765	Western Ave, Augusta, ME PO	3/15/2022	MICHAEL R & PATRICIA O GENDRON	10 HAYFIELD RD	Biddeford	ME	04005
70201290000079867758	Western Ave, Augusta, ME PO	3/15/2022	CHRISTIAN J & DONNA L GORDON	493 SOUTH ST	Biddeford	ME	04005
70201290000079867741	Western Ave, Augusta, ME PO	3/15/2022	TRACY L & PATRICK M GREGOIRE	9 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079869561	Western Ave, Augusta, ME PO	3/15/2022	JOHN KIBBIN	5 FOX HOLLOW DR	Biddeford	ME	04005
70201290000079869554	Western Ave, Augusta, ME PO	3/15/2022	THOMAS J & TAMMY LAKEMPER	2418 CASONA LN #7201	Melbourne	FL	32940
70201290000079869547	Western Ave, Augusta, ME PO	3/15/2022	MARCIA V LORD	1 HAYFIELD RD	Biddeford	ME	04005
70201290000079869530	Western Ave, Augusta, ME PO	3/15/2022	MARTIN FAMILY TRUST	1310 HOLIDAY DR	Englewood	FL	34223
70201290000079869523	Western Ave, Augusta, ME PO	3/15/2022	RICHARD J OLSEN & ANNA M SCOPELLITO-OLSEN	6 HAYFIELD RD	Biddeford	ME	04005
70201290000079867925	Western Ave, Augusta, ME PO	3/15/2022	ROBERT A PELLETIER & THERESA L SCHANG	2 HAYFIELD RD	Biddeford	ME	04005
70201290000079867918	Western Ave, Augusta, ME PO	3/15/2022	RICHARD E & WENDY J PHILLIPS	2 GLENVIEW DR	Biddeford	ME	04005
70201290000079867901	Western Ave, Augusta, ME PO	3/15/2022	ZACHARY ROSS & TIA R ROBERTSON	440 SOUTH ST	Biddeford	ME	04005
70201290000079867895	Western Ave, Augusta, ME PO	3/15/2022	THE MAINE WATER COMPANY	93 INDUSTRIAL PARK RD	Saco	ME	04072
70201290000079867888	Western Ave, Augusta, ME PO	3/15/2022	ALEXANDER WHITE	475 SOUTH ST	Biddeford	ME	04005



Jeremy C. Pettengill
Project Manager –
Substation Projects

March 1, 2022

Mark W. Christopher, M.S. CWB
Project Manager
TRC
249 Western Ave
Augusta, ME 04330
mchristopher@trccompanies.com
207-441-4225

Dear Mark,

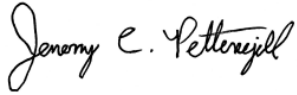
The following is a memorandum that summarizes the topics discussed during our February 26, 2022 9:30AM onsite meeting with abutters regarding our proposed replacement of the existing Biddeford Pump Substation.

During the meeting we discussed the following topics with the abutters:

- Needs and purposes behind the proposed Project
- Size and composition of the electrical components that make up the Project
- Proposed color of the control house building; specifically the siding and roof color
- Vegetative and landscaping screenings, specifically the proposed locations and sizes of the trees and shrubs to be planted in our proposed Project
 - o We discussed our plan to retain as much natural vegetation as possible, including the large trees close to South Street and those along the western side of our property line near the Hayfield Road residents
 - o We also discussed our revised Landscaping Plan where we utilize 8' to 10' tall trees at planting to help screen the site along South Street and from the Hayfield Road abutters
- Sound levels
- Visibility of the structures
 - o We utilized balloons attached strings to identify the height of the tallest structures onsite and the approximate location of these structures
 - o We also had on-hand examples that represented the tops of the lightning masts and box structures as well as the average diameter of the tapered tubular lightning masts above South Street's elevation
- Where our submitted application and additional information resides for public record and viewing; on the City's website
- Notifications sent to the abutters
- Other potential sites reviewed by CMP
- Abutter concerns regarding other unrelated potential and/or proposed developments in the South Street Community

Please let me know if you have any questions, comments and/or concerns on this memorandum and the topics we discussed during the onsite meeting.

Yours Sincerely,

A handwritten signature in black ink, reading "Jeremy C. Pettengill". The signature is written in a cursive style with a large initial 'J' and a stylized 'P'.

Jeremy C. Pettengill
Project Manager



Marc Inman
Outreach Specialist – Projects
Contractor to Avangrid

March 15, 2022

«AddressBlock»

«GreetingLine»

Thank you to those who took the time to meet with us on our site walk at 466-468 South Street in Biddeford.

We wanted to inform you that the requested information from our 2/26/2022 site walk, and meeting, was sent to Greg Tansley, City Planner, Biddeford, Maine, on 3/15/2022 for public record. Please visit the City's website to find our application submittals, and the additional requested information once uploaded by City Staff, at:

- <https://www.biddefordmaine.org/2356/Planning-Board>, and;
- <https://www.biddefordmaine.org/3116/Planning-Board-Materials>

Should you wish to review this information, please reach out to Greg and he will assist you through the City's process. From the City's website, you can contact Greg via email: gtansley@biddefordmaine.org or phone: 207.284.9115.

If you have additional questions, please call our Projects Information Line at 1.888.267.0831, leave a message referencing the Biddeford Pump project and I will return your call.

Sincerely,

Marc Inman

Marc Inman
Outreach Specialist – Projects

ATTACHMENT 3

IFC CIVIL PLANS (under separate cover)

ATTACHMENT 4

IFC ELECTRICAL COMPONENTS (under separate cover)

ATTACHMENT 5

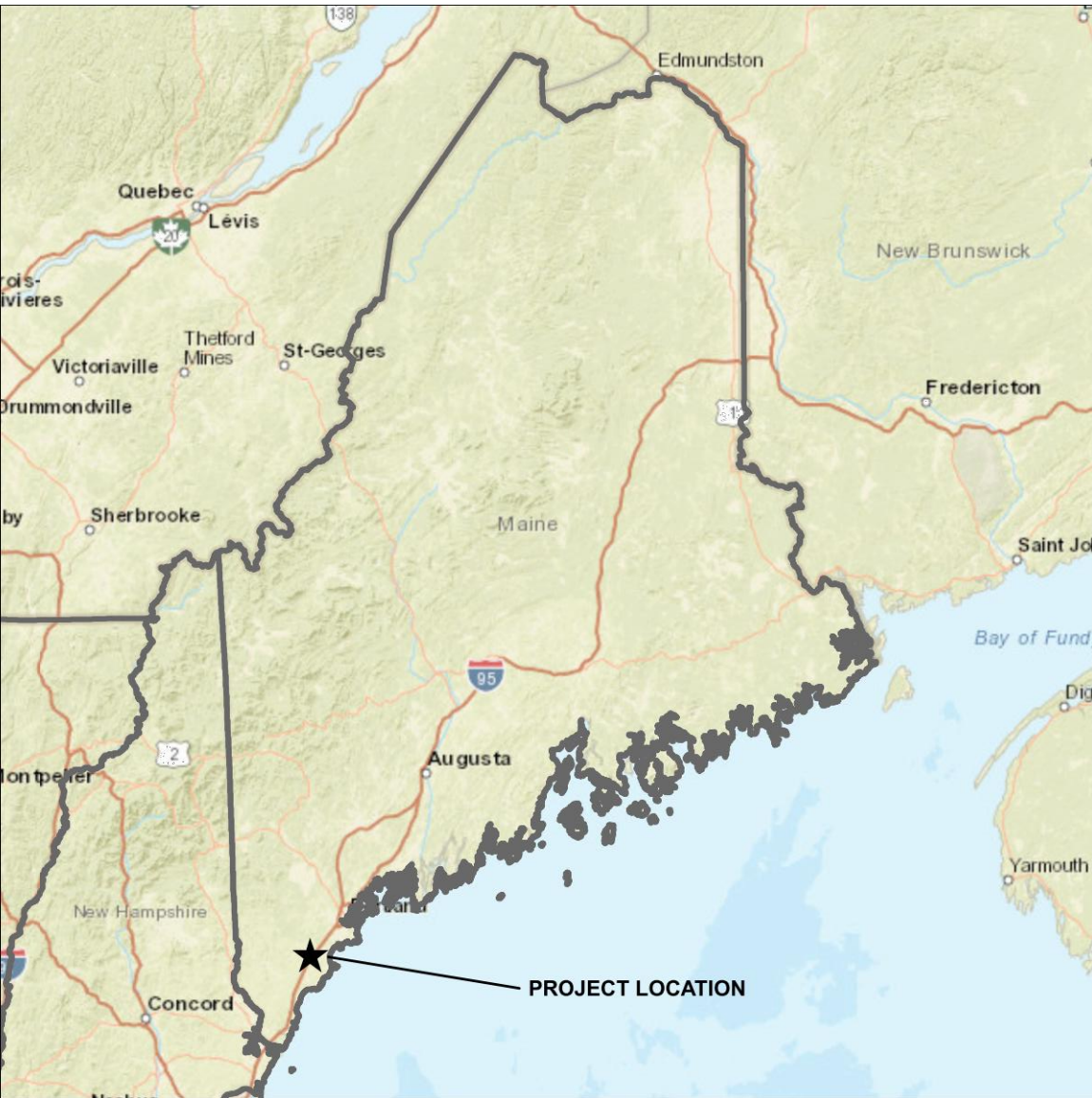
LANDSCAPE PLAN

Biddeford Pump

Biddeford, Maine

Landscape Buffer Screening Plans

REGIONAL MAP



VICINITY MAP



CONTACT INFORMATION			
CONSULTANT	COMPANY	NAME	PHONE NUMBER
PROJECT MANAGER	CENTRAL MAINE POWER	JEREMY PETTENGILL	207-530-1977

Sheet List Table	
Sheet Number	Sheet Title
L.100	Overall Landscape Screening Plan
L.200	Landscape Screening Notes & Details

NOT FOR
CONSTRUCTION

CAUTION!!!
EXISTING UTILITIES IN THE AREA. UTILITIES
LOCATION SHOWN ARE SCHEMATIC IN NATURE
AND MAY NOT ACCURATELY REFLECT SIZE,
HORIZONTAL, AND/OR VERTICAL LOCATION.
THE CONTRACTOR SHALL VERIFY THE EXACT
LOCATION PRIOR TO BEGINNING CONSTRUCTION.
CONTACT AFFECTED UTILITIES AT LEAST 48
HOURS PRIOR TO CONSTRUCTION IN THIS AREA.
(1-800-242-8511)

DATE	BY	CK	APP
10/1/22	EAC	NTM	NTM
02/01/22	EAC	NTM	NTM
02/22/22	EAC	NTM	NTM
03/14/22	NTM	NTM	NTM
DESCRIPTION			
REV			

LOGO

INFO

WESTWOOD PROFESSIONAL SERVICES
12701 WILSON AVENUE, SUITE 200
MINNETONKA, MN 55345
(952) 937-5100

N:\002764\00\00\002764\LOC-Civil.dwg 3/14/2022 1:59 PM Nc Meyer

LAR STAMP

AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID

Cover

BIDDEFORD PUMP S/S

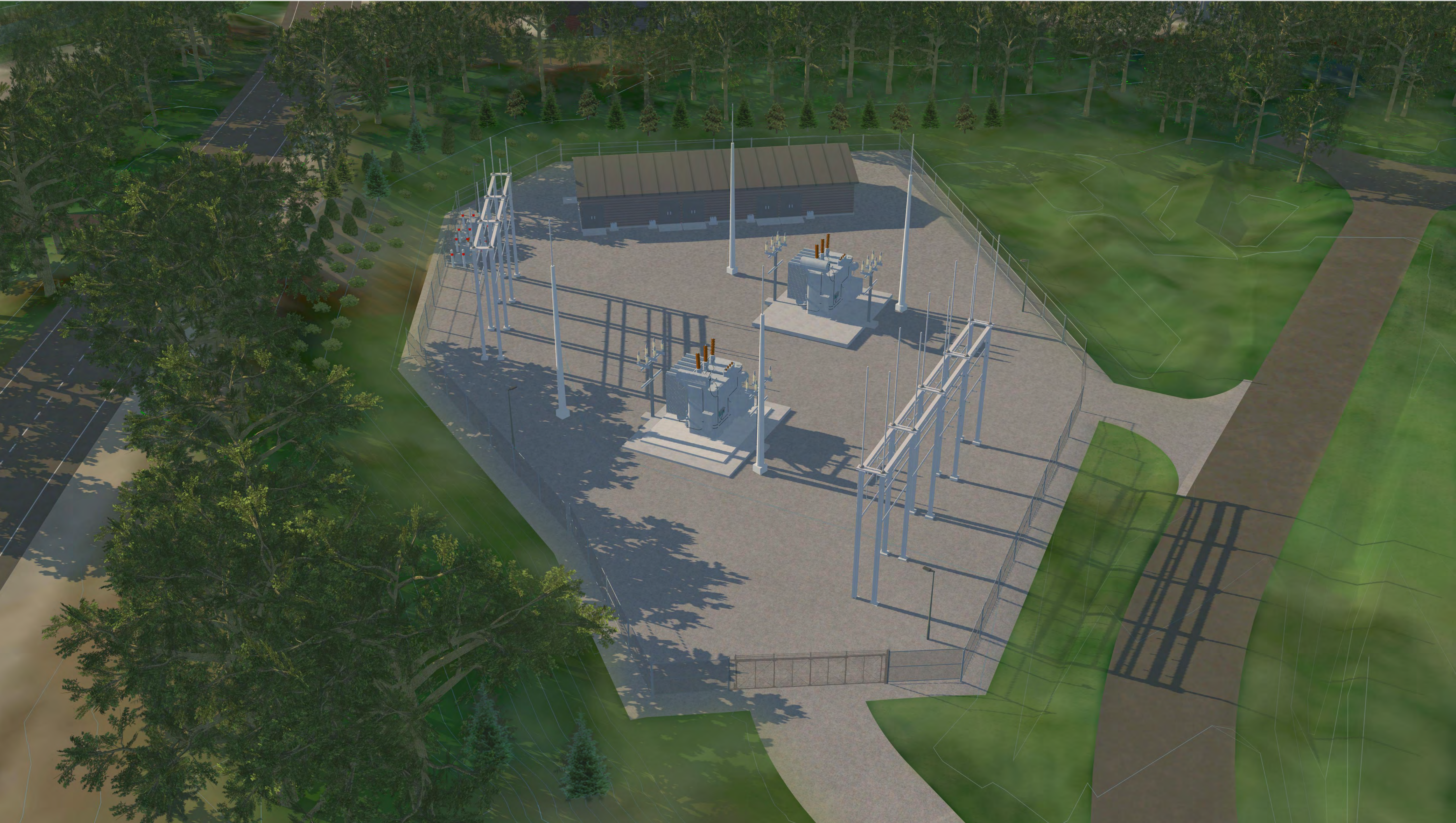
BIDDEFORD, ME

BY	EAC	SCALE: SEE SHEET FILE:	REV
CK	NTM	NO.	
APP	NTM		
DATE	03/14/22	T.100	0-0D

ATTACHMENT 6

3-DMODEL (attached) & VISUAL SIMULATIONS (due March 17, 2022)

AERIAL SITE VIEW TO NORTHWEST



Westwood

Phone (952) 937-5150 12701 Whiteoak Drive
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoods.com
Westwood Professional Services, Inc.

PREPARED FOR:



02-23-22
0027642

BIDDEFORD PUMP
BIDDEFORD, ME

ATTACHMENT 7

STORMWATER MANAGEMENT REPORT (under separate cover)

ATTACHMENT 8

DRAINAGE EASEMENT DOCUMENTS (survey due March 18, 2022)

STORMWATER DRAINAGE EASEMENT

KNOW ALL PERSONS BY THESE PRESENTS, that MAINE WATER COMPANY, with a mailing address of 93 Industrial Park Road, Saco, Maine 04072, successor and interest to Biddeford & Saco Water Company (the “Grantor”) FOR CONSIDERATION PAID, hereby GRANTS to CENTRAL MAINE POWER COMPANY, a Maine corporation with a mailing address of 83 Edison Drive, Augusta, Maine 04336, its successors and assigns forever (the “Grantee”), an easement (the “Easement”), for the purposes described below, over certain land of Grantor’s located on the northeasterly side of South Street so-called, in Biddeford, Maine, and more particularly described in a deed to Grantor’s predecessor dated May 27, 1884 and recorded in the York County Registry of Deeds in Book 400, Page 428 (“Grantor’s Land”). Grantor’s Land abuts, and the Easement is granted for the benefit of, land of Grantee described in a deed from Maine Water Company to Central Maine Power Company dated May 7, 2020 and recorded in said Registry of Deeds in Book 18267, Page 376 (“Grantee’s Land”).

The Easement is granted for the installation, repair, replacement, maintenance and upgrading of a stormwater drainage and ponding, together with the necessary ditching, pipe or conduit for the flowage and drainage of stormwater across and on that portion of Grantor’s Land adjacent to Grantee’s Land, together with the right to flow stormwater through such pipe or conduit to a catch basin on Grantor’s Land, all as shown on the sketch attached hereto as **Exhibit A**, and is granted subject to the following terms and conditions:

1. Grantee shall have the right to enter Grantor’s Land by foot, vehicle and machinery for the purposes of maintaining, repairing and replacing, at Grantee’s sole cost and expense, the drainage, catch basin, pipe or conduit described above. Grantee shall perform all such work at reasonable times and shall not unreasonably interfere with the use of Grantor’s Land by Grantor. After all construction or maintenance activities that involve disturbance of the ground, Grantee shall restore Grantor’s Land to its original condition prior to such work being done, including without limitation regrading, repaving and restriping.
2. Grantor reserves the right to relocate any and all drainage infrastructure installed by Grantee on Grantor’s Land so long as the capacity of Grantee’s drainage system shall not be diminished.
3. Grantee shall indemnify, defend and hold harmless the Grantor and Grantor’s successors and assigns, from and against all loss, cost, damages or claims arising from or related in any way to (i) damage to Grantor’s Land that results from (A) runoff from Grantee’s land, whether contained by the Easement or not, or (B) work done by Grantee under paragraph 1 above; and (ii) violations of environmental laws arising from or related to the use of the Easement by Grantee or its tenants, contractors, agents or any party using Grantee’s Land or the Easement. This indemnity shall include costs of enforcement, including reasonable attorneys’ fees but shall expressly exclude any claims for loss earnings or profits or consequential damages.

TO HAVE AND TO HOLD the aforegranted and bargained Easement, with all privileges and appurtenances thereof, to the Grantee, its successors and assigns, to its and their use and behoof, forever.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be executed by its Richard Knowlton, its President, thereunto duly authorized, this ____ day of February __, 2022.

WITNESS:

THE MAINE WATER COMPANY

By: _____
Richard Knowlton, its President

STATE OF MAINE
YORK, ss.

February __, 2022

Personally appears the above named Richard Knowlton, President of Maine Water Company, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Maine Water Company.

Before me,

Attorney-at-Law/Notary Public
Printed Name: _____
Commission expires: _____

**EXHIBIT A
(AND IF APPLICABLE A-1)
DESCRIPTION AND DEPICTION OF DRAINAGE AND EASEMENT AREA**

PENDING will be sent under separate cover

ATTACHMENT 9

SOUND STUDY

November 8, 2021

Mr. Jeremy Pettengill
Avingrid – Central Maine Power
83 Edison Drive
Third Floor
Augusta, ME 04336

Re: Biddeford Pump Substation; Noise Propagation and Modeling Assessment
York County, ME
Project No. R0027642.00

Mr Pettengill:

Westwood Professional Services, Inc. (Westwood) was authorized by Avingrid – Central Maine Power (the Client) to provide local noise ordinance research and noise modeling for the Biddeford Pump Project in York County, Maine. The Site is located on the south bank of the Saco River and is approximately one mile west of Maine Turnpike 85 at 466 South Street. The purpose of this modeling is to determine noise levels generated from 2 power transformers and 2 station service transformers within the proposed Biddeford Pump Substation redevelopment.

Predicted noise levels were determined using the Cadna-A noise propagation and modeling software. According to the City of Biddeford, ME / Part II: Environment Article III Noise, the Subject Property is located within a residential district of Biddeford, ME and therefore subject to the following limits:

	dB(A)	dB(C)
Daytime (7:00 am-10:00 pm)	55	67
Nighttime (10:00 pm-7:00 am)	45	57

The Subject Property has six adjoining properties that are occupied by residential dwellings, the closest of which is located approximately 160 feet west of the proposed Substation. Due to the residential nature of the Subject Property, Westwood modeled the expected A and C weighted noise levels at five property line receptors located to the northwest, west, and south of the facility (R-1 through R-5).

According to manufacturer provided data, the power transformers are expected to produce approximately 75 dB(A) at 1 meter from the noise source during peak production. The station service transformers are expected to produce a 50 dBA at 1 meter from the power source.

Predicted noise levels were determined using an aggregate of output levels from the transformers. The predicted noise levels at the property line emanating from the noise generation sources are discussed below.

Receptor	dB(A)	dB(C)
R-1	40.3	48.8
R-2	40.4	48.9
R-3	40.0	47.3
R-4	41.0	47.0
R-5	29.7	38.1

All predicted levels fall below the nighttime noise limits of 45 dB(A) and 57 dB(C). The predicted noise contours for A-weighted levels are also attached as Exhibit A and show the 45 dB(A) contour within the project boundary on the side nearest the homes.

Based on the total levels predicted at the property line, the noise levels produced by the proposed Biddeford Pump Substation would be properly mitigated by existing topography and distance and therefore no impacts are expected from the facility on the adjoining dwellings.

In performing its services, Westwood Professional Services used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

If you have any questions or wish to discuss any aspect of the project, please feel free to call Andrew Schad at (720) 387-3814. We look forward to being of continued service to you.

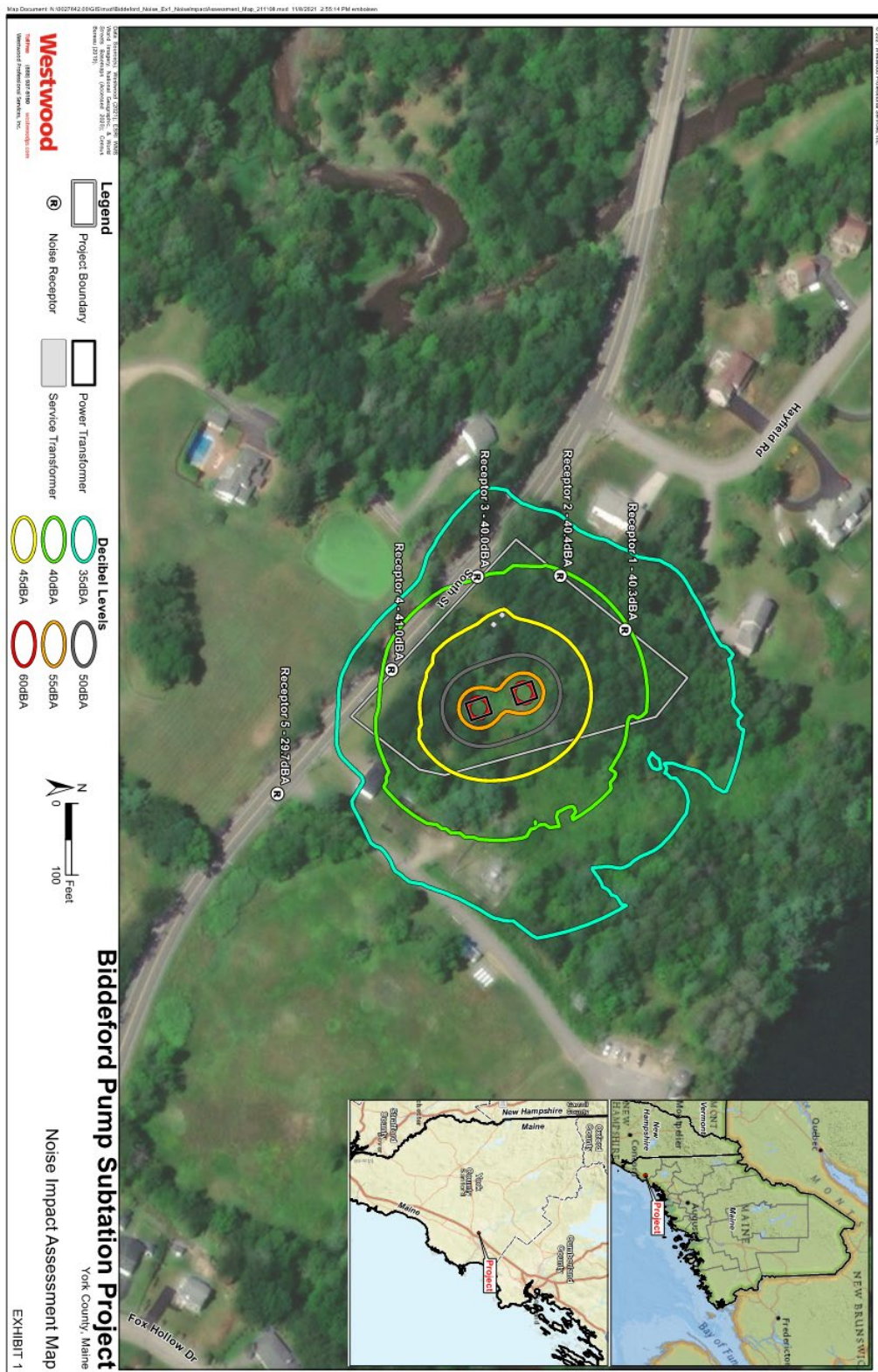
Sincerely,

WESTWOOD PROFESSIONAL SERVICES



Andrew Schad
Sound/Noise Specialist

Exhibit A: Nosie Contour Map



FINDINGS OF FACT AND CONCLUSIONS OF LAW

SITE PLAN REVIEW

Pursuant to the provisions of the City of Biddeford Land Development Regulations, Articles XI (Site Plan Review) and Article VII (Conditional Uses), the Biddeford Planning Board has considered the application of the **Central Maine Power Company** to construct a new substation at 466-468 South Street, including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

Findings of Fact:

1.	Applicant:	Central Maine Power Company 83 Edison Drive Augusta, ME 04336
2.	Owner of Property:	Central Maine Power Company
3.	Agent:	TRC Companies, LLC 14 Gabriel Drive, Augusta, ME 04336
4.	Project Location:	466-468 South Street
5.	Project Tax Map #/Lot #:	Tax Map 2, Lot 40-1
6.	Lot Size:	1.87 AC +/-
7.	Existing Zoning:	Suburban Residential -1 (SR-1)
8.	Overlay Zoning:	None
9.	Designations:	Saco River Corridor Commission Buffer
10.	Existing Use:	Vacant (lot split from Maine Water Co Pump Facility)
11.	Proposed Use:	New electrical substation
12.	Floodplain Status:	None
13.	Approvals Required:	Site Plan Review and Conditional Use
14.	Uses in the Vicinity:	Single family residential and Public Utilities.
15.	Dimensional Requirements:*	
	Min. Setback from R.O.W: 40 FT	Minimum Rear Setback: 10 FT
	Minimum Side Setback: 10 FT	Maximum Height: 3 stories / 35 FT
	* As an <i>Essential Service</i> the proposed development is exempt from dimensional requirements	
16.	Waivers Needed:	a. None
17.	Waivers Granted:	a. None
18.	Variances Needed for Approval:	None.
19.	Other Approvals Required:	Building Permits from the Biddeford Code Enforcement Office.
20.	Other Permits Obtained:	None.

21.	Other Non-City Permits Required:	None
22.	LDR Attachment A: Fess Paid:	Yes
23.	Application Materials Submitted: 1. Application form dated 10/12/2021. 2. Project narrative; Central Maine Power Company Biddeford Pump Substation, prepared by TRC Companies, LLC, dated 11/9/2021. (Includes location map) 3. Engineering Plans entitled: Biddeford Pump S/S, Biddeford ME. Prepared for Avangrid, prepared by Main Line Energy Consultants, LLC, that include the following drawings: Civil Site Plan, Facility Grading Plan. Detention Pond Details, Erosion Control Plan and Details, REV Date: 9/8/2021. 4. Building/Electrical Components Plans/Elevations entitled: Biddeford Pump S/S, Biddeford ME. Prepared for Avangrid, prepared by Main Line Energy Consultants, LLC, that include the following drawings: General Arrangement (plan), General Arrangement (sections), sheets 1, 3 and 6 of 6. REV Date: 2/25/2022. 5. Visual Assessment/Rendering entitled: Three-dimensional Model of the Biddeford Pump Substation, and two photo simulations; View from South Street and View from South Street Entrance. Prepared for Avangrid, prepared by Westwood Professional Services. Date: 10/14/2021 6. Plan set entitled: Biddeford Pump Biddeford, Maine., Landscape Buffer Screening Plan. Prepared for Avangrid, prepared by Westwood Professional Services. Date: 10/12/2021. (Includes Overall Landscape Screening Plan and Landscape Screening Notes & Details) REV Date 3/14/2022. 7. Sound Study prepared by Westwood Professional Services. Date: 11/8/2021. 8. Letter from TRC dated 1/11/2022; RE: Response to Request for Information Land Use Application for the Central Maine Power Company Biddeford Pump Substation, South Street Biddeford, Maine, and associated plans and documents. 9. Letter from TRC dated 3/16/2022; RE: Land Use Application for the Central Maine Power Company Biddeford Pump Substation, South Street Biddeford, Maine. (Response to Comments from Feb 2 PB meeting). 10. Easement dated 3/18/2022; Drainage easement to be conveyed to Central Maine Power Company 16,3365.35 Sq. Ft. 11. Photo simulations from South Street: Biddeford Pump, Biddeford Maine. Prepared for Avangrid, prepared by Westwood Professional Services. Date: 2/23/2022 12. Stormwater Report: A Report for Water Resources Services Biddeford Pump Station Storm water Management Conceptual Design Report. Prepared by Westwood, dated 2/25/2022.	
24.	Planning Board Review History: Conditional Use and Site Plan Review: - November 3, 2021 Meeting - Sketch Plan - February 2, 2022 Meeting – Final Plan - April 20, 2022 Meeting – Final Plan	

Conclusions of Law:

The Planning Board concludes based on the application information submitted, peer-review and staff reports prepared and testimony provided at their meetings, the application conforms to the following provisions:

- A. Article VI Performance Standards, Section 27 Essential services and water supply systems:
 - 1) Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors.
 - 2) Essential services and water supply systems structures and facilities shall be sited and developed in accordance with the provisions stated in this ordinance.
 - 3) All conditional use permit applications for essential services and water supply systems shall include an assessment of potential environmental and health impacts to abutting properties as a result from noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes as applicable, unless a waiver is requested by the applicant and granted by the Planning Board.
- B. Article VII Conditional Uses of the City's Land Development Regulations, including Section 6 Standards:
 - 1) The proposed use meets specific requirements set forth in this ordinance and would be in compliance with applicable state or federal laws;
 - 2) The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles and would not create hazards through the storage of chemicals and wastes;
 - 3) The proposed exterior lighting, where allowed, would not create hazards to motorists traveling on adjacent public streets or is adequate for the safety of occupants or users of the site or would not damage the value and diminish the usability of adjacent properties;
 - 4) The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
 - 5) The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;
 - 6) The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
 - 7) The proposed use would generate a volume of traffic that can reasonably be accommodated by the existing road network, or would not create unreasonable traffic hazards or would not exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;

- 8) The proposed use would not have a significant, detrimental effect on the value of adjacent properties, which could be avoided by reasonable modification of the proposal;
 - 9) The proposed use would not have an adverse impact on the privacy of the residents of the immediate area (within 500 feet) which could be avoided by reasonable modification of the proposal.
 - 10) The proposed use would be in compliance with Biddeford's comprehensive plan;
 - 11) The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;
 - 12) The design of the site would not result in significant flood hazards or flood damage or would be in conformance with applicable flood hazard protection requirements;
 - 13) Adequate provision has been made for disposal of wastewater or solid waste or for the prevention of ground or surface water contamination;
 - 14) Adequate provision has been made to control erosion or sedimentation;
 - 15) Adequate provision has been made to handle stormwater runoff or other drainage problems on the site; and the proposed development will not unduly burden off-site surface water systems;
 - 16) The proposed water supply would meet the demands of the proposed project (and for fire protection purposes, if applicable.)
 - 17) Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
 - 18) The proposed use would not have an adverse impact on scenic vistas, historic sites, archeological resources, or on significant wildlife habitat or wetland areas and water bodies, which could be avoided by reasonable modification of the proposal;
- C. Article XI Site Plan Review of the City's Land Development Regulations, including Section 5 Site design and development criteria (subsection B):
1. **Drainage:** The proposed development has been designed by a licensed engineer and has been reviewed by the City's peer-review engineer and applicable standards related to stormwater and drainage have been adequately addressed.
 2. **Parking:** The proposed development has been designed to provide for sufficient parking spaces and adequately addresses related parking standards.
 3. **Structural Layout and Design:** The proposed development has been designed to adequately address the factors to be considered under this the Site Design criterion.

Determination:

Based on the evidence available and the conclusions above, the Biddeford Planning Board approves the application with the following conditions:

Conditions of Approval:

1. Standard Conditions of Approval apply.

Prior to any ground disturbance or issuance of any permits:

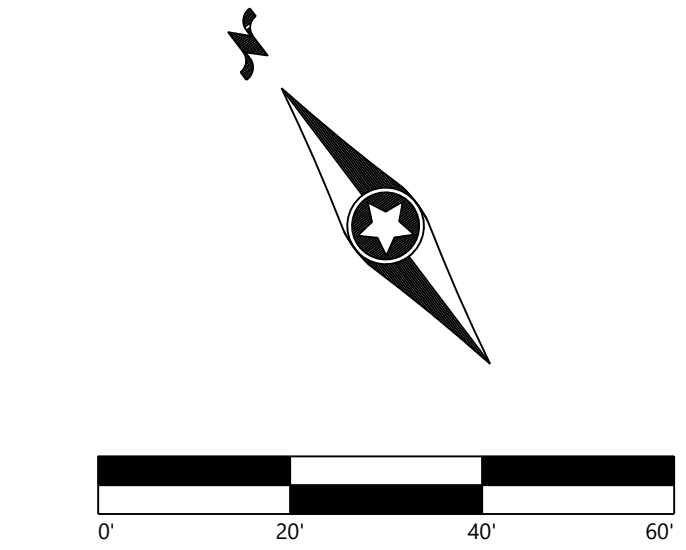
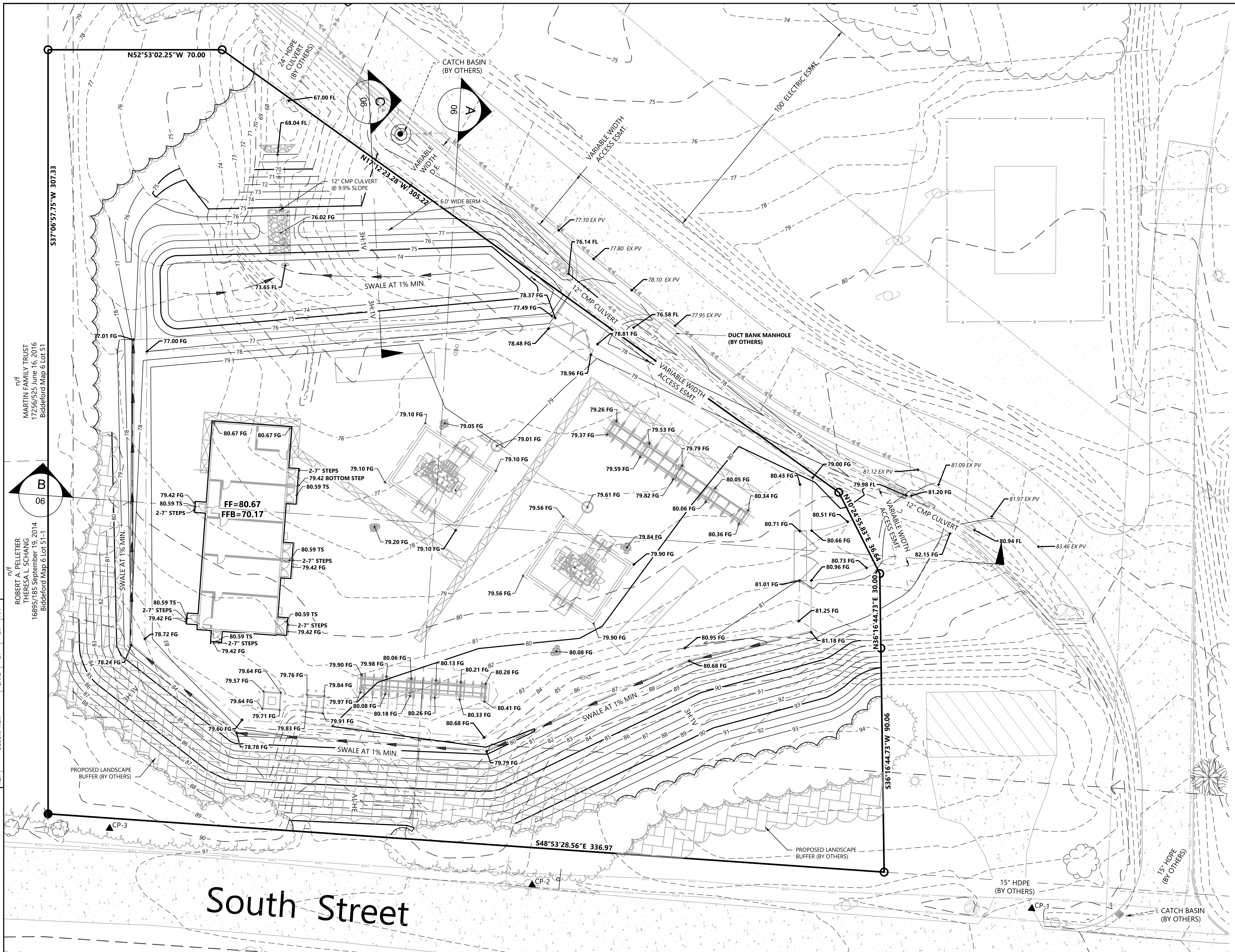
2. All outstanding planning and engineering peer-review comments shall be addressed to the satisfaction of the Assistant City Planner.
3. Approval letter from Fire Department
4. A pre-construction meeting with the contractor needs to be held with the Engineering Department to discuss inspection requirements.
5. An Erosion and Sedimentation Control Performance Guarantee (acceptable to the Planning Department) in an amount to be determined by the City based on finalized Unit Cost Estimate shall be submitted to the Planning Department
6. Stabilized Construction Access shall be constructed to the satisfaction of the Engineering Department.
7. Winter Maintenance plan that addresses snow storage shall be approved by the City Engineer.
8. Revisions to the landscape planting buffer along South Street
9. Performance bond for the planting and installation of the plants for the proposed buffer??

Prior to the issuance of any occupancy permits:

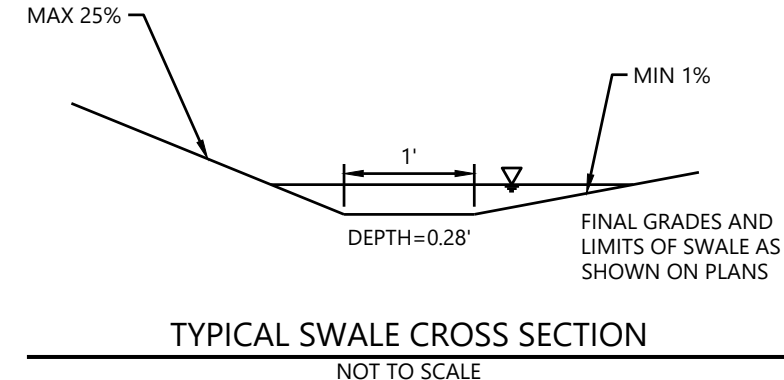
10. A performance guarantee (acceptable to the Engineering Department) in the amount of 150% of any remaining site improvements shall be submitted to the Planning Department. Amount to be determined based on City inspections and the recommendation of the City Engineer.

Planning Board Chairman

Date



- LEGEND:**
- RIGHT-OF-WAY LINES
 - - - EX. PARCEL LINES
 - - - EX. EASEMENT LINES
 - - - EX. INDEX CONTOUR
 - - - EX. INTERVAL CONTOUR
 - ==== EX. PUBLIC ROAD
 - x - EX. FENCE
 - - - EX. CULVERT
 - - - EX. OVERHEAD POWER
 - - - EX. GAS PIPELINE
 - - - EX. TELEPHONE LINE
 - - - EX. WATER LINE
 - - - STORM DRAIN
 - - - UNDERGROUND POWER
 - - - PROP. INDEX CONTOUR
 - - - PROP. INTERVAL CONTOUR
 - - - DRAINAGE SWALE
 - - - NATIVE TREES AND SHRUBS LINE
 - - - PROP. LANDSCAPED BUFFER



- GENERAL NOTES:**
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 - HORIZONTAL CONTROL: NAD83, WEST ZONE
 - VERTICAL CONTROL: NAVD88 (FT).
 - PAD GRADING TO BE 2.00% MAX. FIELD ADJUST IF NECESSARY AND CONTACT ENGINEER OR OWNER IF ANY ELEVATIONS HAVE CHANGED.
- CONTROL POINTS:**
- MAG NAIL, N: 242074.1840 E: 2862755.0930, EL: 90.65'
 - FIRE HYDRANT TOP NUT, N: 242202.9710 E: 2862600.6450, EL: 90.65'
 - 6" SPIKE, N: 242323.3640 E: 2862478.6730, EL: 90.47'
- CAUTION!!!**
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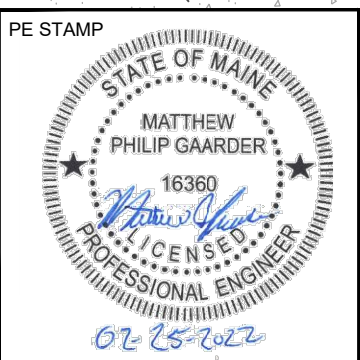
South Street

REV	DESCRIPTION	DATE	BY	CK	APP
0-0	ISSUED FOR CONSTRUCTION	2/25/2022	BM/MLC	AN/MLC	

LOGO

MAINLINE
ENGINEERING
CONSULTANTS LLC
1240 S. BROAD STREET, LANSDALE, PA 19446
PH: 610-885-9277 FAX: 610-885-9278

ANSI D 12/30/2020 10:22 AM



REV	DESCRIPTION	DATE	BY	CK	APP

AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID

CMP
AVANGRID

FACILITY GRADING PLAN

BIDDEFORD PUMP S/S BIDDEFORD, ME

BY: BM/MLC SCALE: SEE SHEET FILE: 1050-0003-004 SH001

CK: AN/MLC NO.

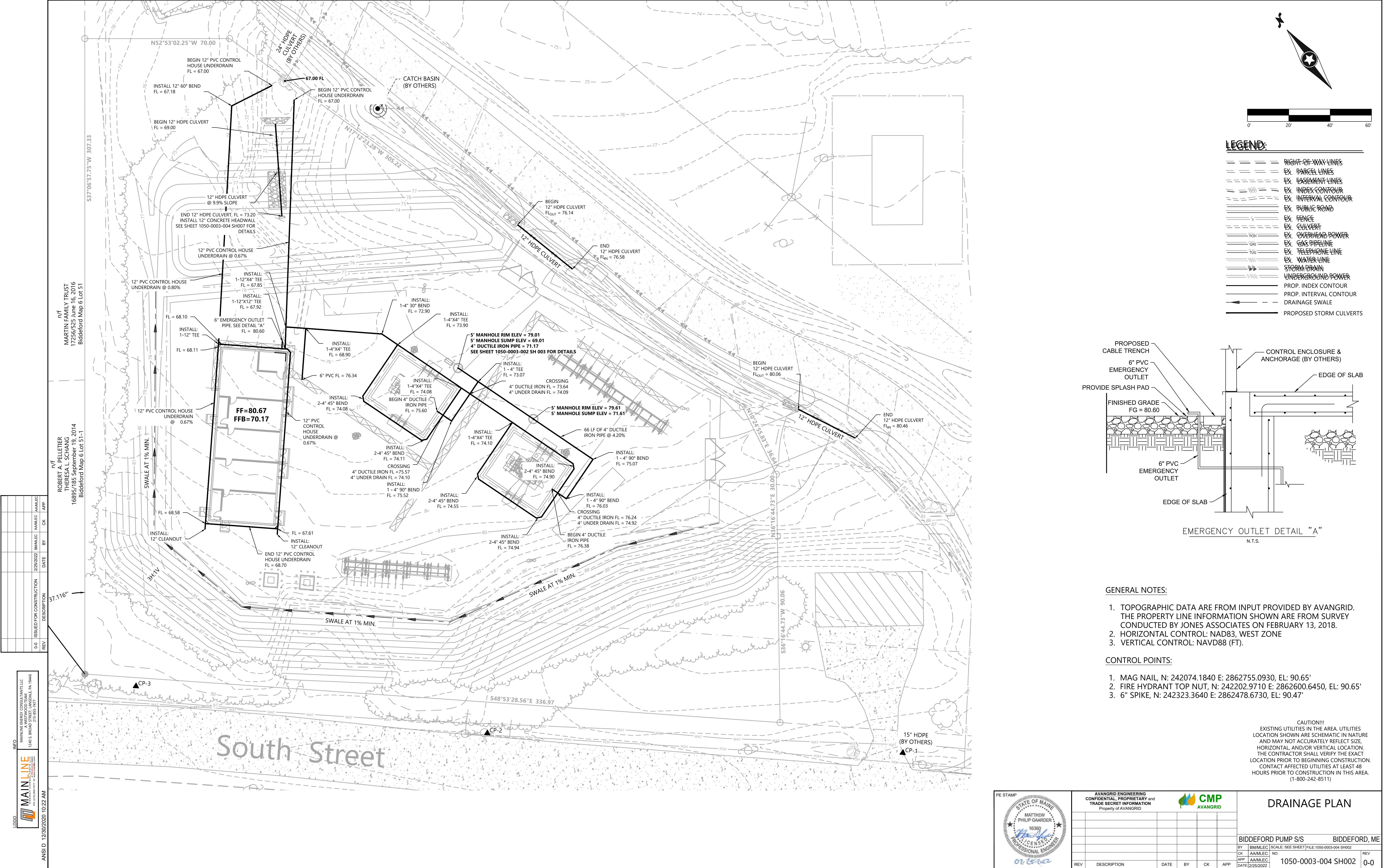
APP: AN/MLC

DATE: 12/25/2022

1050-0003-004 SH001

REV

0-0



REV	DESCRIPTION	DATE	BY	CK	APP
0-0	ISSUED FOR CONSTRUCTION	2/25/2022	BAAMLEC		AAAMLEC

LOGO

MAINLINE ENERGY CONSULTANTS LLC
1240 S. BROAD STREET, LANSDALE, PA 19446
PH: 610-855-7477
FAX: 610-855-7477

INFO

ANSI D 12/30/2020 10:22 AM

GENERAL NOTES:

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- VERTICAL CONTROL: NAVD88 (FT).

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PE STAMP

STATE OF MAINE
MATTHEW PHILIP GAARDER
16360
LICENSED PROFESSIONAL ENGINEER

02-15-2022

AVANGRID ENGINEERING
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TRADE SECRET INFORMATION
Property of AVANGRID

CMP
AVANGRID

BIDDEFORD PUMP S/S

BIDDEFORD, ME

BY: BAAMLEC
CK: AAAMLEC
APP: AAAMLEC
DATE: 2/25/2022

SCALE: SEE SHEET FILE: 1050-0003-004 SH002

NO.

REV

REV

DESCRIPTION

DATE

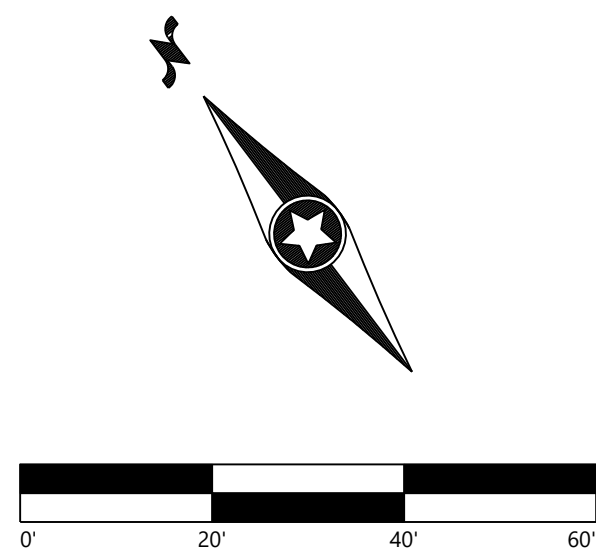
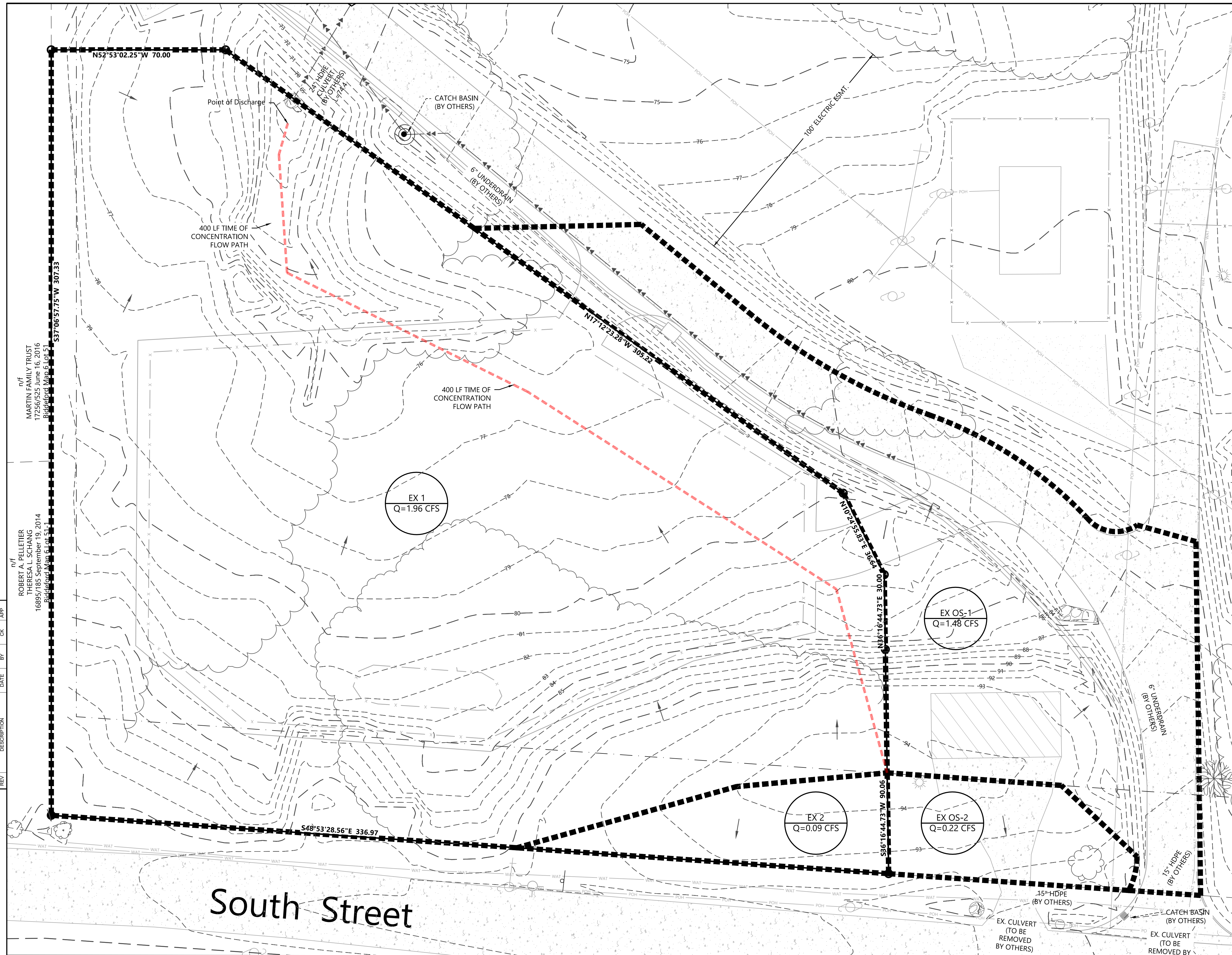
BY

CK

APP

1050-0003-004 SH002

0-0



LEGEND:

- | | |
|--|------------------------------------|
| | RIGHT-OF-WAY LINES |
| | EX. PARCEL LINES |
| | EX. EASEMENT LINES |
| | EX. INDEX CONTOUR |
| | EX. INTERVAL CONTOUR |
| | EX. PUBLIC ROAD |
| | EX. FENCE |
| | EX. CULTVERT |
| | EX. OVERHEAD POWER |
| | EX. GAS PIPELINE |
| | EX. TELEPHONE LINE |
| | EX. WATER LINE |
| | STORM DRAIN |
| | UNDERGROUND POWER |
| | DRAINAGE DIVIDE |
| | TIME OF CONCENTRATION
FLOW PATH |

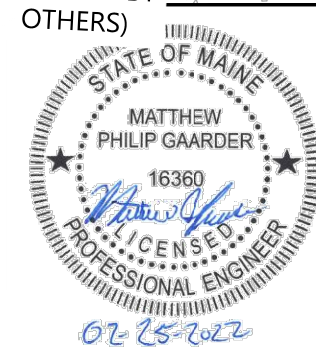
DRAINAGE AREA CALCULATIONS				
AREA ID	C	I (IN/HR) 30 min Duration	AREA (AC)	Q ₂₅ (CFS)
EX 1	0.3	3.65	1.79	1.96
EX 2	0.3	3.65	0.08	0.09
EX OS-1	0.75	3.65	0.54	1.48
EX OS-2	0.75	3.65	0.08	0.22

0-0	REV	ISSUED FOR CONSTRUCTION	DATE	BY	CK	APP
			2/25/2022	BM/MEC	AA/MEC	AA/MEC

 MAINLINE ENERGY CONSULTANTS, LLC PH: (215) 855-7477 W: www.mline.com	INFO MAINLINE ENERGY CONSULTANTS LLC A WESTWOOD TEAM 1240 S. BROAD STREET, LANSDALE, PA 19446 215-855-7477
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1/2020 10:22 AM

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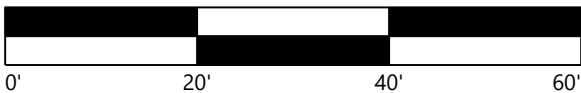
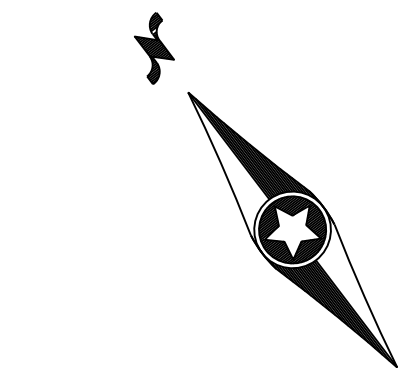
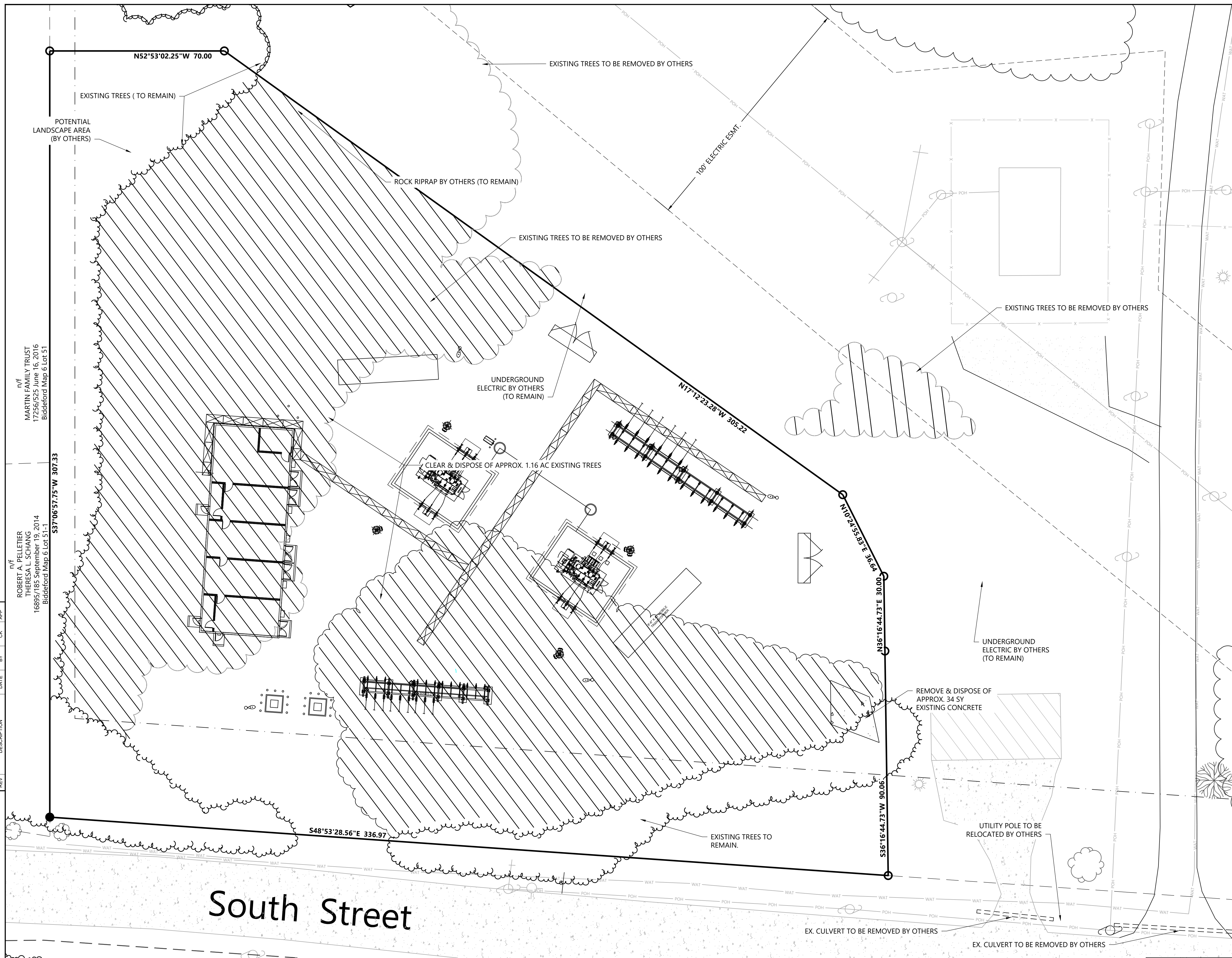


AVANGRID ENGINEERING
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TRADE SECRET INFORMATION
Property of AVANGRID



WATERSHED PLAN
(EXISTING)

						BIDDEFORD PUMP S/S	BIDDEFORD, ME
						BY BMM/LEC SCALE: SEE SHEET FILE: 1050-0003-004 SH004	
						CK A/M/LEC NO.	
						APP A/M/LEC	
REV	DESCRIPTION	DATE	BY	CK	APP	DATE: 2/25/2022	1050-0003-004 SH004 0-0



LEGEND:

	RIGHT-OF-WAY LINES
	EX. PARCEL LINES
	EX. EASEMENT LINES
	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
	EX. PUBLIC ROAD
	EX. FENCE
	EX. CULVERT
	EX. OVERHEAD POWER
	EX. GAS PIPELINE
	EX. TELEPHONE LINE
	EX. WATER LINE
	STORM DRAIN
	UNDERGROUND POWER
	TREES TO BE REMOVED

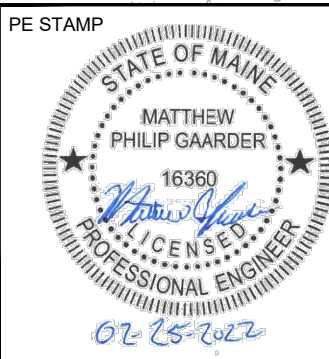
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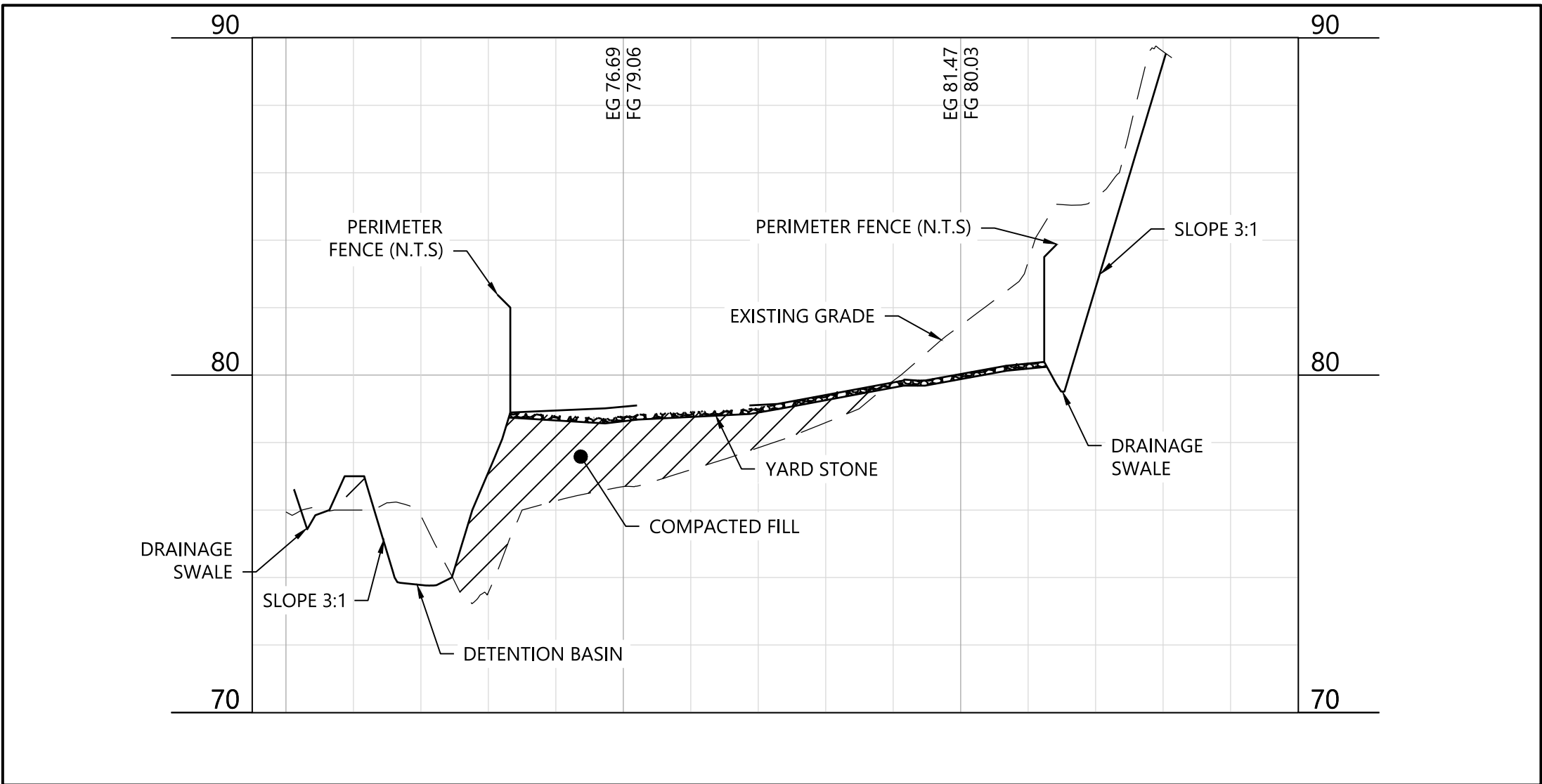
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3. VERTICAL CONTROL: NAVD88 (FT).

CONTROL POINTS:

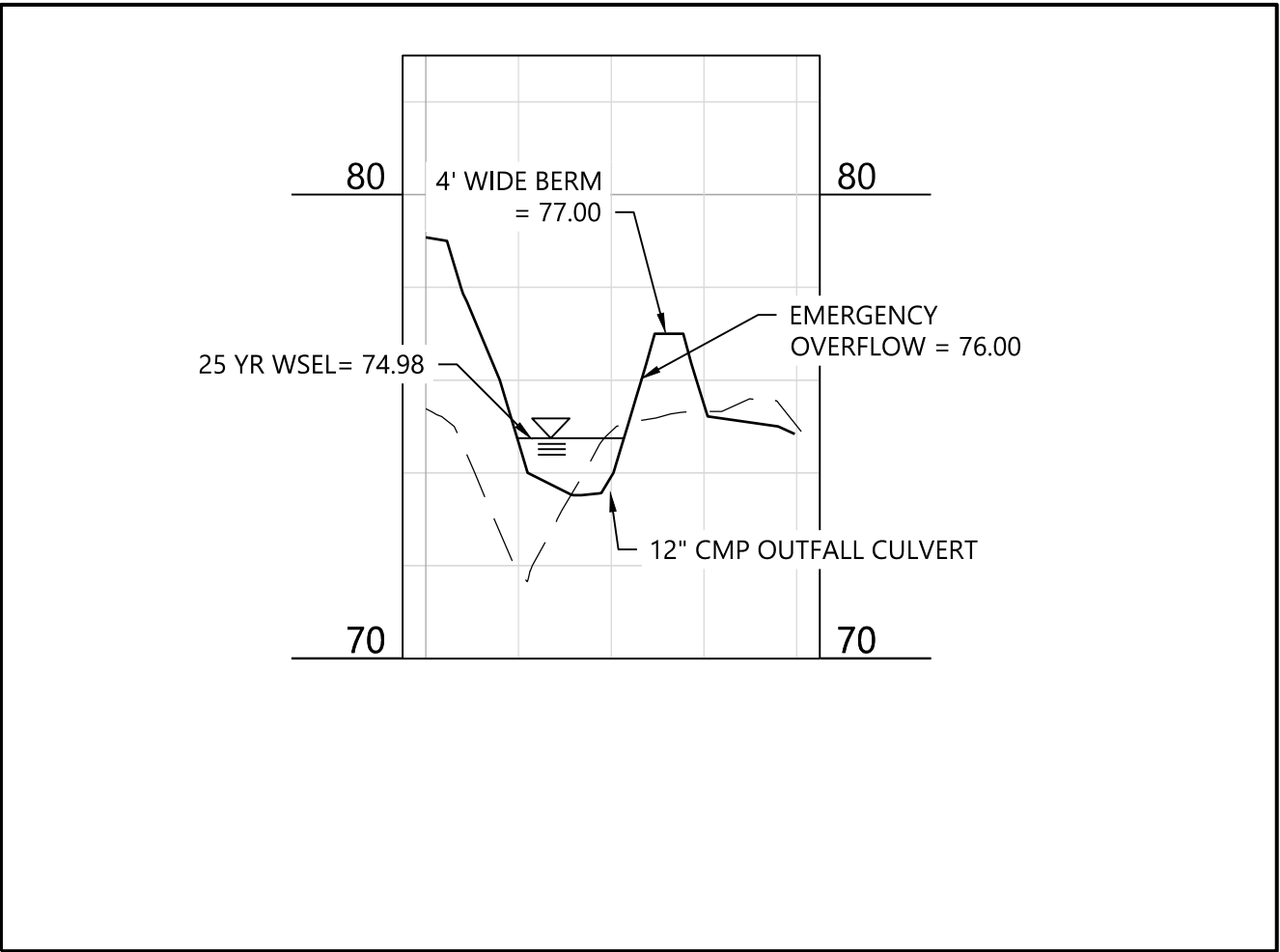
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3. 6" SPIKE, N: 242323.3640 E: 2862478.6730, EL: 90.47'

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(1-800-242-8511)

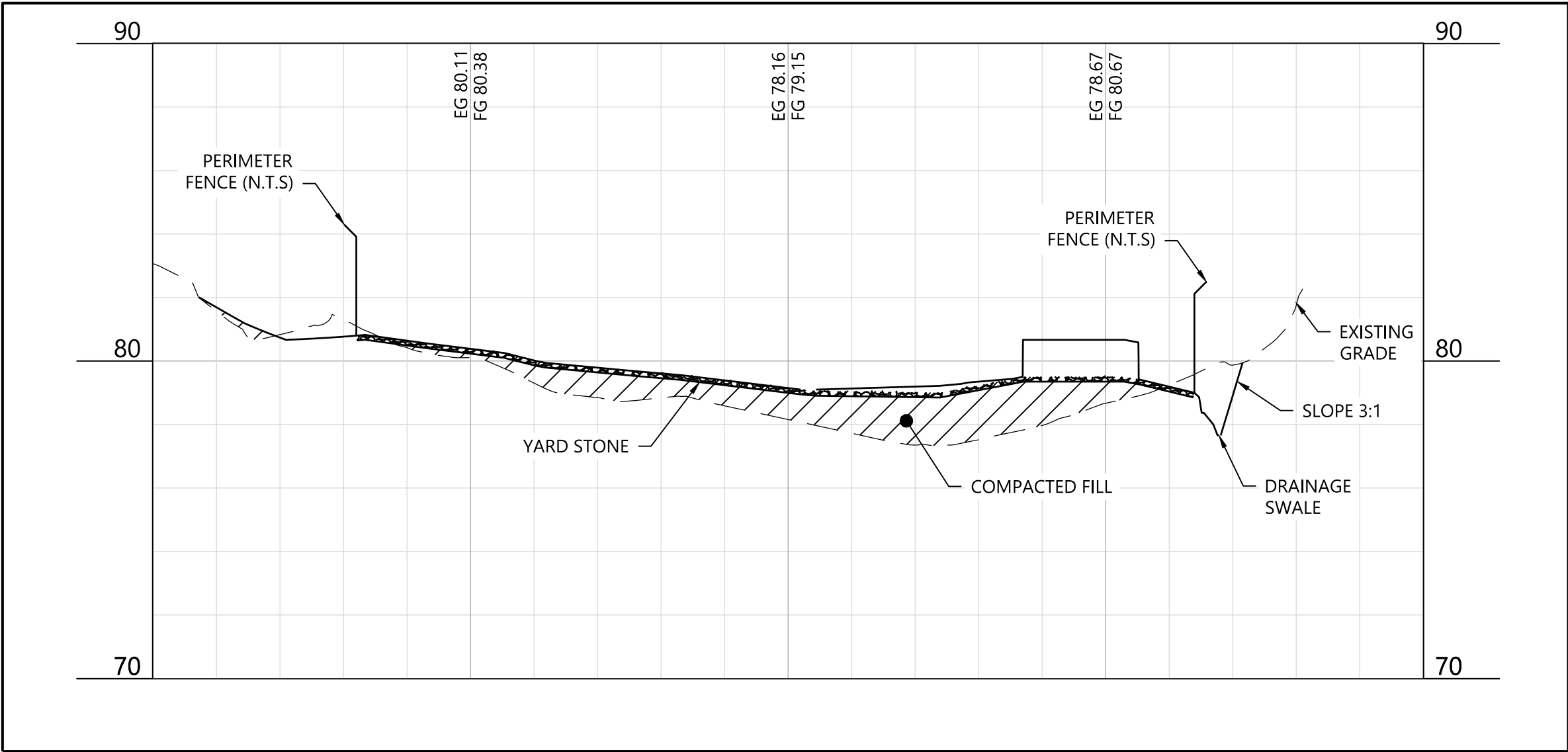
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SECTION A
HORZ. SCALE: 1"=40'
VERT. SCALE: 1"=4'



SECTION C
HORZ. SCALE: 1"=40'
VERT. SCALE: 1"=4'



SECTION B
HORZ. SCALE: 1"=40'
VERT. SCALE: 1"=4'

REV	DESCRIPTION	DATE	BY	CK	APP
0-0A	ISSUED FOR CONSTRUCTION	2/25/2022	BMM/LEC	AAM/LEC	

LOGO

MAINLINE

MAINLINE ENERGY CONSULTANTS LLC
1240 S. BROAD STREET, LANSDALE, PA 19446
215-855-7477

ANSI D 12/30/2020 10:22 AM

PE STAMP

STATE OF MAINE

MATTHEW PHILIP GAARDER

16360

PROFESSIONAL ENGINEER

AVANGRID ENGINEERING

CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION

Property of AVANGRID

CMP

AVANGRID

BIDDEFORD PUMP S/S

BIDDEFORD, ME

BY: BMM/LEC

CK: AAM/LEC

APP: AAM/LEC

DATE: 2/25/2022

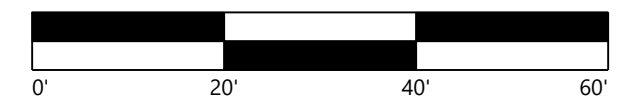
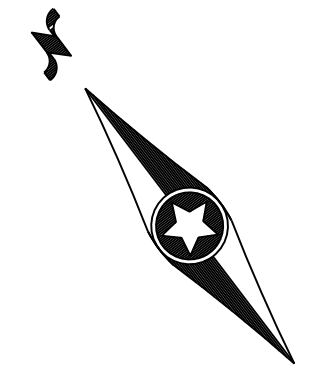
SCALE: SEE SHEET

FILE: 1050-0003-004 SH006

NO. 1050-0003-004 SH006

REV 0-0

REV	DESCRIPTION	DATE	BY	CK	APP



LEGEND:

- RIGHT-OF-WAY LINES
- - - EX. PARCEL LINES
- - - EX. EASEMENT LINES
- - - EX. INDEX CONTOUR
- - - EX. INTERVAL CONTOUR
- == EX. PUBLIC ROAD
- x - EX. FENCE
- - - EX. CULVERT
- - - EX. OVERHEAD POWER
- - - EX. GAS PIPELINE
- - - EX. TELEPHONE LINE
- - - EX. WATER LINE
- - - STORM DRAIN
- - - UNDERGROUND POWER
- - - PROP. INDEX CONTOUR
- - - PROP. INTERVAL CONTOUR
- - - SF

- CONSTRUCTION ACTIVITIES:
THE CONSTRUCTION ACTIVITY INCLUDED IN THIS PLAN WILL INCLUDE THE FOLLOWING CONSTRUCTION PHASES:
- A. CLEARING AND GRUBBING
 - B. STOCK PILING
 - C. ROUGH GRADING
 - D. UTILITY INSTALLATION/EXCAVATION OF TRENCHES
 - E. FINAL OR FINISH GRADING
 - F. PAVEMENT INSTALLATION
 - G. BUILDING CONSTRUCTION
 - H. PREPARATION OF SEEDING AND PLANTING

- DISTURBED AREA = 1.46 ACRES
EROSION CONTROL GENERAL NOTES:
1. REFER TO SHEET 1050-0003-005 SH002 FOR THE EROSION CONTROL DETAILS AND POLLUTION PREVENTION PLAN NOTES/SPECIFICATIONS/REQUIREMENTS.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL MEASURES OF THIS EROSION CONTROL PLAN (SWPPP) AND COMPLYING WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS REGARDING THE SWPPP.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE MEASURES INCLUDING WATERING, MOWING AND GENERAL MAINTENANCE UNLESS OTHERWISE RELIEVED OF THESE DUTIES BY THE OWNER.
 4. ALL RELEVANT SECTIONS FOR CHAPTER 500 OF APPENDICES A,B, AND C WILL BE INCLUDED INTO THE SWPPP BINDER PACKAGE.
- VEGETATION NOTES:
1. ALL DISTURBED AREAS NOT BEING RE-DISTURBED WITHIN A MINIMUM OF 14 DAYS MUST BE COVERED AND STABILIZED.
 2. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF FINAL GRADING.
 3. NO PUBLIC ACCEPTANCE UNTIL (FINAL STABILIZATION) VEGETATION IS ESTABLISHED ON ALL DISTURBED AREAS.
 4. FINAL STABILIZATION IS DEFINED AS A UNIFORM PERENNIAL VEGETATIVE COVER AT A MINIMUM OF 70% RESTORATION OF THE NATIVE OR NATURAL PREEXISTING BACKGROUND COVER FOR THE AREA.
- CONSTRUCTION ACTIVITIES:
THE CONSTRUCTION ACTIVITY INCLUDED IN THIS PLAN WILL INCLUDE THE FOLLOWING CONSTRUCTION PHASES:
- A. CLEARING AND GRUBBING
 - B. STOCK PILING
 - C. ROUGH GRADING
 - D. UTILITY INSTALLATION/EXCAVATION OF TRENCHES
 - E. FINAL OR FINISH GRADING
 - F. PAVEMENT INSTALLATION
 - G. BUILDING CONSTRUCTION
 - H. PREPARATION OF SEEDING AND PLANTING

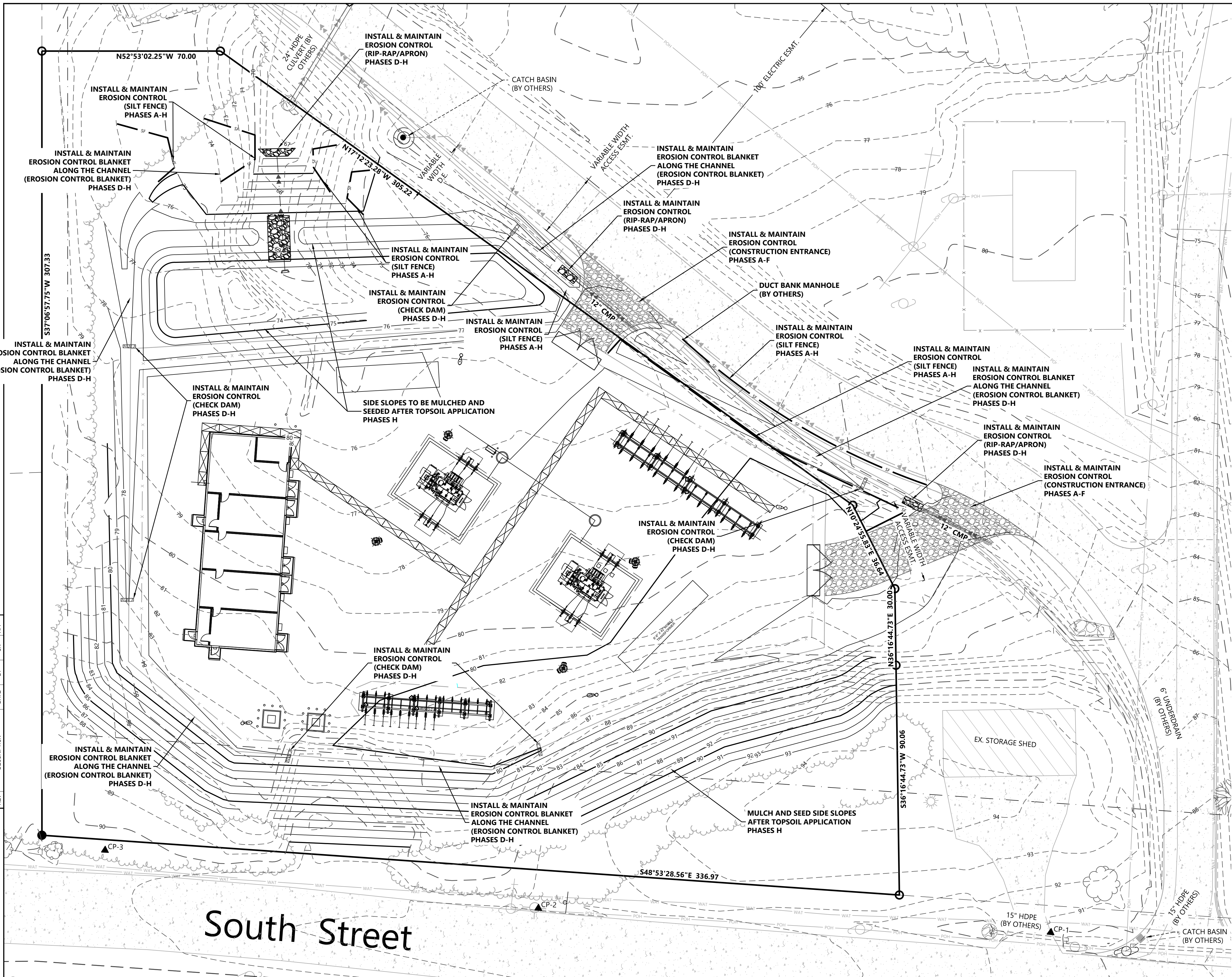
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South Street

REV	DESCRIPTION	DATE	BY	CHK	APP
0-0	ISSUED FOR CONSTRUCTION	2/25/2022	BAW/LEC		AAW/LEC

LOGO

MAINLINE ENERGY CONSULTANTS LLC
1240 S. BROAD STREET, LANSDALE, PA 19046
PH: 610-855-2477 FAX: 610-855-2477

ANSI D 12/30/2020 10:22 AM

PE STAMP
STATE OF PAINE
MATTHEW PHILIP GAARDER
16360
PROFESSIONAL ENGINEER

AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID

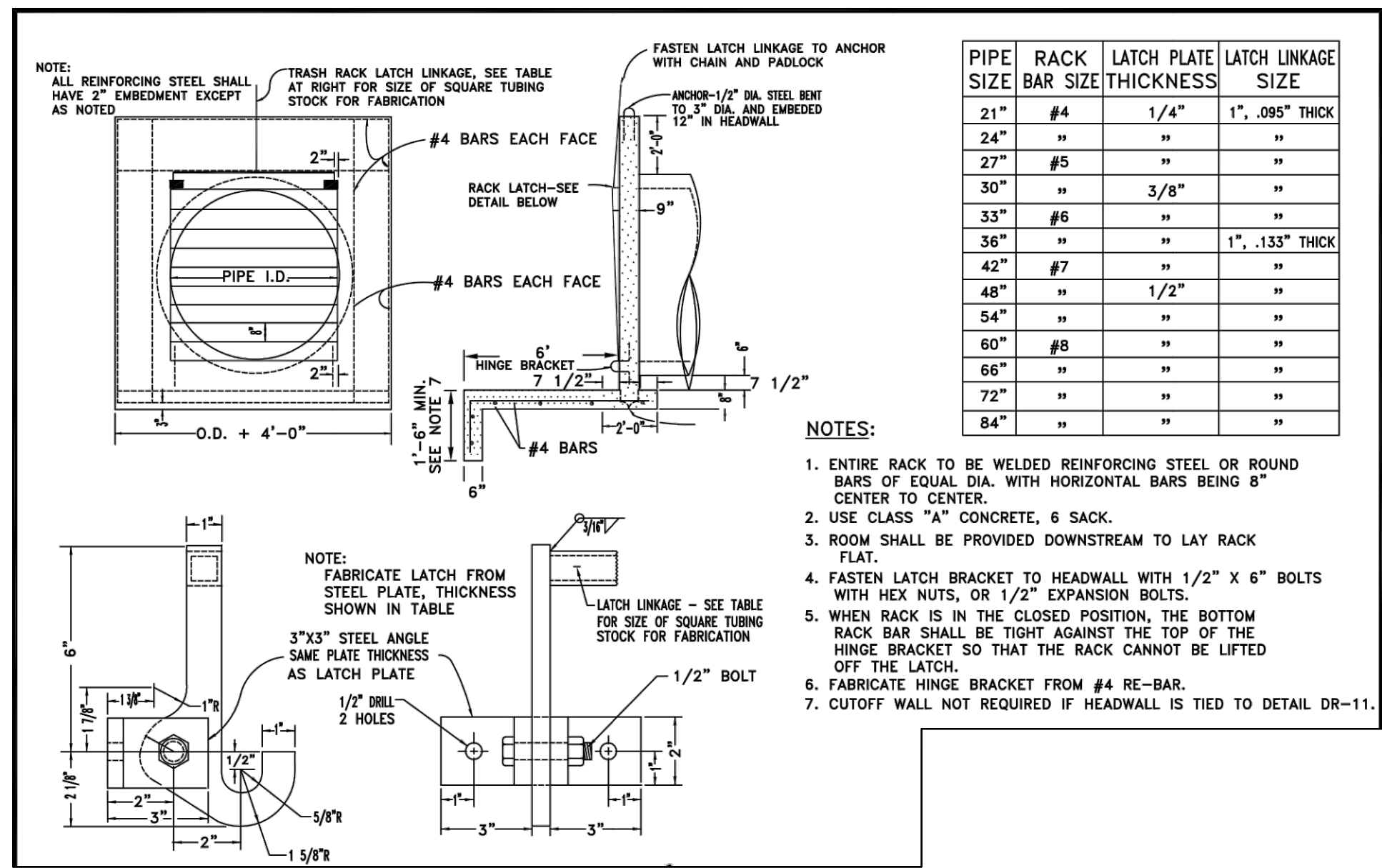
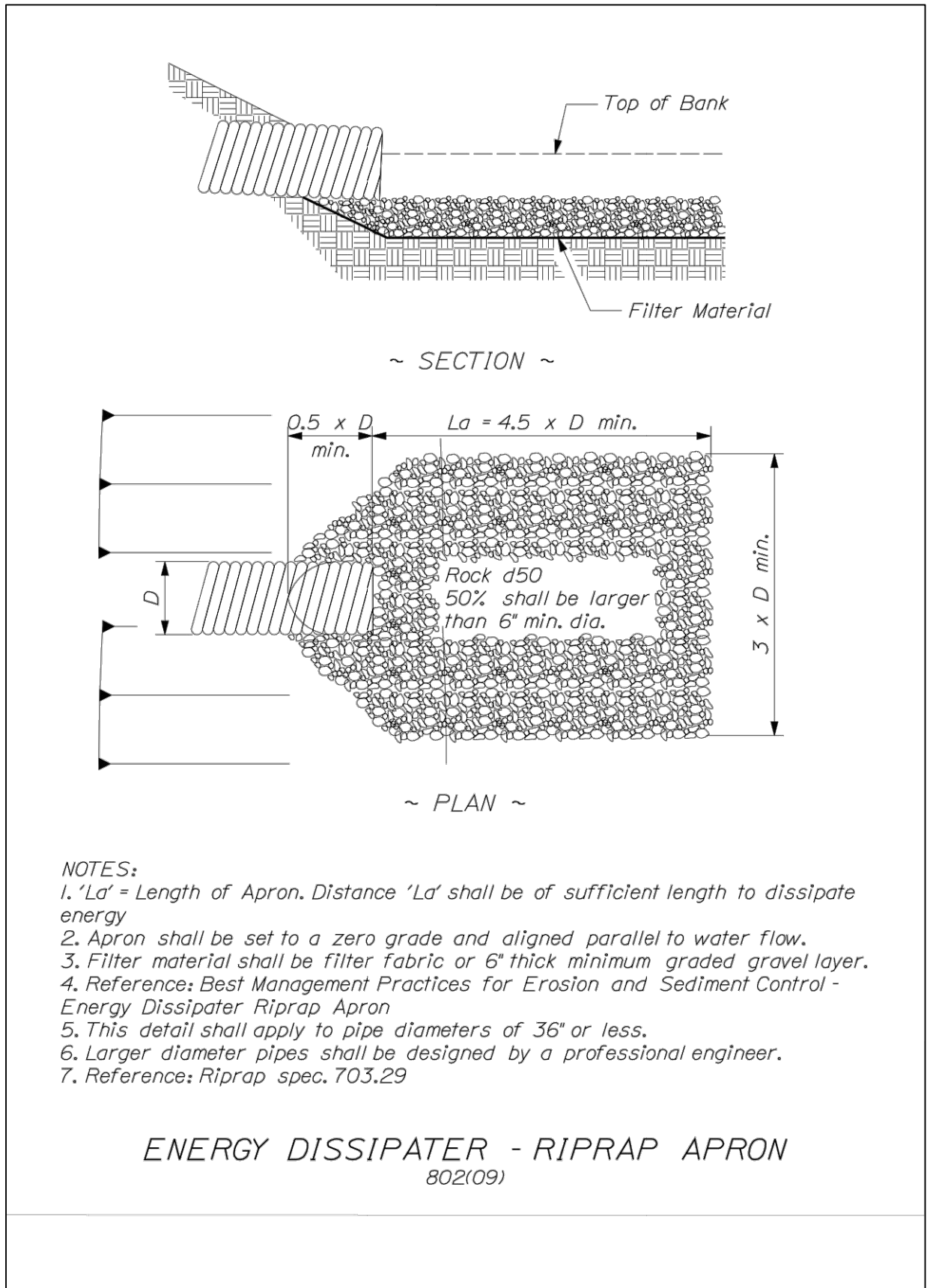
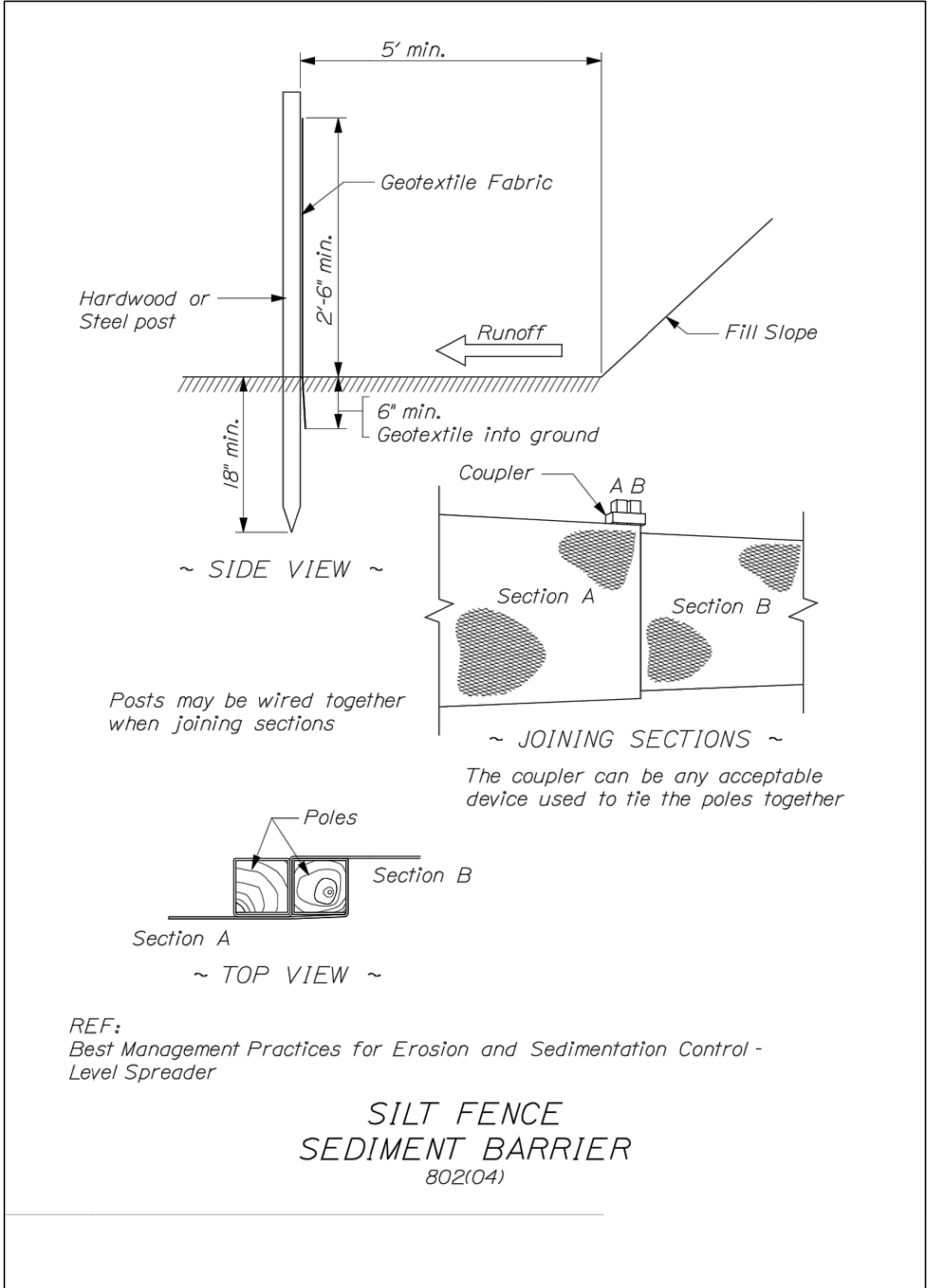
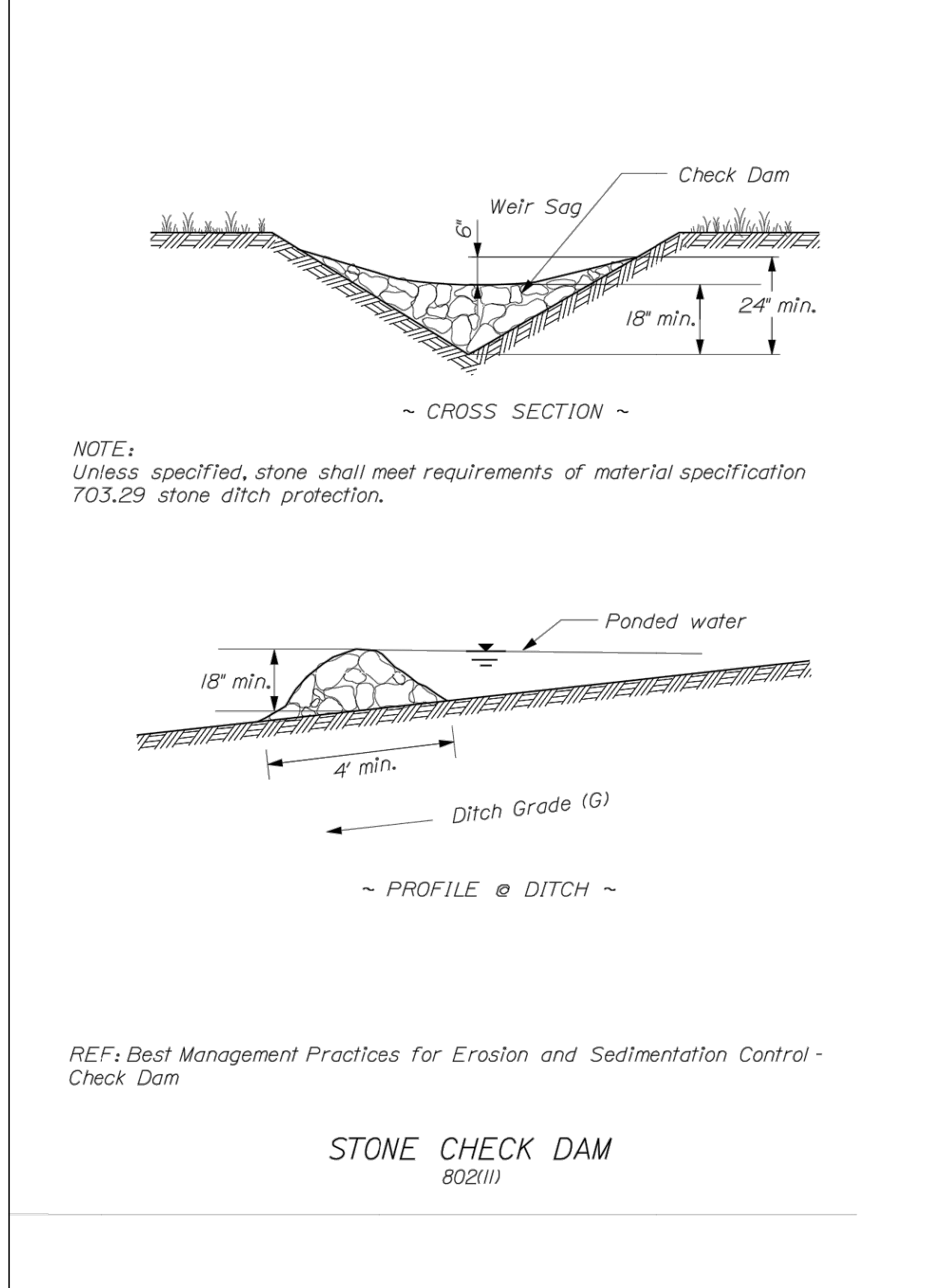
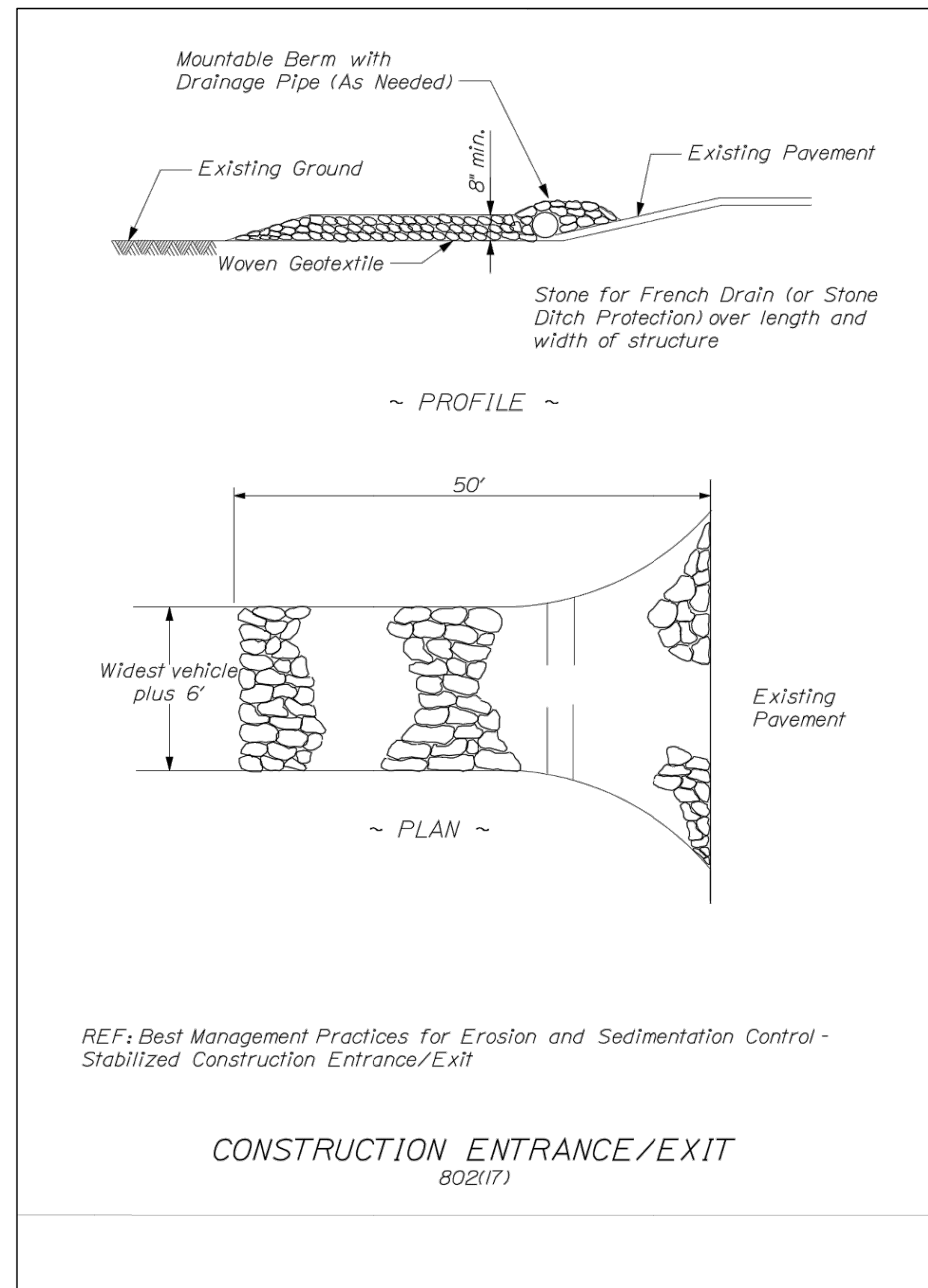
CMP
AVANGRID

EROSION CONTROL PLAN

BIDDEFORD PUMP S/S
BIDDEFORD, ME

BY	BAW/LEC	SCALE: SEE SHEET	FILE: 1050-0003-005 SH001	REV
CK	AAW/LEC	NO.		
APP	AAW/LEC			
DATE	2/25/2022			

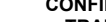
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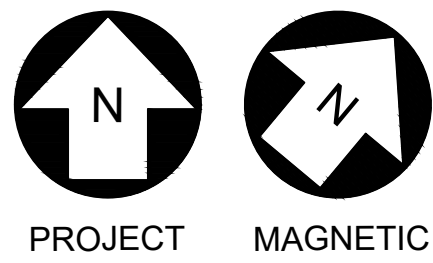


TRASH RACK DETAIL
N.T.S.

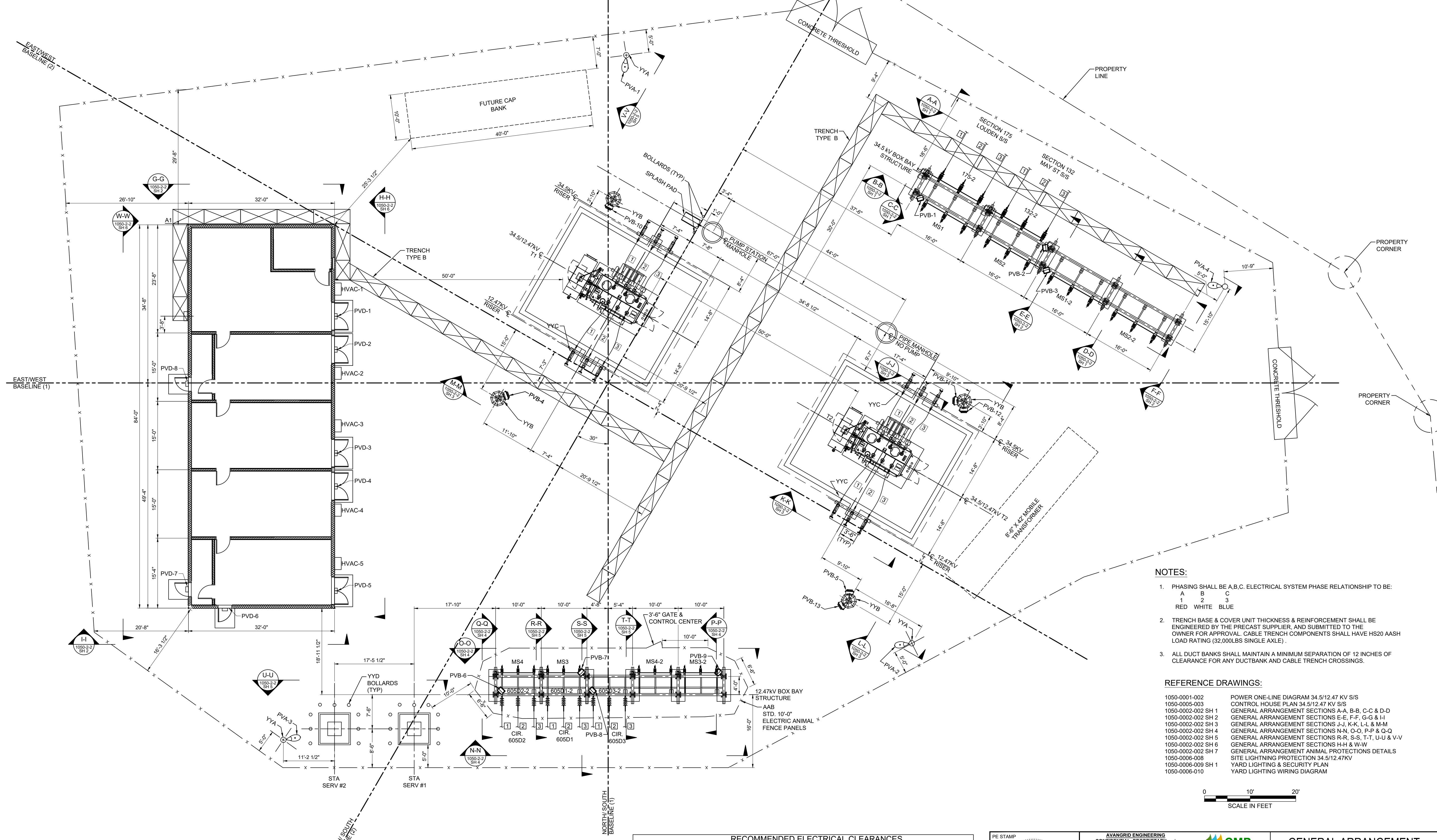
NOTES:

- 1) GENERAL LANDSCAPING NOTES AND PLANS TO BE PROVIDED BY OTHERS.

PE STAMP		 AVANGRID ENGINEERING CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION Property of AVANGRID					DETAILS	
						BIDDEFORD PUMP S/S		
						BIDDEFORD, ME		
						BY	BMM/LEC	SCALE: SEE SHEET FILE: 1050-0003-005 SH002
						CHK	AMM/LEC	NO.
						APP	AMM/LEC	DATE
							2/25/2022	
	REV	DESCRIPTION	DATE	BY	CK	APP		
							1050-0003-005 SH002	0-0

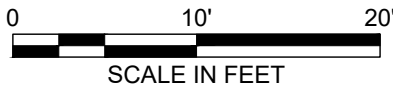


PROJECT MAGNETIC



- NOTES:**
- PHASING SHALL BE A,B,C. ELECTRICAL SYSTEM PHASE RELATIONSHIP TO BE:
A B C
1 2 3
RED WHITE BLUE
 - TRENCH BASE & COVER UNIT THICKNESS & REINFORCEMENT SHALL BE ENGINEERED BY THE PRECAST SUPPLIER, AND SUBMITTED TO THE OWNER FOR APPROVAL. CABLE TRENCH COMPONENTS SHALL HAVE HS20 AASH LOAD RATING (32,000LBS SINGLE AXLE).
 - ALL DUCT BANKS SHALL MAINTAIN A MINIMUM SEPARATION OF 12 INCHES OF CLEARANCE FOR ANY DUCTBANK AND CABLE TRENCH CROSSINGS.

- REFERENCE DRAWINGS:**
- | | |
|--------------------|---|
| 1050-0001-002 | POWER ONE-LINE DIAGRAM 34.5/12.47 KV S/S |
| 1050-0005-003 | CONTROL HOUSE PLAN 34.5/12.47 KV S/S |
| 1050-0002-002 SH 1 | GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D |
| 1050-0002-002 SH 2 | GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H |
| 1050-0002-002 SH 3 | GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M |
| 1050-0002-002 SH 4 | GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q |
| 1050-0002-002 SH 5 | GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V |
| 1050-0002-002 SH 6 | GENERAL ARRANGEMENT SECTIONS H-H & W-W |
| 1050-0002-002 SH 7 | GENERAL ARRANGEMENT ANIMAL PROTECTIONS DETAILS |
| 1050-0006-008 | SITE LIGHTNING PROTECTION 34.5/12.47KV |
| 1050-0006-009 SH 1 | YARD LIGHTING & SECURITY PLAN |
| 1050-0006-010 | YARD LIGHTING WIRING DIAGRAM |

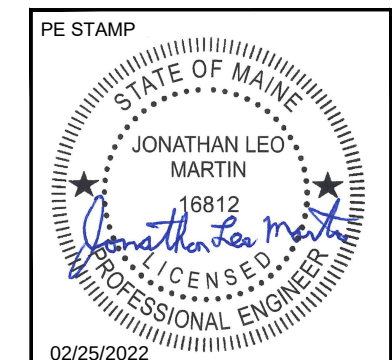


LEGEND:

ROAD CROSSING - HS20 (32,000LBS/AXLE)

TRENCH & COVER (SEE NOTE 3)

RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
	MINIMUM	RECOMMENDED	METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
	7	10	12	24-42	30	36
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60



AVANGRID ENGINEERING					
CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION					
Property of AVANGRID					
BY	TOKMLEC	NO.	16812	FILE:	1050-0002-001.dwg
CK	VSIMLEC	NO.		REV	
APP	VSIMLEC	NO.		1050-0002-001	0-0
DATE	02/25/2022				

GENERAL ARRANGEMENT	
34.5/12.47 KV S/S	
BIDDEFORD PUMP S/S	BIDDEFORD, ME

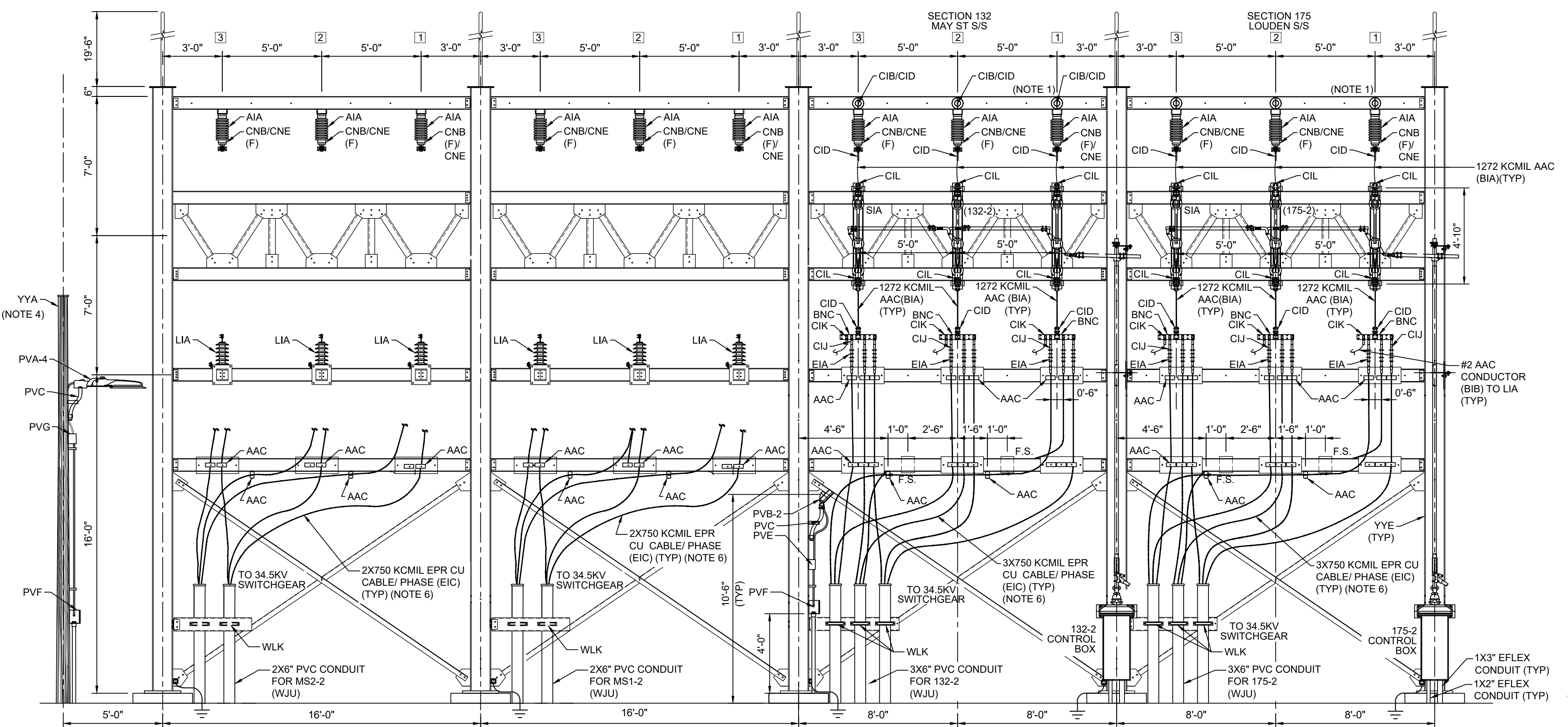
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LOGO

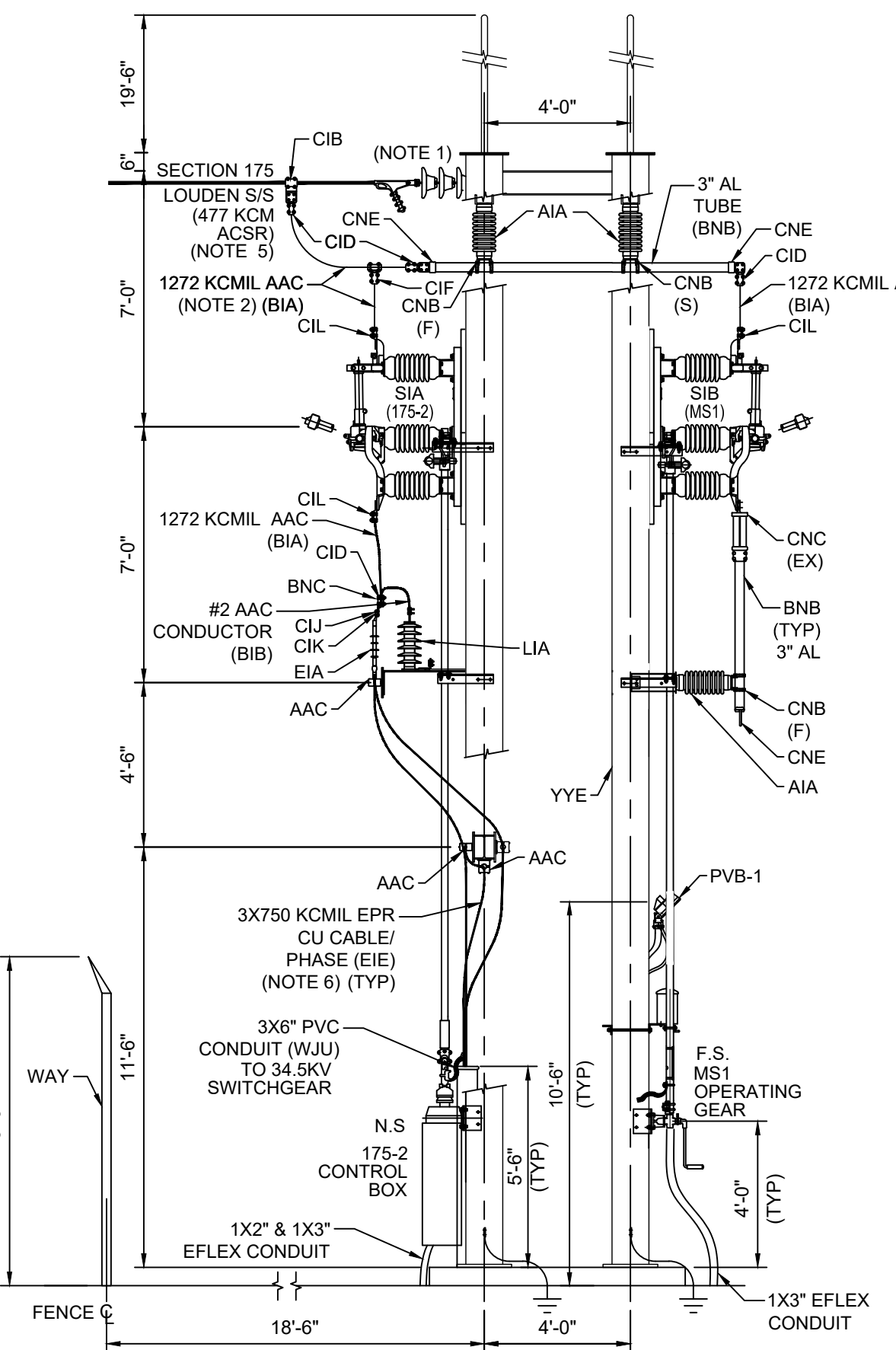
MAINLINE ENERGY CONSULTANTS LLC
194 S. BROAD STREET
LAUREL, PA 19468
215-655-7477

ANSI D 10/23/2017 9:05 AM

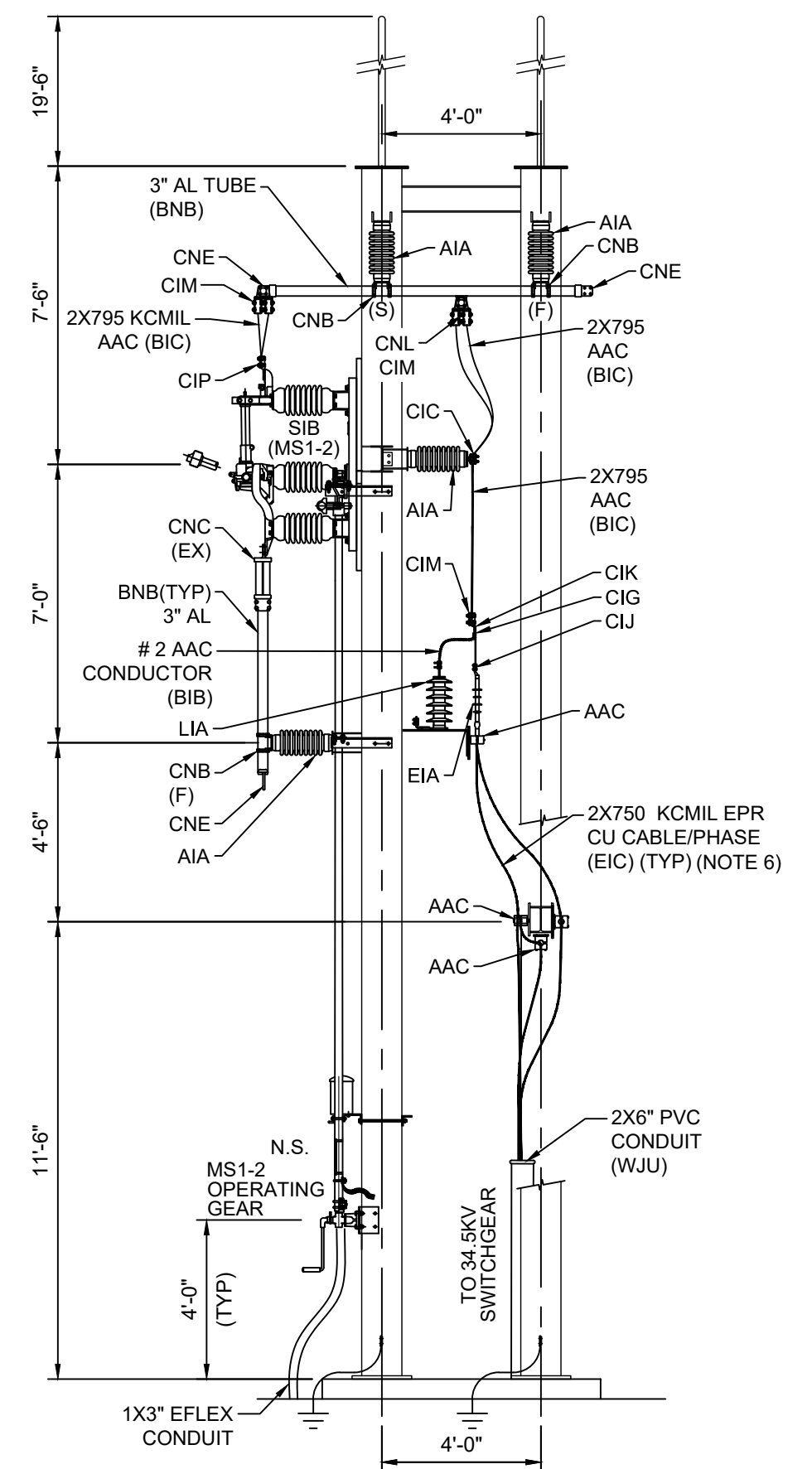
RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
	MINIMUM	RECOMMENDED	METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC. SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60



A-A SECTION
1050-2-1
SCALE: 1/4"=1'-0"



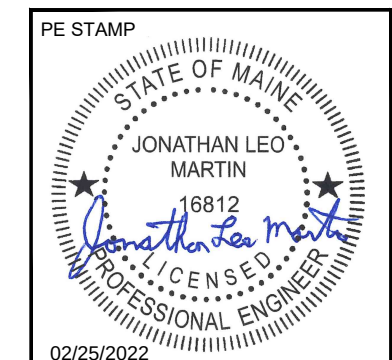
C-C SECTION
1050-2-1
SCALE: 1/4"=1'-0"



D-D SECTION
1050-2-1
SCALE: 1/4"=1'-0"

- NOTES:**
- TRANSMISSION HARDWARE SHALL BE PROVIDED BY TRANSMISSION GROUP.
 - WIRE CONDUCTOR ACCEPTABLE INSIDE DIAMETER BEND SHALL BE 10 TO 15 TIMES THE OUTSIDE DIAMETER IN ACCORDANCE WITH TM2.71.53.
 - LOCATIONS & SYMBOLS FOR BUS SUPPORTS & CONNECTION TYPES ARE SHOWN AND INDICATED AS:
S - SLIP SUPPORT
F - FIXED SUPPORT
EX - EXPANSION SUPPORT
 - WOOD POLE HEIGHT IS 25 FEET (20'-6" ABOVE GROUND & 4'-6" BELOW GROUND).
 - TRANSMISSION CONDUCTOR IS INDICATIVE.
 - THE MINIMUM BENDING RADIUS OF POWER CABLE IS 12 TIMES THE OVERALL DIAMETER OF CABLE IN ACCORDANCE WITH NEC ARTICLE 300.34"
 - N.S. = NEAR SIDE, F.S. = FAR SIDE

- REFERENCE DRAWING:**
- | | |
|--------------------|---|
| 1050-0002-001 | GENERAL ARRANGEMENT 34.5/12.47KV S/S |
| 1050-0002-003 SH 1 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-003 SH 2 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-002 SH 2 | GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H |
| 1050-0002-002 SH 3 | GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M |
| 1050-0002-002 SH 4 | GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q |
| 1050-0002-002 SH 5 | GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V |
| 1050-0002-002 SH 6 | GENERAL ARRANGEMENT SECTIONS H-H & W-W |
| 1050-0006-008 | SITE LIGHTING PROTECTION PLAN 34.5/12.47KV |
| 1050-0006-009 SH 1 | YARD LIGHTING & SECURITY PLAN |
| 1050-0006-010 | YARD LIGHTING WIRING DIAGRAM |

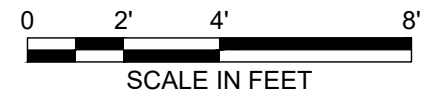


AVANGRID ENGINEERING		CONFIDENTIAL, PROPRIETARY AND TRADE SECRET INFORMATION		Property of AVANGRID	
BY	TOKMLEC	DATE	02/25/2022	NO	FILE: 1050-0002-002 SH 001.dwg
APP	ALM/LEC	DATE	02/25/2022	REV	
REV	DESCRIPTION	DATE	BY	CK	APP

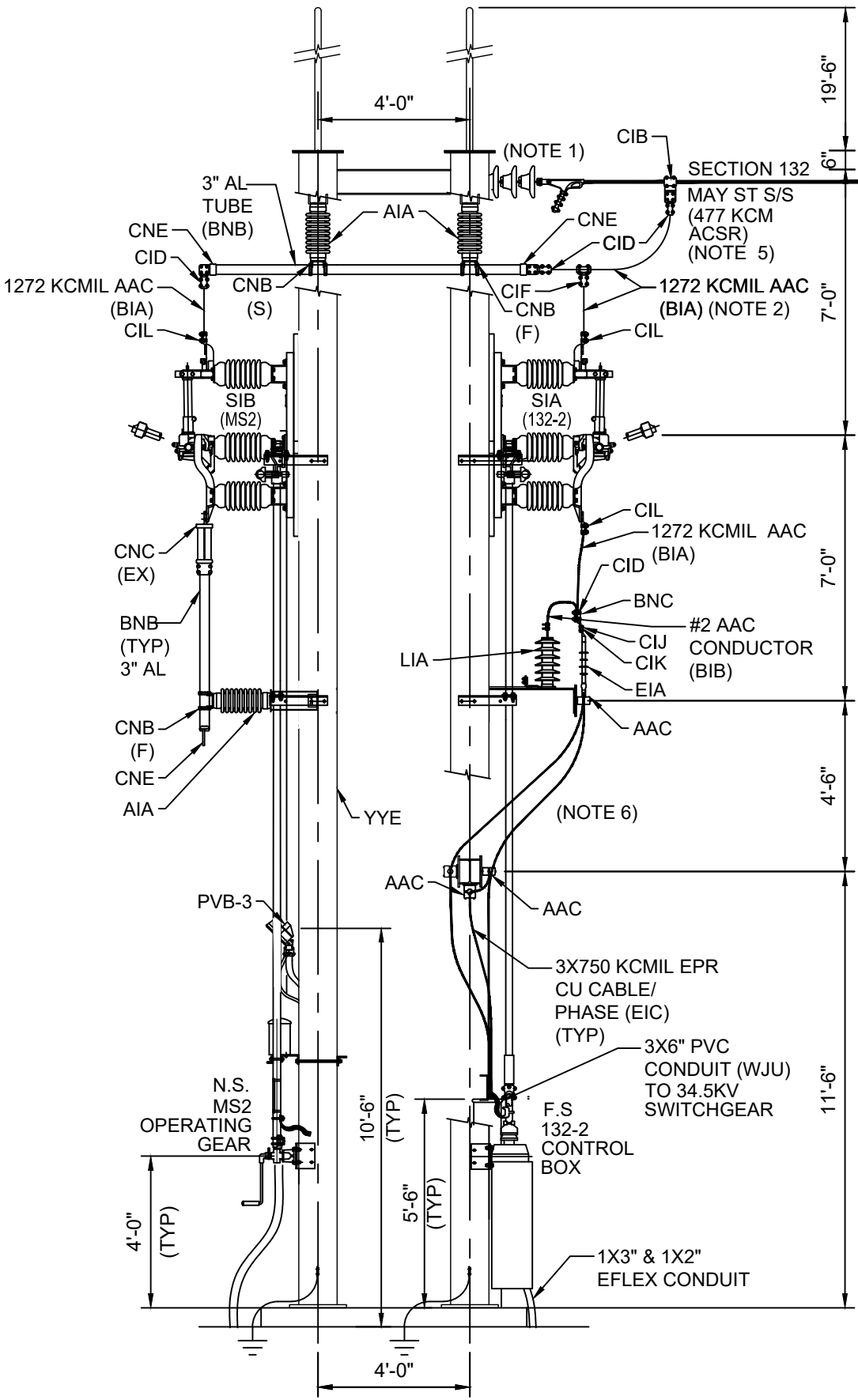
GENERAL ARRANGEMENT	
SECTIONS A-A, B-B, C-C, D-D	
SH 1 OF 6	
BIDDEFORD PUMP S/S	BIDDEFORD, ME
BY	TOKMLEC
CK	ALM/LEC
APP	ALM/LEC
DATE	02/25/2022
REV	

LOGO	INFO	DESCRIPTION	DATE	BY	CK	APP
		ISSUED FOR CONSTRUCTION	02/25/2022	TOKMLEC	VS/MLC	ALM/LEC
		REV				

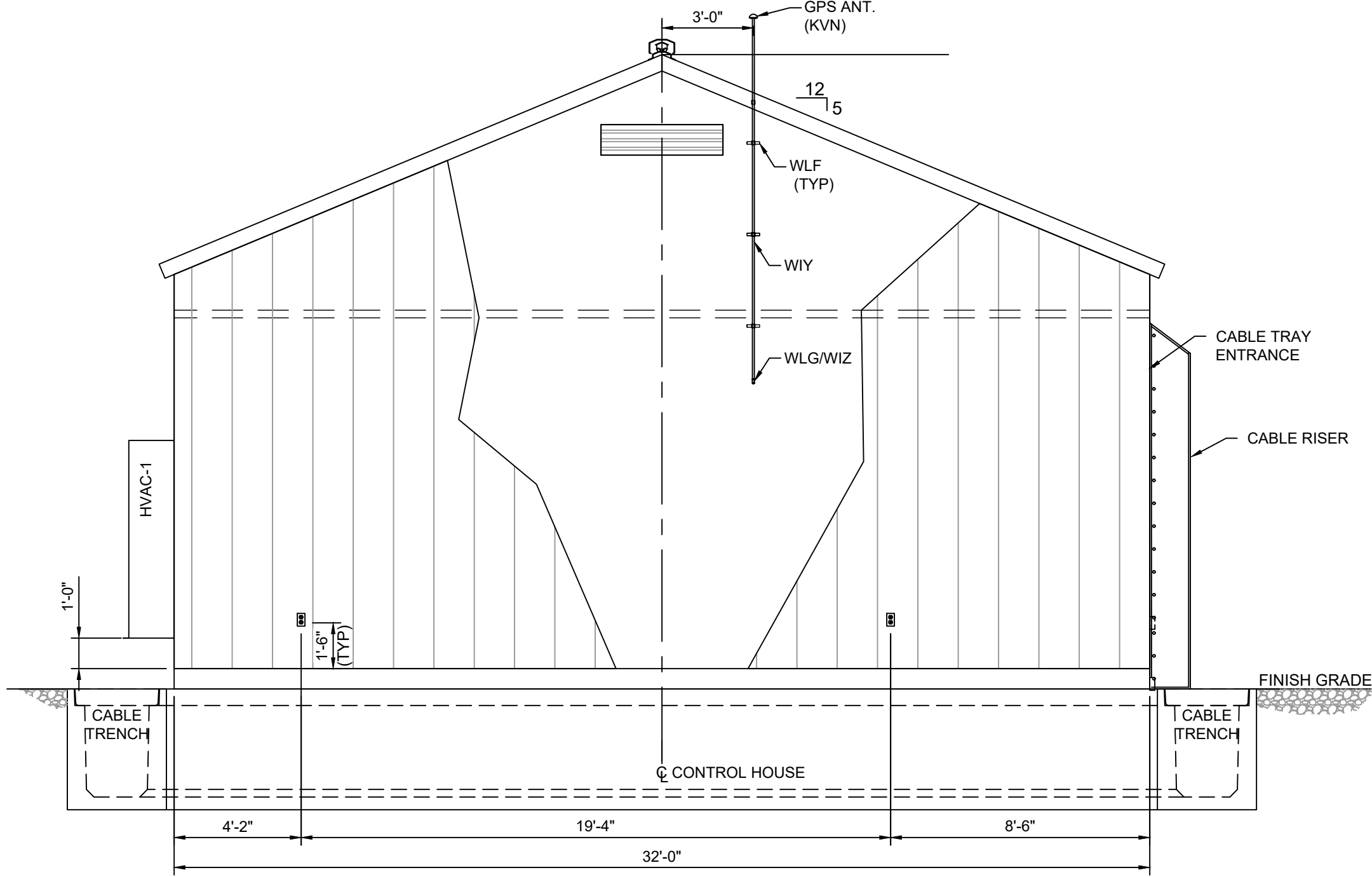
MAINLINE
MAINLINE ENERGY CONSULTANTS LLC
184 S. BROAD STREET, LANCASTER, PA 17602
TEL: 717-855-2777 FAX: 717-855-2777



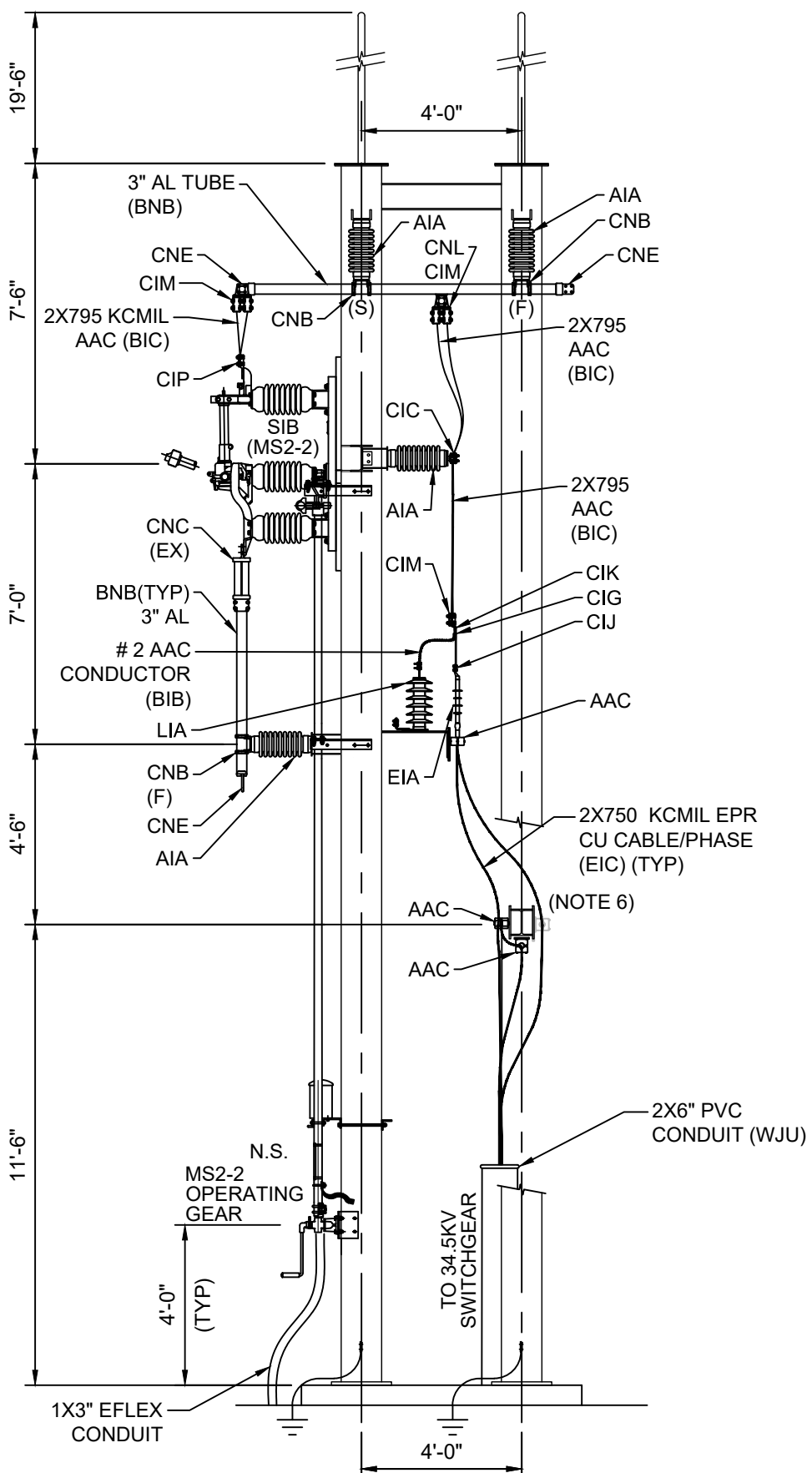
RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
	MINIMUM	RECOMMENDED	METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC. SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60



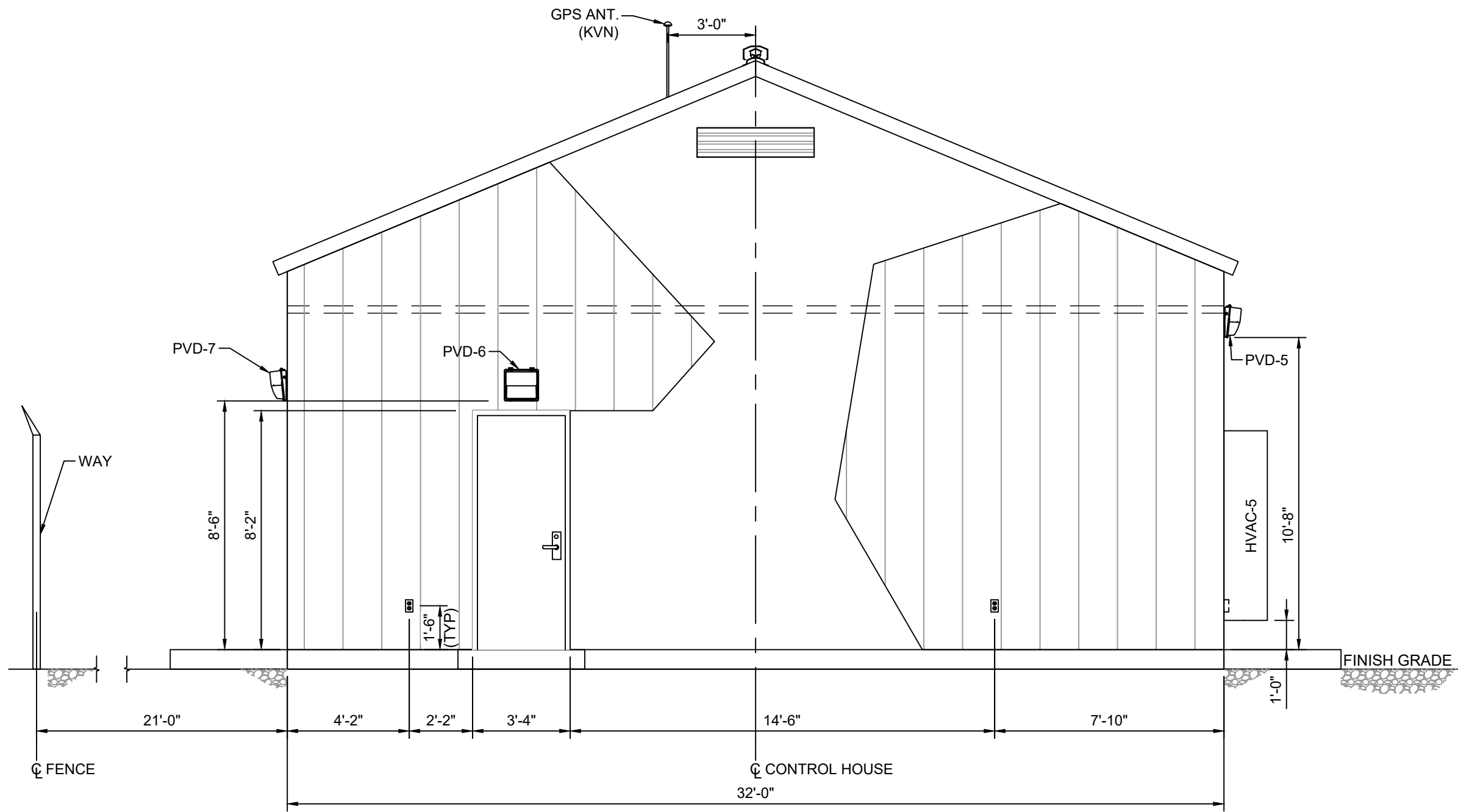
E-E SECTION
1050-2-1 SCALE: 1/4"=1'-0"



G-G SECTION
1050-2-1 SCALE: 1/4"=1'-0"



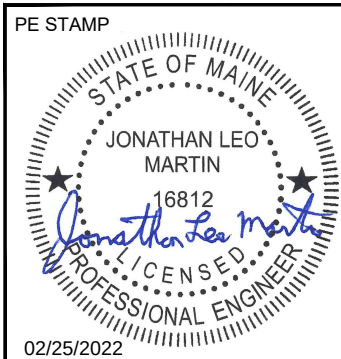
F-F SECTION
1050-2-1 SCALE: 1/4"=1'-0"



I-I SECTION
1050-2-1 SCALE: 1/4"=1'-0"

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- REFERENCE DRAWING:
- | | |
|--------------------|---|
| 1050-0002-001 | GENERAL ARRANGEMENT 34.5/12.47KV S/S |
| 1050-0002-003 SH 1 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-003 SH 2 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-002 SH 1 | GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D |
| 1050-0002-002 SH 3 | GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M |
| 1050-0002-002 SH 4 | GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q |
| 1050-0002-002 SH 5 | GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V |
| 1050-0002-002 SH 6 | GENERAL ARRANGEMENT SECTIONS H-H & W-W |
| 1050-0002-002 SH 7 | ANIMAL PROTECTIONS DETAILS |
| 1050-0006-008 | SITE LIGHTNING PROTECTION 34.5/12.47KV |
| 1050-0006-009 SH 1 | YARD LIGHTING & SECURITY PLAN |
| 1050-0006-010 | YARD LIGHTING DIAGRAM |
| 1050-0012-002 | ABOVE GRADE BILL OF MATERIALS |



AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID



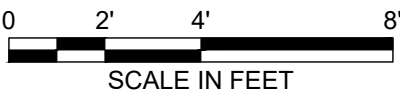
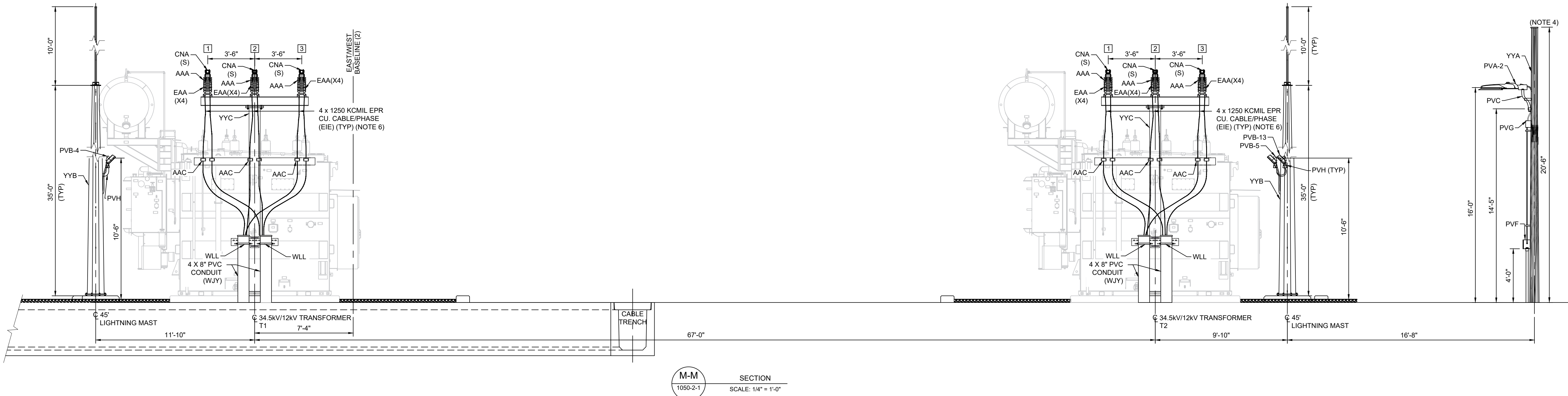
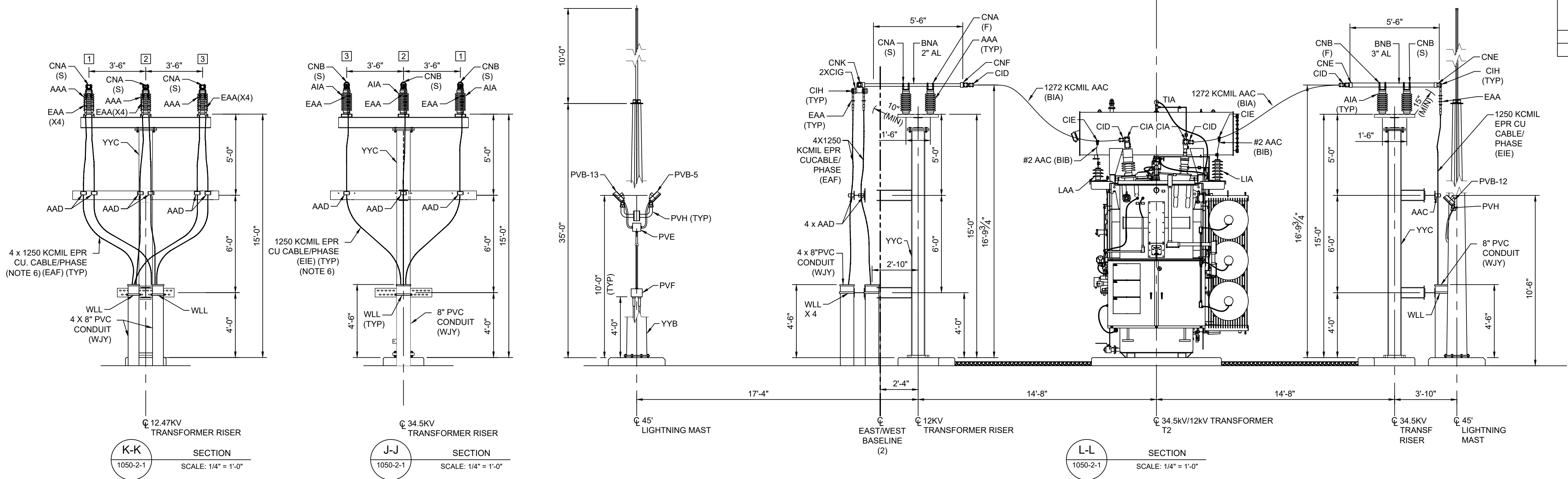
GENERAL ARRANGEMENT
SECTIONS E-E, F-F, G-G & I-I
SH 2 OF 6

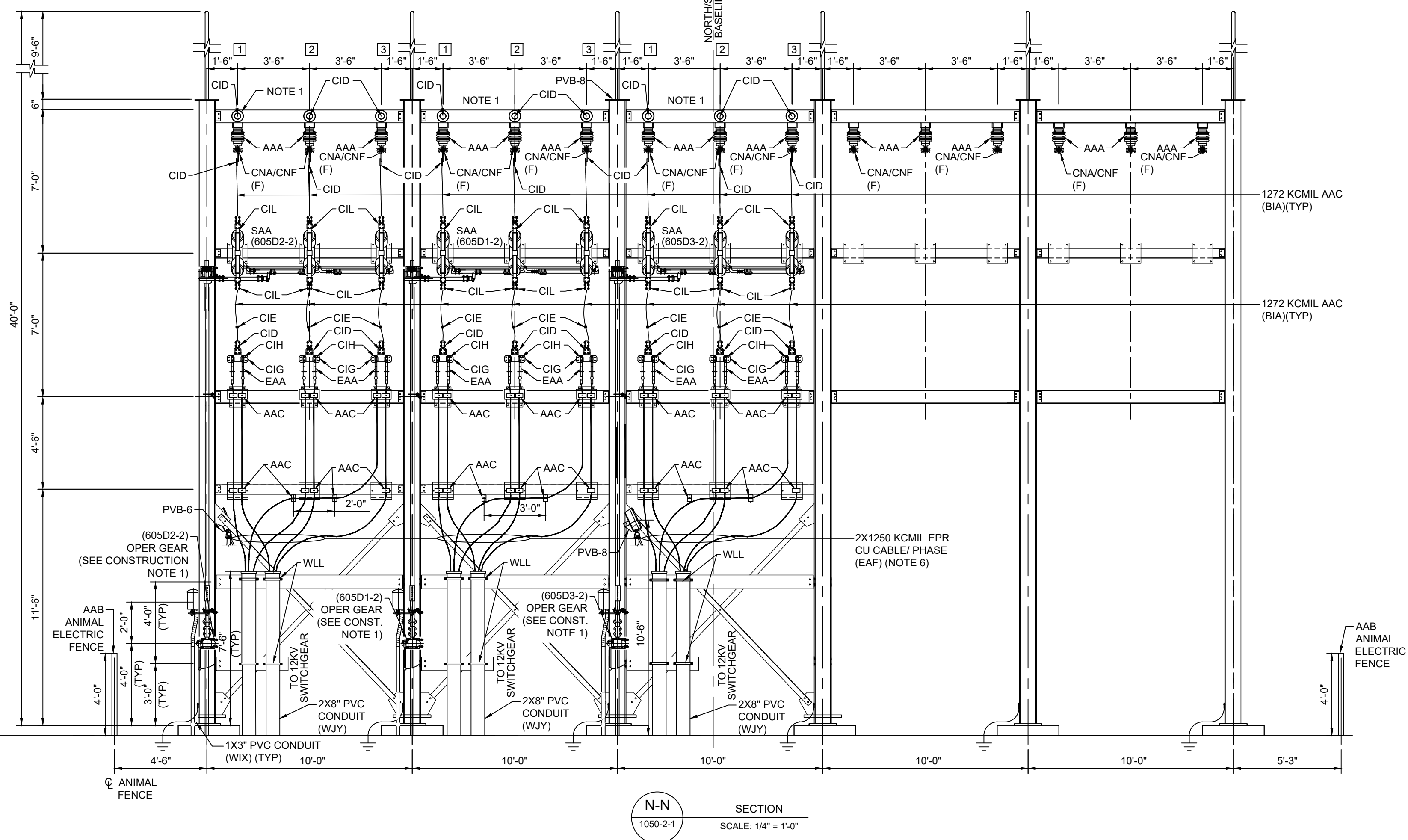
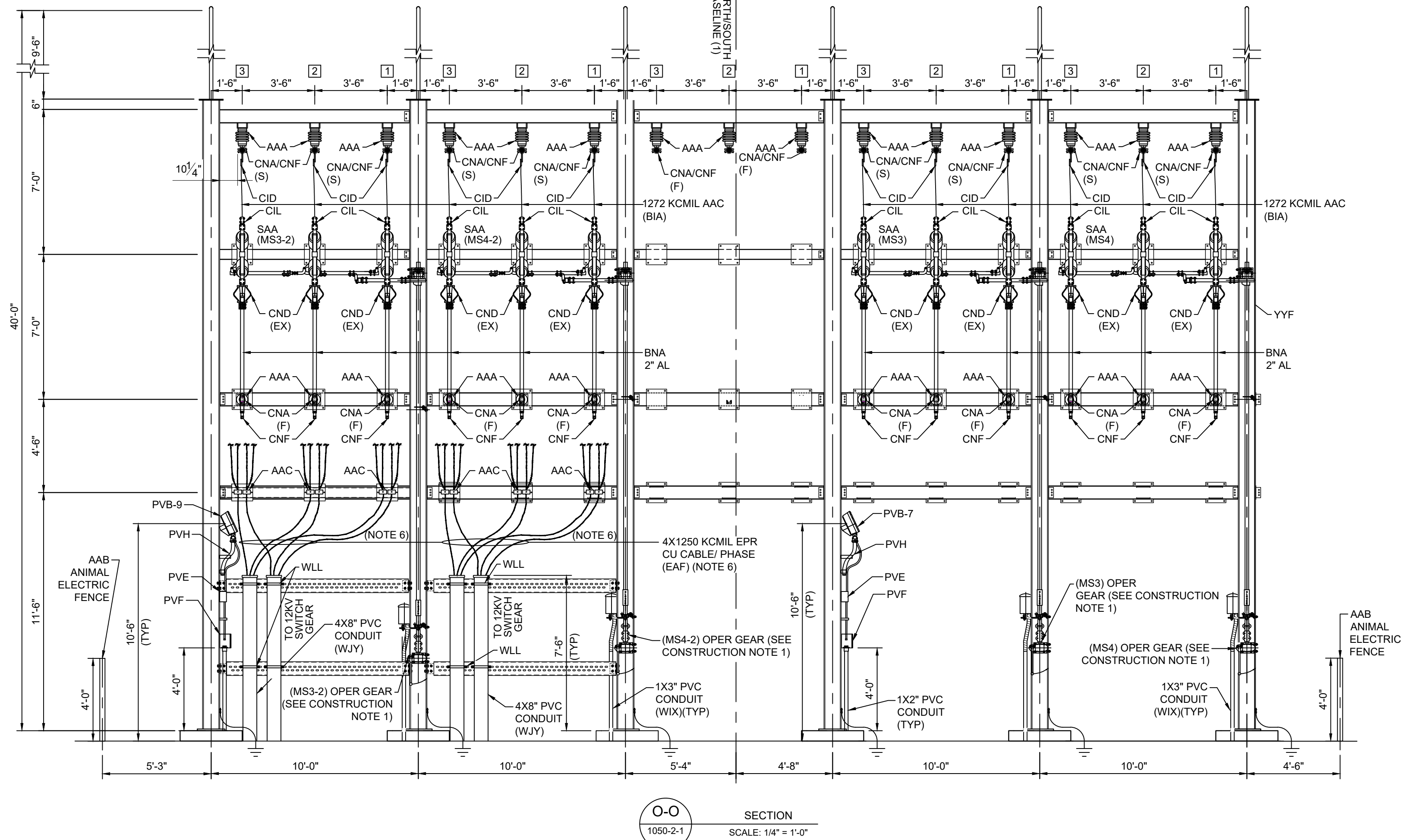
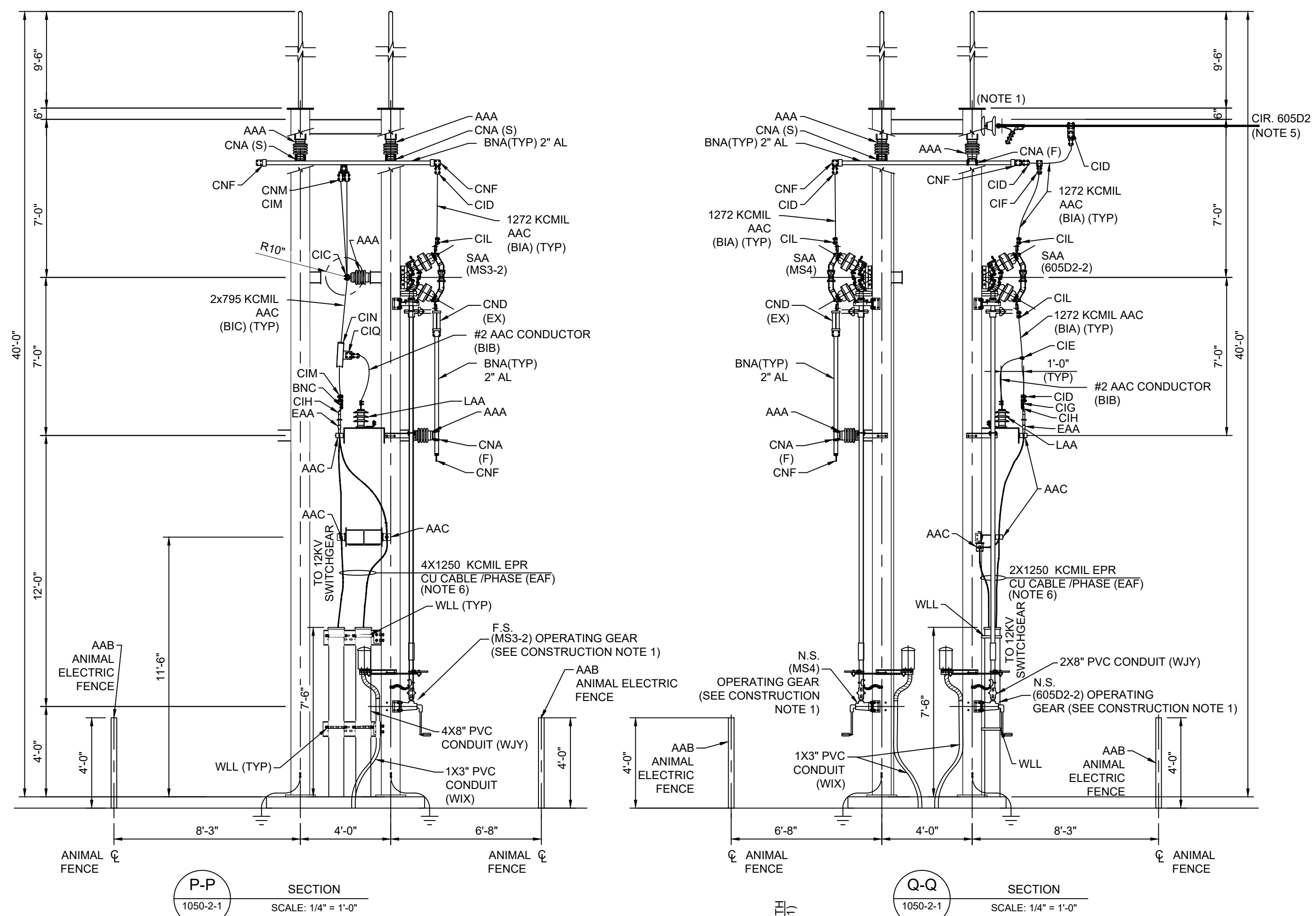
BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY	TOKMLEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 002.dwg
CK	YSMLEC	NO.	REV
APP	ILMMLEC	1050-0002-002 SH 002	0-0
DATE	02/25/2022		

REV	DESCRIPTION	DATE	BY	CK	APP
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5. TRANSMISSION CONDUCTOR IS INDICATIVE.
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1050-0002-001 GENERAL ARRANGEMENT 34.5/12.47KV S/S
1050-0002-003 SH 1 GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-003 SH 2 GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-003 SH 11 GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH2 GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H
1050-0002-002 SH4 GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q
1050-0002-002 SH5 GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V
1050-0002-002 SH6 GENERAL ARRANGEMENT SECTIONS H-H & W-W
1050-0002-002 SH7 ANIMAL PROTECTIONS DETAILS
1050-0006-008 SITE LIGHTNING PROTECTION 34.5/12.47KV
1050-0006-009 SH 1 YARD LIGHTING & SECURITY PLAN
1050-0006-010 YARD LIGHTING & SECURITY PLAN
1050-0012-002 ABOVE GRADE BILL OF MATERIALS

[illegible]



RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
			METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC. SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
	MINIMUM	RECOMMENDED	MINIMUM	RECOMMENDED	RECOMMENDED	RECOMMENDED
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60

REFERENCE DRAWING:

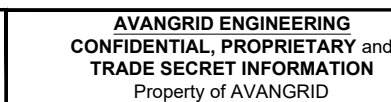
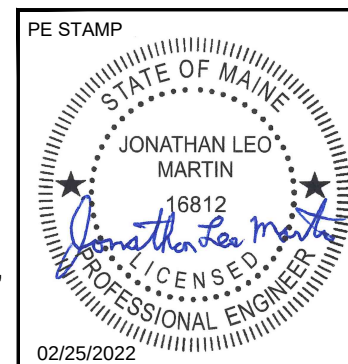
1050-0002-001	GENERAL ARRANGEMENT 34.5/12.47KV S/S
1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-002 SH 1	GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH 2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H
1050-0002-002 SH 3	GEANGEMENT SECTIONS J-J, K-K, L-L & M-M
1050-0002-002 SH 5	GENERAL ARRANGEMENTGENERAL ARRNT SECTIONS R-R, S-S, T-T,U-U & V-V
1050-0002-002 SH 6	GENERAL ARRANGEMENTS DETAILS H-H & W-W
1050-0002-002 SH 7	ANIMAL PROTECTIONS DETAILS
1050-0006-008	SITE LIGHTNING PROTECTION 34.5/12.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING DIAGRAM
1050-0012-002	ABOVE GRADE BILL OF MATERIALS

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7. N.S. = NEAR SIDE, F.S. = FAR SIDE

CONSTRUCTION NOTE:

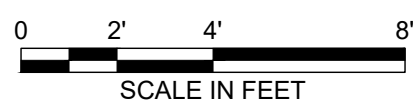
1. ATTACH THE HOGO ADAPTER TO THE INNER WEB OF THE STRUCTURE LEG AND ADJUST THE ROTARY ANGLE ACCORDINGLY TO ENSURE THERE'S NO INTERFERENCE FROM THE SWITCHES IN THE NEXT BAY.

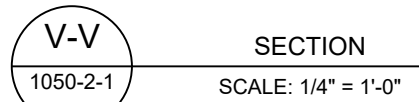
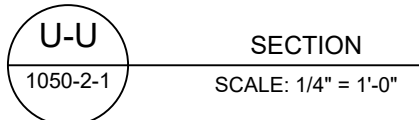
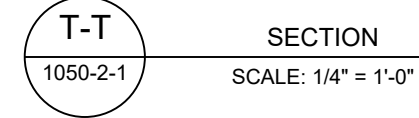
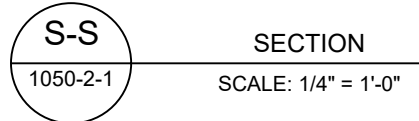
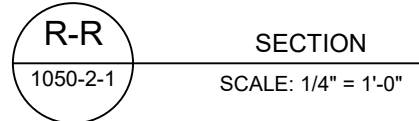


GENERAL ARRANGEMENT
SECTIONS N-N O-O P-P & Q-Q

SH 4 OF 6

						BIDDEFORD PUMP S/S		BIDDEFORD, ME	
						BY	TOKMLEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 004.dwg
						CK	VSMILEC	NO.	REV
						APP	JUMMLEC	1050-0002-002 SH 004	
						DATE	02/25/2022		0-0
REV	DESCRIPTION	DATE	BY	CK	APP				





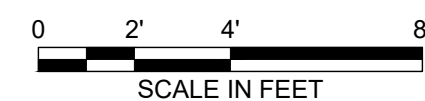
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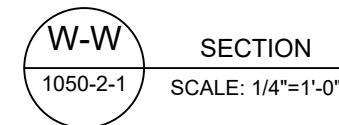
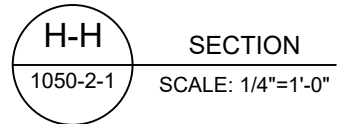
1050-0002-001	GENERAL ARRANGEMENT 34/512.47KV S/S
1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34/512.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34/512.47KV S/S
1050-0002-002 SH 1	GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH 2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & I-I
1050-0002-002 SH 3	GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M
1050-0002-002 SH 4	GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q
1050-0002-002 SH 6	GENERAL ARRANGEMENT SECTIONS H-H & W-W
1050-0002-002 SH 7	ANIMAL PROTECTIONS DETAILS
1050-0006-008	SITE LIGHTNING PROTECTION 34/512.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING DIAGRAM
1050-0012-002	ABOVE GRADE BILL OF MATERIAL

1. ATTACH THE HOGO ADAPTER TO THE INNER WEB OF THE STRUCTURE LEG AND ADJUST THE ROTARY ANGLE ACCORDINGLY TO ENSURE THERE'S NO INTERFERENCE FROM THE SWITCHES IN THE NEXT BAY.

[illegible]

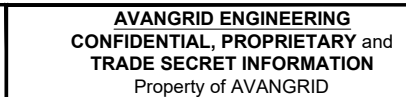
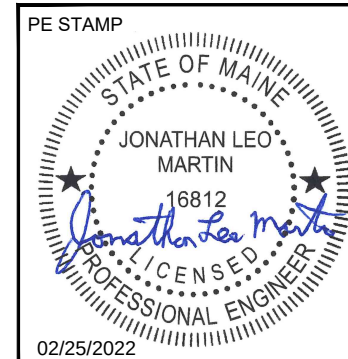
GENERAL ARRANGEMENT			
SECTIONS R-R, S-S, T-T, U-U & V-V			
SH 5 OF 6			
BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY CK	TOM/MEC VSM/MEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 005.dwg
APP JLM/MEC	DATE 02/25/2022	NO.	REV
		1050-0002-002 SH 005	0-0





REFERENCE DRAWING:

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1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-002 SH 1	GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH 2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H
1050-0002-002 SH 3	GENERAL ARRANGEMENT SECTIONS I-I, K-K, L-L & M-M
1050-0002-002 SH 4	GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q
1050-0002-002 SH 5	GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V
1050-0002-002 SH 7	ANIMAL PROTECTIONS DETAILS
1050-0006-008	SITE LIGHTNING PROTECTION 34.5/12.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING DIAGRAM
1050-0102-002	ABOVE GRADE BILL OF MATERIAL



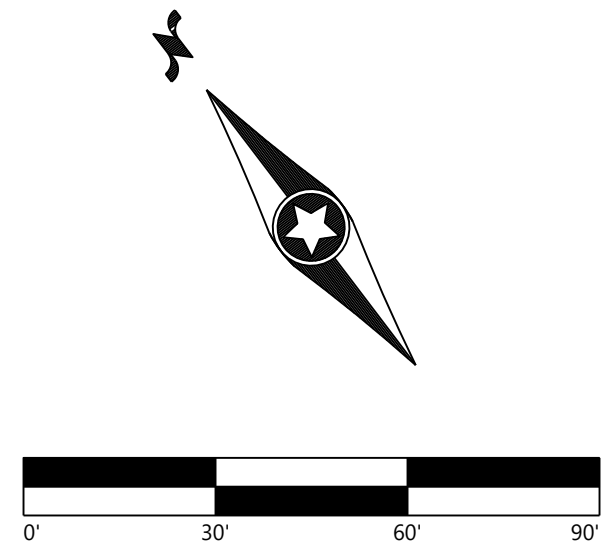
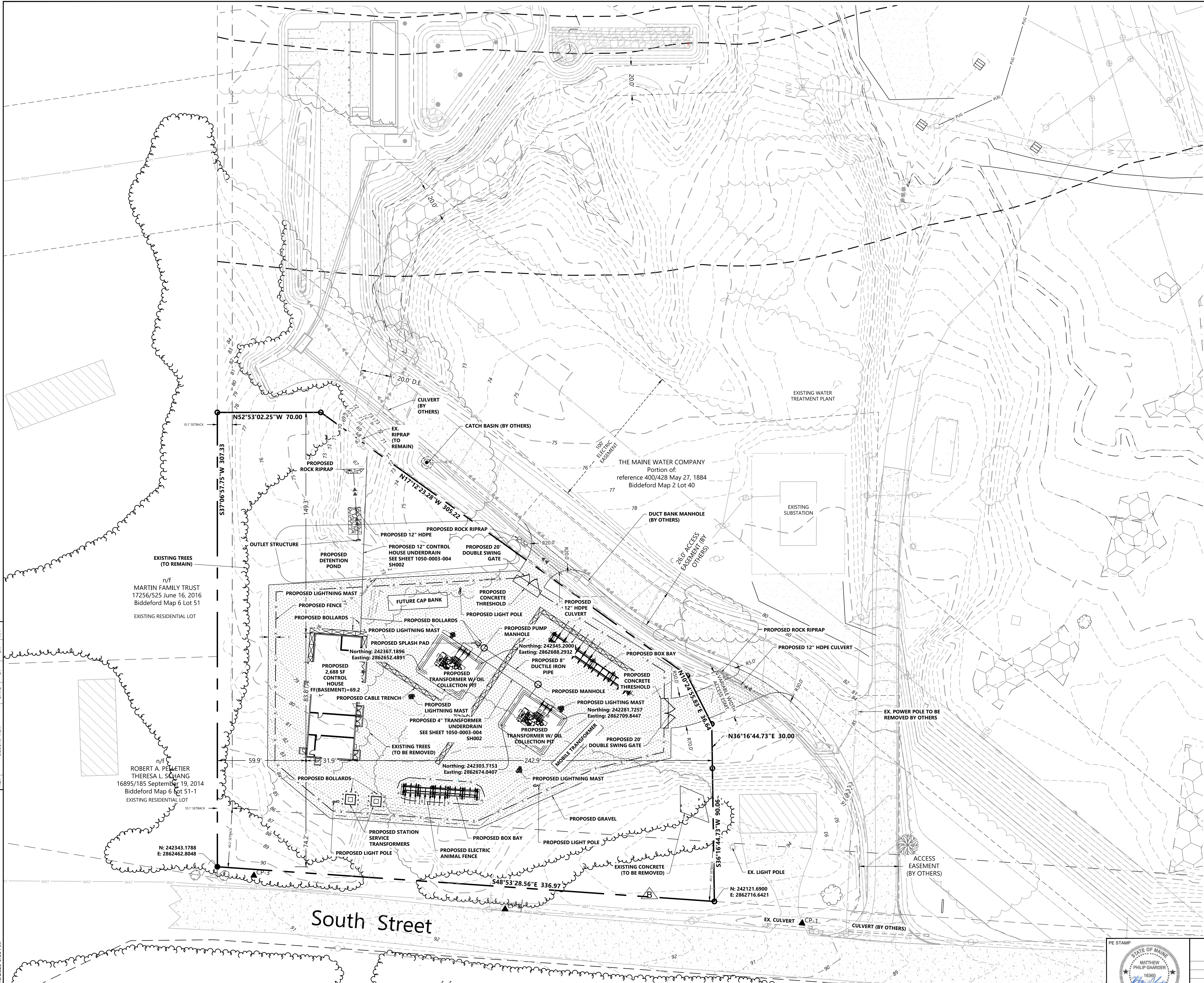
GENERAL ARRANGEMENT

SECTIONS H-H & W-W

SH 6 OF 6

BIDDEFORD PUMP S/S	BIDDEFORD, ME
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						BY	TDK/MLEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 006.dwg	
						CK	VSM/LEC	NO.		REV
REV	DESCRIPTION	DATE	BY	CK	APP	APP	JLM/MLC	1050-0002-002 SH 006	0-0	
						DATE:	02/25/2022			



LEGEND:

- RIGHT-OF-WAY LINES
- EX. PARCEL LINES
- EX. EASEMENT LINES
- EX. INDEX CONTOUR
- EX. INTERVAL CONTOUR
- EX. PUBLIC ROAD
- EX. FENCE
- EX. CULVERT
- EX. OVERHEAD POWER
- EX. GAS PIPELINE
- EX. TELEPHONE LINE
- EX. WATER LINE
- STORM DRAIN
- UNDERGROUND POWER
- EX. FLOODPLAIN
- PROP. GRAVEL
- EX. WETLANDS

SITE DATA SUMMARY TABLE	
ITEM	
ZONING	SR1
PROPOSED USE	Substation
LOT AREA (SF/AC)	81,509/1.871
LOT COVERAGE	49.78%

GENERAL NOTES:

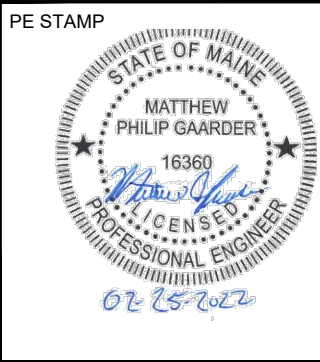
- TOPOGRAPHIC DATA ARE FROM INPUT PROVIDED BY AVANGRID. THE PROPERTY LINE INFORMATION SHOWN ARE FROM SURVEY CONDUCTED BY JONES ASSOCIATES ON FEBRUARY 13, 2018.
- HORIZONTAL CONTROL: NAD83, WEST ZONE
- VERTICAL CONTROL: NAVD88 (FT).

CONTROL POINTS:

- MAG NAIL, N: 242074.1840 E: 2862755.0930, EL: 90.65'
- FIRE HYDRANT TOP NUT, N: 242202.9710 E: 2862600.6450, EL: 90.65'
- 6" SPIKE, N: 242323.3640 E: 2862478.6730, EL: 90.47'

CAUTION!!!
EXISTING UTILITIES IN THE AREA. UTILITIES LOCATION SHOWN ARE SCHEMATIC IN NATURE AND MAY NOT ACCURATELY REFLECT SIZE, HORIZONTAL, AND/OR VERTICAL LOCATION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION PRIOR TO BEGINNING CONSTRUCTION. CONTACT AFFECTED UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION IN THIS AREA. (1-800-242-8511)

CIVIL SITE PLAN



AVANGRID ENGINEERING
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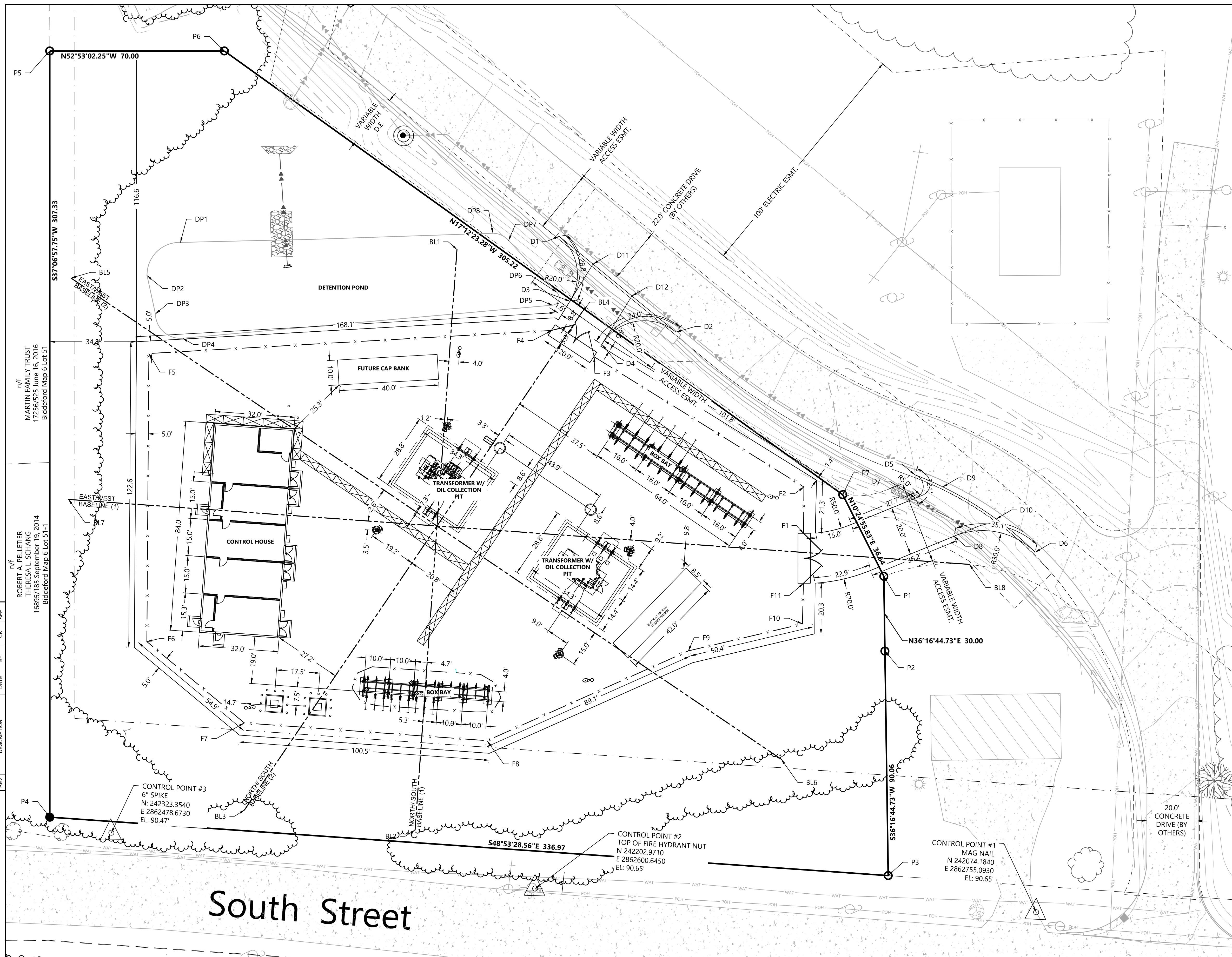
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BY	BM/ML/EC	SCALE: SEE SHEET FILE: 1050-0003-001
CK	AAM/LEC	NO.
APP	AAM/LEC	REV
DATE	2/25/2022	1050-0003-001
REV	DESCRIPTION	DATE
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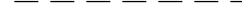
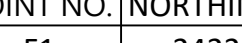
REV	DESCRIPTION	DATE	BY	CK	APP
1.0	ISSUED FOR CONSTRUCTION	2/25/2022	BM/ML/EC	AAM/LEC	PHILIP GARBER

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MAINLINE
ENGINEERING & CONSTRUCTION, LLC
1260 S. BROAD STREET, LANDSDALE, PA 19446
TEL: 610-261-1000
WWW.MAINLINE-ENG.COM

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	RIGHT-OF-WAY LINES
	EX. PARCEL LINES
	EX. EASEMENT LINES
	EX. INDEX CONTOUR
	EX. INTERVAL CONTOUR
	EX. PUBLIC ROAD
	EX. FENCE
	EX. CULVERT
	EX. OVERHEAD POWER
	EX. GAS PIPELINE
	EX. TELEPHONE LINE
	EX. WATER LINE
	STORM DRAIN
	UNDERGROUND POWER
	PROP. GRAVE

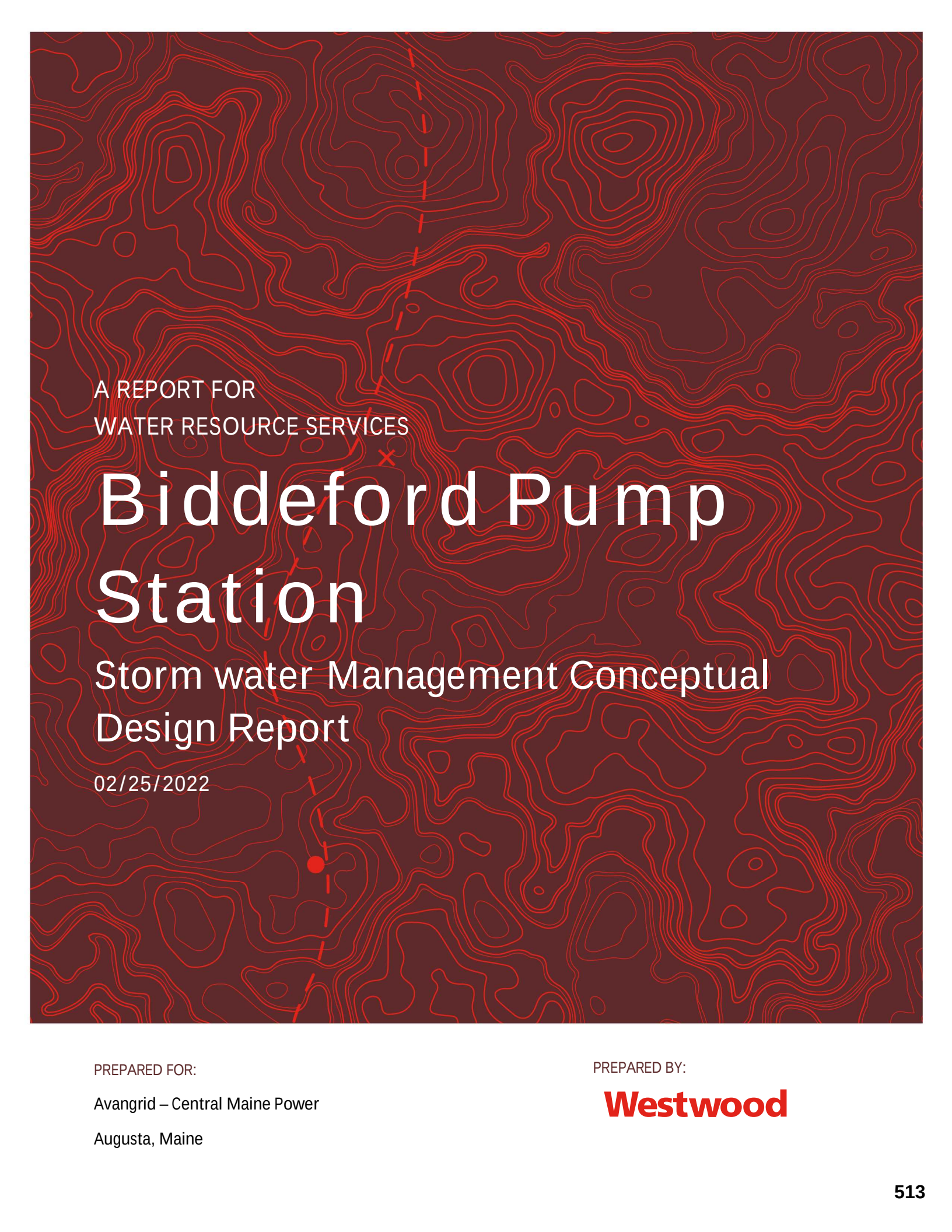
DESCRIPTION	POINT NO.	NORTHING	EASTING	
FENCE	F1	242251.5296	2862772.3797	
	F2	242266.3898	2862783.7584	
	F3	242358.7759	2862748.2170	
	F4	242377.4423	2862741.0359	
	F5	242467.5595	2862606.6517	
	F6	242375.8994	2862536.2722	
	F7	242326.3096	2862548.7466	
	F8	242261.8954	2862621.0861	
	F9	242241.9076	2862707.1588	
	F10	242222.9291	2862750.1621	
	F11	242235.6502	2862760.2206	
PROPERTY	P1	242218.4772	2862787.6850	
	P2	242194.2928	2862769.9334	
	P3	242121.6900	2862716.6421	
	P4	242343.1788	2862462.8048	
	P5	242588.3093	2862648.2000	
	P6	242546.0692	2862704.0191	
	P7	242254.5089	2862794.3087	
	D1	242405.7395	2862766.2015	
DRIVEWAY	D2	242346.8878	2862780.3294	
	D3	242382.4047	2862753.9351	
	D4	242360.8856	2862753.7008	
	D5	242243.4324	2862822.1816	
	D6	242189.5367	2862841.9021	
	D7	242235.8051	2862816.7554	
	D8	242214.2883	2862819.8822	
	D9	242232.7733	2862828.2076	
	D10	242209.6318	2862837.4714	
	D11	242388.6975	2862770.2926	
	D12	242369.0802	2862775.0019	
DETENTION POND	DP1	242495.4474	2862643.6515	
	DP2	242492.9143	2862624.9425	
	DP3	242478.6179	2862618.3284	
	DP4	242464.2880	2862621.1375	
	DP5	242385.3899	2862747.3459	
	DP6	242388.5493	2862751.8723	
	DP7	242416.6976	2862749.0360	
	DP8	242422.7778	2862745.7575	
	BASE LINE	BL1	242426.2744	2862730.3204
		BL2	242250.7604	2862576.4205
		BL3	242298.4307	2862526.7012
BL4		242376.0131	2862755.1986	
BL5		242510.5386	2862600.0241	
BL6		242184.8088	2862710.6201	
BL7		242440.3222	2862545.6604	
BL8		242201.6079	2862817.9005	

REV	ISSUED FOR CONSTRUCTION	DATE	BY	CK	APP
0-0		2/25/2022	BM/AM/EC	AM/AM/EC	AM/AM/EC

 MAINLINE ENERGY CONSULTANTS LLC A WESTWOOD TEAM 1240 S. BROAD STREET, JARNDALE, PA 15466 TEL: (215) 950-5271 FAX: (215) 950-5252 215-953-7471	INFO
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	PE STAMP STATE OF MAINE MATTHEW PHILIP GAARDER 16360 MECHANICAL ENGINEER <i>02-25-2022</i> AVANGRID ENGINEERING CONFIDENTIAL, PROPRIETARY AND TRADE SECRET INFORMATION Property of AVANGRID  CMP AVANGRID DIMENSIONAL CONTROL PLAN					
	BIDDEFORD PUMP S/S BY: <u>BMM/LEC</u> SCALE: SEE SHEET FILE: 1050-0003-003 CK: <u>AAW/LEC</u> NO. APP: <u>AAW/LEC</u> DATE: <u>2/25/2022</u> BIDDEFORD, ME 1050-0003-003 REV 0-0					
REV	DESCRIPTION	DATE	BY	CK	APP	



A REPORT FOR
WATER RESOURCE SERVICES

Biddeford Pump Station

Storm water Management Conceptual
Design Report

02/25/2022

PREPARED FOR:

Avangrid – Central Maine Power

Augusta, Maine

PREPARED BY:

Westwood

Storm Water Management Conceptual Design Report

Biddeford Pump Station

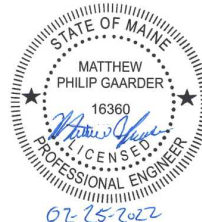
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Project Number: R0027642

Date: 02/25/2022

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1.0 Introduction

The existing Biddeford Pump Substation has one 12kV circuit with a peak load of about 7,900 KVA, and a design limit for 12 kV distribution circuits of 5,200 KVA based on NESC clearance standards between the distribution circuit and communication equipment on the distribution poles. The existing Biddeford Pump Station uses a 605D1 circuit to tie into other substations in the area with a limited capacity, as well as a 34.5/12.47 kV mobile installation outside of the substation fence. The associated existing transformer capacity for the substation is 5000/7000 KVA based on the current rating of T1.

The purpose of replacing the existing Biddeford Pump Substation is to address the capacity issues and improve reliability at the existing site by replacing the existing station. The updated project will be comprised of a 34.5/12.47 kV substation, two (2) 34.5/12.47 kV 11.2/14 MVA LTC Transformers, and new protection and control equipment.

This stormwater management report covers the development associated with the Biddeford Pump Substation project. Westwood Professional Services have been retained by Main Line Energy to provide a site design for the proposed substation.

The purpose of this stormwater management report is to evaluate the proposed design for the project and produce a conceptual stormwater management plan that complies with all applicable design criteria and guidelines.

2.0 Design Criteria

The following are the design criteria applicable to the site:

- The Rational Method will be used for designing the conceptual stormwater management system and for calculating run-off quantities.
- Design of this project will be made using rainfall information over a 25-year period. Rainfall data was procured from (<http://precip.eas.cornell.edu/>) using the project location. All applicable charts used have been provided for reference at the end of this document.
- The FAA (Federal Aviation Administration) equation was used to calculate time of concentration.
- The spill containment pit has been designed to hold 130% of the transformer's oil.
- In order to prevent any discharge of contaminated water from the project site, adequate erosion control measures will be provided onsite during construction.

2.1 Proposed Stormwater Management System

The Biddeford Pump Substation project site is located off of South Street in Biddeford, Maine.

Stormwater management will be designed in order to hold additional flow generated from post site development because of land use change. A detention pond will be designed to effectively control peak flow rates to pre-development levels, with multistage discharge structures.

2.2 Spill Prevention System

Spill containment pits for the two power transformers will be provided. The containment pits will have concrete curbs and concrete floors. An Oil Minder Pump Manhole will be used

to collect any effluents from the two containment pits. Its operation will comply with SPCC requirements.

3.0 Design Features of the Proposed Stormwater Management System

3.1 Site Drainage System

Total area of the project station going to the detention pond is 42,761 square ft. (0.982 Acres). Predevelopment flows were calculated at 1.93 cfs and the post development flows are calculated at 2.93 cfs. The proposed ditch will collect any runoff generated in the station. The proposed detention pond will be designed to control runoff from 24-hour storms of the 2-year, 10-year, and 25-year frequencies. The basin will also be designed as per the recommended one acre-foot of storage in a detention basin from the “Maine Stormwater Management Design Manual”.

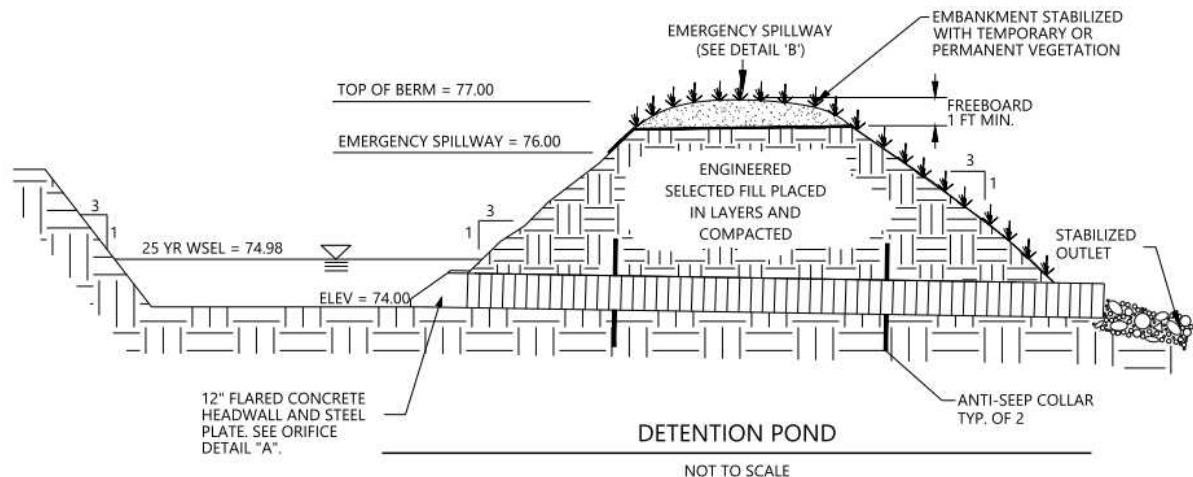


Figure 1.0: Detention Basin Design

Outlets from the detention pond will be designed to adhere to requirements from the “Maine Stormwater Management Design Manual”. The outlet will be designed to be as far apart from the inlet as possible for runoff to travel the longest distance through the detention pond, and both inlet and outlet will be designed with energy dissipation to prevent scour.

A 20-foot drainage easement is needed to release existing flow rate through the north side property for cross lot drainage. Culverts will also need to be sized in order to meet requirements for a 25-year storm.

3.1.1 Pre-Development

The pre-development site is an unimproved industrial area. From the “Maine Stormwater Management Design Manual” the runoff coefficient is 0.20.

The Rational Method is used to calculate peak flow with the following equation:

$$Q = CiA$$

Where Q is the peak runoff rate (cu.ft/s)
 C is the runoff coefficient
 i is the rainfall intensity (inch/hour)
 A is the contributing drainage area (acres)

Time of concentration is calculated using the following FAA equation

$$T_c = \frac{G(1.1 - c)\sqrt{L}}{(100S)^{(1/3)}}$$

G = 1.8

c = Runoff coefficient = 0.20

L = Longest watercourse length in the watershed, ft = 400ft

S = Average slope of the watercourse, ft/ft = 0.02

$$T_c = \frac{1.8(1.1 - 0.2)\sqrt{400}}{(100 * 0.02)^{(1/3)}} = 25.72min$$

Therefore, the time of concentration taken for this calculation is 26 minutes.

Rainfall intensity information is procured from the NOAA's National Weather Service Precipitation Frequency Data Server (PFDS), where the "Maine Stormwater Management Design Manual" suggests finding rainfall data. The rainfall intensity information from the PFDS for Biddeford, Maine is attached for reference in Appendix B. For the required 2-year, 10-year, and 25-year storm events, with a duration of 26 minutes, the rainfall intensity was calculated by interpolating the 15-minute and 30-minute storm data from the PFDS table. Rainfall intensity for a 2-year storm is 2.002 inches per hour, for a 10-year storm is 3.019 inches per hour, and for a 25-year storm is 3.651 inches per hour. The runoff coefficient used for the pre-development unimproved industrial area for the Rational formula, is 0.2. This is used for the site that is primarily woods on HSG C soils.

For a 2-year storm event:

$T_c = 26 \text{ min}$

$i = 2.002 \text{ in/hour}$

$C = 0.20$

$A = 42,761 \text{ sq. ft}$

The peak flow for the pre-development 25-year storm event is:

$$Q_{pre-2year} = CiA = 0.2 \times 2.002 \times \left(\frac{42,761}{43,560}\right) = 0.39 \text{ cu. ft/s}$$

For a 10-year storm event:

$$T_c = 26 \text{ min}$$

$$i = 3.019 \text{ in/hour}$$

$$C = 0.20$$

$$A = 42761 \text{ sq. ft}$$

The peak flow for the pre-development 25-year storm event is:

$$Q_{pre-10year} = CiA = 0.2 \times 3.019 \times \left(\frac{42,761}{43,560}\right) = 0.593 \text{ cu. ft/s}$$

For a 25-year storm event:

$$T_c = 26 \text{ min}$$

$$i = 3.651 \text{ in/hour}$$

$$C = 0.20$$

$$A = 42761 \text{ sq. ft}$$

The peak flow for the pre-development 25-year storm event is:

$$Q_{pre-25year} = CiA = 0.2 \times 3.651 \times \left(\frac{42,761}{43,560}\right) = 0.717 \text{ cu. ft/s}$$

3.1.2 Post-Development

The proposed pump substation will include transformers, electrical equipment structures and foundations, roads, and a building. Surface area on the site, other than the containment pits and building area, will be covered by gravel.

Land use area of different facilities for the post development is shown in Table 1:

Table 1- Land Use Area

Containment Pits, building Runoff CO=0.95	Gravel Runoff CO=0.70	Grass CO=0.3	Total Area
4059 ft ²	34801 ft ²	3901 ft ²	42761 ft ²

The composite runoff coefficient for the catchment area is:

$$C = \frac{4,059 \times 0.95 + 34,801 \times 0.70 + 3,901 \times 0.2}{42761} = 0.68 = 0.70$$

T_c is 30 minutes for the post-development.

The peak flow for the post-development 2-year storm event of catchment area is:

$$C = 0.70 \quad A = 42761 \text{ sq. ft} \quad i = 2.002 \text{ in/hour}$$

$$Q_{\text{post-2year}} = CiA = 0.70 \times 2.002 \times \left(\frac{42,761}{43,560}\right) = 1.376 \text{ cu. ft/s}$$

The peak flow for the post-development 10-year storm event of catchment area is:

$$C = 0.70 \quad A = 42761 \text{ sq. ft} \quad i = 3.019 \text{ in/hour}$$

$$Q_{\text{post-10year}} = CiA = 0.70 \times 3.019 \times \left(\frac{42,761}{43,560}\right) = 2.075 \text{ cu. ft/s}$$

The peak flow for the post-development 25-year storm event of catchment area is:

$$C = 0.70 \quad A = 42761 \text{ sq. ft} \quad i = 3.651 \text{ in/hour}$$

$$Q_{\text{post-25year}} = CiA = 0.70 \times 3.651 \times \left(\frac{42,761}{43,560}\right) = 2.509 \text{ cu. ft/s}$$

A detention pond will be constructed to control excess run-off between pre and post-development run-off flow rates.

Drainage area for the station project going to the pond is 0.982 acres. As listed in the calculations on sheet 1050-0003-004 SH005 of the civil site plan set, the total storage required for the pond is 3,116 CF for a 25- year storm. Predevelopment Q is calculated at 1.90 cfs using a C factor of 0.2. Post development Q is calculated at 2.93 cfs using a calculated weight C factor of 0.7. The site will release flow at 0.72 cfs.

The detention pond will release the flow through a 12" HDPE culvert pipe. Using Manning's equation, the pipe has a capacity of 1.4 cfs. The outfall pipe will have a steel plate to restrict the flow to match the existing flow rate of 0.72 cfs.

The emergency outfall was calculated using the weir formula for a trapezoid section. The side slopes are 3:1 and the bottom base is 10' wide. The depth for the total flow rate of the 25 year storm is 0.2'.

3.1.3 Erosion and Sediment Control

Construction activity associated with the proposed project could result in increased rates of erosion and sedimentation within and adjacent to the site area, if uncontrolled. Erosion is defined as the process whereby soil particles are detached from an exposed surface and transported by water, wind or some other agent.

In order to minimize any potential environmental impacts, the following erosion and sedimentation control measures will guide the design and implementation phase of the Erosion and Sedimentation Control Plan:

- Limit size of disturbed area;
- Limit duration of soil exposure;
- Retain existing vegetation where feasible;
- Limit slope length and gradient of disturbed areas;
- Preserve overland sheet flow and micro-drainage;
- Stabilize stripped parcels with temporary vegetative controls.

In the sediment control plan, the following elements will be included:

- Provision of temporary interceptor/conveyor ditches to direct runoff to temporary hold locations;
- Provision of rock check dams within drainage swales/ditches;
- Placement of a series of silt control fencing for the interception of sheet flow drainage;
- Truck washing/mud mat is to be implemented and trucks are to be washed prior to leaving the site.

All sediment control measures will remain in place until the final stabilization of the site. As part of a maintenance program, any accumulated sediment will be removed from all control measures when accumulation reaches 50% of the height or volume of the control surface.

4.0 References Cited

This stormwater management report has been prepared in support of the proposed development of the Biddeford Pump Station. The findings of this report are summarized as follows:

The proposed stormwater management system includes a drainage ditch on the exterior of the substation fence and a detention pond. Design of the pond was made in accordance with the "Maine Stormwater Design Manual". Site surface grades are modified with consistent slopes and directions.

Appendix A - Runoff Coefficients for the Rational Formula

RUNOFF COEFFICIENTS FOR THE RATIONAL FORMULA			
Typical Composite Runoff Coefficients by Land Use		Normal Range of Runoff Coefficients	
Area Description	C-value	Surface Characteristic	C-value
Business		Lawns	
Downtown Areas	0.70-0.95	Sandy Soil, Flat (2%)	0.05-0.10
Neighborhood Areas	0.50-0.70	Sandy Soil, Ave. (2-7%)	0.10-0.15
		Sandy Soil, Steep (>7%)	0.15-0.20
Residential		Heavy Soil, Flat (2%)	0.13-0.17
Single Family Areas	0.30-0.50	Heavy Soil, Ave. (2-7%)	0.18-0.22
Multi-Units (detached)	0.40-0.60	Heavy Soil, Steep (>7%)	0.2500.35
Multi-Units (attached)	0.60-0.75		
Suburban	0.25-0.40	Agricultural	
Apartments	0.50-0.70	Bare Packed Soil	
		Smooth	0.30-0.60
Industrial		Rough	0.20-0.50
Light Use	0.50-0.80	Cultivated Rows	
Heavy Use	0.60-0.90	Heavy Soil, no crop	0.30-0.60
Railroad Yards	0.20-0.35	Heavy Soil, with crop	0.20-0.50
Unimproved Areas	0.10-0.30	Sandy Soil, no crop	0.20-0.40
		Sandy Soil, with crop	0.10-0.25
Park		Pasture	
Park/Cemeteries	0.10-0.25	Heavy Soil	0.15-0.45
Playgrounds	0.20-0.35	Sandy Soil	0.05-0.25
Pavement		Woodland	0.05-0.25
Asphalt and Concrete	0.70-0.95		
Brick	0.70-0.85		
Roof	0.75-0.95		
The presented C-values are typical for return periods of 2-10-year storms with the higher values for the larger design storms. Judgement must be used to select the appropriate C-value within the range for the land use. Generally, larger areas with permeable soils, flat slopes, and dense vegetation should have the lower C-value; and smaller areas with low permeability soils, steep slopes and sparse vegetation should be assigned higher a C-value.			

Appendix B - Rainfall Data

PDS-based 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 (2.82-4.78)	4.42 (3.38-5.74)	5.63 (4.30-7.33)	6.62 (5.04-8.66)	7.99 (5.90-10.9)	9.02 (6.54-12.5)	10.1 (7.14-14.6)	11.3 (7.60-16.6)	13.1 (8.48-19.8)	14.6 (9.22-22.4)
10-min	2.60 (2.00-3.38)	3.13 (2.40-4.06)	3.98 (3.04-5.19)	4.69 (3.56-6.14)	5.66 (4.18-7.72)	6.40 (4.64-8.89)	7.17 (5.06-10.3)	8.04 (5.39-11.8)	9.29 (6.01-14.0)	10.3 (6.53-15.9)
15-min	2.04 (1.57-2.65)	2.45 (1.88-3.18)	3.12 (2.39-4.07)	3.68 (2.80-4.82)	4.44 (3.28-6.06)	5.02 (3.64-6.98)	5.62 (3.97-8.08)	6.30 (4.23-9.24)	7.28 (4.71-11.0)	8.09 (5.12-12.5)
30-min	1.33 (1.02-1.73)	1.61 (1.23-2.09)	2.06 (1.58-2.69)	2.44 (1.85-3.19)	2.96 (2.18-4.03)	3.35 (2.42-4.65)	3.75 (2.65-5.39)	4.21 (2.82-6.17)	4.86 (3.15-7.35)	5.40 (3.42-8.31)
60-min	0.820 (0.630-1.07)	0.995 (0.763-1.29)	1.28 (0.979-1.67)	1.52 (1.16-1.99)	1.84 (1.36-2.51)	2.09 (1.51-2.90)	2.35 (1.66-3.37)	2.63 (1.77-3.86)	3.04 (1.97-4.60)	3.38 (2.14-5.20)
2-hr	0.556 (0.428-0.717)	0.676 (0.521-0.874)	0.873 (0.670-1.13)	1.04 (0.792-1.35)	1.26 (0.938-1.72)	1.43 (1.04-1.98)	1.61 (1.15-2.31)	1.82 (1.22-2.65)	2.12 (1.38-3.19)	2.38 (1.51-3.63)
3-hr	0.440 (0.340-0.565)	0.535 (0.414-0.690)	0.692 (0.533-0.894)	0.823 (0.631-1.07)	1.00 (0.747-1.36)	1.14 (0.831-1.57)	1.28 (0.913-1.83)	1.45 (0.975-2.10)	1.70 (1.10-2.54)	1.91 (1.21-2.90)
6-hr	0.290 (0.226-0.372)	0.354 (0.275-0.454)	0.458 (0.355-0.589)	0.545 (0.420-0.703)	0.664 (0.497-0.895)	0.752 (0.553-1.03)	0.847 (0.609-1.21)	0.960 (0.649-1.39)	1.13 (0.736-1.68)	1.27 (0.812-1.93)
12-hr	0.183 (0.143-0.233)	0.224 (0.175-0.286)	0.291 (0.226-0.372)	0.346 (0.268-0.444)	0.422 (0.318-0.566)	0.479 (0.354-0.655)	0.539 (0.389-0.766)	0.612 (0.415-0.877)	0.721 (0.472-1.07)	0.814 (0.521-1.22)
24-hr	0.109 (0.086-0.138)	0.135 (0.106-0.171)	0.177 (0.139-0.225)	0.213 (0.165-0.271)	0.261 (0.198-0.349)	0.297 (0.221-0.405)	0.336 (0.244-0.477)	0.384 (0.261-0.547)	0.457 (0.300-0.671)	0.520 (0.334-0.777)
2-day	0.061 (0.048-0.076)	0.077 (0.061-0.097)	0.103 (0.081-0.130)	0.125 (0.097-0.158)	0.154 (0.118-0.206)	0.176 (0.132-0.241)	0.201 (0.148-0.285)	0.232 (0.158-0.328)	0.281 (0.185-0.410)	0.324 (0.209-0.481)
3-day	0.044 (0.035-0.055)	0.056 (0.044-0.070)	0.074 (0.059-0.094)	0.090 (0.071-0.114)	0.111 (0.085-0.148)	0.127 (0.096-0.173)	0.145 (0.107-0.205)	0.167 (0.114-0.236)	0.204 (0.134-0.296)	0.236 (0.152-0.349)
4-day	0.036 (0.028-0.045)	0.045 (0.035-0.056)	0.059 (0.047-0.074)	0.071 (0.056-0.090)	0.088 (0.067-0.117)	0.100 (0.076-0.136)	0.114 (0.084-0.161)	0.131 (0.090-0.185)	0.160 (0.106-0.232)	0.185 (0.120-0.273)
7-day	0.025 (0.020-0.031)	0.030 (0.024-0.037)	0.039 (0.031-0.048)	0.046 (0.036-0.058)	0.056 (0.043-0.073)	0.063 (0.048-0.085)	0.071 (0.053-0.100)	0.082 (0.056-0.114)	0.099 (0.065-0.142)	0.114 (0.074-0.166)
10-day	0.020 (0.016-0.025)	0.024 (0.019-0.030)	0.030 (0.024-0.038)	0.035 (0.028-0.044)	0.042 (0.033-0.056)	0.048 (0.036-0.064)	0.054 (0.040-0.075)	0.061 (0.042-0.085)	0.073 (0.048-0.104)	0.083 (0.054-0.121)
20-day	0.014 (0.011-0.017)	0.016 (0.013-0.020)	0.020 (0.016-0.024)	0.023 (0.018-0.028)	0.026 (0.020-0.034)	0.029 (0.022-0.039)	0.033 (0.024-0.044)	0.036 (0.025-0.050)	0.041 (0.027-0.059)	0.046 (0.030-0.066)
30-day	0.012 (0.009-0.014)	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 (0.017-0.030)	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 (0.010-0.016)	0.014 (0.011-0.017)	0.016 (0.012-0.021)	0.018 (0.013-0.023)	0.019 (0.014-0.026)	0.021 (0.015-0.029)	0.023 (0.015-0.032)	0.024 (0.016-0.035)
60-day	0.009 (0.007-0.010)	0.009 (0.008-0.012)	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 (0.012-0.024)	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.

STORMWATER DRAINAGE EASEMENT

KNOW ALL PERSONS BY THESE PRESENTS, that MAINE WATER COMPANY, with a mailing address of 93 Industrial Park Road, Saco, Maine 04072, successor and interest to Biddeford & Saco Water Company (the “Grantor”) FOR CONSIDERATION PAID, hereby GRANTS to CENTRAL MAINE POWER COMPANY, a Maine corporation with a mailing address of 83 Edison Drive, Augusta, Maine 04336, its successors and assigns forever (the “Grantee”), an easement (the “Easement”), for the purposes described below, over certain land of Grantor’s located on the northeasterly side of South Street so-called, in Biddeford, Maine, and more particularly described in a deed to Grantor’s predecessor dated May 27, 1884 and recorded in the York County Registry of Deeds in Book 400, Page 428 (“Grantor’s Land”). Grantor’s Land abuts, and the Easement is granted for the benefit of, land of Grantee described in a deed from Maine Water Company to Central Maine Power Company dated May 7, 2020 and recorded in said Registry of Deeds in Book 18267, Page 376 (“Grantee’s Land”).

The Easement is granted for the installation, repair, replacement, maintenance and upgrading of a stormwater drainage and ponding, together with the necessary ditching, pipe or conduit for the flowage and drainage of stormwater across and on that portion of Grantor’s Land adjacent to Grantee’s Land, together with the right to flow stormwater through such pipe or conduit to a catch basin on Grantor’s Land, all as shown on the sketch attached hereto as **Exhibit A**, and is granted subject to the following terms and conditions:

1. Grantee shall have the right to enter Grantor’s Land by foot, vehicle and machinery for the purposes of maintaining, repairing and replacing, at Grantee’s sole cost and expense, the drainage, catch basin, pipe or conduit described above. Grantee shall perform all such work at reasonable times and shall not unreasonably interfere with the use of Grantor’s Land by Grantor. After all construction or maintenance activities that involve disturbance of the ground, Grantee shall restore Grantor’s Land to its original condition prior to such work being done, including without limitation regrading, repaving and restriping.

2. Grantor reserves the right to relocate any and all drainage infrastructure installed by Grantee on Grantor’s Land so long as the capacity of Grantee’s drainage system shall not be diminished.

3. Grantee shall indemnify, defend and hold harmless the Grantor and Grantor’s successors and assigns, from and against all loss, cost, damages or claims arising from or related in any way to (i) damage to Grantor’s Land that results from (A) runoff from Grantee’s land, whether contained by the Easement or not, or (B) work done by Grantee under paragraph 1 above; and (ii) violations of environmental laws arising from or related to the use of the Easement by Grantee or its tenants, contractors, agents or any party using Grantee’s Land or the Easement. This indemnity shall include costs of enforcement, including reasonable attorneys’ fees but shall expressly exclude any claims for loss earnings or profits or consequential damages.

TO HAVE AND TO HOLD the aforegranted and bargained Easement, with all privileges and appurtenances thereof, to the Grantee, its successors and assigns, to its and their use and behoof, forever.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be executed by its Richard Knowlton, its President, thereunto duly authorized, this ____ day of February __, 2022.

WITNESS:

THE MAINE WATER COMPANY

By: _____
Richard Knowlton, its President

STATE OF MAINE
YORK, ss.

February __, 2022

Personally appears the above named Richard Knowlton, President of Maine Water Company, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Maine Water Company.

Before me,

Attorney-at-Law/Notary Public
Printed Name: _____
Commission expires: _____

**EXHIBIT A
(AND IF APPLICABLE A-1)
DESCRIPTION AND DEPICTION OF DRAINAGE AND EASEMENT AREA**

Good evening Hannah and Chris,

Regarding the comment directly below in your email ([@Christopher DiMatteo](#)), the Team and I have discussed and we believe we have effectively addressed and responded to the questions and comments in our subsequent submittals we've issued since the February Planning Board meeting (including the document Mark sent over yesterday). Please review those documents and let us know if there are any questions we have inadvertently missed.

In regards to our responses to the abutters questions (RFI's #1 and #2) , please see the following responses in **green**:

March 11, 2022

Biddeford, ME South Street Site 34.5kV Substation Rebuild

Request for Information #1

- 1) Noise level of existing substation equipment
 - a. On March 23rd, 2022 a handheld dB reader recorded 60 dB at the gate of the existing site, and captured an average reading of 76.5 dB, but it shall be noted that the reading was performed while construction work was simultaneously occurring on Maine Water Company's (MWC) nearby new Pump Station. At that time equipment was moving around their site and nearby the recording location, therefore the results are skewed higher due to the construction background noise. Additionally, for a comparison, a reading from the same device captured 55.4 dB at the intersection of South Street and MWC's access road, and it captured an average reading of 67.4 dB that factored passing vehicles into the average.
- 2) List of alternative sites that were reviewed and review timeframe
 - a. Three sites were originally assessed:
 - The application's Proposed Site
 - A location off of River Road
 - A location behind Maine Water Co's new Water Treatment Facility
 - b. As part of the subsequent application submittals a fourth site, located adjacent to the existing Biddeford Pump Substation, has been discussed in depth but will not be included in the following information as it is not a viable option due its close proximity to the Saco River, the amount of grading and fill to create a flat developable site, environmental impacts and additional permitting implications. Please see the application's subsequent submittals on the City's website for further information regarding this fourth location.
- 3) For each alternative site, provide:
 - a. parcel location
 - The application's Proposed Site off of South Street
 - Site off of River Road near the existing Transmission Line crossing
 - Site behind Maine Water Co.'s new Water Treatment Facility located on the southern side of South Street
 - b. reasons why site was considered
 - Proposed Site

- a. Nearest to the existing Biddeford Pump substation and best meets the City's Standards for Essential Services. CMP owns this property.
 - River Road
 - a. Near CMP's existing Transmission Line Right of Way.
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. Somewhat near CMP's existing Transmission Line Right of Way
- c. reasons why site was not preferred
 - River Road
 - a. CMP has no legal rights to this property, and no guarantee that such rights could be acquired prudently.
 - b. When compared to the Proposed Site (i.e. the preferred site) there were significant cost increases to reconfigure the Transmission and Distribution system to this site.
 - c. No existing vegetation to utilize for a vegetative buffer for the site. It is an open field.
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. CMP has no legal rights to this property, and no guarantee that such rights could be acquired prudently.
 - b. When compared to the preferred site there were significant cost increases to extend and reconfigure the Transmission and Distribution system to this site.
 - c. Significant costs to develop/upgrade the 2,300'+ access road from South Street to the site
 - d. Site has significant quantities of ledge that would have to mitigated in order to develop the site (there are visible ledge outcroppings). This is a costly adder when compared to the preferred site.
- d. distance to nearest residence
 - Proposed Site
 - a. Please see the information previously provided in the application and subsequent submittals.
 - River Road
 - a. Approximately 400' to 500'.
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. Approximately 2,000'.
- e. cost estimate associated with each site
 - River Road
 - a. In comparison to the Proposed Site, expected cost increase of around 25% due to a variety of factors.
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. In comparison to the Proposed Site, expected cost increase of around 25% to 35% due to a variety of factors, and directly

contingent on the amount of ledge to be mitigated for site development.

4) Comparison of alternative sites to South St site:

- a. costs
 - See 3.e. above.
- b. environmental impacts
 - River Road
 - a. Expected to have similar environmental impacts, and Permit implications, to that of the Proposed Site, but this location should be just outside of the Saco River Corridor Commission's (SRCC) jurisdiction and therefore does not require a SRCC Permit.
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. Expected to have similar environmental impacts, and Permit implications, to that of the Proposed Site, but this location is outside of the SRCC's jurisdiction and therefore does not require a SRCC Permit.
- c. distance to nearest residence
 - See 3.d. above.
- d. noise attenuation
 - River Road
 - a. Sound attenuates over distance, and is also impacted by other environmental factors, but without an in depth sound study for this site it is unknown how much attenuation it would have in comparison to the Proposed Site. This location is an open area, so the sound will travel further than the Proposed Site that is recessed below South Street and buffered with vegetation (existing and planted).
 - Behind Maine Water Co.'s new Water Treatment Facility
 - a. Sound attenuates over distance, and is also impacted by other environmental factors, but without an in depth sound study for this site it is unknown how much attenuation it would have in comparison to the Proposed Site. This location is significantly higher in elevation than the Proposed Site and therefore the sound has the potential to travel further than our Proposed Site that is recessed below South Street and buffered with vegetation (existing and planted).

5) What alternatives to the "box bay" structures (not the lightning masts) to safely reduce 30+ft height? – some ideas for consideration:

- a. alternative type of switches? If so, by how much?
 - Please see the document titled "Planning Board Additional Information Final 3-16-22" that was submitted to the City by TRC's

Mark Christopher on March 16th, 2022. In this document it outlines CMP's Substation Design Criteria, which directly relates to this.

- In the event of an emergency outage situation, CMP's linemen and stations crew are use to working on standard equipment that is used throughout CMP's network and if a non-standard type of switch was used it could put these individuals into an unsafe situation when they are working to address the emergency and restore power to customers.

b. alternative bay configuration by, spreading out equipment, horizontally so that electrical clearances are met, yet lowering profile?

- Please see the document titled "Planning Board Additional Information Final 3-16-22" that was submitted to the City by TRC's Mark Christopher on March 16th, 2022. In this document it outlines CMP's Substation Design Criteria, which directly relates to this.
- In the event of an emergency outage situation, CMP's linemen and stations crew are use to working on standard equipment that is used throughout CMP's network and if a non-standard type of equipment is used it could put these individuals into an unsafe situation when they are working to address the emergency and restore power to customers.

c. other?

6) What is the annual vertical rate of growth of the vegetation/trees/bushes proposed for planting along South St? (note – the concern is that it will take many years for a 6 foot planting to reach a say 25 foot height, assuming the berm elevation is about 10 feet higher than the base elevation of the "box bay" structure (30+ft))

a. In our revised Landscaping Plan, submitted to the City on March 16th, 2022 we have increased the trees to be 8' to 10' tall at initial planting. Please see the City's website for submittal and the revised Landscaping Plan. The growth rates of the trees are as follows until maturity is reached, but please note that growth rates are directly dependent on several environmental factors that CMP has no control on (sunlight, rain, etc.):

- Balsam Fir = approximately 12" per year
- Colorado Blue Spruce = approximately 12" to 24" per year
- White Fir = approximately 12" to 24" per year
- White Spruce = approximately 12" to 24" per year
- Techny Arborvitae = approximately 12" to 24" per year
- Northern Bayberry = approximately 12" per year
- Nannyberry Viburnum = approximately 12" to 24" per year
- Elderberry = approximately 24" per year

March 16, 2022

Biddeford, ME South Street Site 34.5kV Substation Rebuild

Request for Information #2

7) The Neighbors understand the need for an updated substation. The goal of the neighbors is to support CMP's rebuilding of the substation with updated equipment, that makes the substation more resilient, environmentally safer, with needed redundancies to protect power supply to the

Water Treatment facilities and the growing power needs of Biddeford, with the compatible goal of keeping the substation as invisible as possible from the public and the neighborhood.

We would prefer to explore other sites in the neighborhood as our first position while at the same time we are hoping to create a more palatable solution on the proposed site.

To align with this effort, it is requested that along the public way of South St that the substation is visually hidden by vegetation. It is requested that the 12kV power lines not enter/exit the substation from the South St side of the property boundary, so that a tree/planting/vegetation line is maintained along the South St side without any opening, similar to the 34.5kV line. The goal is to not have an obvious opening to the substation along South St or to be able to see the 12kV box bay structure from South St. It is requested the 12kV 30+ foot tall box bay structures be moved away from South St.

It is acceptable to have the 12kV lines enter/exit similar to the 34kV lines on the northeast and east sides of the station along the access ways. It is preferred that the 12kV 30+ foot box bay structure be relocated to the northeast or east side of the substation so that the structure cannot be seen from the public way, similar to the 34kV structure, keeping it closer to the existing substation.

See attached sketch which provides the concept. We understand that the gated entrance would need to be relocated and expect that some other equipment and structures may need to be adjusted to fit. We leave it to CMP's expertise and knowledge of the site to make the adjustments. CMP may have other means or options to achieve the same.

The logic is as follows:

Similar to the existing substation which is located on the access road, away, and out of sight from the public way of South St, the status quo with respect to visual impact can be maintained. By not being able to see the 12kV exit/entrance and by not being able to see the box bay structures from the street, the visual impact and the awareness that a substation exists at South St, is mitigated. This will allow for a complete line of buffering on South St. Some additional plantings around the existing garage should be reviewed. Therefore, the hope is that both the visual impact is the same or improved, and any impact to area's real estate valuations status will be maintained.

We have learned that lightning masts are required to mitigate lightning strikes, so we understand that their height cannot be adjusted. We understand that visually that the lightning masts' galvanized coating can be a matte finish instead of a shiny finish to increase its camouflage effect.

These are requests are to achieve the goal of eliminating the exit/entrance of the power lines from South St and not seeing the box bay structures from South St. These requests and concepts do not preclude any other means to achieve the same that CMP may have.

CMP has reviewed the proposed reconfiguration, and associated sketch, in detail and it has been determined that the reconfiguration is not feasible for the following reasons:

- Relocating the 12kV box bay structure to the site's eastern side would result in the 3:1 safe slope grading to be extended closer to South Street, and this would result in the removal of additional existing mature vegetation along

South Street. In our current design we are leaving this mature vegetation for the natural screening of the substation from South Street, which will also be used in conjunction with our landscaping to effectively screen the substation for those traveling along South Street. Please see the updated visualizations that were submitted to the City on March 25th, 2022 for a representation of this area based on our design, in both leaf on and leaf off conditions.

- Additionally, if the 12kV box bay structure is moved as proposed it will have a cascading effect to all of the site's elements along MWC's access road. As it would push the 34kV box structure northward, due to required clearances around our structures and our Substation Design Criteria, this would then push our northern access driveway further to the north, which would then push the detention pond and drainage design further north, which would then result in the removal of additional existing mature vegetation (in the northern corner of our site) towards the project's direct abutter at 4 Hayfield Road. This would negatively affect this direct abutter.
- Lastly, the aforementioned shifts in the site's elements along MWC's access road would result in both the 12kV and 34kV box bay structures being more visible to the residents on Fox Hollow Drive.

It is our determination that in by reducing the visual impact to South Street, as proposed and sketched, it will result in the removal of additional tall/mature natural vegetation screening along South Street, as well as negatively affect the project's direct abutter at 4 Hayfield Road and cause the box bay structures to be more visible to the residents along Fox Hollow Drive. Therefore, the proposed 12kV box structure relocation to the eastern side our site is not feasible.

Please review the revised Landscaping Plan submitted to the City on March 16th, 2022, as we are now utilizing 8' to 10' tall trees at planting to further help the initial screening of the substation from South Street as well as the project's abutters to the east and west.

Thank you. Have a great evening. See you tomorrow.

April 7, 2022

Ms. Hannah Bonine
Assistant City Planner
City of Biddeford
P.O. Box 586
205 Main Street
Biddeford, ME 04005

**RE: Land Use Application for the Central Maine Power (CMP) Company Biddeford Pump Substation,
South Street Biddeford, Maine**

Dear Hannah,

Based on our meeting on March 30, 2022, Central Maine Power (CMP) Company was requested to summarize the comments from abutters and reference CMP's response to those comments for its Biddeford Pump Substation (Project). The intent of this letter is to summarize that dialog but not to necessarily provide additional information. A request was made during the February 2, 2022, Planning Board meeting for additional information which was the subject of the submittal made on March 16, 2022. That submittal provides a detailed response to those questions and are not reiterated herein. CMP will provide a response to the third-party engineer retained by one of the abutters in a separate letter, although a summary of those issues can be found on page 3 of the March submittal.

The CMP Project Team conducted a site visit with abutters on February 26, 2022, regarding CMP's proposed replacement of the existing Biddeford Pump Substation and the Conditional Use application pending with the Biddeford Planning Board. To start the meeting the CMP Team discussed the needs and purposes behind the proposed Project and provided a summary of the size and composition of the substation electrical components. The following are the salient discussions that took place during the meeting.

During the onsite abutters meeting (February 26) and other personal communications (March 23 and 29) with abutters, none have expressed a direct desire for, or requested specific, additional buffering and the CMP Team believes it has communicated responsibly about the Project and its efforts to reduce visible impacts based upon the revised landscaping plan submitted in the March submittal as Attachment 9.

Comment: During the site visit the abutters questioned the proposed color of the control house building, specifically the siding and roof colors.

Response: CMP is evaluating options and has offered to use neutral colors that blend in with the surroundings as much as possible.

Comment: Abutters questioned the vegetative and landscaping screenings, specifically the proposed

locations and sizes of the trees and shrubs proposed to be planted.

Response: The CMP team discussed the plan to retain as much natural vegetation as possible, including the large trees close to South Street and those along the western side of the property line near the Hayfield Road residents. CMP also discussed our revised landscaping plan where it is proposed to plant eight- to ten-foot-tall trees to screen the site along South Street and from the Hayfield Road abutters. CMP's March submittal provides a detailed discussion of buffer requirements under "Performance Standards" and "Conditional Use" standards. The landscaping plan as most recently been provided as Attachment 5 in CMP's March submittal.

Comment: The abutters discussed the expected sound levels that will occur during the operation and maintenance phase of the Project.

Response: CMP offered a comparison of its predicted sound levels projected from the transformers to the existing transformer which could be heard from the Maine Water Company pump station access road. The CMP Team also discussed the continued use of the mobile transformer during the summer peak electric use period, which as was noted by some abutters, is louder than the existing transformer. The sound study has been provided to the City, as recently as CMP's March submittal specially as Attachment 9.

Comment: Abutters questioned the visibility of the electrical structures and requested a comparison to existing conditions to help put into context what could be expected once the substation is constructed.

Response: The CMP Team utilized balloons with strings of the approximate length attached to demonstrate the heights of the lightning masts, which are the tallest structures onsite at the approximate location of these structures. The CMP Team provided exhibits that replicated the diameters of the tallest portions of the lightning masts by using correctly sized pipes to place into context the characteristics of these structures. CMP also discussed the tapered tubular lightning masts relative to the elevations along South Street. CMP's March additional information letter has a 3-D model and visual simulations as Attachment 6.

Comment: Abutters questioned where on the City's website can CMP's application and supporting materials be available for public record and viewing. The abutters also questioned how and when notifications were distributed for public use.

Response: The City has the responsibility of making the application materials available to the public, typically on its website. Furthermore, the City provides notices of its meetings where applications are presented and deliberated including the ordinance requirement for public meetings. CMP provided abutter mailings to those residents within 500 feet of the Project during its review of a permit application to the Saco River Corridor Commission on September 24, 2021.

Comment: Abutters questioned if CMP evaluated other potential sites and specifically property adjacent to the existing substation.

Response: CMP discussed another site option that was considered during the early planning stages, which was property adjacent to the proposed MWC facility. This site was eliminated based on the requirements of the City's Land Use Ordinance to locate new or expanded essential services adjacent to existing corridors and sites developed for that use. This discussion led to the question of using property adjacent to the existing substation for which CMP has provided a detailed evaluation as Attachment 1, in its March 16, 2022, additional information response.

Comment: Abutters raised concerns regarding other unrelated potential and/or proposed developments in the South Street Community.

Response: CMP is not involved with other developments and cannot address those concerns.

I hope this letter will assist the City's staff and Planning Board with understanding the process CMP has undertaken to address the questions and concerns raised during the public meetings and abutters site visit. We are expecting to present the Project in a similar manner during the April 9, 2022 site visit with the Planning Board members and any other public participants. Please feel free to call or email if you have any questions or comments.

Sincerely,



Mark W. Christopher, M.S. CWB
Project Manager
mchristopher@trccompanies.com
207-441-4225

Biddeford Pump Substation

4/9/2022



Name	Mailing Address & Property Location	Phone	Email
Nan Whitten J Tap	Planning staff P.B.		
Harry [unclear]	P.B.		
Bruce Benway	P.B.		
Rock Anders	P.B.		
Michael P. Cantara	P.B.		
Hannah Bonine	Planning staff		
CHRIS DIMARCO	Planning consult.		
Linda S. Brown	420 South St Bidde	207 841 9069	brown.linda14@gmail.com
DONNA GORDON + Chris Gordon	493 South St	207-450-1876	gordon493@maine.rr.com

Biddeford Pump Substation



Name	Mailing Address & Property Location	Phone	Email
Camille White	475 SOUTH ST	207 632-0721	camillekwhite@gmail.com
Michael Bauld	14 Hayfield Rd	207-282-5777	mbald@maine,rr.com
PATSY GENDRON	10 HAYFIELD RD	207-229-4117	pgendron89@gmail.com
MICHAEL GENDRON	10 HAYFIELD RD	207-272-0930	mrgendron4@gmail.com
Richard & Anna Marie Olsen	6 Hayfield Rd	207-571-4995	rickolsen2015@gmail.com
		917-838-4499	annolsen96@gmail.com
John Kellen	5 Fox Hollow Dr.	284-7832	
Gloria Miro	495 South St	207-480-7142	

gopower inc | consulting services for utilities

Gaye Angela Ohanesian
President

239 High Street
Medford, MA 02155

781.844.2494
gohanesian@gopowerinc.com

From: noreply@civicplus.com
Sent: Wednesday, April 13, 2022 8:05 AM
To: Tansley, Greg
Subject: Online Form Submission #13428 for Planning Department Contact Form

Planning Department Contact Form

First Name	Anthony M Chicco
Last Name	Chicco
Address	3 Fox Hollow Dr
City	Biddeford
State	Maine
Zip Code	04005
Home Phone	2074681944
Work Phone	Field not completed.
Fax	Field not completed.
Email	rmchicco76@gmail.com
What type of comment would you like to send?	Suggestion
Enter your comments:	Hello. I was not able to attend meeting at CMP South Street substation but I do have some comments. Personally I feel the new substation should be constructed behind new water treatment plant. This area would not effect anyone on South Street and would be,for the most part, out of site. The fact that CMP chose the site right next to South Street shows they do not have much concern about our neighborhood or the fact that all of South Street is rural. CMP chose this site long before anyone in this area knew about it. If they cared about our input they would have informed the neighborhood long before they had all the planning done for the current project. I hope you and the rest of the planning board will NOT let CMP move forward on the current location. I am sure they will resist,

mostly because they have so much time invested in the current one. Thank you. Anthony Chicco

Preferred method of contact:	Email
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Greg Tansley
City Planner

*205 Main Street
Biddeford, ME 04005*

*Phone: 207-284-9115
Fax: 207-571-0654*

Hours
*Monday - Friday
8 a.m. - 4 p.m.*

Email not displaying correctly? [View it in your browser.](#)

Whitten, Nan

From: Belanger, Norman
Sent: Wednesday, April 13, 2022 9:14 AM
To: Tansley, Greg
Subject: Proposed CMP Substation

To the Members of the Planning Board:

I'm unable to attend to the next meeting of the planning board where the proposed CMP Substation will be discussed. I would like to share with you some of my concerns on the proposed project for you to consider as you deliberate on the best course of action.

1. I am worried about how close to South Street the nearest structure will be. South Street is heavily travelled and the distinct possibility of the widening of such road in the future should be worked into the equation now, and not wait and deal with it if and when it happens. Setbacks should take this into account.
2. A generous buffer should be provided to deal with possible vehicles going off the road either due to driver issues or inclement weather.
3. Since the grade drops off quickly as you move away from South Street, even a few feet away from the road should have significant benefits on the view from South Street.
4. The current substation is significantly closer to the river than the new proposed substation, therefore even if the new structures were moved closer to the river by several feet, once completed and the old substation is removed the views from the road when heading west should be significantly improved.
5. I recognize the desire to avoid having to go through the Saco River Corridor Commission is driving some of the proposed placement, but the bureaucratic inconvenience to the applicant shouldn't drive the planning board's recommendation on what is best for the City in granting the conditional use permit. I would imagine that if indeed a modification of the current proposal with the new structure being closer to the river than currently proposed would be viewed more favorably by the Saco River Corridor Commission given that it removes a structure which currently is much closer to the river.

Good luck with your deliberations. Thank you for your time and for all that you do for the City. It is greatly appreciated.

Norm

Norman R. Belanger (he/him)
Councilor Ward 6

NOTICE: Under Maine's Freedom of Access (Right to Know) Law, documents, including emails, in the possession of public officials about City business are classified as public records. This means if anyone asks to see them, we are required to provide them. There are very few exceptions. We welcome citizens' comments and want to hear from our constituents, but please keep in mind that what you write in an email is not private and could show up in one of the local newspapers.

April 20, 2022

Ms. Hannah Bonine
Assistant City Planner
City of Biddeford
P.O. Box 586
205 Main Street
Biddeford, ME 04005

**RE: Land Use Application for the Central Maine Power (CMP) Company Biddeford Pump Substation,
South Street Biddeford, Maine**

Dear Hannah,

The following five comments are from an email from Norman Belanger dated April 13, 2022. Our responses follow each of the comments.

Comment 1: I am worried about how close to South Street the nearest structure will be. South Street is heavily travelled and the distinct possibility of the widening of such road in the future should be worked into the equation now, and not wait and deal with it if and when it happens. Setbacks should take this into account.

Response 1: The setback from South Street to the fence line is a minimum of 70 feet from the centerline of South Street and the nearest steel structure, the box structure, is an additional eight feet beyond the fence for a total of 78 feet. These distances exceed the setback requirements as specified in the land use ordinance. Please see the submitted plans for additional takeoffs.

Comment 2: A generous buffer should be provided to deal with possible vehicles going off the road either due to driver issues or inclement weather.

Response 2: The setbacks exceed the land use ordinance requirements, and the Project is separated from South Street by a forested and landscaped buffer.

Comment 3: Since the grade drops off quickly as you move away from South Street, even a few feet away from the road should have significant benefits on the view from South Street.

Response 3: The substation has been designed to be as far away as possible and please see the responses above.

Comment 4: The current substation is significantly closer to the river than the new proposed substation, therefore even if the new structures were moved closer to the river by several feet, once completed and the old substation is removed the views from the road when heading west should be significantly improved.

Response 4: CMP is interpreting Mr. Belanger's comment in that he is referring to the 12kV box bay structure being moved closer to near Maine Water Company (MWC) pump station access road. CMP has determined that moving this structure, or any others, would result in the substation structures being more visible and negatively affect abutters on Fox Hollow Drive, some houses on Hayfield Road, and the views of the station from the west bound lane of South Street. This would be due to placing the structure in the line-of-site of these areas. In the current location the box structure is likely not visible from these three locations as it is generally out of the line-of-site. Furthermore, the required expansion of the Project's southeast footprint to accommodate the 12kV box structure in that corner would result in the removal of additional existing mature trees along South Street (near the MWC existing white four car garage) due to the 3:1 safe slope down to the substation. These additional trees that would be removed are to be kept in the submitted application. Additionally, shifting the 12kV box structure to the SE corner of the station towards Fox Hollow Drive would also result in every substation structure/element along MWC's access road to be shifted northward. This cascading shift would result in the detention pond being moved closer to 4 Hayfield Road and that would result in additional existing mature trees being removed in the north corner of the property towards that residence, of which are to be kept in the submitted application.

Comment 5: I recognize the desire to avoid having to go through the Saco River Corridor Commission is driving some of the proposed placement, but the bureaucratic inconvenience to the applicant shouldn't drive the planning board's recommendation on what is best for the City in granting the conditional use permit. I would imagine that if indeed a modification of the current proposal with the new structure being closer to the river than currently proposed would be viewed more favorably by the Saco River Corridor Commission given that it removes a structure which currently is much closer to the river.

Response 5: CMP's resistance to moving the box structure, or any other ones, within the current site has nothing to do any permitting issues with the Saco River Corridor Commission, although a permit amendment would be required. The issue of moving structures is primarily due to the determination that that modification would increase visibility of the box structure. Once the new substation is complete, the old station will be demolished no matter where the new substation is built or the final arrangement.

The following comment was received by the City from resident Anthony Chicco on April 13, 2022. Our response follows the comment.

Comment: I was not able to attend meeting at CMP South Street substation but I do have some comments. Personally I feel the new substation should be constructed behind new water treatment plant. This area would not effect anyone on South Street and would be, for the most part, out of site. The fact that CMP chose the site right next to South Street shows they do not have much concern about our neighborhood or the fact that all of South Street is rural. CMP chose this site long before anyone in this area knew about it. If they cared about our input they would have informed the neighborhood long before they had all the planning done for the current project. I hope you and the rest of the planning board will NOT let CMP move forward on the current location. I am sure they will resist, mostly because they have

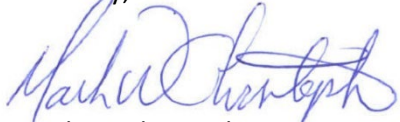


so much time invested in the current one.

Response: CMP discussed another site option that was considered during the early planning stages, which was a property adjacent to the new MWC water treatment facility. CMP assumes this is the property Mr. Chicco is referring to. This site was determined to have significant constructability issues relating to the presence of extensive amounts of ledge, rebuilding major portions of the 34.5 kV transmission line, and rerouting the distribution circuits. Additionally, this property is owned by a developer so CMP has no legal rights to this property. Furthermore, the land use ordinance generally requires new or rebuilt essential services facilities to be located within or adjacent to existing corridors, which would not be achieved by developing at the new MWC facility.

I hope this letter will assist the City's staff and Planning Board with understanding the process CMP has undertaken to address the questions and concerns raised during the public meetings and abutters site visit. Please feel free to call or email if you have any questions or comments.

Sincerely,



Mark W. Christopher, M.S. CWB
Project Manager
mchristopher@trccompanies.com
207-441-4225



Dear Members of The Planning Board,

After the site walk on Saturday April 9th we wanted to clearly reiterate the neighborhood's position. We actively use South Street for recreational activities, such as jogging, walking, bicycling, and exercise, and feel that the site as currently designed by CMP with boxbay and wires exposed to South St negatively impacts the neighborhood and still does not meet Biddeford zoning code standards.

On February 2nd the Planning Board asked CMP and the neighbors to work together to see if a reasonable solution could be found. In trying to respect the Planning Board's direction the neighbors engaged a utility engineer with expertise in substations to help us understand the technical requirements of a substation.

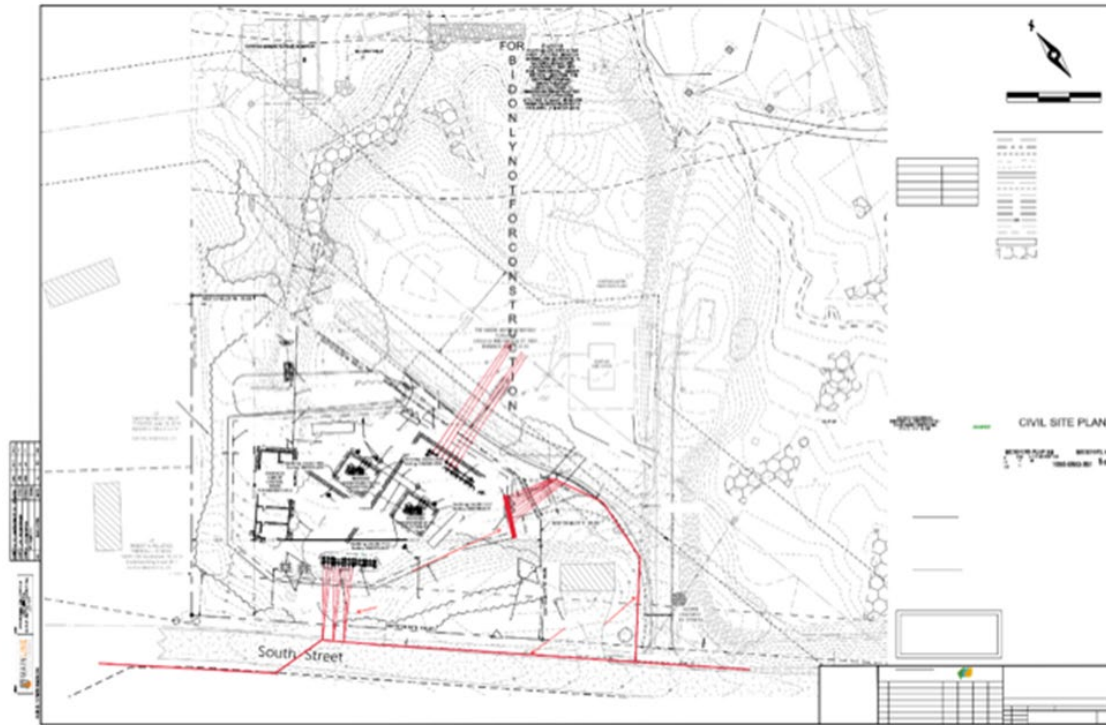
While we feel that there are other solutions which we would rather see such as: different sites considered or smaller, lower profile boxbay equipment, we want to be respectful and responsive to the Planning Board's direction of working to find a reasonable solution. With that in mind, we discussed and created a solution with the guidance of our utility expert. Our solution uses CMP's preferred location (along South St) as well as reuses all of CMP's proposed equipment to minimize the potential economic impact on CMP.

The Neighborhood's suggested design, shown below, moves the box structure from South Street to the back of the site, making it closer to the existing substation. CMP's current design is limited in its ability to sufficiently buffer along South St because of the nine to twelve wires exiting on South Street without a vegetation screen. The design shown below solves this issue by having the wires come out the back of the site along the existing corridor where the wires currently live today. By moving the structures and wires to the current corridor, South St would now be able to be properly screened with vegetation and large trees. These trees also act as a protective barrier, which was not possible in CMP's current proposal.

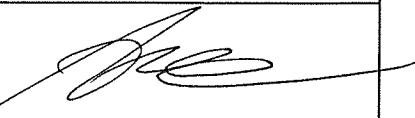
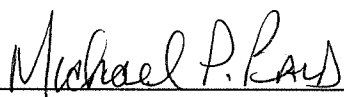
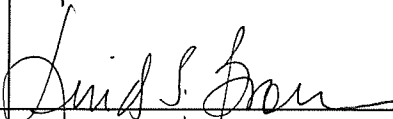
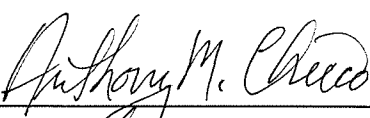
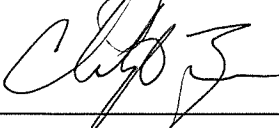
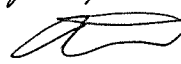
The design below is a reasonable compromise solution which absolutely is feasible. The neighborhood is in agreement with this design. We would welcome our design to be endorsed by the Planning Board as direction to CMP, but at this time we ask that CMP's current proposal which does not address the neighborhood's concerns be denied for conditional use.

Being sensitive to CMP's desire for a quick approval, we fully support a conditional use approval in which the Planning Board requires CMP to make the design re-arrangements, by relocating the 12kV boxbay structure to the access road boundary side of the substation and increasing buffering on all sides so their application can be approved.

We look forward to additional dialogue about a solution which would allow CMP to relocate and upgrade what they need while considering the neighborhood and zoning code.



We the undersigned authorize and support the above letter to the City of Biddeford Planning Board as follows:

Name (Printed)	Address (Printed)	Signature
Kevin Martin 4/16/22	4 Hayfield dr	
Anne Marie 4/16/22 SCORCELLITO-OLSEN	6 Hayfield Rd	
Mike GENDRON 4/16/22	10 HAYFIELD Rd	
Patricia Gendron	10 Hayfield Dr.	
Richard Olsen	6 Hayfield Dr.	
4/16/22 Michael Paul	14 Hayfield Dr.	
4/16/22 Linda S. Brown	420 South St	
Wendy Phillips	2 Glenview Dr.	
Anthony Chicco	3 Fox Hollow Dr.	
Christopher Brown	477 South St.	
Alex White 4/15/22	475 South St	

Section 7: Wildlife and Fisheries

Important habitats, such as streams and wetlands were observed on site. These habitats have been located and placed on maps to show where they are located in relation to where the Maine Water Company's water treatment facility is proposed. Important habitats were overlaid with proposed building plans. This enables designers and engineers to determine the most effective size and orientation of the facility to minimize and avoid unnecessary impacts to fish and wildlife. This will reduce impacts to the fullest extent possible while still meeting MWC goals.

There are many different wetland habitat types throughout the 394+/- acre parcel. There were four general wetland types observed within the investigation area, PEM (Palustrine emergent marsh), PSS (Palustrine scrub-shrub), PFO (Palustrine forested), and PUB (Palustrine unconsolidated bottom); with modifiers for each. The wetlands on this property were dominated by plant communities typical of this region of Maine.

According to MNAP (Maine Natural Areas Program) and verified through ground survey a large red maple swamp (RMS) exists on the southern extent of the project area and continues off-site. Officially, it is ranked as a S4 community, defined by the state as "Apparently secure in Maine". MNAP defines the red maple swamp within the project area as a "forested wetland" with a general characteristic definition as "Poorly-drained basins throughout Maine, usually on inorganic soils. Often associated with lakes or streams, and usually flooded in spring. Small streams or pools may persist throughout the growing season..." This RMS is important for wildlife as it provides natural forage and cover for wildlife. Maine Water Company is proposing to protect the entire RMS that falls on their property as part of their compensation.

Swan Pond Brook located to the northern and north western boundary of the property has been surveyed for presence of Atlantic salmon (*Salmo salar*) rearing and spawning areas. During the 2005-2008 survey Swan Pond Brook was observed to have rearing and spawning areas. The portion of Swan Pond Brook abutting the project area has been mapped as Atlantic salmon rearing habitat. In addition to the Atlantic salmon habitat, Swan Pond Brook has also been mapped as native/wild brook trout habitat. Swan Pond Brook has also been listed as impaired stream by breaching the threshold for E. coli. Maine Water Company is proposing to preserve the entire +/- 4000 feet of Swan Pond Brook that abuts their property boundary. Because of the size of the proposed preservation area Swan Pond Brook will also receive a large buffer area. A smaller brook can be found running from the RMS to the north end of the parcel where it eventually drains into Swan Pond Brook. Some of this stream will be preserved as well, and it will be enhanced by the restoration area. As a result, the integrity of Swan Pond Brook will be further increased.

Recent listings of the northern long-eared bat (*Myotis septentrionalis*) as threatened under the Endangered Species Act means additional presence/probable absence surveying should be conducted prior to any construction or development activities outside of those permitted by the Endangered Species Act. Habitat for the northern long-eared bat has been identified within the project area in the form of dead snags, tree cavities, and loose bark. Shagbark hickory (*Carya ovata*) has been observed on the site, which is a known summer roosting tree for these bats. Maine Water Company is proposing all tree clearing associated with development will be undertaken outside of the recommended northern long-eared bat roosting timeframe.

During our investigations of the site, Jones Associates, Inc. did not observe any rare or unusual plant or animal species within the mapped wetland area. Portions of the area described in this report had been previously altered through clearing and excavation activities.

Maine Water Company has designed the project to reduce impacts to the fullest extent possible. After many concepts, wetland impacts were reduced to under 2 acres. In order to compensate for approximately 1.9 acres of wetland impacts MWC has gone above and beyond what is required. MWC has proposed 257 acres of preservation. Additionally, restoration of a 4.70-acre wetland along South Street will occur. This wetland drains into a brook that flows directly into Swan Pond Brook.

Importantly, the quality of functions and values of restored wetlands will be of higher value than functions and values currently associated with wetlands associated with impacted areas. This is true because impacted areas are small and scattered. Because of this many of the impacted areas are not able to generate functions and values of much importance. A single large restoration area will be created which will be more productive. This will result in more and better overall function and values compared the small individual impacted wetlands that serve limited functions and values. A single large wetland will also reduce thermal pollution of the small brook and Swan Pond Brook. Currently, slow moving and stagnant water resides in the restoration area. By creating a restoration area that has better flow, and is larger, thermal pollution will be reduced.



STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041



February 26, 2019

Debi Hews
Jones Associates, Inc.
280 Poland Spring Road
Auburn, ME 04210

RE: Information Request - Maine Water Company Water Treatment Facility, Biddeford

Dear Debi:

Per your request received February 15, 2019, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and fisheries habitat concerns within the vicinity of the *Maine Water Company Water Treatment Facility Project* in Biddeford. Note that as project details and plans are lacking, our comments are non-specific and should be considered preliminary.

Our Department has not mapped any Essential Habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bats

Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S. §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat.

While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. We recommend that you contact the U.S. Fish and Wildlife Service—Maine Fish and Wildlife Complex (Wende Mahaney, 207-902-1569) for further guidance, as the northern long-eared bat is also listed as a Threatened Species under the Federal Endangered Species Act. Otherwise, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

PHONE: (207) 287-5254

FISH AND WILDLIFE ON THE WEB:
www.maine.gov/ifw

EMAIL ADDRESS:
John.Perry@maine.gov

Significant Wildlife Habitat

Deer Wintering Areas

The project search area appears to intersect with a Deer Winter Area (DWA). DWAs contain habitat cover components that provide conditions where deer find protection from deep snow and cold wind, which is important for overwinter survival. MDIFW recommends that development projects be designed to avoid losses or impacts to the continued availability of coniferous winter shelter. Any removal of vegetation should be conducted in such a way that improves the quality and vigor of the coniferous species providing this winter shelter.

Significant Vernal Pools

At this time, MDIFW Significant Wildlife Habitat maps indicate no known presence of Significant Vernal Pools in the project search area; however, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

Fisheries Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams that support coldwater fisheries is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fish and fisheries habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

Letter to Debi Hews
Comments RE: Maine Water Company Water Treatment Facility, Biddeford
February 26, 2019

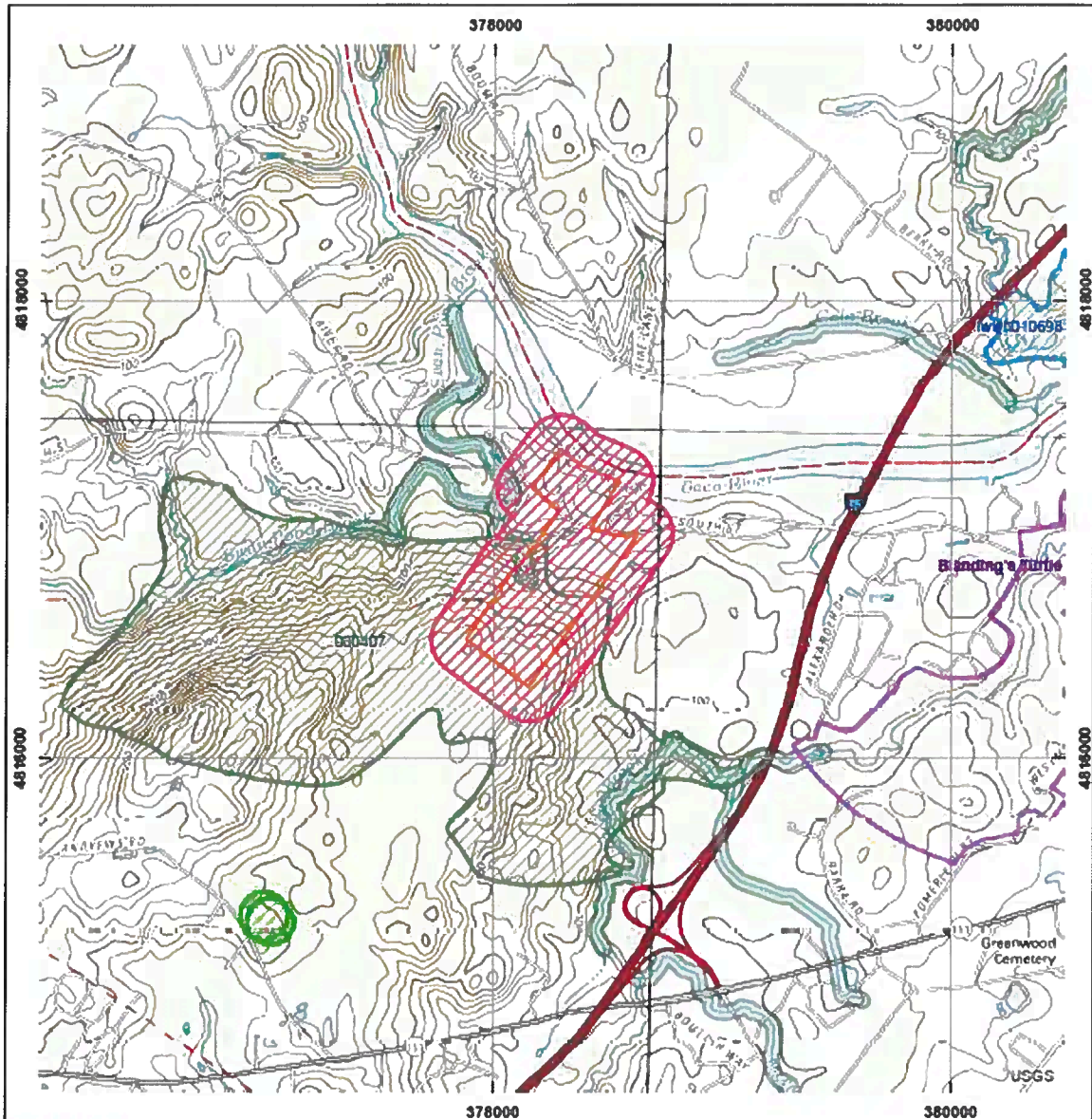
This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

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

John Perry
Environmental Review Coordinator



Environmental Review of Fish and Wildlife Observations and Priority Habitats

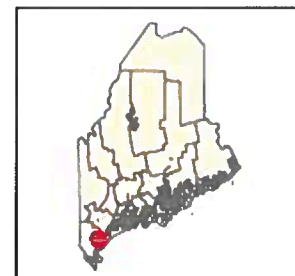
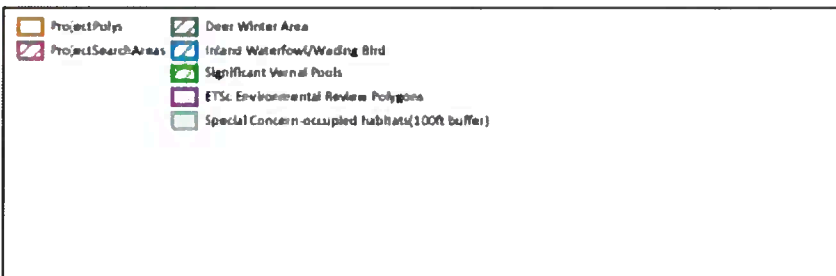
Project Name: Biddeford, Maine Water Company Saco River Water Treatment Facility

Maine Department of
Inland Fisheries and Wildlife

0 0.125 0.25 0.5 0.75 1 Miles

Projection: UTM, NAD83, Zone 19N

Date: 2/18/2019



Section 8: Historic sites



JANET T. MILLS
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

KIRK F. MOHNEY
DIRECTOR

January 28, 2019

Ms. Debi Hews
Jones Associates Inc
280 Poland Springs Road
Auburn, ME 04210

Project: MHPC #1752-17 The Maine Water Company; Saco River Water Treatment Facility
Replace Existing Facility with New Water Treatment Facility
Town: Biddeford, ME

Dear Ms. Hews:

In response to your recent request, I have reviewed the information received January 10, 2019 to initiate consultation on the above referenced project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Historic archaeological survey or assessment is recommended for any project impacts within 50 yards of South Street, primarily looking for archaeological sites that might be associated with the houses shown on the enclosed 1859 map. In addition, prehistoric archaeological survey is recommended anywhere on the project area that will involve ground disturbance, including road or temporary access construction. (There are multiple prehistoric archaeological sites along the Saco River valley and flood plain within a few kilometers of this project area.)

A list of qualified prehistoric archaeologists has been enclosed and can be found on our website:
http://www.maine.gov/mhpc/project_review/consultants/prehistoric_archaeology.shtml.

No architectural resources will be affected by this undertaking.

If you have any questions regarding archaeology, please contact Dr. Arthur Spiess of this office at Arthur.Spiess@maine.gov.

Sincerely,

A handwritten signature in black ink that reads "Kirk F. Mohney".

Kirk F. Mohney
State Historic Preservation Officer



The Maine Water Company
93 Industrial Park Rd
Saco, ME 04072

T: 800.287.1643
F: 207.236.3701
www.maineWater.com

DATE: November 30, 2017

TO: Kirk F. Mohnney, Director
Maine Historic Preservation
55 Capitol Street
65 State House Station
Augusta, ME 04333-0065



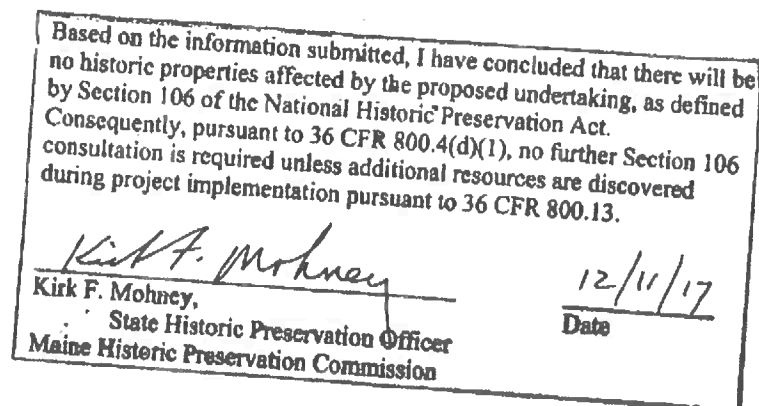
FROM: Rick Knowlton, President

RE: The Maine Water Company Saco River Water Treatment Facility

The Maine Water Company is proposing to construct a new water treatment facility on company owned land on and near the Saco River in Biddeford, replacing the existing facility on South Street. The new facility is expected to be on line in 2020, with an average production capacity of 12 million gallons per day (MGD) and a peak capacity of 18 MGD. It will be built outside the flood plain, on a parcel of land recently purchased by Maine Water across South Street from the existing facility.

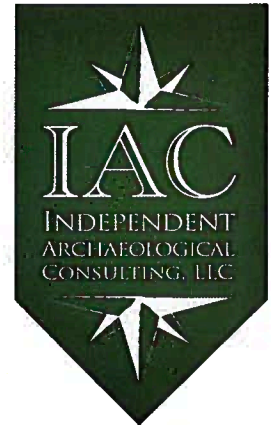
The project involves construction of new raw water intake(s) and pumping facility, raw water transmission piping, a new water treatment facility to include chemical feed and storage, pre-filtration solids removal, filtration and disinfection processes, finished water pumping, residuals handling and disposal, finished water storage, and all related piping, site work, utility services/relocations and decommissioning of the existing treatment facility necessary to integrate the new facilities with the existing distribution system.

Per the Maine Department of Environmental Protection's (MDEP) application requirements for Site Location of Development under 38 M.R.S.A. §§ 481-490, Natural Resource Protection Act under 38 M.R.S.A. §§ 480-A to 480-BB and the New England District U.S. Army Corps of Engineers General Permit, Jones Associates is requesting that your office provide any information regarding historic sites, historic structures or archaeological sites within the proposed development area noted on the attached location map.



May 29, 2019

Rick Jones
Jones Associates, Inc.
280 Poland Springs Road
Auburn, ME 04210



Re: Saco River Water Treatment Facility, Biddeford, Maine

Dear Mr. Jones,

IAC completed a Phase I Reconnaissance Survey of the proposed Saco River Water Treatment Facility in Biddeford (York County), Maine over the course of four consecutive days beginning on May 6, 2019 (Figure 1). A 2019 Maine Historic Preservation Commission (MHPC) review (MHPC #1752-17) identified portions of the project area as sensitive for both Pre-Contact Native American and Post-Contact Euroamerican archaeological resources. Proposed impacts associated with the project include the construction of a new water treatment facility, soil filter areas, dry beds, access roads, storm water management features (including drain lines, culverts, catch basins and manholes), access roads, a pump station and parking areas.

Pre-Contact archaeologist Jacob Tumelaire, MA, RPA and Post-Contact archaeologist Jessica Cofelice, MA, RPA served as the Principal Investigators for the Saco River Water Treatment Facility project. Both Mr. Tumelaire and Ms. Cofelice meet and exceed the Secretary of Interior 36-CFR-61 standards for professional archaeologists and are Level II approved by the Maine Historic Preservation Commission. Archaeological Technicians Maya Carter, E. Nadia Kline, Roxanne Pendeleton and Mandi Beauvais assisted throughout the duration of the project.

For the Phase I survey, IAC excavated a total of 80 0.5-m-x-0.5-m shovel test pits (STPs) and two 1.0-m-x-1.0-m test units (TUs) along 11 transects for a combined total of 22.0 m² (Figure 2; Table 1). IAC placed six of the 11 transects (Transects 1-5 and 11) within the footprint of areas where direct impacts will require ground disturbance as indicated by project plans. In addition to testing within direct impact areas, IAC excavated five transects (Transects 5, 7, 8, 9, 10 and 12) where historic maps (Baker 1856 and Sanford, Everts & Co. 1872) and a 1936 aerial of Biddeford illustrate home/farmsteads (Plate 1; Figures 3 and 4). IAC initially proposed to excavate three transects south of Street (Transects 5-7) where nineteenth-century maps show the "S. H. Smith" and "C. H. Staples" home/farmsteads, however, due to water saturated soil conditions and the lack of positive test pits/features along Transects 5 and 7, IAC did not excavate Transect 6. To compensate, archaeologists excavated an additional transect (Transect 12), along the north side of South Main Street where historic maps and a 1936 aerial illustrate three home/farmsteads (see Figure 2).

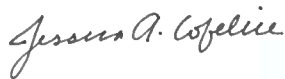
In total, archaeologists collected 76 Post-Contact artifacts from 18 positive test pits (Table 2). Twenty-two of the artifacts (identified as brick, coal, wire nails, unidentifiable metal fragments, bottle glass, whiteware/white granite sherds, a ceramic button and a piece of a child's porcelain tea set) originated from fill deposits within test pits along four transects (Transects 1, 3, 5 and 7) placed in proposed impact areas. Due to the lack of context, the finds do not constitute an archaeological resources. All 82 testholes were negative for Pre-Contact Native American cultural material or features. Excavations on sensitive landforms revealed evidence that Post-Contact activity (predominantly grading) associated with the Saco River Water Treatment Facility construction and ongoing use has negatively impacted the parcel's archaeological integrity and reduced the potential to yield viable data about Pre-Contact land use.

Archaeologists noted several surficial features suggesting the presence of at least three home/farmsteads, including the Whitehead cellarhole located west of the treatment facility parcel on private property; and a well, depression, possible barn foundation traces, a driveway and numerous ornamental plantings within the treatment facility property. In addition, crews encountered subsurface features and deposits in the vicinity of the two nineteenth-century residences owned by J. Staples² (Figures 3 and 4; Table 3). IAC registered the three sites with the Maine Historic Preservation Commission as “J. Whitehead” (ME 041-030), “J. Staples² East” (ME 041-031) and “J. Staples² West” (ME 041-032). IAC designated the location of the two Staples home/farmstead sites within the treatment facility parcel as archaeologically sensitive (Figure 5). Presently, there are no proposed impacts within the archaeologically sensitive portion of the parcel and no further survey is recommended, however, if additional project impacts include subsurface disturbances within the sensitive area, a Phase II Intensive Level Survey is recommended.

For the remainder of the parcel, where testing within direct impact areas revealed evidence of large-scale mechanical alteration to the natural landscape and an absence of cultural deposits, IAC recommends no further survey.

IAC is in the process of completing a final report, the deliverable will summarize the results of our findings and will include recommendations. Please do not hesitate to contact me with any questions, concerns or recommendations.

Sincerely,

A handwritten signature in cursive script, reading "Jessica A. Cofelice".

Jessica Cofelice, MA, RPA

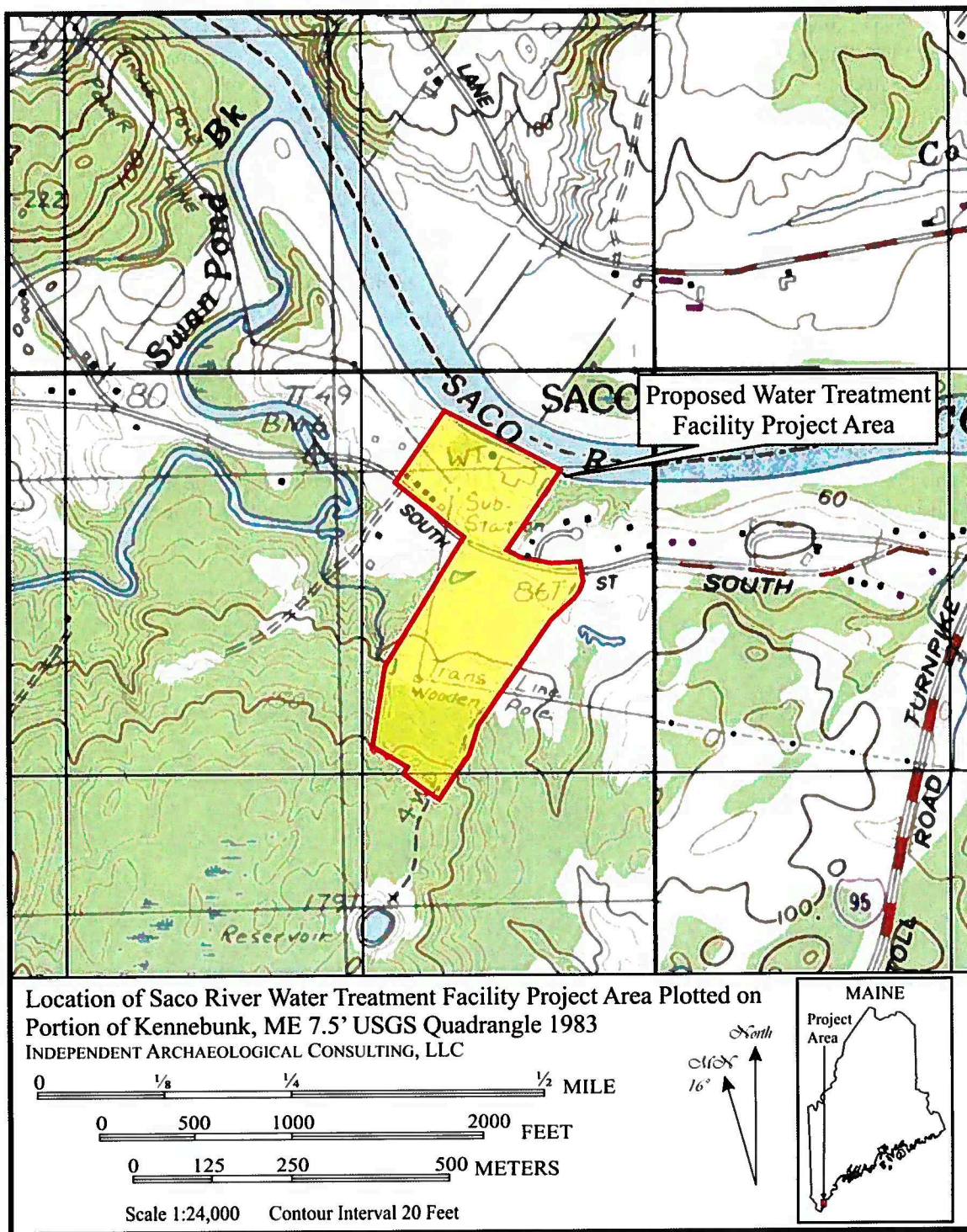


Figure 1. Location of the Saco River Water Treatment Facility project area plotted on a USGS map of Biddeford (Cumberland County), Maine (after USGS 1983).

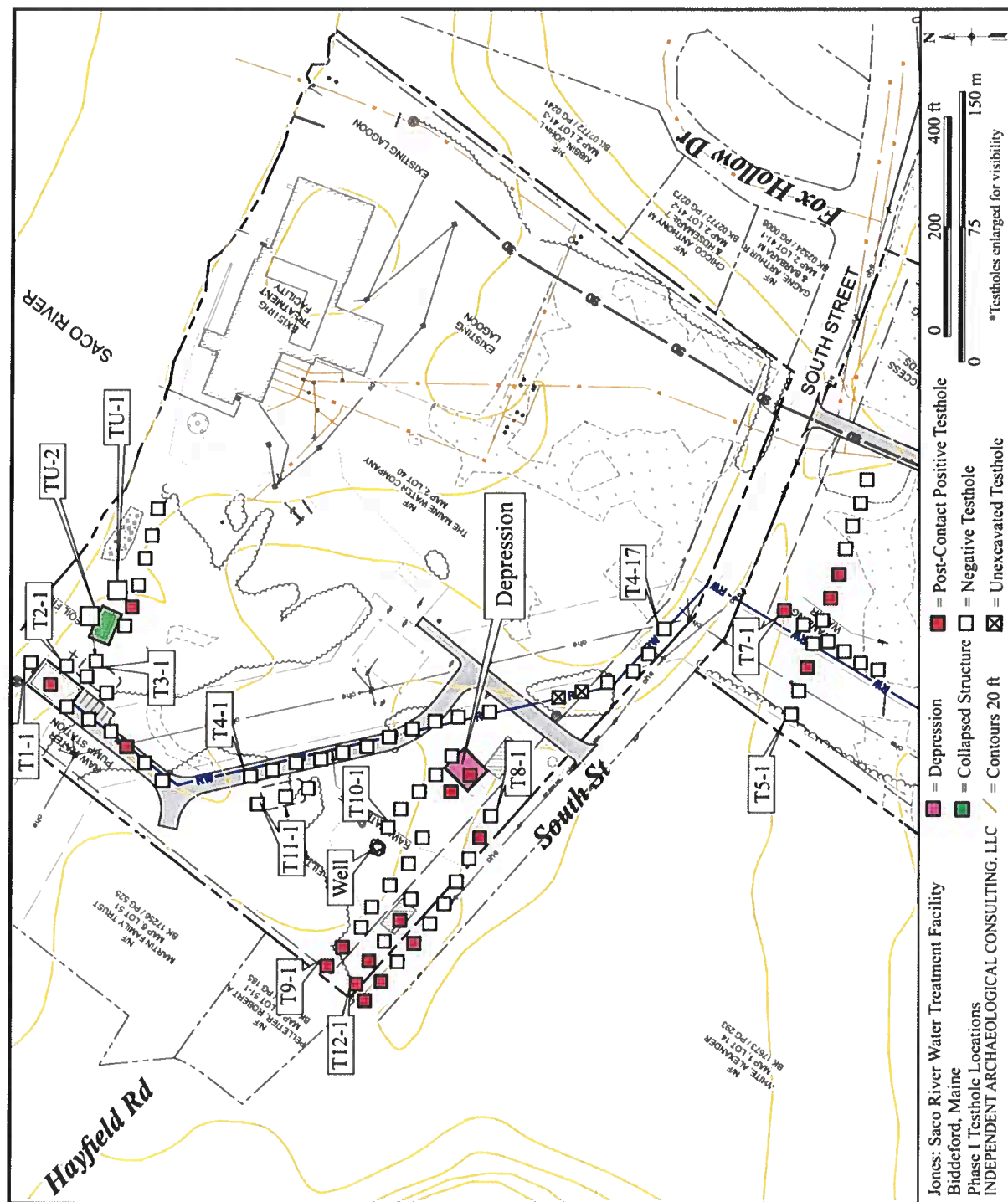


Figure 2. Phase I testhole locations illustrated on proposed project plans.

#	Test Unit	Testhole Size	Pos	Neg
78	T12-3	0.5-m-x-0.5-m		X
79	T12-4	0.5-m-x-0.5-m	X	
80	T12-5	0.5-m-x-0.5-m		X
81	TU-1	1.0-m-x-1.0-m		X
82	TU-2	1.0-m-x-1.0-m		X
	Total	22.0 m²	18	64

Table 2. General artifact distribution.

Test Unit	Artifact Total	Domestic	Architectural	Personal	Other	Pre-Contact	% Domestic	% Architectural	% Personal	% Other	% Pre-Contact
T1-2	3	3					100%	0%	0%	0%	0%
T1-6	6	4			2		67%	0%	0%	33%	0%
T3-3	7	4	1		2		57%	14%	0%	29%	0%
T5-3	1		1				0%	100%	0%	0%	0%
T5-6	1		1				0%	100%	0%	0%	0%
T5-7	3		1		2		0%	33%	0%	67%	0%
T7-1	1	1					100%	0%	0%	0%	0%
T8-2	8	3	5				38%	63%	0%	0%	0%
T8-7	3	1	2				33%	67%	0%	0%	0%
T8-9	2	2					100%	0%	0%	0%	0%
T8-10	5	2	2	1			40%	40%	20%	0%	0%
T9-1	13	11	1		1		85%	8%	0%	8%	0%
T9-2	6	4	1		1		67%	17%	0%	17%	0%
T9-8	7	6	1				86%	14%	0%	0%	0%
T9-9	5	2	3				40%	60%	0%	0%	0%
T12-1	1		1				0%	100%	0%	0%	0%
T12-2	1			1			0%	0%	100%	0%	0%
T12-4	3		2	1			0%	67%	33%	0%	0%
Total	76	43	22	3	8	0	57%	29%	4%	11%	0%

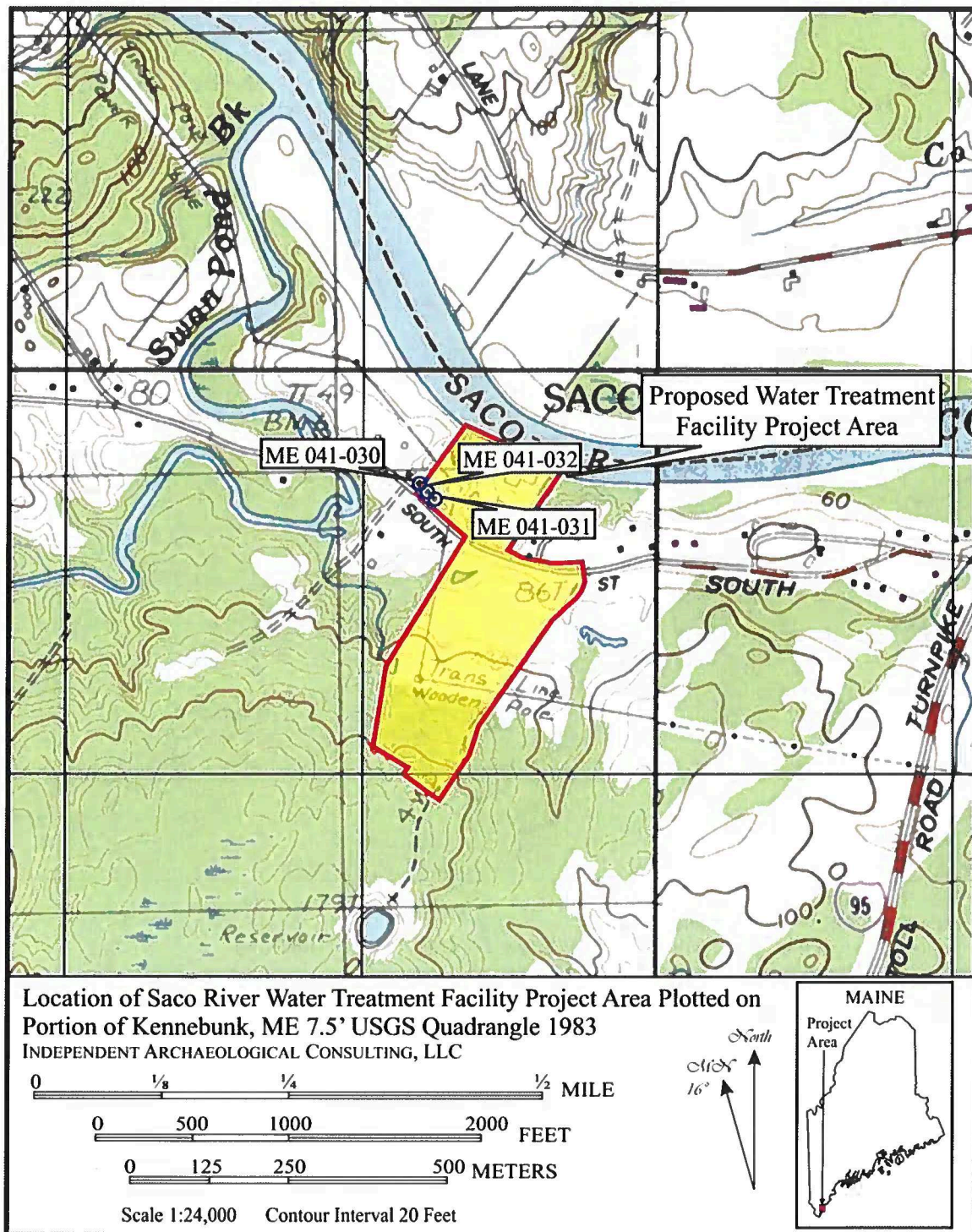


Figure 3. Registered Post-Contact site locations illustrated on USGS quadrangle map.

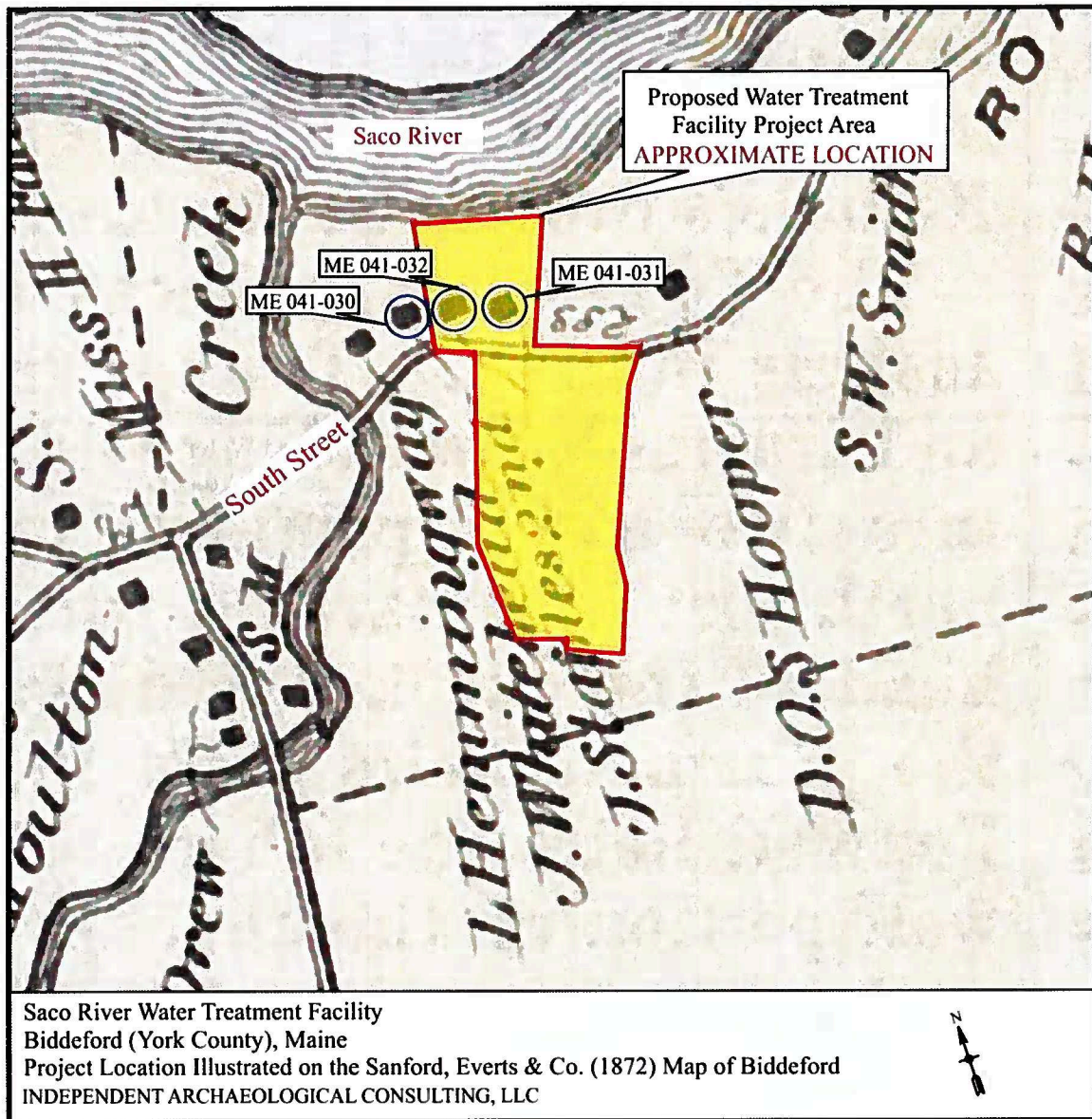


Figure 4. Registered Post-Contact site locations illustrated on Sanford & Everts (1872) map of Biddeford.

Table 3. List of registered Post-Contact sites on the Saco River Water Treatment Facility property.

Site Name	Site Number
J. Whitehead	ME 041-030
J. Staples ² East	ME 041-031
J. Staples ² West	ME 041-032

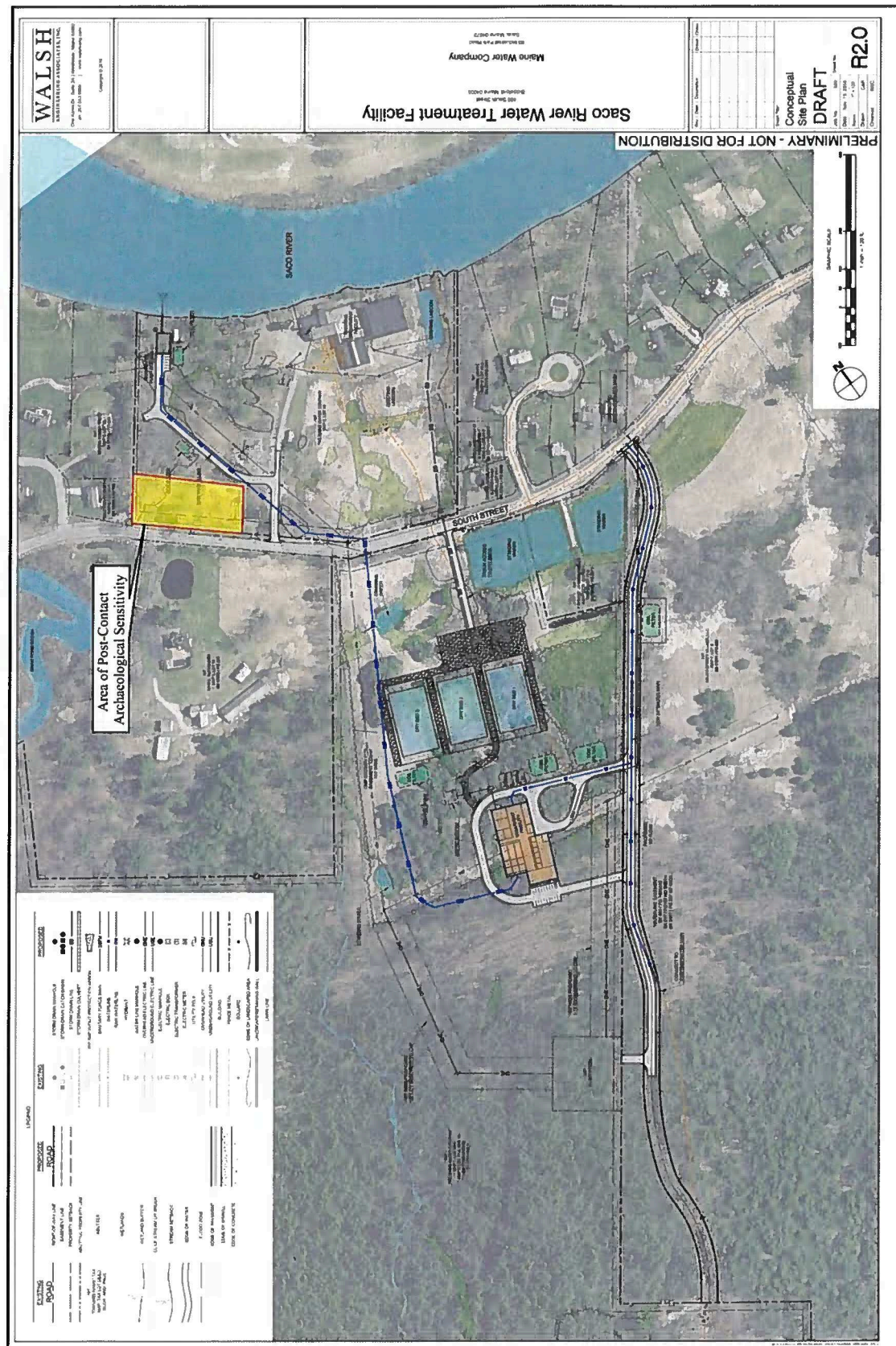


Figure 5. Area of archaeological sensitivity illustrated on proposed project plans.



Date: January 7, 2019

THPO
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, Maine 04730
Email:
envplanner@maliseets.com
Email: ogs1@maliseets.com

THPO
Passamaquoddy Tribe of Indians
Pleasant Point Reservation
PO Box 343
Perry, Maine 04667
Email: soctomah@gmail.com

THPO
Aroostook Band of Micmacs
7 Northern Road
Presque Isle, Maine 04769
Email: jpictou@micmac-nsn.gov

THPO
Penobscot Nation
Cultural & Historic Preservation Dept.
12 Wabanaki Way
Indian Island, ME 04468
Email: chris.sockalexis@penobscotnation.org

THPO
Passamaquoddy Tribe of Indians
Indian Township Reservation
PO Box 301
Princeton, Maine 04668
Email: soctomah@gmail.com

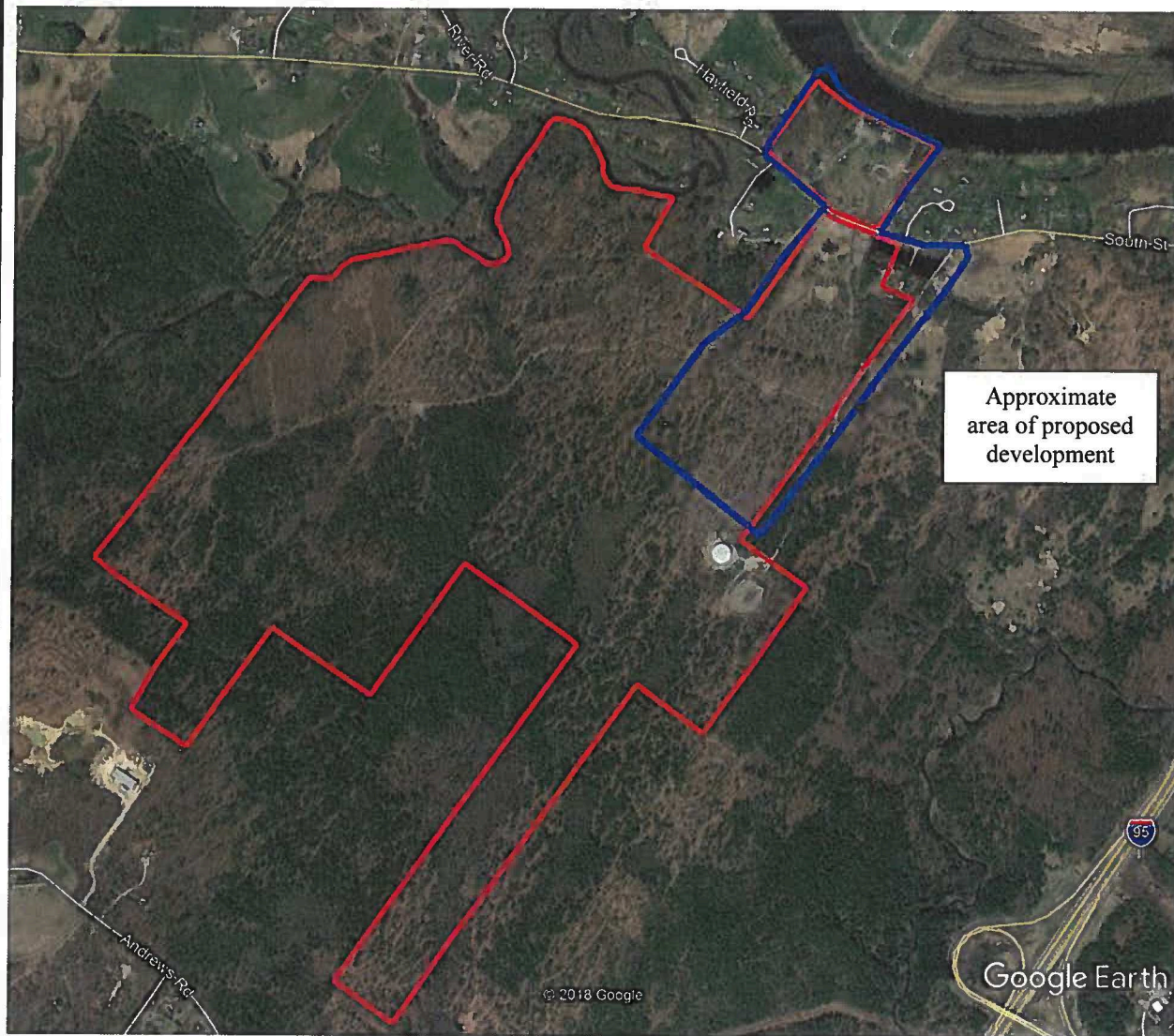
RE: The Maine Water Company Saco River Water Treatment Facility
VIA: Transmitted via email as noted above

The Maine Water Company is proposing to construct a new water treatment facility on company owned land on and near the Saco River in Biddeford, replacing the existing facility on South Street. The new facility is expected to be on line in 2020, with an average production capacity of 12 million gallons per day (MGD) and a peak capacity of 18 MGD. It will be built outside the flood plain, on a parcel of land recently purchased by Maine Water across South Street from the existing facility.

The project involves construction of new raw water intake(s) and pumping facility, raw water transmission piping, a new water treatment facility to include chemical feed and storage, pre-filtration solids removal, filtration and disinfection processes, finished water pumping, residuals handling and disposal, finished water storage, and all related piping, site work, utility services/relocations and decommissioning of the existing treatment facility necessary to integrate the new facilities with the existing distribution system.

Per the Maine Department of Environmental Protection's (MDEP) application requirements for Site Location of Development under 38 M.R.S.A. §§ 481-490, Natural Resource Protection Act under 38 M.R.S.A. §§ 480-A to 480-BB and the New England District U.S. Army Corps of Engineers General Permit, Jones Associates is requesting that your office provide any information regarding historic sites, historic structures or archaeological sites within the proposed development area noted on the attached location map. In November 2017 (over a year ago), Maine Water Company contacted you. Since that time, the proposed development has been redesigned and the proposed development area has changed to encompass a smaller area.

280 Poland Spring
Auburn, Maine 04210
(207) 241-0235



Approximate Coordinates Site Entrance
Latitude: 43.495947°; Longitude -70.503397°
UTM Easting 378450; Northing 4826989

LOCATION MAP

The Maine Water Company Saco River Water Treatment Facility
The Maine Water Company
South Street
Biddeford, Maine



**PENOBSCOT NATION
CULTURAL & HISTORIC PRESERVATION
12 WABANAKI WAY, INDIAN ISLAND, ME 04468**

CHRIS SOCKALEXIS – TRIBAL HISTORIC PRESERVATION OFFICER
E-MAIL: chris.sockalexis@penobscotnation.org

NAME	Debi Hews
ADDRESS	Jones Associates, Inc. 280 Poland Spring Road Auburn, ME 04210
OWNER'S NAME	Maine Water Company
TELEPHONE	(207) 241-0235
EMAIL	dhews@jonesai.com
PROJECT NAME	Construction of the Saco River Water Treatment Facility
PROJECT SITE	Biddeford, ME
DATE OF REQUEST	January 7, 2019
DATE REVIEWED	January 11, 2019

Thank you for the opportunity to comment on the above referenced project. This project appears to have no impact on a structure or site of historic, architectural or archaeological significance to the Penobscot Nation as defined by the National Historic Preservation Act of 1966, as amended.

If Native American cultural materials are encountered during the course of the project, please contact my office at (207) 817-7471. Thank you for consulting with the Penobscot Nation Tribal Historic Preservation Office with this project.

A handwritten signature in black ink, appearing to read "Chris Sockalexis".

Chris Sockalexis, THPO
Penobscot Nation

From: Sue Young <ogs1@maliseets.com>
Sent: Monday, January 14, 2019 10:20 AM
To: Debi Hews
Subject: RE: Maine Water Company - Saco River Water Treatment Facility

We do not have an immediate concern with your project or project site, and do not currently have the resources to fully investigate same. Should any human remains, archaeological properties or other items of historical importance be unearthed while working on this project, we recommend that you stop your project and report your findings to the appropriate authorities including the Houlton Band of Maliseet Indians.

<><><><><><><><><><>

**Tribal Historic Preservation Officer
Natural Resources Director
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730
207-532-4273 ext. 202
fax 207-532-6883**

www.maliseets.com

Section 9: Unusual Natural Areas



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

January 11, 2019

Debi Hews
Jones Associates
280 Poland Spring Road
Auburn, ME 04210

Re: Rare and exemplary botanical features in proximity to: Maine Water Company, Biddeford, Maine

Dear Ms. Hews:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received January 10, 2019 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Biddeford, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

As you are aware, there is a red maple swamp located on the property (see December 5, 2017 response, attached). However, the revised project area has a smaller footprint and is ~0.2 miles from the northern boundary of the red maple swamp. MNAP has no concerns for this project with the current footprint, provided that any clearing of vegetation takes place north and east of the cleared ROW. If any vegetation clearing will take place south or west of this cleared ROW, MNAP recommends erosion control measures and other Best Management Practices to ensure that sediment does not flow via ephemeral drainages to the red maple swamp.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM



PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

Letter to Debi Hews
Comments RE: Maine Water Company, Biddeford
January 11, 2019
Page 2 of 2

environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

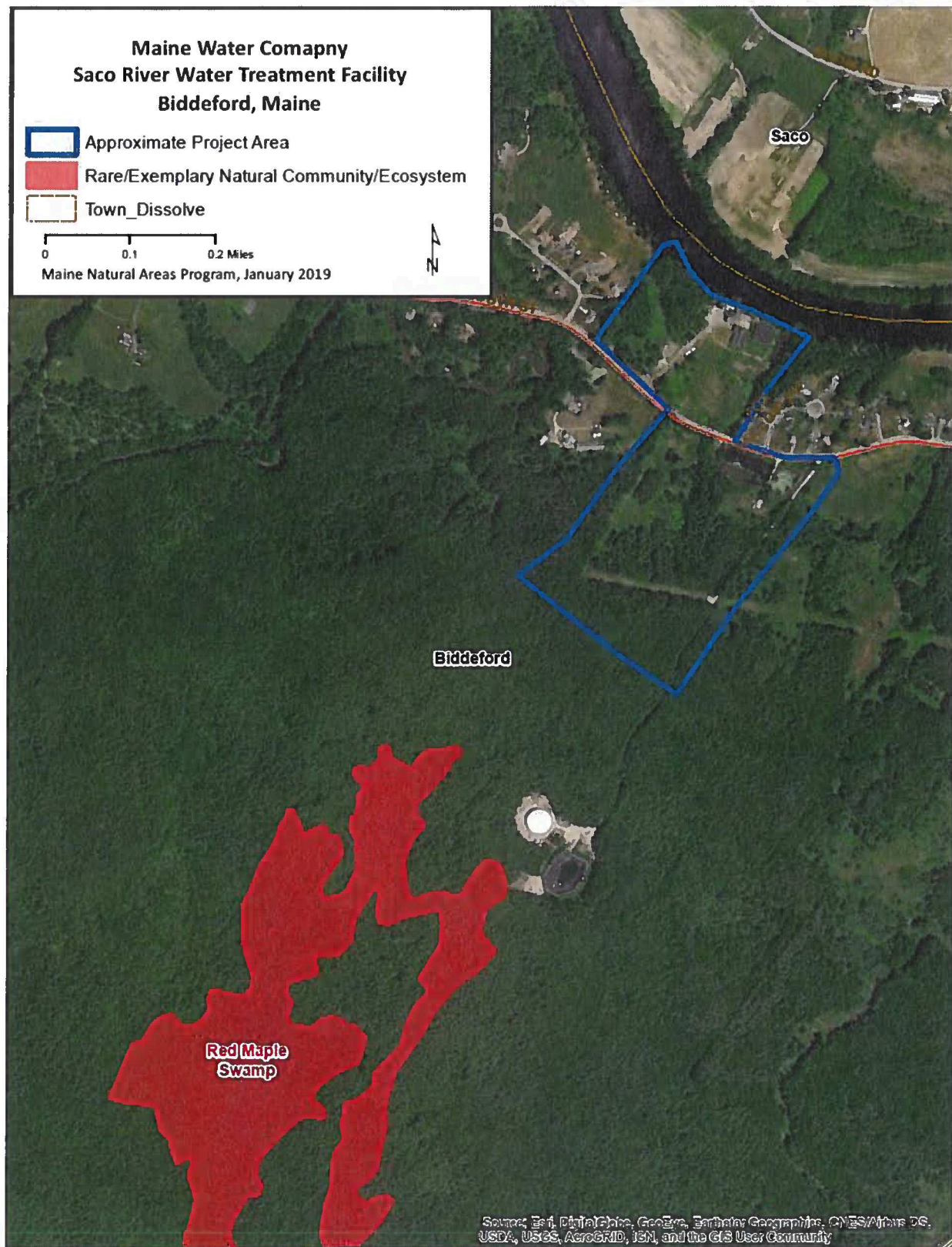
The Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$225.00 for two hours of our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov





PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

WALTER E. WHITCOMB
COMMISSIONER

December 5, 2017

Philip Bilodeau
Maine Water Company
93 Industrial Park Road
Saco, ME 04072

Via email: pbilodeau@mainewater.com

Re: Rare and exemplary botanical features in proximity to: Water Treatment Facility, Biddeford, Maine

Dear Mr. Bilodeau:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received December 1, 2017 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Biddeford, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, the area proposed for a new water treatment facility intersects with an exemplary Red Maple Swamp. This is a large red maple swamp with late successional black gum (500+ years old) and red maple. The Maine Natural Areas Program requests that we have an opportunity to survey this Red Maple Swamp prior to siting any permanent structures. We will likely request a buffer around this Red Maple Swamp to minimize impacts. Please see map and attached fact sheet for more information and contact Kristen Puryear, 287-8043 to discuss a field visit.

Feature	State Status	State Rank	Global Rank	Occurrence Rank	Site
Red Maple Swamp	N/A	S5	G3G5	A Excellent	West Biddeford Blackgum Swamp

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM



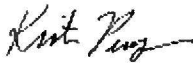
PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

Letter to Maine Water
Comments RE: Biddeford Water Treatment Facility
December 5, 2017
Page 2 of 2

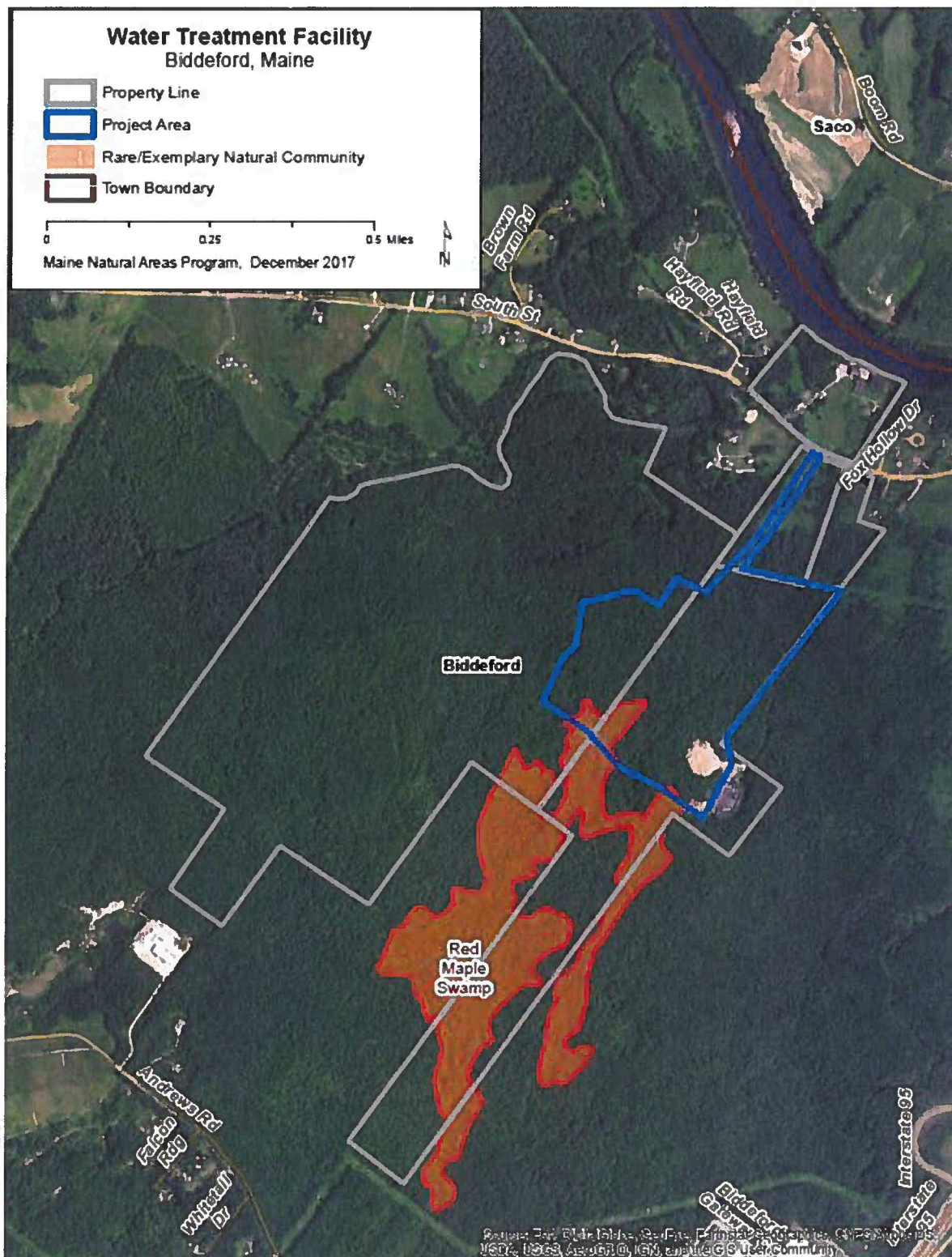
to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,



Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov





Red Maple - Sensitive Fern Swamp

Red Maple Swamp

State Rank S5

Community Description

Red maple dominates the somewhat open to nearly closed canopy (20-90% closure), sometimes with a relatively large component (up to 40% cover) of balsam fir, red spruce, or northern white cedar. Green ash and yellow birch are common, but rarely abundant associates. The maples may be widely spaced with multiple trunks and arching crowns. The shrub layer is patchy; winterberry is common and various other shrubs may be locally abundant. The herb layer is well developed and dominated by herbs, with dwarf shrubs <20% of herb cover. Bluejoint and sensitive fern are characteristic herbs. The bryoid layer is usually <35% cover; peat mosses are typical but do not form extensive, deep carpets as they do in peatlands.

Soil and Site Characteristics

Sites occupy mineral soils or well decomposed organic material over mineral soil on flat or gentle slopes in small basins, often on floodplains of streams to small rivers. Soils are typically 30-60 cm deep, loamy to silty in texture, sometimes with well decomposed muck over the mineral fraction, and pH 4.8-5.4.

Diagnostics

These are mineral soil wetlands in which



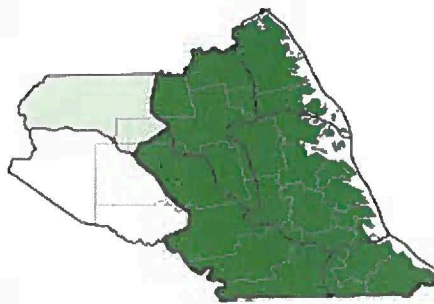
Red Maple Flowers

red maple dominates the canopy or is co-dominant with conifers other than black spruce or larch. The seasonally flooded soils usually remain saturated through the growing season.

Similar Types

Red Maple Wooded Pans are similar, but either occur in association with large peatlands or occupy small somewhat peaty basins; they do not occur on mineral soils. Some small Northern White Cedar Swamps and Spruce - Fir - Cinnamon Fern Forests, particularly along the coast, include a fair amount of red maple but have cedar or spruce/fir, respectively, as the most abundant canopy species. Silver Maple Floodplain Forests are dominated by silver maple and generally occur along larger

Location Map



Community is shown by the following on the map:
 Community is shown by the following on the map:
 Community is shown by the following on the map:
 Community is shown by the following on the map:



Red Maple Swamp

rivers, but the two types can intergrade on some floodplains.

Conservation, Wildlife, and Management Considerations

Maintaining the hydrologic integrity of these stream drainages with upland buffers is key. These swamps typically have had few conflicting uses, although some have been recently harvested. ATV use has been observed at some sites.

Red maple swamps often provide habitat in which spotted turtles hibernates. If wet Sphagnum hummocks are present, four-toed salamanders may breed in this community. Examples that occur on floodplains of streams and small rivers may contain wood turtles, which overwinter in the stream channel and forage in the floodplain. The silver-haired bat often roosts in upland habitats in trees with loose bark. The northern waterthrush is a common associate of this community type. In the southern part of the state, the Louisiana waterthrush and yellow-throated vireo may be associates if the canopy is closed or nearly so.

Distribution

Statewide, but most common in the southern half of state. Extends southward and southwestward from Maine; eastward distribution unknown.

Landscape Pattern: Large Patch

Characteristic Plants

These plants are frequently found in this community type. These with an asterisk are often diagnostic of this community.

Canopy
 Balsam fir
 Gray birch
 Northern white cedar
 Red maple*
 Red spruce
 Sapling/shrub
 Arrowwood*
 Balsam fir
 Gray birch*
 Red spruce
 Speckled alder*
 Winterberry*
 Herb
 Bluejoint*
 Flat-topped white aster*
 Interrupted fern
 Tussock sedge
 Royal fern*
 Sensitive fern*
 Bryoid
 Sphagnum mosses*

Associated Rare Plants

Smooth winterberry holly
 Spicebush
 Swamp saxifrage
 Swamp white oak
 Sweet pepper-bush

Associated Rare Animals

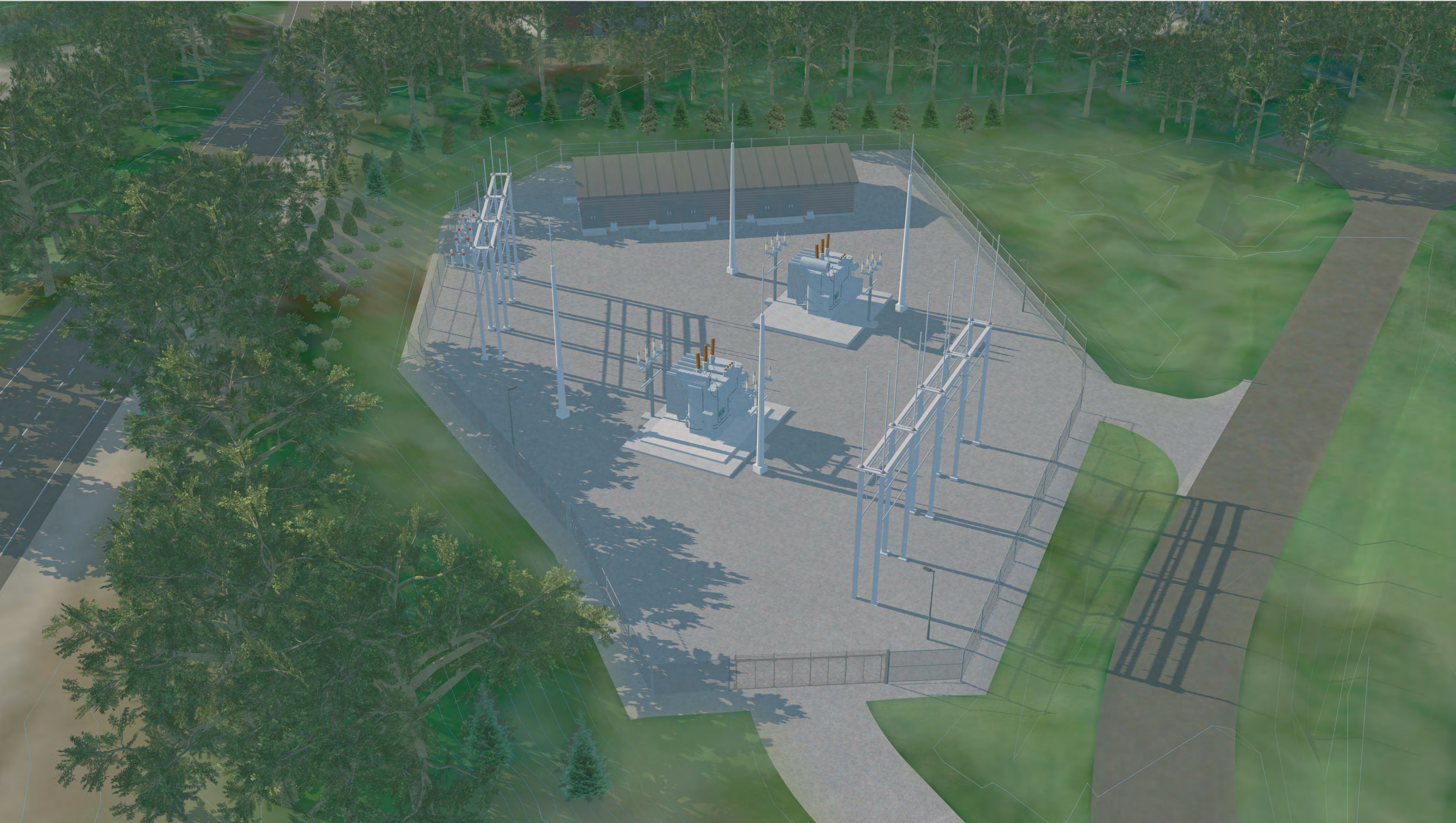
Spotted turtle
 Wood turtle

Examples on Conservation Lands You Can Visit

- Kennebec Plains Preserve - York Co.
- Mt. Agamenticus - York Co.
- Sheep Falls Wildlife Management Area - Cumberland Co.
- Warrenton Barrens Preserve - York Co.

Maine Natural Assets Program

AERIAL SITE VIEW TO NORTHWEST



VIEW FROM SOUTH STREET



VIEW FROM SOUTH STREET - ALTERNATE LAYOUT



VIEW FROM SOUTH STREET - ALTERNATE LAYOUT WINTER VIEW



VIEW FROM SOUTH STREET - ALTERNATE LAYOUT



April 27, 2022

Ms. Hannah Bonine
Assistant City Planner
City of Biddeford
P.O. Box 586
205 Main Street
Biddeford, ME 04005

**RE: Land Use Application for the Central Maine Power (CMP) Company Biddeford Pump Substation,
South Street Biddeford, Maine**

Dear Hannah,

The following provides a discussion relative to the suggested alternative configuration of the substation electrical components as suggested by the Third-party Engineer (TPE). The focus of this alternative configuration moved the 12kV box bay structure from the southcentral portion of the site to the southeast corner and included running the conductors overhead to the distribution system along the access road to South Street. CMP does not propose to run any conductors below ground. The TPE provided a rough and unscaled sketch of this configuration where the electrical components were not displayed relative to the proper scale and setbacks. Furthermore, this sketch did not consider the cascading effects of moving the 12kV box bay structure which necessitates moving other components to maintain safety setbacks, Substation Design Criteria, which will be discussed in more detail below.

To visually present this assessment, CMP has prepared visual simulations from two locations along South Street that show the TPE alternative configuration and are attached herein. CMP has reviewed the TPE's proposed configuration and associated sketch, in detail, and modeled that sketch into an informal engineered and scaled plan that considers the suggested alterations to the other substation components. CMP has determined that this alternative design increases the visibility of the substation, especially that of the 12kV box bay structure by bringing it into the direct line-of-sight of Fox Hollow Road and both the east and west bound lanes of South Street. Additionally, this configuration requires the removal of all existing mature screening trees along the southeast corner and most of the existing mature trees in the northwest corner of the Project, thus increasing the visibility of the entire substation from South Street, Fox Hollow Drive, and at least one residence on Hayfield Road. The following provides some immediate and important observations on the TPE's alternative configuration:

- Moving the 12kV box bay structure to the southeast still requires maintaining a structure safety clearance between the structure and the fence, Substation Design Criteria, and a 3:1 safe slope regrading between South Street and the substation fence. These requirements result in the removal of the remaining mature screening trees in the southeast corner and thereby increases the visibility of the box bay structures and the substation in general. CMP's current design retains these mature trees for the natural screening of the substation from South Street and Fox Hollow

Drive. This natural vegetation in conjunction with the landscaping effectively screens the substation for those traveling along South Street and some views from Fox Hollow Road.

- Both access roads and the 34.5kV box bay structure would need to be moved north/northwest to maintain necessary separation from the new location of the 12kV box bay structure.
- The stormwater detention pond would also be moved further into the north/northwest corner of the site, due to the northern fence line moving northward to accommodate the shift of the second access road, and this would result in the removal of most of the existing tree screening in this area, thus increasing the view of the substation from at least one house on Hayfield Road.

Therefore, moving the 12kV box bay structure will have a cascading effect to the Project elements along Maine Water Co.'s (MWC) access road. The 34.5kV box bay structure would be shifted to the north/northwest, due to required clearances around structures and Substation Design Criteria, this move would then shift the northern most access driveway more to the north/northwest, which would then push the detention pond and drainage design more to the northwest and into the corner of the site. This cascading effect would result in the removal of additional existing mature screening trees in the north/northwest corner of our site, towards the abutter at 4 Hayfield Road, increasing the visibility of the Project. These shifts of the Project components along the MWC access road would also result in both the 12kV and 34.5kV box bay structures being more visible to the residents on Fox Hollow Drive, both east and west bound travelers on South Street, recreationalists on South Street, and to at least one Hayfield Road residence.

Based on this assessment, by attempting to reduce the visual impact to the South Street abutter directly across from the Project, travelers and recreationalists on South Street, as proposed and sketched by the TPE, would actually result in the unnecessary removal of additional tall mature screening trees along South Street, negatively affect at least one abutter on Hayfield Road and cause the box bay structures to be more visible to both the residents along Fox Hollow Drive and travelers/recreationalists along South Street. Therefore, the proposed 12kV box structure relocation to the southeast corner of the site is not consistent with the Biddeford Land Use Ordinance Performance Standards.

I hope this letter, assessment and visual simulations will assist the City's staff and Planning Board with understanding the process CMP has undertaken to address the questions and concerns raised by the proposed configuration changes as suggested by the TPE. Please feel free to call or email if you have any questions or comments. CMP would like for this letter and attachments to be available to the Planning Board for the meeting the evening on April 28, 2022.

Sincerely,



Mark W. Christopher, M.S. CWB
Project Manager
mchristopher@trccompanies.com
207-441-4225



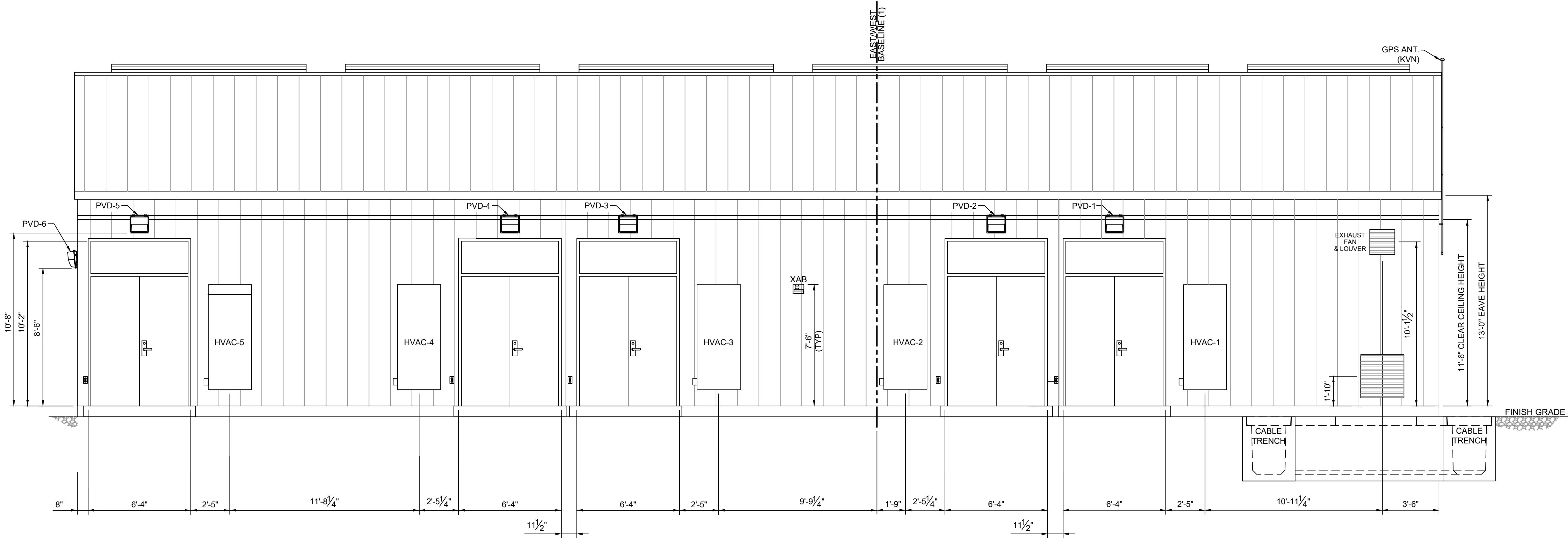
REV	DESCRIPTION	DATE	BY	CK	APP
0-0	ISSUED FOR CONSTRUCTION	02/25/2022	TDK/MLEC	VSM/LEC	JMM/LEC

LOGO

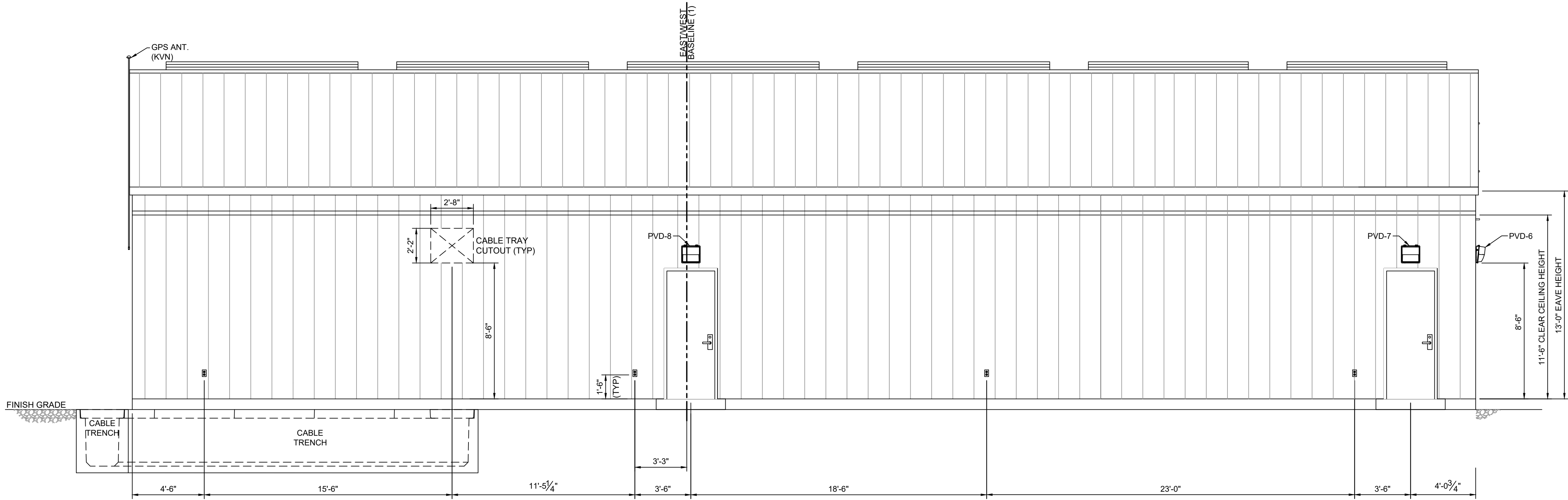
MAINLINE

MAINLINE ENERGY CONSULTANTS LLC
184 S. BROAD STREET LANCASTER, PA 17406
717-555-7477

ANSI D 223/2022



H-H SECTION
1050-2-1 SCALE: 1/4"=1'-0"



W-W SECTION
1050-2-1 SCALE: 1/4"=1'-0"

REFERENCE DRAWING:

- | | |
|--------------------|---|
| 1050-0002-001 | GENERAL ARRANGEMENT 34.5/12.47KV S/S |
| 1050-0002-003 SH 1 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-003 SH 2 | GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S |
| 1050-0002-002 SH 1 | GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D |
| 1050-0002-002 SH 2 | GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H |
| 1050-0002-002 SH 3 | GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M |
| 1050-0002-002 SH 4 | GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q |
| 1050-0002-002 SH 5 | GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V |
| 1050-0002-002 SH 7 | ANIMAL PROTECTIONS DETAILS |
| 1050-0006-008 | SITE LIGHTNING PROTECTION 34.5/12.47KV |
| 1050-0006-009 SH 1 | YARD LIGHTING & SECURITY PLAN |
| 1050-0006-010 | YARD LIGHTING DIAGRAM |
| 1050-0012-002 | ABOVE GRADE BILL OF MATERIAL |

PE STAMP

STATE OF MAINE

JONATHAN LEO MARTIN

16812

PROFESSIONAL ENGINEER

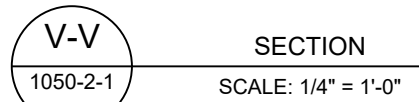
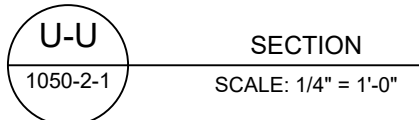
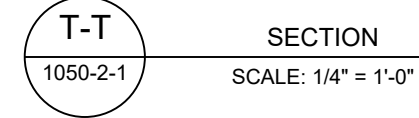
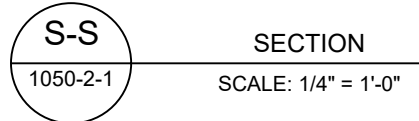
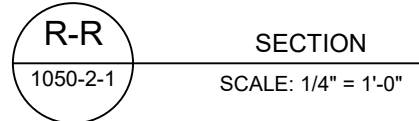
02/25/2022

AVANGRID ENGINEERING
CONFIDENTIAL, PROPRIETARY and
TRADE SECRET INFORMATION
Property of AVANGRID



GENERAL ARRANGEMENT
SECTIONS H-H & W-W
SH 6 OF 6

BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY	TOK/MLEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 006.dwg
CK	VSM/LEC	NO.	REV
APP	JMM/LEC		
DATE	02/25/2022	1050-0002-002 SH 006	0-0



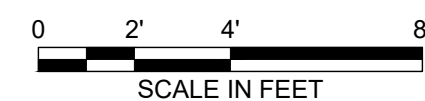
1. TRANSMISSION HARDWARE SHALL BE PROVIDED BY TRANSMISSION GROUP.
2. WIRE CONDUCTOR ACCEPTABLE INSIDE DIAMETER BEND SHALL BE 10 TO 15 TIMES THE OUTSIDE DIAMETER IN ACCORDANCE WITH TM2.71.53.
3. LOCATIONS & SYMBOLS FOR BUS SUPPORTS & CONNECTION TYPES ARE SHOWN AND INDICATED AS:
 - S - SLIP SUPPORT
 - F - FIXED SUPPORT
 - X - EXPANSION SUPPORT
4. WOOD POLE HEIGHT IS 25 FEET (20'-6" ABOVE GROUND & 4'-6" BELOW GROUND).
5. TRANSMISSION CONDUCTOR IS INDICATIVE.
6. THE MINIMUM BENDING RADIUS OF POWER CABLE IS 12 TIMES THE OVERALL DIAMETER OF CABLE IN ACCORDANCE WITH NEC ARTICLE 300.34".
7. N.S. = NEAR SIDE, F.S. = FAR SIDE

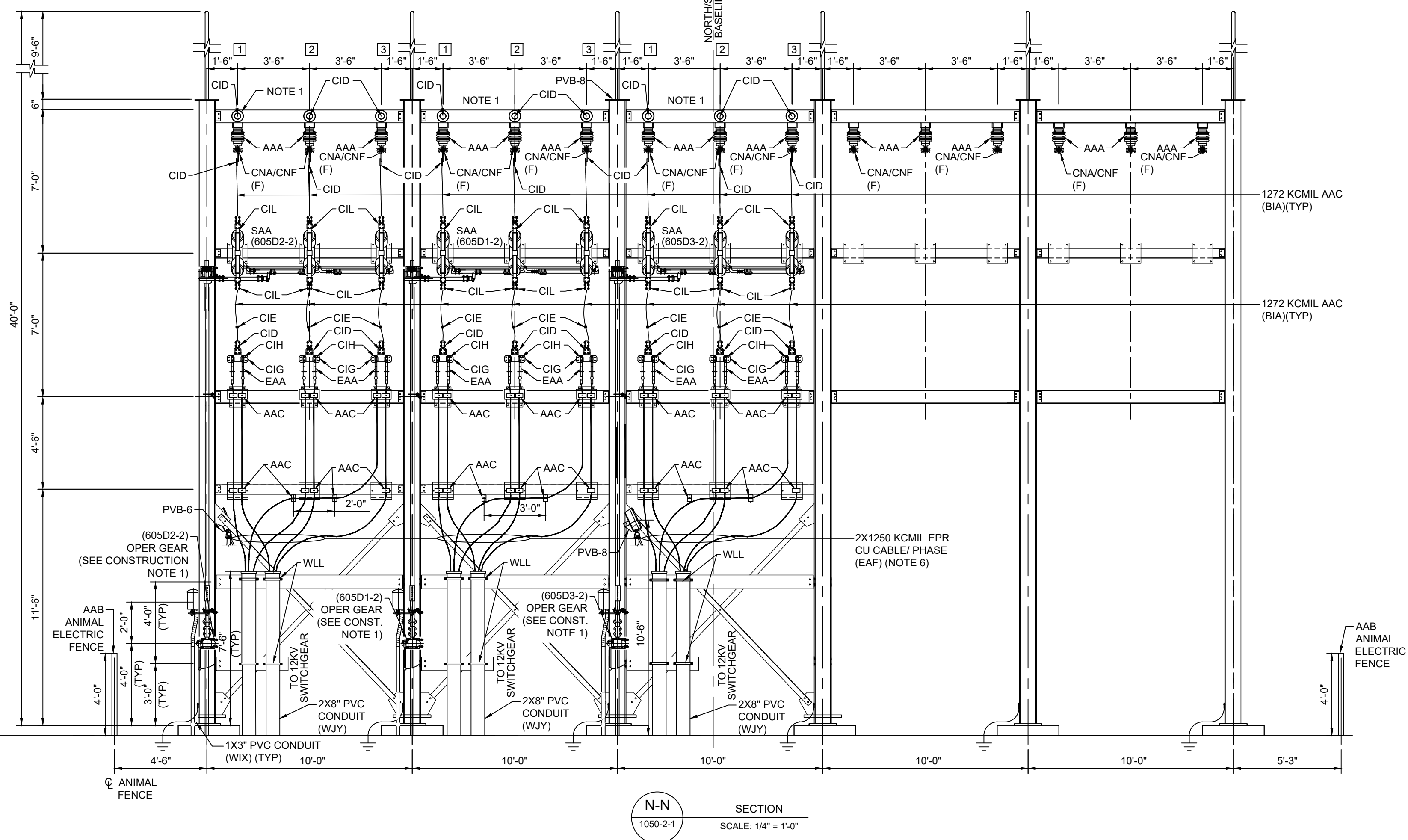
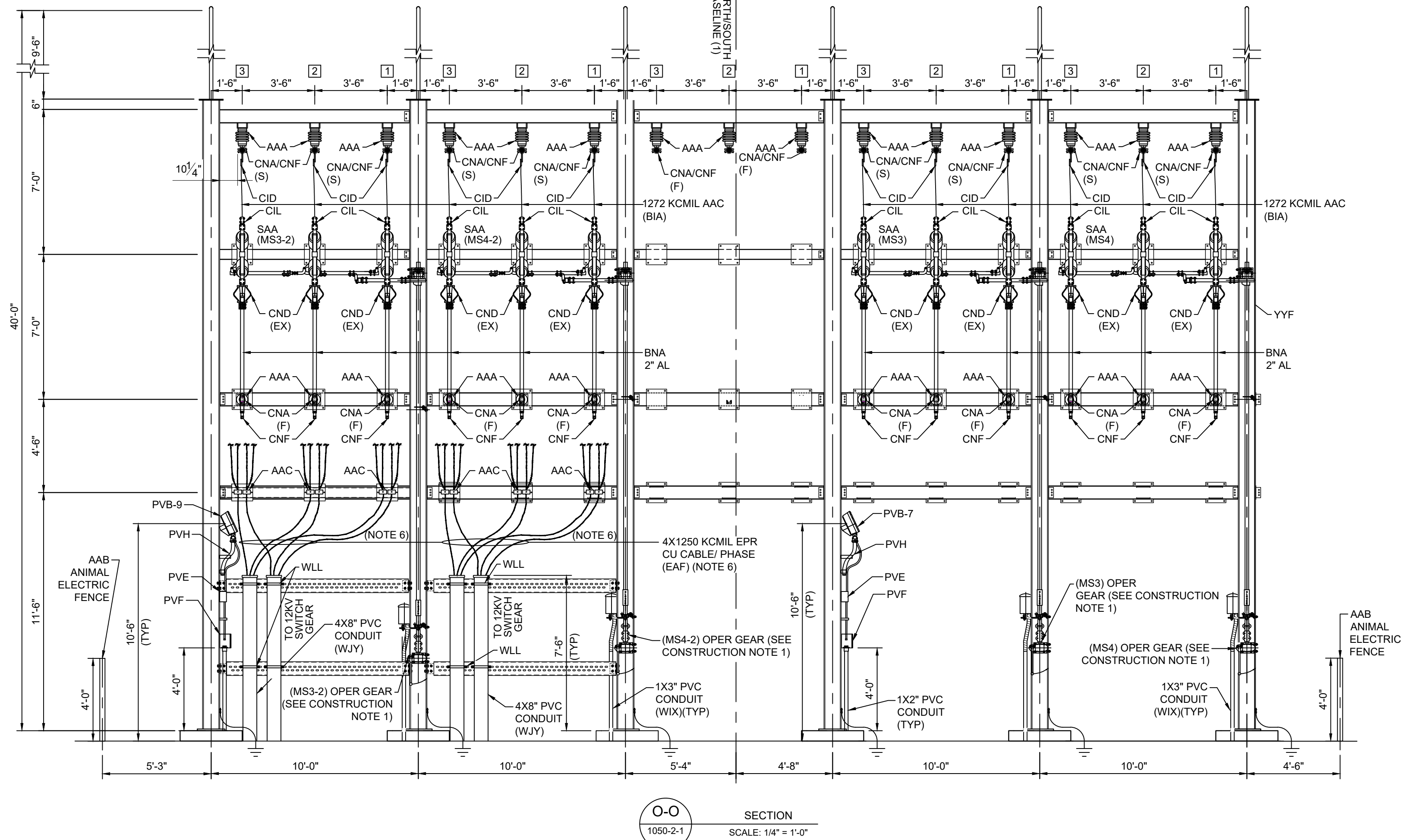
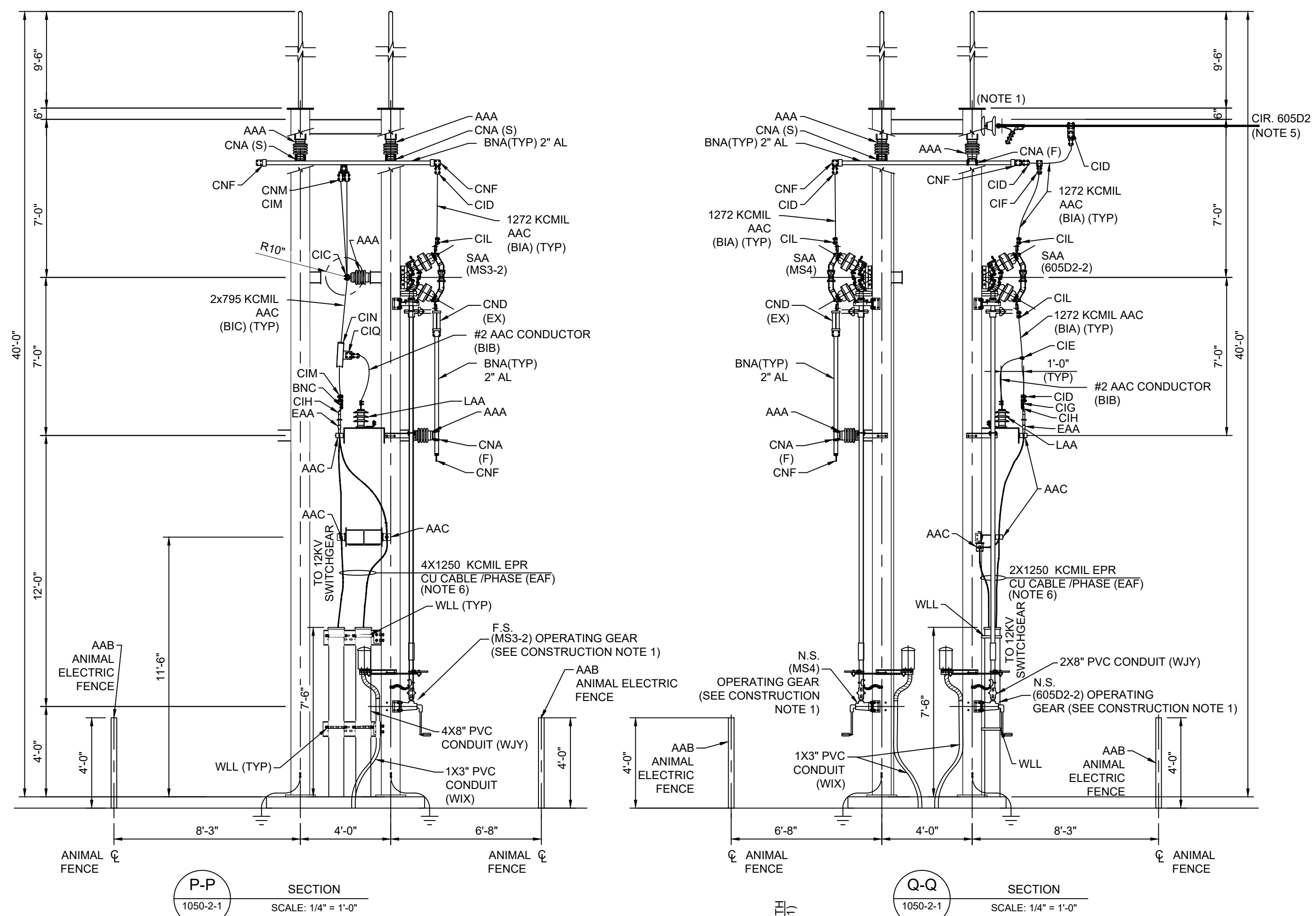
1050-0002-001	GENERAL ARRANGEMENT 34/512.47KV S/S
1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34/512.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34/512.47KV S/S
1050-0002-002 SH 1	GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH 2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & I-I
1050-0002-002 SH 3	GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M
1050-0002-002 SH 4	GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q
1050-0002-002 SH 6	GENERAL ARRANGEMENT SECTIONS H-H & W-W
1050-0002-002 SH 7	ANIMAL PROTECTIONS DETAILS
1050-0006-008	SITE LIGHTNING PROTECTION 34/512.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING DIAGRAM
1050-0012-002	ABOVE GRADE BILL OF MATERIAL

1. ATTACH THE HOGO ADAPTER TO THE INNER WEB OF THE STRUCTURE LEG AND ADJUST THE ROTARY ANGLE ACCORDINGLY TO ENSURE THERE'S NO INTERFERENCE FROM THE SWITCHES IN THE NEXT BAY.

[illegible]

GENERAL ARRANGEMENT			
SECTIONS R-R, S-S, T-T, U-U & V-V			
SH 5 OF 6			
BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY CK	TOM/MEC VSM/MEC	SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 005.dwg
APP JLM/MEC	DATE 02/25/2022	NO.	REV
		1050-0002-002 SH 005	0-0





RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
			METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC. SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
	MINIMUM	RECOMMENDED	MINIMUM	RECOMMENDED	RECOMMENDED	RECOMMENDED
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60

REFERENCE DRAWING:

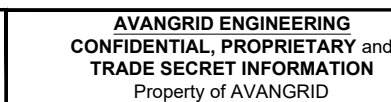
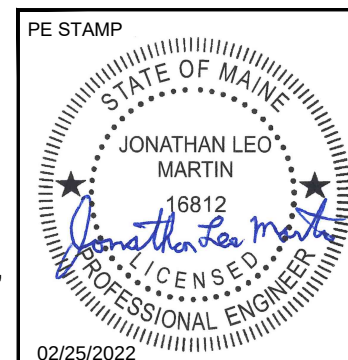
1050-0002-001	GENERAL ARRANGEMENT 34.5/12.47KV S/S
1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-002 SH 1	GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D
1050-0002-002 SH 2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H
1050-0002-002 SH 3	GEANGEMENT SECTIONS J-J, K-K, L-L & M-M
1050-0002-002 SH 5	GENERAL ARRANGEMENTGENERAL ARRINT SECTIONS R-R, S-S, T-T,U-U & V-V
1050-0002-002 SH 6	GENERAL ARRANGEMENTS DETAILS H-H & W-W
1050-0002-002 SH 7	ANIMAL PROTECTIONS DETAILS
1050-0006-008	SITE LIGHTNING PROTECTION 34.5/12.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING DIAGRAM
1050-0012-002	ABOVE GRADE BILL OF MATERIALS

NOTES:

1. TRANSMISSION HARDWARE SHALL BE PROVIDED BY TRANSMISSION GROUP.
2. WIRE CONDUCTOR ACCEPTABLE INSIDE DIAMETER BEND SHALL BE 10 TO 15 TIMES THE OUTSIDE DIAMETER IN ACCORDANCE WITH TM2.71.53.
3. LOCATIONS & SYMBOLS FOR BUS SUPPORTS & CONNECTION TYPES ARE SHOWN AND INDICATED AS:
 S - SLIP SUPPORT
 F - FIXED SUPPORT
 EX - EXPANSION SUPPORT
4. WOOD POLE HEIGHT IS 25 FEET (20'-6" ABOVE GROUND & 4'-6" BELOW GROUND).
5. TRANSMISSION CONDUCTOR IS IDENTIFIED.
6. THE MINIMUM BENDING RADIUS OF POWER CABLE IS 12 TIMES THE OVERALL DIAMETER OF CABLE IN ACCORDANCE WITH NEC ARTICLE 300.34"
7. N.S. = NEAR SIDE, F.S. = FAR SIDE

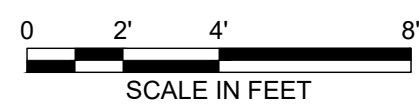
CONSTRUCTION NOTE:

1. ATTACH THE HOGO ADAPTER TO THE INNER WEB OF THE STRUCTURE LEG AND ADJUST THE ROTARY ANGLE ACCORDINGLY TO ENSURE THERE'S NO INTERFERENCE FROM THE SWITCHES IN THE NEXT BAY.



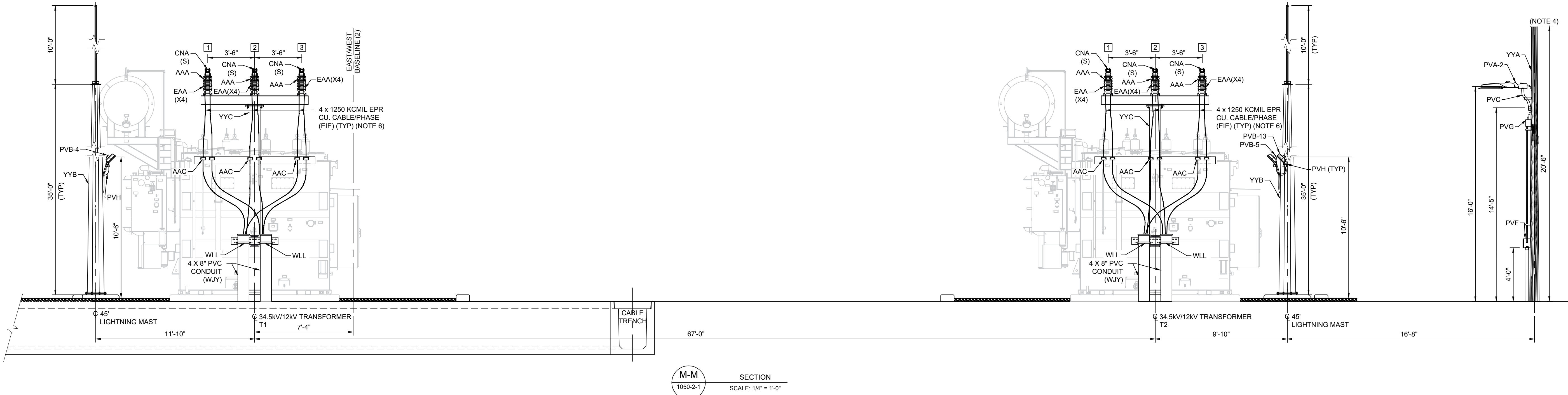
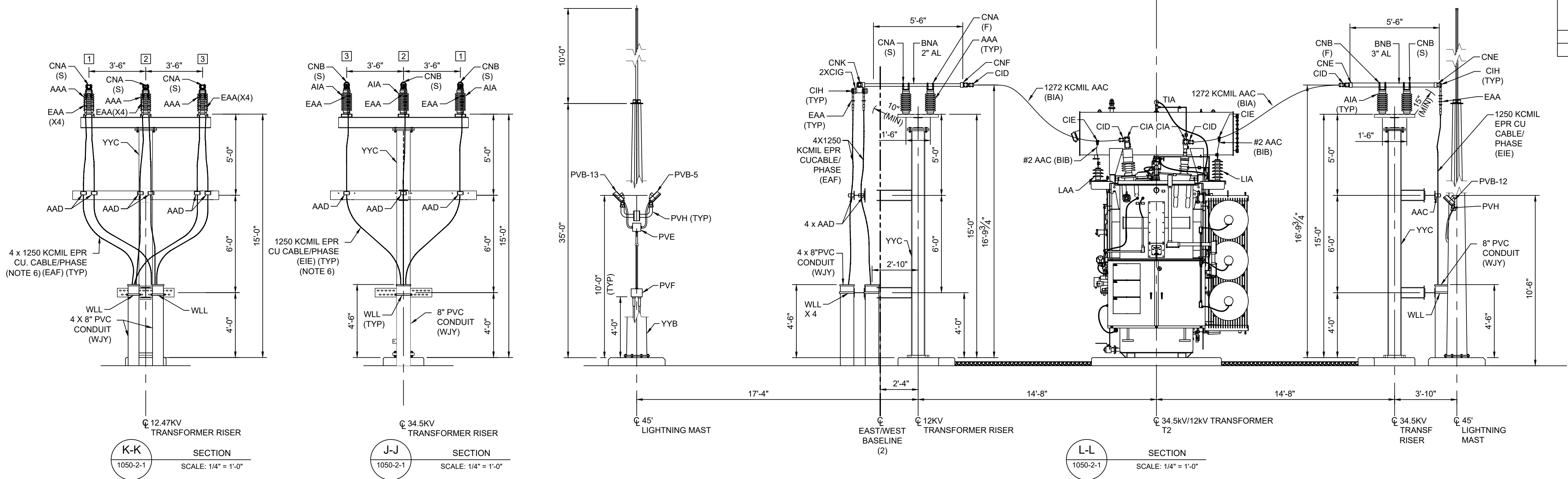
GENERAL ARRANGEMENT
SECTIONS N-N, O-O, P-P & Q-Q
SH 4 OF 6

						BIDDEFORD PUMP S/S				BIDDEFORD, ME	
						BY	TOKMLEC	SCALE:	1/4" = 1' 0"	FILE:	1050-0002-002 SH 004.dwg
						CK	VSMILEC	NO.			
						APP	JLMMLEC				REV
						DATE	02/25/2022	1050-0002-002 SH 004			0-0
REV.	DESCRIPTION	DATE	BY	CK	APP						



1. TRANSMISSION HARDWARE SHALL BE PROVIDED BY TRANSMISSION GROUP.
2. WIRE CONDUCTOR ACCEPTABLE INSIDE DIAMETER BEND SHALL BE 10 TO 15 TIMES THE OUTSIDE DIAMETER IN ACCORDANCE WITH TM2.71.53.
3. LOCATIONS & SYMBOLS FOR BUS SUPPORTS & CONNECTION TYPES ARE SHOWN AND INDICATED AS:
 - S - SLIP SUPPORT
 - F - FIXED SUPPORT
 - EX - EXPANSION SUPPORT
4. WOOD POLE HEIGHT IS 25 FEET (20'-6" ABOVE GROUND & 4'-6" BELOW GROUND).
5. TRANSMISSION CONDUCTOR IS INDICATIVE.
6. THE MINIMUM BENDING RADIUS OF POWER CABLE IS 12 TIMES THE OVERALL DIAMETER OF CABLE IN ACCORDANCE WITH NEC ARTICLE 300.34".
7. N.S. = NEAR SIDE, F.S. = FAR SIDE

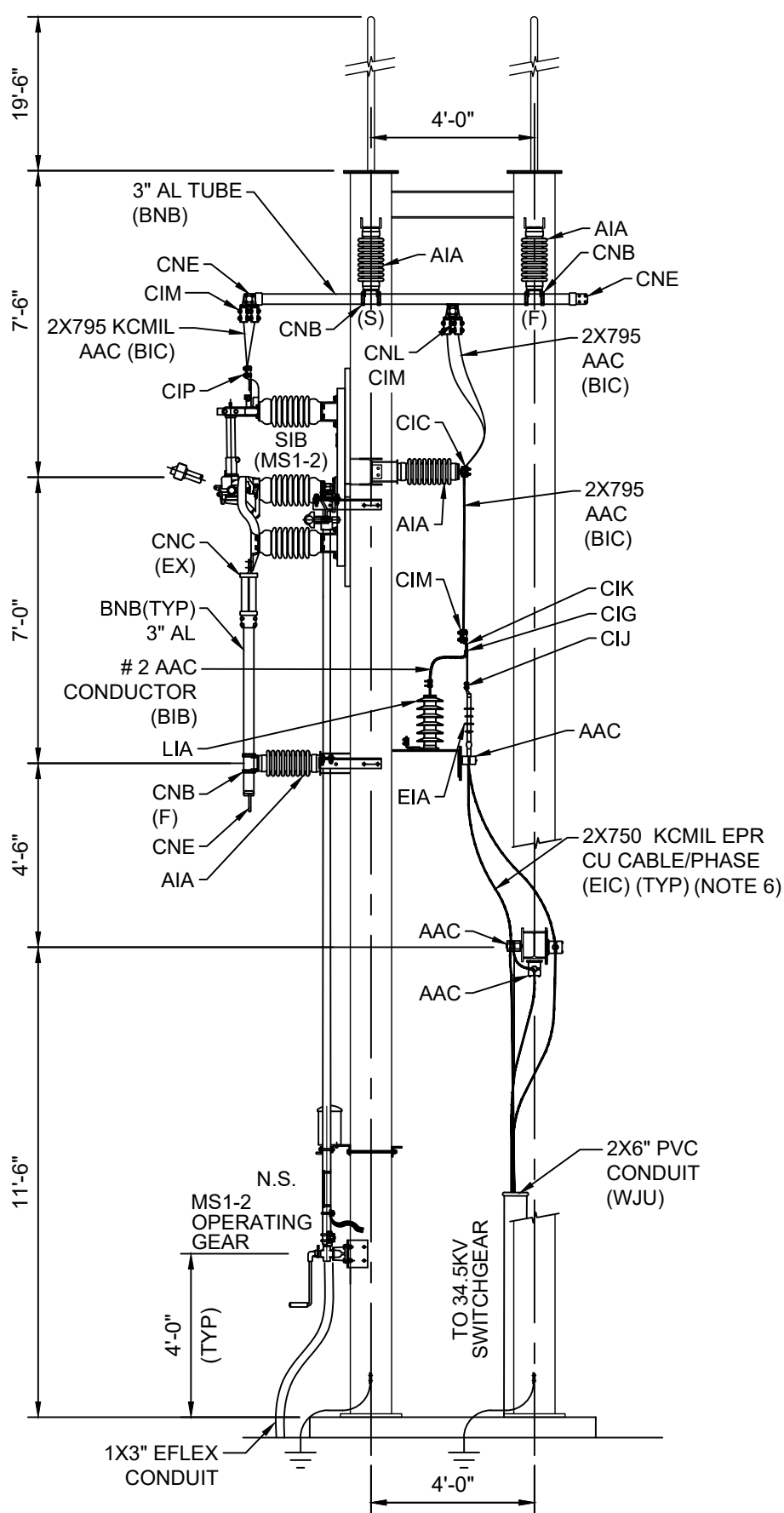
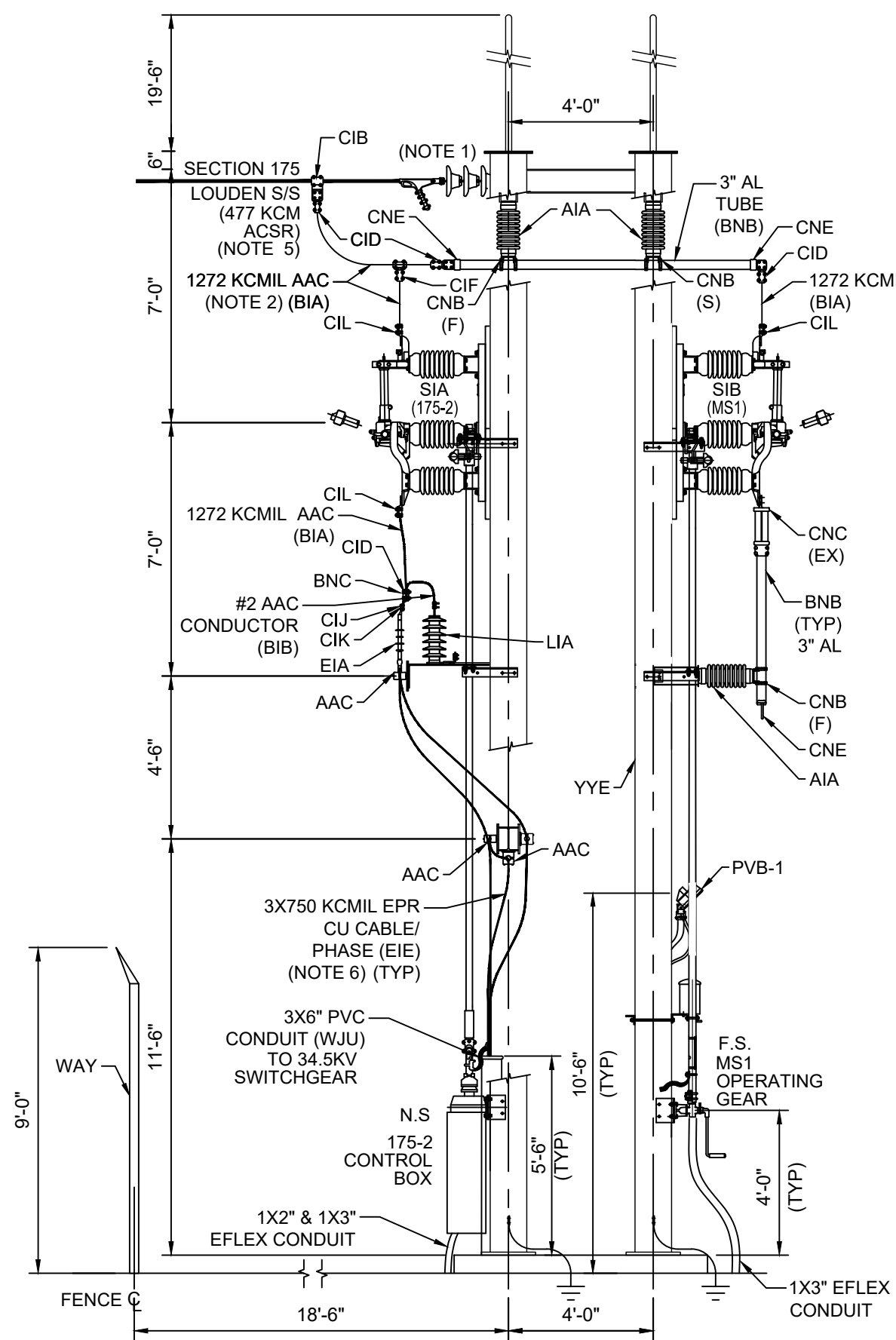
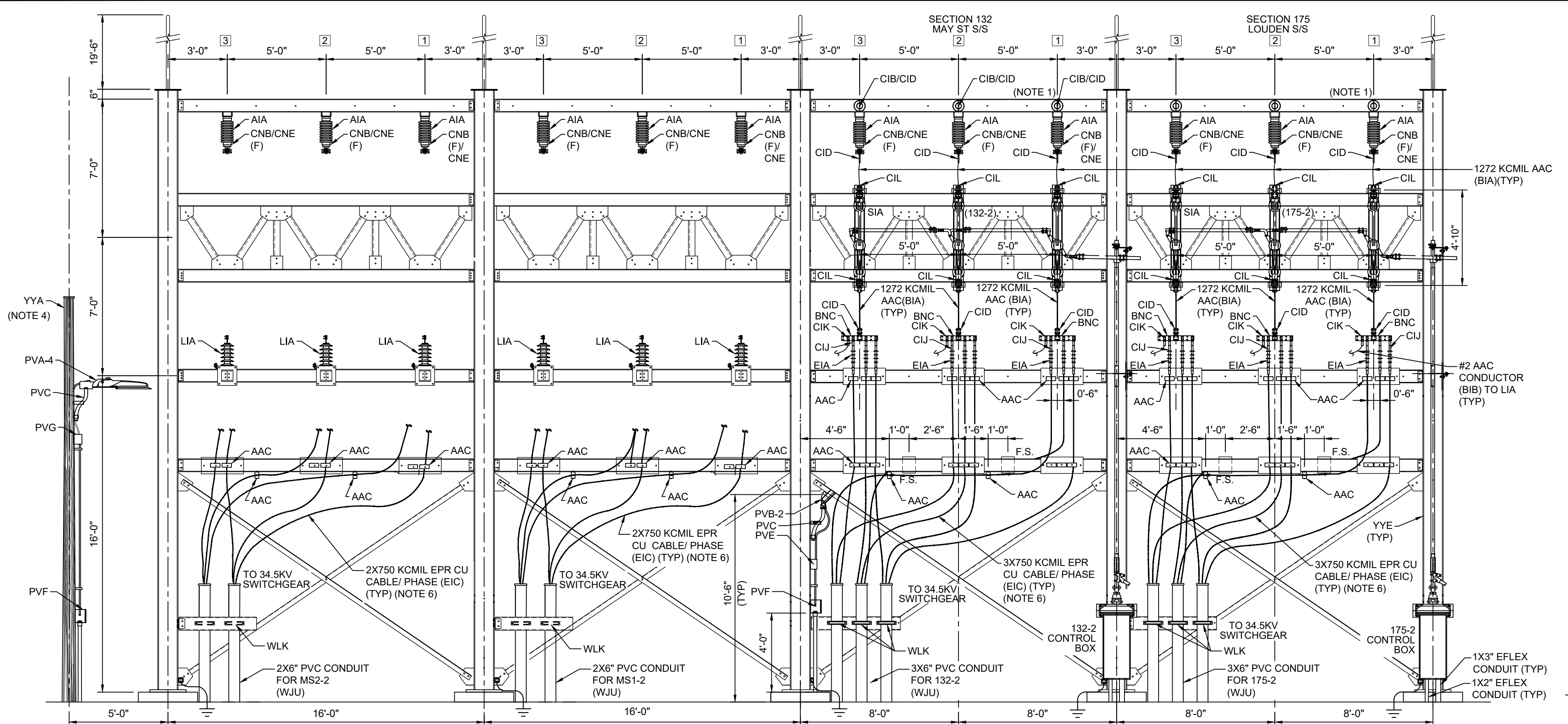
1050-0002-001	GENERAL ARRANGEMENT	34.5/12.47KV S/S
1050-0002-003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS	34.5/12.47KV S/S
1050-0002-003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS	34.5/12.47KV S/S
1050-0002-003 SH 3	GENERAL ARRANGEMENT ELECTRICAL DETAILS	34.5/12.47KV S/S
1050-0002-002 SH2	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H	
1050-0002-002 SH4	GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q	
1050-0002-002 SH5	GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V	
1050-0002-002 SH6	GENERAL ARRANGEMENT SECTIONS H-H & W-W	
1050-0002-002 SH7	ANIMAL PROTECTIONS DETAILS	
1050-0006-008	SLIT LIGHTNING PROTECTION	34.5/12.47KV
1050-0006-009 SH 1	YARD LIGHTING & SECURITY PLAN	
1050-0006-010	YARD LIGHTING & SECURITY DIAGRAM	
1050-0012-002	ABOVE GRADE BUILD OF MATERIALS	



PE STAMP	AVANGRID ENGINEERING CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION Property of AVANGRID		GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M SH 3 OF 6			
						
02/25/2022	REV	DESCRIPTION	DATE	BY	CK	APP

BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY	TOMMEC	SCALE: 1"4" = 1'-0"	FILE: 100K-0002-SH 003.dwg
	VSMILEC	NO.	
	NWP	LJMM SC	
DATE	02/25/2022		
		1050-0002-002 SH 003	REV 0-0

RECOMMENDED ELECTRICAL CLEARANCES						
TM2 T1.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
			METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC. SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
	MINIMUM	RECOMMENDED	MINIMUM	RECOMMENDED	RECOMMENDED	RECOMMENDED
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60



A-A SECTION
1050-2-1 SCALE: 1/4"=1'-0"

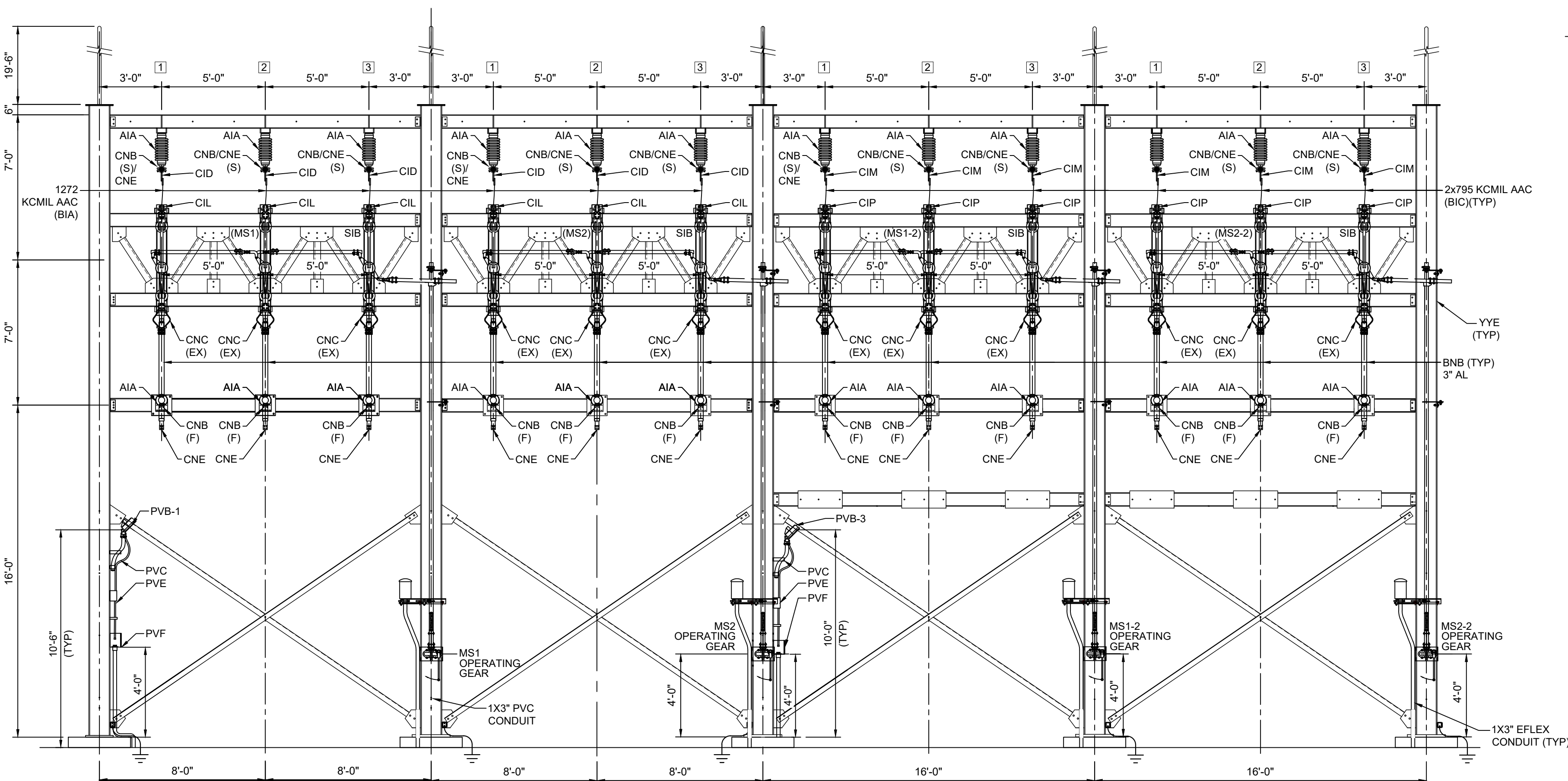
C-C SECTION
1050-2-1 SCALE: 1/4"=1'-0"

D-D SECTION
1050-2-1 SCALE: 1/4"=1'-0"

- NOTES:**
1. TRANSMISSION HARDWARE SHALL BE PROVIDED BY TRANSMISSION GROUP.
 2. THE TRANSDUCTOR ACCEPTABLE INSIDE DIAMETER BEND SHALL BE 10 TO 15 TIMES THE OUTSIDE DIAMETER IN ACCORDANCE WITH TM2.71.53.
 3. LOCATIONS & SYMBOLS FOR BUS SUPPORTS & CONNECTION TYPES ARE SHOWN AND INDICATED AS:
S - SLIP SUPPORT
F - FIXED SUPPORT
EX - EXPANSION SUPPORT
 4. WOOD POLE HEIGHT IS 25 FEET (20'-6" ABOVE GROUND & 4'-6" BELOW GROUND).
 5. TRANSMISSION CONDUCTOR IS INDICATIVE.
 6. THE MINIMUM BENDING RADIUS OF POWER CABLE IS 12 TIMES THE OVERALL DIAMETER OF CABLE IN ACCORDANCE WITH NEC ARTICLE 300.34"
 7. N.S. = NEAR SIDE, F.S. = FAR SIDE

REFERENCE DRAWING:

1050-0002-0001	GENERAL ARRANGEMENT 34.5/12.47KV S/S
1050-0002-0003 SH 1	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-0003 SH 2	GENERAL ARRANGEMENT ELECTRICAL DETAILS 34.5/12.47KV S/S
1050-0002-0002 SH 1	GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & I-I
1050-0002-0002 SH 3	GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M
1050-0002-0002 SH 4	GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q
1050-0002-0002 SH 5	GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V
1050-0002-0002 SH 6	GENERAL ARRANGEMENT SECTIONS H-H & W-W
1050-0006-0008	SITE LIGHTNING PROTECTION 34.5/12.47KV
1050-0006-0009 SH 1	YARD LIGHTING & SECURITY PLAN
1050-0006-010	YARD LIGHTING WIRING DIAGRAM

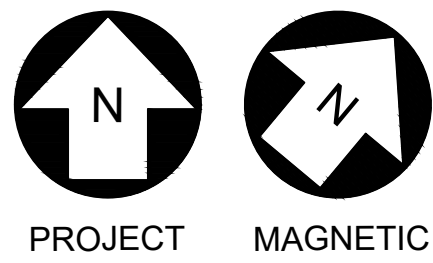


B-B SECTION
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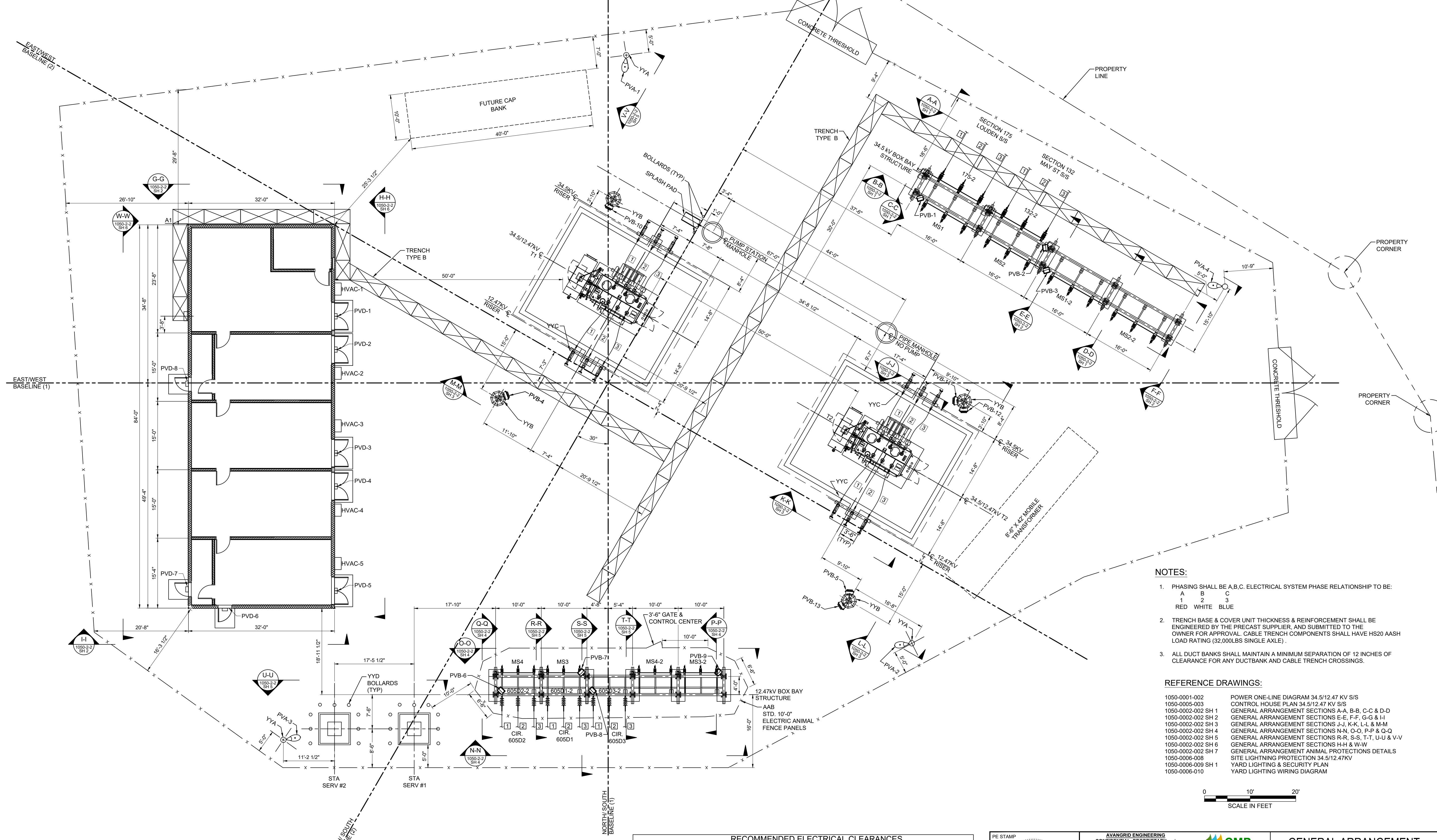


AVANGRID ENGINEERING CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION Property of AVANGRID								GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C, D-D SH 1 OF 6			
								BIDDEFORD PUMP S/S BIDDEFORD, ME			
						BY TK/MLEC		SCALE: 1/4" = 1'-0"	FILE: 1050-0002-002 SH 001.dwg		
						APP VSM/LEC		NO.			
						DATE 02/25/2022		1050-0002-002 SH 001		0-0	
REV	DESCRIPTION	DATE	BY	CK	APP						

REV	ISSUED FOR CONSTRUCTION	DATE	BY	CK	APP
0-0		02/25/2022	TDK/ILEC	YSM/ILEC	JUM/ILEC

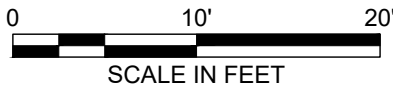


PROJECT MAGNETIC



- NOTES:**
- PHASING SHALL BE A,B,C. ELECTRICAL SYSTEM PHASE RELATIONSHIP TO BE:
A B C
1 2 3
RED WHITE BLUE
 - TRENCH BASE & COVER UNIT THICKNESS & REINFORCEMENT SHALL BE ENGINEERED BY THE PRECAST SUPPLIER, AND SUBMITTED TO THE OWNER FOR APPROVAL. CABLE TRENCH COMPONENTS SHALL HAVE HS20 AASH LOAD RATING (32,000LBS SINGLE AXLE).
 - ALL DUCT BANKS SHALL MAINTAIN A MINIMUM SEPARATION OF 12 INCHES OF CLEARANCE FOR ANY DUCTBANK AND CABLE TRENCH CROSSINGS.

- REFERENCE DRAWINGS:**
- | | |
|--------------------|---|
| 1050-0001-002 | POWER ONE-LINE DIAGRAM 34.5/12.47 KV S/S |
| 1050-0005-003 | CONTROL HOUSE PLAN 34.5/12.47 KV S/S |
| 1050-0002-002 SH 1 | GENERAL ARRANGEMENT SECTIONS A-A, B-B, C-C & D-D |
| 1050-0002-002 SH 2 | GENERAL ARRANGEMENT SECTIONS E-E, F-F, G-G & H-H |
| 1050-0002-002 SH 3 | GENERAL ARRANGEMENT SECTIONS J-J, K-K, L-L & M-M |
| 1050-0002-002 SH 4 | GENERAL ARRANGEMENT SECTIONS N-N, O-O, P-P & Q-Q |
| 1050-0002-002 SH 5 | GENERAL ARRANGEMENT SECTIONS R-R, S-S, T-T, U-U & V-V |
| 1050-0002-002 SH 6 | GENERAL ARRANGEMENT SECTIONS H-H & W-W |
| 1050-0002-002 SH 7 | GENERAL ARRANGEMENT ANIMAL PROTECTIONS DETAILS |
| 1050-0006-008 | SITE LIGHTNING PROTECTION 34.5/12.47KV |
| 1050-0006-009 SH 1 | YARD LIGHTING & SECURITY PLAN |
| 1050-0006-010 | YARD LIGHTING WIRING DIAGRAM |

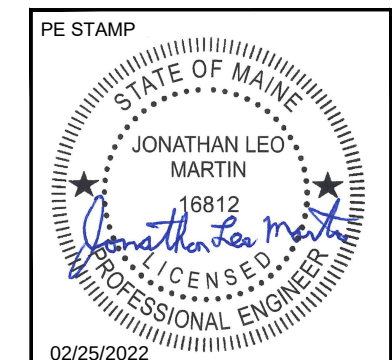


LEGEND:

ROAD CROSSING - HS20 (32,000LBS/AXLE)

TRENCH & COVER (SEE NOTE 3)

RECOMMENDED ELECTRICAL CLEARANCES						
TM2.71.54 SUBSTATION ELECTRICAL CLEARANCES (11-2012)						
VOLT (KV)	PHASE TO GROUND (IN.)		PHASE TO PHASE (IN.)			
	MINIMUM	RECOMMENDED	METAL TO METAL	BUS SUPPORT VERTICAL BREAK DISC SWITCH	HORIZONTAL BREAK DISC SWITCH	HORNGAP DISC SWITCH
	7	10	12	24-42	30	36
15.5	7	10	12	24-42	30	36
34.5	13	15	18	36-60	48	60



AVANGRID ENGINEERING					
CONFIDENTIAL, PROPRIETARY and TRADE SECRET INFORMATION					
Property of AVANGRID					
REV	DESCRIPTION	DATE	BY	CK	APP

GENERAL ARRANGEMENT			
34.5/12.47 KV S/S			
BIDDEFORD PUMP S/S		BIDDEFORD, ME	
BY	TOKMLEC	SCALE: 1"=10'-0"	FILE: 1050-0002-001.dwg
CK	VSIMLEC	NO.	REV
APP	VSIMLEC		
DATE	02/25/2022	1050-0002-001	0-0

REV	DESCRIPTION	DATE	BY	CK	APP
0-0	ISSUED FOR CONSTRUCTION	02/25/2022	TOKMLEC	VSIMLEC	VSIMLEC

LOGO

MAINLINE ENERGY CONSULTANTS LLC
194 S. BROAD STREET, LANCASTER, PA 17602
717-555-7477

ANSI D 10/23/2017 9:05 AM