

City of Biddeford
Planning Board
February 15, 2023 6:00 PM City Hall
Council Chambers, & Zoom
<https://biddeford.zoom.us/j/95069295723?pwd=Sy8rcnA0UWw5WG1Qald0cWJtOU94UT09>
Webinar ID 950 6929 5723; Passcode #099755

STATUS: Planning Board Meeting, February 15, 2023; 6:00PM, Council Chambers & Zoom

1. PLEDGE OF ALLEGIANCE

2. DECLARATION OF QUORUM/VOTING MEMBERS

3. ADJUSTMENTS TO THE AGENDA

4. PLANNER'S BUSINESS

- 4.A. 2023.01-Fabish Staff Review Commission-50 Adams Street

[Fabish-NOD.pdf](#)

- 4.B. 2021.17 Adams Point-1 Year Extension

[Adams Point Signed 1 Year Site Plan Extension DCMG 1-26-2023.pdf](#)

5. CONSENT AGENDA

- 5.A. Approval of Meeting Minutes from January 18, 2023, January 25, 2023 & February 1, 2023

[PB Minutes 11823-DRAFT.pdf](#)

[PB Minutes 12523-DRAFT.pdf](#)

[PB Minutes 2123-DRAFT.pdf](#)

6. OTHER BUSINESS

- 6.A. WORKSHOP ITEM-Comprehensive Plan-Presentation by Eric Freeman, Assistant Planner-2 Chapters Followed by Informational Seeking Session on the Agriculture & Forestry Chapter

a) Fiscal Capacity & CIP

b) Public Facilities

It is not anticipated that public input will be accepted during this workshop item.

[COMP PLAN PB Memo_Revised_02.09.2023.pdf](#)

[11_PUBLIC FACILITIES_FEB 2023 Comprehensive Plan Draft.pdf](#)

[16_FISCAL_CAPACITY_CIP_FEB 2023 Comprehensive Plan Draft.pdf](#)

7. UNFINISHED BUSINESS

8. NEW BUSINESS

- 8.A. 2023.08 Public Hearing to discuss and hear public comments regarding a Preliminary Site Plan request from Bill Thompson at BH2M for Fitts Holding, LLC (Shamrock Campground). The property is located at 391 West Street (Tax Map 4, Lot 15-6) in the RF Zone. The applicants would like to expand the Campground to 18 Full Services Sites.

[2023.08 Fitts Holdings - Shamrock Campground expansion SKETCH PLAN.pdf](#)
[Shamrock Expansion 1-10-23.pdf](#)

- 8.B. 2022.02 Public hearing and hear comments for a Final Subdivision Application for Peter Heil of Acorn Engineering, representing 3 Lincoln, LLC. The property is located on Pearl Street (Tax Map 71, Lot 2) in the MSRD 3 and Shoreland Zones. The proposed project is to create 3 buildings on the lot, 1 83-unit mixed, residential and commercial, a 108-unit residential structure and 1 commercial structure with 2 restaurants.

[2022.02 3 Lincoln Street FINAL Application Staff Report DCMG.pdf](#)

[2022.02 3 Lincoln Street FINAL FOF and COA.pdf](#)

[Saucier 2-9-23.pdf](#)

[Section 24 Sunlight.pdf](#)

[Section 25 Notices.pdf](#)

[Section 26 Maine Tribe & Nations Correspondence.pdf](#)

[Section 27 Declaration of Easements, Covenants, and Restrictions.pdf](#)

[Section 0 Title Page.pdf](#)

[Section 28 Traffic Overview.pdf](#)

[Section 0.0 Table of Contents.pdf](#)

[Section 28.1 Parking Management Plan.pdf](#)

[Section 0.1 Application.pdf](#)

[Section 29 Utility Cover.pdf](#)

[Section 0.2 Application.pdf](#)

[Section 30 Public Safety Letter of Approval Requests.pdf](#)

[Section 1 Development Description.pdf](#)

[Section 31 Lighting.pdf](#)

[Section 2 Right Title Interest.pdf](#)

[Section 32 Photographs.pdf](#)

[Section 2.5 Legal Descriptions.pdf](#)

[Section 33 Waivers.pdf](#)

[Section 3 Financial Capacity.pdf](#)

[Section 34 Comment Response Letter.pdf](#)

[Section 4 Technical Capacity.pdf](#)

[Section 5 Noise.pdf](#)

[Section 6 Visual quality and scenic character.pdf](#)

[Section 7 Wildlife & Fisheries.pdf](#)

[Section 8 Historic Sites.pdf](#)

[Section 9 Unusual Natural Areas.pdf](#)

[Section 10 Buffers.pdf](#)

[Section 11 Soils.pdf](#)

[Section 12. Stormwater Management Report.pdf](#)

[Section 13 Urban impaired stream submissions.pdf](#)

[Section 14 Erosion & Sedimentation Control Report.pdf](#)

[Section 15 Groundwater.pdf](#)

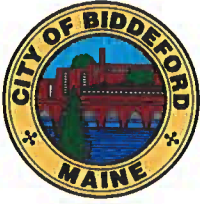
[Section 16 Water Supply.pdf](#)

[Section 17 Wastewater Disposal.pdf](#)

[Section 18 Solid Waste.pdf](#)
[Section 19 Flooding.pdf](#)
[Section 20 Blasting.pdf](#)
[Section 21 Air emissions.pdf](#)
[Section 22 Odors.pdf](#)
[Section 23 Water vapor.pdf](#)
[Section 24 Sunlight.pdf](#)
[Section 25 Notices.pdf](#)
[Section 26 Maine Tribe & Nations Correspondence.pdf](#)
[Section 27 Declaration of Easements, Covenants, and Restrictions.pdf](#)
[Section 28 Traffic Overview.pdf](#)
[Section 28.1 Parking Management Plan.pdf](#)
[Section 29 Utility Cover.pdf](#)
[Section 30 Public Safety Letter of Approval Requests.pdf](#)
[Section 31 Lighting.pdf](#)
[Section 32 Photographs.pdf](#)
[Section 33 Waivers.pdf](#)
[Section 34 Comment Response Letter.pdf](#)
[Civil Plan Set 1-6-23.pdf](#)
[LA Concept Character Studies.pdf](#)
[LA Pearl Street Lot 3 Redevelopment.pdf](#)
[Architectural Building 3A.pdf](#)
[Architectural Building 3B.pdf](#)
[Architectural Building 3C.pdf](#)
[MPDA 11-17-20.pdf](#)

9. 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

205 Main Street
P.O. Box 586
Biddeford, ME 04005

NOTICE OF DECISION

December 29, 2022

Alexander Fabish
PO Box 47
Biddeford, ME 04005-0047

Sent via E-mail to: newhavenraven@gmail.com

RE: 2023.01 Public Staff Review Committee Meeting to review and take comments regarding a Subdivision Amendment to convert some commercial space into 3 residential apartments for Alex Fabish. The address of the property is 50 Adams Street (Tax Map 38, Lot 291) in the MSRD 1 Zone.

Dear Alex,

At their meeting of December 28, 2022, the Biddeford Staff Review Committee reviewed your application to create 3 residential apartments from commercial space at 50 Adams Street in the MSRD-1 Zone. Legion, LLC owns the property and you presented the application proposal to the Staff Review Committee.

The Staff Review elected to review this project pursuant to *MRS Title 30-A, §4402. Exceptions* under Site Plan Review rather than Subdivision Review. Based on the presentation and the materials submitted, the Staff Review Committee waived Full Site Plan Review, and approved the the Site Plan and Findings of Fact conditioned on the following:

- 1. Historic Preservation Commission approval is required for any building exterior alterations or signage.**
- 2. An updated parking lot plan, showing the parking lot striping and indicating the number of parking spaces are on the property, shall be submitted for Planning Department review and approval, prior to any interior building permits are issued. The lot shall be striped in accordance with the approved plans.**
- 3. A sewer permit is required prior to any permit issuance. Sewer impact fee will be assessed once final flow numbers are provided to the Engineering Director.**
- 4. If any roof drains are connected to the sewer system they must be disconnected as part of this approval.**

5. The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance such as blasting, building, electrical, plumbing, etc., prior to commencing business, unless authority issuing said permit allows for such actions.
6. Standard Conditions of Approval apply.
7. Prior to the issuance of an Occupancy Permit the applicant shall present a plan for waste management to the Planning Department for review and approval.

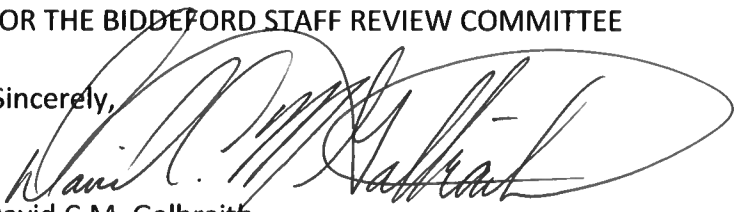
The Staff Review Committee approval shall be valid for one (1) year from the date of said approval. If a building permit has not been issued within one (1) year, then said approval shall become automatically null and void.

Appeals of the Staff Review Committee's decision may be made as per the Biddeford Revised Code of Ordinances.

Please contact us at 284-9115 if you have any questions.

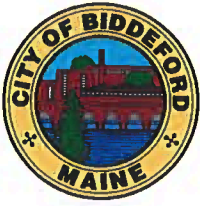
FOR THE BIDDEFORD STAFF REVIEW COMMITTEE

Sincerely,



David C.M. Galbraith
Interim City Planner

Cc: R. Fecteau, Code Enforcement Officer (via e-mail)
C. Chekan, Engineer (via e-mail)
G. Mitchell, Planning and Development Director (via e-mail)
E. Freeman, Assistant City Planner (via e-mail)
File



CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005

Standard Conditions of Approval

Owner/Applicant: Alex Fabish
PO Box 47
Biddeford, ME 04005-0047

Project Description: Convert Commercial Space into 3 Residential Apartments

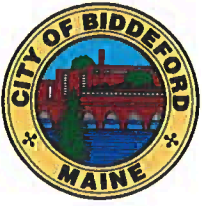
Project Location: 50 Adams Street

Tax Map / Lot Number: Tax Map 38, Lot 281

Project ID: 2023.01

1. The material provided for the proposed project has been reviewed only for general conformance to the City technical requirements. The applicant(s) and/or their technical consultant shall be responsible for the actual design details and completeness of their work. It is incumbent upon the applicant(s) to ensure that the project is in conformance and complies with all City Codes, ordinances and regulations as well as with all state regulations, including, but not limited to, space and bulk standards, performance standards, use standards and other zoning type requirements.
2. All work shall be in conformance with the approved plans and submission documents. No deviations from the approved plans are permitted without prior approval from the Planning Board for major changes, and from the City Planner and City Engineer for minor changes. The City Planner shall make the determination of major or minor.
3. Contact the Department of Public Works for driveway location permits, curb cut permits and/or street opening permits prior to the start of construction.
4. If Site Development is required as part of the project, an as-built plan must be provided to the City of Biddeford Engineering Office at the end of the project digitally, in a format that can be read by the City of Biddeford's Geographic Information System software.
5. The applicant shall incorporate appropriate erosion control measures into this project to reduce erosion affects from the work. All disturbed areas must be re-vegetated and/or otherwise stabilized at the appropriate stage of the work per Maine DEP standards in the Best Management Practice (BMP) manual.

6. That the Article VI Performance Standards requirements regarding Dust, Fumes, Vapors & Gases (sect 25), Explosive Materials (sect 28), Glare (sect 37), Noise (sect 48) be followed.
7. The applicant is required to comply with all applicable requirements of Chapter 70 (Utilities) and Chapter 71 (Utilities/Industrial Pretreatment Program).
8. If Site Development is required as part of the project, at the completion of the project the owner/applicant shall request a final inspection. This request shall be directed to the Planning Office. Performance Guarantees and remaining escrow accounts shall not be released until the Planning Office certifies that the project has been completed and is in compliance with the approval and all applicable City Ordinances.



CITY OF BIDDEFORD

Planning and Development Department

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

January 26, 2023

Mr. Guy M. Gagnon
President of the General Partner
Adams Point
22 South Street
Biddeford, Maine 04005
Sent Via Email and regular mail

RE: 2021.04 Final Subdivision and Site Plan Approval and the creation of a new Contract Zone for 69 Adam's Street (Tax Map 38, Lot 296) for 39 residential units.

Dear Mr. Gagnon,

I am writing in regards to your letter to Matt Grooms, the City's former Deputy Director/City Planner, dated September 1, 2022 where you had requested a one (1) year extension to the Planning Board's Site Plan approval for the above referenced case. Upon the receipt of your extension request Mr. Grooms agreed to the extension but had failed to provide you the requested extension approval letter.

The Conditions of Approval (COA) contained the following statement:

"Following the date of final approval, the site plan approval is valid for one year one year. If a building permit/occupancy permit has not been issued, then said approval shall become automatically null and void".

As provided in your letter to Mr. Grooms, the reason for your extension request was due to the "Low Income Housing Tax Credits often take additional time to obtain financing and complete the lengthy construction plan design process".

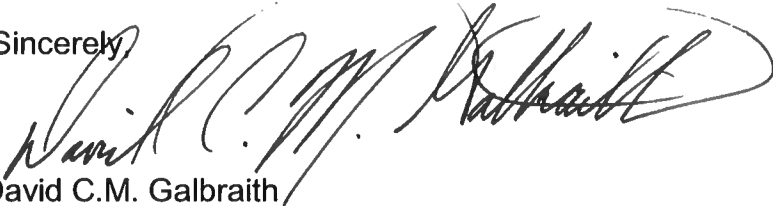
I have reviewed your request, and find it acceptable, and grant the one (1) year project extension, from date of the approved / signed Notice of Decision, dated September 30, 2021. All Findings of Fact (FOF) and Conditions of Approval (COA) as approved by the Planning Board are hereby, reaffirmed. As required, I will inform the Planning Board of this approved extension at the next Planning Board meeting.

I was pleased to hear that the project secured the necessary Maine Housing financing in May (2021) and your anticipated construction start date in late winter 2023.

**2021.04 Final Subdivision and Site Plan Approval and the creation of a new Contract Zone for 69 Adam's Street (Tax Map 38, Lot 296) for 39 residential units.
January 26, 2023**

If you have any questions / issues regarding the project, please feel free to contact me directly at call at 284-9115, Ext. 4164.

Sincerely,

A handwritten signature in black ink, appearing to read "David C.M. Galbraith", written over a horizontal line.

David C.M. Galbraith
Interim Deputy Director/City Planner

Electronic Copies:

Mr. Brooks More
Director of Development
South Portland Housing Dev. Corp.
100 Waterman Dr., Suite 101
South Portland, ME 04106

Biddeford Planning Board
Roby Fecteau, Director of Code Enforcement
Project File



CITY OF BIDDEFORD

Planning and Development Department

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

Planning Board Meeting Minutes

DRAFT

Date: January 18, 2023
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Chair Patoine first introduced the newest member to the Planning Board, Stephen Beaudette who is an Associate Member at this time.
Quorum Present: Larry Patoine (Chair), Roch Angers, Sean Tarpey, Alexa Plotkin, Michael Cantara, Susan Deschambault (Associate Member), Stephen Beaudette (Associate Member)
Staff Present: Greg Mitchell & Nan Whitten
Interim Planner: David Galbraith
Chair Patoine opened the meeting at 6:00 PM
3. Adjustments to the Agenda
4. Planner's Business
5. Consent Agenda
 - 5 A. Approval of Meeting Minutes from December 7, 2022 & December 14, 2022
MOTIONS: 6:01 PM
Cantara-Motion- To approve the Consent Agenda as presented.
Angers-Second
Motion Passed unanimously (Angers, Tarpey, Plotkin, & Cantara)
- 6 Old Business
- 7 New Business
 7. A. 2023.02 Public Meeting and take comments regarding a Conditional Use Permit Application at 412 Hill Street (Tax Map 13, Lot 53) in the I-1 & I-2 Zones for Maine Plant Based Compassionate Care LLC. The proposed use of the property in to cultivate cannabis at this site.
 - Hannah King of Dentons represented the applicant
 - This business will be adult cultivation, which will be the same use but a new owner.
 - This company owns shops in RI, MA, CT & Portland
 - No comments from the public
 - The Board asked about changes to the exterior, the applicant said that there would be none.
 - This is the first adult cultivation for this business in Maine.

- The Board asked about the approvals/comments by Code, Police, Fire & Public Works-all documented.
- The new owners are upgrading the odor mitigation system and the flower rooms will be sealed.
- The Board talked about their concerns for the neighbors. There have been issues in the past and they want to make sure no issues arise from this new business.
- The HVAC has been upgraded, sealing off rooms; staff training and Best Practices are being instituted.
- The Board discussed going through the facility once it is up and running so that we can see this type of business from the inside.

MOTIONS: 6:20 PM

Cantara-Motion- Motion to waive Article XI, Full Site Plan Review

Patoine-Second

Motion passed unanimously (Angers, Tarpey, Plotkin & Cantara)

Cantara-Motion- to approve the Conditional Use Permit for ME Plant

Compassionate Care LLC's for a Marijuana Cultivation Facility at 412 Hill Street (Tax Map 13, Lot 53).

Angers-Second

Motion passed unanimously (Angers, Tarpey, Plotkin & Cantara)

- 7. B 2022.24 Public Hearing and take public comments regarding Final Subdivision approval & Contract Zone for Devine Capital LLC. The project is to construct 216 residential units at 588 & 590 Alfred Street (Tax Map 2, Lots 6 & 12).**

- Rick Meek from Terradyne & John & Ben Devine spoke on behalf of the applicants.
- No public comments
- The Board asked exactly where the 6 acres that will be in the conservation easement are located.
- There were questions about the JDA and vernal pool report (specifically the period of when it was conducted).
- The Board mentioned that the JDA "tied the hands of the Planning Board."
- The Board asked the applicant about their intention toward the staff comments. Answer-they are agreeable to them and will be done.
- Sidewalks and crosswalks were discussed at length. The applicant said that portion is one more piece to the puzzle. Public Works does not want a crosswalk at this time but the applicant is working with them about these issues.
- The Board asked for an update with the MTA project. The applicants applied for an MDOT permit. MTA will not be ready until 2028 to start their project. Whether MTA project goes or not, the applicant has made adjustments for them and his project will go.

MOTIONS: 6:56 PM

Cantara-Motion- to Approve the Final Major Subdivision and Site Plan review for a proposed 216-unit multifamily housing development at 588

and 590 Alfred Street (Tax Map 2, Lots 6 and 12) named Biddeford Residential (AKA Devine Capital), adoption of the wetlands / conservation easement, draft Contract Zone (Final Council Adoption required) and the recommended Findings of Fact (FOF) and recommended Conditions of Approval (COA), with the additional Planning Board conditions.

Plotkin-Second

Motion Passed 3-1 (Tarpey, Plotkin & Cantara in favor, Angers against).

- 7C. 2022.11 Public Meeting and take comments to review a Final Subdivision for Tom Watson & Co. The property is located at 10, 20 & 30 Upper Falls Road formerly known as Gooch Street (Tax Map 40, Lots 55, 55-3, & 56-1) in the MSRD-3 Zone and in the Shoreland Zone GD-1. The applicants propose to construct a 6-story building containing 55 residential units with a restaurant space on 10 Upper Falls Road, a 5-story, 16-unit residential building on 20 Upper Falls Road, 11 townhome units on 26 Upper Falls Road, and a partial demolition and redevelopment of the existing building located at 30 Upper Falls Road to accommodate a commercial use (potentially a brewery/taproom/restaurant). The project will include associated parking and landscaped areas.

- Representing the applicants:
- John Laliberte & Mike Barton from Bush Watson
- Peter Heil-Acorn Engineering
- Ryan Senatore-Senatore Architecture
- Brayden DryPolcher from Mitchel & Associates
- The applicant is planning on building 56 units
- There were no comments from the public
- The Board wanted to know the purpose of a covered parking area; the Board is not really a fan of this portion of the building.
- There will be elevators in buildings # 10 & 20 Upper Falls Way.
- The applicants are in the process of getting their approval from the Historic Preservation Commission.

MOTIONS: 7:36PM

Cantara-Motion-To waive the off-street parking requirements as detailed in the Staff Report dated 1-14-23 and the open space requirement as required by the City's Site Plan Ordinance.

Angers-Second

Motion passed unanimously 4-0 (Angers, Tarpey, Plotkin & Cantara)

Cantara-Motion- To approve the Final Subdivision and Site Plan approval for the proposal located at 10, 20, 26 & 30 Upper Falls Road (Tax Map 40, Lots 55, 55-3, and 56-1), within the Main Street Revitalization District 3 (MSRD-3) zoning district, as presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA).

Angers-Second

Motion passed unanimously 4-0 (Angers, Tarpey, Plotkin & Cantara)

7. D. 2022.37 Public Meeting and take comments to review a Preliminary Plan Request for Plan East, LLC to create a 3-story apartment building with 14

affordable rental-housing units in the MSRD 3 Zone at 69 Elm Street (Tax Map 40, Lot 57).

- Representing the applicant was Dan Bacon, Jayson Haskell, Chris Delano & Peter Lavoie
- This project will not be affordable housing but workforce housing.
- The applicant told the Board that this project would bring impervious surface to 17%.
- There is no open space but there will be a roof top deck.
- The parking will be in the Pearl Street garage, which is a two minute, forty-five second walk.
- The front has been reworked to add sidewalks.
- They will not be requesting any waivers from the Saco River Corridor Commission.
- The ingress and egress were discussed as well as the amount of traffic.
- There will be lighting added to the bottom of the railroad trestle.
- The Board was concerned about snow storage and removal, no storage areas or elevators for tenants.
- The first floor is ADA accessible.

MOTIONS: 8:11PM

Cantara-Motion- To Approve the Preliminary Major Subdivision and Site Plan review for a proposed 14-Unit Multifamily housing complex to be located at 69 Elm Street (Tax Map 40, Lot 57) within the Main Street Revitalization District 3 (MSRD-3) zoning district.

Angers-Second

Motion passed unanimously 4-0 (Angers, Tarpey, Plotkin & Cantara)

8 Other Business

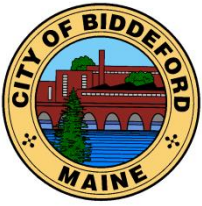
9 Adjourn

Meeting adjourned at 8:14 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

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

Planning Board Meeting Minutes

DRAFT

Date: January 25, 2023
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Quorum Present: Larry Patoine (Chair), Roch Angers, Sean Tarpey, Alexa Plotkin, & Susan Deschambault (Associate Member)
Ms. Deschambault will be voting due to the absence of Mr. Cantara
Staff Present: Greg Mitchell & Nan Whitten
Interim Planner: David Galbraith
Chair Patoine opened the meeting at 6:00 PM
3. Adjustments to the Agenda
4. Planner's Business
5. Unfinished Business
6. New Business
 6. A. 2023.03 Public Meeting and hear comments for a Conditional Use Permit
Application for My Place Teen Center at 75 Bacon Street. The proposal is to turn the old church known as St, Andres into a full-time teen community center for ages 10-18. The location is Tax Map 39, Lot 130 in the MSRD-2 Zone.
 - Jim Godbout represented the applicant.
 - Mr. Godbout stressed the need of a facility like this especially in Biddeford.
 - This is a center where teens get a different level of care. It is not just for "at-risk" youth but there certainly are many at-risk youth in Biddeford and they are welcome at the MPTC.
 - This center feeds the patrons, provide social services, they bring chefs in to teach some of the kids to cook & clean.
 - Guy Gagnon of Biddeford Housing Authority said BHA owns the entire complex and call the area Mission Hill.
 - BHA got a grant from ARPA money and added bathrooms and a commercial kitchen and donated the structure to this project.
 - The lower level of the building is in flux.
 - They do have their own parking lot on Sullivan Street.
 - All activity for the teen center is inside the building.

MOTIONS: 6:13PM

Plotkin-Motion- to waive Article XI, Full Site Plan Review to not require full site

plan review for Case # 2023.03 a Conditional Use Permit (CUP) for My Place Teen Center (MPTC) to be located at 75 Bacon Street (Tax Map 39, Lot 130).

Angers-Second

Motion passed unanimously (Angers, Tarpey, Plotkin & Deschambault)

Plotkin-Motion-To APPROVE a Conditional Use Permit (CUP) for My Place Teen Center (MPTC) to convert the first floor of the former St. Andres Church into a Teen Center to be located at 75 Bacon Street (Tax Map 39, Lot 130) and approve the re-development project plans as presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA).

Angers-Second

Motion passed unanimously (Angers, Tarpey, Plotkin & Deschambault)

6. B. 2023.04 Public Meeting and hear comments regarding a (Shoreland Zoning) Greatest Practical Extent application for Matthew Lopresti Trustee of the Matthew Lopresti 2017 Declaration of Trust & Mary Lopresti, Trustee of the Mary Lopresti 2017 Declaration of Trust. The property is located at 100 Mile Stretch Road (Tax Map 61, Lot 3) in the Coastal Residential, Shoreland (Limited Residential) Zone. The proposal is to remove and reconstruct a non-conforming structure to meet the shoreline setback.

- Mike Morse of Archipelago represented the applicant
- The applicant purchased the property 18 months ago.
- It is a non-conforming structure, they would like to tear down the existing structure and rebuild conforming more to the HAT line.
- The lot is a modest long, narrow lot with multiple setback requirements.
- The goal is to improve the conformity of side setbacks.
- The slope of the lot is not prohibitive.
- The house will be pulled back from the water; therefore, the applicant's view will be affected.
- There are no soil features.
- The detached garage prevents the structure from being moved back any further.
- The existing septic was installed in 1985 and is 28' behind the structure but must be replaced due to old age and improved technology.
- There is heavy vegetation on the site; some of it will be removed but no native trees.
- There were no comments from the public.
- The Board wanted to make sure there would be a landscape plan created once permitting begins.
- The foundation will be on pylons so that the wind can move sand and water under the structure.

MOTIONS: 6:39PM

Deschambault-Motion- To APPROVE the Applicant's request to relocate a non-conforming structure, to meet the coastal wetland setback to the greatest practical extent at 100 Mile Stretch Road (Tax Map 61, Lot 3), in the Coastal Residential (CR) Zone and in the Limited Residential (LR) Shoreland Zone as

presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA), and the following COA.

Angers-Second

Motion passed unanimously (Angers, Tarpey & Deschambault)

6. C. 2023.06 Public Meeting & hear comments for a Preliminary Site Plan

Application for the Biddeford School Department to create a 2-story expansion off the Tiger Gym. The structure is located at 18 Maplewood Avenue (Tax Map 33, Lot 7) in the R1-B Zone.

- Representing the applicant:
Leah Schaffer of Mobile Studio & Design
Paulette Bonneau the Center of Technology & Adult Education Director,
Biddeford School Department
Tony Panciocco of Atlantic Resource Consultants
- Ms. Schaffer explained that this is a very tight space.
- There will be a separate sprinkler and a new gas line for the expansion.
- By adding the landscape buffer, they are reducing impervious surface by 1,050 SF.
- Speaking from the public:
Bronwen Feeney-37 Highland Street
- The Board asked questions about any bussing changes and the traffic on Maplewood.
- They talked about the increase in students and the fact that the 8th graders now go to the high school.
- The additional programs are in high demand from the surrounding areas

MOTIONS: 7:11 PM

Angers-Motion- To APPROVE the Preliminary Site Plan for the Biddeford School Department to construct a new 9,240 square foot footprint, 2-story building addition, at Biddeford High School, located at 18 Maplewood Avenue (Tax Map 33, Lot 7), off of the rear of the Tiger Gym and located within the R1-B Zone, subject to addressing the Staff comments contained within prior to Final Board Review

Deschambault-Second

Motion passed unanimously (Angers, Tarpey, & Deschambault)

6.D. 2023.05 Public hearing and to take comments concerning a Preliminary Site Plan Review application from Take 5 Maine, LLC to demolish existing structure and rebuild new 2 bay oil change center. The location of the project is 394 Elm Street (Tax Map 20, Lot 10) in the B-2 Zone.

- Ashton Fritz of Fritz Engineering & Andy Morrison of Take 5, LLC represented the applicant via Zoom.
- Mr. Fritz explained that this site was formerly a gas station; it is now an oil change facility.
- People will remain in their vehicles.
- The company offers oil changes, air filter change and wiper change.
- There will be two bays.

- They are requesting a waiver from 10 to 5 parking spaces, which would be for employees only.
- There will be no waiting area for customers.
- The Board would like some of the comments that went to the applicant answered before they decide on this project.

MOTIONS: 7:19PM

Angers-Motion- To TABLE the Preliminary Site Plan approval for Take 5 MAIN LLC (dba Take 5 Oil Change) to locate a two (2) bay oil change facility proposed to be located at 394 Elm Street (Tax Map 20, Lots 10), within the B-2 Highway Business (B-2 HB) District, for the following reasons: to give the applicant the necessary time to respond to staff comments.

Deschambault-Second

Motion passed unanimously (Angers, Tarpey & Deschambault)

7. Other Business

Angers-Motion- To nominate Michael Cantara for Planning Board Vice Chair

Tarpey-Second

Motion passed unanimously (Angers, Tarpey & Deschambault)

Angers-Motion- To nominate Susan Deschambault for Planning Board Secretary

Tarpey-Second

Motion passed unanimously (Patoine, Angers & Tarpey)

8. Adjourn

Meeting adjourned at 7:24 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.

Note-Alexa Plotkin was called away during the meeting.



CITY OF BIDDEFORD

Planning and Development Department

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

Planning Board-Workshop Meeting Minutes

DRAFT

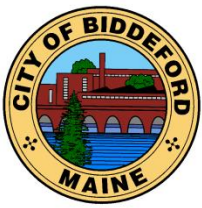
Date: February 1, 2023
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Quorum Present: Larry Patoine (Chair), Michael Cantara, Roch Angers, Sean Tarpey, & Susan Deschambault (Associate Member)
Staff Present: Greg Mitchell & Nan Whitten
Interim Planner: David Galbraith
Special Projects Coordinator: Christine Ohman
Chair Patoine opened the meeting at 6:00 PM
3. Adjustments to the Agenda
4. Planner's Business
5. New Business
 5. A. Presentation by Greater Portland Council of Governments (GPCOG) on the Draft Biddeford Saco Transit Oriented Development Concept Plan for discussion and Direction
Presenters:
 - Rick Harbison from GPCOG
 - Todd Richardson from Richardson & Associates
 5. B. Presentation by Eric Freeman on Draft Comp Plan for discussion and direction.
Public Engagement
Population & Demographics
Transportation
Historic, Cultural & Archaeological Resources
Marine Resources
Recreation & Open Space
6. Other Business
7. Adjourn
Meeting adjourned at 8:14 PM

Planning Board Chair/Vice Chair

Date

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CITY OF BIDDEFORD

Planning and Development Department

Eric Freeman
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
eric.freeman@biddefordmaine.org

PLANNING BOARD MEMO

TO: Larry Patoine, Chair & Members of the Biddeford Planning Board

FROM: Eric Freeman, Assistant City Planner

DATE: February 9th, 2023

RE: **Comprehensive Plan Draft**

I. BACKGROUND:

The City of Biddeford has been engaged in an ongoing effort to create a new Comprehensive Plan for our community. The Comprehensive Plan is an important and influential long-term visioning document. It serves as the City's "blueprint" for the next 10 to 15 years, and provides policy guidance for a host of elements and goals from guiding growth and development to addressing ongoing local and regional challenges facing our community.

The development of the city's new Comprehensive Plan has been informed by a robust, year-long community engagement process as well as direct input from the Planning Board, City Council, local stakeholders and city staff. The Planning Board, with staff, developed and approved the "Goals, Policies and Strategies" framework as well as the city's core values statement.

The Planning Board was presented with the new Future Land Use Plan in late September of 2022. The Future Land Use Plan was revised based on Planning Board feedback and presented to a joint session of the City Council and Planning Board on October 11th, 2022. Following that, another Planning Board workshop was held on November 16th, 2022 to discuss the Vision Statement and core values of the Comprehensive Plan.

The first section of draft chapters, which included:

- Vision Statement
- Regional Coordination
- Housing
- Future Land Use
- Economy
- Climate Change

were presented to the Planning Board on December 14th, 2022. The second section of draft chapters was reviewed by the Planning Board at its February 1st. These chapters were released for public comment on the "OurBiddeford" portal on February 8th.

The second section of draft chapters included:

- Public Engagement
- Population & Demographics
- Transportation
- Historic, Cultural & Archaeological Resources
- Marine Resources

- Recreation & Open Space

Feedback from the board will be incorporated into the final draft chapters. Additionally, public comment and editing of these chapters will continue throughout the month of February and into early March.

Following additional drafting and editing, two draft chapters will be presented to the Planning Board at its February 15th, 2023 meeting.

This section of draft chapters includes:

- Fiscal Capacity & Capital Improvement Plan (CIP)
- Public Facilities

One outstanding chapter, “Agriculture & Forestry” is still in a draft state and will be revised based on feedback received from the Conservation Commission at its February 16th, 2023 meeting.

II. STAKEHOLDER AND COMMUNITY ENGAGEMENT

As part of the development of the Comprehensive Plan draft, Planning staff has sought to engage with stakeholders and the community throughout the drafting process.

The first section of draft chapters were released for public comment via the “OurBiddeford” portal in early January. The OurBiddeford portal allows for members of the public to read and provide comment on each individual chapter. As of February 9th, 2023, a total of 20 comments have been received on all chapters.

The first section of draft chapters were presented to the Conservation Committee at their December 15th, 2022 meeting. Additionally, these chapters have been reviewed by staff at the Southern Maine Planning & Development Commission (SMPDC) and feedback from both groups has been incorporated into the revised drafts for each chapter.

III. NEXT STEPS

Following the February 15th Planning Board workshop, planning staff will attend the February 16th meeting of the Conservation Commission to receive feedback on current chapters and develop a framework for drafting the Agriculture & Forestry chapter. The Agriculture & Forestry chapter will be drafted based on feedback from the Conservation Commission.

Following this, further community and stakeholder engagement will continue until mid March. Planning staff will work to revise and finalize all current and draft chapters based on community feedback during this time.

The public engagement process will conclude with a final planning board hearing in late March to recommend the plan to the City Council.

It is the goal of city staff to finalize the Comprehensive Plan with the Planning Board and City Council for adoption by April, 2023.

11 Public Facilities

(01/23 Draft)

1. What's happening?

People rarely think about Public Facilities, but rely on them every day: Trash pickup, traffic safety, snow plowing, wastewater management and maintenance of fields, to name just a few. There are also important life and safety facilities, like police, fire and ambulance services in an emergency.

Hundreds of public facilities staff members make sure our community has access to vital and essential services.

This chapter examines how Biddeford's public services work and how they meet the needs of our community now and in the future.

2. Public Facilities in Biddeford Today

24

Sewer pump stations

210,000

Feet

Of public sewer

131

Miles

Patrolled by BPD each day

6

Minutes

Average Fire Dpt. Response time

3. Public Water

There are approximately 6,160 customers in Biddeford that are served by Public Water Supplies from either Maine Water (formerly the Biddeford and Saco Water Company) or by the Kennebunk, Kennebunkport and Wells (KKW) Water District.

Maine Water:

Maine Water (formerly the Biddeford and Saco Water Company) was established by Legislative Charter in the early 1980's. The system consists of a treatment plant, pump stations, distribution lines, fire hydrants, standpipes and a storage reservoir. In 2017 Maine Water constructed a new water supply facility south of South Street in Biddeford. According to its website, Maine Water supplies water to approximately 32,000 customers in Maine. This includes approximately 5,530 customers in Biddeford.

Table 11-1: MWD Customers

Type	# of Annual Customers (Accounts)
Residential Customers	4,548
Commercial Customers	983
Total Customers	5,531

Table 11-2: Maine Water Service Information

Information	Numbers
Water Customers	32,000
Water Treatment Facilities	11
Wells	14
Miles of Water Main	544
Public Water Systems (PWSIDs)	12
Employees	70

Source: Maine Water, Customer Service Supervisor, July 2018

Maine Water obtains its water from the Saco River. The two water intakes are located approximately 1 1/2 miles upstream from the dams in Biddeford and Saco. The Maine Water treatment plant is located approximately 1 1/2 miles west of the center of Downtown Biddeford. It was built in 1884, modernized in 1936. The facility was replaced in 2022 by a new state-of-the-art water treatment facility located on South Street. This new water treatment facility provides services for Biddeford, Saco and Old Orchard Beach.

Kennebunk, Kennebunkport and Wells Water District:

The Kennebunk, Kennebunkport and Wells Water District (KKWWD) was established in 1921 by the Maine Legislature. The District obtains its water from the Branch Brook in Kennebunk. The quantity of water which can be obtained from Branch Brook is limited and in the 1980's KKWWD installed a new line from Kennebunk to Biddeford. This enabled KKWWD to be able to bulk purchase treated water from Maine Water in times of peak water demand.

As of May 2018, KKWWD provided water to six-hundred and thirty-five (635) Biddeford customers ranging from Timber Point to Biddeford Pool (See Table X). Of the 635 customers, 612 are residential customers and 23 are commercial customers.

KKWD service area is limited by charter and policy to the land areas east of Route 9

Table 11-3: KKWWD Customers

	# of Annual Customers	# of Seasonal Customers
Residential Customers	390	222
Commercial Customers	9	14
Total Customers	399	236

Source: KKW Water District , June 2018

4. Sewer and Wastewater

The Wastewater Division within the Department of Public Works is responsible for collection and treatment of wastewater within the City of Biddeford (with the exception of the University of New England which has its own Wastewater collection system and treatment plant and private septic systems). The Wastewater Division is responsible for the Water Street Treatment Facility, Combined Sewer Overflow (CSO) Tank located at Mechanics park on water street, Biddeford Pool Stone Cliff Road Wastewater Treatment Facility, 24 wastewater pump stations, seven (7) combined sewer overflows, over 200,000 feet (37 miles) of sanitary sewer lines and combined sewer/stormwater lines.

The City privatized the operation and maintenance of the wastewater treatment facilities in November 1991. In 2011 the City of Biddeford reassumed full responsibility for the operation and maintenance of the wastewater treatment facilities.

Table 11-4. City of Biddeford Wastewater and CSO Characteristics:

Current sewered population:	15,000
Current number of residential users (connections to sewer):	4135
Current number of commercial/industrial users (connections to sewer):	594
Current number of Combined Sewer Overflow (CSO) locations:	7
Total sewer footage (feet):	209,000
Current total combined sewer footage (feet):	118,294
Current percentage of combined sewer to total sewer (%):	56.6

Source: Maine Department of Environmental Protection Annual Report for 2021

Water Street Wastewater Treatment Facility:

The City's treatment plant on Water Street was originally constructed in 1964. The plant was designed for a treatment capacity of 2.64 million gallons per day (MGD) and provides secondary treatment with an activated sludge process. Its current capacity is 7.5 MGD. The Water Street Treatment Plant currently serves 15,000 customers, 4,135 of which are residential and approximately 594 of which are non-residential.

Biddeford Pool (Stonecliff Road) Wastewater Treatment Facility:

The City's treatment plant on Stonecliff Road was constructed in 1989. The plant was designed for 30,000 gallons per day (GPD) and provides secondary treatment with a Rotating Biological Contractor (RBC). In conjunction with the construction of the Stonecliff Road Treatment Plant the City constructed a new sanitary sewer collection system in the village area of Biddeford Pool. The RBC plant receives flow from this new sanitary collection system. There is a separate storm drainage system which collects street runoff water and discharges it directly to the ocean waters. The activated sludge is transported to the treatment plant on Water Street for processing.

The current volume of dry weather flow received at the RBC plant is well under its design capacity for biological treatment. Seasonal fluctuations in residential population in the Biddeford Pool area accounts for corresponding variations in flows received at the RBC plant. During the periods of heaviest residential population, the plant receives

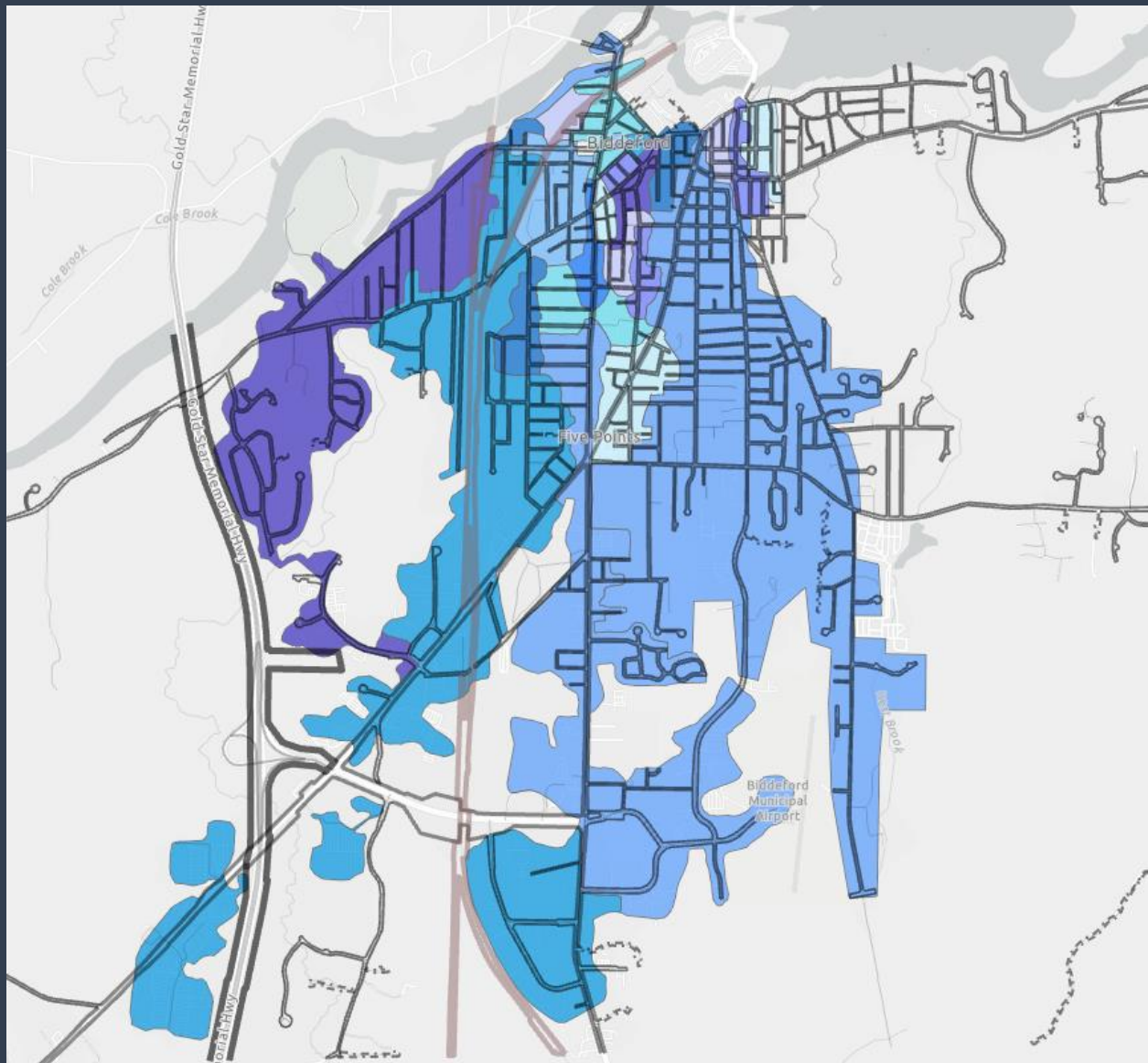
flows that are approximately 60% of its design capacity. The condition of the plant is good and its performance has been excellent, consistently meeting permit requirements

Collection System:

The City's collection system for wastewater is made up of sanitary sewers and combined sewers. Sanitary sewers carry only wastewater. Combined sewers carry wastewater and stormwater. The City's collection system is separated into two separate systems, one serving the central urban area discharging into the Water Street treatment plant and one serving the village area of Biddeford Pool discharging into the Stonecliff Road treatment plant.

Much of the collection system remains quite old and requires considerable maintenance to insure operability and to minimize impacts on other facilities such as the road surface above the system.

The Biddeford Pool sewer system is comprised of separate sanitary sewers which discharge into the Stone Cliff Road treatment plant. Until 1989, the system was an old combined system built from the 1800's on with discharges into the ocean. In 1989 the City constructed a new sanitary sewer collection system and turned the old system into a storm drain system. There is approximately 8,800 linear feet of sanitary sewers in this system.



Where does your Wastewater go? Biddeford has 25 “sewersheds”

5. Pump Stations and Storm Water

The City owns and is responsible for 25 pump stations located throughout the City. These stations collect and pump wastewater to the treatment plant sites from areas which cannot be served by gravity sewers. Many of these stations were originally built in the early 1960's when the Water Street Treatment Plant was constructed. Starting in the 1990's the City began replacing older pump stations based on an established schedule.

Others have been built since that time as part of Industrial Park Developments, residential subdivision development, and through extensions of the sanitary sewer

system. The City of Biddeford is responsible for the operation and maintenance of these pump stations.

Stormwater

Stormwater Management issues within the City are not restricted to a specific geographic area of the City but are found city-wide. Stormwater management efforts for the City are under the direction of the Manager of City Services. The Engineering, Wastewater, and Public Works Departments are responsible for the implementation of stormwater management practices, as directed by the Manager of City Services.

The City's existing stormwater management facilities consist of combined sewer/combined sewer overflows (CSO), storm drains, catchbasins/field inlets, culverts, ditches, and drainageways. The central urban area between the Maine Turnpike and West Brook contains all of these facilities. The rural areas to the East and West of the central urban area contain storm drains, catch basins/field inlets, culverts, ditches and drainageways but do not contain any combined sewers/CSO

Table 11-5: CSO's

Combined Sewer Overflows (CSOs) - 2018	Environmental Protection Agency Number	Receiving Waters
Bradbury Street	004	Saco River
Western Avenue	005	Saco River
Horrigan Court	006	Saco River
Route One	007	Saco River
Water Street Treatment Plant	009	Saco River
Rumery's Boatyard	013	Saco River
Lafayette Street Pump Station	014	Saco River

6. Public Safety

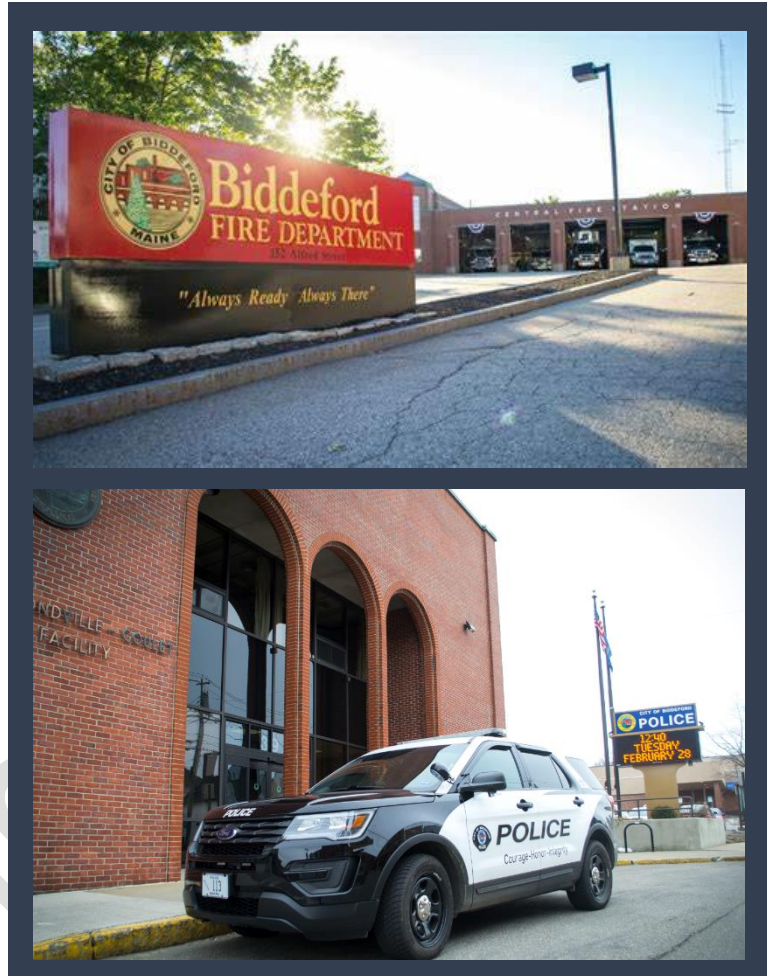
Biddeford Fire Department:

Fire protection in Biddeford is provided by the Central Fire Station. The station was built and completed in September 1990 and is located at 152 Alfred Street. It is manned 24 hours a day. There is a call force sub-station at Biddeford Pool. The Central Fire Station provides fire, EMS, and specialty rescue services to the community on a 24 hour basis.

In FY 2017, the Fire Department operated with an annual budget of 4.8 million dollars. There are 43 full-time firefighters, including a Chief, Assistant Chief, Deputy Chief and an Officer Manager. All full-time firefighters are cross trained on both fire and EMS, 31 of our members are paramedics. Career personnel are split over four separate shifts.

All fire, ambulance, rescue and emergency calls are received by the 911 Dispatcher located at the Biddeford Police Station. The average response time to in town incidents from Central Station is about 4 minutes, although we have response times to some areas of the city that are 10 to 14 minutes.

The City has automatic aid agreements with Old Orchard Beach, Goodwin Mills, Scarborough, Saco, Arundel and Kennebunkport. Additionally, the department has mutual aid agreements with other communities within the county and with Emergency Management.



Biddeford Police Department:

The Biddeford Police Department has a wide array of law enforcement roles and responsibilities in Biddeford including traffic safety, criminal incident response, animal control, community welfare checks and more. The Biddeford Police Department is headquartered at 39 Alfred St. The Department has 57 law enforcement officers and 28 civilian employees. BPD also employs a full-time behavioral counselor.

The Biddeford Police Department is among only 5% of law enforcement agencies that are nationally accredited by the Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA).

In 2020, BDP responded to 3,073 criminal and non-criminal incidents.

7. Power and Gas

Central Maine Power

Electricity in the City of Biddeford is supplied by Central Maine Power. Three-phase power is currently supplied to the Robert G. Dodge Business Park, the Biddeford Industrial Park, and the Airport Industrial Park. Three-phase power may also be provided elsewhere in Biddeford, although exactly where it is currently located is somewhat unknown.

Unitil

Natural Gas in Biddeford is provided by Unitil. Unitil's Granite State Transmission Line runs through Biddeford from Arundel to the Saco River and is part of a major transmission line running through Southern Maine.

Local distribution lines convey natural gas throughout the downtown area as depicted on the Map, from Highland Avenue to the west, down Graham Street to feed the Central Fire Station on Alfred Street (fed from Graham Street), the Mill District, and the Water Street Sewage Treatment Plant to the east.

Local distribution lines also supply natural gas to the Wal-Mart area, the Robert G. Dodge Business Park, the YMCA on Pomerleau Street, 5-Points Shopping Center across from Edwards Avenue, the Biddeford Industrial Park, and the Airport Industrial Park

8. Challenges and Opportunities

Project Canopy

The Project Canopy Committee aims to promote and enhance the quality of life for citizens of Biddeford through an appreciation and knowledge of the value of trees in an urban landscape ecosystem. Its purpose is "to promote and enhance the quality of life by planting trees along our streets, in our parks, in our neighborhoods and developing new green space." The Project Canopy Committee has an annual budget of \$5,000. The maintenance of all street trees falls under the purview of the Department of Public Works, Parks

Biddeford Pool Fire Department

The Biddeford Fire Department is in the early stages of planning and constructing a new fire station to serve the Biddeford Pool area. This fire station would decrease response times in Biddeford's coastal neighborhoods.

Complete Streets

Complete Streets are designed and operated to enable safe access for all users: pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They also allow buses to run on time and make it safe for people to walk to and from train stations. Cities and towns in Maine, large or small, can begin building a safer and more welcoming street network by adopting a Complete Streets Policy and then ensuring its full implementation.

As of 2019, Nine communities in Maine have adopted a local Complete Streets Policy.

A Complete Streets Policy does not dictate a one-size fits all approach. A Complete Street in a rural area will look quite different from one in an urban area. Both are designed to balance safety and convenience for everyone using the road. A Complete Street may include sidewalks, bike lanes, paved shoulders, comfortable and accessible bus stops, safe crosswalks, median islands, curb extensions (bump-outs), narrower travel lanes, and more.



Climate Change and Sea Level Rise

Biddeford's public infrastructure is uniquely vulnerable to the Impacts of sea level rise and other climate change impacts. In particular, the city's water treatment and stormwater infrastructure has the potential to be damaged or overburdened by increasingly strong storms and sea level rise.

Understanding the needs and challenges posed by sea level rise is an ongoing process. In coming years, a more comprehensive review of the vulnerabilities in Biddeford's public infrastructure will be undertaken to provide a framework for investment and adaptation.

Public Facilities -

What Comes Next?

Biddeford's public facilities are continuously changing and adapting to meet the needs of our growing community. As our city, state and world change, so too must our infrastructure.

Adapting to a growing population, new technologies and the impacts of climate change are key to ensuring our community has safe and reliable access to vital services.



Goal 1

MEET

Identified Public Facilities and service needs.

How We Get There:

- Identify any capital improvements needed to maintain or upgrade public services to accommodate the community's anticipated growth and changing demographics.
- Continue to explore opportunities for collaboration with the City of Saco and with partners in the region for the provision of public services.

Goal 2

PROVIDE

public facilities and services in a manner that promotes and supports growth and development in identified growth areas

How We Get There:

- Strive to locate new public facilities comprising at least 75% of new municipal growth-related capital investments in designated growth areas.
- Work with the Biddeford Public Works Department (Wastewater Division), Maine Water Co., and Kennebunk Kennebunkport-Wells Water District to coordinate planned service extensions with the Future Land Use Plan.
- Continue to update and maintain the City's 5-Year Capital Improvement Program (CIP) related to priorities for public expenditures on the City's transportation network.
- Ensure the RiverWalk and connections to the RiverWalk are maintained and open to the public year-round.
- Ensure parks and playgrounds are given the same priority as fields with respect to maintenance and improvements.
- Continue to support the Eastern Trail by membership on the Eastern Trail Management District (ETMD) and maintaining the trail as required.
- Create a policy to facilitate renewable energy infrastructure (rooftop solar etc.) at public facilities.
- Ensure climate-oriented infrastructure (e.g. EV charging stations, bike racks) is included at all public parks, playgrounds, trails, and playing fields

Goal 3

ENSURE

Downtown streets are prioritized in capital planning and public improvement projects.

How We Get There:

- Evaluate Downtown side streets for adequate lighting provisions and make improvements where warranted.
- Ensure routes to and from all public parking facilities are adequately lit and maintained for pedestrian traffic.
- Ensure transit stops and access to transit stops is adequate, safe, and clear during winter weather.
- Ensure city maintenance and street cleaning on side streets is given the same attention as that on Main Street.

Goal 4

DISCOURAGE

The location of new public facilities in areas that are vulnerable to sea level rise and other climate impacts.

How We Get There:

- Use tools such as TIF and impact fees to fund capital improvements in growth areas and away from vulnerable areas.
- Limit public funding of infrastructure in vulnerable areas.

Public Facilities

Appendix

1. Solid Waste:

1. Municipal Solid Waste (i.e., “trash”):

From 1987 through 2013 municipal solid waste (MSW) in Biddeford was disposed of at Maine Energy Recovery Company (MERC) which was located at 3 Lincoln Street in Downtown Biddeford. In 2013 MERC was closed through a negotiated deal with the City of Biddeford. Since MERCs closure, the City of Biddeford has disposed of its solid waste (other than recycling) through the Casella Transfer Station in Westbrook, ME. The City of Biddeford still pick picks up the MSW curbside at qualifying properties defined as:

1. All single family residential properties;
2. All residential properties with apartment buildings having 5 or less units; and
3. Grandfather commercial apartment buildings.

To be grandfathered the following two (2) conditions must be met:

1. The City was picking up solid waste (trash) at that property prior to July 1, 2013; and
2. The property is still owned by the same owner that owned it on July 1, 2002

Upon a change in ownership, the grandfathered status of qualifying properties is lost and the City will no longer service that property.

Also in 2013 the City engaged Casella and implemented a curbside zero-sort recycling program throughout Biddeford. Between 2013 to current solid waste tonnage has significantly decreased as recycling tonnage has increased

Recycling:

Before 2013, Biddeford's recycling center was only located at the Department of Public Works on 371 Hill Street in the Airport Industrial Park. It was a drop-off, volunteer program that operated seven days a week from 7 am to 5 pm, Monday through Friday and 8am-4 pm, Saturday and Sunday. In 1994, 35.7% of the total municipal solid waste (MSW) stream was recycled by the City of Biddeford. The following items were eligible for recycling: green, clear and brown glass, newsprint, office and computer paper, cardboard, corrugated cardboard, aluminum, tin, #1, #2 and #3 plastics, scrap metal, motor oil, leaves, Christmas trees and small shrubs, bushes and tree limbs.

In 2013 the City engaged Casella and implemented a curbside zero-sort recycling program throughout Biddeford.

Acceptable recyclables for the zero-sort curbside recycling program (blue recycling containers) include:

- Newspaper
- Junk mail
- Tissue paper
- Cardboard and paper board
- Glass
- Plastics #1-7
- Aluminum cans
- Bi-metal cans
- Office paper
- Wet-strength paper board
- Milk / juice cartons
- Brown paper bags
- Aluminum containers

The City of Biddeford still operates the Recycling Center and Transfer Station at 371 Hill Street. Materials accepted there include the following:

- Cardboard
- Newspaper
- Milk jugs
- Office paper
- Plastics #1 & #2
- Tin cans
- Metal
- Batteries
- Brush
- Leaves
- Grass clippings

- Motor oil
- Tires
- Furniture
- Bulky waste
- Carpeting
- Mattresses
- Wood debris
- Televisions
- Computers
- Computer monitors
- Computer accessories.

The City also had a curbside leaf collection for residents that is done for one week in November. The leaves are taken to the local landfill for leaf composting.

16

Fiscal Capacity & Capital Improvement Plan

(01/23 Draft)

What's happening?

Local government in Maine (as well as New England) serves as the primary deliverer of critical services for the citizens. Unlike the majority of the municipalities in the rest of the Country, it is the municipality, not County government that serves that role.

The annual exercise of balancing the collective needs and wants within the community with the ability of those that pay the bills is at the core of the budgeting process. Through this process, the community establishes that which it will address and that which it will defer. Community leaders will often focus on service delivery as the priority over the responsibility of maintaining the capital assets.

The financial viability of the Biddeford requires intentional attention to the capital assets and planning for the maintenance and replacement of those assets. The fiscal capacity chapter in the comprehensive plan provides information about the financial challenges that are foreseen over the next several years. It also provides information regarding the ability of the City to meet those challenges based on the information known at the time of adoption of the Comprehensive Plan.

Capital Assets

Annually, every local government is required in accordance with Governmental Accounting Standards Board (GASB) Statement No. 34, to report publicly the total capital assets of the municipality. On June 30, 2021 (the most current audit), the City of Biddeford reported the capital assets shown within.

This initial list does not include activities of the City that are considered 'enterprise accounts'. Simply stated, enterprise accounts are treated by GASB as business type operations. As such, the financial reporting is treated differently than the general operating fund. The enterprise activity of the City is the Waste Water Treatment Plant (WWTP). These capital assets are also listed after the municipal list. It should be noted while GASB requires some different reporting standards for enterprise activity, those reporting differences does not impact GASB 34.

In accordance with GASB Statement No. 34, the City has reported all capital assets including infrastructure in the Government-wide Statement of Net Position.

Capital asset activity for the year ended June 30, 2021 was as follows:

	Balance June 30, <u>2020</u>	<u>Increases</u>	<u>Decreases</u>	Balance June 30, <u>2021</u>
Governmental activities:				
Capital assets not being depreciated:				
Capital assets not being depreciated:				
Land - City	\$6,408,776	-	(2,155)	6,406,621
Land - School	827,675	-	-	827,675
Construction in progress - City	2,074,030	-	(6,440)	2,067,590
<u>Construction in progress - School</u>	<u>166,188</u>	<u>-</u>	<u>-</u>	<u>166,188</u>
<u>Total capital assets not being depreciated</u>	<u>9,476,669</u>	<u>-</u>	<u>(8,595)</u>	<u>9,468,074</u>
Capital assets being depreciated:				
Buildings and improvements - City	10,698,505	91,120	-	10,789,625
Buildings and improvements - School	67,448,755	-	-	67,448,755
Vehicles and equipment - City	14,449,406	1,152,676	(172,729)	15,429,353
Vehicles and equipment - School	3,886,090	734,441	(156,411)	4,464,120
Infrastructure - City	69,018,171	256,352	(42,446)	69,232,077
<u>Infrastructure - School</u>	<u>526,959</u>	<u>-</u>	<u>-</u>	<u>526,959</u>
<u>Total capital assets being depreciated</u>	<u>166,027,886</u>	<u>2,234,589</u>	<u>(371,586)</u>	<u>167,890,889</u>
Less accumulated depreciation for:				
Buildings and improvements - City	6,884,371	275,385	-	7,159,756
Buildings and improvements - School	25,460,527	1,630,974	-	27,091,501
Vehicles and equipment - City	8,509,218	737,758	(165,321)	9,081,655
Vehicles and equipment - School	2,603,120	218,046	(156,411)	2,664,755
Infrastructure - City	33,382,200	1,678,395	(41,906)	35,018,689
<u>Infrastructure - School</u>	<u>402,108</u>	<u>12,847</u>	<u>-</u>	<u>414,955</u>
<u>Total accumulated depreciation</u>	<u>77,241,544</u>	<u>4,553,405</u>	<u>(363,638)</u>	<u>81,431,311</u>
<u>Total capital assets being depreciated, net</u>	<u>88,786,342</u>	<u>(2,318,816)</u>	<u>(7,948)</u>	<u>86,459,578</u>
<u>Governmental activities capital assets, net</u>	<u>\$98,263,011</u>	<u>(2,318,816)</u>	<u>(16,543)</u>	<u>95,927,652</u>

Depreciation expense was charged to functions of the governmental activities as follows:

General government	\$ 84,856
Public services	184,427
Public safety	360,375
Public works, including depreciation of general infrastructure assets	2,061,880
Education	1,861,868

Total depreciation expense – governmental activities	\$ 4,553,406
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	Balance June 30, 2020	Increases	Decreases	Balance June 30, 2021
Business-type activities:				
Land	\$ 204,275	-	-	204,275
Construction in progress	<u>9,485</u>	-	-	<u>9,485</u>
Total capital assets not being depreciated	<u>213,760</u>	-	-	<u>213,760</u>
Capital assets being depreciated:				
Building and improvements	4,632,484	-	-	4,632,484
Vehicles and equipment	15,811,486	76,230	-	15,887,717
Infrastructure	<u>22,314,874</u>	-	-	<u>22,314,874</u>
Total capital assets being depreciated	<u>42,758,844</u>	<u>76,230</u>	-	<u>42,835,075</u>
Buildings and improvements	2,213,344	139,863	-	2,353,207
Vehicles and equipment	8,184,910	446,536	-	8,631,446
Infrastructure	<u>8,137,141</u>	<u>532,066</u>	-	<u>8,669,207</u>
Total accumulated depreciation	<u>18,535,395</u>	<u>1,118,464</u>	-	<u>19,653,860</u>
Total capital assets being depreciated, net	<u>24,223,449</u>	<u>(1,042,234)</u>	-	<u>23,181,215</u>
Business-type activities capital assets, net	<u>\$24,437,209</u>	<u>(1,042,234)</u>	-	<u>23,394,975</u>
Total capital assets being depreciated, net	<u>24,223,449</u>	<u>(1,042,234)</u>	-	<u>23,181,215</u>

Depreciation expense was charged to programs of the business-type activities as follows:

Wastewater Fund	\$ 1,118,464
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Total depreciation expense – business-type activities	\$ 1,118,464
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Funding To Replace and/or Maintain Capital Assets

The City of Biddeford has increased the annual allocation from the operating budget significantly since a low of \$176,098 in FY13. The Council established an annual allocation goal of \$2,500,000 in 2018 to be phased in over a five year period. Beginning with the FY18 budget, the City allocated \$1,500,000 with planned \$250,000 annual incremental increases. The City met the incremental FY19 goal.

COVID slowed the progress, reducing the FY20 allocation to \$1,595,547 and FY21 allocation to \$1,361,047.

Inflationary pressures, particularly in the construction industry, is causing the City to evaluate the need to increase the goal to \$4,500,000 by FY29. This is an ongoing discussion during the upcoming FY24 budget preparation.

An analysis done January of 2023, it was estimated that \$7,935,281 is needed annually to maintain all capital assets. This estimate was arrived by applying the following replacement schedule to the total net assets of the City:

<i>Category</i>	<i>Replacement Basis</i>	<i>Book Value (FY22)</i>	<i>Annual Requirement</i>
<i>Buildings</i>	30 years	\$24,935,071	\$831,169
<i>Vehicles & Equipment</i>	12 years	\$49,030,169	\$4,085,847
<i>Infrastructure</i>	45 years	<u>\$135,822,630</u>	<u>\$3,018,281</u>
<i>Total</i>		<u>\$209,787,229</u>	<u>\$7,935,297</u>

It is rare for a municipality to meet their capital needs from annual appropriations within the operating budget. Like other communities, Biddeford makes up for the majority of the difference by the use of various forms of pay over time. The two instruments the City uses is traditional bond issuance or lease/purchases. The City has also had a very good track record of securing grant funding to reduce the burden on property taxpayers and WWTP rate payers. Finally, it also uses sheltered tax incremental financing (TIF) funds for capital needs as well.

The City has capacity to continue to use a mixed of these historical sources to address the future needs of the City. The following current conditions and trends is provided to support the conclusion.

Conditions and Trends

Debt limits: The State of Maine has a statutory limit on the total amount of debt that a community may issue.¹ The total limit of all debt is 15% of a municipality's most recent full valuation.² Half of that limit (7.5%) is limited for general obligations. The balance is reserved for other uses, such as storm and sanitary sewers, educational purposes, airports and others. The total indebtedness of the City is significantly under the statutory limits, as shown by the chart below.

¹ Title 30-A MRSA §5702

² Biddeford's total 2023 state valuation is \$3,595,900,000 as reported January 18, 2023

CITY OF BIDDEFORD, MAINE
Ratios of General Bonded Debt Outstanding
Last Ten Fiscal Years

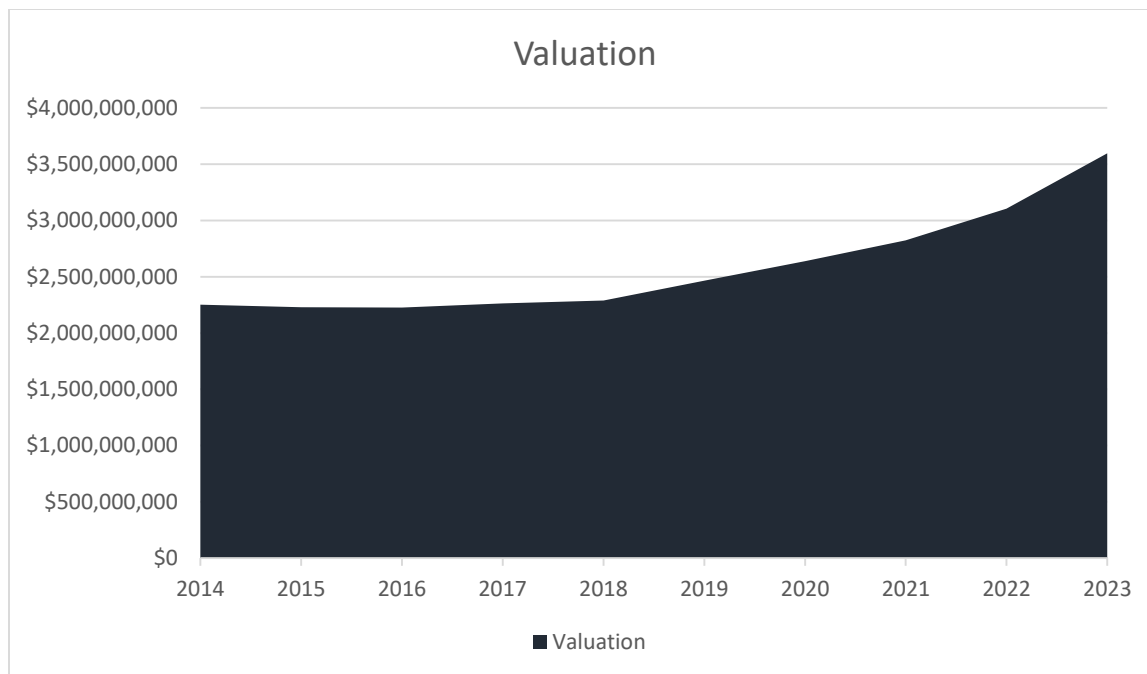
(amounts expressed in thousands, except per capita amount)

Fiscal Year	Total General Obligation Bonds/ Notes	Percentage of Estimated Actual Taxable Value of Property	Per Capita
2021	\$ 47,675	1.7%	2,114
2020	52,357	2.0%	2,441
2019	57,320	2.3%	2,664
2018	61,400	2.7%	2,857
2017	65,056	2.9%	3,045
2016	59,917	2.7%	2,813
2015	63,881	2.9%	2,994
2014	67,541	3.0%	3,172
2013	71,753	3.1%	3,367
2012	66,722	2.8%	3,120

Total Valuation of City: The local and state valuation of the City has grown exponentially in large part because of the economic development strategy employed by the City over the last decade. The following chart captures both the local valuation as well as the state valuation. It should be noted that the state valuation is determined by market conditions that are at least two years old.

Year Ending June 30	Local Valuation	State Valuation
2021	\$2,419,982,000	\$2,823,900,000
2020	\$2,417,771,000	\$2,639,350,000
2019	\$2,392,413,000	\$2,464,750,000
2018	\$2,280,812,000	\$2,288,700,000
2017	\$2,255,928,000	\$2,263,350,000
2016	\$2,257,633,000	\$2,226,350,000
2015	\$2,237,280,000	\$2,228,800,000

The most recent state valuation numbers demonstrates the rapid increase in the value within the community. The following chart captures the changes.



Communities increase in value in two ways. The most obvious is when land and property is improved. This form of economic development is beneficial. There are new net tax dollars that are being provided for every dollar of new value.

The second way that value increases is from appreciation of the existing properties. It is normally expected that the valuation increases because of appreciation would be at the same pace as other communities in the area. Expressed differently, the appreciation change because of general market conditions should be similar in an area regardless of a community's border.

Biddeford's appreciation is outpacing our neighboring communities. Recognizing the growth is a concrete example of the improvement in the reputation and perceived value of living within the community, it does have downsides. Significant state tax policy is driven by state valuation. A higher valuation of community reflects in less state revenues to the community and an increase county tax burden. The next few years, the state valuation will continue to climb at a rate that is higher than the other communities in the area. That is most likely to adversely impact the community because of Maine's tax policy.

Fund Balance: One of the primary focuses has been to meet the City goal of maintaining an unassigned fund balance equal to or greater than 12.5% of operating expenditures. Beginning in 2015, the City has increased this balance 575%, from \$1,723,143 (FY14) to the current balance of \$11,636,817 (FY21). In FY21, the City reached the goal. Effective that year, the City has established the policy to use 100% of the funds above the goal exclusively for investments in capital assets.

The following chart provides the history change in all general fund balances, including unassigned fund balance discussed above.

	2015	2016	2017	2018	2019	2020	2021
General Fund							
Nonspendable	602,379	\$ 563,695	\$ 594,951	\$ 736,672	\$ 1,133,081	\$ 1,436,893	\$ 1,295,421
Restricted	2,351,559	2,858,214	2,285,096	2,408,164	2,394,089	3,451,767	3,946,564
Assigned	580,487	1,129,196	1,316,840	2,387,140	3,477,238	2,139,154	2,466,066
Unassigned	1,723,143	2,310,409	2,983,231	2,222,152	4,577,271	6,991,373	11,636,817
Total general fund	5,257,568	\$ 6,861,514	\$ 7,180,118	\$ 7,754,128	\$ 11,581,679	\$ 14,019,187	\$ 19,344,868

Revenues and Expenditures

The following is the most recent audited financial statements for the City general fund. It captures the major revenues and the major expenditures for the community, as well as the capital investments

CITY OF BIDDEFORD, MAINE
Changes in Fund Balances of Governmental Funds
Last Ten Fiscal Years
(modified accrual basis of accounting)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Revenues										
Taxes	\$ 39,978,359	\$ 43,406,442	\$ 44,483,148	\$ 45,672,627	\$ 47,484,477	\$ 48,511,496	\$ 49,974,308	\$ 51,245,771	\$ 52,394,437	\$ 53,139,898
Licenses, permits, fees and charges for svcs.	3,663,434	3,550,933	3,576,888	3,980,054	3,862,824	3,715,708	4,090,855	3,842,118	4,669,305	4,512,519
Intergovernmental	20,814,410	18,797,612	18,454,544	19,153,635	18,980,848	19,953,890	22,397,047	24,113,760	28,504,343	44,827,691
Investment earnings	119,876	277,076	190,932	114,977	125,731	260,023	262,168	368,396	609,674	427,669
Other	1,235,803	754,995	1,134,349	1,229,823	896,986	1,995,719	1,303,436	889,364	1,174,982	4,043,627
Total revenues	\$ 65,811,882	\$ 66,787,058	\$ 67,839,861	\$ 70,151,116	\$ 71,350,866	\$ 74,436,836	\$ 78,027,814	\$ 80,459,409	\$ 87,352,741	\$ 106,951,404
Expenditures										
General government	3,948,051	4,233,407	4,454,329	4,417,062	4,556,574	4,700,174	9,158,195	9,536,842	10,641,164	11,353,917
Public services and libraries	1,567,639	1,653,722	1,686,415	1,651,031	1,610,272	1,687,658	1,523,494	1,975,653	3,254,974	8,101,574
Public safety	10,076,847	10,675,805	11,085,652	11,866,596	11,742,905	12,474,899	9,756,561	10,361,398	10,739,015	15,003,834
Public works	4,736,391	5,088,601	5,510,515	5,722,488	5,429,610	5,757,532	4,611,914	4,626,237	4,599,516	4,828,733
Education	29,201,826	30,235,540	30,705,072	31,982,549	32,088,859	33,452,802	35,983,638	35,794,180	40,620,541	48,668,997
County tax	1,281,101	1,303,501	1,896,950	1,250,633	1,228,999	1,217,090	1,235,647	1,221,062	1,282,292	1,323,152
Other	1,413,925	344,488	503,433	851,523	588,703	134,603	837,272	131,157	-	-
Debt service (including education debt service):										
Principal	4,121,378	4,180,705	4,197,644	3,921,765	4,321,073	5,448,700	4,430,357	5,108,556	5,319,405	5,757,885
Interest	2,395,263	1,971,850	2,306,996	2,439,097	1,950,048	1,171,200	1,516,124	1,591,507	1,462,125	690,038
Capital outlays	14,648,309	12,502,294	1,771,893	3,939,996	2,833,882	5,467,769	4,905,325	7,055,138	7,584,766	4,801,883
Equipment and Supplies, other than General Fund	906,405	794,809	896,144	968,394	793,311	906,221	739,071	905,131	-	-
Program expenditures, other than Gen. Fund	5,274,175	3,641,620	3,330,340	3,584,154	3,411,437	3,426,205	3,359,221	3,889,567	-	-
Contracted services, other than Gen. Fund	288,256	295,287	244,678	538,673	1,491,732	1,451,066	1,256,207	3,413,004	-	-
Total expenditures	\$ 79,859,566	\$ 76,921,629	\$ 68,590,061	\$ 73,133,961	\$ 72,047,405	\$ 77,295,919	\$ 79,313,026	\$ 85,609,432	\$ 85,503,798	\$ 100,530,013
Excess (deficiency) of revenues over (under) expenditures	(14,047,684)	(10,134,571)	(750,200)	(2,982,845)	(696,539)	(2,859,083)	(1,285,212)	(5,150,023)	1,848,943	6,421,391
Other financing sources (uses)										
Transfers - in	44,384	88,109	105,006	247,077	202,215	466,295	1,929,557	2,313,026	2,123,118	1,895,617
Transfers - out	(806,884)	(628,109)	(605,006)	(787,077)	(742,215)	(1,006,295)	(2,570,698)	(2,725,723)	(2,465,734)	(2,277,000)
Use of escrow funds	15,762	-	-	-	-	-	-	-	-	-
Payment to refunding escrow	-	-	-	-	-	(27,256,283)	-	-	-	(2,655,543)
Proceeds from bond/note sales	-	8,960,205	-	-	-	34,584,462	346,844	966,315	43,923	731,386
Proceeds from bond premium	-	106,207	-	600,000	-	3,450,402	-	-	-	-
Payment to refinance lease	-	-	-	-	(1,369,541)	-	-	-	-	-
Proceeds from capital leases	381,374	1,331,654	-	577,598	1,725,860	866,414	-	2,884,313	-	8,224,411
Sale of City property	-	-	-	-	-	-	-	30,817	100,000	4,963
Total other financing sources (uses)	(365,364)	9,858,066	(500,000)	637,598	(183,681)	11,104,995	(294,297)	3,468,748	(198,693)	5,923,834
Net change in fund balances	\$ (14,413,048)	\$ (276,505)	\$ (1,250,200)	\$ (2,345,247)	\$ (880,220)	\$ 8,245,912	\$ (1,579,509)	\$ (1,681,275)	\$ 1,650,250	\$ 12,345,225
Debt service as a percentage of noncapital expenditures	10.0%	9.6%	9.7%	9.2%	9.1%	9.1%	7.9%	8.7%	8.6%	6.9%

What is a Capital Improvement Program?

The Capital Improvement Program (**CIP**) is the City's long-range plan for spending on major infrastructure projects throughout the community. The CIP guides investment in streets, sidewalks, parks, sewer and stormwater systems, public transportation, public safety facilities and equipment and more.

The City of Biddeford maintains a five-year CIP that is updated annually. Although a long-term program does not necessarily commit the City to a particular expenditure in a particular year, it provides an identifiable framework for informed decision-making.

Why is a Capital Improvement Program Important?

Many aspects of the Capital Improvement Program can have profound impacts on the development of the City and the fiscal integrity of the government. Programs expanding or improving public services can influence the timing and location of new development, while fostering preferred long-time growth patterns. In addition, the Capital Improvement Program represents the community's approach to implementation of the Comprehensive Plan.

WHAT IS A CAPITAL IMPROVEMENT?

A common definition of a capital improvement includes new or expanded physical facilities that are relatively large, expensive, and permanent. An extremely important fiscal planning principle underlying this definition is that capital improvements should include only those expenditures for physical facilities with a relatively long-term basis or through grants acquired from other governmental agencies.

Capital improvements should not include expenditures for equipment or services that prudent management defines as operating budget items and which ought to be financed out of current revenue resources.

BENEFITS OF A CAPITAL IMPROVEMENT PROGRAM

An effective capital improvement programming process can:

- **Ensure that plans for community facilities are carried out**
- **Allow improvement proposals to be tested against the community's policies and objectives**
- **Better schedule public improvements that require more than one year to construct**
- **Provide an opportunity, assuming funds are available, to purchase facilities for future municipal use**
- **Help stabilize tax rates through intelligent debt management;**

- Offer an opportunity for citizens and public interest groups to participate in decision-making
- Contribute to a better management of City affairs
- Permit a thorough technical evaluation of the justification for each improvement
- Enhance the orderly growth of the revenue base
- Provide a basis for-desired urban growth.

FISCAL POLICIES

Careful fiscal analysis and the adoption of specific fiscal policies must be the foundation of the Capital Improvement Program. Long-range financial studies and forecasts must be made. At a minimum, such analyses should include the preparation of tables showing the amortization of all outstanding debts. These forecasts focus on the local general economic situation and the extent to which it may affect long-term local government revenues. Anticipated revenues must then be compared with anticipated expenditures for capital improvements and personnel services, and other costs must be projected to determine whether projected revenues and expenditures are in balance, or whether surpluses or deficits, and forecast the effect.

Fiscal policies address such issues as:

- The maximum amount of debt the local government is willing to assume
- The type of revenue devices that will or will not be used
- The annual amount of debt service that the operating budget can absorb
- The specific types of projects or facilities that must be self-sufficient through user fees or other charges
- The degree to which the City will see State or Federal grant-in-aid.

Fiscal policies may be related to strategic community objectives--such as expenditures Targeted in support of economic development objectives that are most likely to maintain or attract an industrial or commercial base, create new jobs, or generate private investments in neighborhood revitalization.

CHOICE OF PRIORITIES

The setting of priorities continues to be a vexing problem. Choosing what project will be built is the most crucial step in the Capital Improvement Program process. Projects should be evaluated with regard to their effectiveness in achieving community goals.

The evaluation should consider factors such as:

- How the proposal complements the Comprehensive Plan and desired long-term urban growth patterns
- Whether the proposal will help implement the Strategic Plan to be developed and adopted by the City Council
- The extent that the proposal will encourage capital investment, improve the City's tax base, improve job opportunities, attract consumers to the City, or produce public or private revenues
- Whether the proposal is be cost-effective in terms of capital and probable operating cost
- The extent that the proposal eliminates or reduces conditions detrimental to health, safety, and general welfare of the community
- How the proposal meets a community obligation to serve a special need
- If the proposal cost is justified in terms of number of persons to be benefitted;

2023-2027 5-YEAR CAPITAL IMPROVEMENT PLAN

Entry No.	Department	CIP Name	Est Total Cost	Description
1	Airport	Tile Floor Replacement - Lobby & Bathrooms	\$ 20,000	Tile (ASBESTOS?) floor in public area breaking up / free tile chips at entrance door threshold. If asbestos mitigation required, likely the largest part of replacement. If not, floor cost should be significantly less.
2	Airport	ADA Building Update	\$ 30,000	ADA update to airport "terminal" building for public use (offices/lobby/bathrooms.)
3	Airport	Apron Design and Reconstruction	\$ 800,000	Apron (aka - parking/movement area) design and reconstruction (phase 1 - west apron)
4	Airport	Aviation Gasoline System Replacement	\$ 400,000	Fuel farm replacement with current tank removal. SCHEDULE 2027
123	Economic Development & Planning	Second Pedestrian Bridge	\$ 5,300,000	Construct, in cooperation with the City of Saco, a second pedestrian bridge across the Saco River connecting to Pearl Point Park and the rest of the Riverwalk.
124	Economic Development & Planning	Riverwalk	\$ 3,000,000	Construction of the Riverwalk from Laconia Plaza to Pearl Point Park.
125	Economic Development & Planning	Pearl Point Park	\$ 1,500,000	Build out of Pearl Point Park, at the end of Pearl Street
126	Economic Development & Planning	Climate Change Action Plan	\$ 65,000	To build on the work of the Climate Change Task Force, the Task Force recommending a budget of \$65,000 to create a climate change plan.
127	Economic Development & Planning	Public Art Seed funding	\$ 100,000	The DDC will provide Council with a report in December for the establishment of an Arts Council. That Council will begin developing an action plan during the next fiscal year.

10	Engineering	Electrical-Lincoln Street	\$ 180,000	Complete underground Electrical Street drainage improvements.
11	Engineering	Utilities/Re-construction	\$ 3,320,000	Utilities, lights, storm water Repair/replace/update
12	Engineering	Bumps Outs and Cross Walks Lower Main St	\$ 510,000	downtown street scape from Alfred to Water St
13	Engineering	Hill/Main/Water	\$ 3,047,000	Intersection redesign and improvements at Hill, Main, Water
14	Engineering	Thatcher Brook 319 Phase III	\$ 220,000	Thatcher Brook Watershed 319 Grant implantation of phase #3
15	Engineering	Thatcher Brook Watershed Mgt Plan Phase-II	\$ 475,000	Thatcher Brook Watershed retrofit/improvement program
16	Engineering	Engineering Design/Inspection Services	\$ 800,000	Engineering design and inspection services for upcoming projects
17	Engineering	Intersection Elm & Pearl	\$ 2,049,125	Intersection redesign and improvements at Elm and Pearl St
18	Engineering	Green Infrastructure, Install LID Devices and Structures	\$ 1,000,000	Install Green infrastructure, storm water flow reduction devices
19	Engineering	River Wall Repair, Mechanics Park	\$ 400,000	Repair/replace river wall along Mechanics Park
20	Engineering	Sidewalks - Adams St	\$ 200,000	Sidewalk replacement
21	Engineering	Sidewalks - Alfred Street Phase I	\$ 1,261,390	Sidewalk replacement, new street lights, crosswalks. Main to Jefferson 600'long 6'wide
22	Engineering	Sidewalks - Alfred St Phase II	\$ 1,261,390	Sidewalk replacement
23	Engineering	Crosswalks/Lights/Sidewalks - Washington St	\$ 624,000	Sidewalk replacement, new lights, cross walks
24	Engineering	River Wall Repair Next to Zanton Property	\$ 2,000,000	Stones missing to river current do too heavy rains
25	Engineering	Harbor Access/Boat Launch - Vines Landing	\$ 425,000	Reconstruct boat launch at Vines Landing
26	Engineering	West Brook Skating Area Improvements	\$ 1,720,000	Repair/Reconstruct berm along West Brook to protect skating area
27	Engineering	Climate Resiliency Initiatives	\$ 300,000	Look at climate needs for the future of the plant
28	Engineering	Granite Point Culvert Replacement	\$ 469,000	Culvert replacement Granite Point Road
29	Engineering	Landry Street Culvert	\$ 150,000	Replace culvert Landry street
30	Facilities	Community ADA Compliance	\$ 21,277,700	Corrective action to resolve identified ADA deficiencies from 2021 ADA Self-Evaluation and Transition Plan document.

				Placeholder for future demolition of the communications tower at 3 Lincoln Street (former Maine Energy Recovery Company property)
31	Facilities	3 Lincoln Communications Stack	\$ 1,100,000	
32	Facilities	CC Community Center	\$ 1,677,790	Community Center renovations including heating.
33	Facilities	CH City Hall Renovations	\$ 1,000,000	City Hall renovations for building maintenance and ADA compliance
34	Facilities	DPW Replace Garage Doors	\$ 90,000	Replace large overhead doors over 3 year period.
35	Facilities	DPW Front Doors Replacement	\$ 15,000	Replace both front entry doors at Public works.
36	Facilities	DPW Hallway/Lunch Room Flooring	\$ 17,500	New flooring in Hallway and Break room.
37	Facilities	DPW Recycling Cardboard Storage	\$ 15,000	Recover Cardboard storage with stronger vinyl material.
38	Facilities	FD Rubber Roof Replacement	\$ 120,000	Replacement of rubber roof . It has reached its lifespan and has had multiple issues with leaking that have had to be repaired. The roof is original from when the station was built in 1990.
39	Facilities	FD Driveway Replacement	\$ 275,000	Our current drive way has not been replaced or sealed since it was installed in 1990. It currently has large cracks throughout and is sinking in front of the apparatus bay doors. Catch basins are also caving in. DPW has worked to try and do repairs over the last few years, but the driveway has multiple concerns and it at the end of it's life span.
40	Facilities	FD Station Brick work	\$ 40,000	The fire station is 31 years old and the brick work is in need of repair. Water has caused damage and the station brickwork needs to be re-pointed.
41	Facilities	FD Duck Work Service	\$ 15,000	This request if for funding to service and clean the station duck work. This was done about 10 years ago, the duck work has been inspected and is in need of professional cleaning.
42	Facilities	FD Window Replacement Phase 1	\$ 30,000	This request is for phase 1 of a two phase project. This phase

				would replace the windows on the 2nd floor of the station.
43	Facilities	FD Window Replacement Phase 2	\$ 30,000	This request is for phase 2 of the FD window replacement plan. It would replace the windows on the first floor.
44	Facilities	FD Interior Floor Replacement	\$ 30,000	Replacement of the of the common areas flooring.
45	Facilities	FD Landscape Improvements	\$ 25,000	This request would provide funding to remove 8 large trees on the side of the building and install a lawn in that area.
46	Facilities	FD Apparatus Floor Re-Surface	\$ 18,000	This floor was originally resurfaced in 2012 because of slipping and safety issues. It is has become worn and it needs to be resurfaced to continue to offer the safety protection.
128	Facilities	FD Coastal Station Initial Development Cost	\$ 200,000	Initial development cost for a coastal station design
129	Facilities	FD Coastal Station	\$ 2,500,000	Construction of new coastal fire station.
47	Fire Department	Battery Extrication Tools	\$ 50,000	This would be used to update our vehicle extrication tools. Our current tools on SQ-28 are over 21 years old. These tools are used to extricate victims from vehicles at car accidents. Additionally, these new battery tools could be used for things like industrial accidents with people that may be trapped in machinery, building collapse incidents, and firefighter rescue. These new tools would be battery operated and not require the use of a large hydraulic pump like our current tools that do not allow us to operate them inside the building.
48	Fire Department	EMS CPR Compression Devices	\$ 30,000	This is a mechanical device that is attached to patients that are in cardiac arrest that delivers chest compressions. This device delivers compressions at a uniformed rate consistently to the patient allowing personnel to work on other needed medical

interventions. Additionally, this device improves on responder safety, often responders need to perform CPR compressions in positions that are not safe such as driving down the road in the back of ambulance. In addition CPR compressions could now be performed if needed while moving the patient, such as down a flight of stairs.

This request is to allow us to replace our current rescue boat. This boat is a 1964 aluminum boat that does not meet the needs of a rescue boat.

This request is for two EMS stretcher lifting devices that would go into each of the two remaining ambulances that we have that do not have these devices. This device assists with lifting the stretcher with the patient on in into the ambulance.

This project is to replace our current hydraulic rescue tool pump. This pump operates our hydraulic vehicle extrication tools. This pump was purchased in 2003.

Replacement of much of our high angle, below grade, and rescue ropes and harnesses. These items have reached the end of their manufacturer recommended service life and need to be replaced.

Replacement program for EMS stretchers, stair chair, cardiac monitors. All three of our ambulances and our front line fire apparatus have cardiac monitors. These monitors are computers that get used often and need to be on a replacement plan to stay up with the latest technology and most advanced patient care. Monitors are circulated from

49	Fire Department	Rescue Boat	\$ 50,000	
50	Fire Department	EMS Stretcher Lifting Device	\$ 50,000	
51	Fire Department	Hydraulic Rescue Pump	\$ 15,000	
52	Fire Department	Replace Rescue Ropes and Harnesses	\$ 15,000	
53	Fire Department	EMS Equipment	\$ 75,000	

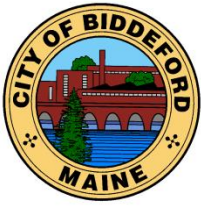
				ambulance to fire apparatus as they are replaced. This program would allow a cardiac monitor to be in service for about 18 years before it is taken out of service. EMS stretchers and stair chairs take a lot of abuse and need constant maintenance and repairs. This program would allow a stretcher and stair chair to be in service for 9 years before being taken out of service.
				This funding would replace our hydraulic rescue tool located on our 2nd Engine used in vehicle extrications.
54	Fire Department	Replace Hydraulic Rescue Tools	\$ 40,000	Erect stand-alone 200 foot telecommunications tower to service the western part of the City.
55	Police Department	Andrews Road Radio Tower	\$ 1,000,000	Portable vehicle barrier system to prevent vehicle ramming events
122	Police Department	Modular Vehicle Barrier System	\$ 35,350.00	5 year vehicle/equipment replacement program
56	Public Works	Vehicle Maintenance 5 Year Vehicle/Equip Replacement Program	\$ 5,875,000	Resurfacing of app 6 miles of roadway
57	Public Works	Street Maintenance - Capital Paving Program	\$ 3,596,618	Sidewalk repair throughout city as needed.
58	Public Works	Sidewalks	\$ 487,500	
59	Public Works	Granite Point Culvert		
60	Public Works	Rte. 1 Improvements	\$ 845,000	Install drainage syst. Sidewalks paving from the Spur to Arundel line
61	Public Works	Tree Management Plan	\$ 200,000	Implementation of a multiyear program to manage and maintain a healthy tree inventory within the city. Focus on Main Street the year of 2023
62	Public Works	Road Widener	\$ 67,500	Road widener will allow city staff to do all gravel shoulder work and loam placement after hot top has been completed. This will speed up projects and completions. Gives for a better quality finish product.
63	Public Works	Auto gate	\$ 55,000	Put auto gate on Bus entrance side.

64	Public Works	Cemetery Software Program	\$ 40,000	Software program for burial inventory.
65	Public Works	Sign inventory	\$ 40,000	Supplies for new signage throughout the city.
66	Recreation	Clifford Park	\$ 72,000	Maine Conservation Corp projects, skate park repair, park shelters, trail work, court resurface.
67	Recreation	Community Center Playground	\$ 68,000	Community Center Playground upgrades and replacement.
68	Recreation	Doran Field	\$ 30,000	Field reconfiguration, facility completion, elimination of aged playground, relocation of batting cage, dugout repairs.
69	Recreation	Seasonal Ice Rink	\$ 30,000	Temp ice for Mechanics Park.
70	Recreation	Memorial Park	\$ 33,800	Improve Challenger Field dugouts (Middle Field), playground updates.
71	Recreation	Park Fence Repair	\$ 14,000	Clifford Park Fence repairs near parking lot and tennis court, St. Louis interior fence, Maintenance gate at Rotary Park.
72	Recreation	Park in the Pines Seawall	\$ 40,000	Engineering and repair work for seawall.
73	Recreation	Pierson's Lane Playground	\$ 30,000	Playground upgrades and fencing repair and addition of stockade fence between playground and Bacon Street Apt.
74	Recreation	Pool Beach Ramp	\$ 25,000	Ramp improvements for the bathhouse.
75	Recreation	Portable Stage	\$ 12,000	Portable stage for community events.
76	Recreation	Property Purchase- Gagne	\$ 150,000	Gagne Property Purchase.
77	Recreation	Rotary Park Complex	\$ 1,635,250	Work off master plan and replacing Martel Field Backstop.
78	Recreation	Shevenell Park	\$ 152,519	Park Renovation.
79	Recreation	Park Amenities-1	\$ 35,000	Addition and replacement of items such as grills, picnic tables, benches, kiosk and bike racks.
80	Recreation	Mobile Restroom	\$ 25,000	Use for special events.
81	Recreation	St Louis Field Complex	\$ 2,200,000	Field I seating, perimeter fencing replacement on Hill, South and Prospect Streets, Field II bleacher replacement, irrigation field I.

				Restroom renovation at St. Louis facility.
82	Recreation	Splash Pad	\$ 500,000	Recreational Splash pad.
83	Recreation	Community Center Myrtle Street Lot	\$ 75,000	Regrade and pave myrtle Street lot.
84	Wastewater Treatment Plant	Private I/I	\$ 1,500,000	Assist in removal of private I/I from flat roofs and sump pumps
85	Wastewater Treatment Plant	GIS Mapping	\$ 625,000	General improvement on sewer/storm map accuracy including field verification and data collection on elevations.
86	Wastewater Treatment Plant	Sewer Pipe Rehab	\$ 1,750,000	Trenchless lining projects to begin to rehabilitate the collections system
87	Wastewater Treatment Plant	Flow Monitoring	\$ 400,000	System flow monitoring
88	Wastewater Treatment Plant	CSO Phase III Master Plan	\$ 300,000	CSO Phase III Master Plan
89	Wastewater Treatment Plant	CSO Separation - Alfred St-1	\$ 1,560,000	Sewer separation on Alfred St. from Main to Pool
90	Wastewater Treatment Plant	CSO Separation - Alfred St-2	\$ 910,000	Sewer separation on Alfred St. from Pool to Summer
91	Wastewater Treatment Plant	CSO Separation - Summer St	\$ 650,000	Sewer separation on Summer St from Alfred to Foss
92	Wastewater Treatment Plant	CSO Separation - Alfred St-4	\$ 650,000	Sewer separation on Alfred St. from Porter to Myrtle
93	Wastewater Treatment Plant	CSO Separation - Center St	\$ 1,692,158	CSO Separation Project
94	Wastewater Treatment Plant	CSO Separation-Elm St	\$ 1,190,000	Elm Street sewer separation work. Cutts to South
95	Wastewater Treatment Plant	CSO Separation-Pool and Foss Road	\$ 900,000	CSO Separation Project
96	Wastewater Treatment Plant	CSO Storage Tank-Horrigan's Court/Gooch St Area	\$ 3,000,000	CSO Storage Tank
97	Wastewater Treatment Plant	FMI Pump Station	\$ 450,000	Replacement of Morin St FMI pump station
98	Wastewater Treatment Plant	Horrigans Court Pump Station	\$ 6,000,000	New pump station to replace existing station at Horrigans Court
99	Wastewater Treatment Plant	Bypass Pump	\$ 60,000	Replacement of 6" bypass pump for emergency backup pumping
100	Wastewater Treatment Plant	Bidd Pool WWTF Disinfection Upgrade	\$ 80,000	Replace sodium hypochlorite disinfection with UV system
101	Wastewater Treatment Plant	Effluent Pump Station	\$ 1,260,000	Install new Effluent Pumping Station at WWTF

102	Wastewater Treatment Plant	CSO#9 Tank Pumps	\$ \$50,000	Replacement of pumps at CSO#9 capture tank and automate pumps/valves
103	Wastewater Treatment Plant	Biotower Media Replacement	\$ 1,050,000	Replace media in bio-reactor
104	Wastewater Treatment Plant	Concrete Repair on Aeration Basins	\$ 60,000	Repairing concrete, Sandblasting and painting of two (2) aeration tanks at WWTF
105	Wastewater Treatment Plant	WWTF Modifications for Nitrogen Removal	\$ 300,000	Baffles, Mixers, Recirculation pumps and instrumentation for two aeration tanks at WWTF to allow the facility to better remove nitrogenous wastes
106	Wastewater Treatment Plant	CSO Separation-South St	\$ 1,690,000	South St. sewer separation. Wentworth to Adams
107	Wastewater Treatment Plant	Grit Removal System	\$ 242,000	Replacement of grit washing units
108	Wastewater Treatment Plant	Updating PLC	\$ 30,000	Replacement of remaining PLC5 with new Allen Bradley PLC
109	Wastewater Treatment Plant	WWTF Roofing	\$ 75,000	Replacement of Admin. Building 1, 2, 9 roofing
111	Wastewater Treatment Plant	Sewer Upgrade - Diamond Match Park	\$ 1,300,000	Replacement of cross country pipe that runs along the river on the east side of the Horrigan's pump station.
112	Wastewater Treatment Plant	Effluent Flow Meter	\$ 40,000	Replacement of 24" effluent flow meter at WWTF
113	Wastewater Treatment Plant	CSO Separation - Alfred St-3	\$ 2,080,000	Sewer separation on Alfred St from Summer St. to Porter St.
114	Wastewater Treatment Plant	WAS/RAS Pump Replacement	\$ 82,000	Replacement of two waste pumps and one return pump
115	Wastewater Treatment Plant	9th St Drainage	\$ 750,000	French drain causing flooding during heavy rain. Needs new drainage run to connect to. Home owners keep calling to complain.
116	Wastewater Treatment Plant	CSO Separation - Cutts St	\$ 432,000	CSO Separation Project
117	Wastewater Treatment Plant	CSO Separation - Mason/Bradbury	\$ 1,056,000	CSO Separation Project
118	Wastewater Treatment Plant	Expand Capacity on Water St	\$ 150,000	New pipe on Water St to increase capacity to CSO tank and WWTF.
119	Wastewater Treatment Plant	CSO Separation - Lower Main	\$ 422,500	Pipe repairs on lower Main
120	Wastewater Treatment Plant	CSO Separation - Main St	\$ 800,000	Sewer separation from Lunt to Highland
110	Wastewater Treatment Plant	Elm St Pumps Station	\$ 3,000,000	New pump station on Elm St at river

121	Wastewater Treatment Plant	Supervisor Vehicle	\$ 40,000	Replacement of Wastewater Supervisor vehicle
5	Biddeford Ice Arena	Bleachers	\$ 245,000	Replace Bleachers
6	Biddeford Ice Arena	Right Side Wall Repair	\$ 38,502	Repair existing damage to East Wall.
7	Biddeford Ice Arena	New Roof	\$ 149,621	Repair existing damage to roof an upgrade.
8	Biddeford Ice Arena	Replace old Baxi Boilers	\$ 84,920	Replacement of existing Baxi boilers that have exceeded life expectancy.
9		Community Gateways		
			\$ 114,942,133	



CITY OF BIDDEFORD

Planning and Development Department

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

David.Galbraith@biddefordmaine.org

PLANNING BOARD STAFF REPORT

TO: Chair Patoine and Members of the Biddeford Planning Board

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

DATE: February 9, 2023

RE: **2023.08 Preliminary Site Plan Review for Fitts Holdings LLC to expand campground to add 18 full service sites at 391 West Street (Tax Map 4, Lot 15-6).**

MEETING DATE: February 15, 2023 at 6:00 PM

1. INTRODUCTION

This application contains materials for a Sketch Plan review for a proposed 18 lot campsite expansion of the Shamrock Campground located at 391 West Street (Tax Map 4, Lot 15-6). As proposed the new lots will be connected to a new camp road that connects two (2) existing internal roadways in a loop road for better circulation and emergency vehicle access. The new campsites will be served by wells and septic systems.

2. PROJECT DATA/INFORMATION

1.	Applicant:	Fitts Holding LLC 26 Scenic Drive Oxford, ME
2.	Owner of Property:	Same as applicant
3.	Agent:	William Thompson-BH2M 380 B Main Street Gorham, ME 04038
4.	Surveyor:	Robbery Libby, Jr. BH2M 380B Main Street Gorham, ME 04038
5.	Project Location:	391 West Street
6.	Project Tax Map #/Lot #:	Tax Map 4, Lot 15-6
7.	Lot Size:	16.4 Acres
8.	Base Zoning:	RF
9.	Overlay Zoning:	Shoreland
10.	Existing Use:	Campground
11.	Proposed Use:	Expanded Campground
12.	Approvals Required:	Preliminary Site Plan Review
13.	Uses in the Vicinity:	Residential

Case 2023.08: 391 West Street (Shamrock Campground) /Preliminary Site Plan Review, (Tax Map 4, Lots 15-6) in the RF zone and Shoreland Overlay zone.

Planning Board Hearing date: February 15, 2023.

14.	Waivers Needed:	a. None
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	
23.	LDR Attachment A: Fees Paid:	TBD
25.	Planning Board Review History: Preliminary 2-15-23	

Compliance with City Ordinances

Per the City of Biddeford Code of Ordinances Chapter 66 *Subdivisions*, Section 30, the purpose of the Sketch Plan review is for the Board to review the overall layout plan and offer general feedback to the applicant, to inform the Applicants additional materials the Board will want to review within the Preliminary submission. The Board may also request additional studies to be made, at the applicant's expense, to inform the design and approval process. The Board must also make the determination that the proposed subdivision is a major or minor subdivision, based on the following criteria:

Major subdivisions:

Propose to develop any type of additional roadways, whether public or private; or extend public water or sewer lines; where five or more lots are proposed; or are considered planned unit developments.

This determination will dictate whether the application must proceed with a preliminary and final approval in two distinct steps, or if both may be granted simultaneously. If the application is deemed a major subdivision, the applicant must submit all information required in Section 66-35 to be considered for preliminary approval. The Board may also request additional studies to be made, at the applicant's expense, to inform the design and approval process.

Waiver Requests

None at this time.

Recommendations

At this time, the Board should review the application, listen to the applicant's presentation, and ask questions/make comments to better inform the project. The purpose of the Sketch Plan review is for the Board to review the overall concept of the proposal and gain a better understanding of the project as a whole. The Board must also determine if the application constitutes a major or minor subdivision. By definition, the project is a major subdivision.

The Applicant shall illustrate the stream that crosses the property, the locations of the proposed septic systems and the 100 foot setback requirement requirements for both. The Applicant should also illustrate all tree removals being proposed and the reasoning for the removal.

Sample Motion

- A. Motion to designate the application for an 18-lot campsite expansion of the Shamrock Campground located at 391 West Street (Tax Map 4, Lot 15-6) as a Major Subdivision.



Civil Engineering | Surveying

January 10, 2023

David Galbraith
Biddeford City Planner
P.O. Box 586
Biddeford, Maine 04005

Re: Shamrock Campground Expansion
West Street

Dear David;

On behalf of the applicant/owner, on the Shamrock Campground, we are submitting a concept plan for an 18 campsite expansion. The existing campground has 60 sites of a mix of tent sites & R.V. park models.

This expansion on the 16 acre parcel will include extending onsite water from their existing well system and construction of subsurface disposal systems. Site is presently served by overhead electric and they wish to continue with extending the service.

We have completed a full boundary survey, topographic survey, wetland mapping, vernal pool review and report and a net residential calculation to show that this site will support the 18 new sites.

On site drives will be upgraded and expanded to provide a loop access to accommodate emergency vehicles and camper maneuvering. Stormwater design will be completed to meet the City's standards.

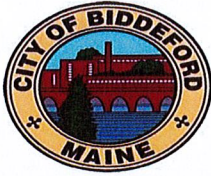
Our project plans for this first review include an existing conditions plan and a site plan showing the expansion. This first meeting with the planning board will be to introduce the expansion and to receive comments from staff and the planning board.

Enclosed please find 7 full size page copies, application and cover letter along with a \$75.00 application fee. PDF copy will also be forwarded to the City Planner. We wish to be on the next planning board agenda for presentation.

Sincerely,

William A. Thompson
Project Manager

Encl.
cc: E&J Fitts

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

P.O. Box 586, 205 Main Street Biddeford, Maine 04005

207-284-9115

Type of Application:

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

Applicant Information:

Name: Fitts Holdings LLC
 Mailing Address: 26 Scenic Drive Oxford, Maine
 Telephone: 207 890-4437
 Email: erniefitts@yahoo.com

What is your legal interest in the property?

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

Owner's Information:

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

Agent's Information:

Name: William Thompson - BH2M
 Mailing Address: 380B Main Street Gorham, Maine 04038
 Telephone: 207 839-2771
 Email: wthompson@bh2m.com

Engineer/Surveyor's Information:

Name: Robert Libby Jr - BH2M
 Mailing Address: 380B Main Street Gorham, Maine 04038
 Telephone: 207 839-2771
 Email: rlibby@bh2m.com

Project Location and Lot Information:

Street Address: 391 West Street Drainage Watershed: _____
Tax Map: 4 Lot: 15-6
Current Zoning: RF Shoreland Zoning: Yes
 Size of Lot: 16.14 (X) acres () s.f. Lot Frontage: 810'
 Existing Use of Property: Campground

Property currently serviced by:

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

Slope Conditions in Area of Construction (if applicable):

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

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

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

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

Description of proposed use of property:

Project/Proposed Use:

Campground expansion to add 18 full service sites.

Each site will be served with sanitary sewer, water and electric.

Sewer will be treated on site with septic systems.

Property to be Serviced by:

☐ City Road ☐ Public Sewer ☐ Public Water ☐ Public Trash

☐ Private Road ☒ Septic System ☒ Private Well ☒ Private Hauler

Limits of Disturbance: _____ () acres () s.f.

Net change in impervious cover: _____ () acres () s.f.

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

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

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

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

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

If in a Shoreland Zone:

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

Percent of structure expansion (Max 30%): _____

If Subdivision Review, number of lots proposed: _____

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

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

Total new square feet footprint of structure: _____

Total new square feet paving/parking: _____

Waiver Requests (attach details):

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

Required Submittal Attachments:

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

Fees (Due at time of Submission):

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

Required Signatures:

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

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

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

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

Agent
Signature of Applicant: Walter A. [Signature] Date 1/11/23

Signature of Property Owner: _____ Date _____

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

- A) PDF OF SIGNED APPLICATION
- B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

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

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

- A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)
 - *Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'*
- B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.
- C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)
 - *All drawings & CAD reference files must be to-scale and within the following coordinate systems:*
 - MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

- A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIDUAL DRAWINGS REQUIRING BOARD SIGNATURE
- B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

5021

May 26, 2022

Mr. Ernie Fitts
Fitts Holdings LLC
26 Scenic Heights Drive
Oxford, ME 04270

Re: Wetland Delineation, Shamrock Campground, 391 West Street Biddeford, ME

Dear Ernie,

I have completed a delineation of wetlands on the 11+ acre parcel located at 391 West Street Biddeford, ME. The wetland delineation was completed in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Northcentral and Northeast Regions dated January 2012. These manuals require the presence of three parameters for a wetland to be present, wetland hydrology, hydrophytic vegetation, and hydric soils.

The wetlands I found on the parcel were flagged with yellow flagging. The flagging was labeled in an alphanumeric sequence. The wetland flags were located by GPS equipment capable of locating a point to within three feet. The wetland data has been forwarded it to BH2M. The wetlands found on the parcel are forested wetlands and wet meadow wetlands. The wetlands located adjacent to the stream do meet the definition of wetlands of special significance as defined by the Maine Department of Environmental Protection.

If you have any questions or require additional information, please contact me.

Sincerely,

Mark J. Hampton C.S.S., L.S.E.
Certified Soil Scientist #216
Licensed Site Evaluator #263

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

Quality services that meet your deadline



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

5021

May 26, 2022

Mr. Ernie Fitts
Fitts Holdings LLC
26 Scenic Heights Drive
Oxford, ME 04270

Re: Vernal Pool Assessment, Shamrock Campground, 391 West Street Biddeford, ME

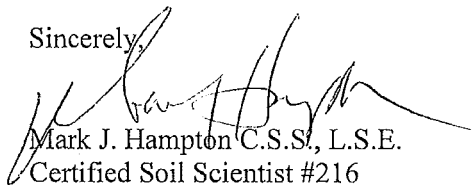
Dear Ernie,

I have completed a vernal pool assessment on a 11 acre parcel located at 391 West Street Biddeford, ME. The vernal pool assessment was conducted in accordance with Chapter 335 Significant Wildlife Habitat, Section 9 Significant Vernal Pools for the Maine Department of Environmental Protection. This section outlines the definition of a vernal pool as well as the requirements of a vernal pool to meet the definition of significance as related to the number of amphibian egg masses counted during the breeding season.

Two site visits were made to the property over the course of six weeks beginning the first week in April. One vernal pool was found on this property. The pool did not reach the egg count thresholds to be considered significant under the regulations. I have included the completed IF&W data collection form and photographs with this letter.

If you have any questions or require additional information, please contact me.

Sincerely,


Mark J. Hampton C.S.S., L.S.E.
Certified Soil Scientist #216
Licensed Site Evaluator #263



Maine State Vernal Pool Assessment Form



INSTRUCTIONS:

- Complete all 3 pages of form thoroughly. Most fields are required for pool registration.
- Clear photographs of a) the pool AND b) the indicators (one example of each species egg mass) are required for all observers.

Observer's Pool ID: VP-1

MDIFW Pool ID: _____

1. PRIMARY OBSERVER INFORMATION

- a. Observer name: Erik Lema
- b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes

2. PROJECT CONTACT INFORMATION

- a. Contact name: ☐ same as observer ☒ other Mark Hampton
- b. Contact and credentials previously provided? ☐ No (submit Addendum 1) ☒ Yes
- c. Project Name: Shamrock Camp

3. LANDOWNER CONTACT INFORMATION

- a. Are you the landowner? ☐ Yes ☒ No If no, was landowner permission obtained for survey? ☒ Yes ☐ No
- b. Landowner's contact information (required)
- Name: Fitts Holdings LLC Phone: _____
- Street Address: 26 Scenic Drive City: Oxford State: ME Zip: 4270
- c. ☐ Large Projects: check if separate project landowner data file submitted

4. VERNAL POOL LOCATION INFORMATION

- a. Location Township: Biddeford

Brief site directions to the pool (using mapped landmarks):

Shamrock Campground, 391 West St. South corner of parcel, in the forested portion of the site east of the last campsite toward West St.

b. Mapping Requirements

- i. USGS topographic map OR aerial photograph with pool clearly marked.

ii. GPS location of vernal pool (use Datum NAD83 / WGS84)

Longitude/Easting: 70deg24'35.55"W Latitude/Northing: 43deg26'35.79"N

Coordinate system: WGS84

Check one: ☐ GIS shapefile

- send to Jason.Czapiga@maine.gov; observer has reviewed shape accuracy (Best)

☐ The pool perimeter is delineated by multiple GPS points. (Excellent)

- Include map or spreadsheet with coordinates.

☒ The above GPS point is at the center of the pool. (Good)

☐ The center of the pool is approximately _____ m ☐ ft ☐ in the compass direction of _____ degrees from the above GPS point. (Acceptable)



Maine State Vernal Pool Assessment Form



5. VERNAL POOL HABITAT INFORMATION

a. Habitat survey date (only if different from indicator survey dates on page 3): _____

b. Wetland habitat characterization

■ Choose the best descriptor for the landscape setting:

☐ Isolated depression

☒ Pool associated with larger wetland complex

☐ Floodplain depression

☐ Other: _____

■ Check all wetland types that best apply to this pool:

☒ Forested swamp

☐ Wet meadow

☒ Slow stream

☐ Dug pond or borrow pit

☐ Shrub swamp

☐ Lake or pond cove

☐ Floodplain

☐ Peatland (fen or bog)

☐ Abandoned beaver flowage

☐ Mostly unvegetated pool

☐ Roadside ditch

☐ Emergent marsh

☐ Active beaver flowage

☐ ATV or skidder rut

☐ Other: _____

c. Vernal pool status under the Natural Resources Protection Act (NRPA)

i. Pool Origin: ☒ Natural ☐ Natural-Modified ☐ Unnatural ☐ Unknown

If modified, unnatural or unknown, describe any modern or historic human impacts to the pool (**required**):

ii. Pool Hydrology

■ Select the pool's estimated hydroperiod AND provide rationale in box (**required**):

☐ Permanent

☐ Semi-permanent
(drying partially in all years and completely in drought years)

☒ Ephemeral
(drying out completely in most years)

☐ Unknown

Explain:

Shallow, when the pond level drops the culvert will be perched and not allow flow into pool.

■ Maximum depth at survey: ☒ 0-12" (0-1 ft.) ☐ 12-36" (1-3 ft.) ☐ 36-60" (3-5 ft.) ☐ >60" (>5 ft.)

■ Approximate size of pool (at spring highwater): Width: 25 ☐ m ☒ ft Length: 125 ☐ m ☒ ft

■ Predominate substrate in order of increasing hydroperiod:

☐ Mineral soil (bare, leaf-litter bottom, or upland mosses present)

☐ Organic matter (peat/muck) shallow or restricted to deepest portion

☒ Mineral soil (sphagnum moss present)

☐ Organic matter (peat/muck) deep and widespread

■ Pool vegetation indicators in order of increasing hydroperiod (check all that apply):

☐ Terrestrial nonvascular spp. (e.g. haircap moss, lycopodium spp.)

☒ Wet site ferns (e.g. royal fern, marsh fern)

☐ Dry site ferns (e.g. spinulose wood fern, lady fern, bracken fern)

☒ Wet site shrubs (e.g. highbush blueberry, maleberry, winterberry, mountain holly)

☒ Moist site ferns (e.g. sensitive fern, cinnamon fern, interrupted fern, New York fern)

☒ Wet site graminoids (e.g. blue-joint grass, tussock sedge, cattail, bulrushes)

☐ Moist site vasculars (e.g. skunk cabbage, jewelweed, blue flag iris, swamp candle)

☐ Aquatic vascular spp. (e.g. pickerelweed, arrowhead)

☐ Sphagnum moss (anchored or suspended)

☐ Floating or submerged aquatics (e.g. water lily, water shield, pond weed, bladderwort)

☐ No vegetation in pool

■ Faunal indicators (check all that apply):

☐ Fish

☐ Bullfrog or Green Frog tadpoles

☐ Other: _____

iii. Inlet/Outlet Flow Permanency

Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):

☐ No inlet or outlet

☐ Permanent inlet or outlet (channel with well-defined banks and permanent flow)

☒ Intermittent inlet or outlet

☐ Other or Unknown (explain): _____



Maine State Vernal Pool Assessment Form



6. VERNAL POOL INDICATOR INFORMATION

a. Indicator survey dates: 4/11/2022, 4/29/2022

b. Indicator abundance criteria and pool survey effort

- Is pool depression bisected by 2 ownerships (straddler pool)? ☐ Yes ☒ No
- Was the entire pool surveyed for egg masses? ☒ Yes ☐ No; what % of entire pool surveyed? _____
- For each indicator species, indicate the exact number of egg masses, confidence level for species determination, and egg mass maturity. Separate cells are provided for separate survey dates.

INDICATOR SPECIES	Egg Masses (or adult Fairy Shrimp)									Tadpoles/Larvae ⁴					
	Visit #1	Visit #2	Visit #3	Confidence Level ¹			Egg Mass Maturity ²			Observed		Confidence Level ¹			
Wood Frog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spotted Salamander	9	9	-	3	3	-	F/M	M	-	-	-	-	-	-	-
Blue-spotted Salamander	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fairy Shrimp ³	-	-	-	-	-	-									

1-Confidence level: 1 = <60%, 2 = 60-95%, 3 = >95%

2-Egg mass maturity: F= Fresh (<24 hrs), M= Mature (round embryos), A= Advanced (loose matrix, curved embryos), H= Hatched or Hatching

3-Fairy shrimp: X = present

4-Tadpoles/larvae: X = present

c. Rarity criteria

- Note any rare species associated with vernal pools. Observations should be accompanied by photographs.

SPECIES	Method of Verification*			CL**	SPECIES	Method of Verification*			CL**
	P	H	S			P	H	S	
Blanding's Turtle	☐	☐	☐		Wood Turtle	☐	☐	☐	
Spotted Turtle	☐	☐	☐		Ribbon Snake	☐	☐	☐	
Ringed Boghaunter	☐	☐	☐		Other:	☐	☐	☐	

*Method of verification: P = Photographed, H = Handled, S = Seen

**CL - Confidence level in species determination: 1= <60%, 2= 60-95%, 3= >95%

d. Optional observer recommendation:

☐ SVP ☐ Potential SVP ☒ Non Significant VP ☐ Indicator Breeding Area

e. General vernal pool comments and/or observations of other wildlife:

Pool very shallow, outlet of permanent pond, not channelized. Bacterial growth throughout, low quality habitat.

Send completed form and supporting documentation to: Maine Dept. of Inland Fisheries and Wildlife
Attn: Vernal Pools
650 State Street, Bangor, ME 04401

NOTE: Digital submission (to Jason.Czapiga@maine.gov) of vernal pool field forms and photographs is only acceptable for projects with 3 or fewer assessed pools; larger projects must be mailed as hard copies.

For MDIFW use only Reviewed by MDIFW Date: _____ Initials: _____

This pool is: ☐ Significant ☐ Potentially Significant but lacking critical data ☐ Not Significant due to: ☐ does not meet biological criteria.
☐ does not meet MDEP vernal pool criteria.

Comments:

PHOTOGRAPHIC LOG

Site Location: Shamrock Campground, Biddeford

Photo No.
1

Date:
4/11/22

Site: slow stream/swale

Direction Photo Taken:
Southeast

Description: Shallow pool,
some flow, not channelized



Photo No.
2

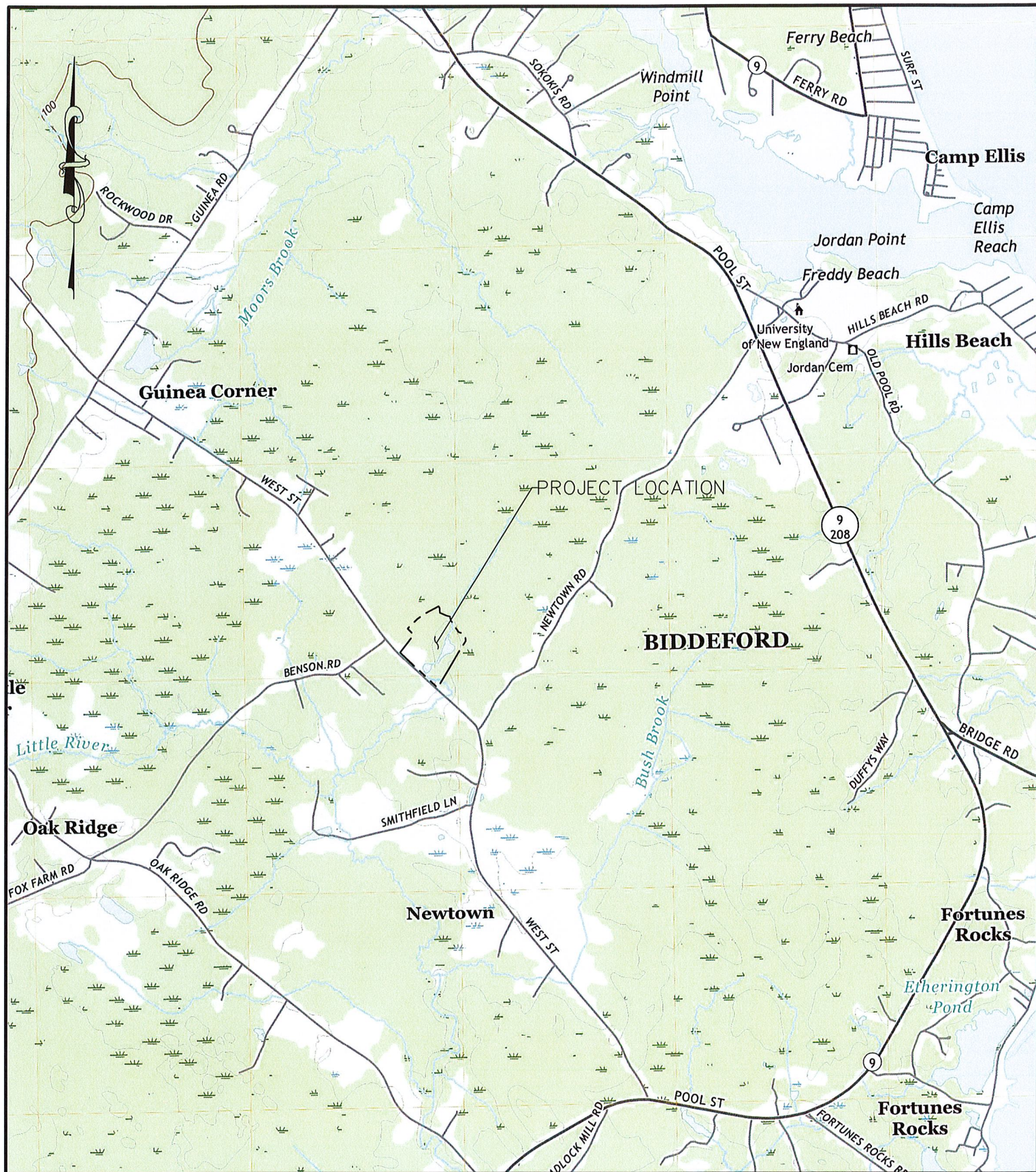
Date:
4/11/22

Site: slow stream/swale

Direction Photo Taken:
N/A

Description: Spotted
salamander egg masses

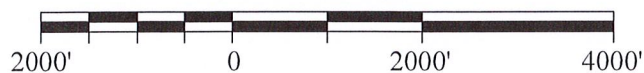




REFERENCES:

1. USGS QUADRANGLE BIDDEFORD, ME 2021

Scale: 1" = 2000'

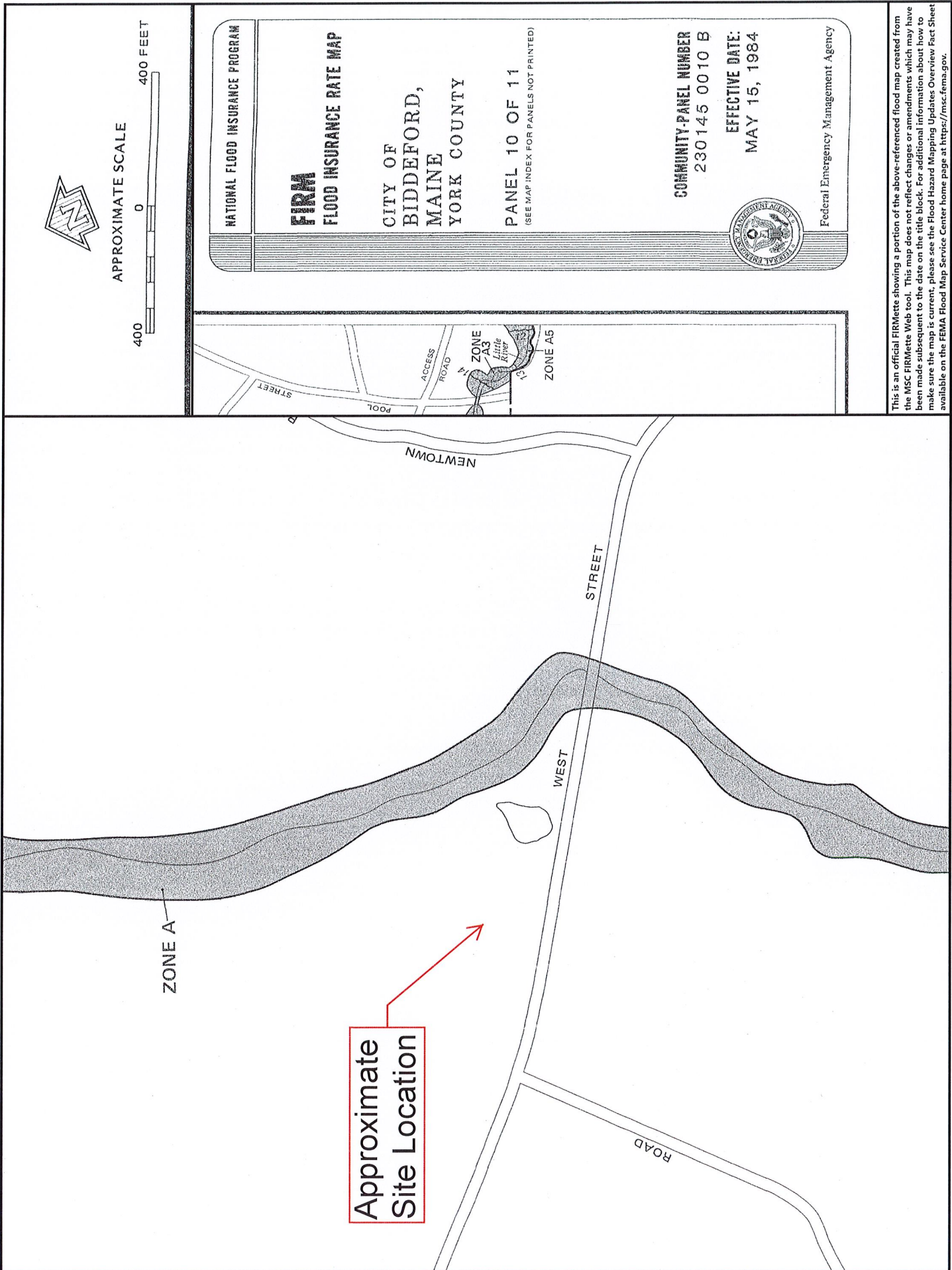


BH2M

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

380B Main Street
Gorham, Maine 04038

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



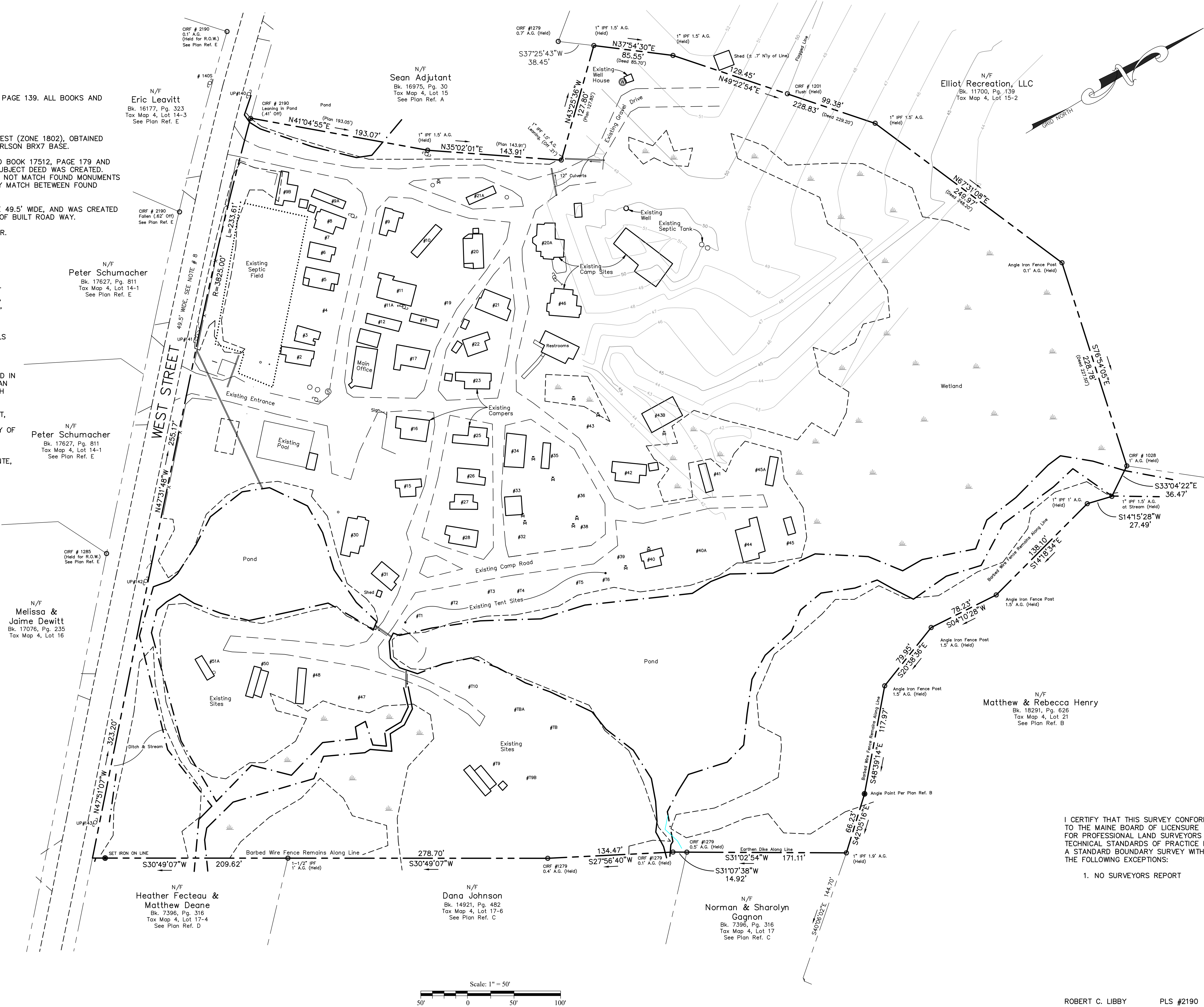
NOTES:

1. OWNERS: FITTS HOLDINGS, LLC.
26 SCENIC HEIGHTS DRIVE
OXFORD, MAINE 04270
2. SURVEYOR: ROBERT C. LIBBY, PLS #2190
BH2M, INC.
380B MAIN STREET
GORHAM, MAINE
3. TAX MAP REFERENCE: TAX MAP 4 LOT 15-6
4. SUBJECT DEED IS BOOK 17512, PAGE 179 & BOOK 11700, PAGE 139. ALL BOOKS AND PAGES REFER TO YORK COUNTY REGISTRY OF DEEDS.
5. TOTAL PARCEL AREA: TOTAL — 703,239 S.F. (16.14 AC.)
6. BEARINGS REFER TO STATE PLANE COORDINATES, MAINE WEST (ZONE 1802), OBTAINED FROM POST-PROCESSED GNSS OBSERVATIONS USING A CARLSON BRX7 BASE.
7. SIGNIFICANT DEED DISCREPANCIES FOUND IN SUBJECT DEED BOOK 17512, PAGE 179 AND PARENT DEED BOOK 11700, PAGE 139 FROM WHICH THE SUBJECT DEED WAS CREATED. DEEDS DO NOT MATHEMATICALLY CLOSE. DEED ANGLES DO NOT MATCH FOUND MONUMENTS CALLED PER SUBJECT DEED. DEED DISTANCES REASONABLY MATCH BETWEEN FOUND MONUMENTS.
8. WEST STREET, F.K.A. NEW TOWN ROAD, IS ASSUMED TO BE 49.5' WIDE, AND WAS CREATED USING PLAN REFERENCE A & E, ALONG WITH CENTERLINE OF BUILT ROAD WAY.
9. ELEVATIONS ARE 1 FOOT CONTOURS BASED ON NOAA LIDAR.

PLAN REFERENCES:

- A. STANDARD BOUNDARY SURVEY & DIVISION PLAN, LAND OF JEFFERY J. WHITE & JEANNE B. WHITE, 388 WEST STREET, BIDDEFORD, MAINE, FOR JEFFERY J. WHITE, BY BH2M, INC., DATED AUGUST 2010, JOB #10060.
- B. STANDARD BOUNDARY SURVEY FOR ALICE B. KAMINSKI, NEWTOWN ROAD, BIDDEFORD, MAINE, BY FRANK EMERY, PLS #1028, DATED FEBRUARY 1998, AND RECORDED IN YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 240, PAGE 17.
- C. PLAN SHOWING A SURVEY AND DIVISION OF LAND OF SHAROLYN & NORMAN R. GAGNON ON THE NEWTOWN ROAD IN BIDDEFORD, MAINE, PREPARED FOR SHAROLYN AND NORMAN R. GAGNON, BY WAYNE DESPER, PLS #1279, DATED MARCH 22, 2005.
- D. SUBDIVISION PLAN FOR PETER MOURMOURAS, WEST STREET, BIDDEFORD, MAINE, BY PAUL GADBOIS, PLS #2104, DATED MAY 13, 1999, AND RECORDED IN YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 248, PAGE 43.
- E. STANDARD BOUNDARY SURVEY PLAN, LAND OF JEFFERY WHITE, WEST STREET & BENSON ROAD, FOR JASON LABONTE, BY BH2M, INC., DATED JUNE 2010, JOB #10043.

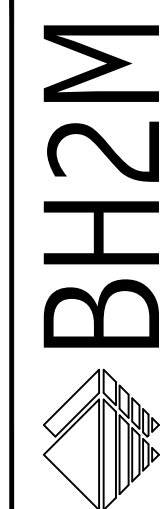
SYMBOL	DESCRIPTION
○	IRON ROD/PIPE FOUND
●	5/8" IRON ROD W/ CAP TO BE SET
⊙	UTILITY POLE
⊕	SEWER MANHOLE
⊗	UTILITY HOOKUP
⊞	WATER VALVE
—E—	OVERHEAD ELECTRIC
—	PROPERTY LINE
- - -	ABUTTER'S PROPERTY LINE
- · - · -	RIGHT OF WAY
- · - · -	EDGE OF PAVEMENT
- · - · -	EDGE OF GRAVEL
~~~~~	TREELINE
~~~~~	EXISTING CONTOUR
~~~~~	BELOW/ABOVE GRADE
~~~~~	NOW OR FORMERLY



I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

REVISION		DESCRIPTION
NO.	DATE	



BH2M

FOR
Fitts Holdings, LLC.
26 Scenic Drive
Oxford, Maine

Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
Fax (207) 839-8250

EXISTING CONDITIONS PLAN

SHAMROCK CAMPGROUND

LAND OF
FITTS HOLDINGS, LLC.
391 WEST STREET
BIDDEFORD, MAINE

DESIGNED R. C. Libby	DATE Jan. 2022
DRAWN Dept.	SCALE 1" = 50'
CHECKED W. Thompson	JOB. NO. 21265

SHEET
1

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NOTES:

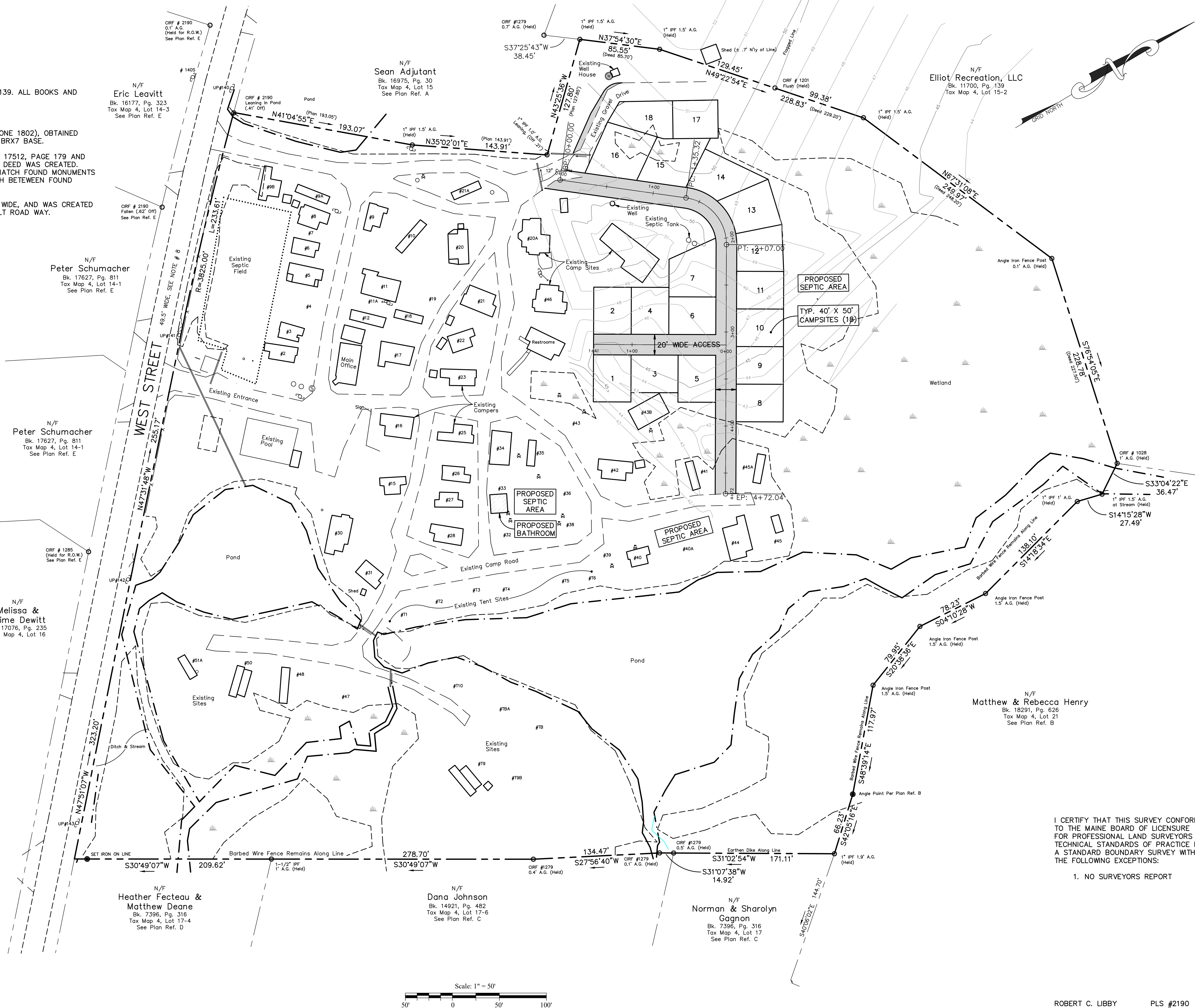
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- ELEVATIONS ARE 1 FOOT CONTOURS BASED ON NOAA LIDAR.
- EXISTING 60 CAMPSITES
- PROPOSED 18 R.V. SITES WITH WATER AND SEWER SERVICE
- OVERHEAD POWER
- DENSITY ALLOWED 11 SITES PER ACRE

NET DENSITY CALCULATIONS:
GROSS AREA: 16.14 ACRES
DEDUCT WETLANDS & POND: 5.56 ACRES
NET AREA: 10.58 ACRES

ALLOWABLE SITES:
11 SITES PER ACRE X 10.58 ACRES = 116 SITES

EXISTING SITES: 60
PROPOSED SITES: 18
TOTAL: 78 SITES
- PROPOSED ROADWAYS 20'
- ZONE: RF & SHORELAND
- WETLAND & VERNAL POOLS: MARK HAMPTON ASSOCIATES
- PLAN REFERENCES:
 - STANDARD BOUNDARY SURVEY & DIVISION PLAN, LAND OF JEFFERY J. WHITE & JEANNE B. WHITE, 388 WEST STREET, BIDDEFORD, MAINE, FOR JEFFERY J. WHITE, BY BH2M, INC., DATED AUGUST 2010, JOB #10060.
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NO.	DATE	REVISION	DESCRIPTION

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Engineers, Surveyors
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Tel. (207) 839-2771
Fax (207) 839-8250

FOR

Fitts Holdings, LLC.
26 Scenic Drive
Oxford, Maine

SITE PLAN

SHAMROCK CAMPGROUND
PROPOSED CAMP SITES

LAND OF
FITTS HOLDINGS, LLC.
391 WEST STREET
BIDDEFORD, MAINE

DESIGNED R. C. Libby	DATE Jan. 2022
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CHECKED W. Thompson	JOB. NO. 21265

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2

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PLANNING BOARD STAFF REPORT

TO: Chair Patoine and Members of the Biddeford Planning Board

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

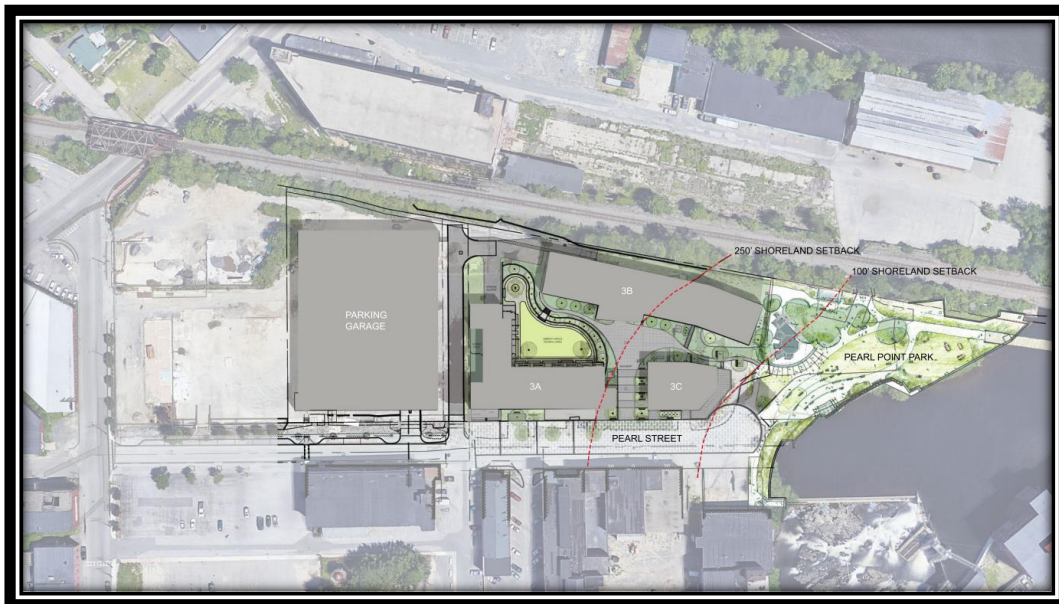
DATE: February 8, 2023

RE: **2022.02 Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.**

MEETING DATE: February 15, 2023 at 6:00 PM

1. INTRODUCTION

This application proposes to subdivide the former MERC site located at 3 Lincoln Street into four (4) separate lots. Lot 1 is to be located along the corner of Lincoln Street and Pearl Street and will remain undeveloped at this stage. The existing parking garage stands on the new Lot 2. Lot 3, across Pearl Street from The Lofts at Saco Falls, would have three (3) buildings constructed on it. Lot 4 is then closest to the Saco River and is being converted to a riverfront park by the City.



“3 Lincoln Street” Development – Lot 3 Development - Pearl Street

As proposed, Lot 3 will have three buildings, which includes Building A, an 85-unit mixed commercial and residential building, Building B, a 129-unit residential development, and Building C, a commercial development with proposed restaurant use, totaling approximately 298 seats. It should be noted that the subject property was formerly the Maine Energy Recovery Company (MERC) property and the only remaining structure on the property is the smoke stack on lot 4 which will be removed by the City as part of the public park development on the lot.

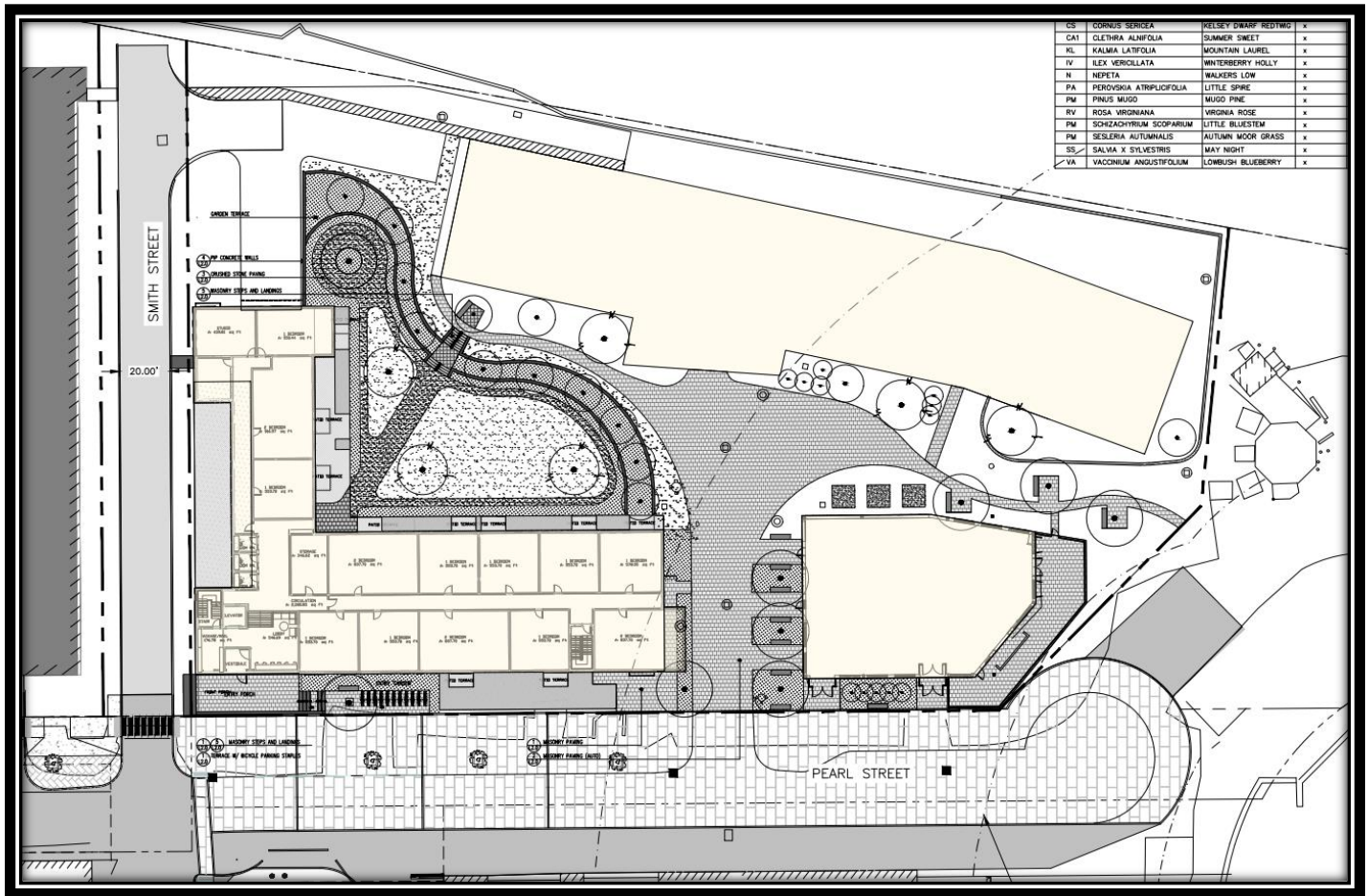


Conceptual Rendering of Proposed Restaurant adjacent to the River Park

This application is considered a major subdivision, and is also being reviewed as a major site plan, and is subject to local shore land zoning review, as the development site falls within 250 feet of the normal high water line of the Saco River. Aside from the City of Biddeford's local regulatory review, the project is also subject to a Maine DEP Stormwater Permit, and a Maine DOT Traffic Movement Permit (TMP). The development triggers Maine Site Law Review, for which the City of Biddeford has Municipal Capacity Authority.

This project, similar to others in the area, have been on hold until the City was able to adopt the necessary amendments to the Shoreland Zoning Ordinance which have been reviewed and approved by the Saco River Corridor Commission (SRCC) and have now also been adopted by the City. The site is located outside of the 100-year flood zone and the project is consistent with the MSRD 3 zone and triggers permits from the Saco River Corridor Commission, DEP, & MDOT. There is a 3 party review for the traffic movement permit (TMP).

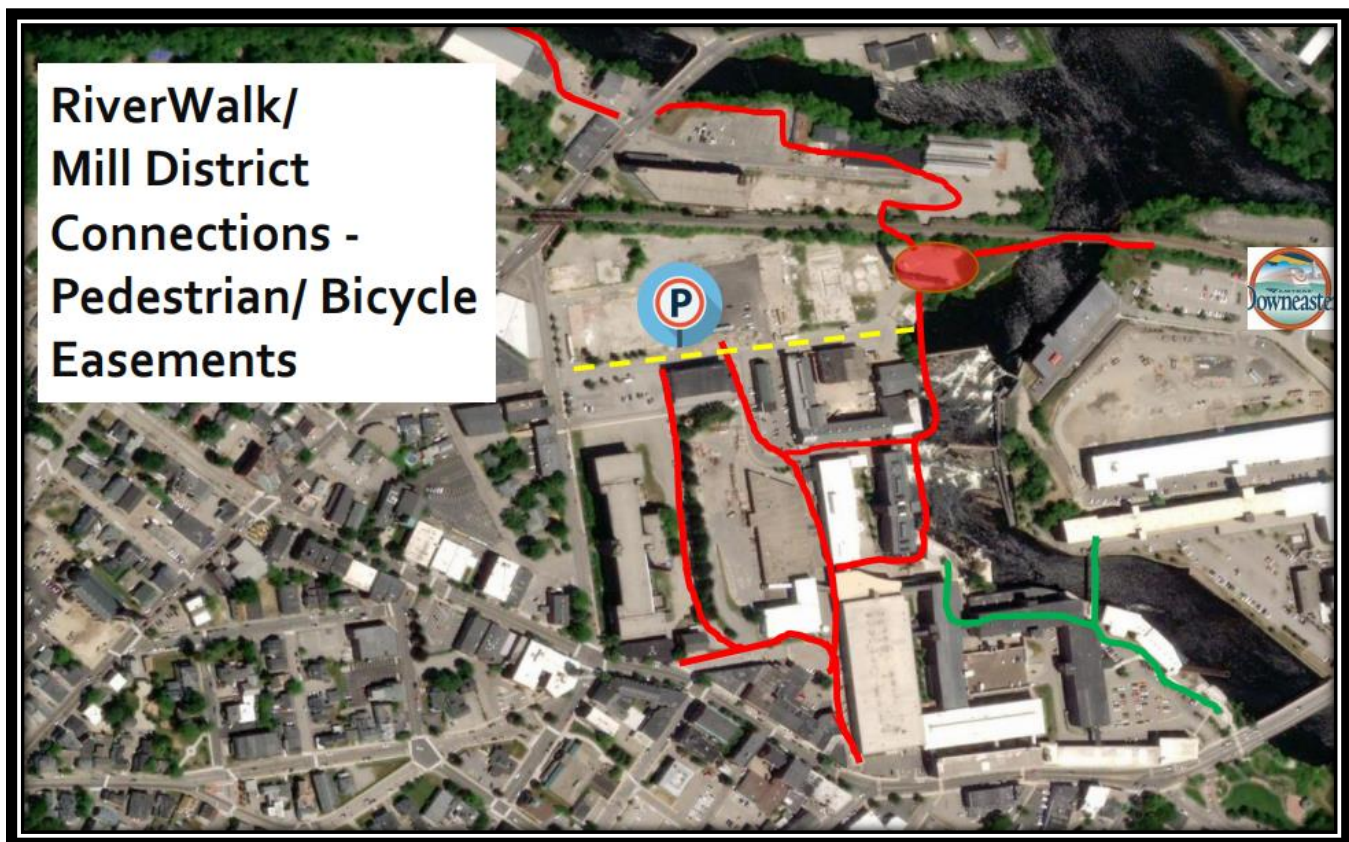
This Application has come before the Planning Board twice previously; 1) On February 2, 2022 the Application was reviewed as a "sketch plan" and; 2) on November 2, 2022 the project received preliminary approval by the Board. At this time the Applicant is seeking Final approval of the project.



“3 Lincoln Street” Development – Lot 3 Development - Pearl Street

The Lincoln Street subdivision, which runs from Lincoln Street east to the Saco River is proposed to be divided into four (4) lots. Lot 1 will remain vacant at this time, but is planned for future mixed use commercial / residential development. Lot 2 contains the City’s 640 stall parking garage is located; Lot 3 will contain the three buildings, currently under review, and Lot 4 is being redeveloped into a riverside park. The applicant is requesting an off street-parking waiver. The proposed building on Lot 3A will provide 1st floor parking containing 39 parking stalls, including two (2) handicapped stalls and it also features a dedicated bicycle parking area. The majority of the parking for the proposed development will be provided at the adjacent City owned parking garage located on Lot 2.

The central courtyard has been designed to accommodate emergency vehicle access / maneuvering and the site has travel ways existing on the south (Pearl Street) and west (former Smith Street) which can also be utilized for emergency vehicle access. The Application includes correspondence from the Fire Chief confirming that the site can be safely served by emergency service personnel. As the Board is likely aware, Pearl Street is being reconstructed using federal grant funds and will include decorative pavement / sidewalk treatments starting at “Smith Street”, traveling east which will be integrated into the river park being constructed by the City. All of the utilities serving the development of Lot 3 will be placed underground. The City and developer are coordinating the construction timing of the street improvements with the development of Lot 3 to reduce potential conflicts between the projects. The project will also include associated parking and landscaped areas which include the integration of internal sidewalks which also connect to the Riverwalk.



Development Area Located East of the City parking Garage Connecting Riverwalk Linkages

2. PROJECT DATA/INFORMATION:

1.	Applicant:	3 Lincoln, LLC 80 Exchange Street, Suite 400 Portland, ME 04101
2.	Owner of Property:	City of Biddeford
.	Agent:	Peter Heil, P.E. Acorn Engineering 500 Washington Ave, Suite #202 Portland, ME 04103
4.	Surveyor:	Owen Haskell
5.	Project Location:	3 Pearl Street
6.	Project Tax Map #/Lot #:	Tax Map 71, Lot 2
7.	Lot Size:	2.08 acres (Lot 3)
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	GD-1 Shoreland
10.	Existing Use:	Former MERC Site
11.	Proposed Use:	Mixed-use Residential and Commercial
12.	Approvals Required:	Major Subdivision, Major Site Plan, Shoreland Zone, Site Location (Capacity Review)

13.	Uses in the Vicinity:	City of Biddeford Downtown and Mill District, Mixed-Use
14.	Waivers Needed:	a. Commercial Space Parking Requirements b. Open Space Requirements
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	Maine DEP Stormwater, Maine DOT Traffic Movement Permit (TMP)
23.	LDR Attachment A: Fees Paid:	Yes
25.	Planning Board Review History: Sketch Plan Review - February 2, 2022 Preliminary Review Approval – November 2, 2022 Final Plan February 15, 2023	

3. REVIEW PROCESS:

Per City ordinance, this application is subject to Site Plan Review (Land Development Regulations, Article XI) and Subdivision review and approval (Code of Ordinances, Chapter 66). Subdivision applications generally follow a three-tier approval process beginning with a Sketch Plan review, and followed by a preliminary plan review and approval and a final plan approval. The Planning Board is now considering the preliminary plan submission.

4. REQUIRED REGULATORY CHANGES:

Staff would note that this application is contingent upon two sets of regulatory changes currently under consideration. The first, are changes that have been proposed by the Saco River Corridor Commission to their performance standards, which would relax development standards applicable to development in the SRCC General Development District. City staff and the applicant team have reviewed the proposed changes, and found them to accommodate the development program outlined in this application. The City Council unanimously passed a resolution to support these changes, and the Saco River Corridor Commission held a public hearing on these changes on October 26, 2022.

Simultaneously, the City of Biddeford has been coordinating closely with Maine DEP in developing amendments to the City's local shoreland zoning ordinance, which would allow for more intensive new development in certain areas of downtown Biddeford. Staff presented these proposed changes at the Board's October 19th meeting, and a public hearing on these changes at the Board's November 16th meeting. These amendments have been approved by the City Council and DEP.

As further affirmation, the Biddeford City Council has entered into a joint development agreement with this applicant, in support of the proposed development as presented here. Noting this, staff are comfortable advancing this application for final subdivision and site plan review.

5. STAFF REVIEW:

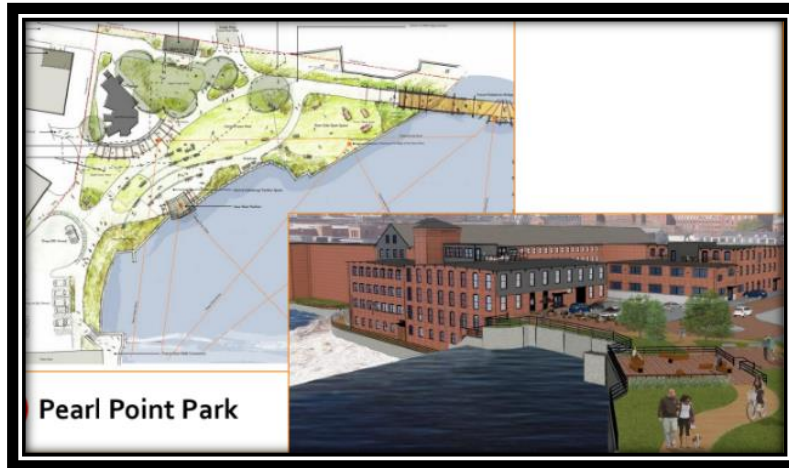
- a. **APPLICATION COMPLETENESS:** The applicant has submitted a complete application, featuring all required elements as specified under Section 66-35 (Required Information for Preliminary Plan Submissions). As part of the staff's review comments, we've identified aspects of the plan submission to be revised or clarified, which we suggest being made a condition of approval requiring of technical plan elements to be addressed prior to the scheduling of a pre-construction meeting.
- b. **ZONING:** The proposed uses, Commercial, Residential, and Restaurant, are permitted

uses within the MSRD-3 Zone, and the proposed Waterfront Renaissance shoreland zone overlay district. Similarly, with respect to applicable dimensional requirements, the project would comply with all applicable requirements, including building height, building setback, frontage, and lot coverage requirements.

- c. **REVIEW STANDARDS:** In general, staff found the application to satisfy City subdivision and site plan requirements, though as mentioned above, the City Engineer and our third party civil engineer, identified a number of technical plan elements to be addressed prior to the scheduling of a pre-construction meeting.
- i. Draft Deeds/Restrictive Covenants: The property at present is owned by the City of Biddeford and is yet to be subdivided. The applicant has entered into a joint development agreement with the City, and has a purchase and sale agreement in place. Noting this, and that the applicant has submitted a subdivision plan to separate the existing lot into 4 separate lots.
 - ii. Utility Capacity: The application includes a letter confirming adequate capacity from Maine Water Company, and the City has confirmed the development has adequate sewer capacity. Pearl Street is in the process of being redeveloped by the City of Biddeford, and will include as part of that work, upgrades to subsurface water, sewer, gas, electric and telephone/cable infrastructure to support development in this location.
 - iii. Maine DEP Stormwater Permit: As part of the permitting for the Pearl Street Garage, the City of Biddeford submitted for and had approved a Maine DEP stormwater permit, due to the amount of new impervious surface. The applicant is seeking to amend this permit to account for new development proposed on Lot 3.
 - iv. Maine Site Law Review: The City of Biddeford is classified as having capacity to review projects triggering the Maine Site Location of Development Act (SLODA) in areas of the City designated for priority growth as part of the Comprehensive Plan. As clarified in a recent email by Maine DEP, capacity review authority, permits certain municipalities to review projects triggering site location reviews under their local land use regulations (i.e. site plan, subdivision, shoreland zone, etc...), without formal review by the DEP. Noting this, staff and the Planning Board will proceed in its review of this project under applicable local review standards.
 - v. Traffic Movement Permit: The applicant has initiated the traffic movement permit (TMP) process with Maine DOT, and has held the required Scoping Meeting for the project, which is detailed in the submitted application. Once the Section 7 report is finalized for DOT's consideration, staff have a third party traffic engineer review the report, and provide feedback to Maine DOT to be included in the TMP.
 - vi. Off-Street Parking Requirements: The applicant is requesting a waiver from the Planning Board for its off-street parking requirements. The ordinance requires that an applicant provide 1 space per dwelling unit, plus an additional 5% for visitors, plus 1 space per every 3 restaurant seats. Based upon the development program, this equates to 325 spaces. The plans provided indicate that there will be 39 parking spaces at ground level in Building A, and that an additional 186 parking spaces are to be reserved in the Pearl Street Garage, occupying Lot 2 of the subdivision. Together, this constitutes 225 spaces, or an approximately 31% reduction from what is required by ordinance. Staff is supportive of the approach to limit off-street parking, and carefully manage demand to reduce vehicle trips in and out of the site. Parking is available in the adjacent municipal garage to be utilized

with this development.

- vii. Private Open Space: The site plan ordinance requires that 1,000 square feet of open space be set aside for each residential unit being proposed, which would amount to almost 5 acres. Staff would note that this is an urban development in the heart of downtown Biddeford, redeveloping a geographically constrained site. As part of the joint development agreement between the City and the applicant, the applicant has agreed to the establishment of a public access easement, which would allow the Riverwalk to traverse



the property. Further, the development site will be proximate to the newly proposed Pearl Point Park, proposed at the end of Pearl Street, which will be directly connected into the Riverwalk Trail. Noting this, staff would be supportive of the Planning Board granting a waiver of the open space requirement.

Pearl Point Park / Riverwalk Connection to and Through Project Site

- viii. **WAIVERS**: The applicant has requested a waiver of the off-street parking requirements as detailed above. Staff are also recommending that the Planning Board waive the open space requirement for new residential development, as required by the City's site plan ordinance.

6. Technical Issues: Their remains a number of technical issues to be addressed, primarily engineering in nature that are being finalized at this time. The items have been identified by the City's Peer Review Engineer, Engineering Director and the Director of Public Works the plan and material revisions in response to these comments should not impact the overall design of the project or delay the approval of this application. Staff is recommending that the Planning Board approve the Final Plans as submitted with the condition that these items have been resolved to the satisfaction of the City Planner, Engineering Director and the Director of Public Works.
7. STAFF RECOMMENDATION: Staff is comfortable moving forward with the Board's Final Approval of the project, with the understanding that the remaining engineering issues will be resolved, to the satisfaction of the City's Public Works Director, Engineering Director, and City Planner prior to a Preconstruction Meeting being scheduled. A Condition of Approval (COA), of this nature, has been included within the Findings of Fact (FOF) / COA. Therefore, Staff recommends the Planning Board approve the re-development project plans as presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA).

8. SAMPLE MOTIONS

- A. Motion to Approve: I motion to APPROVE the Case # 2022.02 a Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone as presented with the adoption of the Findings of Fact (FOF) and Conditions of Approval (COA).

B. Motion to Deny / motion to DENY Case # 2022.02 a Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone, *for the following reasons:*

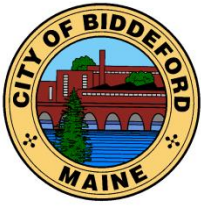
- 1) _____.
- 2) _____.
- 3) _____.

C. Motion to Table: I motion to TABLE the Case # 2022.02 a Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone, *for the following reasons:*

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

RE: 2022.02 Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.

MEETING DATE: February 15, 2023 at 6:00 PM



CITY OF BIDDEFORD

Planning and Development Department

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

FINDINGS OF FACT AND CONCLUSIONS OF LAW

3 Lincoln Street Final Subdivision and Site Plan Approval

RE: 2022.02 Final Subdivision, Site Plan, and Shoreland Zoning Review for 3 Lincoln, LLC to redevelop the former MERC site at 3 Lincoln Street (Tax Map 71, Lot 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.

FINDINGS OF FACT:

3 Lincoln, LLC would like to redevelop 3 Lincoln Street (Lot 3 of Pearl Street) dividing the lot into 4 separate lots and construct 3 buildings including Building A, an 85-unit mixed commercial and residential building, Building B, a 129-unit residential development, and Building C, a commercial development with proposed restaurant use, totaling approximately 298 seats.

1. PROJECT DATA/INFORMATION

1.	Applicant:	3 Lincoln, LLC 80 Exchange Street, Suite 400 Portland, ME 04101
2.	Owner of Property:	City of Biddeford
3.	Agent:	Peter Heil, P.E. Acorn Engineering 500 Washington Ave, Suite #202 Portland, ME 04103
4.	Surveyor:	Owen Haskell
5.	Project Location:	3 Pearl Street
6.	Project Tax Map #/Lot #:	Tax Map 71, Lot 2
7.	Lot Size:	2.08 acres (Lot 3)
8.	Base Zoning:	MSRD-3
9.	Overlay Zoning:	GD-1 Shoreland
10.	Existing Use:	Former MERC Site
11.	Proposed Use:	Mixed-use Residential and Commercial
12.	Approvals Required:	Major Subdivision, Major Site Plan, Shoreland Zone, Site Location (Capacity Review)
13.	Uses in the Vicinity:	City of Biddeford Downtown and Mill District, Mixed-Use
14.	Waivers Needed:	a. Commercial Space Parking Requirements

Case 2022.02: 3 Lincoln Street / Final Plan Review, Subdivision, and Shoreland Zoning (Tax Map 71, Lots 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.

Planning Board Hearing date: February 15, 2023.

		b. Open Space Requirements
18.	Waivers Granted:	a. None
22.	Other Non-City Permits Required:	Maine DEP Stormwater, Maine DOT Traffic Movement Permit (TMP)
23.	LDR Attachment A: Fees Paid:	Yes
25.	Planning Board Review History: Sketch Plan Review - February 2, 2022 Preliminary Review Approval – November 2, 2022 Final Plan February 15, 2023	

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;

Case 2022.02: 3 Lincoln Street / Final Plan Review, Subdivision, and Shoreland Zoning (Tax Map 71, Lots 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.

Planning Board Hearing date: February 15, 2023.

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 within the attached Staff report and pursuant to the provisions of the City of Biddeford Code of Ordinances Land Development Regulations, Article XI (Site Plan Review), and Article VI (Performance Standards), the Biddeford Planning Board has approved the application of Final Major Subdivision and Site Plan review for a proposed and the recommended Findings of Fact (FOF) with the following Conditions of Approval (COA):

1. Standard Conditions of Approval apply.
2. Prior to the scheduling of the required Pre-construction meeting the Applicant shall make any required changes to the project Civil Plans for the review and approval of the Public Works Director.
3. Required Inspections
 - i. Erosion & Sediment Control Inspections
 1. Needs to be completed by a City-approved 3rd Party Inspector and paid by the Applicant via the inspection fee escrow being held by the City.
 2. Initial, monthly, and final inspections
 3. Inspection reports need to be submitted to the Engineering Department
 - ii. Right-of-way Inspections
 1. Needs to be completed by City Engineering Department
 2. For all public road, storm, and sewer connections
 - iii. Stormwater BMP Installation Inspections
 1. Needs to be completed by the design engineer
 2. Confirming stormwater facilities installed correctly per design
 3. Inspection reports need to be submitted to the Kristie Rabasca & Engineering Department
 - iv. Post-construction BMP Maintenance Annual Inspections
 1. Needs to be completed annually by the design engineer or 3rd party inspector

Case 2022.02: 3 Lincoln Street / Final Plan Review, Subdivision, and Shoreland Zoning (Tax Map 71, Lots 2) in the MSRD-3 zone and GD-1 Shoreland Overlay zone.

Planning Board Hearing date: February 15, 2023.

2. Needs to assess the current condition of each BMP, what repairs are needed, and confirm on-going maintenance has occurred
3. Annual inspection reports need to be submitted to the Kristie Rabasca & Engineering Department
- v. Site Punchlist Inspections
 1. Once As-Built drawings are submitted to the Planning Department (clearly identifying what deviations and variances were installed based on the approved permit drawings), the City Engineering Department will conduct an inspection.
 2. The applicant must give proper justification for any deviations from the approved plans; the City Planner should be contacted, in writing, prior to construction of any deviation from the approved development plans to request a de minimis change/s. Changes beyond the authority of the City Planner shall be reviewed and approved by the Planning Board.
- vi. Sewer Permits: Finalized and paid **prior to Building Permit Issuance**; payment coordination to go through Engineering Department.
- vii. As-Built Drawings and CAD Files need to be submitted to the Planning & Engineering Departments **prior to a 'Site Punchlist Inspection' and any bond release.**
- viii. York County Recorded Drawings: Applicant must submit copies of York County Registry of Deed drawings to Planning & Engineering Department **prior to Building Permit Issuance.**

Larry Patoine
Planning Board Chair

Whitten, Nan

From: Galbraith, David
Sent: Thursday, February 9, 2023 6:42 AM
To: Tom Saucier; Whitten, Nan
Subject: RE: Pearl Street Redevelopment

Tom, thank you so much for your comments!

From: Tom Saucier <tsaucier@sitedesignassociates.biz>
Sent: Wednesday, February 8, 2023 7:39 PM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>; Galbraith, David <David.Galbraith@biddefordmaine.org>
Subject: Pearl Street Redevelopment

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

Hello

Per your request we have undertaken a review of the final plans and documentation submitted in support of a site plan application for the referenced project. It appears that the Pearl Street extension plans have been previously approved and are currently implemented, or in the process of implementation. Likewise, based on the plans, it is our understanding that the existing stormwater treatment and detention infrastructure was approved and installed in conjunction with the parking garage project. Therefore, we have few comments relative to public improvements, utilities, or stormwater infrastructure. The existing conditions plan has not been updated to reflect current conditions, so the current status of the proposed improvements associated with the previous project is unclear.

Based on our review we offer the following general comments for your, the planning board's, and the applicant's consideration:

1) Drawing C-03: Construction Management and Removals Plan

- a) A note calls for the removal of a 30" diameter storm drain and a "plug" within an existing manhole. Which manhole is the subject of this note? How will the 30" diameter opening be "plugged"?
- b) What is the curved line coming out of the existing catch basin in the center of Pearl Street?
- c) What is RPP pipe?
- d) Existing water and sewer utilities should be shown.

2) Drawing C-10: Site Plans

- a) What type of vehicles will need to access building B via the 12 ft wide service drive, and either back in or out the 60 ft long drive? It appears there is a maximum of 36 ft to turn a vehicle around at the west end of building B, which is limiting. It seems the striped pedestrian access should be located on the north side of the service drive rather than down the middle of it. How much pedestrian traffic is expected to access the parking garage from this building entrance?
- b) Will there be bike racks at the bicycle parking?
- c) The materials, walk dimensions, including widths and various tapers, should be noted. The landscape plans shows pea stone paths in the building A quad area, while there appears to be pavers shown in the quad on the site plan. This should be coordinated. The landscape details also provide typical sections for pavers in pedestrian and vehicle areas, while the site plan does not differentiate between the two.
- d) There is no accessible exterior route from the building A quad to building B. Should there be, and if so, is pea stone a suitable material?

3) C-20: Utility Plan

- a) The extent of existing utility services associated with the “Sewall” design should be shown and be differentiated from the utilities proposed as a part of this project. Also, the plan calls for tapping sleeves and gate valves at some locations suggesting an existing water main, while the new services are called out without the tapping sleeves and gate valves at other locations, suggesting a new main.
- b) There is a proposed tree shown within 3 feet of the water main near Pearl Street which should be relocated.
- c) The sewer pump station and vent pipe are shown proximate to the main entrance to building B and below the apartment units. Obviously, this is not an engineering issue, but it may warrant consideration.

4) C-30: Grading Plan

- a) We did not note the locations of roof drains and the connections to the storm drain system. These should be shown.
- b) Should fence or railings be installed on portions of the retaining wall that are up to 7.5 ft high?
- c) The pump station from the parking garage indicates that the design will be by others. Who are others, and why?
- d) As indicated in previous comments, we believe a rectangular oil/water separator, with a baffle, would be much more effective than the oil/water separator detail provided.

5) Details:

- a) The paver typical sections are inconsistent between the civil and landscape drawings.
- b) Details for bituminous and concrete sidewalks are provided. Are these applicable?
- c) No elevations are provided for the pump station. Also, the pump station should specify that the station and hatch must be designed for H-20 loads given the location in a fire lane.

6) Post-construction I and M Plan

- a) Maintenance of the subsurface stormwater system is not included. Who is responsible for maintenance of that?
- b) Maintenance of the oil/water separator should be included.
- c) The rainfall that triggers wet weather inspections should be noted. (1” in 24 hours)

7) Stormwater – We reviewed the documentation and it appears the appropriate treatment will be provided. The project will require a stormwater permit from DEP.

If you, the applicant, or the planning board have any questions regarding our comments, please do not hesitate to contact me.

Tanks

Tom

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

Section 24

Sunlight

Section 24. Sunlight

The proposed project does not anticipate blocking direct sunlight for abutting structures utilizing solar energy.



Section 25

Notices

Section 25. Notices

Notices for the public information meeting and for the intent to file application have been sent to all abutters and to City Planning Department officials as part of the Stormwater Management Law Application submitted to the DEP. Newspaper notices were also published for these notifications.

Form B & Form C are attached, along with a list of the names and addresses of the owners of abutting properties.



Public Notice: Notice of Intent to File

Please take notice that

3 Lincoln, LLC, 80 Exchange Street, Suite 400, Portland, ME 04101 (207)-317-2818

(Name, Address and Phone # of Applicant)

is intending to file a Stormwater Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § 420-D on or about

11/7/2022

(anticipated filing date)

This application is for

The project proposes to formally subdivide the larger 3 Lincoln Street parcel into four separate lots and construct three buildings on Lot 3 including a 85-unit residential/mixed use building (Building A), a 129-unit residential building (Building B), and a commercial/restaurant building (Building C) with approximately 298 seats total.

(description of the project)

at the following location 3 Lincoln Street, Biddeford Maine

(project location)

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application 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. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. 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 Environmental Protection's office in (*Portland, Augusta or Bangor*) (circle one) during normal working hours. A copy of the application may also be seen at the municipal offices in Biddeford, Maine.
(town)

Written public comments may be sent to the regional office in Portland, Augusta, or Bangor where the application is filed for public inspection.

MDEP, Central Maine Regional Office, 17 State House Station, Augusta, Maine 04333

MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103

MDEP, Eastern Maine Regional Office, 106 Hogan Road, Bangor, Maine 04401

Public Notice Filing and Certification

The DEP Rules, Chapter 2, require an applicant to provide public notice for all Stormwater Law projects with the exception of minor revisions and condition compliance applications. In the notice, the applicant must describe the proposed activity and where it is located. “**Abutter**” for the purposes of the notice provision means any person who owns property that is BOTH (1) adjoining and (2) within one mile of the delineated project boundary, including owners of property directly across a public or private right of way.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication and certified mailing.
2. **Abutting Property Owners:** You must send a copy of the Notice of Intent to File by certified mail to the owners of the property abutting the activity. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.
3. **Municipal Office:** You must send a copy of the Notice of Intent to File and a **duplicate of the entire application** to the Municipal Office.

ATTACH a list of then names and addresses of the owners of abutting property.

CERTIFICATION

By signing below, the applicant or authorized agent certifies that:

1. A notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;
2. A certified mailing of the Notice of Intent to File was sent to all abutters within 30 days of the filing of the application.
3. A certified mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to the town office of the municipality in which the project is located; and
4. Provided notice of, if required, and held a public informational meeting in accordance with Chapter 2. Rules Concerning the Processing of Applications, Section 14, prior to filing the application. Notice of the meeting was sent by certified mail to abutters and to the town office of the municipality in which the project is located at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on _____.

Date

Approximately _____ members of the public attended the Public Informational Meeting.

Signature of Applicant or authorized agent

Date

MBLU	Owner Name	Address 1	City, State, Zip
------	------------	-----------	------------------

Biddeford

40/ 55/ / /	GOOCH STREET LLC	82 HANOVER ST SUITE 5	PORTLAND, ME 04101
40/ 55/ 3/ /	GOOCH STREET LLC	82 HANOVER ST SUITE 5	PORTLAND, ME 04101
40/ 56/ / /	SACO LOWELL LLC		PORTLAND , ME 04101
40/ 67/ / /	C & T REALTY, LLC	4 INNKEEPER LN	FALMOUTH, ME 04105-2530
40/ 67/ 1/ /	PELONE, LLC	399 PRESUMPSCOT ST	PORTLAND, ME 04103
40/ 67/ 2/ /	PELONE, LLC	399 PRESUMPSCOTT ST	PORTLAND, ME 04103
40/ 71/ / /	23 LINCOLN, LLC	47 WAITES LANDING RD	FALMOUTH, ME 04105
40/ 71/ 1/ /	SHAI PROPERTY MANAGEM	316 MAIN ST STE 202	BIDDEFORD, ME 04005
71/ 2/ / /	CITY OF BIDDEFORD	PO BOX 586	BIDDEFORD, ME 04005
71/ 5/ / /	LHL HOLDINGS, LLC	2 LIVEWELL DR STE 201	KENNEBUNK, ME 04043
71/ 9/ / /	DRAFT ROOM LLC	C/O PROPERTY MANAGEME	PORTLAND, ME 04101
71/ 4/ / /	TLC BUGBEE BROWN BUIL	1 BLACKBERRY LN	SACO, ME 04072
71/ 9/ 2/ /	THE LOFTS AT SACO FALLS	482 CONGRESS ST	PORTLAND, ME 04101
71/ 9/ 4/ /	COUNTING HOUSE LLC	2 SUMMER ST	PORTLAND, ME 04102

Saco

37010000000	BSG PROPERTIES LLC	180 MAIN ST	SACO, ME 04072
37003000000	CENTRAL ME POWER CO	LOCAL TAXES	PORTLAND, ME 04101
37999000000	BOSTON & MAINE RAILROA	IRON HORSE PARK	NORTH BILLERICA, MA 018862
37002000000	BUILDING 108 ASSOCIATES	PO BOX 759	SACO, ME 04072
37008000000	CITY OF SACO	300 MAIN ST	SACO, ME 04072



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender



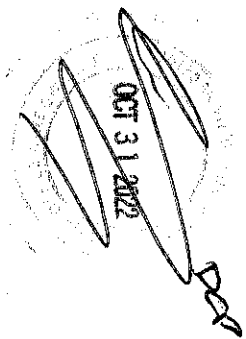
Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

TOTAL NO.
of Pieces Listed by Sender

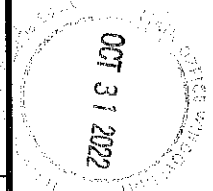
TOTAL NO.
of Pieces Received at Post Office™

Postmaster, per (name of receiving employee)

Affix Stamp Here
Postmark with Date of Receipt.



[Signature]



USPS® Tracking Number
Firm-specific Identifier



GOOCH STREET LLC
82 HANOVER ST SUITE 5
PORTLAND, ME 04101



GOOCH STREET LLC
82 HANOVER ST SUITE 5
PORTLAND, ME 04101



C & T REALTY, LLC
4 INKKEEPER LN
FALMOUTH, ME 04105-2530



PELONE, LLC
399 PRESUMPSHOT ST
PORTLAND, ME 04103



PELONE, LLC
399 PRESUMPSHOT ST
PORTLAND, ME 04103



23 LINCOLN, LLC
47 WAITES LANDING RD
FALMOUTH, ME 04105

Postage

Fee

Special Handling

Parcel Airift



U.S. POSTAGE PAID
PORTLAND, ME
04101
OCT 31 22
AMOUNT
\$9.00
R2304M11692-66



UNITED STATES
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Name and Address of Sender		TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here Postmark with Date of Receipt.			
 Acorn Engineering, Inc. PO Box 3372 Portland, ME 04104							
USPS® Tracking Number Firm-specific Identifier		Postmaster, per (name of receiving employee)					
1	SHAI PROPERTY MANAGEMENT LLC 316 MAIN ST STE 202 BIDDEFORD, ME 04005			Postage	Fee	Special Handling	Parcel Airftt
2	CITY OF BIDDEFORD PO BOX 586 BIDDEFORD, ME 04005						
3	LHL HOLDINGS, LLC 2 LIVEWELL DR STE 201 KENNEBUNK, ME 04043						
4	DRAFT ROOM LLC CIO PROPERTY MANAGEMENT PORTLAND, ME 04101						
5	TLC BUGBEE BROWN BUILDING LLC 1 BLACKBERRY LN SACO, ME 04072						
6	THE LOFTS AT SACO FALLS, LP 482 CONGRESS ST PORTLAND, ME 04101						



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender



Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

TOTAL NO.
of Pieces Listed by Sender

TOTAL NO.
of Pieces Received at Post Office™

Postmaster, per (name of receiving employee)

Affix Stamp Here
Postmark with Date of Receipt.

USPS® Tracking Number
Firm-Specific Identifier

Postage

Fee

Special Handling

Parcel Airift

1



COUNTING HOUSE LLC
2 SUMMER ST
PORTLAND, ME 04102

2



BSG PROPERTIES LLC
180 MAIN ST
SACO, ME 04072

3



CENTRAL ME POWER CO
LOCAL TAXES
PORTLAND, ME 04101

4



BOSTON & MAINE RAILROAD
IRON HORSE PARK
NORTH BILLERICA, MA 018862

5



BUILDING 108 ASSOCIATES LP
PO BOX 759
SACO, ME 04072

6



CITY OF SACO
300 MAIN ST
SACO, ME 04072



PORTLAND
125 FOREST AVE
PORTLAND, ME 04101-9998
(800)275-8777

10/31/2022

08:05 AM

Product	Qty	Unit Price	Price
CTOM - Firm - Domestic	18		\$9.00

Grand Total: \$9.00

Credit Card Remit \$9.00

Card Name: VISA
Account #: XXXXXXXXXXXX4369
Approval #: 031340
Transaction #: 097
AID: A0000000031010 Chip
AL: Visa Credit
PIN: Not Required

In a hurry? Self-service kiosks offer quick and easy check-out. Any Retail Associate can show you how.

Preview your Mail
Track your Packages
Sign up for FREE @
<https://informedelivery.usps.com>

All sales final on stamps and postage.
Refunds for guaranteed services only.
Thank you for your business.

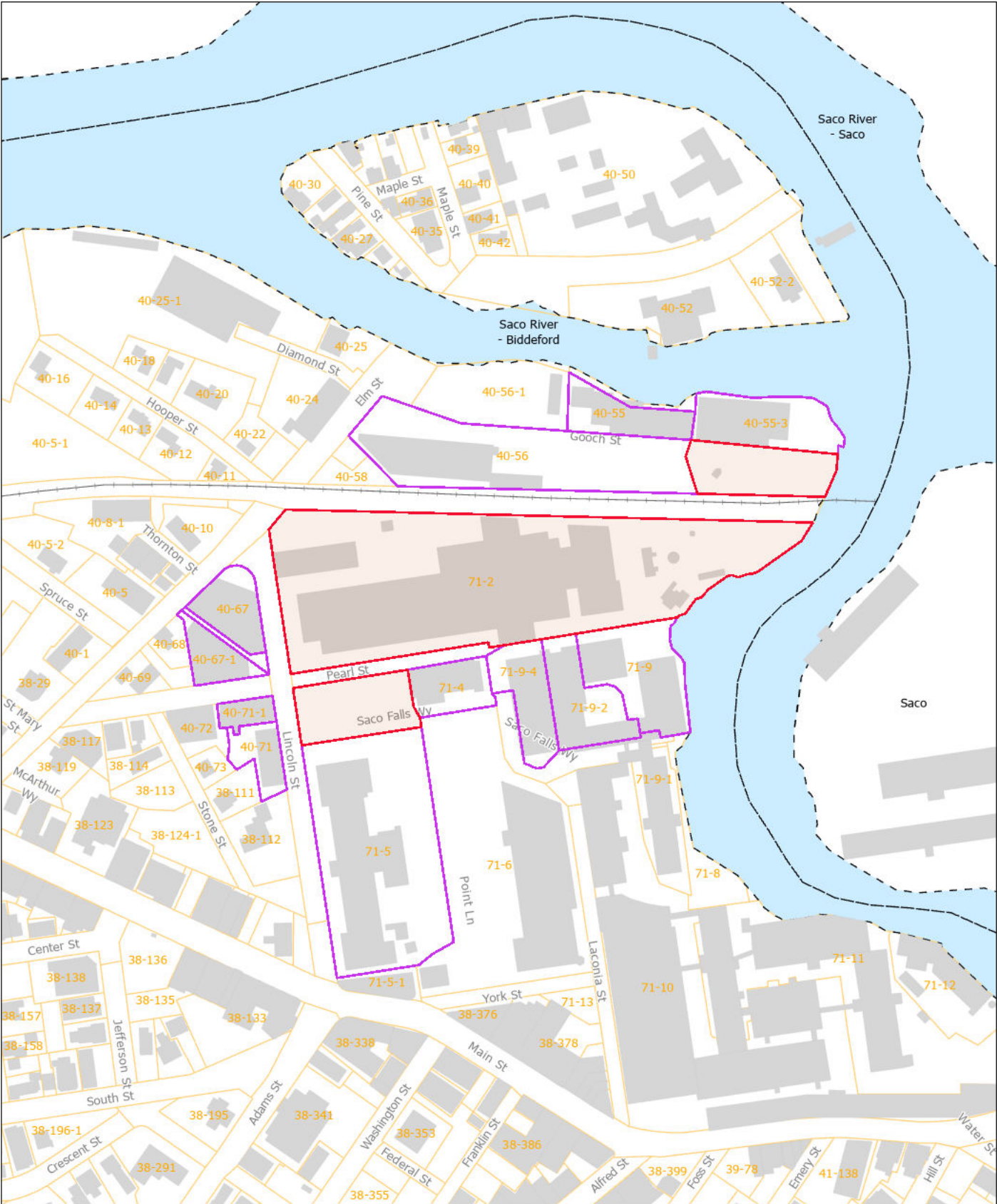
Tell us about your experience.
Go to: <https://postalexperience.com/Pos>
or scan this code with your mobile device,



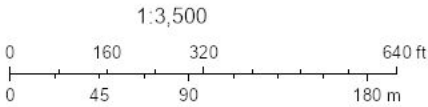
or call 1-800-410-7420.

UFN: 226900-0102
Receipt #: 840-50400069-2-7764238-2
Clerk: 66

Adjacent Parcels Map



October 13, 2022



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

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

Section 26

Maine Tribe & Nations Correspondence



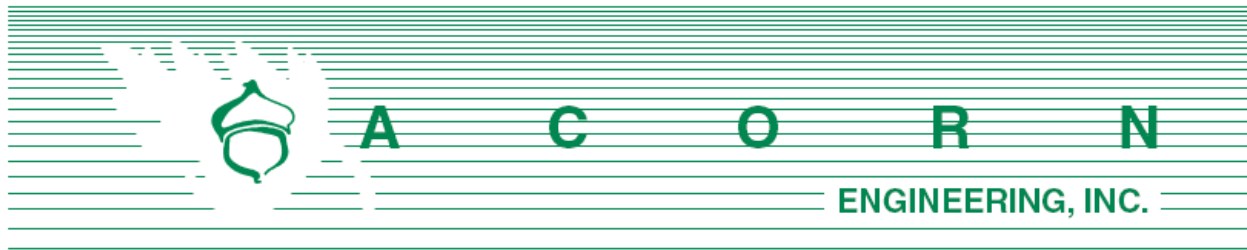
Section 26. Maine Tribes/Nations Correspondence

See attached letters to associated Maine Tribes and their corresponding responses received thus far.



ATTACHMENT 26-1: PTOFL RESPONSE





Mr. Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point & Indian Township Reservation
PO Box 343
Perry, Maine 04667

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Donald Soctomah:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from the Tribe of Passamaquoddy Tribe of Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

December 14, 2022

Zachary Stevens, E.I.
Project Engineer
Licensed in Maine
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

- Re: Biddeford – 3 Lincoln St Project

Dear Zachary;

The Passamaquoddy THPO has reviewed the following applications regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal 107 Maine State Governments, and Executive Order 12898 Environmental Justice.

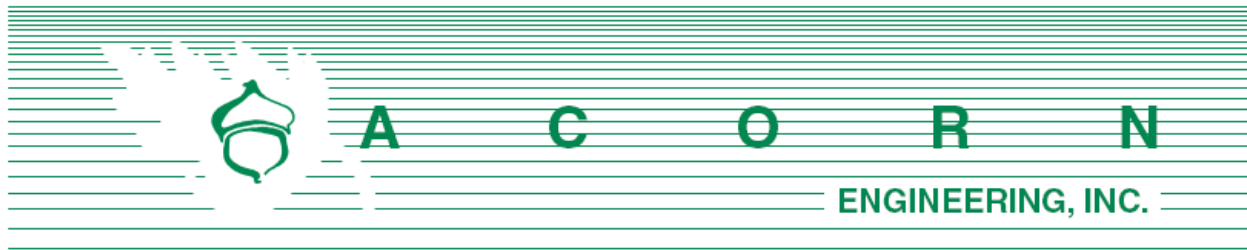
The Projects listed above will not have any impact on cultural and historical concerns of the Passamaquoddy Tribe. Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities should be notified.

Sincerely;

Donald Soctomah
Soctomah@gmail.com
THPO
Passamaquoddy Tribe

ATTACHMENT 26-2: MNLRESPONSE





Kendyl Reis, THPO
Mi'Kmaq Nation
7 Northern Road
Presque Isle, ME 04769

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Kendyl

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Mi'Kmaq Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map



Tribal Historic Preservation Office
Mi'kmaq Nation (Formerly known as the Aroostook Band of Micmac)
Kendyl Reis
Tribal Historic Preservation Officer
7 Northern Road
Presque Isle, ME 04769
Phone: (207)764-1972 ext. 161
kreis@micmac-nsn.gov

3 Lincoln Street Redevelopment Biddeford
January 5th, 2023

Based on the project description, we do not have knowledge of any specific sites or cultural features that exist at the proposed project location(s).

However, this geographic area does constitute traditional areas that were historically utilized by members of the Mi'kmaq Nation and the other Wabanaki Tribes. Therefore, we respectfully request that if during the course of excavation/construction activities, human remains, artifacts, or any other evidence of Native American presence is discovered, that site activities in the vicinity of the discovery immediately cease, pending notification to us.

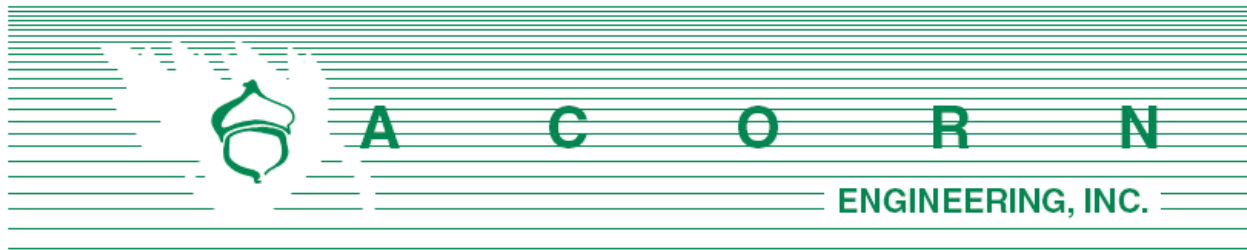
In addition, if this project results in wetland disturbances requiring mitigation, we are requesting that you utilize the black ash (*Fraginus nigra*) as the principal wetland species for wetland restoration activities. The black ash tree has special significance in the culture of the northeastern Tribes and is used extensively for weaving baskets and other Native American crafts. The black ash tree also provides valuable food and habitat for migratory waterfowl and other wildlife. Unfortunately, however, this species has been selected against by foresters and landowners who favor other tree species. As a result of this, and other environmental factors, the black ash tree is in serious decline in Maine. The Mi'kmaq Nation has completed several black ash wetland restoration projects and have a dependable source for highly-quality seedlings, and the experience and expertise to assist you with black ash wetland restoration projects.

On the subject of human remains, artifacts, or any other evidence of Native American presence is discovered. The human remains will be reburied with the appropriate respect for the remains that is required at a distinctive and respectable site. The artifacts and other evidence of Native American discovery will be documented with appropriate detail. The items will be analyzed for the precise period of the items' distinctive period and will be documented by the Tribal Historic Preservation Officer for the Mi'kmaq Nation.

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

Sincerely,

Kendyl Reis
Tribal Historic Preservation Officer



Environmental Planner
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

To Environmental Planner:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

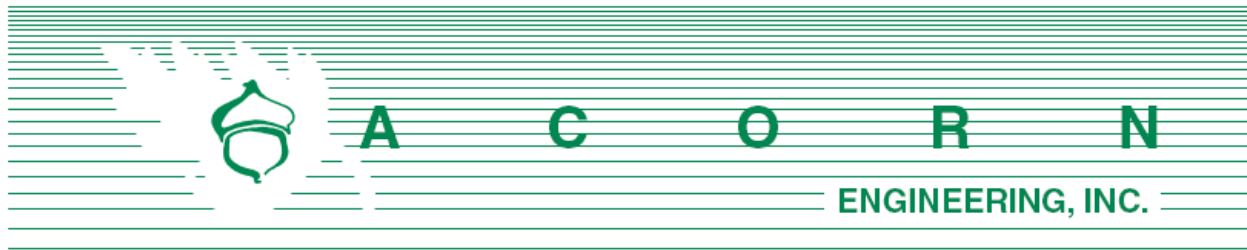
As part of the Site Location of Development Application process, Acorn requests information from the Houlton Band of Maliseet Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map



Mr. Christopher Sockalexis, THPO
Cultural & Historic Preservation Department
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Sockalexis:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Penobscot Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Section 27

Declaration of Easements, Covenants, and Restrictions

Section 27: Declaration of Easements, Covenants, and Restrictions

The project does not propose any easements.

Please refer the attached plans for the existing easements across the property.

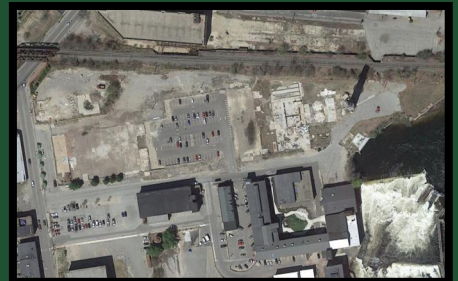
1. Existing Conditions Survey prepared by Owen Haskell, Inc. on April 19th, 2018.





FINAL SITE PLAN & SUBDIVISION APPLICATION / SITE LOCATION OF DEVELOPMENT SUPPLEMENTAL DOCUMENTATION

3 LINCOLN STREET, LOT 3 REDEVELOPMENT



Prepared By:

ACORN ENGINEERING, INC.

For:

3 LINCOLN, LLC.

JANUARY, 2023



Section 28

Traffic & Parking Overview

Section 28: Traffic & Parking Overview

The project proposes to construct three (3) buildings on Lot 3 including a residential/mixed use building (Building A) with approximately 85-units, a residential building (Building B) with approximately 129-units, and a commercial/restaurant building (Building C).

Access to Building A and Building B garage parking will be available from Smith Street, with pedestrian access from Pearl Street. As the project will produce greater than 100 peak hour trips, the project will require a Maine DOT Traffic Movement Permit. A copy of the TMP application is attached to this section.

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 for every dwelling unit, plus an additional 5% for residential visitors, 1 space for every 3 restaurant seats, and 1 space for every 300 square feet of floor space for retail. This results in a total of 328 spaces required $((1 \text{ space/D.U.} \times 85 \text{ D.U.}) + (0.05 \times 85 \text{ D.U.}) + (1 \text{ space/D.U.} \times 129 \text{ D.U.}) + (0.05 \times 129 \text{ D.U.}) + (1 \text{ space} / 300 \text{ sf of floor space} \times 953 \text{ sf}) + (1 \text{ space}/3 \text{ seats} \times 298 \text{ estimated restaurant seats}) = 328 \text{ spaces})$.

The project proposes a waiver to exclude the 103 Commercial use parking spaces required from the restaurant which would bring the 328 parking spaces requirement down to 225.

The project proposes to provide garage parking on the lower level of building A totaling 39 spaces, with the additional 186 required spaces to be leased from the Pearl Street City parking garage located on Lot 2. The applicant is working with the garage operating managers to secure the lease for these spaces and can forward a copy upon receipt.

Attachments:

1. Maine Department of Transportation Traffic Movement Permit Application prepared by TYLIN
2. Preliminary Traffic Impact Review prepared by Sewall
3. Comment Response Letter prepared by TYLIN
4. Parking and TDM Assessment prepared by TYLIN



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

3 Lincoln Street Project
Residential Apartments and Restaurant
Pearl Street, Biddeford, Maine

September 20, 2021

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 **3 Lincoln, LLC**

Address: **80 Exchange Street, Suite 400, Portland, ME 04101**

Telephone: **207.808.8787**

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: **3 Lincoln Street Project – Residential Apartments and Restaurant**

Location of development including road, street, or nearest route number: **Lot 3 Pearl Street**

City/Town/Plantation: **Biddeford**, County: **York**, Parcel #: **Map 71 / Lot 2**

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? **No**

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): **N/A**

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: September 20, 2021

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."


Signature of applicant

8/26/21

Signature of applicant

Date

NOTICE OF INTENT TO FILE

Please take notice that 3 Lincoln, LLC, 80 Exchange Street, Suite 400, Portland ME 04092, (207) 808-8787 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 August 25, 2021.

The application is for:

The development of 191 apartment units and a 298 seat restaurant. The project is expected to generate 61 new trips during the weekday AM peak hour, 296 trips during the weekday PM peak hour and 245 trips during the Saturday peak hour. Access and egress will be via Pearl Street.

At the following location:

Lot 3 Pearl Street in Biddeford, Tax Map 71 / Lot 2

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:

Lot 3A – 83 Residential Apartments Units

- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units

- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total

- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking garage. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

1.B. Existing and Proposed Site Uses

The project site is located on Pearl Street located off Lincoln Street in Biddeford. The parcel to be developed is identified on Biddeford Tax Map #: Lot 71 /Lot 2. Currently the site is vacant and as noted above will consist of residential and restaurant 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.

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) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. 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

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 a modest 5% reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, 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, and the Weekday percentages was used As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 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 (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats) ¹	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245

Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%) ²	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

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

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

1.F Trip Distribution

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

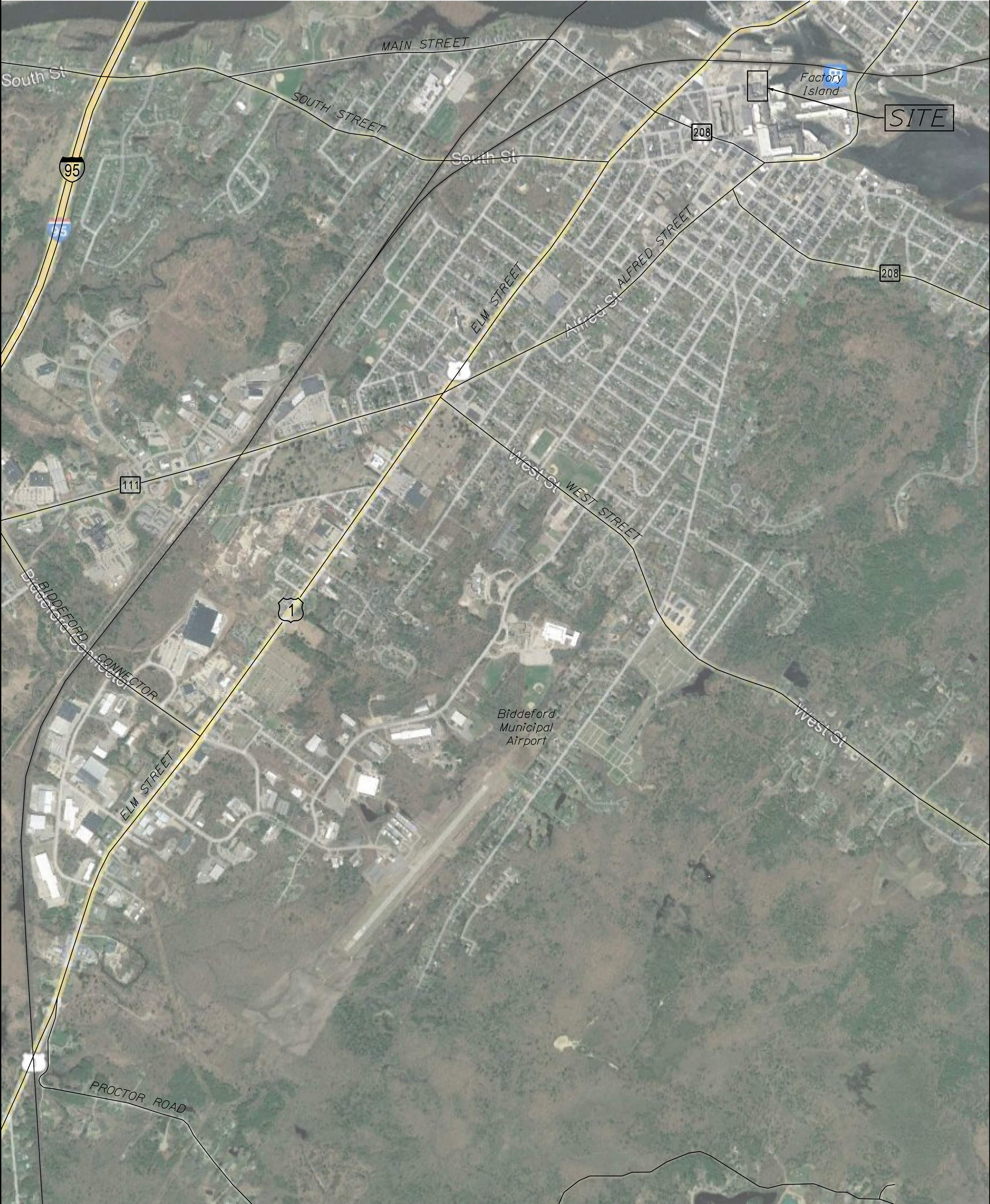
Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Main Street/Lincoln Street/Adams Street, Elm Street/Lincoln Street, Elm Street/Main Street and Pearl Street/Main Street intersections according to existing peak hour turning movement volumes. Data is not available at Elm Street and Pine and Elm Street/Water Street/Lincoln Street and was estimated according to our local knowledge. Assignments at these locations will be revised as necessary. The turning movements volumes are provided in the Appendix.

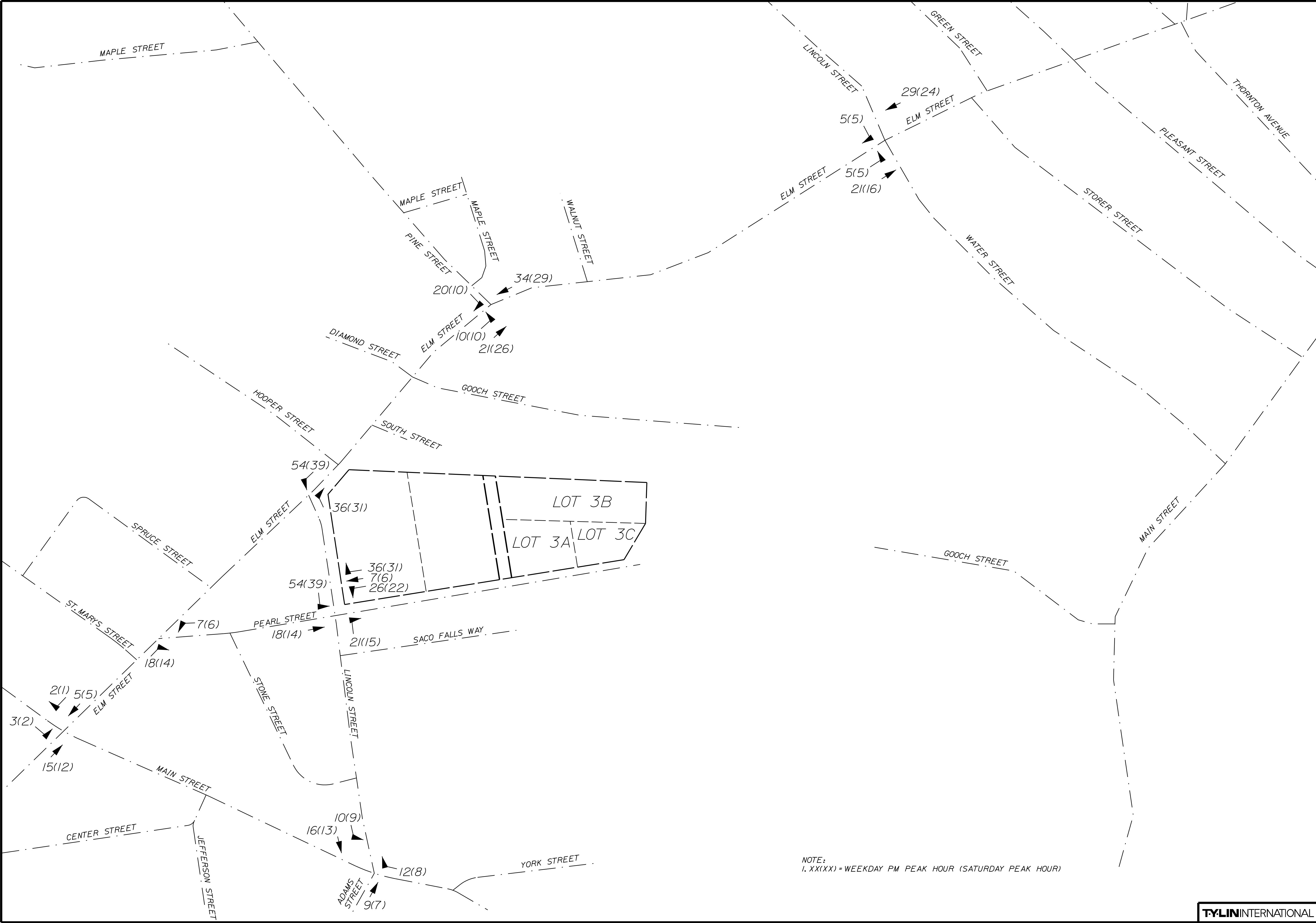
1.G Trip Assignment

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



TYLININTERNATIONAL

MaineDOT TMP APPLICATION	
SIGNATURE	
P.E. NUMBER	
DATE	
PROJ. MANAGER	T. ERICO
CHECKED-REVIEWED	S. DAVIS
DESIGN-DETAILED	
DESIGN-DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	
BY	
DATE	
SIGNATURE	
P.E. NUMBER	
DATE	

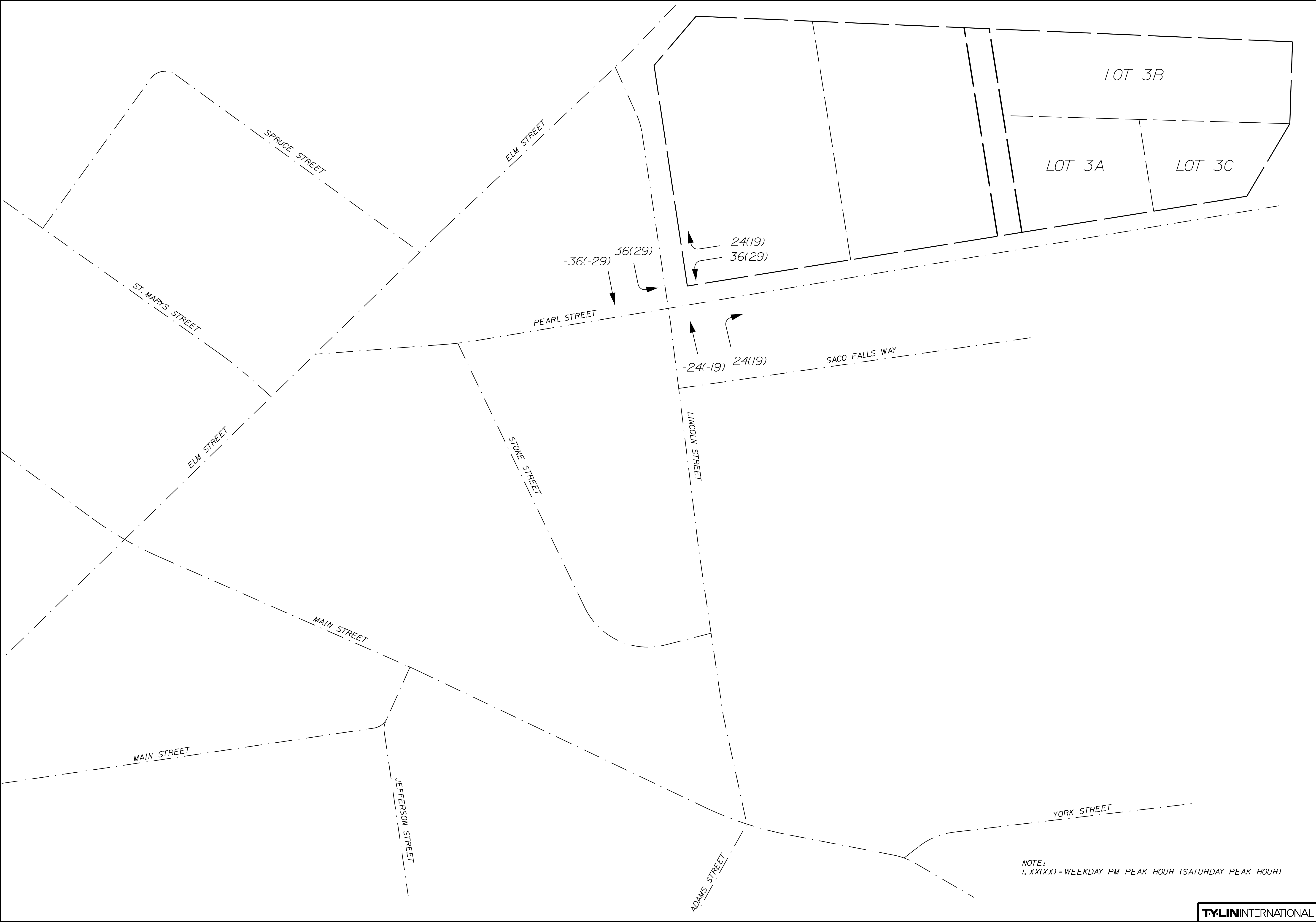
BIDDEFORD

3 LINCOLN STREET PROJECT

PRIMARY SITE TRIPS

FIGURE NUMBER

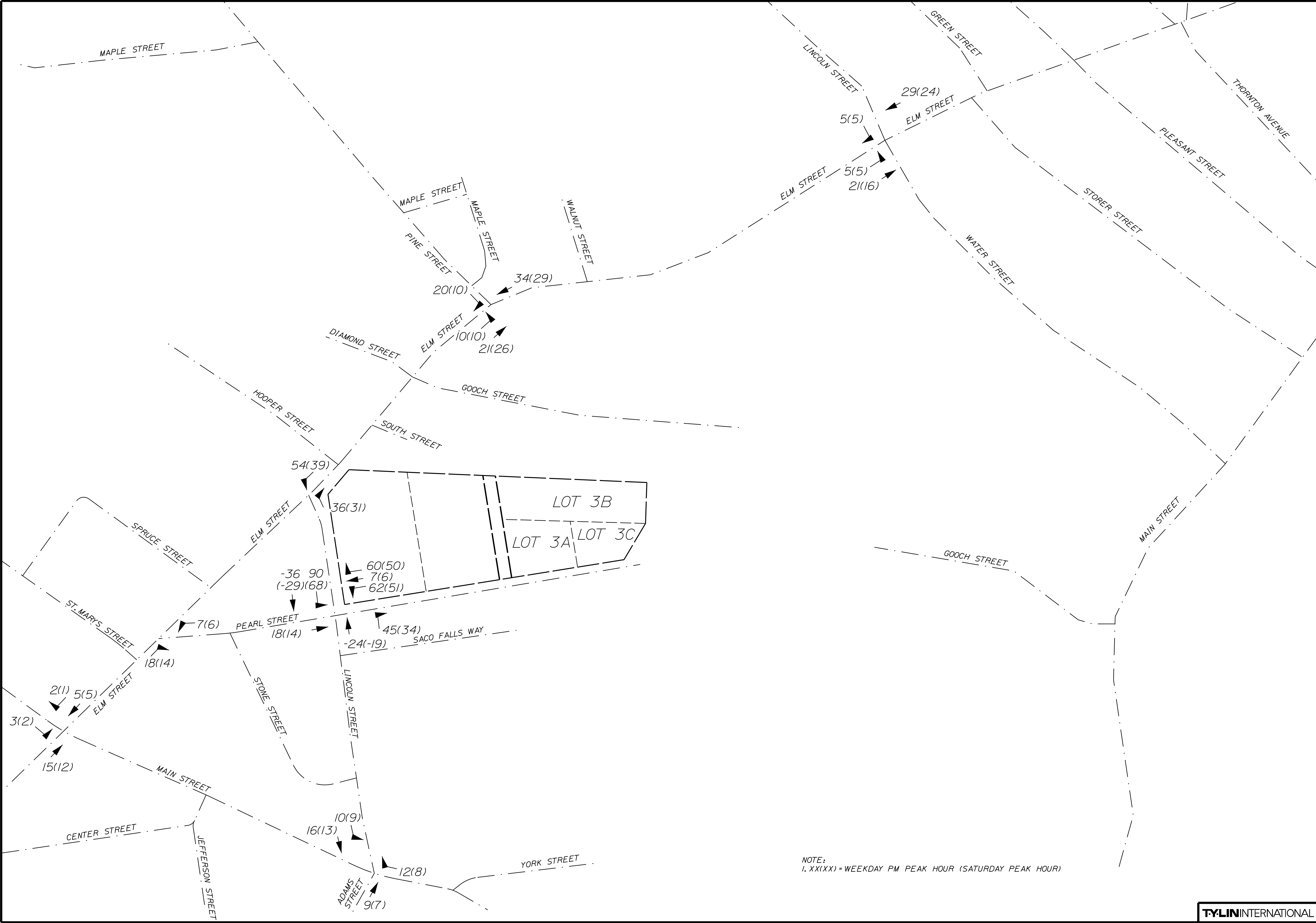
2



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

TYLIN INTERNATIONAL

BIDDEFORD 3 LINCOLN STREET PROJECT		FIGURE NUMBER	
PASS-BY SITE TRIPS		3	
MaineDOT TMP APPLICATION			
PROJ. MANAGER	T. ERICO	BY	DATE
CHECKED-REVIEWED	S. DAVIS		
DESIGN-DETAILED			SIGNATURE
DESIGN-DETAILED			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



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

BIDDEFORD
3 LINCOLN STREET PROJECT

4

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. As of September 17, 2021 the improvements have not 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.

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 Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations.

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	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200'
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200'

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 2022.

APPENDIX

TRIP GENERATION

Multifamily Housing (Mid-Rise) (221)

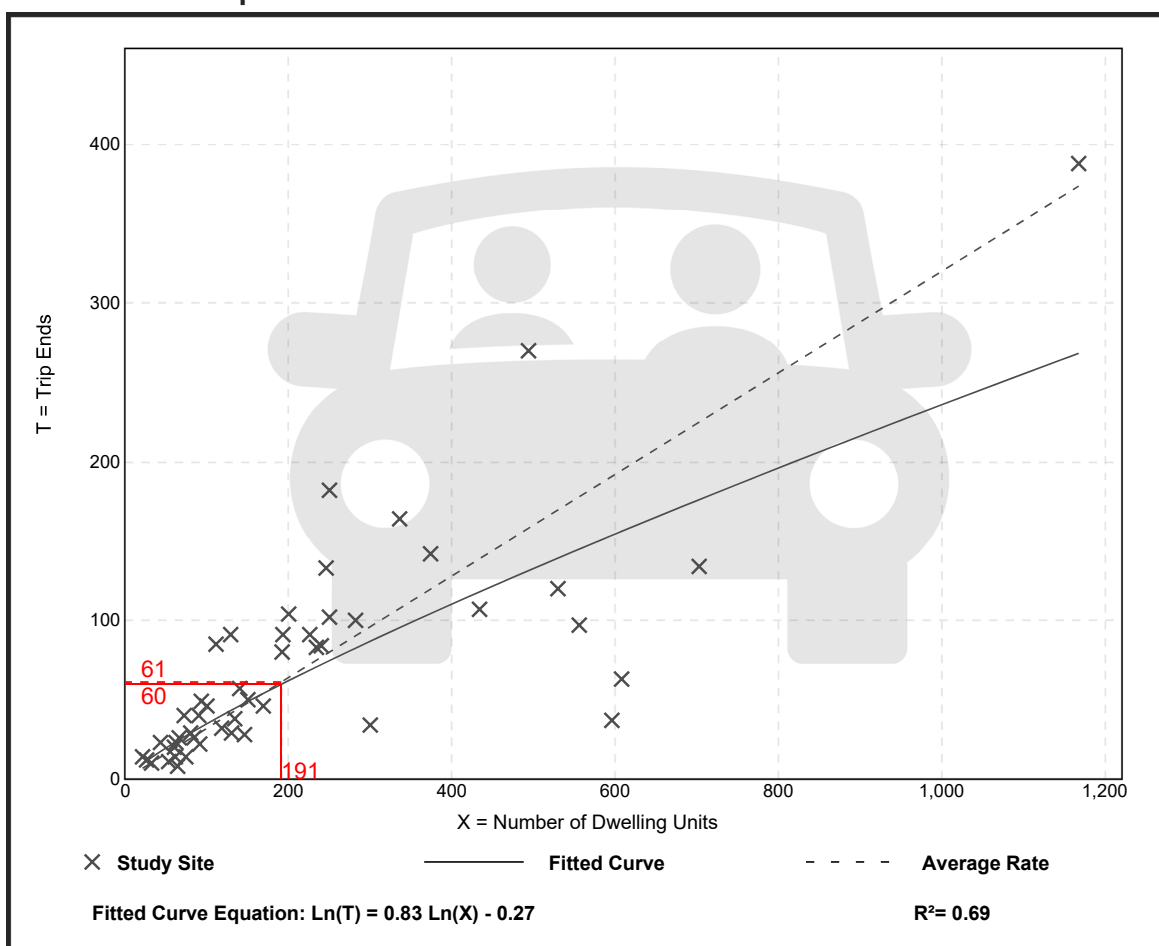
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

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)

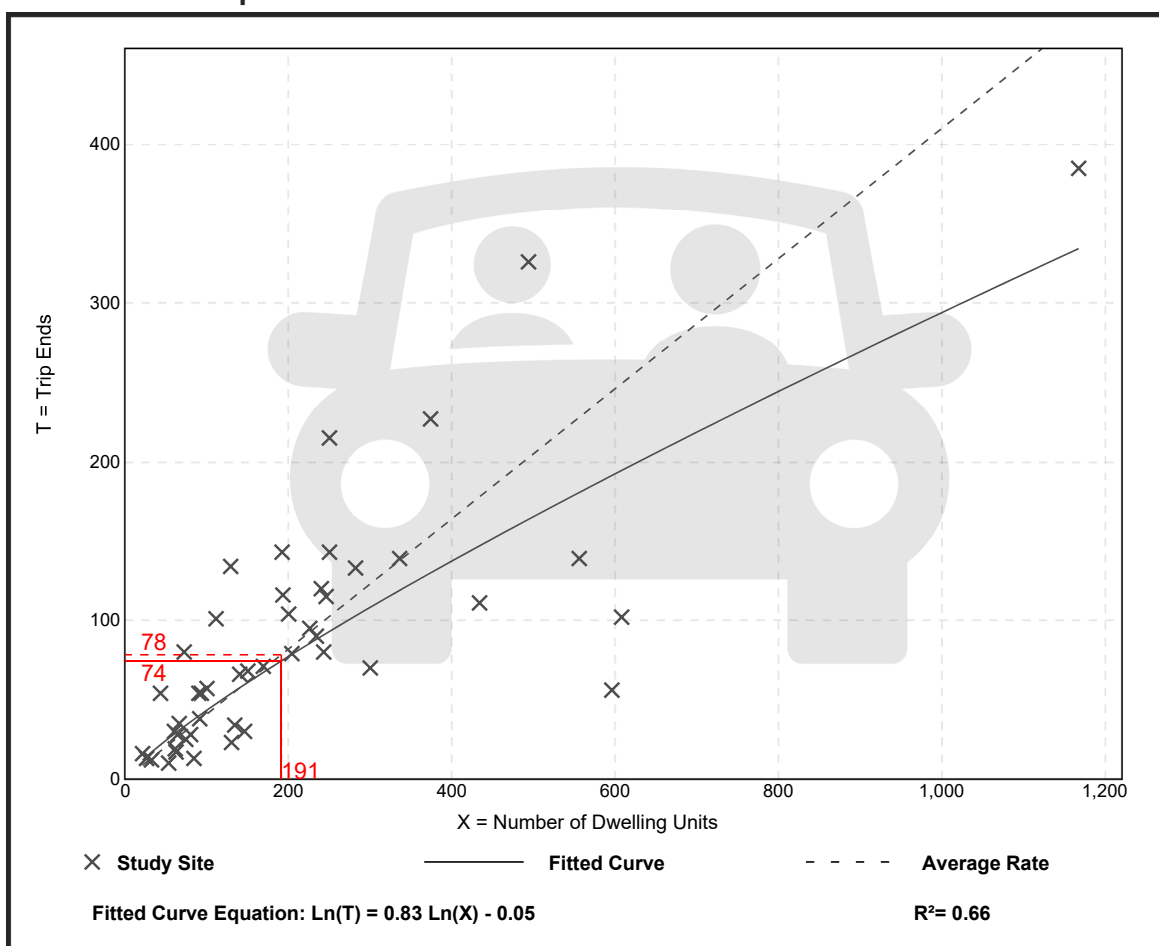
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

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)

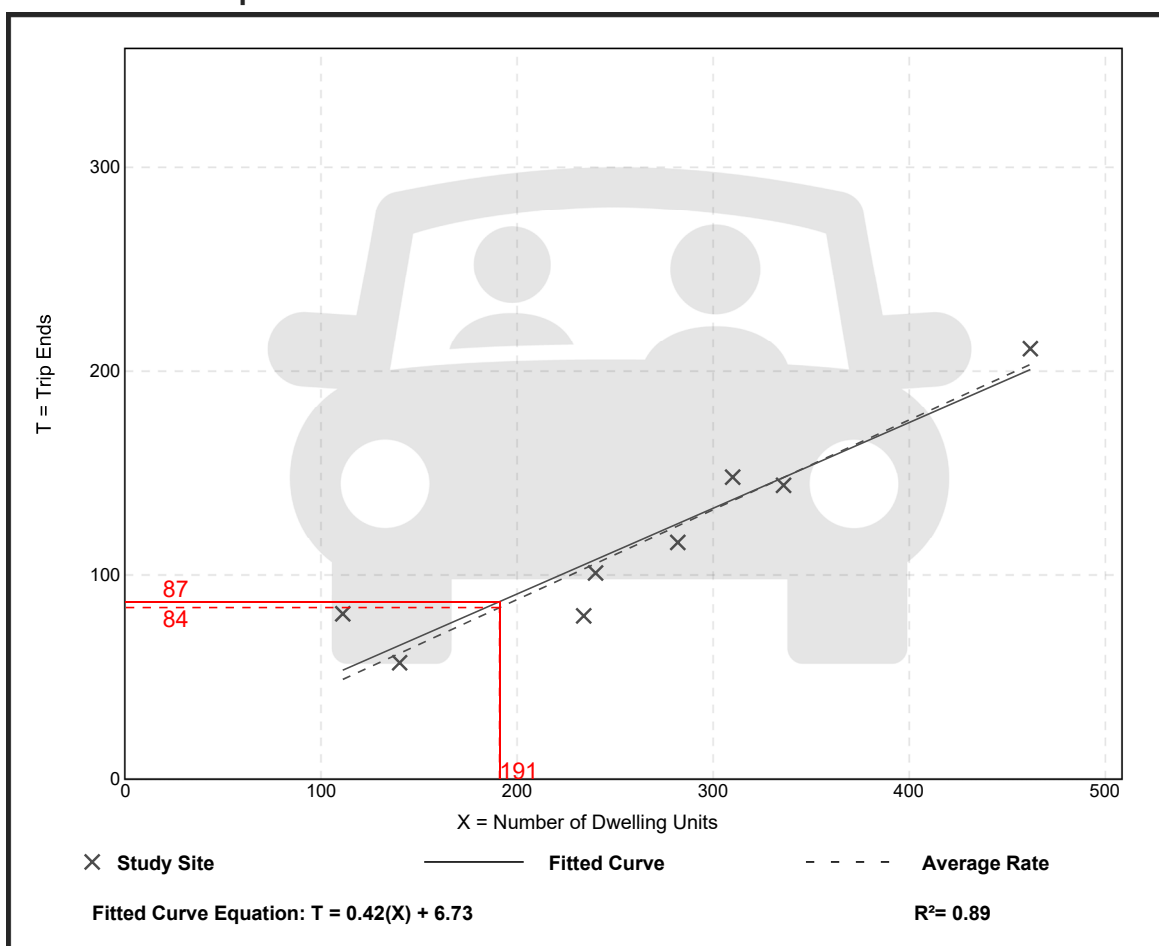
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

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)

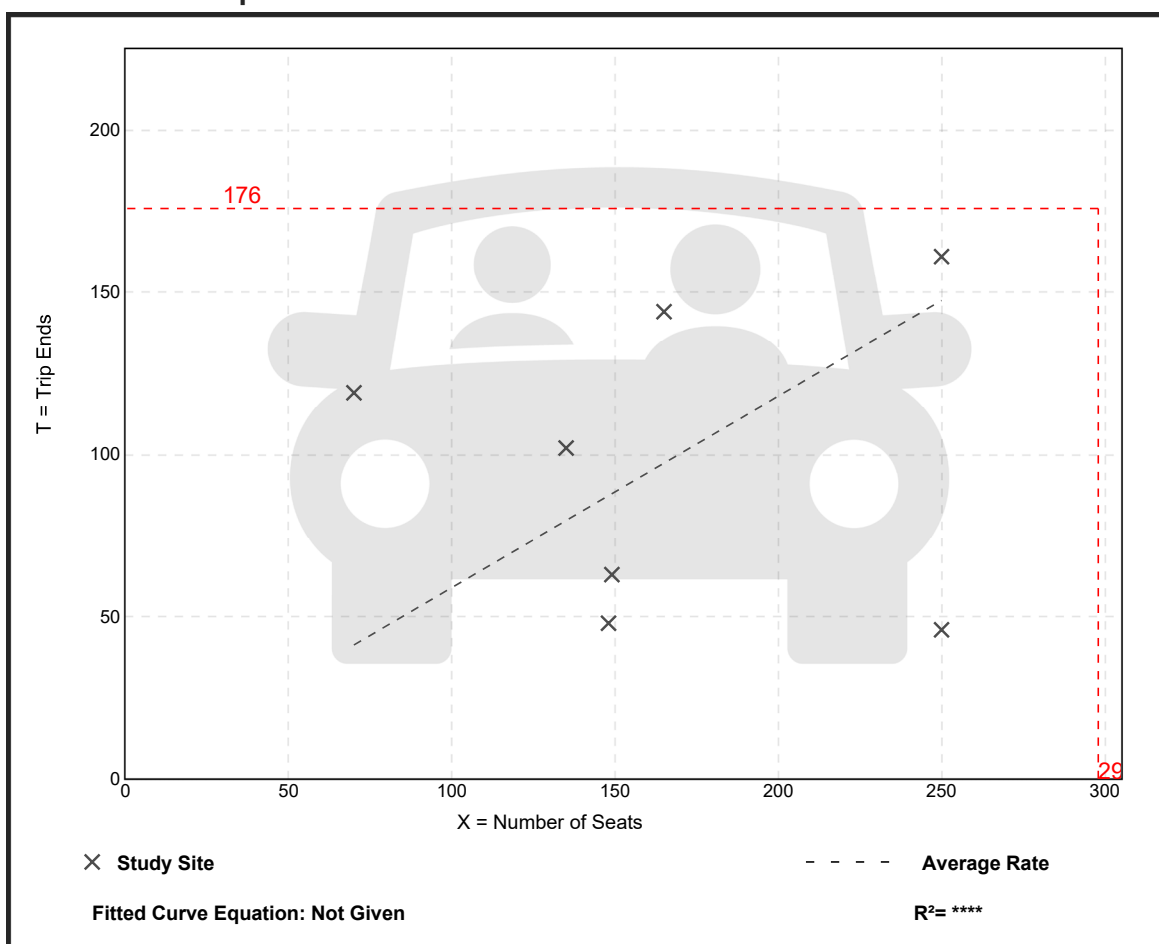
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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

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

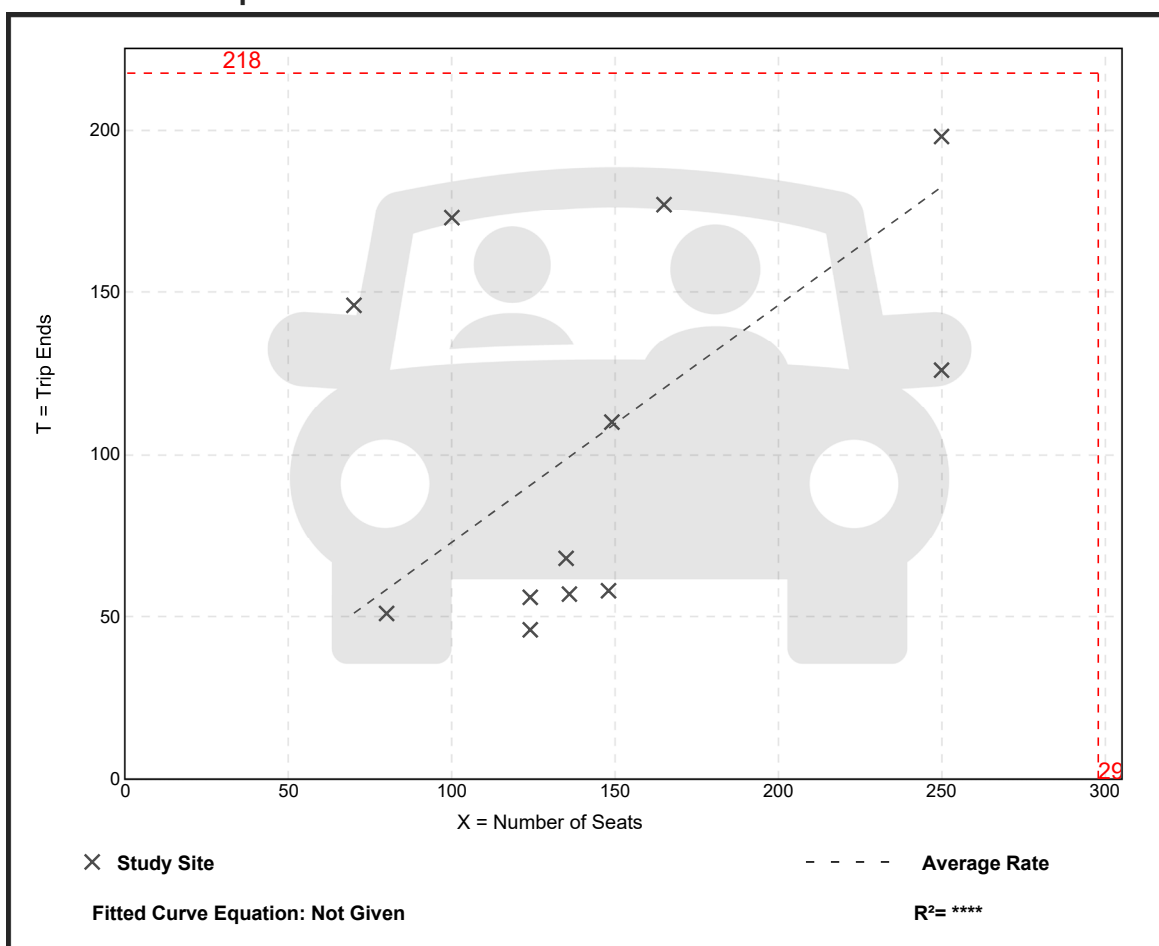
Vehicle Trip Ends vs: Seats
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 12
 Avg. Num. of Seats: 144
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



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

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

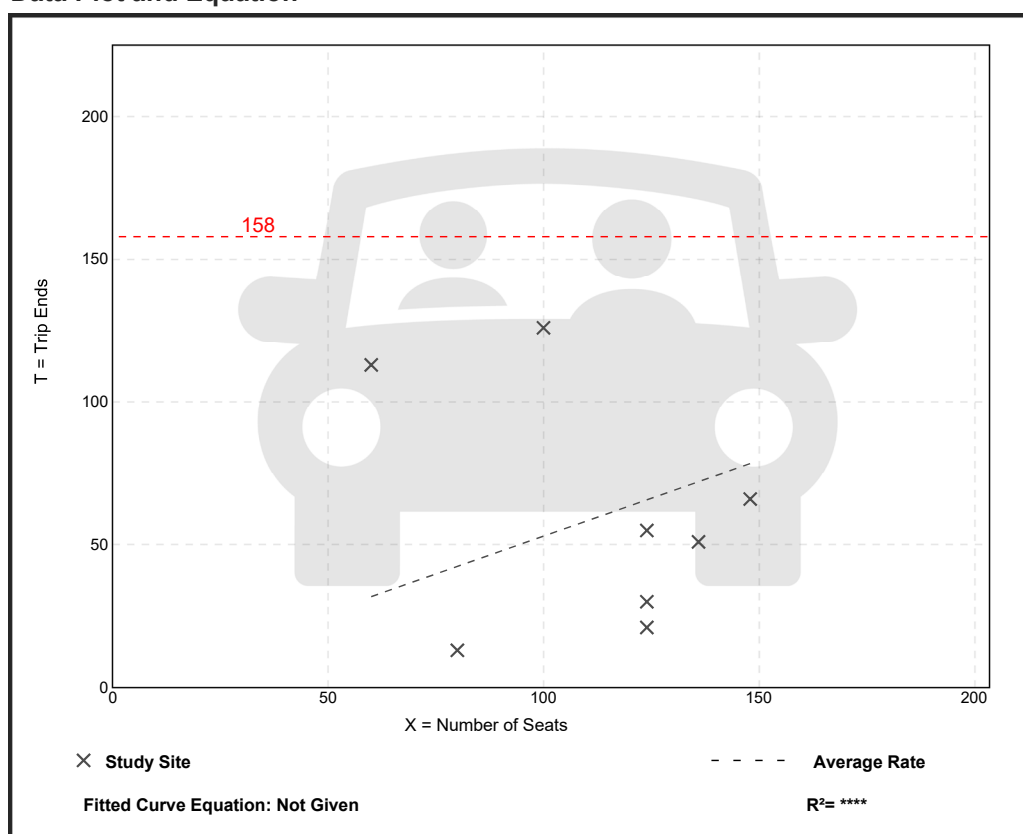
Vehicle Trip Ends vs: Seats
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	PM Peak Hour		Date:		

Table 1-A: 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				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses ²				0		
				296	160	136

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips ⁵	280	152	128
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	Saturday Peak Hour		Date:		

Table 1-A: 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				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses ²				0		
				245	127	118

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips ⁵	223	116	107
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

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**

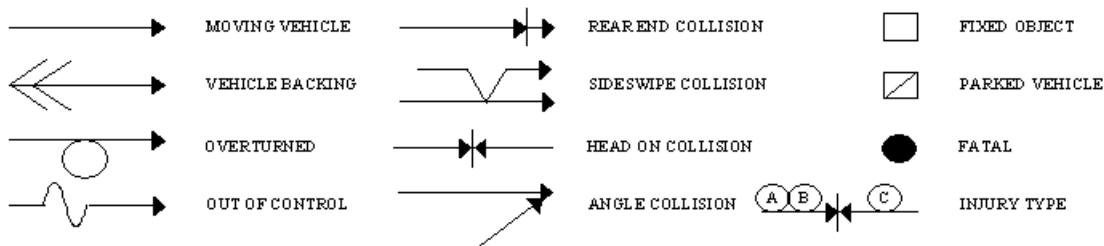
CRASH RATE: **0.49**

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

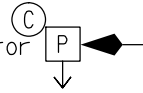
WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

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

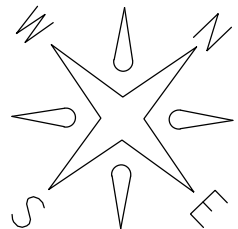
Biddeford

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

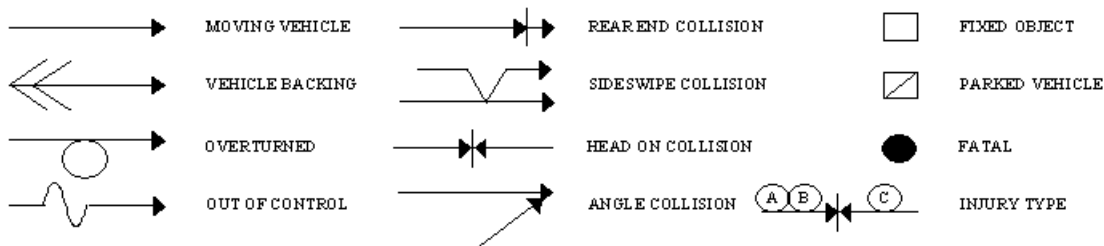
CRASH RATE: 0.74

CRF: 2

% INJURY: 14.3

TOTAL CRASHES: 14

LEGEND



--- 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

Pine St.

Maple St.

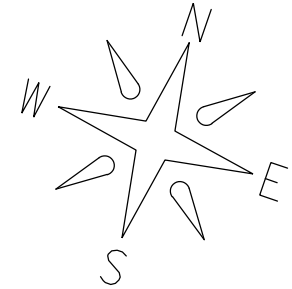
Biddeford

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

B

C

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**

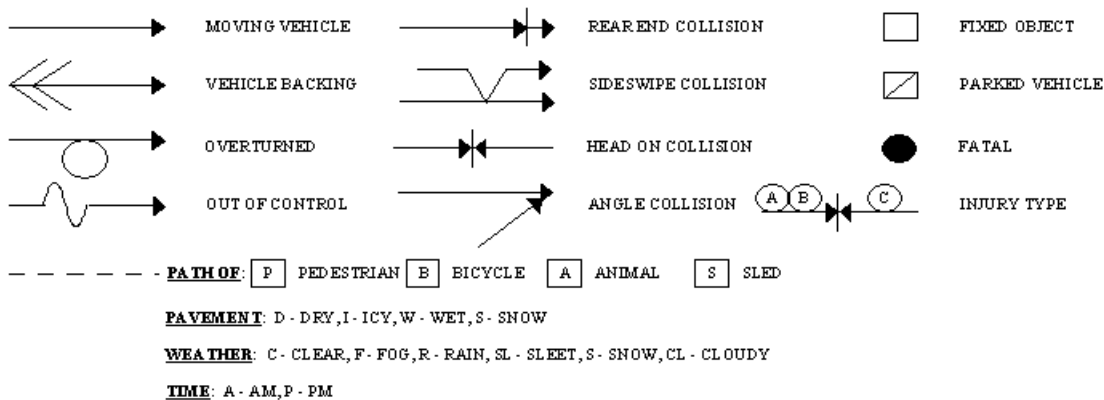
CRASH RATE: **1.39**

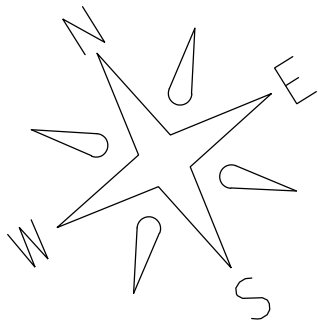
CRF: **2.9**

% 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

dots

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

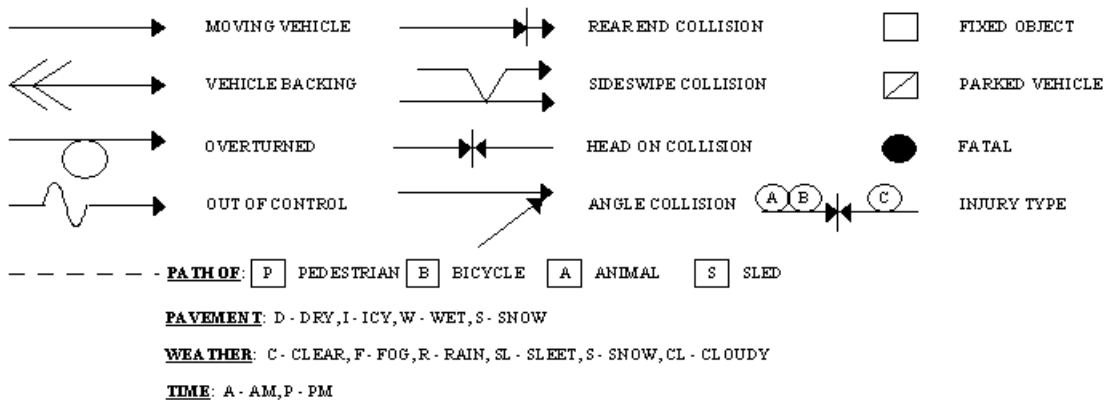
RTE # / RD #: 3110002 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

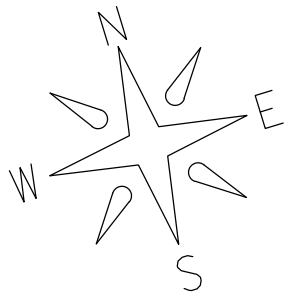
STUDY FROM: 1/1/2018

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

(C)

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

(C)

(C)

(C)

(C)

(C)

(C)

(C)

(C)

(C)

(C)

(C)

(C)

22956 9-21-20 10:45A D/C Fail To Yield

Stop

Main St.

Adams St.

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	A	B	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 Length	U/R	Total Crashes	K	Injury A	Crashes B	Percent C	PD	Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	56641	3130112	0 - 0.05	0001X - 33.99	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				US 1	Statewide Crash Rate: 230.30												
56641	58514	3114278	0 - 0.01	0001X - 34.04	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				US 1	Statewide Crash Rate: 230.30												
56642	58514	3130113	0 - 0.04	0001X - 34.05	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				US 1	Statewide Crash Rate: 230.30												
56642	58517	3944217	0 - 0.04	0001X - 34.09	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				US 1	Statewide Crash Rate: 230.30												
56644	58517	3114282	0 - 0.03	0001X - 34.13	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				US 1	Statewide Crash Rate: 230.30												
56644	56645	3114280	0 - 0.03	0001X - 34.16	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				US 1	Statewide Crash Rate: 230.30												
56645	58519	3937825	0 - 0.06	0001X - 34.19	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				US 1	Statewide Crash Rate: 230.30												
56647	58519	3114285	0 - 0.04	0001X - 34.25	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)				US 1	Statewide Crash Rate: 230.30												
56647	56648	2837611	0 - 0.02	0001X - 34.29	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)				US 1	Statewide Crash Rate: 230.30												
56648	58711	3139816	0 - 0.02	0001X - 34.31	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				US 1	Statewide Crash Rate: 230.30												
56649	58711	3116620	0 - 0.15	0001X - 34.33	0.15	2	6	0	0	0	0	6	0.0	0.00744	268.98	469.63	0.00
TL - Biddeford, Saco				US 1	Statewide Crash Rate: 230.30												
58512	58513	239919	0 - 0.06	3110126 - 0	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				RD INV 31 10126	Statewide Crash Rate: 411.49												
58513	58514	239921	0 - 0.04	3110126 - 0.06	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				RD INV 31 10126	Statewide Crash Rate: 411.49												
56644	58512	3114281	0 - 0.07	3110102 - 0	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58512	58515	3114626	0 - 0.10	3110102 - 0.07	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58494	58515	3132475	0 - 0.04	3110102 - 0.17	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58493	58494	4046830	0 - 0.06	3110104 - 0.15	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				RD INV 31 10104	Statewide Crash Rate: 180.89												
58493	58494	4046830	0.06 - 0.10	3110104 - 0.21	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				RD INV 31 10104	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	2018-32156	10/30/2018	34.07	B				
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0								
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	2018-26829	09/24/2018	34.34	PD				
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	6					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**

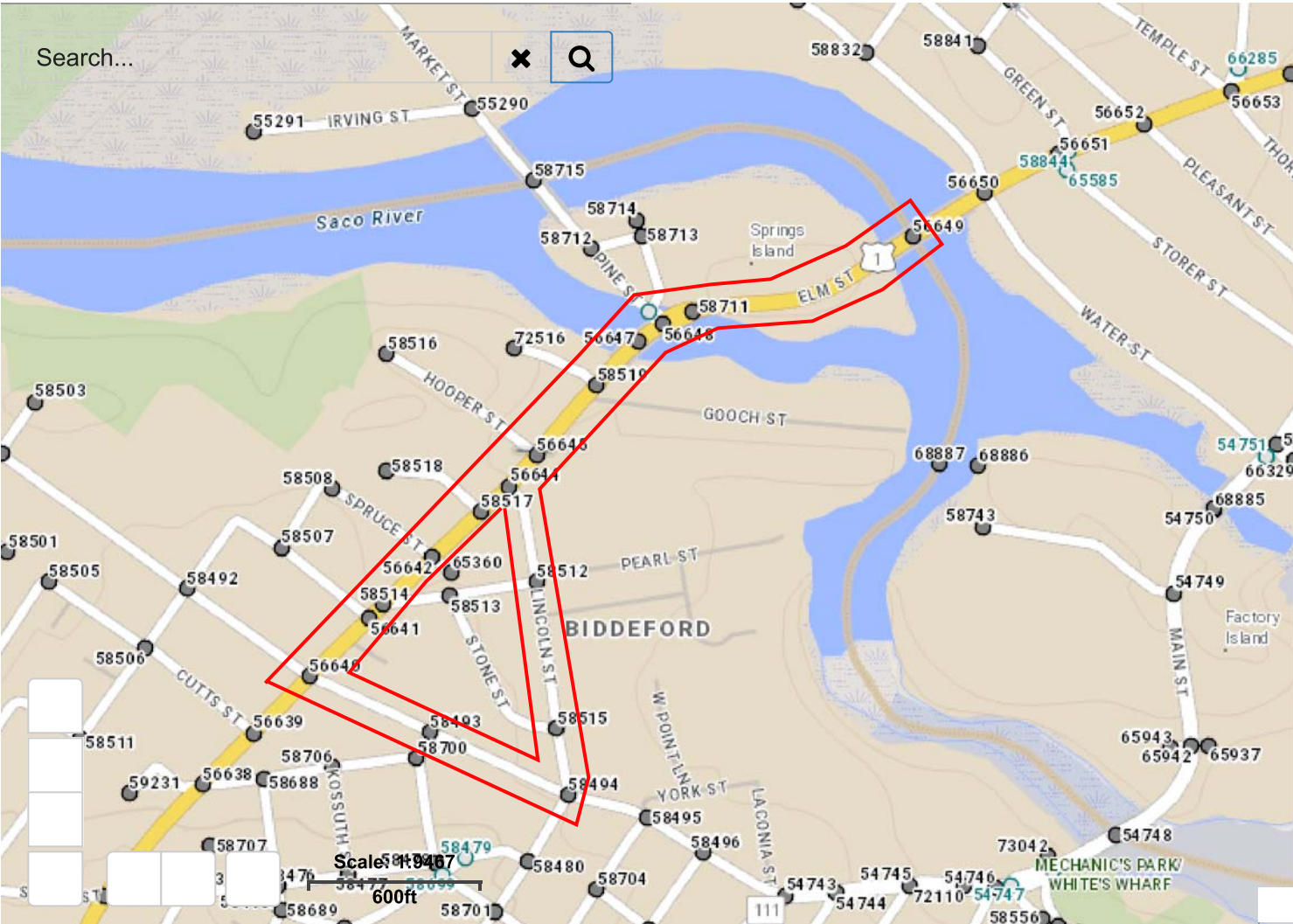
Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0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



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

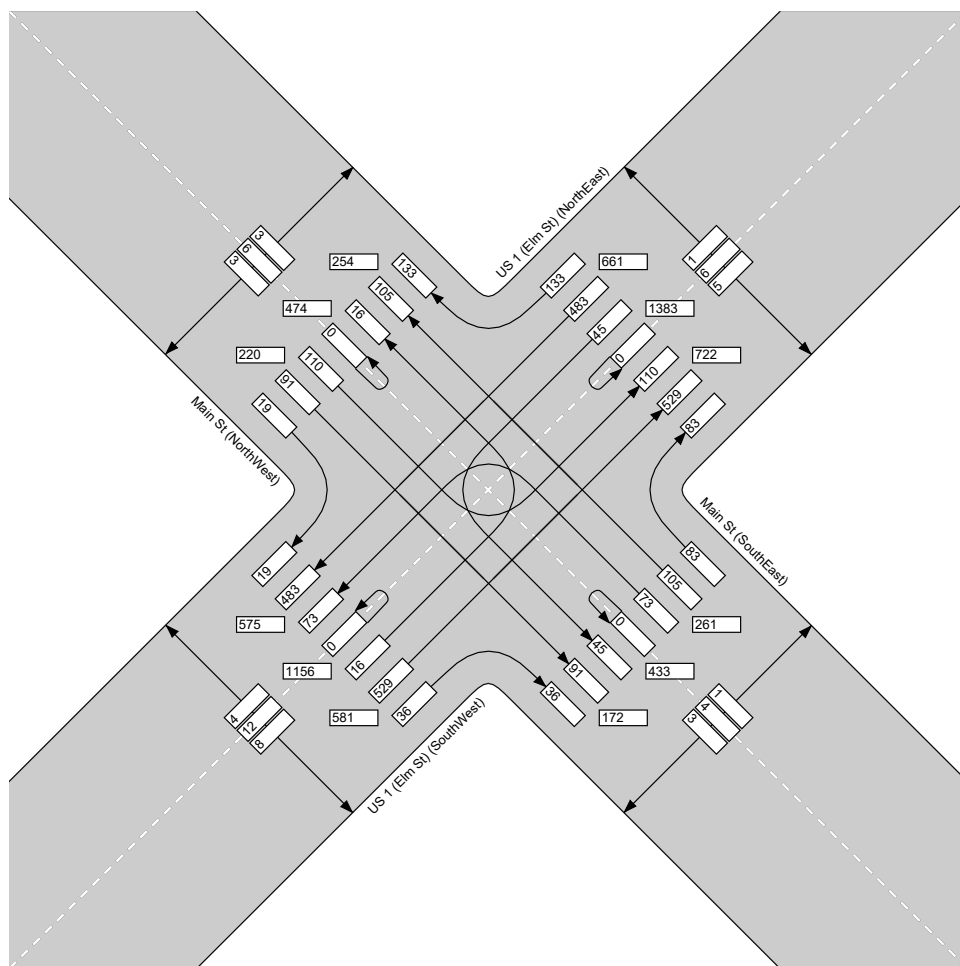


Classes

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	1	0	
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	0	
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	1	0	
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%	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%	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)									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	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%																			

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</

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%	2.6%	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

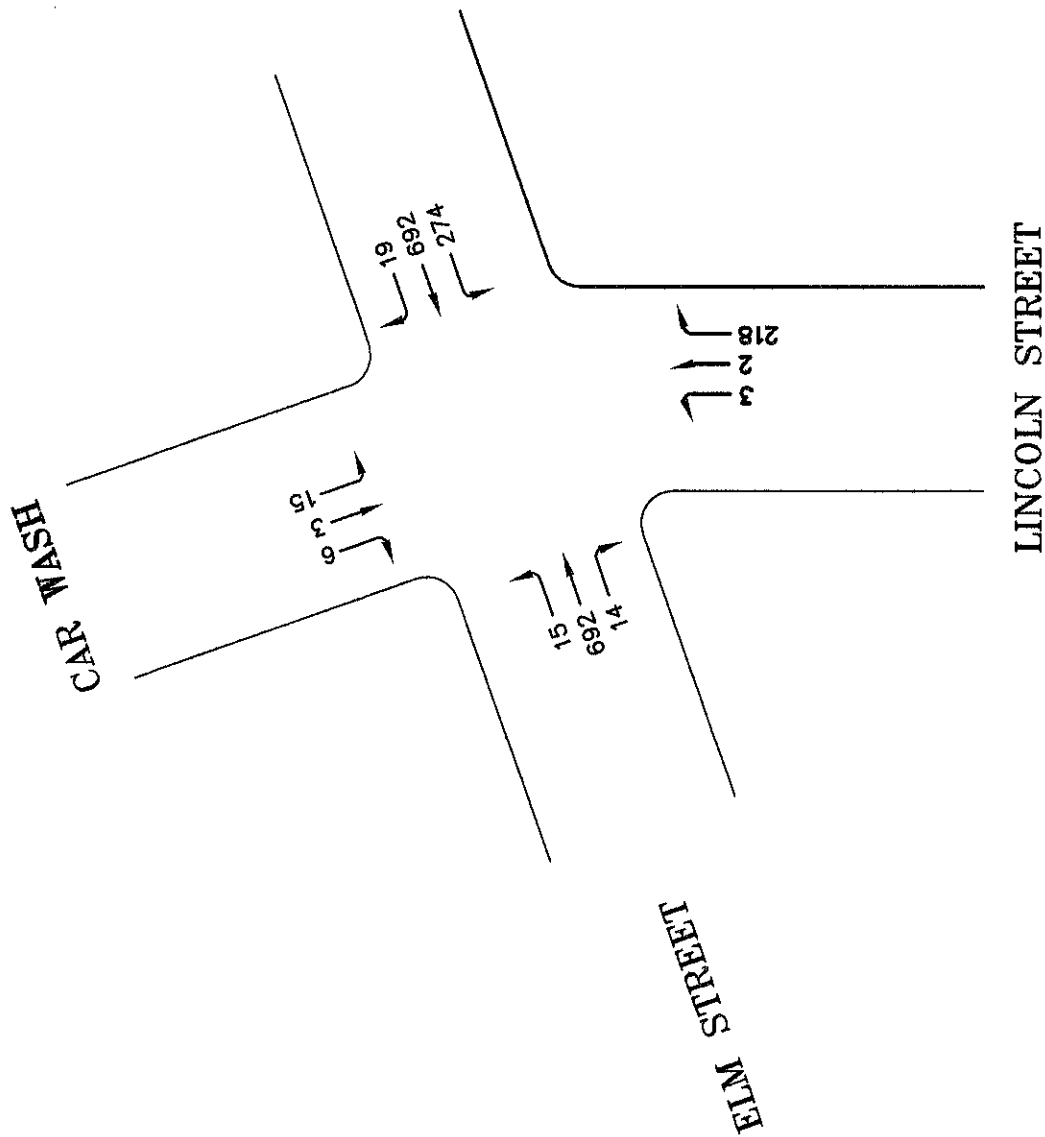
MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

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		



EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1b



ADAMS STREET

LINCOLN STREET

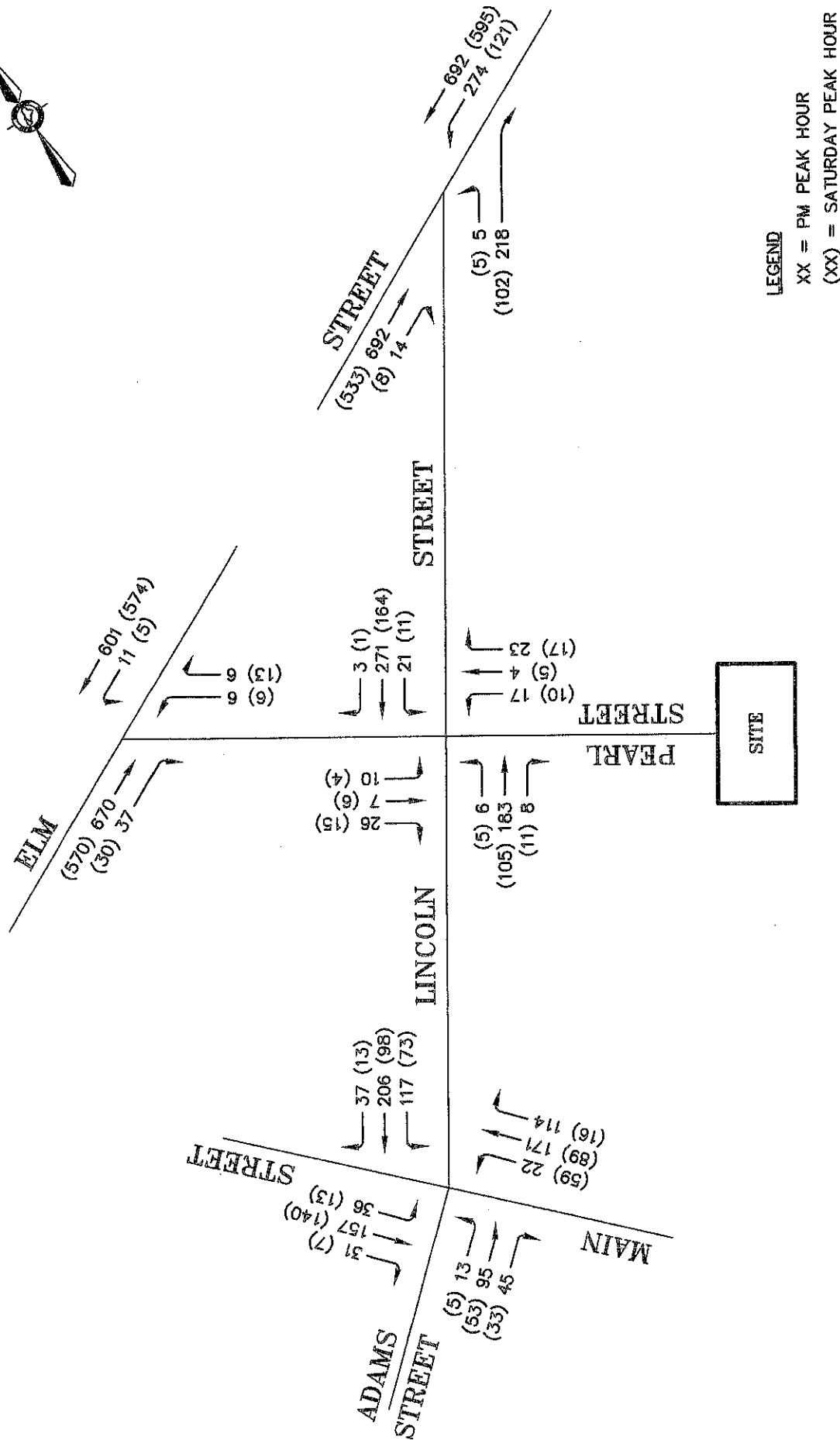
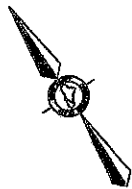
36
157
31

37 206 117

13 35 45

22
171
114

**EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1a**



LEGEND

XX = PM PEAK HOUR

(XX) = SATURDAY PEAK HOUR

EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)

FIGURE 1

EVANS PROJECT/LOCAL/STATE TRAFFIC SOLUTIONS/ADAMS STREET/PEARL STREET/PEARL STREET/PEARL STREET

RIVERDAM REDEVELOPMENT

TRAFFIC SOLUTIONS

17 NOVEMBER 2019, 02:00 PM, 02:03

DATE: AUGUST, 2019

DATE: 1

SITE PLAN

GENERAL NOTES:

1. ALL BRICK 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 TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

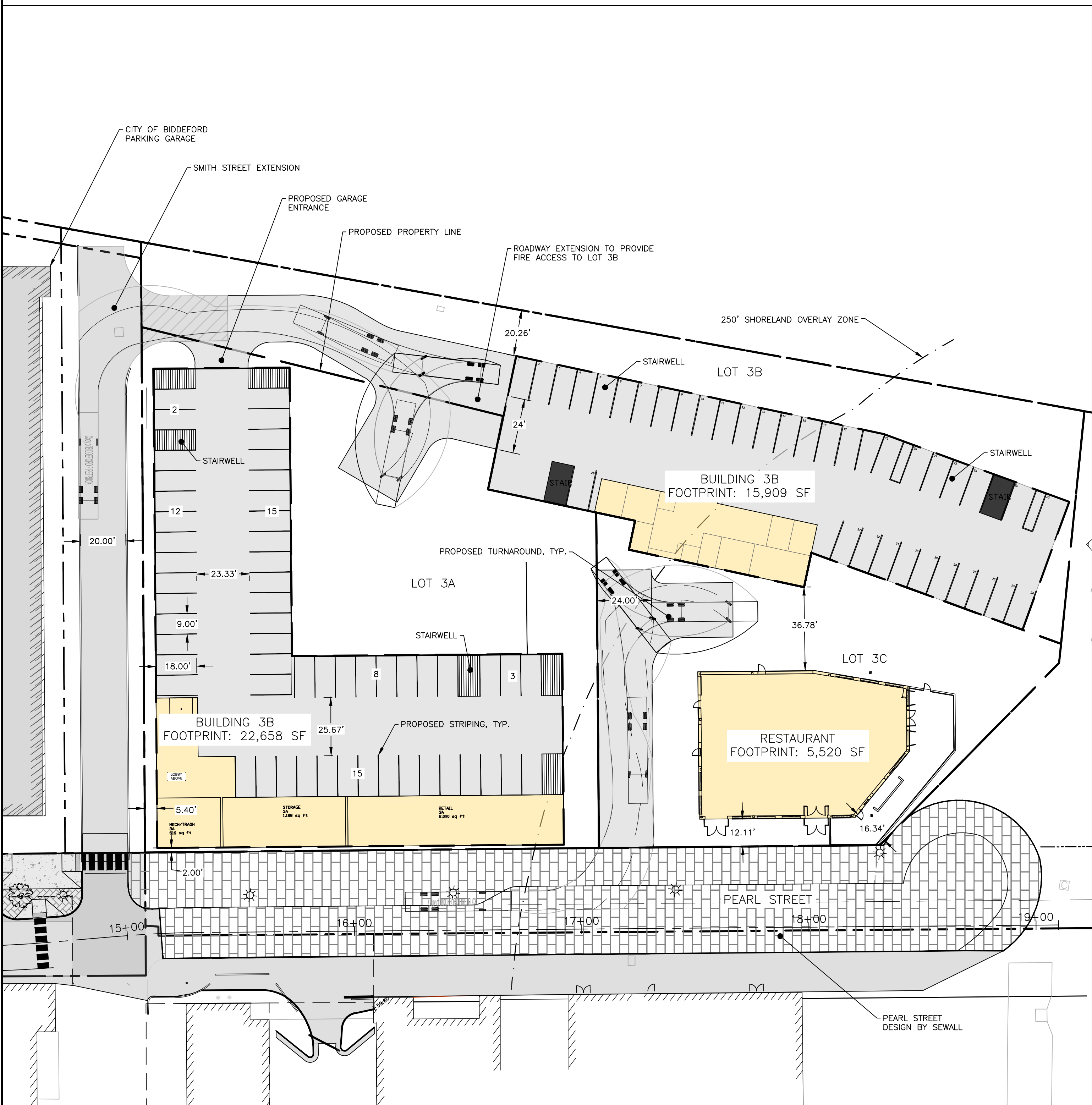
PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE, MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021

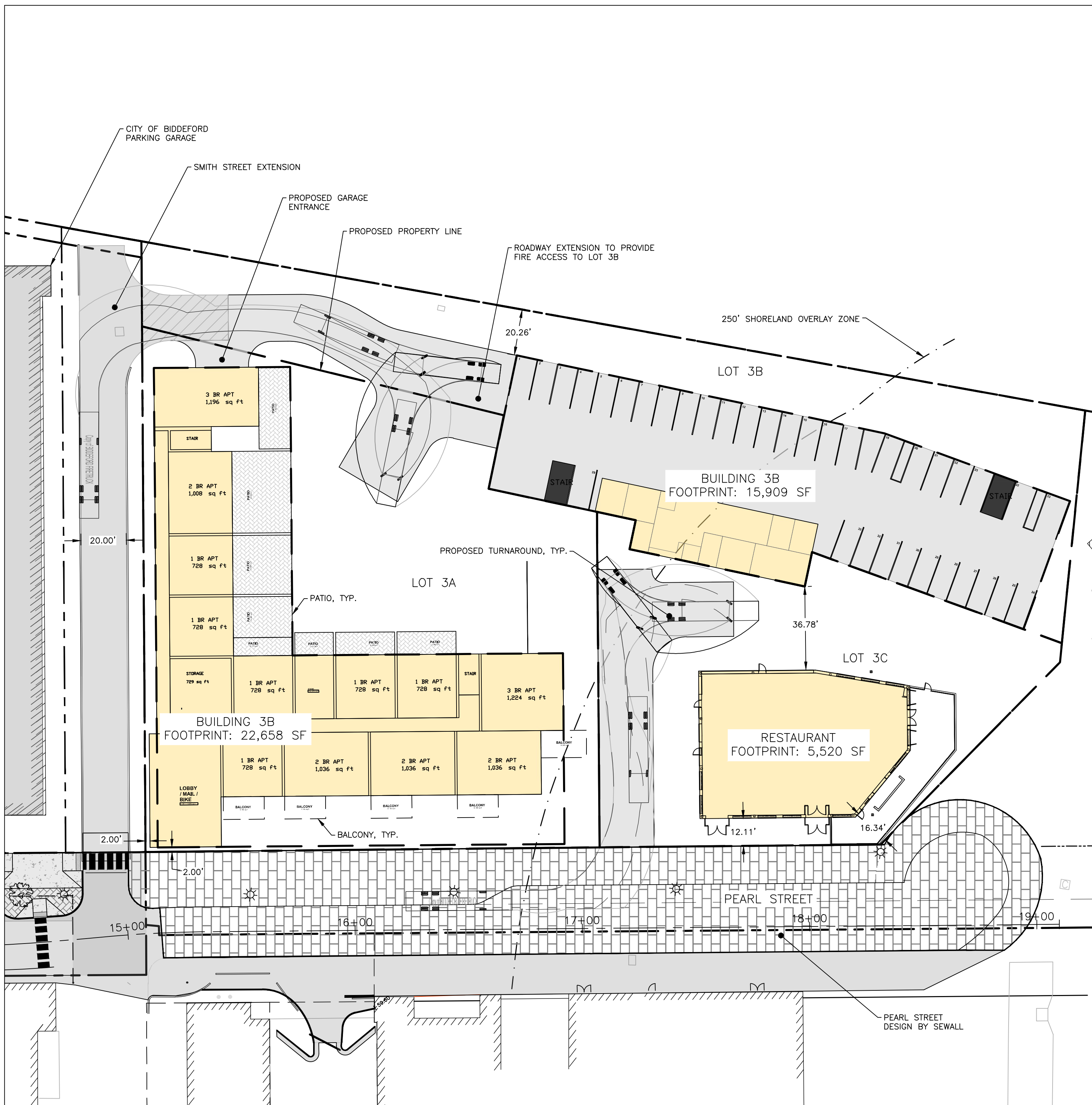
46.75		
12.877	20.833	4.833
BIDDEFORD FIRETRUCK		
Overall Length	46.750ft	
Overall Width	8.500ft	
Overall Body Height	9.851ft	
Min Body Ground Clearance	0.920ft	
Track Width	6.333ft	
Lock-to-lock time	6.00s	
Max Wheel Angle	45.00°	

PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
—	—	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	—
LOT 3B	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
—	—	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	—
LOT 3C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (8'X18')	—	—	TBD
STANDARD (9'X18')	—	—	TBD
TOTAL SPACES	—	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	—	—	156

LOT 3A SPACE AND BULK STANDARDS						
ZONE:	REQUIRED (MSRD3)	REQUIRED (GD-1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	—	39,629 SF	30,230 SF	20,580 SF
MINIMUM STREET FRONTAGE	NONE	—	324'	200'	—	124'
MINIMUM FRONT YARD SETBACK	NONE	—	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	—	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	—	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	—	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	—	—	—	—
SACO RIVER NO-CUT ZONE (SRCC)	—	75'	—	—	—	—
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	—	57.2%	52.6%	26.8%



GARAGE FLOOR PLAN
1" = 30'



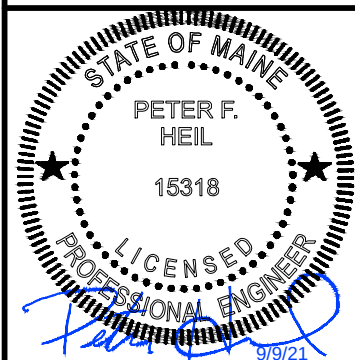
PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
TMP REVIEW	DATE
	PFH
	9/9/21

SITE PLAN	
PEARL STREET LOT 3 REDEVELOPMENT	
FATHOM COMPANIES	
80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101	

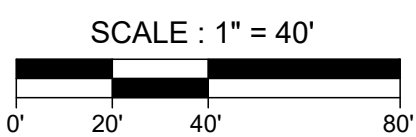
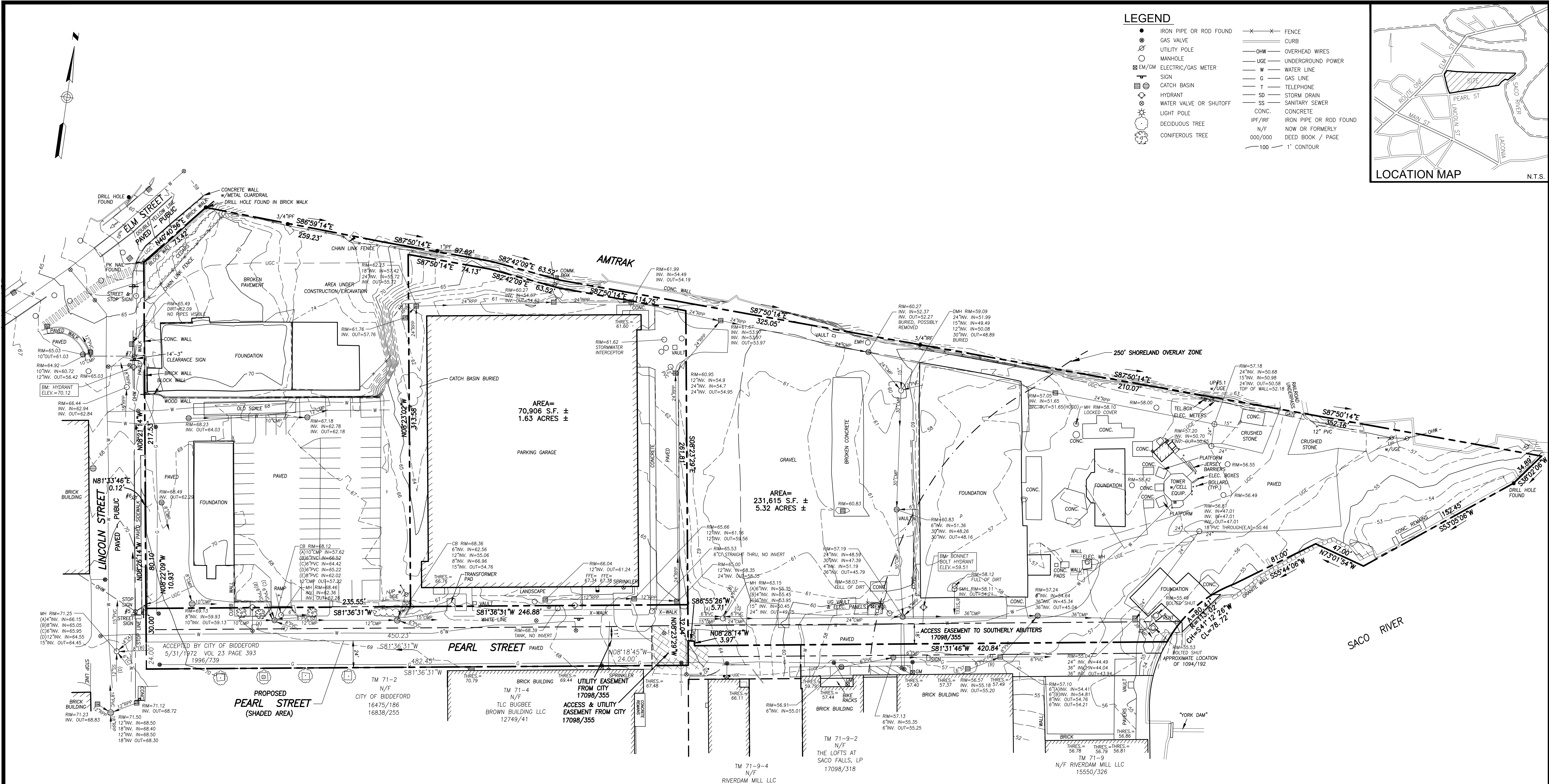
DRAWING NAME	
PROJECT NAME	
CLIENT	
ENGINEERING, INC.	
ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04104 (207) 775-2655	

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS/PFH



DRAWING NO.
C-10

BOUNDARY SURVEY



TITLE, RIGHT, OR INTEREST

Master Plan Development Agreement

This Master Plan Development Agreement (this “Agreement”) dated November 17, 2020 (“Effective Date”), is executed between 3 Lincoln, LLC, a Maine limited liability company (the “Developer”), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the “City”). The Developer and the City are collectively referred to as the “Parties.”

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the “MERC” site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the “Site”). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the “Camoin Study”), to establish a blueprint for the redevelopment of the Site (the “Project”).

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City’s base property value by up to \$63,000,000.

WHEREAS, the Project is expected to become an anchor within the City’s so-called “Mill District,” with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I

GENERAL TERMS & COMMITMENTS

1.1 Purpose. This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 Description of the Project. The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the “Municipal Parking Garage”) on the portion of the Site shown on Exhibit A as the site for those improvements (“Garage Site”) and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the “Development Sites”) as commercial, residential, academic, hospitality, retail or other uses (collectively the “Adjacent Buildings”). The Parties shall progress through each stage of the Project, consistent with Section 1.3 below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in Section 3.1 of this Agreement.

1.3 Project Schedule. The Project shall proceed in accordance with the following schedule (the “Project Development Schedule”):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in Section 3.2 below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements (“Garage Concept Plan”) (the date of delivery referred to as the “Start Date”).

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the “Preliminary Concept Plan”). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the “Site Concept Plans”). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals (“Governmental Approvals”) necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars (\$1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars (\$700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars (\$700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars (\$1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the “Prorations”). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

- a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V

INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than \$1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI

DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, “force majeure” shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

[Remainder of page intentionally blank]

17 day of Nov, 2020.

3 Lincoln, LLC

Its:

By:

Title: City Manager

Witness Jonathan Benoit

Witness

City of Biddeford, Maine

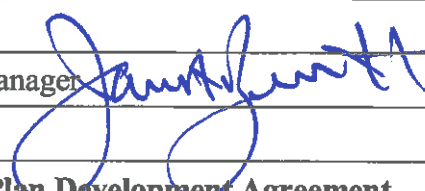


The Office of
City Manager

James A. Bennett

Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	BE Fidler LLC
FROM:	James A. Bennett, City Manager 
DATE:	December 19, 2019
RE:	Clarification to Master Plan Development Agreement

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements;
or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.

Exhibit A
Site Plan

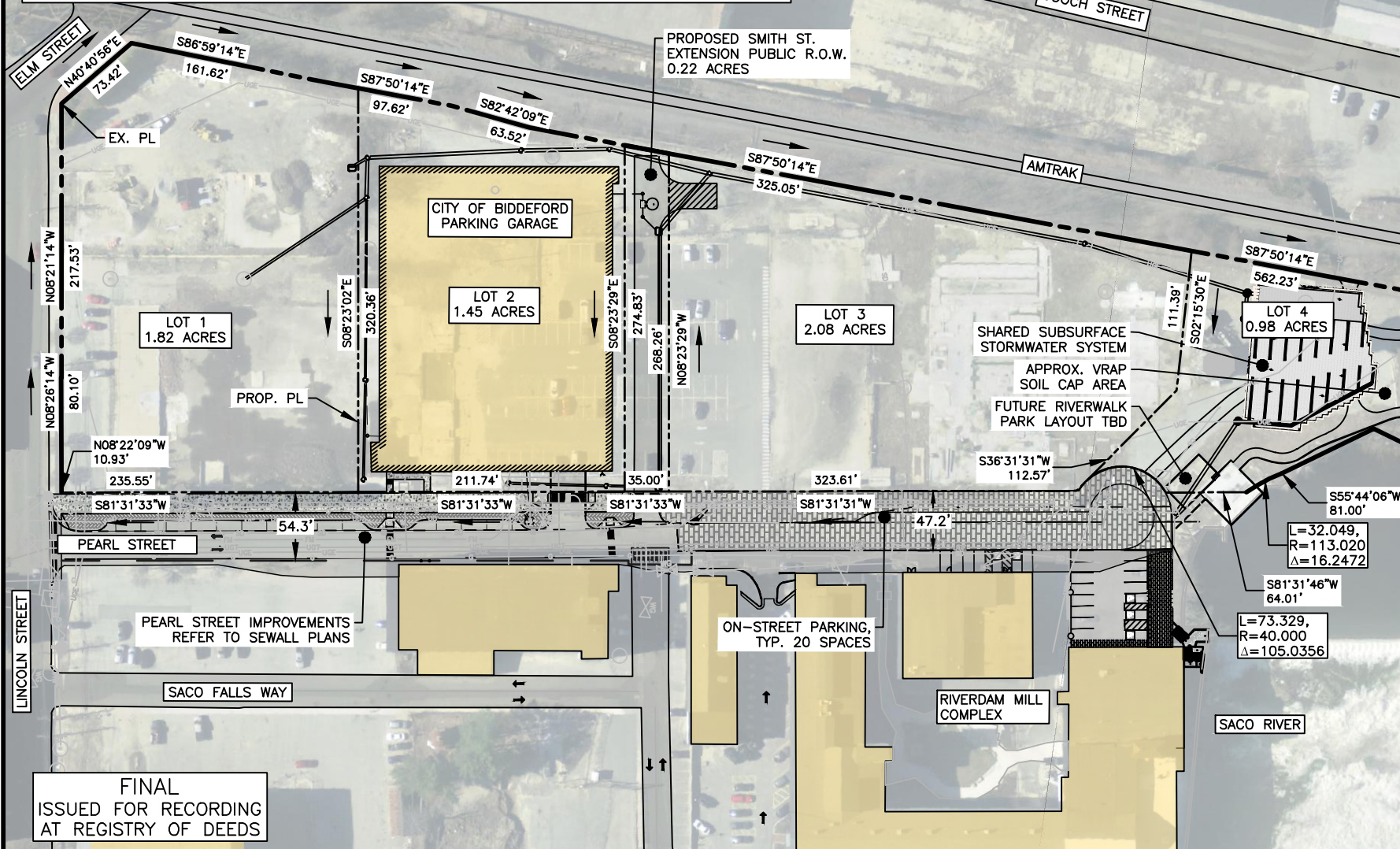
[insert Site Plan]

NOTES:

- CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
 - WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
 - SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
 - GAS
 - ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
 - TELEPHONE/COMMUNICATIONS/FIBER
 - STORMWATER
- NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
- NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
- LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
- LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
- SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

PLAN REFERENCES:

- "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
- "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
- EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
- "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015



ISSUED FOR
JDA EXHIBIT

DRAWING NAME:
OVERALL SITE EXHIBIT

PROJECT NAME:
PEARL STREET &
MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE



FILE: 1124_CIVIL
JN: 1124
SCALE: 1" = 120'
DESIGN BY: PFH
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.

EX-A
ALSO REFER TO
EX-A1 & EX-A2

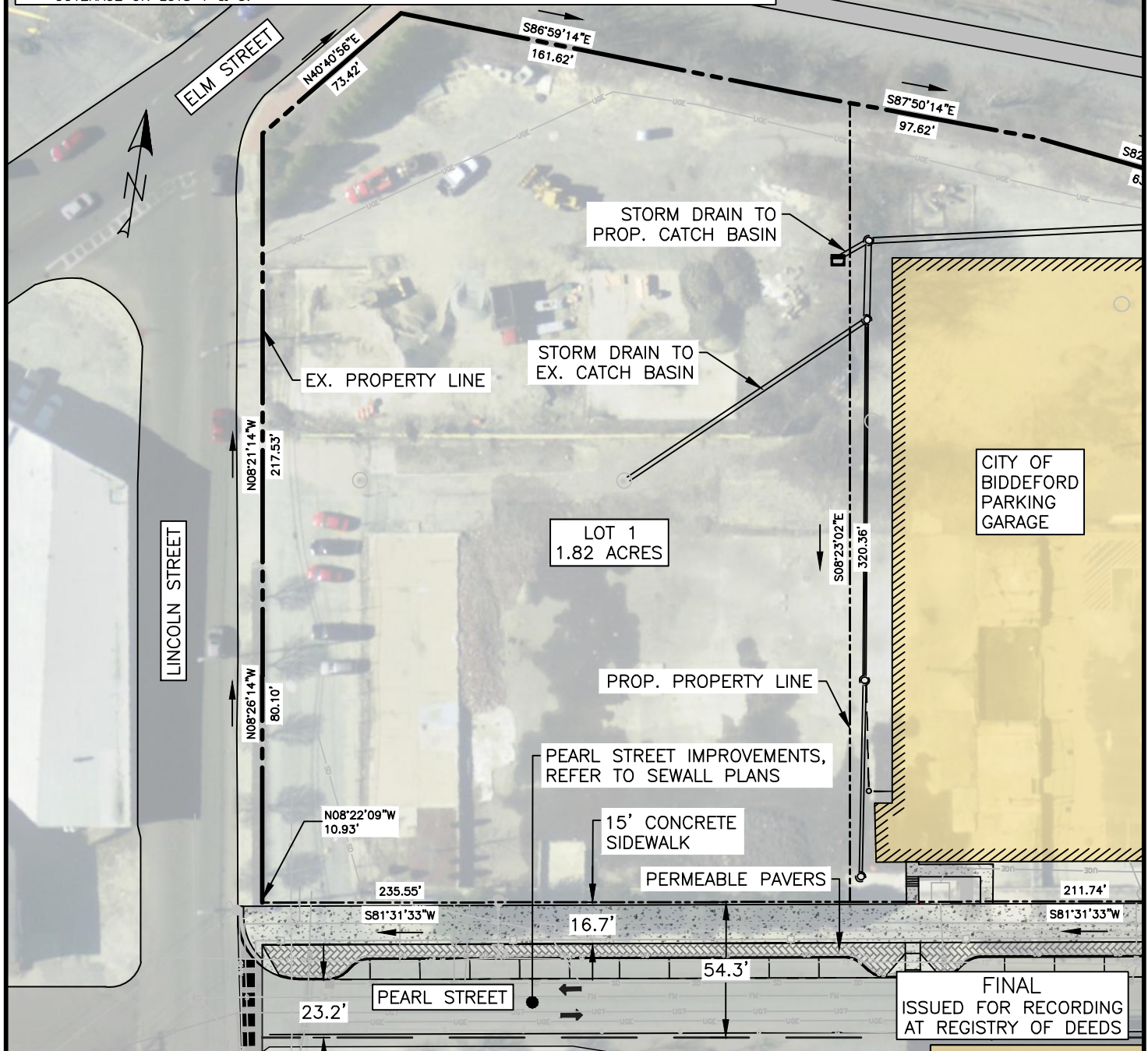
206

NOTES:

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DRAWING NO.
EX-A1

ALSO REFER TO EX-A & EX-A2

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DATE: 11/12/20
UN: 1124
SCALE: 1" = 60'
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



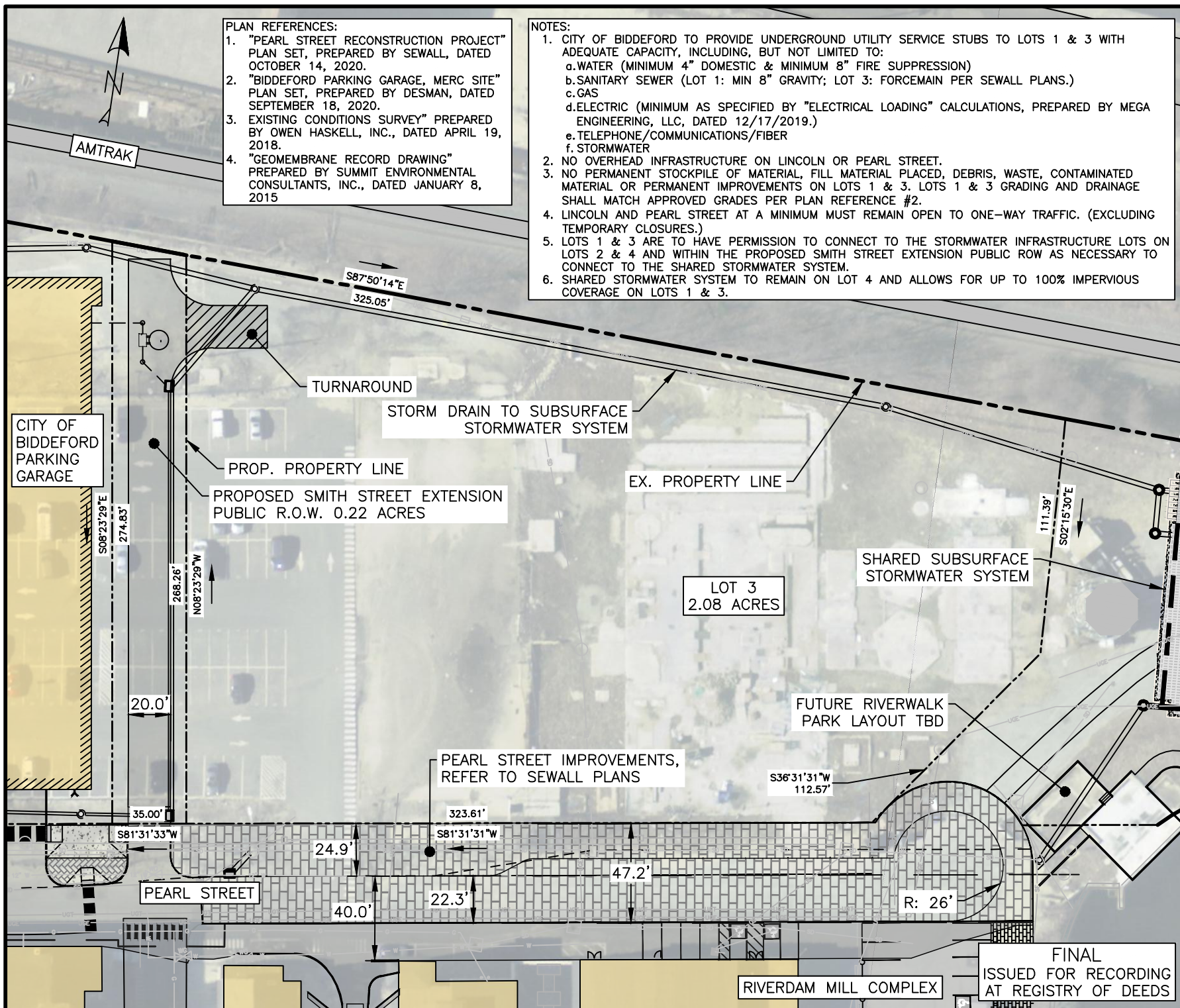
DRAWING NAME:
LOT 1 EXHIBIT

PROJECT NAME:
PEARL STREET & MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE

ISSUED FOR
JDA EXHIBIT

BY
DATE
PFH
11/12/20



PLAN REFERENCES:

1. "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
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 - d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
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 - f. STORMWATER
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6. SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

ISSUED FOR
JDA EXHIBIT

DRAWING NAME: LOT 3 EXHIBIT
PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT
CLIENT: FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE



FILE: 1124_CIVIL
JN: 1124
SCALE: 1" = 60'
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

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DRAWING NO.

EX-A2
ALSO REFER TO
EX-A & EX-A1

208

**MAINE DEPARTMENT OF
TRANSPORTATION**

TRAFFIC MOVEMENT PERMIT

SECTION 7

TRAFFIC IMPACT STUDY

3 Lincoln Street Project

Residential Apartments and Restaurant

Pearl Street, Biddeford, Maine

April 6, 2022

Revised April 26, 2022

Submitted by:

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

TY·LININTERNATIONAL



Thomas A. Errico

1. Introduction

T.Y. Lin International (TYLI) was contracted by Acorn Engineering, Inc., and Fathom Company to conduct a Traffic Impact Study for the 3 Lincoln Street project located on Pearl Street in Biddeford, Maine (See **Figure 1**). The project consists of the following:

Lot 3A – 83 Residential Apartments Units

- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units

- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total

- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking garage. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study evaluate specific traffic conditions at the following intersections.

- Elm Street/Pine Street
- Elm Street/Lincoln Street
- Lincoln Street/Pearl Street
- Elm Street/Pearl Street

The tasks that were undertaken in the study were as follows:

- Conduct field reconnaissance and traffic counting programs during the weekday PM and Saturday peak periods at study area intersections.
- Develop existing design hour traffic volumes from peak hour traffic volumes.

- Project existing design hour traffic volumes to a future year based on a traffic growth factor and include other approved land development projects not yet in operation as provided by the City and State.
- Develop anticipated traffic volumes to be generated by the planned project for the weekday PM and Saturday peak hour conditions.
- Conduct capacity analyses, level of service determination, and vehicle queuing analyses as appropriate for:
 - Future conditions without the project; and
 - Future conditions with the project.
- Based on the traffic analyses, determine any operational deficiencies at the study area intersections.
- Conduct a safety analysis at the following locations:
 - Pine Street/Elm Street
 - Lincoln Street/Elm Street
 - Lincoln Street/Pearl Street (Review sight distance issues)
 - Provide AADT for the above locations
- Perform a traffic impact fee calculation according to City methods.

2. Data Collection

TYLI performed field reconnaissance of the study area, assembled existing traffic counts, conducted a video turning movement count and gathered information on anticipated future developments in the vicinity of the project. A manual turning movement count was conducted on a typical weekday from 3:00-6:00 PM and a Saturday from 11:00-2:00 PM on the date noted:

- Elm Street/Lincoln Street (PM July 18, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pine Street (PM November 2, 2021, and Saturday October 30, 2021)
- Lincoln Street/Pearl Street (PM June 13, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pearl Street (PM July 17, 2019, and Saturday July 27, 2019 Riverdam Study)

Copies of the turning movement counts are provided in the **Appendix**.

3. Existing (2021) Design Hour Traffic Volumes

The primary purpose of this study is to determine the impact the proposed project will have on the local transportation system. In general, the critical time period for a given project is directly associated with peaking characteristics of both the project-related traffic and the area transportation system. As directed by MaineDOT, this study evaluates traffic conditions during the weekday PM and Saturday peak hours of the local roadway system.

Development of peak hour traffic volumes was based upon the traffic counts conducted or assembled. Because the traffic counts were collected in different years, two tasks were performed to estimate existing design hour volume conditions, adjusting 2019 traffic volumes to reflect 2021 conditions, and seasonally adjusting the volumes to reflect summer conditions.

The 2019 traffic counts were adjusted by a growth rate of 1.0 percent per year (see **Section 6** for growth rate assumption) and traffic from the Riverdam project was added to these intersections. The Riverdam project was occupied at the time of the 2021 counts and therefore trips were not added to the Elm Street/Pine Street intersection.

The traffic pattern on any highway shows considerable variation in traffic volumes during different hours of the day and during the year. It is therefore important to determine which hourly traffic volume to use for analysis and design. It would be wasteful to predicate the design on the (maximum) peak hour traffic of the year, yet the use of the average hourly traffic would result in an inadequate design. The hourly traffic volume used in design should not be exceeded very often or by very much. On the other hand, it should not be so high that traffic would rarely be great enough to make full use of the facility. Based upon the relationship between highest hourly volumes and daily traffic volumes, it has been concluded that the hourly traffic used in design should be the 30th Highest Hour Volume, or sometimes call Design Hour Volume. For this study, the 2021 peak hour traffic volumes were adjusted to obtain Design Hour Volumes by applying the MaineDOT Weekly Group Mean Factors. The adjustment factor used was 1.08. No adjustment was required for the 2019 counts as collection of data occurred during the summer. **Figure 2** presents the Existing (2021) Design Hour Traffic Volumes within the study area.

4. Future (2024) No-Build Traffic Volumes

In order to estimate traffic volumes during the No-Build condition, it is important to incorporate both historical traffic growth and traffic generated by other developments in the study area. The latter is necessary because conditions associated with nearby developments may generate traffic that impact roadways being studied. For this study, TYLI estimated an annual traffic growth rate of 1.0 percent based on previous experience in the region. Given the expected build out of the project in 2024, the Existing (2021) Design Hour traffic volumes were projected to Future (2024) No-Build traffic volumes (without the proposed development) by applying the annual traffic growth rate of 1.0 percent over a three-year period.

TYLI also reviewed other developments projected to occur in or near the study area. Based on feedback from the City of Biddeford at the MaineDOT Scoping meeting, the Lincoln Mill project (50% occupied) and the Building 11 Elderly Apartment project were identified and incorporated as part of the Future (2024) No-Build volumes.

Traffic from the Lincoln Mill project was based on information contained in the Riverdam Traffic Study. Fifty percent of traffic from the project was included in this study. It was assumed that 59 entering trips and 66 exiting trips during the weekday PM peak hour. Because Saturday peak hour trip generation information was not included, the weekday data was used.

Traffic from the Building 11 Elderly Apartment project was based on the ITE Trip Generation Manual (a traffic study is not available). According to the City, the project consists of 71 apartment units. This correlates to 19 weekday PM peak hour trips and 23 Saturday peak hour trips. The City suggested that we

assign 50% of these trips to Pearl Street. Assignment of the trips to the roadway system was based on a similar trip assignment pattern as the 3 Lincoln Street project.

Given that traffic counts at some intersections were collected in 2019, traffic from the Riverdam project were added to those intersections.

Figure 3 depicts traffic for the other development project during the PM and Saturday peak hours. **Figure 4** presents the estimated Future (2024) No-Build traffic volumes at the study area intersections.

5. Site Traffic Generation and Distribution

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) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. 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
 - **$\ln(T) = 0.83 \ln(X) - 0.27$ [used for this Application]**
 - Directional Distribution: 20% Entering, 73% Exiting
 - PM Peak Hour of Generator
 - Average Rate Per – 0.41 per unit
 - **$\ln(T) = 0.83 \ln(X) - 0.05$ [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

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 a modest 5%

reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, 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, and the Weekday percentages was used As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 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 (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats) ¹	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245
Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%) ²	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

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

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Elm Street and Pine Street intersection according to existing traffic volumes. Based on the data approximately 30% of the site traffic traveling north on Elm Street was assigned to Pine Street. **Figure 5** presents the assignment of trips during the Weekday PM and Saturday peak hours.

6. Future (2024) Build Traffic Volumes

Future (2024) traffic volumes with the planned project completed were estimated by adding the site generated traffic to the Future (2024) No-Build traffic. A growth rate of 1% per year was used based on two data sources. A review of historical AADT traffic volume data indicates Elm Street had a volume of 12,790 vehicles in 2016 and 13,260 vehicles in 2021. This corresponds to a 0.75% annual growth rate. In conjunction with the Biddeford Route 111 Transportations/South Street Connections Study traffic volume forecasts were developed by Kevin Hooper and Elm Street north of Main Street is expected to grow by 14% between 2021 and 2045 or about 0.58% per year. Accordingly, use of a 1% annual growth rate seems appropriate. **Figure 6** illustrates the estimate Future (2024) Build traffic volumes at the study area intersections.

7. Intersection Analysis

To evaluate the impact of traffic generated by the planned project, capacity analyses were performed at the study intersections under Future (2024) No-Build and Future (2024) Build conditions. The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). Level of Service provides a measurement of the delay experienced at an intersection as a result of traffic operations at that intersection. In general, there are six levels of service: Level of Service A to Level of Service F. The highest, Level of Service A, describes a condition of free flow, with low volumes and high speeds. Level of Service B represents a stable traffic flow with operating speeds beginning to be restricted somewhat by traffic conditions. Level of Service C, which is normally utilized for design purposes, describes a stable condition of traffic operation. It entails moderately restricted movements due to higher traffic volumes, but traffic conditions are not objectionable to motorists. Level of Service D reflects a condition of more restrictive movements for motorists and influence of congestion becomes more noticeable. Level of Service E is representative of the actual capacity of the roadway or intersection and involves delay to all motorists due to congestion. The lowest, Level of Service F, is described as force flow and is characterized by volumes greater than the theoretical roadway capacity. Complete congestion occurs, and in extreme cases, the volume passing a given point drops to zero. This is considered as an unacceptable traffic operating condition.

Table 2 highlights the level of service criteria for signalized intersections. The level of service criteria for signalized intersections is based on control delay per vehicle measured in seconds.

Table 2 LOS Criteria for Signalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	> 80

Source: 2010 Highway Capacity Manual, Transportation Research Board

Table 3 highlights the level of service criteria for unsignalized intersections. The level of service criteria for un-signalized intersections is based on control delay per vehicle measured in seconds. The LOS procedure computes capacity for each movement that has a conflict, based upon the critical time gap required to complete the maneuver and the volume of traffic that is opposing the movement.

Table 3 LOS Criteria for Unsignalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	> 50

Source: 2010 Highway Capacity Manual, Transportation Research Board

For this study, level of service analysis of the study area intersections was conducted with Synchro/SimTraffic 11. Tables **4 through 7** present the results of the level of service analyses No-Build and Build future conditions within the study area.

Table 4 Elm Street/Pine Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left	B	12.0	B	13.8	A	7.5	A	8.6
Elm St. NB Through	A	2.8	A	2.9	A	2.0	A	2.4
Elm St. SB Through/Right	A	5.6	A	6.2	A	3.9	A	4.1
Pine St. Left/Right	F	639.0	F	812.3	F	282.3	F	321.9
Overall	F	51.8	F	54.3	E	40.0	D	46.3

Table 5 Elm Street/Lincoln Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left/Through/Right	A	2.3	A	2.8	A	1.1	A	1.4
Elm St. SB Left	C	22.6	D	30.3	A	7.8	A	8.4
Elm St. SB Through/Right	A	2.6	A	4.7	A	0.7	A	0.8
Lincoln St. Right	F	88.8	F	108.1	A	9.5	B	12.5
Car Wash Driveway	F	325.1	F	498.9	D	23.0	D	31.1
Overall	C	21.8	C	29.2	A	2.9	A	4.0

Table 6 Lincoln Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lincoln NB	B	15.0	C	21.5	A	0.7	A	0.8
Lincoln SB	A	2.4	A	3.7	A	1.9	A	2.8
Pearl EB	B	15.0	C	33.8	A	6.6	A	8.4
Pearl WB	F	79.1	F	223.1	A	6.8	B	11.3
Overall	C	23.9	F	70.2	A	3.5	A	5.9

Table 7 Elm Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm NB	A	1.2	A	1.7	A	1.2	A	1.5
Elm SB	A	1.2	A	1.3	A	0.6	A	1.3
Pearl WB	E	37.8	F	68.7	E	36.7	E	66.7
Overall	A	2.1	A	3.8	A	2.3	A	4.9

Tables 8 through 11 present the 95th vehicle queue estimates at the study intersection.

Table 8 Elm Street/Pine Street 95th Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left	100	156	168	107	115
Elm St. NB Through		138	139	4	58
Elm St. SB Through/Right		201	217	117	130
Pine St. Left/Right		835	812	861	872

Table 9 Elm Street/Lincoln Street 95th Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left/Through/Right		216	117	33	59
Elm St. SB Left	80*	206	250	82	100
Elm St. SB Through/Right		102	306	N/A	N/A
Lincoln St. Right		330	321	77	106
Car Wash Driveway		150	175	40	47

*The lane is not well defined and there is about 20 feet from the centerline to curb of a significant distance.

Table 10 Lincoln Street/Pearl Street 95th Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Lincoln NB	172	217	13	17
Lincoln SB	71	110	55	83
Pearl EB	71	137	56	62
Pearl WB	403	996	81	142

Table 11 Elm Street/Pearl Street 95th Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm SB	110	95	56	105
Pearl WB	53	126	70	135

The following summarizes the conclusion of the analysis.

Elm Street/Pine Street

Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.

Elm Street/Lincoln Street

The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.

MaineDOT requested that a traffic signal warrant analysis be conducted at the location. Because limited traffic volume data is available only the Peak Hour Volume Warrant and the Crash Warrant were evaluated.

Warrant 3: Peak Hour

The MUTCD has a disclaimer for use of this warrant that reads “This signal warrant shall be applied only in unusual cases such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This location does not meet this criteria, but given the lack of data it is the only volume-based warrant evaluated.

Warrant 3 is based on the sum of the major street traffic volume and the higher minor street traffic volume. The Peak Hour Warrant was evaluated for two volume conditions; 2019 Existing Conditions (when the traffic counts were performed) and for the 2024 Build Conditions. Given intersection turning movement volumes, the Elm Street southbound left-turn onto Lincoln Street is the volume that would trigger the warrant (the left-turn volume is greater than the right-turn volume from Lincoln Street). Accordingly, the left turn volume was used as the minor movement and the Elm Street northbound approach volumes was used as the major movement. The red mark on the following graphs represents the plot of major volume on northbound Elm Street and minor volume Elm Street southbound left-turn during the PM peak hour. As illustrated the warrant is not met for the 2019 existing volume condition but met for the 2024 Build volume scenario.

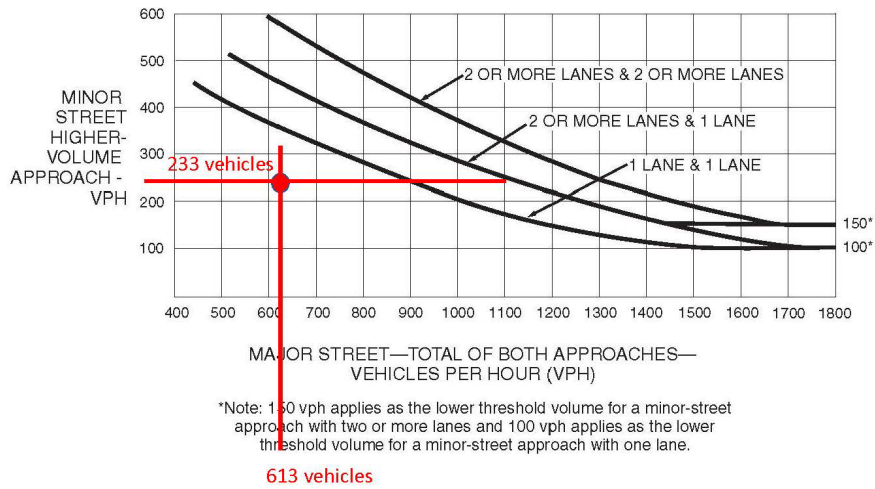
The following summarizes the actual 2019 volumes, adjustment to average conditions, and the 2024 Build volumes during the PM peak hour. The 2024 Build volumes used in the warrant evaluation were reduced by 15% to approximate average conditions.

2019 Existing

- Elm Street Southbound Left – $274 (7/18/2019) \times 0.85$ (group mean factor) = 233
- Elm Street Northbound Left+Through+Right $(15+692+14) - 721 \times 0.85$ (group mean factor) = 613

2019 Existing PM peak hour

Figure 4C-3. Warrant 3, Peak Hour

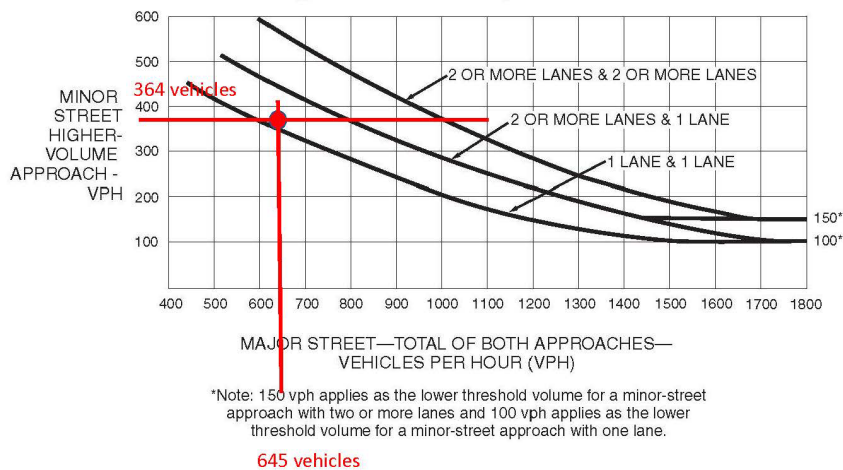


2024 Build

- Elm Street Southbound Left – 428×0.85 (group mean factor) = 364
- Elm Street Northbound Left+Through+Right (16+727+16) – 759×0.85 (group mean factor) = 645

2024 Build PM peak hour

Figure 4C-3. Warrant 3, Peak Hour



Warrant 7: Crash Experience

Warrant 7 states the need for a traffic control signal shall be considered if an engineering study finds that all the following criteria are met:

- A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency: and
- B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements of a reportable crash: and
- C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both the 80 percent column of Condition A in Table 4c-1, or the vph in both the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be the same for 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

This intersection is a High Crash Location (HCL). Based upon crash data there are not five crashes within a 12-month period that would be correctable by a traffic signal (See **Section 8**). Therefore, this warrant is not satisfied.

Lincoln Street/Pearl Street

Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

Elm Street/Pearl Street

Movements from Pearl Street will experience increased delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.

8.0 Safety Analysis

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

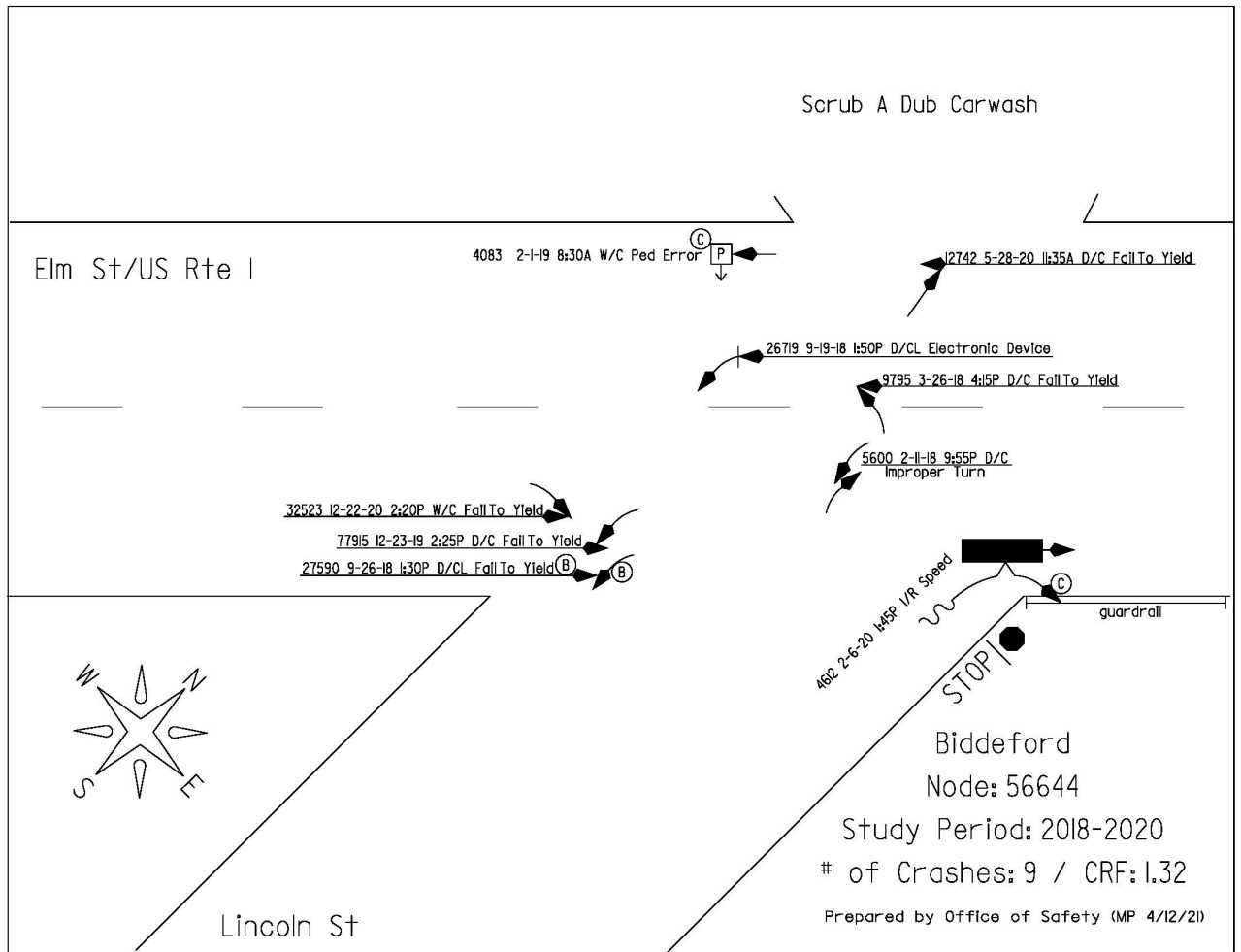
- Route 1/Elm Street – Main Street to Saco TL
- Pearl Street
- Lincoln Street
- Main Street – Lincoln Street to Elm Street

Table 12 summarizes the crash data at locations that are High Crash Locations (HCL) or close to meeting the criteria.

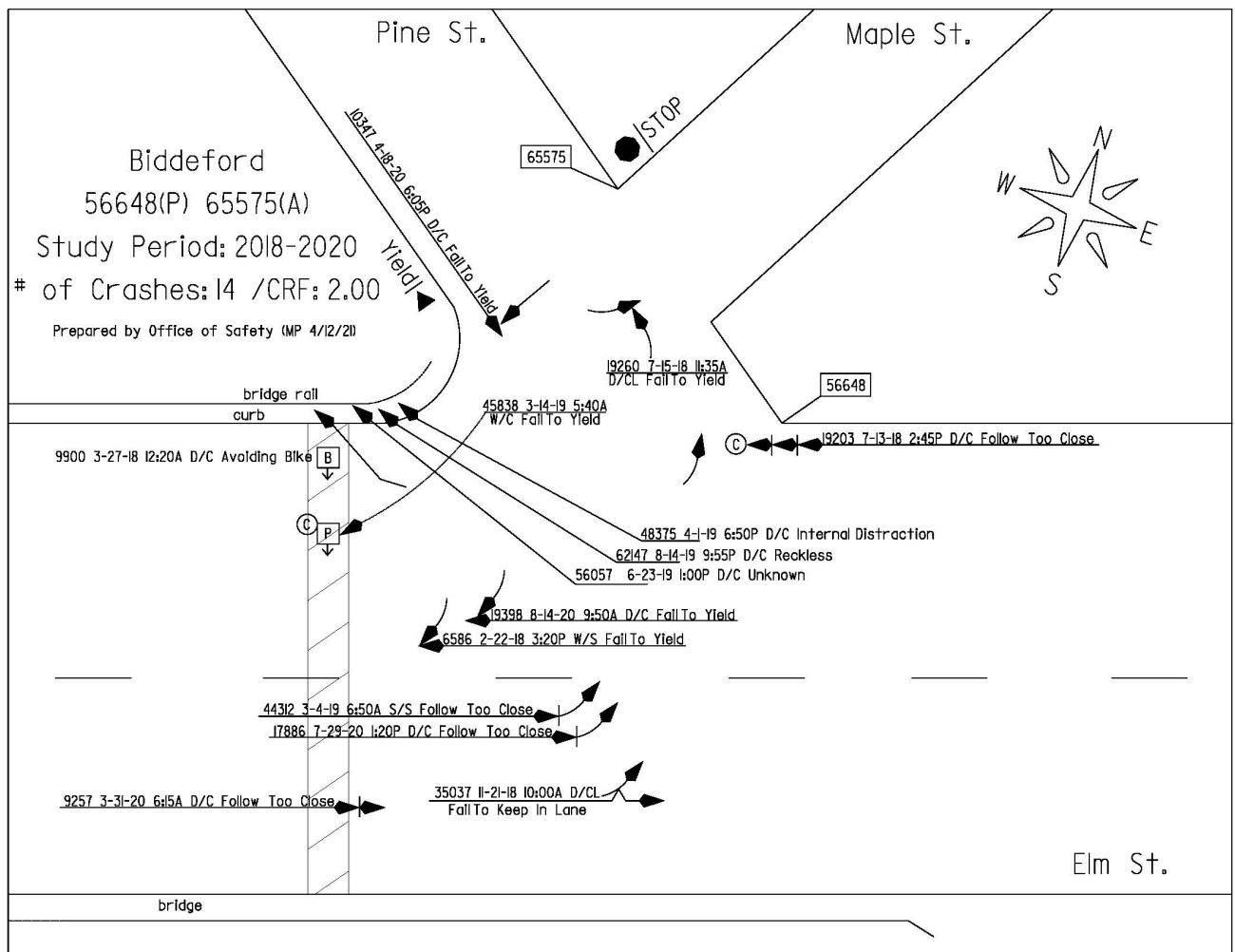
Table 12 Crash Data		
Location	2018-2020 Crashes	Critical Rate Factor
Elm Street/Main Street	22	0.94
Elm Street/St. Mary's Street	7	1.16
Elm Street/Spruce Street	17	0.92
Elm Street/Lincoln Street	9	1.32
Elm Street/Pine Street	14	2.00
Main Street/Lincoln Street/Adams Street	18	4.31
Main Street/Jefferson Street	8	2.90

At the scoping meeting the following locations were requested to be investigated: Elm Street/Pine Street, Elm Street/Lincoln Street, and Lincoln Street/Pearl Street.

- 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. It should be noted that an improvement plan is being implemented for Elm Street between Main Street and Pine Street and these improvements would be expected to improve conditions at this location. The Elm Street Concept Improvements project proposes to close Lincoln Street between Elm Street and Pearl Street. Additionally, access management improvements at the Car Wash and general geometric improvements are included. In combination, these improvements would be expected to enhance safety.



- 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. This location is the northern limits of the Elm Street improvement plan. The Concept Improvement plan is recommending that the intersection become signalized and left-turns from Pine Street be prohibited. This change should improve safety.



- **Lincoln Street/Pearl Street** – For this location it was requested that sight distance from northbound Pearl Street be reviewed and if deemed to be substandard, investigation into the installation of an all-way STOP condition be considered. Sight distance is constrained by buildings for motorists traveling eastbound on Pearl Street approaching Lincoln Street. Lincoln Street has a posted speed of 25MPH, and this requires a minimum sight distance of 200 feet. Available sight is actually a function where a vehicle stops. Sight is significantly obstructed if a motorist complies and stops in advance of the stop



line. It is possible for a motorist to move forward and obtain 200 feet of sight. Given increased traffic volumes investigation into whether a multi-way STOP condition is warranted and would not result in unreasonable traffic conditions.

According to the MUTCD, a multi-way stop control condition can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. The decision to install multi-way stop control should be based on an engineering study. The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

This criteria is not relevant.

- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

According to crash data obtained from the MaineDOT for the most recent available three-year period (2018-2020) only one crash was reported. This criteria is not met.

- C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but

3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

For this warrant to be satisfied at least 300 vehicles per hour are required for 8 hours of an average day for Lincoln Street and 200 vehicles per hour for Pearl Street. During the 2024 Build PM Peak hour the Lincoln Street volume is 732 vehicles. Pearl Street is estimated to have 414 vehicles. Based upon the above data, it is possible this level of traffic is met for 8 hours of an average day.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

This would reduce the volume criteria to 240 vehicles for Lincoln Street and 160 vehicles for Pearl Street. Based upon the previously summarized volume data, it is likely volumes would meet the criteria for 8 hours on an average day.

The MUTCD notes the following other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;

This does not seem to be relevant.

B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;

This does not seem to be relevant.

C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop;

This is relevant as documented in the previous photograph where a building obstructs sight.

D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

This is not relevant.

Based upon the results of the warrant evaluation and increased traffic volumes at the intersection a multi-way STOP intersection should be considered. Refer to **Section 10** – Traffic Mitigation Considerations for additional details and conclusions.

MaineDOT Highway Safety Evaluation - The MaineDOT has process in which they use information provided in the Highway Safety Manual (HSM) to forecast potential safety impacts due to increasing traffic volumes at a specific location. Per the request of the MaineDOT, the forecasted Annual Average Daily Traffic (AADT) volume increase due to the proposed project at each of the previous noted locations has been estimated for use in completing their calculations. The Lincoln Street/Pearl Street location was not included because it is not a High Crash Location. It is our understanding that the results of their evaluation will then be used to determine a safety impact fee per high crash location in lieu of mitigation. **Table 13**

presents the Weekday trip generation for the project based on the 11th Edition of the ITE Trip Generation Manual.

Table 13 Trip Generation Weekday For Highway Safety Evaluation			
	Weekday		
	Enter	Exit	Total
Residential Apartment (191 Units)	434	434	868
Restaurant (298 Seats)	651	651	1302
Sub-Total	1085	1085	2170
Internal Capture Trips (5%)	-54	-54	-108
Total Entering and Exiting Site	1031	1031	2062
Restaurant Pass-By Trips (43%)	-443	-443	-886
Total New Traffic	588	588	1176

Table 14 presents the increase in AADT at the requested intersections. The assignment of weekday trips was similar to the assignment of peak hour trips, which is estimated to be 55% to and from Elm Street along Lincoln Street, 15% to and from Elm Street along Pearl Street and 30% to and from Main Street along Lincoln Street.

Table 14 Increase in AADT for Highway Safety Evaluation	
Intersection	Increase in AADT
Elm Street/Pine Street	
Elm Street NB	647
Elm Street SB	453
Pine Street	194
Elm Street/Lincoln Street	
Elm Street NB	0
Elm Street SB	647
Lincoln Street	647

Section 9 – Pedestrian Infrastructure Review

A review of pedestrian infrastructure was performed within the study area. The following streets/intersections were reviewed with the noted details.

Pearl Street

- Pearl Street north of Lincoln Street is currently being reconstructed and a sidewalk will be provided on the west side of the street with curb ramps provided at the two intersection corners at Lincoln Street.
- A sidewalk is not provided on Pearl Street from Lincoln Street to Elm Street (a short section of sidewalk in poor condition exists north of Stone Street). The Elm Street Concept Improvement Plan includes the construction of a sidewalk on the east side of Pearl Street.

Lincoln Street

- A sidewalk exists on Lincoln Street between Pearl Street and Elm Street.

Elm Street

- Elm Street has sidewalks on both sides of the street from Pearl Street to Gooch Street. Between Gooch Street and Pine Street a sidewalk is provided on the west side (only one sidewalk is provided on the bridge over the Saco River).
- Elm Street/Pearl Street intersection
 - A crosswalk across Pearl Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Spruce Street
 - This location has a crosswalk on Spruce Street and the north leg of Elm Street. The ramps appear to be ADA compliant. It also includes compliant pedestrian signal heads and push buttons that were upgraded by MaineDOT.
- Elm Street Midblock Crosswalk
 - There is a midblock crosswalk between Spruce Street and Thornton Avenue. This crosswalk is not ADA compliant and does not have warning signs.
- Elm Street/Thornton Street
 - There are crosswalks on the north leg on Elm Street and on Thornton Avenue. The crosswalks are not ADA compliant and do not have warning signs.
- Elm Street/Lincoln Street
 - A crosswalk across Lincoln Street is provided, but ADA compliant ramps are not provided. It is also a very long crossing and has a “kinked” alignment.

- Elm Street/Hooper Street
 - A crosswalk across Hooper Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Gooch Street/Diamond Street
 - This location has a crosswalk on Diamond Street and the south leg of Elm Street. The landings are not ADA compliant, and the Elm Street crosswalk does not have warning signs.
- Elm Street/Pine Street
 - This location has a crosswalk on Pine Street that is not ADA compliant.

Section 10 – City Traffic Impact Fee

As requested at the Scoping Meeting, an impact fee was calculated based upon the recommendations in the Biddeford-Saco Mill District Study Mitigation and Impact Fee Summary dated June 2015 prepared by Gorrill-Palmer. That report establishes an impact fee of \$1,082 per PM peak hour trip end generated by the project. As noted in **Table 1**, the project is expected to generate 162 new PM peak hour trips entering and exiting the site. This results in an impact fee of \$175,284.

It should be noted that this is provided for information purposes as there is an on-going study/project that identified conceptual improvements and costs for upgrading Elm Street between Main Street and Pine Street. That project may identify a revised set of impact fee contribution requirements. The concept study has been completed and generally consists of the following:

- The plan assumes the Elm Street/Spruce Street/Pearl Street is aligned and signalized.
- Lincoln Street is closed to through traffic between Pearl Street and Elm Street. A shared-use path is proposed, and local service vehicles will be permitted (possibly via a shared street).
- The Elm Street/Gooch Street/Diamond Street intersection is signalized.
- The Elm Street/Pine Street intersection is signalized.
- A small urban roundabout is proposed at the Lincoln Street/Pearl Street intersection.
- Bike lanes are provided on Elm Street between Lincoln Street and Gooch Street/Diamond Street.
- Sidewalks are fully upgraded and meet ADA standards. A sidewalk is proposed on Pearl Street between Elm Street and Lincoln Street.
- A refuge island and RRFB's are proposed at Elm Street/St. Mary's Street.
- A refuge island and RRFB's are proposed at the closed Lincoln Street on Elm Street.
- Various access management improvements.

MaineDOT prepared a conceptual planning-level cost estimate for the project as noted below:

- Construction Estimated cost: \$9,000,000.00 + 25 % contingency= \$11,225.00.00
- Total construction estimated cost: \$11,225,000.00
- Construction Engineering(CE): \$1,700,000
- Right of way:\$1,500,000
- Preliminary Engineering: \$1,000,000
- **Total estimated project cost is \$15,425,000.**

Assumptions:

- Unknown right of way and plans have not been shown to the public (Property owners). This is a rough estimate as the project would have to acquire a domino's pizza business, and have other property impacts that would have to be addressed.
- Unknown utility upgrades.
- Unknown existing conditions of the drainage system.
- Historical or Environmental concerns have not been evaluated.

The City should be advised this fall whether or not the Elm Street/Route 1 federal earmark request will be funded. If successful, federal funds will be available after this October 1st to finalize the project design, secure required right-of-way and construct all improvements. The construction timing for this project will likely be no earlier than 2024.

Section 11 – Traffic Mitigation Considerations

Based upon the analysis and conclusions presented previously the following traffic mitigation strategies are suggested.

- **Elm Street/Pine Street** – As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
 - Replace the “Yield” sign with a STOP sign. This was requested by the City.
 - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.

Movement	PM Peak Hour			
	2024 Build		2024 Build W/Improvements	
	LOS	Delay	LOS	Delay
Elm St. NB Left	B	13.8	B	13.2
Elm St. NB Through	A	2.9	A	3.0
Elm St. SB Through/Right	A	6.2	C	15.2
Pine St. Left/Right	F	812.3	F	411.9
Overall	F	54.3	F	51.7

- Or Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.
- **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
 - **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
 - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better. The following table summarizes levels of service, delay and queue lengths.

Movement	PM Peak Hour		
	2024 Build All-Way STOP		
	LOS	Delay	95 th % Queue (feet)
Lincoln St. EB	A	7.4	63
Lincoln St. WB	A	8.1	106
Pearl St. NB	A	8.5	94
Pearl St. SB	B	12.0	185
Overall	B	10.1	

- Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
- **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

12. Site Access

The project will utilize Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations and provides 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 in **Table 15**.

Table 15			
Driveway Sight Distance			
Location	Measured Sight Distance (Feet)		Minimum Standard (Feet)
	Looking Left	Looking Right	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200'
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200'

13. Conclusions and Recommendations

The proposed project is expected to generate 61 new vehicle trips during the weekday AM peak hour, 162 new vehicle trips during the weekday PM peak hour and 127 new trips during the Saturday peak hour. The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Permit Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study (Section 7) evaluate specific traffic conditions at the Elm Street/Pine Street, Elm Street/Lincoln Street, Elm Street/Pearl Street and Lincoln Street/Pearl Street. The following summarizes the results of the level of service analysis, safety evaluation and recommendation for the project.

1. The following presents the results and conclusions of the level of service analysis at the study intersections.
 - **Elm Street/Pine Street** - Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.
 - **Elm Street/Lincoln Street** - The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.
 - **Lincoln Street/Pearl Street** - Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

- **Elm Street/Pearl Street** - Movements from Pearl Street will experience increase delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.
2. The following presents the results and conclusions at the locations evaluated as directed at the scoping meeting.
- **Elm Street/Pine Street** – As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
 - Replace the “Yield” sign with a STOP sign. This was requested by the City.
 - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.
 - Or Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.
 - **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
 - **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
 - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better.
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
 - **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

Appendix

A. Figures

B. Traffic Counts/Traffic Volume Development

C. Synchro/SimTraffic Output

D. Crash Data

E. Site Plan

December 14, 2021

3 Lincoln Street Project

MaineDOT TMP Scoping Meeting Action Items

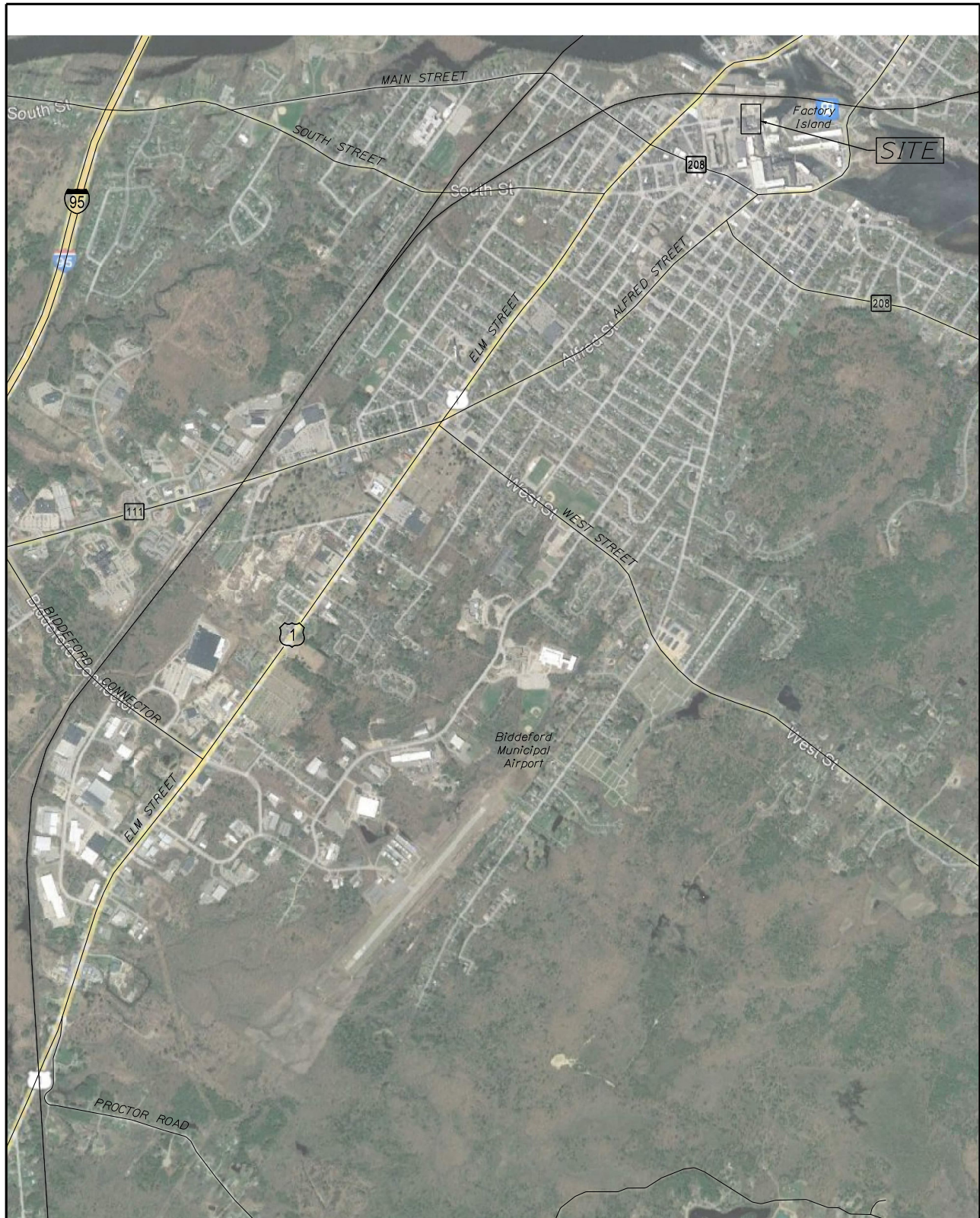
Prepared By Tom Errico, PE

Attendees:

Tom Errico, Pete, Marike, Bob V., Randy Illian, Tom M. Greg Tansley. , Craig Chekan

1. Greg noted that the STOP signs were being installed at the Main/Lincoln/Adams intersection soon with other improvements to be implemented when plans are approved.
2. Incorporate diverted trips from Elm Street into the trip assignment. This can be part of the 43% Pass-By reduction.
3. For other development:
 - Lincoln Mill is 50% occupied. The City will provide the Sebago study for use.
 - Riverdam is fully occupied
 - Building 11 will have 71 elderly apartment units. Access via Pearl and York. ITE will be used to estimate traffic.
4. Study area shall include:
 - Elm/Lincoln
 - Elm/Pine
 - Lincoln/Pearl
 - Elm/Pearl
5. Study will evaluate condition during the weekday PM and Saturday peak hours.
6. HCL analysis shall be performed at:
 - Pine/Elm
 - Lincoln/Elm
 - Lincoln/Pearl (look at sight distance issue – maybe a all-way STOP)
 - No need to do an analysis at Main/Lincoln/Adams
 - Provide AADT for the above locations
7. Perform an impact fee calculation according to GP study methods.
8. The Riverdam TMP mitigation shall be assumed complete (or to be implemented by this project or replaced with new Elm Street improvements.
9. Not specific action for pedestrian modes. ET is on Elm Street and will need to be a consideration when the concept plan is developed. Existing crosswalks that are not ADA compliant are the City's responsibility. It was noted that the Gooch Street Lot 1 project is installing a RRFB at Elm/Gooch crosswalk.
10. No specific action for transit.

A. Figures



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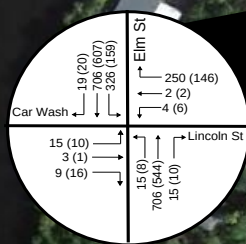
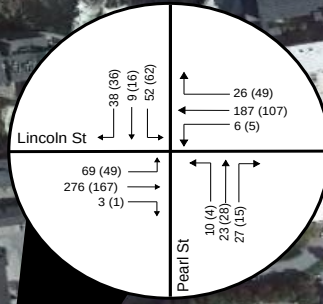
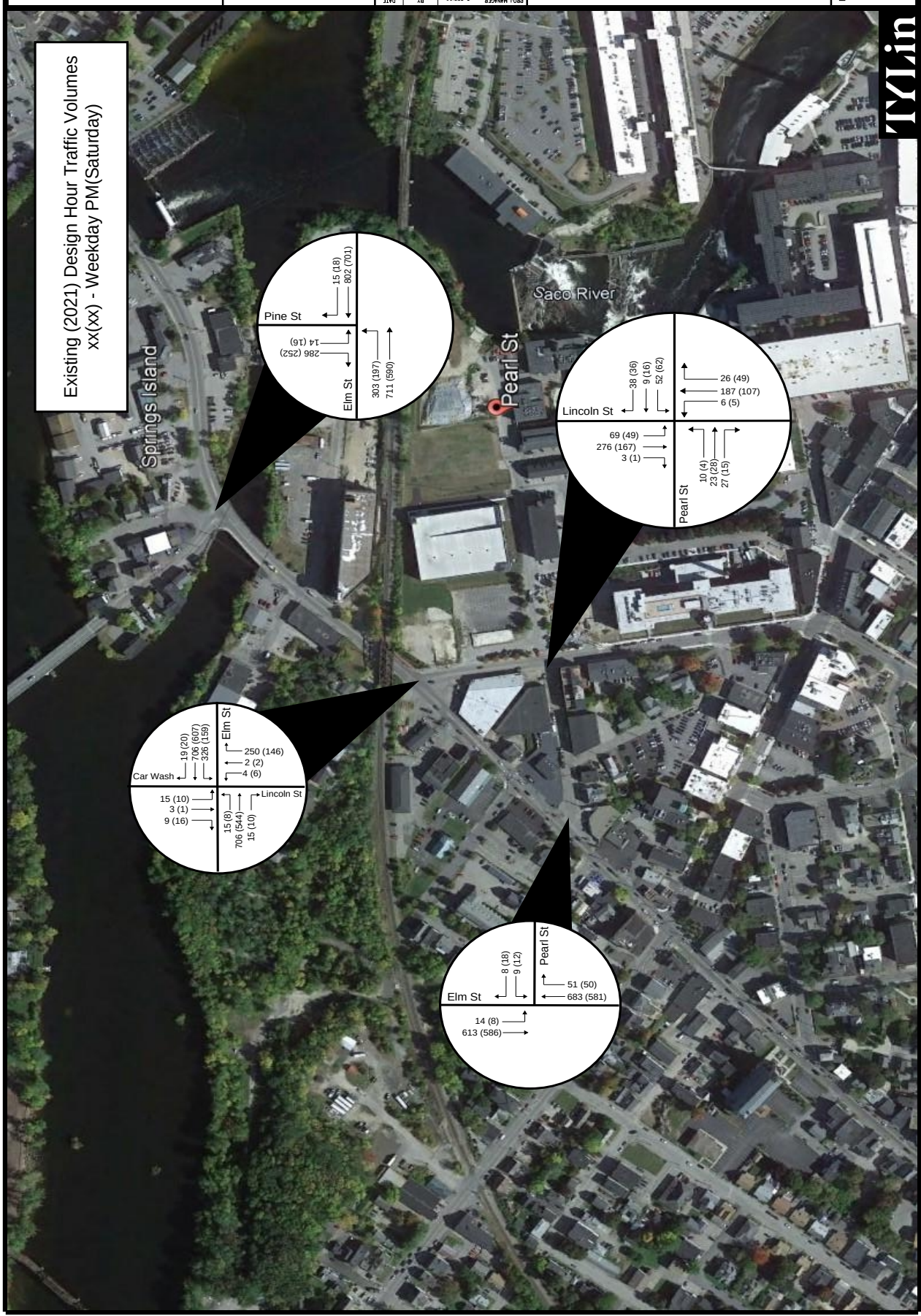
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		DESIGN-DETAILED	S. DAVIS			SIGNATURE
		CHECKED-REVIEWED				
		DESIGN-DETAILED2				P.E. NUMBER
		DESIGN-DETAILED3				DATE
		REVISIONS 1				
		REVISIONS 2				
		REVISIONS 3				
		REVISIONS 4				
		FIELD CHANGES				

MaineDOT TMP APPLICATION

PROJ. NUMBER	1 0880
DESIGN DATE	11/15/20
DESIGN BY	H. TRACY
CHECKED BY	
CHECKED DATE	
DESIGN REVIEWED BY	
DESIGN REVIEWED DATE	
DESIGN APPROVED BY	
DESIGN APPROVED DATE	
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Existing (2021) Design Hour Traffic Volumes
xx(xx) - Weekday PM(Saturday)



BIDDEFORD
3 LINCOLN STREET PROJECT

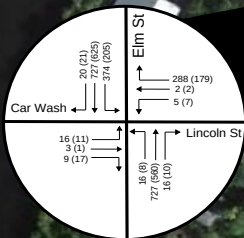
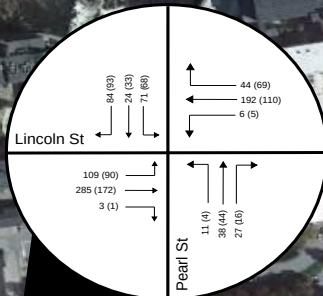
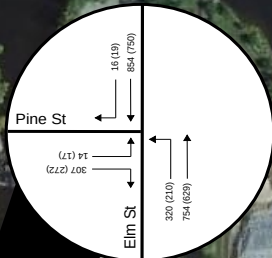
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DESIGN DATE	11/16/20
CHECKED BY	H. TACK
DESIGNED BY	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
DATE	

SIGNATURE	
P.E. NUMBER	
DATE	

MaineDOT TMP APPLICATION

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Future (2024) No-Build Traffic Volumes
xx(xx) - Weekday PM(Saturday)



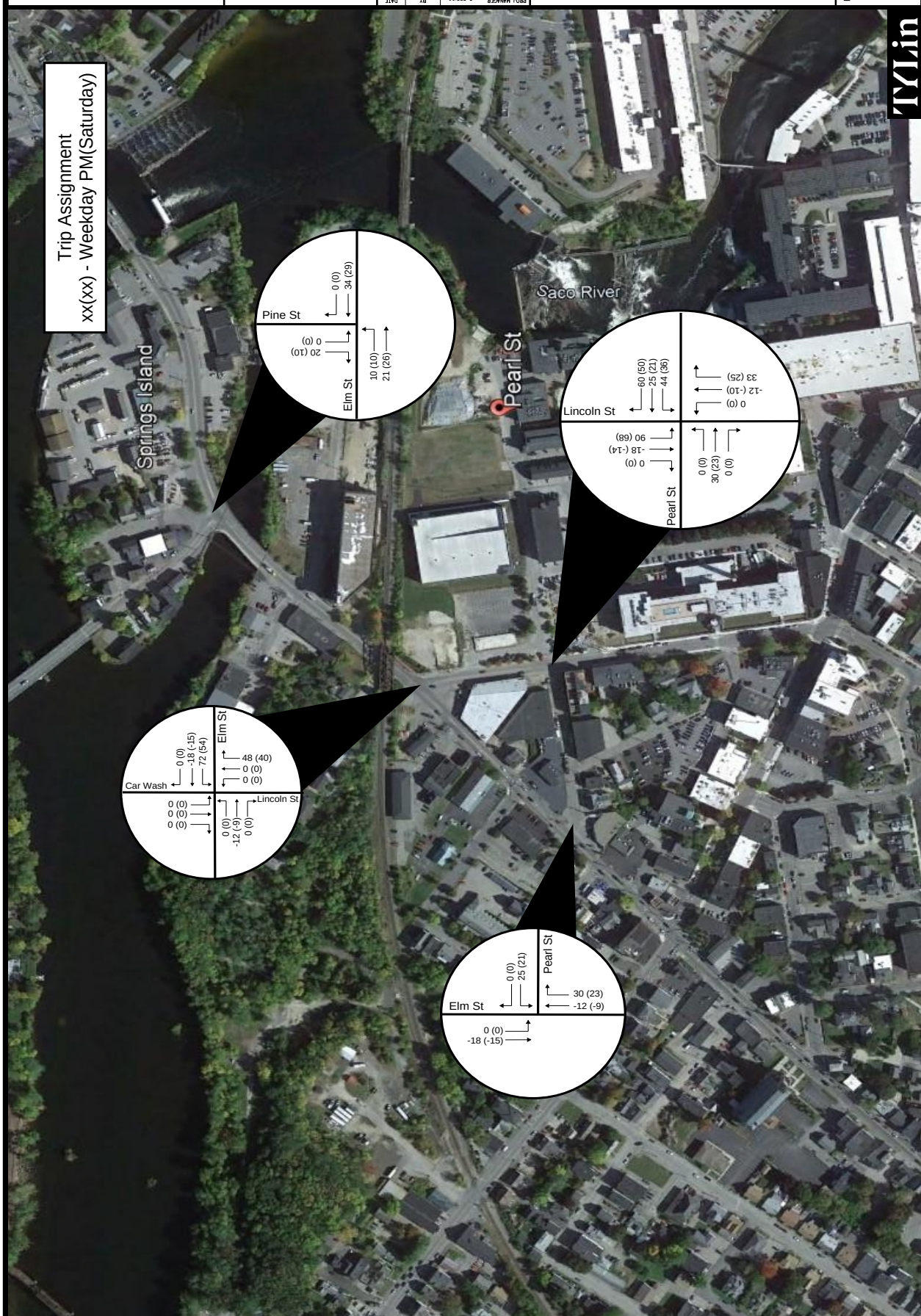
BIDDEFORD
3 LINCOLN STREET PROJECT

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DESIGN DATE	1.0880	DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
DATE		
P.E. NUMBER		
SIGNATURE		

MaineDOT TMP APPLICATION

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Trip Assignment
xx(xx) - Weekday PM(Saturday)



BIDDEFORD
3 LINCOLN STREET PROJECT

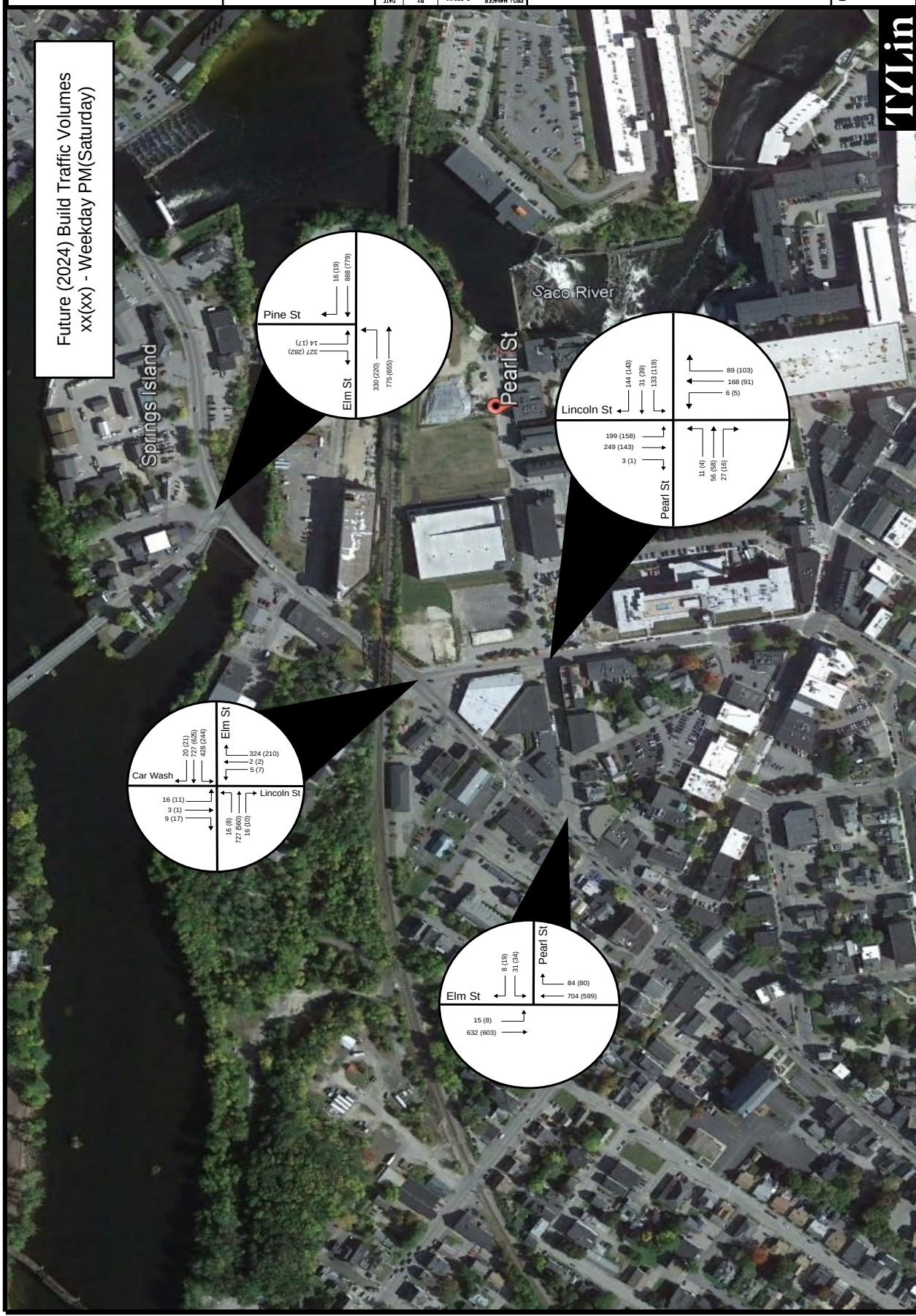
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REVISIONS	4	DATE	

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SIGNATURE	

MaineDOT TMP APPLICATION

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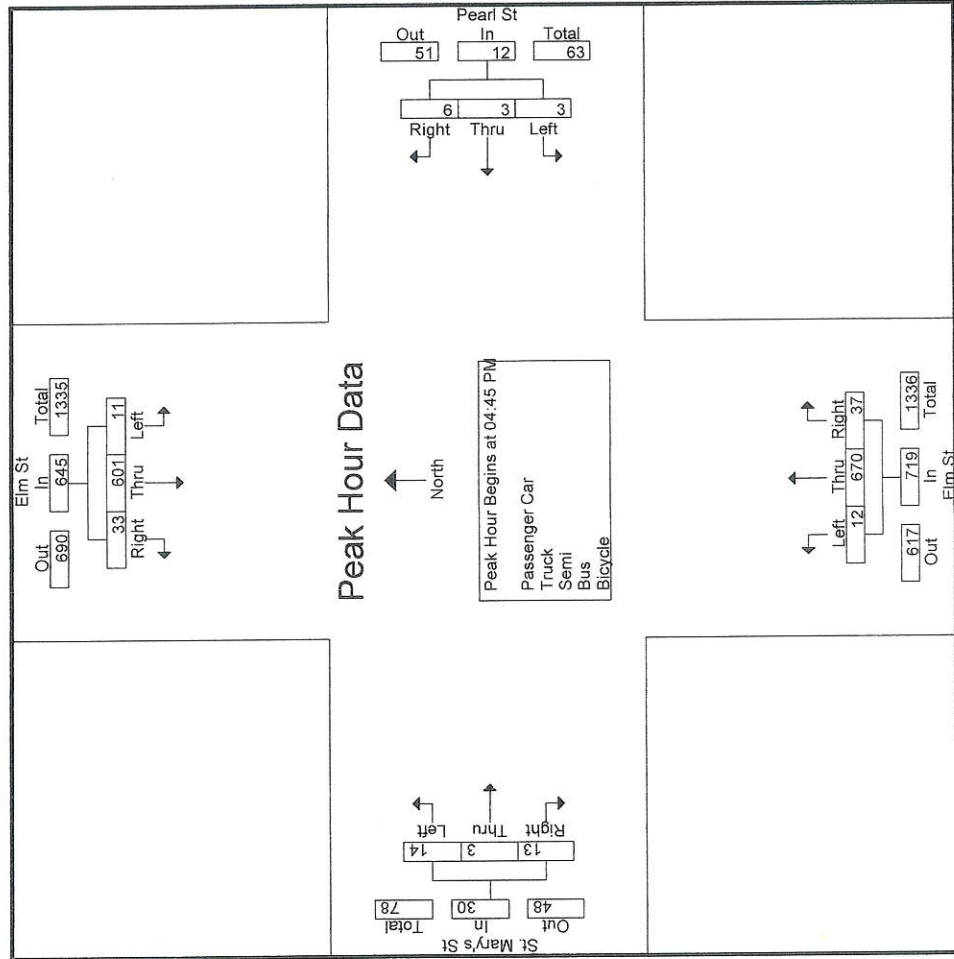
Future (2024) Build Traffic Volumes
xx(xx) - Weekday PM(Saturday)



B. Traffic Counts/Traffic Volume Development

Biddeford Pearl, Elm & St. Mary's St
July 17, 2019 PM
Light Rain
Count by Jen Gilbert

File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-17-19 PM
Site Code : 00717192
Start Date : 7/17/2019
Page No : 6

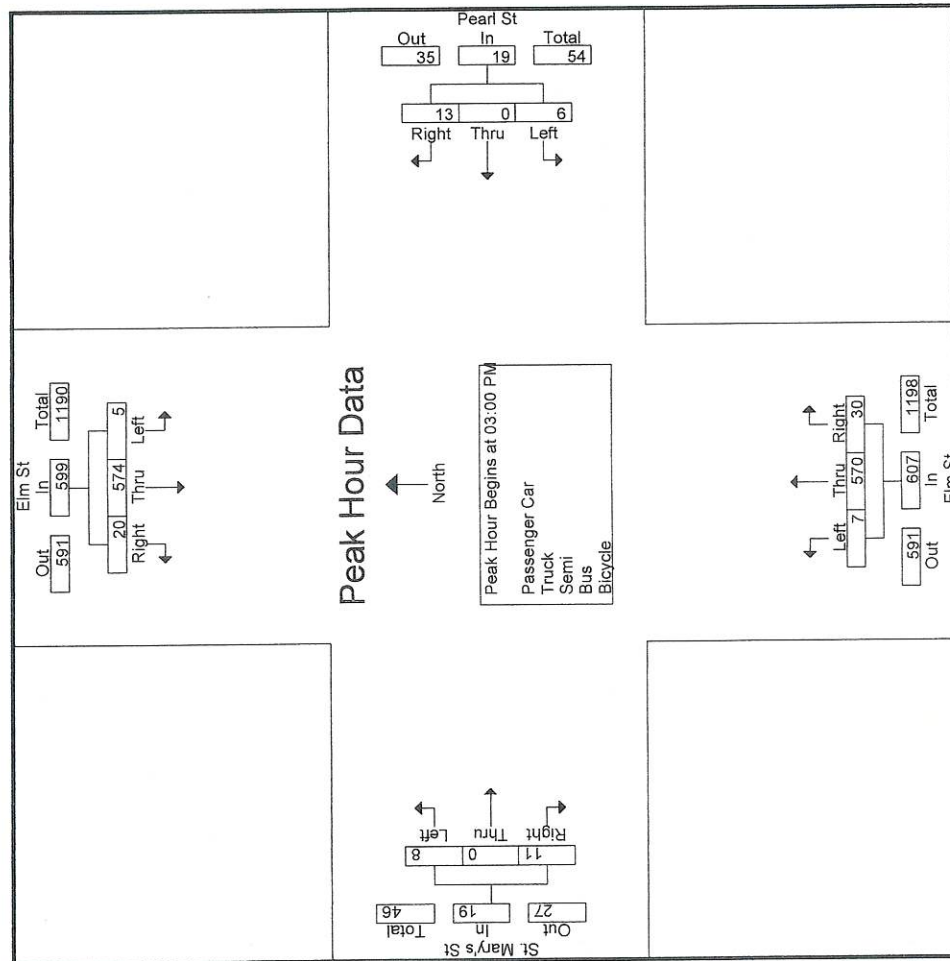


Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-27-19 PM
Site Code : 00727192
Start Date : 7/27/2019
Page No : 6

Biddeford Pearl, Elm & St. Marys
July 27, 2019 PM Saturday
Sunny
Count by Jen Gilbert



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

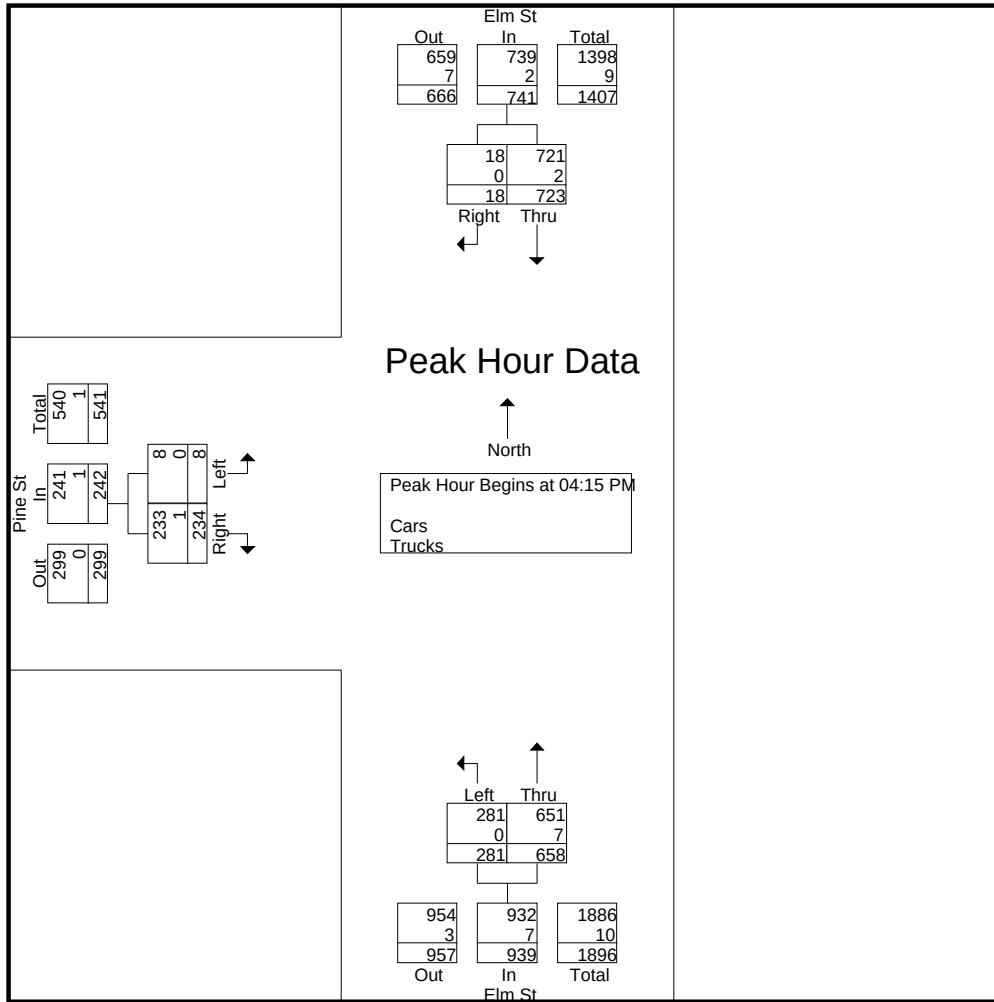
Groups Printed- Cars - Trucks

	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:

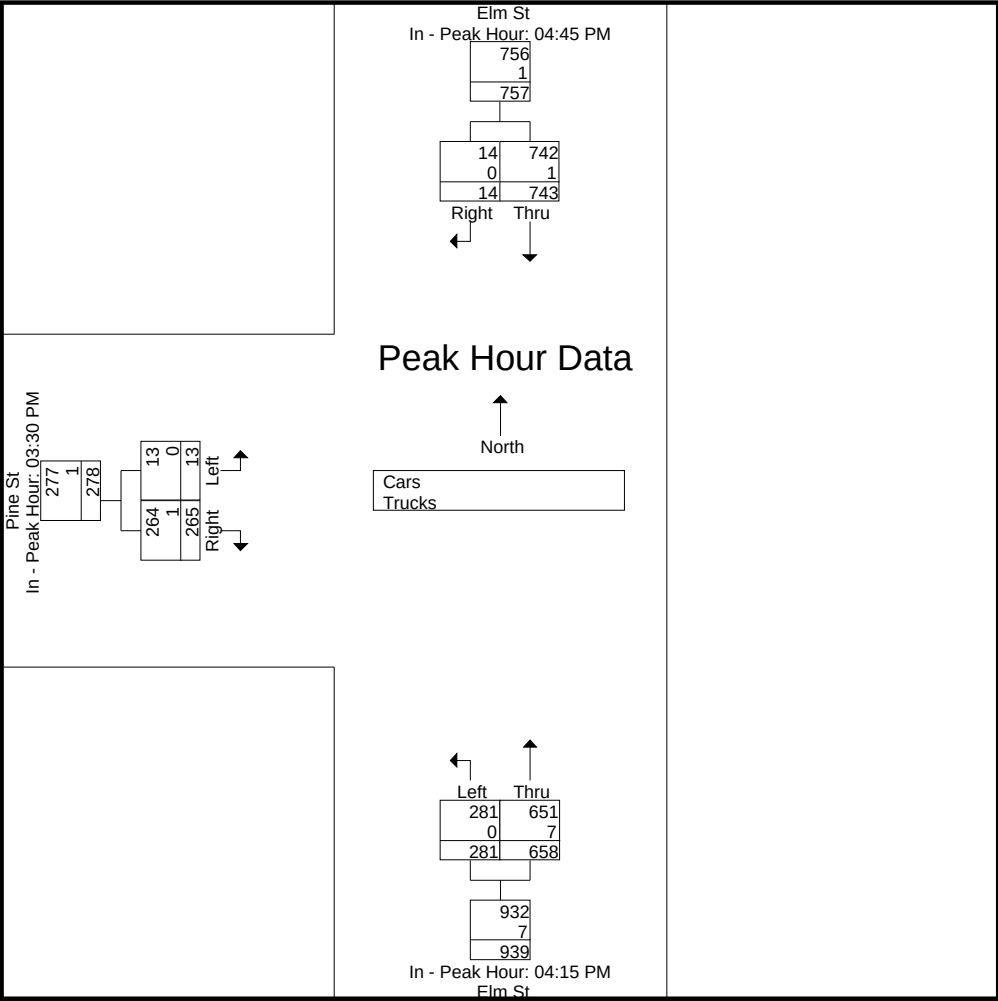
	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	197	5	202	61	157	218	2	76	78
+15 mins.	181	5	186	78	152	230	6	64	70
+30 mins.	179	3	182	63	172	235	4	70	74
+45 mins.	186	1	187	79	177	256	1	55	56
Total Volume	743	14	757	281	658	939	13	265	278
% App. Total	98.2	1.8		29.9	70.1		4.7	95.3	
PHF	.943	.700	.937	.889	.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	

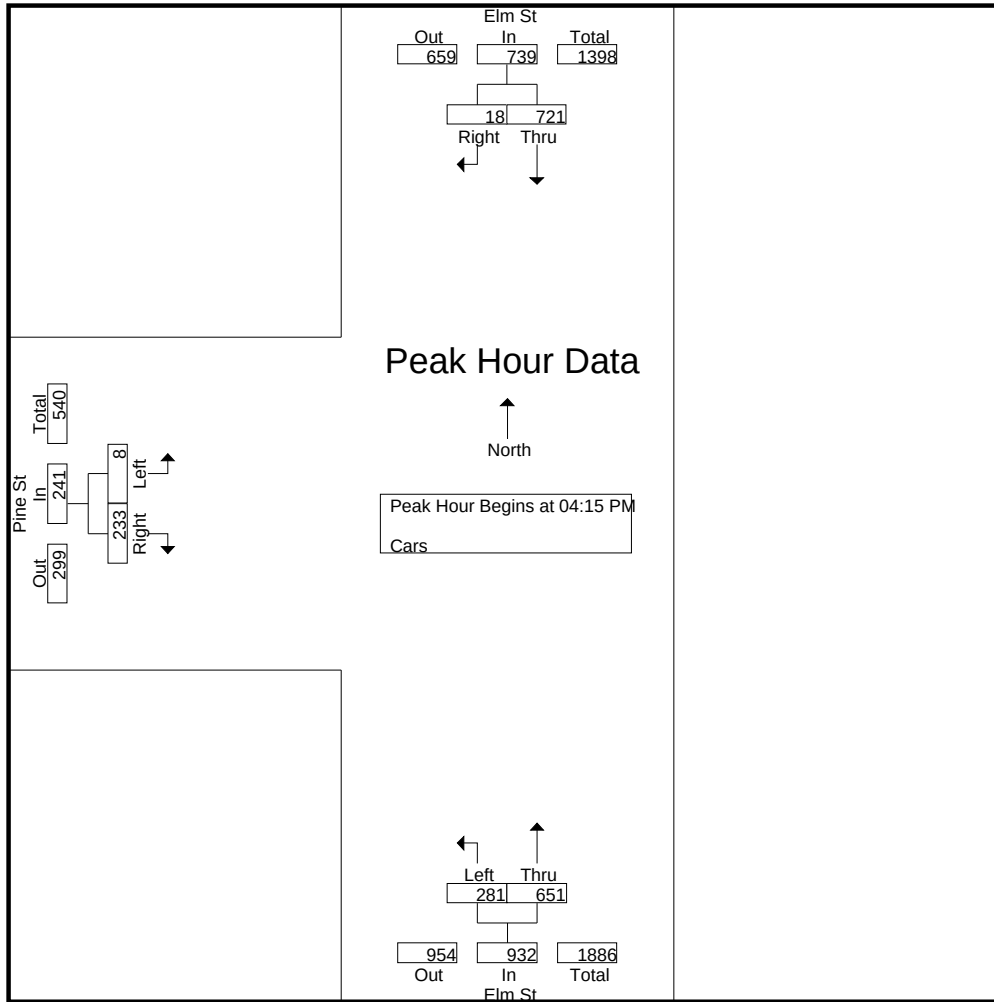
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	187	3	190	61	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

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
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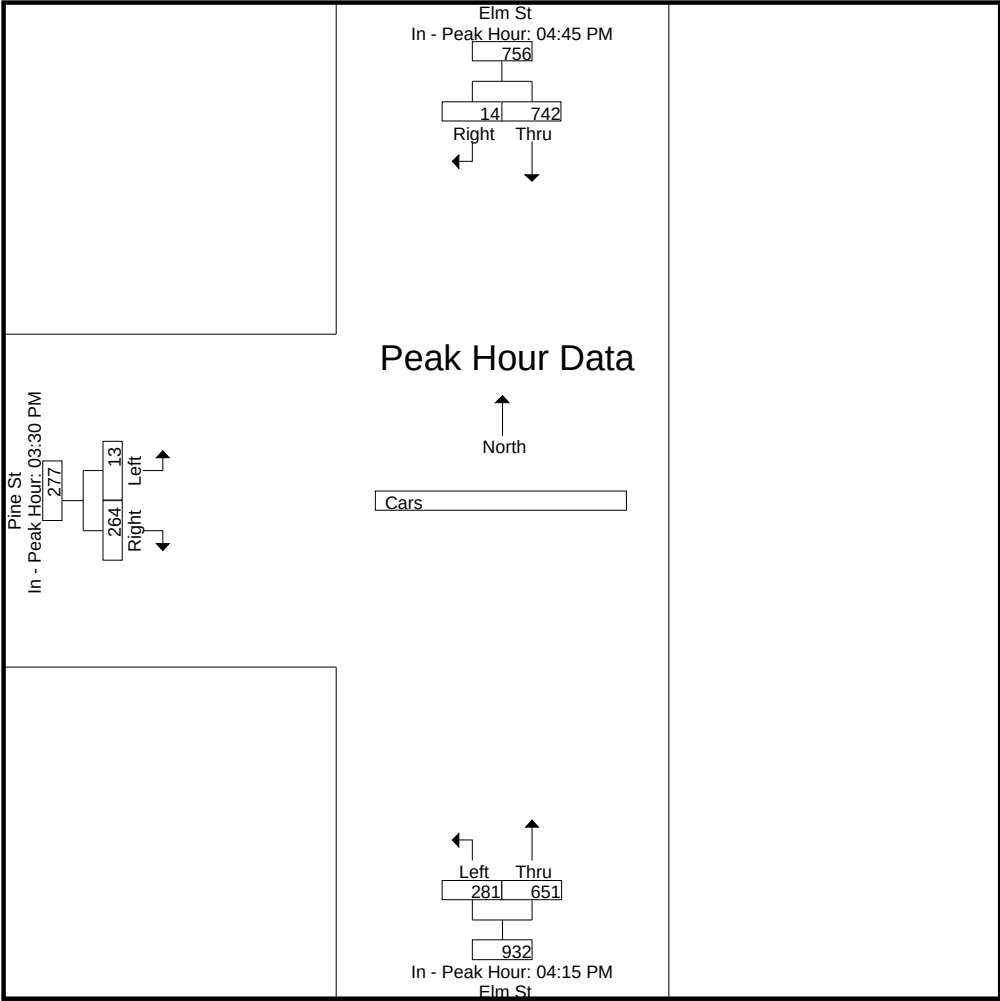
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1

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

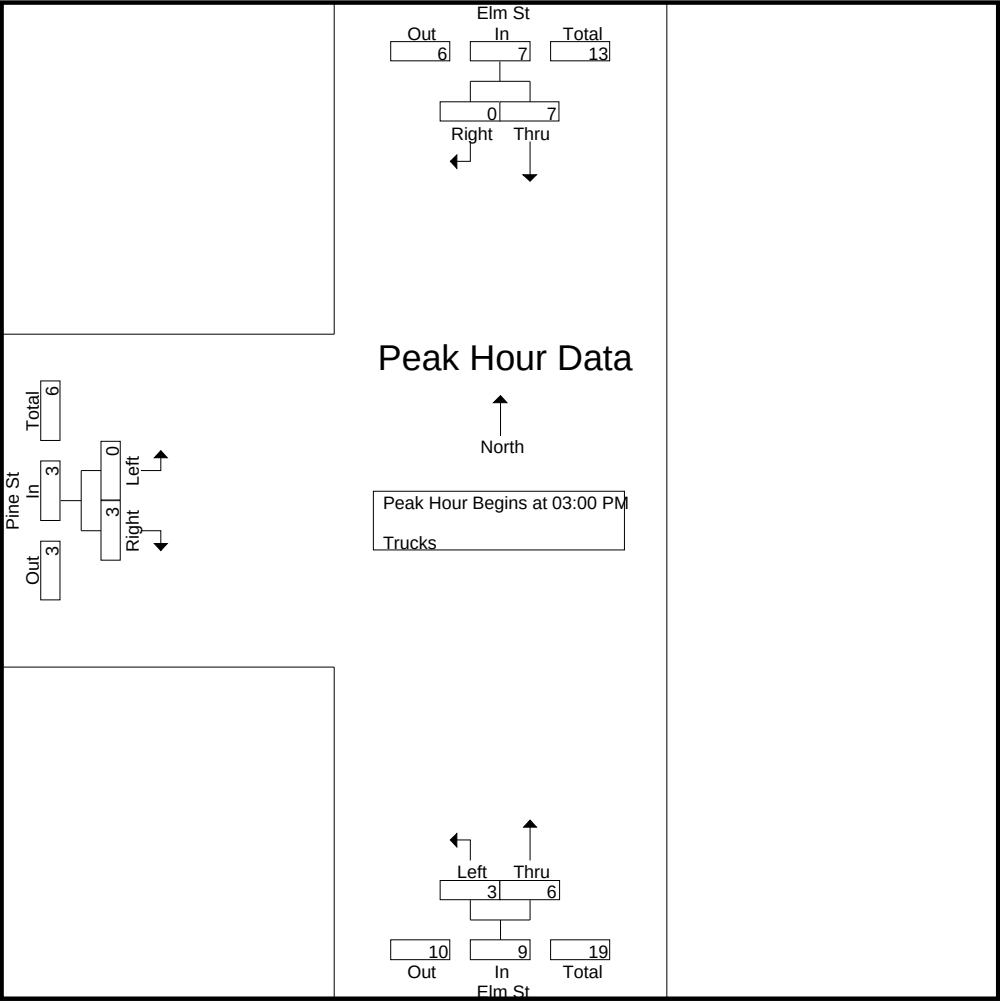
Groups Printed- Trucks

	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

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

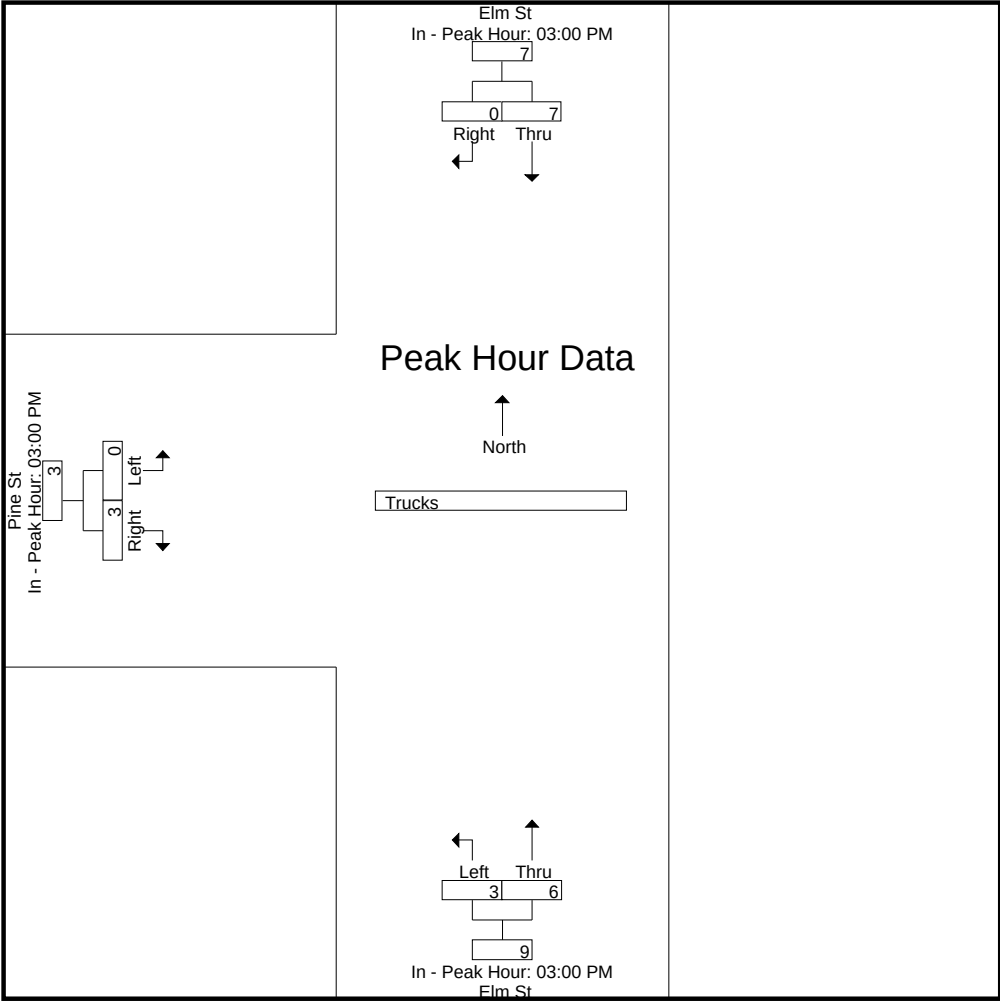


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

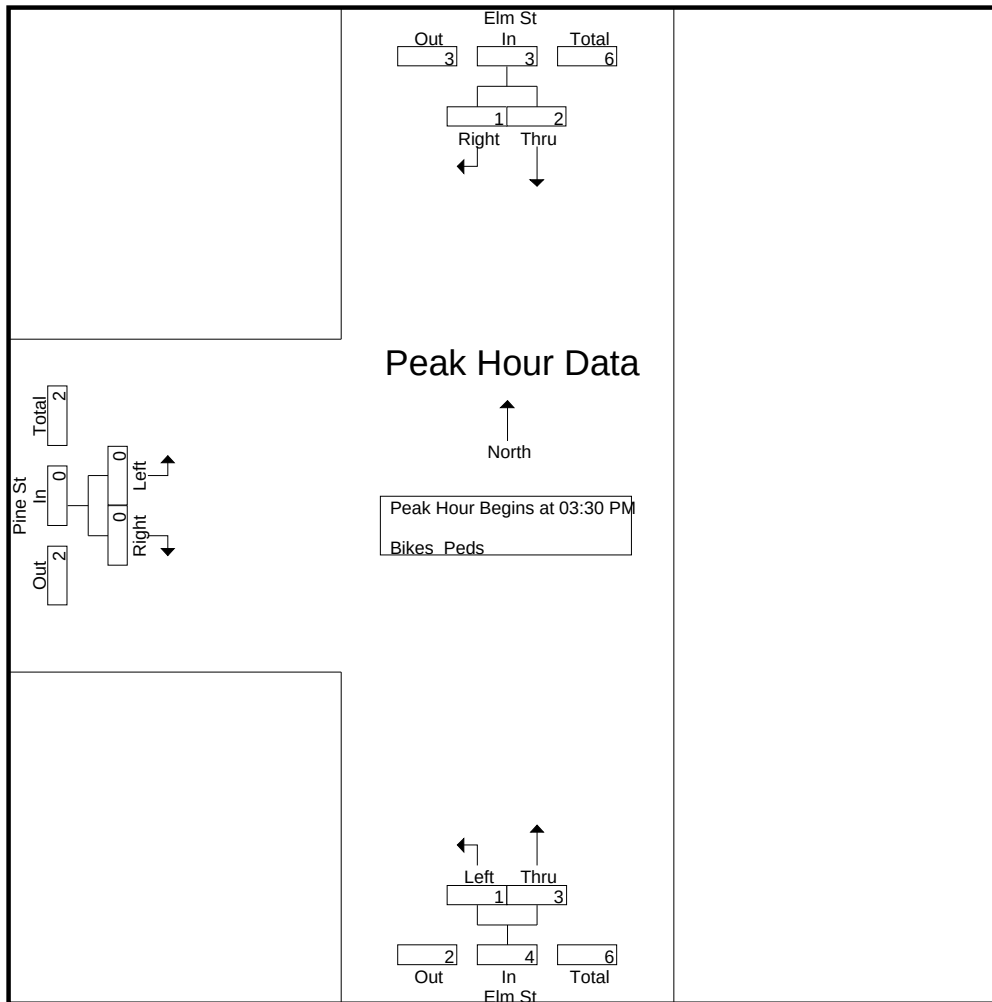
Groups Printed- Bikes Peds

	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

File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 11

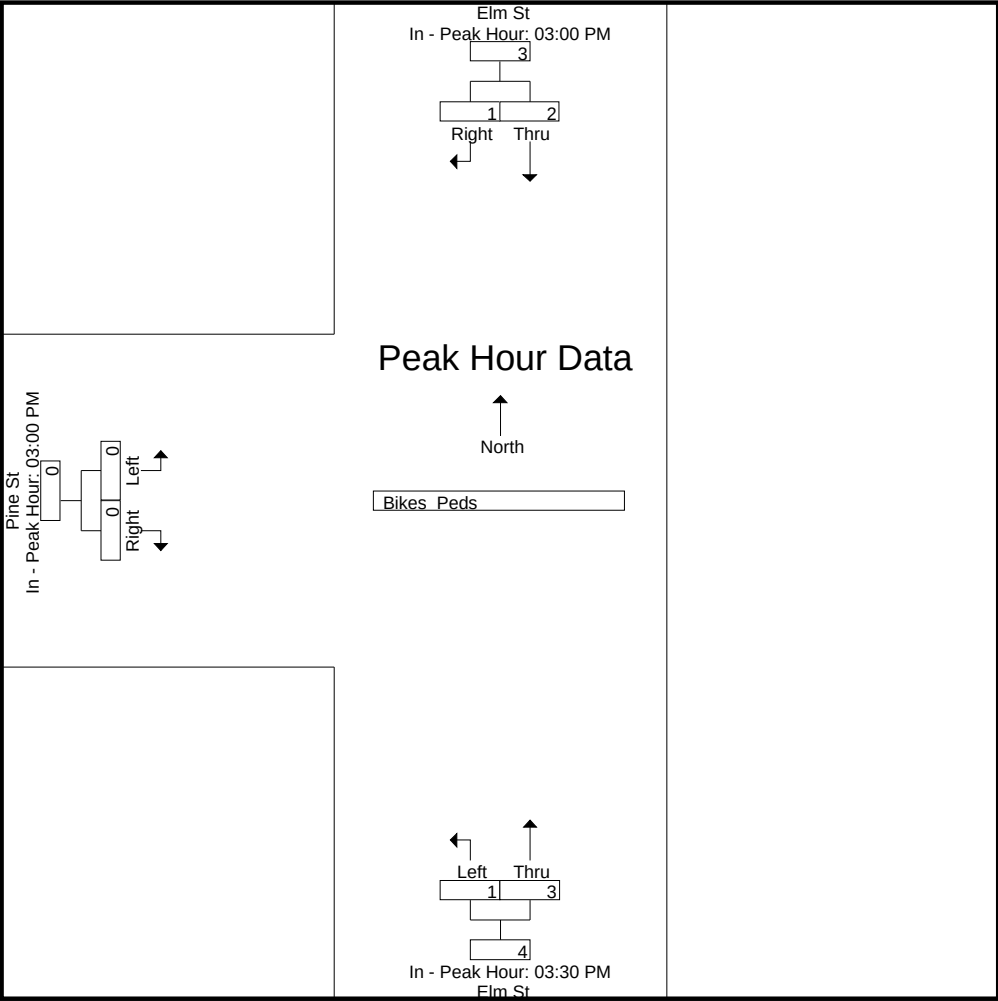


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	03:00 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

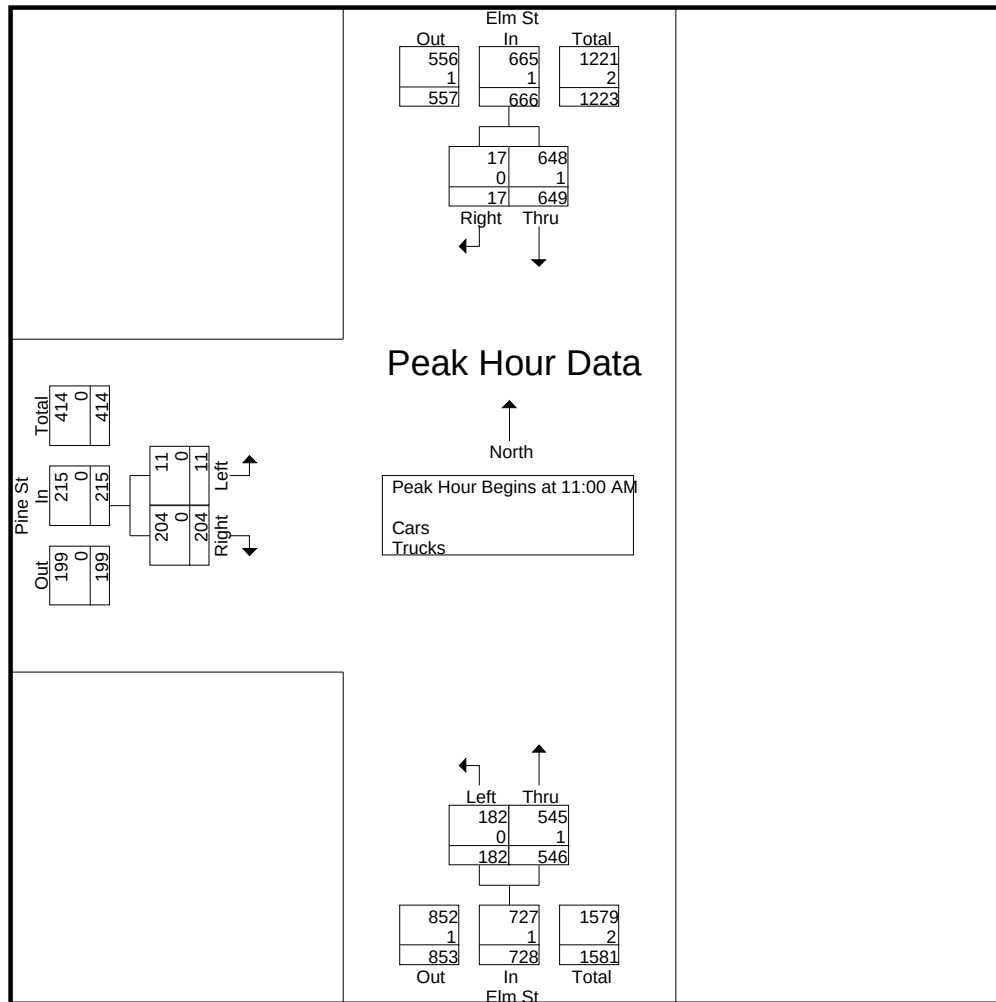
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	9	183	47	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:

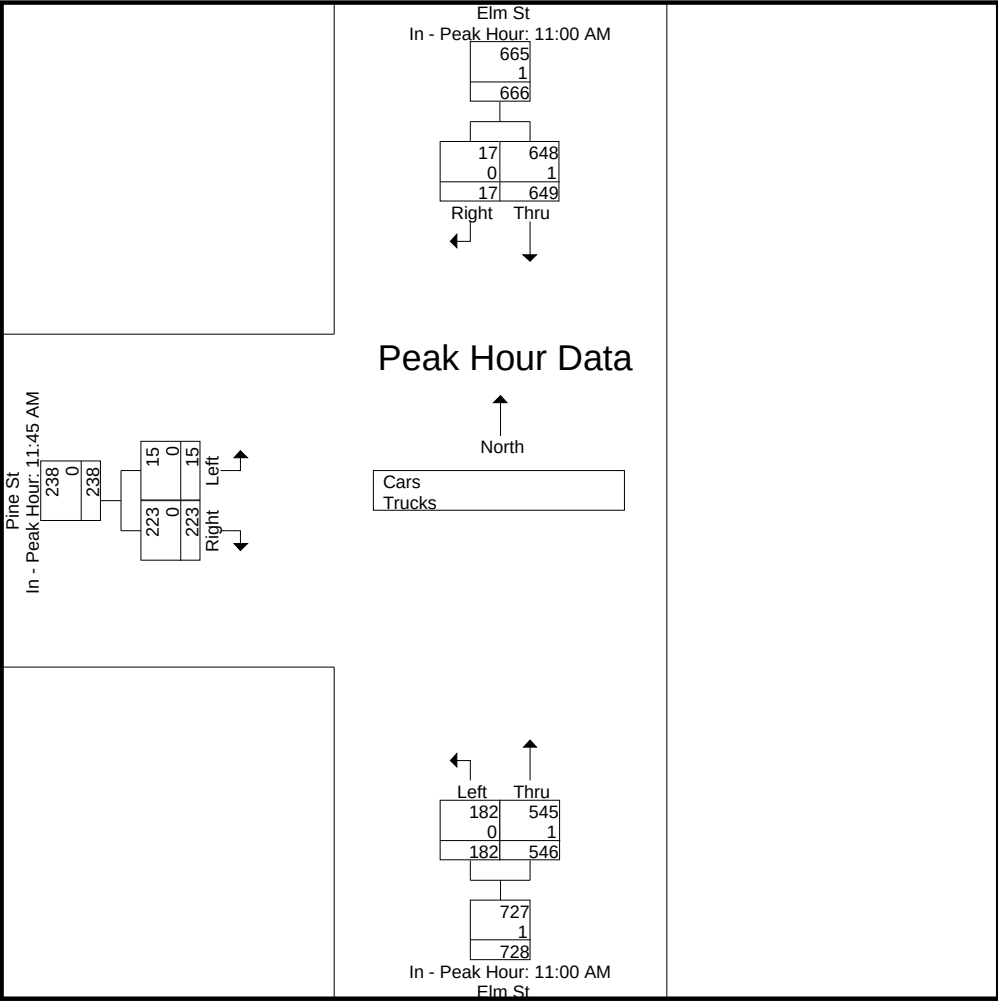
	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	9	183	47	130	177	1	51	52
+15 mins.	147	3	150	47	142	189	6	59	65
+30 mins.	177	2	179	43	146	189	3	61	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	649	17	666	182	546	728	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.917	.472	.910	.968	.935	.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

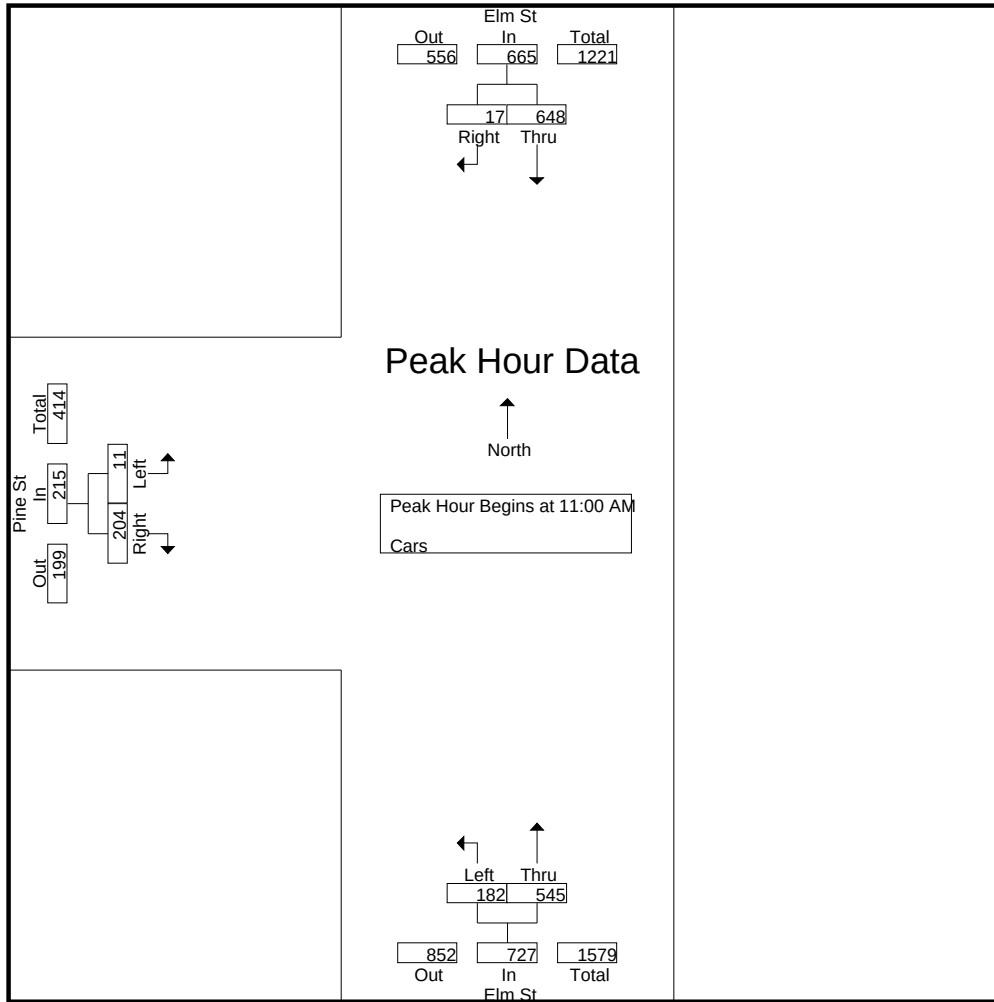
Groups Printed- Cars

	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

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

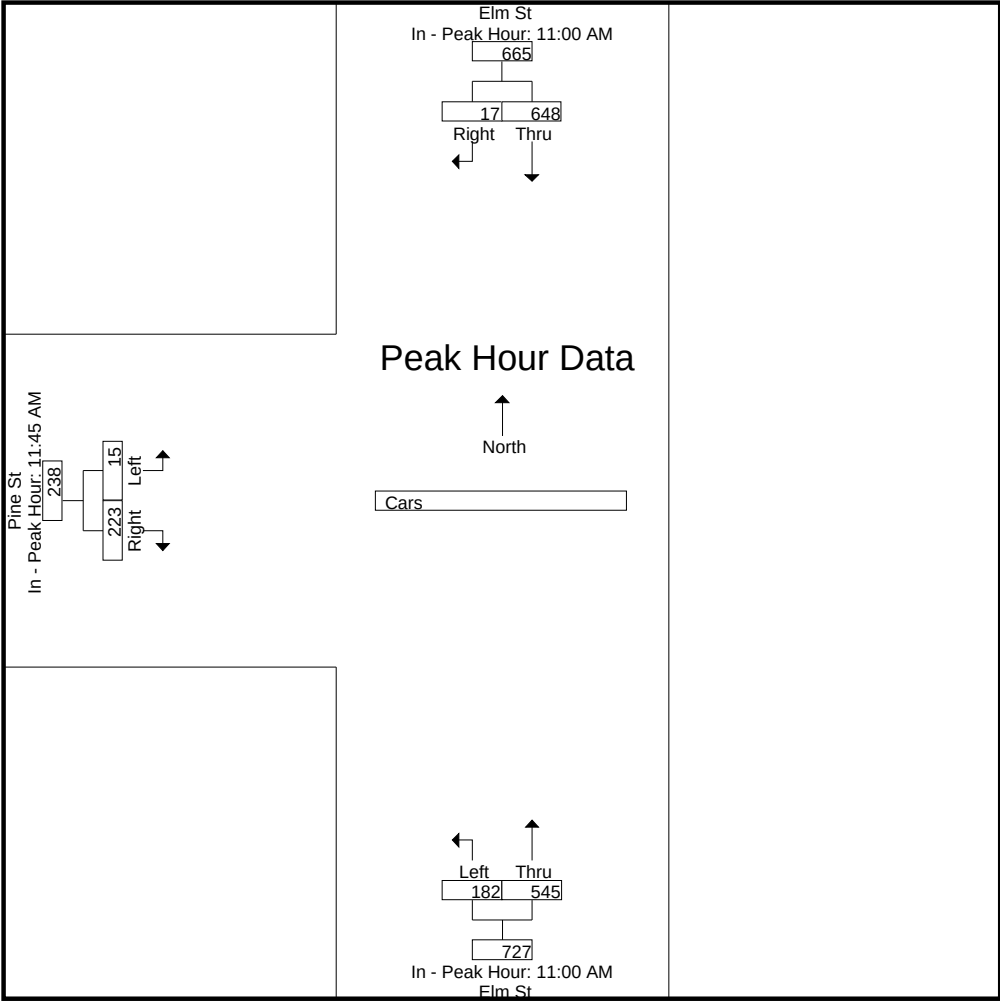


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

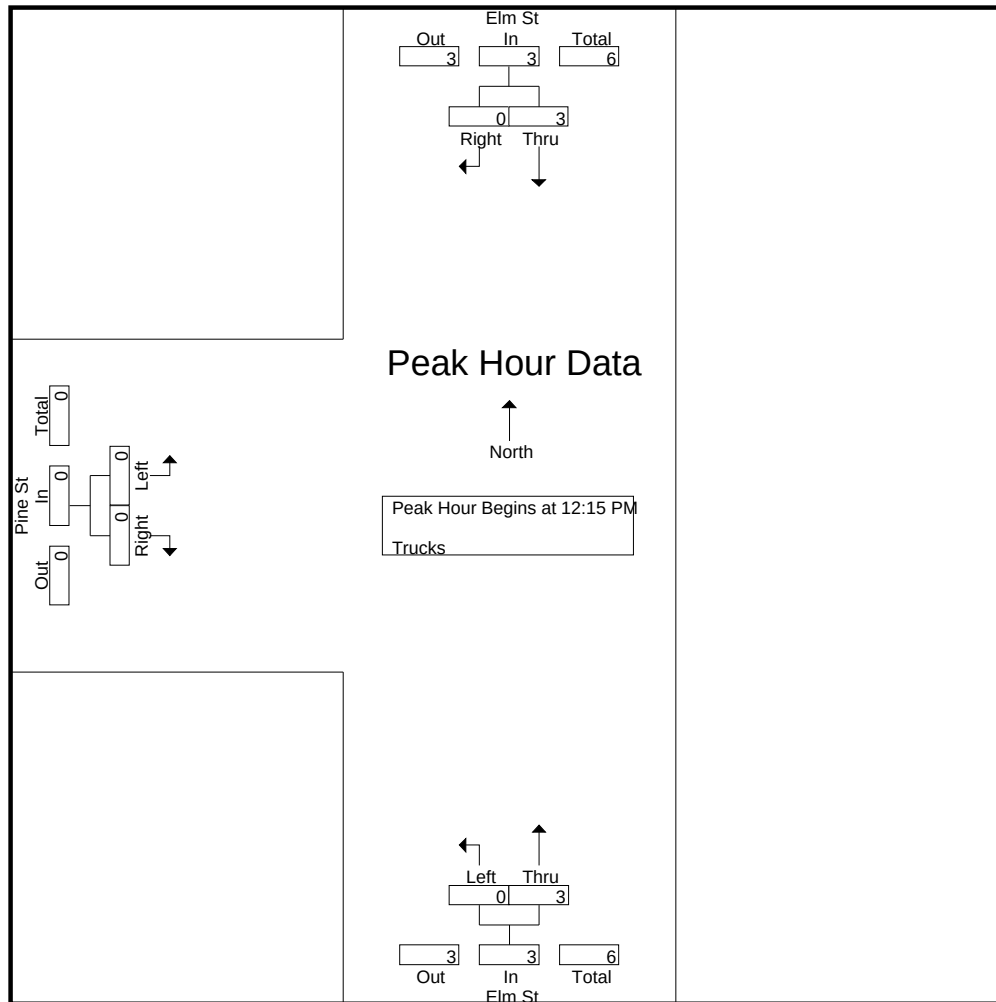
Groups Printed- Trucks

	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:

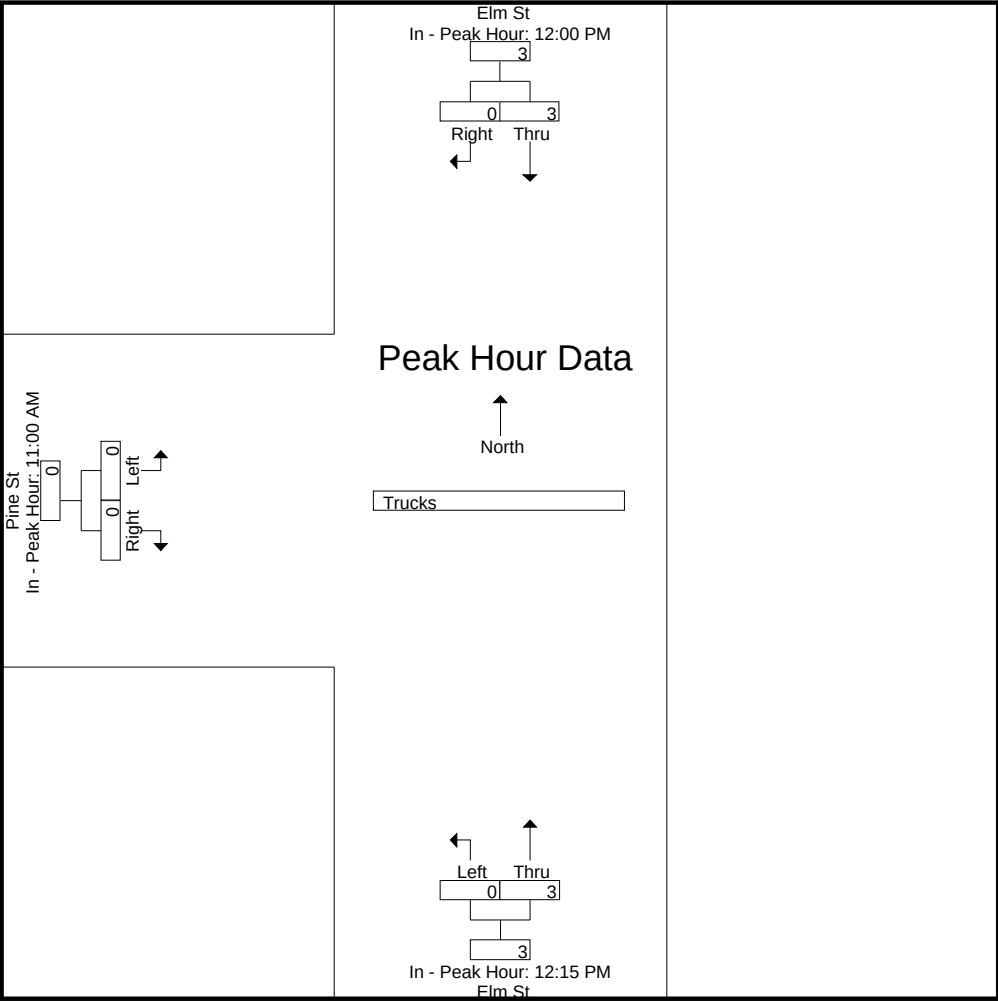
	12:00 PM			12:15 PM			11:00 AM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	2	0	2	0	0	0	0	0	0
+45 mins.	1	0	1	0	1	1	0	0	0
Total Volume	3	0	3	0	3	3	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.375	.000	.375	.000	.750	.750	.000	.000	.000

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 : 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

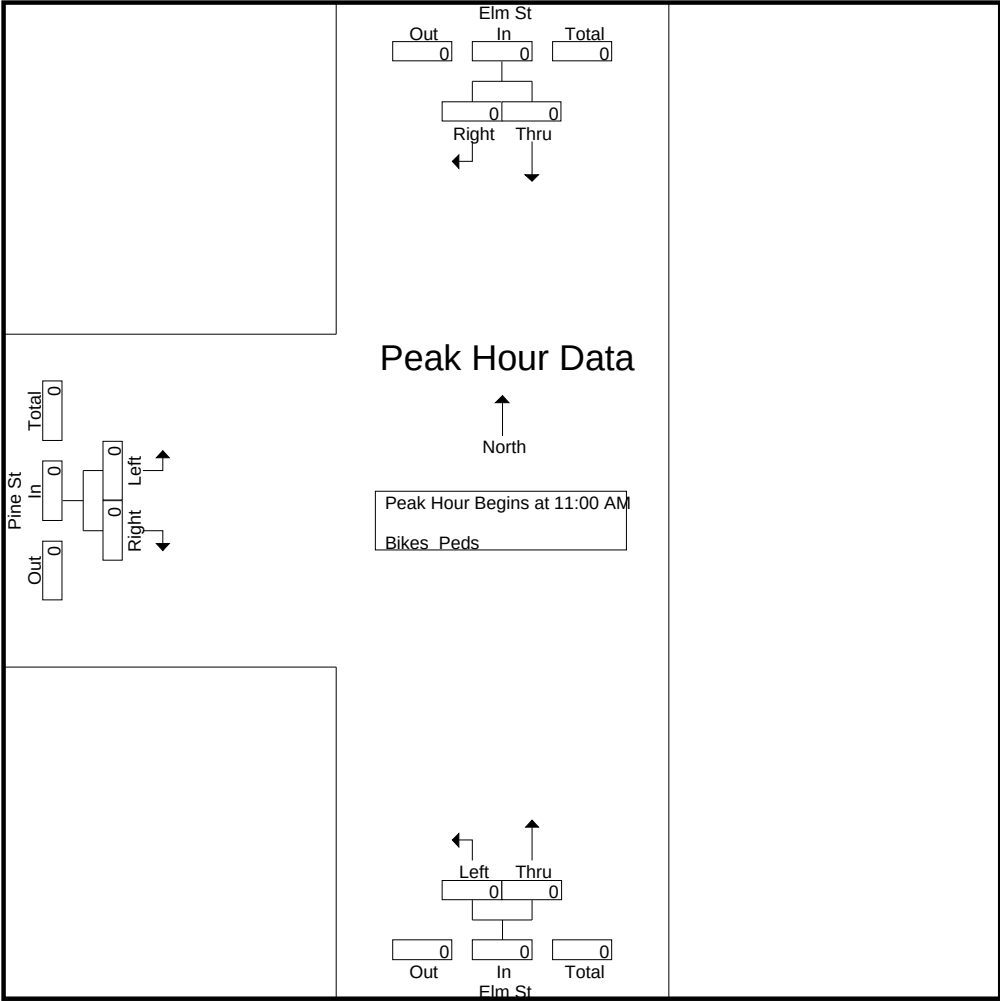
Groups Printed- Bikes Peds

	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

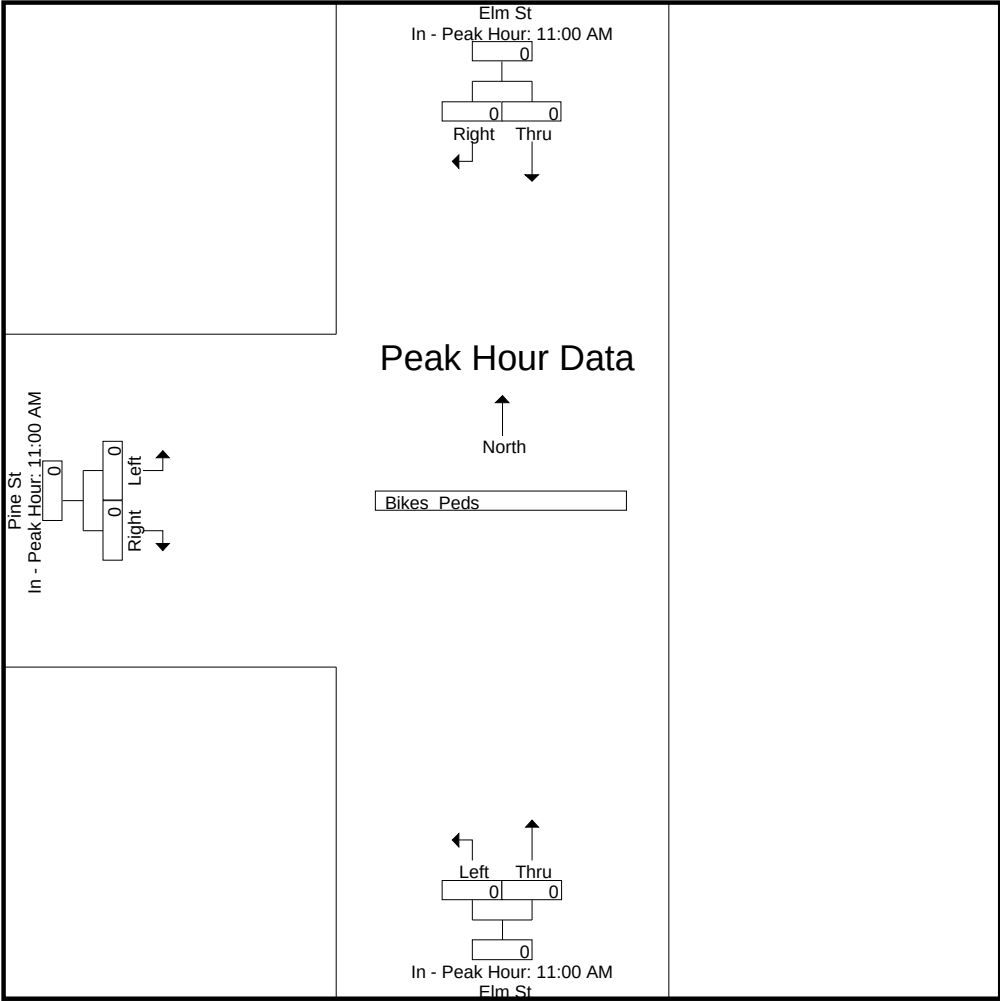


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

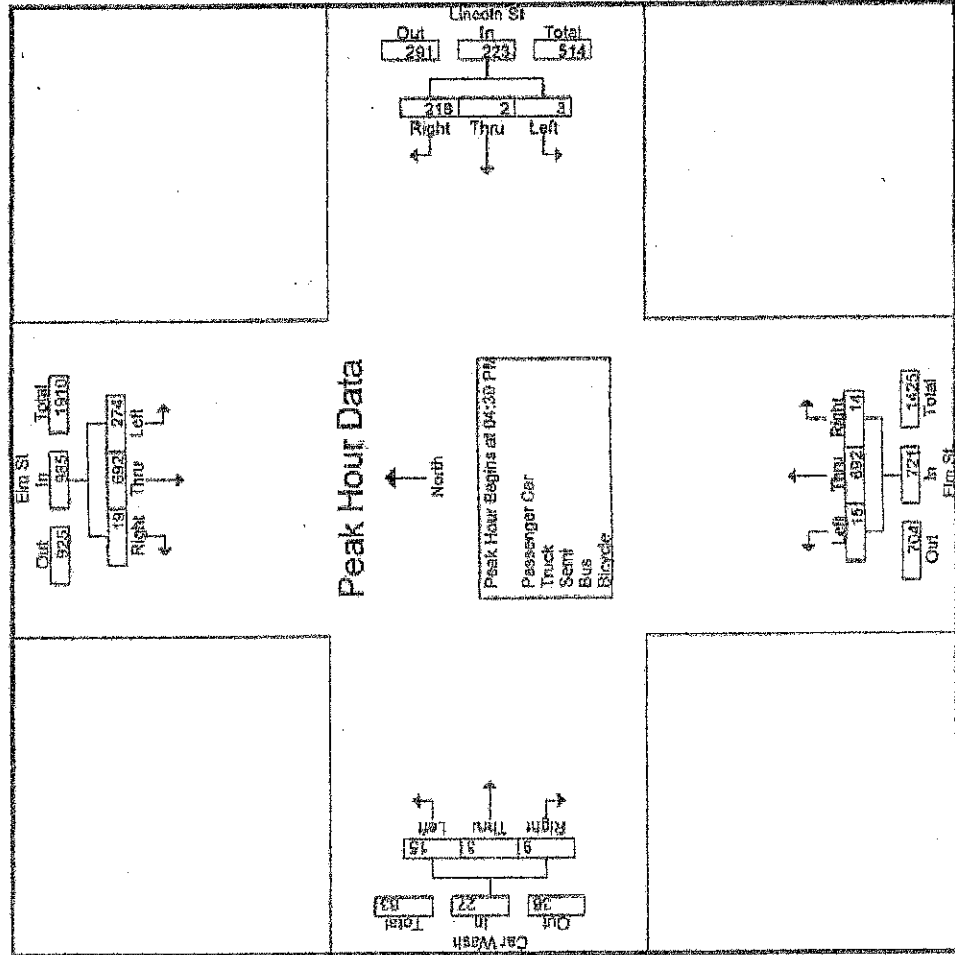
N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 12



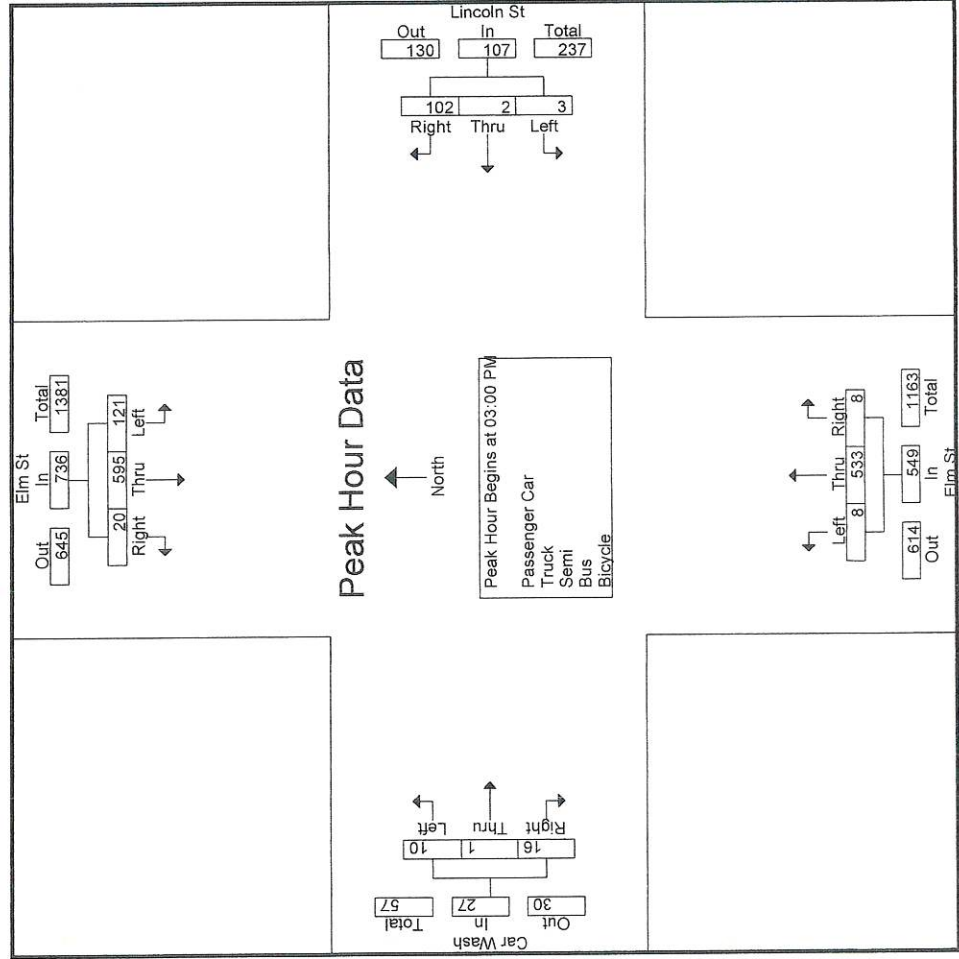
Biddeford Lincoln St & Elm St
July 18, 2019 PM
Sunny
Count by Jen Gilbert

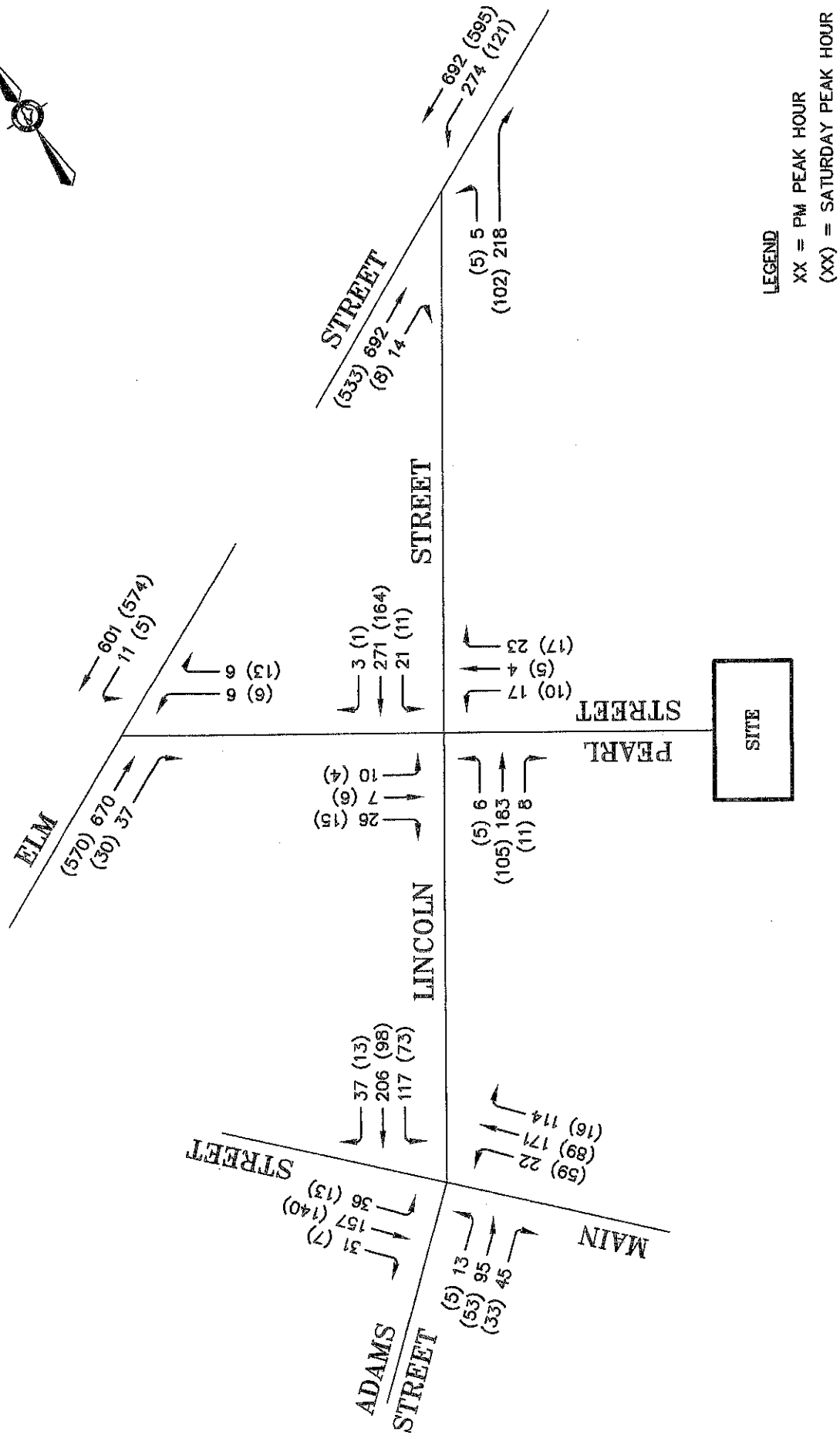
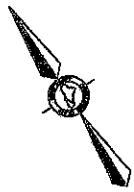
File Name : Biddeford Lincoln St & Elm St 7-18-19 PM
Site Code : 00718192
Start Date : 7/18/2019
Page No : 6



Biddeford Lincoln St & Elm St
July 20, 2019 PM Saturday
Sunny
Count By Nathaniel Tillson

File Name : Biddeford Lincoln St & Elm St 7-20-19 SATURDAY PM
Site Code : 00720193
Start Date : 7/20/2019
Page No : 6





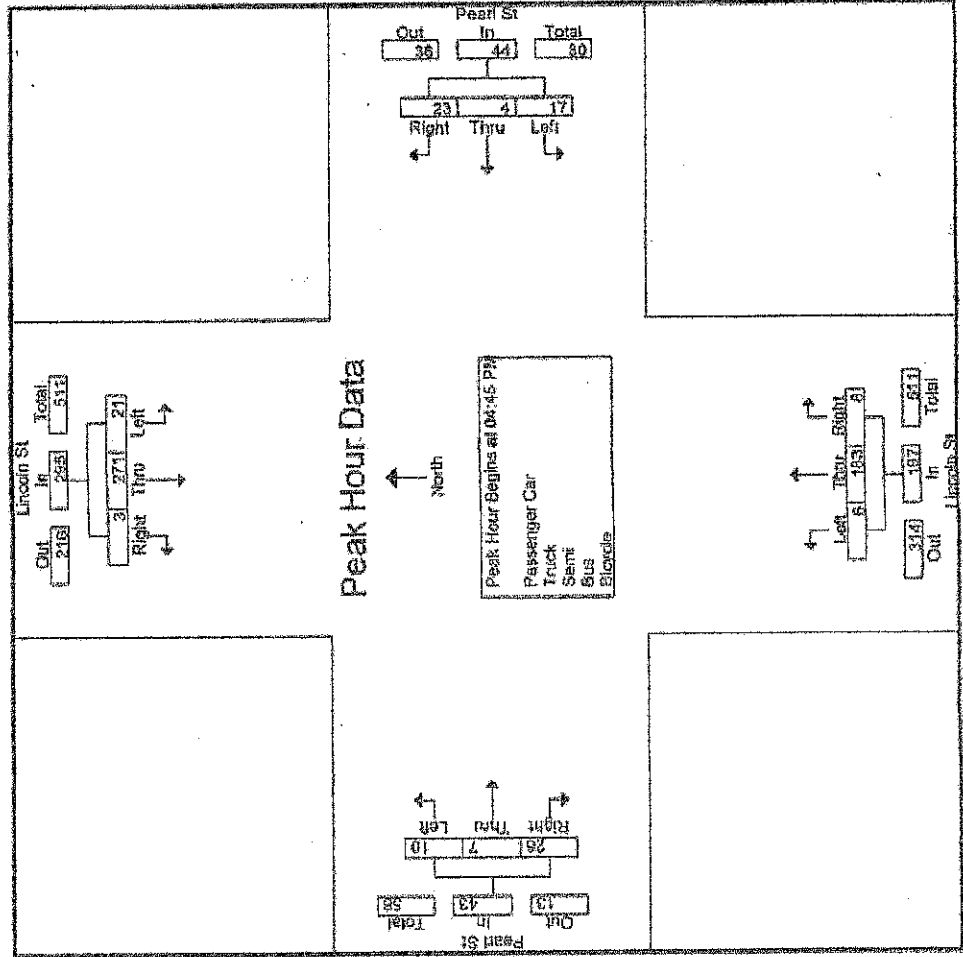
EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)

FIGURE 1

RIVERDAM REDEVELOPMENT		TRAFFIC SOLUTIONS	
FIELD DRAWN BY: LUCAS BROOKS, WAINE		17 NORTHVIEW DRIVE, COVINA, CALIF. 91723	
DATE: AUGUST, 2019	DRAWN: 1		

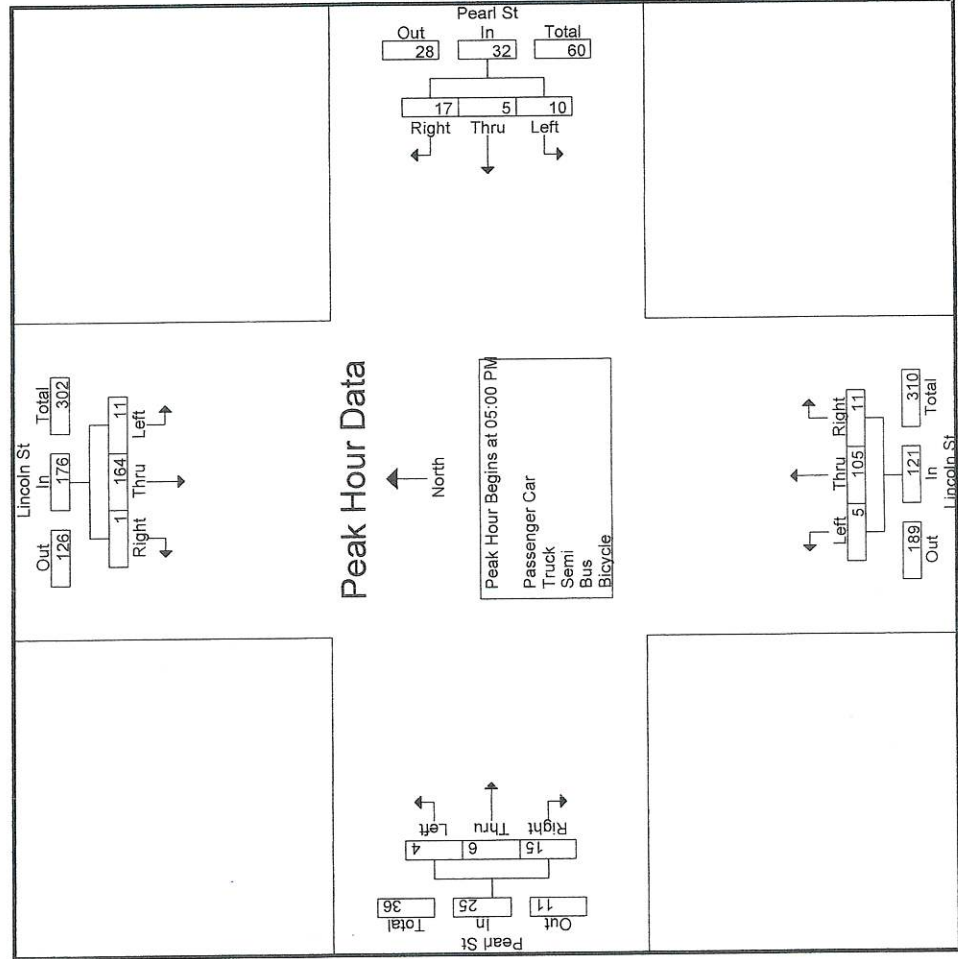
File Name : Biddeford Lincoln St & Pearl St 6-13-19 PM
Site Code : 00613192
Start Date : 6/13/2019
Page No : 6

Biddeford Lincoln St & Pearl St
June 13, 2019 PM
Rain
Count by Jen Gilbert



Biddeford Lincoln St & Pearl St
July 20, 2019 PM Saturday
Sunny
Count by Kim Gilbert

File Name : Biddeford Lincoln St & Pearl St 6-20-19 PM
Site Code : 00720192
Start Date : 7/20/2019
Page No : 6



Multifamily Housing (Mid-Rise) (221)

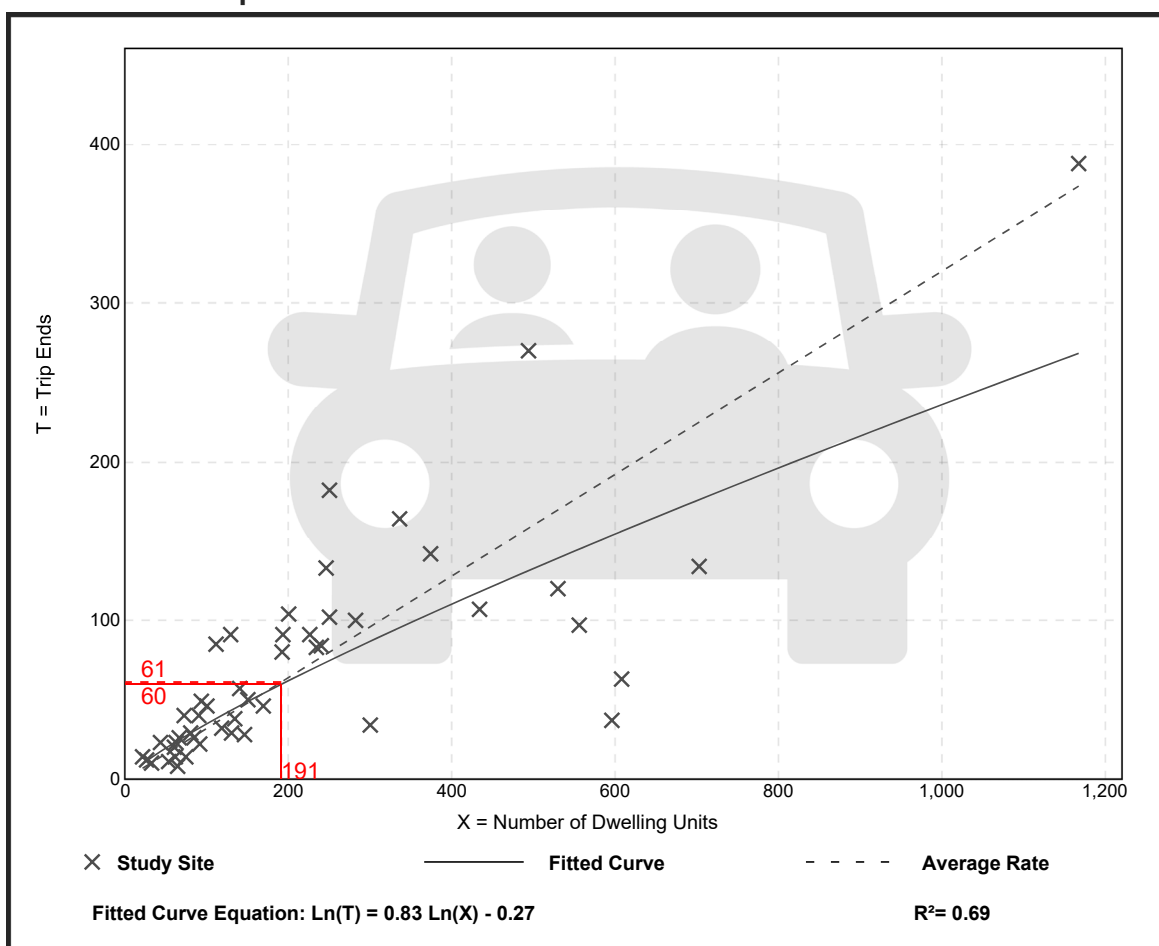
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

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)

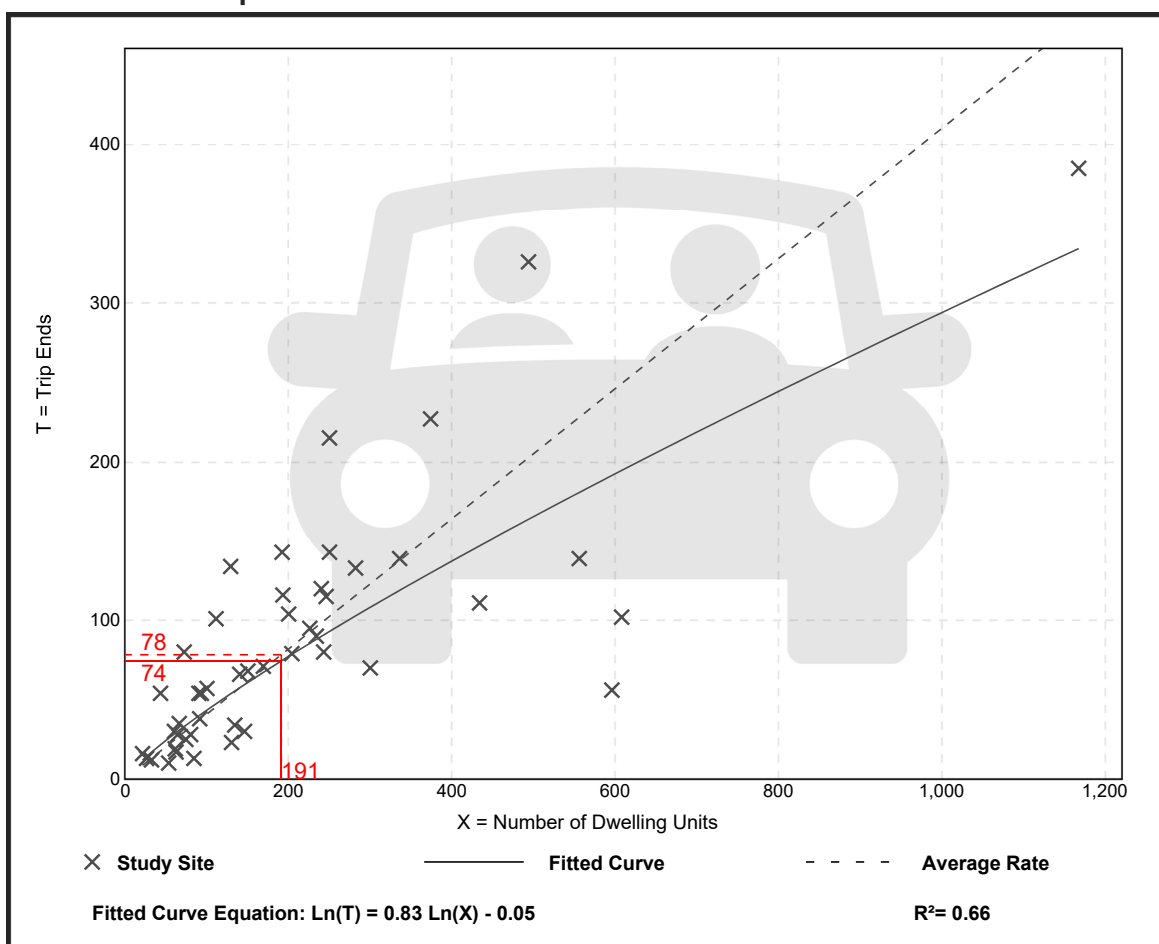
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

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)

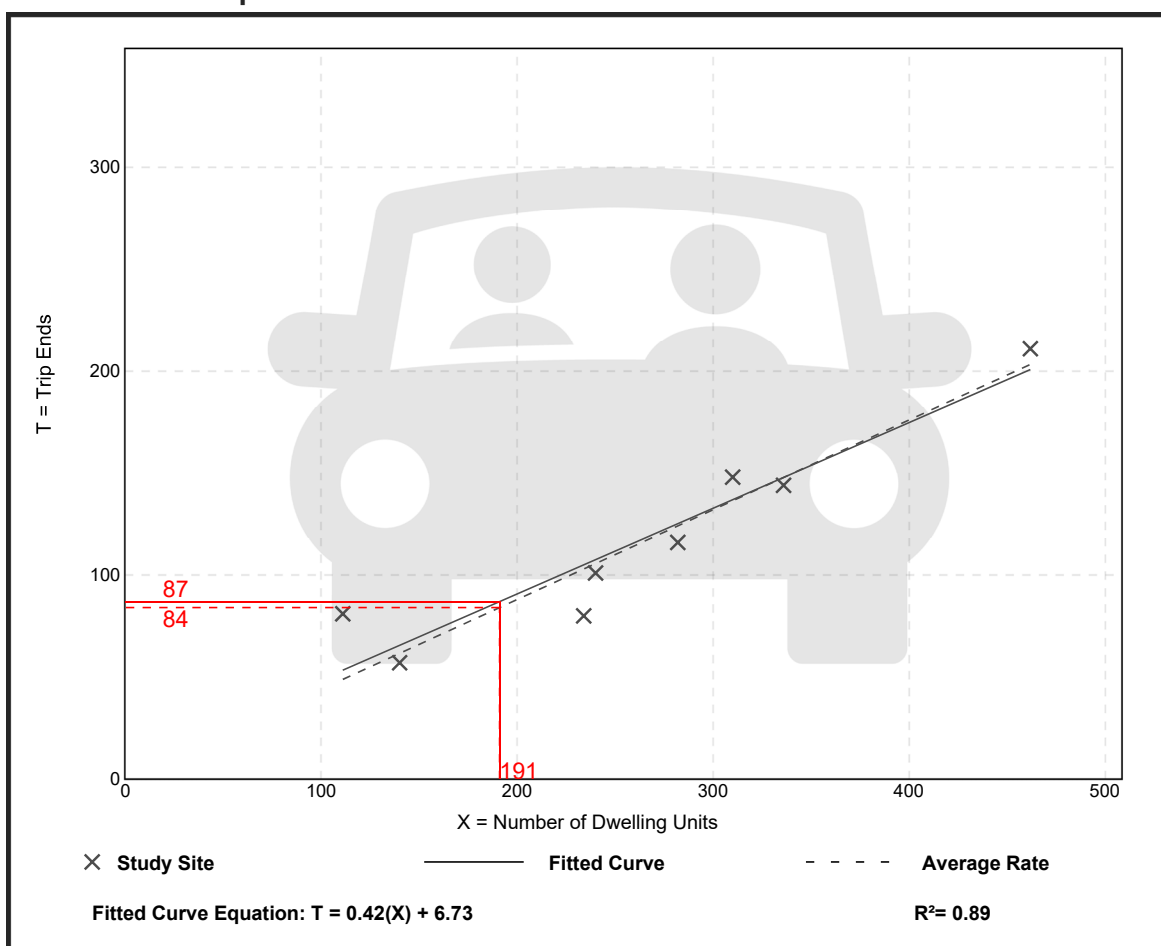
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

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)

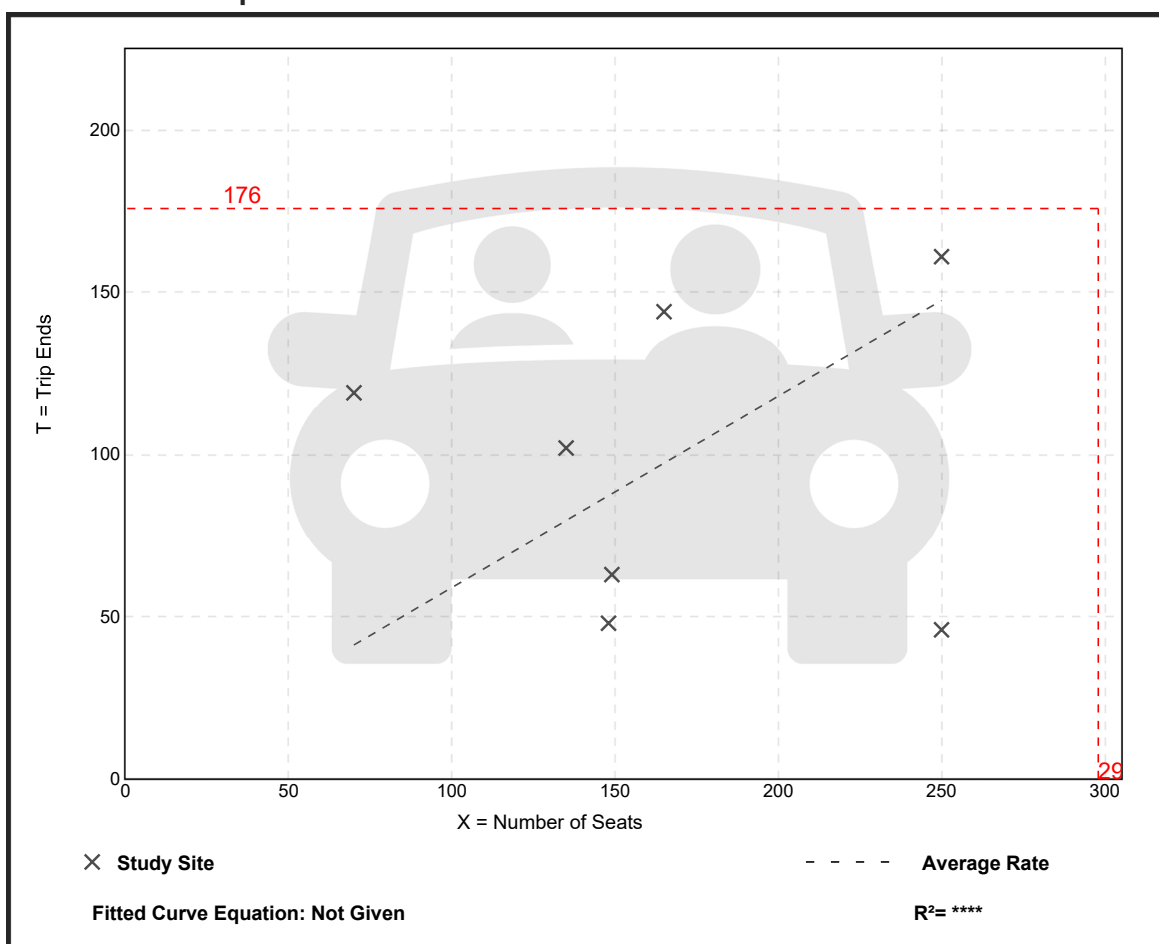
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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

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

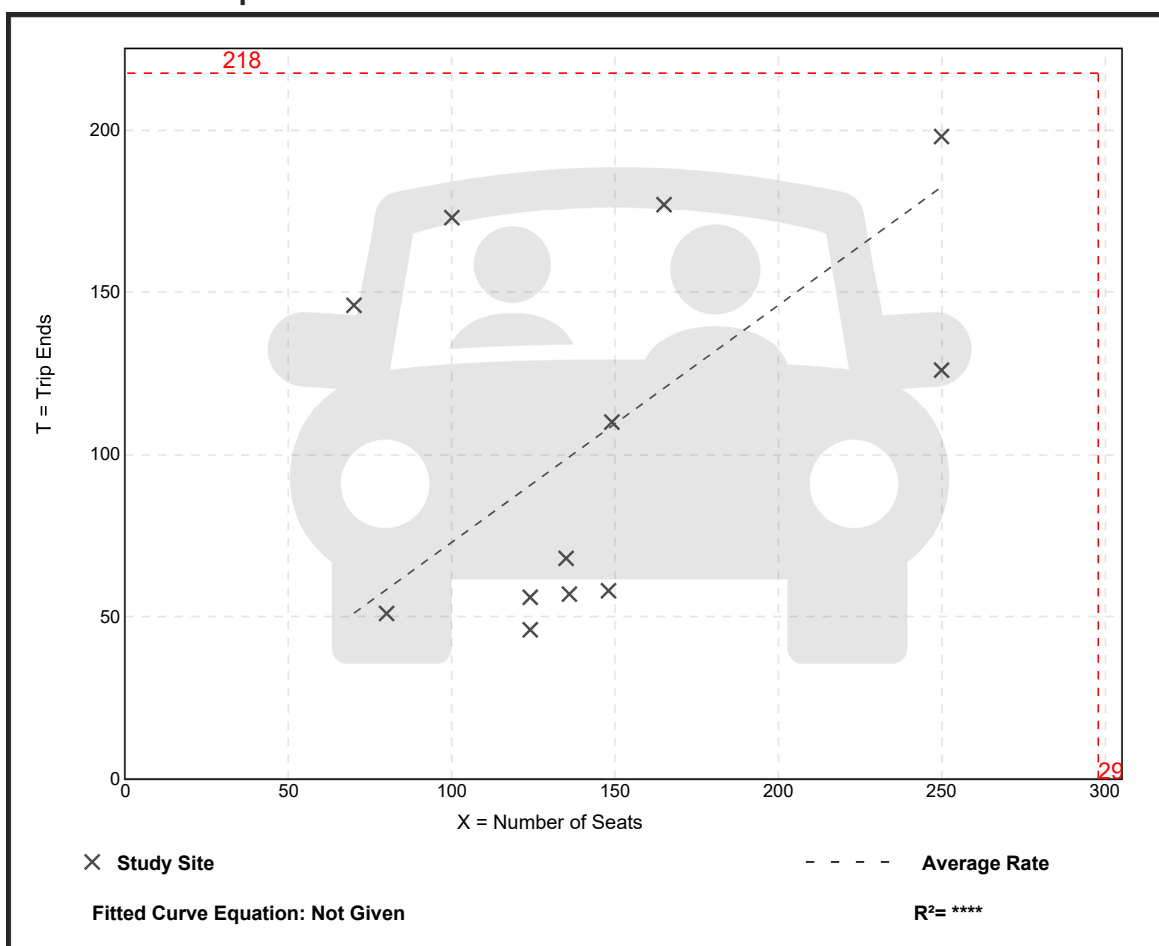
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. Num. of Seats: 144
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



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

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

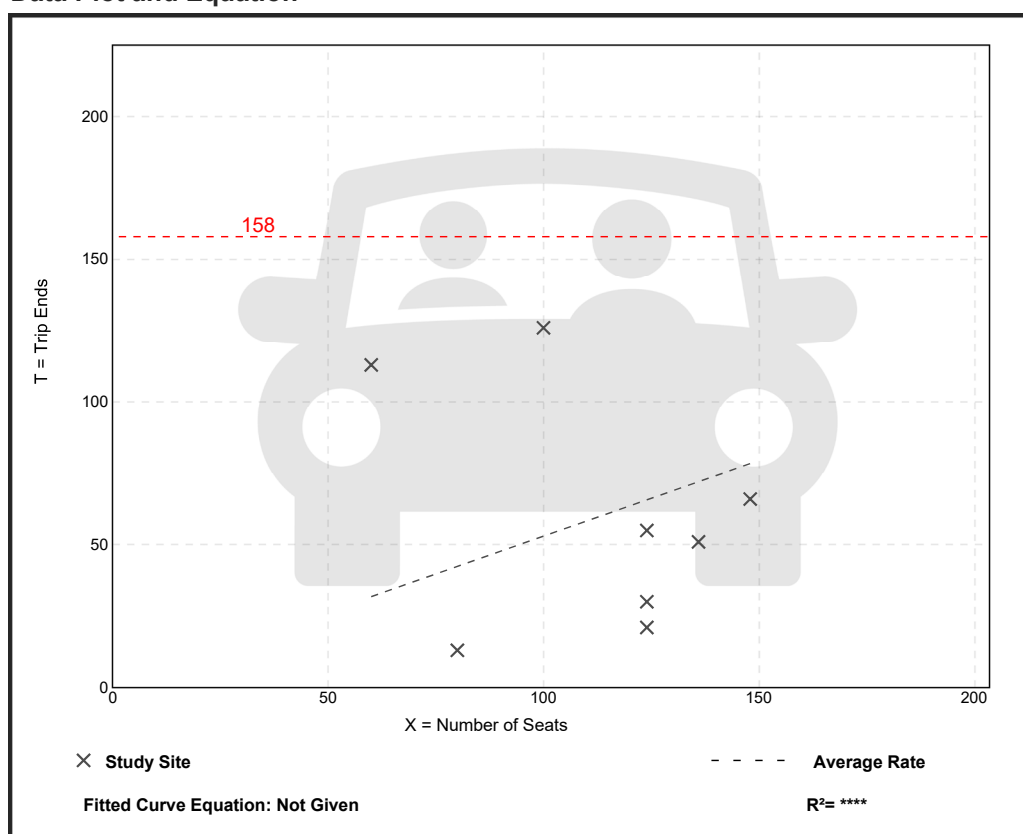
Vehicle Trip Ends vs: **Seats**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



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

Senior Adult Housing - Attached (252)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 11

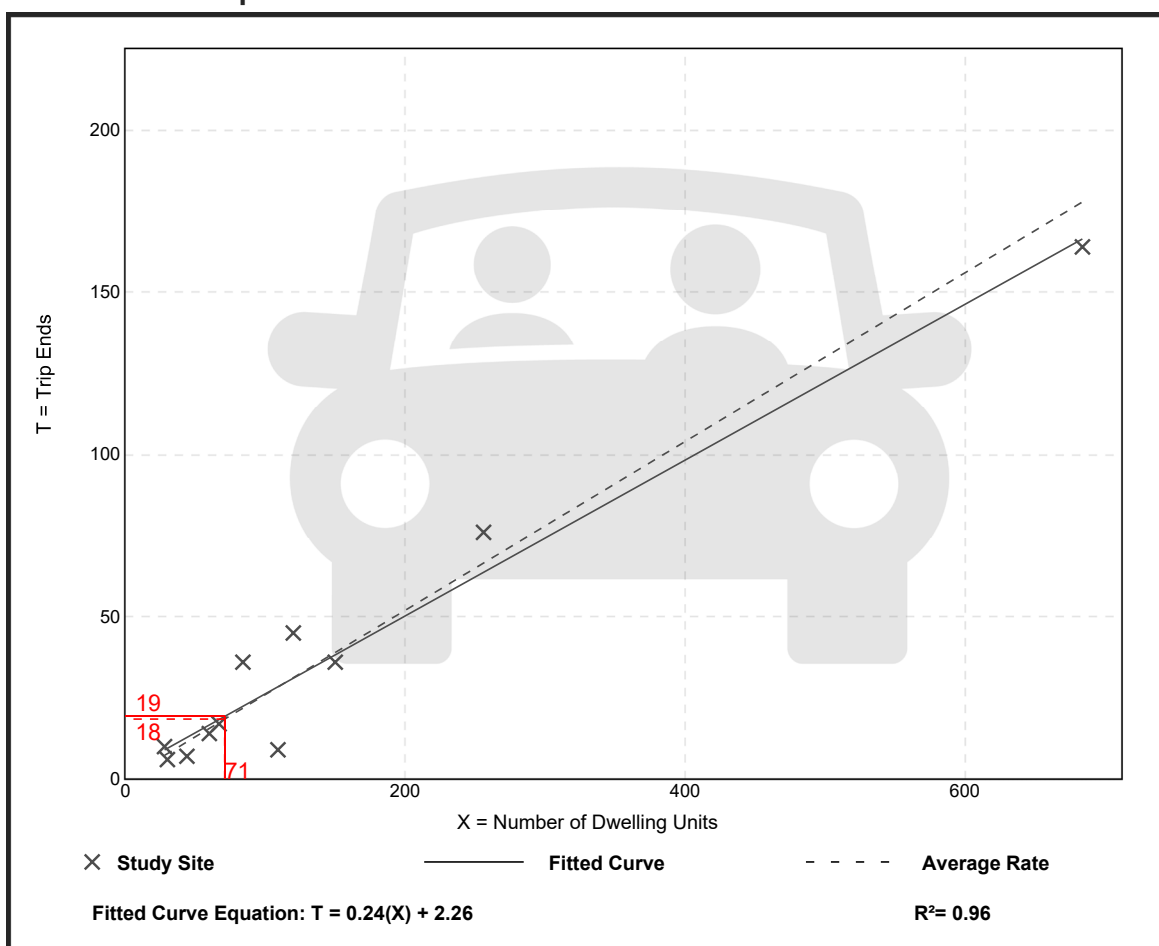
Avg. Num. of Dwelling Units: 148

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.26	0.08 - 0.43	0.08

Data Plot and Equation



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

Senior Adult Housing - Attached (252)

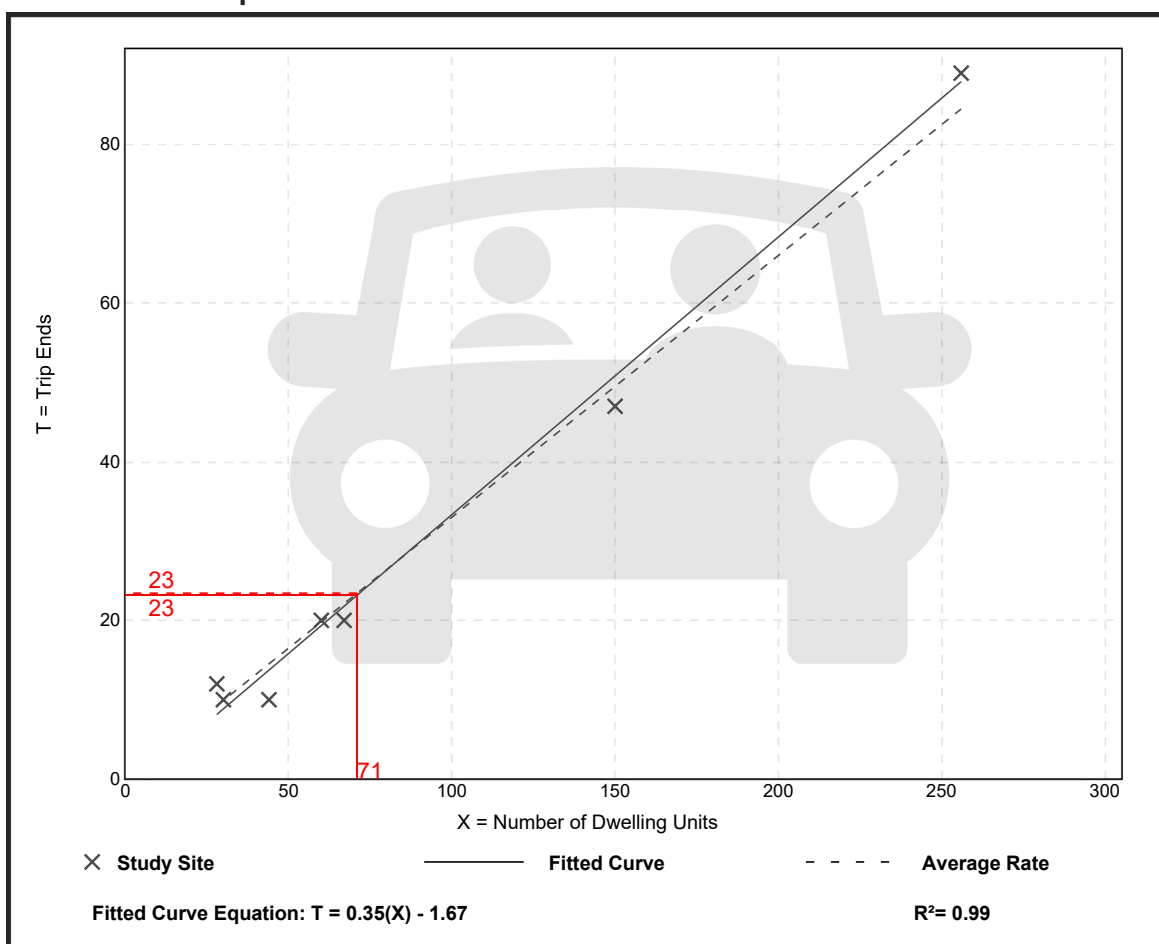
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Dwelling Units: 91
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.33	0.23 - 0.43	0.04

Data Plot and Equation



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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	PM Peak Hour		Date:		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses ²				0		
				296	160	136

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips ⁵	280	152	128
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	Saturday Peak Hour		Date:		

Table 1-A: 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				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses ²				0		
				245	127	118

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips ⁵	223	116	107
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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



ELM
(21) 19

7 (5)

(8) 8
(7) 2

STREET

5 (7)

ADAMS
STREET

(30) 10

3 (1)
19 (14)
12 (11)

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

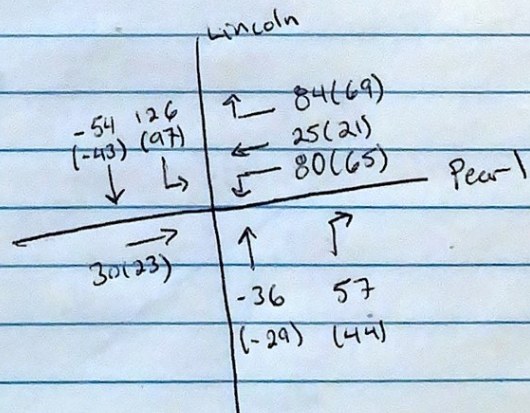
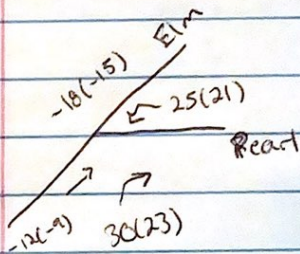
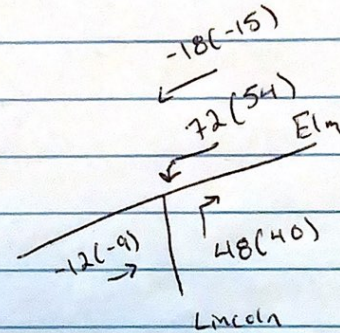
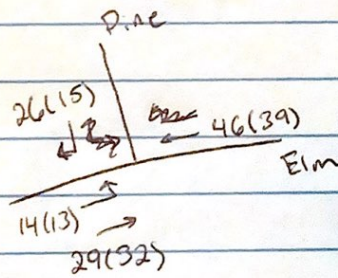
3 Lincoln St.

- TMC + Riverdam Traffic Volumes (Raw Data)

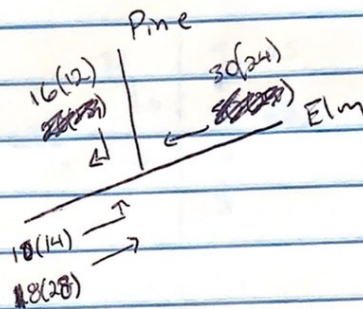
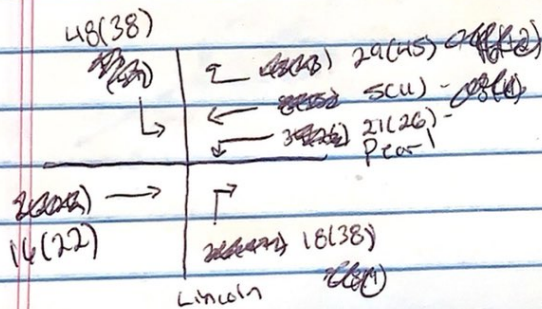
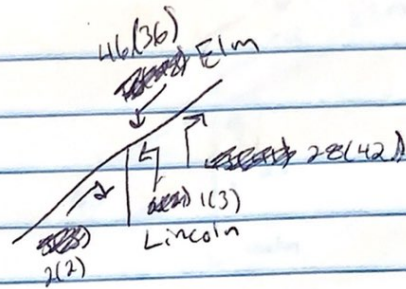
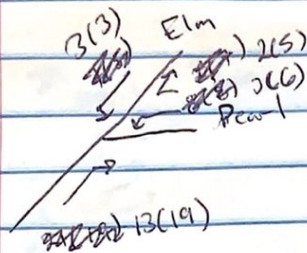
Additional trips

- Revised trip assignment
- Riverdam TMD
- Senior Housing PM + Saturday
- Lincoln Mill

Revised Trips



Riverdam TMAP



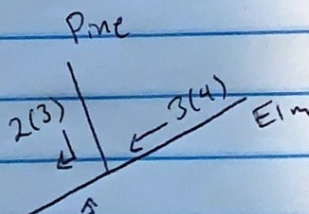
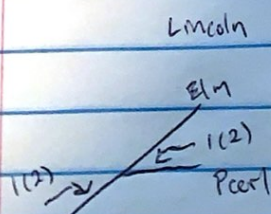
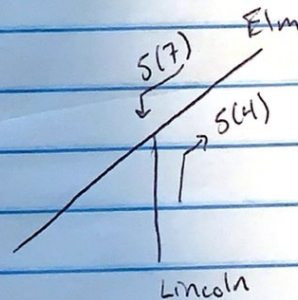
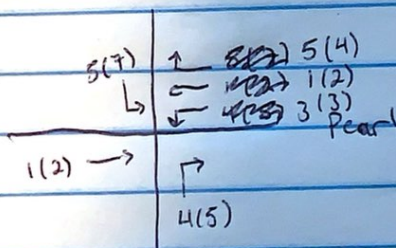
Senior Housing

50% enter/exit from Pearl

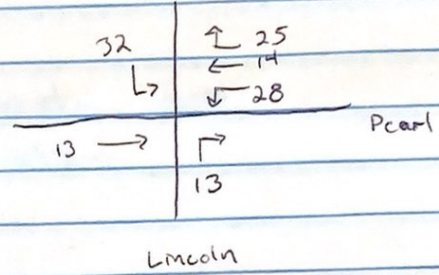
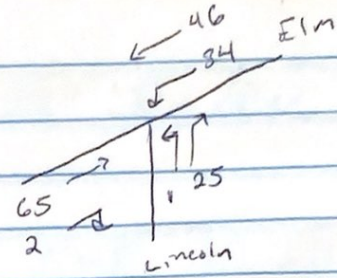
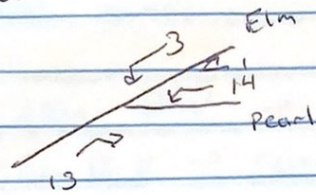
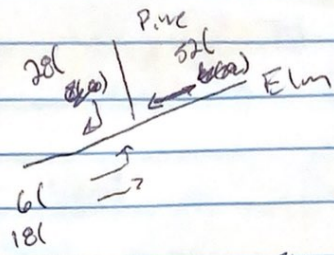
PM 55% enter - 10 > 19
45% exit - 9

Saturday

62% enter - 14 > 23
38% exit - 9



Lincoln Mill



C. Synchro/SimTraffic Output

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					122.2
Total Del/Veh (s)	5.6	639.0	12.0	2.8	51.8

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.8
Total Del/Veh (s)	88.8	325.1	2.3	22.6	2.6	21.8

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	15.0	79.1	15.0	2.4	23.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	37.8	1.2	1.2	2.1

Total Network Performance

Denied Del/Veh (s)	109.8
Total Del/Veh (s)	75.7

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	273	677	173	290	58
Average Queue (ft)	85	619	90	20	3
95th Queue (ft)	201	835	156	138	33
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		81		1	
Queuing Penalty (veh)		0		7	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			17	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	274	150	165	226	372	151
Average Queue (ft)	198	62	27	109	36	11
95th Queue (ft)	330	150	102	206	216	92
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	21	10	0		2	0
Queuing Penalty (veh)	60	0	0		22	4
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				5	0	
Queuing Penalty (veh)				35	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	88	536	228	84
Average Queue (ft)	36	142	46	26
95th Queue (ft)	71	403	172	71
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	SW	B15
Directions Served	LR	LT	T
Maximum Queue (ft)	78	189	12
Average Queue (ft)	20	28	0
95th Queue (ft)	53	110	8
Link Distance (ft)	399	157	296
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 150

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					39.6
Total Del/Veh (s)	3.9	282.3	7.5	2.0	40.0

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	9.5	23.0	1.1	7.8	0.7	2.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.6	6.8	0.7	1.9	3.5

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	36.7	1.2	0.6	2.3

Total Network Performance

Denied Del/Veh (s)	33.0
Total Del/Veh (s)	38.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE
Directions Served	LR	LR	L	R
Maximum Queue (ft)	156	677	125	9
Average Queue (ft)	52	488	57	0
95th Queue (ft)	117	861	107	4
Link Distance (ft)	1157	662		228
Upstream Blk Time (%)		46		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW
Directions Served	R	LTR	LTR	L
Maximum Queue (ft)	93	51	62	112
Average Queue (ft)	38	16	6	44
95th Queue (ft)	77	40	33	82
Link Distance (ft)	263	156	296	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	80	107	30	80
Average Queue (ft)	32	49	2	18
95th Queue (ft)	56	81	13	55
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	95	4	107	18
Average Queue (ft)	31	0	10	1
95th Queue (ft)	70	3	56	13
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					163.8
Total Del/Veh (s)	6.2	812.3	13.8	2.9	54.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.9
Total Del/Veh (s)	108.1	498.9	2.8	30.3	4.7	29.2

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					23.5
Total Del/Veh (s)	33.8	223.1	21.5	3.7	70.2

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	68.7	1.7	1.3	3.8

Total Network Performance

Denied Del/Veh (s)	147.4
Total Del/Veh (s)	101.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	321	677	168	214	65
Average Queue (ft)	89	636	99	22	3
95th Queue (ft)	217	812	168	139	32
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		89		1	
Queuing Penalty (veh)		0		6	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			24		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	276	154	207	225	392	209
Average Queue (ft)	245	73	33	144	69	21
95th Queue (ft)	321	175	117	250	306	131
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	33	17	0		4	1
Queuing Penalty (veh)	110	0	1		48	16
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				11	0	
Queuing Penalty (veh)				81	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	177	867	248	172
Average Queue (ft)	60	449	74	48
95th Queue (ft)	137	996	217	110
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		27	3	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	149	4	138	7
Average Queue (ft)	37	0	24	0
95th Queue (ft)	126	3	95	5
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)	0		1	
Queuing Penalty (veh)	0		4	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 292

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					31.4
Total Del/Veh (s)	4.1	321.9	8.6	2.4	46.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	12.5	31.1	1.4	8.4	0.8	4.0

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	8.4	11.3	0.8	2.8	5.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	66.7	1.5	1.3	4.9

Total Network Performance

Denied Del/Veh (s)	25.3
Total Del/Veh (s)	45.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	183	677	138	106	58
Average Queue (ft)	55	569	63	5	4
95th Queue (ft)	130	872	115	58	54
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		64		0	
Queuing Penalty (veh)		0		3	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			1	0	
Queuing Penalty (veh)			5	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW
Directions Served	R	LTR	LTR	L	TR
Maximum Queue (ft)	125	59	112	134	4
Average Queue (ft)	49	18	12	53	0
95th Queue (ft)	106	47	59	100	3
Link Distance (ft)	263	156	296		343
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				200	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	74	187	31	110
Average Queue (ft)	35	76	3	32
95th Queue (ft)	62	142	17	83
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	165	9	178	25
Average Queue (ft)	55	0	20	1
95th Queue (ft)	135	4	105	14
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			5	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 13

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	7.4	8.1	8.5	12.9	10.1

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	11.8

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	82	132	111	233
Average Queue (ft)	37	64	59	105
95th Queue (ft)	63	106	94	185
Link Distance (ft)	448	862	314	352
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

3 Lincoln Street Project 2024 Build Traffic Volumes with Improvements

03/28/2022

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00					
End Time	5:00					
Total Time (min)	60					
Volumes adjusted by Growth Factors.						
Run Number	1	2	3	4	5	Avg
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	R	L	R	
Denied Del/Veh (s)					75.1
Total Del/Veh (s)	15.2	411.9	13.2	3.0	51.7

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						4.2
Total Del/Veh (s)	128.2	1103.7	3.2	33.5	7.4	35.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					35.6
Total Del/Veh (s)	10.9	288.3	115.2	13.3	110.8

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	73.4	1.7	1.6	4.1

Total Network Performance

Denied Del/Veh (s)	80.5
Total Del/Veh (s)	123.4

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	R	L	R	T
Maximum Queue (ft)	428	678	169	166	112
Average Queue (ft)	152	605	89	16	10
95th Queue (ft)	602	867	156	125	98
Link Distance (ft)	1163	663		222	343
Upstream Blk Time (%)	4	77		1	1
Queuing Penalty (veh)	0	0		15	7
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			21		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	B15	SW	SW	B5
Directions Served	R	LTR	LTR	T	L	TR	T
Maximum Queue (ft)	276	171	234	9	225	420	229
Average Queue (ft)	260	109	36	0	159	108	41
95th Queue (ft)	319	207	144	7	256	397	186
Link Distance (ft)	263	156	296	157		343	222
Upstream Blk Time (%)	48	45	0			10	3
Queuing Penalty (veh)	160	0	3			125	39
Storage Bay Dist (ft)					200		
Storage Blk Time (%)					19	0	
Queuing Penalty (veh)					135	1	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	84	896	354	209
Average Queue (ft)	40	600	231	113
95th Queue (ft)	71	1146	413	188
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		40	39	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	168	4	182	63
Average Queue (ft)	40	0	30	2
95th Queue (ft)	119	3	114	35
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			6	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 512

D. 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

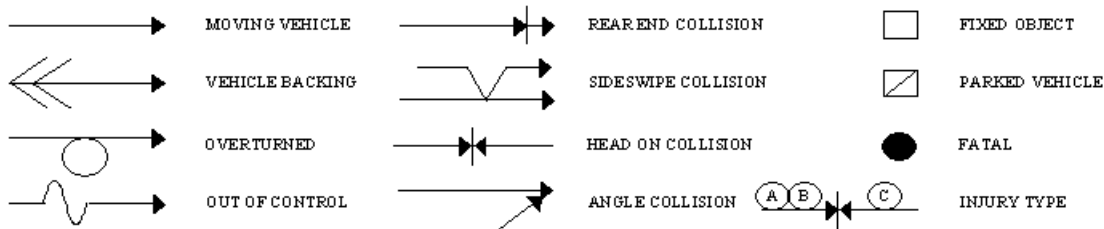
CRASH RATE: 0.49

CRF: 1.32

% INJURY: 33.3

TOTAL CRASHES: 9

LEGEND



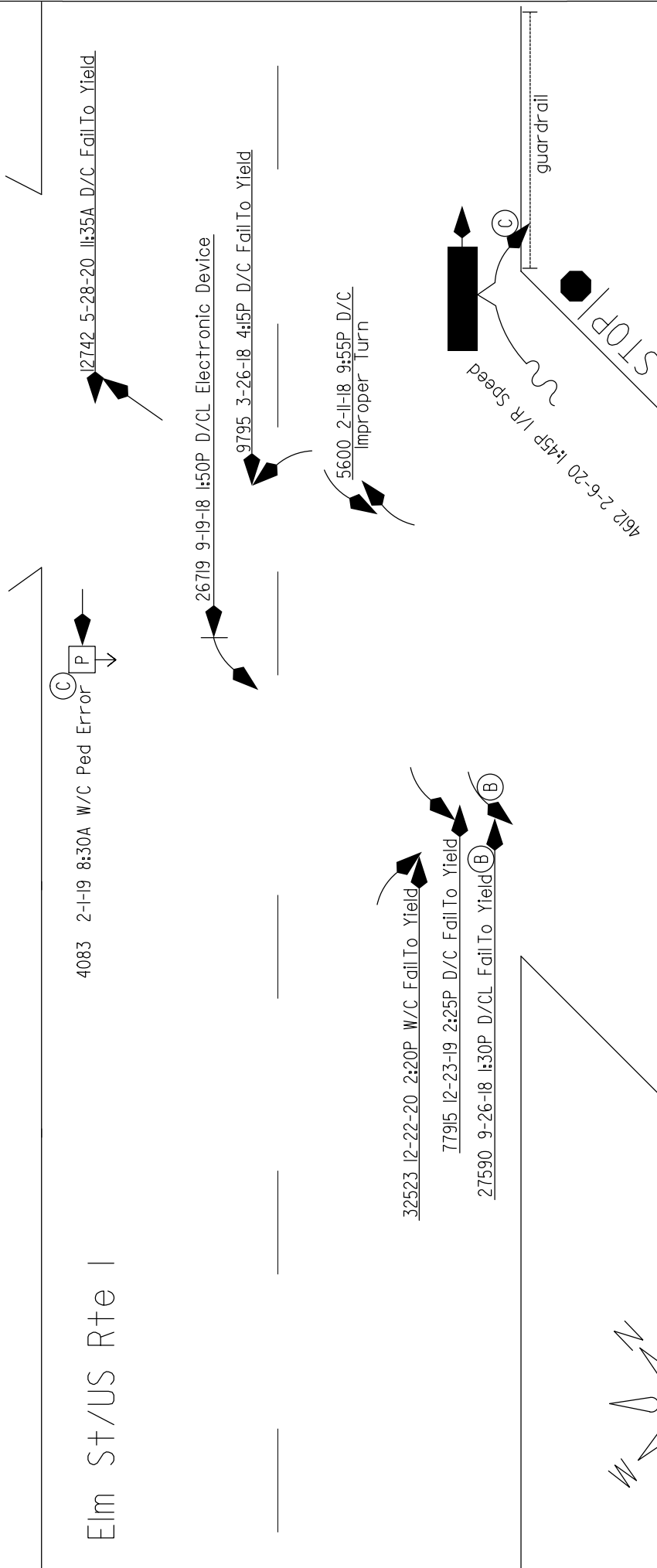
--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

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



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

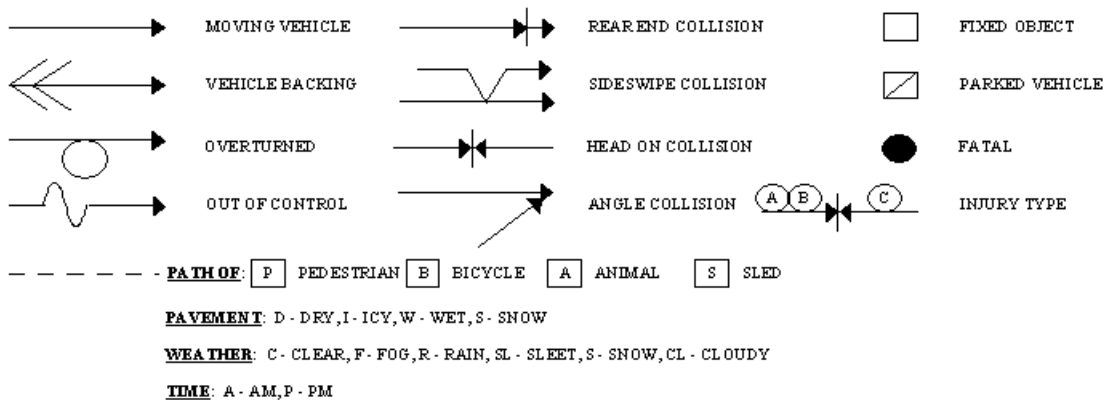
CRASH RATE: 0.74

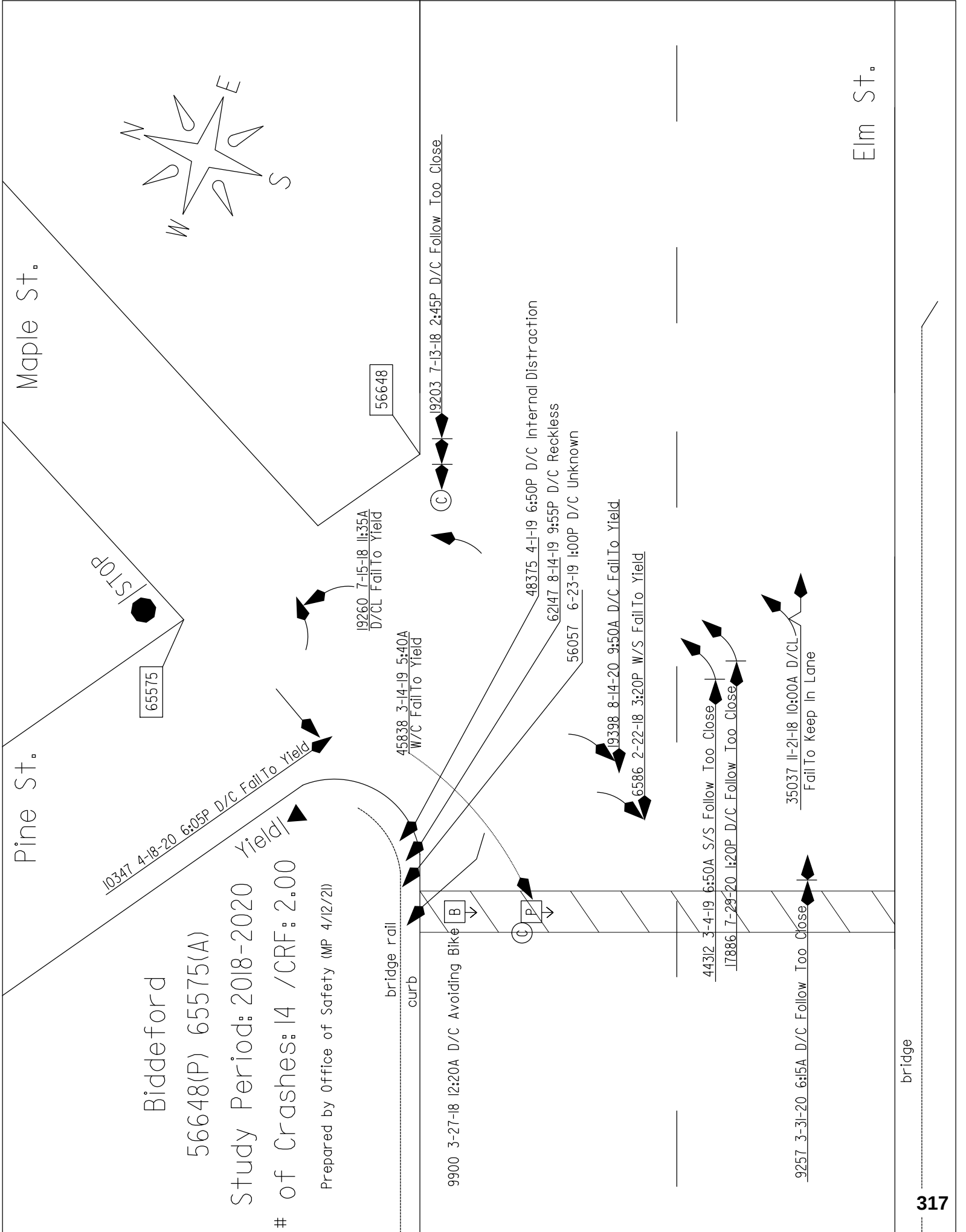
CRF: 2

% INJURY: 14.3

TOTAL CRASHES: 14

LEGEND





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**

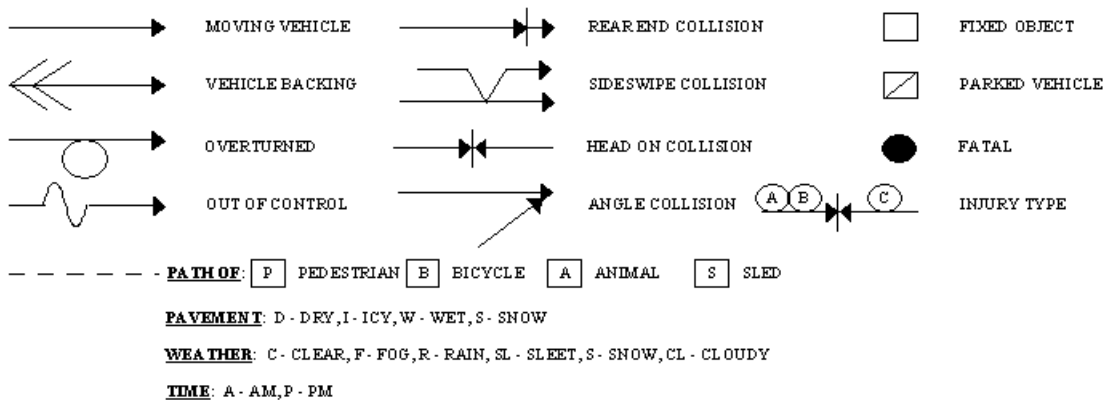
CRASH RATE: **1.39**

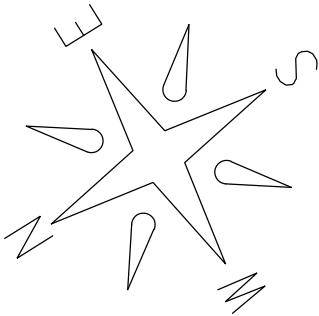
CRF: **2.9**

% INJURY: **25**

TOTAL CRASHES: **8**

LEGEND





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

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

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

Main St.

Stop

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

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

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

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

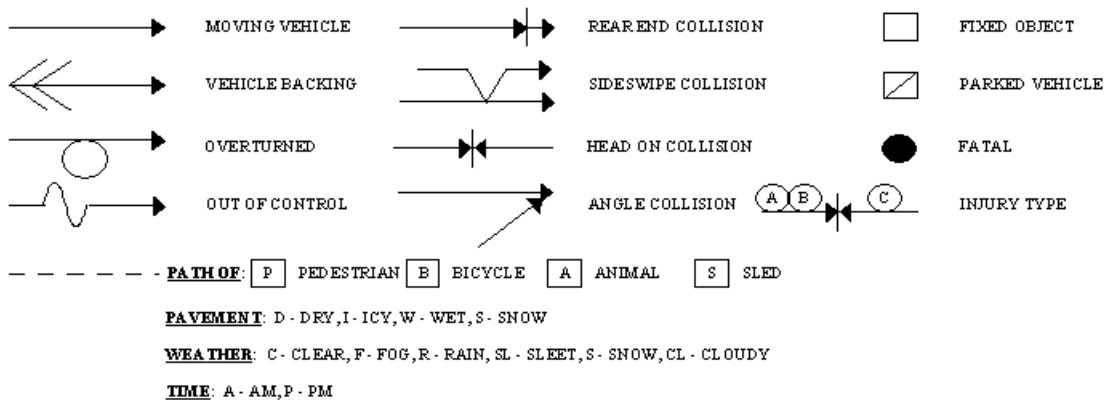
RTE # / RD #: 3110002 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

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.

Adams St.

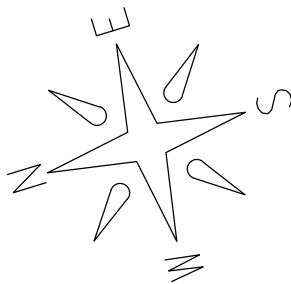
63625 8-26-19 2:55P D/C Fail To Yield
15562 6-1-18 6:20P D/C Fail To Yield

42153 12-20-18 11:25A D/C
Follow Too Close

11452 5-8-20 5:10P D/C Fail To Yield

30778 11-25-20 5:10P W/C Fail To Yield

Stop



Main St.

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

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

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

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

22956 9-21-20 10:45A D/C Fail To Yield

32570 12-23-20 11:20A D/C Fail To Yield

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

53999 5-31-19 12:10P D/CL Fail To Yield
M/C 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

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

Stop

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

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			PD	Injury	Percent 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
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
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
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
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
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
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
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
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
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
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
56649	0001X - 34.48	TL - Biddeford, Saco	2	0	0	0	0	0	0	0.0	5.132	0.00	0.39	0.00
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
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
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
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
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
Study Years: 3.00			NODE TOTALS:		106	0	0	8	24	74	30.2	72.654	0.49	1.46

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section U/R Length	Total Crashes	K	A	B	C	PD	Percent Injury	Annual HVM	Crash Rate	Critical Rate	CRF	
56640 Int of ELM ST MAIN ST	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 Statewide Crash Rate: 230.30	624.97 230.30	0.00
56641 Int of ELM ST ST MARYS ST	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 Statewide Crash Rate: 230.30	909.62 230.30	0.00
56642 Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	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 Statewide Crash Rate: 230.30	672.93 230.30	0.00
56642 Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	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 Statewide Crash Rate: 230.30	662.61 230.30	0.00
56644 Int of ELM ST LINCOLN ST	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 Statewide Crash Rate: 230.30	723.66 230.30	1.38
56644 Int of ELM ST LINCOLN ST	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 Statewide Crash Rate: 230.30	670.90 230.30	0.00
56645 Int of ELM ST HOOPER ST	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 Statewide Crash Rate: 230.30	555.64 230.30	0.00
56647 BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	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 Statewide Crash Rate: 230.30	623.08 230.30	0.00
56647 BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	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 Statewide Crash Rate: 230.30	744.72 230.30	1.13
56648 Int of ELM ST PINE ST	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 Statewide Crash Rate: 230.30	922.12 230.30	0.00
56649 TL - Biddeford, Saco	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 Statewide Crash Rate: 230.30	469.63 230.30	0.00
58512 Int of LINCOLN ST PEARL ST	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 Statewide Crash Rate: 411.49	1776.07 411.49	1.61
58513 Int of PEARL ST STONE ST	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 Statewide Crash Rate: 411.49	1771.95 411.49	1.73
56644 Int of ELM ST LINCOLN ST	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 Statewide Crash Rate: 180.89	615.24 180.89	0.00
58512 Int of LINCOLN ST PEARL ST	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 Statewide Crash Rate: 180.89	540.79 180.89	1.20
58494 Int of ADAMS ST LINCOLN ST MAIN ST	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 Statewide Crash Rate: 180.89	706.27 180.89	0.00
58493 Int of JEFFERSON ST MAIN ST	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 Statewide Crash Rate: 180.89	657.37 180.89	3.27
58493 Int of JEFFERSON ST MAIN ST	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 Statewide Crash Rate: 180.89	715.21 180.89	0.00

Crash Summary I

Sections

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

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
58493	58494	4046830	0 - 0.06	3110104 - 0.15	6	0	0	1	1	3	2018-7638 2020-22459 2019-62667 2018-1561 2018-32265 2019-75926	03/05/2018 09/18/2020 08/24/2019 01/16/2018 11/03/2018 10/21/2019	0.20 0.22 0.22 0.22 0.23 0.24	PD B C PD PD
56640	58493	3114277	0 - 0.09	3110104 - 0.25	5	0	0	0	2	2	2018-9686 2018-26434 2018-17433 2018-9357 2018-3953	03/17/2018 09/17/2018 06/23/2018 03/19/2018 02/02/2018	0.27 0.28 0.31 0.31 0.32	PD PD C C
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													PM												
	Hour of Day																									
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot
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																										

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		

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		
Traffic Control Devices			
16-Work Zone / Maintenance Equipment	0	Traffic Control Device	Total
17-Other Non-Fixed Object	1	1-Traffic Signals (Stop & Go)	41
18-Impact Attenuator / Crash Cushion	0	2-Traffic Signals (Flashing)	1
19-Bridge Overhead Structure	0	3-Advisory/Warning Sign	0
20-Bridge Pier or Support	0	4-Stop Signs - All Approaches	0
21-Bridge Rail	2	5-Stop Signs - Other	60
22-Cable Barrier	0	6-Yield Sign	9
23-Culvert	1	7-Curve Warning Sign	0
24-Curb	5	8-Officer, Flagman, School Patrol	0
25-Ditch	0	9-School Bus Stop Arm	0
26-Embankment	0	10-School Zone Sign	0
27-Guardrail Face	1	11-R.R. Crossing Device	0
28-Guardrail End	0	12-No Passing Zone	0
29-Concrete Traffic Barrier	0	13-None	32
30-Other Traffic Barrier	0	14-Other	3
31-Tree (Standing)	0	Total	146
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		

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

Light		Total
Light Condition		
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

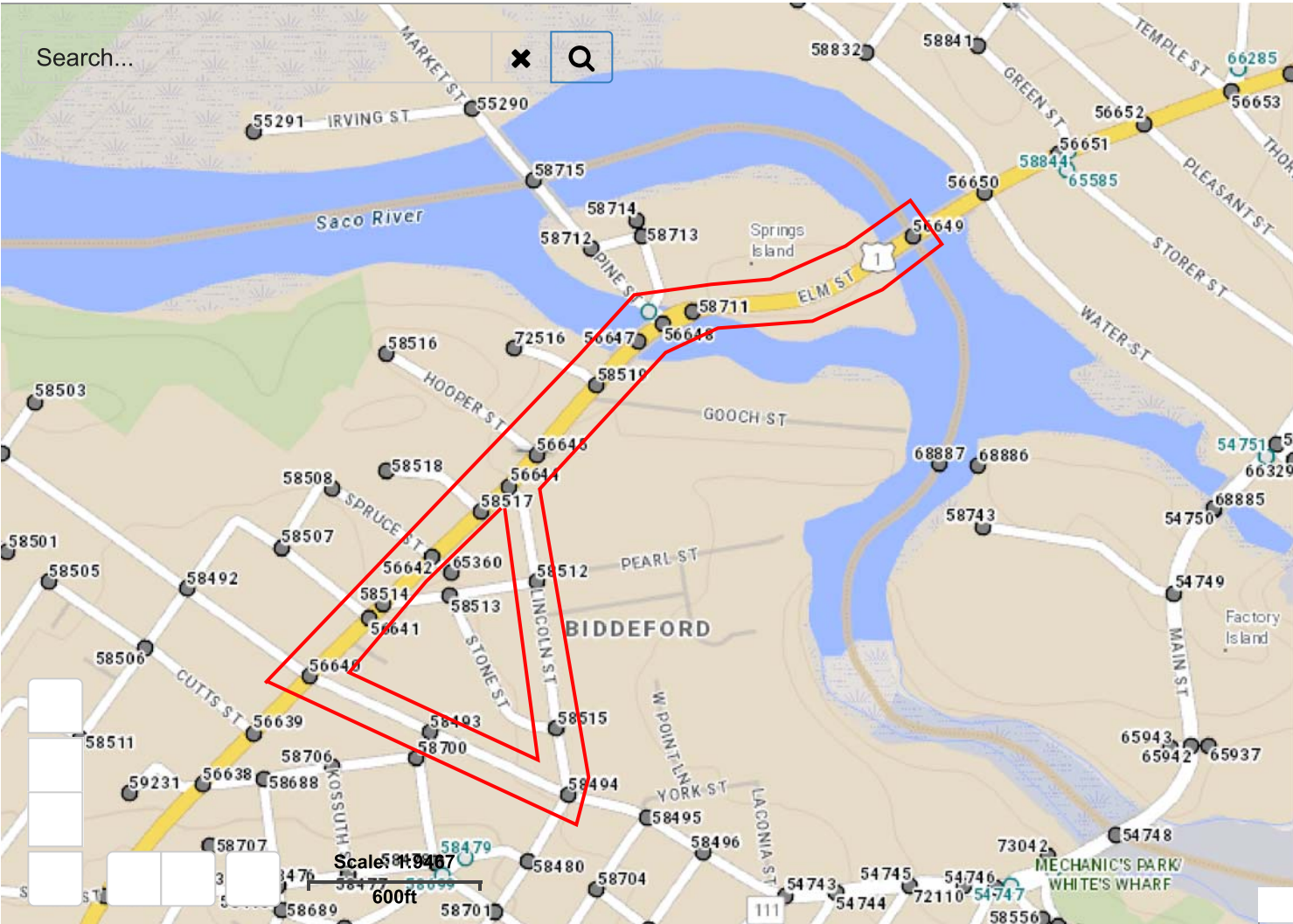
Crashes by Weather, Light Condition and Road Surface

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



Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

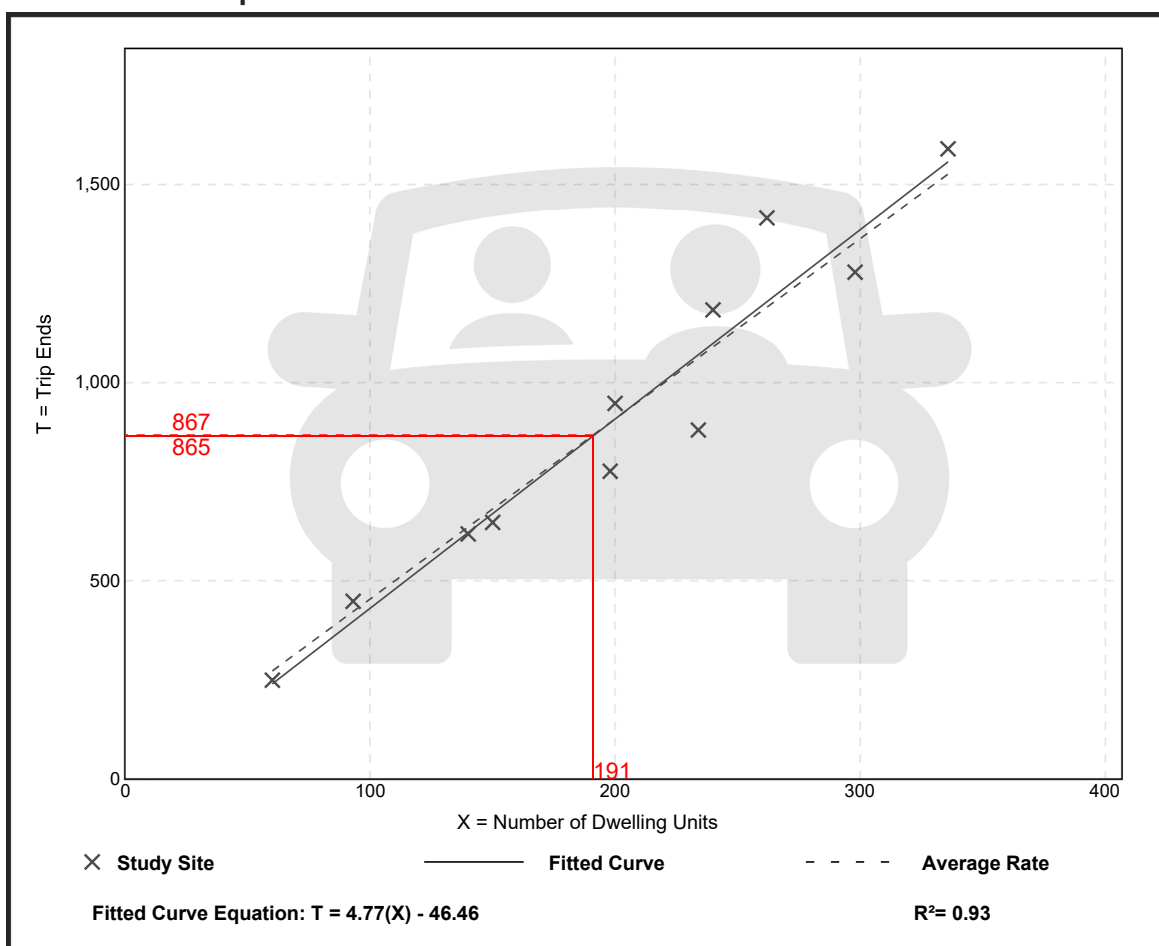
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Trip Gen Manual, 11th Edition

• Institute of Transportation Engineers

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

Vehicle Trip Ends vs: **Seats**
On a: **Weekday**

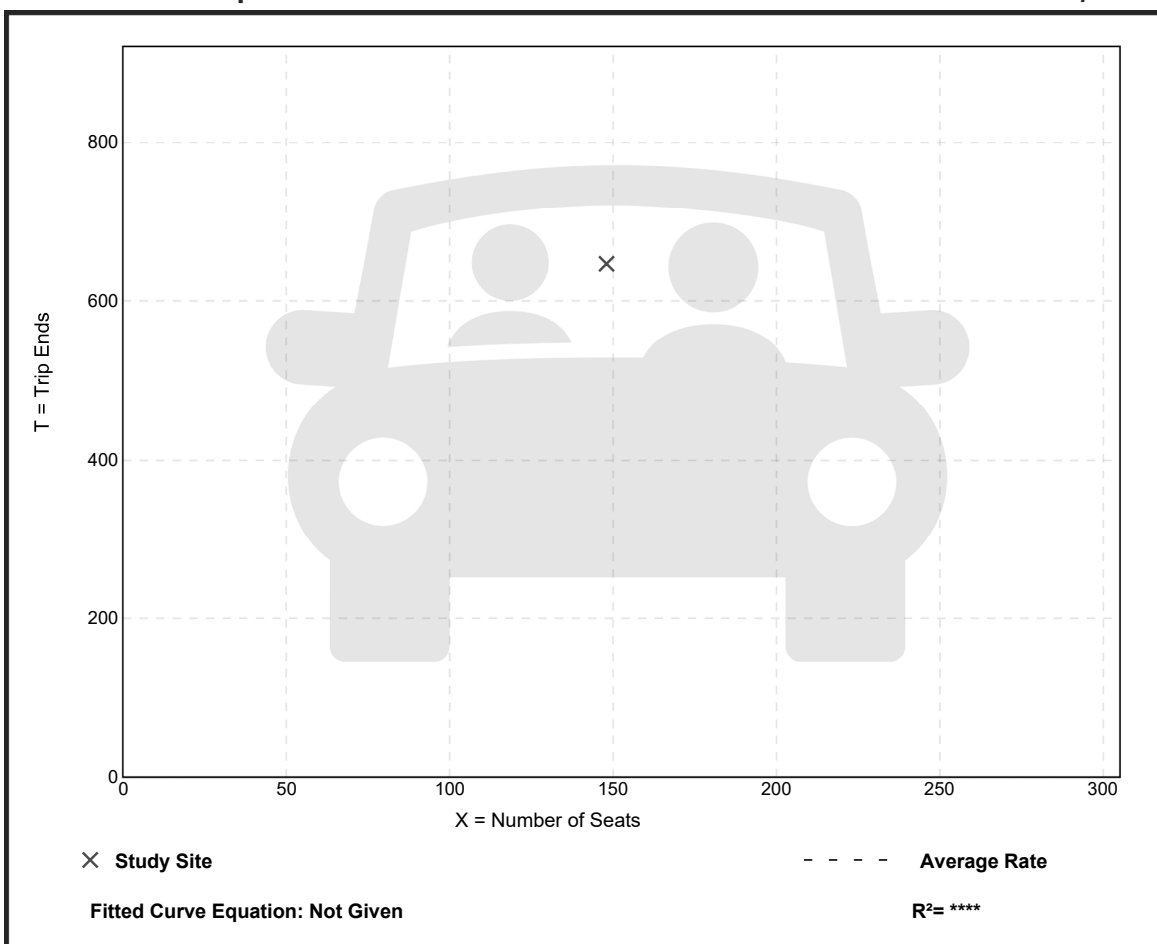
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Seats: 148
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
4.37	4.37 - 4.37	*

Data Plot and Equation

Caution – Small Sample Size



Trip Gen Manual, 11th Edition

● Institute of Transportation Engineers

E. Site Plan

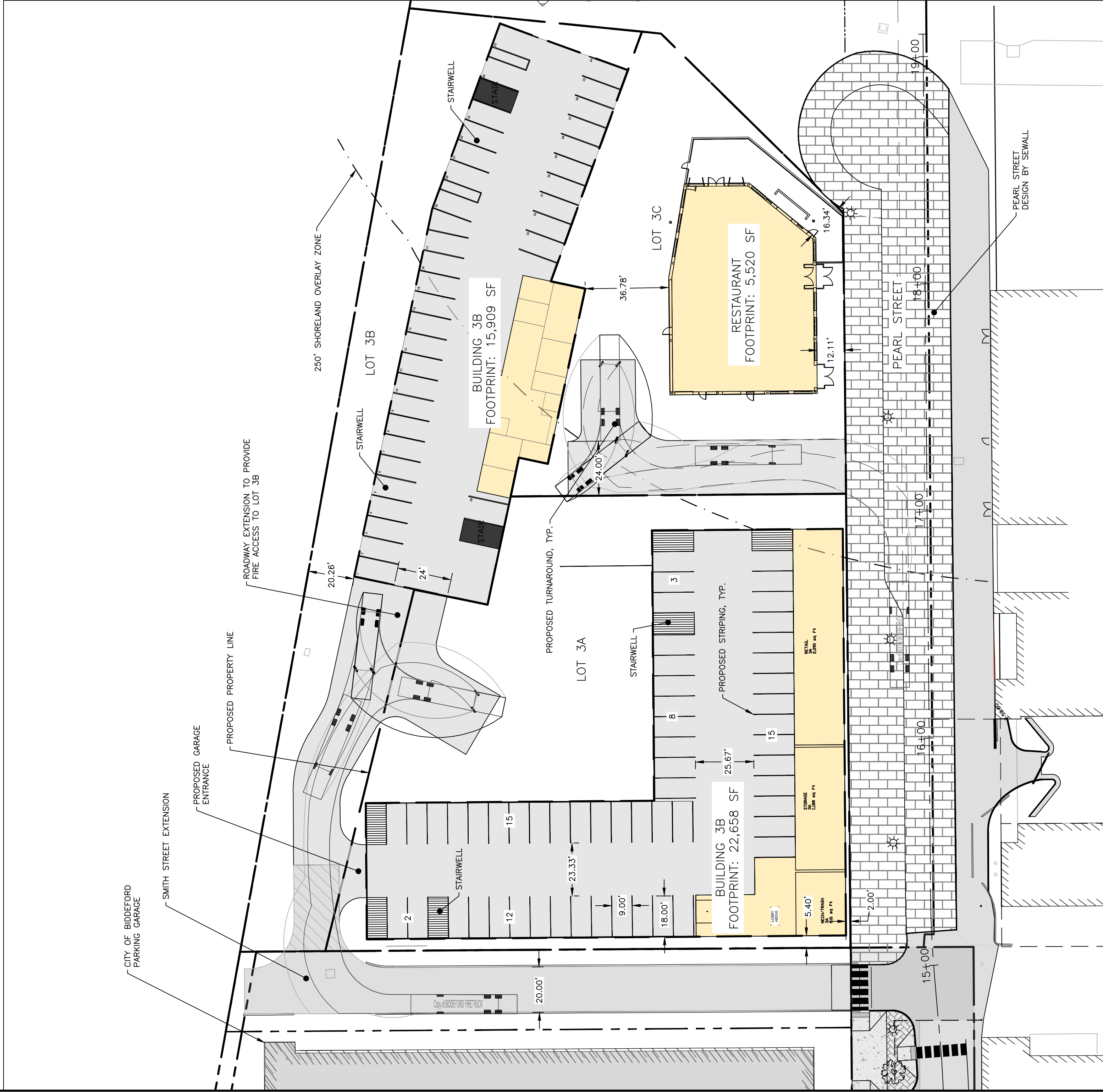
GENERAL NOTES:

1. ALL BRICK 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 STANDARD.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE, 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.
4. ALL RAMP TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
5. ADD SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS, CONTRACTOR TO COORDINATE AND INSTALL.
6. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF UTILITIES, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MEMO SHEET" PREPARED BY DESMAN ENGINEERING, INC. DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020.
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021.

46.75'
12.877' 20.833' 4.833'
BIDDEFORD FIRETRUCK
Overall Length 46.750ft
Overall Width 12.877ft
Overall Body Height 9.681ft
Overall Wheel Height 8.931ft
Track-to-track time 6.00s
Lock-to-lock time 16.00s
Max Wheel Angle 6°



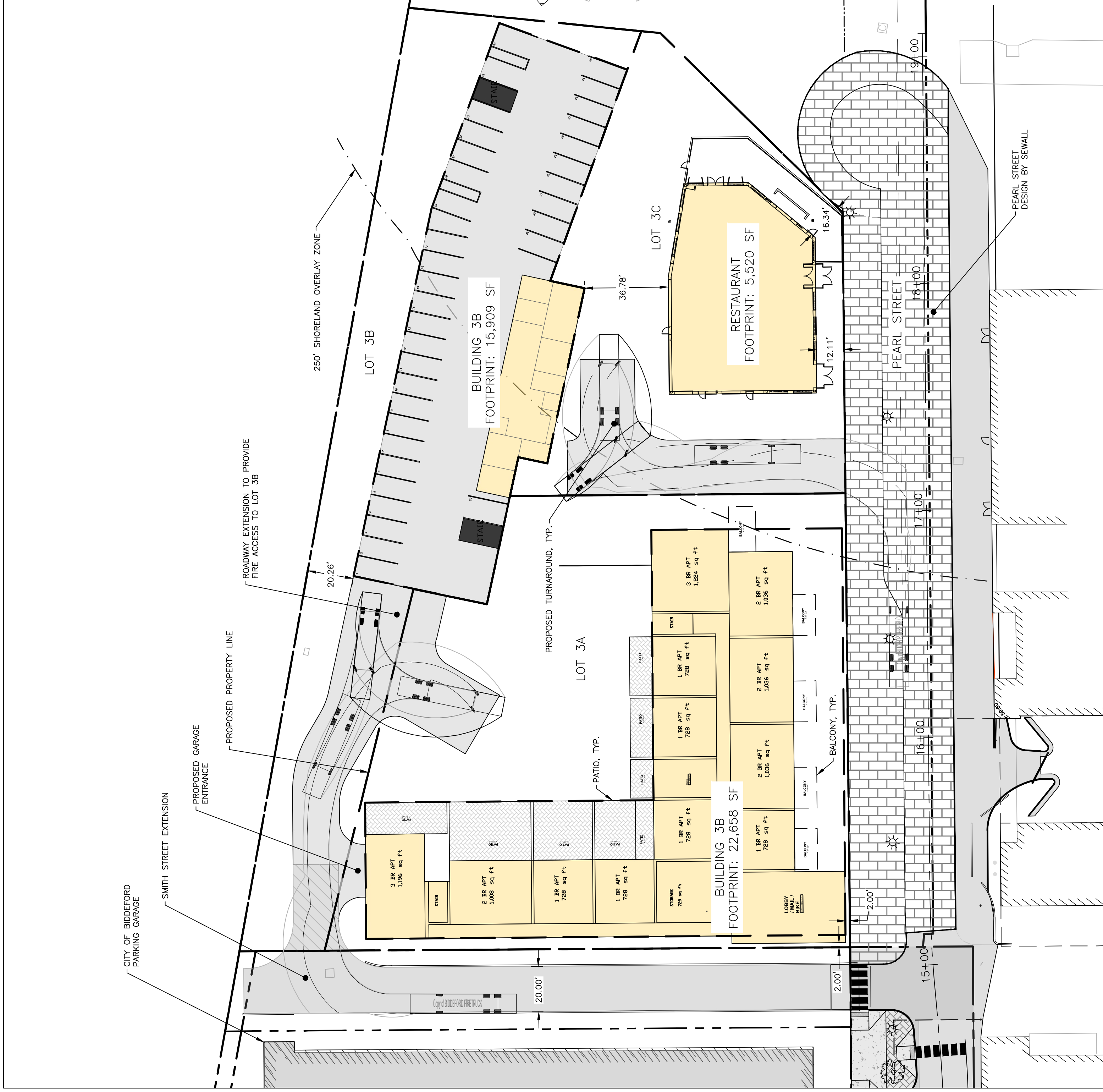
GARAGE FLOOR PLAN
1" = 30'

PARKING SUMMARY

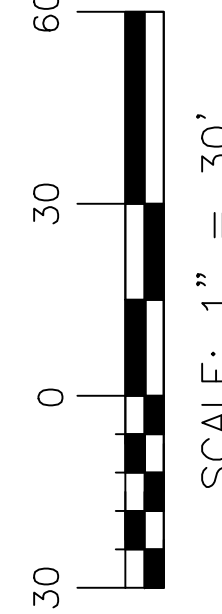
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
LOT 3B	-	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	-
LOT 3B	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
LOT 3C	-	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	-
LOT 3C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (6'X18')	-	-	TBD
STANDARD (9'X18')	-	-	TBD
TOTAL SPACES	-	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	-	-	156

LOT 3A SPACE AND BULK STANDARDS

ZONE:	REQUIRED (URS03)	REQUIRED (00-1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	-	39,629 SF	30,230 SF	20,590 SF
MINIMUM STREET FRONTAGE	NONE	-	324'	200'	-	124'
MINIMUM FRONT YARD SETBACK	NONE	-	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	-	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	-	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	-	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	-	-	-
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	-	57.2%	52.6%	26.8%



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



ISSUED FOR	BY	DATE
TMP REVIEW	PFH	3/2/21

SITE PLAN

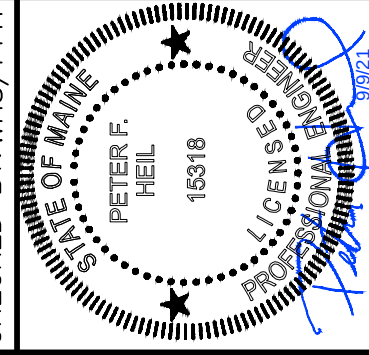
PEARL STREET LOT 3 REDEVELOPMENT

FATHOM COMPANIES
80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101

DRAWING NAME:
PROJECT NAME:
CLIENT:

ENGINEERING, INC.
THIS PLAN SHALL NOT BE MOVED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR NOT, SHALL BE THE SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC.
PO BOX 3372 PORTLAND MAINE 04104
(207) 775-2655

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS/PH



DRAWING NO.

C-10

December 5, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

RE: PRELIMINARY TRAFFIC IMPACT REVIEW – 3 LINCOLN STREET DEVELOPMENT

Dear Greg,

James W. Sewall Co. (Sewall) has completed preliminary review of “Section 7 Traffic Impact Study, 3 Lincoln Street Project” as part of the peer review you requested. The study was prepared by Thomas Errico, P.E. of TY Lin and is dated “Revised April 26, 2022”. My preliminary review comments and requests for additional information are summarized as follows:

1. **Trip Generation Analysis.** The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis.
2. **Pass-by Rates.** The study utilized the 43 % PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.
3. **Trip Assignments.** I concur with the trip assignment patterns utilized for the study.

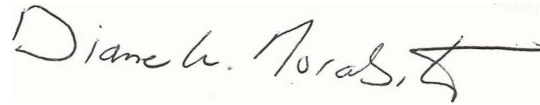
4. **Analysis Periods.** Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.
5. **Study Year.** The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?
6. **Traffic Growth Rate.** I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.
7. **Base Traffic Counts.** As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.
8. **Sight Distance.** Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.
9. **Accident Review.** While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.

To summarize, I would like the applicant's traffic engineer, Mr. Tom Errico, P.E. to provide trip generation analysis for the restaurants on the basis of square footage, to address my concerns regarding the Pearl Street count dates and to update the accident data to the current to 2019 to 2021 period. I have not reviewed the capacity analysis yet nor the accident data since it could be considered outdated at this time.

As always, please don't hesitate to contact me if you have any questions or concerns regarding my preliminary review findings.



Sincerely,



A handwritten signature in blue ink that reads "Diane W. Morabito" followed by a stylized flourish.

Diane W. Morabito, P.E. PTOE
Vice President Traffic Engineering



December 7, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

Subject: 3 Lincoln Street Development, Biddeford, Maine – Peer Review

Hi Greg:

The following are response to comments provided by Sewall dated December 5, 2022.

Comment: Trip Generation Analysis. The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis

Response: The trip generation methodology for the project was approved by MaineDOT. In response to the request, I have estimated the trip generation for the restaurant using floor area (11,040 SF) using the 11th Edition of the ITE Trip Generation Manual. The following table summarizes the trip generation estimate using floor area and comparing that estimate with the trip generation used in the study. As noted, the study assumed a higher trip generation estimate and is therefore conservative.

Trip Generation Estimate for Restaurant using Floor Area						
	PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Peak Hour of Generator	92	89	181	63	61	124
Peak Hour of Adjacent Street Traffic	61	39	100	N/A	N/A	N/A
Section 7 TMP Study Estimate	113	105	218	84	74	158

Comment: Pass-by Rates. The study utilized the 43% PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.

Response: Acknowledged.

Comment: Trip Assignments. I concur with the trip assignment patterns utilized for the study.

Response: Acknowledged.

Comment: Analysis Periods. Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.

Response: Acknowledged.

Comment: Study Year. The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?

Response: In my professional opinion even if occupancy was delayed until 2025, the 1% added growth would not alter the conclusions of the analysis (particularly when considering that the trip generation estimate may be high).

Comment: Traffic Growth Rate. I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.

Response: Acknowledged.

Comment: Base Traffic Counts. As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.

Response: At the time of the scoping meeting in December of 2021, the 2019 traffic counts were deemed to be appropriate particularly when considering COVID travel impacts. The traffic study did add significant non-project traffic to Pearl Street into and out of the site that would be representative of post-2019 conditions. This included adding 144 PM peak hour trips and 148 trips during the Saturday peak hour. I did research available traffic volume data from MaineDOT and while traffic counts are not available on Pearl Street, there are traffic counts on Lincoln Street south of Elm Street. During the PM peak hour (4-5PM) 524 vehicles were recorded on May 2, 2019. On May 23, 2022 504 vehicles were recorded during the same time period. My general conclusion is that the volumes used in the analysis are reasonable.

Comment: Sight Distance. Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.

Response: Sight distance was measured according to MaineDOT criteria and looking towards the river, the view is unobstructed until the end of the road (180 feet), and looking towards Lincoln Street, we lose sight distance at 680 feet.

Comment: Accident Review. While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.

Response: The crash data in the report was based on what was available at the time of production. I have researched 2019-2021 High Crash Locations in the study area and below is a summary of locations.

- **Elm Street/St. Mary's** – this location is now an HCL. Eight crashes over the noted three-year period with a CRF of 1.29. Two patterns are of concern. The first is two pedestrian crashes in the Elm Street crosswalk north of St. Mary's Street. The other are movements from St. Mary's, where it can be difficult to enter Elm Street. The Elm Street Concept Improvement Plan is to include upgrades to pedestrian

facilities and this crosswalk is proposed to have a RRFB warning system.

- **Elm Street/Lincoln Street – this location is no longer an HCL.**
- **Elm Street/Pine Street – this location continues to be a HCL with 15 crashes and a CRF of 2.11 (similar to the older data). Patterns are similar to those discussed in the traffic study and conclusions remain unchanged.**
- **Main Street/Jefferson Street – this location continues to be an HCL with 8 crashes and a CRF of 3.04. There is a distinct pattern of crashes involving vehicles turning from Jefferson Street. There are mailboxes located to the southeast of the intersection that may be obstructing sight. Relocation should be considered.**
- **Main Street/Lincoln Street/Adams Street – this location was recently converted to a multi-way STOP controlled intersection and conditions have likely improved.**

Please contact me if you have any questions.

Best regards,

T.Y. LIN INTERNATIONAL

A handwritten signature in black ink that reads "Thomas A. Errico". The signature is written in a cursive, flowing style.

Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director

Greg Mitchell
December 7, 2022
Page 5 of 5

Attachments

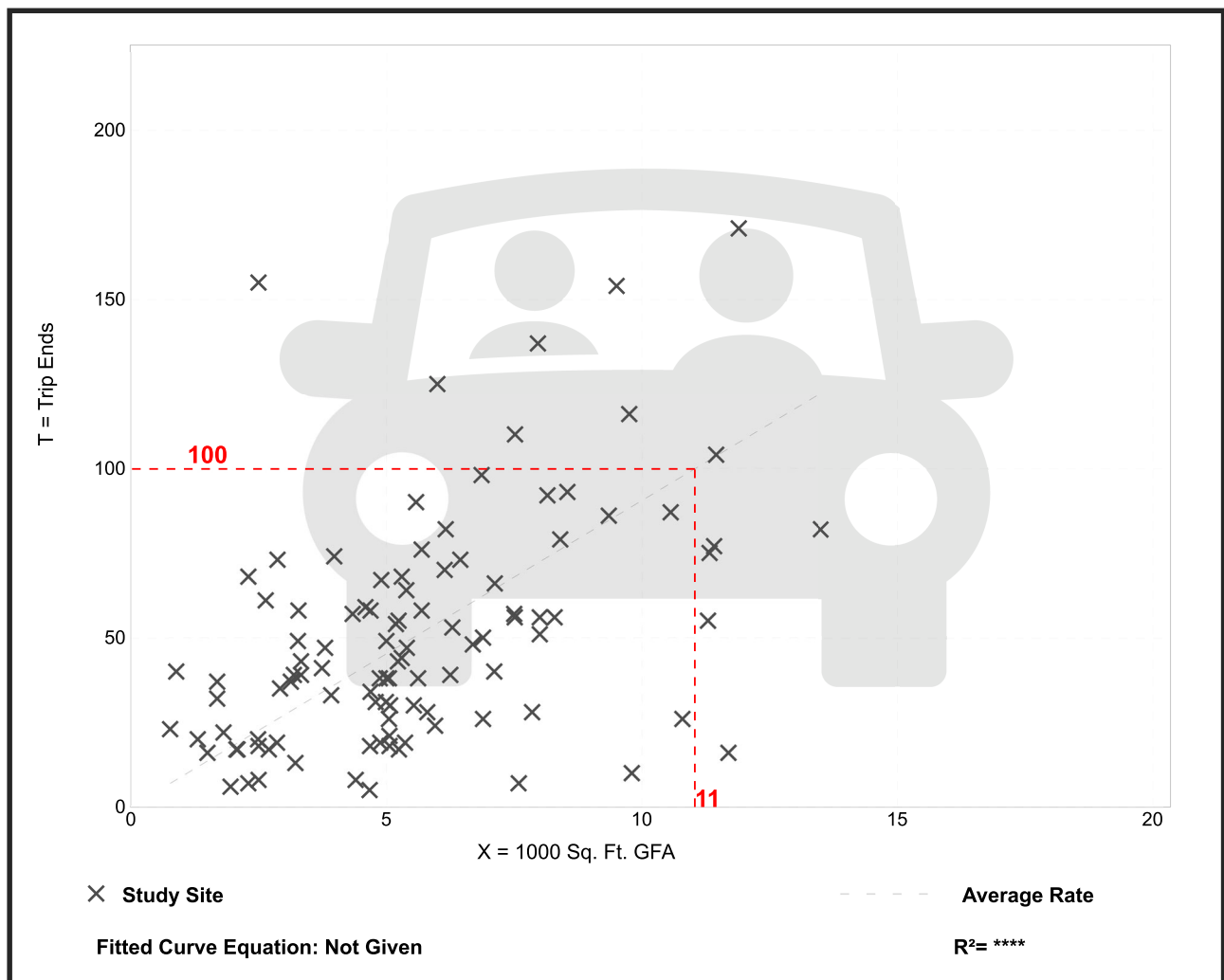
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 104
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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

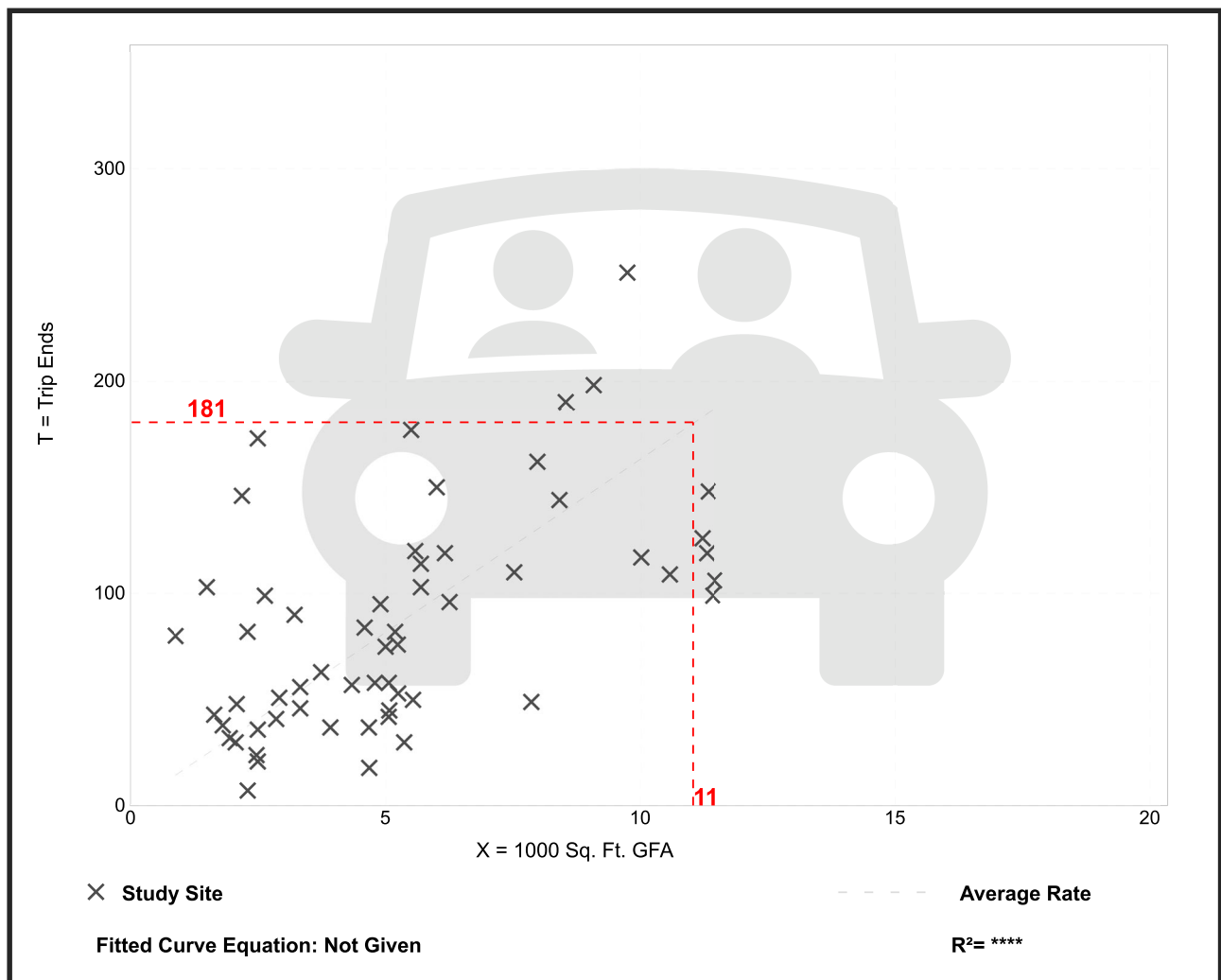
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 58
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
16.35	3.04 - 89.99	10.84

Data Plot and Equation



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

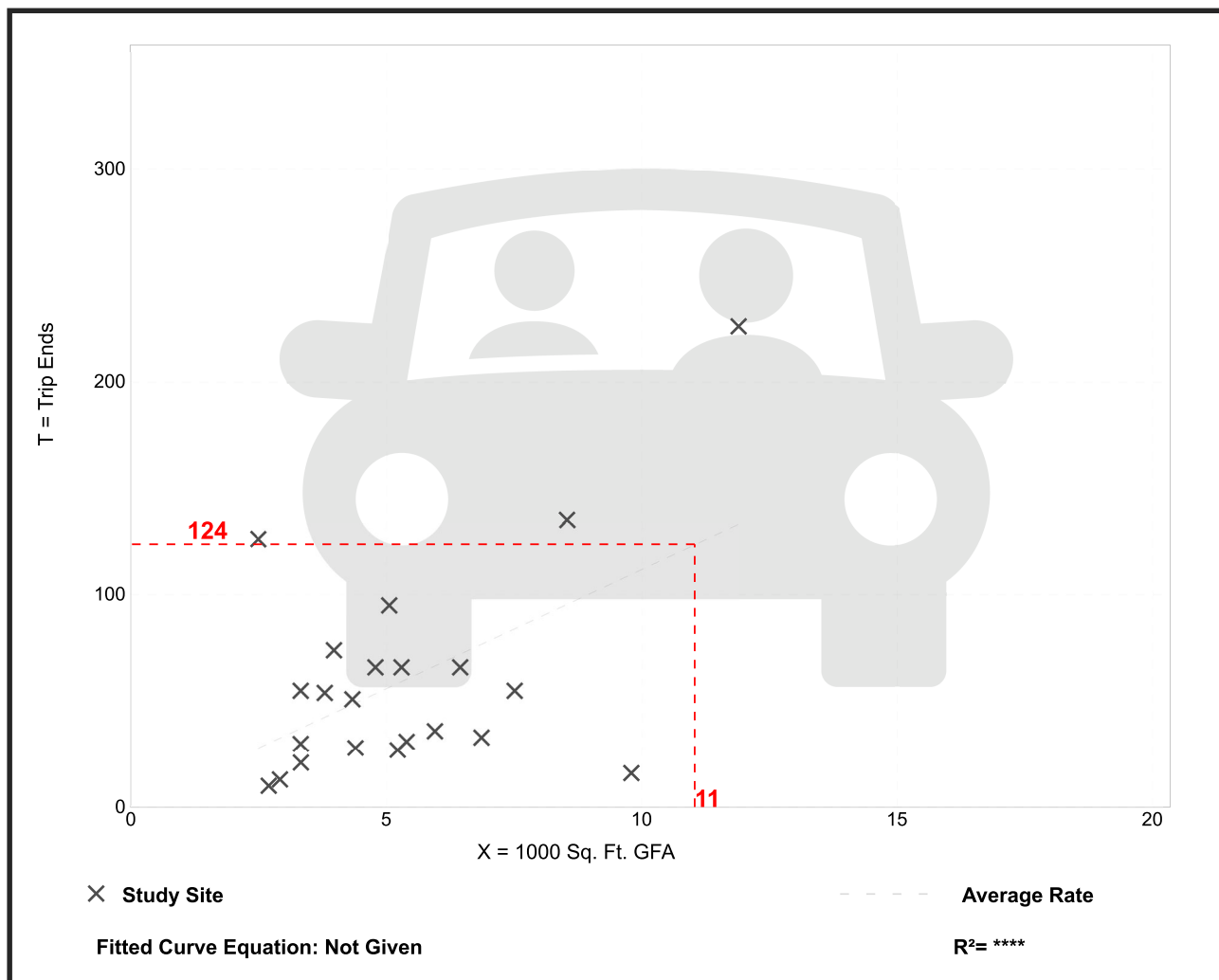
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

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



H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 56641 HIGH NODE: 0000

REGION: 1

U/R: URBAN

DESCRIPTION: Jct of Elm St & St Marys St

RTE # / RD #: 0001X

DATE DRAWN: 4/14/2022 DRAWN BY: Michelle

STUDY FROM: 1/1/2019

STUDY TO: 12/31/2021

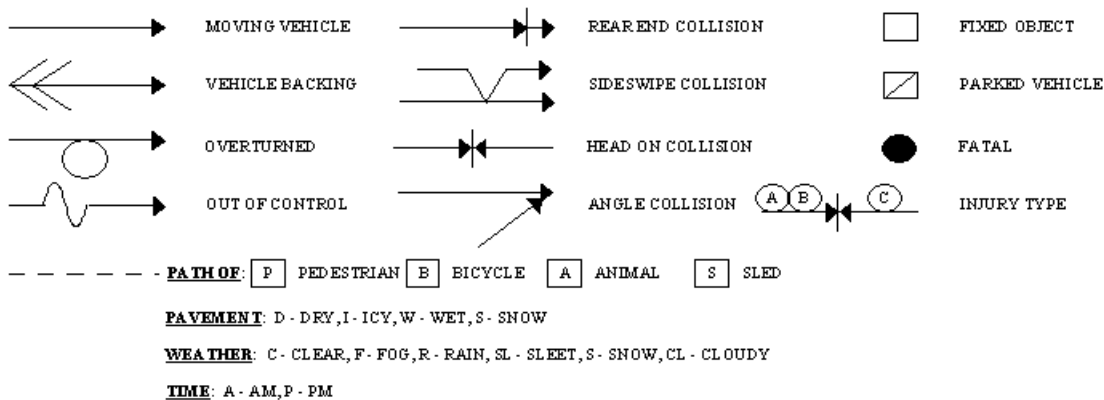
CRASH RATE: 0.43

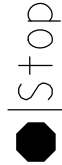
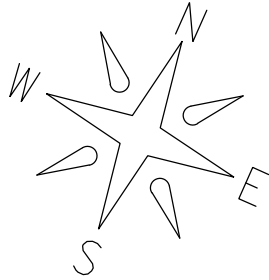
CRF: 1.29

% INJURY: 37.5

TOTAL CRASHES: 8

LEGEND





St. Mary's St.

Biddeford

Node: 5664I

Study Period: 2019-2021

of Crashes: 8 / CRF: 1.29

Prepared by Office of Safety & Mobility

(MP 4/14/22)

Elm St.

52337 5-21-19 10:00A D/C Fail To Keep In Lane

76142 12-17-19 11:10A S/S Speed

60348 8-12-19 6:55A D/C Fail To Yield

20855 7-9-21 6:05P D/C Fail To Yield

21344 8-17-20 5:20P D/C Follow Too Close

2609 1-21-19 3:30P SL/CL Follow Too Close

31289 12-8-20 4:50P D/C Follow Too Close

13973 6-3-21 2:30P D/C Fail To Yield

pole

Elm St.



Crash Summary Report

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

Biddeford
Jct of Elm St & St Marys St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001X

Start Node: 56641

Start Offset: 0

☐ Exclude First Node

End Node: 56641

End Offset: 0

☐ Exclude Last Node

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
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29
				Statewide Crash Rate: 0.14										
Study Years:	3.00	NODE TOTALS:		8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29

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	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	0	0								
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2								
TUESDAY	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3								
WEDNESDAY	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	0	0								
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1								
FRIDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2								
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	0	0								
Totals	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	8								

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	8	23-Bicyclist	0
2-(Sport) Utility Vehicle	1	24-Witness	2
3-Passenger Van	1	25-Other	0
4-Cargo Van (10K lbs or Less)	1	26-Construction	0
5-Pickup	4	27-Farm Vehicle	0
6-Motor Home	0	Total	18
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	1		

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	0	6	0	0	0	0	6
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	3	0	0	0	0	0	3
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	1	0	0	0	0	1
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
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	0	0	0	0	0	3
Failed to Keep in Proper Lane	1	0	0	0	0	0	1
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	7	0	0	0	0	15

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	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	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	2	0	0	0	0	2
30-39	3	0	0	0	0	3
40-49	2	0	0	0	0	2
50-59	4	0	0	0	0	4
60-69	1	0	0	0	0	1
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	0	0	1	0	1
Total	15	0	0	1	0	16

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
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	0		
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	8	
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	0	
14-Other	0	
Total	8	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

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

Light	
Light Condition	Total
1-Daylight	7
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	0	0	1
FEBRUARY	0	0	0	0
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	1	0	0	1
JUNE	0	0	1	1
JULY	0	0	1	1
AUGUST	1	1	0	2
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	1	1	0	2
Total	4	2	2	8

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	3	0	0	0	0	0	0	0	0	0	0	0	3
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	7	0	0	1	0	0	0	0	0	0	0	0	8

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	1	0	0	0	0	0	0	0	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	5	0	0	0	0	0	0	0	0	0	0	5
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	0	0	0	0	0	0	1	0	0	0	0	1
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	1	0	0	0	1
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	6	0	0	0	0	0	1	1	0	0	0	8

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 Elm St & Pine St/Maple St

RTE # / RD #: 0001S

DATE DRAWN: 4/14/2022 DRAWN BY: Michelle

STUDY FROM: 1/1/2019

STUDY TO: 12/31/2021

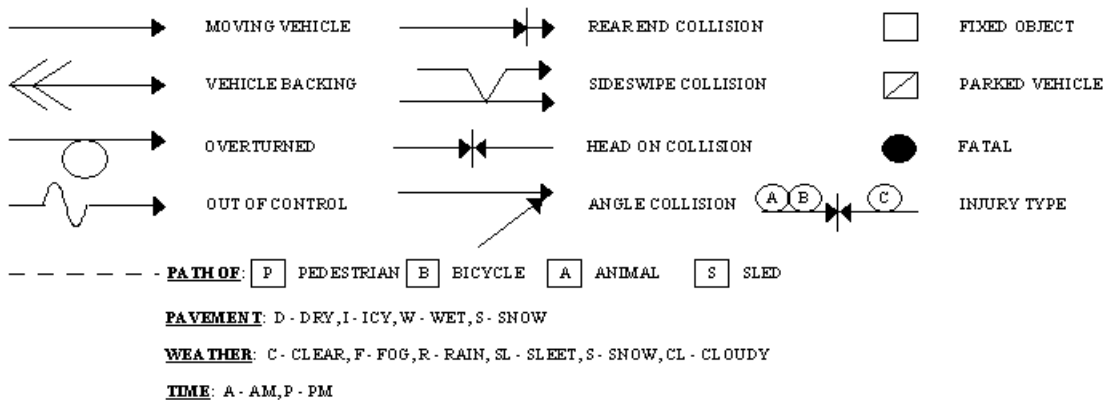
CRASH RATE: 0.68

CRF: 2.11

% INJURY: 33.3

TOTAL CRASHES: 15

LEGEND



Biddeford

56648(P) 65575(A)

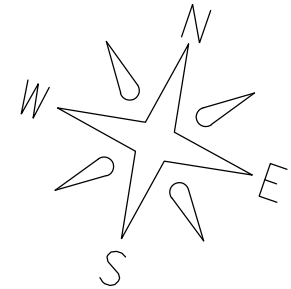
Study Period: 2019-2021

of Crashes: 15 /CRF: 2.11

Prepared by Office of Safety & Mobility
(MP 4/14/22)

Pine St.

Maple St.



65575

STOP

9018 4-6-21 5:15P D/C Fail To Yield

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

Yield

56648

bridge rail
curb

(C)

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

(C)

(P)

23989 9-5-21 1:35P
D/C Fail To Yield

(B) (C)

17241 7-7-21 6:00A D/C Unknown

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

(C)

8542 4-3-21 12:00P D/C Inattention

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

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

21731 8-18-21 9:05A D/CL Follow Too Close

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

17896 7-14-21 2:05P D/CL Follow Too Close

(C)

Elm St.

bridge



Crash Summary Report

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

Biddeford
Jct of Elm St & Pine St with Maple St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001S

Start Node: 56648

Start Offset: 0

☐ Exclude First Node

End Node: 56648

End Offset: 0

☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Annual M Injury	Ent-Veh	Crash Rate	Critical Rate	CRF
P56648	0001S - 23.96	Int of ELM ST PINE ST	2	15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11
				Statewide Crash Rate: 0.14										
Study Years: 3.00		NODE TOTALS:		15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11

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	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2									
MONDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2									
TUESDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2									
WEDNESDAY	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	5									
THURSDAY	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1									
FRIDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1									
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2									
Totals	0	0	0	0	0	1	3	0	0	2	0	0	1	3	1	0	0	1	2	0	0	1	0	0	0	15									

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	10	23-Bicyclist	1
2-(Sport) Utility Vehicle	7	24-Witness	2
3-Passenger Van	1	25-Other	0
4-Cargo Van (10K lbs or Less)	1	26-Construction	0
5-Pickup	6	27-Farm Vehicle	0
6-Motor Home	0	Total	29
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	1		

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	0	9	1	0	0	0	10
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	5	0	0	0	0	0	5
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	0	0	0	0	0	0	0
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	5	0	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	2	0	0	0	0	0	2
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	15	9	1	0	0	0	25

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	15	11	1	0	0	0	27
Physically Impaired	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	15	11	1	0	0	0	27

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	3	0	0	0	0	3
20-24	4	0	0	0	0	4
25-29	3	0	0	0	0	3
30-39	7	0	0	0	0	7
40-49	0	0	0	0	0	0
50-59	2	0	0	0	0	2
60-69	3	0	0	0	0	3
70-79	3	0	0	0	0	3
80-Over	0	0	0	0	0	0
Unknown	0	1	0	1	0	2
Total	25	1	0	1	0	27

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	25
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	19		
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	4		
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	0		
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	2	
6-Yield Sign	11	
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	15	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	5	5
PD	10	0
Total	15	5

Road Character	
Road Grade	Total
1-Level	7
2-On Grade	6
3-Top of Hill	2
4-Bottom of Hill	0
5-Other	0
Total	15

Light	
Light Condition	Total
1-Daylight	13
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	15

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	0	0	0	0
FEBRUARY	0	0	0	0
MARCH	2	1	0	3
APRIL	1	1	2	4
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	1	2	3
AUGUST	1	1	1	3
SEPTEMBER	0	0	1	1
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	5	4	6	15

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	6	0	0	0	0	0	0	0	0	0	0	0	6
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
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	14	0	0	0	1	0	0	0	0	0	0	0	15

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	1	1
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	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	10	0	0	0	0	0	0	0	0	0	0	10
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	1	0	0	0	1
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	13	0	0	0	0	0	0	1	0	0	1	15

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 58493 HIGH NODE: 0000

REGION: 1

U/R: URBAN

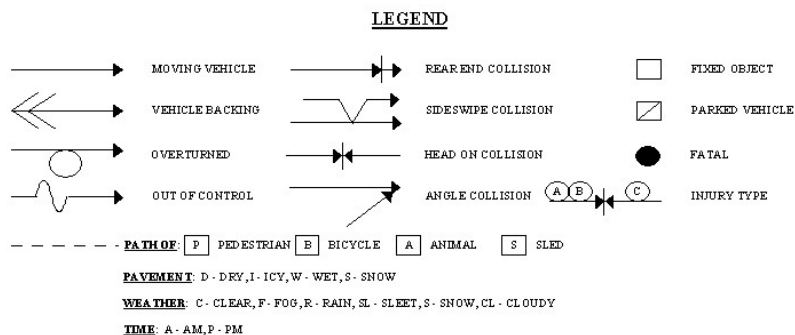
DESCRIPTION: Int of Jefferson St and Main St

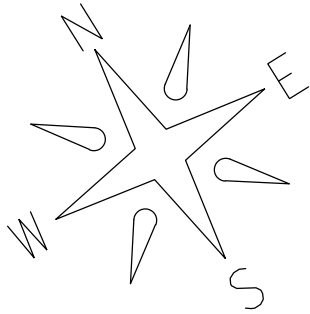
RTE # / RD #: 3110086 DATE DRAWN: 7/11/2022 DRAWN BY: BOB K

STUDY FROM: 1/1/2019

STUDY TO: 12/31/2021

CRASH RATE: 1.29 CRF: 3.04 % INJURY: 37.5 TOTAL CRASHES: 8





Prepared by Office of Safety & Mobility

RFK3 7-11-22

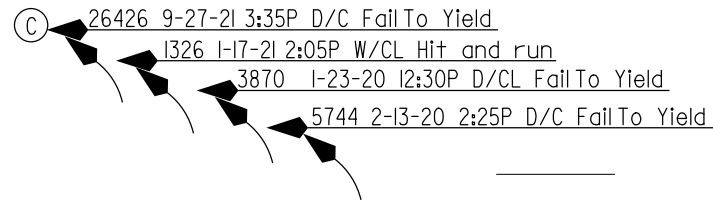
Biddeford

Node: 58493

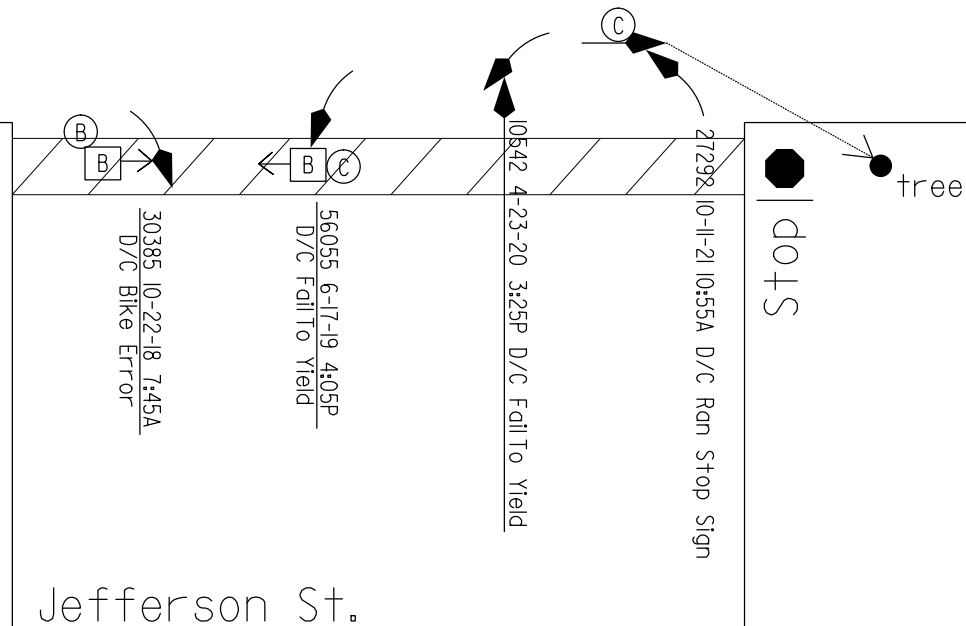
Study Period: 2019-2021

of Crashes: 8 / CRF: 3.04

Main St.



Main St.



Jefferson St.



Crash Summary Report

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

Biddeford
Jct of Main St & Jefferson St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 3110086

Start Node: 58493

Start Offset: 0

☐ Exclude First Node

End Node: 58493

End Offset: 0

☐ Exclude Last Node

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
58493	3110086 - 0.26	Int of JEFFERSON ST MAIN ST	2	8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.05
				Statewide Crash Rate: 0.13										
Study Years: 3.00		NODE TOTALS:		8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.04

Crash Summary II - Characteristics

Crashes by Day and Hour

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

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	11	23-Bicyclist	1
2-(Sport) Utility Vehicle	4	24-Witness	2
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	26-Construction	0
5-Pickup	0	27-Farm Vehicle	0
6-Motor Home	0	Total	18
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	0	7	0	0	0	0	7
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	6	0	0	0	0	0	6
Ran Red Light	0	0	0	0	0	0	0
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	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	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
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	1	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0
Total	8	7	0	0	0	0	15

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	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	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	4	0	0	0	0	4
30-39	1	0	0	0	0	1
40-49	4	0	0	0	0	4
50-59	0	0	0	0	0	0
60-69	3	0	0	0	0	3
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	1	0	0	0	1
Total	15	1	0	0	0	16

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
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	0		
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	8	
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	0	
14-Other	0	
Total	8	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

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

Light	
Light Condition	Total
1-Daylight	8
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	0
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	1	1	3
FEBRUARY	0	1	0	1
MARCH	0	0	0	0
APRIL	0	1	0	1
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	0	0	0
AUGUST	0	0	0	0
SEPTEMBER	0	0	1	1
OCTOBER	0	0	1	1
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	2	3	3	8

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
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	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	8

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	5	0	0	0	0	0	0	0	0	0	0	5
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	1	0	0	0	0	0	1	0	0	0	1	3
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

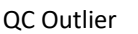
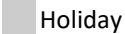
Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	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	6	0	0	0	0	0	1	0	0	0	1	8

Hourly Direction Report MAINE_DOT_SDC 233105004104 Wednesday, May 1, 2019 to Thursday, May 2, 2019

Site Name BIDDEFORD 04104
 Site ID 233105004104
 Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	38	38
01:00:00	18	18
02:00:00	6	6
03:00:00	22	22
04:00:00	36	36
05:00:00	68	68
06:00:00	174	174
07:00:00	384	384
08:00:00	364	364
09:00:00	295	295
10:00:00	323	323
11:00:00	368	368
12:00:00	456	456
13:00:00	346	346
14:00:00	400	400
15:00:00	452	452
16:00:00	524	524
17:00:00	479	479
18:00:00	372	372
19:00:00	250	250
20:00:00	173	173
21:00:00	114	114
22:00:00	86	86
23:00:00	51	51
7am-7pm	4763	4763
6am-10pm	5474	5474
6am-12am	5612	5612
12am-12am	5798	5798
am Peak	7:00:00	7:00:00
Peak Volume	384	384
pm Peak	16:00:00	16:00:00
Peak Volume	524	524

Event key:  QC Failure  QC Outlier  QC Atypical  Events  Special  Holiday  Offline

 Weekends and defined holidays

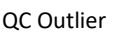
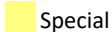
Holidays & Events:
 None

Hourly Direction Report MAINE_DOT_SDC 233105004104 Monday, May 23, 2022 to Tuesday, May 24, 2022

Site Name BIDDEFORD 04104
 Site ID 233105004104
 Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	27	27
01:00:00	12	12
02:00:00	13	13
03:00:00	19	19
04:00:00	32	32
05:00:00	76	76
06:00:00	185	185
07:00:00	367	367
08:00:00	329	329
09:00:00	294	294
10:00:00	289	289
11:00:00	296	296
12:00:00	392	392
13:00:00	336	336
14:00:00	372	372
15:00:00	462	462
16:00:00	504	504
17:00:00	430	430
18:00:00	274	274
19:00:00	216	216
20:00:00	160	160
21:00:00	102	102
22:00:00	67	67
23:00:00	54	54
7am-7pm	4345	4345
6am-10pm	5008	5008
6am-12am	5129	5129
12am-12am	5308	5308
am Peak	7:00:00	7:00:00
Peak Volume	367	367
pm Peak	16:00:00	16:00:00
Peak Volume	504	504

Event key:  QC Failure  QC Outlier  QC Atypical  Events  Special  Holiday  Offline

 Weekends and defined holidays

Holidays & Events:
 None

Table of Contents

Site Location of Development Application Materials

- Section 1: Development Description
- Section 2: Right, Title or Interest
- Section 2.5: Legal Descriptions
- Section 3: Financial Capacity
- Section 4: Technical Capacity
- Section 5: Noise
- Section 6: Visual Quality and Scenic Character
- Section 7: Wildlife and Fisheries
- Section 8: Historic Sites
- Section 9: Unusual Natural Areas
- Section 10: Buffers
- Section 11: Soils
- Section 12: Stormwater Management
- Section 13: Urban Impaired Stream Submissions
- Section 14: Erosion & Sedimentation Control Report
- Section 15: Groundwater
- Section 16: Water Supply
- Section 17: Wastewater Disposal
- Section 18: Solid Waste
- Section 19: Flooding
- Section 20: Blasting
- Section 21: Air Emissions
- Section 22: Odors
- Section 23: Water Vapor
- Section 24: Sunlight
- Section 25: Notices
- Section 26: Maine Tribe/Nations Correspondence

Supplemental Requirements for Wind Energy Developments are not applicable for the Redevelopment of 3 Lincoln Street (Lot 3) in Biddeford, Maine.

City Final Site Plan Application Materials

Section 27: Declaration of Easements, Covenants, And Restrictions

Section 28: Traffic Overview

Section 29: Utility Summary

Section 30: Safety Letter of Approval Requests

Section 31: Lighting

Section 32: Photographs

Section 33: Waivers

Section 34: Comment Response Letter

Attachment A: Civil Site Plan Set – By Acorn Engineering

Attachment B: Photometric Plan – By Reflex Lighting

Attachment C: Architectural Plans for Building A, B, and C.

Attachment D: Landscape Plans by Soren DeNiord Design Studio





January 10, 2023

Peter F. Heil, PE, CPESC
Project Manager
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104

Subject: 3 Lincoln Street, Biddeford, Maine – Parking and TDM Assessment

Hi Pete:

The purpose of this letter is to provide information in support of documenting the adequacy of the proposed parking supply for the site and identifying possible parking management strategies to ensure parking demand does not exceed supply.

Parking Demand

Weekday parking demand for the project was based on information contained in the publication Parking Generation, Institute of Transportation Engineers, 5th Edition. Time-of-day parking demand by land use was estimated for the project. For comparison purposes a parking demand analysis was performed using the parking requirement according to City ordinance. The following summarizes the assumptions in the analysis.

- The project will consist of 214 residential dwelling units and 11,040SF of restaurant space.
- The land use codes for the parking generation analysis are the same as that used for the trip generation analysis in the traffic impact study. Land Use code 221, Mid-Rise Residential and Land Use code 932, High-Turnover Sit-Down Restaurant.
- The ITE Setting/Location is assumed to be “Dense Multi-Use Urban” which best fits Downtown Biddeford.
- Reducing parking demand for the restaurant to account for internal capture activity (e.g., employees that live in the residential units and tenants that go to the restaurant). A modest 5% reduction was applied and was based on the internal capture analysis included in the traffic impact study.

Weekday	Restaurant			Residential			Internal Capture		Total		
	Hour	% Demand	ITE	City	% Demand	ITE	City	ITE	City	ITE	City
	12-1am	0	0	0	100%	208	225	0	0	208	225
	1-2am	0	0	0	100%	208	225	0	0	208	225
	2-3am	0	0	0	100%	208	225	0	0	208	225
	3-4am	0	0	0	100%	208	225	0	0	208	225
	4-5am	0	0	0	100%	208	225	0	0	208	225

5-6am	0	0	0	94%	196	212	0	0	196	212
6-7am	0	0	0	83%	173	187	0	0	173	187
7-8am	0	0	0	71%	148	160	0	0	148	160
8-9am	0	0	0	61%	127	137	0	0	127	137
9-10am	0	0	0	55%	114	124	0	0	114	124
10-11am	26%	19	26	54%	112	122	1	1	130	146
11-12pm	43%	31	43	53%	110	119	2	2	140	160
12-1pm	95%	68	95	50%	104	113	3	5	169	203
1-2pm	95%	68	95	49%	102	110	3	5	167	201
2-3pm	49%	35	49	49%	102	110	2	2	135	157
3-4pm	39%	28	39	50%	104	113	1	2	131	150
4-5pm	37%	27	37	58%	121	131	1	2	146	166
5-6pm	62%	45	62	64%	133	144	2	3	176	203
6-7pm	99%	71	99	67%	139	151	4	5	207	245
7-8pm	100%	72	100	70%	146	158	4	5	214	253
8-9pm	83%	60	83	76%	158	171	3	4	215	250
9-10pm	51%	37	51	83%	173	187	2	3	208	235
10-11pm	28%	20	28	90%	187	203	1	1	206	229
11-12am	0	0	0	93%	193	209	0	0	193	209

As noted in the previous table, the project would be expected to have a peak parking demand estimate between 8pm and 9pm of 215 parking spaces according to ITE information.

Parking Management Strategies

Possible parking management strategies were identified to minimize parking demand at the project site. We believe the following strategies will result in parking demand outcomes that support the above parking demand estimates and in fact may result in lower parking needs.

The Biddeford/Saco Transit-Oriented Development Concept Plan, GPCOG includes goals and objectives that seek to strategically manage parking in the city. The plan suggests lowering or eliminating minimum off-street parking requirements and pursuing shared parking opportunities. The Plan further suggests implementation of Transportation Demand Management Plans to maximize travel choices (such as walking, biking, taking transit, or carpooling).

The project site is in the central business district of Biddeford and is situated to take advantage of travel choice options that minimizes the need for automobile ownership. The project is in a compact, highly walkable and mixed land use environment. It is serviced by Old Orchard Beach (BSOOB) Transit routes, and the Amtrak Downeaster.

Commute to Work census data for Biddeford from the American Survey indicates 7.3% Walk trips, 0.5% Bicycle trips, and 1.0% Transit trips. While multi-modal trips are not a significant portion of overall commute trips in Biddeford, it still is an indicator of some alternative transportation activity, and as transportation options become enhanced/expanded, increased multi-modal activity is likely.

For the 3 Lincoln Street project we would suggest the following strategies to be considered for maximizing transportation choice options.

- **TDM Coordinator:** Establish a TDM Coordinator (typically the Property Manager) that would be responsible for the following:
 - Ensuring strategic parking management and monitoring parking usage.
 - Coordinating tenant TDM policies and incentives.
 - Connecting tenants with nearby transportation resources.
 - Encouraging greater use of preferred modes – walking, biking, carpooling, taking the bus or Amtrak.
 - Overseeing and surveying tenants.
 - Exploring other TDM strategies, as needed.
- **Transit Incentives:** To encourage transit usage, transit pass purchase assistance could be offered to tenants.
- **Unbundle Parking:** Parking spaces would not be provided as part of residential leases, thus requiring tenants to purchase parking separately, which encourages lower automobile ownership or benefits those tenants that do not own vehicles.
- **Bike Parking:** The proposed site will be providing on-site bicycle parking and storage.
- **Carpooling/GO Maine:** The TDM Coordinator will assist tenants with carpool options through on-site opportunities and state-wide resources, like GO Maine.
- **Targeted Promotions:** Consider establishing a monthly discounts/benefits program rewarding multi-modal or car-free tenants.

Conclusion

In conclusion, it is my professional opinion the proposed 225 parking spaces to be provided will adequately accommodate the parking demand for the project (215 spaces are estimated). To ensure this occurs, the previously mentioned parking management strategies should be considered for implementation.

Please contact me if you have any questions.

Best regards,

T.Y. LIN INTERNATIONAL

A handwritten signature in black ink that reads "Thomas A. Errico". The signature is written in a cursive, flowing style.

Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-3901

FOR DEP USE
ATS # _____
L- _____
Total Fees: _____
Date: Received _____

FORM A PAGE 1

SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION 38 M.R.S.A. §§481-490

PLEASE TYPE OR PRINT IN *INK ONLY*

This application is for: (CHECK THE ONE THAT APPLIES)		☐ 20 acre development	☐ Marine Oil Terminal	☒ Major Amendment
		☐ Planning Permit	☐ Structure	☐ Minor Amendment
		☐ Metallic Mining	☐ Subdivision	
1. Name of Applicant:	3 Lincoln, LLC Marieke Thorman		6. Name of Agent (if applicable):	Acorn Engineering, Inc Peter F. Heil, PE
2. Applicant's Mailing Address:	80 Exchange Street, Suite 400, Portland, ME		7. Agent's Mailing Address:	PO Box 3372, Portland, Maine 04104
3. Applicant's Daytime Phone #:	207-317-2818		8. Agent's Daytime Phone # :	207-775-2655
4. Applicant's Fax # (if available):			9. Agent's Fax # (if available):	
5. Applicant's e-mail address (REQUIRED -license will be sent via: e-mail):	Mthromann@fathomcompanies.com		10. Agent's e-mail address (REQUIRED - license will be sent via e-mail):	Pheil@acorn-engineering.com
PROJECT INFORMATION				
11. Name of Development:	3 Lincoln Street, Lot 3, Biddeford, ME			
12. Map and Lot #'s:	Map #: 71	Lot #: 2	13. Deed Reference #'s:	Book #: Page #:
14. Location of Project City/Town:	Biddeford	15. County:	York	16. UTM Northing 43.49612
				17. UTM Easting -70.454125
18. Brief Description of Project including total parcel size:	The project proposes to subdivide the larger 3 Lincoln Street parcel into four (4) separate lots, a public ROW, and construct three (3) buildings on Lot 3 covering a total of 2.08 acres			
19. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☒ River, stream or brook ☐ Coastal wetland ☐ Lake most at risk ☐ Urban impaired stream ☐ Wellhead or public water ☐ Lake most at risk, severely blooming ☐ Freshwater wetland			
20. Name of Waterbody Project Site drains to:	Saco River			
21. Amount of Developed Area:	Total acres: 2.08	Existing Developed area: 2.08 acres		New Developed area: 0 acres
22. Amount of Impervious Area:	Total acres: 1.42	Existing Impervious areas 1.32 acres		New Impervious area: 0.1 acres
23. Development started prior to obtaining a license?:	☐ Yes ☒ No			
24. Development or any portion of the site subject to enforcement action?	☐ Yes ☐ No		If yes, name of enforcement staff involved?	
25. Common scheme of development?:	☐ Yes ☒ No	26. Title, Right or Interest:	☐ own ☐ lease	☒ purchase option ☐ written agreement
27. Natural Resources Protection Act permit required?:	☐ Yes ☒ No	If yes:	☐ PBR ☐ Tier 1 ☐ Full Permit ☐ Tier 2	
28. Existing DEP Permit number (if applicable):	L-10282-NJ-A-N, L-10282-05-A-N			
29. Names of DEP staff person(s) present at the pre-application meeting:	Christine Woodruff			
30. Does agent have an interest in project? If yes, what is the interest?	☐ Yes ☒ No			
CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2				

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

CERTIFICATIONS / SIGNATURES

"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 am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. 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.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the electronic address located on the front page of this application (see #5 for the applicant and #10 for the agent)".

Signed: Made Haman Title VP of Development Date: 1/4/2023

Notice of Intent to Comply with Maine Construction General Permit

With this Site Law application form and my signature, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit (MCGP). I have read and will comply with all of the MCGP standards.

If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.

Signed Made Haman Date: 1/4/2023

NOTE: You must file a MCGP Notice of Termination (Form K) within 20 days of completing permanent stabilization of the project site.

CERTIFICATION

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

Signature: Peter F. Heil

Name (print): Peter F. Heil, PE

Date: 1/11/23

Re/Cert/Lic No.: _____
 Engineer 15318 _____
 Geologist _____
 Soil Scientist _____
 Land Surveyor _____
 Site Evaluator _____
 Active Member of the Maine Bar _____
 Professional Landscape Architect _____
 Other _____

Section 29

Utilities



Section 29: Utilities Summary

The project proposes to utilize existing infrastructure to provide sufficient services for the proposed project. Please refer to the proposed utility plan (Sheet C-20) for additional information. Summaries of each utility are as follows:

Water:

The City of Biddeford is currently reconstructing Pearl Street, that include a proposed 8" D.I water service stub into Lot 3 that connects to the 12" watermain within Pearl Street. This project proposes to extend the 8" D.I. water main within the lot and provide 6" D.I. fire protection water services with a 6" gate valves and 4" domestic D.I. water services with 4" gate valves for each structure located on Lot 3. Please see the attached Utility Plan for more information.

Sewer:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed 2" SDR 11 PVC force main sanitary force main sewer stub located on site. As part of the project the 2" force main will be extended within the parcel with connections to each buildings individual pump stations on Lot 3. Each 2" service will have a shut off and proposed sanitary sewer pump station that collects waste from each lots associated use, including, oil water separators, floor drains, elevator sumps, and residential loads. Please see the attached Utility Plan, Grading & Drainage Plan and Detail Sheets for more information.

Stormwater:

Each of the three proposed buildings will be constructed with roof drains and foundation drains. Stormwater runoff from the site will be directed to a series of catch basins and storm drain network which will tie into the existing storm drain installed parallel to the railroad tracks towards the rear of the parcel, ultimately discharging into the existing subsurface stormwater treatment system that was recently installed as part of the City Garage project and located on Lot 4. The subsurface stormwater system was designed to convey and treat stormwater runoff from the overall 3 Lincoln Street parcel and had obtained a Maine DEP Stormwater Law permit (#L-10282-NJ-A-N). As the designs for Lot 3 progress, an amendment to the Stormwater Permit has been submitted to the DEP to show the proposed uses on Lot 3 will remain below the previously authorized redevelopment pollutant rankings. A copy of the application has been provided in Section 12.

Electric:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project underground electric services are proposed to connect to the (3) 5" existing conduits to power to each building (A, B, and C) with installation of three (3) pad mounted transformers located in a single location on the North side of Building C. Please see the attached Utility Plan for more information.



Cable/Telephone:

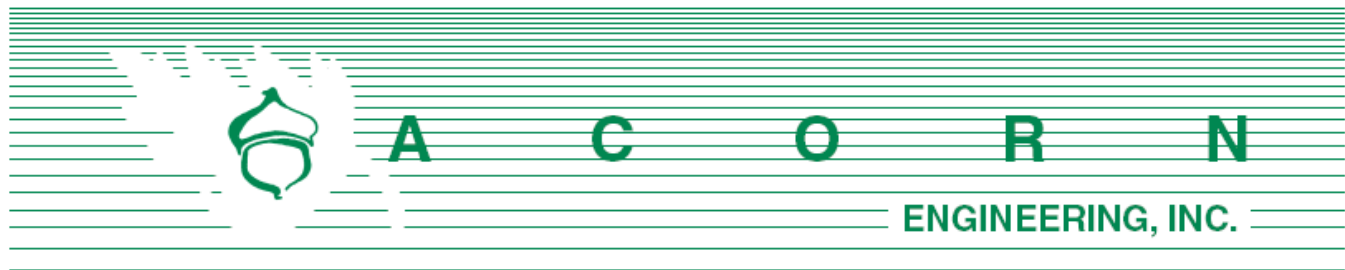
The City of Biddeford is currently reconstructing Pearl Street, that include proposed telecom/cable stubs that are routed from Pearl Street. As part of this project underground telecom/cable services are proposed to tie into the 8 existing 4" conduits and service each building (A, B, and C). A pedestal is proposed at the end of each service line within 5' of each respective building. Please see the attached Utility Plan for more information.

Gas:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed gas stub that connects to the main within Pearl Street. As part of this project a gas main is proposed to tie into the existing stub and have service connections for proposed buildings A, B, and C.

In addition to the summaries above, Ability to serve letters have been sent out to the respective utility companies. Responses will be provided upon receipt and submitted to the Planning Department upon receipt.





Consolidated Communications
Attn: Mr. Jay Cunha
45 Forest Avenue
Portland, Maine 04101

August 23, 2021

Subject: Redevelopment 3 Lincoln Street, Lot 3, Biddeford
Re: Ability to Serve

Mr. Cunha:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Consolidated Communications ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed telecom/cable stubs that connect to the main within Pearl Street. As part of this project an underground telecom/cable service is proposed to tie into the proposed stub and service Lots 3A, 3B, and 3C. A pedestal is proposed at the end of each service line within 5' of each respective building. Please see the attached Utility Plan for more information.

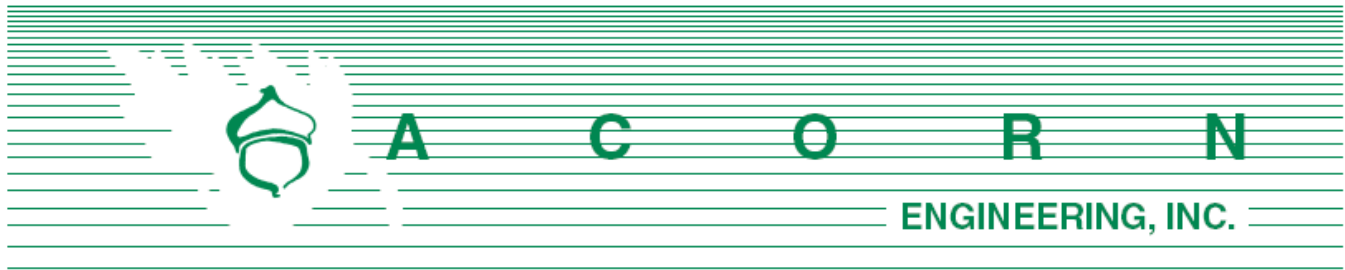
On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Pearl Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Consolidated within the project vicinity.
4. Consolidated's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Spectrum Cable
Attn: Mr. Dan Minchev
118 Johnson Road
Portland, Maine 04102

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Mr. Minchev:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Spectrum Cable's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop the Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

Our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed telecom/cable stubs that connect to the main within Pearl Street. As part of this project an underground telecom/cable service is proposed to tie into the proposed stub and service Lots 3A, 3B, and 3C. A pedestal is proposed at the end of each service line. Please see the attached Utility Plan for more information.

On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Pearl Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Spectrum within the project vicinity.
4. Spectrum's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



August 29, 2022

Peter Heil, P.E.
Project Manager
Acorn Engineering

RE: May Serve Letter by Charter Communications or an affiliated to provide service
("Spectrum")

Subject: Redevelopment of Pearl Street, Lot 3
Biddeford, ME

Dear Peter:

Thank you for your interest in receiving Spectrum service. The development, on behalf of 3 LINCOLN, LLC, of REDEVELOPMENT OF PEARL STREET, LOT 3, BIDDEFORD, is within an area where Spectrum may lawfully provide video, internet and voice services.

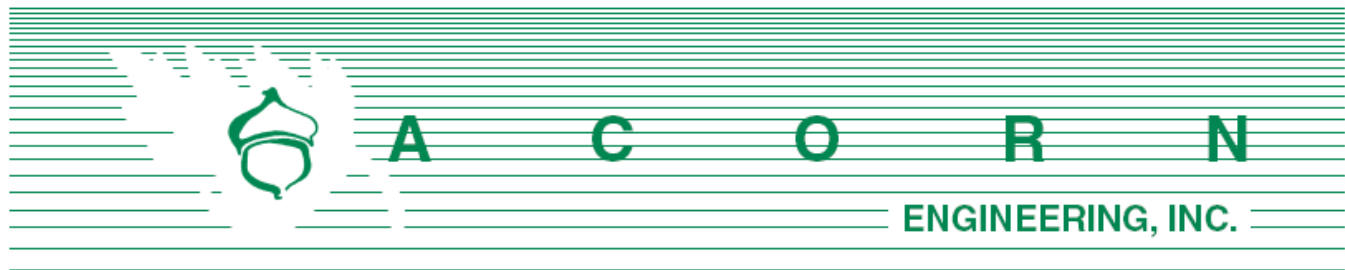
However, this letter is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Spectrum will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or easements
- [Other as required] _____

Please forward this information to me. Upon receipt, I will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation in the process is appreciated.

Sincerely,

Steven Holmes
MDU, Account Executive
Spectrum Community Solutions
444 Perry Road
Bangor, ME 04401
(207) 631-1618 | steven.holmes@charter.com



Central Maine Power
Attn: Mr. Jamie Cough
162 Canco Road
Portland, Maine 04103

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Mr. Cough:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Central Maine Power's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project an underground electric service is proposed to tie into the stub and run to each lot's (3A, 3B, and 3C) associated 9'x9' pad mounted transformer.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed redevelopment
2. Any additional information, such as utility mapping within Pearl Street and existing service connections.
3. Any proposed infrastructure improvements by CMP within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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

Zach Stevens

From: Cough, Jamie <Jamie.Cough@cmpco.com>
Sent: Wednesday, September 8, 2021 10:12 AM
To: Zach Stevens
Cc: Pete Heil
Subject: RE: Ability to Serve Request
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; May 2021 EDET.XLSX

Follow Up Flag: Follow up
Flag Status: Flagged

Zach:

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to your advisor.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to your advisor. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email to your advisor.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (CMP will need to schedule with your electrician/contractor-please let us know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process that is required to provide invoicing.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

Please complete the attached forms (the specific instructions are on each form) and email them back to your advisor at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#). An additional resource is our Distribution Construction Standards: [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#). The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#). The metering supplement is in the last section of the Handbook.

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW you will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#).

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

- 1) Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
- 2) By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Information Worksheet and Sample Standard Easement
W9 – Request for Taxpayer Identification Number and Certification

Regards,

Jamie

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-629-1489



Internal Use

From: Zach Stevens <zstevens@acorn-engineering.com>
Sent: Monday, August 23, 2021 10:58 AM
To: Cough, Jamie <Jamie.Cough@cmpco.com>
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: EXTERNAL:Ability to Serve Request

Mr. Cough:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Central Maine Power's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project an underground electric service is proposed to tie into the stub and run to each lot's (3A, 3B, and 3C) associated 9'x9' pad mounted transformer.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed redevelopment
2. Any additional information, such as utility mapping within Pearl Street and existing service connections.
3. Any proposed infrastructure improvements by CMP within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Thanks,

Zachary Stevens, E.I.
Design Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

[Acorn's Website](#) | [Instagram](#) | [LinkedIn](#)

B. 207.775.2655

C. 207.240.2993

Please note Acorn Engineering employees may be working remotely. All employees have laptops and full access to project files using Sharepoint. To do our part and reduce unnecessary exposure all meetings will be held remotely using video conferencing software such as Teams or Zoom. If an in-person meeting is necessary then the meeting will be held outside.

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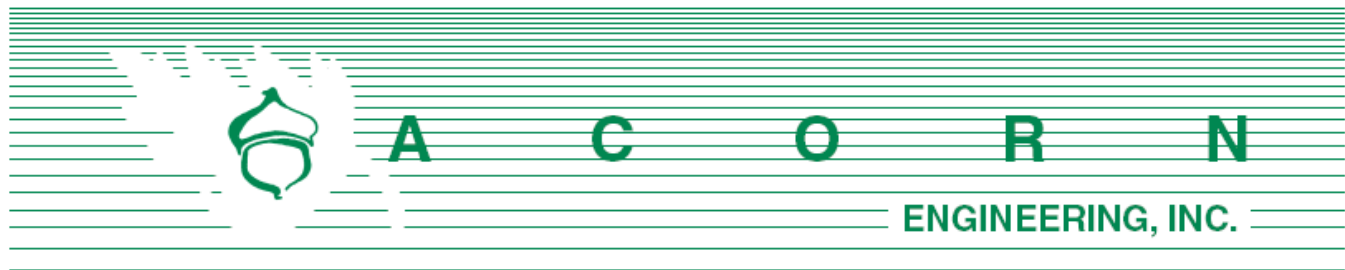
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Unitil Service Corp.
Attn: Ms. Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Ms. Harmon:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Unitil's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed gas stub that connects to the main within Pearl Street. As part of this project a gas main is proposed to tie into the existing stub and have service connections for Lots 3A, 3B, and 3C. Please see the attached Utility Plan for more information.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Pearl Street location of existing service connections.
2. Any proposed infrastructure improvements by Unitil within the project vicinity.
3. Unitil's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Acorn Engineering
Attn: Peter F. Heil P.E.
65 Hanover St.
Portland Maine, 04101

August 23, 2021

Re: Ability to Serve Redevelopment of Pearl Street Lot 3, Biddeford

Dear Mr. Heil:

Thank you for your interest in using natural gas for the above referenced project. This letter confirms that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system that are necessary to provide this service, as well as the design of the gas system in the project itself, will be established as the overall design and scope of your project progresses.

All work necessary to provide service will be performed in accordance with the Maine Public Utilities Commission requirements.

If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or at harmon@unitil.com.

Sincerely,

Bridget L. Harmon
Business Development
harmon@unitil.com
(T) 207-541-2536 (F) 207-541-2536

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: 3 Lincoln, LLC
Applicant's Mailing Address: 80 Exchange Street, Suite 400, Portland, ME 04101
Applicant's Telephone: 207-317-2818

What is Applicant's legal interest in the property?

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

Owner's Name: City of Biddeford
Owner's Address: 205 Main Street, Biddeford, Maine 04005
Owner's Telephone: 207-571-0700

Agent's Name: Acorn Engineering - Peter F. Heil, PE, CPESC
Agent's Address: 500 Washington Avenue Suite #202, Portland, ME, 04103
Telephone: 207-775-2655

Engineer/Surveyor: Acorn Engineering / Owen Haskell
Engineer/Surveyor's Address: 500 Washington Avenue, Portland, ME, 04103 / 390 U.S. Rt 1. Unit #10 Falmouth, ME, 04105
Telephone: 207-775-2655 / 207-774-0424

Project Location and Lot Information:

Street Address: Pearl Street, Biddeford, ME
Tax Map: 71 Lot: 2
Current Zoning: MSRD3 Shoreland Zoning: Yes

Size of lot: 2.08 (Lot 3) ☒ acres ☐ s.f. Lot Frontage: 324' (Pearl Street)

Existing Use on Property: The existing lot is the location of the former MERC facility, which has been demolished. The existing lot is currently vacant.

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 develop the site for three separate buildings, including up to a 85-unit residential/mixed use building, up to a 129-unit residential building, and a commercial/restaurant building with two units (approximately 298 seats total).

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: 4 lots - 214 residential units on lot 3☐ 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: 40,659 sfTotal new square feet paving/parking: 31,451 sf

Waiver Requests (attach details):

1. See Section 33. Waivers
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): \$5,325

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:

Marta Thompson

Date: 1/4/2023

Signature of owner of property:

Marta Thompson

Date: 4/4/2023

**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. |

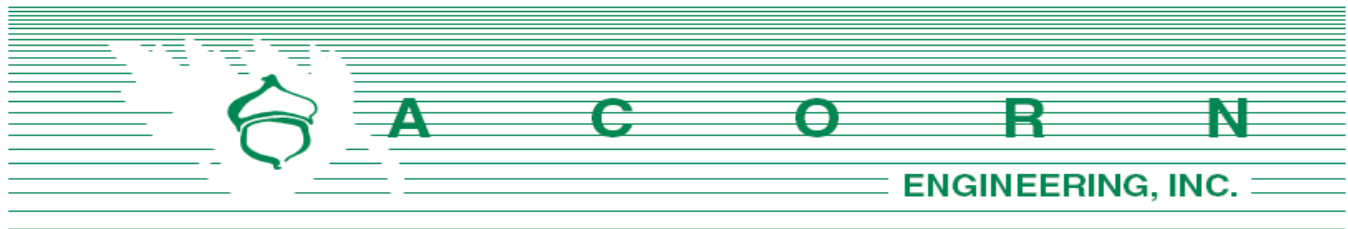
Section 30

Public Safety

Section 30: Public Safety Letter of Approvals

Please refer to the attached letters that were sent to the Fire and Police Departments on September 14, 2021. Responses from the Fire Department is attached, and Police Department response 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

September 14, 2021

Subject: Redevelopment 3 Lincoln Street, Lot 3, Biddeford
Re: Letter of Approval

Mr. Gagne:

On behalf of 3 Lincoln, LLC, 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 parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 83-unit residential/mixed use building on Lot 3A, a 108-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

From a fire protection standpoint, it is our understanding that the City of Biddeford is finalizing designs of Pearl Street improvements that include the existing fire hydrant to be removed and replaced along the frontage of the proposed Lot 3, a proposed 8" D.I fire protection service stub, and a 4" domestic service stub that connects to the 12" watermain within Pearl Street. The proposed project anticipates extending the 8" D.I. fire protection main and the 4" domestic main within Lot 3 and provide a 6" D.I. fire protection water service with a 6" gate valve and a 4" domestic D.I. water service with 4" gate valve for each structure located on Lots 3A, 3B, and 3C.

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



Zach Stevens

From: Gagne, Scott <Scott.Gagne@Biddefordmaine.org>
Sent: Thursday, December 22, 2022 10:07 AM
To: Zach Stevens
Subject: RE: Letter of Approval

Follow Up Flag: Follow up
Flag Status: Completed

The fire department has the ability to serve the address of 3 Lincoln Street for fire and EMS protection. Thank you



[Biddeford Fire Department](#)

From: Zach Stevens <zstevens@acorn-engineering.com>
Sent: Monday, December 19, 2022 11:32 AM
To: Gagne, Scott <Scott.Gagne@Biddefordmaine.org>
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: RE: Letter of Approval

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

Hi Scott,

I wanted to follow up on the below request. Thanks,

Zachary Stevens

Acorn Engineering, Inc
B. 207.775.2655
C. 207.240.2993

From: Zach Stevens
Sent: Friday, September 30, 2022 9:30 AM

To: scott.gagne@biddefordmaine.org
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: FW: Letter of Approval

Hi Scott,

I wanted to follow up on the below request. As part of the Site Plan Application process the project is required to gain approval of the Fire Department.

The project has been updated to 214 proposed residential units (previously 191). I also attached the latest site plan to facilitate your review. Please let us know if you have any questions. Thanks,

Zachary Stevens

Acorn Engineering, Inc
B. 207.775.2655
C. 207.240.2993

From: Zach Stevens
Sent: Tuesday, September 14, 2021 3:35 PM
To: scott.gagne@biddefordmaine.org
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: Letter of Approval

Hello,

On behalf of 3 Lincoln, LLC, please find the attached letter of approval for the proposed project including 108-units and a restaurant building located at 3 Lincoln Street Biddeford ME. I have attached a Site Plan from our office as reference.

Please let us know if you have any questions during your review.

Thanks,

Zachary Stevens, E.I.
Design Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
[Acorn's Website](#) | [Instagram](#) | [LinkedIn](#)

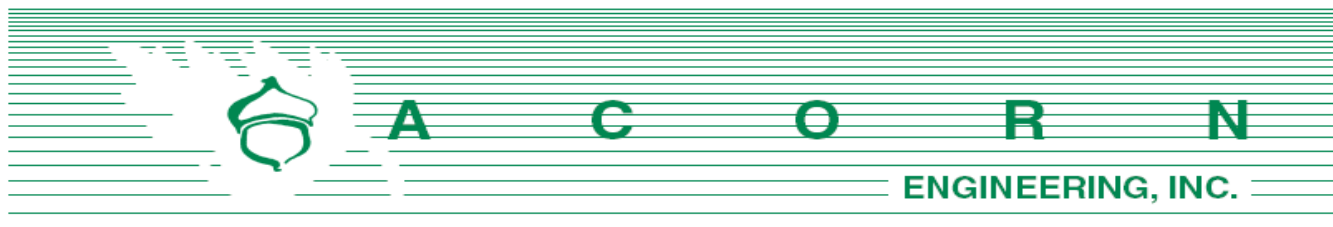
B. 207.775.2655
C. 207.240.2993

As of July 2021, Acorn Engineering employees are transitioning to modified COVID-19 health & safety protocols, with most professionals working in the office at least three days a week. We are holding in-person meetings, but remain willing to use video conferencing software such as Teams or Zoom for partners and clients who are more comfortable with this communication approach. All employees continue to have laptops and full access to project files using Sharepoint to maximize efficiency and responsiveness.

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



Biddeford Police Dept.
Attn: Roger P. Beaupre, Chief of Police
39 Alfred St
Biddeford, ME 04005

September 14, 2021

Subject: Pearl Street Redevelopment
Re: Letter of Approval

Mr. Beaupre:

On behalf of 3 Lincoln, LLC, 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 parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 83-unit residential/mixed use building on Lot 3A, a 108-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

The project anticipates multiple wall pack lighting fixtures along the new buildings, thus increasing nighttime visibility for patrons and residents. Furthermore, the additional “eyes on the street” created by the proposed restaurant and renters of the 191 units on Lot 3A and 3B will provide another layer of security on Pearl Street and the abutting properties.

Accessways for emergency vehicles will be maintained and generally provide ample opportunity to access the site. We envision the newly developed Lot 3 functioning as a small community and overall feel the proposed project will improve public safety when compared to the existing condition by ensuring adequate lighting and increasing the occupancy of the neighborhood.

Please do not hesitate to contact me for any questions or clarifications.

Sincerely,

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

Sincerely,

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



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Section 1

Development Description

Section 1. Development Description

Site Information

- Parcel Size (Lot 3): 2.08 Acres
- Impervious Area
 - 3 Lincoln Street – Lot 3
 - Existing: The former MERC facility nearly covered 100% of the lot with Impervious surface.
 - Proposed: 1.44 acres (69.1%)

The City of Biddeford has municipal capacity to review the Site Location of Development application but does not have stormwater capacity, therefore the project has submitted the Stormwater Management Law amendment application to MaineDEP for review and approval.

The proposed project will also be subject to the City of Biddeford Site Plan & Subdivision approval and a Saco River Corridor Commission (SRCC) permit application due to the proximity to the Saco River.

A. Narrative

On behalf of 3 Lincoln, LLC, we are pleased to submit the accompanying package of Final Subdivision and Site Plan submission materials related to the proposed redevelopment 3 Lincoln Street, (Pearl Street, Lot 3) in Biddeford, Maine. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), and the newly created Waterfront Renaissance Shoreland Overlay Zoning Districts. The project proposes to formally subdivide the larger 3 Lincoln Street parcel into four (4) separate lots, a new public right-of-way and construct three (3) buildings on Lot 3 including a residential/mixed use building (Building A) with up to 85-units, a residential building (Building B) with up to 129-units, and a commercial/restaurant building (Building C). Additionally, under the City's Municipal Capacity Authority to review Site Location of Development permit applications, the applicant requests review of the previously issued Site Law permit that was approved as part of the City's municipal garage project on Lot 2.

The proposed project is subject to a Saco River Corridor Commission (SRCC) permit application due to the proximity to the Saco River.

B. Topographic Map

Included as part of this section.

C. Construction Plan

Please refer to Section 14 Erosion and Sediment Control Report & Civil Plan Set Sheet C-03 for information regarding construction.

Anticipated Construction Start date: Summer 2023

Anticipated Construction End date: Fall 2025

D. Drawings

All appropriate site drawings are attached. Individual plans are listed below.

Sheet Number	Sheet Title
C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	EXISTING CONDITIONS SURVEY – BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT & REMOVALS PLAN
C-10	SITE PLAN
C-20	UTILITY PLAN
C-30	GRADING PLAN
C-40	SITE DETAILS – 1
C-41	SITE DETAILS – 2
C-42	UTILITY DETAILS – 1
C-43	UTILITY DETAILS – 2
C-44	UTILITY DETAILS – 3
C-45	DRAINAGE DETAILS
C-46	EROSION & SEDIMENTATION CONTROL NOTES
C-47	EROSION & SEDIMENTATION CONTROL DETAILS
PLAT	SUBDIVISION PLAT
PHOTO	PHOTOMETRIC PLAN



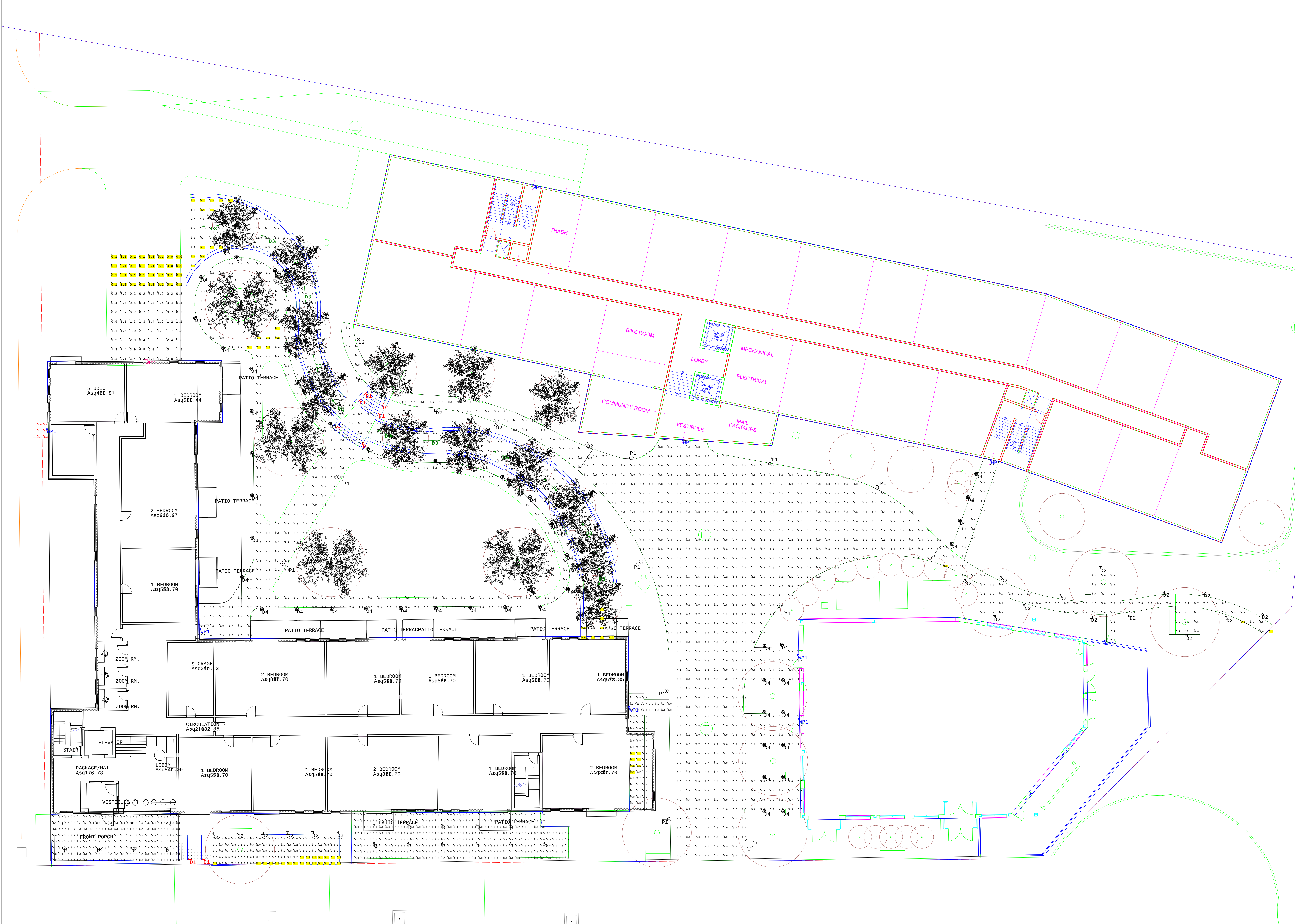
Section 31

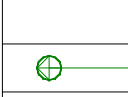
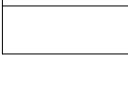
Lighting

Section 31: Lighting

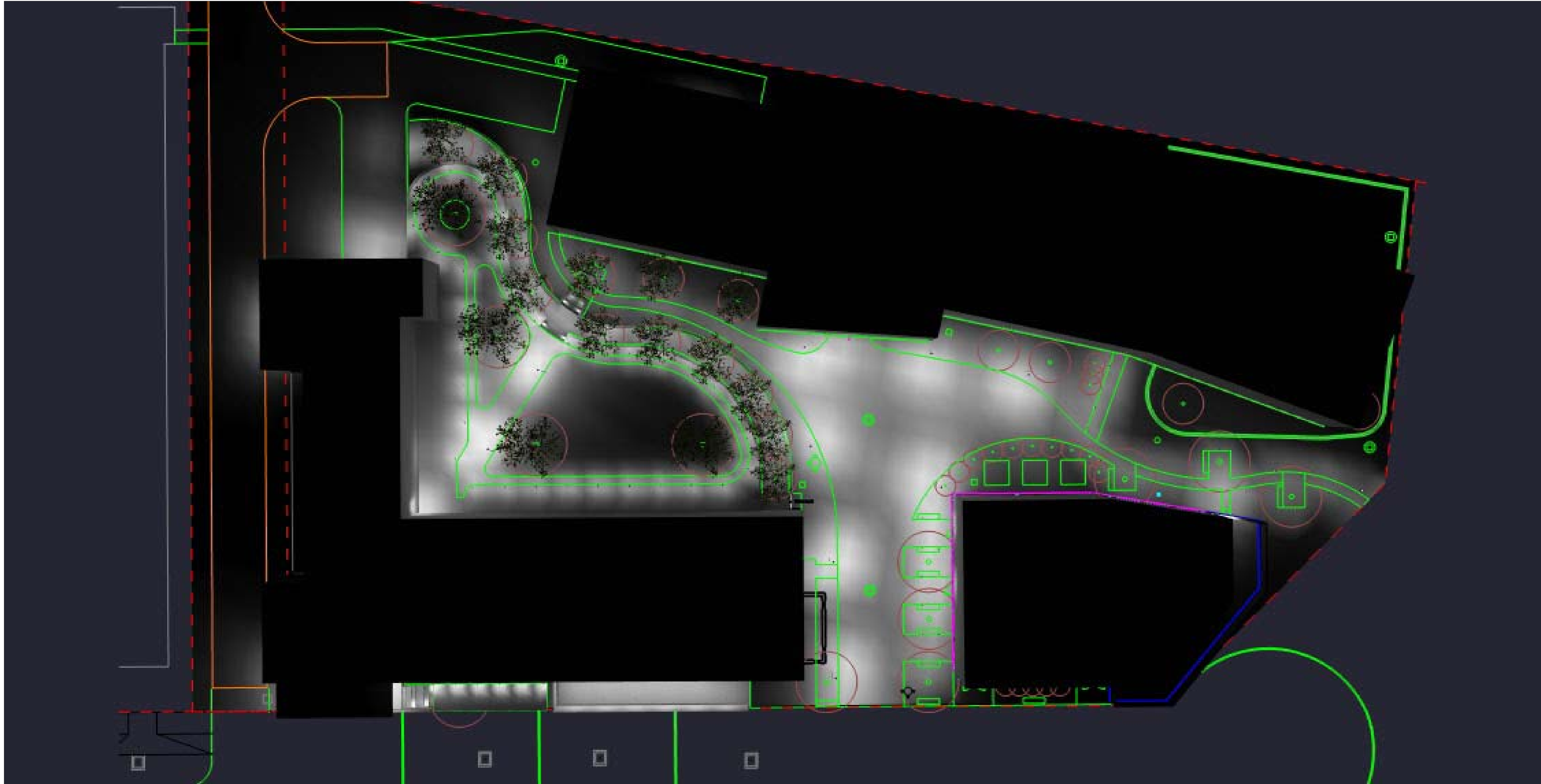
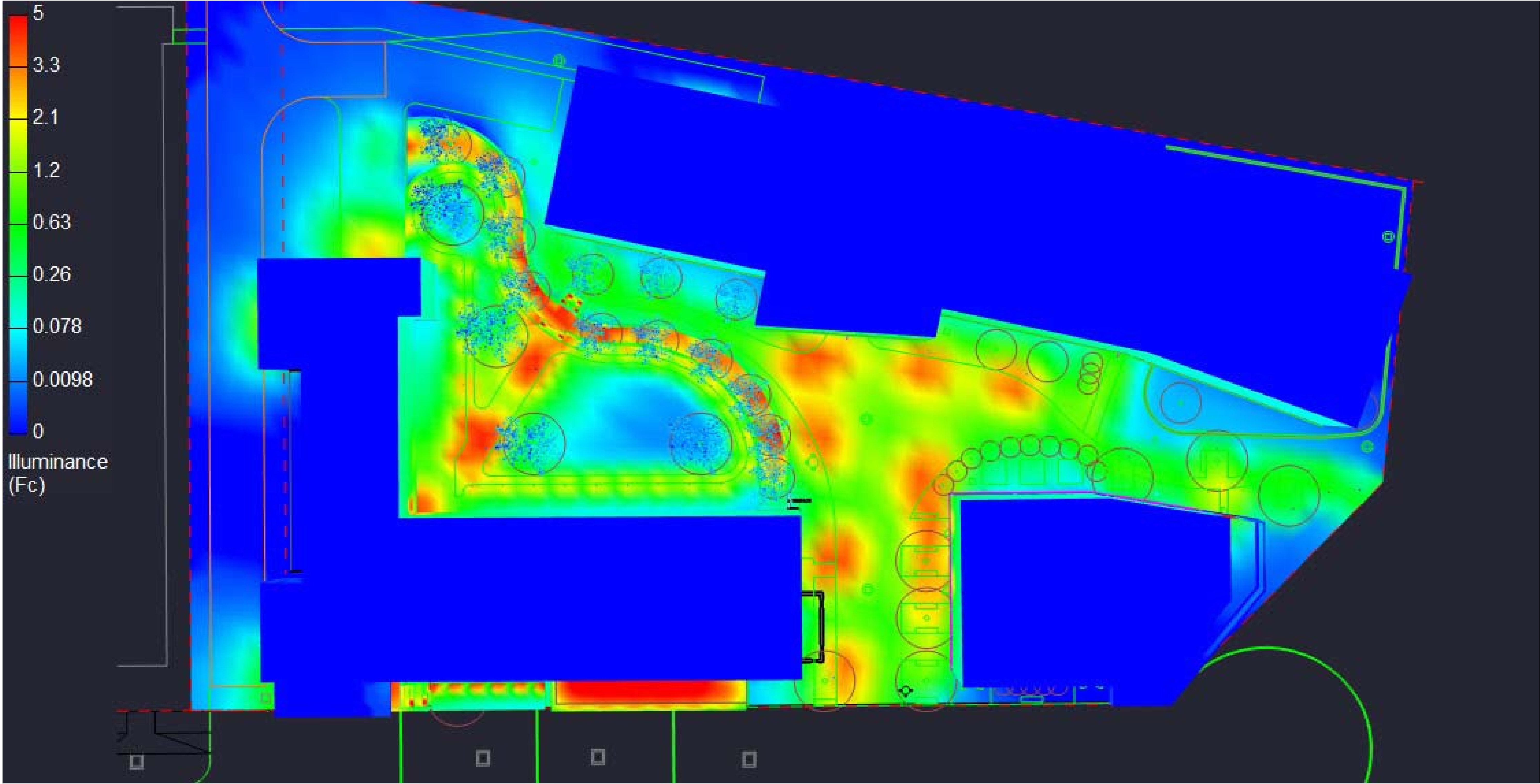
The project proposes to install wall mounted lighting at each egress and pole mounted lighting and bollards for the internal walkways. Please refer to the Photometric Plan and Cut Sheets attached below by Reflex Lighting. The lighting will be conforming to the City of Biddeford Regulations and be dark sky compliant.

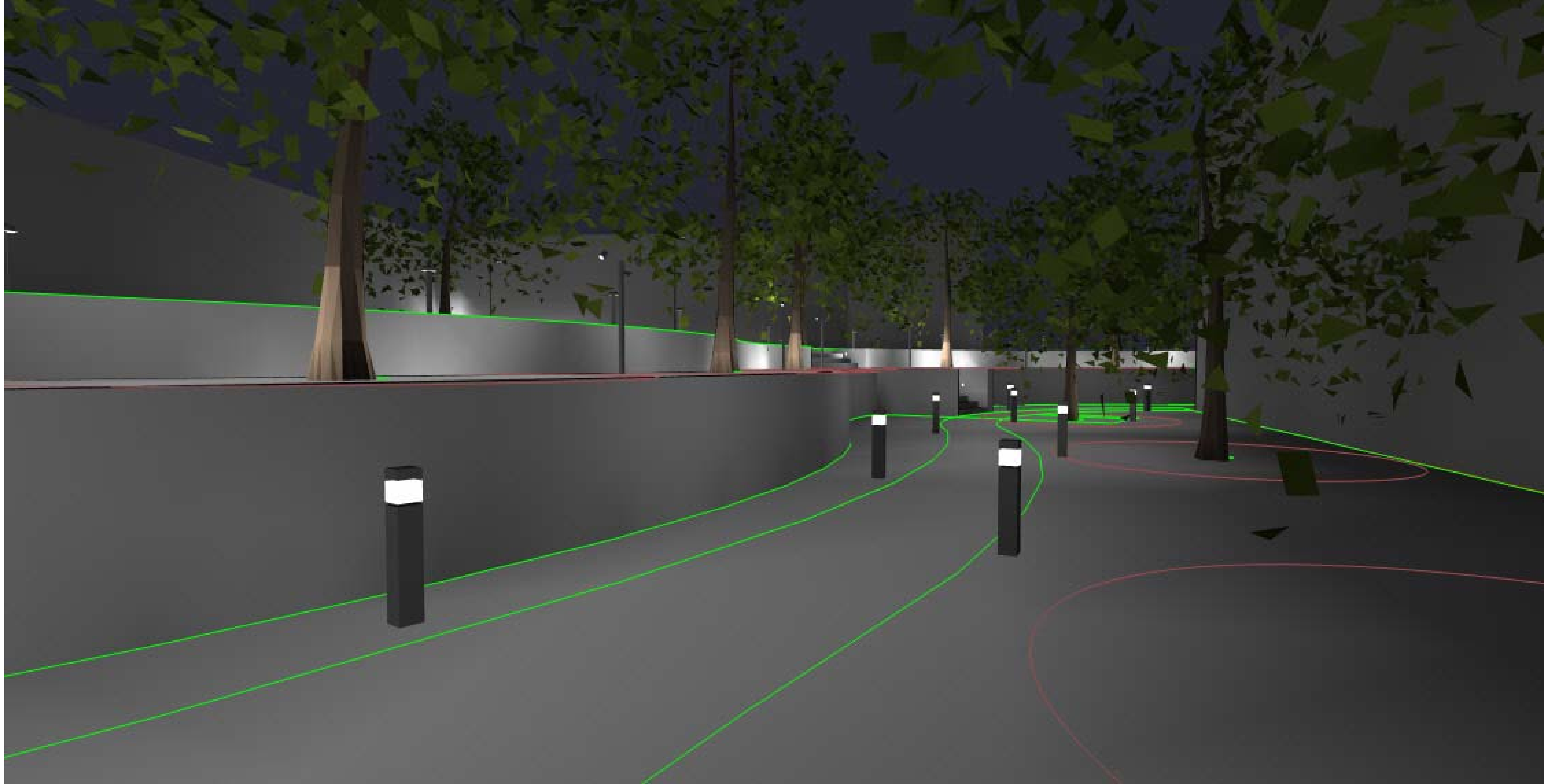
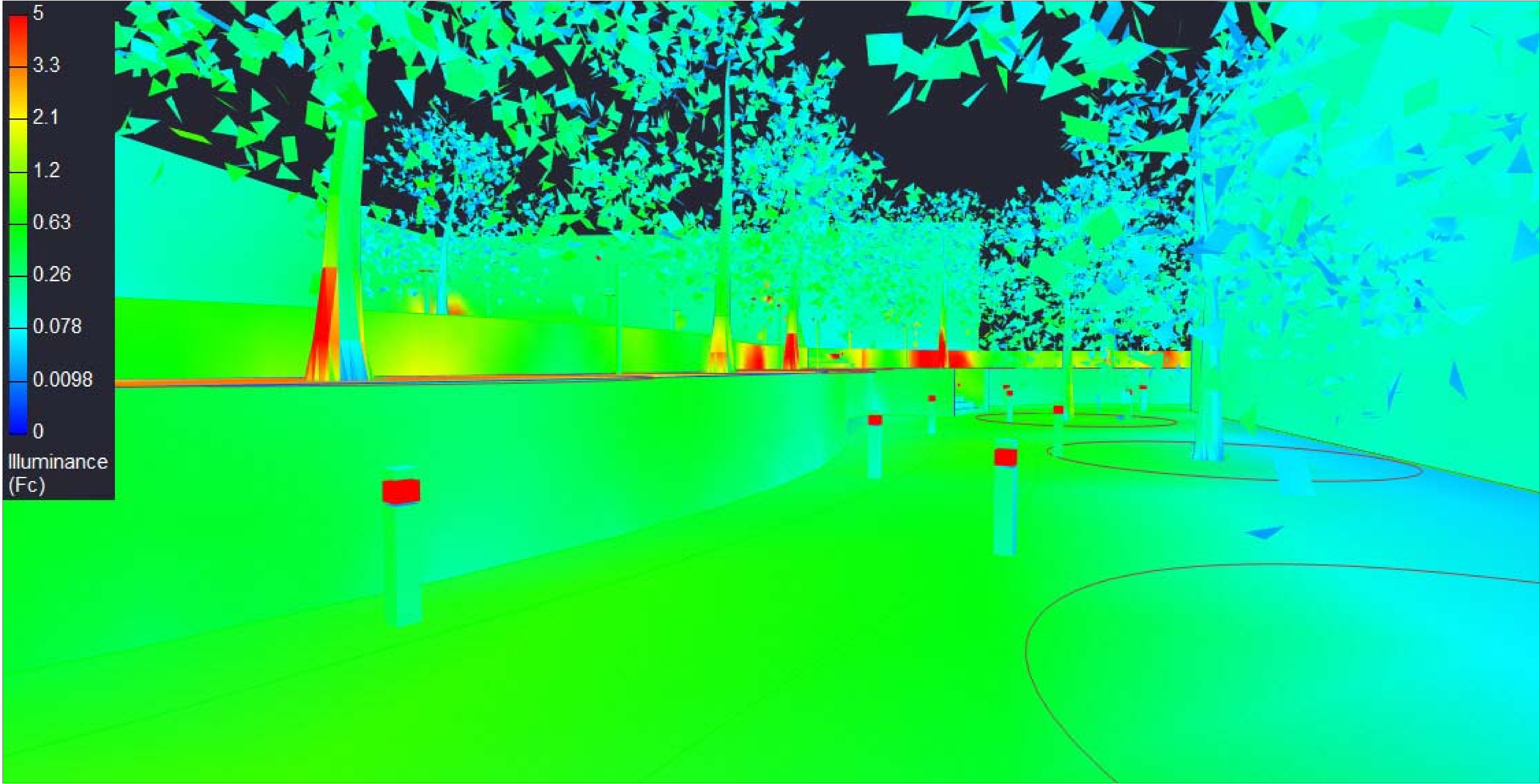


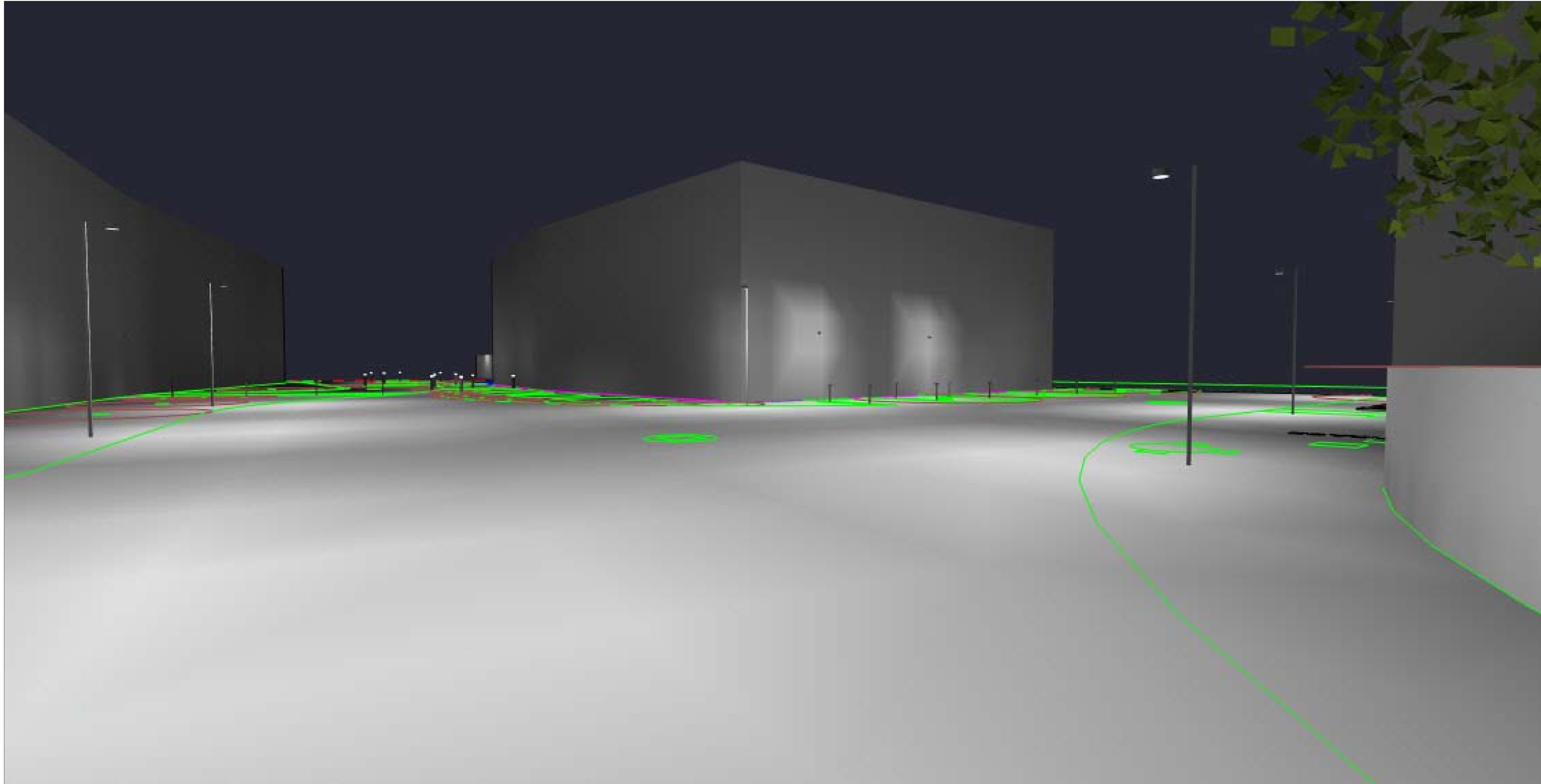
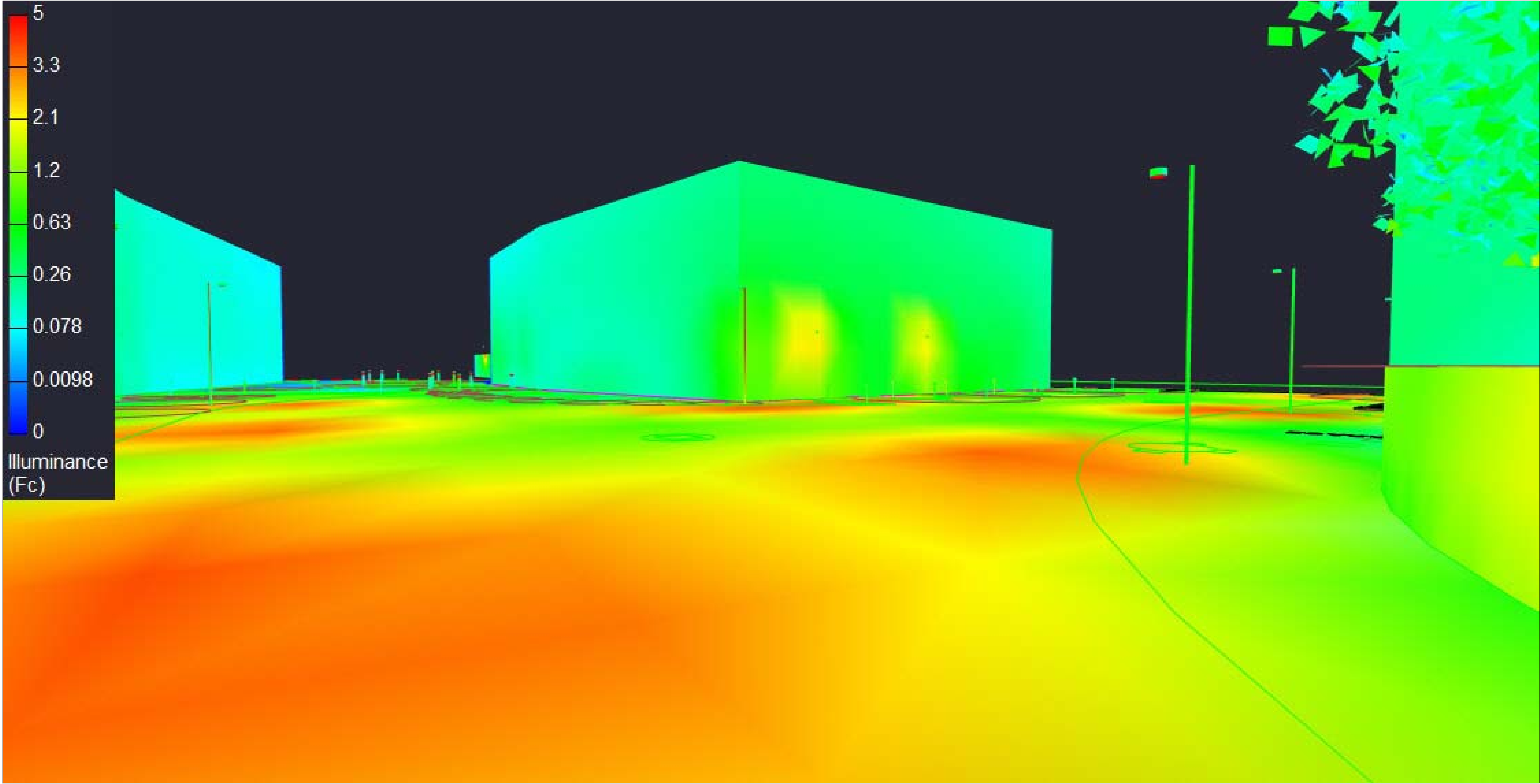


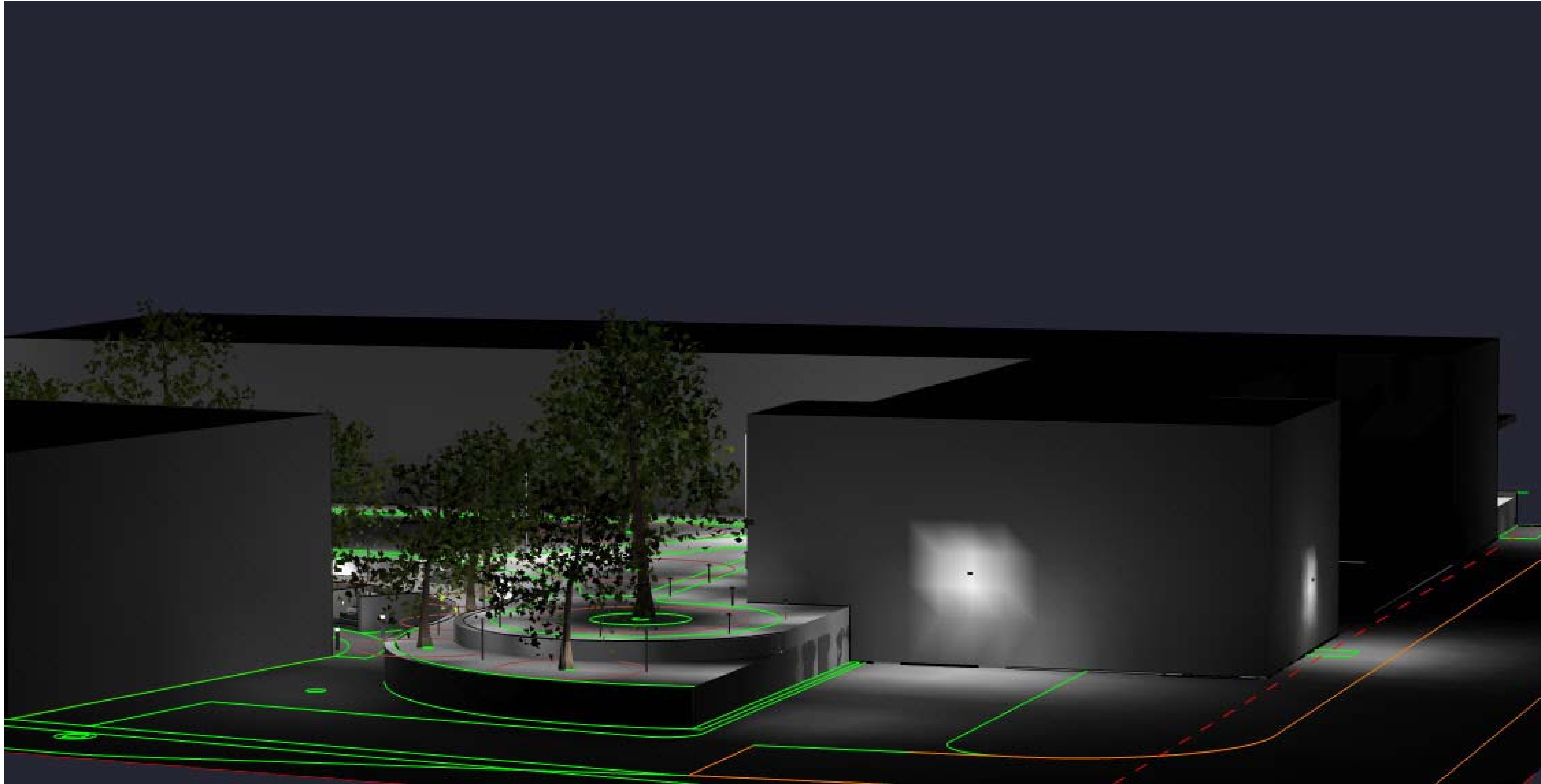
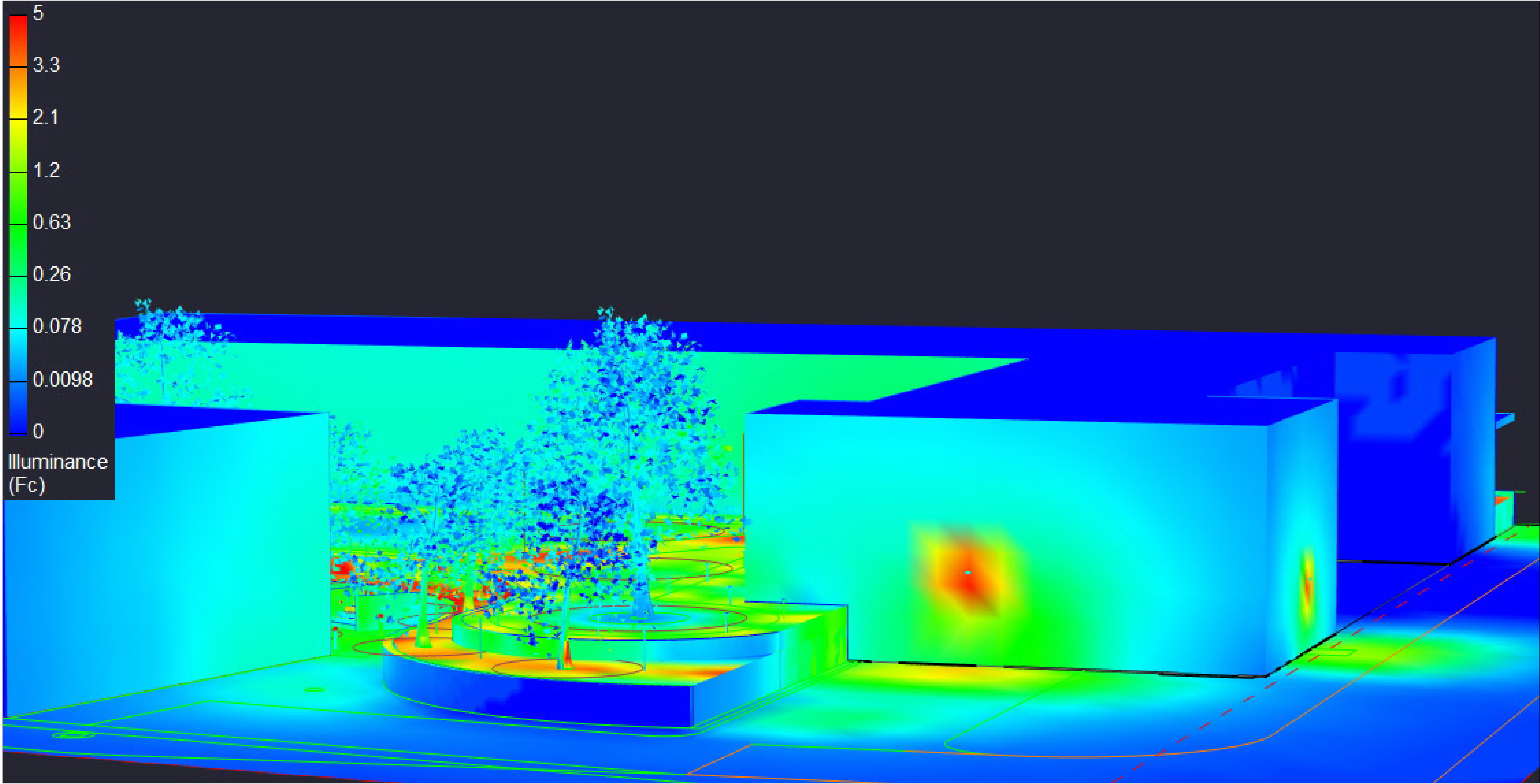
Luminaire Schedule											
Symbol	Qty	Label	Description	Tag	Arrangement	LLF	Luminaire Lumens	Luminaire Watts	Mounting Height		
	8	D1	LIGMAN: VI-40307-W30	Stair Light	Single	0.900	46	4.9	2.5, 3.5, 5.5		
	29	D2	LIGMAN: RA-10751-W30 Rev 2	Bollard	Single	0.900	124	4.5	0		
	11	D3	WAC: 6211-30-BZ	Spotlight	Back-Back	0.900	364	8.21124	8.167		
	49	D4	WAC: 6011-30BZ A122315	Pathway Light	Single	0.900	151	8.2	1.83, 7.83		
	9	P1	LIGMAN: TA-20011-T4-W30	Pole Light	Single	0.900	2491	37.8	12, 18		
	19	R	DMF: DRD2M07930GAO-DRD2TRJDHWH	Recessed Canopy	Single	0.900	596	9.5	10, 14		
	9	WP1	LIGMAN: LEE-30001-T4-W30	Entry Door	Single	0.900	642	7.6	8, 14		
	1	WP2	LIGMAN: LEE-30011-T4-W30	Wallpack	Single	0.900	1466	13.8	10		

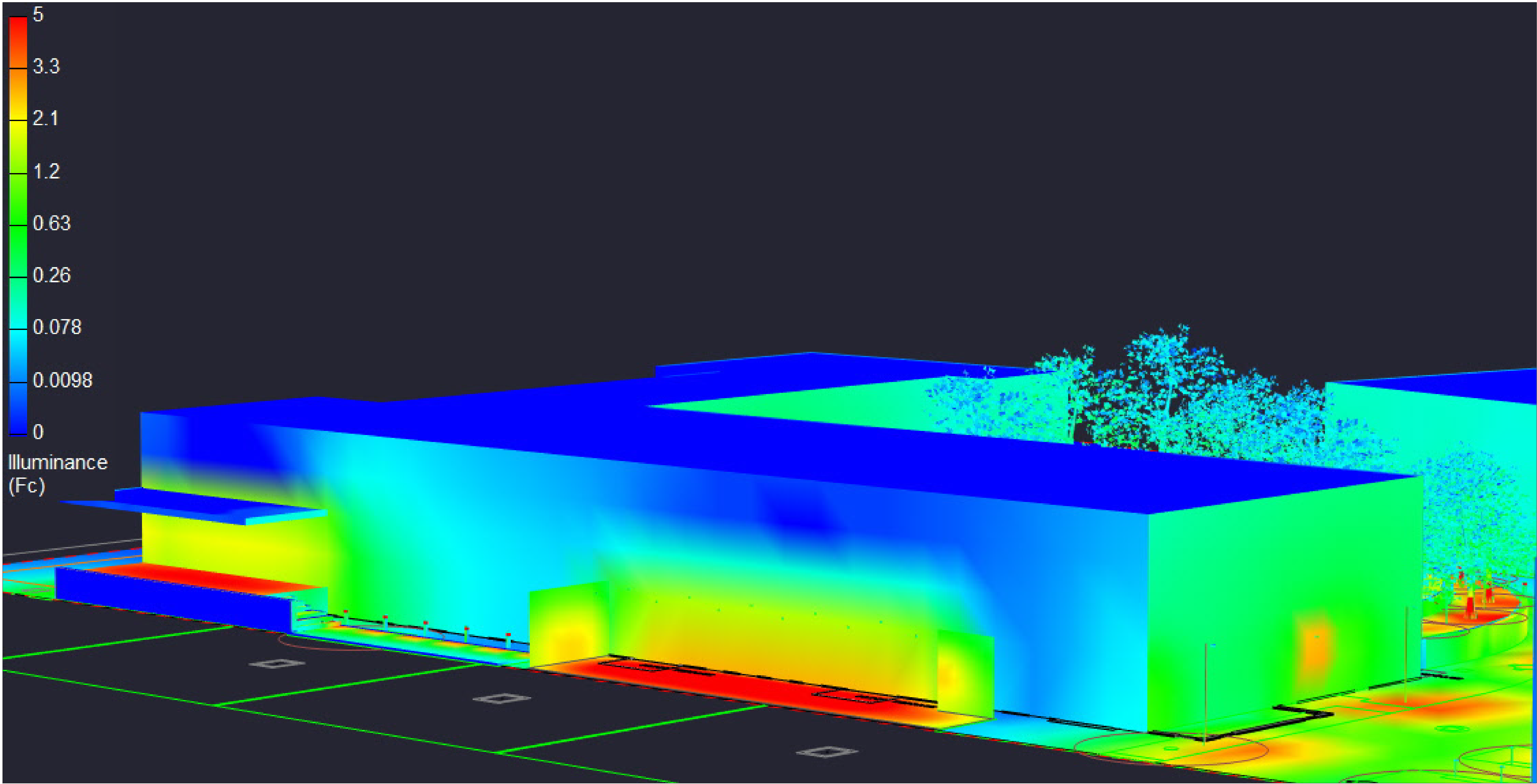
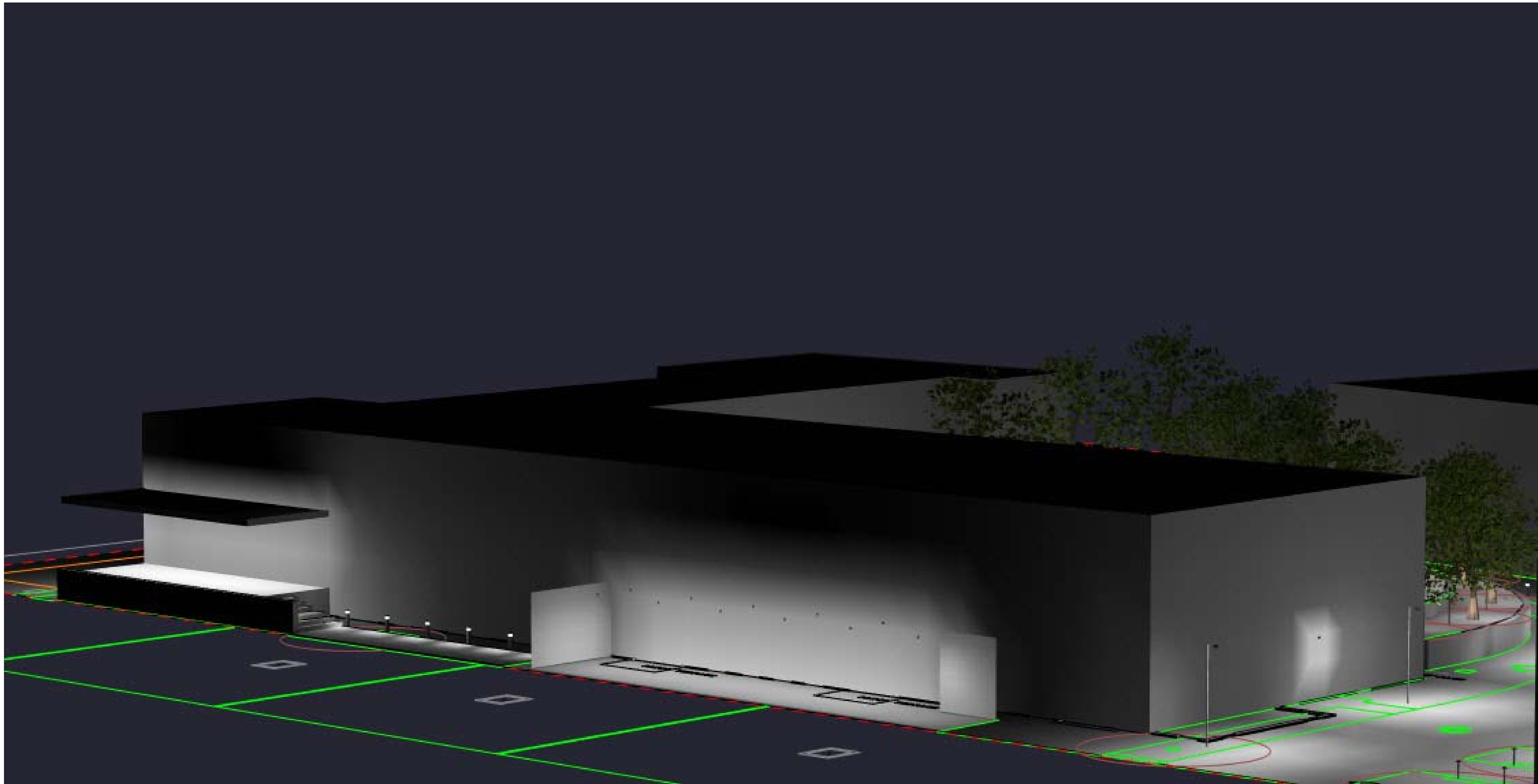
Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min		
Courtyard - Central	Fc	2.00	7.4	0.2	10.00	37.00		
Courtyard Path - East	Fc	1.93	15.4	0.1	19.30	154.00		
Courtyard Path - West	Fc	1.47	11.4	0.2	7.35	57.00		
Grade - Mid	Fc	3.07	14.5	0.0	N.A.	N.A.		
Grade - Raised Terrace	Fc	2.02	6.6	0.1	20.20	66.00		
Lot 3A - East Entrance	Fc	2.67	14.8	0.1	26.70	148.00		
Lot 3A - Entry Porch	Fc	4.21	5.3	2.2	1.91	2.41		
Lot 3A - Garage Entrance	Fc	1.11	5.0	0.0	N.A.	N.A.		
Lot 3A - Lower Front Porch	Fc	1.57	20.0	0.1	15.70	200.00		
Lot 3A - Rear Entrance, Floor	Fc	4.49	6.3	1.0	4.49	6.30		
Lot 3A - West Entrance	Fc	3.47	3.7	3.2	1.08	1.16		

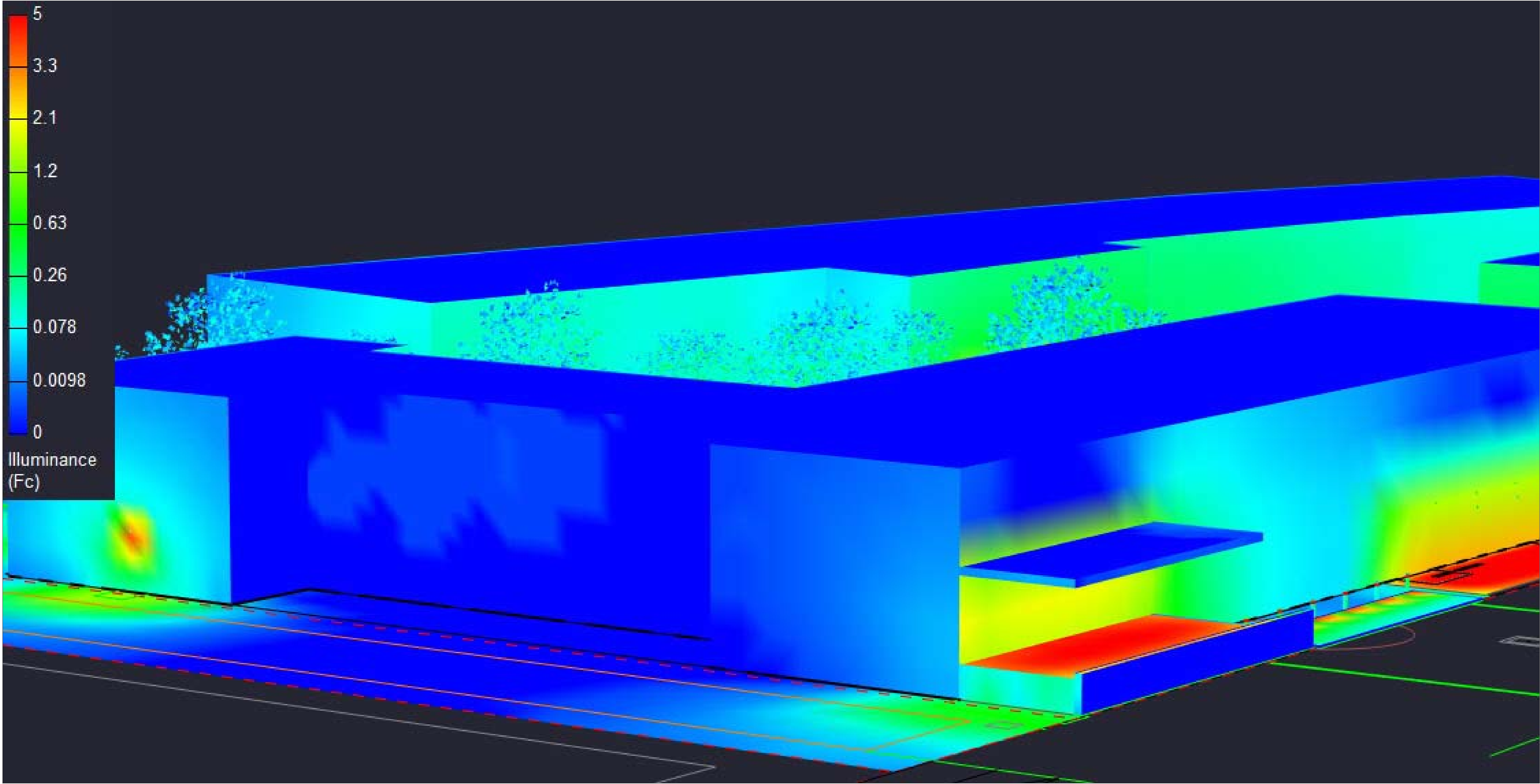
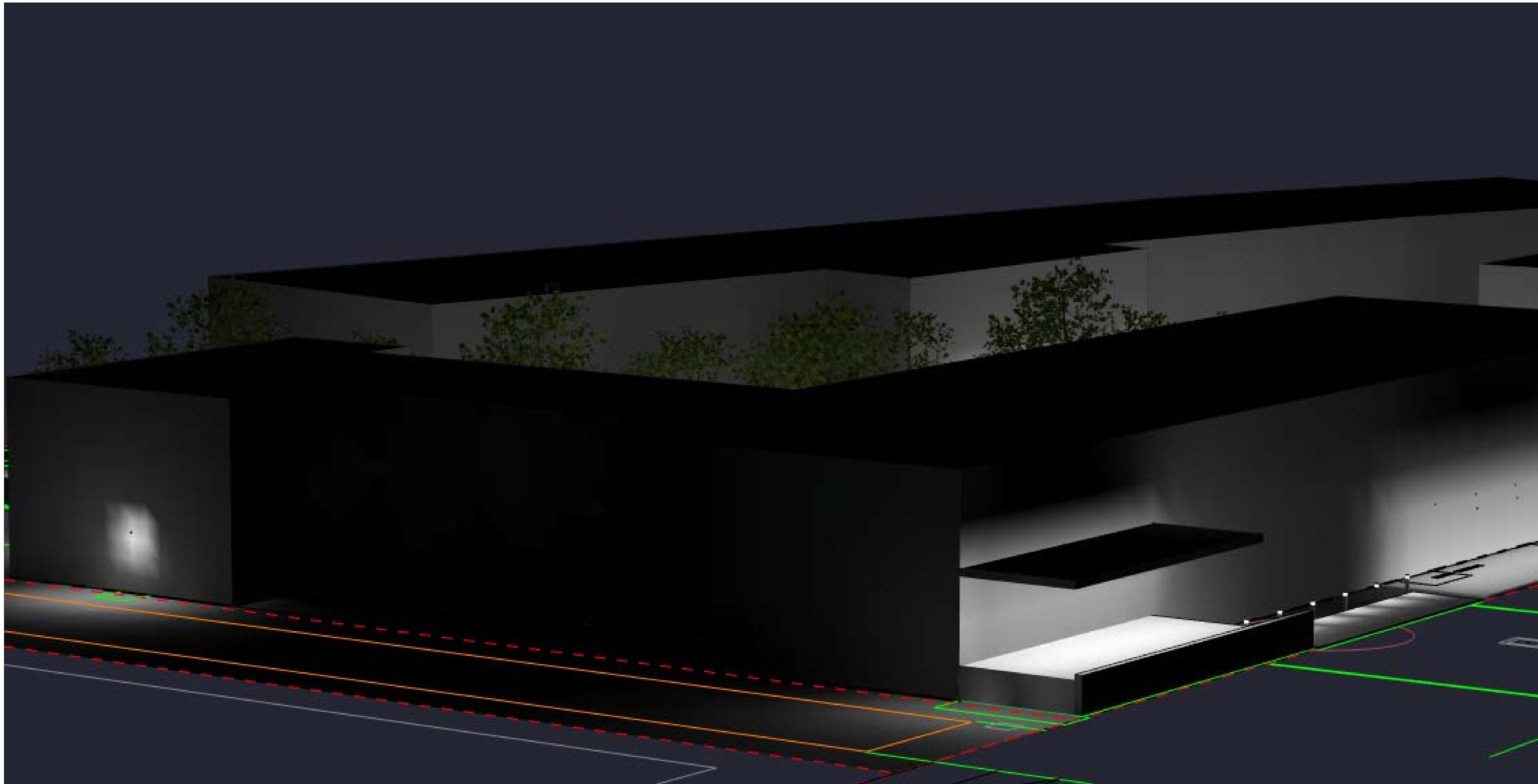












Fathom Lot 3

Pearl Street Lot 3, Biddeford Maine

Drawn By: IF
Date: 9/21/2022
Specifier:
Salesperson: Erik Miles
Scale: Not to Scale

www.reflexlighting.com

DISCLAIMER: CALCULATIONS SHOULD BE USED AS A GUIDE ONLY.
LIGHT LEVELS ARE SUBJECT TO CONDITIONS IN THE FIELD.

specifications@reflexlighting.com

LEEDS



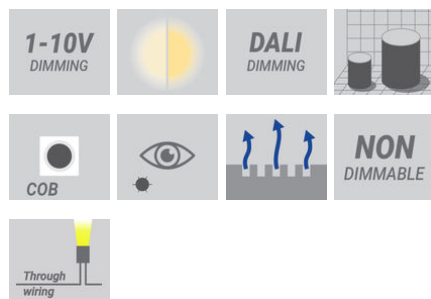
Clean, beautiful, single or double sided surface wall-fixtures with class leading performance. Minimalist form, yet the most powerful and flexible lighting tool of its type, offering packages up to 4000 lumens and various street optic options.

Luminaire Structure

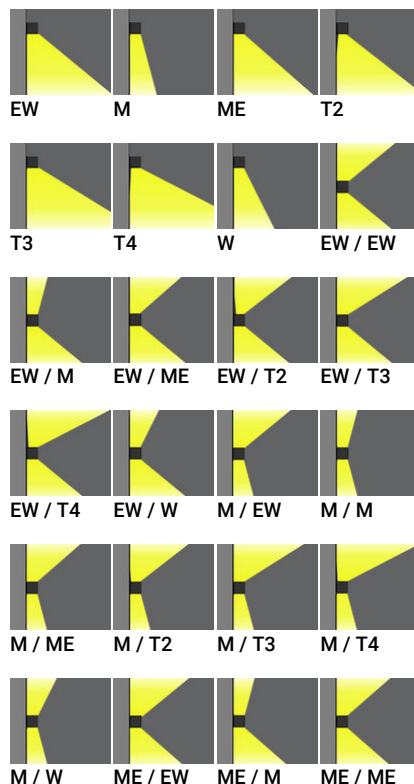
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Single cable entry, through wiring upon request
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Clear toughened glass
- Integral control gear
- Optional surface mounting box for easy wiring or conduit connection when wiring from behind is not possible



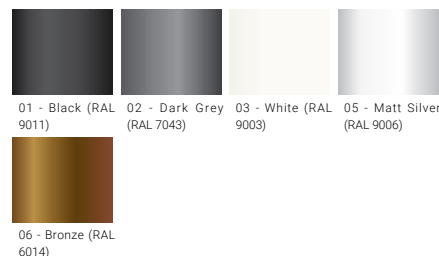
Feature



Light symbol



Product colour



We reserve the right to make technical and design changes.

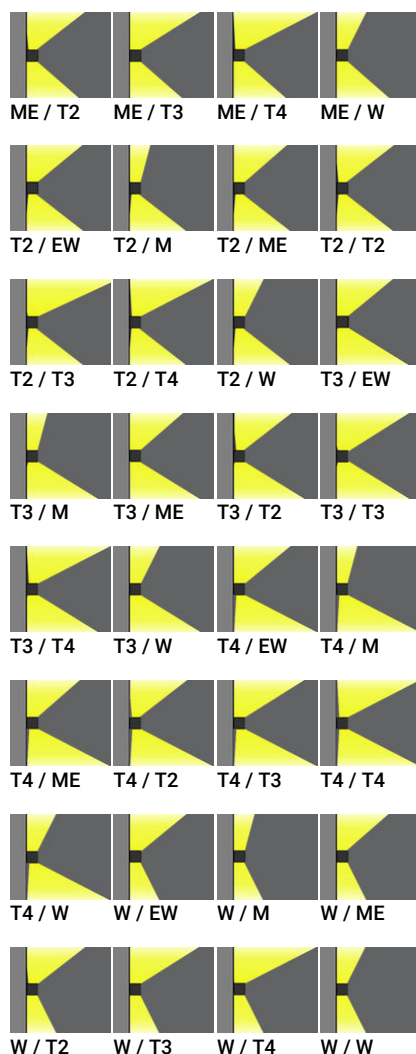
01:31, 25-08-2022

<https://www.ligman.com/leeds-surface-facade-luminaires-lee-su3/>

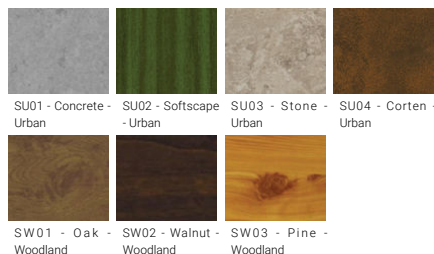
Europe
LIGMAN EUROPE s.r.o.
VGP Park Ústí nad Labem
P 2 120
40317, Přestanov
Czech Republic
+420 477 071 500
sales.cz@ligman.com

ASIA PACIFIC
LIGMAN Lighting Co.,Ltd.
17/2 Moo4 Monthong
Bangnampreaw
24150, Chachoengsao
Thailand
+66 2 108 6700
info@ligman.com

LEEDS



Special finishes upon request



We reserve the right to make technical and design changes.

01:31, 25-08-2022

<https://www.ligman.com/leeds-surface-facade-luminaires-lee-su3/>

Europe
LIGMAN EUROPE s.r.o.
VGP Park Ústí nad Labem
P 2 120
40317, Přestanov
Czech Republic
+420 477 071 500
sales.cz@ligman.com

ASIA PACIFIC
LIGMAN Lighting Co.,Ltd.
17/2 Moo4 Monthong
Bangnampreaw
24150, Chachoengsao
Thailand
+66 2 108 6700
info@ligman.com

LEEDS

Technical information

	Model number	Light source	Power	Lumen	Optic	CCT / CRI	Dimming type	Weight	
Down (Optic) & Up (Optic 2nd) - Rectangular									
LEEDS 3	LEE-30041	2x4 & 2x4 LED	27.8 W	2752 - 3350 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	1-10V, On/Off	1.8 kg	
LEEDS 5	LEE-30051	12 & 12 LED	39.4 W	4090 - 4844 lm	EW [109°x102°], M [30°], ME [140°x62°], T2 [137°x58°], T3 [124°x86°], T4 [108°x66°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	2.0 kg	
Down (Optic) & Up (Optic 2nd) - Square									
LEEDS 1	LEE-30031	4 & 4 LED	15.2 W	1152 - 1590 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	1.1 kg	
Down - Rectangular									
LEEDS 4	LEE-30011	2 x 4 LED	13.9 W	1376 - 1675 lm	EW [110°x103°], M [30°], ME [139°x60°], T2 [139°x55°], T3 [123°x85°], T4 [105°x69°], W [56°]	3000K, 4000K	DALI, 1-10V, On/Off	1.5 kg	
LEEDS 6	LEE-30021	12 LED	19.7 W	2045 - 2422 lm	EW [109°x102°], M [30°], ME [140°x62°], T2 [137°x58°], T3 [124°x86°], T4 [108°x66°], W [56°]	3000K CRI80, 4000K CRI80	DALI, 1-10V, On/Off	1.8 kg	
Down - Square									
LEEDS 2	LEE-30001	4 LED	7.6 W	576 - 795 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	0.8 kg	

Accessories

	 DALI Control System Control-DALI	 Surface mounting box for easy cabling (LEEDS 1) SCE-LEEDS-1	 Surface mounting box for easy cabling (LEEDS 2) SCE-LEEDS-2	 Surface mounting box for easy cabling (LEEDS 3) SCE-LEEDS-3	 Surface mounting box for easy cabling (LEEDS 4) SCE-LEEDS-4	 Surface mounting box for easy cabling (LEEDS 5) SCE-LEEDS-5	 Surface mounting box for easy cabling (LEEDS 6) SCE-LEEDS-6
LEE-30001							
LEE-30011	•				•		
LEE-30021	•						•
LEE-30031		•					
LEE-30041				•			
LEE-30051						•	

We reserve the right to make technical and design changes.

01:31, 25-08-2022

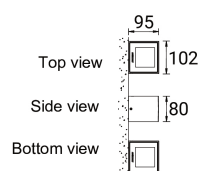
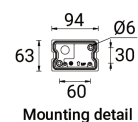
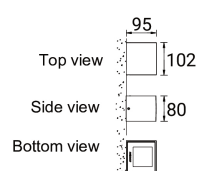
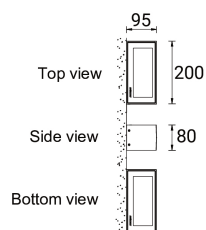
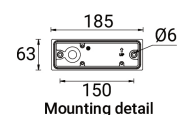
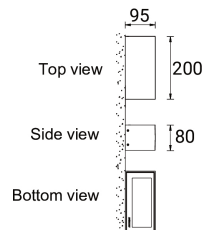
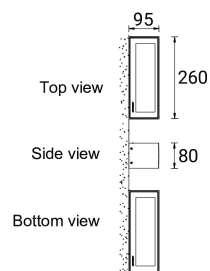
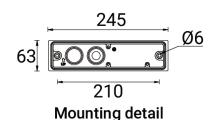
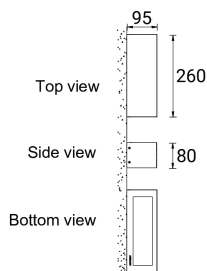
<https://www.ligman.com/leeds-surface-facade-luminaires-lee-su3/>

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LEEDS

LEEDS

LEEDS 1

LEEDS 2

LEEDS 3

LEEDS 4

LEEDS 5

LEEDS 6


DRD2 & OneFrame

Fixed Downlighting System

New Construction
Deep Junction Box



Project:

Type:

Product Code:

Date:

V051822

Modular Design Flexibility during and after installation with interchangeable modules, optics and trims

Quick Install Integrated driver and plug-and-play connection require no wiring

High Performance Precise lighting control without sacrificing stellar efficiency

Enhanced Dimming Smooth, flicker-free dimming down to 1%

OPTICAL

Delivered Lumens (Power)

750 lm (9.5W), 1000 lm (12.5W),
1250 lm (14.3W)

Color Quality

93+ CRI, 2-step SDCM

Color Temperature

2700K 3000K 3500K
4000K Warm Dim (3000–1800K)

Beam Spread

Narrow Spot (15°) General (90°+)
Spot (25°) Linear (40° x 20°)
Flood (40°) Soft Focus
Wide Flood (60°)

PHYSICAL

Application

New Construction, Poured Concrete

Aperture

4" Octagonal Deep Junction Box

Ceiling Thickness

½" up to 1¾"

TRIMS

Available Trims

Round Beveled, Square, Hyperbolic, Pinhole,
Beveled Pinhole, Wall Wash, Decorative,
Flangeless, Dead Front

Trim Finish

White, Black, Silver, Custom

ELECTRICAL & CONTROLS

Input Voltage

120/277V

1% Dimming

TRIAC/ELV, 0-10V, Lutron EcoSystem

RATINGS

Housing

- Code compliant for use in fire-rated assemblies up to a maximum of 2-hours
- STC/IIC Sound Rated
- ASTM E283 Certified Air Tight
- IC (Insulation Contact) Rated

Module

- UL Listed for Wet Location



PRODUCT BUILDER

ONEFRAME HOUSING

PRODUCT CODE		APPLICATION		APERTURE		DIMMING		OPTION	
DRDH	Housing	N	New Construction	JD	Deep Junction Box	[Blank]	Integrated	[Blank]	None
				JC	Deep Junction Box, Concrete Tight ¹	70	0-10V ² , 750 lm	EM	Emergency Battery ⁴ , Integrated Test Switch
						100	0-10V ² , 1000 lm	EMS	Emergency Battery ⁴ , Remote Test Switch
						100W	0-10V ² , 1000 lm, Warm Dim		
						120	0-10V ² , 1250 lm		
						7C	Lutron EcoSystem ³ , 750 lm		
						10C	Lutron EcoSystem ³ , 1000 lm		
						10CW	Lutron EcoSystem ³ , 1000 lm, Warm Dim		
						12C	Lutron EcoSystem ³ , 1250 lm		

DRD2 MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
DRD2M	Module	07	750 lm	9	93+ CRI	27	2700K	GA	General Ambient (90°+)	T	Integrated TRIAC/ELV
		10	1000 lm			30	3000K	NS	Narrow Spot (15°) ⁶		
		12	1250 lm			35	3500K	SP	Spot (25°)		O Integrated 0-10V
						40	4000K	FL	Flood (40°)	A	Alternate for use with EM or Lutron EcoSystem
						3W	Warm Dim ⁵	WF	Wide Flood (60°)		
								LS	Linear Spread (40° x 20°)		
								SF	Soft Focus		

ONEFRAME TRIM

PRODUCT CODE		SHAPE		APERTURE		STYLE		FINISH		OPTION	
DRD2T	Trim	R	Round	JD	Deep Junction Box	S	Beveled	WH	White	[Blank]	None
		S	Square ⁷			H	Hyperbolic ⁸	BK	Black	DOF	Decorative: Open, Frosted ^{8,9,10}
						P	Pinhole ⁸	SW	Silver Reflector, White Flange	DCF	Decorative: Closed, Frosted ^{8,9,10}
						B	Beveled Pinhole ⁸	CC	Custom Color	DCC	Decorative: Closed, Clear, Frosted Side ^{8,9,10}
						W	Wall Wash ⁸			DCCF	Decorative: Closed, Clear, Frosted Inside ^{8,9,10}
										FL	Flangeless ^{8,9,11}
										DF	Dead Front ^{8,9,10,12}
										EM	Emergency ^{8,9,10}

DRDHX-MUD-FL Flangeless Mud Plate (Required for Flangeless Trim)

PRODUCT BUILDER

OPTICS ACCESSORIES

PRODUCT CODE	
DRD2X-GA	Conversion Kit: DRD2 Module to General Ambient (90°+)
DRD2X-NS	Narrow Spot (15°)
DRD2X-SP	Spot (25°)
DRD2X-FL	Flood (40°)
DRD2X-WF	Wide Flood (60°)
DRD2X-LS	Linear Spread (40° x 20°)
DRD2X-SF	Soft Focus
DRD2X-OP	Optics Kit: Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus

¹ Only available in Integrated dimming

² Only available in Emergency Battery option

³ Lutron EcoSystem refers to LDE1 Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black™

⁴ Only available in 0-10V or Lutron EcoSystem dimming

⁵ Only available in 1000 lm

⁶ Not available in Warm Dim CCT

⁷ Only available in Beveled or Wall Wash style

⁸ Only available in White or Custom Color finish

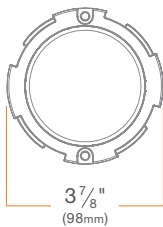
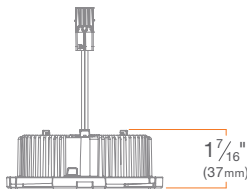
⁹ Only available in Round shape

¹⁰ Only available in Beveled style

¹¹ Requires DRDHX-MUD-FL Mud Plate

¹² Only available in 750 lm

MODULE



DRD2

Fixed Downlight

DRD2M

SUMMARY

LED CHIP: Cree**DELIVERED LUMENS (w Trim):** 750 lm (9.5W), 1000 lm (12.5W), 1250 lm (14.3W)**EFFICACY:** 79 lm/W, 80 lm/W, 87 lm/W**COLOR QUALITY:** 93+ CRI, 2-step SDCM**CCT:** 2700K, 3000K, 3500K, 4000K**BEAM SPREAD:** General Ambient (90°+), Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus**CONNECTOR:** PowerPlug® Luminaire Disconnect Model 182**INPUT VOLTAGE:** 120/277V, 50/60Hz**DIMMING:** Down to less than 1% for TRIAC/ELV at 120V, 0-10V or Lutron EcoSystem at 120/277V**MAX INPUT CURRENT (120V):** 0.090 amps, 0.107 amps**MAX INPUT CURRENT (277V):** 0.042 amps, 0.050 amps**POWER FACTOR:** Greater than 0.9**TOTAL HARMONIC DISTORTION:** Less than 20%**AMBIENT OPERATING TEMPERATURE:** -20°C to 40°C**PHOTOMETRIC TESTING:** Tested in accordance to IESNA LM-79-2008**LISTINGS:** ENERGY STAR® qualified*, California Title 24 2016 JA8 compliant, UL Listed for Wet Location (flanged trims only), cULus Listed, Declare**LIFETIME:** 50,000 hours at 70% lumen maintenance**WARRANTY:** 5 year limited warranty

WARM DIM OPTION

LED: Bridgelux LED, **DELIVERED LUMENS (w Trim):** 1000 lm (12.0W),**EFFICACY:** 83 lm/W, **CCT RANGE:** 3000K - 1800K, **MAX INPUT CURRENT (120V):** 0.11 amps, **MAX INPUT CURRENT (277V):** 0.047 amps

*Excludes Pinhole and Wall Wash Trims

HOUSING



OneFrame

New Construction
Deep Junction Box
DRDHNJD

SUMMARY

JUNCTION BOX: Equipped with (8) trade size knockouts (four concentric side ($\frac{3}{4}" + \frac{1}{2}"$), two concentric top ($\frac{3}{4}" + \frac{1}{2}"$), two $\frac{1}{2}"$ top) and (4) Romex knockouts (top) to allow straight conduit runs. Approved for 8 (four in, four out) #12 AWG 70°C.

MOUNTING: Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

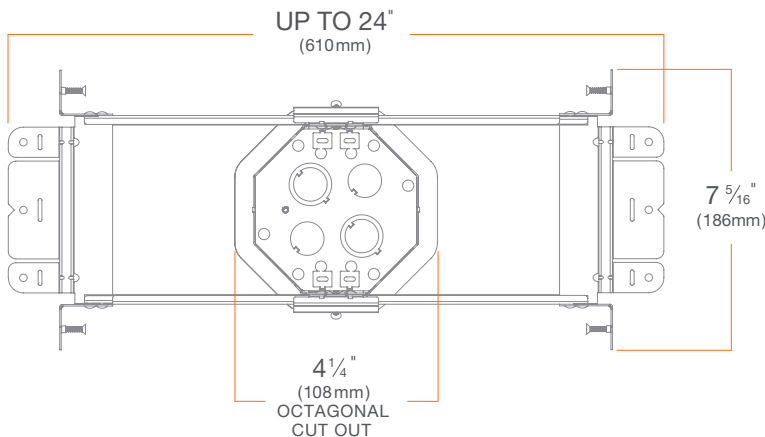
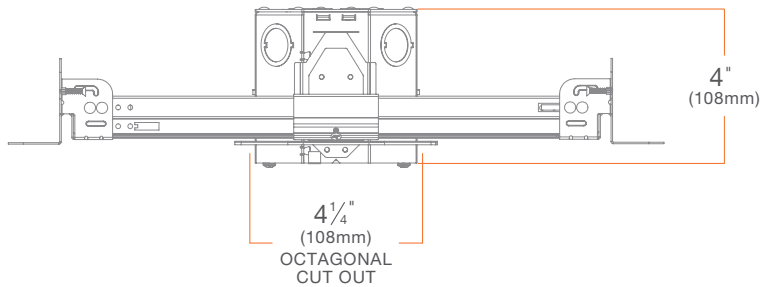
CEILING: $\frac{1}{2}"$ up to $1 \frac{3}{4}"$

CUTOUT: $4 \frac{1}{4}"$ (108mm) octagonal opening

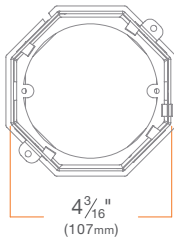
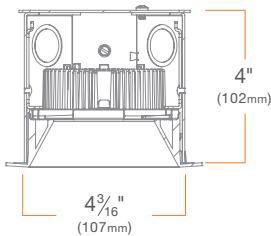
LISTINGS: Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated.

MAINTENANCE: Fully accessible from below the ceiling for inspection and maintenance.

WARRANTY: 5 year limited warranty



HOUSING - Concrete Tight



OneFrame

Concrete Tight
Deep Junction Box
DRDHNJC

- Designed for high rise structures that require steel and concrete for reinforcement
- Features spot-welded areas and adaptations for poured concrete applications

SUMMARY

JUNCTION BOX: Equipped with (4) trade size concentric knockouts ($\frac{3}{4}" + \frac{1}{2}"$) to allow straight conduit runs. Approved for 8 (four in, four out) #12 AWG 90°C.

MOUNTING: (2) external tabs for wood, steel or concrete form mounting

COVER: Removable top cover for easy access to electrical wiring work prior to concrete pour

APPLICATION: Poured deck (floor) high-rise new construction

LISTINGS: Metallic outlet box certified UL514A, concrete tight, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight

WARRANTY: 5 year limited warranty

HOUSING - Emergency Lighting or Lutron EcoSystem Dimming



OneFrame

Lutron EcoSystem Dimming

Deep Junction Box

DRDHNJD

- Offers compatible dimming with Lutron EcoSystem Hi-Lume® 1% protocol

SUMMARY

JUNCTION BOX: Equipped with (2) trade size concentric top knockouts ($\frac{3}{4}" + \frac{1}{2}"$) to allow straight conduit runs. Approved for 2 (one in, one out) #12 AWG 70°C.

MOUNTING: Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

CEILING: $\frac{1}{2}"$ up to $1 \frac{3}{4}"$

CUTOUT: $4 \frac{1}{4}"$ (108mm) octagonal opening

LISTINGS: Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated

INPUT VOLTAGE: 120/277V, 50/60Hz

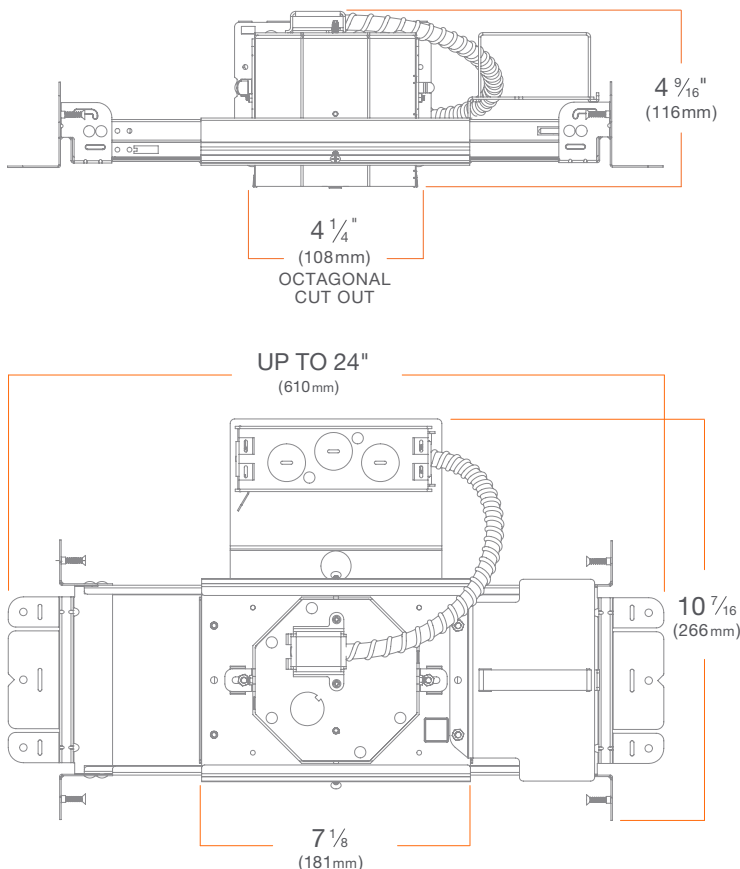
MAX INPUT CURRENT (120V): 0.090 amps (750 lm), 0.107 amps (1000 lm), 0.11 amps (1000 lm Warm Dim)

MAX INPUT CURRENT (277V): 0.042 amps (750 lm), 0.050 amps (1000 lm), 0.047 amps (1000 lm Warm Dim)

POWER FACTOR: Greater than 0.9

TOTAL HARMONIC DISTORTION: Less than 20%

WARRANTY: 5 year limited warranty



TRIM



OneFrame Trims

Recessed LED Downlight Trims

DRD2T

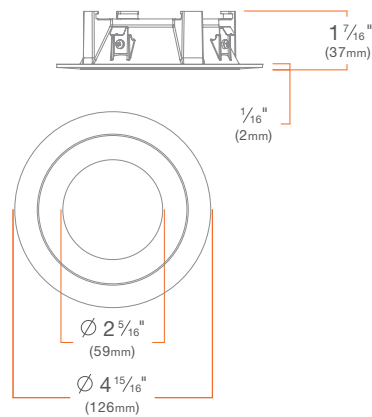
SUMMARY

CONSTRUCTION: Die-cast aluminum

INSTALLATION: Twist & Lock (flanged trims only)

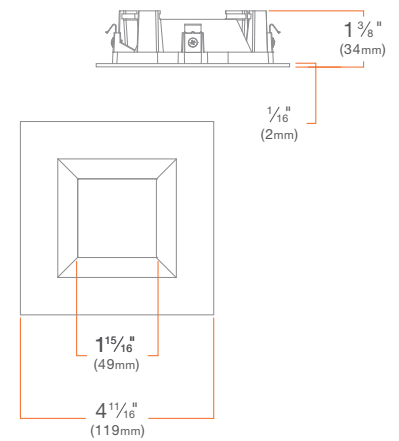
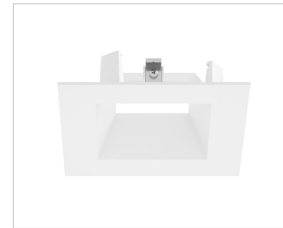
Beveled Trim

DRD2TRJDSWH



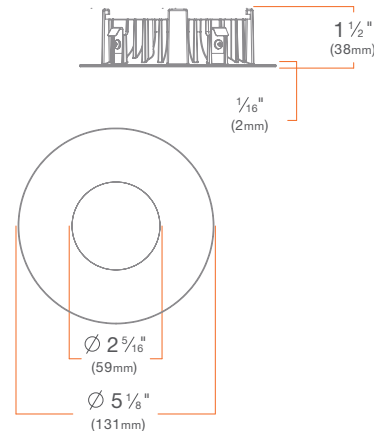
Square Trim

DRD2TSJDSWH



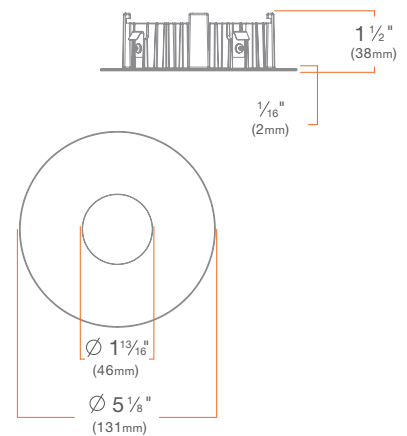
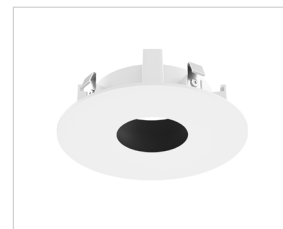
Hyperbolic Trim

DRD2TRJDHWH



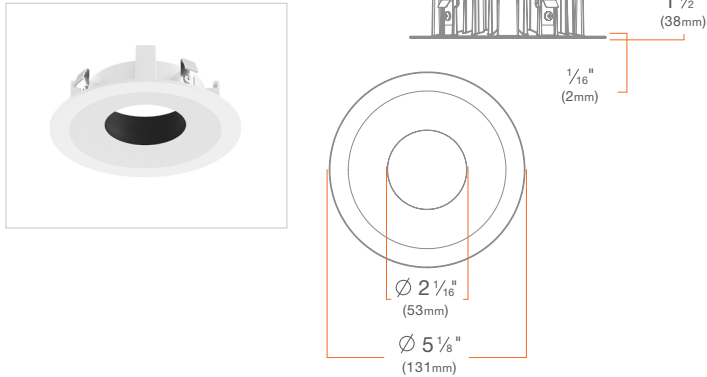
Pinhole Trim

DRD2TRJDPWH



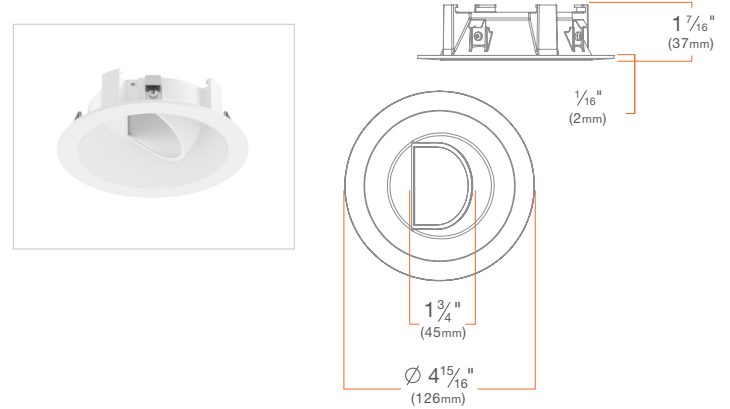
Beveled Pinhole Trim

DRD2TRJDBWH



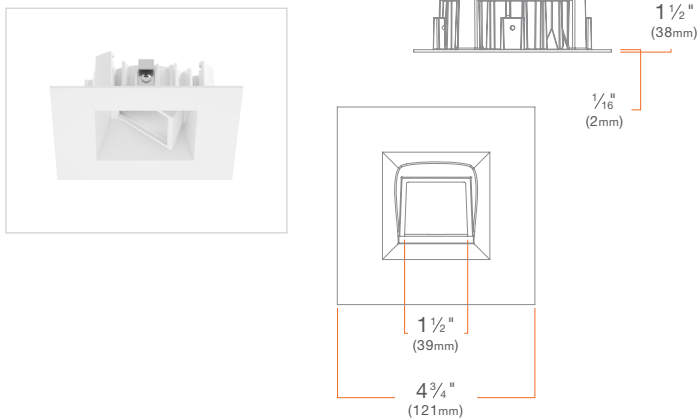
Round Wall Wash Trim

Round: DRD2TRJDWWH



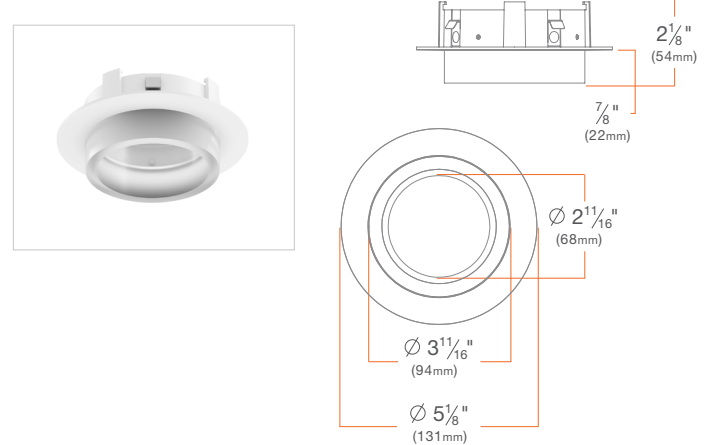
Square Wall Wash Trim

Square: DRD2TSJDWWH



Decorative Open Trim

Frosted: DRD2TRJDSWHD OF

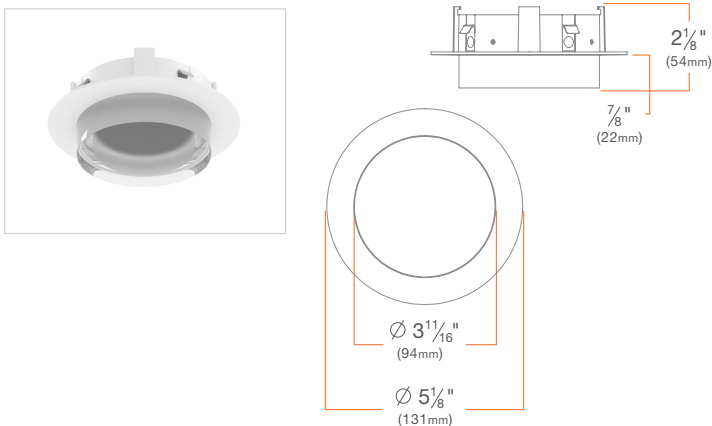


Decorative Closed Trim

Frosted: DRD2TRJDSWHD CF

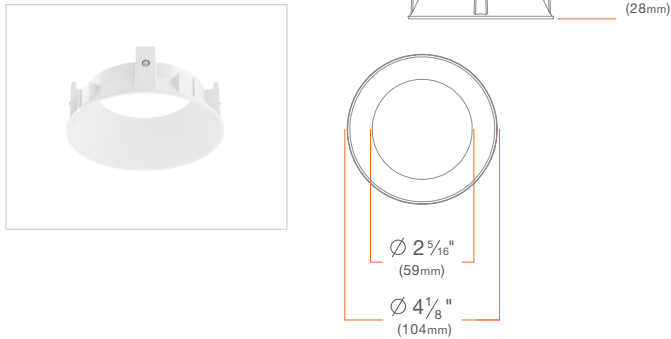
Clear, Frosted Inside: DRD2TRJDSWHD CC

Clear, Frosted Sides: DRD2TRJDSWHD CCF



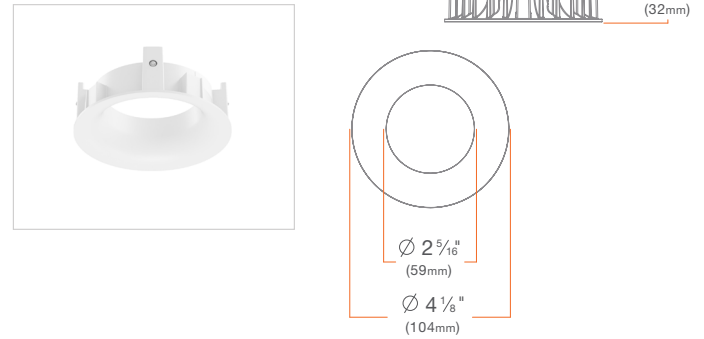
Round Flangeless Trim Insert

DRD2TRJDSWHFL



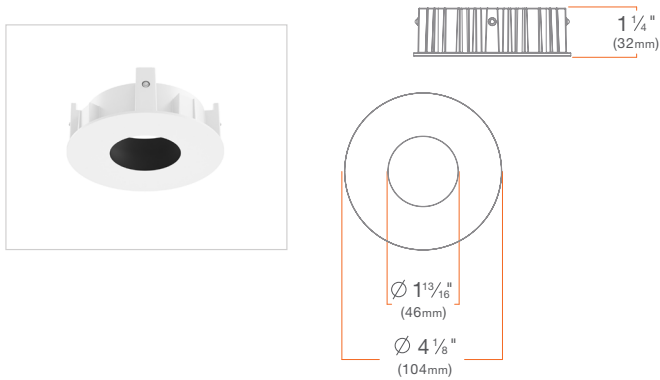
Hyperbolic Flangeless Trim Insert

DRD2TRJDHWHFL



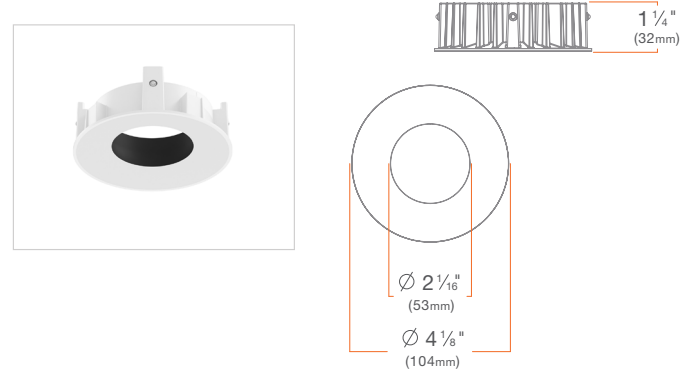
Pinhole Flangeless Trim Insert

DRD2TRJDPWHFL



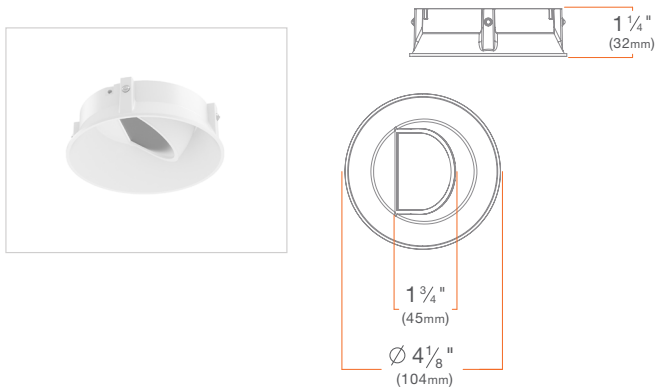
Beveled Pinhole Flangeless Trim Insert

DRD2TRJDBWHFL



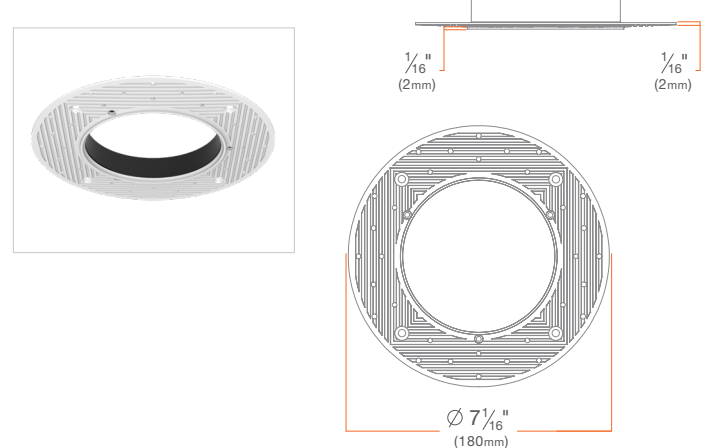
Round Wall Wash Flangeless Trim Insert

DRD2TRJDWWHFL



Flangeless Mud Plate

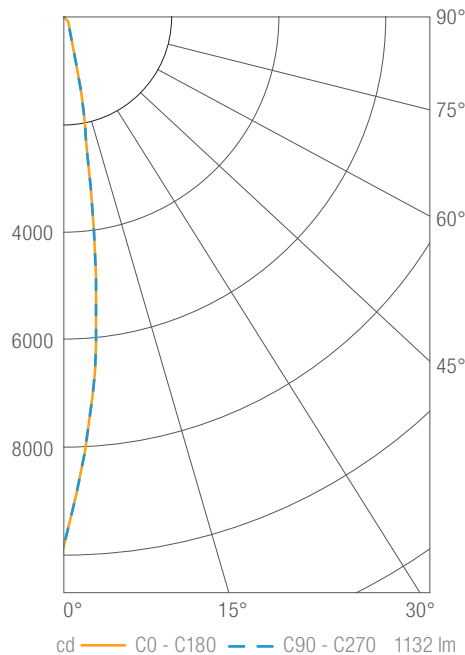
DRDHX-MUD-FL



PHOTOMETRY

DRD2 1000 lm, 3000K, Narrow Spot

DRD2M10930NS



Luminous Intensity

Gamma	C 0°
0°	9823
5°	6600
10°	2335
15°	734
20°	357
25°	244
30°	195
35°	159
40°	116
45°	85
50°	61
55°	42
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	906	80
0-40	1004	89
0-60	1110	98
0-90	1131	100
0-180	1132	100

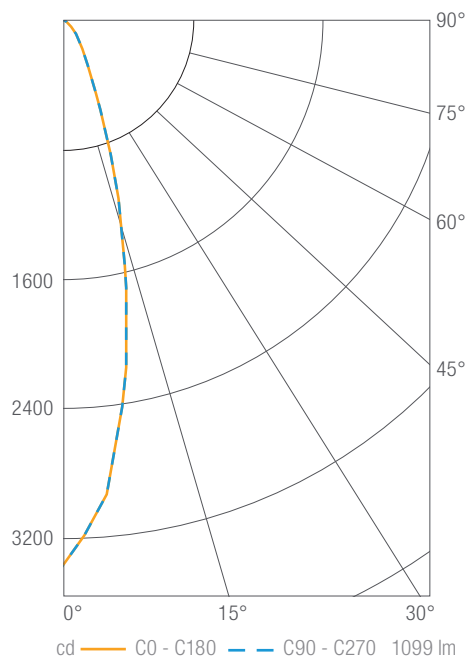
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	1091	0.7'
6'	273	1.5'
9'	121	2.2'
12'	68	2.9'

Beam Angle: 14°

DRD2 1000 lm, 3000K, Spot

DRD2M10930SP



Luminous Intensity

Gamma	C 0°
0°	3366
5°	2967
10°	2203
15°	1391
20°	775
25°	419
30°	248
35°	167
40°	119
45°	87
50°	62
55°	43
60°	26
65°	15
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

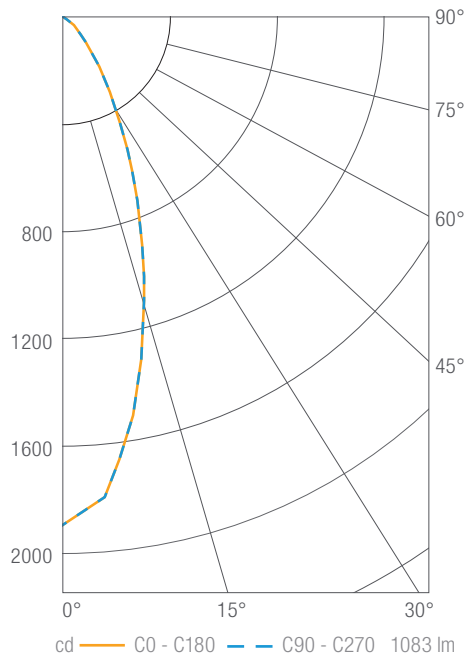
Zone	Lumens	Luminaire %
0-30	862	78
0-40	971	88
0-60	1078	98
0-90	1098	100
0-180	1099	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	374	1.4'
6'	93	2.8'
9'	42	4.2'
12'	23	5.6'

Beam Angle: 26°

PHOTOMETRY

DRD2 1000 lm, 3000K, Flood**DRD2M10930FL**

Luminous Intensity

Gamma	C 0°
0°	1890
5°	1792
10°	1503
15°	1161
20°	849
25°	589
30°	391
35°	256
40°	162
45°	107
50°	74
55°	51
60°	30
65°	18
70°	8
75°	5
80°	3
85°	1
90°	0

Values in candela

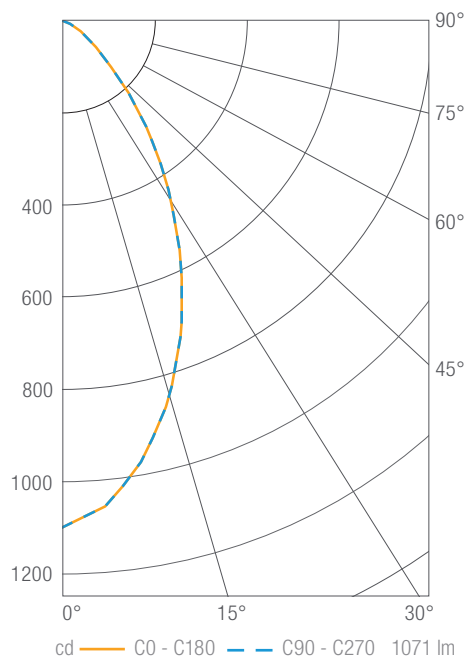
Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	760	70
0-40	925	85
0-60	1058	98
0-90	1081	100
0-180	1083	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	210	2.0'
6'	52	4.0'
9'	23	6.0'
12'	13	8.0'

Beam Angle: 37°

DRD2 1000 lm, 3000K, Wide Flood**DRD2M10930WF**

Luminous Intensity

Gamma	C 0°
0°	1100
5°	1058
10°	973
15°	866
20°	743
25°	609
30°	478
35°	361
40°	252
45°	161
50°	102
55°	68
60°	41
65°	24
70°	11
75°	6
80°	4
85°	2
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	620	58
0-40	845	79
0-60	1037	97
0-90	1069	100
0-180	1071	100

Illuminance Chart

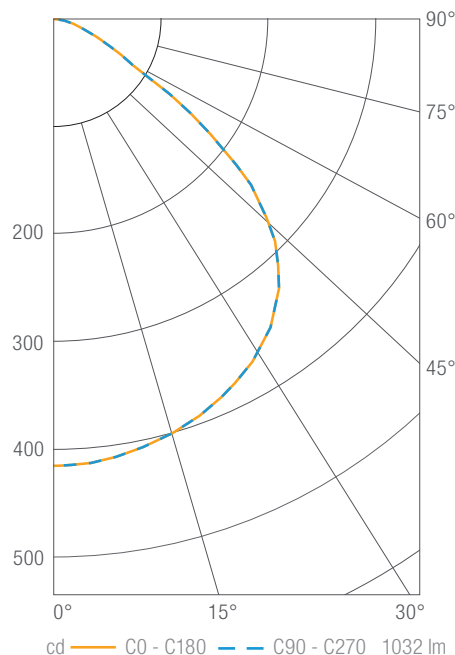
Distance from LED	Foot Candles	Diameter
3'	122	3.1'
6'	31	6.2'
9'	14	9.3'
12'	8	12.3'

Beam Angle: 55°

PHOTOMETRY

DRD2 1000 lm, 3000K, General Ambient

DRD2M10930GA



Luminous Intensity

Gamma	C 0°
0°	416
5°	415
10°	410
15°	403
20°	394
25°	382
30°	369
35°	351
40°	327
45°	291
50°	240
55°	162
60°	84
65°	54
70°	33
75°	21
80°	12
85°	6
90°	1

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	333	32
0-40	557	54
0-60	942	91
0-90	1024	99
0-180	1032	100

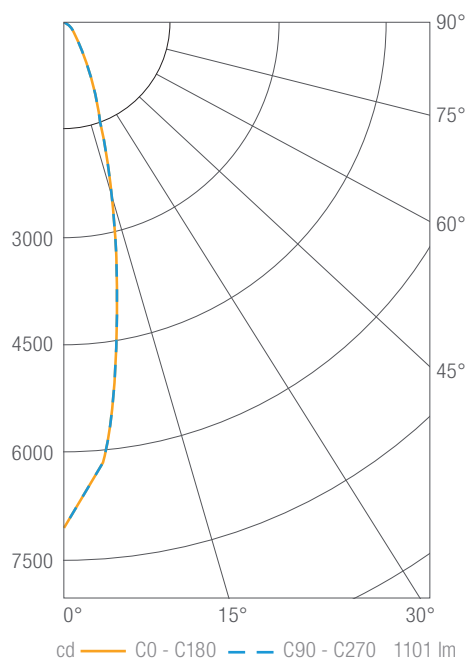
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	46	7.8'
6'	12	15.5'
9'	5	23.3'
12'	3	31.1'

Beam Angle: 100°

DRD2 1000 lm, 3000K, Soft Focus

DRD2M10930SF



Luminous Intensity

Gamma	C 0°
0°	7280
5°	5603
10°	2489
15°	875
20°	381
25°	247
30°	194
35°	161
40°	122
45°	90
50°	64
55°	45
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	868	79
0-40	968	88
0-60	1078	98
0-90	1100	100
0-180	1101	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	809	0.9'
6'	202	1.7'
9'	90	2.6'
12'	51	3.4'

Beam Angle: 16°

TANGO 36 (TA-20011)



Luminaire Structure

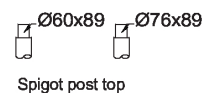
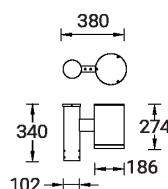
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Clear toughened glass
- High-efficiency PMMA lens
- Integral control gear
- Maximum wind load resistance is 140 km/h

Product description

1 side - Round



TANGO 36
TA-20011

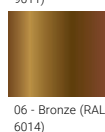


Light symbol

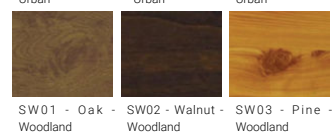
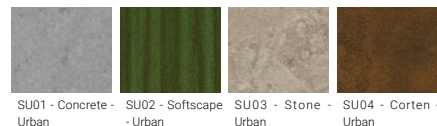


T2 T3 T4

Product colour



Special finishes upon request



Technical information

Light source	16 LED
Light source type	LED
Dimming type	DALI, 1-10V, On/Off
Material	Aluminium
Weight	5.3 kg
Operating temperature	-20 °C to 40 °C

Luminaire	
Power	35 W
Lumen	3476 - 3910 lm
Efficacy	99 - 112 lm/W
CCT / CRI	3000K CRI80, 4000K CRI80
Drive current	700 mA
Driver option	Integral control gear
Driver	Constant current (CC)
Input voltage	220-240 V 50/60 Hz

Optic	T2 [134°x50°], T3 [125°x64°], T4 [98°x72°]
Bug	B1-U0-G1
ULR	0%
ULOR	0%
CIE flux code n°3	98
MacAdam Ellipse	3 SDCM
Lifetime L90B10 (hours)	90,000
Lifetime L80B10 (hours)	90,000
Lifetime L80B50 (hours)	90,000

We reserve the right to make technical and design changes.

02:51, 08-09-2022

<https://www.ligman.com/tango-36-ta-20011/>

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TANGO 36 (TA-20011)**Accessories**



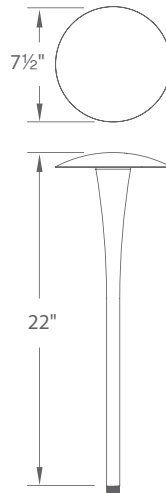
DALI Control System
Control-DALI

AREA LIGHT

6011

WAC

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Broad appeal makes this fixture suitable for varying landscape designs

FEATURES

- IP66 rated, Protected against powerful water jets
- Factory sealed water tight fixtures
- Translucent lens provides uniform light distribution
- Solid brass or corrosion resistant aluminum alloy
- Mounting stake, 6 foot lead wire, and direct burial gel filled wire nuts are included
- Maintains constant lumen output against voltage drop
- UL 1838 Listed

SPECIFICATIONS

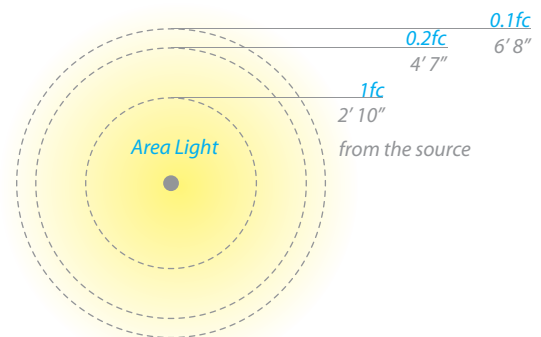
Input: 9-15VAC (Transformer is required)
Power: 5.8W / 9.4VA
Brightness: 150 lm
CRI: 90+
Rated Life: 60,000 hours

ORDERING NUMBER

	Color Temp	Finish
6011 <i>Area Light</i>	27 2700K	BBR Bronze on Brass
	30 3000K	BZ Bronze on Aluminum
		BK Black on Aluminum

6011-___BBR

Example: **6011-30BZ**



wacighting.com
 Phone (800) 526.2588
 Fax (800) 526.2585

Headquarters/Eastern Distribution Center
 44 Harbor Park Drive
 Port Washington, NY 11050

Central Distribution Center
 1600 Distribution Ct
 Lithia Springs, GA 30122

Western Distribution Center
 1750 Archibald Avenue
 Ontario, CA 91760

AREA LIGHT

6011

WAC

LANDSCAPE LIGHTING

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ

Bronze on Aluminum

Additional Mounting Stake



9000-ST9-BK

Durable PVC stake

Magnetic Transformers

Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories

9075-TRN-SS
75W Max

9150-TRN-SS
150W Max

9300-TRN-SS
300W Max

9600-TRN-SS
600W Max



TESTED MAGNETIC LOW VOLTAGE (MLV) DIMMERS

Luminaire	Dimmer					
	Manufacturer	Family	Model	Power Rating	Range*	Note
6011	Lutron	Diva	DVLV-600	600W	33% - 100%	Output maxes at 50% dimming level
		Skylark	SLV-600P	600W	28% - 100%	Output maxes at 50% dimming level
		Skylark	S-10P	1000W		Not recommended

*Low end of this range is determined by output current which may not directly translate to the perceived light output

WAC Lighting fixtures are compatible with a variety of dimmers. For your convenience we have included a compatibility chart showing dimmers which have been tested with our products. The recommended list below is based upon testing conducted in a lab, and the results can vary in certain field applications due to a number of factors. Exclusion from the list does not imply incompatibility, just that it has not been tested by WAC Lighting. Please reference the dimmer manufacturer's instructions for installation, or contact a WAC lighting professional at 800-526-2588.

wacighting.com
Phone (800) 526.2588
Fax (800) 526.2585

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44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

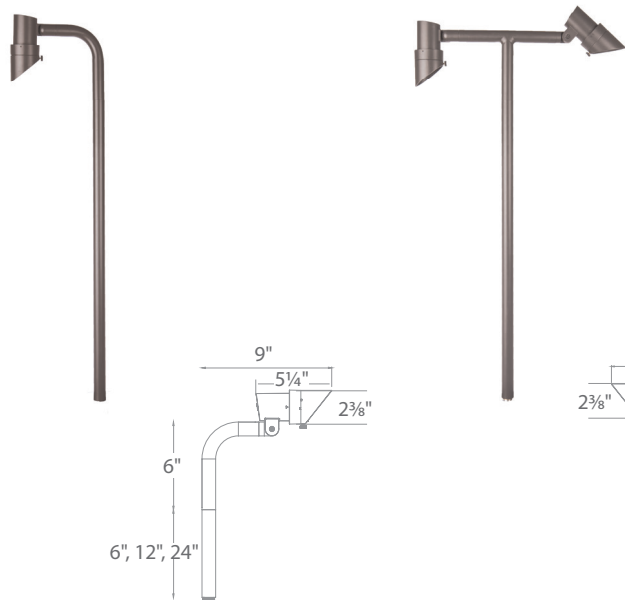
Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

MINI ACCENT LED PATH

6111 / 6211

WAC

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Landscape mini accent luminaire. One fixture replaces all older halogen landscape accent lights

FEATURES

- Continuously Adjustable Beam Angles. Indexed at 10°, 25°, 40°, 50°
- Continuously Adjustable brightness control. Indexed at 1W, 2W, 4W, 6W, 7W
- Adjustable beam angle
- IP66 rated, Protected against high-pressure water jets
- Includes a detachable shroud
- Solid diecast brass or corrosion resistant aluminum
- Factory sealed water tight fixtures
- Constant output for 9V-15V input
- Can be used as an uplight or downlight
- 2700K or 3000K color temperature
- Guardian detachable shroud, 6' lead wire and direct burial gel filled wire nuts included
- UL & cUL 1838 Listed

SPECIFICATIONS

6111 *Single*
Input: 9-15VAC (Transformer is required)
Power: 1W to 7W / 2VA - 10.5VA
Brightness: 45lm to 365 lm
CRI: 85
Rated Life: 70,000 hours

6211 *Double*
Input: 9-15VAC (Transformer is required)
Power: 1W to 7W / 2VA - 10.5VA x 2
Brightness: 45lm to 365 lm x 2
CRI: 85
Rated Life: 70,000 hours

ORDERING NUMBER

Color Temp		Finish
6111 <i>Single</i>	27 2700K Warm White	BBR Bronze on Brass
6211 <i>Double</i>	30 3000K Pure White	BZ Bronze on Aluminum

6111-___BBR

Example: 6111-30BBR

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1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

MINI ACCENT LED PATH

6111 / 6211

WAC LANDSCAPE LIGHTING

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ

Bronze on Aluminum

5" Long Shroud



Reduce glare. Ideal for downlighting application

5111-LSHR-BZ *Bronze on Aluminum*

5111-LSHR-BBR *Bronze on Brass*



Guardian Mount

*Heavy duty stainless steel spike to position fixture.
Formed from a single piece of metal*

9000-SP9-BZ

Stainless Steel

Magnetic Transformers

*Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories*

9075-TRN-SS

75W Max

9150-TRN-SS

150W Max

9300-TRN-SS

300W Max

9600-TRN-SS

600W Max



URA-10751

Rado 1 Bollard

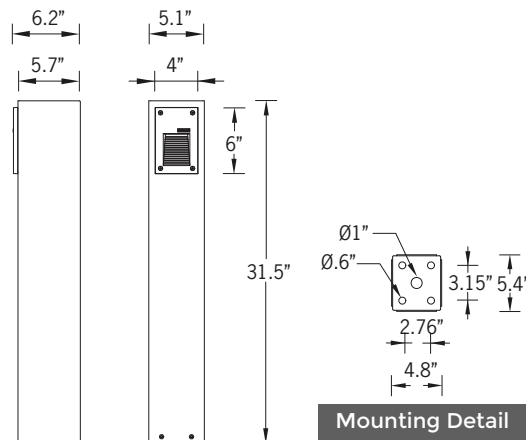


4w COB 133 Lumens

IP65 • Suitable For Wet Locations

IK09 • Impact Resistant (Vandal Resistant)

Weight 11 lbs



Mounting Detail

Construction

Aluminum Casting

Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded “fit for purpose” long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

BUG Rating

B0 - U2 - G0

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Sturdy classic bollard pathway and stair luminaire. Simple pleasing aesthetic and sturdy construction, perfect for delineating perimeter applications with the impressive optic choices.

A range of rectangular bollards, with regressed LEDs providing excellent glare control. Suitable for illuminating pathways, driveways and squares. Color temperature 2700K, 3000K, 3500K and 4000K, LED CRI >80 and lifetime 50,000 Hours. Low copper content die-cast aluminum housing with a high corrosion resistance.

This fixture is supplied completely wired with powercord and waterproof gland from the driver enclosure to the base of the column to ensure quick trouble-free installation. Custom bollard heights are available, please specify.

Custom wattages can be provided to suit customer and Title 24 requirements. (Specify total watts per fixture)



URA-10751

Rado 1 Bollard



PROJECT					DATE	
QUANTITY		TYPE		NOTE		

ORDERING EXAMPLE || URA-10751 - 4w - W30 - 02 - 120/277V

URA-10751				
	LAMP	LED COLOR	FINISH COLOR	VOLTAGE
4w COB 133 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL		120/277v Other - Specify

--	--	--

ADDITIONAL OPTIONS

- DIM - 0-10v Dimming
- NAT - Natatorium Rated
- AMB - Turtle Friendly Amber LED
- HGT - Custom Bollard Height
- GFCI - GFCI Box

Rado Product Family



Rado 1

• URA-40531-4w-133lm



Rado 2

• URA-40542-17w-620lm



Rado 3

• URA-40552-13w-540lm



Rado 4

• URA-40562-27w-853lm



Rado 5

• URA-40582-17w-447lm



Rado 6

• URA-40692-11w-47lm



Rado 7

• URA-40701-20w-1399lm



Rado 1

• URA-10751-4w-133lm



Rado 2

• URA-10772-17w-620lm



Rado 3

• URA-10792-13w-540lm



Rado 4

• URA-10812-27w-853lm



Rado 5

• URA-10822-17w-447lm

VIOS 3R (VI-40307)



Luminaire Structure

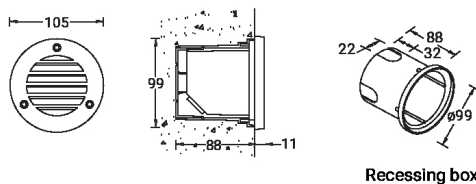
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Two cable entries for through wiring
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Frosted toughened glass
- Integral control gear

Product description

With recessing box - Round - Shielded frame - IK07

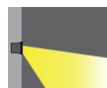


VIOS 3
VI-40307



Recessing box

Light symbol

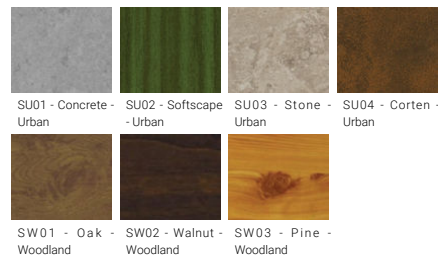


G

Product colour



Special finishes upon request



Technical information

Light source	1 COB
Light source type	COB
Dimming type	On/Off
Material	Aluminium
Weight	0.5 kg
Operating temperature	-20 °C to 40 °C

Luminaire	
Power	5 W
Lumen	46 - 50 lm
Efficacy	9 - 10 lm/W
CCT / CRI	3000K CRI80, 4000K CRI80
Drive current	350 mA
Driver option	Integral control gear
Driver	Constant current (CC)
Input voltage	220-240 V 50/60 Hz

Optic	G [89°x59°]
Bug	B0-U1-G0
ULOR	11%
CIE flux code n°3	76%
MacAdam Ellipse	3 SDCM
Lifetime L90B10 (hours)	50,000

We reserve the right to make technical and design changes.

02:10, 08-09-2022

<https://www.ligman.com/vios-3r-vi-40307/>

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Section 2

Right, Title, or Interest

Section 2: Right Title Interest

Please see attached for the Master Plan Development Agreement between 3 Lincoln, LLC and the City of Biddeford.



Master Plan Development Agreement

This Master Plan Development Agreement (this “Agreement”) dated November 17, 2020 (“Effective Date”), is executed between 3 Lincoln, LLC, a Maine limited liability company (the “Developer”), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the “City”). The Developer and the City are collectively referred to as the “Parties.”

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the “MERC” site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the “Site”). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the “Camoin Study”), to establish a blueprint for the redevelopment of the Site (the “Project”).

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City’s base property value by up to \$63,000,000.

WHEREAS, the Project is expected to become an anchor within the City’s so-called “Mill District,” with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I

GENERAL TERMS & COMMITMENTS

1.1 Purpose. This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 Description of the Project. The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the “Municipal Parking Garage”) on the portion of the Site shown on Exhibit A as the site for those improvements (“Garage Site”) and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the “Development Sites”) as commercial, residential, academic, hospitality, retail or other uses (collectively the “Adjacent Buildings”). The Parties shall progress through each stage of the Project, consistent with Section 1.3 below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in Section 3.1 of this Agreement.

1.3 Project Schedule. The Project shall proceed in accordance with the following schedule (the “Project Development Schedule”):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in Section 3.2 below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements (“Garage Concept Plan”) (the date of delivery referred to as the “Start Date”).

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the “Preliminary Concept Plan”). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the “Site Concept Plans”). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals (“Governmental Approvals”) necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars (\$1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars (\$700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars (\$700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars (\$1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the “Prorations”). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

- a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V
INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than \$1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI
DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, “force majeure” shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

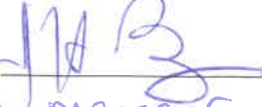
9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

[Remainder of page intentionally blank]

IN WITNESS WHEREOF, the Parties hereto have set their hands and seals as of this
17 day of Nov, 2020.


Witness Jonathan Benoit

DEVELOPER:
3 Lincoln, LLC

By: 
Its: manager

CITY OF BIDDEFORD

Witness

By: _____
Name: James A. Bennett
Title: City Manager

City of Biddeford, Maine

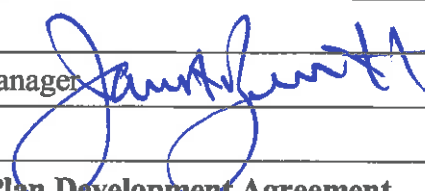


The Office of
City Manager

James A. Bennett

Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	BE Fidler LLC
FROM:	James A. Bennett, City Manager 
DATE:	December 19, 2019
RE:	Clarification to Master Plan Development Agreement

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements;
or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.

Exhibit A
Site Plan

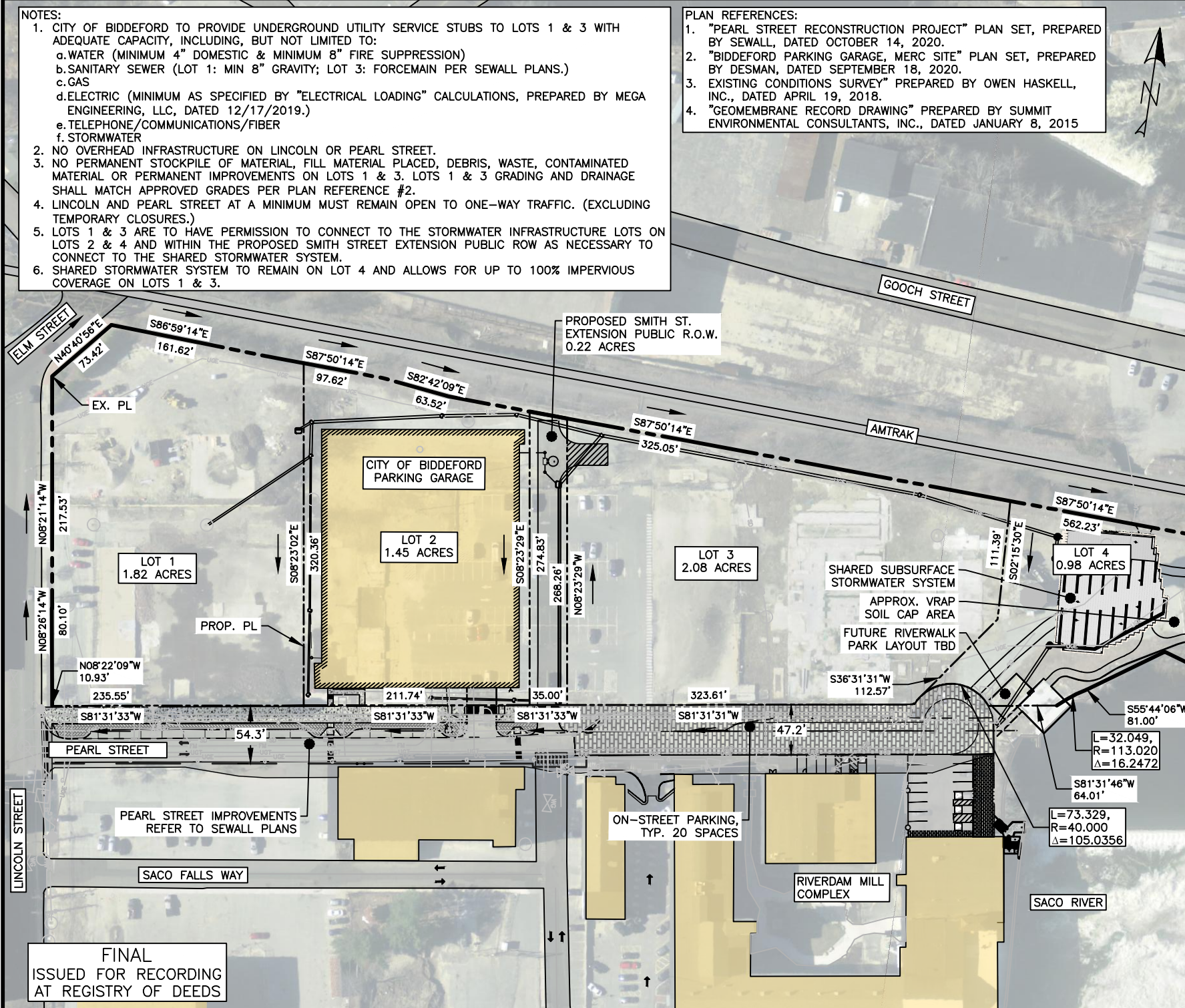
[insert Site Plan]

NOTES:

- CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
 - WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
 - SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
 - GAS
 - ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
 - TELEPHONE/COMMUNICATIONS/FIBER
 - STORMWATER
- NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
- NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
- LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
- LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
- SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

PLAN REFERENCES:

- "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
- "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
- EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
- "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015



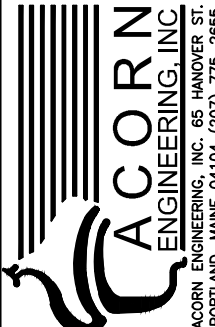
ISSUED FOR
JDA EXHIBIT

491

DRAWING NAME:
OVERALL SITE EXHIBIT

PROJECT NAME:
PEARL STREET &
MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE



FILE: 1124_CIVIL

JN: 1124

SCALE: 1" = 120'

DESIGN BY: PFH

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.

EX-A

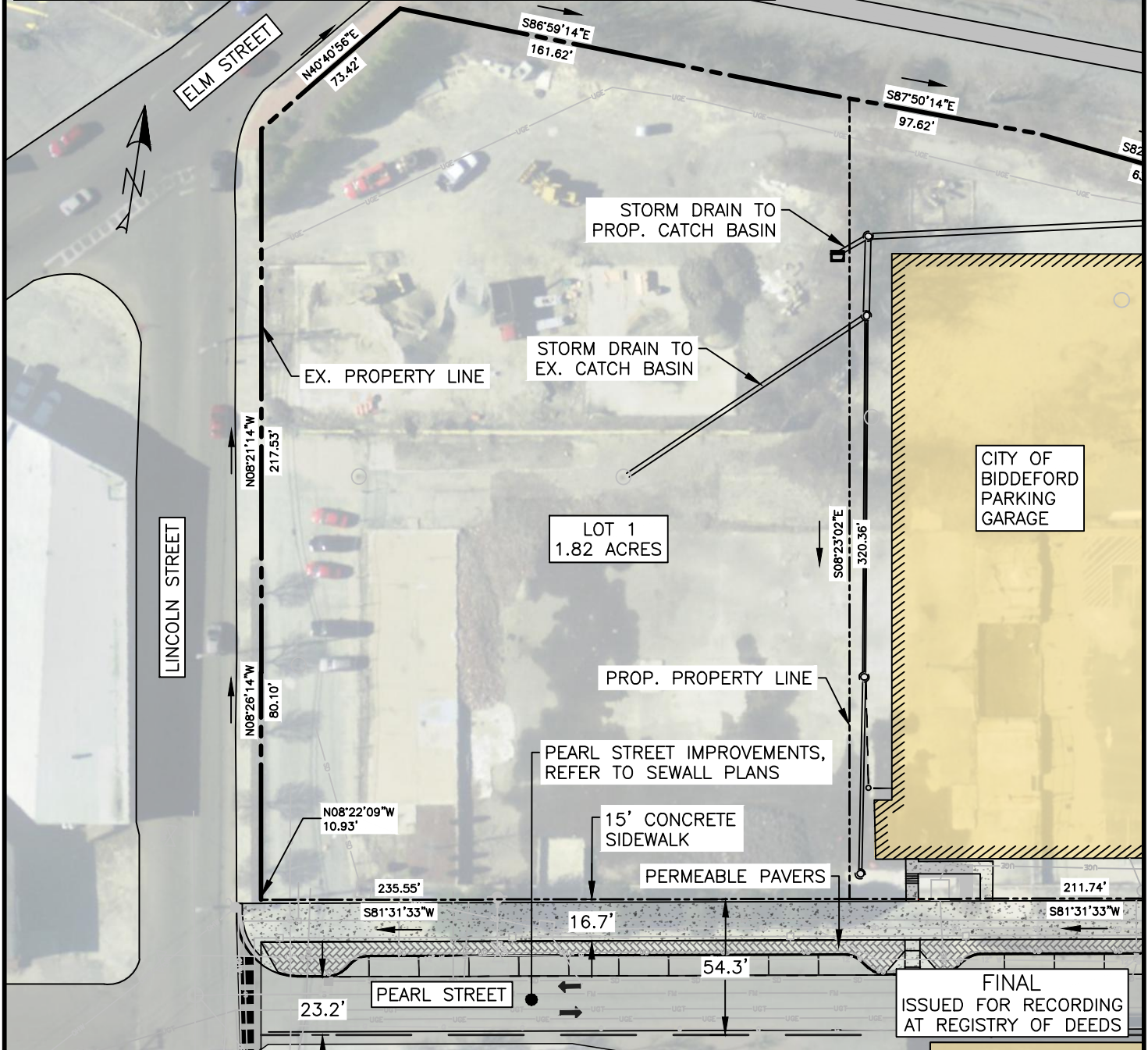
ALSO REFER TO
EX-A1 & EX-A2

NOTES:

- CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
 - WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
 - SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
 - GAS
 - ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
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 - STORMWATER
- NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
- NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
- LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
- LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
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DRAWING NO.
EX-A1

ALSO REFER TO EX-A & EX-A2

FILE: 1124_CIVIL
DATE: 11/12/20
UN: 1124
SCALE: 1" = 60'
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



DRAWING NAME:
LOT 1 EXHIBIT

PROJECT NAME:
PEARL STREET & MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE

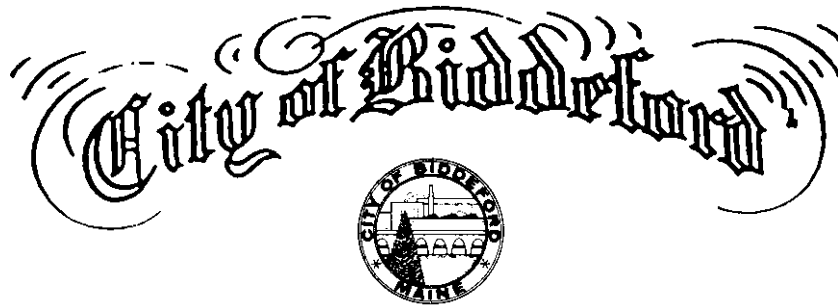
ISSUED FOR
JDA EXHIBIT

BY
DATE
PFH
11/12/20

Exhibit B
Legal Description

[insert legal description of Site]

Exhibit C
Environmental Clearances



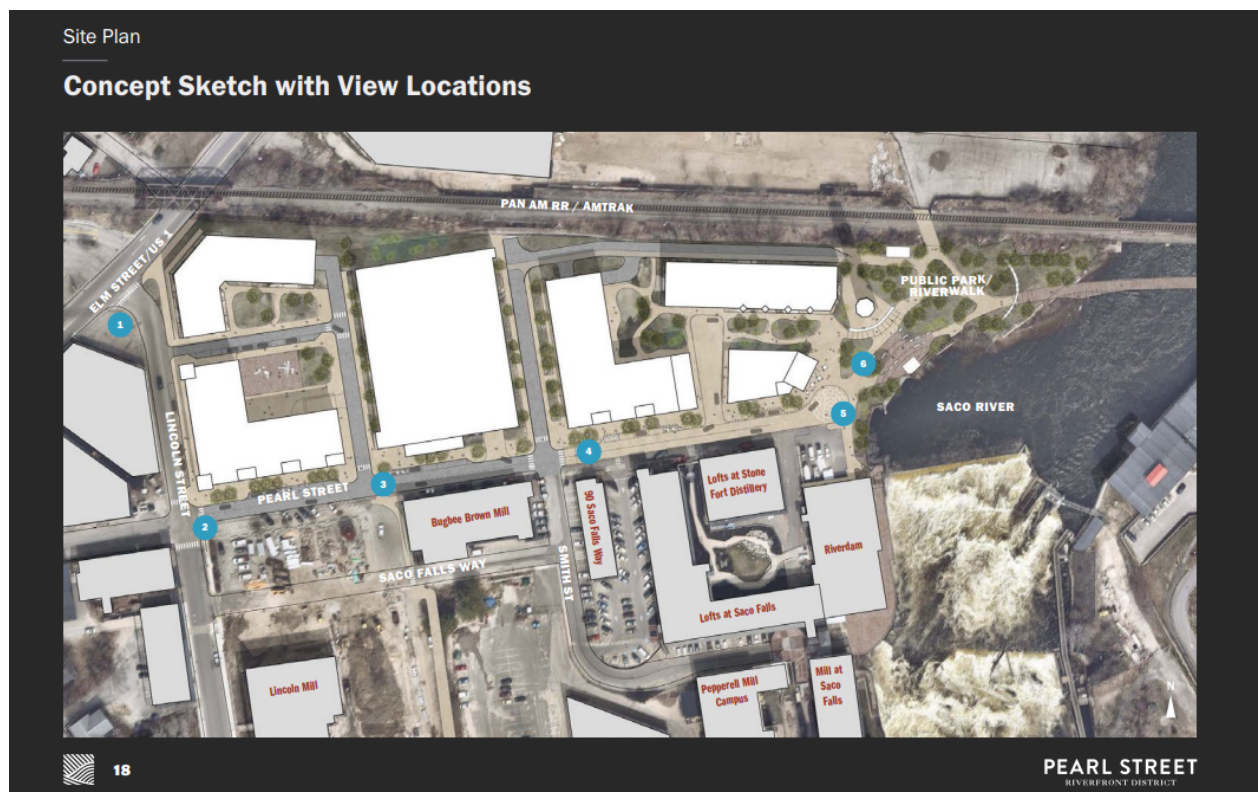
2021.134

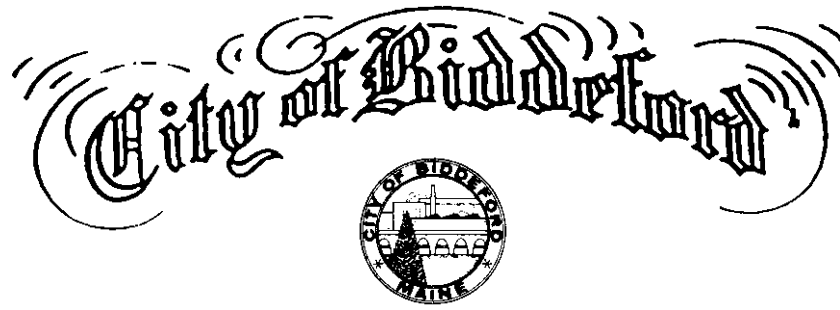
IN BOARD OF CITY COUNCIL..DECEMBER 21, 2021

BE IT ORDERED, that the City Council approves the Preliminary Concept Plan submitted by 3-Lincoln LLC (the Fathom Company and partners) for the redevelopment of the so-called “MERC site” at 3 Lincoln Street, substantially in the form represented in the attached concept plan and consistent with the Master Plan Development Agreement, signed on November 13, 2020 and subject to the following conditions:

1. *The City of Biddeford will coordinate the DEP Shoreland Zoning amendment to allow the density proposed for the Pearl Street Riverfront District. This approval will allow the Site Plan Application for Lot 3 to be submitted and avoid further delays to the permitting process due to the existing amendment.*
2. *The timeline outlined in the Master Plan Development Agreement (Section 1.3 Project Schedule) will not start until the DEP Shoreland Zoning amendment is approved to allow the density proposed for the Pearl Street Riverfront District in the Preliminary Concept Plan and Lot 3 Site Plan Application.*

Preliminary Concept Plan:

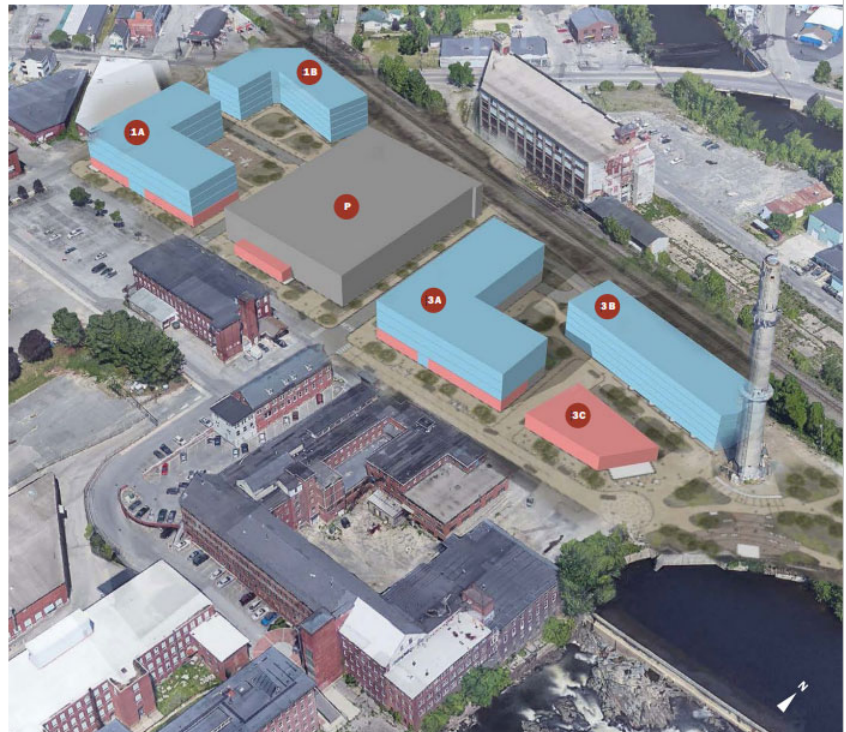




Site Plan

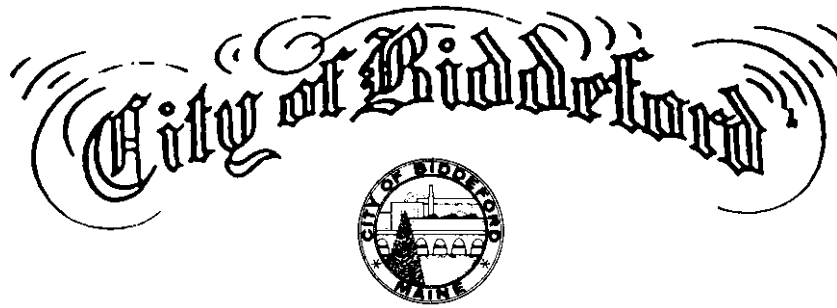
Potential Development Program

- 1A Building 1A**
Floorplate 21,000SF; 3-5 stories; 60,000-100,000SF gross
- 1B Building 1B**
Floorplate 14,500SF; 3-5 stories; 43,500-72,500SF gross
- P Public Parking Structure & Transportation Hub**
Retail, bike parking; 1 story; 1,000-1,500SF gross
- 3A Building 3A**
Floorplate 22,500SF; 3-5 stories; 67,000-112,500SF gross
- 3B Building 3B**
Floorplate 12,500SF; 3-5 stories; 37,000-62,500SF gross
- 3C Building 3C**
Retail/Dining Floorplate 6,500SF; 1-2 stories; 6,500-13,000SF gross

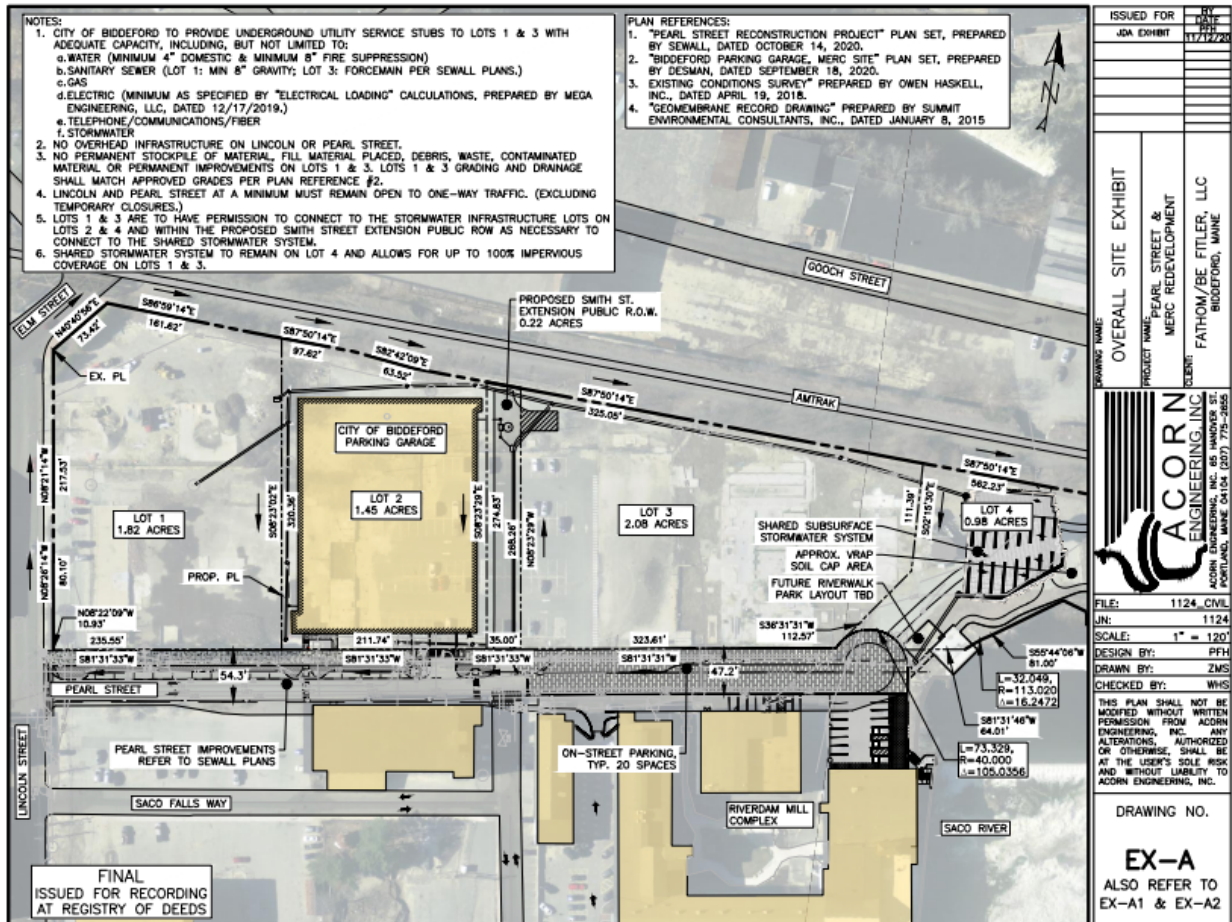


15

PEARL STREET
RIVERFRONT DISTRICT



Survey of Property



December 21, 2021

Motion by Councilor Clearwater, seconded by Councilor Lessard to grant the order.
Vote: Unanimous.

Attest by: _____
Carmen J. Morris, City Clerk

Section 32

Site Photographs

Section 32: Photographs



Figure 1. Standing east of existing parking garage on Smith Street, facing east toward the proposed Lot 3.



Figure 2. Standing east of existing parking garage, facing south toward Pearl Street. See Lot 3 on the left and Lot 2 on the right.



Figure 3. Standing east of existing parking garage, facing east toward Lot 3.



Figure 4. Standing east of existing parking garage, facing southeast toward Lot 3.



Figure 5. Standing east of existing parking garage, facing northwest toward the rear of Lot 3. See 1 Gooch Street building in background.



Figure 6. Standing near base of existing Cell Tower (Lot 4), facing west toward Lot 3 and parking garage (Lot 2).





Figure 7. Standing near base of existing Cell Tower east of Lot 3, facing northwest toward Cell Tower and partial rear of lot 3.



Figure 8. Overview of Lot 3.

Section 2.5

Legal Descriptions

Section 2.5: Legal Descriptions

Please find the attached draft legal descriptions for the proposed Lots 1, 2, 3, & 4, and Smith Street Right-of-Way prepared by Owen Haskell, Inc. Draft deeds prepared by the applicants Attorney will be provided to the City for review as soon as possible.



December 8, 2022

Lot 1

Pearl Street Redevelopment

Biddeford, Maine

A certain lot or parcel of land located on the northerly side of Pearl Street, the easterly side of Lincoln Street and the southeasterly side of Elm Street in the City of Biddeford, County of York, State of Maine bounded and described as follows:

Beginning at a point at the intersection of the northerly side of Pearl Street with the easterly side of Lincoln Street. Thence:

- 1) N 08°26'14" W by said Lincoln Street a distance of Eighty and 10/100 (80.10) feet to a point;
- 2) N 08°21'14" W by said Lincoln Street a distance of Two Hundred Seventeen and 53/100 (217.53) feet to a point at the southeasterly side of Elm Street;
- 3) N 40°40'56" E by said Elm Street a distance of Seventy-Three and 42/100 (73.42) feet to a point at land now or formerly of AMTRAK;
- 4) S 86°59'14" E by said land of AMTRAK a distance of One Hundred Sixty-One and 62/100 (161.62) feet to a point;
- 5) S 87°50'14" E by said land of AMTRAK a distance of Twenty-One and 87/100 (21.87) feet to a point at the northwesterly corner of land designated as "Lot 2" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ___, Page___;
- 6) S 08°23'02" E by said Lot 2 a distance of Three Hundred Twenty and 70/100 (320.70) feet to said Pearl Street;
- 7) S 81°36'31" W by said Pearl Street a distance of Two Hundred Thirty-Five and 55/100 (235.55) feet to the point of beginning.

Bearings are based on Maine State Coordinate System, West Zone, NAD83.

The above described parcel contains 1.82 acres being a portion of land now or formerly of the City of Biddeford as described in a deeds recorded in the York County Registry of Deeds in Book 16838, Page 255 and Book 16475, Page 186 and being designated as "Lot 1" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ___, Page___. Reference is herein made to a plan entitled "Existing Conditions Survey" made for the City of Biddeford" by Owen Haskell, Inc. dated August 5, 2021 and revised August 29, 2021.

December 9, 2022

Lot 2

Pearl Street Redevelopment

Biddeford, Maine

A certain lot or parcel of land located on the northerly side of Pearl Street in the City of Biddeford, County of York, State of Maine bounded and described as follows:

Beginning at a point on the northerly side of Pearl Street and the southeasterly corner of land designated as "Lot 1" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Thence:

- 1) N 08°23'02" W by said Lot 1 a distance of Three Hundred Twenty and 70/100 (320.70) feet to a point at land now or formerly of AMTRAK;
- 2) S 87°50'14" E by said land of AMTRAK a distance of Seventy-Five and 75/100 (75.75) feet to a point;
- 3) S 82°42'09" E by said land of AMTRAK a distance of Sixty-Three and 52/100 (63.52) feet to a point;
- 4) S 87°50'14" E by said land of AMTRAK a distance of Seventy-Seven and 53/100 (77.53) feet to a point at the northwesterly corner of land designated as "Smith Street Extension" on said Plan;
- 5) S 08°23'29" E by said land of Smith Street Extension a distance of Two Hundred Seventy-Five and 45/100 (275.45) feet to a point on the northerly side of Pearl Street;
- 6) S 81°36'31" W by said Pearl Street a distance of Two Hundred Eleven and 88/100 (211.88) feet to the point of beginning.

Bearings are based on Maine State Coordinate System, West Zone, NAD83.

The above described parcel contains 1.45 acres being a portion of land now or formerly of the City of Biddeford as described in a deeds recorded in the York County Registry of Deeds in Book 16838, Page 255 and Book 16475, Page 186 and being designated as "Lot 2" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Reference is herein made to a plan entitled "Existing Conditions Survey" made for the City of Biddeford" by Owen Haskell, Inc. dated August 5, 2021 and revised August 29, 2021.

December 9, 2022

Lot 3
Pearl Street Redevelopment
Biddeford, Maine

A certain lot or parcel of land located on the northerly side of Pearl Street in the City of Biddeford, County of York, State of Maine bounded and described as follows:

Beginning at a point on the northerly side of Pearl Street and the southeasterly corner of land designated as "Smith Street Extension" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Thence:

- 1) N 08°23'29" W by said Smith Street Extension a distance of Two Hundred Sixty-Eight and 93/100 (268.93) feet to a point at land now or formerly of AMTRAK;
- 2) S 87°50'14" E by said land of AMTRAK a distance of Four Hundred Twenty-One and 98/100 (421.98) feet to a point at the northwesterly corner of land designated as "Lot 4" as delineated on said Plan;
- 3) S 02°15'45" E by said Lot 4 and said Pearl Street a distance of One Hundred Eleven 48/100 (111.48) feet to a point;
- 4) S 36°45'21" W by said Lot 4 a distance of One Hundred Fourteen and 55/100 (114.55) feet to a point;
- 5) S 81°36'31" W by said Pearl Street a distance of Three Hundred Twenty-One and 73/100 (321.73) feet to the point of beginning.

Bearings are based on Maine State Coordinate System, West Zone, NAD83.

The above described parcel contains 2.08 acres being a portion of land now or formerly of the City of Biddeford as described in a deeds recorded in the York County Registry of Deeds in Book 16838, Page 255 and Book 16475, Page 186 and being designated as "Smith Street Extension" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Reference is herein made to a plan entitled "Existing Conditions Survey" made for the City of Biddeford" by Owen Haskell, Inc. dated August 5, 2021 and revised August 29, 2021.

December 9, 2022

Lot 4
Pearl Street Redevelopment
Biddeford, Maine

A certain lot or parcel of land located on the northerly side of Pearl Street in the City of Biddeford, County of York, State of Maine bounded and described as follows:

Beginning at a point on the northerly side of Pearl Street, said point of beginning being located N 36°45'21" E by said Pearl Street a distance of Thirteen and 74/100 (13.74) feet from the southeasterly corner of land designated as "Lot 4" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ___, Page___ . Thence:

- 1) N 36°45'21" E by said Lot 4 a distance of One Hundred and 82/100 (100.82) feet to a point;
- 2) N 02°15'45" W by said Lot 4 a distance of One Hundred Eleven and 48/100 (111.48) feet to a point at land now or formerly of AMTRAK;
- 3) S 87°50'14" E by said land of AMTRAK a distance of Three Hundred Fifty-Two and 16/100 (352.16) feet to a point;
- 4) S 38°02'06" W a distance of Thirty-Four and 89/100 (34.89) feet to a drill hole;
- 5) S 53°05'06" W a distance of One Hundred Fifty-Two and 45/100 (152.45) feet to a point;
- 6) N 73°01'54" W a distance of Forty-Seven and 00/100 (47.00) feet to a point;
- 7) S 55°44'06" W a distance of Eighty-One and 00/100 (81.00) feet to a point;
- 8) Southwesterly, following a non-tangent curve to the left having a radius of One Hundred Thirteen and 02/100 (113.02) feet, an arc distance of Thirty-Two and 05/100 (32.05) feet to a point at the northerly side of Pearl Street, said curve having a Chord Bearing of S 53°27'57" W and a Chord Distance of Thirty-One and 94/100 (31.94) feet;
- 9) S 81°36'31" W by said Pearl Street a distance of Sixty-Four and 03/100 (63.04) feet to a point;
- 10) Westerly by said Pearl Street, following a non-tangent curve to the left having a radius of Forty and 04/100 (40.04) feet, an arc distance of Seventy-Three and 40/100 (73.40) feet to the point of beginning, said curve having a Chord Bearing of N 89°37'14" W and a Chord Distance of Sixty-Three and 54/100 (63.54) feet.

Bearings are based on Maine State Coordinate System, West Zone, NAD83.

The above described parcel contains 2.08 acres being a portion of land now or formerly of the City of Biddeford as described in a deeds recorded in the York County Registry of Deeds in Book 16838, Page 255 and Book 16475, Page 186 and being designated as "Smith Street Extension" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ___, Page___. Reference is herein made to a plan entitled "Existing Conditions Survey" made for the City of Biddeford" by Owen Haskell, Inc. dated August 5, 2021 and revised August 29, 2021.

December 9, 2022

Smith Street Extension
Pearl Street Redevelopment
Biddeford, Maine

A certain lot or parcel of land located on the northerly side of Pearl Street in the City of Biddeford, County of York, State of Maine bounded and described as follows:

Beginning at a point on the northerly side of Pearl Street and the southeasterly corner of land designated as "Lot 2" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Thence:

- 1) N 08°23'29" W by said Lot 2 a distance of Two Hundred Seventy-Five and 45/100 (275.45) feet to a point at land now or formerly of AMTRAK;
- 2) S 87°50'14" E by said land of AMTRAK a distance of Thirty-Five and 60/100 (35.60) feet to a point at the northwesterly corner of land designated as "Lot 3" on said Plan;
- 3) S 08°23'29" E by said Lot 3 a distance of Two Hundred Sixty-Eight and 93/100 (268.93) feet to a point on the northerly side of Pearl Street;
- 4) S 81°36'31" W by said Pearl Street a distance of Thirty-Five and 00/100 (35.00) feet to the point of beginning.

Bearings are based on Maine State Coordinate System, West Zone, NAD83.

The above described parcel contains 0.22 acres being a portion of land now or formerly of the City of Biddeford as described in a deeds recorded in the York County Registry of Deeds in Book 16838, Page 255 and Book 16475, Page 186 and being designated as "Smith Street Extension" as delineated on a plan entitled "Subdivision Plat-Pearl Street Redevelopment" as recorded in the York County Registry of Deeds in Plan Book ____, Page ____ . Reference is herein made to a plan entitled "Existing Conditions Survey" made for the City of Biddeford" by Owen Haskell, Inc. dated August 5, 2021 and revised August 29, 2021.

Section 33

Waivers

Section 33: Waivers

The project does propose the following Waivers.

- 1.) The project proposes to waive the commercial space parking requirements.



Section 3

Financial Capacity

Section 3. Financial Capacity

Please refer to the attached Certificate of Good Standing and letter from the Applicant's bank confirming financial capacity for the project.





October 1 , 2022

To: City of Biddeford, Maine

The purpose of this letter is to express Mascoma Bank's support and interest in providing financing for The Fathom Companies' subsidiary 3 Lincoln, LLC and its Pearl Street Lofts (Lots 3A, 3B & 3C) mixed-use project. It is our understanding the project is for the construction of 85 residential apartment units on Lot 3A, 129 residential apartment units on Lot 3B, and a two-story commercial building on Lot 3C located in downtown of Biddeford, Maine with a maximum project budget of approximately \$50 million.

Mascoma Bank has provided financing for a number of Jim Brady's and The Fathom Companies' projects in the State of Maine. All of these projects have been successful in every aspect, and just as important, each project has been a credit to the community. Mascoma has been fortunate to work with many successful builders and developers, but none who are more devoted than Jim and The Fathom Companies to ensuring that their developments provide positive, transformative impacts to the communities where their developments are located. Jim and The Fathom Companies' projects in Southern Maine are exceptional examples of such devotion.

Please know that this letter is an expression of support and interest, and is not a commitment. A commitment would require further review of appropriate information by the Bank.

I hope you find this letter helpful, and if you have any questions, please do not hesitate to contact me.

Sincerely,

Tad S. Atwell

Senior Vice President, Commercial Lending
48 Free Street, Portland, Maine 04101
(207) 613-0142
Tad.Atwell@MascomaBank.com

**MAINE**Department of the Secretary of State
Bureau of Corporations, Elections and Commissions**Corporate Name Search**

Information Summary

[Subscriber activity report](#)

This record contains information from the CEC database and is accurate as of: Tue Dec 20 2022 14:04:52. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
3 LINCOLN, LLC	20200610DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
07/31/2019	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

JAMES BRADY
80 EXCHANGE STREET, SUITE 400
PORTLAND, ME 04101

[Back to previous screen](#)[New Search](#)

Click on a link to obtain additional information.

[List of Filings](#)[View list of filings](#)

Obtain additional information:

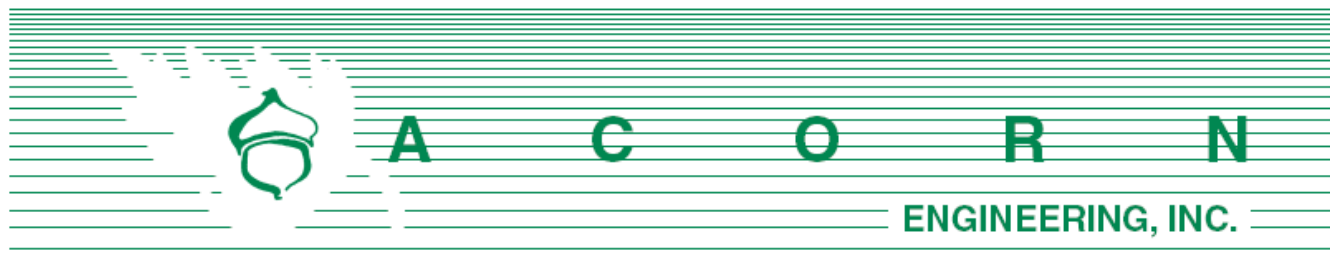
Certificate of Existence (more info)	Short Form without amendments (\$30.00)	Long Form with amendments (\$30.00)
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You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
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© Department of the Secretary of State



Greg Mitchell
Planning & Development, City of Biddeford
205 Main Street
Biddeford, ME 04005

January 11, 2022

Subject: 3rd Party Engineer Review Comment Response Letter
Pearl Street (Lot 3) Redevelopment – Biddeford, Maine

On behalf of 3 Lincoln, LLC., we are pleased to respond to the 3rd Party Engineer review comments from the City of Biddeford, dated October 26, 2022 for the recently submitted Preliminary Site Plan and Subdivision application for the Pearl Street Redevelopment Project. Please find responses to the comments received thus far below.

Site Design Associates

Comment – *The applicant requested city review of the previously issued Site Law permit that was approved as part of the city’s municipal garage project on Lot 2. We are unclear as to what this means. Is a Site Location of Development Act (SLODA) permit or amendment necessary?*

Response – An amendment to the existing Stormwater Management Law application (L-10282-05-A-N) is required as part of the proposed project. The previously approved project included the installation of a stormwater treatment system (located on lot 4) that was conservatively sized to treat the future development of lots 1, 2, 3, and 4. As the City does not have municipal capacity to review the Stormwater Management Law, the amendment application was submitted to the DEP on November 7th. The Site Location of Development Permitting has been included as part of this submission to the City for delegated review on behalf of the DEP.

Comment – *A condition of approval for the stormwater permit for the parking garage is that a stormwater management permit application must be submitted to DEP for all new development.*

Response – See the response above.

Comment – *Apparently, the applicant has submitted a Traffic Movement Permit application with MDOT. We are not aware of the status of that, but recommend the city engage a peer reviewer to review the report and actively work with the city through the TMP process. The city can influence how the process proceeds and address issues the city has identified that might not necessarily be evident as part of a TMP process.*

Response – At the Preliminary Planning Board hearing, the Board requested the City engage with a third party traffic engineer to review the TMP application. Please refer to Section 28: Traffic for the Sewall’s traffic peer review comments, and initial responses. The applicant and their traffic engineer continue to work with the DOT, the City, and Sewall as part of the TMP process. A copy of

the final Traffic Movement Permit will be provided upon issuance by the Maine DOT.

Comment – *The I and M plan for during construction shown on drawing C-46 should include weekly inspections as opposed to bi-weekly, and the additional requirements of chapter 500, Appendix B.1. should be added to the drawing.*

Response – The Inspection and Maintenance Plan has been revised to reference weekly inspections and the additional requirements of chapter 500, Appendix B.1. Please see the revised Sheet C-46 for additional information.

Comment – *The post-construction I and M plan should be updated to define the storm triggering an inspection (1" or more rainfall in 24 hours), and additional requirements of chapter 500 Appendix B.2., as applicable. The oil/water separator should be included in the plan, and separate inspection forms provided for it and each BMP.*

Response – The I&M plan has been updated to include the specific inspection storm triggers, requirements of CH 500 Appendix B.2, as well as identify requirements for the oil/water separator and provides separate inspection forms for each BMP.

Comment – *The erosion and sediment control plans appear to address the applicable standards.*

Response – Thank you for your comment.

Comment – *We believe a rectangular oil/water separator, with a baffle, would be much more effective than the oil/water separator detail provided.*

Response – The oil/water separator detail as shown in the plan set matches the product supplied by Precast of Maine and has been used on various similar developments with no apparent issues. It is our professional opinion that the proposed oil/water separator will be sufficient, however we have added a note that an "or approved equal" be allowed, should the contractor provide a submittal with the rectangular configuration with a baffle.

Please let us know if you have any additional questions or comments.

Sincerely,



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



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



Section 4

Technical Capacity

Section 4. Technical Capacity

Fathom Development provides planning and development advisory services that put vision, strategy, and budget at the forefront. Through diligent project management and consultation, we maintain a focus on hitting milestones and achieving quality throughout design and construction while always watching the bottom line. We work to serve our clients with clear communication, organized project facilitation, and experience based in design, engineering, and constructability. With proven mixed use, hospitality, and historical rehabilitation experience, our expertise supports the project from planning, to groundbreaking, to opening and beyond. Our development portfolio includes many projects in southern Maine including The Press Hotel, 80 Exchange Street office building, and The Canopy Portland Waterfront Hotel all located in Portland, ME.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting, and construction administration. Acorn Engineering, Inc has successfully designed and permitted more than 20 Minor/Major projects in Portland & Biddeford during the past 5 years, including 1 Upper Falls Road Redevelopment, Riverdam, Munjoy Heights, East Bayside Lofts, and The Hiawatha.

Kaplan Thompson Architects combines the practicality of sustainable design with the artistry of architecture to deliver high-quality, low-impact buildings. Their portfolio includes multi-family projects of varying scales with both affordable housing and market rate developers across New England, including Dakota Partners and Avesta Housing. With national recognition for their achievements in high-performance construction and innovative design, Kaplan Thompson's multifamily projects have been the recipients of awards from AIA Maine and AIA New England, PHIUS, and Maine Smart Growth.

Soren DeNiord Design Studio (SDDS) is a professional landscape design firm located in Portland, Maine. Their portfolio includes award winning projects ranging in scale from residential to mixed use, commercial and institutional. As stewards of the environment and our clients' resources, we engage in projects with a commitment to sustainability and the intention of artfully responding to each site's unique challenges.

Section 5

Noise

Section 5. Noise

The proposed project is classified as a development producing a minor noise impact under (4) Other Developments

a. Type, source, and location of noise

The noise generated by the residential and commercial buildings will be relatively minor for the urban zone. The source of the noise will be produced by vehicles circulating through the site.

b. Uses, zoning and plans

The land use is described as mixed-use. There are residential and commercial uses within proximity to the site that generate similar noise than is expected from proposed project. Please find attached the zoning map with the subject parcel outlined.

The development is not anticipated to produce more than 55 db(A) and 67 db(C) of noise between the hours of 7:00 am and 10:00 pm as well as no more than 45 db(A) and 57 db(C) of noise between the hours of 10:00 pm and 7:00 am per the City of Biddeford Municipal Code of Ordinances Article III – Noise. Furthermore, Article III Section 34-56-Exceptions (4) provides an exemption from Article III for construction or demolition activity permitted and duly authorized during daytime hours. Construction is anticipated to occur during daylight hours.

c. Protected locations

The development is adjacent to the Saco River.

d. Minor nature of impact

The nature of vehicle circulation and materials handling on site will not produce significant noise levels.

e. Demonstration

The site is adjacent to the Saco River to the east, Pearl Street with existing commercial and residential uses to the south, an existing parking garage to the west, and the Amtrack railroad to the north. The western property line of the development is approximately 650 feet from Lincoln Street. The noise generated by the vehicle circulation within the site is anticipated to be negligible. The commercial/restaurant and residential uses are not anticipated to generate high noise levels.

There is a similar mixed-use residential development located directly across Pearl Street from the project site.

Details

Add

Basemap

Save

Share

Print

Measure

Bookmarks

About

Content

Legend

Legend

General zoning

SR1: Suburban Residential

LRF: Limited Rural Farm

R1A: Single Family Residential 1A

R1B: Single Family Residential 1B

RF: Rural Farm

MSRD2: Residential Conservation

R2: Multi-Family

R3: Mixed Residential

CR: Coastal Residential

B1: General Business

B2: Highway Business

MSRD1: Commercial Core

OR: Office Residential

I1: General Industrial

I2: Airport Industrial

I3: Comerical Industrial

MSRD3: High Density / Mixed Use

IN: Institutional

M: Medical

W1: Mixed Waterfront

W2: Commercial Waterfront

W3: Pool Village Waterfront

+

-

0

150

300ft

Esri Community Maps Contributors, City of Biddeford, © OpenStreetMap, M

Section 6

Visual Quality & Scenic Character

6. Visual Quality and Scenic Character

The proposed project is not directly adjacent to the Saco River and as such will not disturbing any land within 100' from the Saco River. An application was submitted to the Saco River Corridor Commission (SRCC) on 1/4/2023 as part of the proposed project. The project proposes to redevelop the previous MERC facility site and greatly improve the previous character of the neighborhood.



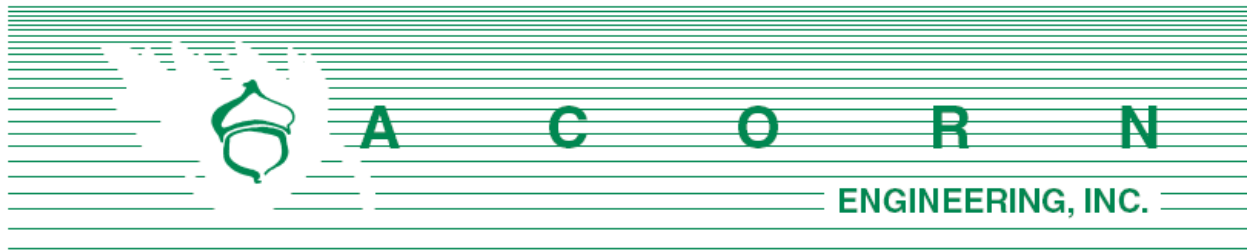
Section 7

Wildlife & Fisheries

Section 7. Wildlife and Fisheries

See attached letter to Maine Wildlife and Fisheries.





Mr. John Perry
Maine Department of Inland Fisheries & Wildlife
41 State House Station
Augusta, Maine 04333

December 14th, 2022

Subject: Wildlife and Fisheries
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Perry:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from your department regarding potential fisheries and wildlife habitat impacts that could result from the proposed redevelopment.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:

EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

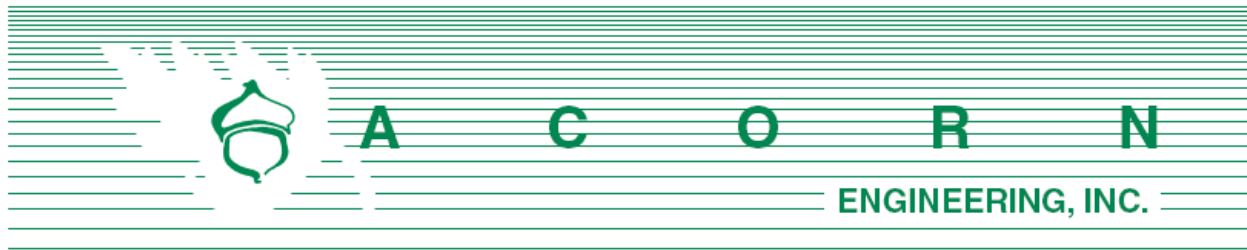
Section 8

Historic Sites

Section 8. Historic Sites

See attached letter to Maine Historic Preservation Commission and their corresponding response.





Mr. Kirk F. Mohnney
Maine Historic Preservation Commission
55 Capitol Street, State House Station 65
Augusta, Maine 04333

December 14th, 2022

Subject: Presence of Historic Areas
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Mohnney:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from your department in regard to the presence of any nearby structure or area with historical, architectural or archeological significance as defined by the National Historic Preservation Act.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey



JANET T. MILLS
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

KIRK F. MOHNEY
DIRECTOR

December 21, 2022

Mr. Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Project: MHPC #2210-22 3 Lincoln St
Proposed Redevelopment
Town: Biddeford, ME

Dear Mr. Stevens:

In response to your recent request, I have reviewed the information received December 14, 2022 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

In order to continue our review, please provide elevation drawings and renderings of the proposed new construction.

In addition, a historic archaeological survey is recommended. The proposed project area was part of an active industrial district throughout the 19th century with a number of properties and a canal and early river shore within the project area. Two images attached of the parcel due to the potential presence of two historic homestead sites of Morrill and R. Mosher present in 1857. Please see enclosed map.

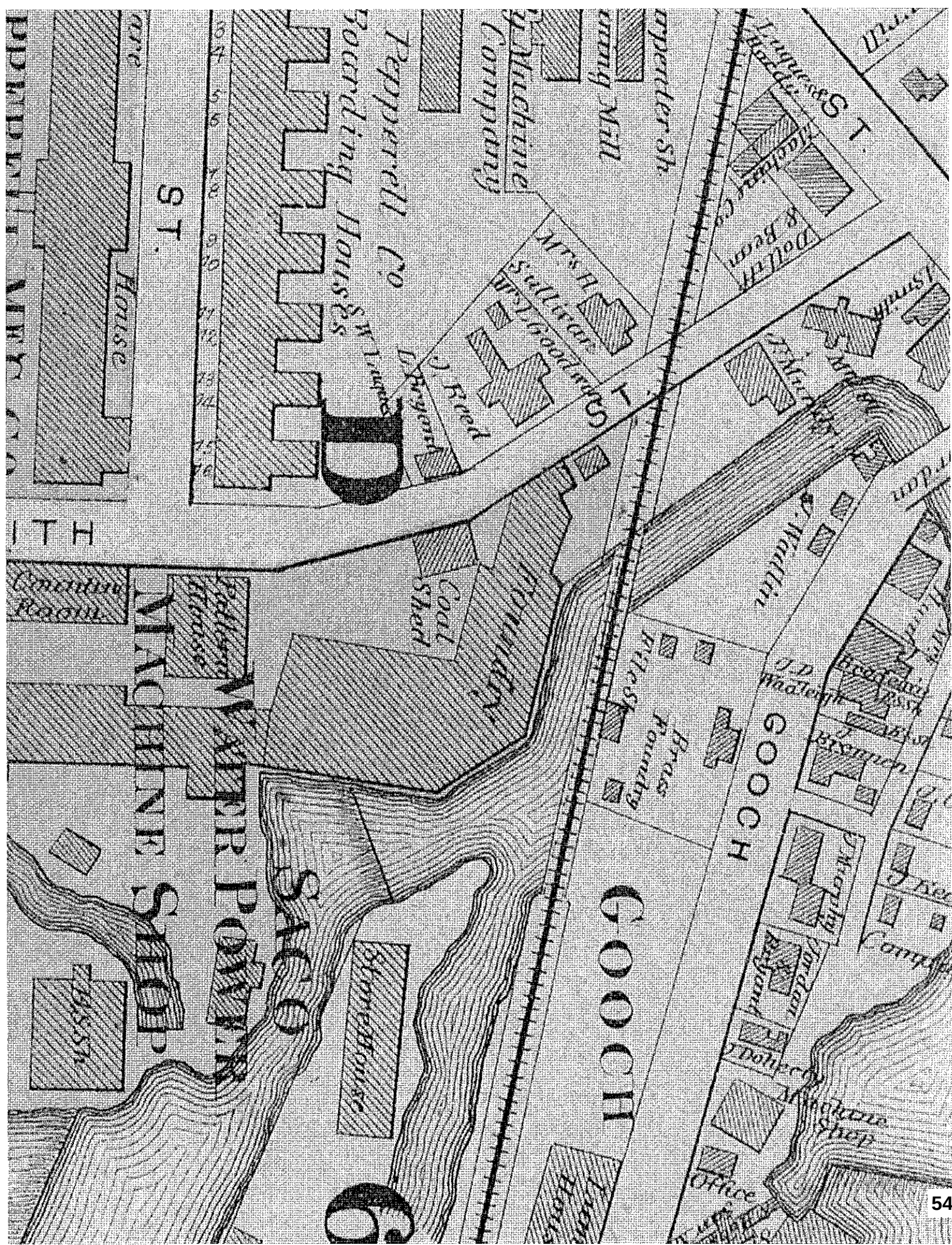
A list of qualified historic archaeologists can be found on our website:
<https://www.maine.gov/mhpc/programs/survey/approved-consultants/historic>

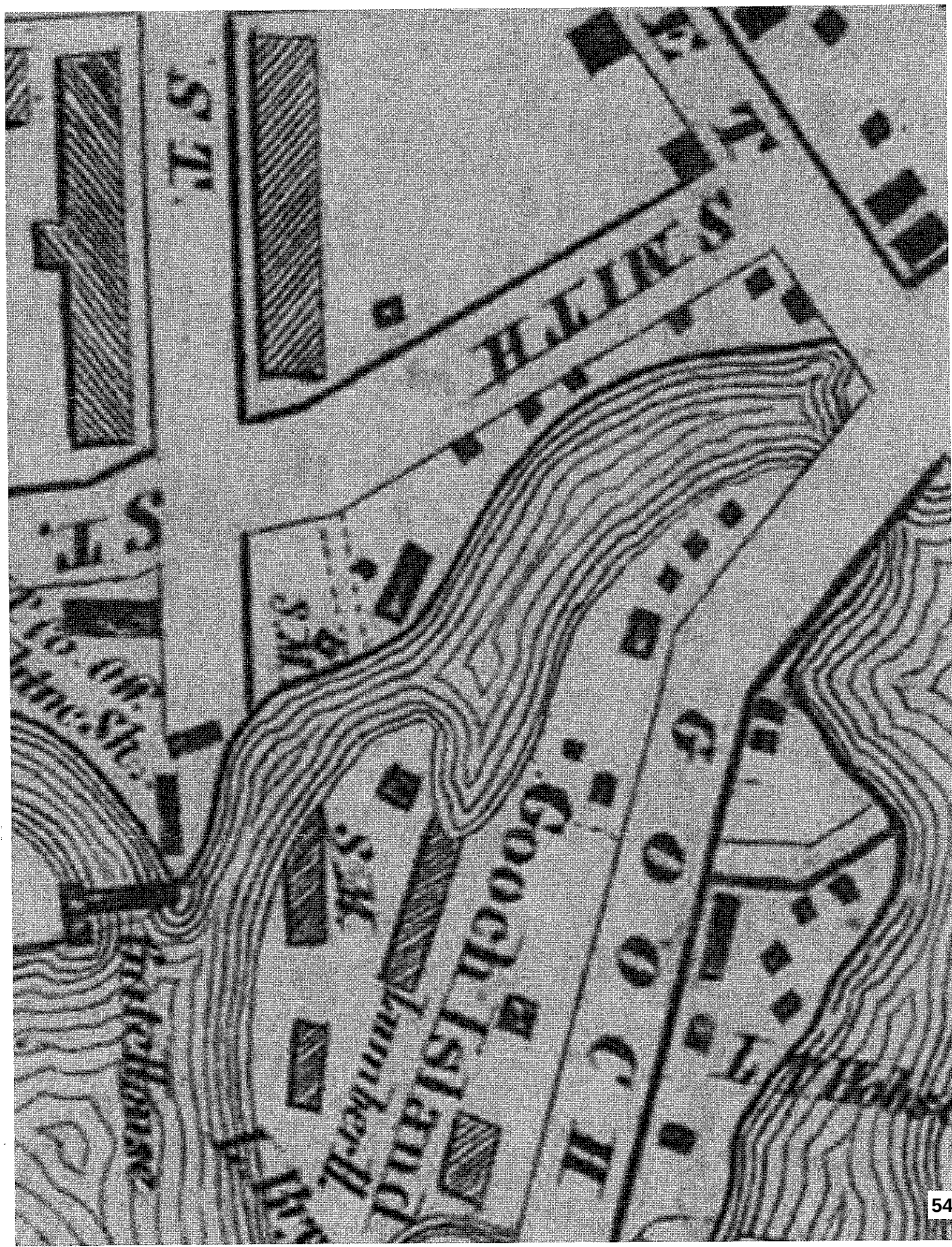
If you have any questions regarding archaeology, please contact Dr. Leith Smith of this office at Leith.Smith@maine.gov

If you have any questions regarding above ground properties, please contact Megan Rideout of this office at megan.m.rideout@maine.gov.

Sincerely,

Kirk F. Mohney
State Historic Preservation Officer





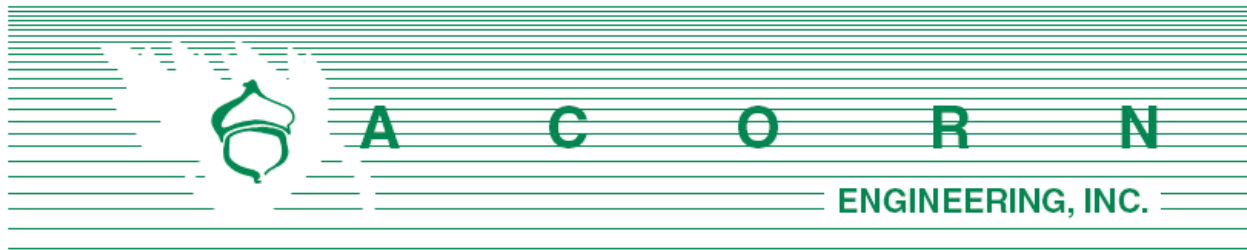
Section 9

Unusual Natural Areas

Section 9. Unusual Natural Areas

See attached letter to Maine Natural Areas Program and their corresponding response confirming the proposed project does not disturb rare botanical features.





Ms. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, Maine 04333

December 14th, 2022

Subject: Maine Natural Areas
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Ms. St. Hilaire,

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests confirmation from your department that the proposed redevelopment will not adversely affect any federally listed endangered or threatened species.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map
EX-2 Site Plan
EX-3 Survey

ATTACHMENT 9-1: MNAP RESPONSE





STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

December 15, 2022

Zachary Stevens
Acorn Engineering
PO Box 3372
Portland, ME 04104

Via email: zstevens@acorn-engineering.com

Re: Rare and exemplary botanical features in proximity to: #1124, 3 Lincoln Street Redevelopment (Lot 3), Biddeford, Maine

Dear Mr. Stevens:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received December 14, 2022 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. Based on the information in our files and the landscape context of this project, there is a low probability that rare or significant botanical features occur at this project location.

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 Maine Natural Areas Program (MNAP) 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. MNAP welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044
WWW.MAINE.GOV/DACF/MNAP

The Maine 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 \$150.00 for two hours of our services.

Thank you for using MNAP 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,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Section 10

Buffers

Section 10. Buffers

The existing lot is the former location of the old MERC facility, as such there is minimal vegetation onsite. The project anticipates incorporating trees, shrubs, and groundcover as part of the proposed programming. Please refer to the Landscape Plans prepared by Soren DeNoird for additional information.



Section 11

Soils

Section 11. Soils

The existing redevelopment project consists of approximately 2.08 acres of the existing 3 Lincoln Street parcel in Biddeford. The soils contain primarily urban fill, glacial till, and probable bedrock. Please see the attached geotechnical report including subsurface soil explorations by Summit Geoengineering Services for additional information.

Attachments:

- 1.) Medium Intensity Web Soil Survey for 3 Lincoln Street (Lot 3) in Biddeford.
- 2.) Geotechnical Report by Summit Geoengineering Services, Inc.





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

PL



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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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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 19, May 29, 2020

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	2.1	100.0%
Totals for Area of Interest		2.1	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 Setting

National map unit symbol: 9k6x
Elevation: 10 to 2,200 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 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

Minor Components

Scantic

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Sulfihemists

Percent of map unit: 2 percent
Landform: Salt marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear

Hydric soil rating: Yes

Adams

Percent of map unit: 2 percent

Landform: Outwash plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Buxton

Percent of map unit: 2 percent

Landform: Coastal plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Croghan

Percent of map unit: 2 percent

Landform: Outwash plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

References

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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The key to success starts with a solid foundation.
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Geotechnical Report

*Proposed Buildings (Lot 3)
Pearl Street, Biddeford, ME*



Client

Fathom Companies
80 Exchange Street, Suite 400
Portland, ME 04101

Project #: 22120
Date: 6/14/2022

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Appendix A – Exploration Location Plan

Appendix B – Exploration Logs

Appendix C – Laboratory Results

Appendix D – Bedrock Recommendations

June 14, 2022
SGS Project #: 22120

Fathom Companies
80 Exchange Street, Suite 400
Portland, ME 04101
Attn: Robyn Payne, CMIT

Reference: Geotechnical Report – Proposed Buildings (Lot 3)
Pearl Street, Biddeford, ME

Dear Robyn;

Summit Geoengineering Services, Inc. (SGS) has completed a geotechnical investigation for the construction of the proposed buildings at the site referenced above. Our scope of services included the observation of ten test borings, eight probes, laboratory testing, and the preparation of this geotechnical report summarizing our findings and providing geotechnical recommendations.

Our scope of services for this project did not include an environmental site assessment or further investigation for the presence or absence of hazardous or toxic material on, below, or around the site. Any statements in this report, or on the exploration logs, regarding odors or unusual and suspicious conditions observed are for informational purposes and are not intended to constitute an environmental assessment.

1.0 Project Description

The project consists of the construction of three new buildings at Lot 3 at the site referenced above. The proposed conditions for the buildings are as follows:

- Building 3A
 - Approximate footprint area of 18,000 square feet
 - 7-stories; At-grade parking garage (Garage FFE = 57.00 feet)
 - 2 to 6 feet of cut
 - Large terraced area appending structure with cast-in-place and segmental block retaining walls. About 7 feet of fill will be necessary near the frost wall and above the footings to bring the terrace to grade.
- Building 3B
 - Approximate footprint area of 18,100 square feet
 - 7-stories; FFE = 62.00 feet; Lobby FFE = 57.50 feet
 - 0 to 5 feet of fill

- Building 3C
 - Approximate footprint area of 5,800 square feet
 - 1 to 2 stories; FFE = 56.90 feet
 - 0 to 1 foot of cut

A common area with paths, retaining walls, staircases, grassed areas, and access roads will append the new buildings. Retaining walls across the site will have heights ranging from 0.5 feet to 7.5 feet. The existing site is an open lot with a large stockpile of fill soil and a large smokestack to the east. The stockpile will be removed before the construction of the proposed buildings.

Structural loading provided by Thronton Tomasetti in an email dated June 2, 2022 is anticipated to approach a maximum interior column load of 250 kips. The maximum exterior columns are anticipated to be around 100 to 150 kips.

Existing and proposed conditions were referenced from a plan entitled *Grading Plan – Pearl Street Lot 3 Redevelopment Biddeford* by Acorn Engineering, Inc dated June 1, 2022.

2.0 Explorations

Summit Geoengineering Services (SGS) observed the subsurface conditions on May 3, 2022 and May 4, 2022 with the drilling of 10 test borings and 8 probes. The explorations were completed by SGS using a truck mounted AMS PowerProbe 9630 Pro-D drill rig.

The borings were drilled to depths ranging from 2.8 feet (auger refusal, elevation 54.2 feet) to 22 feet (no refusal, elevation 35 feet). The borings were completed using 2 ¼-inch hollow stem augers. Standard Penetration Tests (SPT) were performed in increments of 5 feet. Soils were visually classified (*ASTM D2488*) using SPT split spoon sampling (*ASTM D1586*).

The probes were drilled to depths ranging from 3.1 feet (elevation 53.9 feet) to 18.5 feet (elevation 42.5 feet), all to refusal. The probes were completed using solid stem augers and 2 ¼-inch hollow stem augers. Refusal was determined when the auger would grind on a dense stratum for an extended period. Changes in stratum were noted when ease or lack of ease of auguring occurred.

The exploration locations were determined by SGS and marked out by SGS prior to drilling. An exploration location plan and the exploration logs are included in *Appendix A* and *Appendix B*, respectively.

3.0 Laboratory Testing

A grain size analysis was performed in a composite sample of sand in B-3 and B-4 at a depth of 5 to 7 feet. This test was performed to determine the potential for reuse of this material on-site and to further classify the site soils.

Detailed results of the laboratory testing can be found in *Appendix C*.

4.0 Subsurface Conditions

4.1 Soil

From the explorations, the soil at this site generally consists of the following:

- **Topsoil**
- **Fill**
- **Glacial Marine**
- **Glacial Till**
- **Bedrock**

According to the *Surficial Geology Map* from the Maine Geological Survey, the surficial soil deposit at the site is classified as an artificial fill deposit over bedrock. The findings from the explorations are consistent with the geologic mapping with the addition of layers of glacial till and glacial marine.

The **topsoil** generally consists of dark brown fine sandy silt with trace gravel, clay, and roots. It is generally firm and damp to moist. It is 0.5 feet to 1.5 feet thick and is visually classified as ML, in accordance with the Unified Soil Classification System (USCS). The SPT N-values range from 2 blows per foot (bpf) to 7 bpf and average 4 bpf.

The **fill** generally consists of brown fine-coarse sand with little gravel and trace silt. The fill had occasional layers of sandy silt. Some portions of the fill had trace to little clay and occasional brick, metal, and asphalt pieces. Existing building rubble was encountered in some of the sampling and augering. Strong petroleum odors were encountered in B-5, B-6, and B-10 at depths ranging from 15 feet to 22 feet. The fill is generally very loose to very dense and damp to saturated. It is 3 feet to 21.5 feet thick and is visually classified as either SP, SW, SM, or ML, in accordance with the USCS. The SPT N-values range from 3 bpf to 55 bpf and average 20 bpf.

A 4-foot-thick concrete element was encountered at the surface in B-6. Broken pieces of plastic liners were seen in the auger cuttings for B-9 and B-10.

A grain size analysis was performed on a composite sample from B-3 and B-4 at a depth of 5 feet to 7 feet. The test indicated that the existing fill towards the southern portion of Building 3A consists of 10% gravel, 84% sand, and 6% fines. The sample had a moisture content of 5.9%. It is classified as SP-SM, in accordance with the USCS.

No organics or other undesirable materials were observed in the borings. We recommend SGS be contacted to observe the subgrade conditions across the site to ensure the fill is suitable for construction purposes.

FILL SUMMARY TABLE			
Exploration Location	Fill Thickness (ft)	SPT N-Values	Description
B-1	6.5	36, 7	SAND, trace Clay balls and brick
B-2	9.5	22, 17	SAND
B-3	8.5	24, 14	SAND
B-4	14	28, 35, 17	SAND, trace brick; SILT, little Clay, trace brick
B-5	22	11, 54, 18, 17	4 ft of an existing concrete element; SAND and SILT; Brick and metal piece at 12 ft Strong petroleum odor at 20 ft
B-6	20.5	5, 15, 6, 3	SAND, trace brick; Strong petroleum odor and sheen at 15 ft
B-7	5.5	12	SAND
B-8	2.8	26	SAND, trace brick
B-9	21.5	13, 8, 5, 4, 18	SAND; Re-worked CLAY; Melted rock piece at 11 ft; Plastic liner in auger cuttings at 14 ft; Trace ash at 20 ft
B-10	21	35, 6, 25, 36, 31	SAND, trace asphalt and metal pieces; Plastic liner in auger cuttings at 14 ft; Petroleum odor and sheen from 15 ft to 21 ft

The **glacial marine**, encountered in B-3 at a depth of 10 feet, generally consists of olive silty clay with little fine sand. It is generally firm and moist. It is 4.5 feet thick and is visually classified as CL, in accordance with the USCS. The SPT N-value is 7 bpf.

The **glacial till** generally consists of brown silty fine-medium sand with little clay and gravel and occasional cobbles and/or boulders. It is generally loose to very dense and moist to saturated. It is 1 foot to 5 feet thick and extended to bedrock, when encountered. It is visually classified as SM, in accordance with the USCS. The SPT N-values range from 7 bpf to 55 bpf and average 30 bpf.

Detailed descriptions of the soil can be found in the exploration logs in *Appendix B*.

4.2 Groundwater

Groundwater was encountered at the following depths and approximate elevations:

GROUNDWATER DEPTHS AND ELEVATIONS			
Location	Depth (ft)	Approximate Elevation (ft +/-)	Reference
B-1	11.0	50.0	Estimated in spoon samples
B-2	13.2	47.8	Measured with 15 ft augers
B-3	13.3	47.7	Measured with 15 ft augers
B-4	9.5	51.5	Estimated in spoon samples
B-5	15.7	41.3	Estimated in spoon samples
B-6	15.4	41.6	Measured with 20 ft augers
B-7	NE	NE	NE
B-8	NE	NE	NE
B-9	11.7	49.3	Measured with 20 ft augers
B-10	10.2	50.8	Measured with 20 ft augers

Note: NE = None Encountered

Elevations are approximated and based on the site plan referenced in *Section 1.0*

The groundwater elevations generally flow from west to east across the site towards the Saco River to the east of the site and generally follow the existing ground contours. Groundwater will fluctuate seasonally and with precipitation levels.

4.3 Bedrock

Refusal, considered to be probable bedrock, was encountered at the following depths and approximate elevations:

PROBABLE BEDROCK DEPTHS AND ELEVATIONS			
Location	Depth (ft)	Approximate Elevation (ft +/-)	Reference/Notes
B-1	12.2	48.8	Auger refusal
B-2	13.7	47.3	Auger refusal
B-3	15.3	45.7	Spoon refusal
B-4	15.7	45.3	Spoon refusal
B-5	> 22	< 35	No refusal
B-6	21.8	35.2	Spoon refusal
B-7	6.7	51.3	Spoon refusal
B-8	2.8	54.2	Auger refusal
B-9	> 22	< 39	No refusal
B-10	21.2	39.8	Spoon refusal
P-1	6.6	54.4	Used 2 ¼" HSA; Hard at 6.5 ft
P-1A	6.2	54.8	Hard at 6 ft
P-1B	6.2	54.8	Auger refusal
P-2	18.5	42.5	Easy drilling 7 - 15 ft; Hard drilling 17.5 - 18.5 ft
P-3	15.5	45.5	Hard at 1-3 ft; 7.5 ft; 11.5 ft; 13.5 ft
P-4	3.1	53.9	Auger refusal
P-4A	4.1	52.9	Used 2 ¼" HSA; Hard at 2.5 ft; 3.5 ft
P-5	6.3	50.7	Hard at 5.8 ft; plastic/blue fibers in cuttings

Note: Exploration locations were not survey located. Elevations are approximated and based on the site plan referenced in *Section 1.0*

All probes were completed using 1 ½" Solid Stem Augers, unless otherwise noted

Weathered bedrock was encountered in our explorations. The weathered regions were estimated through boring sampling, augering, and probing. These weathered regions are generally 2 inches to 5 inches thick and overly a harder bedrock surface.

Samples of the bedrock were not obtained for examination. According to the *Bedrock Geology Map* from the Maine Geological Survey, the bedrock around Pearl Street in Biddeford, ME is classified as a Kittery Formation. This formation consists of feldspathic and calcarous metawacke.

5.0 Geotechnical Evaluations

Based on the data collected during the field explorations, results of the laboratory testing, and subsequent analyses using the information provided to us, foundations at the site can be supported on conventional spread or continuous footings. Some of the potentially challenging geotechnical considerations for the proposed buildings are:

- The potential bedrock interference for footing construction to the north of Building 3A and the middle of Building 3B.
- The potential for differential settlement between footings bearing on bedrock and footings bearing on soil.

- The potential for many unconformities (rubble, cobbles, boulders, etc.) to be present in the footing and slab subgrade.
- The desire to retain a majority of the cut materials on-site to avoid excessive hauling from the site.

Bedrock will likely be encountered for the footing subgrade at the north side of Building 3A and near the proposed lobby section of Building 3B. We anticipate minimal removal of bedrock to be necessary. We will provide recommendations for footings bearing on bedrock and footings bearing on both bedrock and soil.

SGS performed settlement computations for the proposed loading conditions. Based on our analysis, we estimate less than 0.75 inches of settlement will occur at any given building. Differential settlement between footings bearing on soil and footings bearing on bedrock will be within tolerable limits.

Many unconformities were encountered in our explorations. Cobbles, boulders, and existing foundation and rubble elements may be encountered in the footing and slab subgrades. To mitigate the effects of these large elements, we recommend they be removed, when encountered, in their entirety to a competent material and replaced with either $\frac{3}{4}$ -inch crushed stone (CS) or Structural Fill (SF).

We understand that a majority of the cut materials on-site are desired to be reused. We will provide recommendations for different fill areas on-site including fill in the terraced areas, backfill for retaining walls, foundation backfill, and landscaped areas.

The existing fill at a depth of 5 feet to 7 feet, towards the south end of the proposed Building 3A, will meet the requirements for Granular Borrow (GB). If this material is desired to be reused within frost susceptible areas on-site, frequent testing and inspections should take place to ensure only clean ($< 7\%$ fines) and viable materials are used.

6.0 Geotechnical Recommendations

The sections below provide design and construction recommendations for the geotechnical aspects of the proposed buildings. If the building loads, proposed grades, or any other significant component of the project change from the time of submission of this report, Summit Geoengineering Services (SGS) should be notified so we can evaluate the impacts on the recommendations below to determine if changes are needed.

6.1 Subgrade Preparation

Based on the results of our subsurface explorations, we recommend that the bottom of the footings for the proposed buildings be constructed on a minimum of 6 inches of $\frac{3}{4}$ -inch crushed stone (CS) placed over glacial till, existing fill, proposed fill, or bedrock.

6.1.1 Footings on Soil

Assuming that the recommendations below are followed, the footings bearing on 6 inches of CS over soil can be proportioned using a maximum allowable bearing pressure of **3,000 pounds per square foot (psf)**. Total settlement is expected to be 0.75 inches or less and differential settlement is expected to remain within tolerable limits. The allowable bearing pressure is based on the following construction sequences across the site:

- After grubbing the entire building footprint, proofroll the exposed soil within the building footprint by making a minimum of 4 passes in each of two perpendicular directions using a vibratory compactor with a minimum operating weight of 8 tons.
- Excavate to 6 inches below the proposed bottom of footing elevation. Remove any unconformities in the subgrade and replace with $\frac{3}{4}$ -inch crushed stone (CS) or Structural Fill (SF). Proofroll the exposed soil by making a minimum of 4 passes using a plate compactor. Soft, wet, or unstable areas should be removed and replaced with CS or SF. A layer of woven geotextile may be necessary if the subgrade is excessively wet, soft, or unstable.
- Place and compact a minimum of 6 inches of CS. CS should be compacted to lock the particles together.
- SGS should observe the footing subgrade conditions after proofrolling and prior to the placement of the CS.
- The footings can be constructed directly on the compacted CS.
- In no case shall footings be constructed in standing water or frozen soil.

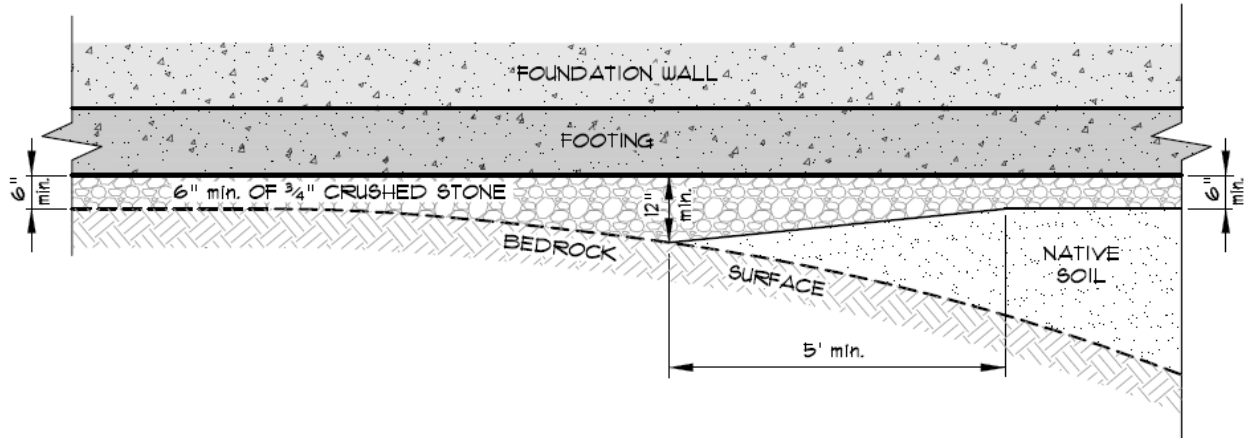
6.1.2 Footings on Bedrock

If bedrock is encountered in the footing subgrade, we recommend they be constructed on a minimum of 6 inches of CS. Footings on 6 inches of CS over bedrock can be proportioned using a maximum allowable bearing pressure of **10,000 psf**. The allowable bearing pressure is based on the following construction sequence:

- When bedrock is encountered, footings should bear on a minimum of 6 inches of compacted CS placed above proofrolled weathered, fractured bedrock or placed above hard, intact bedrock. Any large gaps or voids created by removing loose pieces of bedrock should be filled with CS.
- Footings bearing on CS over bedrock do not need the full frost protection, since intact bedrock is non-frost susceptible. We recommend that any footings bearing on CS over bedrock, not extended to the full frost depth, be backfilled with CS. We recommend that footings bearing on CS over bedrock be a minimum of 2 feet below the exterior finished

grade or the slab-on-grade. Where bedrock is cut, it should be sloped, if possible, to prevent ponding of water.

- If footings are bearing on both soil and bedrock, we recommend a CS transition zone be constructed with the CS becoming a uniform bearing surface between the bedrock and the soil. The following figure shows the CS transition zone:



If footings need to be dowelled into bedrock to provide lateral sliding resistance, we recommend the 6-inch CS layer be removed in these areas and the footing be cast directly on a hard, intact bedrock surface with dowels already installed.

Construction techniques for bedrock interference can be found in *Section 7.1*. The gradation requirements for both CS and SF can be found in *Section 7.2*.

6.2 Design Parameters

SGS recommends the following design parameters be used for foundation and exterior retaining walls across the site:

DESIGN PARAMETERS FOR SOILS ACROSS THE SITE			
Parameter	Structural Fill (SF)	Granular Borrow (GB)	Existing Fill
Total Natural Unit Weight (γ_t)	135 pcf	125 pcf	120 pcf
Buoyant Unit Weight (γ_b)	73 pcf	63 pcf	58 pcf
Friction Coefficient (f)*	0.55	0.5	0.45
Passive Earth Pressure Coefficient (K_p)	3.54	3.25	3.00
Active Earth Pressure Coefficient (K_a)	0.28	0.31	0.33
At Rest Pressure Coefficient (K_o)	0.44	0.47	0.5
Effective Friction Angle (ϕ°)	34°	32°	30°
Undrained Shear Strength (S_u)	0 psf	0 psf	0 psf

Note: The equivalent fluid pressure for computing retaining wall lateral loads can be taken as the product $\gamma_t \cdot (K_a, K_o, \text{ or } K_p)$

*The friction coefficient is assumed to be the interface between cast-in-place footings and the soil

Live loading, to account for construction equipment, transportation, and pedestrian loads, should be included in the design of the segmental block, cast-in-place, and foundation walls.

Active earth pressure coefficients assume structures are free to rotate at the top. At-rest earth pressure coefficients assume the top of structures are braced and no lateral movement occurs. All walls across the site should have an underdrain system installed at the base of the wall to prevent the build-up of hydrostatic pressure behind the wall.

6.3 Frost Protection

The design air freezing index for the Biddeford, Maine area is approximately 1,190-degree F days (10-year, 90% probability). Based on this, exterior footings and other footings exposed to freezing temperatures should be placed at a minimum depth of **4 feet** in order to provide adequate frost protection. We recommend that all foundations exposed to freezing temperatures be backfilled with Granular Borrow (GB). The existing fill towards the south portion of Building 3A may meet the requirements for GB, see *Section 7.2* for gradation requirements.

Interior footings in continuously heated areas can be constructed at a minimum depth of 24 inches below the finished floor elevation.

6.4 Seismic Design

Based on the discovered soils and their properties, this site can be classified as **Seismic Site Class C** in accordance with ASCE 7-10. The following seismic design coefficients should be used:

SUBGRADE SITE SEISMIC DESIGN COEFFICIENTS – ASCE 7-10	
Seismic Coefficient	ASCE 7-10 (Class C)
Short period spectral response (S_s)	0.251
1 second spectral response (S_1)	0.079
Maximum short period spectral response (S_{MS})	0.301
Maximum 1 second spectral response (S_{M1})	0.135
Design short period spectral response (S_{DS})	0.201
Design 1 second spectral response (S_{D1})	0.090

No liquefiable soils were encountered in our explorations.

6.5 Groundwater Control

Based on observed groundwater levels, groundwater is anticipated to be below the proposed bottom of footing elevation for the buildings. Based on these conditions, underdrains are not strictly necessary, however, it is generally good practice to install underdrains along the exterior and interior foundations of the building to account for any local and regional changes in the hydrogeology and to control infiltration of rainfall adjacent to the foundation walls.

Underdrains, if used, should consist of 4-inch rigid PVC or flexible ADS pipe surrounded by 6 inches of $\frac{3}{4}$ -inch crushed stone (CS) which is then surrounded by Mirafi 140N or equivalent. Underdrains should be outlet to a free draining location. Where exposed at the ground surface, a screen or other device should be placed over the outlet to prevent the migration of animals into the underdrain system.

In addition, we recommend all exterior grades slope away from the building footprint to reduce runoff water from infiltrating the foundation backfill soils.

Cast-in-place and segmental block retaining walls will require underdrains to prevent the hydrostatic loading on the walls, see *Section 6.8*.

6.6 Slabs-on-Grade

All fill should be compacted to a minimum of 95% of *ASTM D1557*. The gradation requirements for Granular Borrow (GB), $\frac{3}{4}$ -inch crushed stone (CS), and Structural Fill (SF) can be found in *Section 7.2*.

6.6.1 Interior Slabs

To provide a uniform support condition for slabs-on-grade, we recommend the following steps be taken for construction:

- After grubbing the entire building footprint, proofroll the exposed soil, by making a minimum of 4 passes in each of two perpendicular directions using a vibratory compactor.
- Soft or wet pockets should be removed and replaced with SF or CS. Geotextile may be required in excessively wet and soft areas.
- Fill and/or cut the entire building footprint, if necessary, to 8 or 12 inches below the proposed finished slab-on-grade elevation, depending on the material being used as the slab subbase (CS or SF). Fill required to raise the grade to the bottom of the slab subbase soil should consist of GB or SF. The maximum particle size for these materials should be limited to 6 inches. GB, and SF should be compacted to a minimum of 95% of *ASTM D1557*.
- Place either 8 inches of CS or 12 inches of SF. The CS should be compacted to lock the particles together. The SF should be compacted to a minimum of 95% of *ASTM D1557*. The slab can be constructed directly on the compacted SF or CS.

6.6.2 Exterior Slabs

For slabs in unheated areas, the following options should be considered for frost protection:

- **6-inch slab over 2 inches of rigid insulation over 12 inches CS or SF (compacted)**
- **6-inch slab over 36 inches CS or SF (compacted)**

We recommend that insulation, if used, be extended 2 feet beyond the edge of the slabs and that it consist of a rigid polystyrene product.

6.7 Pavement Section Recommendations

The mean annual freezing index for the Biddeford, Maine area is estimated at 890-degree F days (2-year, 50% probability). Based on the subgrade and mean annual freezing index, the anticipated mean annual frost penetration depth is 36 inches.

For the parking lots and access roads, we recommend a minimum total section thickness of **18 inches**. We further recommend that the pavement section consist of the following materials:

PAVEMENT SECTION MATERIALS AND THICKNESSES		
Material	Thickness (in)	Specifications
Asphalt Surface Course	1 1/4	MDOT 703.09 Type 9.5 mm or 12.5 mm
Asphalt Binder Course	1 3/4	MDOT 703.09 Type 19 mm
Base Soil	3	MDOT 703.06 Type A
Subbase Soil	12	MDOT 703.06 Type D

Reference: MDOT Standard Specifications, 2014

The following specifications are for MDOT base and subbase gravel:

BASE SOIL – TYPE A	
Sieve Size	Percent finer
1 inch	95 to 100
¾ inch	90 to 100
No. 4	40 to 65
No. 10	10 to 45
No. 200	0 to 7

Reference: MDOT Specification 703.06, Type A (2020)

SUBBASE SOIL – TYPE D	
Sieve Size	Percent finer
3 inch	100
½ inch	35 to 80
¼ inch	25 to 65
No. 40	0 to 30
No. 200	0 to 7

Reference: MDOT Specification 703.06, Type D (2014)

Fill beneath the subbase soil can consist of the existing fill (free from rubble, organics, or other

unsuitable materials), glacial till, SF, or GB, placed and compacted to a minimum of 95% of *ASTM D1557*.

Underdrains are not necessary beneath paved areas. Paved areas should be side sloped to prevent water ponding on the surface.

If paved areas are heated (not allowed to be below freezing temperatures), the base and subbase soils can be reduced in thickness to 1.5 inches and 6 inches, respectively.

6.8 Proposed Retaining Walls

The following recommendations are for both segmental block and cast-in-place retaining walls. Retaining walls across the site will have heights ranging from 0.5 feet to 7.5 feet.

6.8.1 Cast-in-Place Retaining Walls

We recommend that all cast-in-place retaining walls be backfilled with Structural Fill (SF) or Granular Borrow (GB). We further recommend that the soil properties and earth pressures summarized in *Section 6.2* be used for the structural design of the foundation walls. An underdrain system should be installed at the base of the wall (*Section 6.5*).

We recommend the footings for the cast-in-place retaining walls bear on a minimum of 6 inches of CS and be proportioned using an allowable bearing pressure of 3,000 psf. The friction coefficient between the concrete and the CS should be taken as 0.60.

When on bedrock, cast-in-place retaining walls should be constructed on a minimum of 6 inches of CS and may need to be dowelled into the bedrock. The allowable bearing pressure for footings on bedrock can be designed using 10,000 psf.

6.8.2 Segmental Block Retaining Walls

We recommend that all proposed segmental block retaining walls on-site be designed by a Maine Licensed Professional Engineer.

For all walls on site, we recommend that a $\frac{3}{4}$ -inch crushed stone (CS) column with a minimum thickness of 12 inches be installed behind the entire wall, between the back of the blocks and the wall backfill, to prevent infiltrated water behind the wall from creating a hydrostatic load on the wall. An underdrain system should be provided continuously behind the retaining wall near its base to prevent the buildup of hydrostatic pressures.

Underdrains for the wall should consist of a 4-inch rigid perforated PVC surrounded by a minimum of 6 inches of $\frac{3}{4}$ -inch crushed stone (CS) and filter fabric to prevent clogging from the migration of the fine soil particles in the foundation backfill soils. Underdrains should outlet at the ends of the wall or through the face at a maximum spacing of 50 feet.

We anticipate that the walls on site will be constructed on the existing fill or glacial till. We recommend that the walls be constructed on a leveling pad consisting of a minimum 9-inch-thick layer of CS. A geotextile fabric (such as Mirafi 180N) should be placed on the existing soil beneath the wall leveling pad. We recommend that all topsoil is removed and the exposed soil beneath the leveling pad, if granular and not containing clay, be proofrolled prior to placing the geotextile and CS. All rubble and/or other unconformities should be removed before proofrolling.

The walls should be designed in accordance with the *National Concrete Masonry Association (NCMA), 3rd Edition*, design manual. Retaining wall backfill for gravity retaining walls and reinforced soil for geogrid reinforced retaining walls should consist of GB or SF, compacted to a minimum of 95% of its maximum dry density in accordance with *ASTM D1557*. The maximum particle size should be limited to 4 inches, when used as a reinforced soil behind walls.

The walls can be designed with the wall backfill properties stated in *Section 6.2* using an allowable bearing pressure of 3,000 psf.

Since modular blocks are tolerable to some shifting, the blocks do not need to be placed to full frost depth. We recommend the following minimum embedment depths:

MINIMUM SEGMENTAL RETAINING WALL EMBEDMENT DEPTH	
Slope in Front of Wall	Minimum Embedment to Top of Leveling Pad
Horizontal	H/20
3H:1V	H/10
2H:1V	H/7
Minimum Embedment	0.5 feet

Note: H is the exposed height of the wall in (ft). The minimum embedment depth will also be in feet.

Passive resistance of embedded portions of the wall should be ignored.

7.0 Earthwork Considerations

7.1 Earthwork for Construction

SF, CS, GB and the existing native soil on-site are classified as an OSHA Type C classification. Based on this, any excavation deeper than 5 feet in these materials should have temporary side slopes which do not exceed 1.5H:1V.

If seepage occurs in any excavation deeper than 5 feet, de-watering techniques should be considered and side slopes shall not exceed 1.5H:1V.

Adequate proof rolling of the subgrade soil is important to the success of any fill as a uniform bearing material, especially if the subgrade soil is loose in isolated areas.

To the extent possible, construction should occur during periods of dry weather to minimize disturbance to excavated subgrade areas. If excavations and construction occur during wet periods, the contractor should employ the necessary measures to eliminate disturbance to the subgrade from heavy rainfall, surface water runoff, freeze/thaw softening, or any other potential weather-related cause of subgrade disturbance.

Cuts into bedrock may be required for bottom of footing elevations. If bedrock prevents the desired elevation, excavation of the bedrock, mechanically or by controlled blasting, may be necessary. If controlled blasting is necessary, we recommend it be performed in general accordance with the guidelines presented in *Appendix D*. We recommend a pre-construction survey be completed prior to blasting.

Once excavation for the footings is initiated, SGS should be contacted to observe the subgrade conditions after proofrolling and prior to the placement of any fill.

7.2 Materials

The gradation requirements reflect the portion of soil passing the 3-inch sieve size. The following table presents the recommended grain sizes for the materials to be used at the site:

GRADATION REQUIREMENTS FOR SITE MATERIALS			
Sieve Size	¹ Structural Fill (SF)	² Crushed Stone (CS)	³ Granular Borrow (GB)
4 Inch	---	---	---
3 Inch	100	---	100
2 Inch	---	---	---
1 Inch	---	100	---
¾ Inch	---	90 – 100	---
½ Inch	35 – 80	20 – 55	---
⅜ Inch	---	0 – 15	---
¼ Inch	25 – 65	---	---
No. 4	---	0 – 5	---
No. 40	0 – 30	---	0 – 70
No. 200	0 – 7	---	0 – 7
Maximum Particle Size	6"	1"	6"
⁴ Minimum Compaction Requirement	95%	---	⁵ 95%

¹Maine DOT Specification 703.06, 2014, Type D

²Maine DOT Specification 703.13, 2020, Crushed Stone ¾-Inch

³Maine DOT Specification 703.19, 2020, Granular Borrow

⁴Per ASTM D1557

⁵Compaction requirement for GB can be reduced to 90%, when in landscaping areas.

CS should be placed in 12-inch maximum lifts and compacted with a minimum of 4 passes with a vibratory compactor.

GB should consist of a free draining, granular soil.

The existing fill at a depth of 5 feet to 7 feet, towards the south end of the proposed Building 3A, will meet the requirements for Granular Borrow (GB). If this material is desired to be reused within frost susceptible areas on-site, frequent testing and inspections should take place to ensure only clean ($< 7\%$ fines) and viable materials are used.

7.3 Fill Recommendations Across the Site

7.3.1 Terraced Area and Landscaping Areas

We recommend the terraced area and any other landscaping area be filled with Common Borrow (CB). CB used at the site should consist of earth, suitable for embankment construction. It shall be free from frozen material, perishable rubbish, peat, and other unsuitable material including material currently or previously contaminated by chemical, radiological, or biological agents and should be able to be placed and compacted to a stable state. The existing fill soil at the site will meet or can be made suitable to meet the specifications of CB.

When in the terraced area, the CB should be compacted to a minimum of 90% of *ASTM D1557*. It is the responsibility of the wall designers across the site to determine the minimum distance of retaining wall backfill needed behind the site walls. We recommend a filter fabric be installed between the interface of the CB and the retaining wall backfill across the site to minimize the infiltration of fine particles into the retaining wall backfill.

7.3.2 Foundation and Retaining Wall Backfill

Foundation and retaining wall backfill across the site should consist of GB or SF.

7.3.3 Other Uses of Fill

Non-frost-susceptible areas within the building footprint (not including slabs-on-grade) and underneath the pavement sections may be filled with CB. CB in these areas should be compacted to a minimum of 95% of *ASTM D1557*.

8.0 Closure

Our recommendations are based on professional judgment, generally accepted principles of geotechnical engineering and project information provided by others. Some changes in subsurface conditions from those presented in this report may occur. Should the subsurface conditions, finish grades, or foundation loadings differ materially from those described in this report, SGS should be notified so that we can re-evaluate our recommendations.

We recommend that a qualified third-party testing agency be retained to provide QA/QC services during construction.

SGS should be contacted to provide subgrade inspections prior to placement of the foundations to observe the subgrade conditions.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or if additional information is required, please do not hesitate to call.

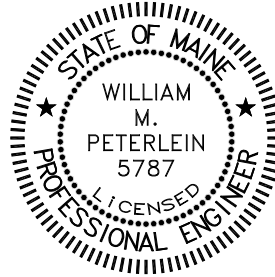
Sincerely,
Summit Geoengineering Services, Inc.

A handwritten signature in black ink, appearing to read "Colin M. Plante".

Colin M. Plante, E.I.
Geotechnical Engineer

A handwritten signature in blue ink, appearing to read "William M. Peterlein".

William M. Peterlein, P.E.
President & Principal Engineer



Appendix A

Exploration Location Plan

Appendix B

Exploration Logs

						SOIL BORING LOG		Boring #: B-1	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120	
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:	
Boring Elevation 61 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022			
Date started: 5/3/2022						Date Completed: 5/3/2022			
DRILLING METHOD		SAMPLER				ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS PP		Length: 24" SS				Date	Depth	Elevation	Reference
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID				5/3/2022	11 ft	50.0 ft +/-	Estimated in spoon samples
Method: 2 1/4" HSA		Hammer: 140 lb							
Hammer Style: Automatic		Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
	S-1	24/23	0-2	2	60.5	Dk brn f Sandy SILT, tr Gravel/roots/Clay, firm, moist, ML			TOPSOIL
1				15		Brown fine-medium SAND, some Gravel, little Silt, trace brick, dense, damp, SP			FILL
				21					
2				31					
3									
4									
5									
	S-2	24/15	5-7	3		Brown medium-coarse SAND, little Gravel, trace Silty Clay balls and brick streaks, loose, damp, SW			
6				3					
				4					
7				2	54	Hard drilling at 7 ft			GLACIAL TILL
8									
9									
10									
	S-3	24/17	10-12	18		Gray/black weathered rock with fine-medium SAND			
11				7		Reddish brown Silty fine-medium SAND, little Gravel, compact, wet, SM			
				7					
12				50 for 5"	48.8	Gray weathered rock in spoon tip			WEATHERED ROCK
						End of Boring at 12.2 ft - Auger refusal			(PROBABLE) BEDROCK
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
Granular Soils		Cohesive Soils		% Composition		NOTES:			Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength			Dry: S = 0%
0-4	V. Loose	<2	V. soft	< 5% Trace		Bedrock Joints			Humid: S = 1 to 25%
5-10	Loose	2-4	Soft	5-15% Little		Shallow = 0 to 35 degrees			Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	15-30% Some		Dipping = 35 to 55 degrees			Moist: S = 51 to 75%
31-50	Dense	9-15	Stiff	> 30% With		Steep = 55 to 90 degrees			Wet: S = 76 to 99%
>50	V. Dense	16-30	V. Stiff			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches			Saturated: S = 100%
		>30	Hard			Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200			

						SOIL BORING LOG		Boring #: B-2	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120	
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:	
Boring Elevation 61 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022			
Date started: 5/3/2022						Date Completed: 5/3/2022			
DRILLING METHOD		SAMPLER				ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS PP		Length: 24" SS		Date		Depth		Elevation	
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID		5/3/2022		13.2 ft		47.8 ft +/-	
Method: 2 1/4" HSA		Hammer: 140 lb						Reference	
Hammer Style: Automatic		Method: ASTM D1586						Measured with 15 ft augers	
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
1	S-1	24/18	0-2	3	60.5	Dk brn f Sandy SILT, little Clay, tr Gravel/roots, firm, damp, ML			TOPSOIL
2				10		Brown medium-coarse SAND, little Gravel, trace Silt, compact, damp, SW			FILL
3				12					
4				20					
5									
6	S-2	24/11	5-7	3		Brown medium-coarse SAND, trace Gravel and Silt, compact, moist, SW			
7				7					
8				10					
9				17					
10					51				
11	S-3	24/17	10-12	3		Olive fine SAND, some Silt, trace Gravel, slightly mottled, compact, wet, SM			GLACIAL TILL
12				7					
13				17		Frequent Cobbles/Boulders in augering			
14				21	47.3				
15						End of Boring at 13.7 ft - Auger refusal			(PROBABLE) BEDROCK
16									
17									
18									
19									
20									
21									
22									
Granular Soils		Cohesive Soils		% Composition		NOTES:		Soil Moisture Condition	
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content		Dry: S = 0%	
0-4	V. Loose	<2	V. soft			LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test		Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	< 5% Trace		Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength		Damp: S = 26 to 50%	
11-30	Compact	5-8	Firm	5-15% Little		Shallow = 0 to 35 degrees		Moist: S = 51 to 75%	
31-50	Dense	9-15	Stiff	15-30% Some		Dipping = 35 to 55 degrees		Wet: S = 76 to 99%	
>50	V. Dense	16-30	V. Stiff	> 30% With		Steep = 55 to 90 degrees		Saturated: S = 100%	
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches			
						Gravel = < 3 inch and > No 4, Sand = < No 4 and > No 200, Silt/Clay = < No 200			

					SOIL BORING LOG			Boring #: B-3	
Drilling Co: Summit Geoengineering Services, Inc.					Project: Proposed Buildings (Lot 3)			Project #: 22120	
Driller: S. Floyd					Location: Pearl Street			Sheet: 1 of 1	
Summit Staff: C. Plante, EI					City, State: Biddeford, ME			Chkd by:	
Boring Elevation 61 ft +/-					Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022				
Date started: 5/3/2022					Date Completed: 5/3/2022				
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH				
Vehicle: AMS PP		Length: 24" SS			Date	Depth	Elevation	Reference	
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID			5/3/2022	13.3 ft	47.7 ft +/-	Measured with 15 ft augers	
Method: 2 1/4" HSA		Hammer: 140 lb							
Hammer Style: Automatic		Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
1	S-1	24/24	0-2	2	59.5	Dark brown fine SAND, some Silt, trace Gravel and roots, compact, damp, SM			TOPSOIL
2				5					
3				10					
4				14		Brown medium-coarse SAND, some Gravel, trace Silt, compact, damp, SW			FILL
5									
6	S-2	24/18	5-7	3	51	Brown medium-coarse SAND, little Gravel, trace Silt, compact, damp, SW		10% GRAVEL 84% SAND 6% FINES MC = 5.9%	
7				6					
8				8					
9				14		Black weathered rock in spoon tip			
10									
11	S-3	24/24	10-12	1	46.5	Olive Silty CLAY, little fine Sand, slightly mottled, firm, moist, CL		PP = 1.8 - 2.5 tsf	GLACIAL MARINE
12				3					
13				4					
14				5					
15									
16	S-4	24/10	15-17	50 for 3"	45.7	Hard drilling at 14.5 ft			GLACIAL TILL
17					45.7	Dark gray weathered rock			WEATHERED ROCK
18						End of Boring at 15.3 ft - Spoon refusal			(PROBABLE) BEDROCK
19									
20									
21									
22									
Granular Soils		Cohesive Soils		% Composition	NOTES:				Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487	PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength				Dry: S = 0%
0-4	V. Loose	<2	V. soft	< 5% Trace	Bedrock Joints				Humid: S = 1 to 25%
5-10	Loose	2-4	Soft	5-15% Little	Shallow = 0 to 35 degrees				Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	15-30% Some	Dipping = 35 to 55 degrees				Moist: S = 51 to 75%
31-50	Dense	9-15	Stiff	> 30% With	Steep = 55 to 90 degrees				Wet: S = 76 to 99%
>50	V. Dense	16-30	V. Stiff		Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches				Saturated: S = 100%
		>30	Hard		Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200				

						SOIL BORING LOG				Boring #: B-5	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)				Project #: 22120	
Driller: S. Floyd						Location: Pearl Street				Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME				Chkd by:	
Boring Elevation 57 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022					
Date started: 5/4/2022						Date Completed: 5/4/2022					
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH					
Vehicle: AMS PP			Length: 24" SS			Date	Depth	Elevation	Reference		
Model: 9630 Pro-D			Diameter: 2"OD/1.5"ID			5/4/2022	15.7 ft	41.3 ft +/-	Estimated in spoon samples		
Method: 1 1/2" SSA			Hammer: 140 lb								
Hammer Style: Automatic			Method: ASTM D1586								
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION			Geological/ Test Data	Geological Stratum	
1					53	4 ft of Concrete				EXISTING CONCRETE ELEMENT	
2											
3											
4											
	S-1	24/24	4-6	5		Concrete/cement cuttings				FILL	
5				5		Brown medium-coarse SAND, little Gravel, trace Silt, compact, damp, SW					
6				6							
7				4							
8											
9											
10											
	S-2	24/24	10-12	23		Blackish olive fine Sandy SILT, trace to little Gravel, very dense, moist, ML					
11				20							
12				34		Brick and metal nail in spoon tip					
13				35							
14											
15											
	S-3	24/24	15-17	3		Black Silty f SAND, tr Gravel, compact, moist, SM					
16				6		Olive brown medium-coarse SAND, little Silt and Gravel, compact, saturated, SW					
17				12							
18				22							
19											
20											
	S-4	24/24	20-22	3		Strong petroleum odor in spoon sample					
21				5		Brown fine-medium SAND, little Silt, trace Gravel, loose, saturated, SP					
22				12		Black Silty fine SAND, trace Gravel, compact, saturated, SM					
				19	35						
End of Boring at 22 ft - No refusal											
Granular Soils		Cohesive Soils		% Composition		NOTES:					Soil Moisture Condition
Blows/ft. Density		Blows/ft. Consistency		ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength					Dry: S = 0%
0-4 V. Loose		<2 V. soft		< 5% Trace		Bedrock Joints					Humid: S = 1 to 25%
5-10 Loose		2-4 Soft		5-15% Little		Shallow = 0 to 35 degrees					Damp: S = 26 to 50%
11-30 Compact		5-8 Firm		15-30% Some		Dipping = 35 to 55 degrees					Moist: S = 51 to 75%
31-50 Dense		9-15 Stiff		> 30% With		Steep = 55 to 90 degrees					Wet: S = 76 to 99%
>50 V. Dense		16-30 V. Stiff				Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches					Saturated: S = 100%
		>30 Hard				Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200					

						SOIL BORING LOG		Boring #: B-6	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120	
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:	
Boring Elevation 57 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022			
Date started: 5/4/2022						Date Completed: 5/4/2022			
DRILLING METHOD			SAMPLER			ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS PP			Length: 24" SS			Date	Depth	Elevation	Reference
Model: 9630 Pro-D			Diameter: 2"OD/1.5"ID			5/4/2022	15.4 ft	41.6 ft +/-	Measured with 20 ft augers
Method: 2 1/4" HSA			Hammer: 140 lb						
Hammer Style: Automatic			Method: ASTM D1586						
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
1	S-1	24/16	0-2	3		Brown fine-medium SAND, little Silt and Gravel, trace brick, loose, damp, SP			FILL
2				2		Light brown medium-coarse SAND, trace Gravel, loose, damp, SW			
3				5					
4									
5						Hard drilling at 4.5 ft			
6	S-2	24/11	5-7	6		Dark brown Silty fine SAND, trace Gravel, compact, moist, SM			
7				9					
8				6					
9				7					
10									
11	S-3	24/13	10-12	5		Reddish brown fine SAND, some Silt, little Gravel, loose, moist, SM			
12				4					
13				2					
14				1					
15									
16	S-4	24/17	15-17	1	36.5	Black Silty fine SAND, very loose, saturated, SM			
17				3		Trace Gravel 1st 4"			
18				WH		Strong petroleum odor and sheen in spoon			
19				3					
20									
21	S-5	24/17	20-22	15	36.5	Black Silty fine SAND, compact, saturated, SM			
22				20		Black fine-medium SAND, with weathered rock, very dense, saturated, SP			
				35					
				50 for 3"	35.2				
						End of Boring at 21.8 ft - Spoon refusal			
								(PROBABLE) BEDROCK	
Granular Soils		Cohesive Soils		% Composition		NOTES:			Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength			Dry: S = 0%
0-4	V. Loose	<2	V. soft	< 5% Trace		Bedrock Joints			Humid: S = 1 to 25%
5-10	Loose	2-4	Soft	5-15% Little		Shallow = 0 to 35 degrees			Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	15-30% Some		Dipping = 35 to 55 degrees			Moist: S = 51 to 75%
31-50	Dense	9-15	Stiff	> 30% With		Steep = 55 to 90 degrees			Wet: S = 76 to 99%
>50	V. Dense	16-30	V. Stiff			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches			Saturated: S = 100%
		>30	Hard			Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200			

						SOIL BORING LOG		Boring #: B-8		
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120		
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1		
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:		
Boring Elevation 57 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022				
Date started: 5/4/2022						Date Completed: 5/4/2022				
DRILLING METHOD		SAMPLER				ESTIMATED GROUND WATER DEPTH				
Vehicle: AMS PP		Length: 24" SS				Date	Depth	Elevation	Reference	
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID				5/4/2022			None observed	
Method: 2 1/4" HSA		Hammer: 140 lb								
Hammer Style: Automatic		Method: ASTM D1586								
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum	
1	S-1	24/18	0-2	18	54.2	Brown fine SAND, little Silt, trace Gravel, compact, moist, SP Weathered rock and brick streaks throughout			FILL	
2				12						
3				14						
4				30						
5						End of Boring at 2.8 ft - Auger refusal			(PROBABLE) BEDROCK	
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
Granular Soils		Cohesive Soils		% Composition	NOTES:				Soil Moisture Condition	
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487	PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test <u>Bedrock Joints</u> Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength				Dry: S = 0%	
0-4	V. Loose	<2	V. soft	< 5% Trace	Shallow = 0 to 35 degrees				Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	5-15% Little	Dipping = 35 to 55 degrees				Damp: S = 26 to 50%	
11-30	Compact	5-8	Firm	15-30% Some	Steep = 55 to 90 degrees				Moist: S = 51 to 75%	
31-50	Dense	9-15	Stiff	> 30% With					Wet: S = 76 to 99%	
>50	V. Dense	16-30	V. Stiff						Saturated: S = 100%	
		>30	Hard		Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200					

						SOIL BORING LOG		Boring #: B-9	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120	
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:	
Boring Elevation 61 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022			
Date started: 5/3/2022						Date Completed: 5/3/2022			
DRILLING METHOD		SAMPLER				ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS PP		Length: 24" SS				Date	Depth	Elevation	Reference
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID				5/3/2022	11.7 ft	49.3 ft +/-	Measured with 20 ft augers
Method: 2 1/4" HSA		Hammer: 140 lb							
Hammer Style: Automatic		Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
	S-1	24/18	0-2	3	60.6	4" Topsoil			TOPSOIL
1				5		Brown medium-coarse SAND, little Gravel, trace Silt, compact, damp, SW			FILL
				8					
2				7					
3									
4									
5									
	S-2	24/11	5-7	2		Brown fine-medium SAND, trace Gravel, loose, damp, SP			
6				2					
				6					
7				3					
8									
9									
10									
	S-3	24/13	10-12	1		Brown medium-coarse SAND, little Silt, trace Gravel, loose, wet, SW			
11				2					
				3		Melted rock piece (igneous rock) in spoon			
12				2					
13									
14									
15						Plastic liner in auger cuttings			
	S-4	24/9	15-17	1		Gray Silty CLAY, little fine Sand, trace Gravel, soft, wet, CL		PP = 1.0 - 4.0 tsf	
16				2					
				2		Sample appears re-worked			
17				5					
18									
19									
20									
	S-5	24/12	20-22	6		Grayish black Gravelly SAND, some Silt and Clay, trace ash, compact, saturated, SM			
21				7					
				11					
22				10	39				
						End of Boring at 22 ft - No refusal			
Granular Soils		Cohesive Soils		% Composition		NOTES:			Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength			Dry: S = 0%
0-4	V. Loose	<2	V. soft	< 5% Trace		Bedrock Joints			Humid: S = 1 to 25%
5-10	Loose	2-4	Soft	5-15% Little		Shallow = 0 to 35 degrees			Damp: S = 26 to 50%
11-30	Compact	5-8	Firm	15-30% Some		Dipping = 35 to 55 degrees			Moist: S = 51 to 75%
31-50	Dense	9-15	Stiff	> 30% With		Steep = 55 to 90 degrees			Wet: S = 76 to 99%
>50	V. Dense	16-30	V. Stiff			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches			Saturated: S = 100%
		>30	Hard			Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200			

						SOIL BORING LOG		Boring #: B-10	
Drilling Co: Summit Geoengineering Services, Inc.						Project: Proposed Buildings (Lot 3)		Project #: 22120	
Driller: S. Floyd						Location: Pearl Street		Sheet: 1 of 1	
Summit Staff: C. Plante, EI						City, State: Biddeford, ME		Chkd by:	
Boring Elevation 61 ft +/-						Reference: Grading Plan, Pearl Street Lot 3, Acorn Engineering, 1/17/2022			
Date started: 5/3/2022						Date Completed: 5/3/2022			
DRILLING METHOD		SAMPLER				ESTIMATED GROUND WATER DEPTH			
Vehicle: AMS PP		Length: 24" SS				Date	Depth	Elevation	Reference
Model: 9630 Pro-D		Diameter: 2"OD/1.5"ID				5/3/2022	10.2 ft	50.8 ft +/-	Measured with 20 ft augers
Method: 2 1/4" HSA		Hammer: 140 lb							
Hammer Style: Automatic		Method: ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum
	S-1	24/19	0-2	3	60.6	4" Topsoil			TOPSOIL
1				14		Brown fine-medium SAND, some Gravel, little Silt, dense, damp, SP			FILL
2				21		Metal piece in spoon tip			
3				20		Hard drilling to 5 ft			
4									
5									
6	S-2	24/10	5-7	3		Brown fine-medium SAND, little Gravel, trace Silt, loose, damp, SP			
7				3					
8				4					
9									
10									
11	S-3	24/18	10-12	3		Dark brown fine-medium SAND, some Gravel and Silt, trace asphalt, compact, saturated, SP			WEATHERED ROCK (PROBABLE) BEDROCK
12				5					
13				20					
14				13		Hard drilling 13 ft to 15 ft			
15						Plastic liner in auger cuttings			
16	S-4	24/15	15-17	31		Black medium-coarse SAND, some Silt, trace Gravel, dense, saturated, SW			
17				26		Black fine-coarse SAND, some Silt and Gravel, trace Clay, dense, saturated, SM			
18				10		Petroleum odor in spoon			
19				3					
20						Petroleum odor and sheen in spoon			
21	S-5	24/24	20-22	8	40	Black fine-medium SAND, some Silt, trace Gravel, compact, saturated, SM			
22				23		Black fine-coarse SAND, some Silt and Gravel, SM			
				50 for 2"	39.8	Black weathered rock			
						End of Boring at 21.2 ft - Spoon refusal			
Granular Soils		Cohesive Soils		% Composition		NOTES:		Soil Moisture Condition	
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487		PP = Pocket Penetrometer, MC = Moisture Content		Dry: S = 0%	
0-4	V. Loose	<2	V. soft	< 5% Trace		LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test		Humid: S = 1 to 25%	
5-10	Loose	2-4	Soft	5-15% Little		Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength		Damp: S = 26 to 50%	
11-30	Compact	5-8	Firm	15-30% Some		Shallow = 0 to 35 degrees		Moist: S = 51 to 75%	
31-50	Dense	9-15	Stiff	> 30% With		Dipping = 35 to 55 degrees		Wet: S = 76 to 99%	
>50	V. Dense	16-30	V. Stiff			Steep = 55 to 90 degrees		Saturated: S = 100%	
		>30	Hard			Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches			
						Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200			

22120 PROBE REFUSAL			
Location	Depth (ft)	Elevation (ft +/-)	Notes
P-1	6.6	54.4	Used 2 ¼" HSA; Hard at 6.5 ft
P-1 A	6.2	54.8	Hard at 6 ft
P-1 B	6.2	54.8	---
P-2	18.5	42.5	Easy drilling 7 - 15 ft; Hard drilling 17.5 - 18.5 ft
P-3	15.5	45.5	Hard at 1-3 ft; 7.5 ft; 11.5 ft; 13.5 ft
P-4	3.1	53.9	---
P-4 A	4.1	52.9	Used 2 ¼" HSA; Hard at 2.5 ft; 3.5 ft
P-5	6.3	50.7	Hard at 5.8 ft; plastic/blue fibers in cuttings

Note: All probes were completed using 1 ½" Solid Stem Augers, unless otherwise noted

Appendix C

Laboratory Testing



GRAIN SIZE ANALYSIS - ASTM D6913

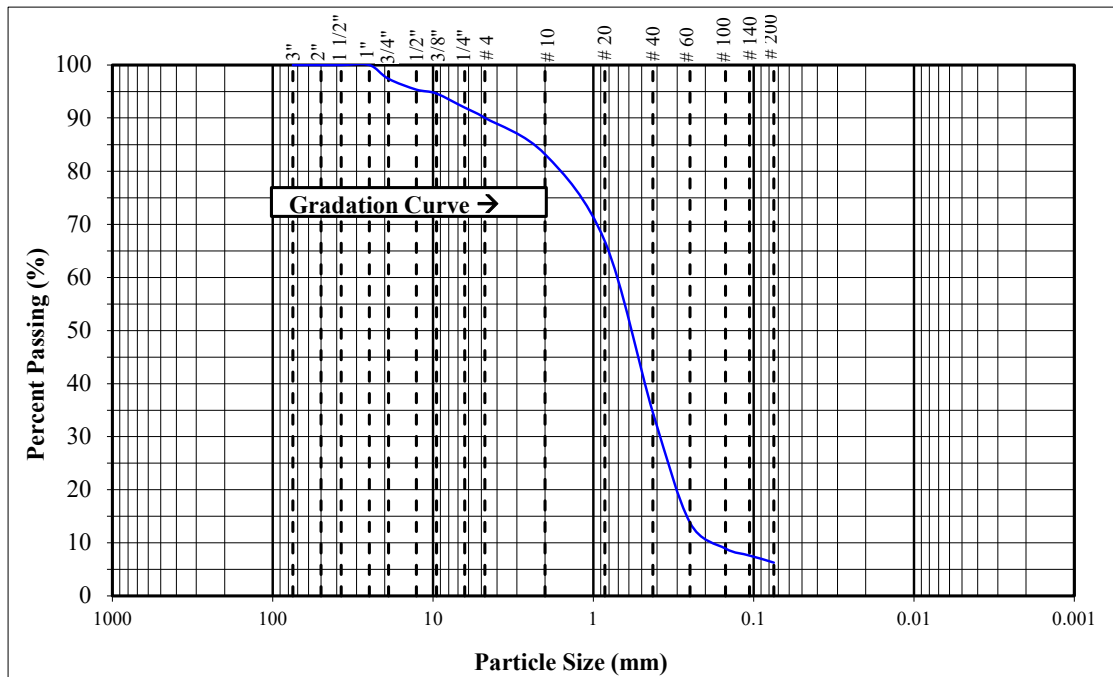
PROJECT NAME: Proposed Buildings Lot 3	PROJECT #: 22120
PROJECT LOCATION: Pearl Street, Biddeford, Maine	EXPLORATION #: B-3 & B-4 (Composite)
CLIENT: Fathom Companies	SAMPLE #: S-2
TECHNICIAN: Colleen Sullivan, E.I.	SAMPLE DEPTH: 5' - 7'
SOIL DESCRIPTION: Med-fine SAND, little Gravel & Silt, SP-SM	TEST DATE: 5/9/2022

TEST PROCEDURE

Sample Source: Split Spoon	Sieve Stack: Composite	Specimen Procedure: Air Dry
Test Method: Method A	Separating Sieve(s): 3/8 Inch	Dispersion Type: Tap Water

DATA

<u>STANDARD SIEVE</u> DESIGNATION (mm)	<u>ALTERNATIVE SIEVE</u> DESIGNATION (in)	<u>PERCENT</u> PASSING (%)
75	(3 in)	100
50	(2 in)	100
37.5	(1-1/2 in)	100
25.0	(1 in)	100
19.0	(3/4 in)	97
12.7	(1/2 in)	95
9.5	(3/8 in)	95
6.35	(1/4 in)	92
4.75	(No. 4)	90
2.00	(No. 10)	83
0.850	(No. 20)	67
0.425	(No. 40)	35
0.250	(No. 60)	14
0.150	(No. 100)	9
0.106	(No. 140)	8
0.075	(No. 200)	6



REMARKS: Moisture Content = 5.9%. Composite sample at 5' - 7' from B-3 & B-4.

Appendix D

Bedrock Recommendations

GENERAL BLASTING RECOMMENDATIONS

Introduction

Blasting operations will be performed in general accordance with the applicable Maine Revised Statute Title 125 and Title 38, U.S. Department of the Interior Rules, the recommendations provided below, and a normal standard of care.

Blast Design

The blasting contractor shall submit a blasting plan to the Owner for approval prior to blasting operations. The blasting plan shall include a schedule, sketches of the drill patterns (hole spacing and depth), type and amount of explosives, number and sequence of delays, methods for minimizing flyrock, and any other information pertinent to demonstrating compliance with the applicable U.S. Department of the Interior Rules and the requirements of the applicable Statute requirements of 38 MRSA.

Notification

Oral notification to the abutters within one-half mile of the blast area shall be provided prior to blasting. Warning and all clear signals of different character or pattern that are audible within one-half mile from the point of the blast shall be given. The meaning of the signals shall be conveyed to the abutters at the time they are notified.

Pre-blast Surveys

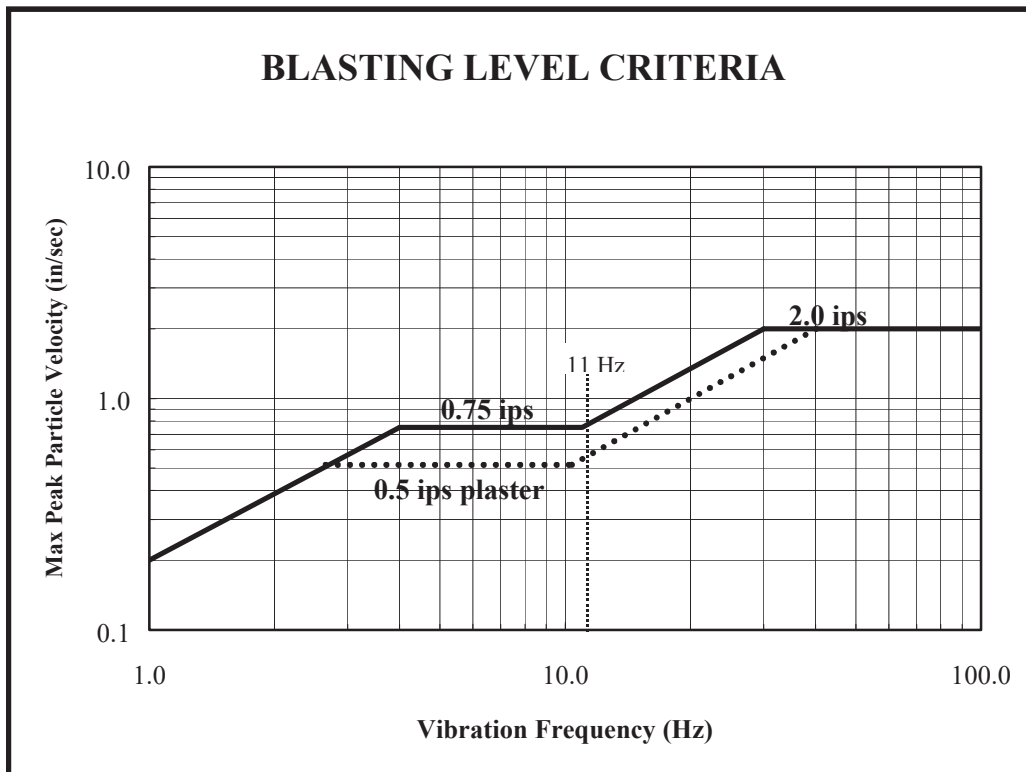
All blasting operations are the direct responsibility of the Blasting Contractor. Reports of damage to structures caused by blasting operations are the sole responsibility of the Blasting Contractor. Therefore, it is incumbent upon the Blasting Contractor to perform pre-blast surveys as they deem necessary.

Airblast Limits

Airblast overpressure shall not exceed the limits stipulated in 38 MRSA 490-Z(14)(H) at the nearest structure. This currently requires sound from blasting to not exceed 129 decibels peak at inhabited structures and 140 decibels peak at uninhabited structures.

Ground Vibration Limits

The maximum ground vibration at any structure shall not exceed the limits presented in the following chart:



REFERENCE: OSM alternative blasting criteria (Modified from figure B-1, Bureau of Mines, RI 8507)

The Blasting Contractor shall provide a seismographic record to the Owner for each blast event at the nearest off-site structure. The record shall include the date and time of the blast, peak and resultant particle velocities and associated frequencies, and the airblast overpressure.

Flyrock

Sufficient stemming, matting, or natural protective cover shall be provided to prevent flyrock from leaving property owned or under control of the operator or from entering protected natural resources or natural buffer strips.

Records

Records of blasts shall be recorded in accordance with Maine Statute 38 MRSA 490-Z(14)(L). The current requirements are as follows.

- Name of blasting company or blasting contractor
- Location, date and time of blast
- Name, signature and social security number of blaster
- Type of material blasted
- Number and spacing of holes and depth of burden or stemming
- Diameter and depth of holes
- Type of explosives used
- Total amount of explosives used
- Maximum amount of explosives used per delay period of 8 milliseconds or greater
- Maximum number of holes per delay period of 8 milliseconds or greater
- Method of firing and type of circuit
- Direction and distance in feet to the nearest dwelling, public building, school, church or commercial or institutional building neither owned nor controlled by the developer
- Weather conditions, including factors such as wind direction and cloud cover
- Height or length of stemming
- Amount of mats or other protection used
- Type of detonators used and delay periods used
- The exact location of each seismograph and the distance of each seismograph from the blast
- Seismographic readings
- Name and signature of the person operating each seismograph
- Names of the person and the firm analyzing the seismographic data

**MAXIMUM PARTICLE VELOCITY/DISTANCE CRITERIA
FOR BLASTING NEAR UNCURED CONCRETE**

Time From Batching (hr)	Non-Structural Concrete	Structural Concrete
0 – 4	4D	2D
4 – 24	1D	0.25D
24 – 72	1.5D	1D
72 – 168	3D	2D
168 – 240	8D	5D
Over 240	15D	10D

Distance (ft)	D (in/sec)
0 to 50	1.0
50 to 150	0.8
150 to 250	0.7
Over 250	0.6

NOTE: Allowable vibration levels are reduced with increasing distance since concrete can withstand higher vibration levels at higher frequencies. Vibration frequencies decrease as the distance from the blast increases because there is an attenuation of frequency with distance.

Reference: Wyllie, Duncan C. Foundations on Rock, 1st Ed, Chapman & Hall, London, 1992

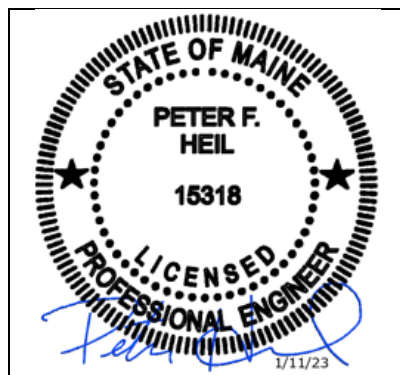
STORMWATER MANAGEMENT REPORT

Prepared For:

**3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Avenue, Suite 202
Portland, Maine 04103**



January 2023

INTRODUCTION

Acorn Engineering, Inc. has been retained by 3 Lincoln, LLC to provide civil engineering services for the proposed redevelopment of 3 Lincoln Street (Pearl Street Lot 3). The project proposes to construct three (3) buildings on Lot 3 including a residential/mixed use building (Building A) with up to 85-units, a residential building (Building B) with up to 129-units, and a commercial/restaurant building (Building C) with up to 298 seats total.

EXISTING CONDITIONS

The existing site address is 3 Lincoln Street, with frontage on Lincoln Street and Pearl Street. The existing lot sizes total approximately 6.95 acres, and a section of the site is located within the 250' shoreland overlay zone due to the proximity from the Saco River. An Existing Conditions Survey has been prepared by Owen Haskell Inc. dated September 29, 2021.

The proposed Lot 3 site is currently vacant and has recently been stabilized with grass coverage associated with the recent City parking garage project. Additionally, contaminated soils remain on site, which the applicant understands the City will be removing from the site prior to the end of the year. The existing grades on site are relatively flat ranging from 0 to 5 percent west to east toward the Saco River.

The project team is not aware of the presence of any existing significant natural features located on the site. Furthermore, the project is not within an urban impaired stream.

PROPOSED DEVELOPMENT

The project includes subdividing the existing lot into a total of 4 separate parcels. The project will also formalize a Public Right of Way between Lot 2 and Lot 3 on an existing travel way that will be known as Smith Street. The limit of work for the proposed project will be contained within Lot 3 which is proposed to be approximately 2.08 acres.

As part of the redevelopment of the overall MERC parcel, and construction of the municipal Pearl Street garage on Lot 2, a DEP Stormwater permit was issued (L-10282-NJ-A-N), which included the installation of the subsurface stormwater system located primarily on Lot 4 (with a small section installed on Lot 3). As part of the stormwater system design, each lot was allocated a conservative impervious coverage / redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress. The DEP Stormwater Permit includes a condition of approval that all “future development on other sections of the overall parcel, the applicants must submit a Stormwater Management application that shows the proposed project, a grading plan that includes the stormwater drainage system connections, the weighted average pollutant impacting rating with supporting information for the portion of the parcel proposed to be developed, and other material to demonstrate that the proposed development will not change the percentage of developed area that must be treated.”

As part of the proposed project, three buildings will be constructed with associated infrastructure on Lot 3. Catch basins, foundation drains, roof drains, and a trench drain are proposed on site and will be directed to a network of storm drains and tie into the existing



stormwater treatment system located primarily on Lot 4. Stormwater and Erosion Control Best Management Practices will be implemented during construction.

Impervious area: 1.44 ac.

Landscaped area: 0.64 ac

Developed area: 2.08 ac.

Disturbed area: 2.06 ac.

BASIC STANDARDS – EROSION & SEDIMENT CONTROL

The project proposes measures to meet the basic standards requirements as outlined in Chapter 500. Please refer to Section 8: Basic Standards Submission

GENERAL STANDARDS - WATER QUALITY

The existing subsurface stormwater system previously installed as part of the overall DEP Stormwater Permit L-10282-NJ-A-N will be utilized to provide the water quality treatment for the runoff from the site. As part of the stormwater system design, each lot was allocated a conservative impervious coverage / redevelopment pollutant ranking threshold for the individual lots to remain under once actual designs progress.

The previously approved (permitting) post-development land use rankings are as follows:

Table 1 – Land Use and Pollutant Summary Table: Previously Approved (Permitted) Condition			
Land use	Pollutant Ranking	Existing Area	Weighed Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	2.03 ac.	8.10
Other parking lots and driveways; flat roof asphalt rooftops	3	0.00 ac.	0.00
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.30ac.	0.60
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.06 ac.	0.06
TOTAL		2.38 ac.	8.76

The corresponding previously approved stormwater permit, and previously approved (existing) pollutant rankings can be viewed in Attachments 1 & 2 of this report.

The area of this lot in the previously-approved (permitted) calculations in Attachment 2 included 0.3 acre that is no longer included as part of the redevelopment. It is assumed the



0.3 acres accounts for the Smith Street Right of Way, which is not included as part of this project. See the adjusted table below that shows an adjusted Pollutant Summary Table

Table 2 – Land Use and Pollutant Summary Table: Previously Approved (Adjusted) Condition			
Land use	Pollutant Ranking	Existing Area	Weighed Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	1.73 ac.	6.92
Other parking lots and driveways; flat roof asphalt rooftops	3	0.00 ac.	0.00
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.30ac.	0.60
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.06 ac.	0.06
TOTAL		2.08 ac.	7.58

The pollutant ranking for the existing site condition is 7.58 divided by 2.08 acres, or 3.64.

The proposed post development land use rankings are as follows:

Table 3 – Land Use and Pollutant Summary Table: Proposed Condition			
Land use	Pollutant Ranking	Existing Area	Weighed Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	0.00 ac.	0.00
Other parking lots and driveways; flat roof asphalt rooftops	3	1.06 ac.	3.18
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.93 ac.	1.86
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.09 ac.	0.09
TOTAL		2.08 ac.	5.13

The corresponding post-redevelopment map can be viewed in Attachment 3 of this report. The pollutant ranking for the proposed site condition is 5.13 divided by 2.08 acres, or 2.47.

From Tables 1 & 2 above, the difference between the proposed pollutant ranking (2.47) and the previously approved (permitted) pollutant ranking (3.64) is -1.17. Per Table 3 in Chapter 500, a negative difference means that no additional treatment is required beyond what was



already approved for a site subject to Stormwater Law, which had been conservatively designed.

Therefore, the proposed development is in compliance with the requirements set forth in the previously approved stormwater permit. Please refer to the attached DEP Stormwater Law amendment application, submitted on November 11, 2023 and currently under review.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County
- Geotechnical Report by Summit Geoengineering

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 4 - “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 8. for the Basic Standards Submission.

PHOSPHOROUS STANDARD

As the project is not located in a watershed of a lake most-at-risk, or a proposing development of any other lake watershed, the Phosphorous Standard does not apply to this project.

URBAN IMPAIRED STREAM STANDARD

As the project is not located in an urban impaired stream watershed, the Urban Impaired Stream Standard does not apply to this project.

FLOODING STANDARD

As part of the overall MERC parcel development stormwater design and DEP Stormwater Permit, the site requested and was granted a waiver from the Flooding Standard as the project stormwater runoff discharges directly to a major river segment (Saco River), and request that the waiver be extended. The plans are designed to be in accordance with the City’s Land Development Regulations, Article IV: Performance Standards, Section 61: Stormwater Management.



CONCLUSION

With the previously approved conservative design of the existing subsurface stormwater treatment system, and proposed redevelopment pollutant rankings associated with the Lot 3 development, adequate treatment will be provided to the proposed site conditions. 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.

ATTACHMENTS

Attachment 1: Previously Approved DEP Stormwater Permit (L-10282-NJ-A-N)

Attachment 2: Previously Approved Pollutant Rankings

Attachment 3: Post Redevelopment Map

Attachment 4: Post Watershed Map

Attachment 5: Stormwater Inspection & Maintenance Plan

Sincerely,



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



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





STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

CITY OF BIDDEFORD &	)	STORMWATER MANAGEMENT LAW
BIDDEFORD RIVERWALK	)	
COMMUNITY 1, LLC	)	
Biddeford, York County	)	
PARKING GARAGE	)	
L-10282-NJ-A-N (Approval)	)	FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. § 420-D, and Chapter 500 (06-096 C.M.R. Chapter 500, last amended August 12, 2015) of the Department's Regulations, the Department of Environmental Protection has considered the application of CITY OF BIDDEFORD and BIDDEFORD RIVERWALK COMMUNITY 1, LLC with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History: In Department Order #L-10282-05-A-N, dated December 19, 1984, the Department issued a permit to the City of Biddeford and the Maine Energy Recovery Company which approved the construction and operation of a refuse derived fuel solid waste disposal facility. The Department subsequently issued numerous solid waste permits including Department Order #S-10282-WG-AN-A, dated September 30, 2013, which was an amendment for the closure of the facility. The facility was subsequently demolished with the exception that the building foundation slabs were left in place; some of the building slabs have subsequently been used for parking. The property has a Department issued Commissioner's Certification of Completion of Remedial Actions Under A Voluntary Response Action Plan (VRAP). There are buried and capped PCB contaminated soils in the area adjacent to the river and the railroad. The parcel is located on the northeast corner of the intersection of Lincoln Street and Pearl Street in the City of Biddeford

B. Summary: The applicants propose to remove existing building foundation slabs, divide the parcel into two lots and construct a 44,895 square foot parking garage and a fire lane on Lot 2, which is a 1.63 acre lot in the approximate middle of the 7.28 acre parcel. The project also includes the construction of another fire lane and areas to be converted to lawn on Lot 1, which is 5.32 acres in size. Plan C-102 of the plan set shows an approximately 1.29 acre parking lot to the east of the proposed parking garage; most of this parking lot exists on old building foundation slabs. The applicants propose to reconstruct that parking lot to provide 114 parking spaces for use during construction of the parking garage.

When the parking garage construction is complete this parking lot will be removed and replaced with lawn, as shown on plan number C-102B titled "Biddeford Parking Garage, MERC Site, Biddeford, Maine, Site Plan Layout Phase B," prepared by Desman Design Management dated March 27, 2020. Any changes to this plan will require a modification of this permit. The project is shown on a set of plans submitted with the application and plan number C-104 is titled "Biddeford Parking Garage, MERC Site, Biddeford, ME, Site Plan-Grading and Utilities," prepared by Desman Design Management and dated March 9, 2020 with a most recent revision date on any of the plans of March 27, 2020.

The first 500 feet of Pearl Street, from the intersection with Lincoln Street, is proposed to be reconstructed as a 24-foot wide street with on street parking on the north side and eight-foot wide concrete sidewalks on both sides. The reconstruction of Pearl Street is considered to be a maintenance activity as defined by Chapter 500, § 3(R) and does not require approval from the Department.

The Department accepted a Natural Resources Protection Act (NRPA) Permit by Rule Notification Form (PBR #69437) on March 18, 2020, for activities associated with the proposed stormwater management system, shown on Plan C-102B, adjacent to the Saco River. The project will be constructed in accordance with Chapter 305, Section 2 of the Permit by Rule Standards.

C. Current Use of the Site: The site is bound by Lincoln Street to the west, Pearl Street to the south, the Saco River to the east and the Boston & Maine Railroad to the north. The site is partially occupied by the building foundation slabs that remain from the Maine Energy Recovery Company that are currently used as parking lots, gravel areas, surface parking areas, and a smoke stack with cell tower equipment.

2. STORMWATER STANDARDS:

The stormwater management system for the project has been designed to meet the stormwater management requirements for the proposed parking garage and fire lane on the 1.63 acre parcel identified as Lot 2 on Plan C-102, plus additional development on the remaining 5.65 acres. The City of Biddeford anticipates additional redevelopment on the parcel and has based the post development pollutant impact ranking calculations, the treatment level for the redevelopment project, and the sizing of the subsurface sand filter and R-Tanks to accommodate the development shown on Lots 1-4 on drawing number C-10 titled "Master Site Plan, Pearl Street & MERC Redevelopment for Fathom/BE Filter, LLC," prepared by Acorn Engineering and dated November 19, 2019. The design of the stormwater management system for the theoretical buildout of the entire parcel shown on Plan C-10 includes 6.94 acres of developed area of which 5.66 acres is impervious area. It lies within the watershed of the Saco River. The applicants submitted a stormwater management plan based on the Basic, General and Flooding Standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of a subsurface sand filter with R-Tanks™.

This Order approves the stormwater management system, the proposed parking garage, the fire lanes and Pearl Street extended to the eastern fire lane.

Future development on other sections of the overall parcel, the applicants must submit a Stormwater Management application that shows the proposed project, a grading plan that includes the stormwater drainage system connections, the weighted average pollutant impact rating with supporting information for the portion of the parcel proposed to be developed, and other material to demonstrate that the proposed development will not change the percentage of developed area that must be treated.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicants submitted an Erosion and Sedimentation Control Plan that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of, the Cumberland County Soil and Water Conservation District (CCSWCD).

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicants submitted a maintenance plan that addresses both short and long-term maintenance requirements. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. This plan was reviewed by and revised in response to the comments of the CCSWCD. The applicants will be responsible for the maintenance of the stormwater management system.

Prior to use of the proposed parking garage, the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR.

Grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on BLR's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500, § (4)(B) provided that grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules and the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.

B. General Standards:

The applicants' stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential thermal impacts. The applicants are using treatment requirements for a redevelopment project as allowed under Chapter 500, § 4(C)(2)(d). The applicants calculated the existing and proposed pollutant impact rating using Table 2 in Chapter 500 and based on these calculations determined using Table 3 in Chapter 500 that 50 percent of development must be treated. The applicants propose to treat runoff from 70.8% of the proposed developed area on both lots.

The stormwater management system proposed by the applicants was reviewed by the CCSWCD and revised in response to comments from the CCSWCD. After a final review, the CCSWCD commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards.

Based on the stormwater system's design and CCSWCD's review, the Department finds that the applicants have made adequate provision to ensure that the proposed project will meet the General Standards in Chapter 500, § 4(C)(2)(d).

C. Flooding Standard:

The applicants are proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20 from the U.S.D.A. Soil Conservation Service and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site and the peak flow of the receiving waters will not be increased as a result of stormwater runoff from the development site. The subsurface sand filter and R-Tank™ system will be connected to an existing storm drain in the east end of Pearl Street that discharges into the Saco River.

The CCSWCD commented that the proposed system is designed in accordance with the Flooding Standard contained in Chapter 500, § 4(F).

Based on the system's design and BLR's review, the Department finds that the applicants have made adequate provision to ensure that the proposed project will meet the Flooding Standard contained in Chapter 500, § 4(F) for peak flow from the project site.

The Department further finds that the proposed project will meet the Chapter 500 standards for discharges to public storm sewer systems.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. § 420-D, and Chapter 500 of the Department's Regulations:

- A. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 Basic Standards for: (1) erosion and sediment control; (2) inspection and maintenance; (3) housekeeping; and (4) grading and construction activity provided that grit, sediment and other materials removed from the stormwater structures during maintenance activities must be disposed of in compliance with the Maine Solid Waste Management Rules and that the applicants must submit a copy of an executed long-term maintenance contract (minimum of 5 years and renewable) for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.
- B. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 General Standards.
- C. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 Flooding Standard.
- D. The applicants have made adequate provision to ensure that the proposed project will meet the Chapter 500 standards for discharges to public storm sewer systems.

THEREFORE, the Department APPROVES the above noted application of the CITY OF BIDDEFORD and BIDDEFORD RIVERWALK COMMUNITY 1, LLC to construct a stormwater management system for a parking garage and other development as described above in Biddeford, Maine, SUBJECT TO THE FOLLOWING CONDITIONS, and all applicable standards and regulations:

- 1. The Standard Conditions of Approval, a copy attached.
- 2. In addition to any specific erosion control measures described in this order, the applicants shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.
- 3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
- 4. The applicants shall include in all conveyances of subdivision lots deed restrictions making the conveyance subject to all terms and conditions of this Department Order, particularly those conditions related to maintenance of the stormwater management system. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain

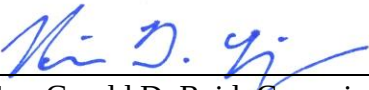
restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.

5. Grit, sediment and other materials removed from stormwater structures during maintenance activities shall be disposed of in compliance with the Maine Solid Waste Management Rules.
6. The applicants shall submit a copy of an executed long-term maintenance contract for the on-going maintenance of the subsurface sand filter and R-Tanks™ to the BLR prior to the use of the parking garage.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 8TH DAY OF APRIL, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Gerald D. Reid, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

CGW/L10282AN/ATS#85869

FILED
April 8, 2020
State of Maine
Board of Environmental Protection

STORMWATER STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the permittee. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S. §420-D(8) and is subject to penalties under 38 M.R.S. §349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Time frame for approvals. If the construction or operation of the activity is not begun within four years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- (6) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the permittee, and the permittee and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

- (7) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the Department. If maintenance responsibility is to be transferred from the permittee to another entity, a transfer request must be filed with the Department which includes the name and contact information for the person or entity responsible for this maintenance. The form must be signed by the responsible person or agent of the responsible entity.
- (8) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.
- (a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) All aspects of the stormwater control system are operating as approved, have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system, as necessary.
 - (c) The stormwater maintenance plan for the site is being implemented as approved by the Department, and the maintenance log is being maintained.
 - (d) All proprietary systems have been maintained according to the manufacturer's recommendations. Where required by the Department, the permittee shall execute a 5-year maintenance contract with a qualified professional for the coming 5-year interval. The maintenance contract must include provisions for routine inspections, cleaning and general maintenance.
 - (e) The Department may waive some or all of these recertification requirements on a case-by-case basis for permittees subject to the Department's Multi-Sector General Permit ("MSGP") and/or Maine Pollutant Discharge Elimination System ("MEPDES") programs where it is demonstrated that these programs are providing stormwater control that is at least as effective as required pursuant to this Chapter.
- (9) Transfer of property subject to the license. If any portion of the property subject to the license containing areas of flow or areas that are flooded are transferred to a new property owner, restrictive covenants protecting these areas must be included in any deeds or leases, and recorded at the appropriate county registry of deeds. Also, in all transfers of such areas and areas containing parts of the stormwater management system, deed restrictions must be included making the property transfer subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All transfers must include in the restrictions the requirement that any subsequent transfer must specifically include the same restrictions unless their removal or modification is approved by the Department. These restrictions must be written to be enforceable by the Department, and must reference the permit number.
- (10) Severability. The invalidity or unenforceability of any provision, or part thereof, of this permit shall not affect the remainder of the provision or any other provisions. This permit shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: November 2018

Contact: (207) 287-2452

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S. §§ 341-D(4) & 346; the *Maine Administrative Procedure Act*, 5 M.R.S. § 11001; and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed more than 30 calendar days after the date on which the Commissioner's decision was filed with the Board will be dismissed unless notice of the Commissioner's license decision was required to be given to the person filing an appeal (appellant) and the notice was not given as required.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017. An appeal may be submitted by fax or e-mail if it contains a scanned original signature. It is recommended that a faxed or e-mailed appeal be followed by the submittal of mailed original paper documents. The complete appeal, including any attachments, must be received at DEP's offices in Augusta on or before 5:00 PM on the due date; materials received after 5:00 pm are not considered received until the following day. The risk of material not being received in a timely manner is on the sender, regardless of the method used. The appellant must also send a copy of the appeal documents to the Commissioner of the DEP; the applicant (if the appellant is not the applicant in the license proceeding at issue); and if a hearing was held on the application, any intervenor in that hearing process. All of the information listed in the next section of this information sheet must be submitted at the time the appeal is filed.

INFORMATION APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time the appeal is submitted:

1. *Aggrieved Status.* The appeal must explain how the appellant has standing to maintain an appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions regarding compliance with the law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing requirements that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for public hearing must be filed as part of the notice of appeal, and must include an offer of proof in accordance with Chapter 2. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed evidence must be submitted with the appeal. The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered in an appeal only under very limited circumstances. The proposed evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Specific requirements for supplemental evidence are found in Chapter 2 § 24.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made easily accessible by the DEP. Upon request, the DEP will make application materials available during normal working hours, provide space to review the file, and provide an opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a license holder may proceed with a project pending the outcome of an appeal, but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, and will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, any materials submitted in response to the appeal, and relevant excerpts from the DEP's application review file will be sent to Board members with a recommended decision from DEP staff. The appellant, the license holder if different from the appellant, and any interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. The appellant and the license holder will have an opportunity to address the Board at the Board meeting. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see 38 M.R.S. § 346(1); 06-096 C.M.R. ch. 2; 5 M.R.S. § 11001; and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452, or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

REDEVELOPMENT POLLUTANT RANKING - BREAKDOWN OF SITE

Project: Biddeford Parking Garage
ATS:

Notes:

1. Lots 1-4 delineations are based loosely on the Lots shown on the Master Site Plan prepared by Acorn Engineering dated 11/19/19
2. The sum of the proposed areas calculated in Lots 1-4 can be found on the Redevelopment Pollutant Ranking worksheet dated 1/7/20 under 'Proposed Area & Use'

PROPOSED AREA & USE - LOT 1 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	68,971	1.58	4	6.33	85% assumed
Other Use Parking Lots/Driveways	0	0.00	3	0.00	
Rooftops	4,045	0.09	2	0.19	5% assumed
Walkways/Grassed Areas	6,086	0.14	2	0.28	7.5% assumed
Non-Grassed Landscaped Areas	2,040	0.05	1	0.05	2.5% assumed
	81,142	1.86		6.85	
Verify that Existing Area = Proposed Area					

PROPOSED AREA & USE - LOT 2 (DESIGNED COVERAGE)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	45,380	1.04	5	5.21	parking garage top level and entry drive
Medium Use Parking Lots	0	0.00	4	0.00	
Other Use Parking Lots/Driveways	5,830	0.13	3	0.40	fire lane to east of garage
Rooftops	0	0.00	2	0.00	
Walkways/Grassed Areas	17,858	0.41	2	0.82	sidewalks and grass
Non-Grassed Landscaped Areas	1,870	0.04	1	0.04	landscape beds
	70,928	1.62		6.47	
Verify that Existing Area = Proposed Area					

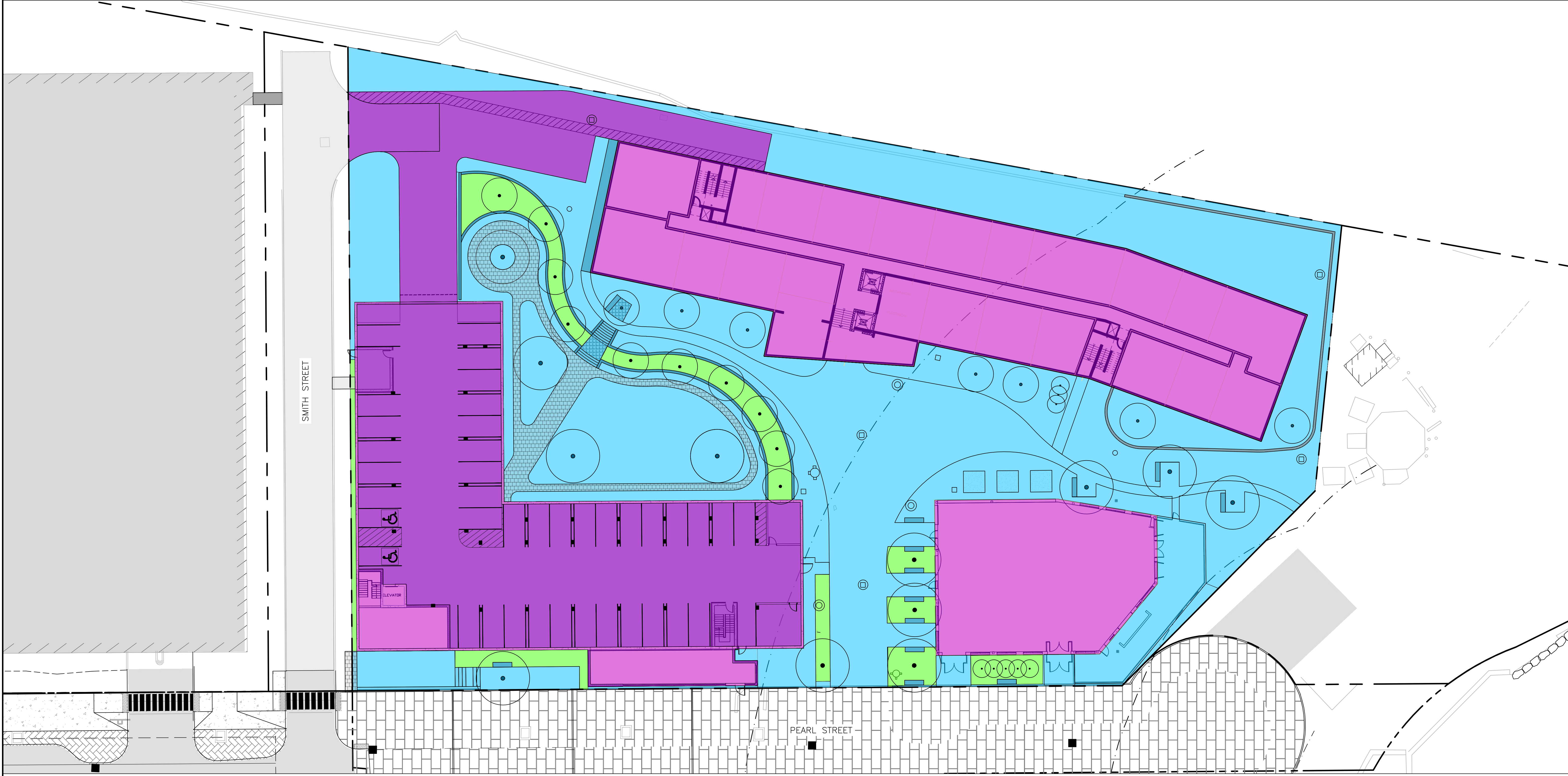
PROPOSED AREA & USE - LOT 3 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	88,247	2.03	4	8.10	85% assumed
Other Use Parking Lots/Driveways	0	0.00	3	0.00	
Rooftops	5,185	0.12	2	0.24	5% assumed
Walkways/Grassed Areas	7,787	0.18	2	0.36	7.5% assumed
Non-Grassed Landscaped Areas	2,601	0.06	1	0.06	2.5% assumed
	103,820	2.38		8.76	
Verify that Existing Area = Proposed Area					

PROPOSED AREA & USE - LOT 4 (ASSUMED BASED ON MASTERPLAN)

Area	Proposed Area (sf)	Proposed Area (sf)	Proposed Pollutant Ranking	Weighed Impact	Comment
High Use Parking Lots	0	0.00	5	0.00	
Medium Use Parking Lots	3,907	0.09	4	0.36	8% assumed roundabout
Other Use Parking Lots/Driveways	5,780	0.13	3	0.40	12% assumed paved surfaces/cell tower
Rooftops	0	0.00	2	0.00	
Walkways/Grassed Areas	32,244	0.74	2	1.48	70% assumed grass and walkways
Non-Grassed Landscaped Areas	4,689	0.11	1	0.11	10% Landscape Beds
	46,620	1.07		2.34	
Verify that Existing Area = Proposed Area					

PEARL STREET LOT 3 LAND USE AND POLLUTANT SUMMARY TABLE				
LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS	■	5	0.00 AC	0.00
OTHER ROADS; MEDIUM USE PARKING LOTS	■	4	0.00 AC	0.00
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY	■	3	1.06 AC	3.18
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT	■	2	0.93 AC	1.86
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)	■	1	0.09 AC	.09
TOTAL			2.08 AC	5.13



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR
DATE
1/17/22
PFH

SKETCH PLAN
DATE
10/6/22
PFH

PRELIMINARY
DATE
11/7/22
PFH

DEP SW AMENDMENT
DATE
11/7/22
PFH

FINAL SITE PLAN
DATE
11/17/23
PFH

PROJECT NAME/ADDRESS:
**PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE**

CLIENT/OWNER OF RECORD:
**3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101**

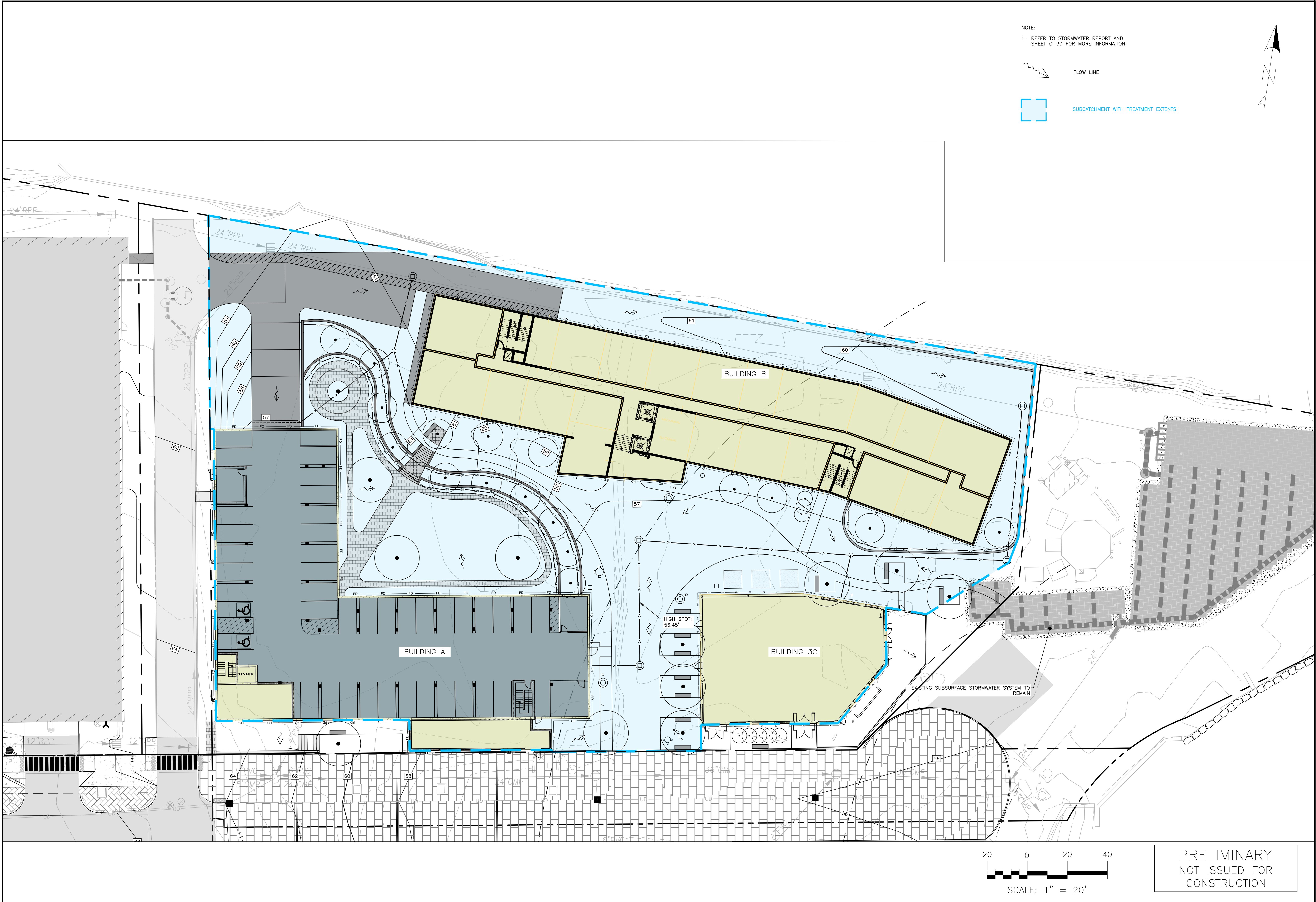
ACORN ENGINEERING, INC.
P.O. BOX 3372, PORTLAND MAINE 04101
(207) 775-2655

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

FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
MAINE

DRAWING NO.
EX-3



NOTE:
1. REFER TO STORMWATER REPORT AND SHEET C-30 FOR MORE INFORMATION.

FLOW LINE

SUBCATCHMENT WITH TREATMENT EXTENTS

ISSUED FOR	BY
PFH	DATE
SKETCH PLAN	1/17/22
PRELIMINARY	PFH
DEP SW AMENDMENT	10/6/22
FINAL SITE PLAN	11/7/22
PFH	1/11/23

DRAWING NAME: POST WATERSHED MAP

PROJECT NAME/ADDRESS: PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

CLIENT/OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

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

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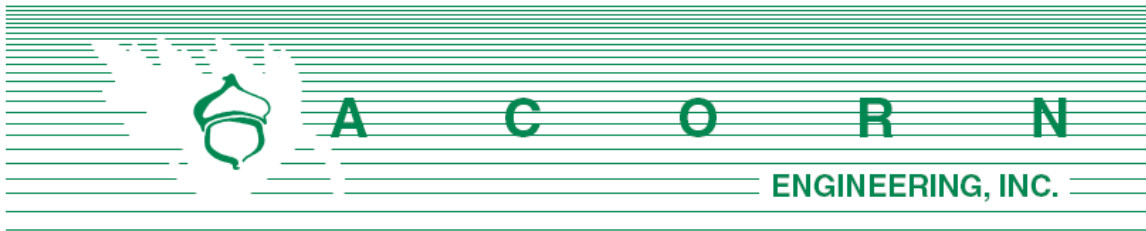
FILE: 1124_CIVIL
JN: 1124
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO. EX-1



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



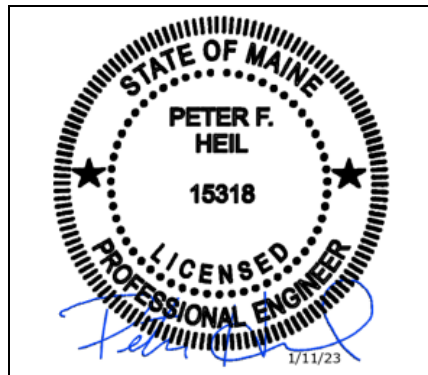
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

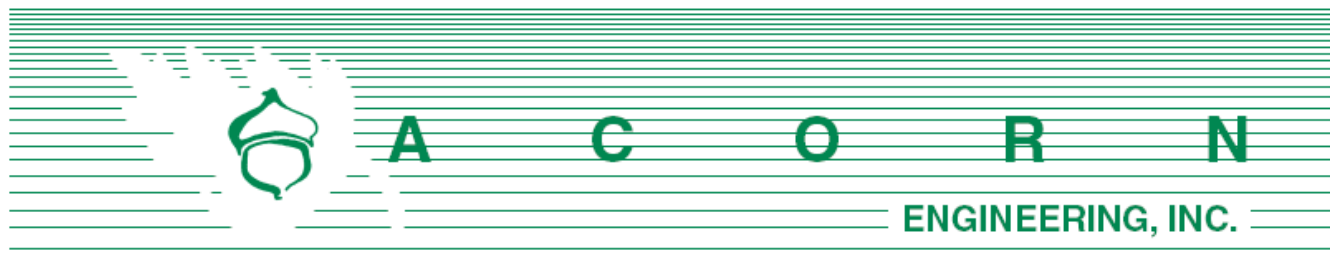
**3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
500 Washington Avenue, Suite 202
Portland, Maine 04103**



January 2023



RESPONSIBLE PARTY

The owner, 3 Lincoln, LLC. and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Department of Public Services prior to the City's deadline.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Acorn Engineering, Inc.
Attn: Peter F. Heil, PE, CPESC
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria is based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years. The Department of Environmental Protection's 5-year recertification will apply to this permit.

OPERATION AND MAINTENANCE ACTIVITY

A storm size of 1-inch or greater rainfall in 24 hours is considered a storm event that triggers a post-construction inspection of the below BMP's.

Sweeping:

Annual sweeping of the driveways and parking areas following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Catch Basins/Oil Water Separator/Trench Drain:

Catch basins shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
- Appropriately dispose of all collected material.

Landscaped and Vegetated Areas:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the contract documents.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Sweeping	X			X
Catch Basins/Oil Water Separator/Trench Drain			X	X
Landscaped/Vegetated Areas		X		



Stormwater Control BMP Inspection Log

CATCH BASINS & TRENCH DRAIN							
Location: There are five catch basins located within various locations through out the site. A trench drain is located at the parking garage access door to Building A.					Latitude: 43.496106		
					Longitude: -70.454292		
Description of Located Point:					Inspector:		
					Date of Inspection:		
					Weather Conditions:		
DOT Region:					Design Drawings:		
MATS Asset Number:		WIN:					
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Catch Basins							
Catch basin is working properly and is free of debris and sediment	☐	☒	☐	☒ Yes ☐ No ☐ N/A			
Basin outlet hood (if any) is working properly.	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Sediment sacks and hydrocarbon absorptive pads are working properly.	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☒	☐				Photographs are attached.
Additional Comments:							

Stormwater Control BMP Inspection Log

OIL / WATER SEPARATOR:							
Location: There is a single Oil Water Separator is located in the Building A covered parking lot.				Latitude: 43.496106			
				Longitude: -70.454292			
Description of Located Point:				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
DOT Region:				Design Drawings:			
MATS Asset Number:		WIN:					
Maintenance Items							
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Catch Basins							
Oil Water Seperator is working properly and is free of debris and sediment	☐	☒	☐	☒ Yes ☐ No ☐ N/A			
Basin outlet hood (if any) is working properly.	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Sediment sacks and hydrocarbon absorptive pads are working properly.	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☒	☐				Photographs are attached.
Additional Comments:							

Stormwater Control BMP Inspection Log

VEGETATED AREAS:							
Location: Various areas within the site				Latitude: 43.496106 Longitude: -70.454292			
Description of Located Point:				Inspector: Date of Inspection: Weather Conditions:			
DOT Region:				Design Drawings:			
MATS Asset Number:		WIN:					
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Embankments							
Slopes and embankments are in good condition.	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Site is free of rill erosion	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
General							
Site is free of locations with less than 90% vegetative cover	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Plantings are capable of withstanding concentrated flows	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Access to facility is adequate	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☐	☐				Photographs are attached.
Additional Comments:							

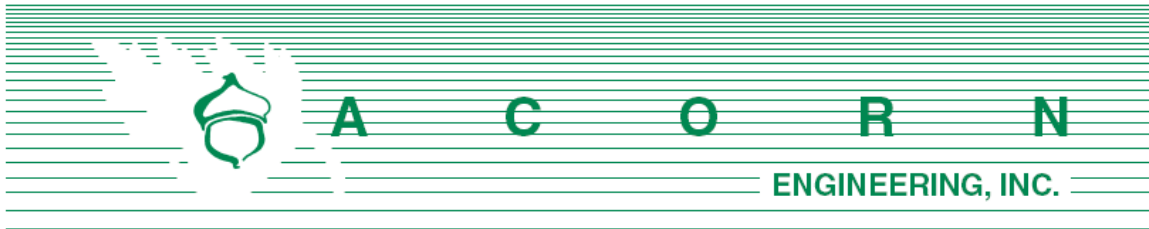
Section 13

Urban Impaired Stream Submissions

Section 13. Urban impaired stream submissions

The proposed project is not located within an urban impaired stream watershed.





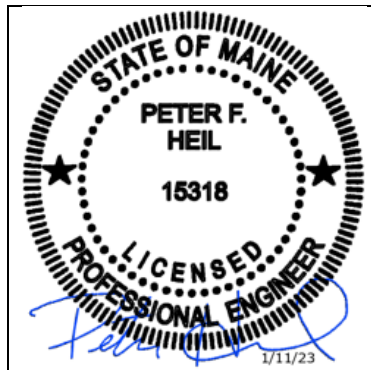
EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

3 Lincoln, LLC
80 Exchange Street, Suite 400
Portland Maine 04101

Prepared By:

Acorn Engineering, Inc.
500 Washington Avenue, Suite 202
Portland, Maine 04103



January 2023

INTRODUCTION

Acorn Engineering, Inc. has been retained by 3 Lincoln, LLC to provide civil engineering services for the proposed development of 3 Lincoln Street (Pearl Street Lot 3). The project proposes to construct three (3) buildings on Lot 3 including a residential/mixed use building (Building A) with approximately 85-units, a residential building (Building B) with approximately 129-units, and a commercial/restaurant building (Building C).

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 site address is 3 Lincoln Street, Lot 3 and only has frontage on Pearl Street. A section of the site is location within the 250' shoreland overlay zone due to the proximity from the Saco River. An Existing Conditions Survey has been prepared by Owen Haskell Inc. dated September 29, 2021.

Abutting Uses:

- | | |
|---------------|--|
| ➤ North MSRD3 | Amtrack/Mixed-Use Residential/Commercial |
| ➤ East MSRD3 | Saco River |
| ➤ South MSRD3 | Mixed use Residential/Commercial |
| ➤ West MSRD3 | Parking Garage |

The site is currently vacant and has recently been stabilized with grass coverage associated with the recent City parking garage project. Additionally, contaminated soils and foundation remnants remain on site, which the applicant understands the City will be removing from the site prior to the end of the year. The existing grades on site are relatively flat ranging from 0 to 5 percent west to east toward the Saco River.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for York County
- Geotechnical Report prepared by Summit Geoengineering

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

There are no known critical areas on site.

1.4 Protected Natural Resource

The site is located near the Saco River, which is a Protected Natural Resource, and located within the 250' shoreland zone setback. 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)

As part of the recently constructed municipal parking garage, the overall 3 Lincoln Street parcel has recently been redeveloped, with removals associated from the old MERC facility, utility installation within the adjacent Pearl Street and site stabilization from the garage project.

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 Pearl 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 to receiving stormwater.



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

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

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

4.0 DETAILS AND SPECIFICATIONS

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

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

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

5.2 Mulching

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



1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

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

5.4 Seeding

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

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

5.5 Over winter stabilization of disturbed soils

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

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch,



anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

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

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

6.0 INSPECTION AND MAINTENANCE

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



6.1 Sediment Barriers

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

6.2 Stabilized Stone Construction Entrances

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

6.3 Mulched Areas

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

6.4 Dust Control

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

6.5 Stormwater Appurtenances

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



6.6 Erosion and Sedimentation Control Inspections:

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

Contact: Peter F. Heil, PE, CPESC
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified in Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

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

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter 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
- Housekeeping 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.



HOUSEKEEPING PLAN

The following housekeeping plan has is developed in accordance with Maine DEP Chapter 500 Stormwater Management standards. For additional information, reference Appendix C of Chapter 500.

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at :
<http://www.maine.gov/dep/spills/emergspillresp/>

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Chapter 500 Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the “Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection.”

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and Section 3, above;
- (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;



- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in Section 5, above);
- (k) Potable water sources including waterline flushings; and
- (l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under Chapter 500 does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Section 6, above. Specifically, the Department's approval does not authorize discharges of the following:

- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
- (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
- (d) Toxic or hazardous substances from a spill or other release.

(8) Additional requirements. Additional requirements may be applied on a site-specific basis.



Section 15

Groundwater

Section 15. Groundwater

A. Narrative and Report

Location

See this Section 11 Soils for a copy of a Bedrock and Surficial Geology map with the project location depicted.

Quantity

There will be no groundwater use or subsurface wastewater disposal. Potable water will be provided by Maine Water Company and sanitary sewer will discharge into the municipal system.

Sources

The project will generate normal residential and commercial quantities of wastewater, solid waste, fuel and solvents. As the project will be serviced by municipal sewer, none of these items will be discharged into the groundwater.

Measures to Prevent Degradation

The impervious areas associated with the project are directed to catch basins or stormwater treatment systems and will ultimately outlet to the Saco River. Groundwater is not anticipated to be adversely affected as a result of the proposed project.

B. Groundwater Protection Plan

There are no development plans to store or use petroleum products, pesticides, herbicides, solvents, acids or other materials with the potential to contaminate groundwater.

C. Monitoring Plan

Not applicable

D. Monitoring Well Installation Report

Not applicable

Section 16

Water Supply

Section 16. Water Supply

A. Water Supply Method

This project proposes to extend the existing 8" D.I. water main stub within the lot and provide 6" D.I. fire protection water services with 6" gate valves and 4" domestic D.I. water services with 4" gate valves for each structure located on Lot 3. Please see the attached Utility Plan for more information.

B. Subsurface Wastewater Disposal

Not applicable. The development will be serviced by a 2" force main sewer within Pearl Street.

C. Total Usage

This project anticipates an estimated water supply of 35,600 gpd.



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

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Vacant Lot	N/A	N/A	N/A	0
Total Gallons per Day (Existing)				0
Proposed Flow				
<i>Lot 3A</i>				
Residential Units	Studio / 1-Bedroom	47	120	5,640
Residential Units	2-Bedroom	38	180	6,840
Total Gallons per Day (Proposed)				12,480
<i>Lot 3B</i>				
Residential Units	Studio / 1-Bedroom	105	120	12,600
Residential Units	2-Bedroom	24	180	4,320
Total Gallons per Day (Proposed)				16,920
<i>Lot 3C</i>				
Lower Restaurant	10 Employees	170 Seats	20gpd per seat + 12gpd per employee	3,520
Upper Restaurant	10 Employees	128 Seats	20gpd per seat + 12gpd per employee	2,680
Total Gallons per Day (Proposed)				6,200
Total Gallons per Day (Proposed)				35,600
Net Change				35,600





October 12th, 2021

Acorn Engineering, Inc
Zachary Stevens, EI
PO Box 3372
Portland, ME 04104

Re: Ability to Serve Determination – Pearl Street – Lot 3 Redevelopment - Biddeford

Greetings,

The Maine Water Company (MWC) has received your request for an Ability to Serve Determination on behalf of your client, 3 Lincoln LLC, for the above referenced project. The request indicates a plan to redevelop Lot 3 of Pearl Street into 3 separate lots for residential high density / mixed use. The anticipated domestic demand has been presented as 33,650 gallons per day at full build out based on Maine subsurface wastewater disposal rules. Sprinkler demand information is not yet available. Based on the criteria that has been presented, MWC does have sufficient capacity in the 12-inch ductile iron main on Pearl Street to serve the needs of this project. The static pressure in the area is approximately **60psi**. Additional infrastructure improvements may be required at the expense of the developer to meet the overall needs of this project.

Conditions of Service

- Configuration of domestic and fire services will require additional review.
- Additional plan approval, paperwork and fees associated with services for this project will require further coordination with MWC. Please allow 2-4 weeks before construction begins on waterworks materials to finalize all paperwork and fees.
- A hydrant flow test will be required to be conducted at the expense of the developer and analyzed by the sprinkler designer to ensure adequate flows in the event of a fire.
- Existing services to the parcel may be required to be retired.
- MWC may require a public main extension to serve the 3 lots of this development. In the case of a public main extension – only one water main would enter the development and all other fire and domestic services would be served from the main entering the development. Further review is required for this determination.

Should a Customer Agreement for service not be executed within one year of the date of this letter, MWC reserves the right to reevaluate its ability to serve this project.

All work must be completed in accordance with Maine Water Company material and installation specifications. All appropriate paperwork must be completed and the deposit paid prior to the start of construction. Please forward all design plan revisions as the project develops to prevent construction delays.

Water service will be provided in accordance with our standard terms and conditions as well as Maine Public Utilities Commission rules. If you have any additional questions, please do not hesitate to contact our office at 1-800-287-1643 or by email at Marcus.Knipp@mainewater.com. We look forward to working with you throughout design and construction.

Sincerely,
The Maine Water Company

A handwritten signature in black ink, appearing to read "Marcus Knipp".

Marcus Knipp, E.I.T.
Engineer

Section 17

Wastewater Disposal

Section 17. Wastewater Disposal

A. On-Site Subsurface Wastewater Disposal System

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

B. Nitrate-Nitrogen Impact Assessment

Not applicable.

C. Municipal Facility or Utility Company Letter

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

D. Wastewater discharge information

Not applicable.

E. Storage or Treatment Lagoons

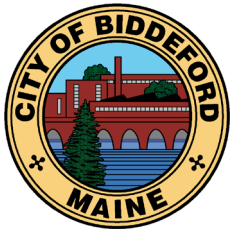
Not applicable.



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

Estimate of Anticipated Daily Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Existing Flow				
Vacant Lot	N/A	N/A	N/A	0
Total Gallons per Day (Existing)				0
Proposed Flow				
<i>Lot 3A</i>				
Residential Units	Studio / 1-Bedroom	47	120	5,640
Residential Units	2-Bedroom	38	180	6,840
Total Gallons per Day (Proposed)				12,480
<i>Lot 3B</i>				
Residential Units	Studio / 1-Bedroom	105	120	12,600
Residential Units	2-Bedroom	24	180	4,320
Total Gallons per Day (Proposed)				16,920
<i>Lot 3C</i>				
Lower Restaurant	10 Employees	170 Seats	20gpd per seat + 12gpd per employee	3,520
Upper Restaurant	10 Employees	128 Seats	20gpd per seat + 12gpd per employee	2,680
Total Gallons per Day (Proposed)				6,200
Total Gallons per Day (Proposed)				35,600
Net Change				35,600





City of Biddeford, Maine

City of Biddeford

Public Works Department / Engineering Division/Wastewater Administration Division
P.O. Box 586, 205 Main Street, Suite 301
Biddeford, ME 04005
Phone: (207) 284-9118, Fax: (207) 571-0662

Letter of Wastewater Treatment Plant Capacity to Serve Mixed Use Development, Residential flow only 3 Pearl Street

Peter Heil
Acorn Engineering, Inc.
P O Box 3372
Portland, Me 04104

December 29, 2022

Brief description of project: **Proposed Mixed Use Development Project on 3 Pearl Street
Biddeford, Maine-** Estimated new flows: **29,610 gpd.**

Determination

The applicant is proposing a mixed use development on 3 Pearl Street. Based on an email received from Acorn Engineers, Inc., dated November 21, 2022, it is currently projected that the proposed mixed use development will discharge 29,610 gallons per day of flow from the residential portion of the project into the system. Commercial flows will be calculated at the time the application is submitted.

The City of Biddeford Wastewater Department has reviewed the request to serve the above described project. It has been determined that at this time, once the flow reaches the wastewater treatment facility, the City has sufficient capacity to treat the estimated flows from the above described project. Changes to the project from that presented to this department may require a new review of the request for ability to serve. This determination will be effective for a period of one year from the date above.

Upon approval of the Planning Board, the applicant must make application for sewer service. Flow amounts for the project will be determined at the time application is made and may or may not be the amount stated above. The applicant will be required to pay all fees based on the flow amount calculated at the time application is made and prior to the issuance of any building permits and/or the issuance of a certificate of occupancy. Any roof drains connected into the sewer system shall be removed.

205 Main Street, Biddeford, ME 04005 P: 207.284.9313 F: 207.571.0678 www.biddefordmaine.org

*The City of Biddeford is an equal opportunity provider. To file a complaint, write to
Human Resource Director, 205 Main Street Biddeford, ME 04005, or call (207) 286-0593.*

This Capacity to Serve Letter is intended only to indicate that the City of Biddeford Wastewater Treatment Facilities has the ability to handle and treat the flow from the above stated project once it is received at the treatment facility. Project design plans must be submitted to the City for review and comment. The Planning Department, Engineering Department or other persons from the Wastewater Department may require further studies, calculations or documentation to determine any actions that may need to be taken to address any impacts/capacity issues and/or any system upgrades that may be needed to address any impacts this project may have on the City's sewer collection and conveyance system(s) or its components.

Thomas Milligan, PE
City Engineer Emeritus
City of Biddeford Engineering Department
Tom.milligan@biddefordmaine.org
207-284-9118

CC: Jeff Demers, Public Works/Wastewater Director
Roby Fecteau, Code Enforcement
David Galbraith, City Planner
Alex Buechner, Wastewater Superintendent
Craig Chekan, City Engineer

Section 18

Solid Waste

Section 18. 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 restaurant will be predictable in that it will generate a fair amount of trash and compostable material.



Section 19

Flooding

Section 19. Flooding

The proposed redevelopment project does not anticipate increasing peak flow runoff rates due to the decrease in impervious area from the previous MERC facility conditions. In addition, the projects stormwater will be directed to an existing subsurface treatment system that has been conservatively sized to treat and store stormwater for the site. The project is located near a major river segment (Saco River) and is eligible for a waiver from the flooding standard per Chapter 500, Section F, 3.

Attached is the FEMA flood map 2301450004B dated 5/15/1984 which shows the site.



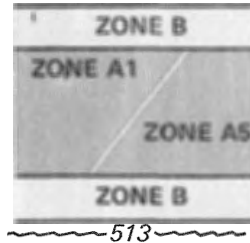


ELEVATION REFERENCE MARKS		
REFERENCE MARK	ELEVATION IN FT. (NGVD) ¹	DESCRIPTION OF LOCATION
RM 5	62.56	USC&GS disk, stamped V 161 1966, set in top of northwest concrete wing wall of U.S. Route 1 bridge over the Saco River.
RM 6	115.00	USC&GS disk, stamped M 981943, set in granite walkway across Pool Street from entrance to Clifford Park.
RM 7	35.73	Standard disk, stamped W 181941 36, set in northwest wing wall of Pool Street bridge over West Brook, approximately 35 feet east of centerline of Pool Street.
RM 8	61.03	Chiseled square in top of boulder in front yard of Morrill School on Decary Road; USGS painted letters adjacent to square read BM 61.0.
¹ National Geodetic Vertical Datum of 1929		

KEY TO MAP

500-Year Flood Boundary _____

100-Year Flood Boundary _____

Zone Designations* 

100-Year Flood Boundary _____

500-Year Flood Boundary _____

Base Flood Elevation Line With Elevation In Feet** (EL 987)

Base Flood Elevation in Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7x

Zone D Boundary _____

River Mile •M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance and flood plain management purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas. The coastal flooding elevations shown may differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

For adjoining map panels, see separately printed Index To Map Panels.

Coastal base flood elevations shown on this map include the effects of wave action.

Coastal base flood elevations apply only landward of the shoreline shown on this map.

INITIAL IDENTIFICATION:

MAY 24, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:

NOVEMBER 8, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE:

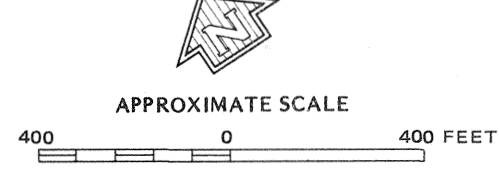
MAY 15, 1984

FLOOD INSURANCE RATE MAP REVISIONS:

NOVEMBER 8, 1976

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF BIDDEFORD, MAINE

YORK COUNTY

PANEL 4 OF 11

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER

230145 0004 B

EFFECTIVE DATE:

MAY 15, 1984



Federal Emergency Management Agency

681 Y

Section 20

Blasting

Section 20. Blasting

The project does anticipate some blasting during construction. Please refer to the General Blasting Recommendations and Boring Logs within the Geotechnical Report by Summit Geoengineering Services, Inc (found in Section 11. Soils). If required, the contractor shall be responsible for obtaining a blasting permit by the City of Biddeford's Fire Department and in conformance with the Code of Ordinances, Chapter 34, Article V: Blasting.



Section 21

Air Emissions

Section 21. Air Emissions

The project will not produce any point source air emissions. The project will also not produce any non-point source air emissions besides the vehicle traffic circulating throughout the site.



Section 22

Odors

Section 22. Odors

The project does not anticipate to produce any odors other than typical vehicle exhaust. The affected areas will be within the site where vehicles may idle.



Section 23

Water Vapor

Section 23. Water Vapor

The project is not anticipated to produce significant amounts of water vapor.



Section 24

Sunlight

Section 24. Sunlight

The proposed project does not anticipate blocking direct sunlight for abutting structures utilizing solar energy.



Section 25

Notices

Section 25. Notices

Notices for the public information meeting and for the intent to file application have been sent to all abutters and to City Planning Department officials as part of the Stormwater Management Law Application submitted to the DEP. Newspaper notices were also published for these notifications.

Form B & Form C are attached, along with a list of the names and addresses of the owners of abutting properties.



Public Notice: Notice of Intent to File

Please take notice that

3 Lincoln, LLC, 80 Exchange Street, Suite 400, Portland, ME 04101 (207)-317-2818

(Name, Address and Phone # of Applicant)

is intending to file a Stormwater Law permit application with the Maine Department of Environmental Protection pursuant to the provisions of 38 M.R.S.A. § 420-D on or about

11/7/2022

(anticipated filing date)

This application is for

The project proposes to formally subdivide the larger 3 Lincoln Street parcel into four separate lots and construct three buildings on Lot 3 including a 85-unit residential/mixed use building (Building A), a 129-unit residential building (Building B), and a commercial/restaurant building (Building C) with approximately 298 seats total.

(description of the project)

at the following location 3 Lincoln Street, Biddeford Maine

(project location)

A request for a public hearing or a request that the Board of Environmental Protection assume jurisdiction over this application 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. A public hearing may or may not be held at the discretion of the Commissioner or Board of Environmental Protection. 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 Environmental Protection's office in (*Portland, Augusta or Bangor*) (circle one) during normal working hours. A copy of the application may also be seen at the municipal offices in Biddeford, Maine.
(town)

Written public comments may be sent to the regional office in Portland, Augusta, or Bangor where the application is filed for public inspection.

MDEP, Central Maine Regional Office, 17 State House Station, Augusta, Maine 04333

MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103

MDEP, Eastern Maine Regional Office, 106 Hogan Road, Bangor, Maine 04401

Public Notice Filing and Certification

The DEP Rules, Chapter 2, require an applicant to provide public notice for all Stormwater Law projects with the exception of minor revisions and condition compliance applications. In the notice, the applicant must describe the proposed activity and where it is located. “**Abutter**” for the purposes of the notice provision means any person who owns property that is BOTH (1) adjoining and (2) within one mile of the delineated project boundary, including owners of property directly across a public or private right of way.

1. **Newspaper:** You must publish the Notice of Intent to File in a newspaper circulated in the area where the activity is located. The notice must appear in the newspaper within 30 days prior to the filing of the application with the Department. You may use the attached Notice of Intent to File form, or one containing identical information, for newspaper publication and certified mailing.
2. **Abutting Property Owners:** You must send a copy of the Notice of Intent to File by certified mail to the owners of the property abutting the activity. Their names and addresses can be obtained from the town tax maps or local officials. They must receive notice within 30 days prior to the filing of the application with the Department.
3. **Municipal Office:** You must send a copy of the Notice of Intent to File and a **duplicate of the entire application** to the Municipal Office.

ATTACH a list of then names and addresses of the owners of abutting property.

CERTIFICATION

By signing below, the applicant or authorized agent certifies that:

1. A notice of Intent to File was published in a newspaper circulated in the area where the project site is located within 30 days prior to filing the application;
2. A certified mailing of the Notice of Intent to File was sent to all abutters within 30 days of the filing of the application.
3. A certified mailing of the Notice of Intent to File, and a duplicate copy of the application was sent to the town office of the municipality in which the project is located; and
4. Provided notice of, if required, and held a public informational meeting in accordance with Chapter 2. Rules Concerning the Processing of Applications, Section 14, prior to filing the application. Notice of the meeting was sent by certified mail to abutters and to the town office of the municipality in which the project is located at least ten days prior to the meeting. Notice of the meeting was also published once in a newspaper circulated in the area where the project site is located at least seven days prior to the meeting.

The Public Informational Meeting was held on _____.

Date

Approximately _____ members of the public attended the Public Informational Meeting.

Signature of Applicant or authorized agent

Date

MBLU	Owner Name	Address 1	City, State, Zip
------	------------	-----------	------------------

Biddeford

40/ 55/ / /	GOOCH STREET LLC	82 HANOVER ST SUITE 5	PORTLAND, ME 04101
40/ 55/ 3/ /	GOOCH STREET LLC	82 HANOVER ST SUITE 5	PORTLAND, ME 04101
40/ 56/ / /	SACO LOWELL LLC		PORTLAND , ME 04101
40/ 67/ / /	C & T REALTY, LLC	4 INNKEEPER LN	FALMOUTH, ME 04105-2530
40/ 67/ 1/ /	PELONE, LLC	399 PRESUMPSCOT ST	PORTLAND, ME 04103
40/ 67/ 2/ /	PELONE, LLC	399 PRESUMPSCOTT ST	PORTLAND, ME 04103
40/ 71/ / /	23 LINCOLN, LLC	47 WAITES LANDING RD	FALMOUTH, ME 04105
40/ 71/ 1/ /	SHAI PROPERTY MANAGEM	316 MAIN ST STE 202	BIDDEFORD, ME 04005
71/ 2/ / /	CITY OF BIDDEFORD	PO BOX 586	BIDDEFORD, ME 04005
71/ 5/ / /	LHL HOLDINGS, LLC	2 LIVEWELL DR STE 201	KENNEBUNK, ME 04043
71/ 9/ / /	DRAFT ROOM LLC	C/O PROPERTY MANAGEME	PORTLAND, ME 04101
71/ 4/ / /	TLC BUGBEE BROWN BUIL	1 BLACKBERRY LN	SACO, ME 04072
71/ 9/ 2/ /	THE LOFTS AT SACO FALLS	482 CONGRESS ST	PORTLAND, ME 04101
71/ 9/ 4/ /	COUNTING HOUSE LLC	2 SUMMER ST	PORTLAND, ME 04102

Saco

37010000000	BSG PROPERTIES LLC	180 MAIN ST	SACO, ME 04072
37003000000	CENTRAL ME POWER CO	LOCAL TAXES	PORTLAND, ME 04101
37999000000	BOSTON & MAINE RAILROA	IRON HORSE PARK	NORTH BILLERICA, MA 018862
37002000000	BUILDING 108 ASSOCIATES	PO BOX 759	SACO, ME 04072
37008000000	CITY OF SACO	300 MAIN ST	SACO, ME 04072



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender



Acorn Engineering, Inc.
PO Box 3372
Portland, ME 04104

TOTAL NO.
of Pieces Listed by Sender

TOTAL NO.
of Pieces Received at Post Office™

Postmaster, per (name of receiving employee)

Affix Stamp Here
Postmark with Date of Receipt.

OCT 31 2022

OCT 31 2022

USPS® Tracking Number
Firm-specific Identifier

Postage

Fee

Special Handling

Parcel Airift

1



GOOCH STREET LLC
82 HANOVER ST SUITE 5
PORTLAND, ME 04101

2



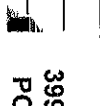
GOOCH STREET LLC
82 HANOVER ST SUITE 5
PORTLAND, ME 04101

3



C & T REALTY, LLC
4 INKKEEPER LN
FALMOUTH, ME 04105-2530

4



PELONE, LLC
399 PRESUMPCOTT ST
PORTLAND, ME 04103

5



PELONE, LLC
399 PRESUMPCOTT ST
PORTLAND, ME 04103

6



23 LINCOLN, LLC
47 WAITES LANDING RD
FALMOUTH, ME 04105

18



U.S. POSTAGE PAID
PORTLAND, ME
04101
OCT 31 22
AMOUNT
\$9.00
R2304M11692-66



UNITED STATES
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Certificate of Mailing — Firm (Domestic)

Name and Address of Sender		TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here Postmark with Date of Receipt.			
 Acorn Engineering, Inc. PO Box 3372 Portland, ME 04104		Postmaster, per (name of receiving employee)					
USPS® Tracking Number Firm-specific Identifier		Class (Code™)		Postage	Fee	Special Handling	Parcel Airftt
1		 SHAI PROPERTY MANAGEMENT LLC 316 MAIN ST STE 202 BIDDEFORD, ME 04005					
2		 CITY OF BIDDEFORD PO BOX 586 BIDDEFORD, ME 04005					
3		 LHL HOLDINGS, LLC 2 LIVEWELL DR STE 201 KENNEBUNK, ME 04043					
4		 DRAFT ROOM LLC CIO PROPERTY MANAGEMENT PORTLAND, ME 04101					
5		 TLC BUGBEE BROWN BUILDING LLC 1 BLACKBERRY LN SACO, ME 04072					
6		 THE LOFTS AT SACO FALLS, LP 482 CONGRESS ST PORTLAND, ME 04101					



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender



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Postage

Fee

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Parcel Airift

1



COUNTING HOUSE LLC
2 SUMMER ST
PORTLAND, ME 04102

2



BSG PROPERTIES LLC
180 MAIN ST
SACO, ME 04072

3



CENTRAL ME POWER CO
LOCAL TAXES
PORTLAND, ME 04101

4



BOSTON & MAINE RAILROAD
IRON HORSE PARK
NORTH BILLERICA, MA 018862

5



BUILDING 108 ASSOCIATES LP
PO BOX 759
SACO, ME 04072

6



CITY OF SACO
300 MAIN ST
SACO, ME 04072



PORTLAND
125 FOREST AVE
PORTLAND, ME 04101-9998
(800)275-8777

10/31/2022

08:05 AM

Product	Qty	Unit Price	Price
CTOM - Firm - Domestic	18		\$9.00

Grand Total: \$9.00

Credit Card Remit \$9.00

Card Name: VISA
Account #: XXXXXXXXXXXXX4369
Approval #: 031340
Transaction #: 097
AID: A0000000031010 Chip
AL: Visa Credit
PIN: Not Required

In a hurry? Self-service kiosks offer quick and easy check-out. Any Retail Associate can show you how.

Preview your Mail
Track your Packages
Sign up for FREE @
<https://informedelivery.usps.com>

All sales final on stamps and postage.
Refunds for guaranteed services only.
Thank you for your business.

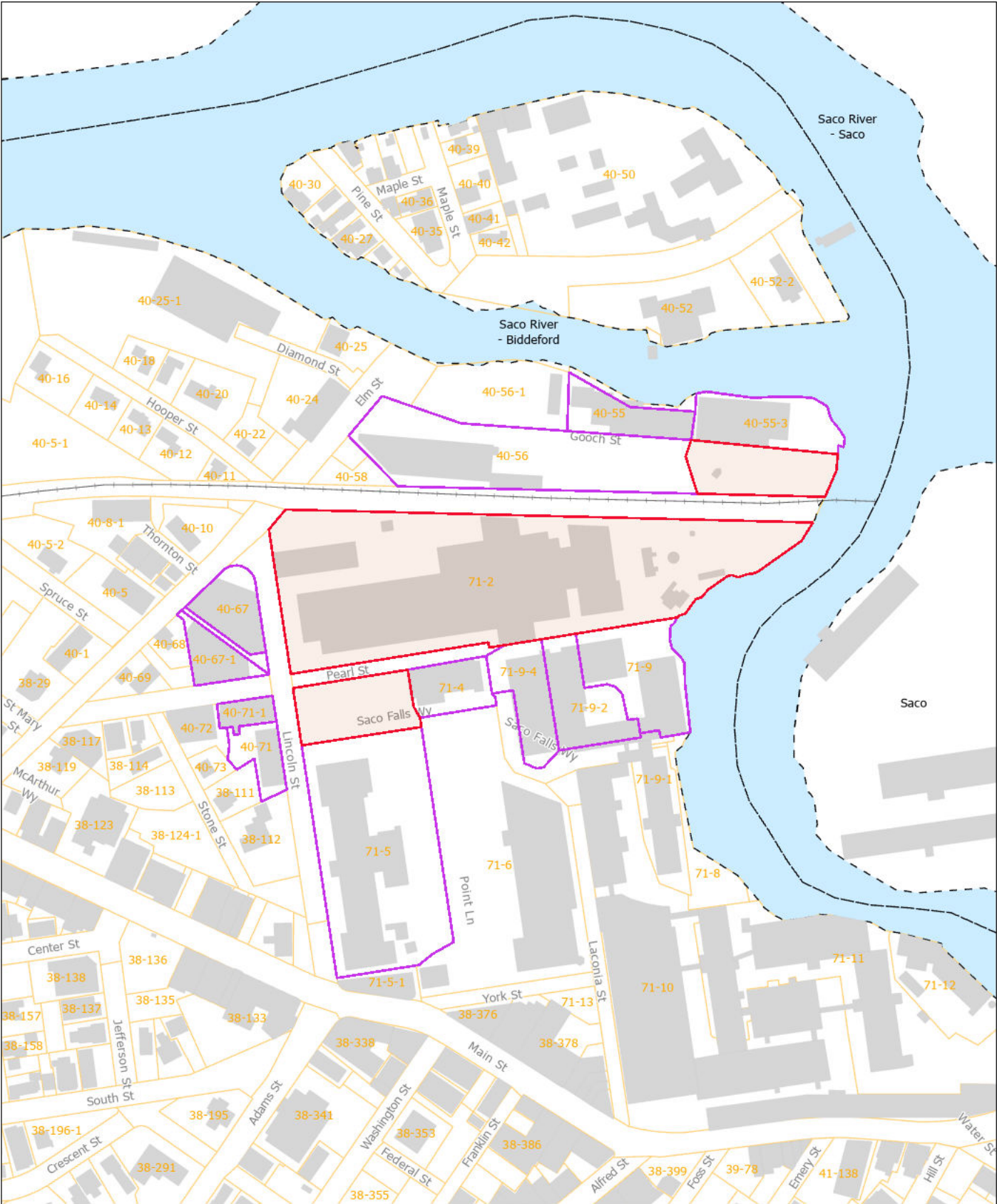
Tell us about your experience.
Go to: <https://postalexperience.com/Pos>
or scan this code with your mobile device,



or call 1-800-410-7420.

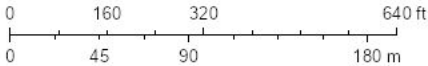
UFN: 226900-0102
Receipt #: 840-50400069-2-7764238-2
Clerk: 66

Adjacent Parcels Map



October 13, 2022

1:3,500



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

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

Section 26

Maine Tribe & Nations Correspondence



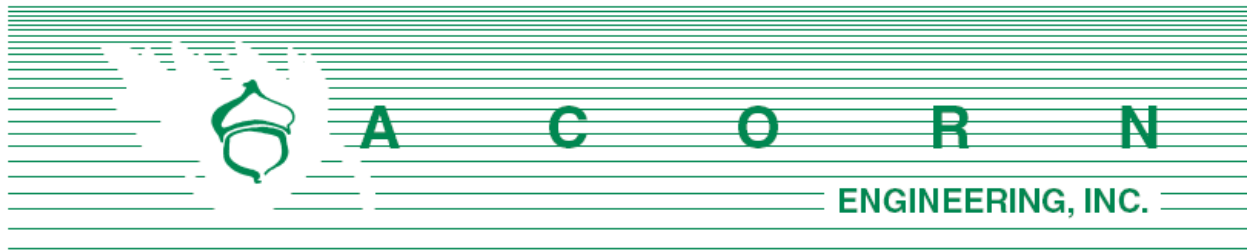
Section 26. Maine Tribes/Nations Correspondence

See attached letters to associated Maine Tribes and their corresponding responses received thus far.



ATTACHMENT 26-1: PTOFL RESPONSE





Mr. Donald Soctomah, THPO
Passamaquoddy Tribe of Indians
Pleasant Point & Indian Township Reservation
PO Box 343
Perry, Maine 04667

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Donald Soctomah:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from the Tribe of Passamaquoddy Tribe of Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Tribal Historic Preservation Office
Passamaquoddy Tribe
PO Box 159 Princeton, Me. 04668
207-214-4051

December 14, 2022

Zachary Stevens, E.I.
Project Engineer
Licensed in Maine
Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

- Re: Biddeford – 3 Lincoln St Project

Dear Zachary;

The Passamaquoddy THPO has reviewed the following applications regarding the historic properties and significant religious and cultural properties in accordance with NHPA, NEPA, AIRFA, NAGPRA, ARPA, Executive Order 13007 Indian Sacred Sites, Executive Order 13175 Consultation and Coordination with Indian Tribal 107 Maine State Governments, and Executive Order 12898 Environmental Justice.

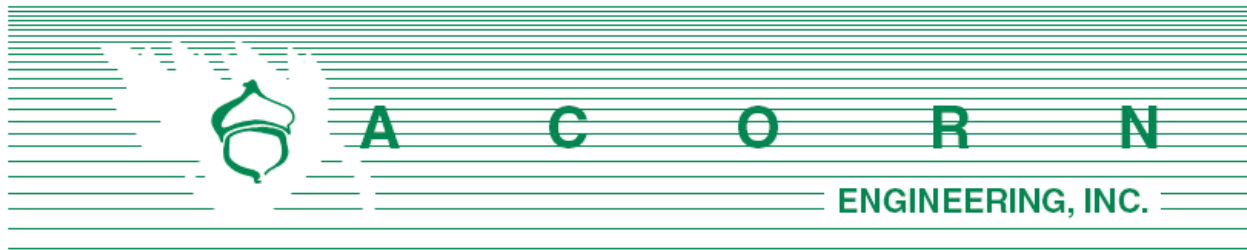
The Projects listed above will not have any impact on cultural and historical concerns of the Passamaquoddy Tribe. Should buried artifacts, human remains, cultural sites or ground features be unexpectedly unearthed during ground disturbing activities, all construction should immediately cease and the resources be examined by a professional archaeologist. Additionally, all appropriate authorities-including all pertinent tribal entities should be notified.

Sincerely;

Donald Soctomah
Soctomah@gmail.com
THPO
Passamaquoddy Tribe

ATTACHMENT 26-2: MNLRESPONSE





Kendyl Reis, THPO
Mi'Kmaq Nation
7 Northern Road
Presque Isle, ME 04769

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Kendyl

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Mi'Kmaq Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map



Tribal Historic Preservation Office
Mi'kmaq Nation (Formerly known as the Aroostook Band of Micmac)
Kendyl Reis
Tribal Historic Preservation Officer
7 Northern Road
Presque Isle, ME 04769
Phone: (207)764-1972 ext. 161
kreis@micmac-nsn.gov

3 Lincoln Street Redevelopment Biddeford
January 5th, 2023

Based on the project description, we do not have knowledge of any specific sites or cultural features that exist at the proposed project location(s).

However, this geographic area does constitute traditional areas that were historically utilized by members of the Mi'kmaq Nation and the other Wabanaki Tribes. Therefore, we respectfully request that if during the course of excavation/construction activities, human remains, artifacts, or any other evidence of Native American presence is discovered, that site activities in the vicinity of the discovery immediately cease, pending notification to us.

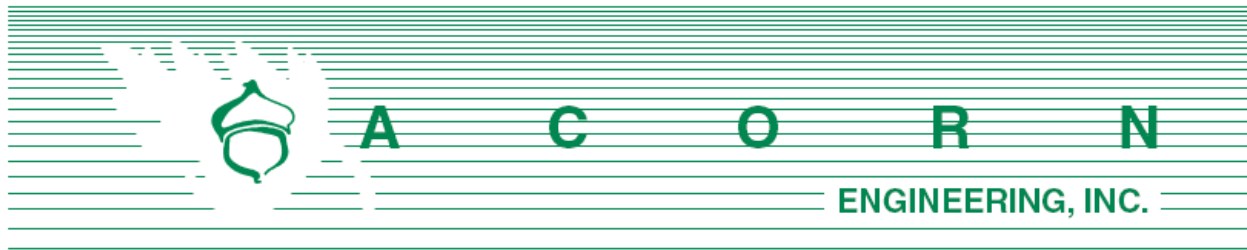
In addition, if this project results in wetland disturbances requiring mitigation, we are requesting that you utilize the black ash (*Fraginus nigra*) as the principal wetland species for wetland restoration activities. The black ash tree has special significance in the culture of the northeastern Tribes and is used extensively for weaving baskets and other Native American crafts. The black ash tree also provides valuable food and habitat for migratory waterfowl and other wildlife. Unfortunately, however, this species has been selected against by foresters and landowners who favor other tree species. As a result of this, and other environmental factors, the black ash tree is in serious decline in Maine. The Mi'kmaq Nation has completed several black ash wetland restoration projects and have a dependable source for highly-quality seedlings, and the experience and expertise to assist you with black ash wetland restoration projects.

On the subject of human remains, artifacts, or any other evidence of Native American presence is discovered. The human remains will be reburied with the appropriate respect for the remains that is required at a distinctive and respectable site. The artifacts and other evidence of Native American discovery will be documented with appropriate detail. The items will be analyzed for the precise period of the items' distinctive period and will be documented by the Tribal Historic Preservation Officer for the Mi'kmaq Nation.

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

Sincerely,

Kendyl Reis
Tribal Historic Preservation Officer



Environmental Planner
Houlton Band of Maliseet Indians
88 Bell Road
Littleton, ME 04730

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

To Environmental Planner:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

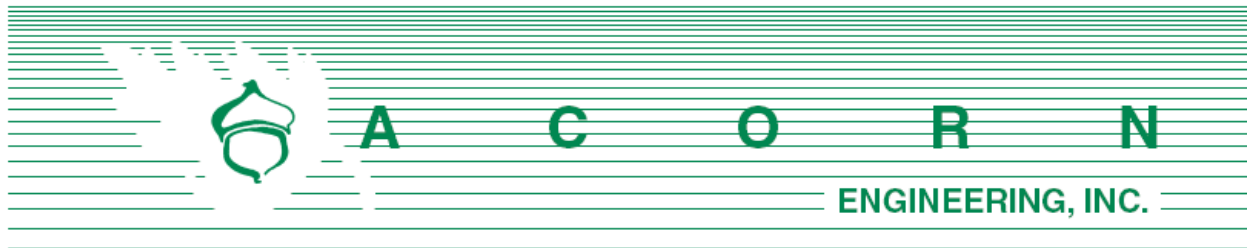
As part of the Site Location of Development Application process, Acorn requests information from the Houlton Band of Maliseet Indians regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map



Mr. Christopher Sockalexis, THPO
Cultural & Historic Preservation Department
Penobscot Nation
12 Wabanaki Way
Indian Island, ME 04468

December 14th, 2022

Subject: Presence of Tribes
3 Lincoln Street (Lot 3) Redevelopment
Biddeford, Maine

Dear Mr. Sockalexis:

Acorn Engineering, Inc. has been retained to provide engineering services for a proposed redevelopment in Biddeford, Maine. The project area is approximately 2.08-acres and is located at 3 Lincoln Street within the Main Street Revitalization District (MSRD-3) and the newly created Waterfront Renaissance (WR) Shoreland Overlay Zoning District in Biddeford Maine.

As part of the Site Location of Development Application process, Acorn requests information from Penobscot Nation regarding potential nearby historic, archaeological, or tribal areas.

Acorn Engineering appreciates your assistance and looks forward to your response. Please refer to the attached documents to facilitate your review.

Sincerely,

Zachary Stevens, EI
Project Engineer
Acorn Engineering, Inc.

Attached:
EX-1 Vicinity Map

Section 27

Declaration of Easements, Covenants, and Restrictions

Section 27: Declaration of Easements, Covenants, and Restrictions

The project does not propose any easements.

Please refer the attached plans for the existing easements across the property.

1. Existing Conditions Survey prepared by Owen Haskell, Inc. on April 19th, 2018.



Section 28

Traffic & Parking Overview

Section 28: Traffic & Parking Overview

The project proposes to construct three (3) buildings on Lot 3 including a residential/mixed use building (Building A) with approximately 85-units, a residential building (Building B) with approximately 129-units, and a commercial/restaurant building (Building C).

Access to Building A and Building B garage parking will be available from Smith Street, with pedestrian access from Pearl Street. As the project will produce greater than 100 peak hour trips, the project will require a Maine DOT Traffic Movement Permit. A copy of the TMP application is attached to this section.

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 for every dwelling unit, plus an additional 5% for residential visitors, 1 space for every 3 restaurant seats, and 1 space for every 300 square feet of floor space for retail. This results in a total of 328 spaces required $((1 \text{ space/D.U.} \times 85 \text{ D.U.}) + (0.05 \times 85 \text{ D.U.}) + (1 \text{ space/D.U.} \times 129 \text{ D.U.}) + (0.05 \times 129 \text{ D.U.}) + (1 \text{ space} / 300 \text{ sf of floor space} \times 953 \text{ sf}) + (1 \text{ space}/3 \text{ seats} \times 298 \text{ estimated restaurant seats}) = 328 \text{ spaces})$.

The project proposes a waiver to exclude the 103 Commercial use parking spaces required from the restaurant which would bring the 328 parking spaces requirement down to 225.

The project proposes to provide garage parking on the lower level of building A totaling 39 spaces, with the additional 186 required spaces to be leased from the Pearl Street City parking garage located on Lot 2. The applicant is working with the garage operating managers to secure the lease for these spaces and can forward a copy upon receipt.

Attachments:

1. Maine Department of Transportation Traffic Movement Permit Application prepared by TYLIN
2. Preliminary Traffic Impact Review prepared by Sewall
3. Comment Response Letter prepared by TYLIN
4. Parking and TDM Assessment prepared by TYLIN



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

3 Lincoln Street Project
Residential Apartments and Restaurant
Pearl Street, Biddeford, Maine
September 20, 2021

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 **3 Lincoln, LLC**

Address: **80 Exchange Street, Suite 400, Portland, ME 04101**

Telephone: **207.808.8787**

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: **3 Lincoln Street Project – Residential Apartments and Restaurant**

Location of development including road, street, or nearest route number: **Lot 3 Pearl Street**

City/Town/Plantation: **Biddeford**, County: **York**, Parcel #: **Map 71 / Lot 2**

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? **No**

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): **N/A**

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: September 20, 2021

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."


Signature of applicant

8/26/21

Signature of applicant

Date

NOTICE OF INTENT TO FILE

Please take notice that 3 Lincoln, LLC, 80 Exchange Street, Suite 400, Portland ME 04092, (207) 808-8787 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 August 25, 2021.

The application is for:

The development of 191 apartment units and a 298 seat restaurant. The project is expected to generate 61 new trips during the weekday AM peak hour, 296 trips during the weekday PM peak hour and 245 trips during the Saturday peak hour. Access and egress will be via Pearl Street.

At the following location:

Lot 3 Pearl Street in Biddeford, Tax Map 71 / Lot 2

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:

Lot 3A – 83 Residential Apartments Units

- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units

- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total

- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking garage. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

1.B. Existing and Proposed Site Uses

The project site is located on Pearl Street located off Lincoln Street in Biddeford. The parcel to be developed is identified on Biddeford Tax Map #: Lot 71 /Lot 2. Currently the site is vacant and as noted above will consist of residential and restaurant 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.

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) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. 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

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 a modest 5% reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, 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, and the Weekday percentages was used. As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 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 (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats) ¹	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245

Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%) ²	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

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

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

1.F Trip Distribution

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

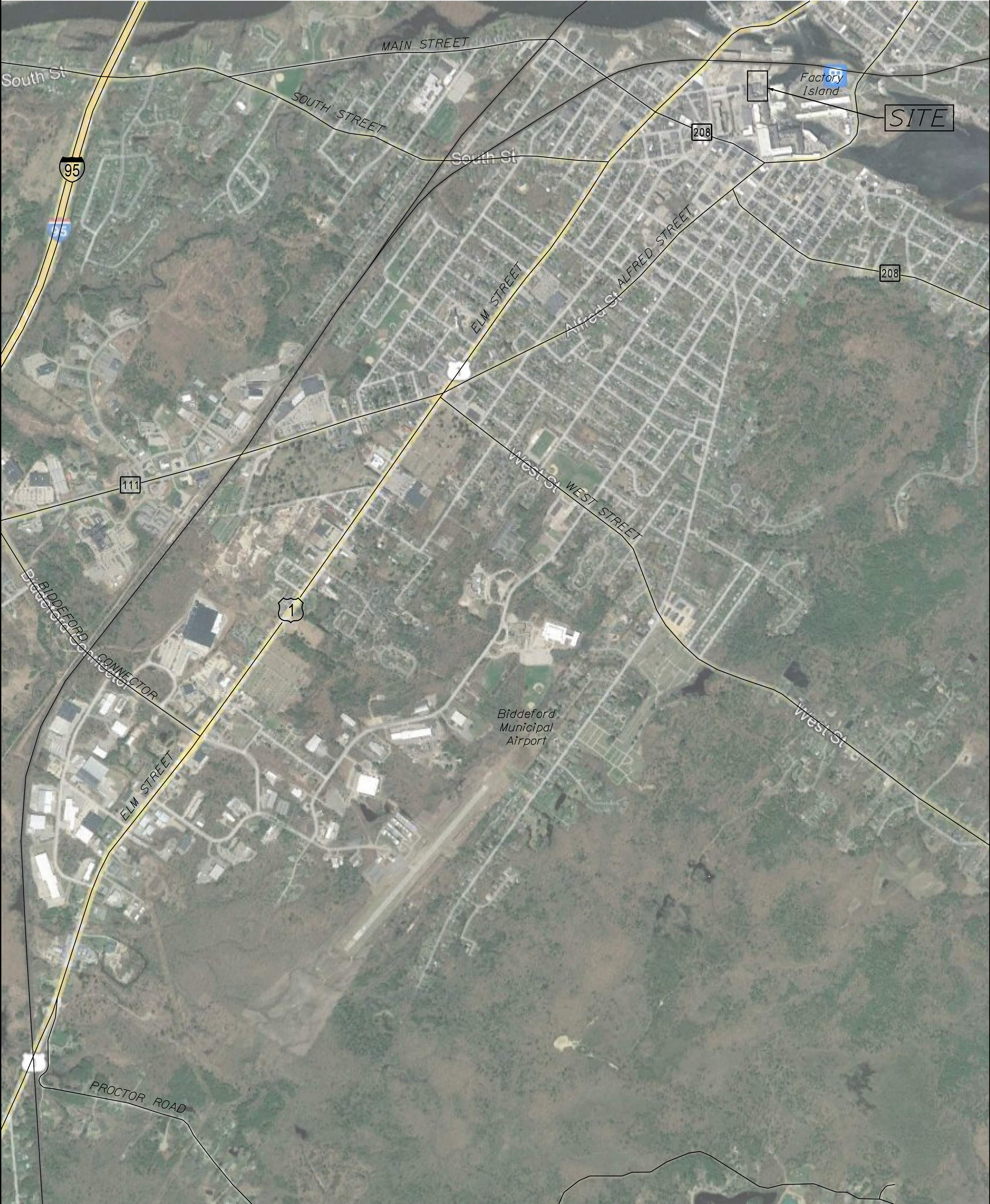
Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Main Street/Lincoln Street/Adams Street, Elm Street/Lincoln Street, Elm Street/Main Street and Pearl Street/Main Street intersections according to existing peak hour turning movement volumes. Data is not available at Elm Street and Pine and Elm Street/Water Street/Lincoln Street and was estimated according to our local knowledge. Assignments at these locations will be revised as necessary. The turning movements volumes are provided in the Appendix.

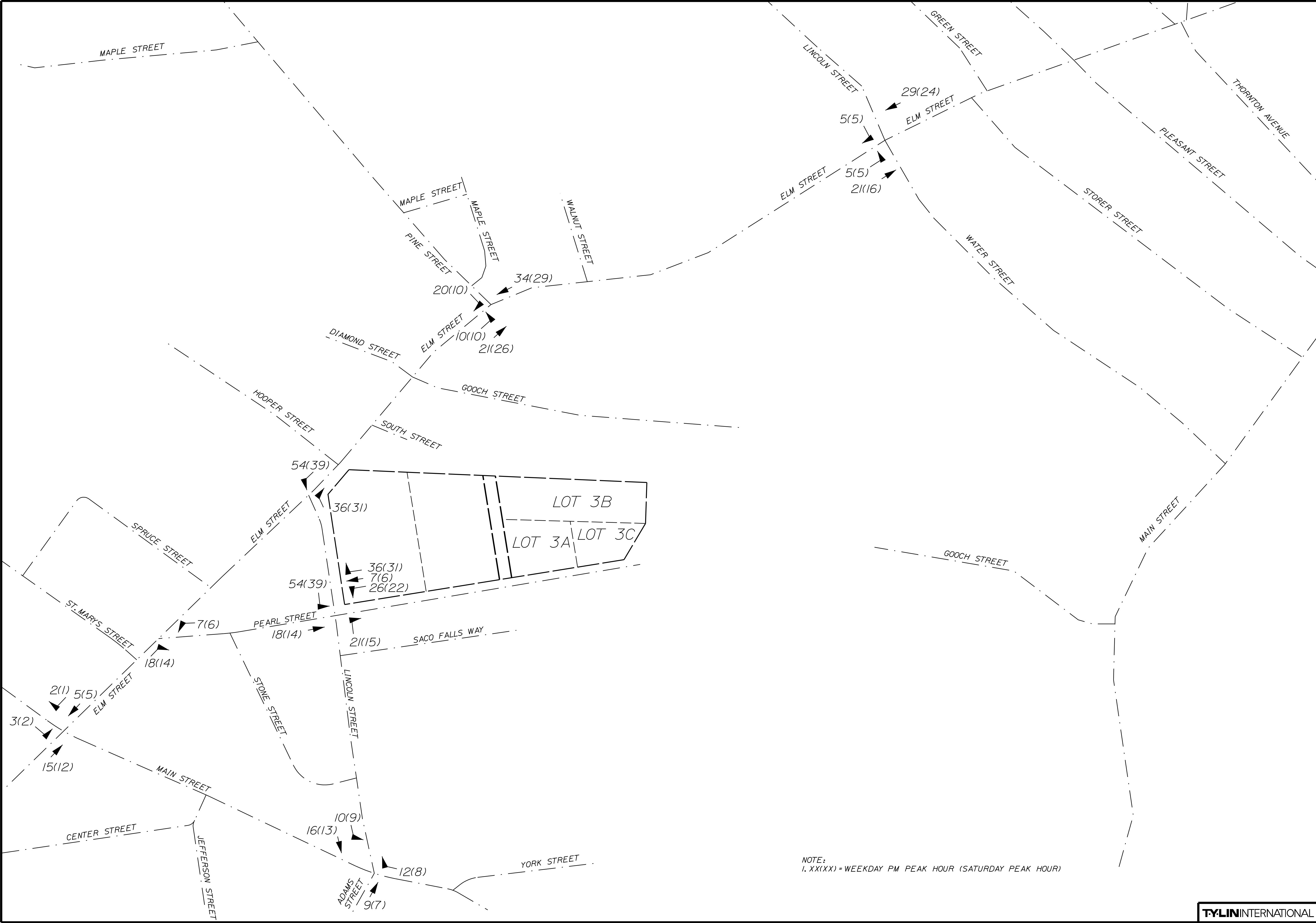
1.G Trip Assignment

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



TYLININTERNATIONAL

BIDDEFORD
3 LINCOLN STREET PROJECT

FIGURE NUMBER
2

PRIMARY SITE TRIPS

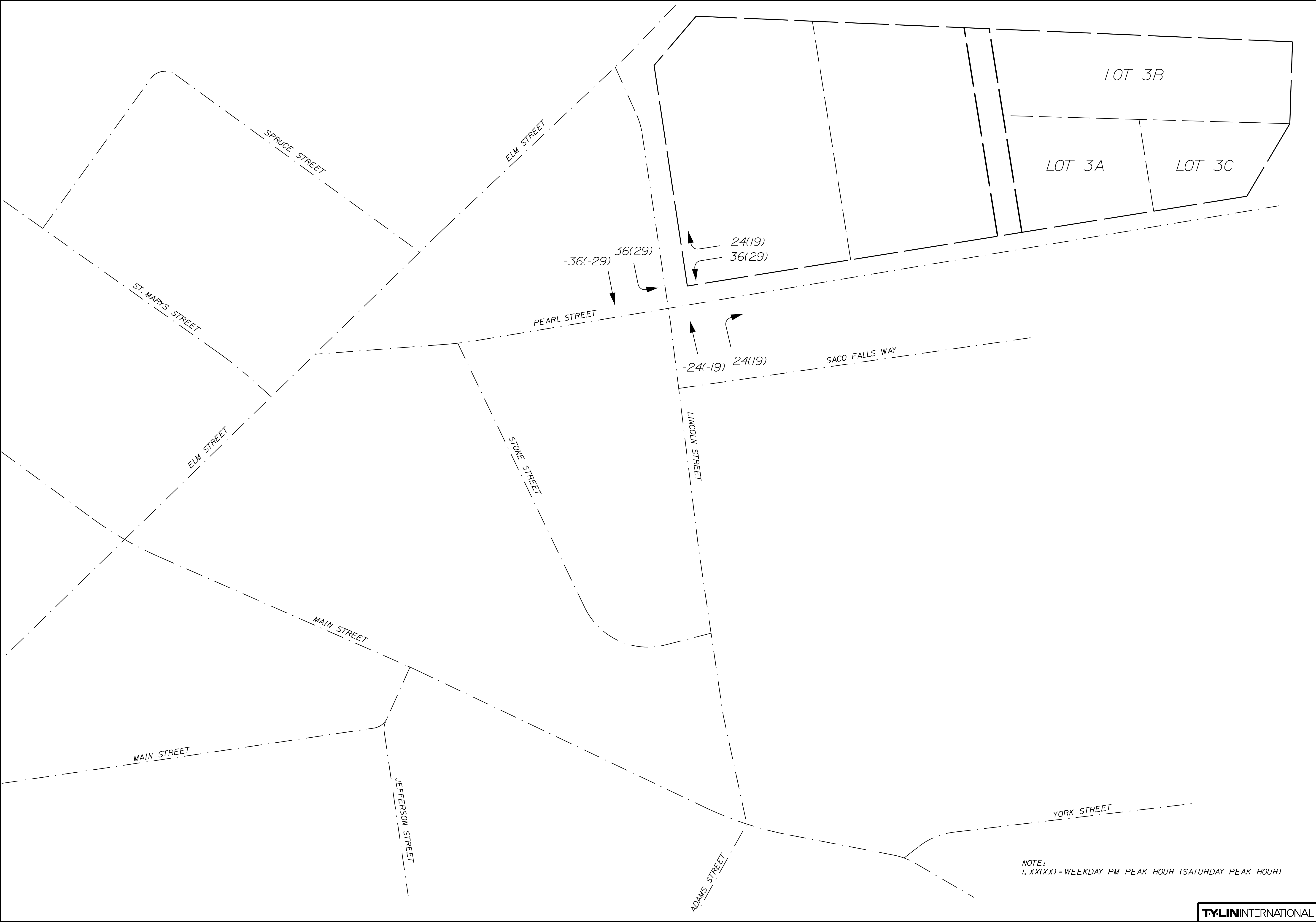
PROJ. MANAGER	T. ERICO	BY	DATE
CHECKED-REVIEWED	S. DAVIS		
DESIGNS-DETAILED			
DESIGNS 1			
DESIGNS 2			
DESIGNS 3			
DESIGNS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MaineDOT TMP APPLICATION



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

BIDDEFORD
3 LINCOLN STREET PROJECT
PASS-BY SITE TRIPS

FIGURE NUMBER

3

PROJ. MANAGER	T. ERICO	BY	DATE
CHECKED-REVIEWED	S. DAVIS		
DESIGN-DETAILED			SIGNATURE
DESIGN-DETAILED			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 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. As of September 17, 2021 the improvements have not 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.

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 Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations.

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	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200'
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200'

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 2022.

APPENDIX

TRIP GENERATION

Multifamily Housing (Mid-Rise) (221)

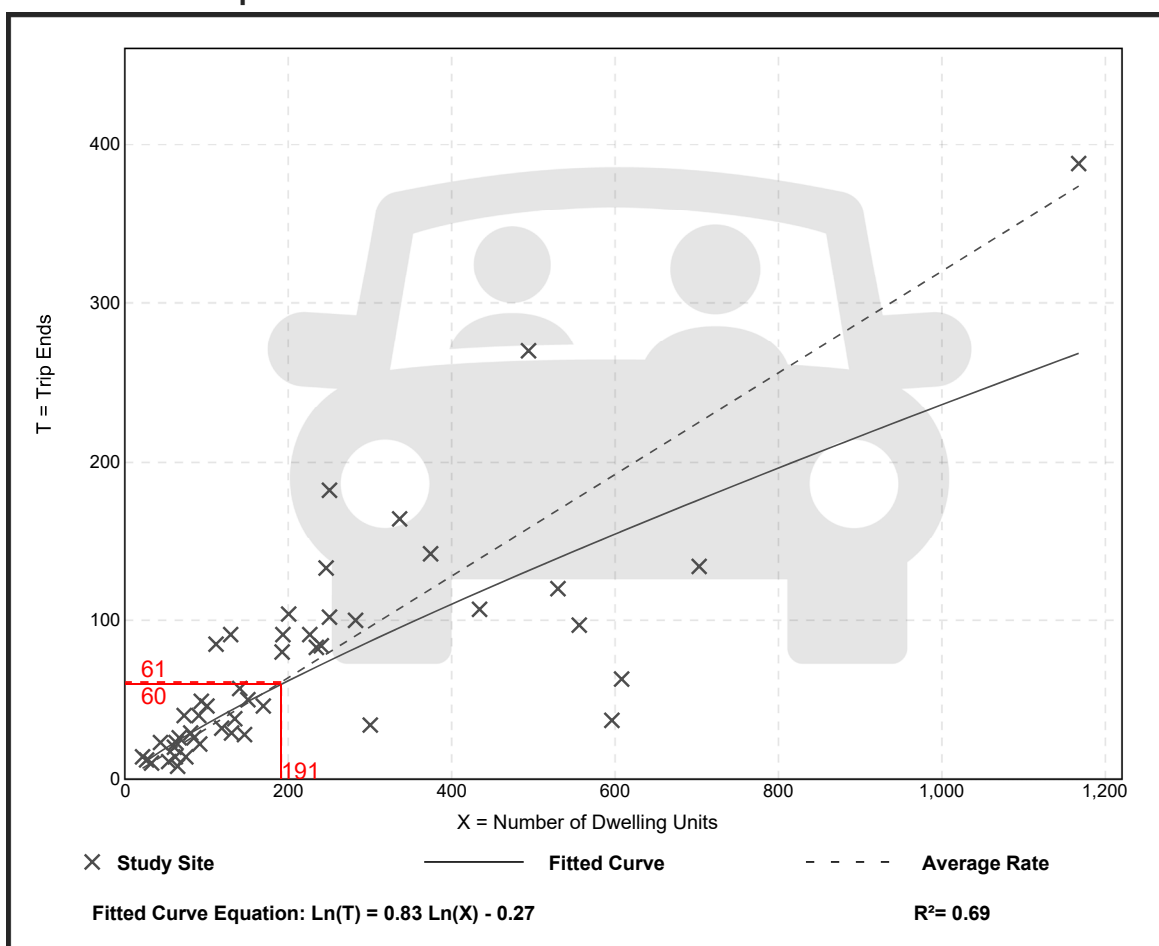
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

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)

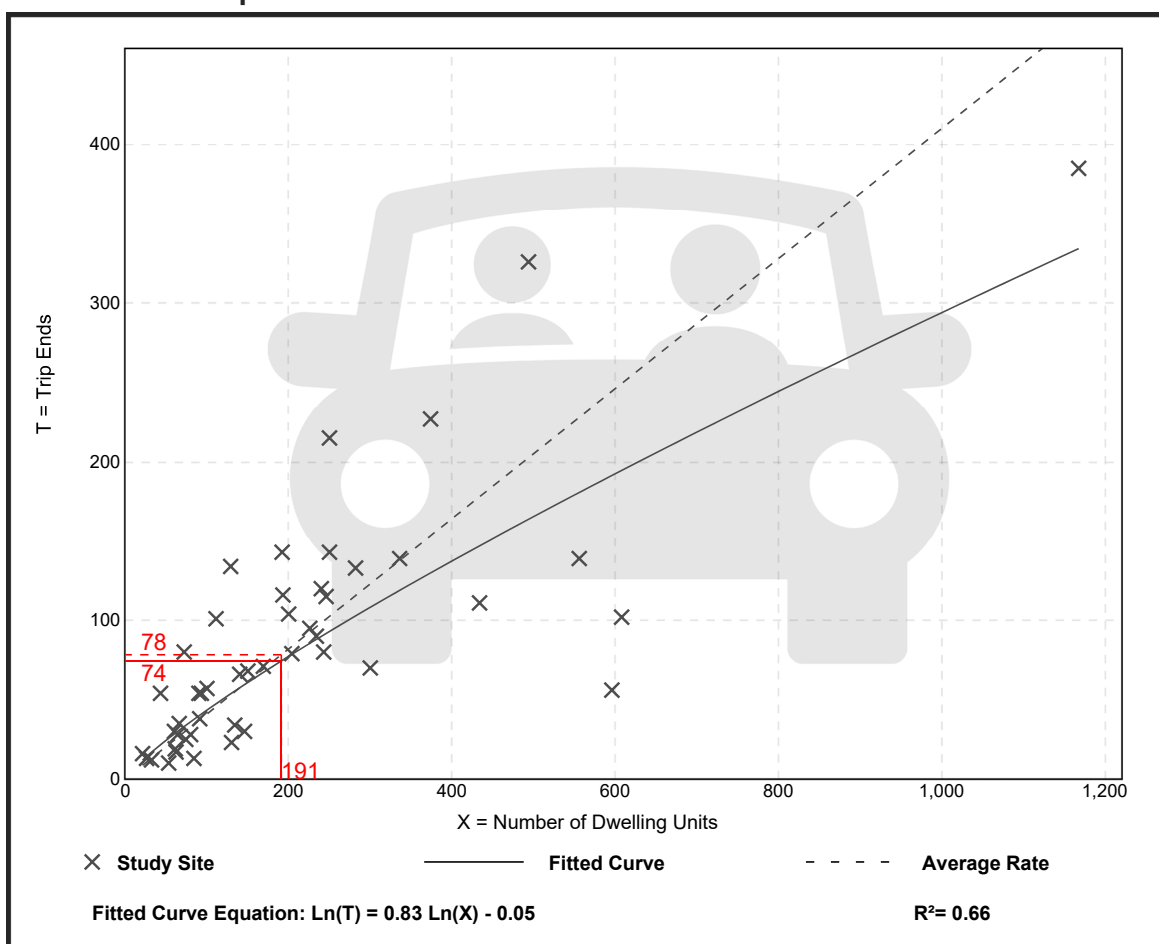
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

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)

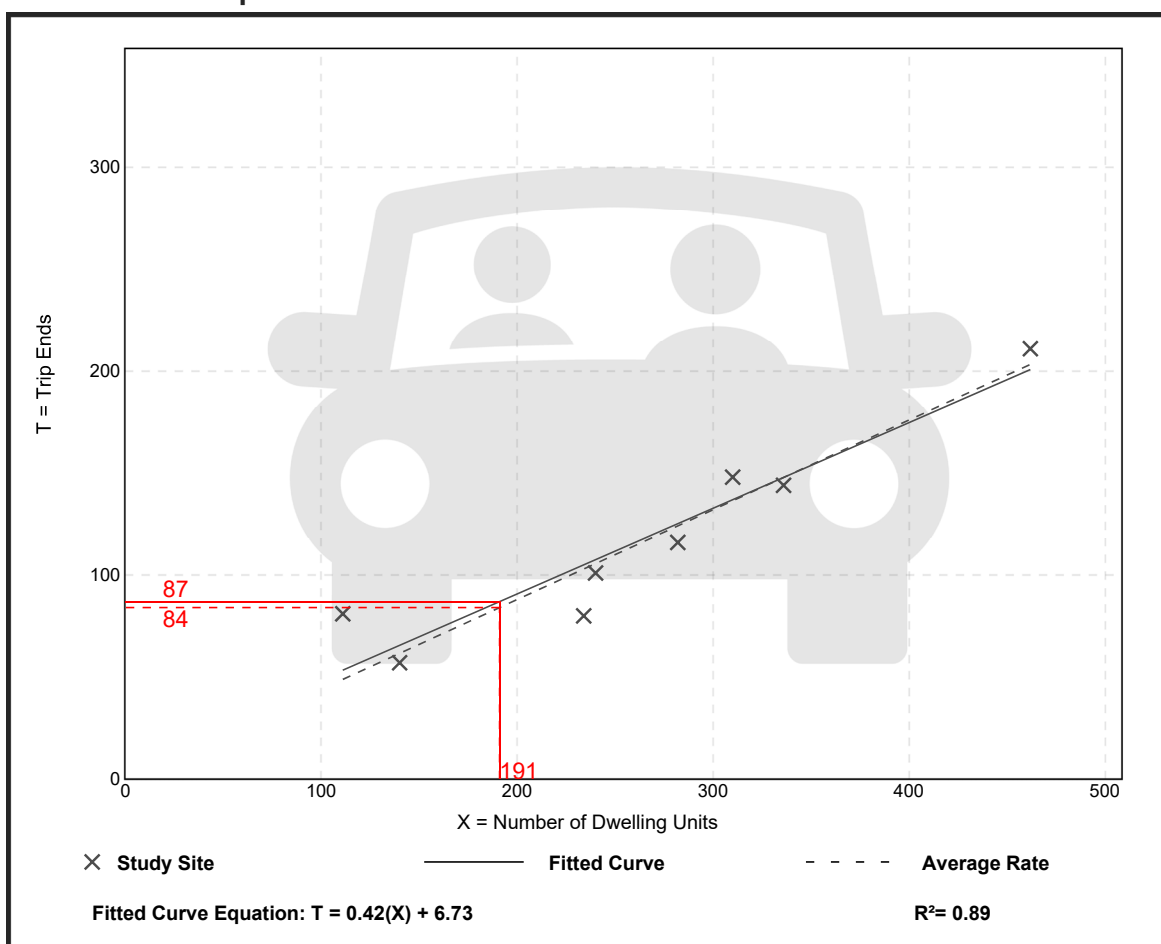
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

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)

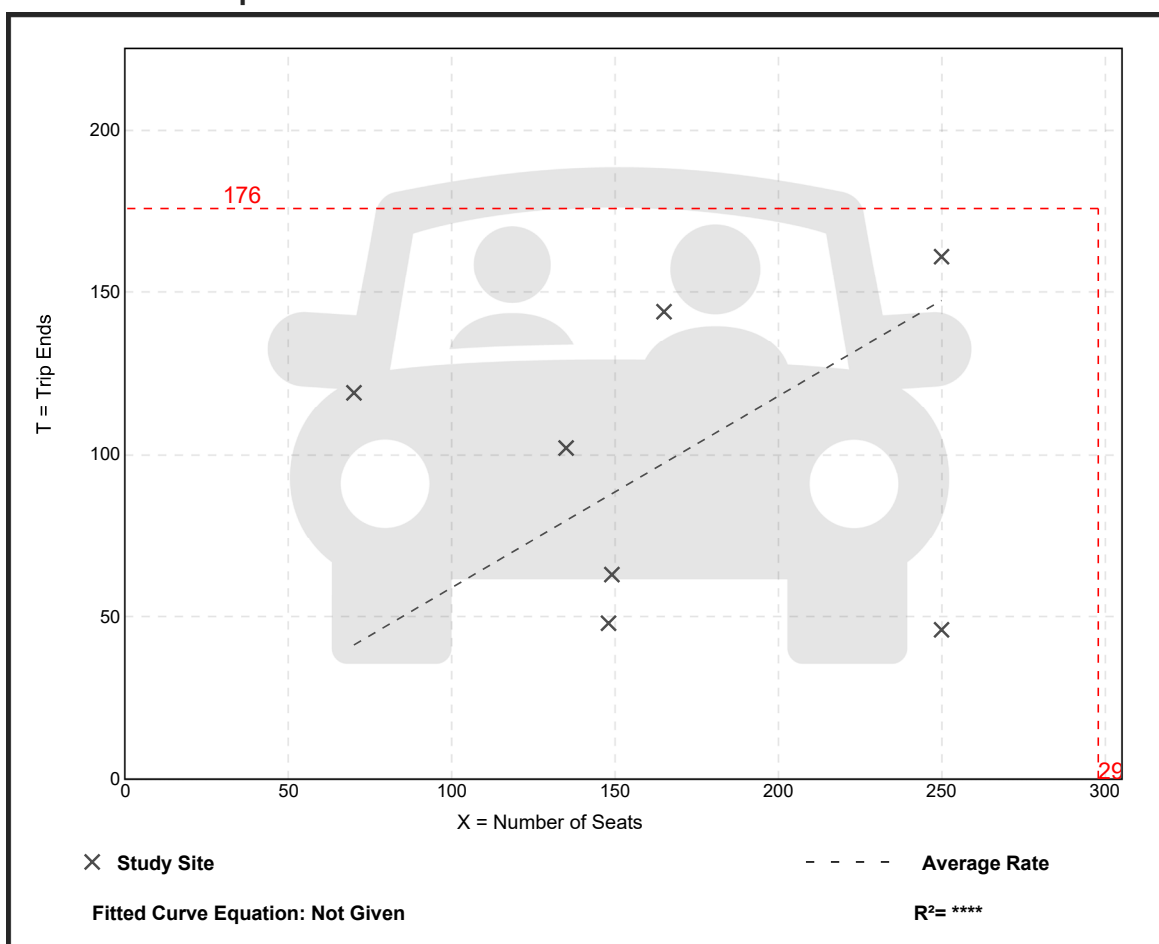
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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

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

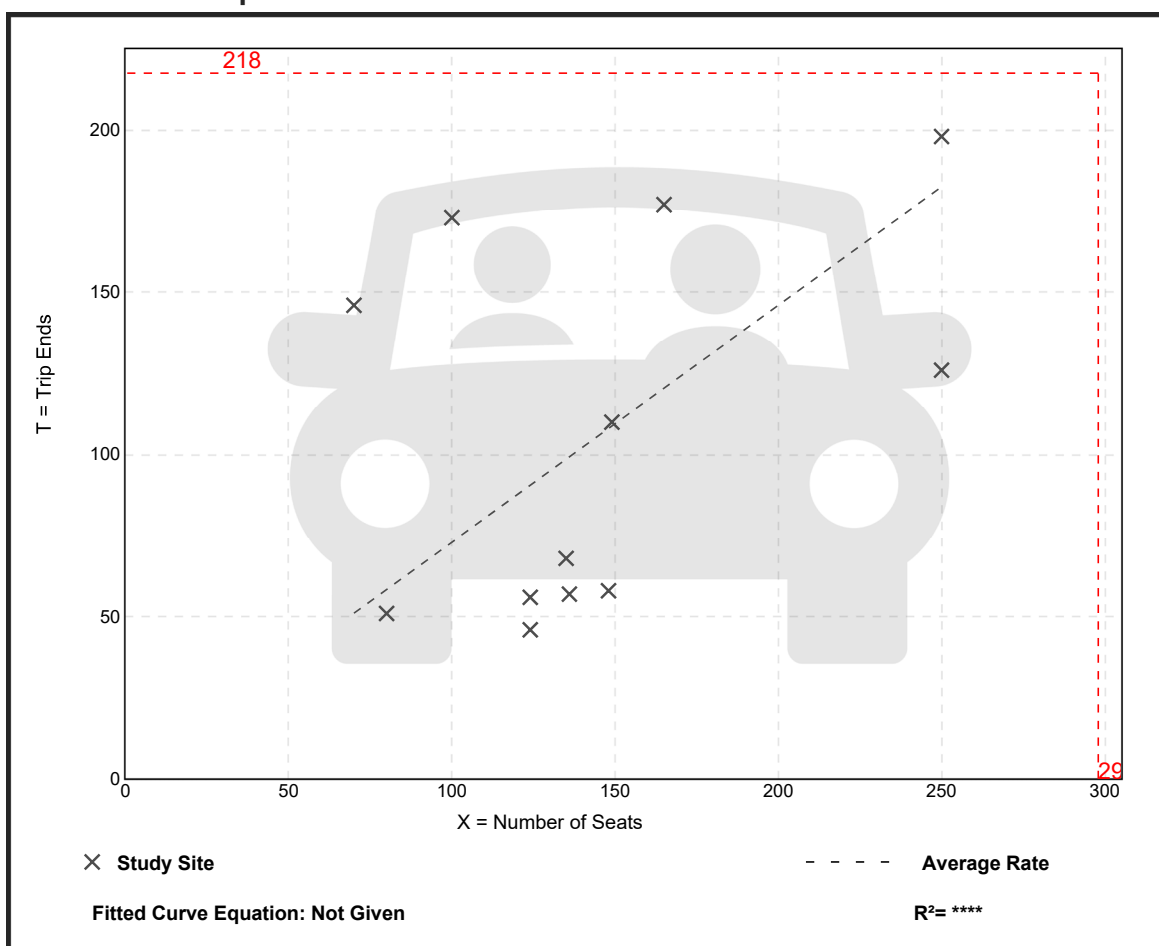
Vehicle Trip Ends vs: Seats
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 12
 Avg. Num. of Seats: 144
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



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

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

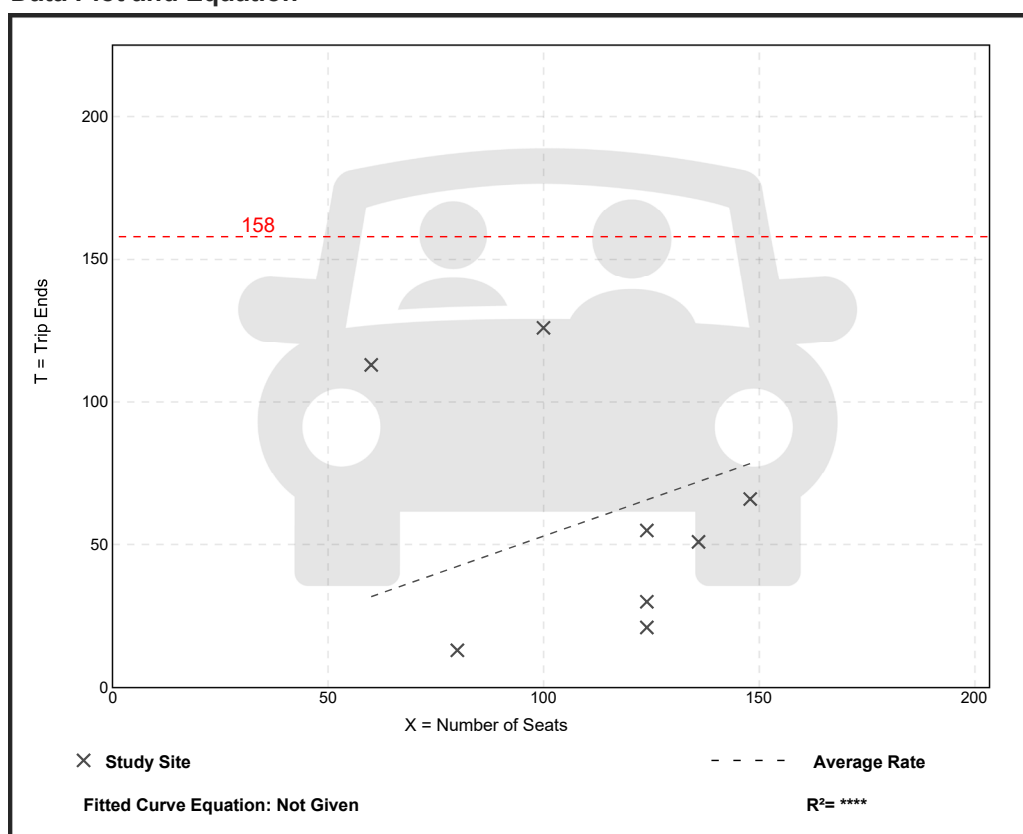
Vehicle Trip Ends vs: **Seats**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	PM Peak Hour		Date:		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses ²				0		
				296	160	136

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips ⁵	280	152	128
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	Saturday Peak Hour		Date:		

Table 1-A: 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				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses ²				0		
				245	127	118

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips ⁵	223	116	107
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

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**

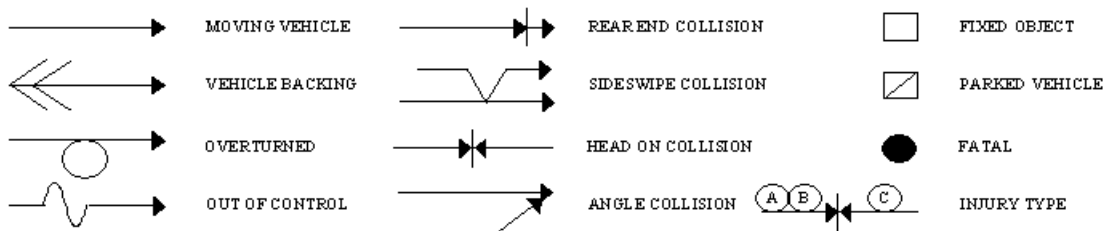
CRASH RATE: **0.49**

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

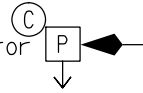
WEATHER: C - CLEAR, F - FOG, R - RAIN, SL - SLEET, S - SNOW, CL - CLOUDY

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

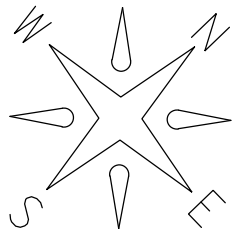
27590 9-26-18 1:30P D/CL Fail To Yield



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)

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**

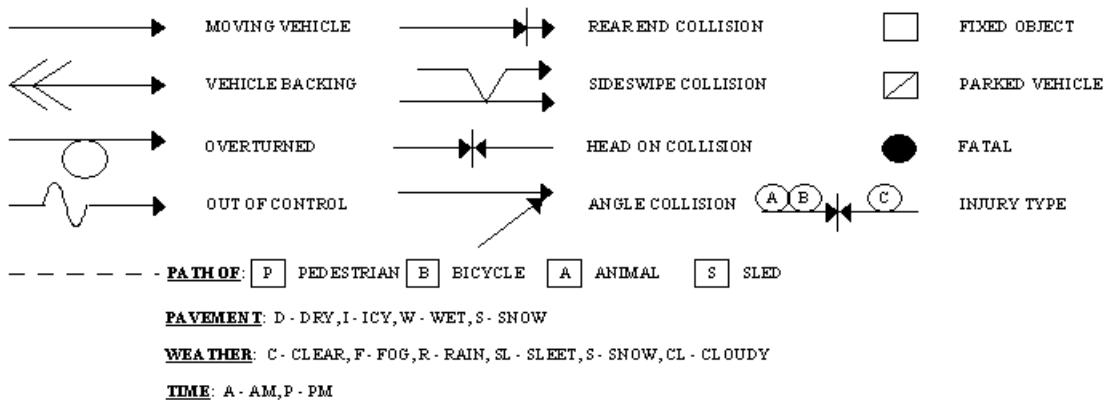
CRASH RATE: **0.74**

CRF: **2**

% INJURY: **14.3**

TOTAL CRASHES: **14**

LEGEND



Pine St.

Maple St.

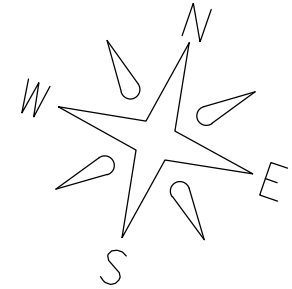
Biddeford

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

B

C

P

C

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**

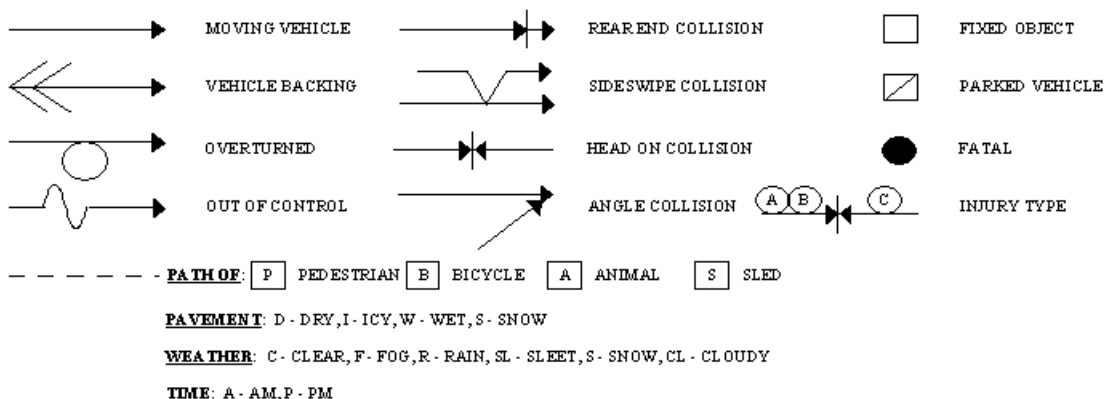
CRASH RATE: **1.39**

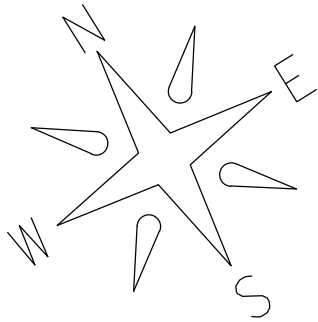
CRF: **2.9**

% 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

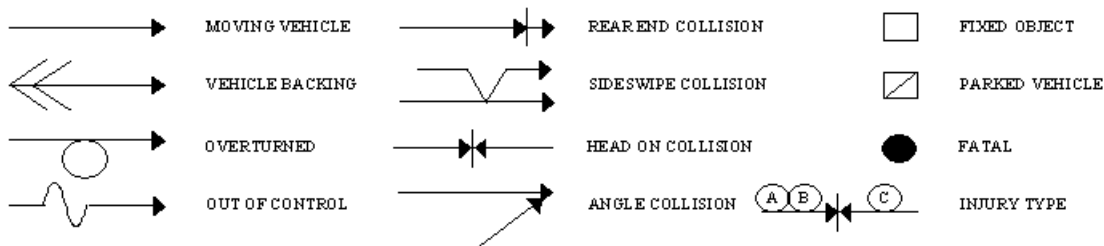
RTE # / RD #: 3110002 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

STUDY FROM: 1/1/2018

STUDY TO: 12/31/2020

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

LEGEND

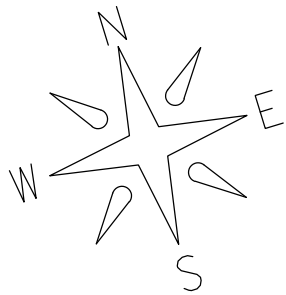


--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

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



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

(C)

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

(C) (C)

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

Stop

Main St.

Adams St.

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	Injury	Crashes			Percent Annual M	Crash Rate	Critical Rate	CRF		
					K	A	B	C	PD	Injury	Ent-Veh				
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 Length	U/R	Total Crashes	K	Injury A	Crashes B	Percent C	PD	Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
56640	56641	3130112	0 - 0.05	0001X - 33.99	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				US 1	Statewide Crash Rate: 230.30												
56641	58514	3114278	0 - 0.01	0001X - 34.04	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				US 1	Statewide Crash Rate: 230.30												
56642	58514	3130113	0 - 0.04	0001X - 34.05	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				US 1	Statewide Crash Rate: 230.30												
56642	58517	3944217	0 - 0.04	0001X - 34.09	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				US 1	Statewide Crash Rate: 230.30												
56644	58517	3114282	0 - 0.03	0001X - 34.13	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				US 1	Statewide Crash Rate: 230.30												
56644	56645	3114280	0 - 0.03	0001X - 34.16	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				US 1	Statewide Crash Rate: 230.30												
56645	58519	3937825	0 - 0.06	0001X - 34.19	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				US 1	Statewide Crash Rate: 230.30												
56647	58519	3114285	0 - 0.04	0001X - 34.25	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)				US 1	Statewide Crash Rate: 230.30												
56647	56648	2837611	0 - 0.02	0001X - 34.29	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)				US 1	Statewide Crash Rate: 230.30												
56648	58711	3139816	0 - 0.02	0001X - 34.31	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				US 1	Statewide Crash Rate: 230.30												
56649	58711	3116620	0 - 0.15	0001X - 34.33	0.15	2	6	0	0	0	0	6	0.0	0.00744	268.98	469.63	0.00
TL - Biddeford, Saco				US 1	Statewide Crash Rate: 230.30												
58512	58513	239919	0 - 0.06	3110126 - 0	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				RD INV 31 10126	Statewide Crash Rate: 411.49												
58513	58514	239921	0 - 0.04	3110126 - 0.06	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				RD INV 31 10126	Statewide Crash Rate: 411.49												
56644	58512	3114281	0 - 0.07	3110102 - 0	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58512	58515	3114626	0 - 0.10	3110102 - 0.07	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58494	58515	3132475	0 - 0.04	3110102 - 0.17	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				RD INV 31 10102	Statewide Crash Rate: 180.89												
58493	58494	4046830	0 - 0.06	3110104 - 0.15	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				RD INV 31 10104	Statewide Crash Rate: 180.89												
58493	58494	4046830	0.06 - 0.10	3110104 - 0.21	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				RD INV 31 10104	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	2018-32156	10/30/2018	34.07	B
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0				
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	2018-26829	09/24/2018	34.34	PD
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	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

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:			

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**

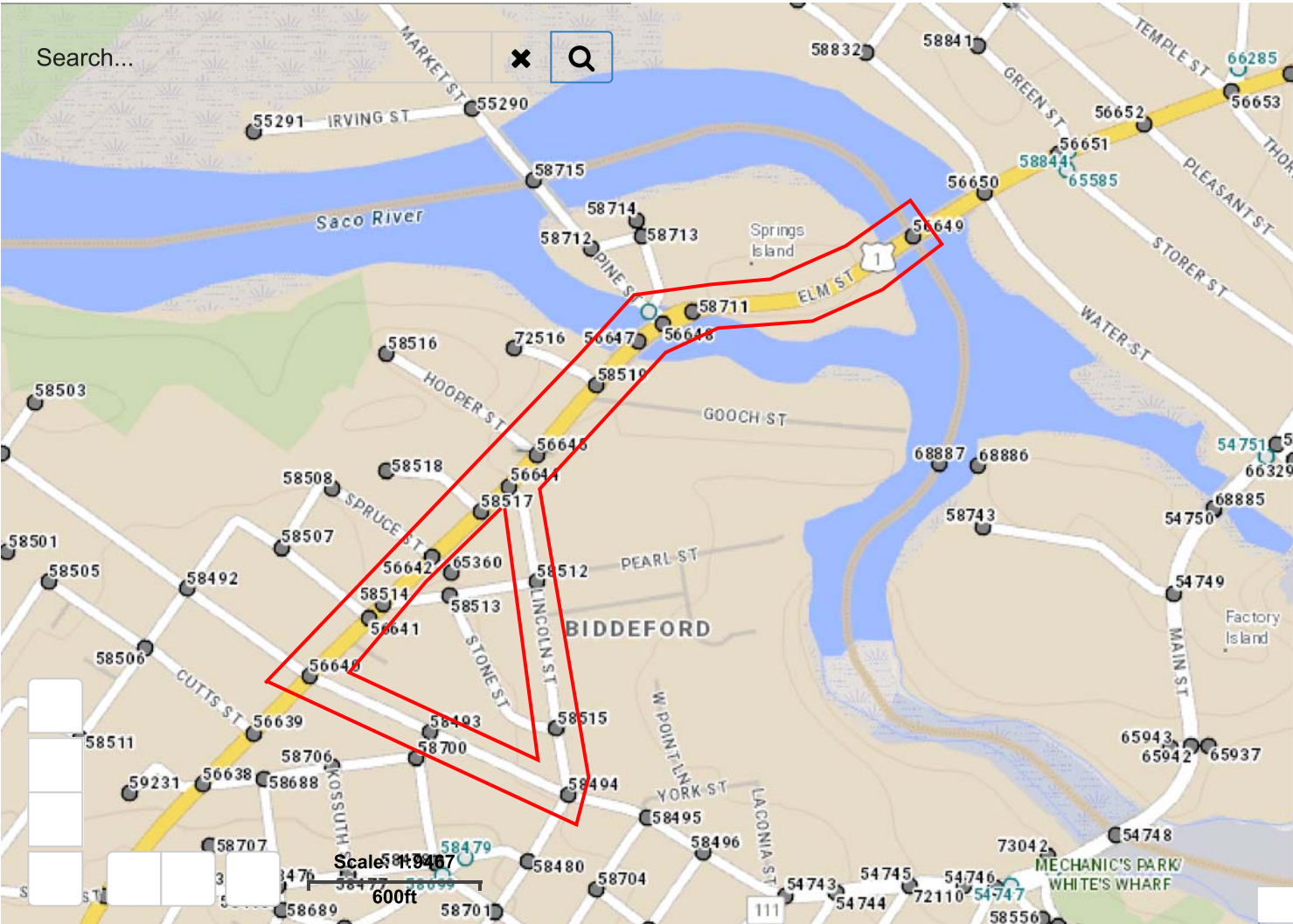
Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0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



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

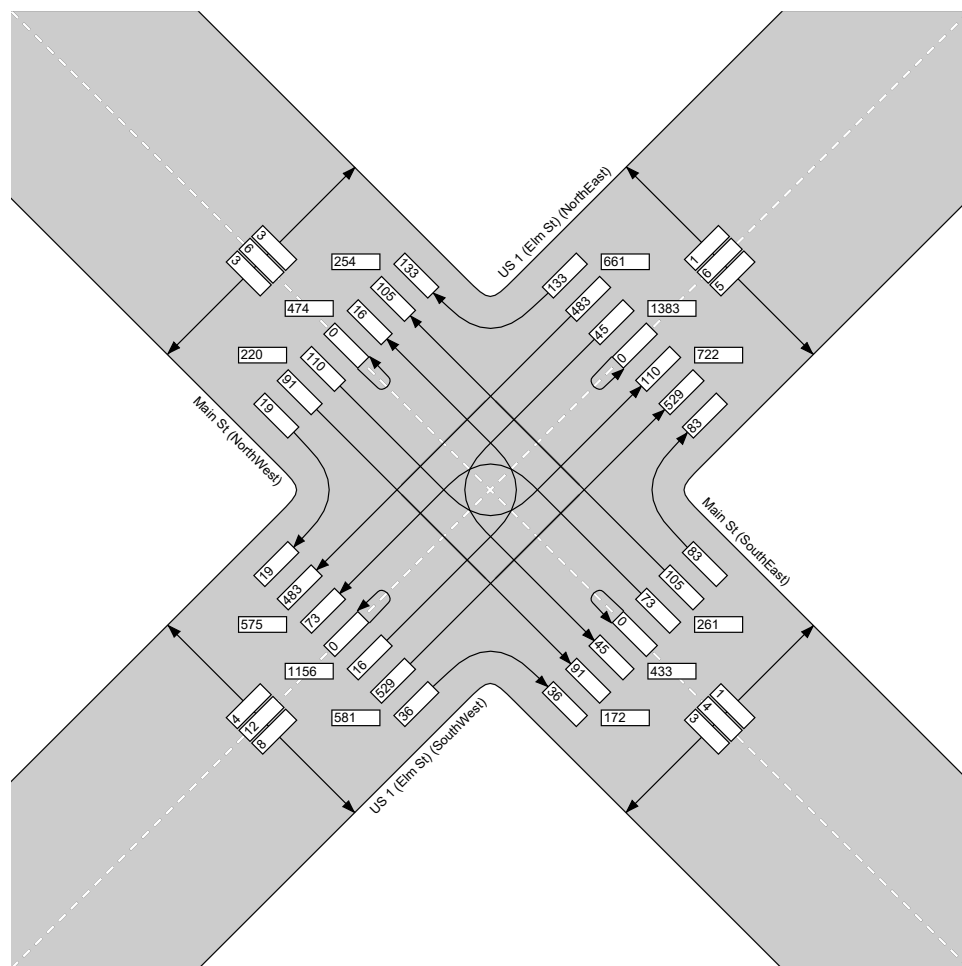


Classes

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: 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	0	
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	
15:15	0	0	0	0	0	0	0	15:15	0	28	0	0	0	0	0	28	15:15	0	15	0	0	0	
15:30	0	0	0	0	0	0	0	15:30	0	30	0	0	0	0	0	30	15:30	0	27	0	0	0	
15:45	0	0	0	0	0	0	0	15:45	0	19	0	3	0	0	0	22	15:45	1	27	0	0	0	
16:00	0	0	0	0	0	0	0	16:00	0	29	0	1	0	0	0	30	16:00	0	14	0	0	0	
16:15	0	0	0	0	0	0	0	16:15	0	27	0	0	0	0	0	27	16:15	1	22	0	0	0	
16:30	0	0	0	0	0	0	0	16:30	0	27	0	0	0	0	0	27	16:30	0	22	0	0	0	
16:45	0	0	0	0	0	0	0	16:45	0	24	0	0	0	0	0	24	16:45	1	27	0	0	0	
17:00	0	0	0	0	0	0	0	17:00	0	29	0	0	0	0	0	29	17:00	0	22	0	0	0	
17:15	0	0	0	0	0	0	0	17:15	0	30	0	0	0	0	0	30	17:15	1	17	0	0	0	
17:30	0	0	0	0	0	0	0	17:30	0	33	0	0	0	0	0	33	17:30	0	19	0	0	0	
17:45	0	0	0	0	0	0	0	17:45	1	31	0	0	0	0	0	32	17:45	0	20	0	0	0	
Total	0	0	0	0	0	0	0	Total	6	1159	1	18	2	0	0	1186	Total	5	853	0	11	3	
% of Total	-	-	-	-	-	-	-	% of Total	0.5%	97.7%	0.1%	1.5%	0.2%	0%	0%	100%	% of Total	0.6%	97.6%	0%	1.3%	0.3%	0.2%
% of Approach	0%	0%	0%	0%	0%	0%	0%	% of Approach	54.5%	52.6%	100%	60%	40%	0%	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)								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	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	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	0%	0%	0%	0%	0%	0%	0%	% of Approach	9.4%	7.1%	0%	2.1%			

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: US 1 (Elm St) (NorthEast)												To: Main St (SouthEast)											
To: Main St (NorthWest)												To: Main 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	Total												
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	5												
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	0												
06:30	0	1	0	0	0	0	1	06:30	0	40	0	1	1	0	42	06:30	0	1	0	0	0	1	2												
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	3												
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	6												
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	8												
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	4												
07:45	0	0	0	0	0	0	0	07:45	0	82	0	1	0	0	83	07:45	0	6	0	0	0	0	6												
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	6												
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	6												
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	3												
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	12												
09:00	0	0	0	0	0	0	0	09:00	0	65	0	5	2	0	72	09:00	0	8	0	0	0	0	8												
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	10												
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	7												
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	8												
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	3												
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	12												
10:30	0	1	0	0	0	0	1	10:30	0	81	0	5	0	0	86	10:30	0	8	0	0	0	0	8												
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	19												
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	2												
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	13												
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	13												
11:45	0	2	0	0	0	0	2	11:45	0	95	0	6	0	0	101	11:45	0	15	0	0	0	0	15												
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	17												
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	8												
12:30	0	1	0	0	0	0	1	12:30	0	116	0	4	0	1	121	12:30	0	10	0	0	0	0	10												
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												
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	10												
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	10												
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	9												
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	15												
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	7												
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	16												
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												
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	13												
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												
15:15	0	2	0	1	0	0	3	15:15	1	119	0	4	1	0	125	15:15	0	12	0	0	0	0	12												
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	5												
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	15												
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	11												
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	11												
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	10												
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	9												
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	9												
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	8												
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	9												
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	8												
Total	5	95	0	3	0	0	103	Total	26	4658	3	130	33	1	4851	Total	2	439	6	5	1	0	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	0												

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%	2.6%	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

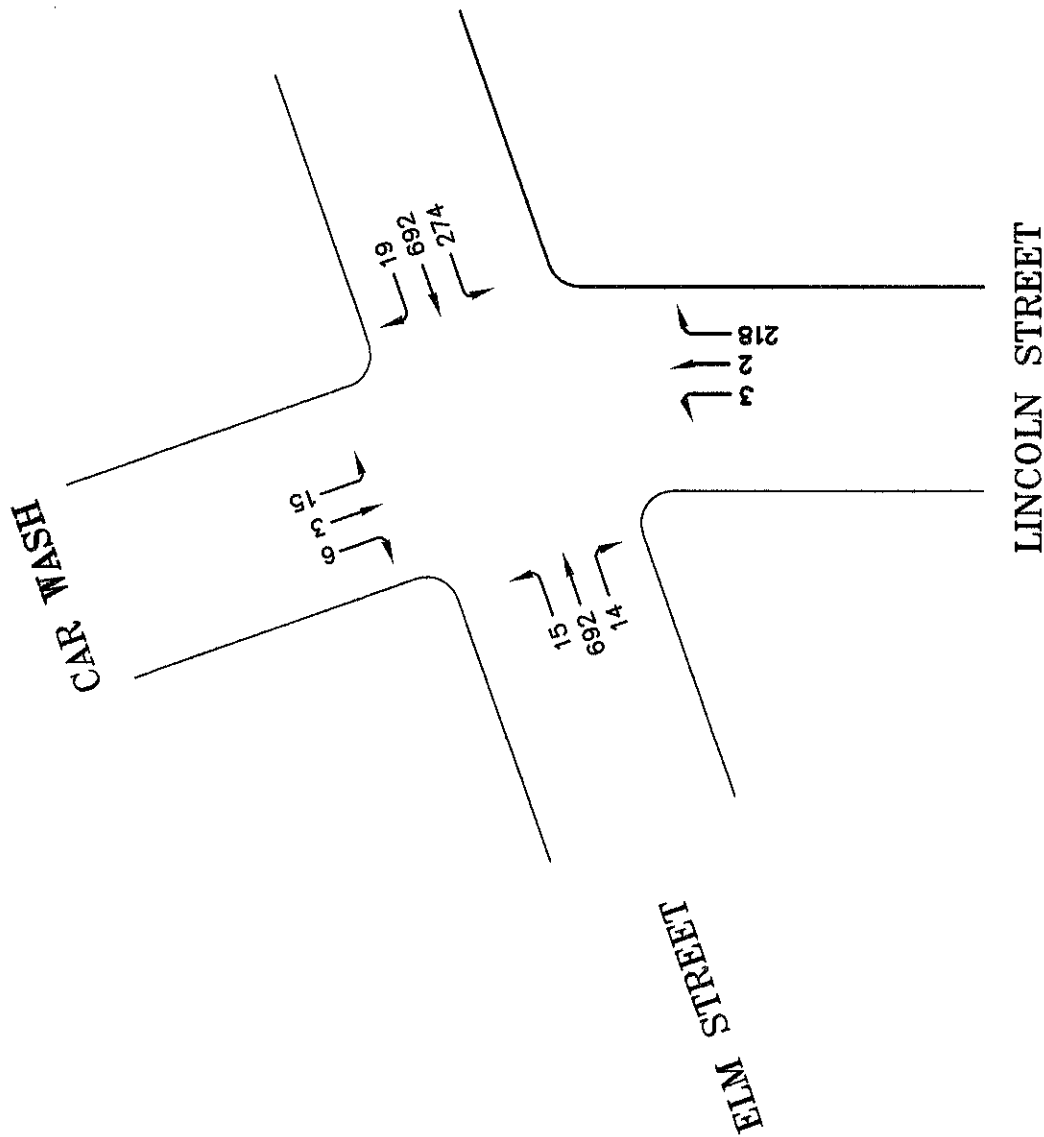
MAINE_DOT_TM - 000031050042 - US 1 (Elm St), Main St, 05/08/2021 - Thursday, August 5, 2021

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**

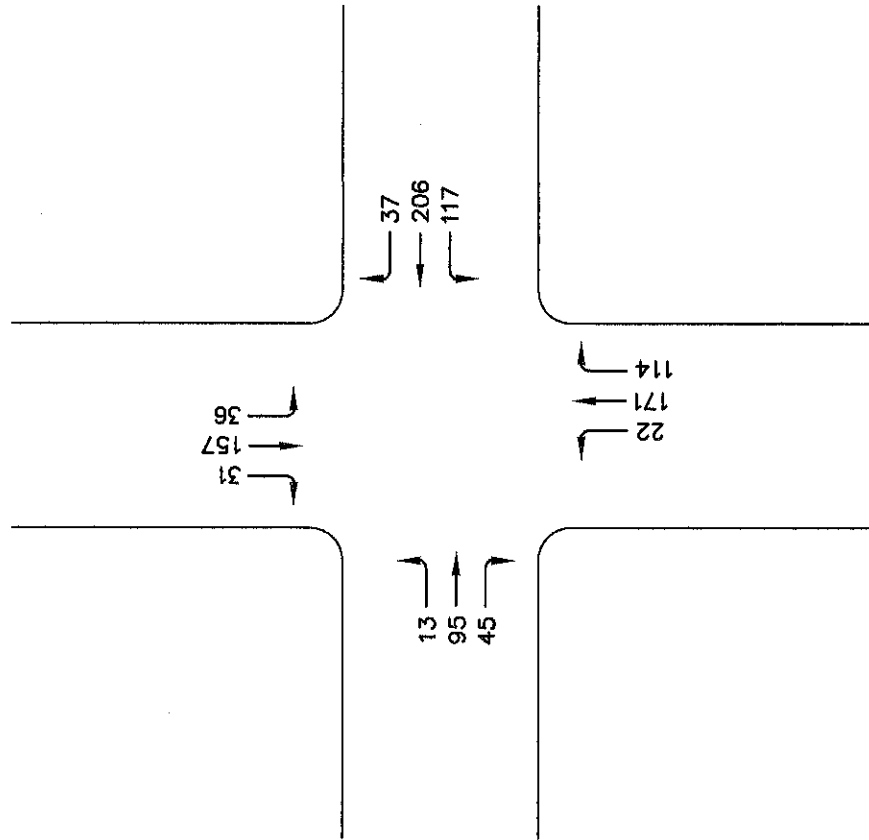
Traffic Summary				Crossing Summary			
Total			16557	Total			220
AM Peak Hour	11:00 - 12:00	1421		AM Peak Hour	11:00 - 12:00	10	
AM PHF	0.95			AM PHF	0.625		
PM Peak Hour	15:30 - 16:30	1740		PM Peak Hour	15:30 - 16:30	20	
PM PHF	0.975			PM PHF	0.556		
Overall Peak Hour	15:30 - 16:30	1740		Overall Peak Hour	15:30 - 16:30	20	
Overall PHF	0.975			Overall PHF	0.556		



EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1b



MAIN STREET



ADAMS STREET

LINCOLN STREET

EXISTING 2019 TRAFFIC
WEEKDAY PM PEAK HOUR
FIGURE 1a

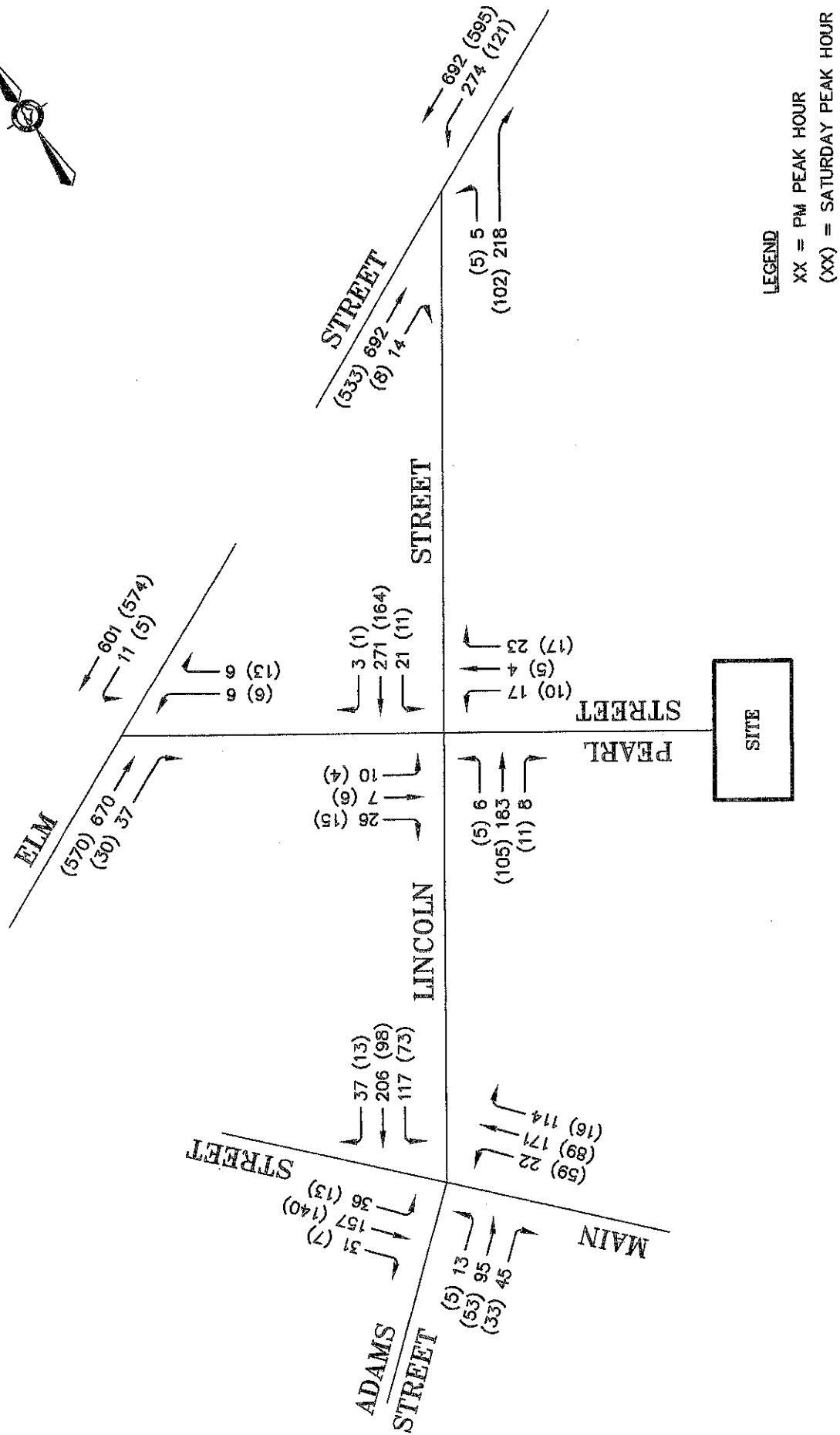
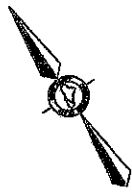
E:\LAND PROJECTS\4000\4000-1489 TRAFFIC SOLUTIONS\WEEKDAY PM PEAK HOUR\WEEKDAY OCTOBER

Project Name and Location
RIVERDAM REDEVELOPMENT
BOWDOIN, MAINE

DATE: OCTOBER, 2019

TRAFFIC SOLUTIONS
17 MOUNTAIN DRIVE, CROTON, MAINE 04030

FIGURE: 1a



LEGEND

XX = PM PEAK HOUR

(XX) = SATURDAY PEAK HOUR

EXISTING 2019 PEAK HOUR TRAFFIC
(PM PEAK HOUR & SATURDAY PEAK HOUR)
FIGURE 1

RIVERDAM REDEVELOPMENT		DATE: AUGUST, 2019	PAGE: 1
TRAFFIC SOLUTIONS		17 NORTHVIEW DRIVE, COVINA, CALIF. 91723	

SITE PLAN

GENERAL NOTES:

1. ALL BRICK 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 TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

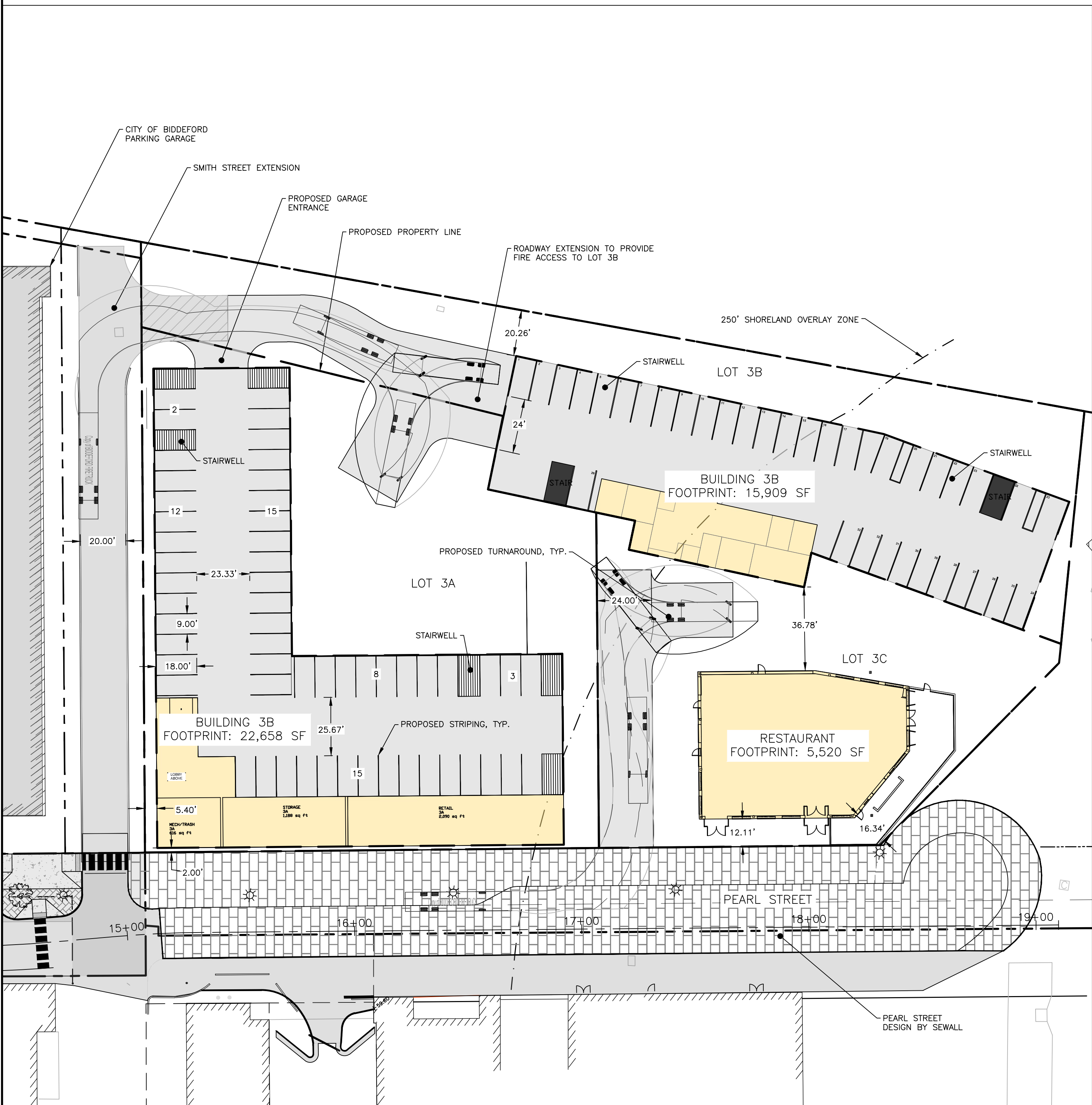
PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE, MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021

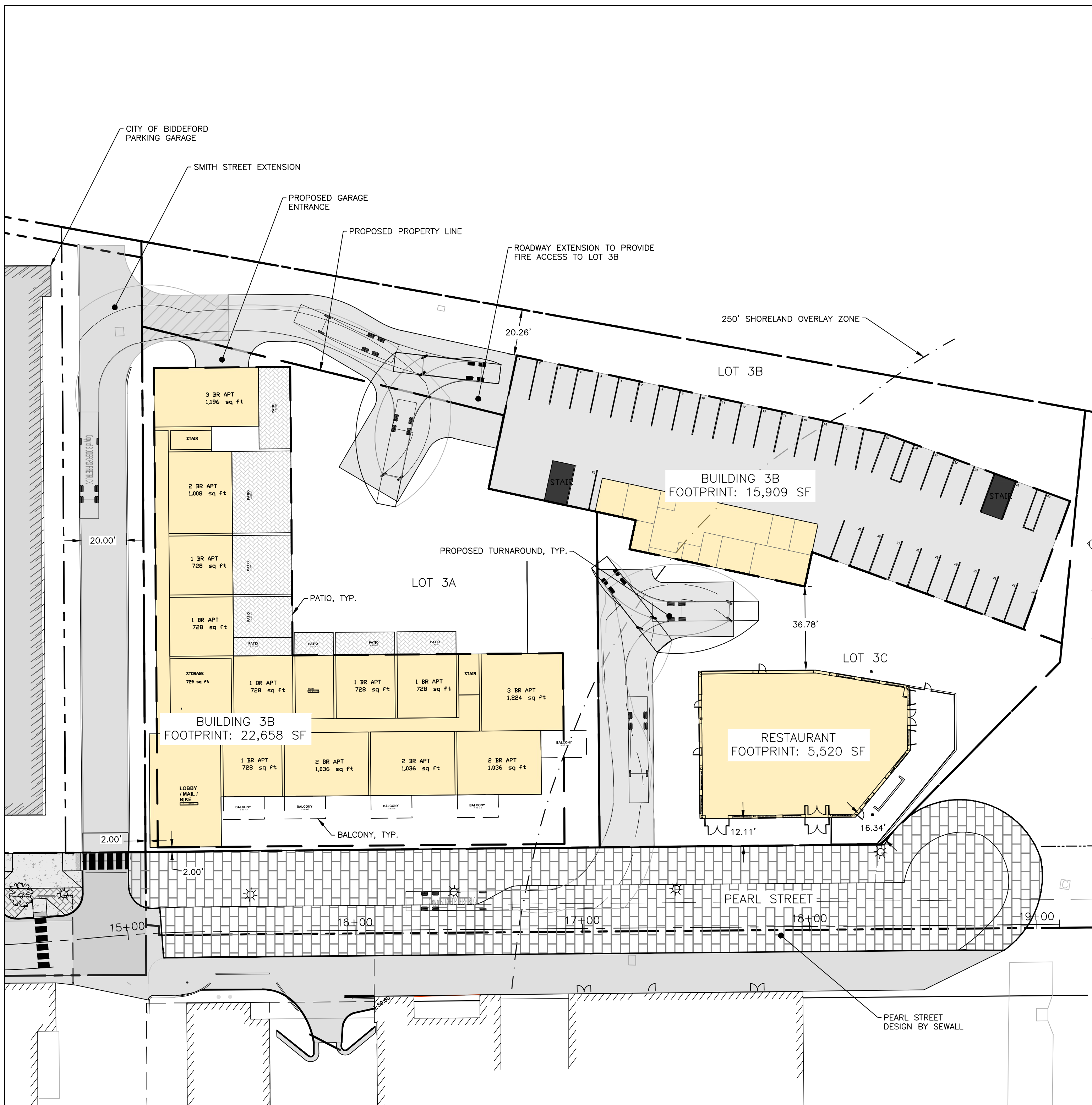
46.75		
12.877	20.833	4.833
BIDDEFORD FIRETRUCK		
Overall Length	46.750ft	
Overall Width	8.500ft	
Overall Body Height	9.851ft	
Min Body Ground Clearance	0.920ft	
Track Width	6.333ft	
Lock-to-lock time	6.00s	
Max Wheel Angle	45.00°	

PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
—	—	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	—
LOT 3B	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
—	—	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	—
LOT 3C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (8'X18')	—	—	TBD
STANDARD (9'X18')	—	—	TBD
TOTAL SPACES	—	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	—	—	156

LOT 3A SPACE AND BULK STANDARDS						
ZONE:	REQUIRED (MSRD3)	REQUIRED (GD-1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	—	39,629 SF	30,230 SF	20,580 SF
MINIMUM STREET FRONTAGE	NONE	—	324'	200'	—	124'
MINIMUM FRONT YARD SETBACK	NONE	—	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	—	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	—	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	—	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	—	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	—	—	—
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	—	100' FROM NORMAL HIGH-WATER LINE	—	—	—	—
SACO RIVER NO-CUT ZONE (SRCC)	—	75'	—	—	—	—
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	—	57.2%	52.6%	26.8%



GARAGE FLOOR PLAN
1" = 30'



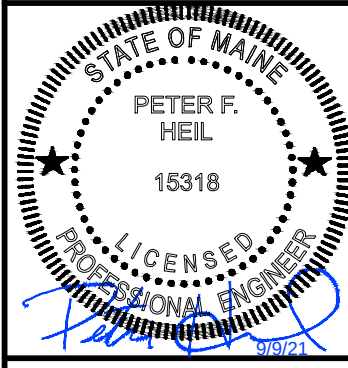
PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
TMP REVIEW	DATE
	PFH
	9/9/21

SITE PLAN	
PEARL STREET LOT 3 REDEVELOPMENT	
FATHOM COMPANIES	
80 EXCHANGE STREET, SUITE 400 PORTLAND, ME 04101	

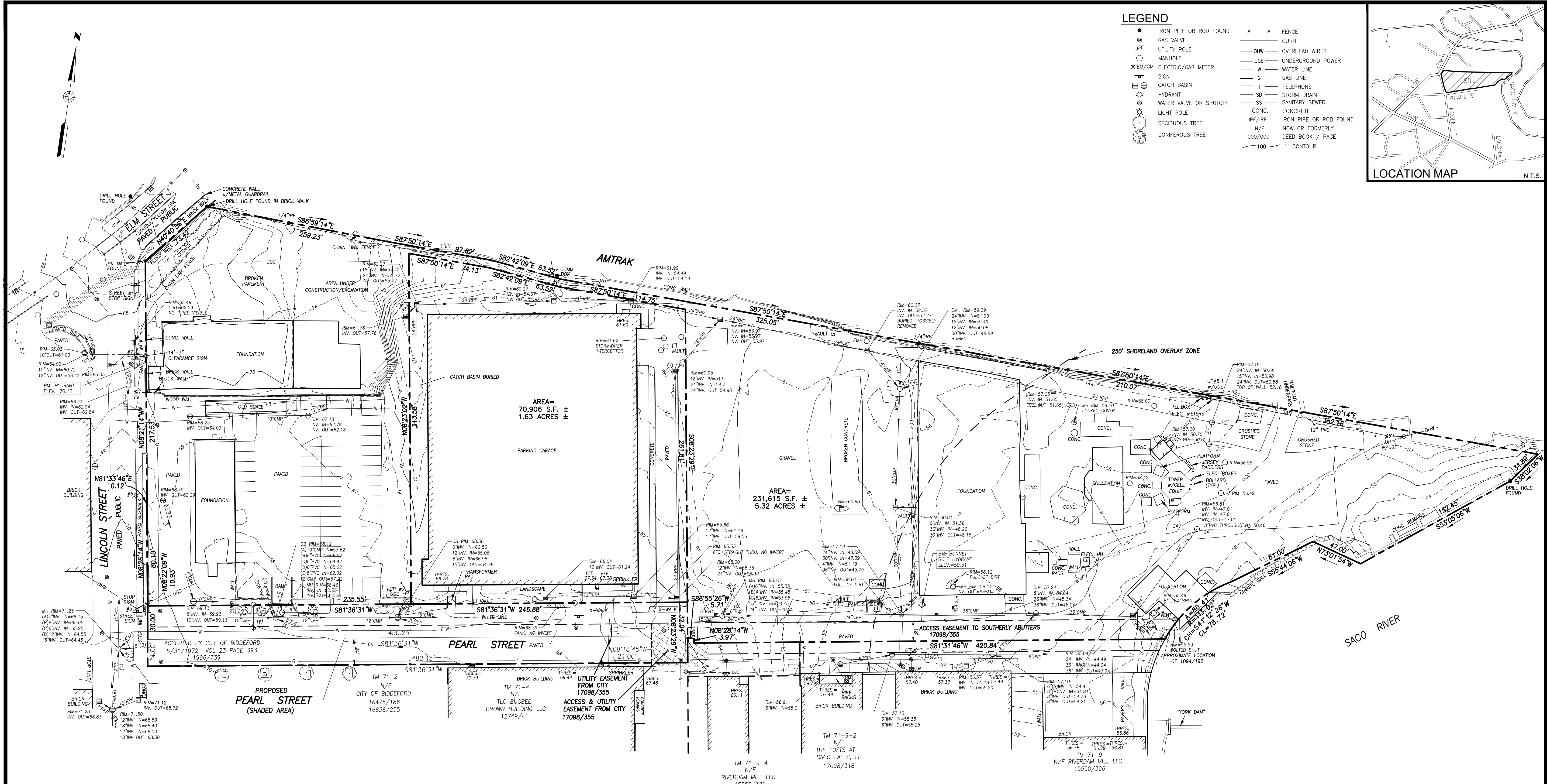
DRAWING NAME	
PROJECT NAME	
CLIENT	
ENGINEERING, INC.	
ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04104 (207) 775-2655	

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS/PFH



DRAWING NO.
C-10

BOUNDARY SURVEY



LEGEND

●	IRON PIPE OR ROD FOUND	—X—X—	FENCE
⊙	GAS VALVE	—	CURB
⊙	UTILITY POLE	—OHW—	OVERHEAD WIRES
⊙	MANHOLE	—UG—	UNDERGROUND POWER
⊙	EM/GM	—W—	WATER LINE
⊙	SIGN	—G—	GAS LINE
⊙	CATCH BASIN	—T—	TELEPHONE
⊙	HYDRANT	—SD—	STORM DRAIN
⊙	WATER VALVE OR SHUTOFF	—SS—	SANITARY SEWER
⊙	LIGHT POLE	CONC.	CONCRETE
⊙	DECIDUOUS TREE	IPF/IRF	IRON PIPE OR ROD FOUND
⊙	CONIFEROUS TREE	N/F	NOW OR FORMERLY
		000/000	DEED BOOK / PAGE
		—100—	1' CONTOUR

LOCATION MAP

N.T.S.

PLAN REFERENCES

1. PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD MAINE BY DOW & COULOMBE, INC. DATED JANUARY 15, 1985 REVISED THROUGH OCT. 4, 1986.
2. ALTA/ACSM LAND TITLE SURVEY (URBAN) MADE FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD, MAINE BY DOW & COULOMBE, INC. DATED MARCH 15, 1996 REVISED THROUGH MAY 14, 2009.
3. ALTA/NSPS LAND TITLE SURVEY AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED JULY 30, 2015 REVISED THROUGH 12-20-16.
4. EXHIBIT PLAN OF EASEMENT AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED AUGUST 27, 2015 REVISED THROUGH DEC. 20, 2106.
5. EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR MILONE & MCBROOM BY OWEN HASKELL, INC. DATED APRIL 19, 2018.
6. LAND DIVISION PLAN ON LINCOLN STREET & PEARL STREET BIDDEFORD, MAINE MADE FOR DESMAN DESIGN MANAGEMENT BY OWEN HASKELL, INC. DATED FEB. 4, 2020.

GENERAL NOTES

1. OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16838 PAGE 255
Y.C.R.D. BOOK 16475 PAGE 186
2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
3. ELEVATIONS ARE BASED ON NAVD 88 DATUM.

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.

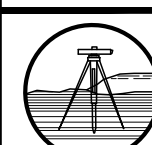
Existing Conditions Survey

On
Pearl Street, Biddeford, Maine

Made for

City of Biddeford

205 Main St. Biddeford, ME 04005



OWEN HASKELL, INC.

PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105

DRAWN BY: RRL/JLW

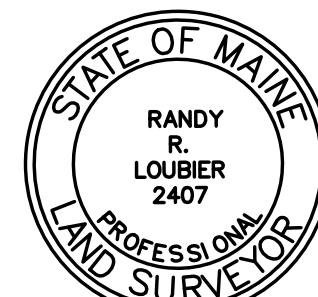
DATE: AUGUST 20, 2021

JOB NO. 2021-168 B-Y

CHECKED BY: RRL

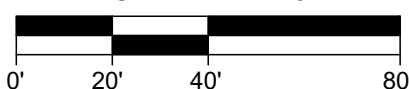
SCALE: 1" = 40'

DRWG. NO. 1



Randy R. Loubier
RANDY R. LOUBIER, PLS #2407

SCALE: 1" = 40'



TITLE, RIGHT, OR INTEREST

Master Plan Development Agreement

This Master Plan Development Agreement (this “Agreement”) dated November 17, 2020 (“Effective Date”), is executed between 3 Lincoln, LLC, a Maine limited liability company (the “Developer”), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the “City”). The Developer and the City are collectively referred to as the “Parties.”

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the “MERC” site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the “Site”). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the “Camoin Study”), to establish a blueprint for the redevelopment of the Site (the “Project”).

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City’s base property value by up to \$63,000,000.

WHEREAS, the Project is expected to become an anchor within the City’s so-called “Mill District,” with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I

GENERAL TERMS & COMMITMENTS

1.1 **Purpose.** This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 **Description of the Project.** The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the “**Municipal Parking Garage**”) on the portion of the Site shown on Exhibit A as the site for those improvements (“**Garage Site**”) and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the “**Development Sites**”) as commercial, residential, academic, hospitality, retail or other uses (collectively the “**Adjacent Buildings**”). The Parties shall progress through each stage of the Project, consistent with **Section 1.3** below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in **Section 3.1** of this Agreement.

1.3 **Project Schedule.** The Project shall proceed in accordance with the following schedule (the “**Project Development Schedule**”):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in **Section 3.2** below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements (“**Garage Concept Plan**”) (the date of delivery referred to as the “**Start Date**”).

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the “**Preliminary Concept Plan**”). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the “Site Concept Plans”). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals (“Governmental Approvals”) necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars (\$1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars (\$700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars (\$700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars (\$1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the “Prorations”). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

- a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V
INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than \$1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI
DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, “force majeure” shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

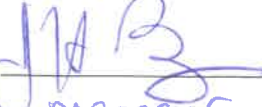
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IN WITNESS WHEREOF, the Parties hereto have set their hands and seals as of this
17 day of Nov, 2020.



Witness Jonathan Benoit

DEVELOPER:
3 Lincoln, LLC

By: 

Its: manager

CITY OF BIDDEFORD

Witness

By: _____
Name: James A. Bennett
Title: City Manager

City of Biddeford, Maine

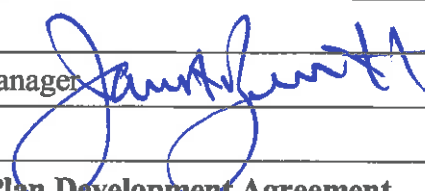


The Office of
City Manager

James A. Bennett

Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	BE Fidler LLC
FROM:	James A. Bennett, City Manager 
DATE:	December 19, 2019
RE:	Clarification to Master Plan Development Agreement

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements;
or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.

Exhibit A
Site Plan

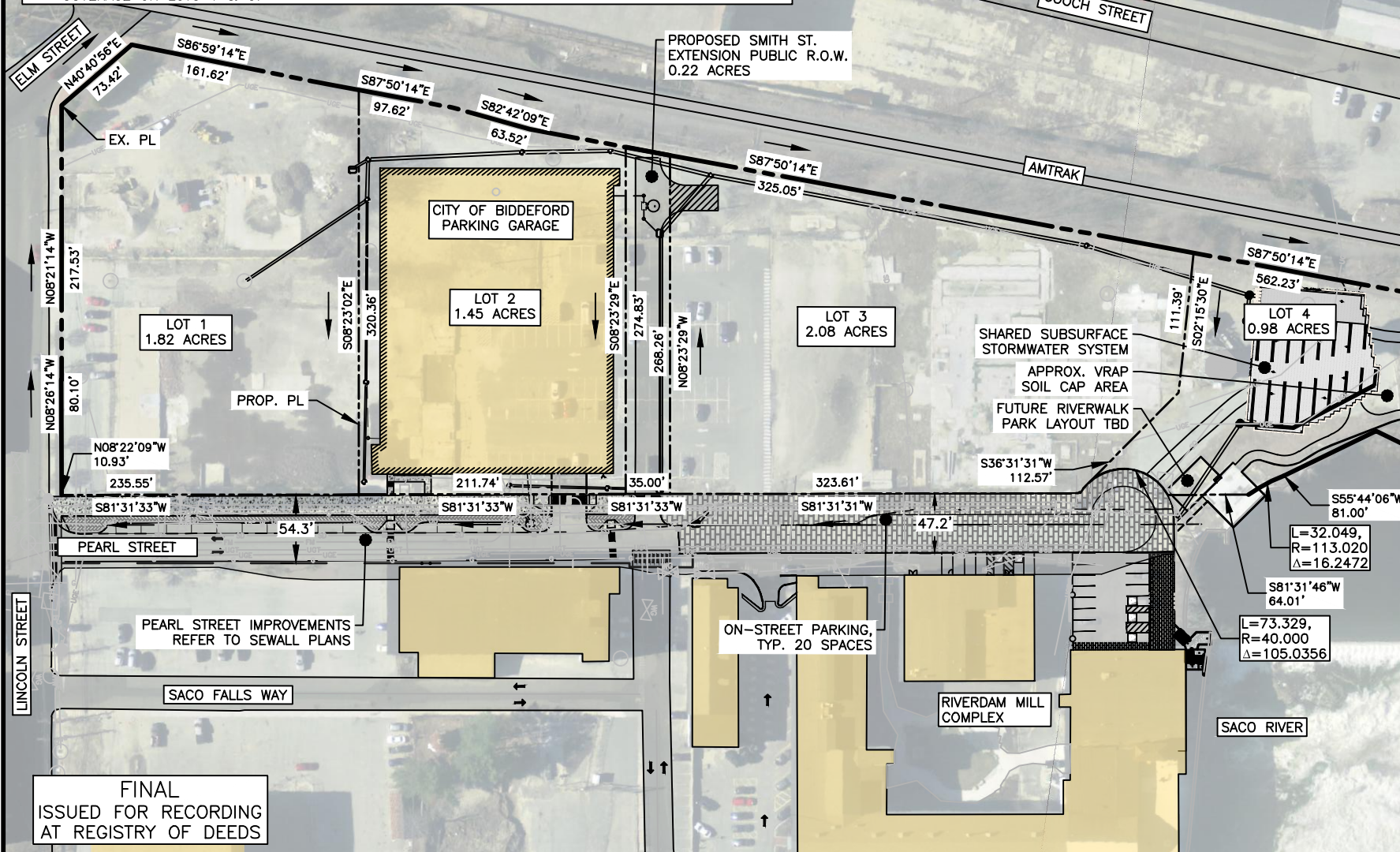
[insert Site Plan]

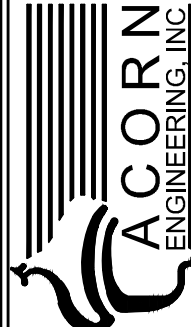
NOTES:

- CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
 - WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
 - SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
 - GAS
 - ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
 - TELEPHONE/COMMUNICATIONS/FIBER
 - STORMWATER
- NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
- NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
- LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
- LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
- SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

PLAN REFERENCES:

- "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
- "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
- EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
- "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015



ISSUED FOR		809
JDA EXHIBIT		
DRAWING NAME: OVERALL SITE EXHIBIT		
PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT		
CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE		
 ACORN ENGINEERING, INC. ACORN ENGINEERING, INC. 65 HANOVER ST. PORTLAND, MAINE 04104 (207) 775-2655		
FILE:		1124_CIVIL
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SCALE:		1" = 120'
DESIGN BY:		PFH
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.		
EX-A ALSO REFER TO EX-A1 & EX-A2		

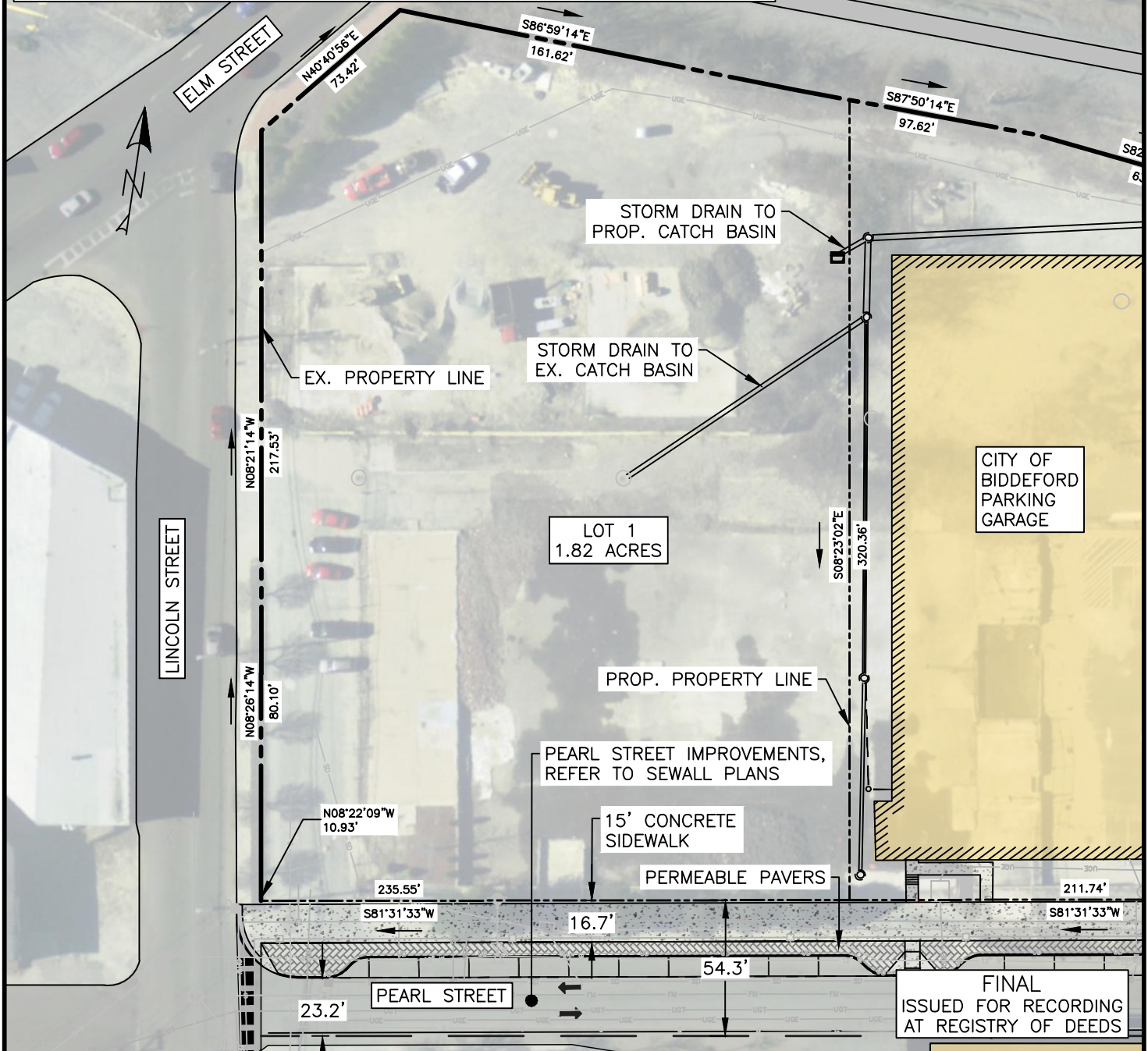
FINAL
ISSUED FOR RECORDING
AT REGISTRY OF DEEDS

NOTES:

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DRAWING NO.
EX-A1

ALSO REFER TO EX-A & EX-A2

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DATE: 11/12/20
UN: 1124
SCALE: 1" = 60'
DESIGN BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



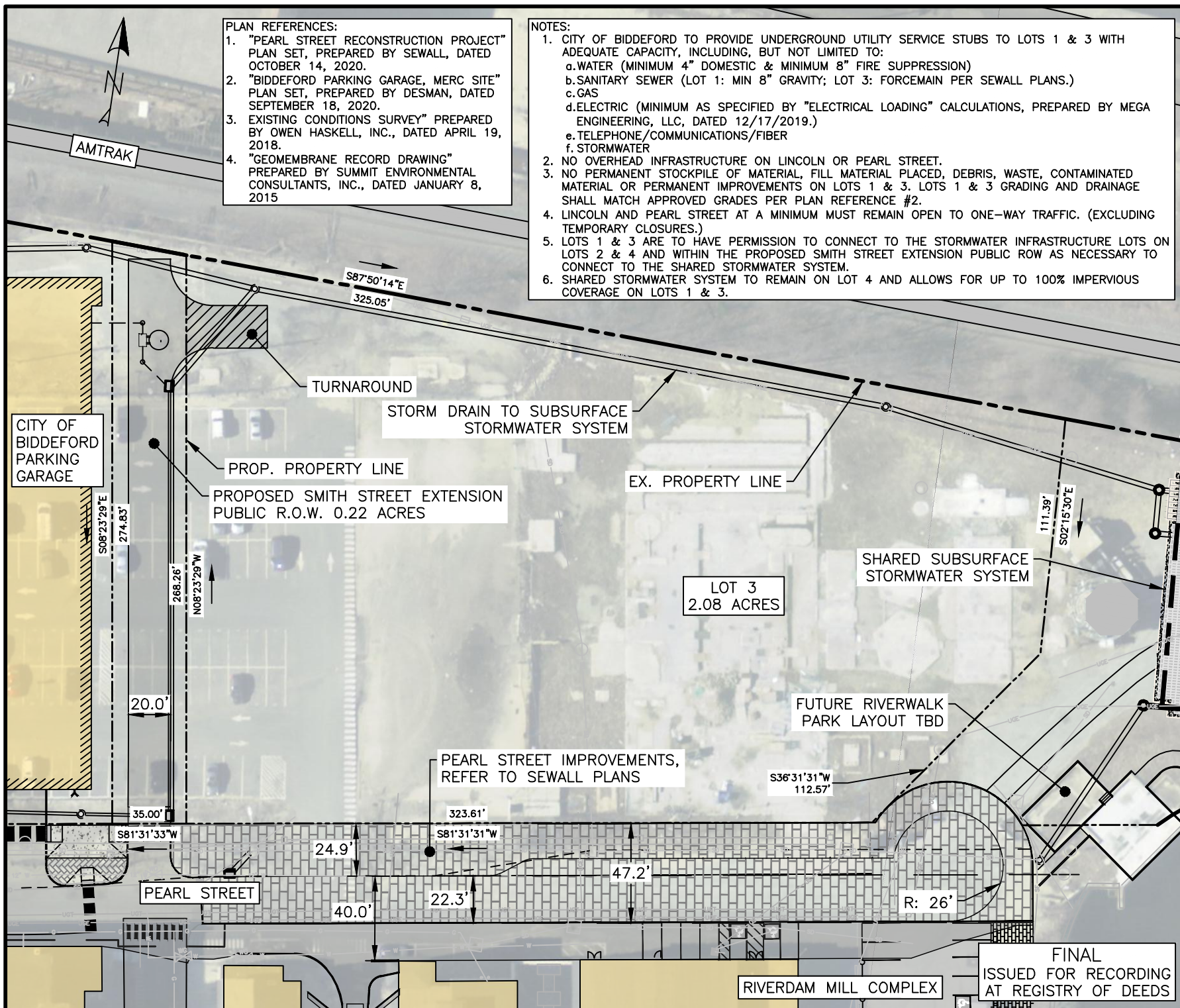
DRAWING NAME:
LOT 1 EXHIBIT

PROJECT NAME:
PEARL STREET & MERC REDEVELOPMENT

CLIENT:
FATHOM/BE FITLER, LLC
BIDDEFORD, MAINE

ISSUED FOR
JDA EXHIBIT

BY
DATE
PFH
11/12/20



PLAN REFERENCES:

1. "PEARL STREET RECONSTRUCTION PROJECT" PLAN SET, PREPARED BY SEWALL, DATED OCTOBER 14, 2020.
2. "BIDDEFORD PARKING GARAGE, MERC SITE" PLAN SET, PREPARED BY DESMAN, DATED SEPTEMBER 18, 2020.
3. EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC., DATED APRIL 19, 2018.
4. "GEOMEMBRANE RECORD DRAWING" PREPARED BY SUMMIT ENVIRONMENTAL CONSULTANTS, INC., DATED JANUARY 8, 2015

NOTES:

1. CITY OF BIDDEFORD TO PROVIDE UNDERGROUND UTILITY SERVICE STUBS TO LOTS 1 & 3 WITH ADEQUATE CAPACITY, INCLUDING, BUT NOT LIMITED TO:
 - a. WATER (MINIMUM 4" DOMESTIC & MINIMUM 8" FIRE SUPPRESSION)
 - b. SANITARY SEWER (LOT 1: MIN 8" GRAVITY; LOT 3: FORCEMAIN PER SEWALL PLANS.)
 - c. GAS
 - d. ELECTRIC (MINIMUM AS SPECIFIED BY "ELECTRICAL LOADING" CALCULATIONS, PREPARED BY MEGA ENGINEERING, LLC, DATED 12/17/2019.)
 - e. TELEPHONE/COMMUNICATIONS/FIBER
 - f. STORMWATER
2. NO OVERHEAD INFRASTRUCTURE ON LINCOLN OR PEARL STREET.
3. NO PERMANENT STOCKPILE OF MATERIAL, FILL MATERIAL PLACED, DEBRIS, WASTE, CONTAMINATED MATERIAL OR PERMANENT IMPROVEMENTS ON LOTS 1 & 3. LOTS 1 & 3 GRADING AND DRAINAGE SHALL MATCH APPROVED GRADES PER PLAN REFERENCE #2.
4. LINCOLN AND PEARL STREET AT A MINIMUM MUST REMAIN OPEN TO ONE-WAY TRAFFIC. (EXCLUDING TEMPORARY CLOSURES.)
5. LOTS 1 & 3 ARE TO HAVE PERMISSION TO CONNECT TO THE STORMWATER INFRASTRUCTURE LOTS ON LOTS 2 & 4 AND WITHIN THE PROPOSED SMITH STREET EXTENSION PUBLIC ROW AS NECESSARY TO CONNECT TO THE SHARED STORMWATER SYSTEM.
6. SHARED STORMWATER SYSTEM TO REMAIN ON LOT 4 AND ALLOWS FOR UP TO 100% IMPERVIOUS COVERAGE ON LOTS 1 & 3.

ISSUED FOR	JDA EXHIBIT
DRAWING NAME: LOT 3 EXHIBIT	
PROJECT NAME: PEARL STREET & MERC REDEVELOPMENT	
CLIENT: FATHOM/BE FITLER, LLC BIDDEFORD, MAINE	
FILE: 1124_CIVIL	
JN: 1124	
SCALE: 1" = 60'	
DESIGN BY: PFH	
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. EX-A2	
ALSO REFER TO EX-A & EX-A1	

**MAINE DEPARTMENT OF
TRANSPORTATION**

TRAFFIC MOVEMENT PERMIT

SECTION 7

TRAFFIC IMPACT STUDY

3 Lincoln Street Project

Residential Apartments and Restaurant

Pearl Street, Biddeford, Maine

April 6, 2022

Revised April 26, 2022

Submitted by:

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

TY·LININTERNATIONAL



Thomas A. Errico

1. Introduction

T.Y. Lin International (TYLI) was contracted by Acorn Engineering, Inc., and Fathom Company to conduct a Traffic Impact Study for the 3 Lincoln Street project located on Pearl Street in Biddeford, Maine (See **Figure 1**). The project consists of the following:

Lot 3A – 83 Residential Apartments Units

- (17) studio
- (32) 1-bedroom
- (23) 2-bedroom
- (11) 3-bedroom
- 50 parking spaces underground parking garage

Lot 3B – 108 Residential Apartments Units

- (42) studio
- (42) 1-bedroom
- (24) 2-bedroom
- 37 parking spaces underground parking garage

Lot 3C – (2) Restaurants - 298 seats total

- 170 seats in lower level
- 128 seats in upper level

Parking for the residential uses will be provided within each residential building and the adjacent parking garage. Parking for the restaurant use will be via area public parking sites and for this study it is assumed to be in the recently opened Pearl Street parking garage. A site plan prepared by Acorn Engineering Inc. is attached.

The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study evaluate specific traffic conditions at the following intersections.

- Elm Street/Pine Street
- Elm Street/Lincoln Street
- Lincoln Street/Pearl Street
- Elm Street/Pearl Street

The tasks that were undertaken in the study were as follows:

- Conduct field reconnaissance and traffic counting programs during the weekday PM and Saturday peak periods at study area intersections.
- Develop existing design hour traffic volumes from peak hour traffic volumes.

- Project existing design hour traffic volumes to a future year based on a traffic growth factor and include other approved land development projects not yet in operation as provided by the City and State.
- Develop anticipated traffic volumes to be generated by the planned project for the weekday PM and Saturday peak hour conditions.
- Conduct capacity analyses, level of service determination, and vehicle queuing analyses as appropriate for:
 - Future conditions without the project; and
 - Future conditions with the project.
- Based on the traffic analyses, determine any operational deficiencies at the study area intersections.
- Conduct a safety analysis at the following locations:
 - Pine Street/Elm Street
 - Lincoln Street/Elm Street
 - Lincoln Street/Pearl Street (Review sight distance issues)
 - Provide AADT for the above locations
- Perform a traffic impact fee calculation according to City methods.

2. Data Collection

TYLI performed field reconnaissance of the study area, assembled existing traffic counts, conducted a video turning movement count and gathered information on anticipated future developments in the vicinity of the project. A manual turning movement count was conducted on a typical weekday from 3:00-6:00 PM and a Saturday from 11:00-2:00 PM on the date noted:

- Elm Street/Lincoln Street (PM July 18, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pine Street (PM November 2, 2021, and Saturday October 30, 2021)
- Lincoln Street/Pearl Street (PM June 13, 2019, and Saturday July 20, 2019 Riverdam Study)
- Elm Street/Pearl Street (PM July 17, 2019, and Saturday July 27, 2019 Riverdam Study)

Copies of the turning movement counts are provided in the **Appendix**.

3. Existing (2021) Design Hour Traffic Volumes

The primary purpose of this study is to determine the impact the proposed project will have on the local transportation system. In general, the critical time period for a given project is directly associated with peaking characteristics of both the project-related traffic and the area transportation system. As directed by MaineDOT, this study evaluates traffic conditions during the weekday PM and Saturday peak hours of the local roadway system.

Development of peak hour traffic volumes was based upon the traffic counts conducted or assembled. Because the traffic counts were collected in different years, two tasks were performed to estimate existing design hour volume conditions, adjusting 2019 traffic volumes to reflect 2021 conditions, and seasonally adjusting the volumes to reflect summer conditions.

The 2019 traffic counts were adjusted by a growth rate of 1.0 percent per year (see **Section 6** for growth rate assumption) and traffic from the Riverdam project was added to these intersections. The Riverdam project was occupied at the time of the 2021 counts and therefore trips were not added to the Elm Street/Pine Street intersection.

The traffic pattern on any highway shows considerable variation in traffic volumes during different hours of the day and during the year. It is therefore important to determine which hourly traffic volume to use for analysis and design. It would be wasteful to predicate the design on the (maximum) peak hour traffic of the year, yet the use of the average hourly traffic would result in an inadequate design. The hourly traffic volume used in design should not be exceeded very often or by very much. On the other hand, it should not be so high that traffic would rarely be great enough to make full use of the facility. Based upon the relationship between highest hourly volumes and daily traffic volumes, it has been concluded that the hourly traffic used in design should be the 30th Highest Hour Volume, or sometimes call Design Hour Volume. For this study, the 2021 peak hour traffic volumes were adjusted to obtain Design Hour Volumes by applying the MaineDOT Weekly Group Mean Factors. The adjustment factor used was 1.08. No adjustment was required for the 2019 counts as collection of data occurred during the summer. **Figure 2** presents the Existing (2021) Design Hour Traffic Volumes within the study area.

4. Future (2024) No-Build Traffic Volumes

In order to estimate traffic volumes during the No-Build condition, it is important to incorporate both historical traffic growth and traffic generated by other developments in the study area. The latter is necessary because conditions associated with nearby developments may generate traffic that impact roadways being studied. For this study, TYLI estimated an annual traffic growth rate of 1.0 percent based on previous experience in the region. Given the expected build out of the project in 2024, the Existing (2021) Design Hour traffic volumes were projected to Future (2024) No-Build traffic volumes (without the proposed development) by applying the annual traffic growth rate of 1.0 percent over a three-year period.

TYLI also reviewed other developments projected to occur in or near the study area. Based on feedback from the City of Biddeford at the MaineDOT Scoping meeting, the Lincoln Mill project (50% occupied) and the Building 11 Elderly Apartment project were identified and incorporated as part of the Future (2024) No-Build volumes.

Traffic from the Lincoln Mill project was based on information contained in the Riverdam Traffic Study. Fifty percent of traffic from the project was included in this study. It was assumed that 59 entering trips and 66 exiting trips during the weekday PM peak hour. Because Saturday peak hour trip generation information was not included, the weekday data was used.

Traffic from the Building 11 Elderly Apartment project was based on the ITE Trip Generation Manual (a traffic study is not available). According to the City, the project consists of 71 apartment units. This correlates to 19 weekday PM peak hour trips and 23 Saturday peak hour trips. The City suggested that we

assign 50% of these trips to Pearl Street. Assignment of the trips to the roadway system was based on a similar trip assignment pattern as the 3 Lincoln Street project.

Given that traffic counts at some intersections were collected in 2019, traffic from the Riverdam project were added to those intersections.

Figure 3 depicts traffic for the other development project during the PM and Saturday peak hours. **Figure 4** presents the estimated Future (2024) No-Build traffic volumes at the study area intersections.

5. Site Traffic Generation and Distribution

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) and Land Use Code 932 High-Turnover (Sit-Down Restaurant). The volumes represent trip generation for the Peak Hour of Generator. 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
 - **$\ln(T) = 0.83 \ln(X) - 0.27$ [used for this Application]**
 - Directional Distribution: 20% Entering, 73% Exiting
 - PM Peak Hour of Generator
 - Average Rate Per – 0.41 per unit
 - **$\ln(T) = 0.83 \ln(X) - 0.05$ [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

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 a modest 5%

reduction in the PM peak hour and 9% during the Saturday peak hour (see Appendix for calculation sheets). Given that the restaurant will be closed in the morning, 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, and the Weekday percentages was used As noted in **Table 1** the project would be expected to generate 61 new trips during the morning peak hour, 162 new trips during the afternoon peak hour and 127 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 (191 Units)	16	45	61	47	31	78	43	44	87
Restaurant (298 Seats) ¹	N/A	N/A	N/A	113	105	218	84	74	158
Sub-Total	16	45	61	160	136	296	127	118	245
Internal Capture Trips	N/A	N/A	N/A	-7	-7	-14	-11	-11	-22
Total Entering and Exiting Site	16	45	61	153	129	282	116	107	223
Restaurant Pass-By Trips (43%) ²	N/A	N/A	N/A	-60	-60	-120	-48	-48	-96
Total New Traffic	16	45	61	93	69	162	68	59	127

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

2 – Saturday Pass-By trips not provided, and weekday PM utilized.

The assignment of trips to the area roadway system was based upon existing traffic volume patterns and approved assignment percentages defined in the Riverdam Redevelopment Traffic Impact Study. The assignment percentages proposed are noted as follows:

Entering Trips

- Left-turn from Lincoln Street onto Pearl Street – 58%
- Right-turn from Lincoln Street onto Pearl Street – 22%
- Through movement on Pearl from Elm Street – 20%

Exiting Trips

- Left-turn from Pearl Street onto Lincoln Street – 38%
- Through movement on Pearl Street to Elm Street – 10%
- Right-turn from Pearl Street onto Lincoln Street – 52%

Trips distributed above were assigned to the Elm Street and Pine Street intersection according to existing traffic volumes. Based on the data approximately 30% of the site traffic traveling north on Elm Street was assigned to Pine Street. **Figure 5** presents the assignment of trips during the Weekday PM and Saturday peak hours.

6. Future (2024) Build Traffic Volumes

Future (2024) traffic volumes with the planned project completed were estimated by adding the site generated traffic to the Future (2024) No-Build traffic. A growth rate of 1% per year was used based on two data sources. A review of historical AADT traffic volume data indicates Elm Street had a volume of 12,790 vehicles in 2016 and 13,260 vehicles in 2021. This corresponds to a 0.75% annual growth rate. In conjunction with the Biddeford Route 111 Transportations/South Street Connections Study traffic volume forecasts were developed by Kevin Hooper and Elm Street north of Main Street is expected to grow by 14% between 2021 and 2045 or about 0.58% per year. Accordingly, use of a 1% annual growth rate seems appropriate. **Figure 6** illustrates the estimate Future (2024) Build traffic volumes at the study area intersections.

7. Intersection Analysis

To evaluate the impact of traffic generated by the planned project, capacity analyses were performed at the study intersections under Future (2024) No-Build and Future (2024) Build conditions. The standard used to evaluate traffic operating conditions of the transportation system is referred to as the Level of Service (LOS). Level of Service provides a measurement of the delay experienced at an intersection as a result of traffic operations at that intersection. In general, there are six levels of service: Level of Service A to Level of Service F. The highest, Level of Service A, describes a condition of free flow, with low volumes and high speeds. Level of Service B represents a stable traffic flow with operating speeds beginning to be restricted somewhat by traffic conditions. Level of Service C, which is normally utilized for design purposes, describes a stable condition of traffic operation. It entails moderately restricted movements due to higher traffic volumes, but traffic conditions are not objectionable to motorists. Level of Service D reflects a condition of more restrictive movements for motorists and influence of congestion becomes more noticeable. Level of Service E is representative of the actual capacity of the roadway or intersection and involves delay to all motorists due to congestion. The lowest, Level of Service F, is described as force flow and is characterized by volumes greater than the theoretical roadway capacity. Complete congestion occurs, and in extreme cases, the volume passing a given point drops to zero. This is considered as an unacceptable traffic operating condition.

Table 2 highlights the level of service criteria for signalized intersections. The level of service criteria for signalized intersections is based on control delay per vehicle measured in seconds.

Table 2 LOS Criteria for Signalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	> 80

Source: 2010 Highway Capacity Manual, Transportation Research Board

Table 3 highlights the level of service criteria for unsignalized intersections. The level of service criteria for un-signalized intersections is based on control delay per vehicle measured in seconds. The LOS procedure computes capacity for each movement that has a conflict, based upon the critical time gap required to complete the maneuver and the volume of traffic that is opposing the movement.

Table 3 LOS Criteria for Unsignalized Intersections	
Level of Service	Control Delay Per Vehicle (seconds)
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	> 50

Source: 2010 Highway Capacity Manual, Transportation Research Board

For this study, level of service analysis of the study area intersections was conducted with Synchro/SimTraffic 11. Tables **4 through 7** present the results of the level of service analyses No-Build and Build future conditions within the study area.

Table 4 Elm Street/Pine Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left	B	12.0	B	13.8	A	7.5	A	8.6
Elm St. NB Through	A	2.8	A	2.9	A	2.0	A	2.4
Elm St. SB Through/Right	A	5.6	A	6.2	A	3.9	A	4.1
Pine St. Left/Right	F	639.0	F	812.3	F	282.3	F	321.9
Overall	F	51.8	F	54.3	E	40.0	D	46.3

Table 5 Elm Street/Lincoln Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm St. NB Left/Through/Right	A	2.3	A	2.8	A	1.1	A	1.4
Elm St. SB Left	C	22.6	D	30.3	A	7.8	A	8.4
Elm St. SB Through/Right	A	2.6	A	4.7	A	0.7	A	0.8
Lincoln St. Right	F	88.8	F	108.1	A	9.5	B	12.5
Car Wash Driveway	F	325.1	F	498.9	D	23.0	D	31.1
Overall	C	21.8	C	29.2	A	2.9	A	4.0

Table 6 Lincoln Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lincoln NB	B	15.0	C	21.5	A	0.7	A	0.8
Lincoln SB	A	2.4	A	3.7	A	1.9	A	2.8
Pearl EB	B	15.0	C	33.8	A	6.6	A	8.4
Pearl WB	F	79.1	F	223.1	A	6.8	B	11.3
Overall	C	23.9	F	70.2	A	3.5	A	5.9

Table 7 Elm Street/Pearl Street Level of Service Summary								
Movement	PM Peak Hour				Saturday Peak Hour			
	2024 No-Build		2024 Build		2024 No-Build		2024 Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Elm NB	A	1.2	A	1.7	A	1.2	A	1.5
Elm SB	A	1.2	A	1.3	A	0.6	A	1.3
Pearl WB	E	37.8	F	68.7	E	36.7	E	66.7
Overall	A	2.1	A	3.8	A	2.3	A	4.9

Tables 8 through 11 present the 95th vehicle queue estimates at the study intersection.

Table 8 Elm Street/Pine Street 95th Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left	100	156	168	107	115
Elm St. NB Through		138	139	4	58
Elm St. SB Through/Right		201	217	117	130
Pine St. Left/Right		835	812	861	872

Table 9 Elm Street/Lincoln Street 95th Queue Summary (Feet)					
Movement	Available Storage	PM Peak Hour		Saturday Peak Hour	
		2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm St. NB Left/Through/Right		216	117	33	59
Elm St. SB Left	80*	206	250	82	100
Elm St. SB Through/Right		102	306	N/A	N/A
Lincoln St. Right		330	321	77	106
Car Wash Driveway		150	175	40	47

*The lane is not well defined and there is about 20 feet from the centerline to curb of a significant distance.

Table 10 Lincoln Street/Pearl Street 95th Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Lincoln NB	172	217	13	17
Lincoln SB	71	110	55	83
Pearl EB	71	137	56	62
Pearl WB	403	996	81	142

Table 11 Elm Street/Pearl Street 95th Queue Summary (Feet)				
Movement	PM Peak Hour		Saturday Peak Hour	
	2024 No-Build	2024 Build	2024 No-Build	2024 Build
Elm SB	110	95	56	105
Pearl WB	53	126	70	135

The following summarizes the conclusion of the analysis.

Elm Street/Pine Street

Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.

Elm Street/Lincoln Street

The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.

MaineDOT requested that a traffic signal warrant analysis be conducted at the location. Because limited traffic volume data is available only the Peak Hour Volume Warrant and the Crash Warrant were evaluated.

Warrant 3: Peak Hour

The MUTCD has a disclaimer for use of this warrant that reads “This signal warrant shall be applied only in unusual cases such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. This location does not meet this criteria, but given the lack of data it is the only volume-based warrant evaluated.

Warrant 3 is based on the sum of the major street traffic volume and the higher minor street traffic volume. The Peak Hour Warrant was evaluated for two volume conditions; 2019 Existing Conditions (when the traffic counts were performed) and for the 2024 Build Conditions. Given intersection turning movement volumes, the Elm Street southbound left-turn onto Lincoln Street is the volume that would trigger the warrant (the left-turn volume is greater than the right-turn volume from Lincoln Street). Accordingly, the left turn volume was used as the minor movement and the Elm Street northbound approach volumes was used as the major movement. The red mark on the following graphs represents the plot of major volume on northbound Elm Street and minor volume Elm Street southbound left-turn during the PM peak hour. As illustrated the warrant is not met for the 2019 existing volume condition but met for the 2024 Build volume scenario.

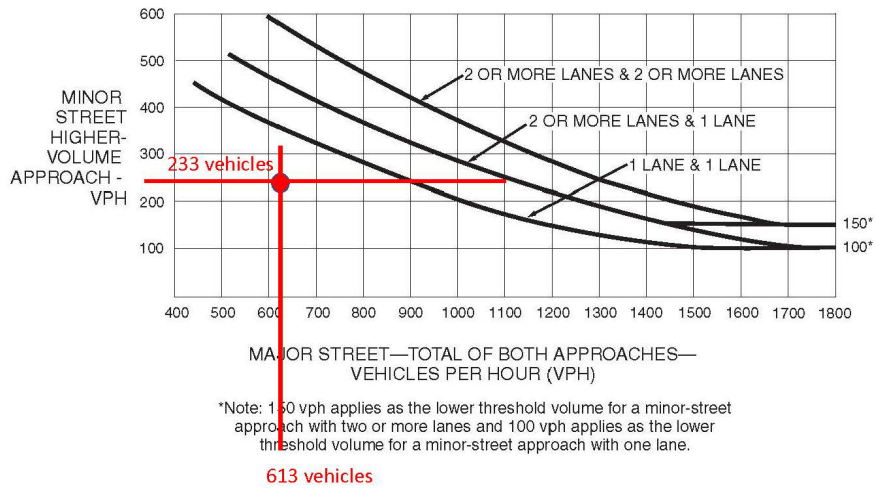
The following summarizes the actual 2019 volumes, adjustment to average conditions, and the 2024 Build volumes during the PM peak hour. The 2024 Build volumes used in the warrant evaluation were reduced by 15% to approximate average conditions.

2019 Existing

- Elm Street Southbound Left – 274 (7/18/2019) x 0.85 (group mean factor) = 233
- Elm Street Northbound Left+Through+Right (15+692+14) – 721 x 0.85 (group mean factor) = 613

2019 Existing PM peak hour

Figure 4C-3. Warrant 3, Peak Hour

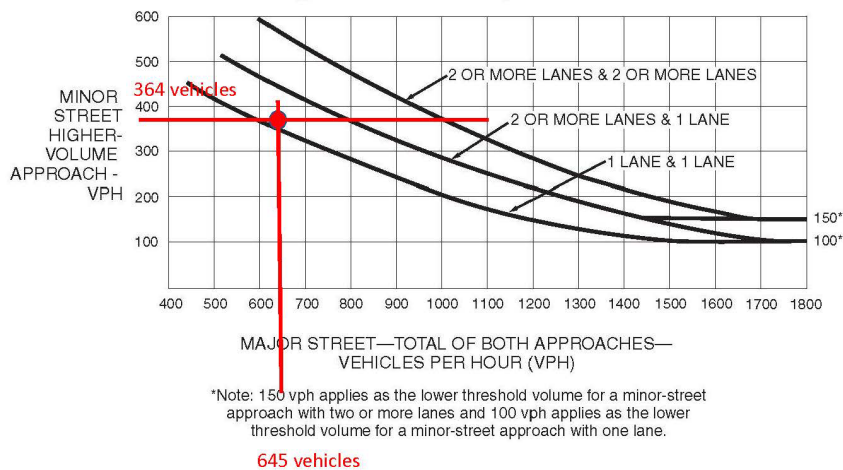


2024 Build

- Elm Street Southbound Left – 428×0.85 (group mean factor) = 364
- Elm Street Northbound Left+Through+Right (16+727+16) – 759×0.85 (group mean factor) = 645

2024 Build PM peak hour

Figure 4C-3. Warrant 3, Peak Hour



Warrant 7: Crash Experience

Warrant 7 states the need for a traffic control signal shall be considered if an engineering study finds that all the following criteria are met:

- A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency: and
- B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements of a reportable crash: and
- C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both the 80 percent column of Condition A in Table 4c-1, or the vph in both the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be the same for 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

This intersection is a High Crash Location (HCL). Based upon crash data there are not five crashes within a 12-month period that would be correctable by a traffic signal (See **Section 8**). Therefore, this warrant is not satisfied.

Lincoln Street/Pearl Street

Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

Elm Street/Pearl Street

Movements from Pearl Street will experience increased delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.

8.0 Safety Analysis

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

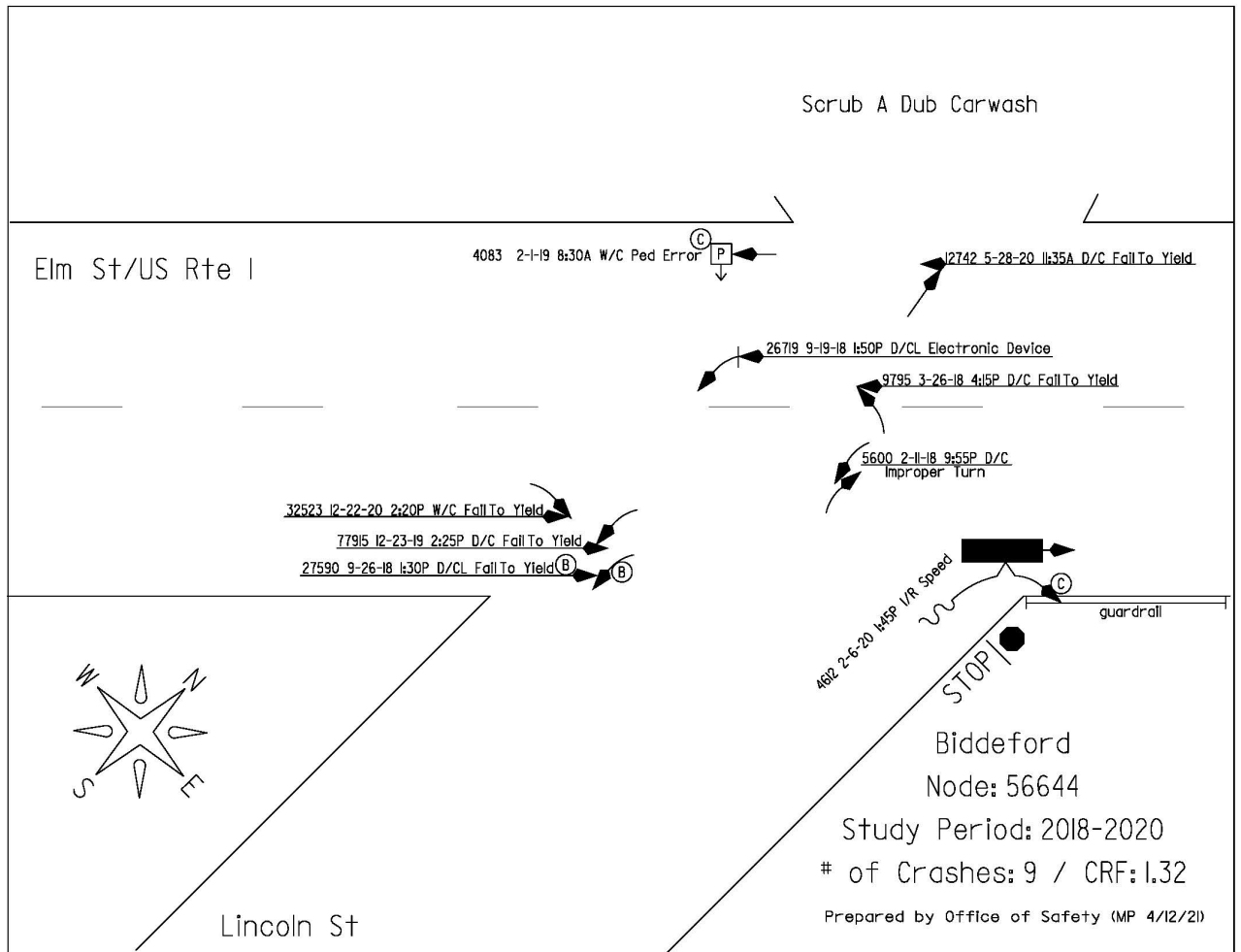
- Route 1/Elm Street – Main Street to Saco TL
- Pearl Street
- Lincoln Street
- Main Street – Lincoln Street to Elm Street

Table 12 summarizes the crash data at locations that are High Crash Locations (HCL) or close to meeting the criteria.

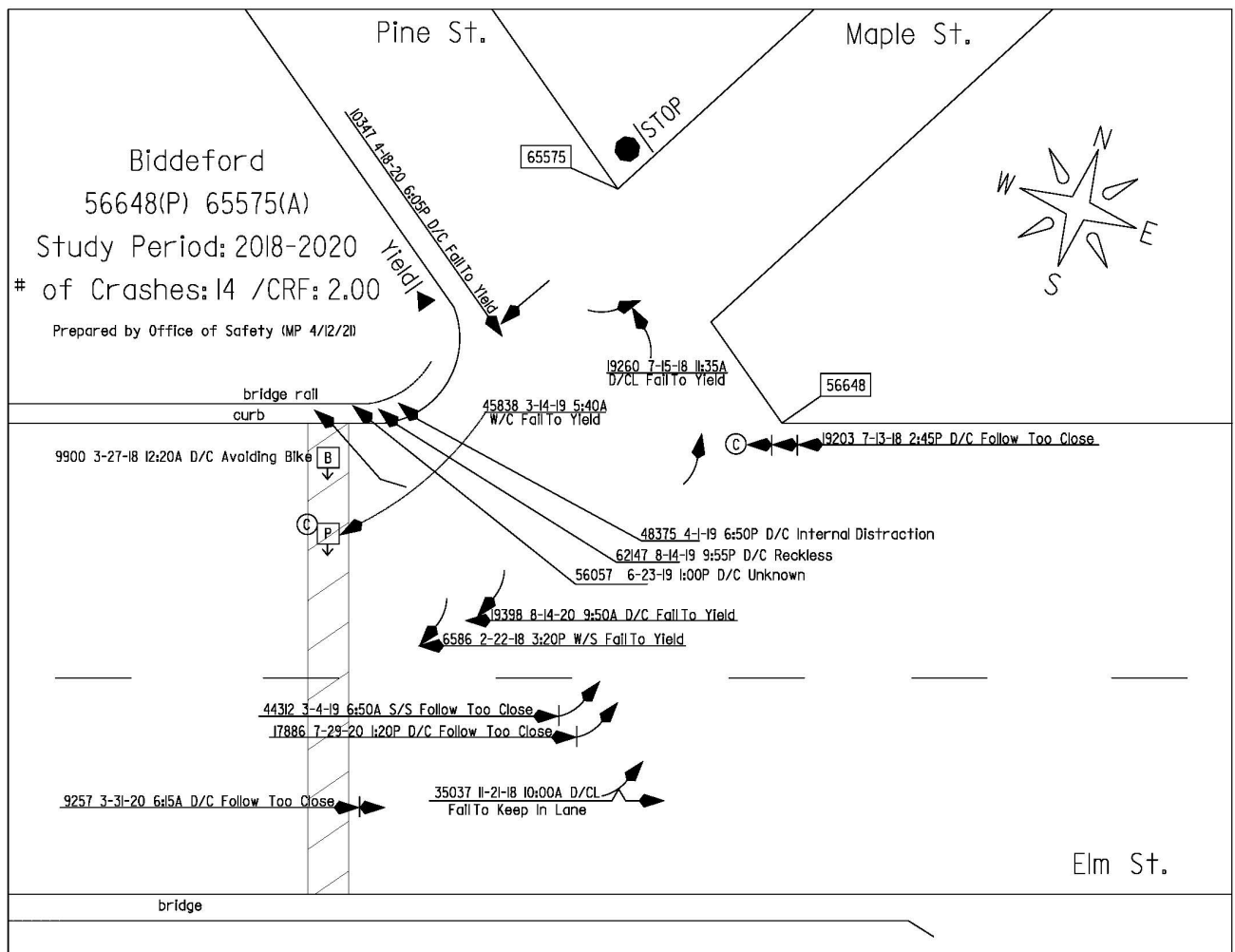
Table 12 Crash Data		
Location	2018-2020 Crashes	Critical Rate Factor
Elm Street/Main Street	22	0.94
Elm Street/St. Mary's Street	7	1.16
Elm Street/Spruce Street	17	0.92
Elm Street/Lincoln Street	9	1.32
Elm Street/Pine Street	14	2.00
Main Street/Lincoln Street/Adams Street	18	4.31
Main Street/Jefferson Street	8	2.90

At the scoping meeting the following locations were requested to be investigated: Elm Street/Pine Street, Elm Street/Lincoln Street, and Lincoln Street/Pearl Street.

- 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. It should be noted that an improvement plan is being implemented for Elm Street between Main Street and Pine Street and these improvements would be expected to improve conditions at this location. The Elm Street Concept Improvements project proposes to close Lincoln Street between Elm Street and Pearl Street. Additionally, access management improvements at the Car Wash and general geometric improvements are included. In combination, these improvements would be expected to enhance safety.



- 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. This location is the northern limits of the Elm Street improvement plan. The Concept Improvement plan is recommending that the intersection become signalized and left-turns from Pine Street be prohibited. This change should improve safety.



- **Lincoln Street/Pearl Street** – For this location it was requested that sight distance from northbound Pearl Street be reviewed and if deemed to be substandard, investigation into the installation of an all-way STOP condition be considered. Sight distance is constrained by buildings for motorists traveling eastbound on Pearl Street approaching Lincoln Street. Lincoln Street has a posted speed of 25MPH, and this requires a minimum sight distance of 200 feet. Available sight is actually a function where a vehicle stops. Sight is significantly obstructed if a motorist complies and stops in advance of the stop



line. It is possible for a motorist to move forward and obtain 200 feet of sight. Given increased traffic volumes investigation into whether a multi-way STOP condition is warranted and would not result in unreasonable traffic conditions.

According to the MUTCD, a multi-way stop control condition can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. The decision to install multi-way stop control should be based on an engineering study. The following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.

This criteria is not relevant.

- B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.

According to crash data obtained from the MaineDOT for the most recent available three-year period (2018-2020) only one crash was reported. This criteria is not met.

- C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but

3. If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.

For this warrant to be satisfied at least 300 vehicles per hour are required for 8 hours of an average day for Lincoln Street and 200 vehicles per hour for Pearl Street. During the 2024 Build PM Peak hour the Lincoln Street volume is 732 vehicles. Pearl Street is estimated to have 414 vehicles. Based upon the above data, it is possible this level of traffic is met for 8 hours of an average day.

D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

This would reduce the volume criteria to 240 vehicles for Lincoln Street and 160 vehicles for Pearl Street. Based upon the previously summarized volume data, it is likely volumes would meet the criteria for 8 hours on an average day.

The MUTCD notes the following other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;

This does not seem to be relevant.

B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;

This does not seem to be relevant.

C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop;

This is relevant as documented in the previous photograph where a building obstructs sight.

D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

This is not relevant.

Based upon the results of the warrant evaluation and increased traffic volumes at the intersection a multi-way STOP intersection should be considered. Refer to **Section 10** – Traffic Mitigation Considerations for additional details and conclusions.

MaineDOT Highway Safety Evaluation - The MaineDOT has process in which they use information provided in the Highway Safety Manual (HSM) to forecast potential safety impacts due to increasing traffic volumes at a specific location. Per the request of the MaineDOT, the forecasted Annual Average Daily Traffic (AADT) volume increase due to the proposed project at each of the previous noted locations has been estimated for use in completing their calculations. The Lincoln Street/Pearl Street location was not included because it is not a High Crash Location. It is our understanding that the results of their evaluation will then be used to determine a safety impact fee per high crash location in lieu of mitigation. **Table 13**

presents the Weekday trip generation for the project based on the 11th Edition of the ITE Trip Generation Manual.

Table 13 Trip Generation Weekday For Highway Safety Evaluation			
	Weekday		
	Enter	Exit	Total
Residential Apartment (191 Units)	434	434	868
Restaurant (298 Seats)	651	651	1302
Sub-Total	1085	1085	2170
Internal Capture Trips (5%)	-54	-54	-108
Total Entering and Exiting Site	1031	1031	2062
Restaurant Pass-By Trips (43%)	-443	-443	-886
Total New Traffic	588	588	1176

Table 14 presents the increase in AADT at the requested intersections. The assignment of weekday trips was similar to the assignment of peak hour trips, which is estimated to be 55% to and from Elm Street along Lincoln Street, 15% to and from Elm Street along Pearl Street and 30% to and from Main Street along Lincoln Street.

Table 14 Increase in AADT for Highway Safety Evaluation	
Intersection	Increase in AADT
Elm Street/Pine Street	
Elm Street NB	647
Elm Street SB	453
Pine Street	194
Elm Street/Lincoln Street	
Elm Street NB	0
Elm Street SB	647
Lincoln Street	647

Section 9 – Pedestrian Infrastructure Review

A review of pedestrian infrastructure was performed within the study area. The following streets/intersections were reviewed with the noted details.

Pearl Street

- Pearl Street north of Lincoln Street is currently being reconstructed and a sidewalk will be provided on the west side of the street with curb ramps provided at the two intersection corners at Lincoln Street.
- A sidewalk is not provided on Pearl Street from Lincoln Street to Elm Street (a short section of sidewalk in poor condition exists north of Stone Street). The Elm Street Concept Improvement Plan includes the construction of a sidewalk on the east side of Pearl Street.

Lincoln Street

- A sidewalk exists on Lincoln Street between Pearl Street and Elm Street.

Elm Street

- Elm Street has sidewalks on both sides of the street from Pearl Street to Gooch Street. Between Gooch Street and Pine Street a sidewalk is provided on the west side (only one sidewalk is provided on the bridge over the Saco River).
- Elm Street/Pearl Street intersection
 - A crosswalk across Pearl Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Spruce Street
 - This location has a crosswalk on Spruce Street and the north leg of Elm Street. The ramps appear to be ADA compliant. It also includes compliant pedestrian signal heads and push buttons that were upgraded by MaineDOT.
- Elm Street Midblock Crosswalk
 - There is a midblock crosswalk between Spruce Street and Thornton Avenue. This crosswalk is not ADA compliant and does not have warning signs.
- Elm Street/Thornton Street
 - There are crosswalks on the north leg on Elm Street and on Thornton Avenue. The crosswalks are not ADA compliant and do not have warning signs.
- Elm Street/Lincoln Street
 - A crosswalk across Lincoln Street is provided, but ADA compliant ramps are not provided. It is also a very long crossing and has a “kinked” alignment.

- Elm Street/Hooper Street
 - A crosswalk across Hooper Street is provided, but ADA compliant ramps are not provided.
- Elm Street/Gooch Street/Diamond Street
 - This location has a crosswalk on Diamond Street and the south leg of Elm Street. The landings are not ADA compliant, and the Elm Street crosswalk does not have warning signs.
- Elm Street/Pine Street
 - This location has a crosswalk on Pine Street that is not ADA compliant.

Section 10 – City Traffic Impact Fee

As requested at the Scoping Meeting, an impact fee was calculated based upon the recommendations in the Biddeford-Saco Mill District Study Mitigation and Impact Fee Summary dated June 2015 prepared by Gorrill-Palmer. That report establishes an impact fee of \$1,082 per PM peak hour trip end generated by the project. As noted in **Table 1**, the project is expected to generate 162 new PM peak hour trips entering and exiting the site. This results in an impact fee of \$175,284.

It should be noted that this is provided for information purposes as there is an on-going study/project that identified conceptual improvements and costs for upgrading Elm Street between Main Street and Pine Street. That project may identify a revised set of impact fee contribution requirements. The concept study has been completed and generally consists of the following:

- The plan assumes the Elm Street/Spruce Street/Pearl Street is aligned and signalized.
- Lincoln Street is closed to through traffic between Pearl Street and Elm Street. A shared-use path is proposed, and local service vehicles will be permitted (possibly via a shared street).
- The Elm Street/Gooch Street/Diamond Street intersection is signalized.
- The Elm Street/Pine Street intersection is signalized.
- A small urban roundabout is proposed at the Lincoln Street/Pearl Street intersection.
- Bike lanes are provided on Elm Street between Lincoln Street and Gooch Street/Diamond Street.
- Sidewalks are fully upgraded and meet ADA standards. A sidewalk is proposed on Pearl Street between Elm Street and Lincoln Street.
- A refuge island and RRFB's are proposed at Elm Street/St. Mary's Street.
- A refuge island and RRFB's are proposed at the closed Lincoln Street on Elm Street.
- Various access management improvements.

MaineDOT prepared a conceptual planning-level cost estimate for the project as noted below:

- Construction Estimated cost: \$9,000,000.00 + 25 % contingency= \$11,225.00.00
- Total construction estimated cost: \$11,225,000.00
- Construction Engineering(CE): \$1,700,000
- Right of way:\$1,500,000
- Preliminary Engineering: \$1,000,000
- **Total estimated project cost is \$15,425,000.**

Assumptions:

- Unknown right of way and plans have not been shown to the public (Property owners). This is a rough estimate as the project would have to acquire a domino's pizza business, and have other property impacts that would have to be addressed.
- Unknown utility upgrades.
- Unknown existing conditions of the drainage system.
- Historical or Environmental concerns have not been evaluated.

The City should be advised this fall whether or not the Elm Street/Route 1 federal earmark request will be funded. If successful, federal funds will be available after this October 1st to finalize the project design, secure required right-of-way and construct all improvements. The construction timing for this project will likely be no earlier than 2024.

Section 11 – Traffic Mitigation Considerations

Based upon the analysis and conclusions presented previously the following traffic mitigation strategies are suggested.

- **Elm Street/Pine Street** – As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
 - Replace the “Yield” sign with a STOP sign. This was requested by the City.
 - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.

Movement	PM Peak Hour			
	2024 Build		2024 Build W/Improvements	
	LOS	Delay	LOS	Delay
Elm St. NB Left	B	13.8	B	13.2
Elm St. NB Through	A	2.9	A	3.0
Elm St. SB Through/Right	A	6.2	C	15.2
Pine St. Left/Right	F	812.3	F	411.9
Overall	F	54.3	F	51.7

- Or Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.
- **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
 - **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
 - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better. The following table summarizes levels of service, delay and queue lengths.

Movement	PM Peak Hour		
	2024 Build All-Way STOP		
	LOS	Delay	95 th % Queue (feet)
Lincoln St. EB	A	7.4	63
Lincoln St. WB	A	8.1	106
Pearl St. NB	A	8.5	94
Pearl St. SB	B	12.0	185
Overall	B	10.1	

- Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
- **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

12. Site Access

The project will utilize Pearl Street to access each residential building parking garage. Restaurant customers will utilize the new Pearl Street parking garage or other public parking facilities. A service driveway is provided for the restaurant. The attached site plan illustrates the existing driveway locations and provides 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 in **Table 15**.

Table 15			
Driveway Sight Distance			
Location	Measured Sight Distance (Feet)		Minimum Standard (Feet)
	Looking Left	Looking Right	
Lot 3A/3B Driveway	Sight to End of Pearl Street	200+	200'
Restaurant Service Driveway	Sight to End of Pearl Street	200+	200'

13. Conclusions and Recommendations

The proposed project is expected to generate 61 new vehicle trips during the weekday AM peak hour, 162 new vehicle trips during the weekday PM peak hour and 127 new trips during the Saturday peak hour. The purpose of this document is to support the MaineDOT Traffic Movement Permit process. A Traffic Movement Permit Application was submitted on September 20, 2021. A MaineDOT Traffic Movement Permit Scoping Meeting was held on December 15, 2021. MaineDOT requested that the Traffic Impact Study (Section 7) evaluate specific traffic conditions at the Elm Street/Pine Street, Elm Street/Lincoln Street, Elm Street/Pearl Street and Lincoln Street/Pearl Street. The following summarizes the results of the level of service analysis, safety evaluation and recommendation for the project.

1. The following presents the results and conclusions of the level of service analysis at the study intersections.
 - **Elm Street/Pine Street** - Movements from Pine Street experience delay under both No-Build and Build conditions. Pine Street serves as a route between Biddeford, parts of Saco and Exit 36 of the Maine Turnpike and turn movements are significant. With heavy traffic volumes on Elm Street, right-turn movements onto Elm Street struggle to find a gap in traffic.
 - **Elm Street/Lincoln Street** - The SimTraffic model for this location assumed the TMP required improvements for the Riverdam project (prohibiting left and through movements from Lincoln Street). Even with these improvements, right-turn movements from Lincoln Street will experience long delays with and without the proposed project. Movements from the Car Wash will also experience long delays.
 - **Lincoln Street/Pearl Street** - Movements from Pearl Street (from the development) will experience long delays following project completion. Review of the simulation model indicated traffic is backing up along Lincoln Street from the Elm Street intersection and making it difficult to exit the site.

- **Elm Street/Pearl Street** - Movements from Pearl Street will experience increase delay following project completion. Movements will decline from a level of service E in the No-Build condition to F following project completion.
2. The following presents the results and conclusions at the locations evaluated as directed at the scoping meeting.
- **Elm Street/Pine Street** – As noted previously movements from Pine Street will experience long delays. We recommend the following actions:
 - Replace the “Yield” sign with a STOP sign. This was requested by the City.
 - Prohibit Left-turn movements from Pine Street. This change will reduce delay, but conditions will continue to be Level of Service F.
 - Or Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes this intersection will be signalized and left-turn movements from Pine Street will be prohibited.
 - **Elm Street/Lincoln Street** - As noted previously movements from Lincoln Street will experience long delays, even with the Riverdam improvements. We recommend the following actions:
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Lincoln Street will be closed between Elm Street and Pearl Street.
 - **Lincoln Street/Pearl Street** – As noted previously movements from the development side of Pearl Street will experience long delays. We recommend the following actions:
 - Install STOP signs on Lincoln Street to address both sight limitations and delays on Pearl Street. We conducted an SimTraffic analysis with this change assuming Lincoln Street does not back up into the intersection. Results indicate the intersection will operate at Level of Service B (10.1 seconds/vehicle) overall and all movement will operate at LOS B or better.
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes either an All-Way STOP condition or construction of roundabout.
 - **Elm Street/Pearl Street** - As noted previously movements from Pearl Street will experience long delays. We recommend the following actions
 - Pay the City Impact Fee estimate noted in Section 9.
 - Or Pay a to be determined Fee associated with the Elm Street Concept Plan project. That project assumes Pearl Street will be aligned with Spruce Street creating a four-way signalized intersection.

Appendix

A. Figures

B. Traffic Counts/Traffic Volume Development

C. Synchro/SimTraffic Output

D. Crash Data

E. Site Plan

December 14, 2021

3 Lincoln Street Project

MaineDOT TMP Scoping Meeting Action Items

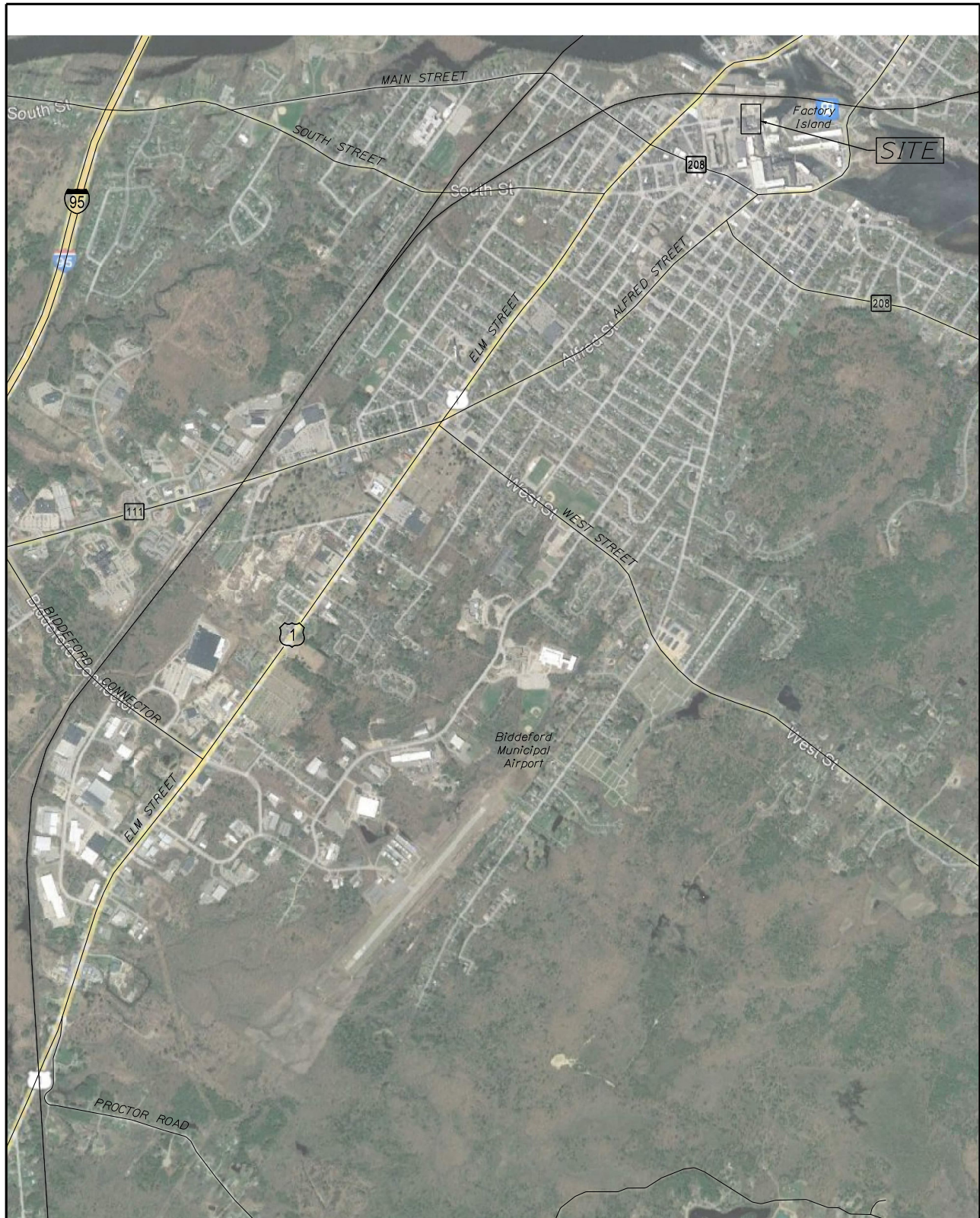
Prepared By Tom Errico, PE

Attendees:

Tom Errico, Pete, Marike, Bob V., Randy Illian, Tom M. Greg Tansley. , Craig Chekan

1. Greg noted that the STOP signs were being installed at the Main/Lincoln/Adams intersection soon with other improvements to be implemented when plans are approved.
2. Incorporate diverted trips from Elm Street into the trip assignment. This can be part of the 43% Pass-By reduction.
3. For other development:
 - Lincoln Mill is 50% occupied. The City will provide the Sebago study for use.
 - Riverdam is fully occupied
 - Building 11 will have 71 elderly apartment units. Access via Pearl and York. ITE will be used to estimate traffic.
4. Study area shall include:
 - Elm/Lincoln
 - Elm/Pine
 - Lincoln/Pearl
 - Elm/Pearl
5. Study will evaluate condition during the weekday PM and Saturday peak hours.
6. HCL analysis shall be performed at:
 - Pine/Elm
 - Lincoln/Elm
 - Lincoln/Pearl (look at sight distance issue – maybe a all-way STOP)
 - No need to do an analysis at Main/Lincoln/Adams
 - Provide AADT for the above locations
7. Perform an impact fee calculation according to GP study methods.
8. The Riverdam TMP mitigation shall be assumed complete (or to be implemented by this project or replaced with new Elm Street improvements.
9. Not specific action for pedestrian modes. ET is on Elm Street and will need to be a consideration when the concept plan is developed. Existing crosswalks that are not ADA compliant are the City's responsibility. It was noted that the Gooch Street Lot 1 project is installing a RRFB at Elm/Gooch crosswalk.
10. No specific action for transit.

A. Figures



TYLIN INTERNATIONAL

FIGURE NUMBER 1	BIDDEFORD 3 LINCOLN STREET PROJECT STUDY LOCATION PLAN	PROJ. MANAGER	T. ERICO	BY	DATE	
		DESIGN-DETAILED	S. DAVIS			SIGNATURE
		CHECKED-REVIEWED				
		DESIGN-DETAILED2				P.E. NUMBER
		DESIGN-DETAILED3				DATE
		REVISIONS 1				
		REVISIONS 2				
		REVISIONS 3				
		REVISIONS 4				
		FIELD CHANGES				

MaineDOT TMP APPLICATION

DATE
E. NUMBER
SIGNATURE

Existing (2021) Design Hour Traffic Volumes
xx(xx) - Weekday PM(Saturday)



BIDDEFORD
3 LINCOLN STREET PROJECT

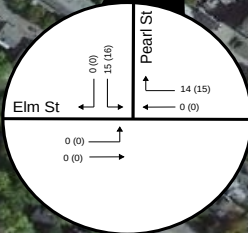
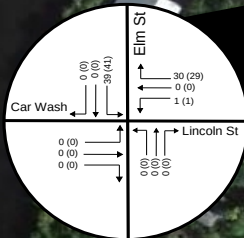
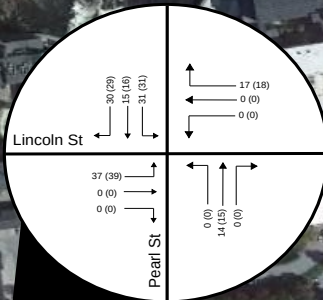
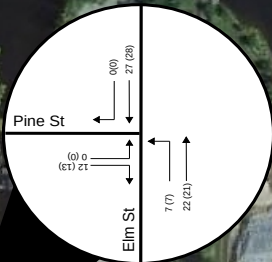
PROJ. MANAGER	1.0880	BY	DATE
DESIGN OR FIELD	H. TRACY		
CHECKED			
DESIGN			
REVISIONS			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			

DATE	
P.E. NUMBER	
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MaineDOT TMP APPLICATION

1141in

Added Trips
xx(xx) - Weekday PM(Saturday)



BIDDEFORD
3 LINCOLN STREET PROJECT

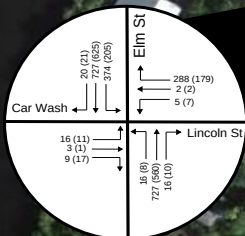
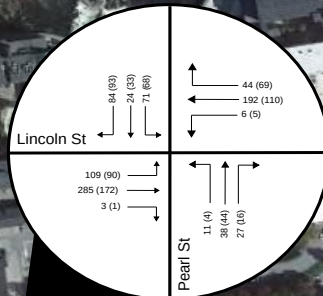
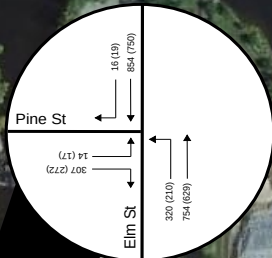
PROJECT MANAGER	1.0880	DATE
DESIGNER	H. TACK	DATE
CHECKED		
DESIGNED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		

DATE	
P.E. NUMBER	
SIGNATURE	

MaineDOT TMP APPLICATION

11/14/21

Future (2024) No-Build Traffic Volumes
xx(xx) - Weekday PM(Saturday)



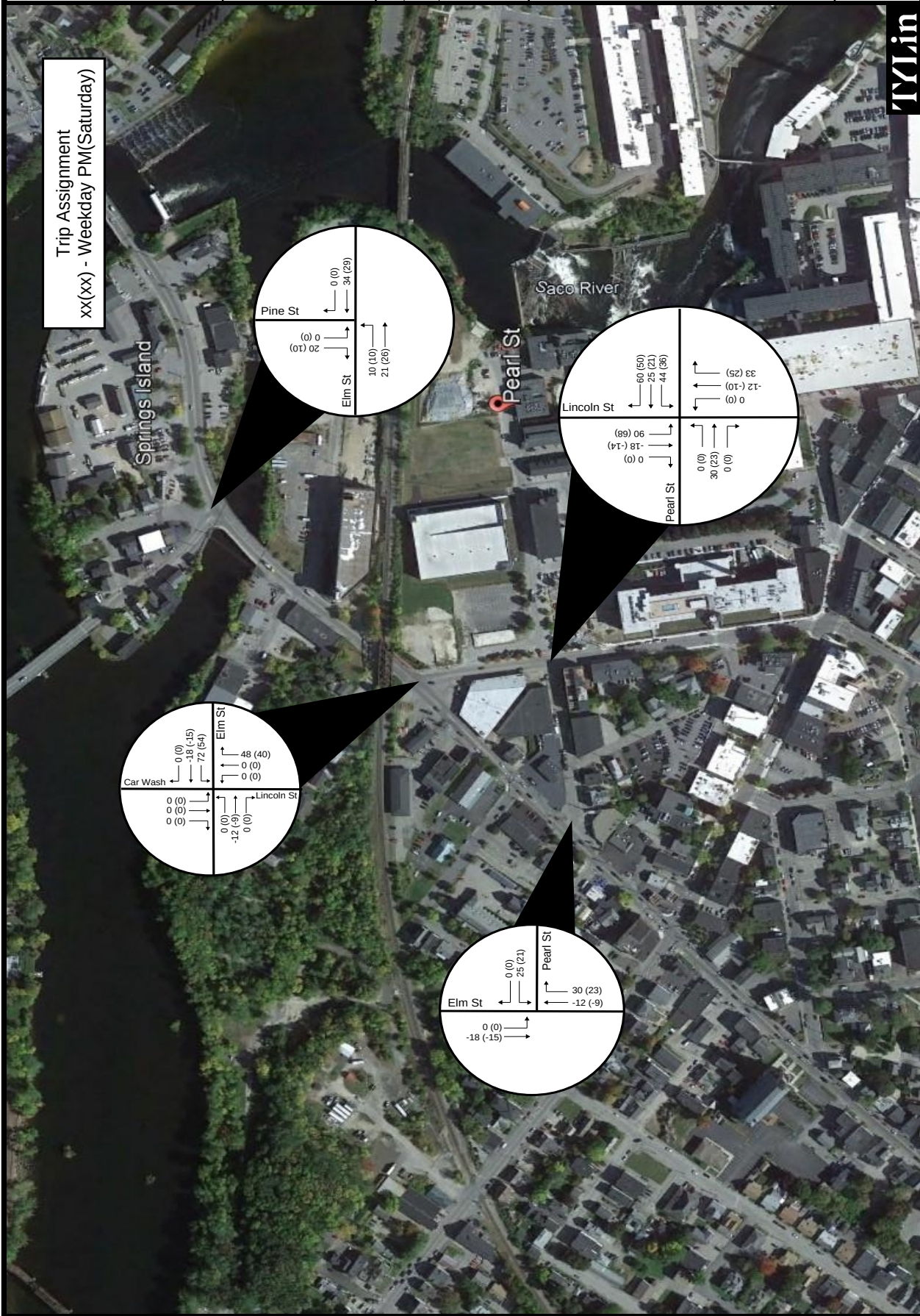
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DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

DATE _____

P.E. NUMBER _____

SIGNATURE _____

MAINE DOT TMP APPLICATION



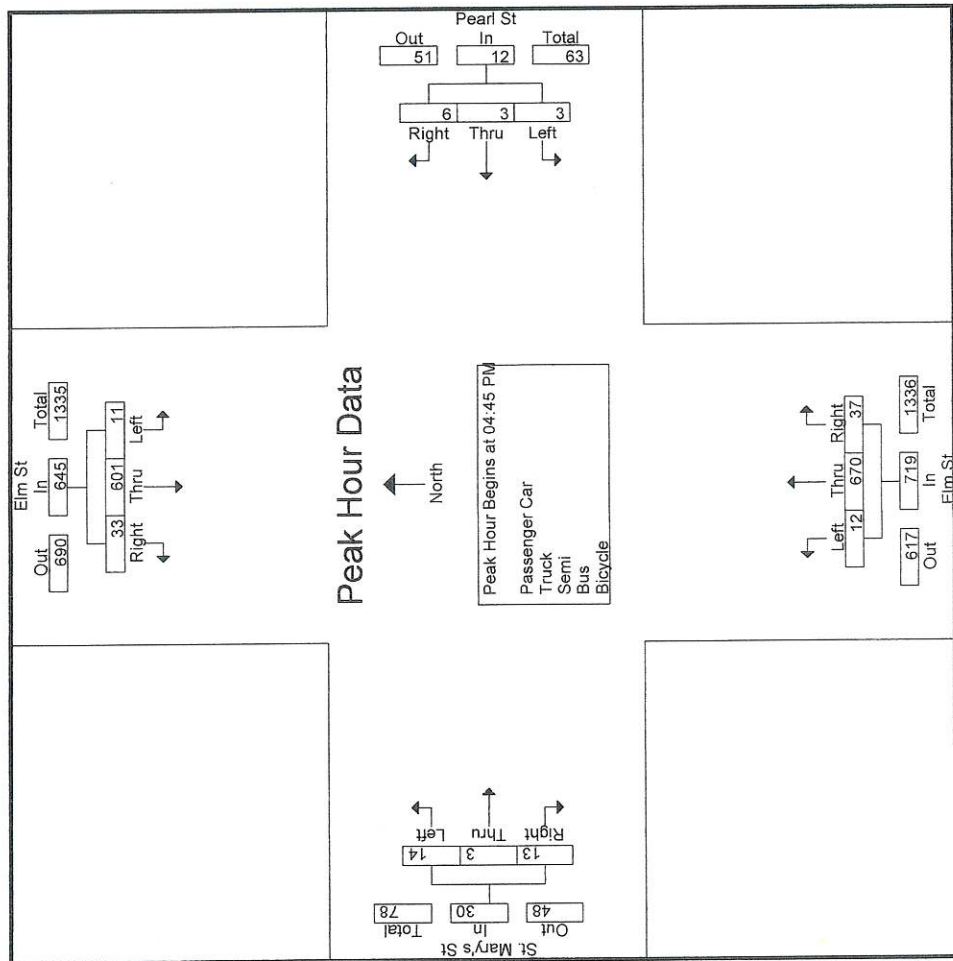
B. Traffic Counts/Traffic Volume Development

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

Biddeford Pearl, Elm & St. Mary's St
July 17, 2019 PM
Light Rain
Count by Jen Gilbert

File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-17-19 PM
Site Code : 00717192
Start Date : 7/17/2019
Page No : 6

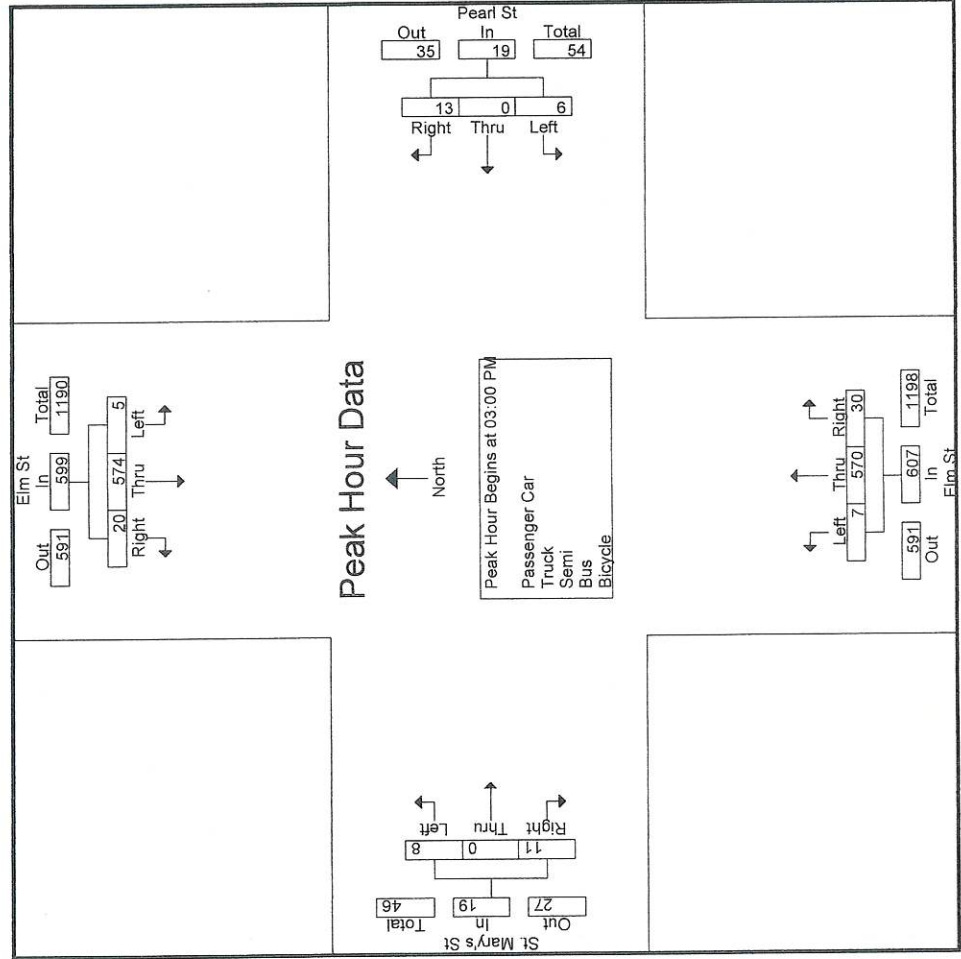


Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

File Name : Biddeford Pearl St, Elm St & St. Mary's St 7-27-19 PM
Site Code : 00727192
Start Date : 7/27/2019
Page No : 6

Biddeford Pearl, Elm & St. Marys
July 27, 2019 PM Saturday
Sunny
Count by Jen Gilbert



Accurate Counts
978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

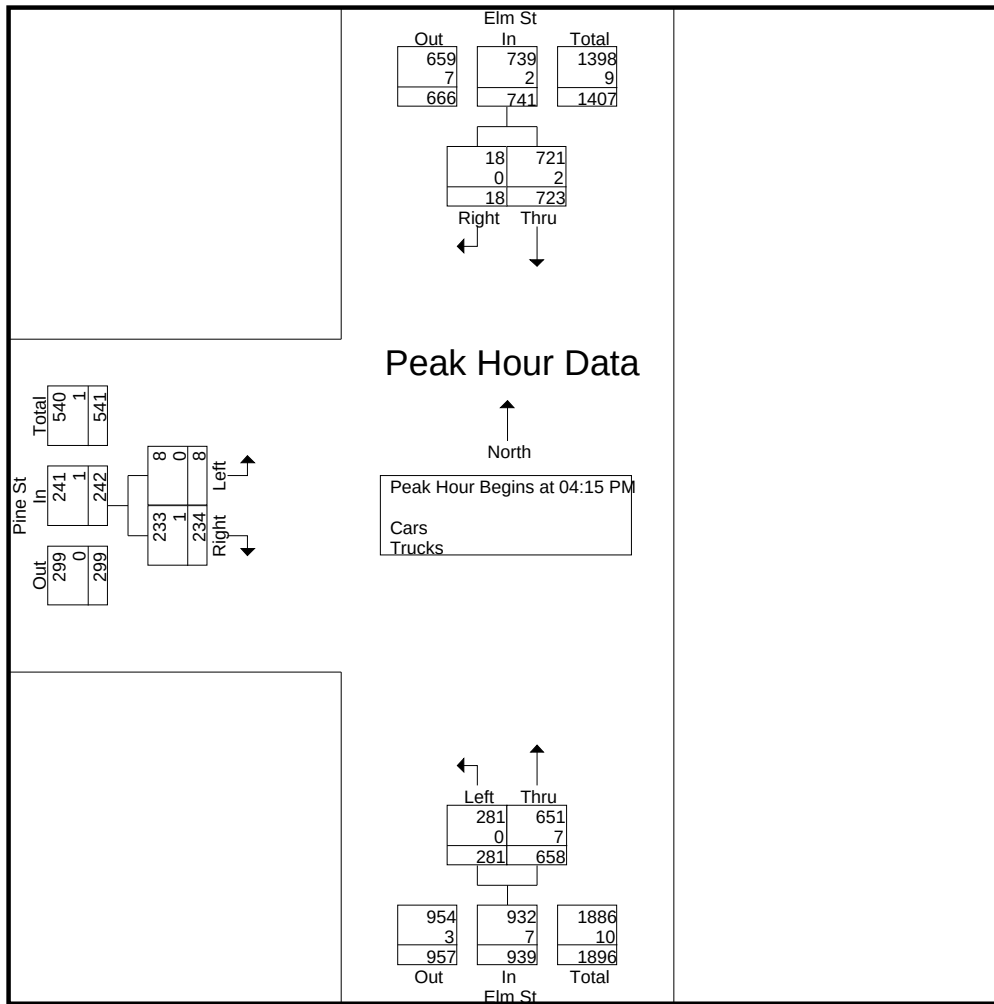
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 1

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



Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

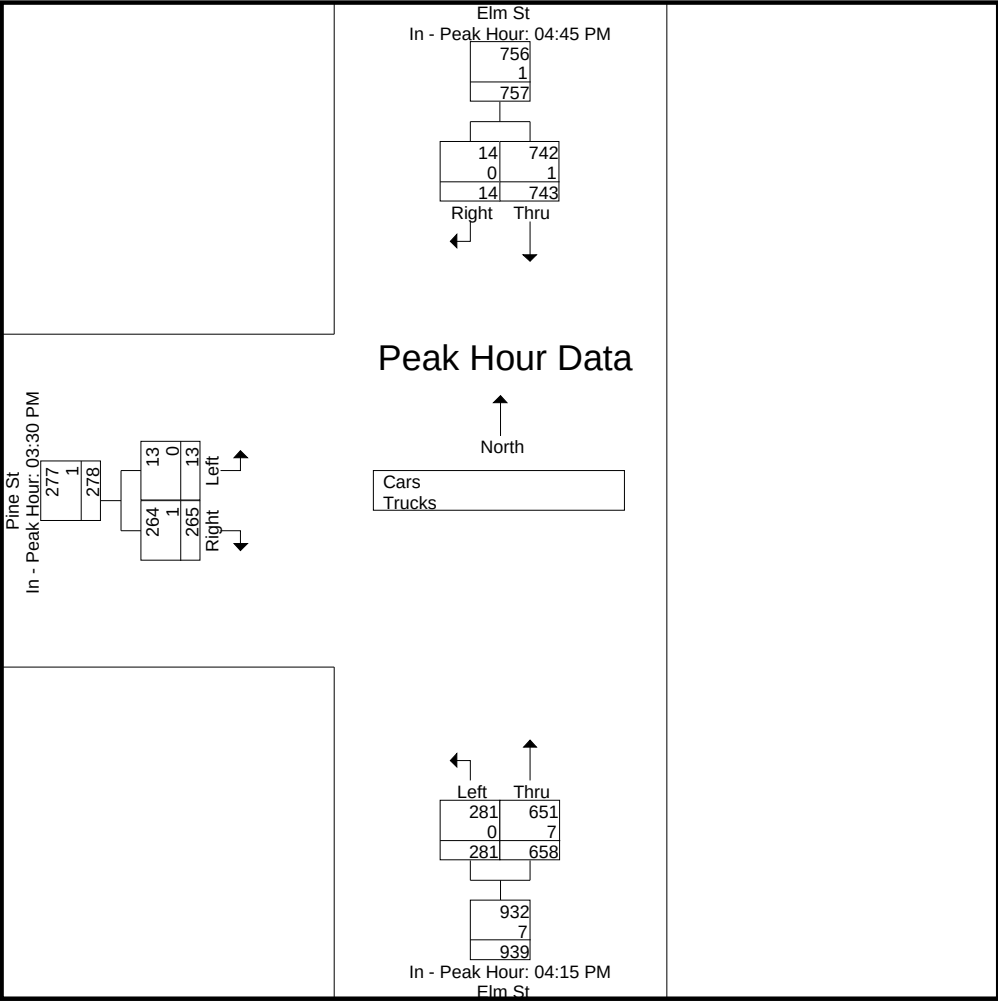
	04:45 PM			04:15 PM			03:30 PM		
+0 mins.	197	5	202	61	157	218	2	76	78
+15 mins.	181	5	186	78	152	230	6	64	70
+30 mins.	179	3	182	63	172	235	4	70	74
+45 mins.	186	1	187	79	177	256	1	55	56
Total Volume	743	14	757	281	658	939	13	265	278
% App. Total	98.2	1.8		29.9	70.1		4.7	95.3	
PHF	.943	.700	.937	.889	.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

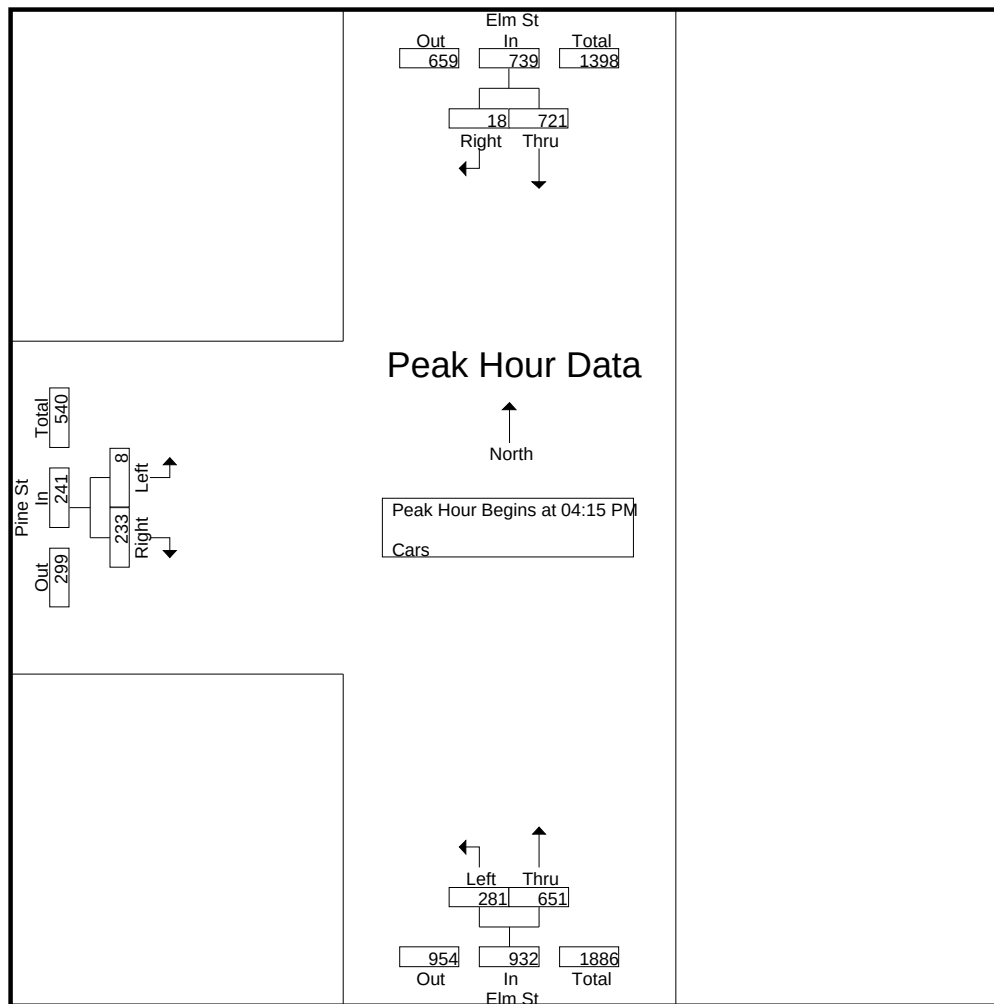
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 4

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

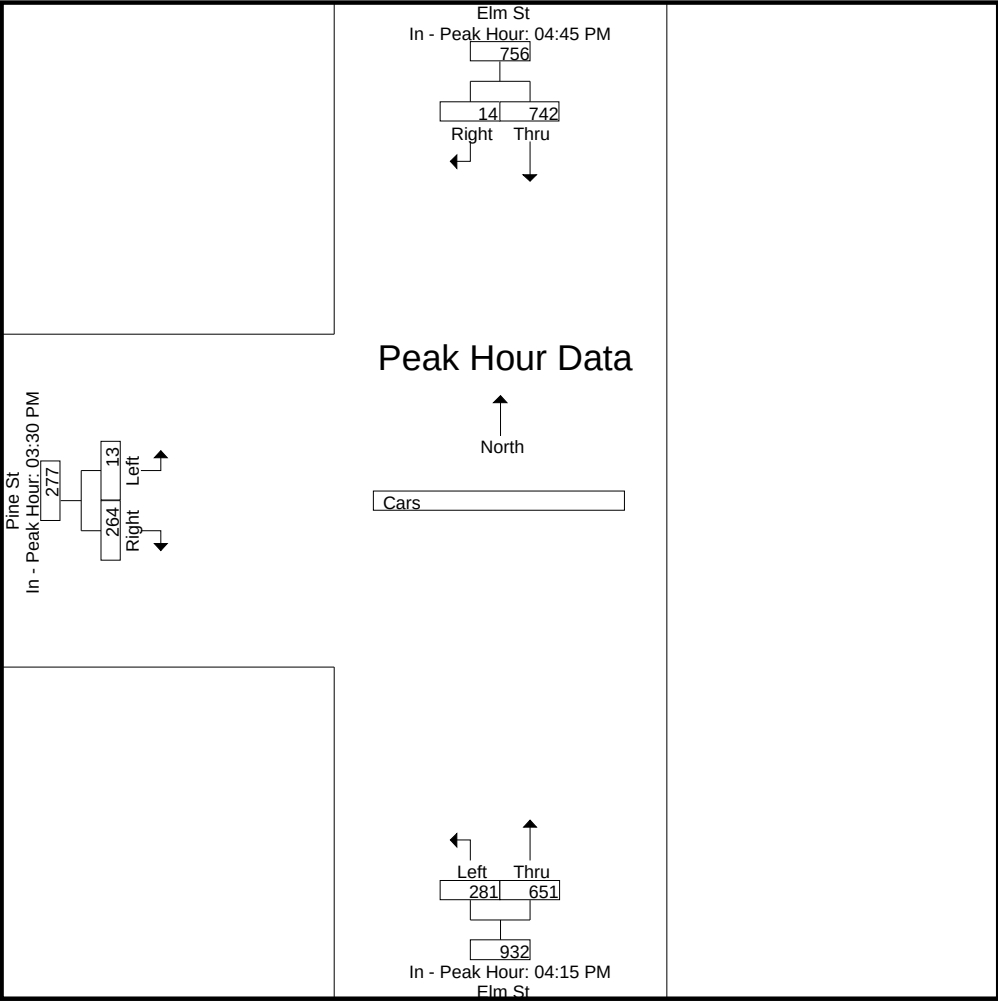


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

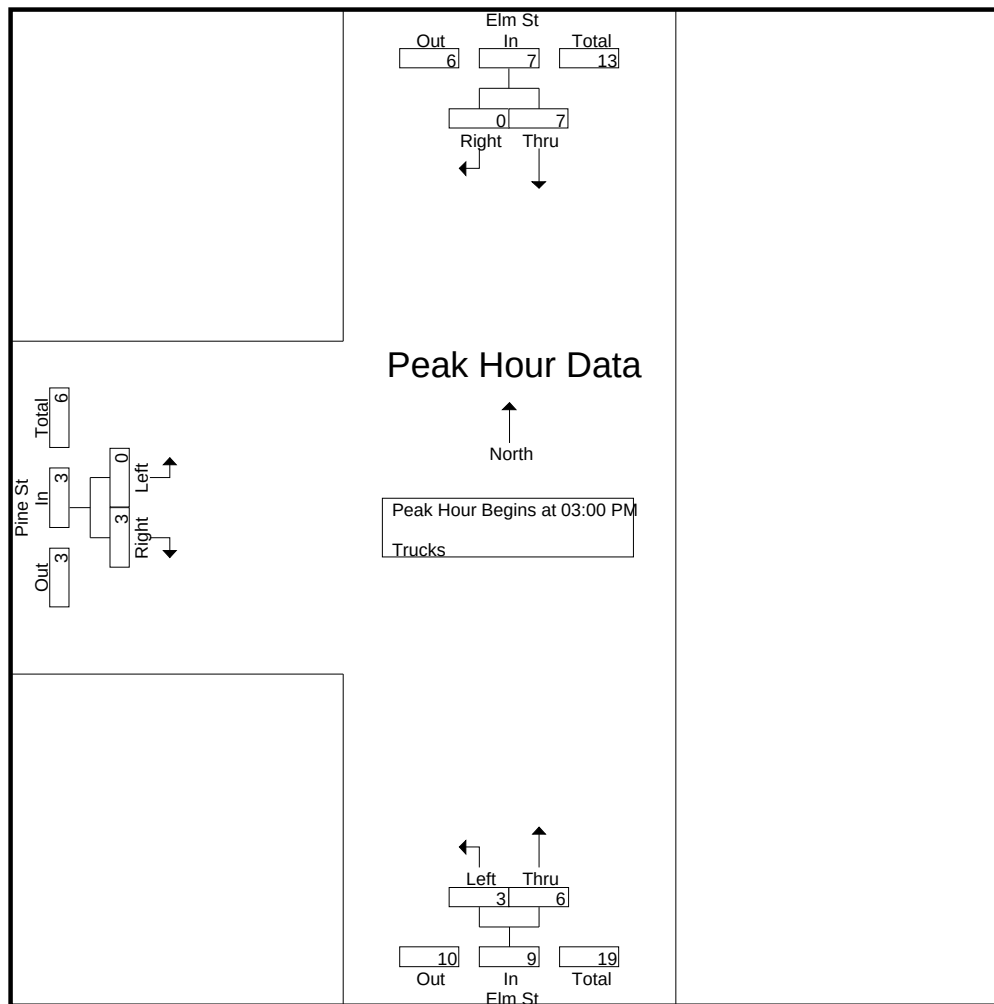
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 7

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

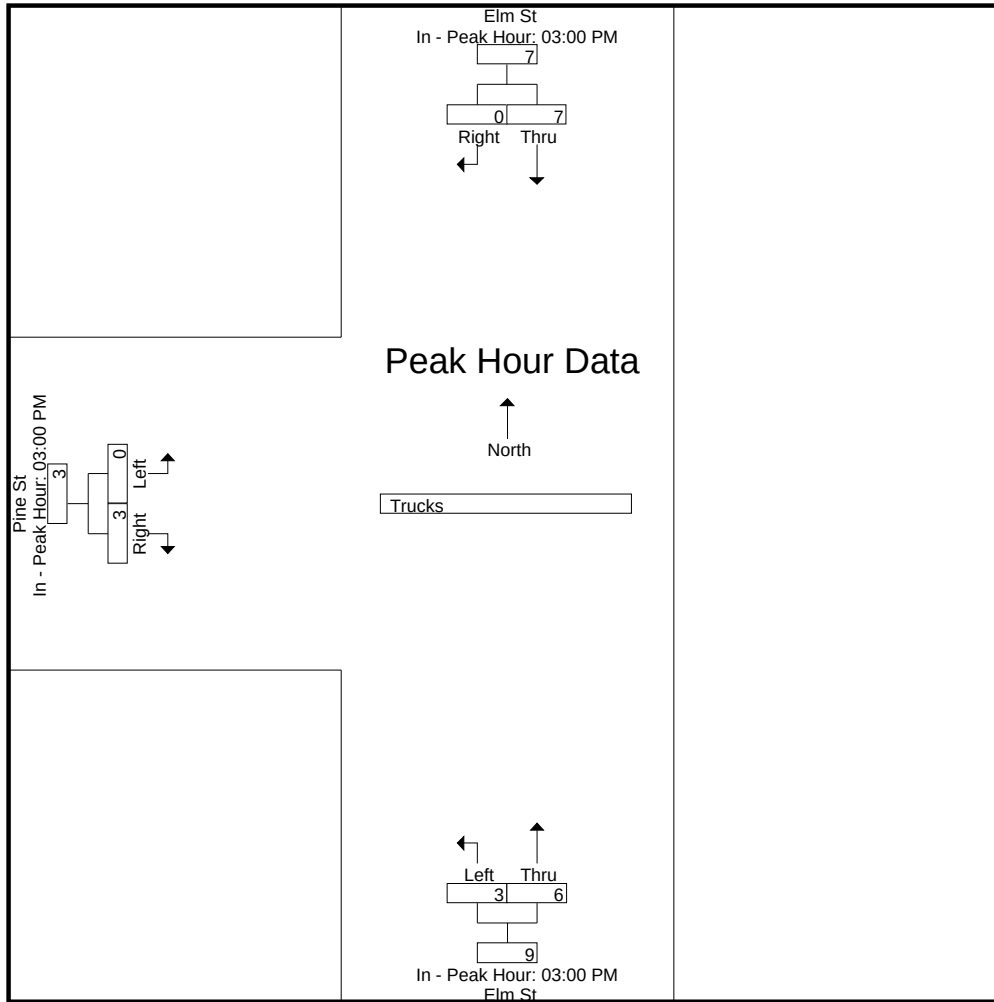
N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear



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			03:00 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



Accurate Counts

978-664-2565

N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Clear

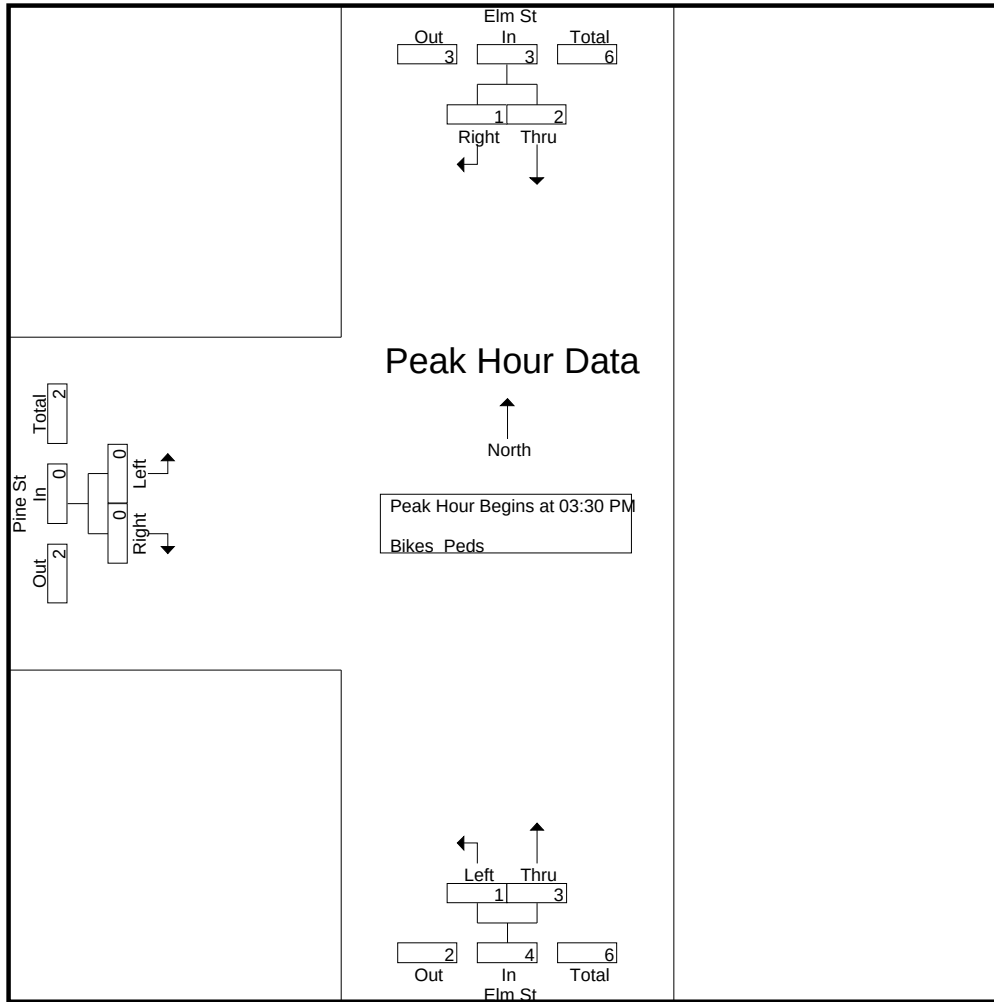
File Name : 19150002
Site Code : 19150002
Start Date : 11/2/2021
Page No : 10

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

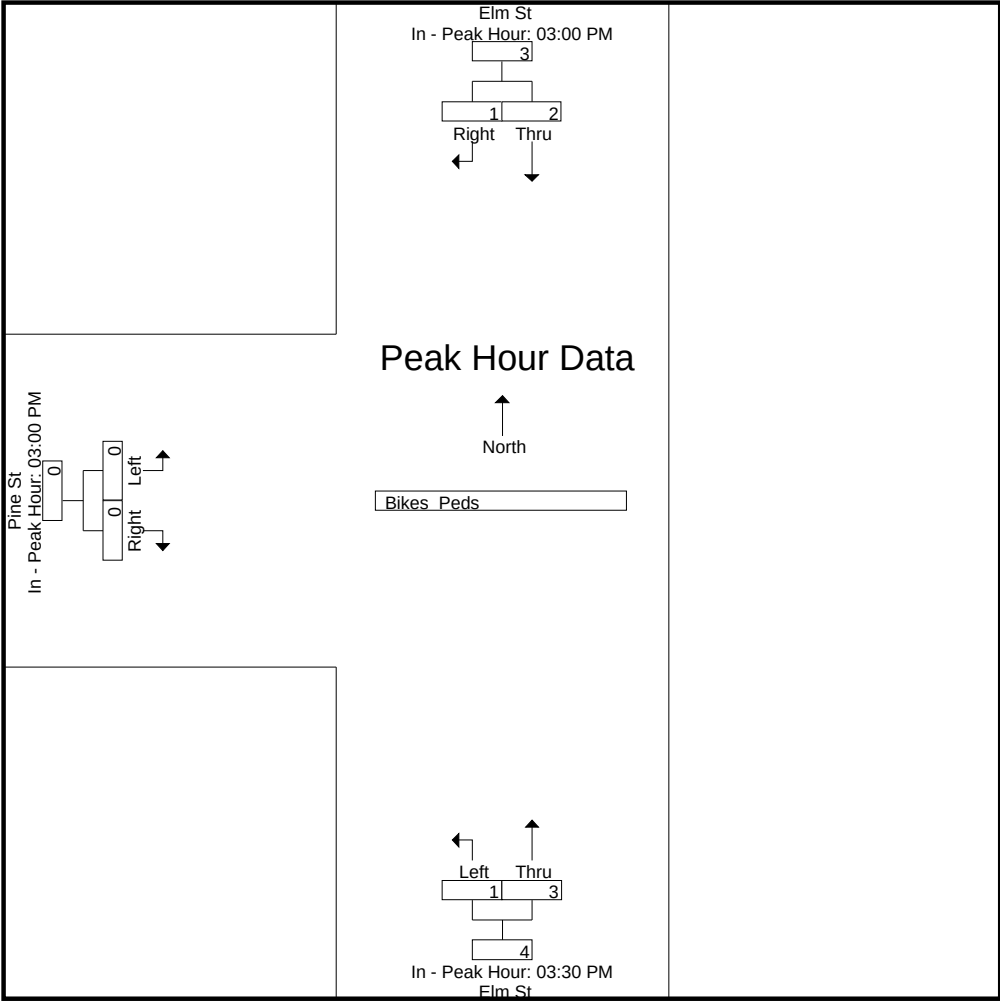


Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

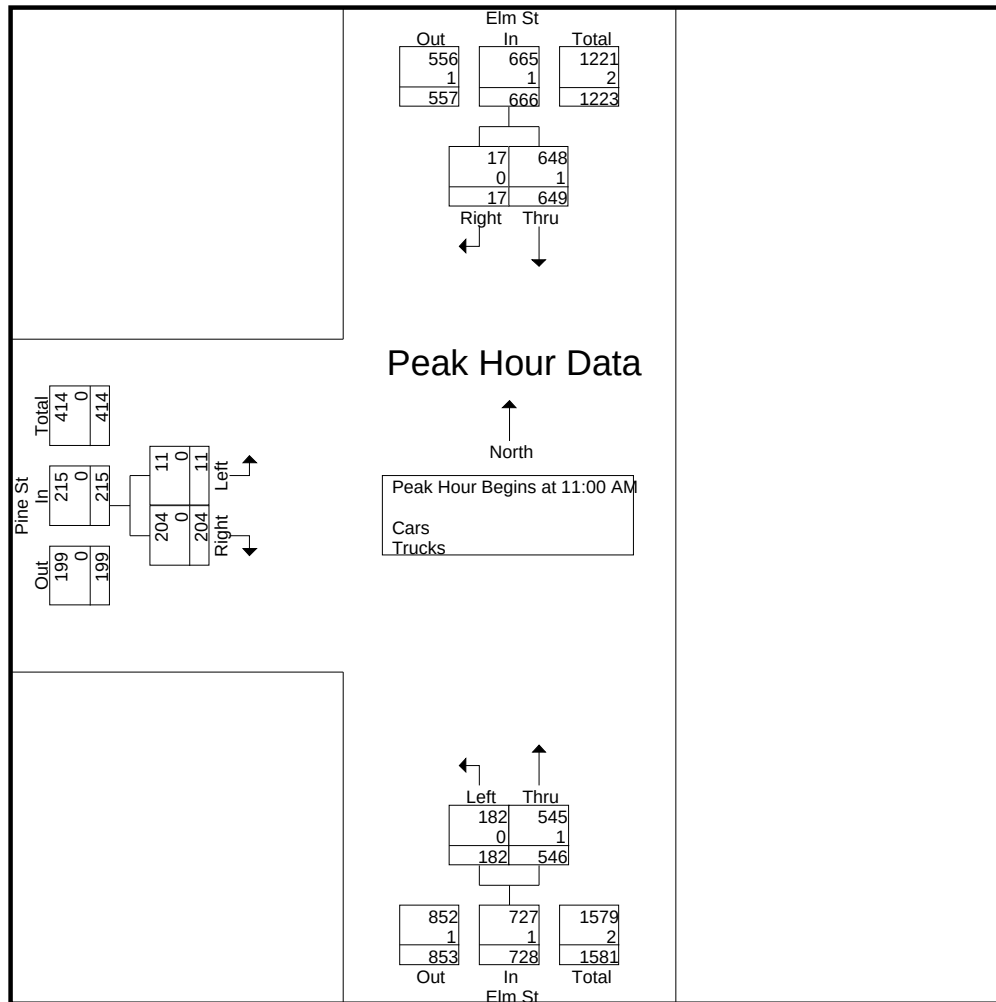
	Elm St From North		Elm St From South		Pine St From West		
Start Time	Thru	Right	Left	Thru	Left	Right	Int. Total
11:00 AM	174	9	47	130	3	59	422
11:15 AM	147	3	47	142	5	48	392
11:30 AM	177	2	43	146	2	46	416
11:45 AM	151	3	45	128	1	51	379
Total	649	17	182	546	11	204	1609
12:00 PM	147	4	35	134	6	59	385
12:15 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:

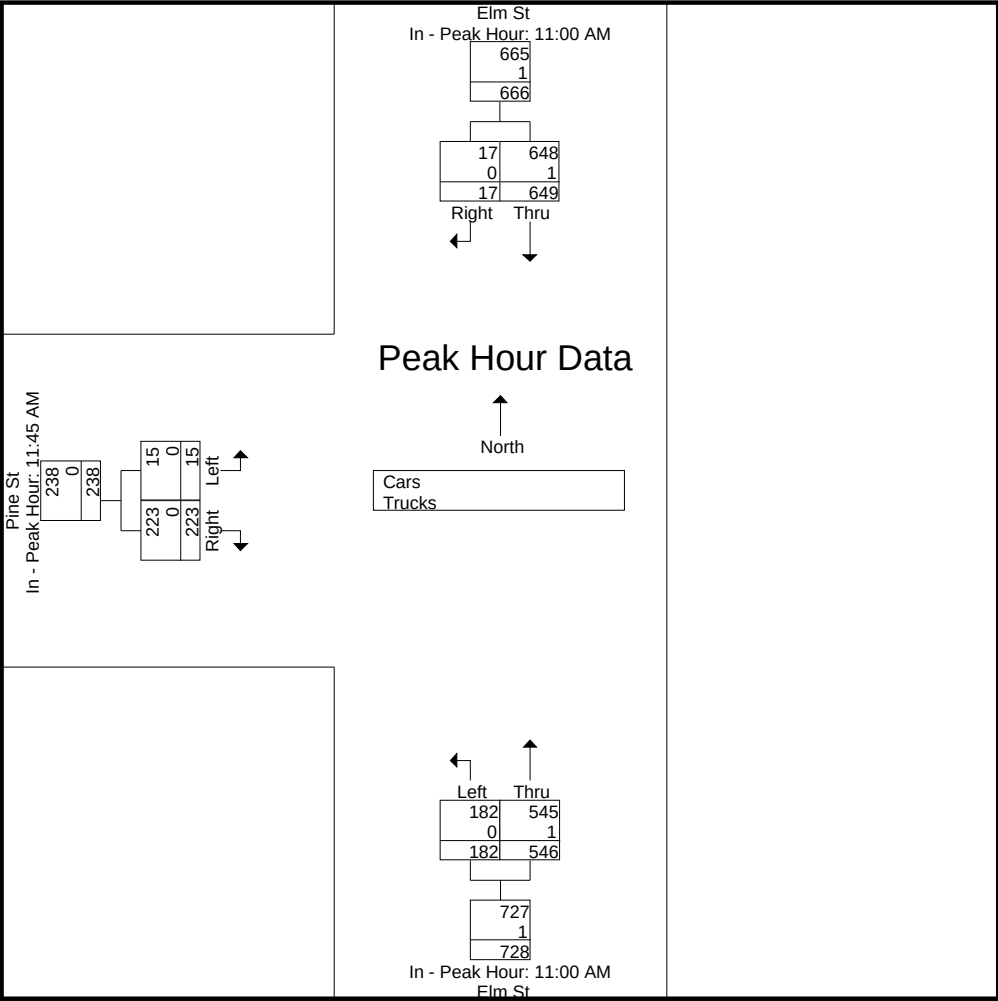
	11:00 AM			11:00 AM			11:45 AM		
+0 mins.	174	9	183	47	130	177	1	51	52
+15 mins.	147	3	150	47	142	189	6	59	65
+30 mins.	177	2	179	43	146	189	3	61	64
+45 mins.	151	3	154	45	128	173	5	52	57
Total Volume	649	17	666	182	546	728	15	223	238
% App. Total	97.4	2.6		25	75		6.3	93.7	
PHF	.917	.472	.910	.968	.935	.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	

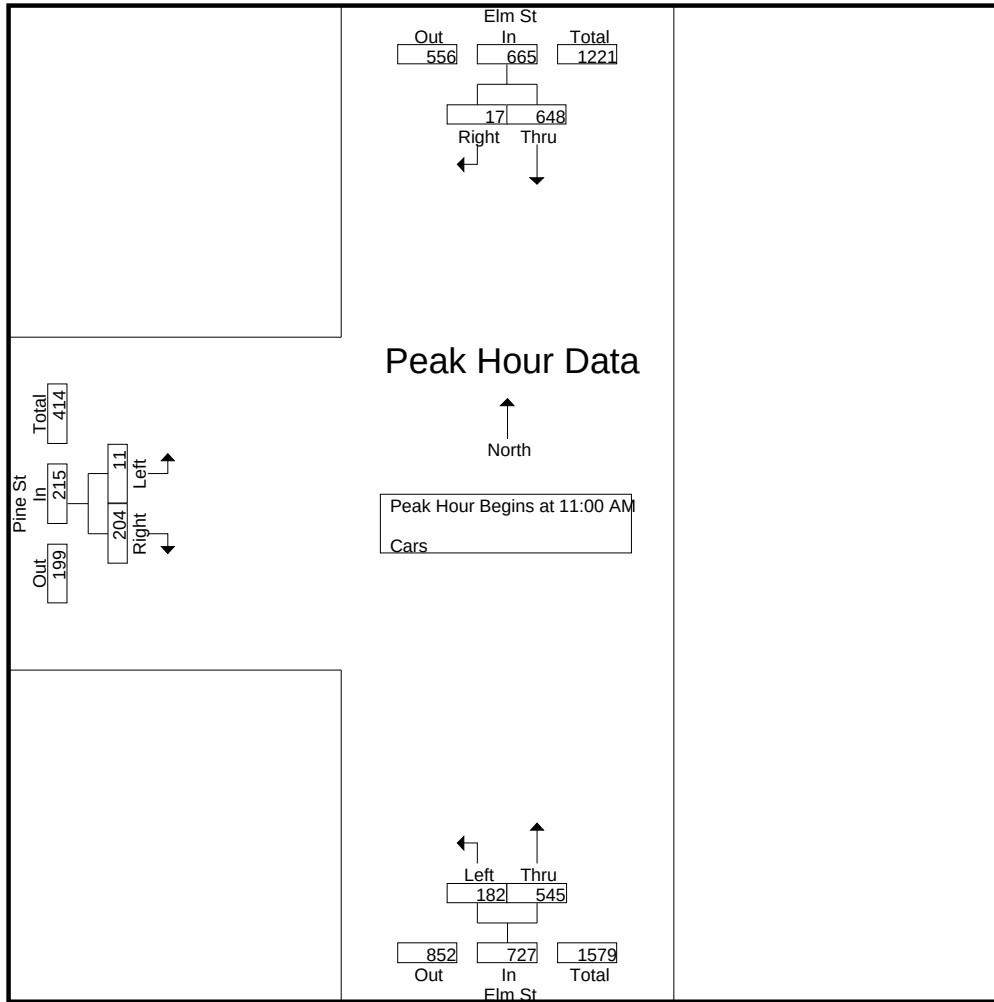
	Elm St From North			Elm St From South			Pine St From West			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	174	9	183	47	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



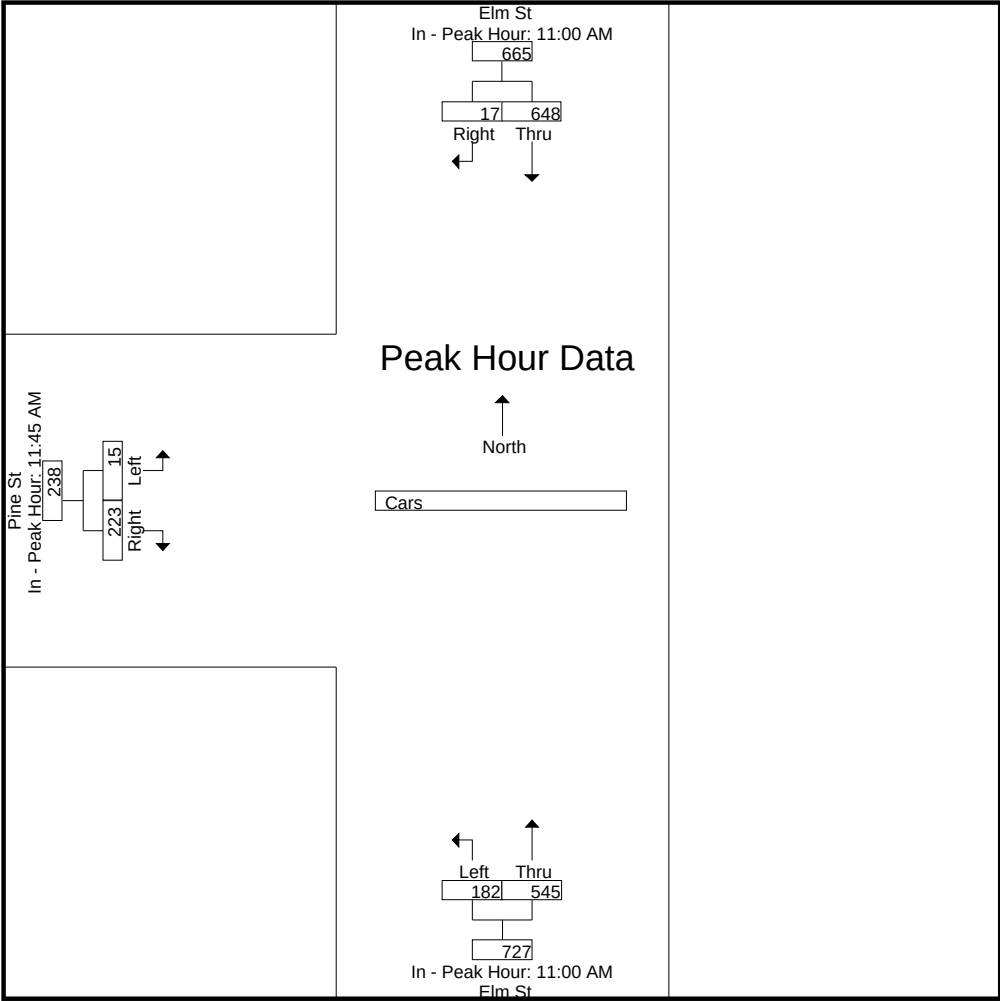
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

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

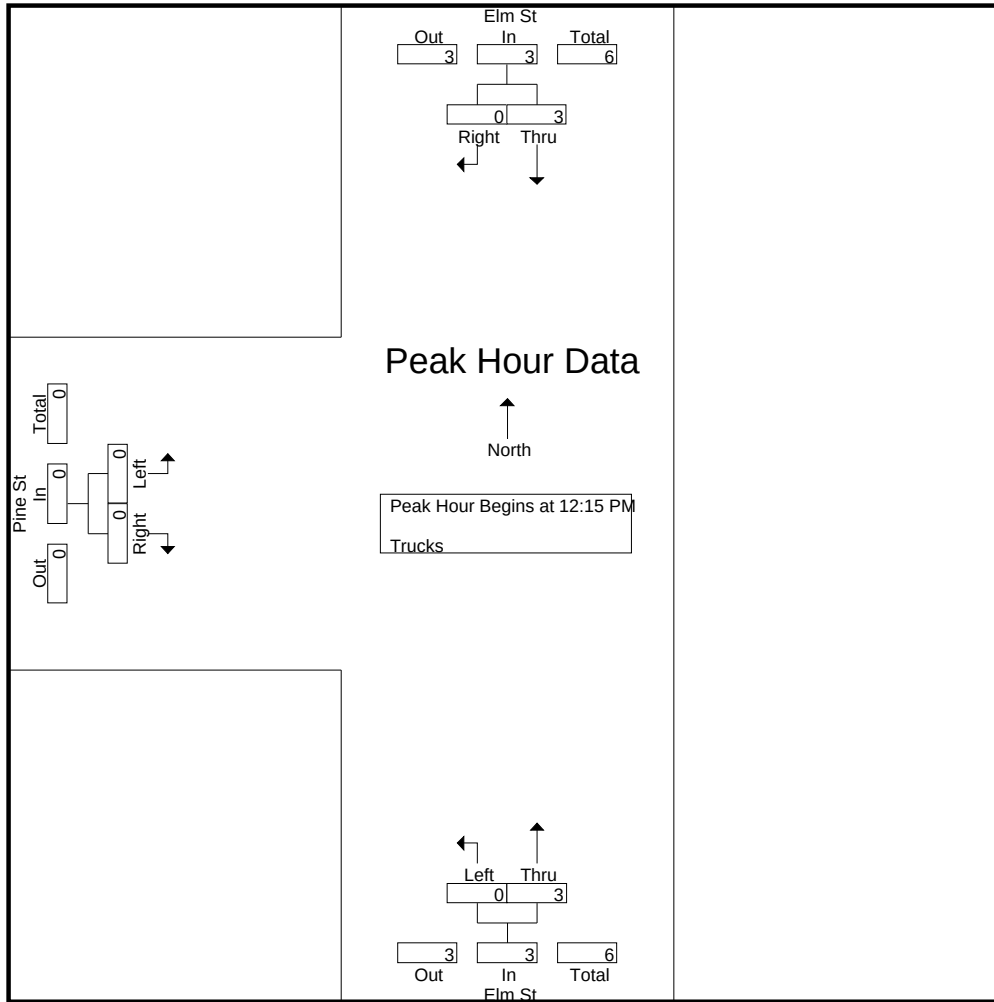
Groups Printed- Trucks

	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



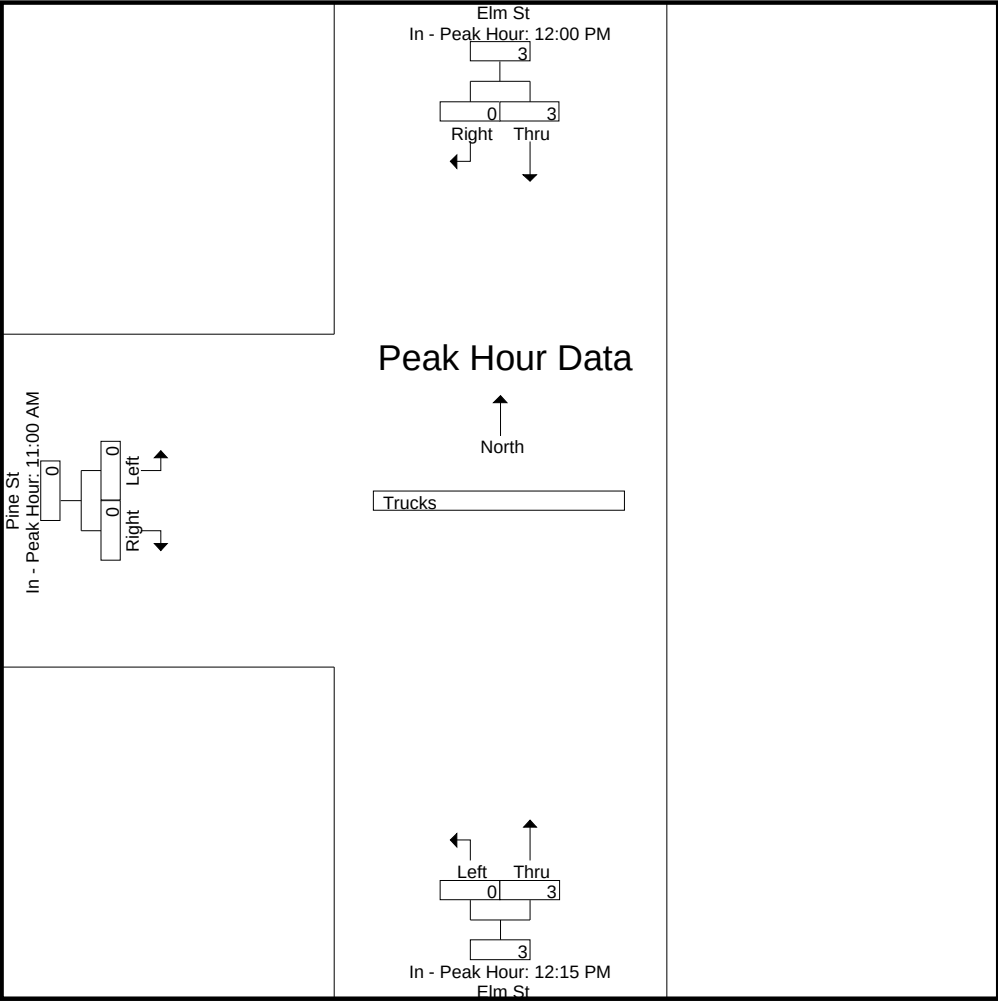
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

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 : 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

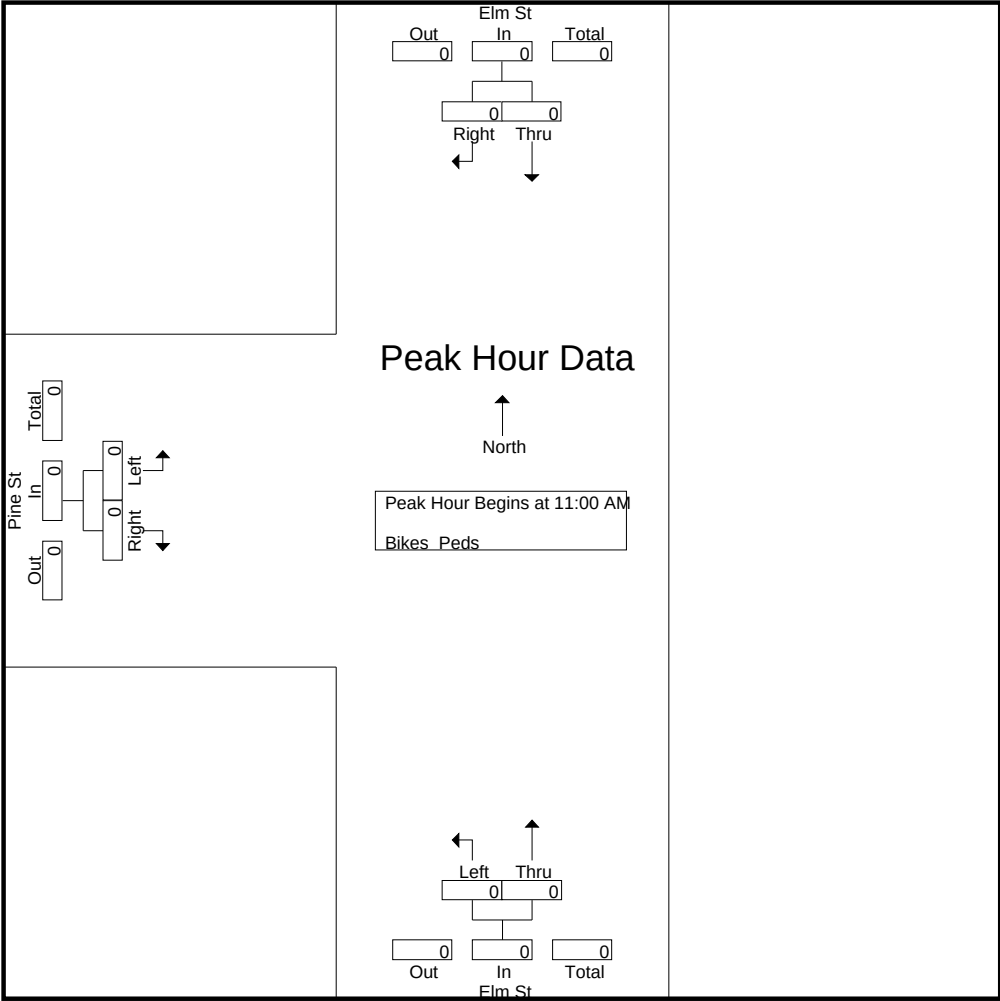
Groups Printed- Bikes Peds

	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

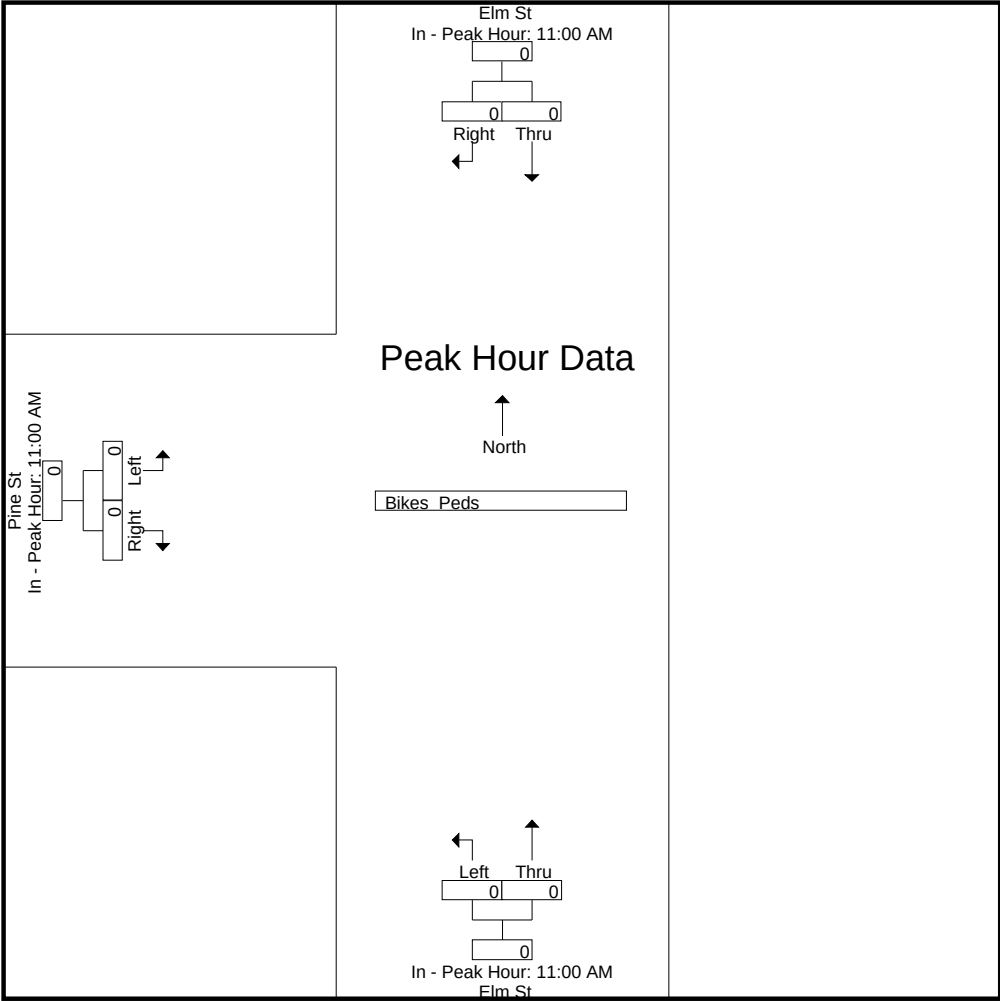


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	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

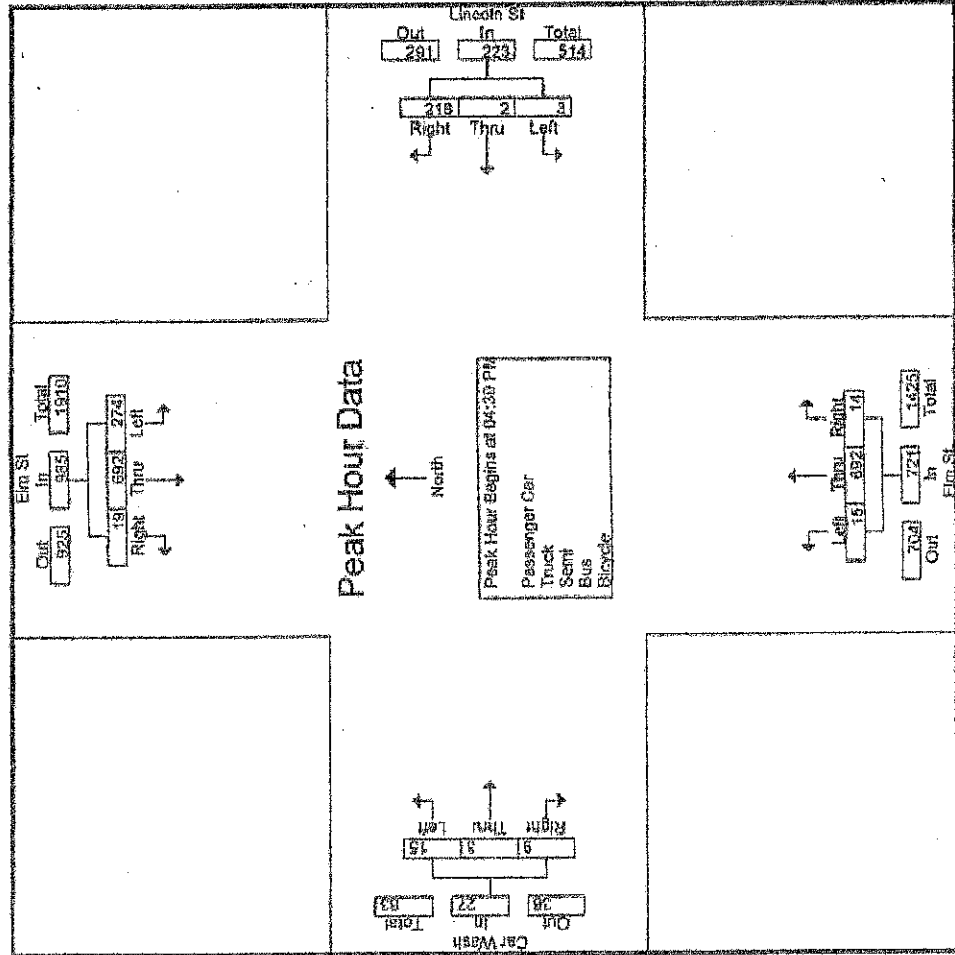
N/S Street : Elm Street
E/W Street : Pine Street
City/State : Biddeford, ME
Weather : Rain

File Name : 191500S2
Site Code : 19150002
Start Date : 10/30/2021
Page No : 12



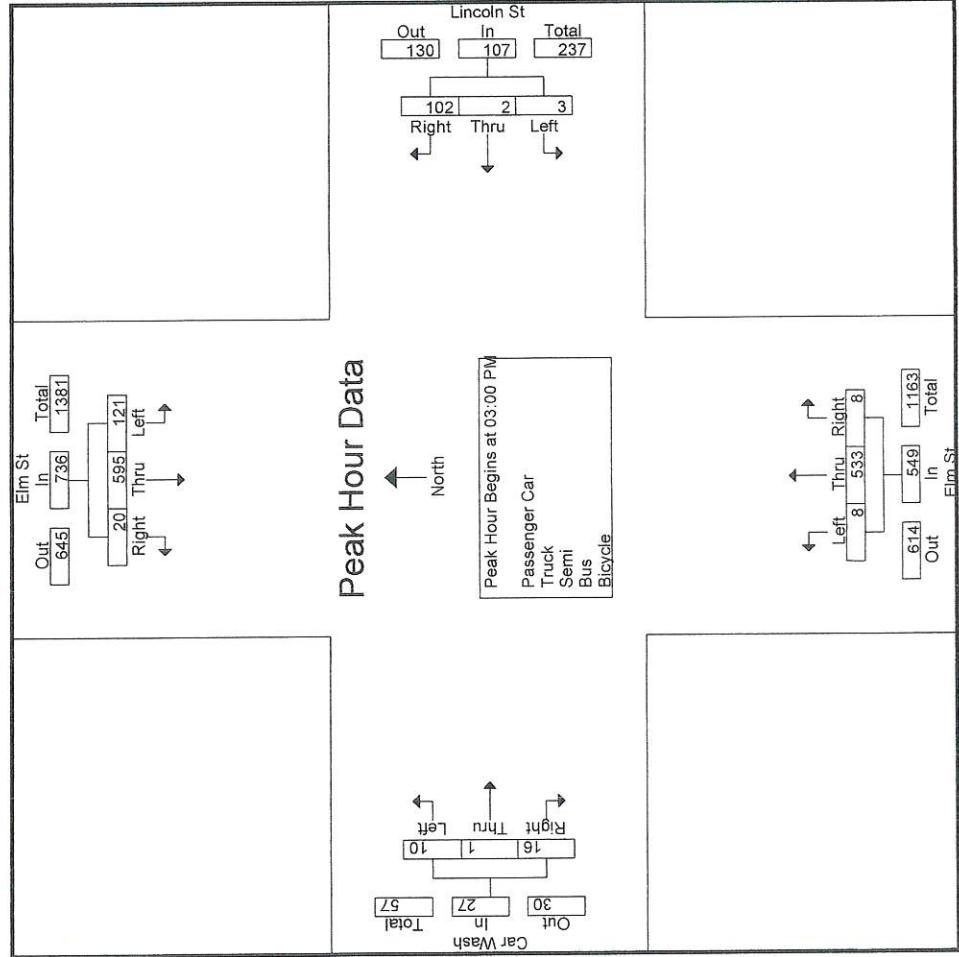
Biddeford Lincoln St & Elm St
July 18, 2019 PM
Sunny
Count by Jen Gilbert

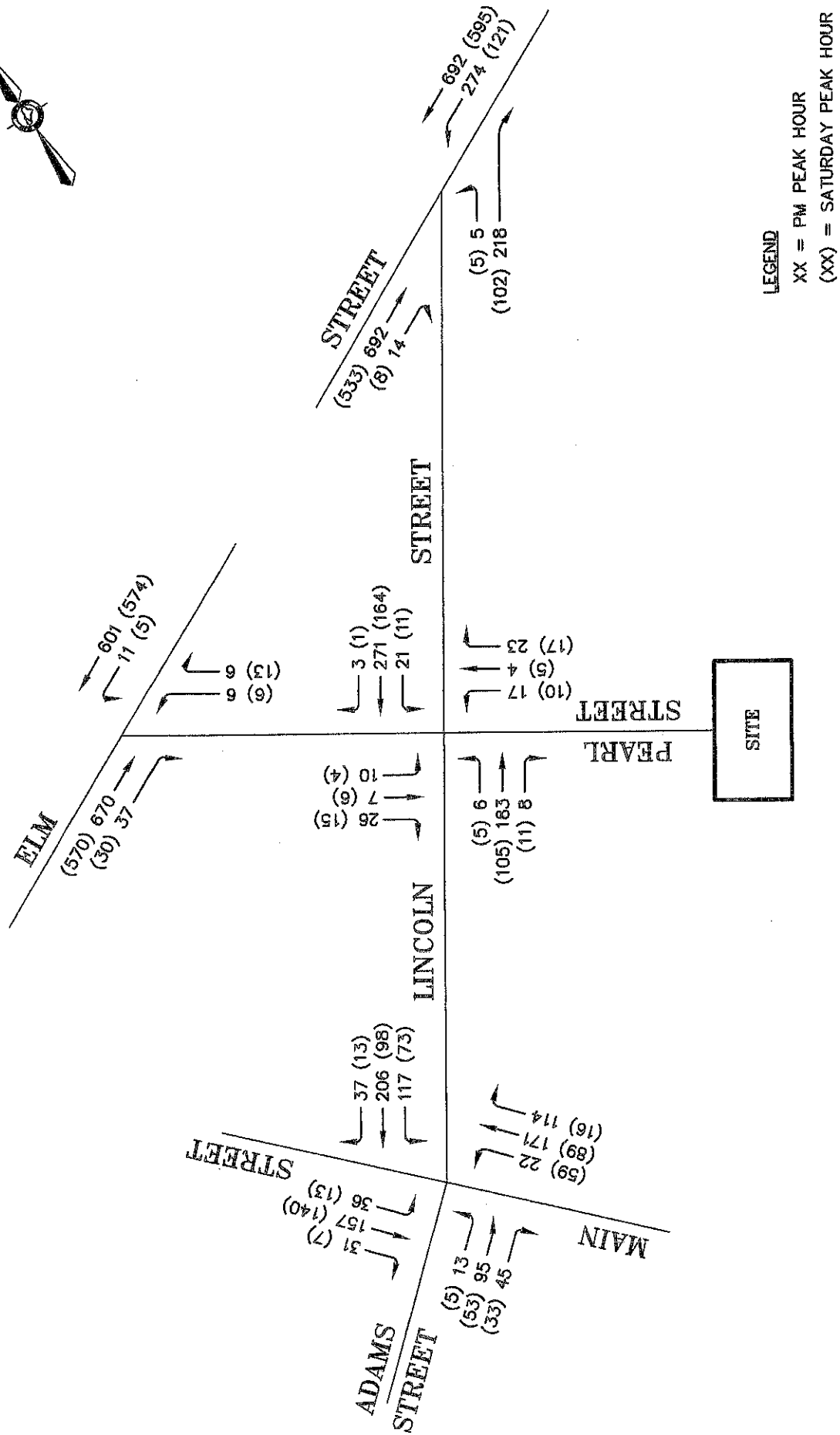
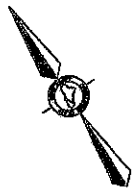
File Name : Biddeford Lincoln St & Elm St 7-18-19 PM
Site Code : 00718192
Start Date : 7/18/2019
Page No : 6



Biddeford Lincoln St & Elm St
July 20, 2019 PM Saturday
Sunny
Count By Nathaniel Tillson

File Name : Biddeford Lincoln St & Elm St 7-20-19 SATURDAY PM
Site Code : 00720193
Start Date : 7/20/2019
Page No : 6





EXISTING 2019 PEAK HOUR TRAFFIC
 (PM PEAK HOUR & SATURDAY PEAK HOUR)

FIGURE 1

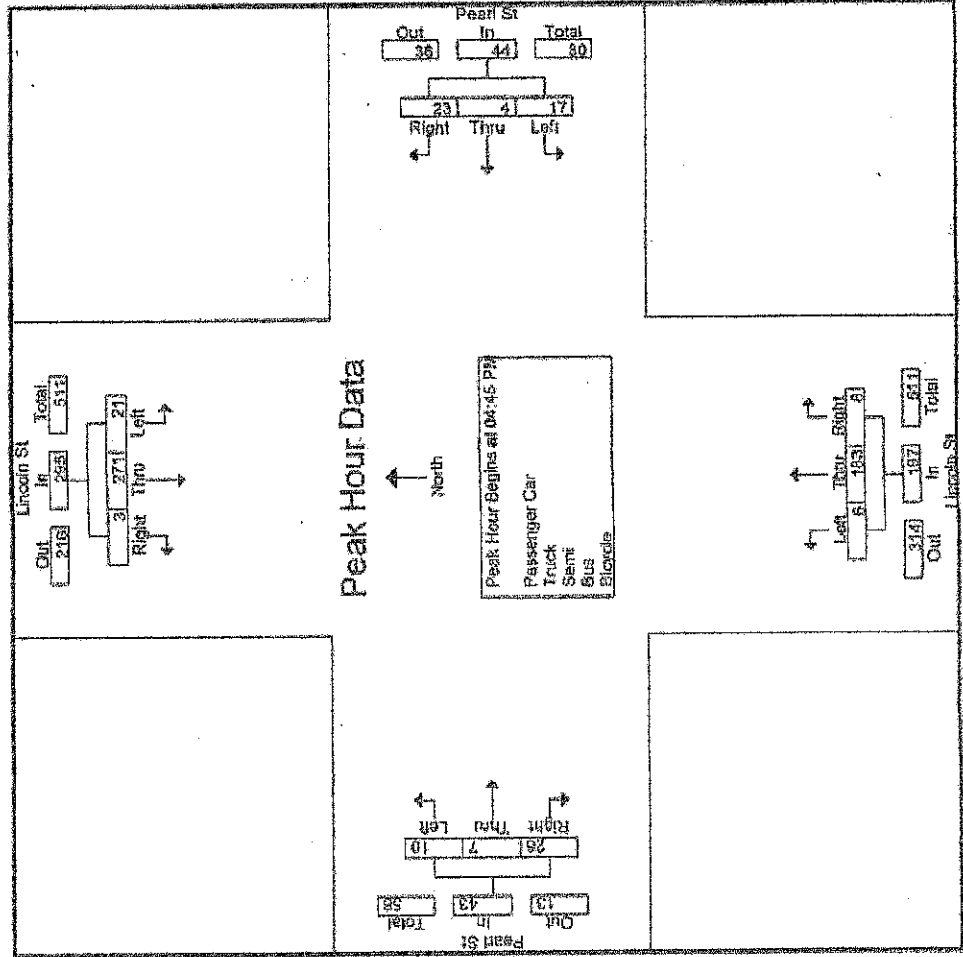
RIVERDAM REDEVELOPMENT		TRAFFIC SOLUTIONS	
FIELD TIME AND SCALE:		17 NORTHVIEW DRIVE, COVINA, CALIF. 91723	
SUBURBAN, URBAN			
DATE: AUGUST, 2019	FIGURE: 1		

Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

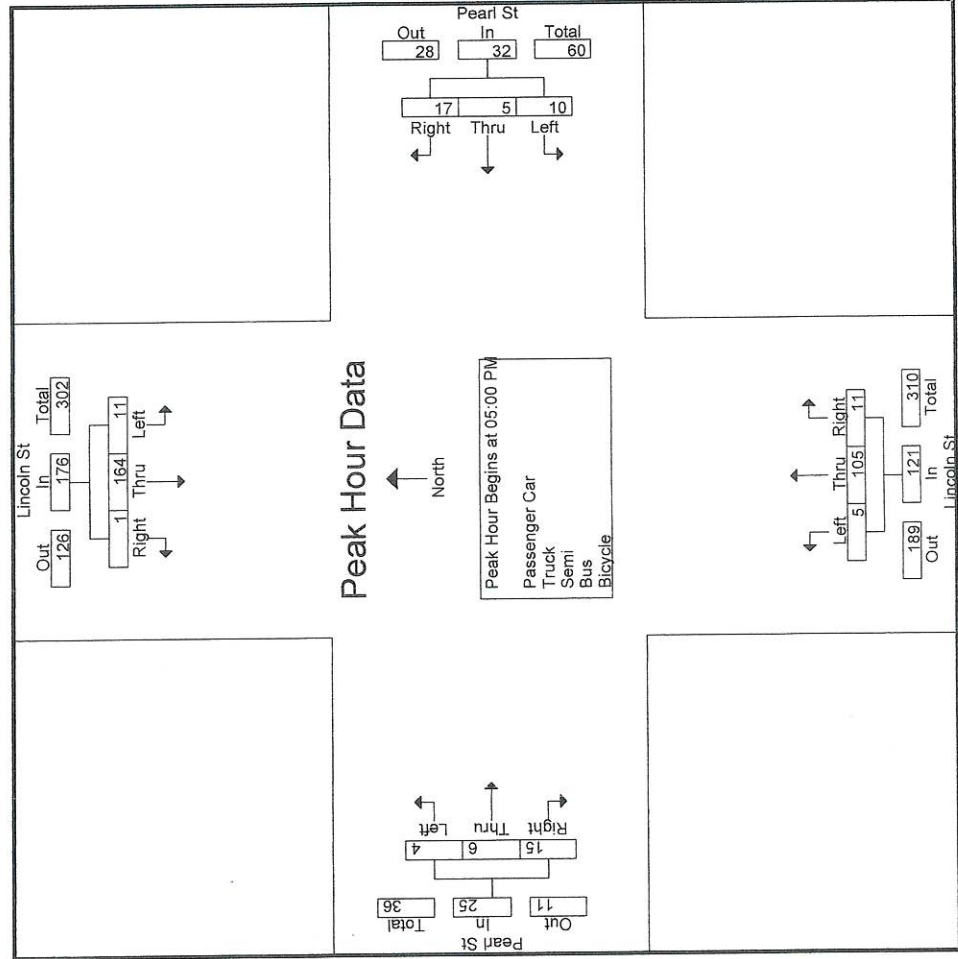
File Name : Biddeford Lincoln St & Pearl St 6-13-19 PM
Site Code : 00613192
Start Date : 6/13/2019
Page No : 6

Biddeford Lincoln St & Pearl St
June 13, 2019 PM
Rain
Count by Jen Gilbert



Biddeford Lincoln St & Pearl St
July 20, 2019 PM Saturday
Sunny
Count by Kim Gilbert

File Name : Biddeford Lincoln St & Pearl St 6-20-19 PM
Site Code : 00720192
Start Date : 7/20/2019
Page No : 6



Multifamily Housing (Mid-Rise) (221)

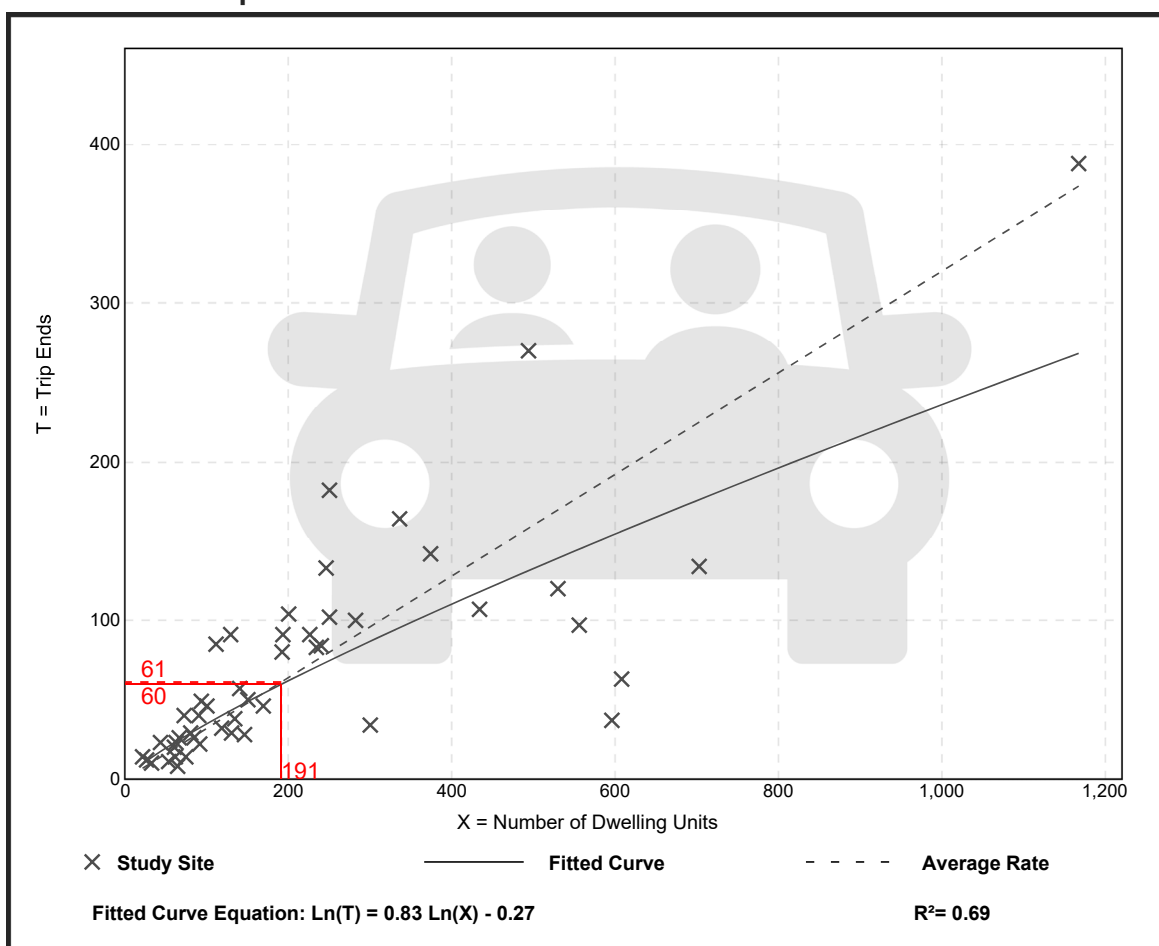
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
AM Peak Hour of Generator

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)

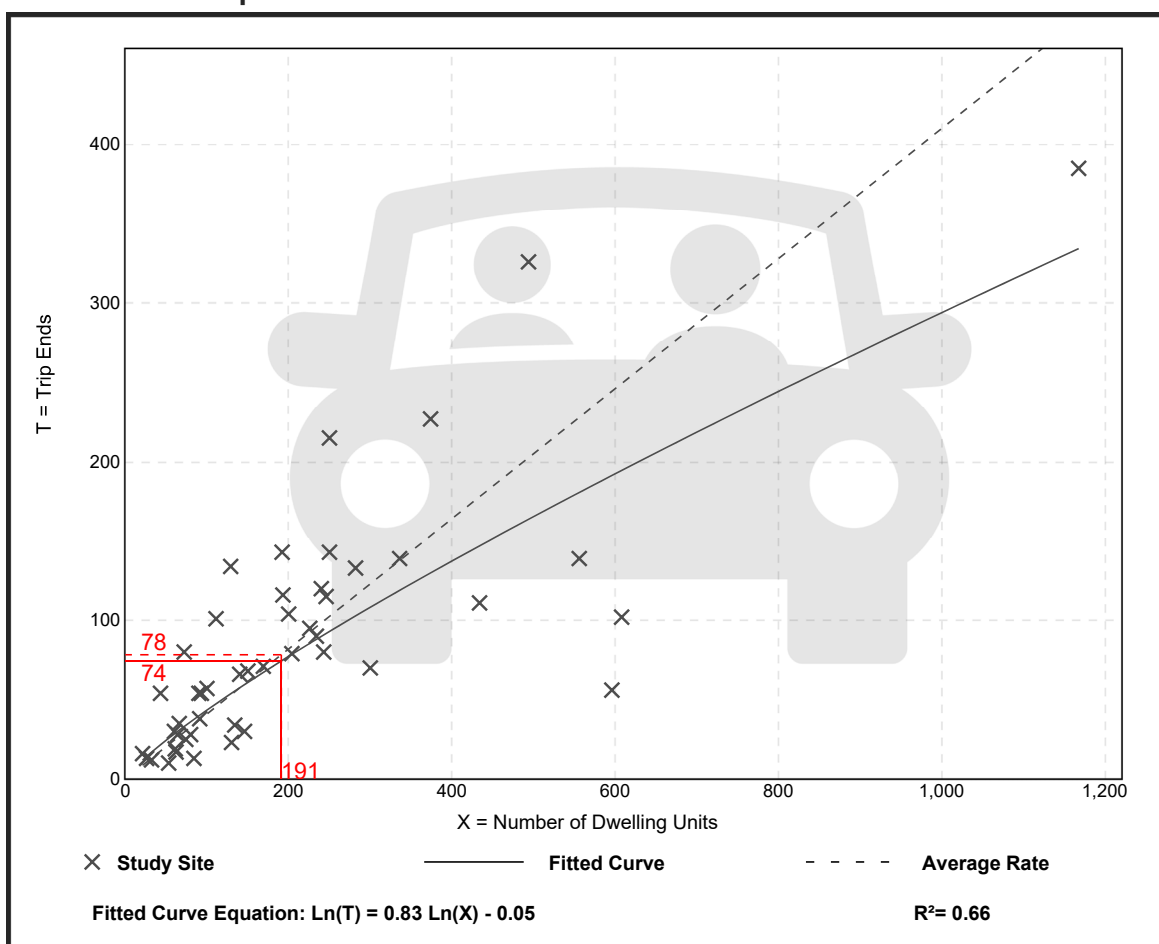
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
PM Peak Hour of Generator

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)

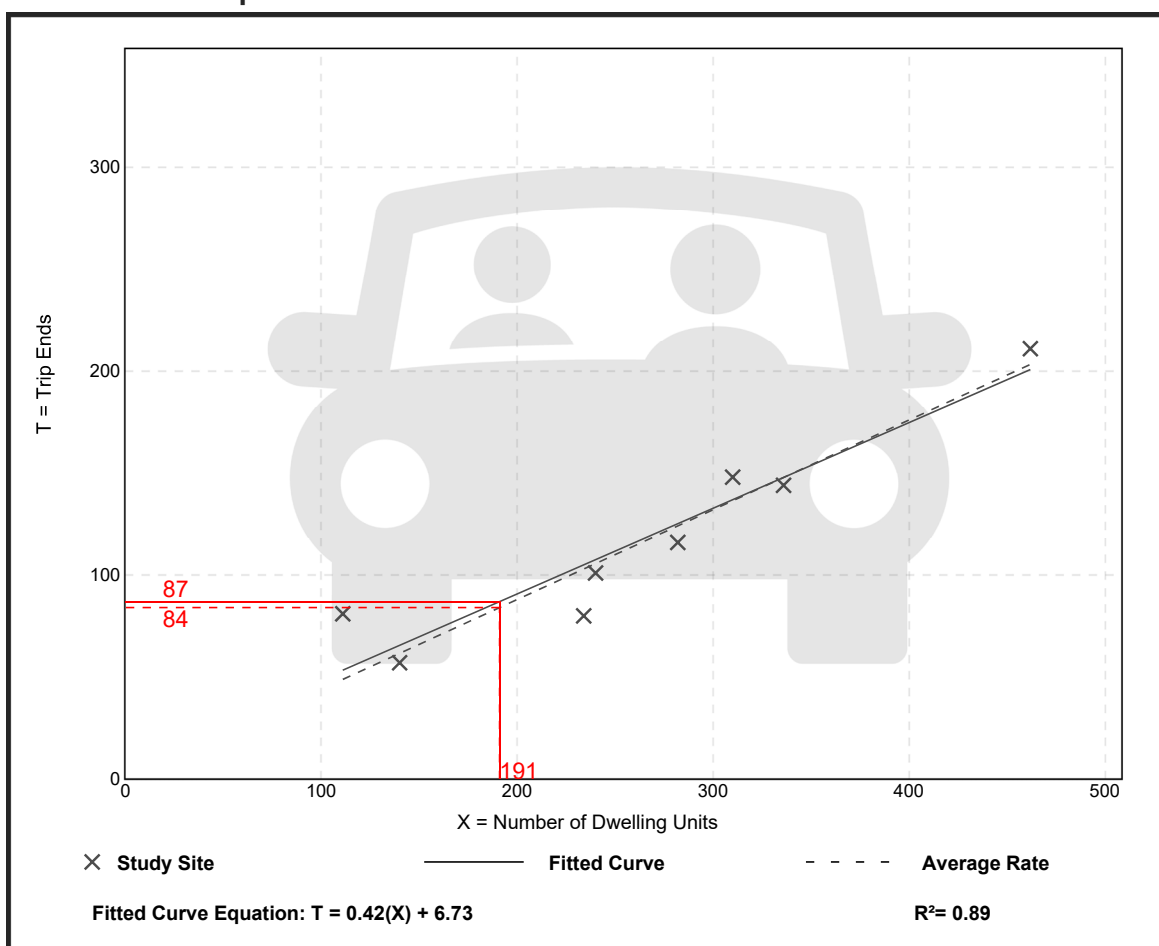
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

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



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

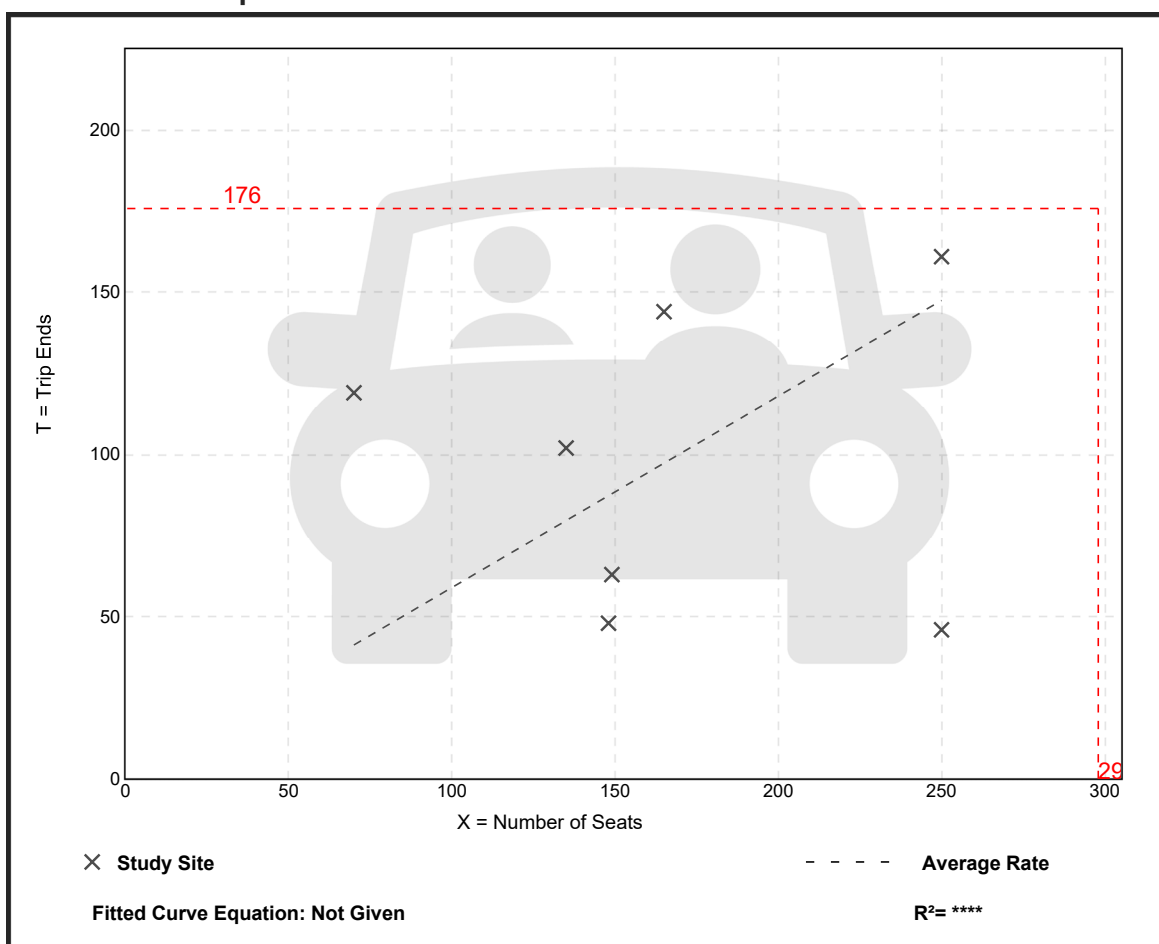
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
AM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 7
Avg. Num. of Seats: 167
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.59	0.18 - 1.70	0.40

Data Plot and Equation



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

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

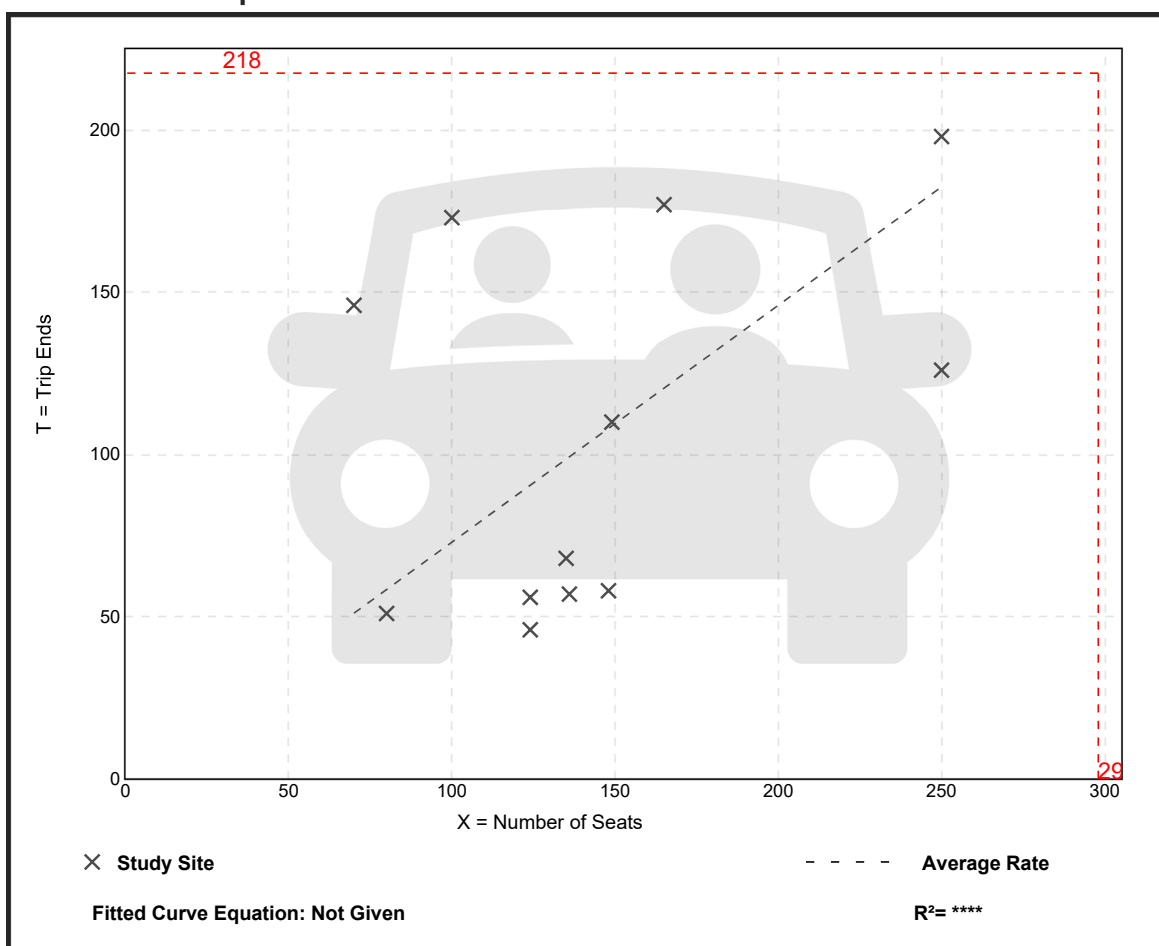
Vehicle Trip Ends vs: **Seats**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 12
Avg. Num. of Seats: 144
Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.73	0.37 - 2.09	0.45

Data Plot and Equation



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

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

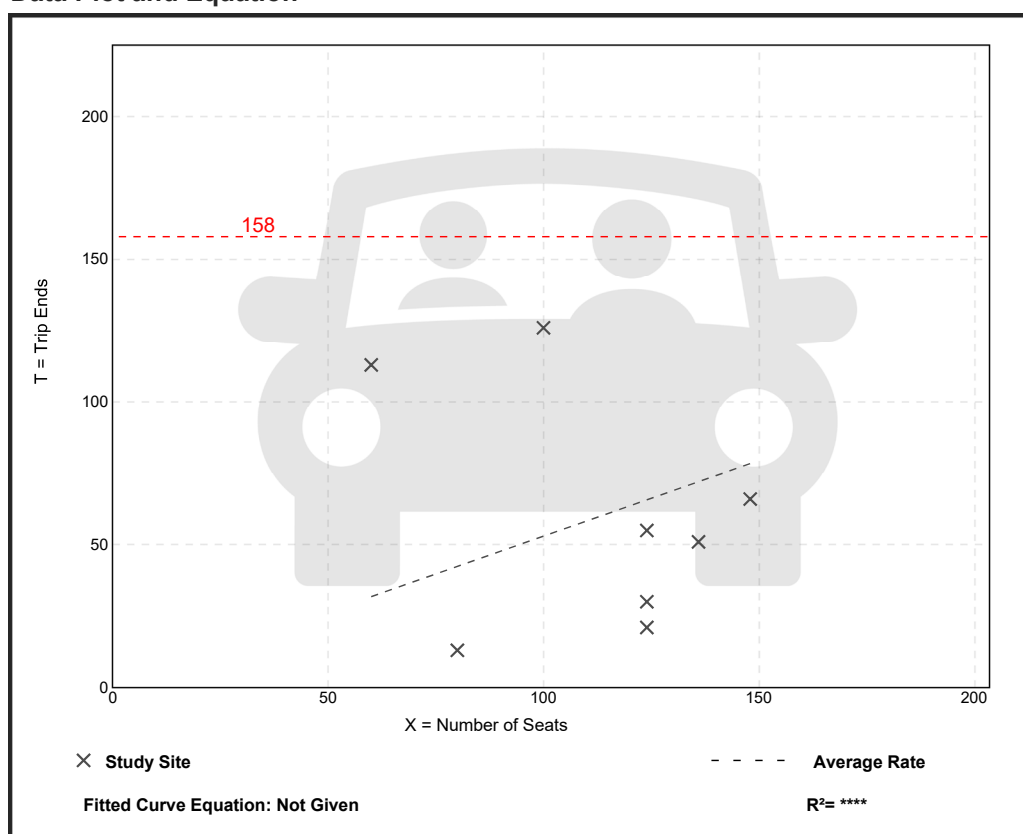
Vehicle Trip Ends vs: **Seats**
On a: **Saturday, Peak Hour of Generator**

Setting/Location: **General Urban/Suburban**
Number of Studies: 8
Avg. Num. of Seats: 112
Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
0.53	0.16 - 1.88	0.51

Data Plot and Equation



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

Senior Adult Housing - Attached (252)

Vehicle Trip Ends vs: Dwelling Units

**On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.**

Setting/Location: General Urban/Suburban

Number of Studies: 11

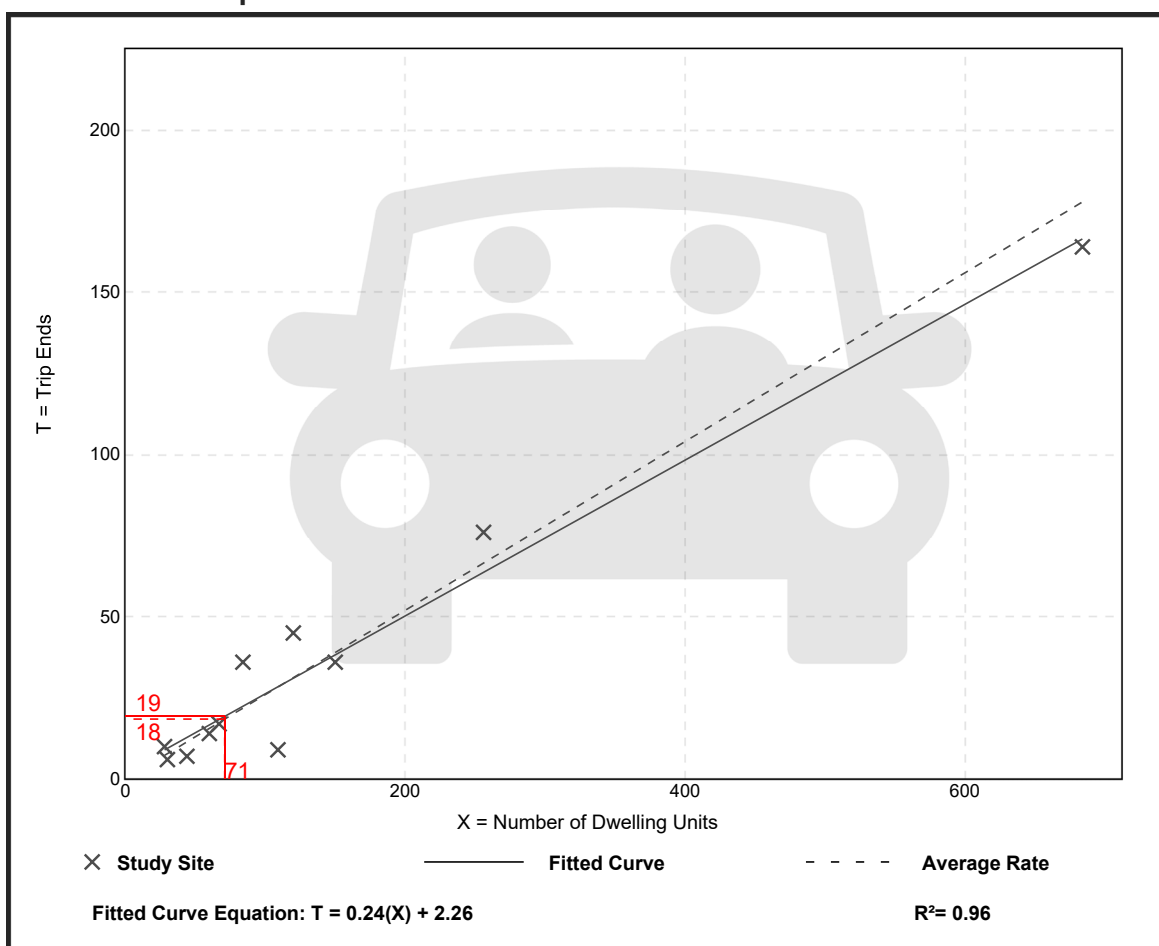
Avg. Num. of Dwelling Units: 148

Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.26	0.08 - 0.43	0.08

Data Plot and Equation



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

Senior Adult Housing - Attached (252)

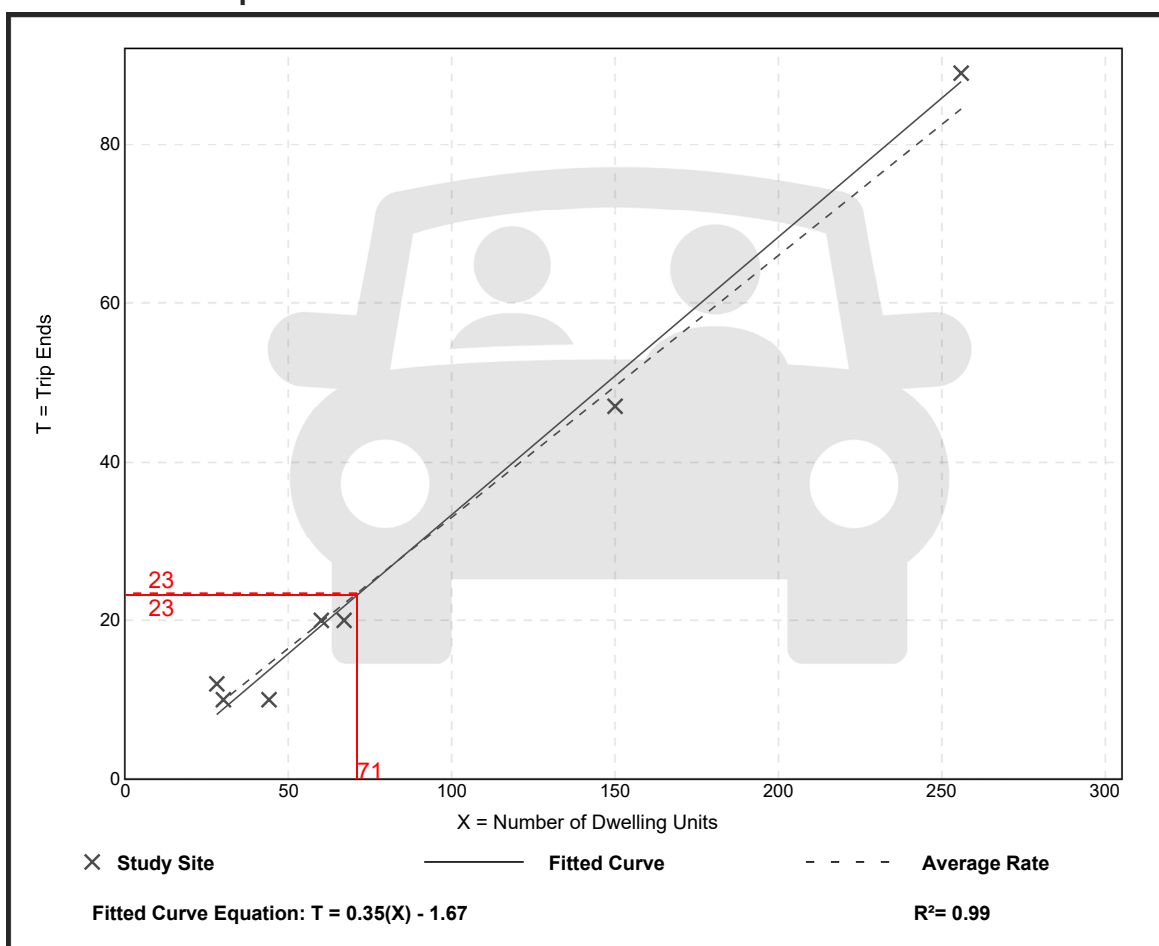
Vehicle Trip Ends vs: Dwelling Units
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 7
Avg. Num. of Dwelling Units: 91
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.33	0.23 - 0.43	0.04

Data Plot and Equation



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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	PM Peak Hour		Date:		

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips ³		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	218	113	105
Cinema/Entertainment				0		
Residential	221	191	Units	78	47	31
Hotel				0		
All Other Land Uses ²				0		
				296	160	136

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	6	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	296	160	136
Internal Capture Percentage	5%	5%	6%
External Vehicle-Trips ⁵	280	152	128
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	5%	2%
Cinema/Entertainment	N/A	N/A
Residential	4%	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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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

NCHRP 684 Internal Trip Capture Estimation Tool					
Project Name:	Pearl Street		Organization:	T.Y. Lin International	
Project Location:	Biddeford, Maine		Performed By:	Tom Errico, PE	
Scenario Description:	Build		Date:	15-Sep-21	
Analysis Year:	2022		Checked By:		
Analysis Period:	Saturday Peak Hour		Date:		

Table 1-A: 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				0	0	0
Retail				0	0	0
Restaurant	932	298	seats	158	84	74
Cinema/Entertainment				0		
Residential	221	191	Units	87	43	44
Hotel				0		
All Other Land Uses ²				0		
				245	127	118

Table 2-A: 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-A: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: 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	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	9	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary			
	Total	Entering	Exiting
All Person-Trips	245	127	118
Internal Capture Percentage	9%	9%	9%
External Vehicle-Trips ⁵	223	116	107
External Transit-Trips ⁶	0	0	0
External Non-Motorized Trips ⁶	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use		
Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	11%	3%
Cinema/Entertainment	N/A	N/A
Residential	5%	20%
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-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.
⁵ Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.
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



ELM
(21) 19

7 (5)

(7) 2
(8) 8

STREET

5 (7)

ADAMS
STREET

(30) 10

3 (1)
19 (14)
12 (11)

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

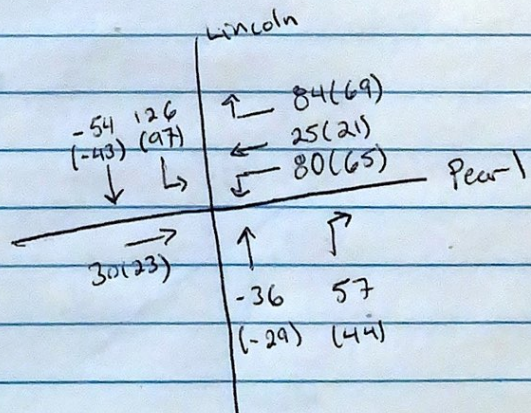
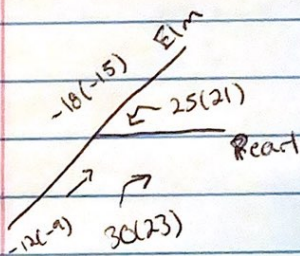
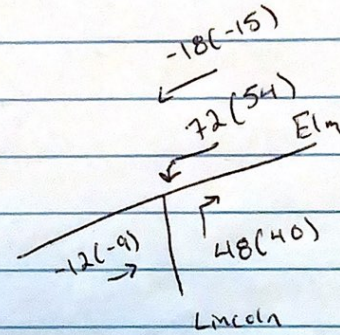
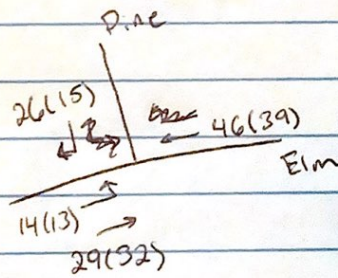
3 Lincoln St.

- TMC + Riverdam Traffic Volumes (Raw Data)

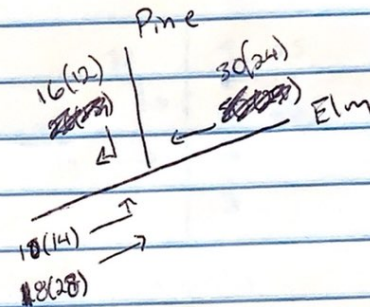
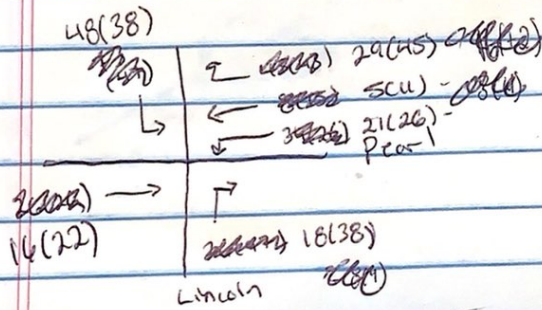
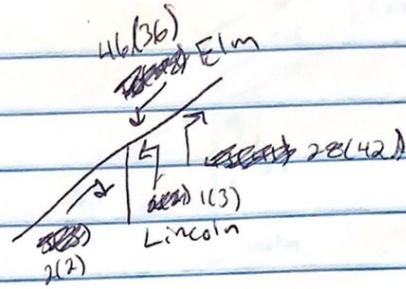
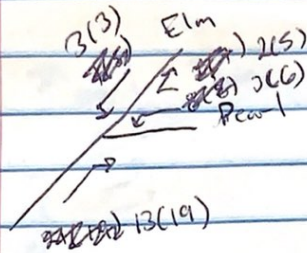
Additional trips

- Revised trip assignment
- Riverdam TMD
- Senior Housing PM + Saturday
- Lincoln Mill

Revised Trips



Riverdam TMAP



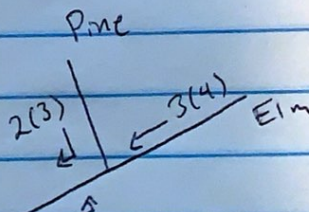
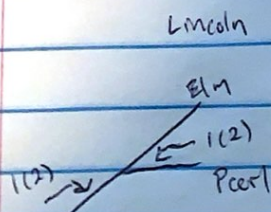
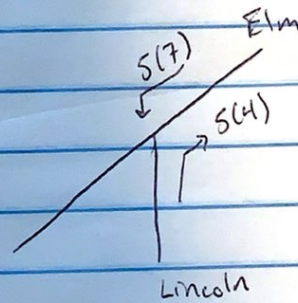
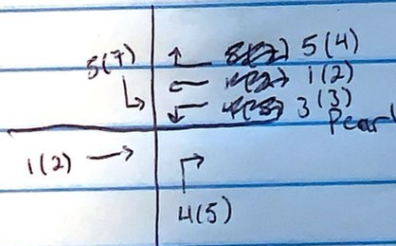
Senior Housing

50% enter/exit from Pearl

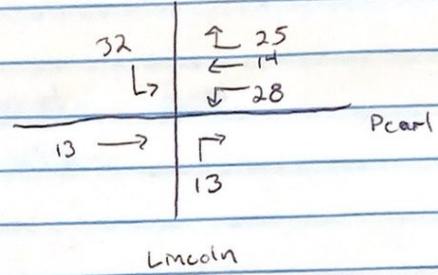
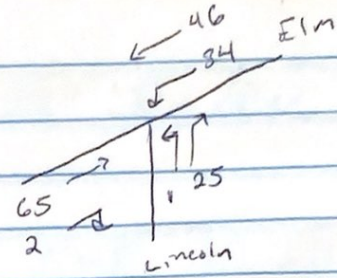
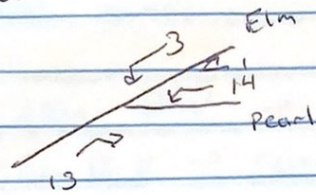
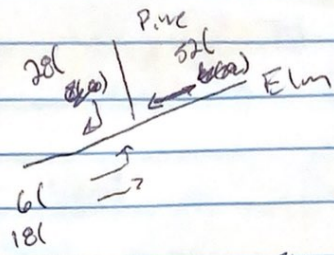
PM 55% enter - 10 > 19
45% exit - 9

Saturday

62% enter - 14 > 23
38% exit - 9



Lincoln Mill



C. Synchro/SimTraffic Output

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2402	2253	2298	2419	2293	2335
Vehs Exited	2367	2191	2236	2371	2286	2291
Starting Vehs	60	35	59	59	76	54
Ending Vehs	95	97	121	107	83	98
Travel Distance (mi)	1126	1055	1071	1129	1082	1092
Travel Time (hr)	141.9	221.1	202.1	166.3	107.9	167.9
Total Delay (hr)	99.4	181.2	161.7	123.5	67.1	126.6
Total Stops	1530	1280	1331	1611	1356	1422
Fuel Used (gal)	61.6	77.9	74.0	67.5	52.8	66.7

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					122.2
Total Del/Veh (s)	5.6	639.0	12.0	2.8	51.8

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.8
Total Del/Veh (s)	88.8	325.1	2.3	22.6	2.6	21.8

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	15.0	79.1	15.0	2.4	23.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	37.8	1.2	1.2	2.1

Total Network Performance

Denied Del/Veh (s)	109.8
Total Del/Veh (s)	75.7

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	273	677	173	290	58
Average Queue (ft)	85	619	90	20	3
95th Queue (ft)	201	835	156	138	33
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		81		1	
Queuing Penalty (veh)		0		7	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			17	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	274	150	165	226	372	151
Average Queue (ft)	198	62	27	109	36	11
95th Queue (ft)	330	150	102	206	216	92
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	21	10	0		2	0
Queuing Penalty (veh)	60	0	0		22	4
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				5	0	
Queuing Penalty (veh)				35	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	88	536	228	84
Average Queue (ft)	36	142	46	26
95th Queue (ft)	71	403	172	71
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	SW	B15
Directions Served	LR	LT	T
Maximum Queue (ft)	78	189	12
Average Queue (ft)	20	28	0
95th Queue (ft)	53	110	8
Link Distance (ft)	399	157	296
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		3	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 150

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2230	2346	2209	2270	2214	2254
Vehs Exited	2206	2305	2167	2262	2195	2227
Starting Vehs	46	35	35	48	46	43
Ending Vehs	70	76	77	56	65	65
Travel Distance (mi)	975	1007	962	987	979	982
Travel Time (hr)	100.0	81.2	123.3	57.6	52.2	82.9
Total Delay (hr)	63.3	43.1	87.1	20.3	15.2	45.8
Total Stops	934	1051	948	1062	1131	1024
Fuel Used (gal)	48.0	44.8	53.2	38.5	37.5	44.4

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					39.6
Total Del/Veh (s)	3.9	282.3	7.5	2.0	40.0

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	9.5	23.0	1.1	7.8	0.7	2.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.1
Total Del/Veh (s)	6.6	6.8	0.7	1.9	3.5

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	36.7	1.2	0.6	2.3

Total Network Performance

Denied Del/Veh (s)	33.0
Total Del/Veh (s)	38.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE
Directions Served	LR	LR	L	R
Maximum Queue (ft)	156	677	125	9
Average Queue (ft)	52	488	57	0
95th Queue (ft)	117	861	107	4
Link Distance (ft)	1157	662		228
Upstream Blk Time (%)		46		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW
Directions Served	R	LTR	LTR	L
Maximum Queue (ft)	93	51	62	112
Average Queue (ft)	38	16	6	44
95th Queue (ft)	77	40	33	82
Link Distance (ft)	263	156	296	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	80	107	30	80
Average Queue (ft)	32	49	2	18
95th Queue (ft)	56	81	13	55
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	95	4	107	18
Average Queue (ft)	31	0	10	1
95th Queue (ft)	70	3	56	13
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2448	2505	2444	2460	2519	2478
Vehs Exited	2351	2398	2369	2396	2453	2392
Starting Vehs	60	61	74	77	67	65
Ending Vehs	157	168	149	141	133	150
Travel Distance (mi)	1125	1143	1117	1139	1154	1135
Travel Time (hr)	273.2	242.6	237.1	212.1	172.7	227.6
Total Delay (hr)	230.5	199.3	194.8	169.0	128.8	184.5
Total Stops	1657	1794	1566	1803	1786	1720
Fuel Used (gal)	91.9	85.5	83.7	78.2	69.9	81.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					163.8
Total Del/Veh (s)	6.2	812.3	13.8	2.9	54.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.9
Total Del/Veh (s)	108.1	498.9	2.8	30.3	4.7	29.2

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					23.5
Total Del/Veh (s)	33.8	223.1	21.5	3.7	70.2

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	68.7	1.7	1.3	3.8

Total Network Performance

Denied Del/Veh (s)	147.4
Total Del/Veh (s)	101.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	321	677	168	214	65
Average Queue (ft)	89	636	99	22	3
95th Queue (ft)	217	812	168	139	32
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		89		1	
Queuing Penalty (veh)		0		6	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			24		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW	B5
Directions Served	R	LTR	LTR	L	TR	T
Maximum Queue (ft)	276	154	207	225	392	209
Average Queue (ft)	245	73	33	144	69	21
95th Queue (ft)	321	175	117	250	306	131
Link Distance (ft)	263	156	296		343	228
Upstream Blk Time (%)	33	17	0		4	1
Queuing Penalty (veh)	110	0	1		48	16
Storage Bay Dist (ft)				200		
Storage Blk Time (%)				11	0	
Queuing Penalty (veh)				81	0	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	177	867	248	172
Average Queue (ft)	60	449	74	48
95th Queue (ft)	137	996	217	110
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		27	3	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	149	4	138	7
Average Queue (ft)	37	0	24	0
95th Queue (ft)	126	3	95	5
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)	0		1	
Queuing Penalty (veh)	0		4	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 292

3 Lincoln Street Project 2024 Build Traffic Volumes

04/26/2022

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	2386	2547	2460	2356	2340	2418
Vehs Exited	2363	2503	2423	2339	2331	2392
Starting Vehs	53	37	38	54	57	45
Ending Vehs	76	81	75	71	66	70
Travel Distance (mi)	1040	1097	1063	1026	1028	1051
Travel Time (hr)	96.7	101.2	80.0	81.8	83.6	88.7
Total Delay (hr)	57.3	59.5	39.6	42.7	44.5	48.7
Total Stops	1221	1321	1263	1304	1276	1274
Fuel Used (gal)	49.4	52.2	45.9	45.5	46.0	47.8

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	LR	L	R	
Denied Del/Veh (s)					31.4
Total Del/Veh (s)	4.1	321.9	8.6	2.4	46.3

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						0.0
Total Del/Veh (s)	12.5	31.1	1.4	8.4	0.8	4.0

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.2
Total Del/Veh (s)	8.4	11.3	0.8	2.8	5.9

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.3
Total Del/Veh (s)	66.7	1.5	1.3	4.9

Total Network Performance

Denied Del/Veh (s)	25.3
Total Del/Veh (s)	45.9

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	LR	L	R	T
Maximum Queue (ft)	183	677	138	106	58
Average Queue (ft)	55	569	63	5	4
95th Queue (ft)	130	872	115	58	54
Link Distance (ft)	1157	662		228	343
Upstream Blk Time (%)		64		0	
Queuing Penalty (veh)		0		3	
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			1	0	
Queuing Penalty (veh)			5	0	

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	SW	SW
Directions Served	R	LTR	LTR	L	TR
Maximum Queue (ft)	125	59	112	134	4
Average Queue (ft)	49	18	12	53	0
95th Queue (ft)	106	47	59	100	3
Link Distance (ft)	263	156	296		343
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				200	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	74	187	31	110
Average Queue (ft)	35	76	3	32
95th Queue (ft)	62	142	17	83
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	165	9	178	25
Average Queue (ft)	55	0	20	1
95th Queue (ft)	135	4	105	14
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			5	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 13

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	1163	1210	1161	1138	1104	1155
Vehs Exited	1172	1209	1168	1134	1104	1158
Starting Vehs	16	10	15	10	7	12
Ending Vehs	7	11	8	14	7	9
Travel Distance (mi)	233	237	231	219	217	227
Travel Time (hr)	12.7	13.3	12.3	12.0	11.4	12.3
Total Delay (hr)	4.1	4.5	3.8	3.9	3.4	3.9
Total Stops	1166	1208	1164	1135	1104	1156
Fuel Used (gal)	10.6	11.0	10.5	10.0	9.8	10.4

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					0.4
Total Del/Veh (s)	7.4	8.1	8.5	12.9	10.1

Total Network Performance

Denied Del/Veh (s)	0.4
Total Del/Veh (s)	11.8

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	82	132	111	233
Average Queue (ft)	37	64	59	105
95th Queue (ft)	63	106	94	185
Link Distance (ft)	448	862	314	352
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

3 Lincoln Street Project 2024 Build Traffic Volumes with Improvements

03/28/2022

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00					
End Time	5:00					
Total Time (min)	60					
Volumes adjusted by Growth Factors.						
Run Number	1	2	3	4	5	Avg
Vehs Entered	2590	2606	2588	2471	2558	2564
Vehs Exited	2488	2483	2498	2376	2471	2463
Starting Vehs	55	62	69	76	65	64
Ending Vehs	157	185	159	171	152	165
Travel Distance (mi)	1178	1182	1176	1135	1167	1167
Travel Time (hr)	215.8	189.2	157.9	250.8	162.4	195.2
Total Delay (hr)	171.1	144.4	113.3	207.9	118.0	151.0
Total Stops	2069	2227	2059	2383	2246	2196
Fuel Used (gal)	80.4	74.2	67.3	86.9	67.8	75.3

1: Elm Street & Pine Street Performance by lane

Lane	WB	SE	NE	NE	All
Movements Served	LR	R	L	R	
Denied Del/Veh (s)					75.1
Total Del/Veh (s)	15.2	411.9	13.2	3.0	51.7

7: Lincoln Street Performance by lane

Lane	NB	SB	NE	SW	SW	All
Movements Served	R	LTR	LTR	L	TR	
Denied Del/Veh (s)						4.2
Total Del/Veh (s)	128.2	1103.7	3.2	33.5	7.4	35.9

9: Lincoln Street & Pearl Street Performance by lane

Lane	EB	WB	NB	SB	All
Movements Served	LTR	LTR	LTR	LTR	
Denied Del/Veh (s)					35.6
Total Del/Veh (s)	10.9	288.3	115.2	13.3	110.8

11: Pearl Street Performance by lane

Lane	WB	NE	SW	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	73.4	1.7	1.6	4.1

Total Network Performance

Denied Del/Veh (s)	80.5
Total Del/Veh (s)	123.4

3 Lincoln Street Project

2024 Build Traffic Volumes with Improvements

03/28/2022

Intersection: 1: Elm Street & Pine Street

Movement	WB	SE	NE	NE	B5
Directions Served	LR	R	L	R	T
Maximum Queue (ft)	428	678	169	166	112
Average Queue (ft)	152	605	89	16	10
95th Queue (ft)	602	867	156	125	98
Link Distance (ft)	1163	663		222	343
Upstream Blk Time (%)	4	77		1	1
Queuing Penalty (veh)	0	0		15	7
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			3		
Queuing Penalty (veh)			21		

Intersection: 7: Lincoln Street

Movement	NB	SB	NE	B15	SW	SW	B5
Directions Served	R	LTR	LTR	T	L	TR	T
Maximum Queue (ft)	276	171	234	9	225	420	229
Average Queue (ft)	260	109	36	0	159	108	41
95th Queue (ft)	319	207	144	7	256	397	186
Link Distance (ft)	263	156	296	157		343	222
Upstream Blk Time (%)	48	45	0			10	3
Queuing Penalty (veh)	160	0	3			125	39
Storage Bay Dist (ft)					200		
Storage Blk Time (%)					19	0	
Queuing Penalty (veh)					135	1	

Intersection: 9: Lincoln Street & Pearl Street

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	84	896	354	209
Average Queue (ft)	40	600	231	113
95th Queue (ft)	71	1146	413	188
Link Distance (ft)	399	862	314	263
Upstream Blk Time (%)		40	39	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 11: Pearl Street

Movement	WB	NE	SW	B15
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	168	4	182	63
Average Queue (ft)	40	0	30	2
95th Queue (ft)	119	3	114	35
Link Distance (ft)	399	410	157	296
Upstream Blk Time (%)			1	
Queuing Penalty (veh)			6	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 512

D. 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

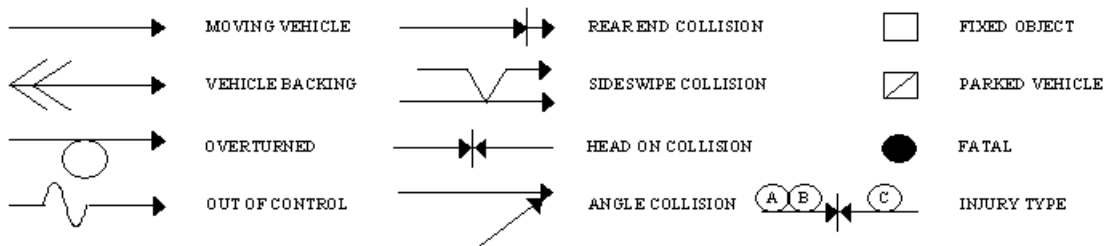
CRASH RATE: 0.49

CRF: 1.32

% INJURY: 33.3

TOTAL CRASHES: 9

LEGEND



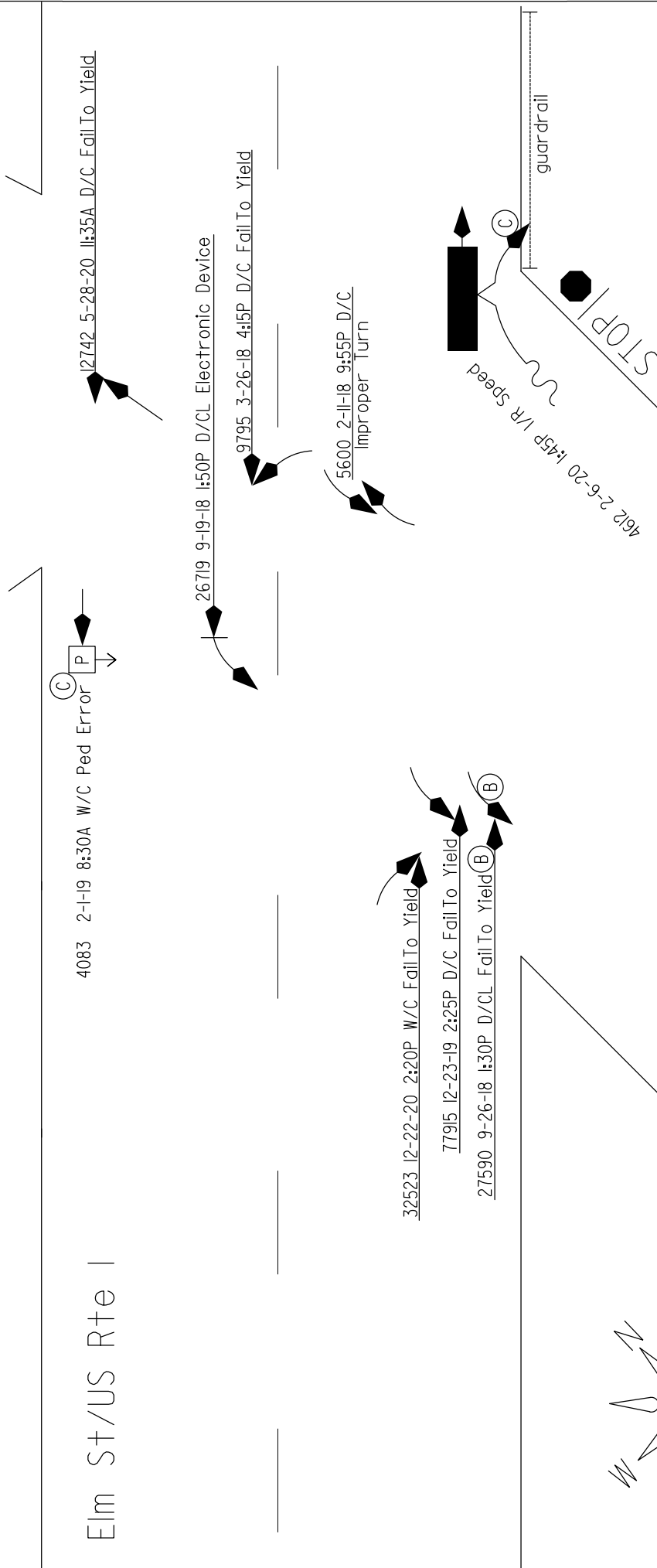
--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

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



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

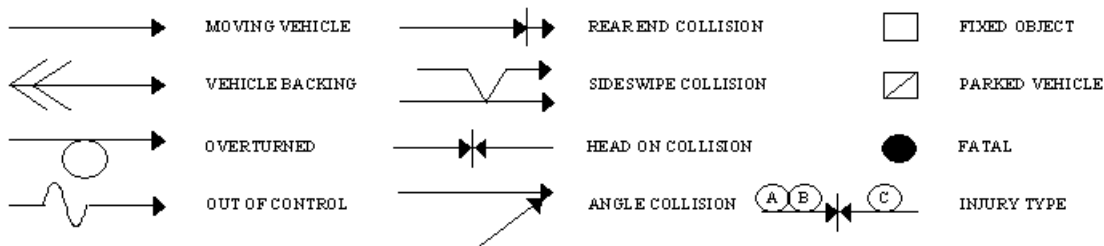
CRASH RATE: 0.74

CRF: 2

% INJURY: 14.3

TOTAL CRASHES: 14

LEGEND

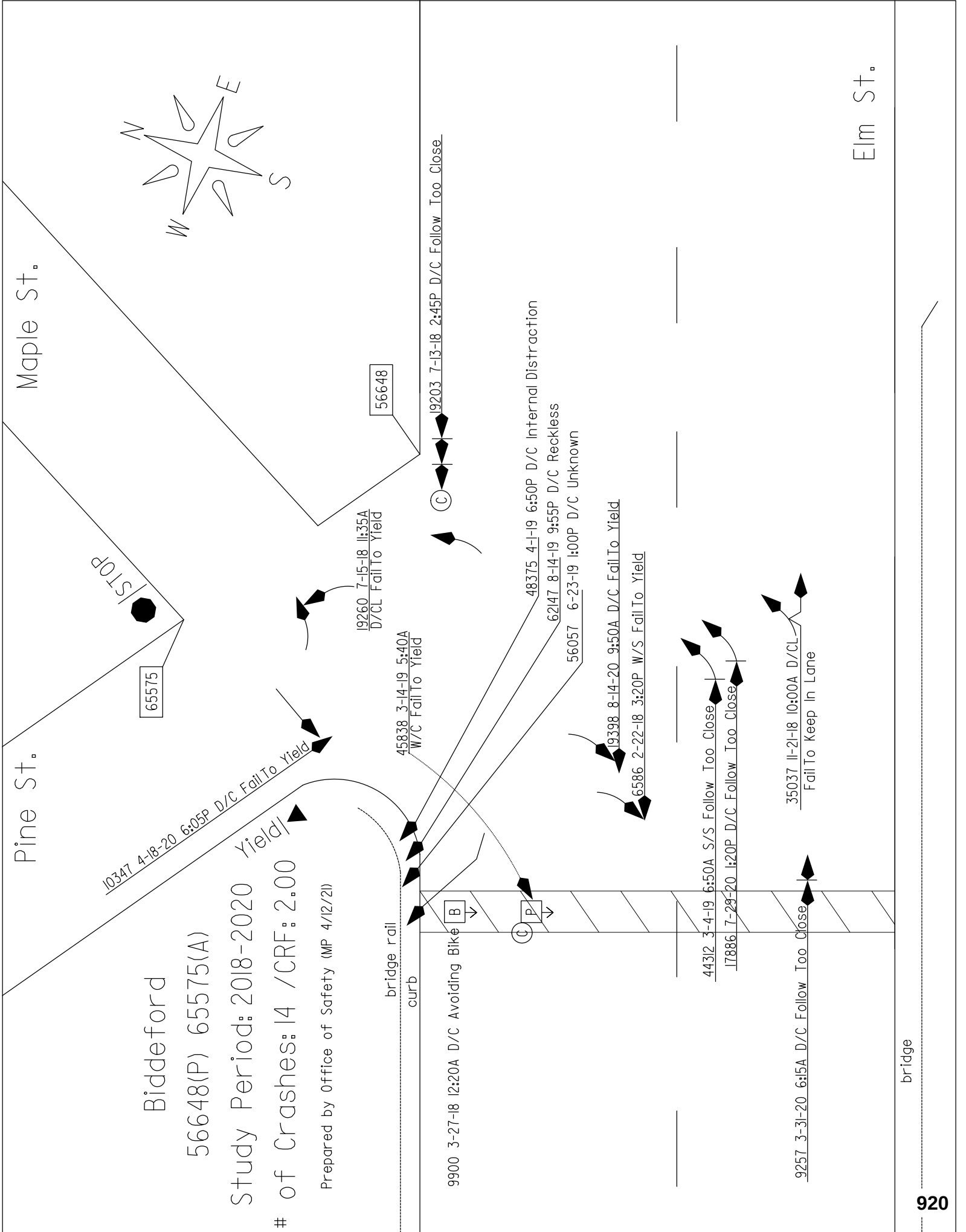


--- PATH OF: [P] PEDESTRIAN [B] BICYCLE [A] ANIMAL [S] SLED

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



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**

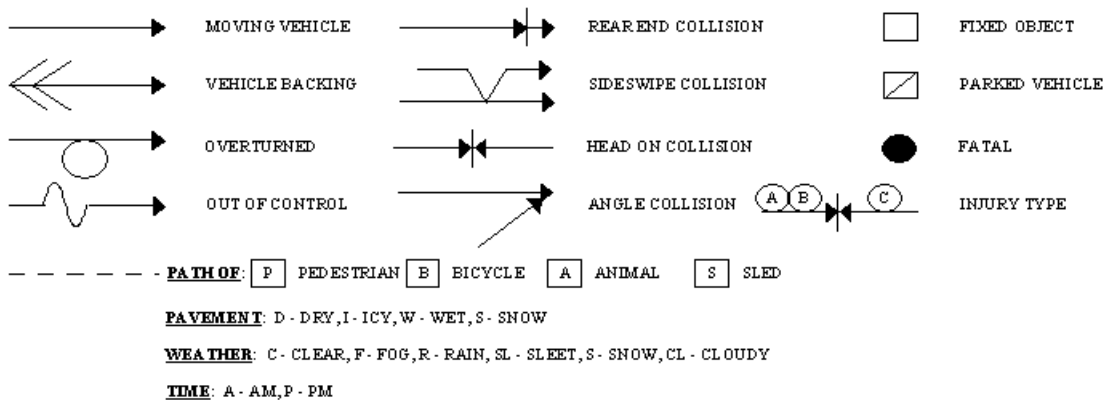
CRASH RATE: **1.39**

CRF: **2.9**

% INJURY: **25**

TOTAL CRASHES: **8**

LEGEND



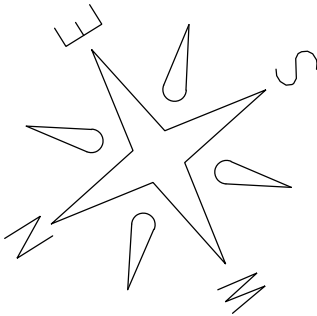
Biddeford

Node: 58493

Study Period: 2018-2020

of Crashes: 8 / CRF: 2.90

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



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

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

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

Main St.

Stop

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

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

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

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

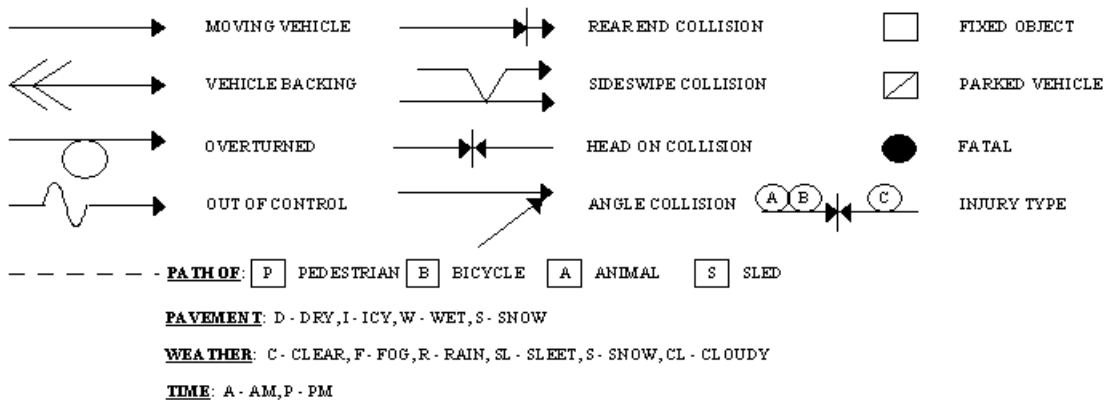
RTE # / RD #: 3110002 DATE DRAWN: 4/9/2021 DRAWN BY: Michelle

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.

Adams St.

63625 8-26-19 2:55P D/C Fail To Yield

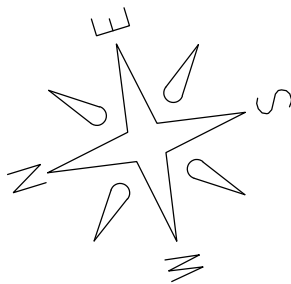
15562 6-1-18 6:20P D/C Fail To Yield

42153 12-20-18 11:25A D/C Follow Too Close

11452 5-8-20 5:10P D/C Fail To Yield

30778 11-25-20 5:10P W/C Fail To Yield

Stop



Main St.

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 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

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

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

22956 9-21-20 10:45A D/C Fail To Yield

32570 12-23-20 11:20A D/C Fail To Yield

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

Stop

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

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury Crashes			PD	Injury	Percent 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
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
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
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
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
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
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
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
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
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
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
56649	0001X - 34.48	TL - Biddeford, Saco	2	0	0	0	0	0	0	0.0	5.132	0.00	0.39	0.00
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
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
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
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
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
Study Years: 3.00			NODE TOTALS:		106	0	0	8	24	74	30.2	72.654	0.49	1.46

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	A	B	C	PD	Injury Percent	Annual HVM	Crash Rate	Critical Rate	CRF
56640	56641	3130112 Int of ELM ST MAIN ST	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
56641	58514	3114278 Int of ELM ST ST MARYS ST	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
56642	58514	3130113 Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	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
56642	58517	3944217 Int of ELM ST SPRUCE ST VILLAGE MARKET Z RD	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
56644	58517	3114282 Int of ELM ST, LINCOLN ST	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
56644	56645	3114280 Int of ELM ST, LINCOLN ST	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
56645	58519	3937825 Int of ELM ST HOOPER ST	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
56647	58519	3114285 BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	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
56647	56648	2837611 BRG 3080, ELM ST over SACO RIVER (W OR S CHAN)	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
56648	58711	3139816 Int of ELM ST PINE ST	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
56649	58711	3116620 TL - Biddeford, Saco	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
58512	58513	239919 Int of LINCOLN ST PEARL ST	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
58513	58514	239921 Int of PEARL ST STONE ST	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
56644	58512	3114281 Int of ELM ST, LINCOLN ST	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
58512	58515	3114626 Int of LINCOLN ST PEARL ST	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
58494	58515	3132475 Int of ADAMS ST LINCOLN ST MAIN ST	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
58493	58494	4046830 Int of JEFFERSON ST MAIN ST	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
58493	58494	4046830 Int of JEFFERSON ST MAIN ST	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

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	K	A	B	C	PD	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 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	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
56640	56641	3130112	0 - 0.05	0001X - 33.99	3	0	0	0	1	2	2018-4672 2019-44415 2018-25216	02/07/2018 03/03/2019 09/05/2018	34.01 34.02 34.02	PD C PD
56641	58514	3114278	0 - 0.01	0001X - 34.04	0	0	0	0	0	0	2018-32156	10/30/2018	34.07	B
56642	58514	3130113	0 - 0.04	0001X - 34.05	1	0	0	1	0	0	2018-42440	02/15/2019	34.15	C
56642	58517	3944217	0 - 0.04	0001X - 34.09	0	0	0	0	0	0	2018-2357	01/21/2018	34.15	PD
56644	58517	3114282	0 - 0.03	0001X - 34.13	4	0	0	0	1	3	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
56647	56648	2837611	0 - 0.02	0001X - 34.29	3	0	0	0	2	1	2018-18747	07/06/2018	34.28	C
											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	2018-26829	09/24/2018	34.34	PD
56649	58711	3116620	0 - 0.15	0001X - 34.33	6	0	0	0	0	6	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
58494	58515	3132475	0 - 0.04	3110102 - 0.17	0	0	0	0	0	0	2019-67427	10/01/2019	0.16	PD
58493	58494	4046830	0.06 - 0.10	3110104 - 0.15	0	0	0	0	0	0	2020-5056	02/13/2020	0.16	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
58493	58494	4046830	0 - 0.06	3110104 - 0.15	6	0	0	1	1	3	2018-7638 2020-22459 2019-62667 2018-1561 2018-32265 2019-75926	03/05/2018 09/18/2020 08/24/2019 01/16/2018 11/03/2018 10/21/2019	0.20 0.22 0.22 0.22 0.23 0.24	PD B C PD PD
56640	58493	3114277	0 - 0.09	3110104 - 0.25	5	0	0	0	2	2	2018-9686 2018-26434 2018-17433 2018-9357 2018-3953	03/17/2018 09/17/2018 06/23/2018 03/19/2018 02/02/2018	0.27 0.28 0.31 0.31 0.32	PD PD C C
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												PM														
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	Un	Tot	
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	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	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	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	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	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	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	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	0	146
Vehicle Counts by Type																											

Vehicle Counts by Type				Total	
Unit Type	Unit Type	Total	Unit Type	Total	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			

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		

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			53

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

Light		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

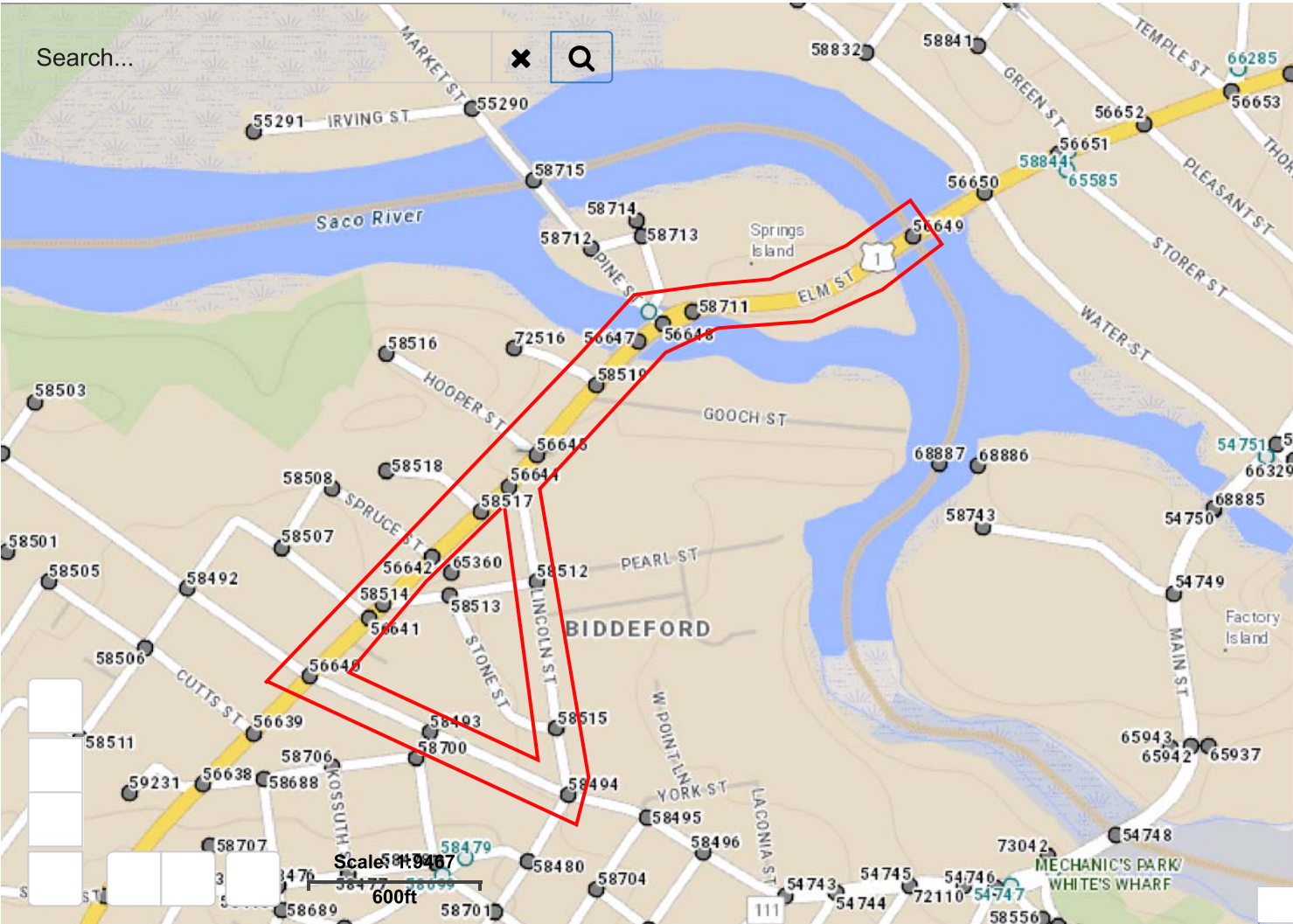
Crashes by Weather, Light Condition and Road Surface

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



Multifamily Housing (Mid-Rise) Not Close to Rail Transit (221)

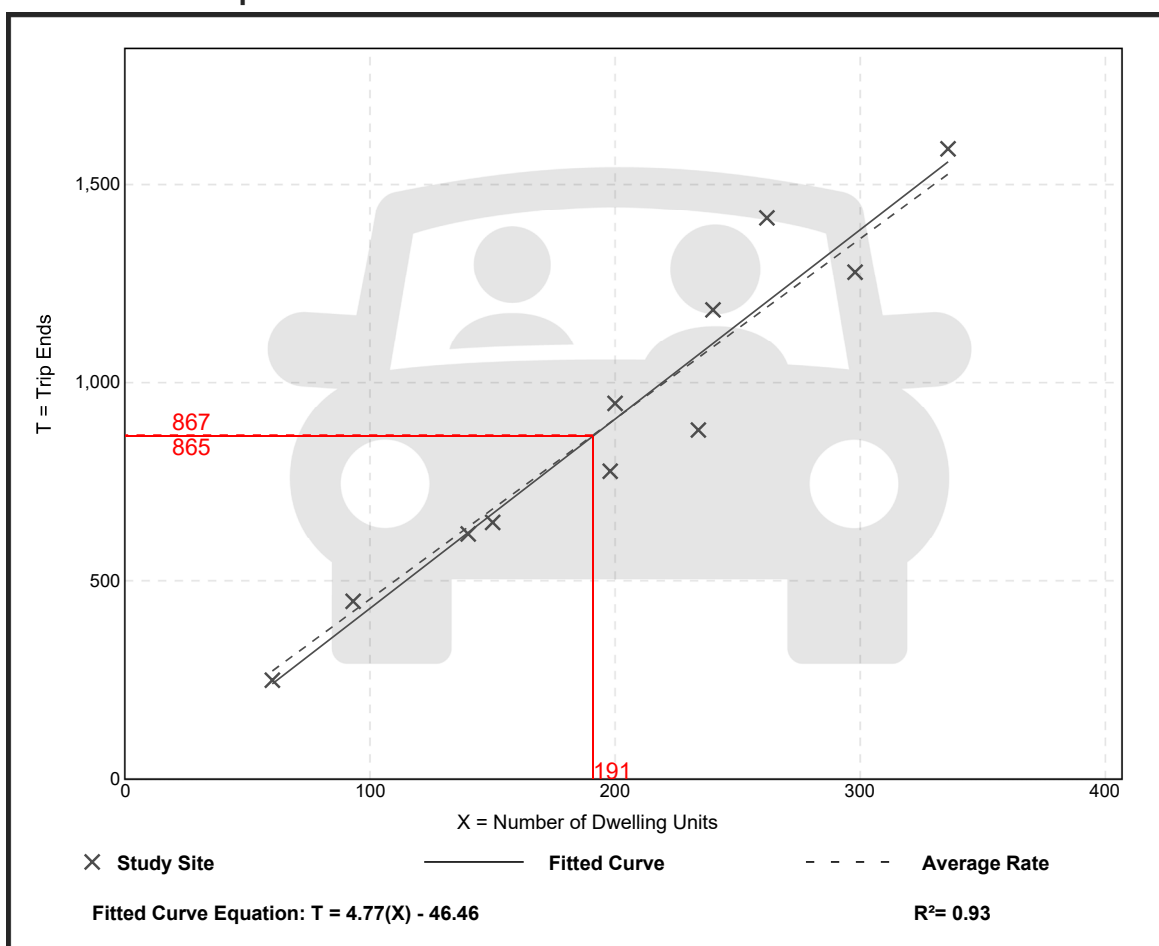
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Trip Gen Manual, 11th Edition

• Institute of Transportation Engineers

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

Vehicle Trip Ends vs: Seats
On a: Weekday

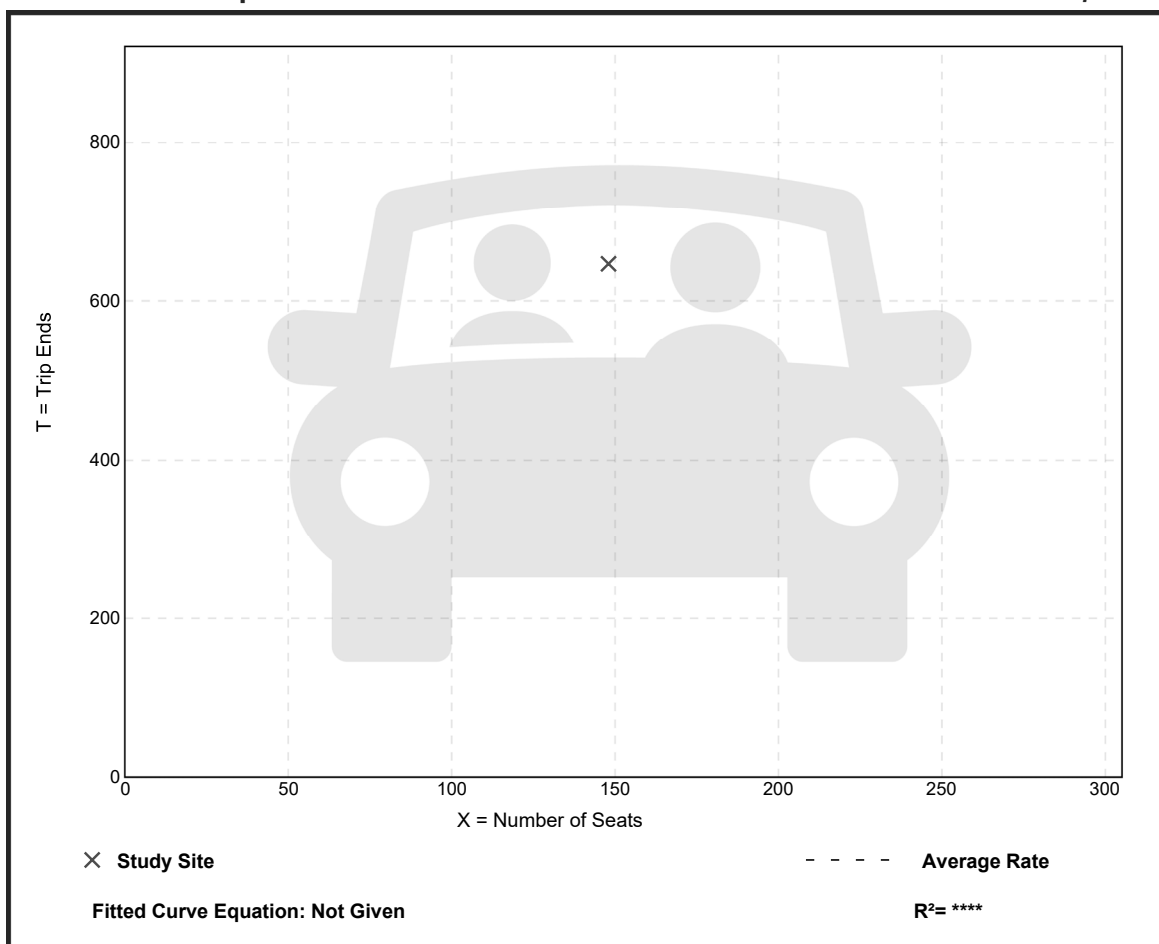
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Seats: 148
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Seat

Average Rate	Range of Rates	Standard Deviation
4.37	4.37 - 4.37	*

Data Plot and Equation

Caution – Small Sample Size



Trip Gen Manual, 11th Edition

● Institute of Transportation Engineers

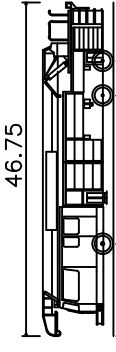
E. Site Plan

GENERAL NOTES:

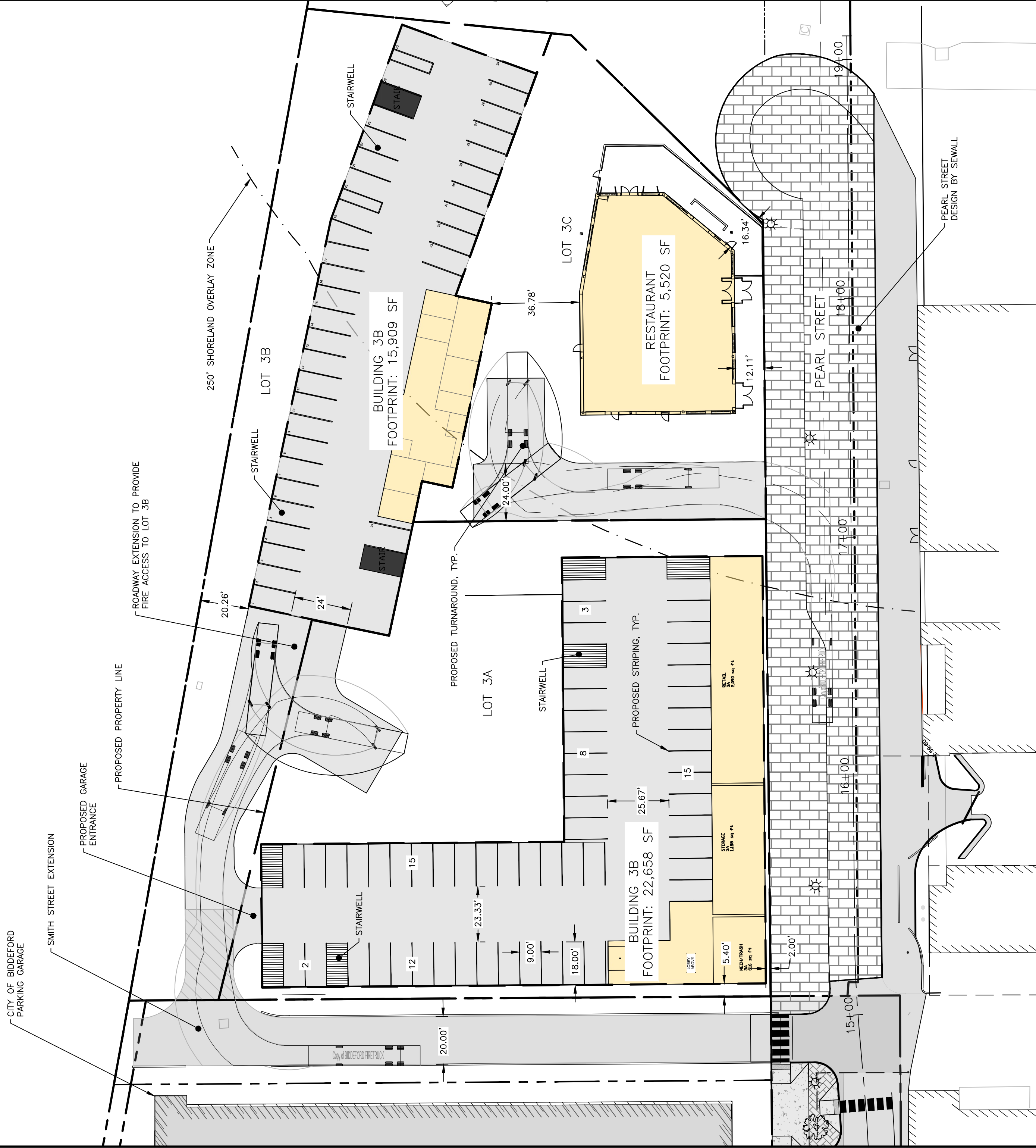
- ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARD.
- ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD OFFSITE, BE REMOVED, STORAGED, AND RESET IN ACCORDANCE WITH DETAIL BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- ALL RAMP TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
- AND SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS, CONTRACTOR TO COORDINATE AND INSTALL.
- FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE FOLLOWING: CONSTRUCTION MANAGEMENT OF UTILITIES, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

PLAN REFERENCES:

- PLAN TITLED "BIDDEFORD PARKING GARAGE MEMO SHEET" PREPARED BY DESMAN ENGINEERING, INC. DATED 12/20/2019 AND REVISED 1/14/2020.
- PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 10/14/2020.
- PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021.



BIDDEFORD FIRETRUCK
Overall Length 46'7.50ft
Overall Width 12'8.7ft
Overall Body Height 20'8.3ft
Track-to-track Clearance 4'8.3ft
Track-to-lock time 6.00s
Max Wheel Angle 6°



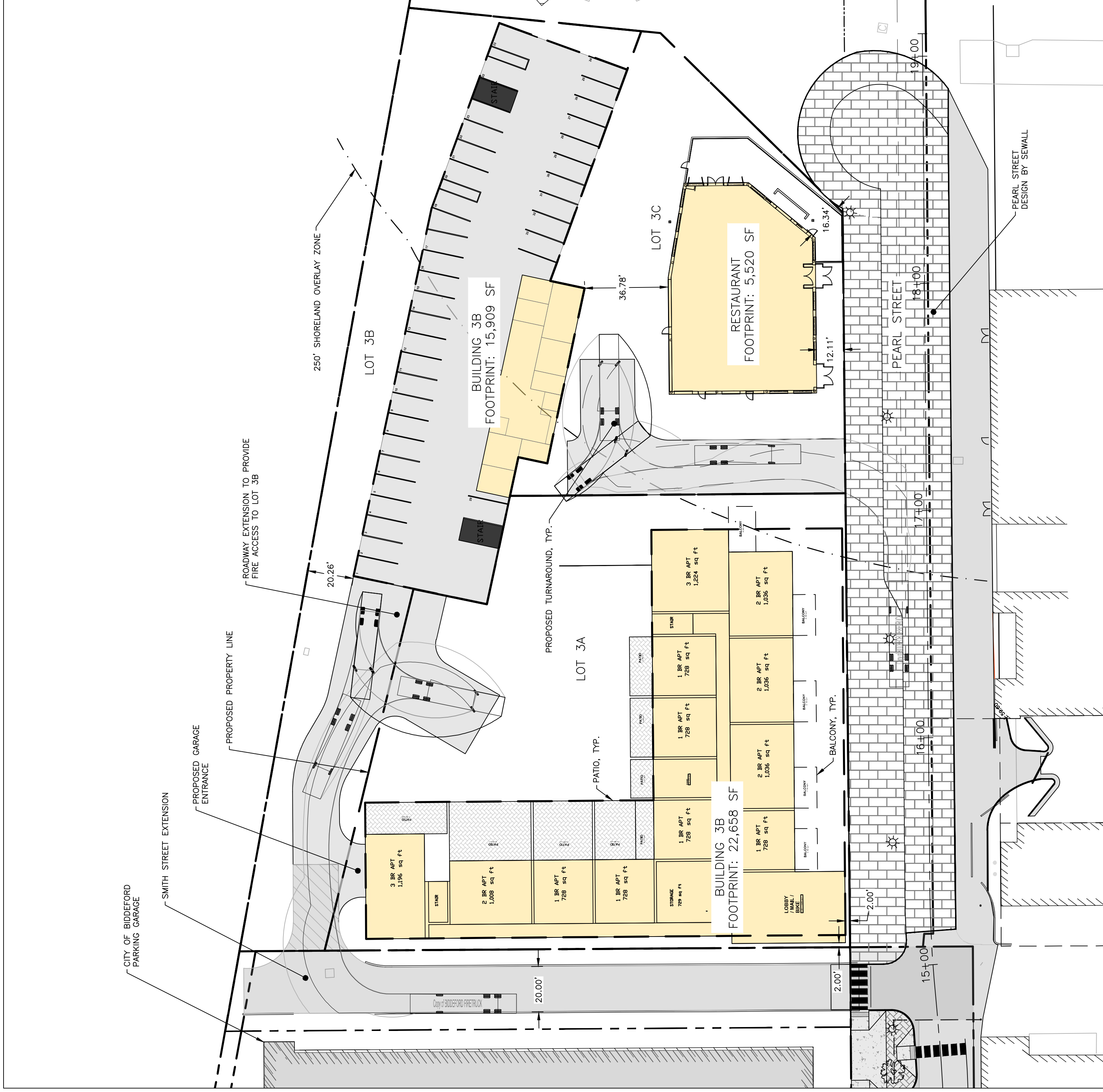
GARAGE FLOOR PLAN
1" = 30'

PARKING SUMMARY

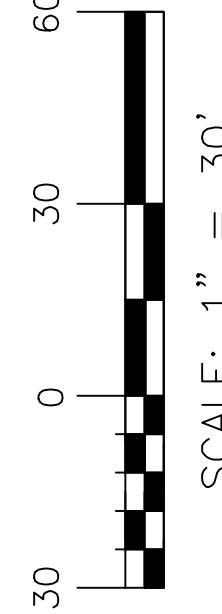
USE	UNITS	SPACES REQUIRED	PROPOSED
LOT 3A	64	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 64 SPACES	50
LOT 3B	-	INCREASE OF 5% (OF 64 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	-
LOT 3C	76	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 76 SPACES	42
LOT 3D	-	INCREASE OF 5% (OF 76 SPACES) TO ALLOW FOR VISITORS = 4 SPACES	-
LOT 3E	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES	N/A
ADA (6'X18')	-	-	TBD
STANDARD (9'X18')	-	-	TBD
TOTAL SPACES	-	248	92
ADDITIONAL SPACES NEEDED IN PARKING GARAGE	-	-	156

LOT 3A SPACE AND BULK STANDARDS

ZONE:	REQUIRED (URS03)	REQUIRED (00-1)	EXISTING LOT 3	PROPOSED LOT 3A	PROPOSED LOT 3B	PROPOSED LOT 3C
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	-	39,629 SF	30,230 SF	20,590 SF
MINIMUM STREET FRONTAGE	NONE	-	324'	200'	-	124'
MINIMUM FRONT YARD SETBACK	NONE	-	N/A	2.00'	0'	12.11'
MINIMUM REAR YARD SETBACK	NONE	-	N/A	5.18'	20.26'	36.78'
MINIMUM SIDE YARD SETBACK	NONE	-	N/A	2.00'	0'	16.34'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	-	N/A	TBD	TBD	TBD
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	N/A	-	-	-
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	-	57.2%	52.6%	26.8%



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION



ISSUED FOR

DATE

BY

12/21

12/21

3/21

TEMP REVIEW

PEARL STREET LOT 3 REDEVELOPMENT

SITE PLAN

PROJECT NAME:

CLIENT:

DRAWING NAME:

ENGINEERING, INC.

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

ACORN ENGINEERING, INC.
PO BOX 3372, PORTLAND, MAINE 04104
(207) 775-2655

FILE:

JN:

SCALE:

DESIGNED BY:

DRAWN BY:

CHECKED BY:

1124_CIVIL

1124

AS NOTED

PFH

ZMS

WHS/PH

MAINE PROFESSIONAL ENGINEERING

PETER F. HEIL

18316

12/21

DRAWING NO.

C-10

December 5, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

RE: PRELIMINARY TRAFFIC IMPACT REVIEW – 3 LINCOLN STREET DEVELOPMENT

Dear Greg,

James W. Sewall Co. (Sewall) has completed preliminary review of “Section 7 Traffic Impact Study, 3 Lincoln Street Project” as part of the peer review you requested. The study was prepared by Thomas Errico, P.E. of TY Lin and is dated “Revised April 26, 2022”. My preliminary review comments and requests for additional information are summarized as follows:

1. **Trip Generation Analysis.** The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis.
2. **Pass-by Rates.** The study utilized the 43 % PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.
3. **Trip Assignments.** I concur with the trip assignment patterns utilized for the study.

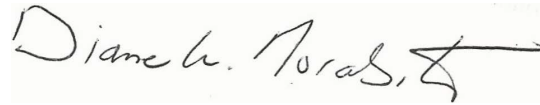
4. **Analysis Periods.** Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.
5. **Study Year.** The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?
6. **Traffic Growth Rate.** I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.
7. **Base Traffic Counts.** As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.
8. **Sight Distance.** Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.
9. **Accident Review.** While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.

To summarize, I would like the applicant's traffic engineer, Mr. Tom Errico, P.E. to provide trip generation analysis for the restaurants on the basis of square footage, to address my concerns regarding the Pearl Street count dates and to update the accident data to the current to 2019 to 2021 period. I have not reviewed the capacity analysis yet nor the accident data since it could be considered outdated at this time.

As always, please don't hesitate to contact me if you have any questions or concerns regarding my preliminary review findings.



Sincerely,



A handwritten signature in blue ink that reads "Diane W. Morabito" followed by a stylized flourish.

Diane W. Morabito, P.E. PTOE
Vice President Traffic Engineering



December 7, 2022

Mr. Gregory Mitchell
Planning and Development Director
Department of Planning & Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

Subject: 3 Lincoln Street Development, Biddeford, Maine – Peer Review

Hi Greg:

The following are response to comments provided by Sewall dated December 5, 2022.

Comment: Trip Generation Analysis. The trip generation analysis was performed using the 10th Edition ITE report, although the 11th Edition report was available and being utilized at the time of the study. I concur with the LUCs utilized for the analysis, 221 – Multifamily Housing Mid-Rise and 932 - High-Turnover Sit-Down Restaurant. While the results were obtained using the older 10th edition report there is no significant difference in results with the newer 11th edition. I would like to also see the results for the restaurants on the basis of square footage since there is significantly more data available for LUC 932 on this basis

Response: The trip generation methodology for the project was approved by MaineDOT. In response to the request, I have estimated the trip generation for the restaurant using floor area (11,040 SF) using the 11th Edition of the ITE Trip Generation Manual. The following table summarizes the trip generation estimate using floor area and comparing that estimate with the trip generation used in the study. As noted, the study assumed a higher trip generation estimate and is therefore conservative.

Trip Generation Estimate for Restaurant using Floor Area						
	PM Peak Hour			Saturday Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Peak Hour of Generator	92	89	181	63	61	124
Peak Hour of Adjacent Street Traffic	61	39	100	N/A	N/A	N/A
Section 7 TMP Study Estimate	113	105	218	84	74	158

Comment: Pass-by Rates. The study utilized the 43% PM Peak hour pass-by rate for the Saturday analysis period as well given lack of ITE data. Sewall would have utilized a lesser Saturday rate believing more weekend trips to restaurants are primary trips and not pass-by. However, a slightly lesser pass-by percentage would not be expected to affect the results of the study significantly.

Response: Acknowledged.

Comment: Trip Assignments. I concur with the trip assignment patterns utilized for the study.

Response: Acknowledged.

Comment: Analysis Periods. Given the proposed mix of uses and trip generation results, I concur with the analysis periods being the weekday PM peak hour and the Saturday peak hour.

Response: Acknowledged.

Comment: Study Year. The analysis utilized a 2024 study year, which assumes the apartments and restaurant spaces have been constructed and fully occupied by the end of 2024. Given that it is almost 2023, current construction timelines, and the current permitting status for this project, is 2024 still an appropriate study year?

Response: In my professional opinion even if occupancy was delayed until 2025, the 1% added growth would not alter the conclusions of the analysis (particularly when considering that the trip generation estimate may be high).

Comment: Traffic Growth Rate. I concur with the use of the 1 % annual traffic growth rate based upon the supporting information provided and my review of historical area traffic growth rates.

Response: Acknowledged.

Comment: Base Traffic Counts. As with the Gooch Street study, Sewall notes the counts for Pearl Street were performed in July of 2019. The new parking garage was not open at that time nor was the Lincoln Hotel so the Pearl Street movements would not be expected to be representative of current conditions. Sewall believes traffic on Pearl Street has likely increased significantly since 2019. Mr. Errico should justify his use of older data for this intersection and if any adjustments were made to account for greater Pearl Street traffic.

Response: At the time of the scoping meeting in December of 2021, the 2019 traffic counts were deemed to be appropriate particularly when considering COVID travel impacts. The traffic study did add significant non-project traffic to Pearl Street into and out of the site that would be representative of post-2019 conditions. This included adding 144 PM peak hour trips and 148 trips during the Saturday peak hour. I did research available traffic volume data from MaineDOT and while traffic counts are not available on Pearl Street, there are traffic counts on Lincoln Street south of Elm Street. During the PM peak hour (4-5PM) 524 vehicles were recorded on May 2, 2019. On May 23, 2022 504 vehicles were recorded during the same time period. My general conclusion is that the volumes used in the analysis are reasonable.

Comment: Sight Distance. Based upon information in the traffic study, sight distance from the site drive meets the minimum of 200', cited as 200'+, but what is the actual sight distance? Sewall prefers the standard of 10' per mph, which is also cited several places in the Biddeford ordinance.

Response: Sight distance was measured according to MaineDOT criteria and looking towards the river, the view is unobstructed until the end of the road (180 feet), and looking towards Lincoln Street, we lose sight distance at 680 feet.

Comment: Accident Review. While the accident data submitted with the study was fairly current at the time of submittal, as well as the collision diagrams, they were for the older 2018 to 2020 period. I would like to see updated accident data and collision diagrams for the current 2019 to 2021 study period for the study area since there are several high crash locations in the study area.

Response: The crash data in the report was based on what was available at the time of production. I have researched 2019-2021 High Crash Locations in the study area and below is a summary of locations.

- **Elm Street/St. Mary's** – this location is now an HCL. Eight crashes over the noted three-year period with a CRF of 1.29. Two patterns are of concern. The first is two pedestrian crashes in the Elm Street crosswalk north of St. Mary's Street. The other are movements from St. Mary's, where it can be difficult to enter Elm Street. The Elm Street Concept Improvement Plan is to include upgrades to pedestrian

facilities and this crosswalk is proposed to have a RRFB warning system.

- **Elm Street/Lincoln Street – this location is no longer an HCL.**
- **Elm Street/Pine Street – this location continues to be a HCL with 15 crashes and a CRF of 2.11 (similar to the older data). Patterns are similar to those discussed in the traffic study and conclusions remain unchanged.**
- **Main Street/Jefferson Street – this location continues to be an HCL with 8 crashes and a CRF of 3.04. There is a distinct pattern of crashes involving vehicles turning from Jefferson Street. There are mailboxes located to the southeast of the intersection that may be obstructing sight. Relocation should be considered.**
- **Main Street/Lincoln Street/Adams Street – this location was recently converted to a multi-way STOP controlled intersection and conditions have likely improved.**

Please contact me if you have any questions.

Best regards,

T.Y. LIN INTERNATIONAL

A handwritten signature in black ink that reads "Thomas A. Errico". The signature is written in a cursive, flowing style.

Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director

Greg Mitchell
December 7, 2022
Page 5 of 5

Attachments

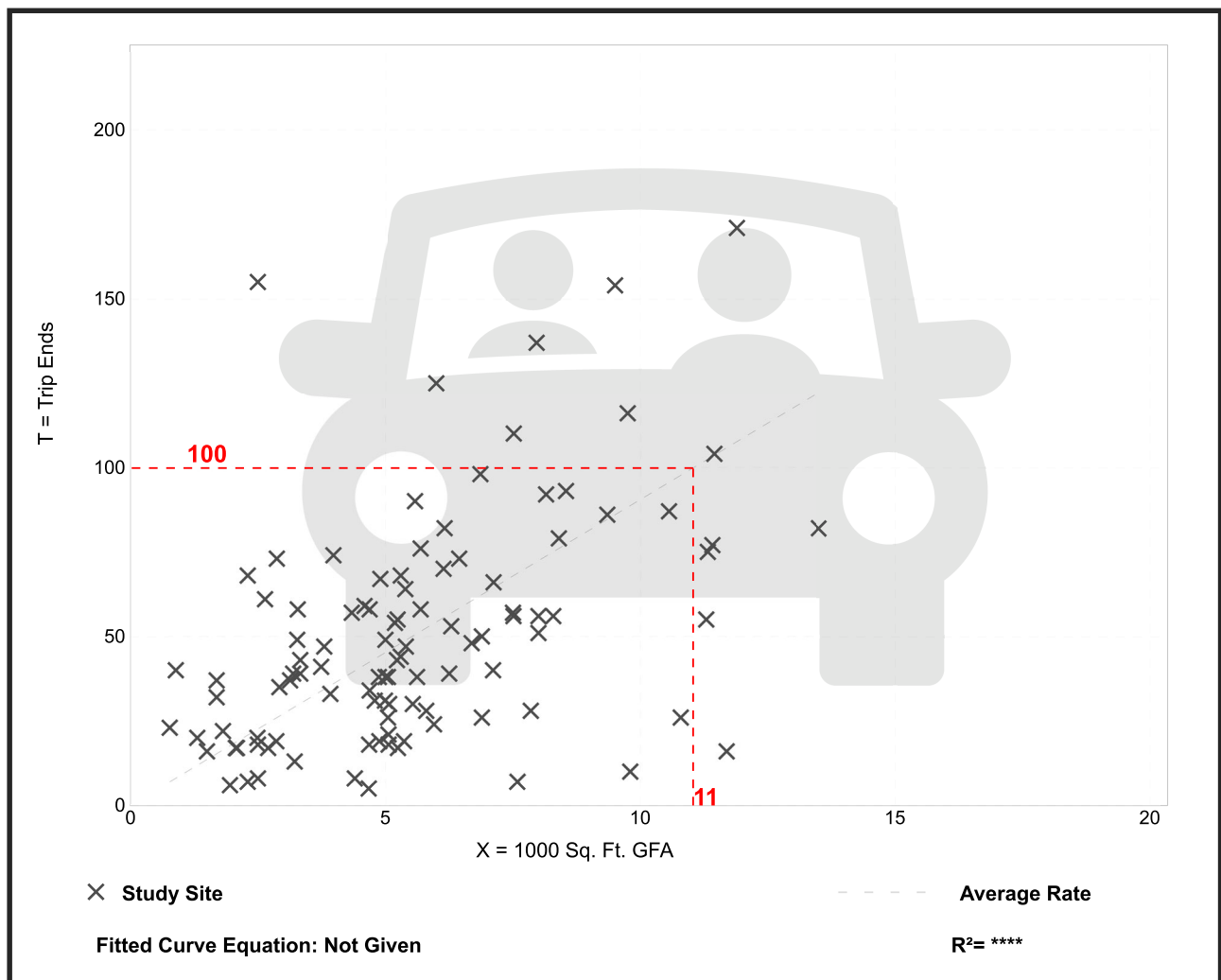
High-Turnover (Sit-Down) Restaurant (932)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 104
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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

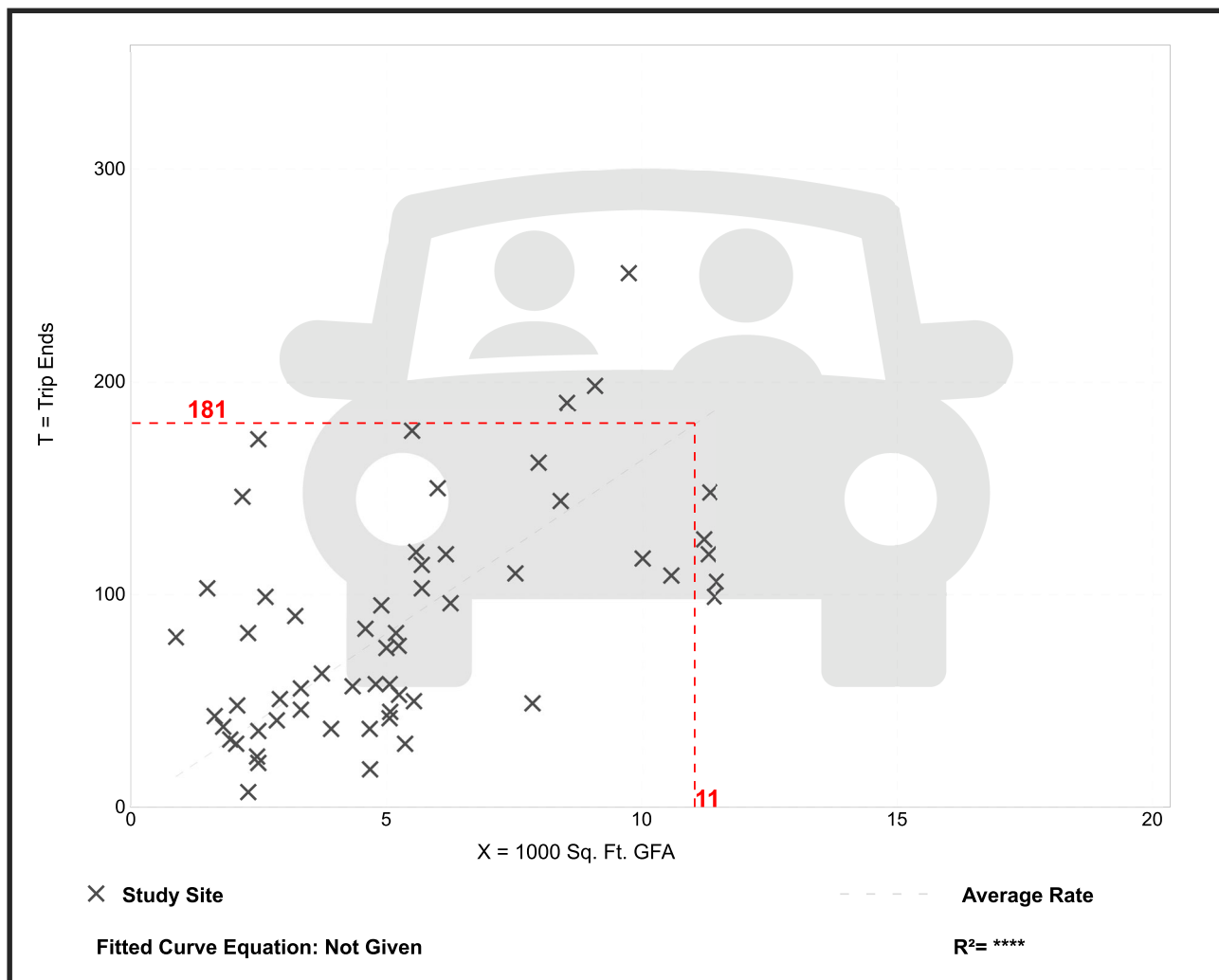
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
PM Peak Hour of Generator

Setting/Location: General Urban/Suburban
Number of Studies: 58
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
16.35	3.04 - 89.99	10.84

Data Plot and Equation



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

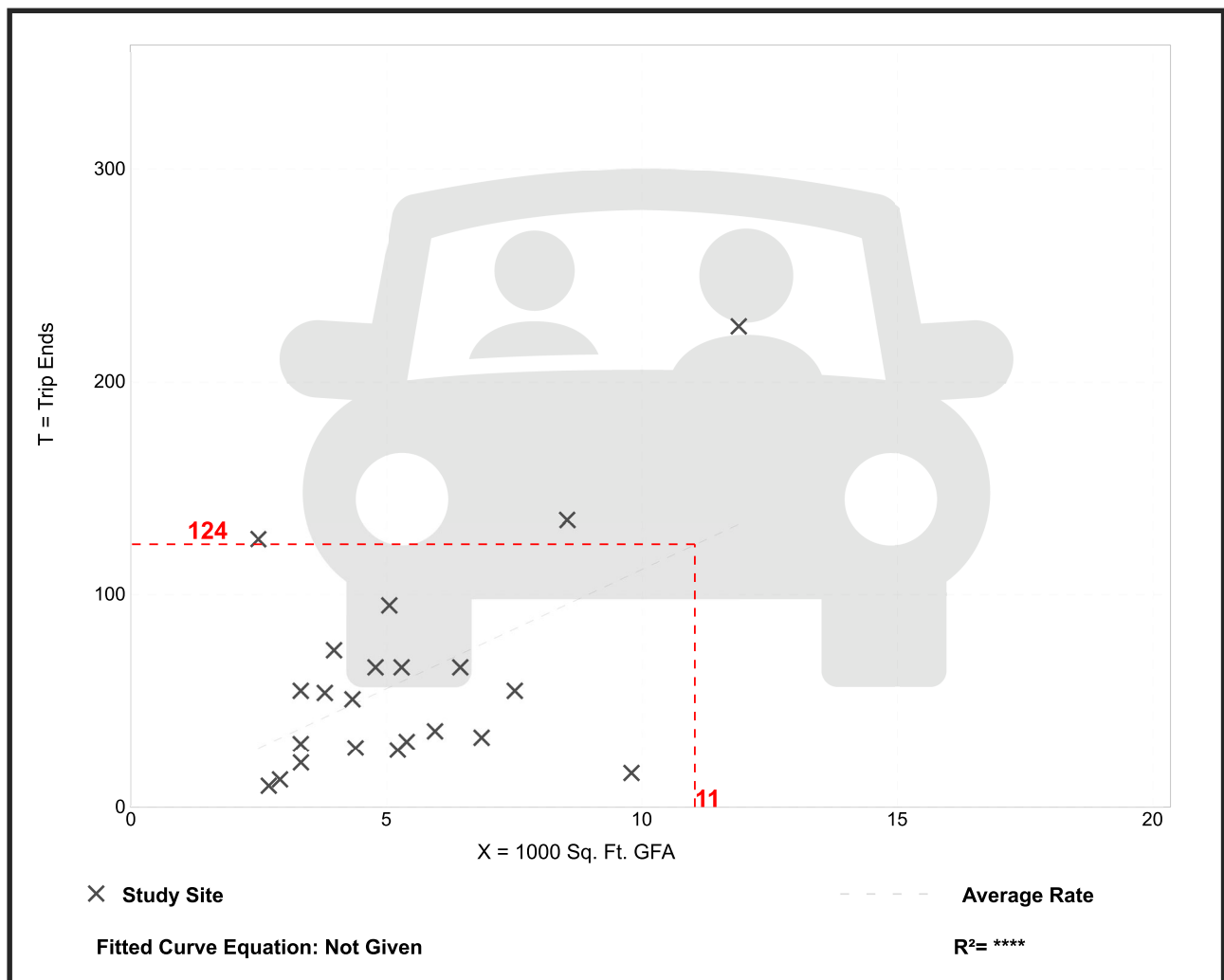
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

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



H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: **YORK**

TOWN: **BIDDEFORD**

LOW NODE: **56641** HIGH NODE: **0000**

REGION: **1**

U/R: **URBAN**

DESCRIPTION: **Jct of Elm St & St Marys St**

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

DATE DRAWN: **4/14/2022** DRAWN BY: **Michelle**

STUDY FROM: **1/1/2019**

STUDY TO: **12/31/2021**

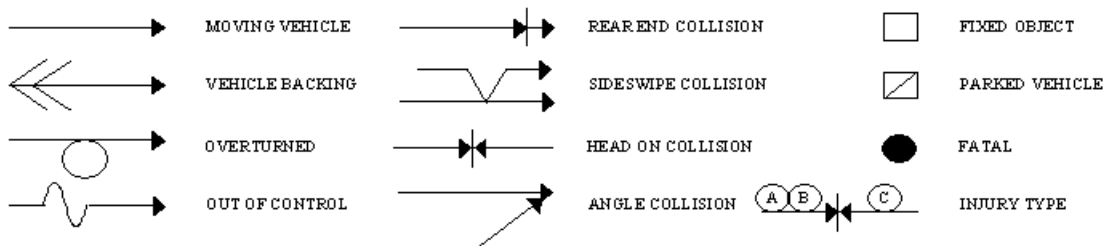
CRASH RATE: **0.43**

CRF: **1.29**

% INJURY: **37.5**

TOTAL CRASHES: **8**

LEGEND

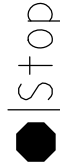
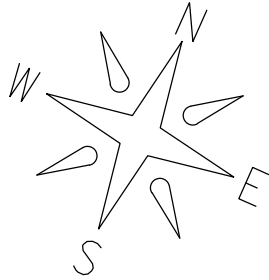


--- PATH OF: ☐ P PEDESTRIAN ☐ B BICYCLE ☐ A ANIMAL ☐ S SLED

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



St. Mary's St.

Biddeford

Node: 5664I

Study Period: 2019-2021

of Crashes: 8 / CRF: 1.29

Prepared by Office of Safety & Mobility

(MP 4/14/22)

Elm St.

52337 5-21-19 10:00A D/C Fail To Keep In Lane

76142 12-17-19 11:10A S/S Speed

60348 8-12-19 6:55A D/C Fail To Yield

20855 7-9-21 6:05P D/C Fail To Yield

21344 8-17-20 5:20P D/C Follow Too Close

2609 1-21-19 3:30P SL/CL Follow Too Close

31289 12-8-20 4:50P D/C Follow Too Close

13973 6-3-21 2:30P D/C Fail To Yield

pole

Elm St.



Crash Summary Report

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

Biddeford
Jct of Elm St & St Marys St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001X

Start Node: 56641

Start Offset: 0

☐ Exclude First Node

End Node: 56641

End Offset: 0

☐ Exclude Last Node

Crash Summary I

Nodes														
Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	Crashes C	PD	Percent Annual M Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
56641	0001X - 34.04	Int of ELM ST ST MARYS ST	2	8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29
				Statewide Crash Rate: 0.14										
Study Years:	3.00	NODE TOTALS:		8	0	0	0	3	5	37.5	6.135	0.43	0.34	1.29

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	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	0	0								
MONDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2								
TUESDAY	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3								
WEDNESDAY	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	0	0								
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1								
FRIDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2								
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	0	0								
Totals	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	8								

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	8	23-Bicyclist	0
2-(Sport) Utility Vehicle	1	24-Witness	2
3-Passenger Van	1	25-Other	0
4-Cargo Van (10K lbs or Less)	1	26-Construction	0
5-Pickup	4	27-Farm Vehicle	0
6-Motor Home	0	Total	18
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	1		

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	0	6	0	0	0	0	6
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	3	0	0	0	0	0	3
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	1	0	0	0	0	1
Drove Too Fast For Conditions	1	0	0	0	0	0	1
Improper Turn	0	0	0	0	0	0	0
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	0	0	0	0	0	3
Failed to Keep in Proper Lane	1	0	0	0	0	0	1
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	7	0	0	0	0	15

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	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	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	2	0	0	0	0	2
30-39	3	0	0	0	0	3
40-49	2	0	0	0	0	2
50-59	4	0	0	0	0	4
60-69	1	0	0	0	0	1
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	0	0	1	0	1
Total	15	0	0	1	0	16

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	0		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
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	0		
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	8	
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	0	
14-Other	0	
Total	8	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

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

Light	
Light Condition	Total
1-Daylight	7
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	0	0	1
FEBRUARY	0	0	0	0
MARCH	0	0	0	0
APRIL	0	0	0	0
MAY	1	0	0	1
JUNE	0	0	1	1
JULY	0	0	1	1
AUGUST	1	1	0	2
SEPTEMBER	0	0	0	0
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	1	1	0	2
Total	4	2	2	8

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	3	0	0	0	0	0	0	0	0	0	0	0	3
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	1	0	0	0	0	0	0	0	0	4
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	7	0	0	1	0	0	0	0	0	0	0	0	8

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	1	0	0	0	0	0	0	0	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	5	0	0	0	0	0	0	0	0	0	0	5
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	0	0	0	0	0	0	1	0	0	0	0	1
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	1	0	0	0	1
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	6	0	0	0	0	0	1	1	0	0	0	8

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 Elm St & Pine St/Maple St

RTE # / RD #: 0001S

DATE DRAWN: 4/14/2022 DRAWN BY: Michelle

STUDY FROM: 1/1/2019

STUDY TO: 12/31/2021

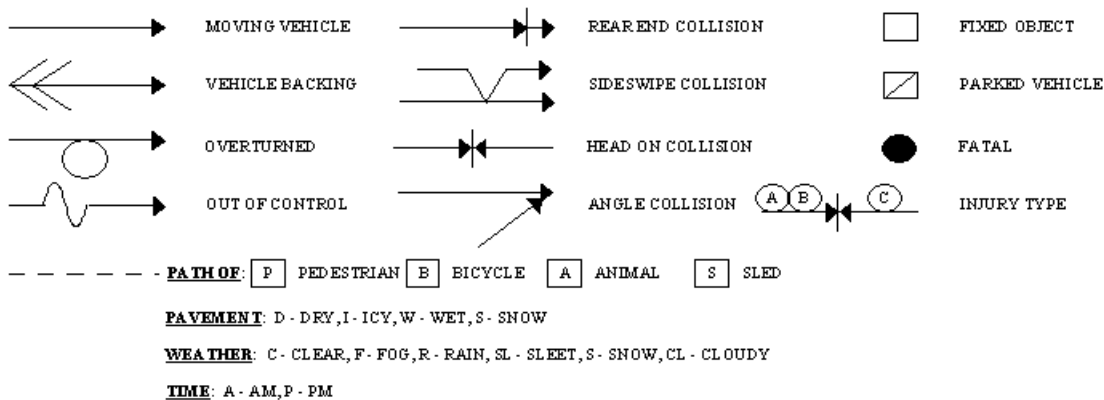
CRASH RATE: 0.68

CRF: 2.11

% INJURY: 33.3

TOTAL CRASHES: 15

LEGEND



Biddeford

56648(P) 65575(A)

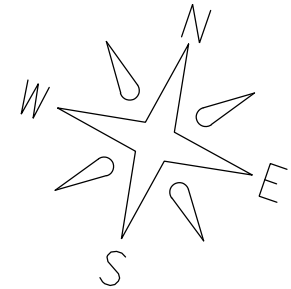
Study Period: 2019-2021

of Crashes: 15 /CRF: 2.11

Prepared by Office of Safety & Mobility
(MP 4/14/22)

Pine St.

Maple St.



65575

STOP

9018 4-6-21 5:15P D/C Fail To Yield

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

Yield

56648

bridge rail
curb

(C)

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

(C)

(P)

23989 9-5-21 1:35P
D/C Fail To Yield

(B) (C)

17241 7-7-21 6:00A D/C Unknown

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

(C)

8542 4-3-21 12:00P D/C Inattention

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

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

21731 8-18-21 9:05A D/CL Follow Too Close

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

17896 7-14-21 2:05P D/CL Follow Too Close

(C)

Elm St.

bridge



Crash Summary Report

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

Biddeford
Jct of Elm St & Pine St with Maple St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 0001S

Start Node: 56648

Start Offset: 0

☐ Exclude First Node

End Node: 56648

End Offset: 0

☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
P56648	0001S - 23.96	Int of ELM ST PINE ST	2	15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11
				Statewide Crash Rate: 0.14										
Study Years: 3.00				NODE TOTALS:										
				15	0	0	0	5	10	33.3	7.353	0.68	0.32	2.11

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	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2								
MONDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2								
TUESDAY	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2								
WEDNESDAY	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	5								
THURSDAY	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1								
FRIDAY	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1								
SATURDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2								
Totals	0	0	0	0	0	1	3	0	0	2	0	0	1	3	1	0	0	1	2	0	0	1	0	0	0	0	15								

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	10	23-Bicyclist	1
2-(Sport) Utility Vehicle	7	24-Witness	2
3-Passenger Van	1	25-Other	0
4-Cargo Van (10K lbs or Less)	1	26-Construction	0
5-Pickup	6	27-Farm Vehicle	0
6-Motor Home	0	Total	29
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	1		

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	0	9	1	0	0	0	10
Ran Off Roadway	3	0	0	0	0	0	3
Failed to Yield Right-of-Way	5	0	0	0	0	0	5
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	0	0	0	0	0	0	0
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	5	0	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	2	0	0	0	0	0	2
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	15	9	1	0	0	0	25

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	15	11	1	0	0	0	27
Physically Impaired	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	15	11	1	0	0	0	27

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	3	0	0	0	0	3
20-24	4	0	0	0	0	4
25-29	3	0	0	0	0	3
30-39	7	0	0	0	0	7
40-49	0	0	0	0	0	0
50-59	2	0	0	0	0	2
60-69	3	0	0	0	0	3
70-79	3	0	0	0	0	3
80-Over	0	0	0	0	0	0
Unknown	0	1	0	1	0	2
Total	25	1	0	1	0	27

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	25
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	1		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	19		
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	4		
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	0		
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	2	
6-Yield Sign	11	
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	15	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	5	5
PD	10	0
Total	15	5

Road Character	
Road Grade	Total
1-Level	7
2-On Grade	6
3-Top of Hill	2
4-Bottom of Hill	0
5-Other	0
Total	15

Light	
Light Condition	Total
1-Daylight	13
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	1
5-Dark - Not Lighted	1
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	15

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	0	0	0	0
FEBRUARY	0	0	0	0
MARCH	2	1	0	3
APRIL	1	1	2	4
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	1	2	3
AUGUST	1	1	1	3
SEPTEMBER	0	0	1	1
OCTOBER	0	0	0	0
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	5	4	6	15

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	6	0	0	0	0	0	0	0	0	0	0	0	6
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Pedestrians	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
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	14	0	0	0	1	0	0	0	0	0	0	0	15

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	1	1
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	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	10	0	0	0	0	0	0	0	0	0	0	10
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	1	0	0	0	1
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	13	0	0	0	0	0	0	1	0	0	1	15

H. C. L. CRASH COLLISION DIAGRAM DATA PACKAGE

COUNTY: YORK

TOWN: BIDDEFORD

LOW NODE: 58493 HIGH NODE: 0000

REGION: 1

U/R: URBAN

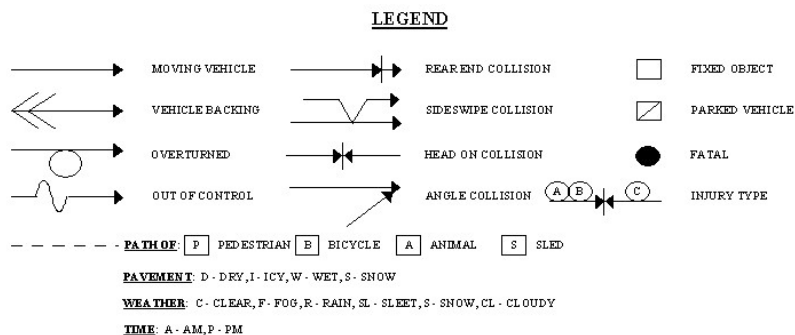
DESCRIPTION: Int of Jefferson St and Main St

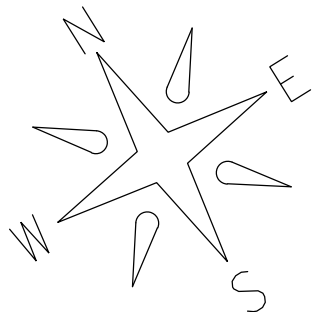
RTE # / RD #: 3110086 DATE DRAWN: 7/11/2022 DRAWN BY: BOB K

STUDY FROM: 1/1/2019

STUDY TO: 12/31/2021

CRASH RATE: 1.29 CRF: 3.04 % INJURY: 37.5 TOTAL CRASHES: 8





Prepared by Office of Safety & Mobility

RFK3 7-11-22

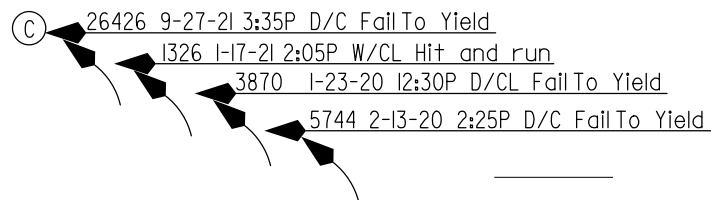
Biddeford

Node: 58493

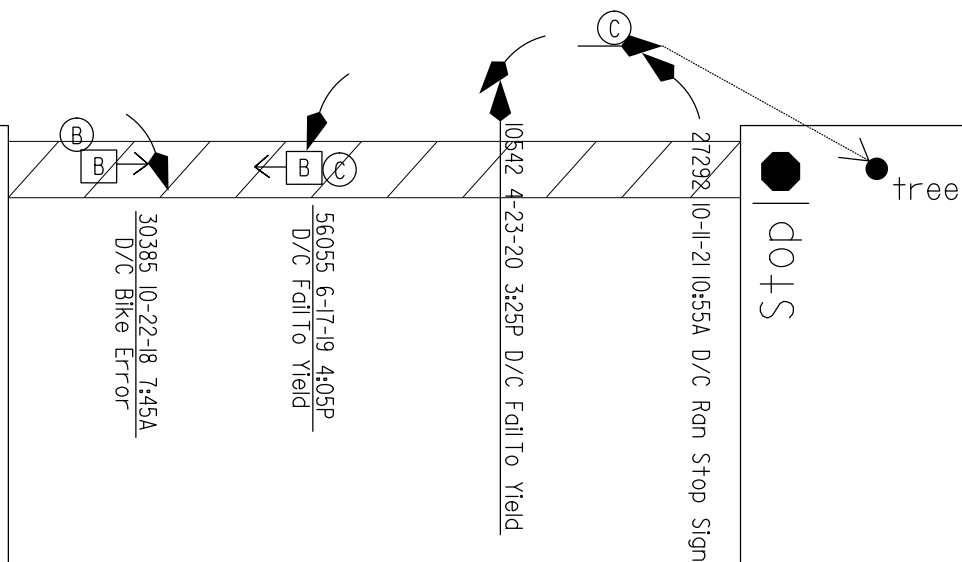
Study Period: 2019-2021

of Crashes: 8 / CRF: 3.04

Main St.



Main St.



Jefferson St.



Crash Summary Report

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

Biddeford
Jct of Main St & Jefferson St

REPORT PARAMETERS

Year 2019, Start Month 1 through Year 2021 End Month: 12

Route: 3110086	Start Node: 58493	Start Offset: 0	☐ Exclude First Node
	End Node: 58493	End Offset: 0	☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	K	Injury A	Crashes B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
58493	3110086 - 0.26	Int of JEFFERSON ST MAIN ST	2	8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.05
												Statewide Crash Rate: 0.13		
Study Years: 3.00		NODE TOTALS:		8	0	0	0	3	5	37.5	2.075	1.29	0.42	3.04

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1								
MONDAY	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	4								
TUESDAY	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	0	0								
WEDNESDAY	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	0	0								
THURSDAY	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3								
FRIDAY	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	0	0								
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	0	0								
Totals	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	2	0	0	0	0	0	0	0	0	0	8								

Vehicle Counts by Type

Unit Type	Total	Unit Type	Total
1-Passenger Car	11	23-Bicyclist	1
2-(Sport) Utility Vehicle	4	24-Witness	2
3-Passenger Van	0	25-Other	0
4-Cargo Van (10K lbs or Less)	0	26-Construction	0
5-Pickup	0	27-Farm Vehicle	0
6-Motor Home	0	Total	18
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	0	7	0	0	0	0	7
Ran Off Roadway	0	0	0	0	0	0	0
Failed to Yield Right-of-Way	6	0	0	0	0	0	6
Ran Red Light	0	0	0	0	0	0	0
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	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	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0
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	1	0	0	0	0	0	1
Unknown	0	0	0	0	0	0	0
Total	8	7	0	0	0	0	15

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	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	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	1	0	0	0	0	1
20-24	2	0	0	0	0	2
25-29	4	0	0	0	0	4
30-39	1	0	0	0	0	1
40-49	4	0	0	0	0	4
50-59	0	0	0	0	0	0
60-69	3	0	0	0	0	3
70-79	0	0	0	0	0	0
80-Over	0	0	0	0	0	0
Unknown	0	1	0	0	0	1
Total	15	1	0	0	0	16

Crash Summary II - Characteristics

Most Harmful Event			
Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	0	38-Other Fixed Object (wall, building, tunnel, etc.)	0
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	0	Total	15
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	14		
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	0		
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	8	
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	0	
14-Other	0	
Total	8	

Injury Data		
Severity Code	Injury Crashes	Number Of Injuries
K	0	0
A	0	0
B	0	0
C	3	3
PD	5	0
Total	8	3

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

Light	
Light Condition	Total
1-Daylight	8
2-Dawn	0
3-Dusk	0
4-Dark - Lighted	0
5-Dark - Not Lighted	0
6-Dark - Unknown Lighting	0
7-Unknown	0
Total	8

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2019	2020	2021	Total
JANUARY	1	1	1	3
FEBRUARY	0	1	0	1
MARCH	0	0	0	0
APRIL	0	1	0	1
MAY	0	0	0	0
JUNE	1	0	0	1
JULY	0	0	0	0
AUGUST	0	0	0	0
SEPTEMBER	0	0	1	1
OCTOBER	0	0	1	1
NOVEMBER	0	0	0	0
DECEMBER	0	0	0	0
Total	2	3	3	8

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	0	0	0	0	0	0	0	0	0	0	0	0	0
Head-on - Sideswipe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intersection Movement	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
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	0	0	0	0	0	0	0	0	0	0	0	0	0
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	8

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	5	0	0	0	0	0	0	0	0	0	0	5
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	1	0	0	0	0	0	1	0	0	0	1	3
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

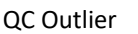
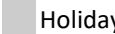
Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	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	6	0	0	0	0	0	1	0	0	0	1	8

Hourly Direction Report MAINE_DOT_SDC 233105004104 Wednesday, May 1, 2019 to Thursday, May 2, 2019

Site Name BIDDEFORD 04104
 Site ID 233105004104
 Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	38	38
01:00:00	18	18
02:00:00	6	6
03:00:00	22	22
04:00:00	36	36
05:00:00	68	68
06:00:00	174	174
07:00:00	384	384
08:00:00	364	364
09:00:00	295	295
10:00:00	323	323
11:00:00	368	368
12:00:00	456	456
13:00:00	346	346
14:00:00	400	400
15:00:00	452	452
16:00:00	524	524
17:00:00	479	479
18:00:00	372	372
19:00:00	250	250
20:00:00	173	173
21:00:00	114	114
22:00:00	86	86
23:00:00	51	51
7am-7pm	4763	4763
6am-10pm	5474	5474
6am-12am	5612	5612
12am-12am	5798	5798
am Peak	7:00:00	7:00:00
Peak Volume	384	384
pm Peak	16:00:00	16:00:00
Peak Volume	524	524

Event key:  QC Failure  QC Outlier  QC Atypical  Events  Special  Holiday  Offline

 Weekends and defined holidays

Holidays & Events:
 None

Hourly Direction Report MAINE_DOT_SDC 233105004104 Monday, May 23, 2022 to Tuesday, May 24, 2022

Site Name BIDDEFORD 04104
 Site ID 233105004104
 Description LINCOLN ST SE/O US 1 (ELM ST)

Exclude data: None

Time	Volume	Total
00:00:00	27	27
01:00:00	12	12
02:00:00	13	13
03:00:00	19	19
04:00:00	32	32
05:00:00	76	76
06:00:00	185	185
07:00:00	367	367
08:00:00	329	329
09:00:00	294	294
10:00:00	289	289
11:00:00	296	296
12:00:00	392	392
13:00:00	336	336
14:00:00	372	372
15:00:00	462	462
16:00:00	504	504
17:00:00	430	430
18:00:00	274	274
19:00:00	216	216
20:00:00	160	160
21:00:00	102	102
22:00:00	67	67
23:00:00	54	54
7am-7pm	4345	4345
6am-10pm	5008	5008
6am-12am	5129	5129
12am-12am	5308	5308
am Peak	7:00:00	7:00:00
Peak Volume	367	367
pm Peak	16:00:00	16:00:00
Peak Volume	504	504

Event key:  QC Failure  QC Outlier  QC Atypical  Events  Special  Holiday  Offline

 Weekends and defined holidays

Holidays & Events:
 None



January 10, 2023

Peter F. Heil, PE, CPESC
Project Manager
Acorn Engineering, Inc
PO Box 3372
Portland, Maine 04104

Subject: 3 Lincoln Street, Biddeford, Maine – Parking and TDM Assessment

Hi Pete:

The purpose of this letter is to provide information in support of documenting the adequacy of the proposed parking supply for the site and identifying possible parking management strategies to ensure parking demand does not exceed supply.

Parking Demand

Weekday parking demand for the project was based on information contained in the publication Parking Generation, Institute of Transportation Engineers, 5th Edition. Time-of-day parking demand by land use was estimated for the project. For comparison purposes a parking demand analysis was performed using the parking requirement according to City ordinance. The following summarizes the assumptions in the analysis.

- The project will consist of 214 residential dwelling units and 11,040SF of restaurant space.
- The land use codes for the parking generation analysis are the same as that used for the trip generation analysis in the traffic impact study. Land Use code 221, Mid-Rise Residential and Land Use code 932, High-Turnover Sit-Down Restaurant.
- The ITE Setting/Location is assumed to be “Dense Multi-Use Urban” which best fits Downtown Biddeford.
- Reducing parking demand for the restaurant to account for internal capture activity (e.g., employees that live in the residential units and tenants that go to the restaurant). A modest 5% reduction was applied and was based on the internal capture analysis included in the traffic impact study.

Weekday	Restaurant			Residential			Internal Capture		Total		
	Hour	% Demand	ITE	City	% Demand	ITE	City	ITE	City	ITE	City
	12-1am	0	0	0	100%	208	225	0	0	208	225
	1-2am	0	0	0	100%	208	225	0	0	208	225
	2-3am	0	0	0	100%	208	225	0	0	208	225
	3-4am	0	0	0	100%	208	225	0	0	208	225
	4-5am	0	0	0	100%	208	225	0	0	208	225

5-6am	0	0	0	94%	196	212	0	0	196	212
6-7am	0	0	0	83%	173	187	0	0	173	187
7-8am	0	0	0	71%	148	160	0	0	148	160
8-9am	0	0	0	61%	127	137	0	0	127	137
9-10am	0	0	0	55%	114	124	0	0	114	124
10-11am	26%	19	26	54%	112	122	1	1	130	146
11-12pm	43%	31	43	53%	110	119	2	2	140	160
12-1pm	95%	68	95	50%	104	113	3	5	169	203
1-2pm	95%	68	95	49%	102	110	3	5	167	201
2-3pm	49%	35	49	49%	102	110	2	2	135	157
3-4pm	39%	28	39	50%	104	113	1	2	131	150
4-5pm	37%	27	37	58%	121	131	1	2	146	166
5-6pm	62%	45	62	64%	133	144	2	3	176	203
6-7pm	99%	71	99	67%	139	151	4	5	207	245
7-8pm	100%	72	100	70%	146	158	4	5	214	253
8-9pm	83%	60	83	76%	158	171	3	4	215	250
9-10pm	51%	37	51	83%	173	187	2	3	208	235
10-11pm	28%	20	28	90%	187	203	1	1	206	229
11-12am	0	0	0	93%	193	209	0	0	193	209

As noted in the previous table, the project would be expected to have a peak parking demand estimate between 8pm and 9pm of 215 parking spaces according to ITE information.

Parking Management Strategies

Possible parking management strategies were identified to minimize parking demand at the project site. We believe the following strategies will result in parking demand outcomes that support the above parking demand estimates and in fact may result in lower parking needs.

The Biddeford/Saco Transit-Oriented Development Concept Plan, GPCOG includes goals and objectives that seek to strategically manage parking in the city. The plan suggests lowering or eliminating minimum off-street parking requirements and pursuing shared parking opportunities. The Plan further suggests implementation of Transportation Demand Management Plans to maximize travel choices (such as walking, biking, taking transit, or carpooling).

The project site is in the central business district of Biddeford and is situated to take advantage of travel choice options that minimizes the need for automobile ownership. The project is in a compact, highly walkable and mixed land use environment. It is serviced by Old Orchard Beach (BSOOB) Transit routes, and the Amtrak Downeaster.

Commute to Work census data for Biddeford from the American Survey indicates 7.3% Walk trips, 0.5% Bicycle trips, and 1.0% Transit trips. While multi-modal trips are not a significant portion of overall commute trips in Biddeford, it still is an indicator of some alternative transportation activity, and as transportation options become enhanced/expanded, increased multi-modal activity is likely.

For the 3 Lincoln Street project we would suggest the following strategies to be considered for maximizing transportation choice options.

- **TDM Coordinator:** Establish a TDM Coordinator (typically the Property Manager) that would be responsible for the following:
 - Ensuring strategic parking management and monitoring parking usage.
 - Coordinating tenant TDM policies and incentives.
 - Connecting tenants with nearby transportation resources.
 - Encouraging greater use of preferred modes – walking, biking, carpooling, taking the bus or Amtrak.
 - Overseeing and surveying tenants.
 - Exploring other TDM strategies, as needed.
- **Transit Incentives:** To encourage transit usage, transit pass purchase assistance could be offered to tenants.
- **Unbundle Parking:** Parking spaces would not be provided as part of residential leases, thus requiring tenants to purchase parking separately, which encourages lower automobile ownership or benefits those tenants that do not own vehicles.
- **Bike Parking:** The proposed site will be providing on-site bicycle parking and storage.
- **Carpooling/GO Maine:** The TDM Coordinator will assist tenants with carpool options through on-site opportunities and state-wide resources, like GO Maine.
- **Targeted Promotions:** Consider establishing a monthly discounts/benefits program rewarding multi-modal or car-free tenants.

Conclusion

In conclusion, it is my professional opinion the proposed 225 parking spaces to be provided will adequately accommodate the parking demand for the project (215 spaces are estimated). To ensure this occurs, the previously mentioned parking management strategies should be considered for implementation.

Please contact me if you have any questions.

Best regards,

T.Y. LIN INTERNATIONAL

A handwritten signature in black ink that reads "Thomas A. Errico". The signature is written in a cursive, flowing style with a large initial 'T'.

Thomas A. Errico, PE
Senior Associate / NE Traffic Engineering Director

Section 29

Utilities



Section 29: Utilities Summary

The project proposes to utilize existing infrastructure to provide sufficient services for the proposed project. Please refer to the proposed utility plan (Sheet C-20) for additional information. Summaries of each utility are as follows:

Water:

The City of Biddeford is currently reconstructing Pearl Street, that include a proposed 8" D.I water service stub into Lot 3 that connects to the 12" watermain within Pearl Street. This project proposes to extend the 8" D.I. water main within the lot and provide 6" D.I. fire protection water services with a 6" gate valves and 4" domestic D.I. water services with 4" gate valves for each structure located on Lot 3. Please see the attached Utility Plan for more information.

Sewer:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed 2" SDR 11 PVC force main sanitary force main sewer stub located on site. As part of the project the 2" force main will be extended within the parcel with connections to each buildings individual pump stations on Lot 3. Each 2" service will have a shut off and proposed sanitary sewer pump station that collects waste from each lots associated use, including, oil water separators, floor drains, elevator sumps, and residential loads. Please see the attached Utility Plan, Grading & Drainage Plan and Detail Sheets for more information.

Stormwater:

Each of the three proposed buildings will be constructed with roof drains and foundation drains. Stormwater runoff from the site will be directed to a series of catch basins and storm drain network which will tie into the existing storm drain installed parallel to the railroad tracks towards the rear of the parcel, ultimately discharging into the existing subsurface stormwater treatment system that was recently installed as part of the City Garage project and located on Lot 4. The subsurface stormwater system was designed to convey and treat stormwater runoff from the overall 3 Lincoln Street parcel and had obtained a Maine DEP Stormwater Law permit (#L-10282-NJ-A-N). As the designs for Lot 3 progress, an amendment to the Stormwater Permit has been submitted to the DEP to show the proposed uses on Lot 3 will remain below the previously authorized redevelopment pollutant rankings. A copy of the application has been provided in Section 12.

Electric:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project underground electric services are proposed to connect to the (3) 5" existing conduits to power to each building (A, B, and C) with installation of three (3) pad mounted transformers located in a single location on the North side of Building C. Please see the attached Utility Plan for more information.



Cable/Telephone:

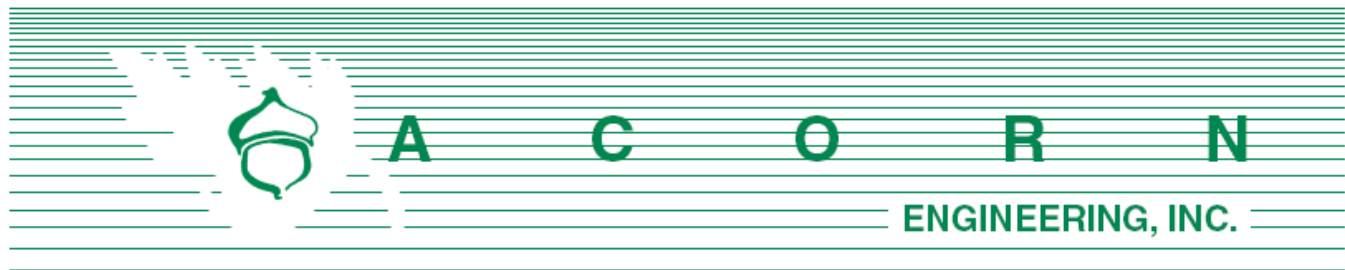
The City of Biddeford is currently reconstructing Pearl Street, that include proposed telecom/cable stubs that are routed from Pearl Street. As part of this project underground telecom/cable services are proposed to tie into the 8 existing 4" conduits and service each building (A, B, and C). A pedestal is proposed at the end of each service line within 5' of each respective building. Please see the attached Utility Plan for more information.

Gas:

The City of Biddeford is currently reconstructing Pearl Street, that include proposed gas stub that connects to the main within Pearl Street. As part of this project a gas main is proposed to tie into the existing stub and have service connections for proposed buildings A, B, and C.

In addition to the summaries above, Ability to serve letters have been sent out to the respective utility companies. Responses will be provided upon receipt and submitted to the Planning Department upon receipt.





Consolidated Communications
Attn: Mr. Jay Cunha
45 Forest Avenue
Portland, Maine 04101

August 23, 2021

Subject: Redevelopment 3 Lincoln Street, Lot 3, Biddeford
Re: Ability to Serve

Mr. Cunha:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Consolidated Communications ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed telecom/cable stubs that connect to the main within Pearl Street. As part of this project an underground telecom/cable service is proposed to tie into the proposed stub and service Lots 3A, 3B, and 3C. A pedestal is proposed at the end of each service line within 5' of each respective building. Please see the attached Utility Plan for more information.

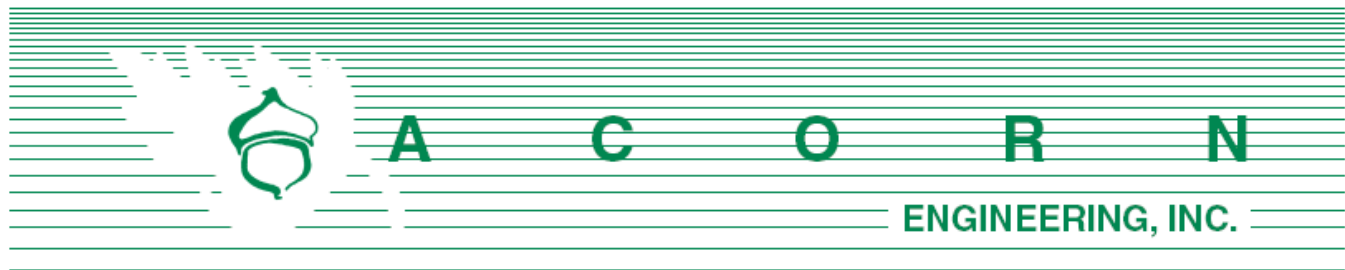
On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Pearl Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Consolidated within the project vicinity.
4. Consolidated's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Spectrum Cable
Attn: Mr. Dan Minchev
118 Johnson Road
Portland, Maine 04102

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Mr. Minchev:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Spectrum Cable's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop the Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

Our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed telecom/cable stubs that connect to the main within Pearl Street. As part of this project an underground telecom/cable service is proposed to tie into the proposed stub and service Lots 3A, 3B, and 3C. A pedestal is proposed at the end of each service line. Please see the attached Utility Plan for more information.

On behalf of the client, we are requesting the following information:

1. Any easements for services currently crossing the proposed development.
2. Any additional information, such as utility mapping within Pearl Street, abutting properties, and/or existing service connections.
3. Any proposed infrastructure improvements by Spectrum within the project vicinity.
4. Spectrum's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



August 29, 2022

Peter Heil, P.E.
Project Manager
Acorn Engineering

RE: May Serve Letter by Charter Communications or an affiliated to provide service
("Spectrum")

Subject: Redevelopment of Pearl Street, Lot 3
Biddeford, ME

Dear Peter:

Thank you for your interest in receiving Spectrum service. The development, on behalf of 3 LINCOLN, LLC, of REDEVELOPMENT OF PEARL STREET, LOT 3, BIDDEFORD, is within an area where Spectrum may lawfully provide video, internet and voice services.

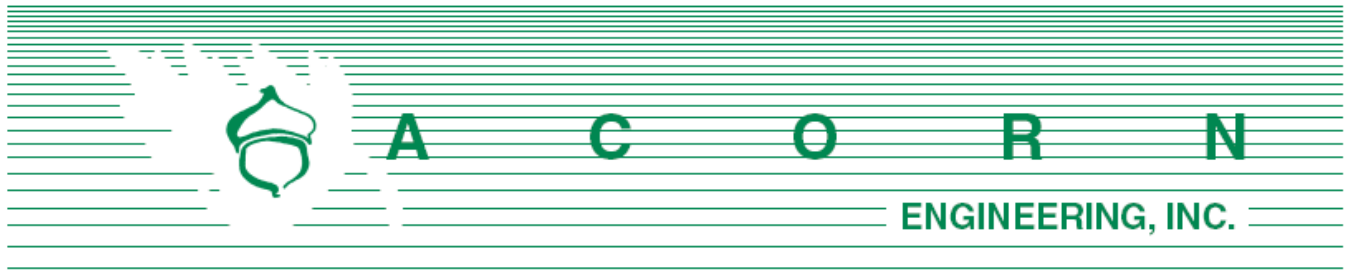
However, this letter is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Spectrum will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or easements
- [Other as required] _____

Please forward this information to me. Upon receipt, I will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation in the process is appreciated.

Sincerely,

Steven Holmes
MDU, Account Executive
Spectrum Community Solutions
444 Perry Road
Bangor, ME 04401
(207) 631-1618 | steven.holmes@charter.com



Central Maine Power
Attn: Mr. Jamie Cough
162 Canco Road
Portland, Maine 04103

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Mr. Cough:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Central Maine Power's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project an underground electric service is proposed to tie into the stub and run to each lot's (3A, 3B, and 3C) associated 9'x9' pad mounted transformer.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed redevelopment
2. Any additional information, such as utility mapping within Pearl Street and existing service connections.
3. Any proposed infrastructure improvements by CMP within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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

Zach Stevens

From: Cough, Jamie <Jamie.Cough@cmpco.com>
Sent: Wednesday, September 8, 2021 10:12 AM
To: Zach Stevens
Cc: Pete Heil
Subject: RE: Ability to Serve Request
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; May 2021 EDET.XLSX

Follow Up Flag: Follow up
Flag Status: Flagged

Zach:

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to [CMP Installation Checklists](#) for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to your advisor.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to your advisor. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email to your advisor.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (CMP will need to schedule with your electrician/contractor-please let us know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process that is required to provide invoicing.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

Please complete the attached forms (the specific instructions are on each form) and email them back to your advisor at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: [CMP Handbook of Standard Requirements](#). An additional resource is our Distribution Construction Standards: [CMP Distribution Construction Standards](#).

You will be responsible for installing the customer connections, conduits, and metering in accordance with the [CMP Handbook of Standard Requirements](#). The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the [CMP Handbook of Standard Requirements](#). The metering supplement is in the last section of the Handbook.

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to [Chapter 324 Interconnection Standards](#) and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If your project is under 660 KW you will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: [Net Energy Billing](#).

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as “developments” do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: [PolyphaseLineExtension](#).

This line extension will be part of Central Maine Power’s distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the “Customer” taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don’t already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

- 1) Maine Public Utilities Commission (MPUC) web site- [Maine PUC](#)
- 2) By calling the MPUC at (207) 287-3831

Attachments:

Excel Load Sheet (EDET)
Easement Information Worksheet and Sample Standard Easement
W9 – Request for Taxpayer Identification Number and Certification

Regards,

Jamie

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-629-1489



Internal Use

From: Zach Stevens <zstevens@acorn-engineering.com>
Sent: Monday, August 23, 2021 10:58 AM
To: Cough, Jamie <Jamie.Cough@cmpco.com>
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: EXTERNAL:Ability to Serve Request

Mr. Cough:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Central Maine Power's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed underground electric stub that connects to the main within Pearl Street. As part of this project an underground electric service is proposed to tie into the stub and run to each lot's (3A, 3B, and 3C) associated 9'x9' pad mounted transformer.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed redevelopment
2. Any additional information, such as utility mapping within Pearl Street and existing service connections.
3. Any proposed infrastructure improvements by CMP within the project vicinity.
4. CMP's ability to serve the project.
5. Access requirements to the CMP meters.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, and a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Thanks,

Zachary Stevens, E.I.
Design Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

[Acorn's Website](#) | [Instagram](#) | [LinkedIn](#)

B. 207.775.2655

C. 207.240.2993

Please note Acorn Engineering employees may be working remotely. All employees have laptops and full access to project files using Sharepoint. To do our part and reduce unnecessary exposure all meetings will be held remotely using video conferencing software such as Teams or Zoom. If an in-person meeting is necessary then the meeting will be held outside.

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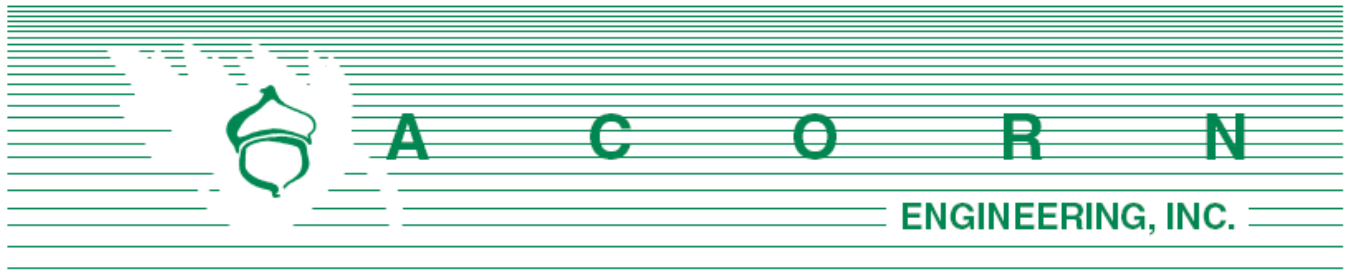
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Unitil Service Corp.
Attn: Ms. Bridget Harmon
376 Riverside Industrial Parkway
Portland, Maine 04103

August 23, 2021

Subject: Redevelopment of Pearl Street Lot 3, Biddeford
Re: Ability to Serve

Ms. Harmon:

On behalf of 3 Lincoln, LLC, we are pleased to submit the following request for Unitil's ability to serve the project. The parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 64-unit residential/mixed use building on Lot 3A, a 76-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

It is our understanding is that the City of Biddeford is finalizing designs of Pearl Street improvements, that include proposed gas stub that connects to the main within Pearl Street. As part of this project a gas main is proposed to tie into the existing stub and have service connections for Lots 3A, 3B, and 3C. Please see the attached Utility Plan for more information.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Pearl Street location of existing service connections.
2. Any proposed infrastructure improvements by Unitil within the project vicinity.
3. Unitil's ability to serve the project.

I have attached an Existing Conditions Survey created by Owen Haskell dated August 20th, 2021, a proposed preliminary Utility Plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

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



Acorn Engineering
Attn: Peter F. Heil P.E
65 Hanover St.
Portland Maine, 04101

August 23, 2021

Re: Ability to Serve Redevelopment of Pearl Street Lot 3, Biddeford

Dear Mr. Heil:

Thank you for your interest in using natural gas for the above referenced project. This letter confirms that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system that are necessary to provide this service, as well as the design of the gas system in the project itself, will be established as the overall design and scope of your project progresses.

All work necessary to provide service will be performed in accordance with the Maine Public Utilities Commission requirements.

If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or at harmon@unitil.com.

Sincerely,

Bridget L. Harmon
Business Development
harmon@unitil.com
(T) 207-541-2536 (F) 207-541-2536

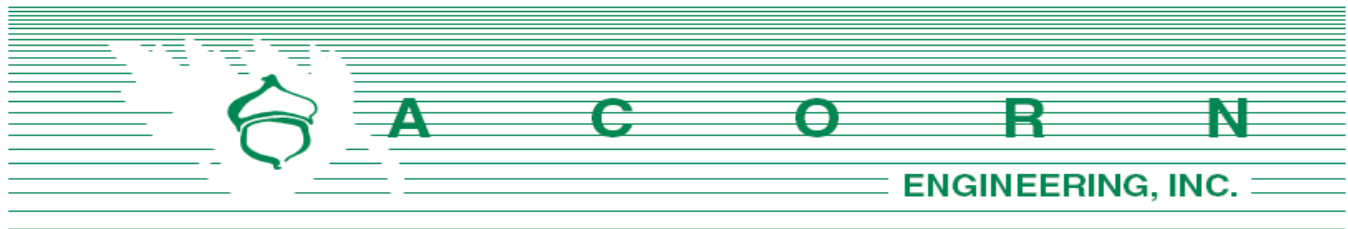
Section 30

Public Safety

Section 30: Public Safety Letter of Approvals

Please refer to the attached letters that were sent to the Fire and Police Departments on September 14, 2021. Responses from the Fire Department is attached, and Police Department response 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

September 14, 2021

Subject: Redevelopment 3 Lincoln Street, Lot 3, Biddeford
Re: Letter of Approval

Mr. Gagne:

On behalf of 3 Lincoln, LLC, 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 parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 83-unit residential/mixed use building on Lot 3A, a 108-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

From a fire protection standpoint, it is our understanding that the City of Biddeford is finalizing designs of Pearl Street improvements that include the existing fire hydrant to be removed and replaced along the frontage of the proposed Lot 3, a proposed 8" D.I fire protection service stub, and a 4" domestic service stub that connects to the 12" watermain within Pearl Street. The proposed project anticipates extending the 8" D.I. fire protection main and the 4" domestic main within Lot 3 and provide a 6" D.I. fire protection water service with a 6" gate valve and a 4" domestic D.I. water service with 4" gate valve for each structure located on Lots 3A, 3B, and 3C.

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



Zach Stevens

From: Gagne, Scott <Scott.Gagne@Biddefordmaine.org>
Sent: Thursday, December 22, 2022 10:07 AM
To: Zach Stevens
Subject: RE: Letter of Approval

Follow Up Flag: Follow up
Flag Status: Completed

The fire department has the ability to serve the address of 3 Lincoln Street for fire and EMS protection. Thank you



[Biddeford Fire Department](#)

From: Zach Stevens <zstevens@acorn-engineering.com>
Sent: Monday, December 19, 2022 11:32 AM
To: Gagne, Scott <Scott.Gagne@Biddefordmaine.org>
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: RE: Letter of Approval

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

Hi Scott,

I wanted to follow up on the below request. Thanks,

Zachary Stevens

Acorn Engineering, Inc
B. 207.775.2655
C. 207.240.2993

From: Zach Stevens
Sent: Friday, September 30, 2022 9:30 AM

To: scott.gagne@biddefordmaine.org
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: FW: Letter of Approval

Hi Scott,

I wanted to follow up on the below request. As part of the Site Plan Application process the project is required to gain approval of the Fire Department.

The project has been updated to 214 proposed residential units (previously 191). I also attached the latest site plan to facilitate your review. Please let us know if you have any questions. Thanks,

Zachary Stevens

Acorn Engineering, Inc
B. 207.775.2655
C. 207.240.2993

From: Zach Stevens
Sent: Tuesday, September 14, 2021 3:35 PM
To: scott.gagne@biddefordmaine.org
Cc: Pete Heil <pheil@acorn-engineering.com>
Subject: Letter of Approval

Hello,

On behalf of 3 Lincoln, LLC, please find the attached letter of approval for the proposed project including 108-units and a restaurant building located at 3 Lincoln Street Biddeford ME. I have attached a Site Plan from our office as reference.

Please let us know if you have any questions during your review.

Thanks,

Zachary Stevens, E.I.
Design Engineer

Licensed in Maine

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104
[Acorn's Website](#) | [Instagram](#) | [LinkedIn](#)

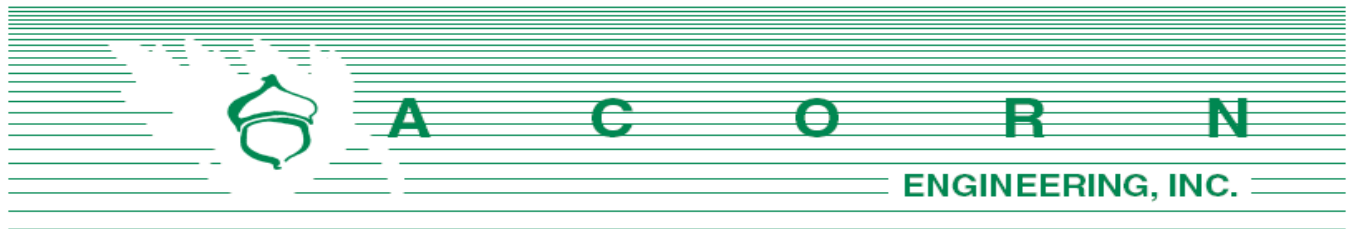
B. 207.775.2655
C. 207.240.2993

As of July 2021, Acorn Engineering employees are transitioning to modified COVID-19 health & safety protocols, with most professionals working in the office at least three days a week. We are holding in-person meetings, but remain willing to use video conferencing software such as Teams or Zoom for partners and clients who are more comfortable with this communication approach. All employees continue to have laptops and full access to project files using Sharepoint to maximize efficiency and responsiveness.

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



Biddeford Police Dept.
Attn: Roger P. Beaupre, Chief of Police
39 Alfred St
Biddeford, ME 04005

September 14, 2021

Subject: Pearl Street Redevelopment
Re: Letter of Approval

Mr. Beaupre:

On behalf of 3 Lincoln, LLC, 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 parcel is mapped as Map: 71, Block 2, and is in the Main Street Revitalization District – High Density / Mixed-Use (MSRD-3), General Development (G-1) Shoreland Overlay Zoning Districts. The project proposes to develop Lot 3 into three (3) separate lots each with its own associated infrastructure, including a 83-unit residential/mixed use building on Lot 3A, a 108-unit residential building on Lot 3B, and a commercial/restaurant building with approximately 298 seats total, on Lot 3C.

The project anticipates multiple wall pack lighting fixtures along the new buildings, thus increasing nighttime visibility for patrons and residents. Furthermore, the additional “eyes on the street” created by the proposed restaurant and renters of the 191 units on Lot 3A and 3B will provide another layer of security on Pearl Street and the abutting properties.

Accessways for emergency vehicles will be maintained and generally provide ample opportunity to access the site. We envision the newly developed Lot 3 functioning as a small community and overall feel the proposed project will improve public safety when compared to the existing condition by ensuring adequate lighting and increasing the occupancy of the neighborhood.

Please do not hesitate to contact me for any questions or clarifications.

Sincerely,

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

Sincerely,

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



ACORN Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

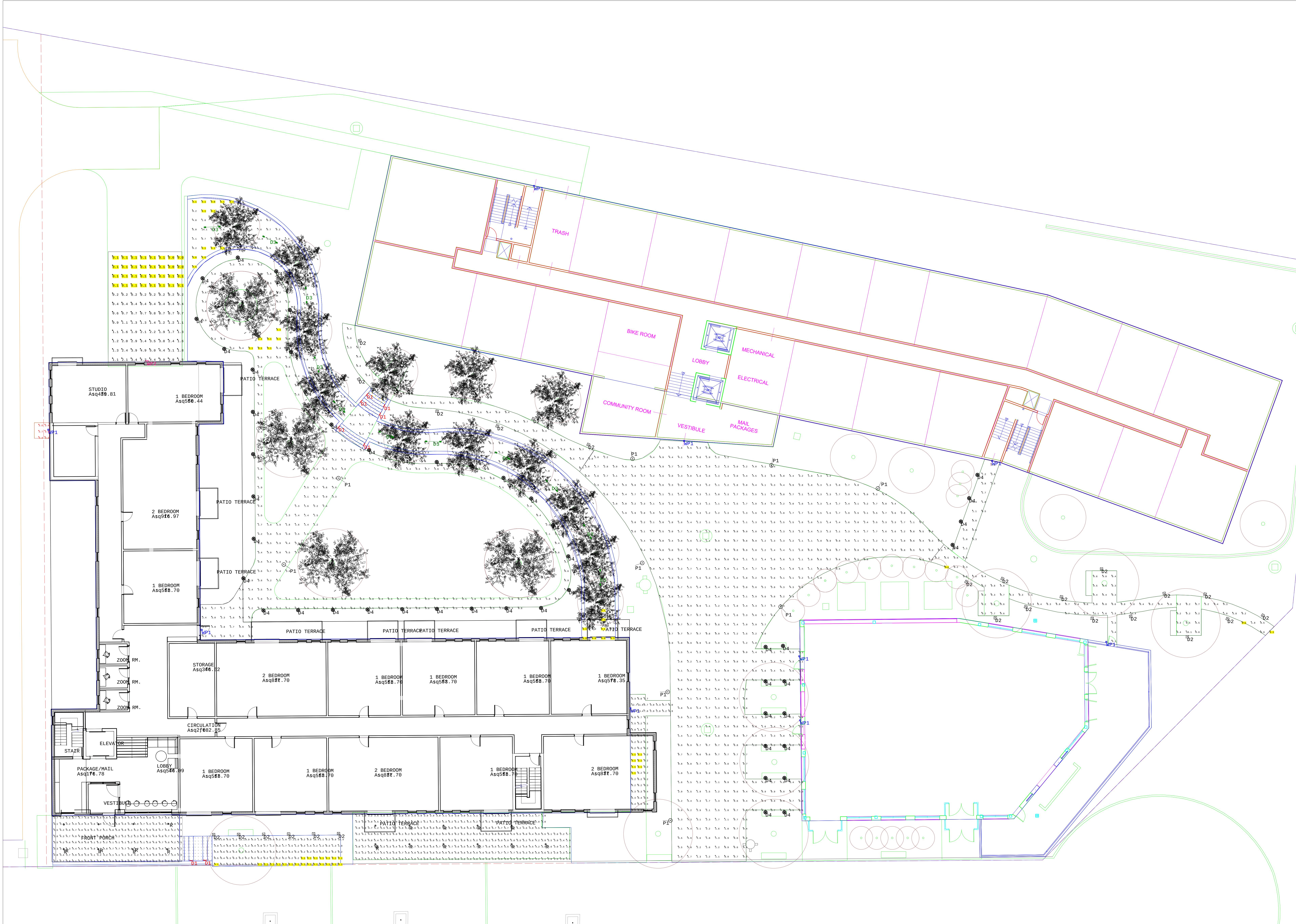
Section 31

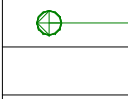
Lighting

Section 31: Lighting

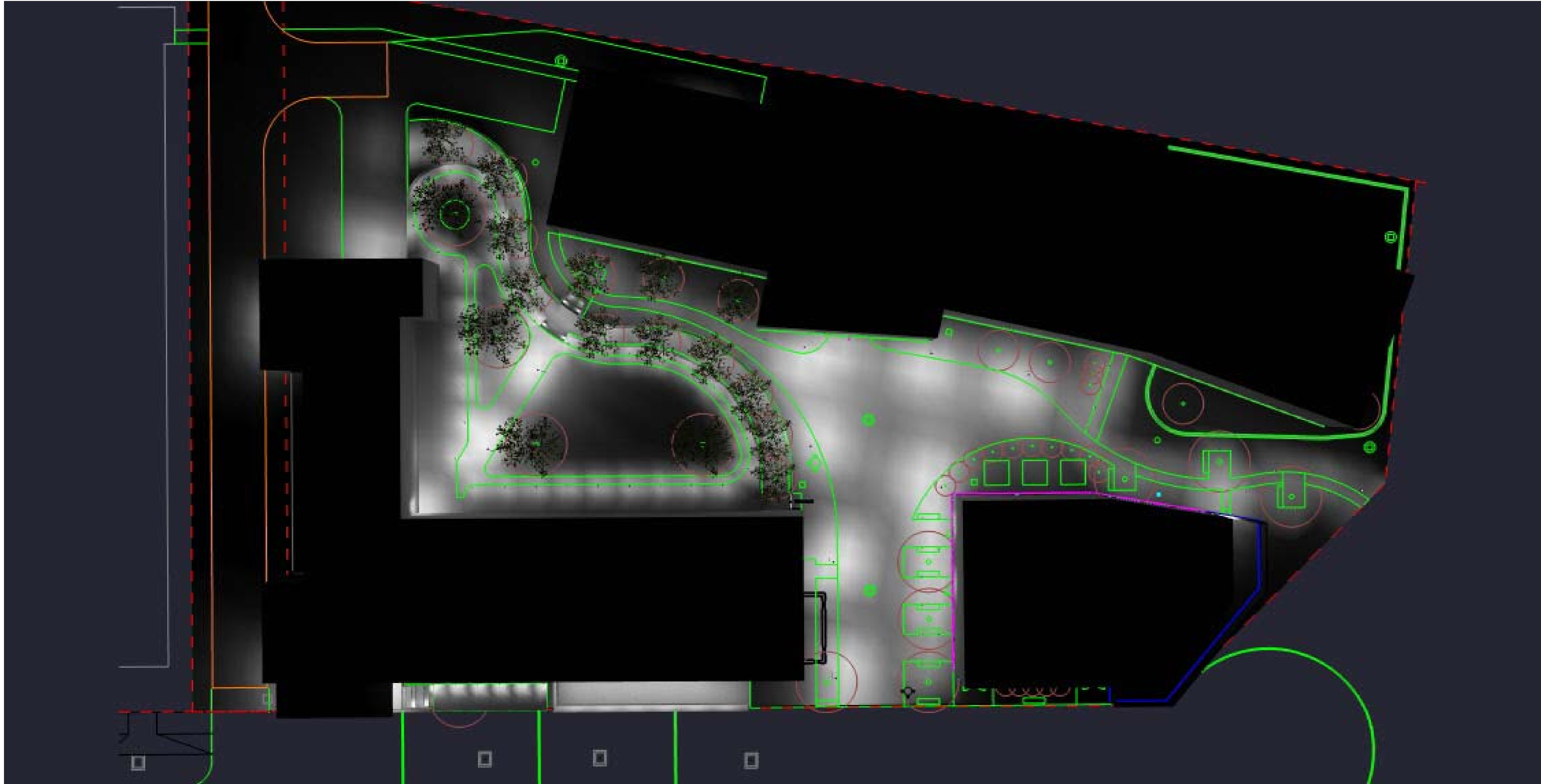
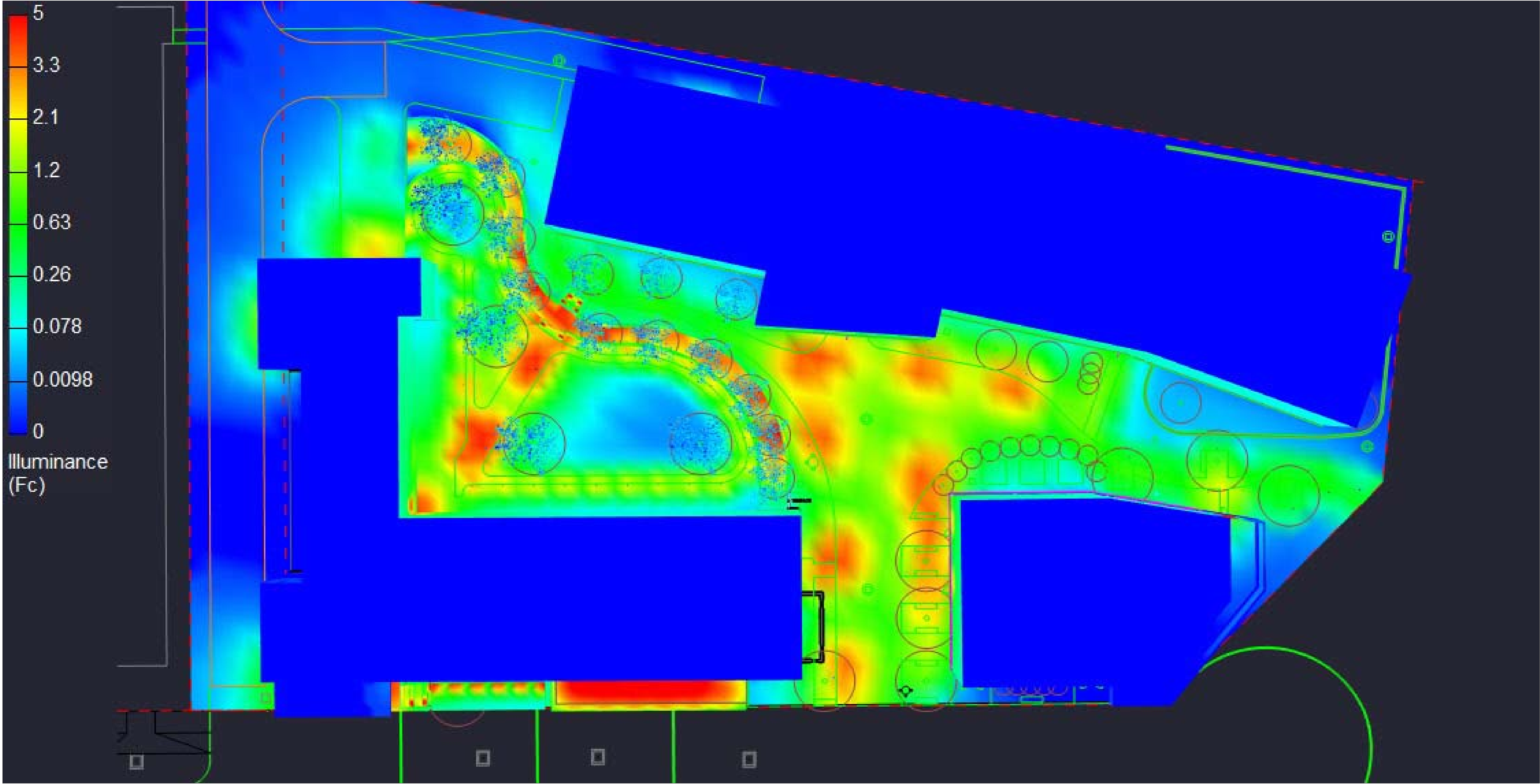
The project proposes to install wall mounted lighting at each egress and pole mounted lighting and bollards for the internal walkways. Please refer to the Photometric Plan and Cut Sheets attached below by Reflex Lighting. The lighting will be conforming to the City of Biddeford Regulations and be dark sky compliant.

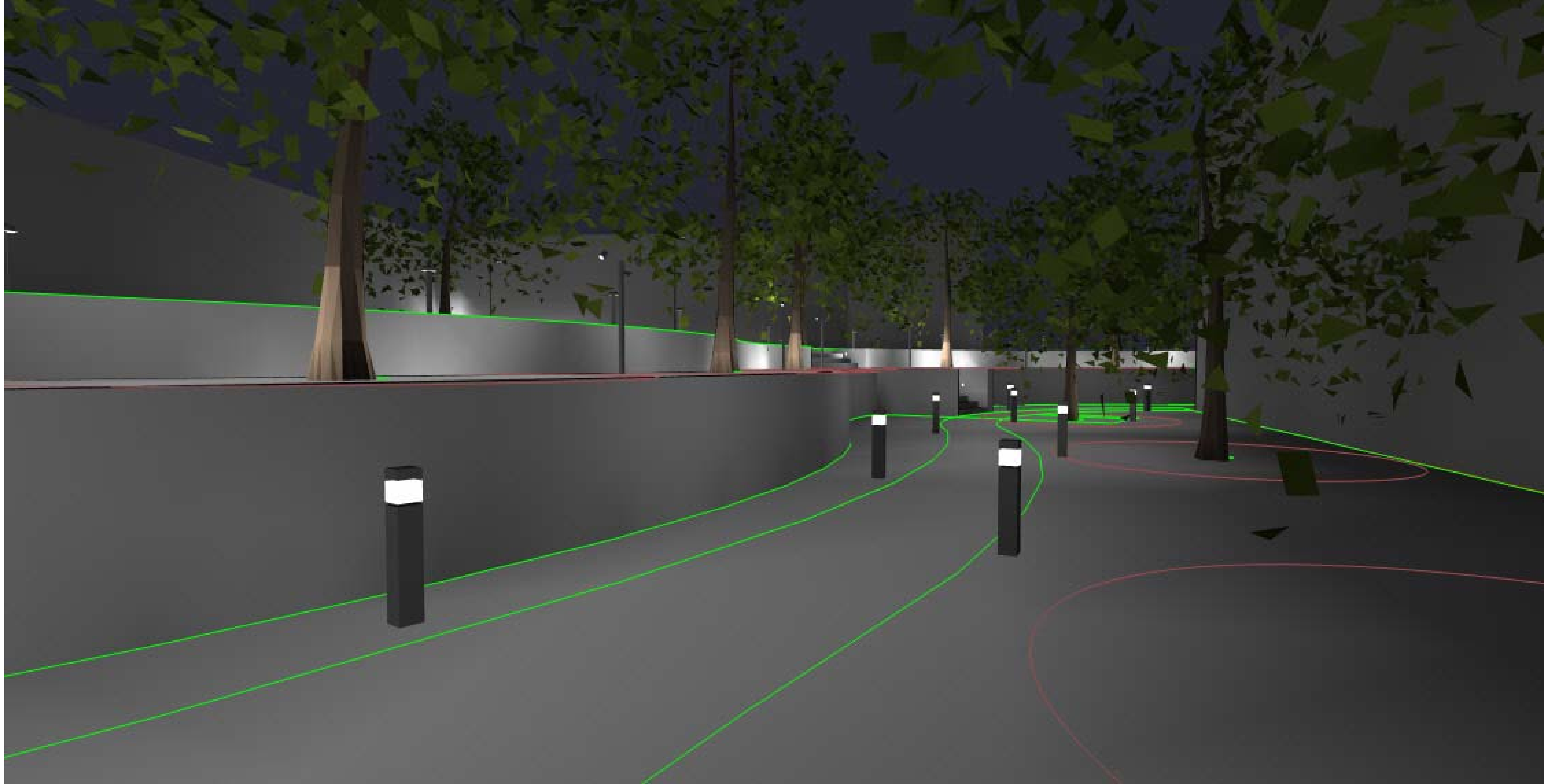
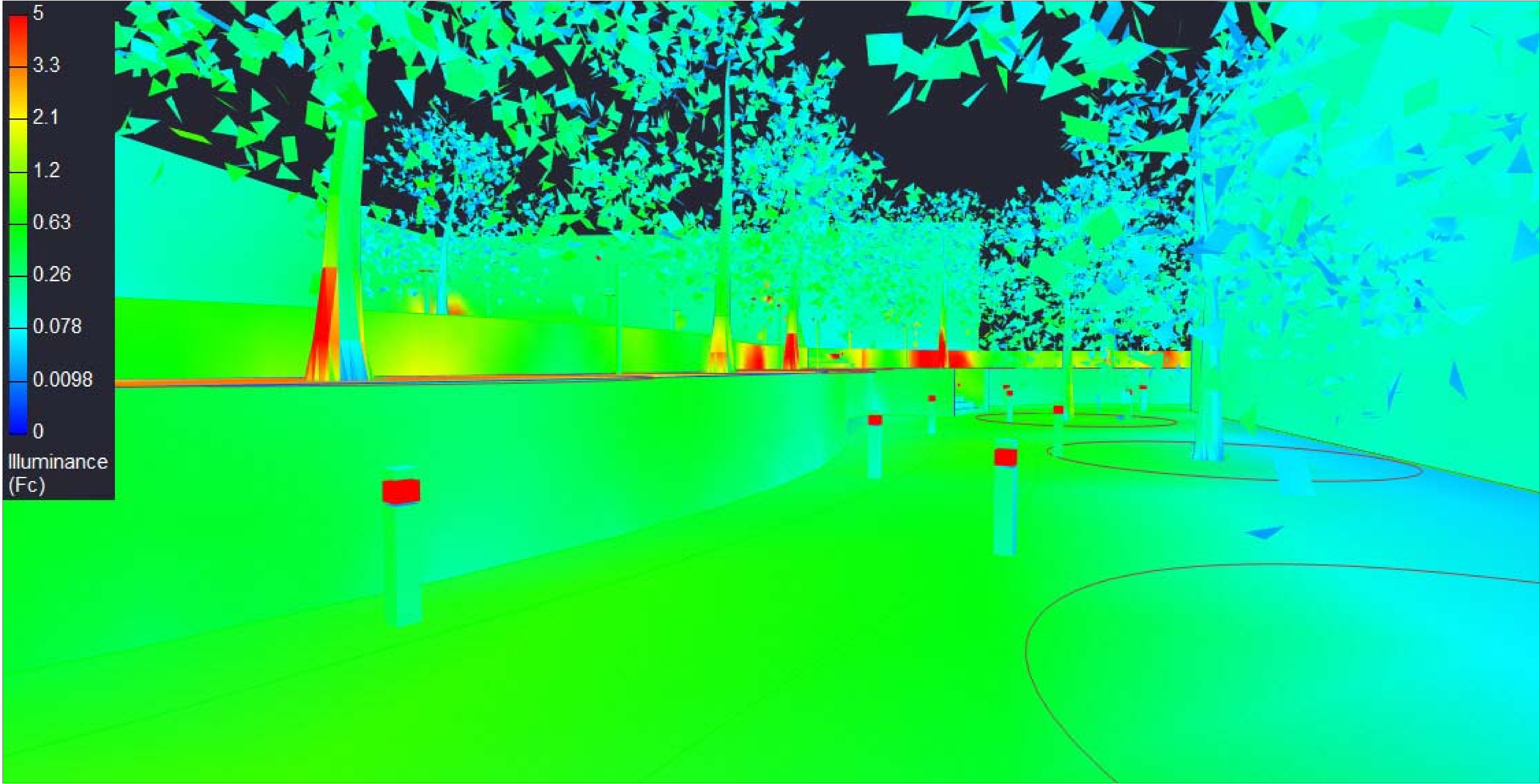


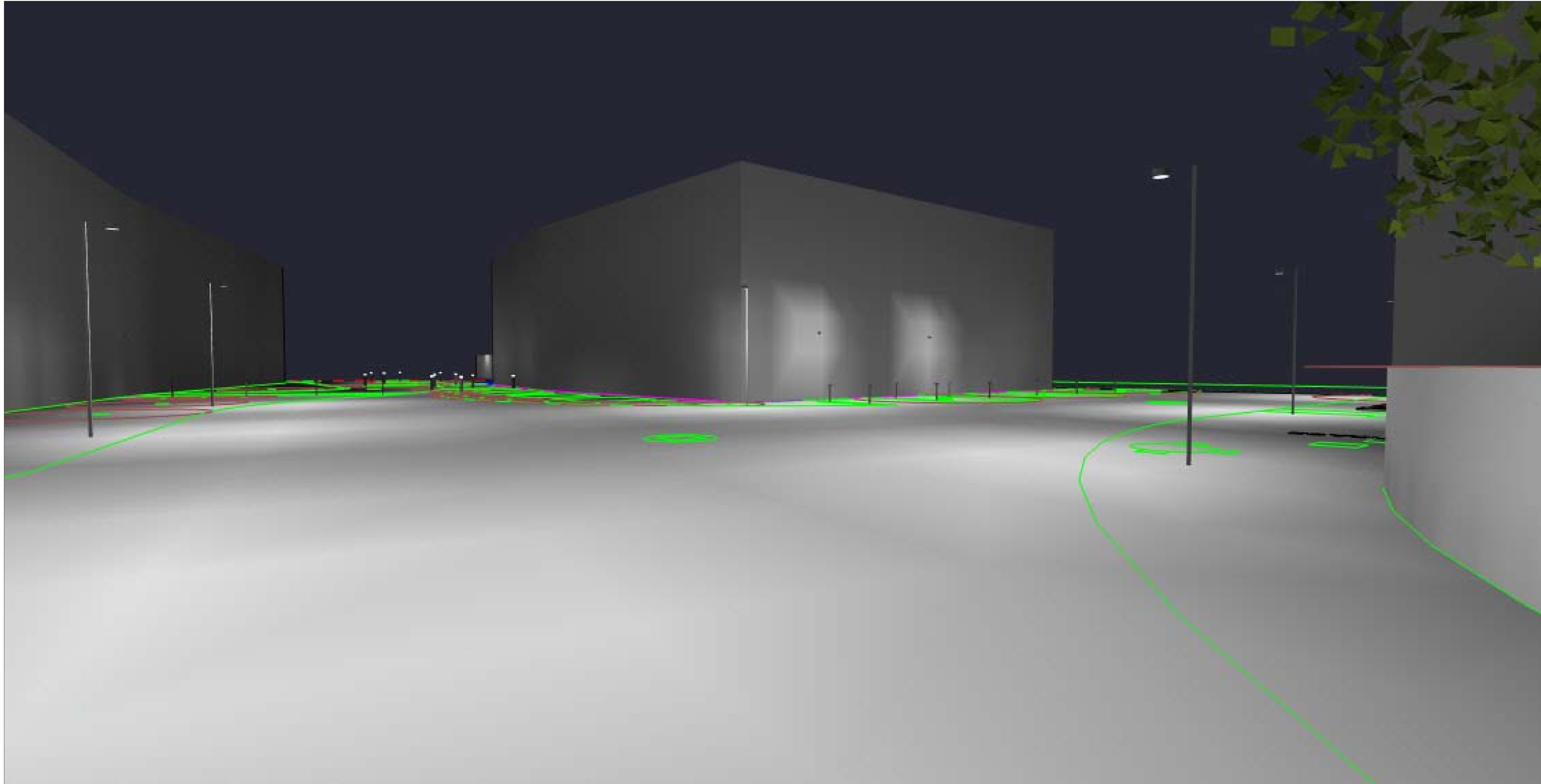
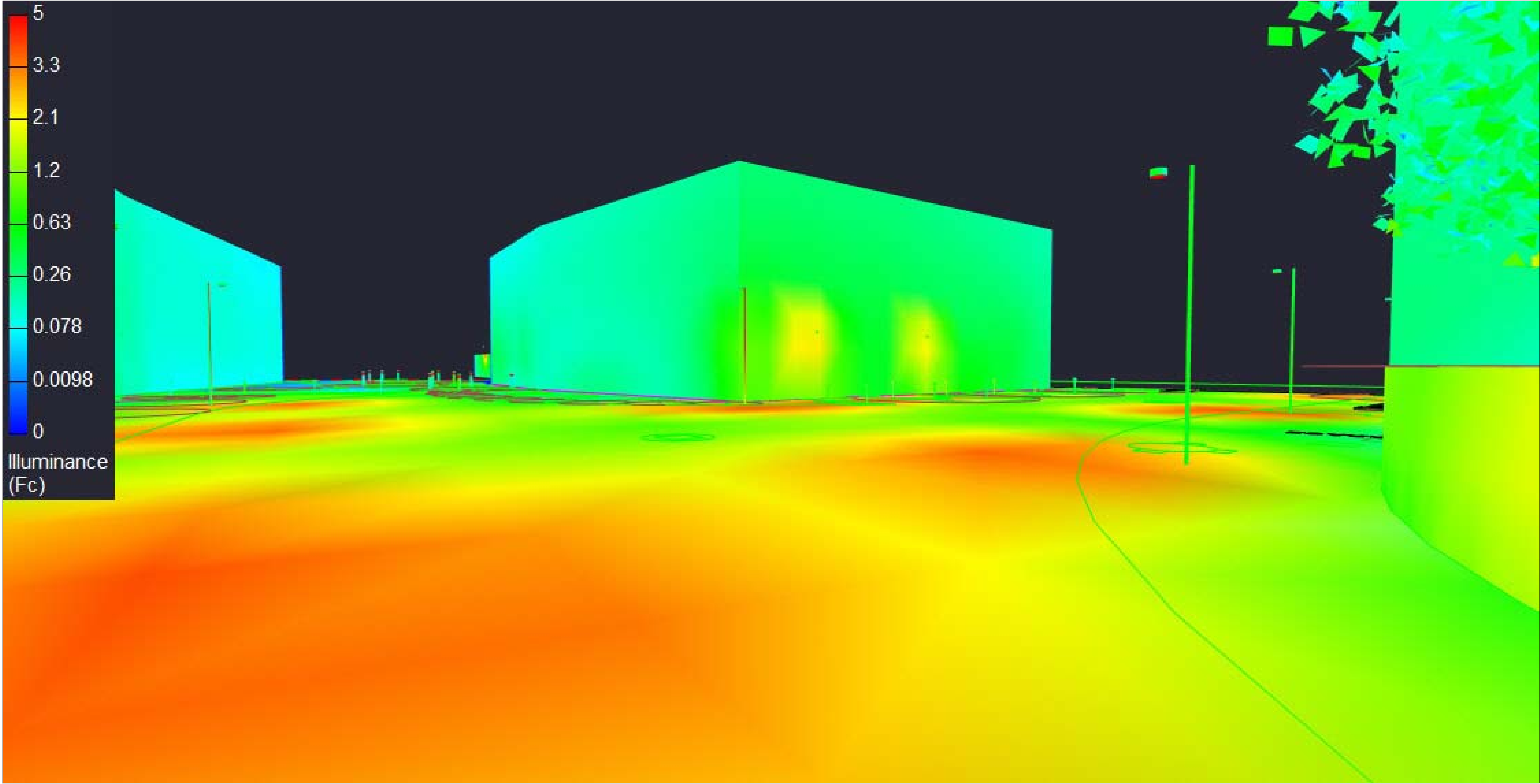


Luminaire Schedule									
Symbol	Qty	Label	Description	Tag	Arrangement	LLF	Luminaire Lumens	Luminaire Watts	Mounting Height
	8	D1	LIGMAN: VI-40307-W30	Stair Light	Single	0.900	46	4.9	2.5, 3.5, 5.5
	29	D2	LIGMAN: RA-10751-W30 Rev. 2	Bollard	Single	0.900	124	4.5	0
	11	D3	WAC: 6211-30-BZ	Spotlight	Back-Back	0.900	364	8.21124	8.167
	49	D4	WAC: 6011-30BZ A122315	Pathway Light	Single	0.900	151	8.2	1.83, 7.83
	9	P1	LIGMAN: TA-20011-T4-W30	Pole Light	Single	0.900	2491	37.8	12, 18
	19	R	DMF: DRD2M07930GAO-DRD2TRJDHWH	Recessed Canopy	Single	0.900	596	9.5	10, 14
	9	WP1	LIGMAN: LEE-30001-T4-W30	Entry Door	Single	0.900	642	7.6	8, 14
	1	WP2	LIGMAN: LEE-30011-T4-W30	Wallpack	Single	0.900	1466	13.8	10

Calculation Summary												
Label	Units	Avg	Max	Min	Avg/Min	Max/Min						
Courtyard - Central	Fc	2.00	7.4	0.2	10.00	37.00						
Courtyard Path - East	Fc	1.93	15.4	0.1	19.30	154.00						
Courtyard Path - West	Fc	1.47	11.4	0.2	7.35	57.00						
Grade - Mid	Fc	3.07	14.5	0.0	N.A.	N.A.						
Grade - Raised Terrace	Fc	2.02	6.6	0.1	20.20	66.00						
Lot 3A - East Entrance	Fc	2.67	14.8	0.1	26.70	148.00						
Lot 3A - Entry Porch	Fc	4.21	5.3	2.2	1.91	2.41						
Lot 3A - Garage Entrance	Fc	1.11	5.0	0.0	N.A.	N.A.						
Lot 3A - Lower Front Porch	Fc	1.57	20.0	0.1	15.70	200.00						
Lot 3A - Rear Entrance, Floor	Fc	4.49	6.3	1.0	4.49	6.30						
Lot 3A - West Entrance	Fc	3.47	3.7	3.2	1.08	1.16						







Fathom Lot 3

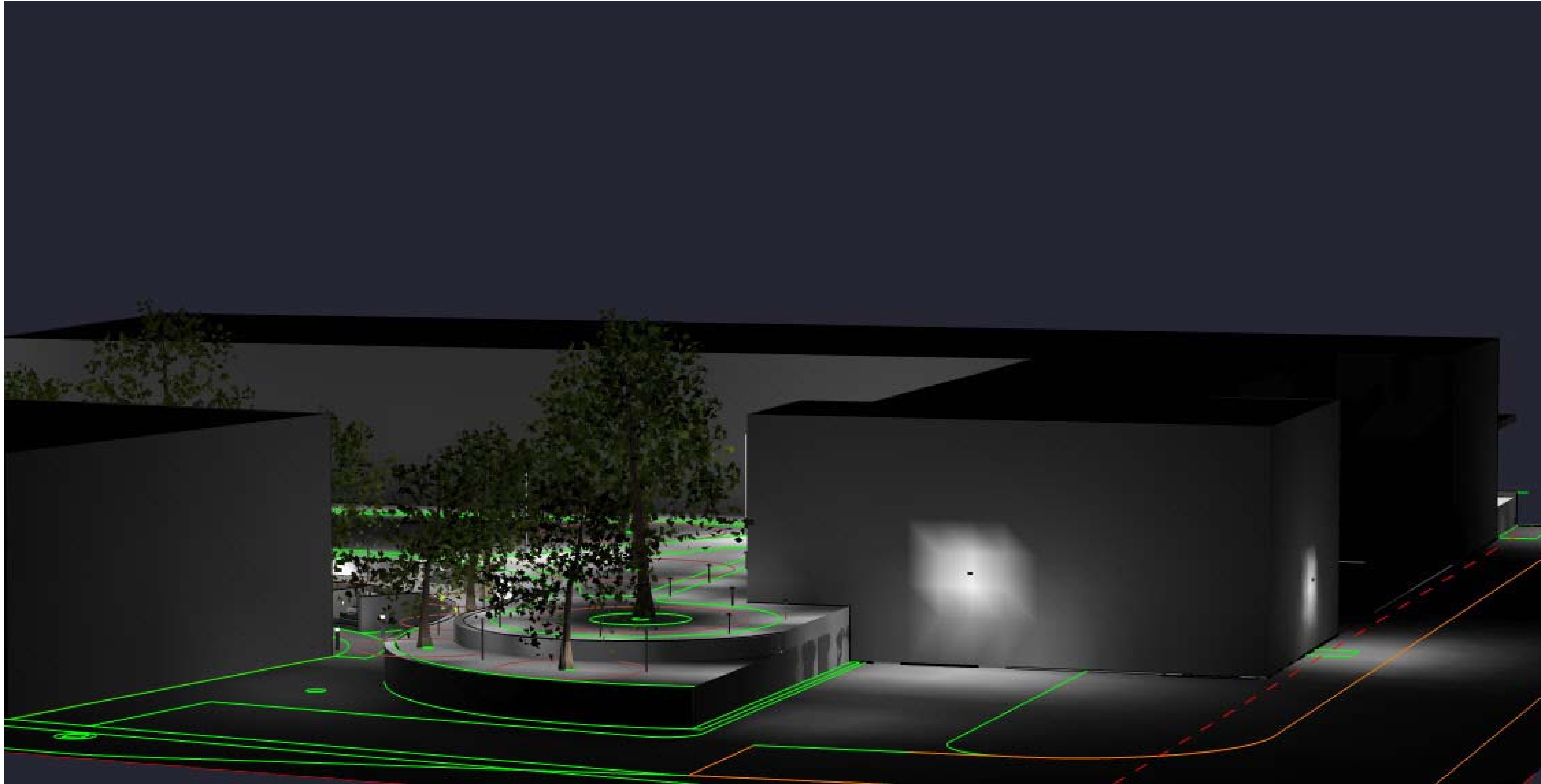
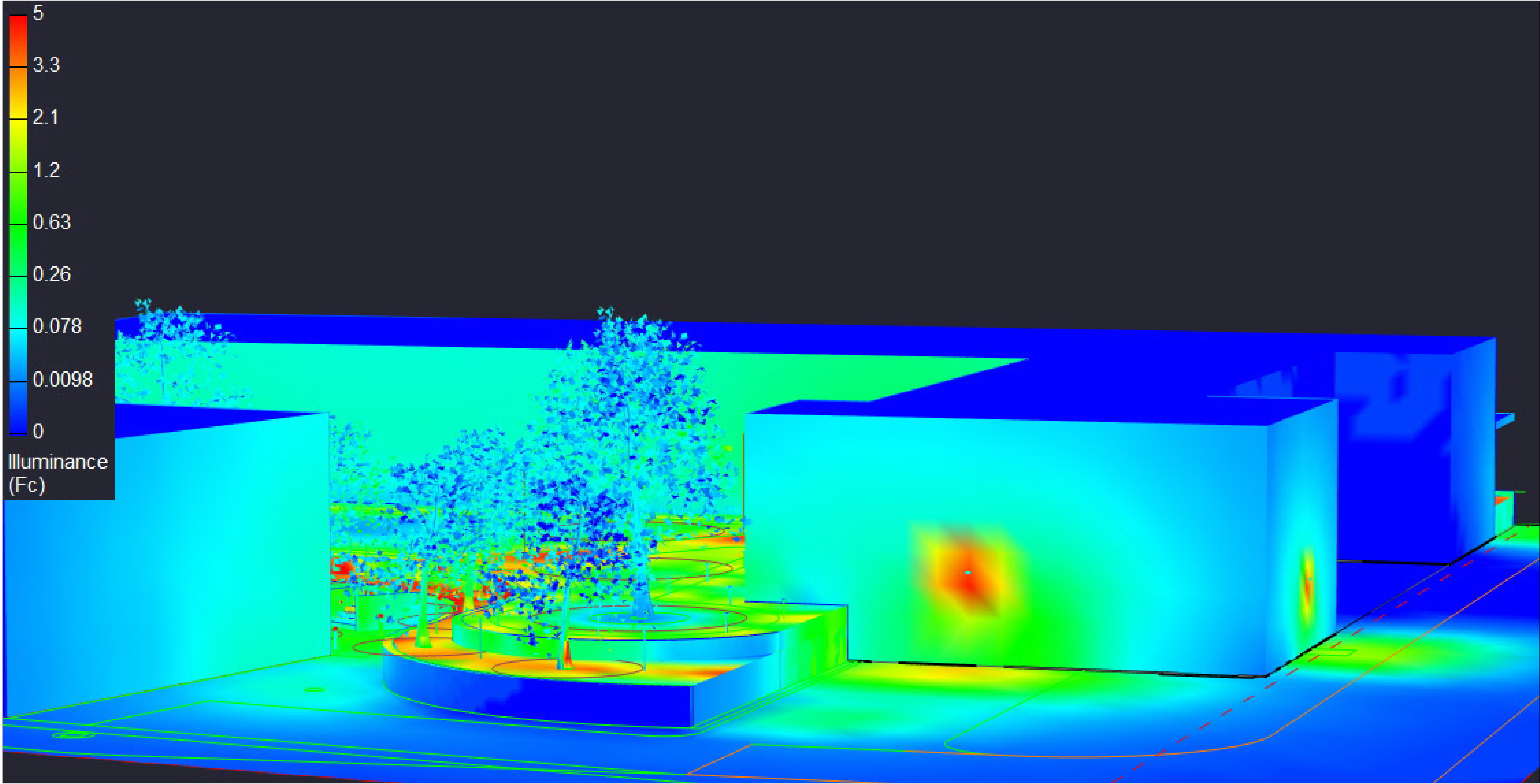
Pearl Street Lot 3, Biddeford Maine

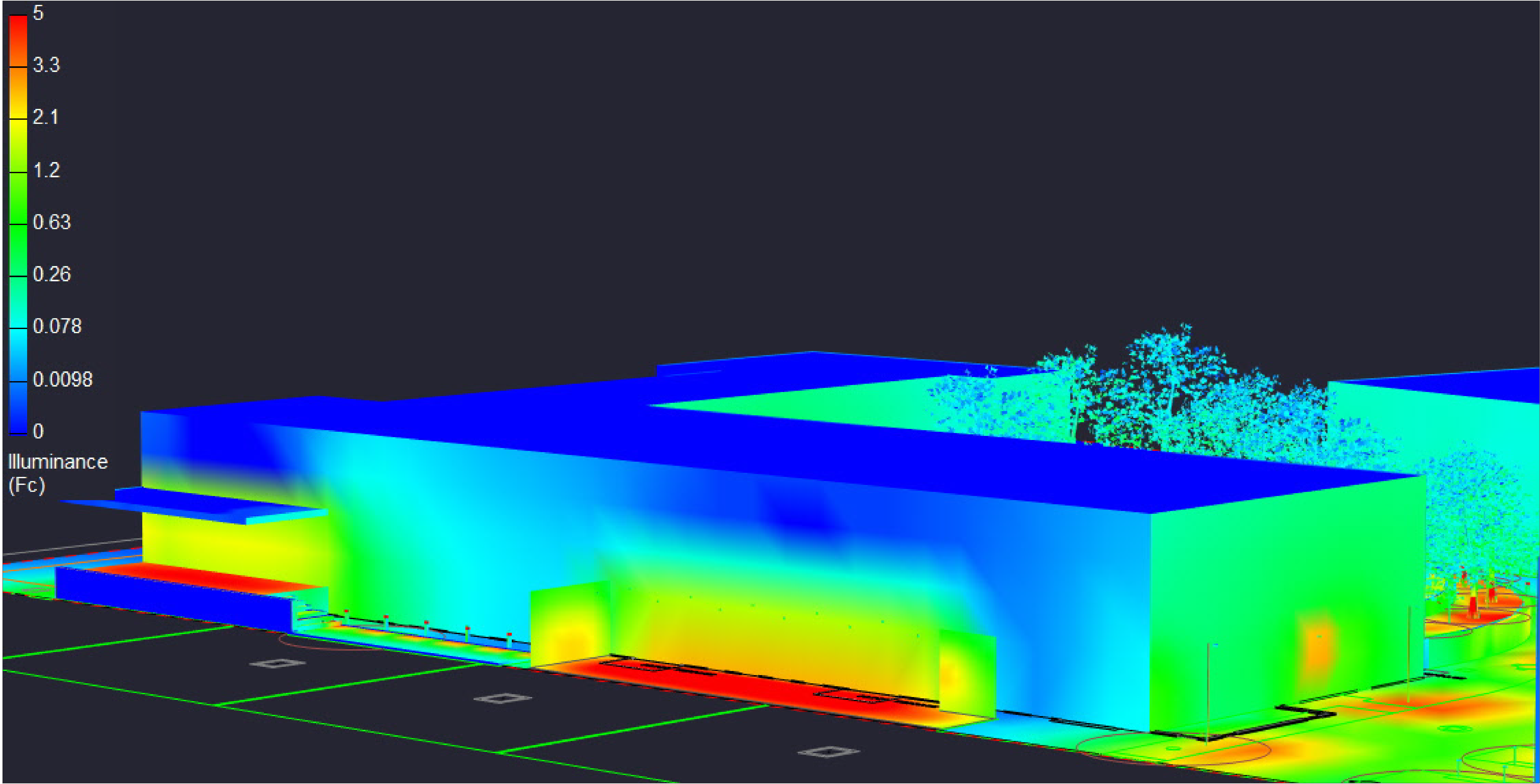
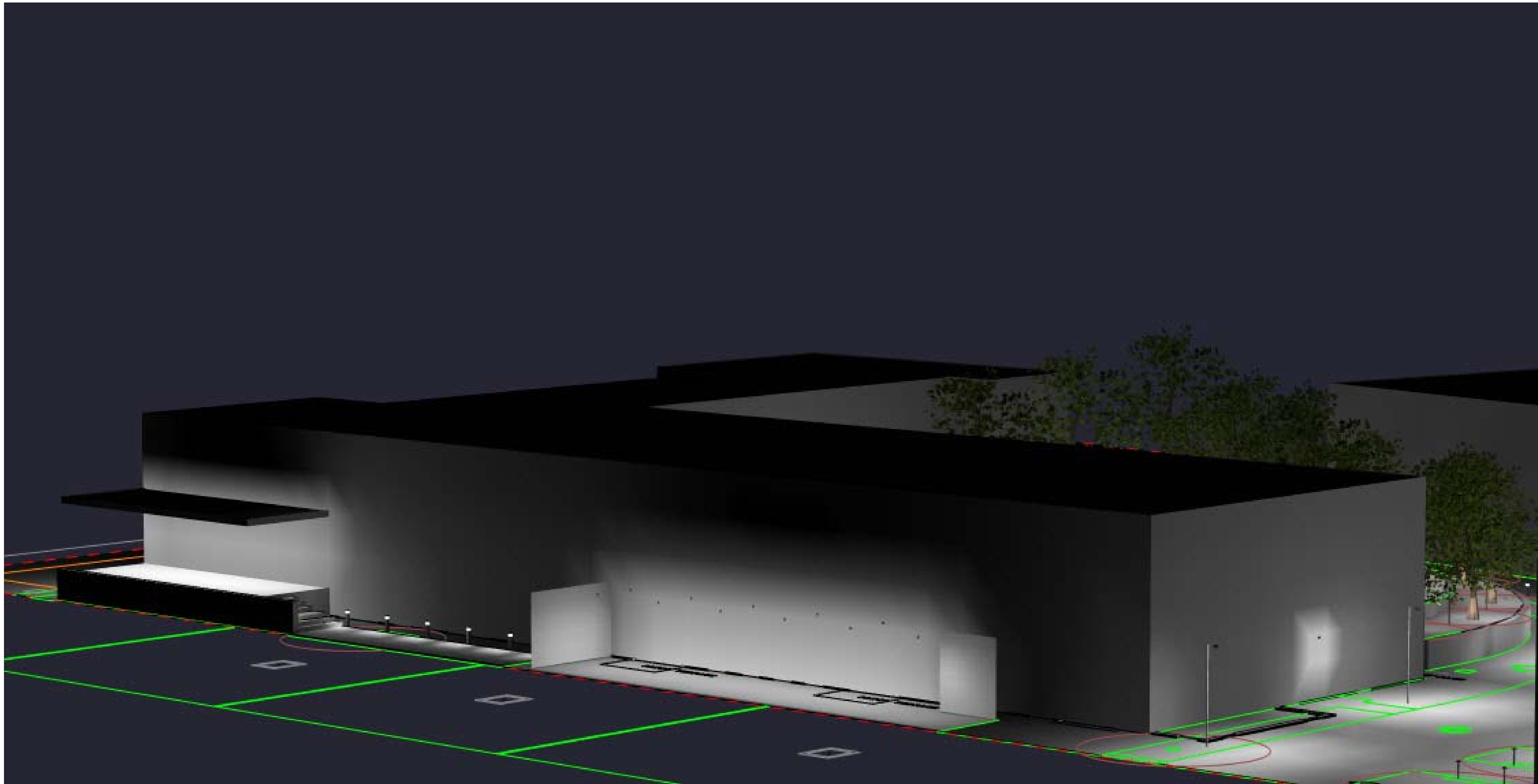
Drawn By: IF
Date: 9/21/2022
Specifier: Erik Miles
Salesperson: Erik Miles
Scale: Not to Scale

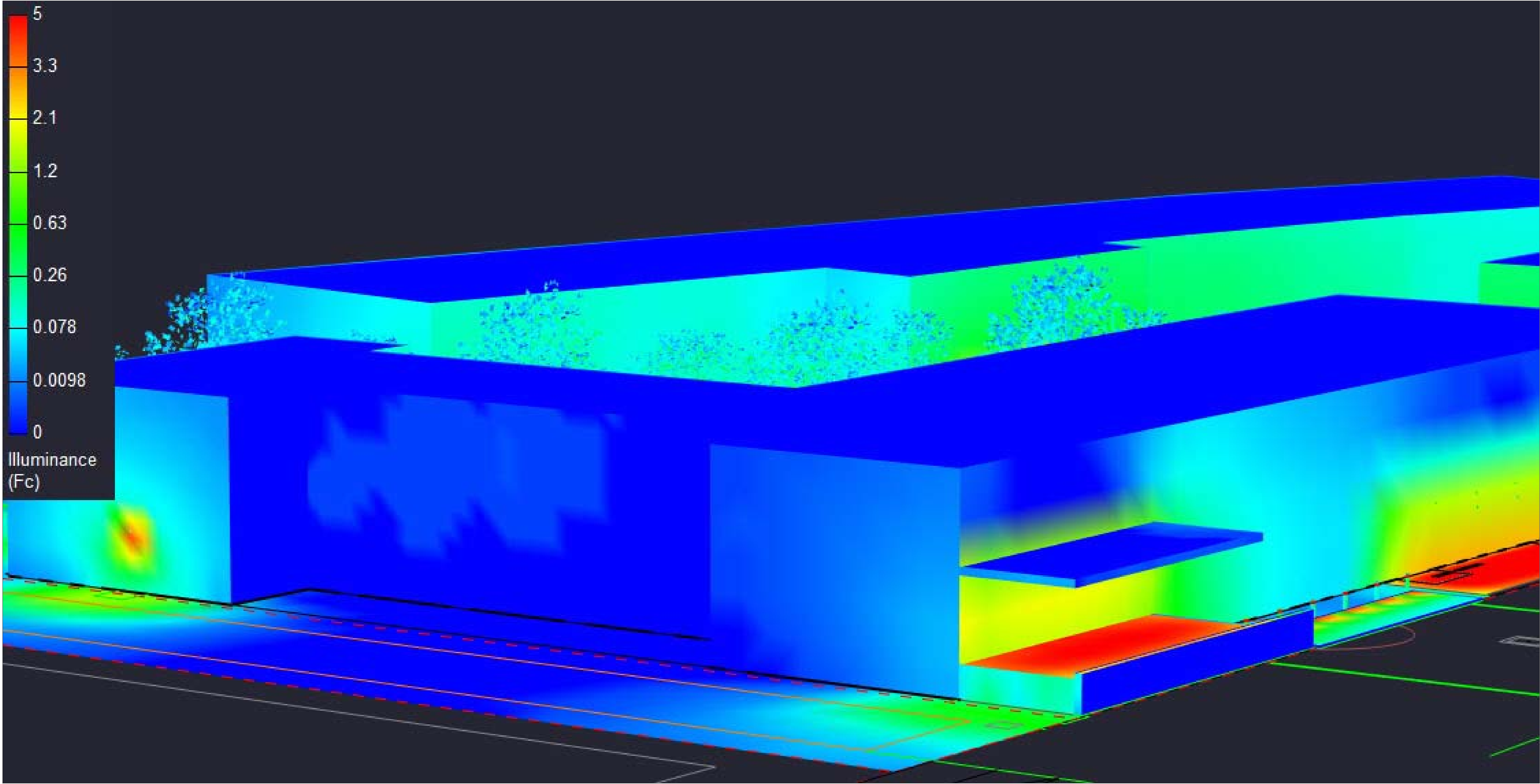
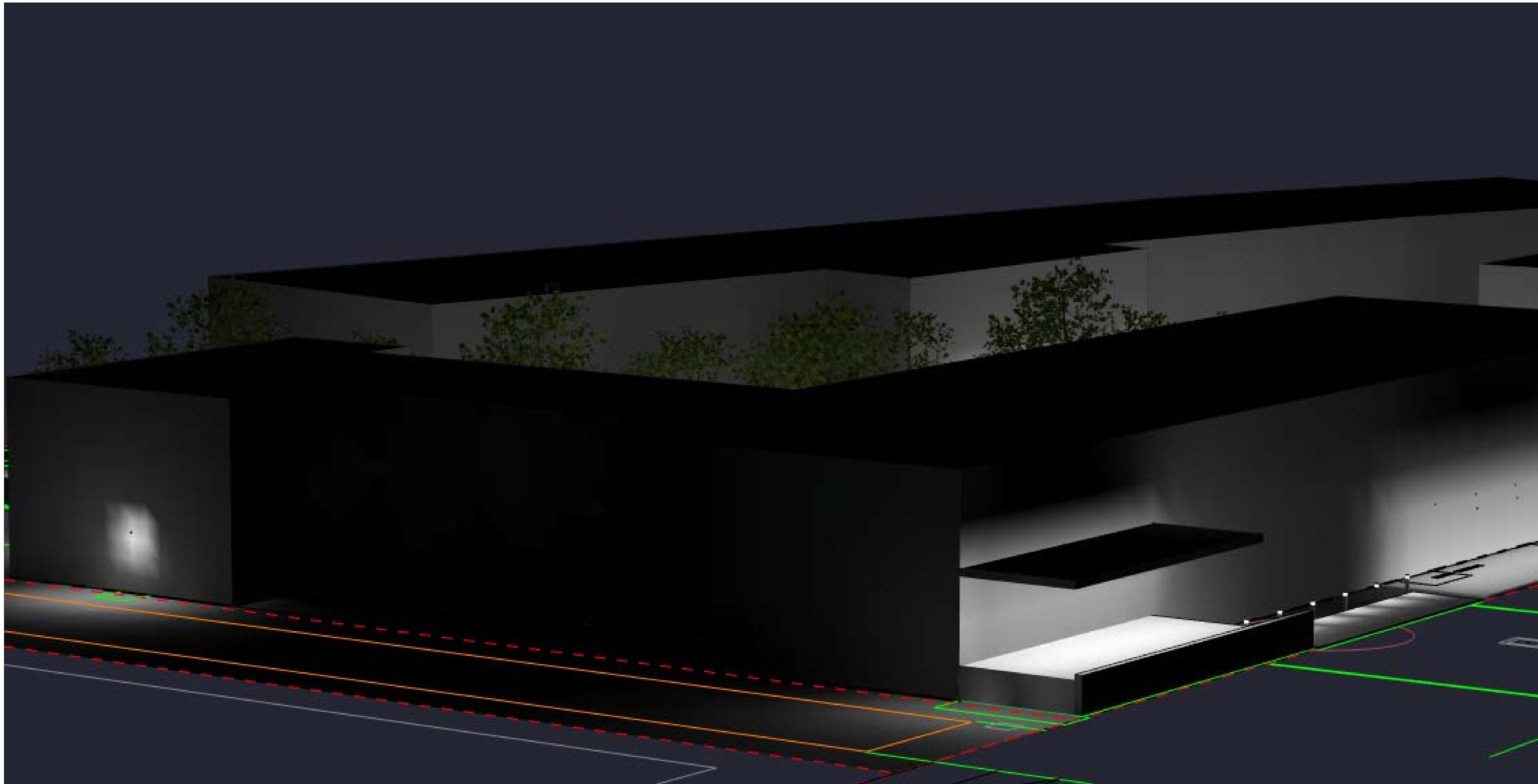
www.reflexlighting.com

DISCLAIMER: CALCULATIONS SHOULD BE USED AS A GUIDE ONLY.
LIGHT LEVELS ARE SUBJECT TO CONDITIONS IN THE FIELD.

specifications@reflexlighting.com







LEEDS



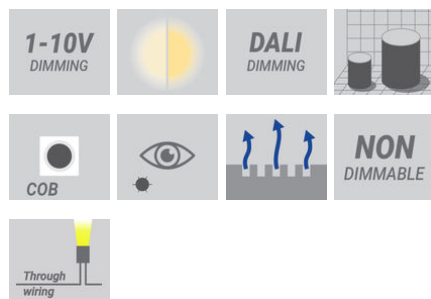
Clean, beautiful, single or double sided surface wall-fixtures with class leading performance. Minimalist form, yet the most powerful and flexible lighting tool of its type, offering packages up to 4000 lumens and various street optic options.

Luminaire Structure

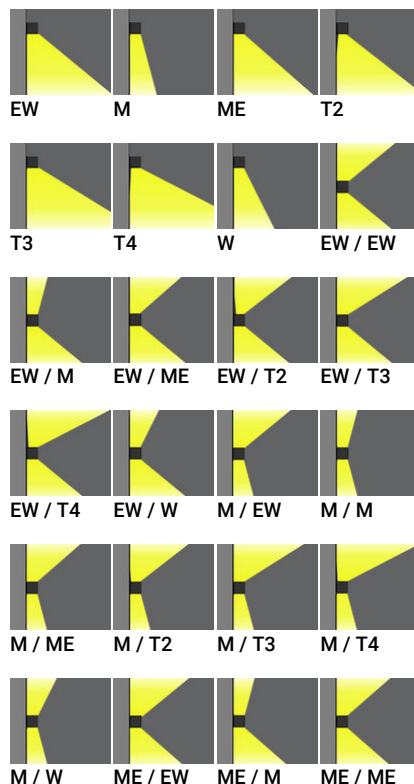
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Single cable entry, through wiring upon request
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Clear toughened glass
- Integral control gear
- Optional surface mounting box for easy wiring or conduit connection when wiring from behind is not possible



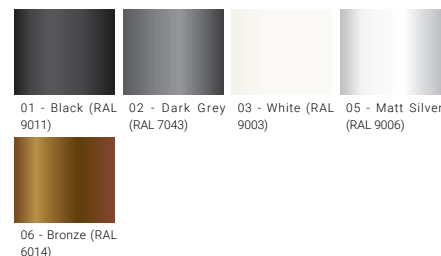
Feature



Light symbol



Product colour



We reserve the right to make technical and design changes.

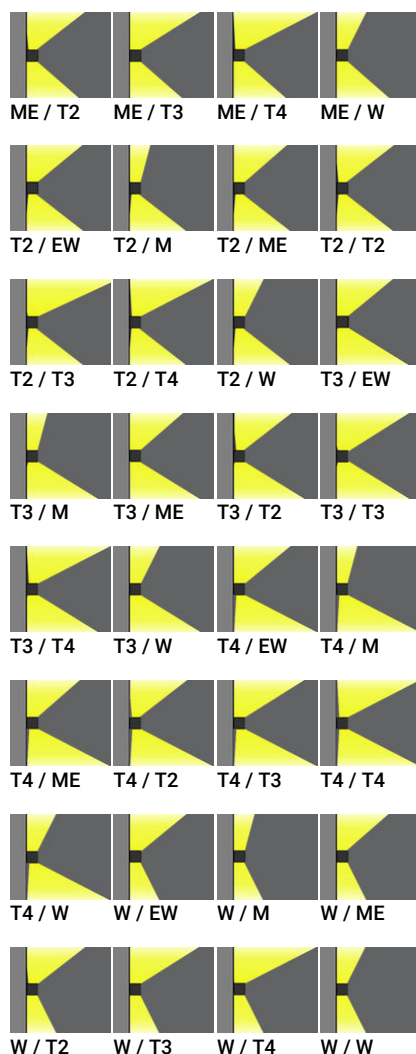
01:31, 25-08-2022

<https://www.ligman.com/leeds-surface-facade-luminaires-lee-su3/>

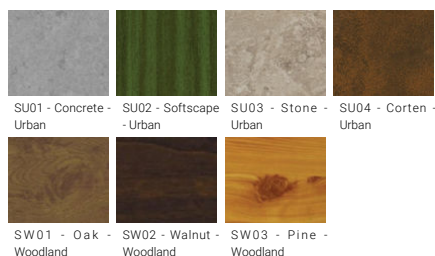
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LEEDS



Special finishes upon request



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LEEDS

Technical information

	Model number	Light source	Power	Lumen	Optic	CCT / CRI	Dimming type	Weight	
Down (Optic) & Up (Optic 2nd) - Rectangular									
LEEDS 3	LEE-30041	2x4 & 2x4 LED	27.8 W	2752 - 3350 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	1-10V, On/Off	1.8 kg	
LEEDS 5	LEE-30051	12 & 12 LED	39.4 W	4090 - 4844 lm	EW [109°x102°], M [30°], ME [140°x62°], T2 [137°x58°], T3 [124°x86°], T4 [108°x66°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	2.0 kg	
Down (Optic) & Up (Optic 2nd) - Square									
LEEDS 1	LEE-30031	4 & 4 LED	15.2 W	1152 - 1590 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	1.1 kg	
Down - Rectangular									
LEEDS 4	LEE-30011	2 x 4 LED	13.9 W	1376 - 1675 lm	EW [110°x103°], M [30°], ME [139°x60°], T2 [139°x55°], T3 [123°x85°], T4 [105°x69°], W [56°]	3000K, 4000K	DALI, 1-10V, On/Off	1.5 kg	
LEEDS 6	LEE-30021	12 LED	19.7 W	2045 - 2422 lm	EW [109°x102°], M [30°], ME [140°x62°], T2 [137°x58°], T3 [124°x86°], T4 [108°x66°], W [56°]	3000K CRI80, 4000K CRI80	DALI, 1-10V, On/Off	1.8 kg	
Down - Square									
LEEDS 2	LEE-30001	4 LED	7.6 W	576 - 795 lm	EW [99°x102°], M [30°], ME [122°x50°], T2 [129°x49°], T3 [112°x80°], T4 [89°x60°], W [56°]	3000K CRI80, 4000K CRI80	On/Off	0.8 kg	

Accessories

	 DALI Control System Control-DALI	 Surface mounting box for easy cabling (LEEDS 1) SCE-LEEDS-1	 Surface mounting box for easy cabling (LEEDS 2) SCE-LEEDS-2	 Surface mounting box for easy cabling (LEEDS 3) SCE-LEEDS-3	 Surface mounting box for easy cabling (LEEDS 4) SCE-LEEDS-4	 Surface mounting box for easy cabling (LEEDS 5) SCE-LEEDS-5	 Surface mounting box for easy cabling (LEEDS 6) SCE-LEEDS-6
LEE-30001							
LEE-30011	•				•		
LEE-30021	•						•
LEE-30031		•					
LEE-30041				•			
LEE-30051						•	

We reserve the right to make technical and design changes.

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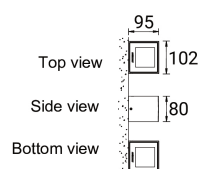
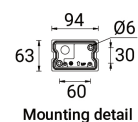
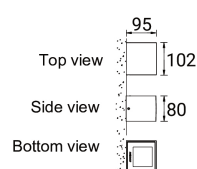
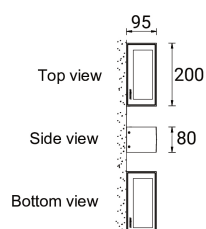
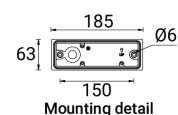
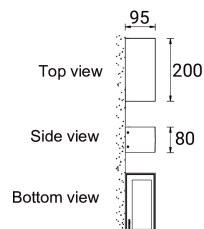
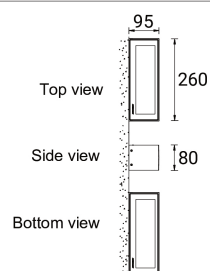
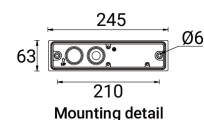
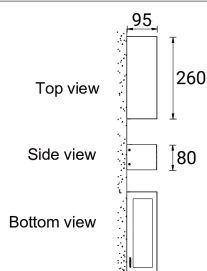
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LEEDS

LEEDS

LEEDS 1

LEEDS 2

LEEDS 3

LEEDS 4

LEEDS 5

LEEDS 6


DRD2 & OneFrame

Fixed Downlighting System

New Construction
Deep Junction Box



Project:

Type:

Product Code:

Date:

V051822

Modular Design Flexibility during and after installation with interchangeable modules, optics and trims

Quick Install Integrated driver and plug-and-play connection require no wiring

High Performance Precise lighting control without sacrificing stellar efficiency

Enhanced Dimming Smooth, flicker-free dimming down to 1%

OPTICAL

Delivered Lumens (Power)

750 lm (9.5W), 1000 lm (12.5W),
1250 lm (14.3W)

Color Quality

93+ CRI, 2-step SDCM

Color Temperature

2700K 3000K 3500K
4000K Warm Dim (3000–1800K)

Beam Spread

Narrow Spot (15°) General (90°+)
Spot (25°) Linear (40° x 20°)
Flood (40°) Soft Focus
Wide Flood (60°)

PHYSICAL

Application

New Construction, Poured Concrete

Aperture

4" Octagonal Deep Junction Box

Ceiling Thickness

½" up to 1¾"

TRIMS

Available Trims

Round Beveled, Square, Hyperbolic, Pinhole,
Beveled Pinhole, Wall Wash, Decorative,
Flangeless, Dead Front

Trim Finish

White, Black, Silver, Custom

ELECTRICAL & CONTROLS

Input Voltage

120/277V

1% Dimming

TRIAC/ELV, 0-10V, Lutron EcoSystem

RATINGS

Housing

- Code compliant for use in fire-rated assemblies up to a maximum of 2-hours
- STC/IIC Sound Rated
- ASTM E283 Certified Air Tight
- IC (Insulation Contact) Rated

Module

- UL Listed for Wet Location



PRODUCT BUILDER

ONEFRAME HOUSING

PRODUCT CODE		APPLICATION		APERTURE		DIMMING		OPTION	
DRDH	Housing	N	New Construction	JD	Deep Junction Box	[Blank]	Integrated	[Blank]	None
				JC	Deep Junction Box, Concrete Tight ¹	7O	0-10V ² , 750 lm	EM	Emergency Battery ⁴ , Integrated Test Switch
						10O	0-10V ² , 1000 lm	EMS	Emergency Battery ⁴ , Remote Test Switch
						10OW	0-10V ² , 1000 lm, Warm Dim		
						12O	0-10V ² , 1250 lm		
						7C	Lutron EcoSystem ³ , 750 lm		
						10C	Lutron EcoSystem ³ , 1000 lm		
						10CW	Lutron EcoSystem ³ , 1000 lm, Warm Dim		
						12C	Lutron EcoSystem ³ , 1250 lm		

DRD2 MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
DRD2M	Module	07	750 lm	9	93+ CRI	27	2700K	GA	General Ambient (90°+)	T	Integrated TRIAC/ELV
		10	1000 lm			30	3000K	NS	Narrow Spot (15°) ⁶		
		12	1250 lm			35	3500K	SP	Spot (25°)		O Integrated 0-10V
						40	4000K	FL	Flood (40°)	A	Alternate for use with EM or Lutron EcoSystem
						3W	Warm Dim ⁵	WF	Wide Flood (60°)		
								LS	Linear Spread (40° x 20°)		
								SF	Soft Focus		

ONEFRAME TRIM

PRODUCT CODE		SHAPE		APERTURE		STYLE		FINISH		OPTION	
DRD2T	Trim	R	Round	JD	Deep Junction Box	S	Beveled	WH	White	[Blank]	None
		S	Square ⁷			H	Hyperbolic ⁸	BK	Black	DOF	Decorative: Open, Frosted ^{8,9,10}
						P	Pinhole ⁸	SW	Silver Reflector, White Flange	DCF	Decorative: Closed, Frosted ^{8,9,10}
						B	Beveled Pinhole ⁸	CC	Custom Color	DCC	Decorative: Closed, Clear, Frosted Side ^{8,9,10}
						W	Wall Wash ⁸			DCCF	Decorative: Closed, Clear, Frosted Inside ^{8,9,10}
										FL	Flangeless ^{8,9,11}
										DF	Dead Front ^{8,9,10,12}
										EM	Emergency ^{8,9,10}

DRDHX-MUD-FL Flangeless Mud Plate (Required for Flangeless Trim)

PRODUCT BUILDER

OPTICS ACCESSORIES

PRODUCT CODE	
DRD2X-GA	Conversion Kit: DRD2 Module to General Ambient (90°+)
DRD2X-NS	Narrow Spot (15°)
DRD2X-SP	Spot (25°)
DRD2X-FL	Flood (40°)
DRD2X-WF	Wide Flood (60°)
DRD2X-LS	Linear Spread (40° x 20°)
DRD2X-SF	Soft Focus
DRD2X-OP	Optics Kit: Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus

¹ Only available in Integrated dimming

² Only available in Emergency Battery option

³ Lutron EcoSystem refers to LDE1 Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black™

⁴ Only available in 0-10V or Lutron EcoSystem dimming

⁵ Only available in 1000 lm

⁶ Not available in Warm Dim CCT

⁷ Only available in Beveled or Wall Wash style

⁸ Only available in White or Custom Color finish

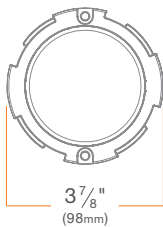
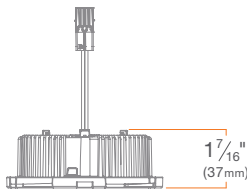
⁹ Only available in Round shape

¹⁰ Only available in Beveled style

¹¹ Requires DRDHX-MUD-FL Mud Plate

¹² Only available in 750 lm

MODULE



DRD2

Fixed Downlight

DRD2M

SUMMARY

LED CHIP: Cree**DELIVERED LUMENS (w Trim):** 750 lm (9.5W), 1000 lm (12.5W), 1250 lm (14.3W)**EFFICACY:** 79 lm/W, 80 lm/W, 87 lm/W**COLOR QUALITY:** 93+ CRI, 2-step SDCM**CCT:** 2700K, 3000K, 3500K, 4000K**BEAM SPREAD:** General Ambient (90°+), Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus**CONNECTOR:** PowerPlug® Luminaire Disconnect Model 182**INPUT VOLTAGE:** 120/277V, 50/60Hz**DIMMING:** Down to less than 1% for TRIAC/ELV at 120V, 0-10V or Lutron EcoSystem at 120/277V**MAX INPUT CURRENT (120V):** 0.090 amps, 0.107 amps**MAX INPUT CURRENT (277V):** 0.042 amps, 0.050 amps**POWER FACTOR:** Greater than 0.9**TOTAL HARMONIC DISTORTION:** Less than 20%**AMBIENT OPERATING TEMPERATURE:** -20°C to 40°C**PHOTOMETRIC TESTING:** Tested in accordance to IESNA LM-79-2008**LISTINGS:** ENERGY STAR® qualified*, California Title 24 2016 JA8 compliant, UL Listed for Wet Location (flanged trims only), cULus Listed, Declare**LIFETIME:** 50,000 hours at 70% lumen maintenance**WARRANTY:** 5 year limited warranty

WARM DIM OPTION

LED: Bridgelux LED, **DELIVERED LUMENS (w Trim):** 1000 lm (12.0W),**EFFICACY:** 83 lm/W, **CCT RANGE:** 3000K - 1800K, **MAX INPUT****CURRENT (120V):** 0.11 amps, **MAX INPUT CURRENT (277V):** 0.047 amps

*Excludes Pinhole and Wall Wash Trims

HOUSING



OneFrame

New Construction
Deep Junction Box
DRDHNJD

SUMMARY

JUNCTION BOX: Equipped with (8) trade size knockouts (four concentric side ($\frac{3}{4}" + \frac{1}{2}"$), two concentric top ($\frac{3}{4}" + \frac{1}{2}"$), two $\frac{1}{2}"$ top) and (4) Romex knockouts (top) to allow straight conduit runs. Approved for 8 (four in, four out) #12 AWG 70°C.

MOUNTING: Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

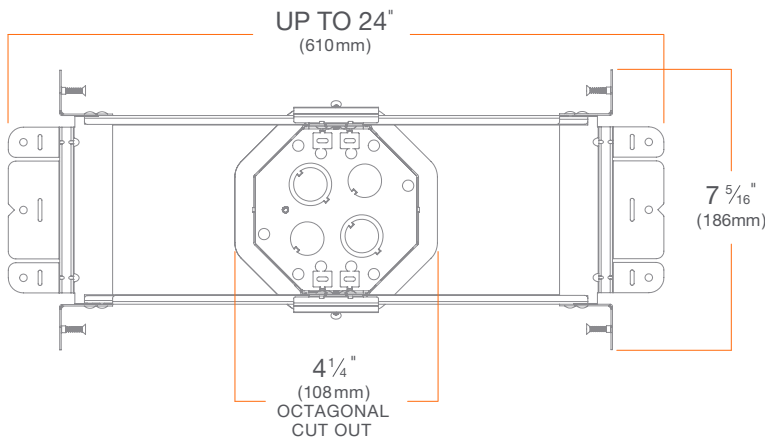
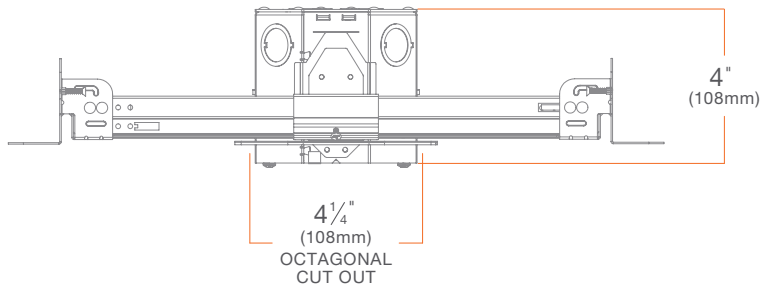
CEILING: $\frac{1}{2}"$ up to $1 \frac{3}{4}"$

CUTOUT: $4 \frac{1}{4}"$ (108mm) octagonal opening

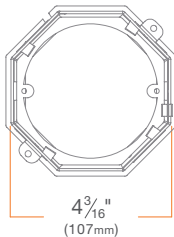
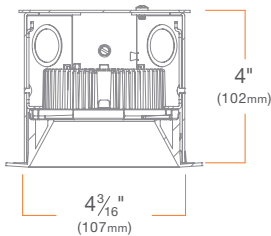
LISTINGS: Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated.

MAINTENANCE: Fully accessible from below the ceiling for inspection and maintenance.

WARRANTY: 5 year limited warranty



HOUSING - Concrete Tight



OneFrame

Concrete Tight
Deep Junction Box
DRDHNJC

- Designed for high rise structures that require steel and concrete for reinforcement
- Features spot-welded areas and adaptations for poured concrete applications

SUMMARY

JUNCTION BOX: Equipped with (4) trade size concentric knockouts ($\frac{3}{4}$ " + $\frac{1}{2}$ ") to allow straight conduit runs. Approved for 8 (four in, four out) #12 AWG 90°C.

MOUNTING: (2) external tabs for wood, steel or concrete form mounting

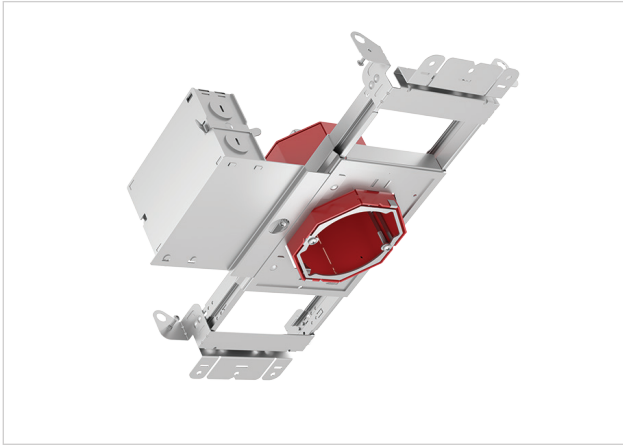
COVER: Removable top cover for easy access to electrical wiring work prior to concrete pour

APPLICATION: Poured deck (floor) high-rise new construction

LISTINGS: Metallic outlet box certified UL514A, concrete tight, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight

WARRANTY: 5 year limited warranty

HOUSING - Emergency Lighting or Lutron EcoSystem Dimming



OneFrame

Lutron EcoSystem Dimming

Deep Junction Box

DRDHNJD

- Offers compatible dimming with Lutron EcoSystem Hi-Lume® 1% protocol

SUMMARY

JUNCTION BOX: Equipped with (2) trade size concentric top knockouts ($\frac{3}{4}" + \frac{1}{2}"$) to allow straight conduit runs. Approved for 2 (one in, one out) #12 AWG 70°C.

MOUNTING: Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

CEILING: $\frac{1}{2}"$ up to $1 \frac{3}{4}"$

CUTOUT: $4 \frac{1}{4}"$ (108mm) octagonal opening

LISTINGS: Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated

INPUT VOLTAGE: 120/277V, 50/60Hz

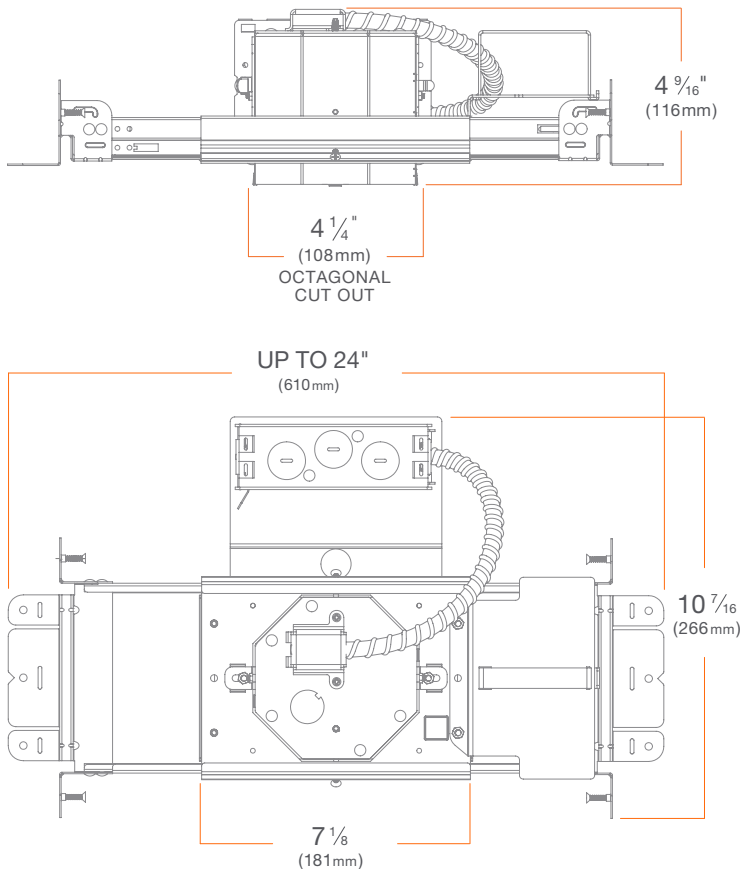
MAX INPUT CURRENT (120V): 0.090 amps (750 lm), 0.107 amps (1000 lm), 0.11 amps (1000 lm Warm Dim)

MAX INPUT CURRENT (277V): 0.042 amps (750 lm), 0.050 amps (1000 lm), 0.047 amps (1000 lm Warm Dim)

POWER FACTOR: Greater than 0.9

TOTAL HARMONIC DISTORTION: Less than 20%

WARRANTY: 5 year limited warranty



TRIM



OneFrame Trims

Recessed LED Downlight Trims

DRD2T

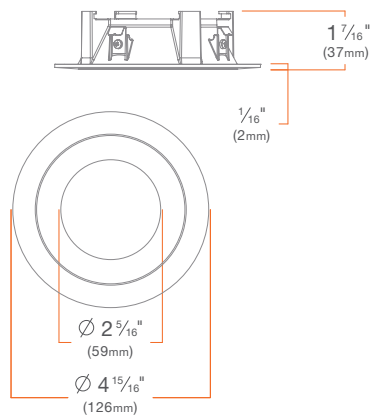
SUMMARY

CONSTRUCTION: Die-cast aluminum

INSTALLATION: Twist & Lock (flanged trims only)

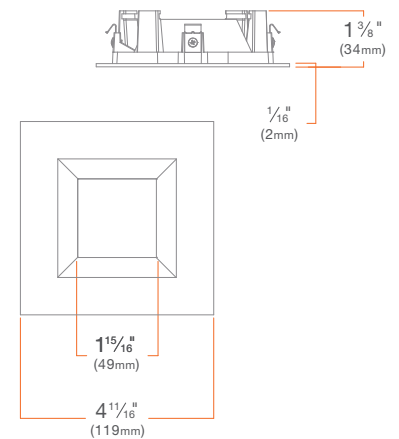
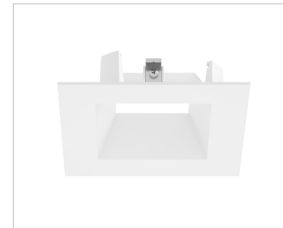
Beveled Trim

DRD2TRJDSWH



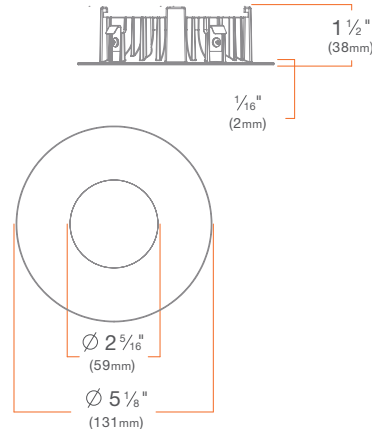
Square Trim

DRD2TSJDSWH



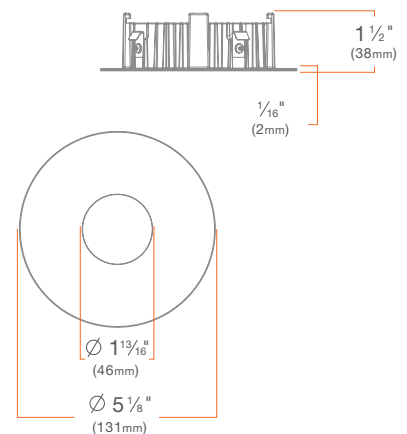
Hyperbolic Trim

DRD2TRJDHWH



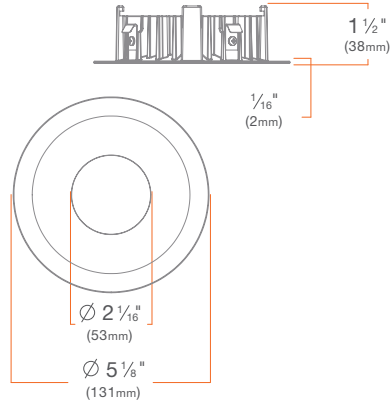
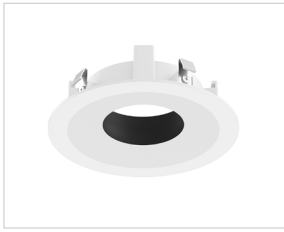
Pinhole Trim

DRD2TRJDPWH



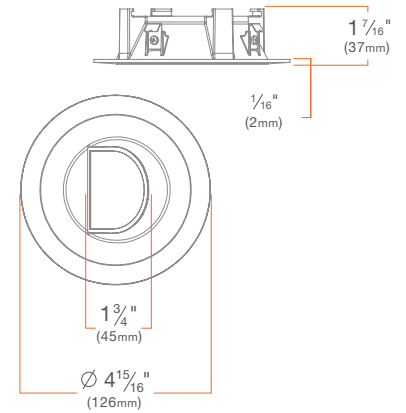
Beveled Pinhole Trim

DRD2TRJDBWH



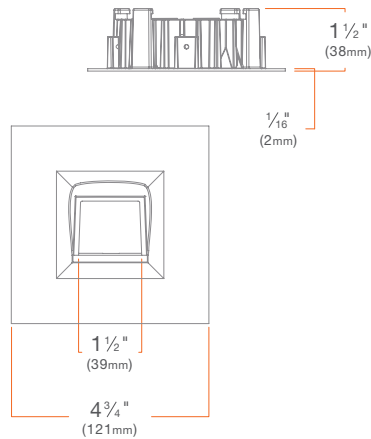
Round Wall Wash Trim

Round: DRD2TRJDWWH



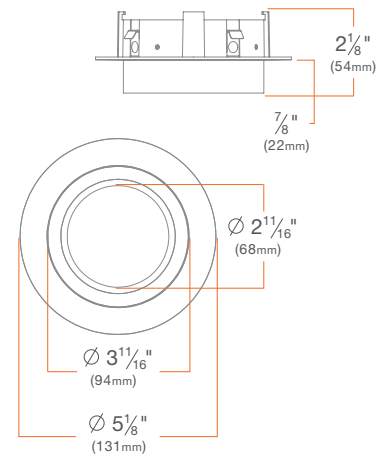
Square Wall Wash Trim

Square: DRD2TSJDWWH



Decorative Open Trim

Frosted: DRD2TRJDSWHD OF

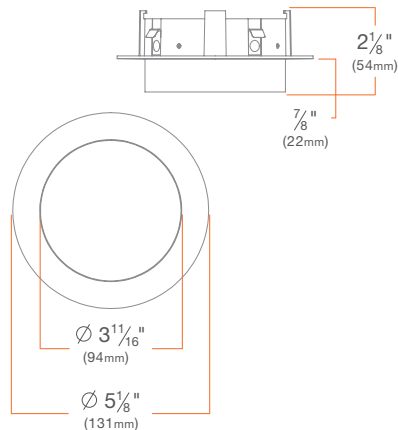


Decorative Closed Trim

Frosted: DRD2TRJDSWHD CF

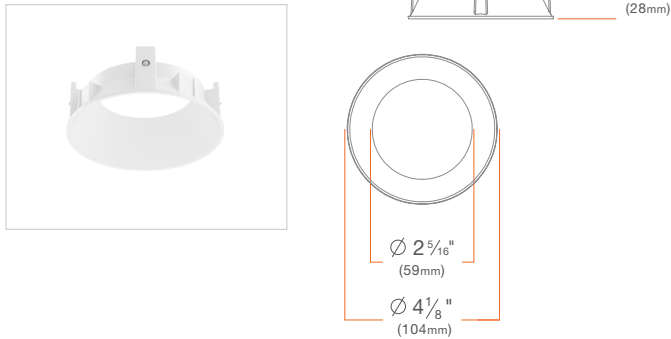
Clear, Frosted Inside: DRD2TRJDSWHD CC

Clear, Frosted Sides: DRD2TRJDSWHD CCF



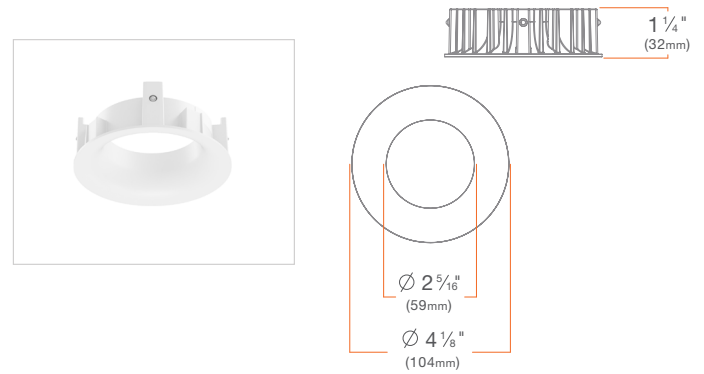
Round Flangeless Trim Insert

DRD2TRJDSWHFL



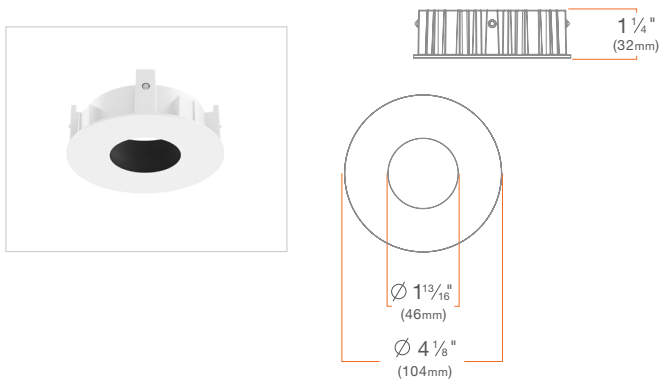
Hyperbolic Flangeless Trim Insert

DRD2TRJDHWHFL



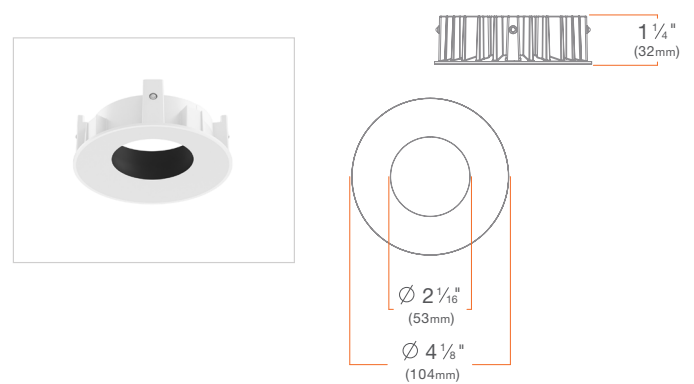
Pinhole Flangeless Trim Insert

DRD2TRJDPWHFL



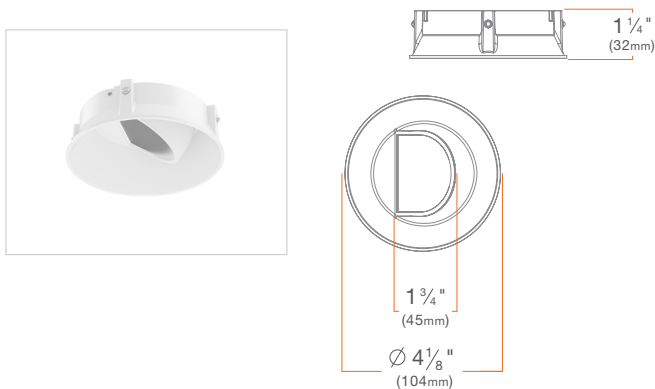
Beveled Pinhole Flangeless Trim Insert

DRD2TRJDBWHFL



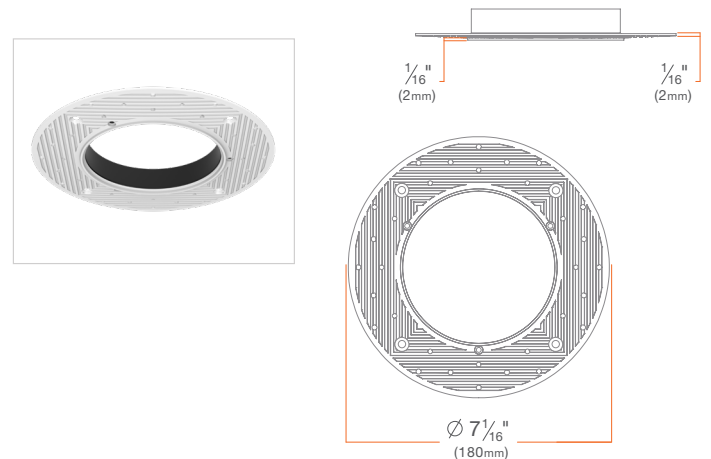
Round Wall Wash Flangeless Trim Insert

DRD2TRJDWWHFL

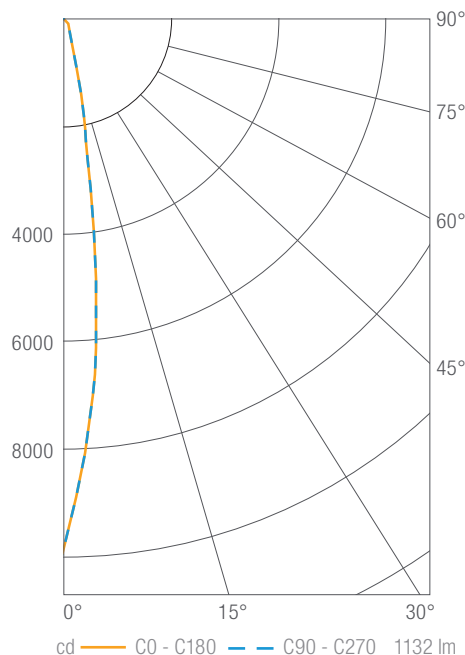


Flangeless Mud Plate

DRDHX-MUD-FL



PHOTOMETRY

DRD2 1000 lm, 3000K, Narrow Spot**DRD2M10930NS**

Luminous Intensity

Gamma	C 0°
0°	9823
5°	6600
10°	2335
15°	734
20°	357
25°	244
30°	195
35°	159
40°	116
45°	85
50°	61
55°	42
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

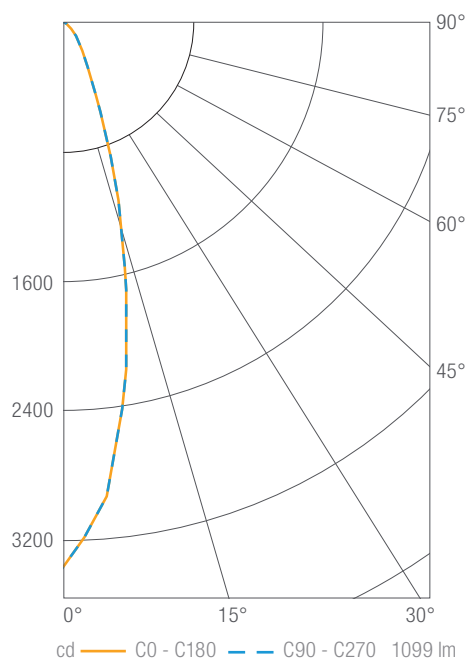
Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	906	80
0-40	1004	89
0-60	1110	98
0-90	1131	100
0-180	1132	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	1091	0.7'
6'	273	1.5'
9'	121	2.2'
12'	68	2.9'

Beam Angle: 14°

DRD2 1000 lm, 3000K, Spot**DRD2M10930SP**

Luminous Intensity

Gamma	C 0°
0°	3366
5°	2967
10°	2203
15°	1391
20°	775
25°	419
30°	248
35°	167
40°	119
45°	87
50°	62
55°	43
60°	26
65°	15
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	862	78
0-40	971	88
0-60	1078	98
0-90	1098	100
0-180	1099	100

Illuminance Chart

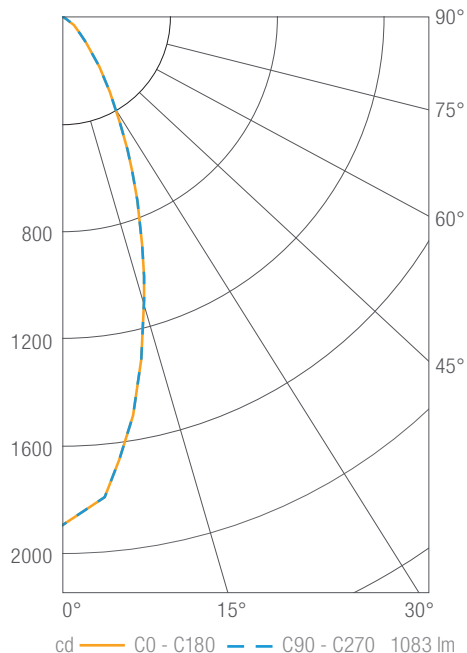
Distance from LED	Foot Candles	Diameter
3'	374	1.4'
6'	93	2.8'
9'	42	4.2'
12'	23	5.6'

Beam Angle: 26°

PHOTOMETRY

DRD2 1000 lm, 3000K, Flood

DRD2M10930FL



Luminous Intensity

Gamma	C 0°
0°	1890
5°	1792
10°	1503
15°	1161
20°	849
25°	589
30°	391
35°	256
40°	162
45°	107
50°	74
55°	51
60°	30
65°	18
70°	8
75°	5
80°	3
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	760	70
0-40	925	85
0-60	1058	98
0-90	1081	100
0-180	1083	100

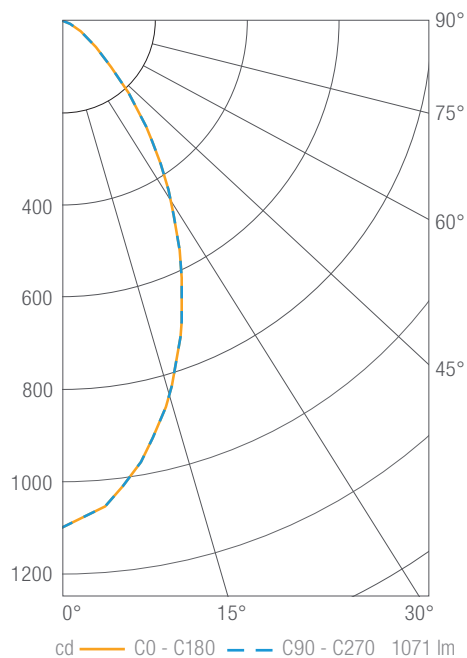
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	210	2.0'
6'	52	4.0'
9'	23	6.0'
12'	13	8.0'

Beam Angle: 37°

DRD2 1000 lm, 3000K, Wide Flood

DRD2M10930WF



Luminous Intensity

Gamma	C 0°
0°	1100
5°	1058
10°	973
15°	866
20°	743
25°	609
30°	478
35°	361
40°	252
45°	161
50°	102
55°	68
60°	41
65°	24
70°	11
75°	6
80°	4
85°	2
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	620	58
0-40	845	79
0-60	1037	97
0-90	1069	100
0-180	1071	100

Illuminance Chart

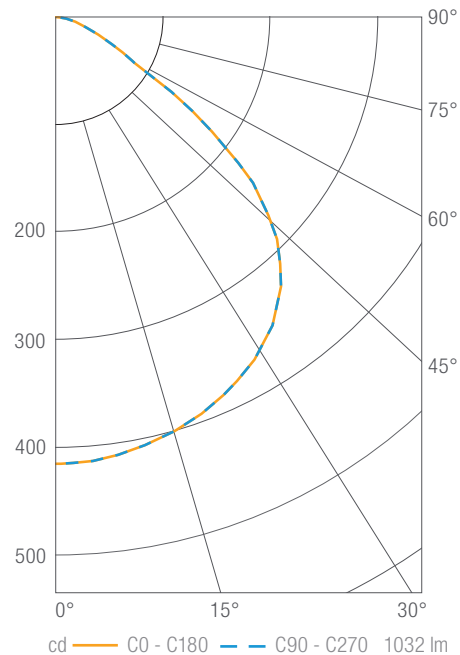
Distance from LED	Foot Candles	Diameter
3'	122	3.1'
6'	31	6.2'
9'	14	9.3'
12'	8	12.3'

Beam Angle: 55°

PHOTOMETRY

DRD2 1000 lm, 3000K, General Ambient

DRD2M10930GA



Luminous Intensity

Gamma	C 0°
0°	416
5°	415
10°	410
15°	403
20°	394
25°	382
30°	369
35°	351
40°	327
45°	291
50°	240
55°	162
60°	84
65°	54
70°	33
75°	21
80°	12
85°	6
90°	1

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	333	32
0-40	557	54
0-60	942	91
0-90	1024	99
0-180	1032	100

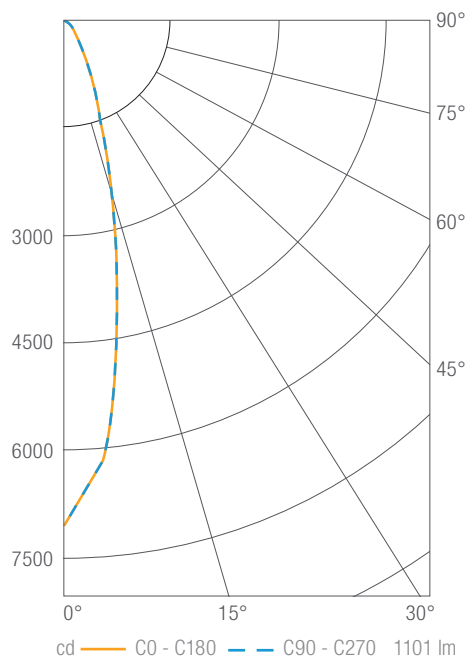
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	46	7.8'
6'	12	15.5'
9'	5	23.3'
12'	3	31.1'

Beam Angle: 100°

DRD2 1000 lm, 3000K, Soft Focus

DRD2M10930SF



Luminous Intensity

Gamma	C 0°
0°	7280
5°	5603
10°	2489
15°	875
20°	381
25°	247
30°	194
35°	161
40°	122
45°	90
50°	64
55°	45
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	868	79
0-40	968	88
0-60	1078	98
0-90	1100	100
0-180	1101	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	809	0.9'
6'	202	1.7'
9'	90	2.6'
12'	51	3.4'

Beam Angle: 16°

TANGO 36 (TA-20011)



Luminaire Structure

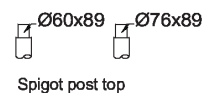
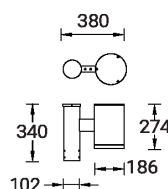
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Clear toughened glass
- High-efficiency PMMA lens
- Integral control gear
- Maximum wind load resistance is 140 km/h

Product description

1 side - Round



TANGO 36
TA-20011

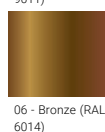


Light symbol

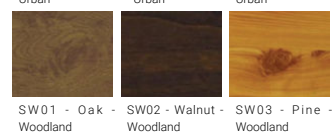
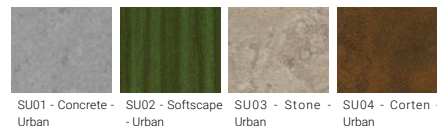


T2 T3 T4

Product colour



Special finishes upon request



Technical information

Light source	16 LED
Light source type	LED
Dimming type	DALI, 1-10V, On/Off
Material	Aluminium
Weight	5.3 kg
Operating temperature	-20 °C to 40 °C

Luminaire	
Power	35 W
Lumen	3476 - 3910 lm
Efficacy	99 - 112 lm/W
CCT / CRI	3000K CRI80, 4000K CRI80
Drive current	700 mA
Driver option	Integral control gear
Driver	Constant current (CC)
Input voltage	220-240 V 50/60 Hz

Optic	T2 [134°x50°], T3 [125°x64°], T4 [98°x72°]
Bug	B1-U0-G1
ULR	0%
ULOR	0%
CIE flux code n°3	98
MacAdam Ellipse	3 SDCM
Lifetime L90B10 (hours)	90,000
Lifetime L80B10 (hours)	90,000
Lifetime L80B50 (hours)	90,000

We reserve the right to make technical and design changes.

02:51, 08-09-2022

<https://www.ligman.com/tango-36-ta-20011/>

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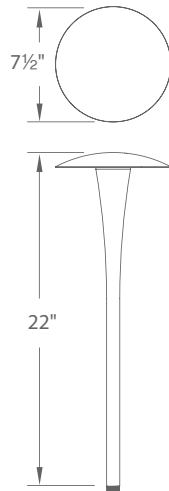
TANGO 36 (TA-20011)**Accessories**



DALI Control System
Control-DALI

AREA LIGHT
6011

WAC
LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Broad appeal makes this fixture suitable for varying landscape designs

FEATURES

- IP66 rated, Protected against powerful water jets
- Factory sealed water tight fixtures
- Translucent lens provides uniform light distribution
- Solid brass or corrosion resistant aluminum alloy
- Mounting stake, 6 foot lead wire, and direct burial gel filled wire nuts are included
- Maintains constant lumen output against voltage drop
- UL 1838 Listed

SPECIFICATIONS

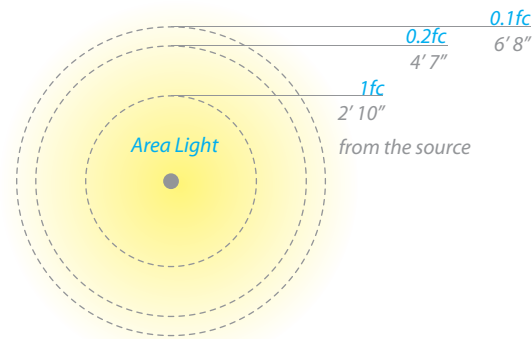
Input: 9-15VAC (Transformer is required)
Power: 5.8W / 9.4VA
Brightness: 150 lm
CRI: 90+
Rated Life: 60,000 hours

ORDERING NUMBER

		Color Temp	Finish
6011	Area Light	27	2700K
		30	3000K
			BBR Bronze on Brass BZ Bronze on Aluminum BK Black on Aluminum

6011-___BBR

Example: 6011-30BZ



wacighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

AREA LIGHT

6011

WAC

LANDSCAPE LIGHTING

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ

Bronze on Aluminum

Additional Mounting Stake



9000-ST9-BK

Durable PVC stake

Magnetic Transformers

Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories

9075-TRN-SS
75W Max

9150-TRN-SS
150W Max

9300-TRN-SS
300W Max

9600-TRN-SS
600W Max



TESTED MAGNETIC LOW VOLTAGE (MLV) DIMMERS

Luminaire	Dimmer					
	Manufacturer	Family	Model	Power Rating	Range*	Note
6011	Lutron	Diva	DVLV-600	600W	33% - 100%	Output maxes at 50% dimming level
		Skylark	SLV-600P	600W	28% - 100%	Output maxes at 50% dimming level
		Skylark	S-10P	1000W		Not recommended

*Low end of this range is determined by output current which may not directly translate to the perceived light output

WAC Lighting fixtures are compatible with a variety of dimmers. For your convenience we have included a compatibility chart showing dimmers which have been tested with our products. The recommended list below is based upon testing conducted in a lab, and the results can vary in certain field applications due to a number of factors. Exclusion from the list does not imply incompatibility, just that it has not been tested by WAC Lighting. Please reference the dimmer manufacturer's instructions for installation, or contact a WAC lighting professional at 800-526-2588.

wacighting.com
Phone (800) 526.2588
Fax (800) 526.2585

Headquarters/Eastern Distribution Center
44 Harbor Park Drive
Port Washington, NY 11050

Central Distribution Center
1600 Distribution Ct
Lithia Springs, GA 30122

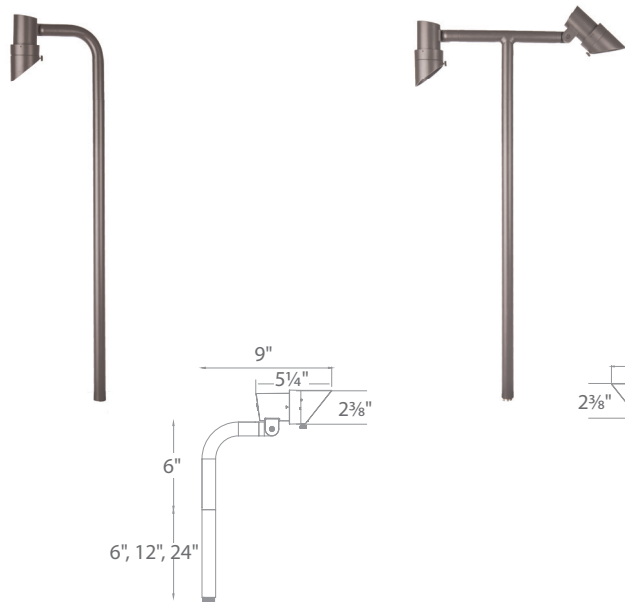
Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

MINI ACCENT LED PATH

6111 / 6211

WAC

LANDSCAPE LIGHTING



Fixture Type:

Catalog Number:

Project:

Location:

PRODUCT DESCRIPTION

Landscape mini accent luminaire. One fixture replaces all older halogen landscape accent lights

FEATURES

- Continuously Adjustable Beam Angles. Indexed at 10°, 25°, 40°, 50°
- Continuously Adjustable brightness control. Indexed at 1W, 2W, 4W, 6W, 7W
- Adjustable beam angle
- IP66 rated, Protected against high-pressure water jets
- Includes a detachable shroud
- Solid diecast brass or corrosion resistant aluminum
- Factory sealed water tight fixtures
- Constant output for 9V-15V input
- Can be used as an uplight or downlight
- 2700K or 3000K color temperature
- Guardian detachable shroud, 6' lead wire and direct burial gel filled wire nuts included
- UL & cUL 1838 Listed

SPECIFICATIONS

6111 *Single*
Input: 9-15VAC (Transformer is required)
Power: 1W to 7W / 2VA - 10.5VA
Brightness: 45lm to 365 lm
CRI: 85
Rated Life: 70,000 hours

6211 *Double*
Input: 9-15VAC (Transformer is required)
Power: 1W to 7W / 2VA - 10.5VA x 2
Brightness: 45lm to 365 lm x 2
CRI: 85
Rated Life: 70,000 hours

ORDERING NUMBER

Color Temp		Finish
6111 <i>Single</i>	27 2700K Warm White	BBR Bronze on Brass
6211 <i>Double</i>	30 3000K Pure White	BZ Bronze on Aluminum

6111-___BBR

Example: **6111-30BBR**

wacighting.com
Phone (800) 526.2588
Fax (800) 526.2585

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44 Harbor Park Drive
Port Washington, NY 11050

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1600 Distribution Ct
Lithia Springs, GA 30122

Western Distribution Center
1750 Archibald Avenue
Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program.

MINI ACCENT LED PATH

6111 / 6211

WAC LANDSCAPE LIGHTING

Surface Mount Flange/Stake



Includes three 7 inch threaded stainless steel stabilizing pins for ground mounting or surface mounts with four screws or over a junction box

5000-SCP-BZ

Bronze on Aluminum

5" Long Shroud



Reduce glare. Ideal for downlighting application

5111-LSHR-BZ *Bronze on Aluminum*

5111-LSHR-BBR *Bronze on Brass*



Guardian Mount

*Heavy duty stainless steel spike to position fixture.
Formed from a single piece of metal*

9000-SP9-BZ

Stainless Steel

Magnetic Transformers

*Stainless Steel, 12-15V output, IP65 rated, UL 1838 listed
See transformer spec sheet for details and its accessories*

9075-TRN-SS

75W Max

9150-TRN-SS

150W Max

9300-TRN-SS

300W Max

9600-TRN-SS

600W Max



URA-10751

Rado 1 Bollard

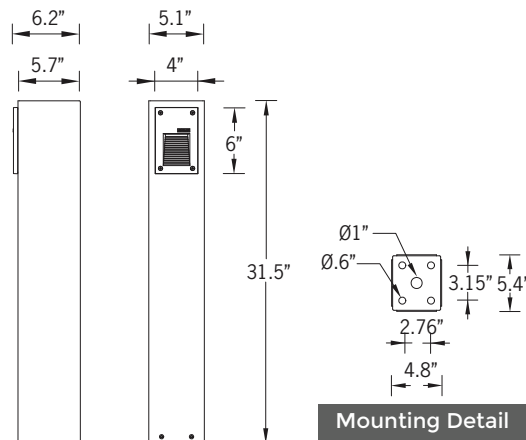


4w COB 133 Lumens

IP65 • Suitable For Wet Locations

IK09 • Impact Resistant (Vandal Resistant)

Weight 11 lbs



Mounting Detail

Construction

Aluminum Casting

Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded “fit for purpose” long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

BUG Rating

B0 - U2 - G0

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

Finishing

All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint

UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C. This process ensures that Ligman products can withstand harsh environments. Rated for use in natatoriums.

Hardware

Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes

Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Sturdy classic bollard pathway and stair luminaire. Simple pleasing aesthetic and sturdy construction, perfect for delineating perimeter applications with the impressive optic choices.

A range of rectangular bollards, with regressed LEDs providing excellent glare control.

Suitable for illuminating pathways, driveways and squares. Color temperature 2700K, 3000K, 3500K and 4000K, LED CRI >80 and lifetime 50,000 Hours. Low copper content die-cast aluminum housing with a high corrosion resistance.

This fixture is supplied completely wired with powercord and waterproof gland from the driver enclosure to the base of the column to ensure quick trouble-free installation. Custom bollard heights are available, please specify.

Custom wattages can be provided to suit customer and Title 24 requirements. (Specify total watts per fixture)



URA-10751

Rado 1 Bollard



PROJECT					DATE	
QUANTITY		TYPE		NOTE		

ORDERING EXAMPLE || URA-10751 - 4w - W30 - 02 - 120/277V

URA-10751				
	LAMP	LED COLOR	FINISH COLOR	VOLTAGE
4w COB 133 Lumens	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL		120/277v Other - Specify

--	--	--

ADDITIONAL OPTIONS

- DIM - 0-10v Dimming
- NAT - Natatorium Rated
- AMB - Turtle Friendly Amber LED
- HGT - Custom Bollard Height
- GFCI - GFCI Box

Rado Product Family



Rado 1

• URA-40531-4w-133lm



Rado 2

• URA-40542-17w-620lm



Rado 3

• URA-40552-13w-540lm



Rado 4

• URA-40562-27w-853lm



Rado 5

• URA-40582-17w-447lm



Rado 6

• URA-40692-11w-47lm



Rado 7

• URA-40701-20w-1399lm



Rado 1

• URA-10751-4w-133lm



Rado 2

• URA-10772-17w-620lm



Rado 3

• URA-10792-13w-540lm



Rado 4

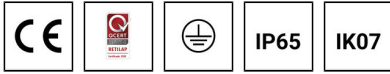
• URA-10812-27w-853lm



Rado 5

• URA-10822-17w-447lm

VIOS 3R (VI-40307)



Luminaire Structure

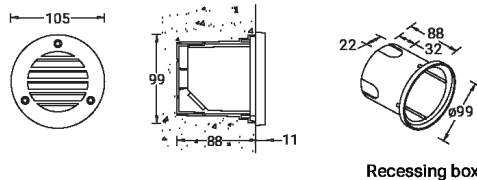
- Die-cast aluminium housing and frame
- Pre-treated before powder coating ensuring high corrosion resistance
- Two cable entries for through wiring
- Stainless steel fasteners in grade 304 with zinc flake coating (ZFC)
- Durable silicone rubber gasket
- Frosted toughened glass
- Integral control gear

Product description

With recessing box - Round - Shielded frame - IK07



VIOS 3
VI-40307



Recessing box

Light symbol

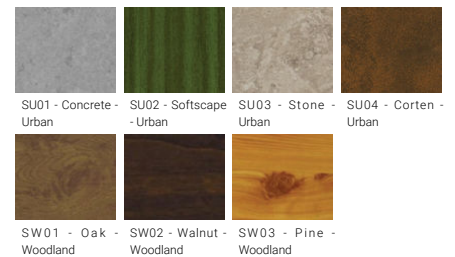


G

Product colour



Special finishes upon request



Technical information

Light source	1 COB
Light source type	COB
Dimming type	On/Off
Material	Aluminium
Weight	0.5 kg
Operating temperature	-20 °C to 40 °C

Luminaire	
Power	5 W
Lumen	46 - 50 lm
Efficacy	9 - 10 lm/W
CCT / CRI	3000K CRI80, 4000K CRI80
Drive current	350 mA
Driver option	Integral control gear
Driver	Constant current (CC)
Input voltage	220-240 V 50/60 Hz

Optic	G [89°x59°]
Bug	B0-U1-G0
ULOR	11%
CIE flux code n°3	76%
MacAdam Ellipse	3 SDCM
Lifetime L90B10 (hours)	50,000

We reserve the right to make technical and design changes.

02:10, 08-09-2022

<https://www.ligman.com/vios-3r-vi-40307/>

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Section 32

Site Photographs

Section 32: Photographs



Figure 1. Standing east of existing parking garage on Smith Street, facing east toward the proposed Lot 3.



Figure 2. Standing east of existing parking garage, facing south toward Pearl Street. See Lot 3 on the left and Lot 2 on the right.



Figure 3. Standing east of existing parking garage, facing east toward Lot 3.



Figure 4. Standing east of existing parking garage, facing southeast toward Lot 3.



Figure 5. Standing east of existing parking garage, facing northwest toward the rear of Lot 3. See 1 Gooch Street building in background.



Figure 6. Standing near base of existing Cell Tower (Lot 4), facing west toward Lot 3 and parking garage (Lot 2).



Figure 7. Standing near base of existing Cell Tower east of Lot 3, facing northwest toward Cell Tower and partial rear of lot 3.



Figure 8. Overview of Lot 3.



Section 33

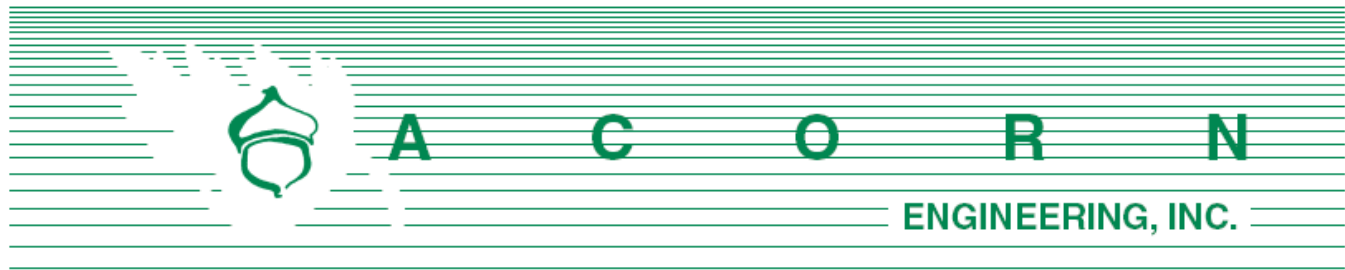
Waivers

Section 33: Waivers

The project does propose the following Waivers.

- 1.) The project proposes to waive the commercial space parking requirements.





Greg Mitchell
Planning & Development, City of Biddeford
205 Main Street
Biddeford, ME 04005

January 11, 2022

Subject: 3rd Party Engineer Review Comment Response Letter
Pearl Street (Lot 3) Redevelopment – Biddeford, Maine

On behalf of 3 Lincoln, LLC., we are pleased to respond to the 3rd Party Engineer review comments from the City of Biddeford, dated October 26, 2022 for the recently submitted Preliminary Site Plan and Subdivision application for the Pearl Street Redevelopment Project. Please find responses to the comments received thus far below.

Site Design Associates

Comment – *The applicant requested city review of the previously issued Site Law permit that was approved as part of the city’s municipal garage project on Lot 2. We are unclear as to what this means. Is a Site Location of Development Act (SLODA) permit or amendment necessary?*

Response – An amendment to the existing Stormwater Management Law application (L-10282-05-A-N) is required as part of the proposed project. The previously approved project included the installation of a stormwater treatment system (located on lot 4) that was conservatively sized to treat the future development of lots 1, 2, 3, and 4. As the City does not have municipal capacity to review the Stormwater Management Law, the amendment application was submitted to the DEP on November 7th. The Site Location of Development Permitting has been included as part of this submission to the City for delegated review on behalf of the DEP.

Comment – *A condition of approval for the stormwater permit for the parking garage is that a stormwater management permit application must be submitted to DEP for all new development.*

Response – See the response above.

Comment – *Apparently, the applicant has submitted a Traffic Movement Permit application with MDOT. We are not aware of the status of that, but recommend the city engage a peer reviewer to review the report and actively work with the city through the TMP process. The city can influence how the process proceeds and address issues the city has identified that might not necessarily be evident as part of a TMP process.*

Response – At the Preliminary Planning Board hearing, the Board requested the City engage with a third party traffic engineer to review the TMP application. Please refer to Section 28: Traffic for the Sewall’s traffic peer review comments, and initial responses. The applicant and their traffic engineer continue to work with the DOT, the City, and Sewall as part of the TMP process. A copy of

the final Traffic Movement Permit will be provided upon issuance by the Maine DOT.

Comment – *The I and M plan for during construction shown on drawing C-46 should include weekly inspections as opposed to bi-weekly, and the additional requirements of chapter 500, Appendix B.1. should be added to the drawing.*

Response – The Inspection and Maintenance Plan has been revised to reference weekly inspections and the additional requirements of chapter 500, Appendix B.1. Please see the revised Sheet C-46 for additional information.

Comment – *The post-construction I and M plan should be updated to define the storm triggering an inspection (1" or more rainfall in 24 hours), and additional requirements of chapter 500 Appendix B.2., as applicable. The oil/water separator should be included in the plan, and separate inspection forms provided for it and each BMP.*

Response – The I&M plan has been updated to include the specific inspection storm triggers, requirements of CH 500 Appendix B.2, as well as identify requirements for the oil/water separator and provides separate inspection forms for each BMP.

Comment – *The erosion and sediment control plans appear to address the applicable standards.*

Response – Thank you for your comment.

Comment – *We believe a rectangular oil/water separator, with a baffle, would be much more effective than the oil/water separator detail provided.*

Response – The oil/water separator detail as shown in the plan set matches the product supplied by Precast of Maine and has been used on various similar developments with no apparent issues. It is our professional opinion that the proposed oil/water separator will be sufficient, however we have added a note that an "or approved equal" be allowed, should the contractor provide a submittal with the rectangular configuration with a baffle.

Please let us know if you have any additional questions or comments.

Sincerely,



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



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



- THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO THE 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.
- 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.
- 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.
- 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.
- THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.
- 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.
- EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY OWEN HASKELL, DATED 8/5/21 & REVISED ON 9/29/21.
- SUBSURFACE DATA TO BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22, PRIOR TO SUBMITTING A BID.
- 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 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING DEPARTMENT ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
- CONSTRUCTION MANAGEMENT PLAN AND SITE LOGISTICS NARRATIVE SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
- 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.
- 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 PEARL STREET. A COPY OF THE SURVEY SHOULD BE PROVIDED TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.
- THE CONTRACTOR SHALL PROVIDE A GPS MODEL OF THE PROPERTY TO PROVIDE TO ACORN ENGINEERING.
- THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
- 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:

- THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.
- 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.
- 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.
- DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
- 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.
- ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 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.
- UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
- 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.
- DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.
- TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.
- ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
- ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.
- 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).
- 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.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION. SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF BIDDEFORD, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE MAJOR SUBDIVISION AND SITE PLAN PERMIT FROM THE CITY OF BIDEFORD, PERMIT FROM THE SACO RIVER CORRIDOR COMMISSION, A MAINE DEP STORMWATER PERMIT, AND A TRAFFIC MOVEMENT PERMIT FROM THE MAINE DOT.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE CITY OF BIDEFORD. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACORN ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22.
6. NO ADDITIONAL PAYMENT WILL BE MADE FOR UNSUITABLE MATERIALS THAT MAY EXIST ON SITE.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.
10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER, IF APPLICABLE.

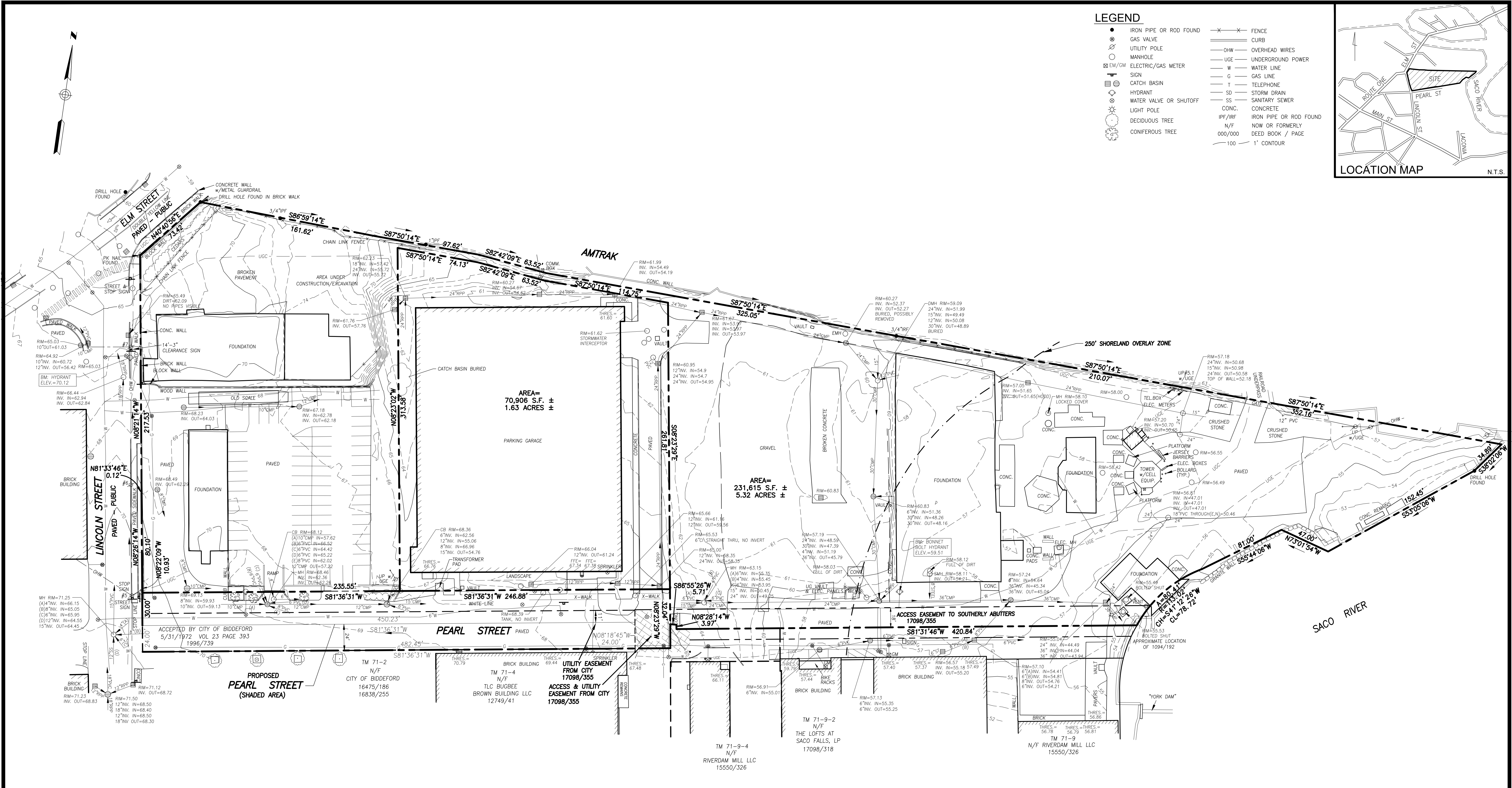
1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.
2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

- DEMOLITION NOTES:
1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE

- BITUMINOUS ASPHALT PAVEMENT
- CONCRETE PADS AND BLOCKS
- FENCE POST AND FENCING
- UNDERGROUND UTILITY LINES
- ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
- STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
- OTHER TRASH & MISCELLANEOUS SOLID WASTES

5. THE PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT, PROVIDED BY CREDERE ASSOCIATES, LLC DATED 10/25/2012, IS TO BE REVIEWED BY CONTRACTOR.

1069



PLAN REFERENCES

- PLAN SHOWING LAND SURVEYED FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD MAINE BY DOW & COULOMBE, INC. DATED JANUARY 15, 1985 REVISED THROUGH OCT. 4, 1986.
- ALTA/ACSM LAND TITLE SURVEY (URBAN) MADE FOR MAINE ENERGY RECOVERY COMPANY BIDDEFORD, MAINE BY DOW & COULOMBE, INC. DATED MARCH 15, 1996 REVISED THROUGH MAY 14, 2009.
- ALTA/NSPS LAND TITLE SURVEY AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED JULY 30, 2015 REVISED THROUGH 12-20-16.
- EXHIBIT PLAN OF EASEMENT AT 75 SACO FALLS WAY, BIDDEFORD, MAINE MADE FOR THE LOFTS AT SACO FALLS, LP BY OWEN HASKELL, INC. DATED AUGUST 27, 2015 REVISED THROUGH DEC. 20, 2106.
- EXISTING CONDITIONS SURVEY ON PEARL STREET, BIDDEFORD, MAINE MADE FOR MILONE & MCBROOM BY OWEN HASKELL, INC. DATED APRIL 19, 2018.
- LAND DIVISION PLAN ON LINCOLN STREET & PEARL STREET BIDDEFORD, MAINE MADE FOR DESMAN DESIGN MANAGEMENT BY OWEN HASKELL, INC. DATED FEB. 4, 2020.

GENERAL NOTES

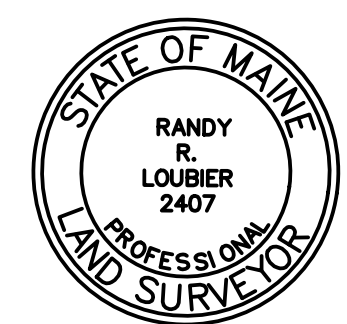
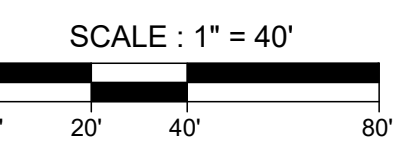
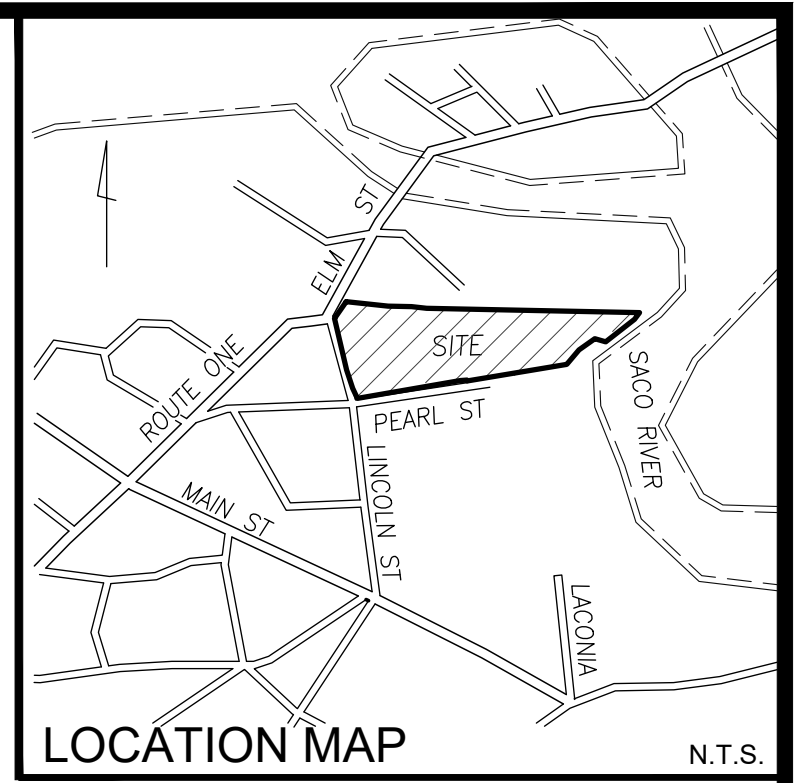
- OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16838 PAGE 255
Y.C.R.D. BOOK 16475 PAGE 186
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD 83.
- ELEVATIONS ARE BASED ON NAVD 88 DATUM.

UTILITY NOTE

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

LEGEND

- IRON PIPE OR ROD FOUND
- GAS VALVE
- UTILITY POLE
- MANHOLE
- EM/GM
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- LIGHT POLE
- DECIDUOUS TREE
- CONIFEROUS TREE
- FENCE
- CURB
- OVERHEAD WIRES
- UNDERGROUND POWER
- WATER LINE
- GAS LINE
- TELEPHONE
- STORM DRAIN
- SANITARY SEWER
- CONC.
- CONCRETE
- IPF/IRF
- N/F
- 000/000
- 1" CONTOUR



RANDY R. LOUBIER, PLS #2407

REV.1	9/29/21	REVISED PROPERTY LINE DISTANCE AT NW CORNER
Existing Conditions Survey On Pearl Street, Biddeford, Maine Made for City of Biddeford 205 Main St. Biddeford, ME 04005		
OWEN HASKELL, INC. PROFESSIONAL LAND SURVEYORS 390 U.S. ROUTE ONE, UNIT 10, FALMOUTH, MAINE 04105		
DRAWN BY: RRL/JLW	DATE: AUGUST 5, 2021	JOB NO. 2021-168 B-Y
CHECKED BY: RRL	SCALE: 1" = 40'	DRWG. NO. 1

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSITION OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER AESTHETIC PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEPARATE CONTRACTORS CALLING FOR UTILITIES FROM CITY COMPANIES SHALL BE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
4. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
5. EXISTENT BARBED WIRE FENCING ON THE FRONT AND SIDE PROPERTY LINES DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
6. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES. PER DETAIL.
7. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK AREA ETC. ROADWAY DESIGN SHALL BE COORDINATED WITH THE CITY ENGINEER PRIOR TO CONSTRUCTION.
8. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
10. CONTRACTOR TO PROVIDE ACCESS TO EXITING THROUGHOUT THE CONSTRUCTION OF CONSTRUCTION.
11. ALL EXISTING STORM DRAINS SHOWN IN THE PLAN SET ARE TO BE REMOVED. PLEASE REFER TO C-30 FOR PROPOSED STORMWATER INFRASTRUCTURE IMPROVEMENTS. CONTRACTOR TO ENSURE ANY EXISTING UNDERDRAIN OR FOOTING DRAIN CONNECTIONS REMAIN OPERATIONAL. CONTRACTOR TO NOTIFY ENGINEER IF ANY SUBSURFACE STORM DRAINS NOT SHOWN ON PLAN ARE ENCOUNTERED DURING CONSTRUCTION.
12. CONTRACTOR SHALL REVIEW THE PRELIMINARY GEOTECHNICAL SUMMARY REPORT SUBMITTED TO THE CITY FOR GEOTECHNICAL SERVICES, DATED 6/14/12Z. BED ROCK AND APPROXIMATELY 4'± THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIALS REQUIRED TO INSTALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY BLASTING PERMITS, IF APPLICABLE.

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21

C-03

GENERAL NOTES:

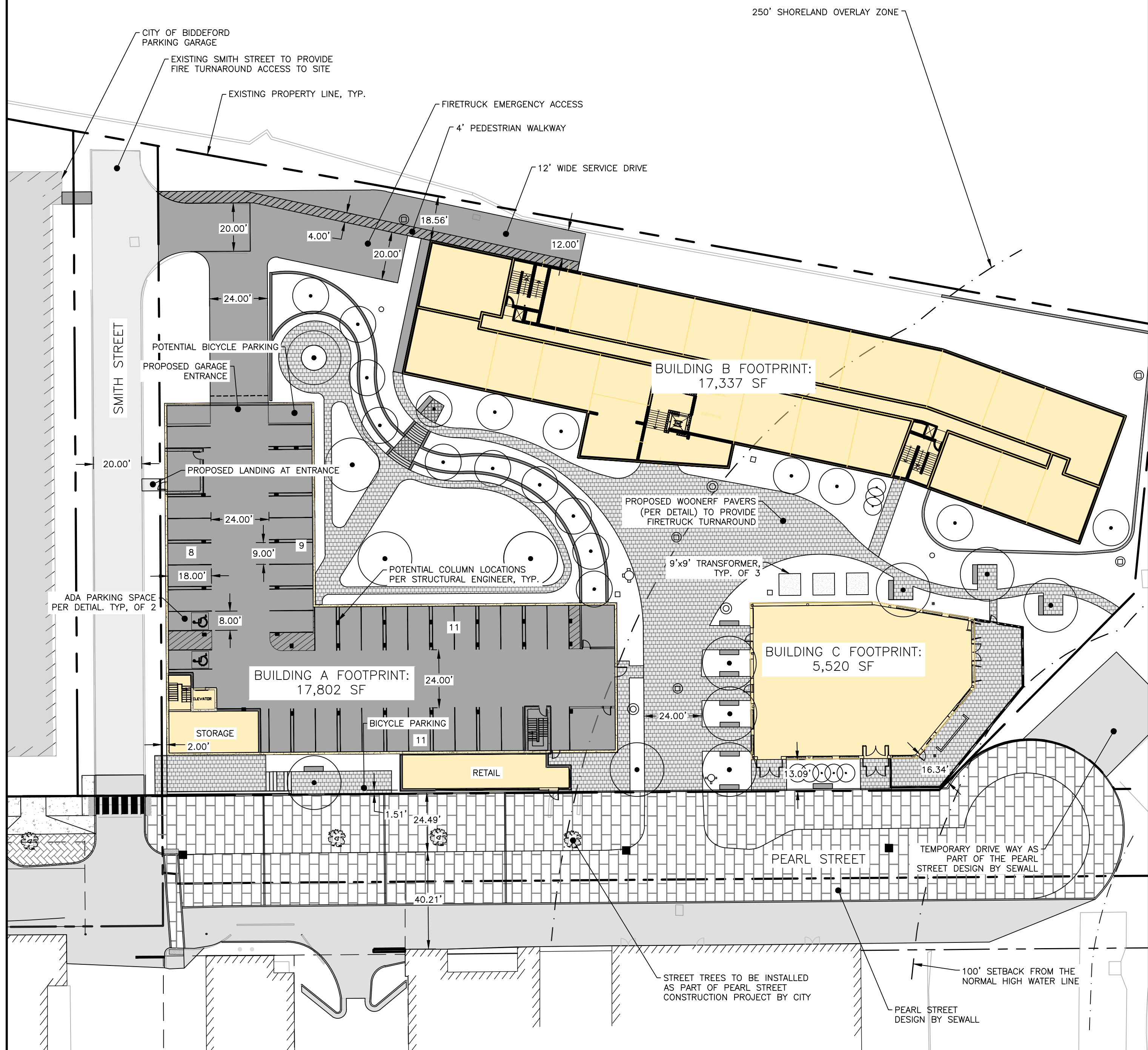
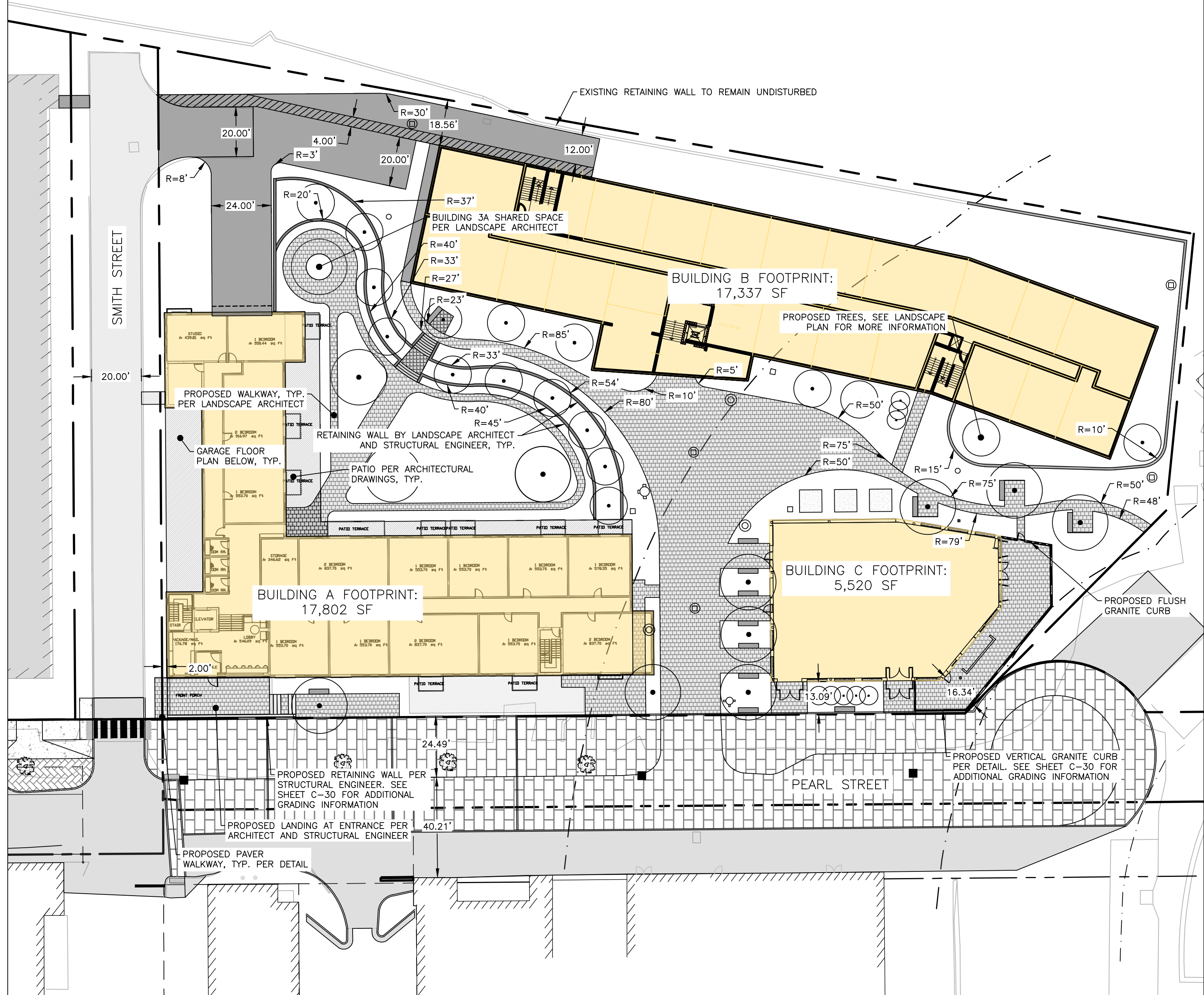
1. ALL SIDEWALK AND CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDDEFORD STANDARDS.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDDEFORD & MUTCD STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET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

PLAN REFERENCES:

1. PLAN TITLED "BIDDEFORD PARKING GARAGE, MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21

PARKING SUMMARY			
USE	UNITS	SPACES REQUIRED	PROPOSED
BUILDING A	85	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 85 SPACES	39
-	-	INCREASE OF 5% (OF 85 SPACES) TO ALLOW FOR VISITORS = 5 SPACES	-
-	953 SF	1 SPACE / 300 SF OF FLOOR SPACE = 3 SPACES*	0
BUILDING B	129	1 SPACE / DWELLING UNIT (EXCLUSIVELY FOR & OCCUPANCY RESTRICTED) = 129 SPACES	0
-	-	INCREASE OF 5% (OF 129 SPACES) TO ALLOW FOR VISITORS = 6 SPACES	-
BUILDING C	170 SEATS & 128 SEATS	1 SPACE / 3 SEATS = 100 SPACES*	0
ADA (8'X18')	-	-	2
STANDARD (9'X18')	-	-	37
TOTAL SPACES	-	328 - 103* = 225	39
ADDITIONAL SPACES TO BE PROVIDED IN PARKING GARAGE	-	186**	225
*WAVES FOR COMMERCIAL SPACE TO BE REQUESTED.			
**APPLICANT TO REACH OUT TO CITY PARKING GARAGE ON CURRENT AVAILABILITY			

LOT 3 SPACE AND BULK STANDARDS			
ZONE:	REQUIRED (MSRD3)	REQUIRED (WR)	PROPOSED LOT 3
MINIMUM LOT SIZE	NONE	NONE (WITHIN EX. STRUCTURES ONLY)	2.08 AC
MINIMUM STREET FRONTAGE	NONE	-	322'
MINIMUM FRONT YARD SETBACK	NONE	-	1.51'
MINIMUM REAR YARD SETBACK	NONE	-	18.56'
MINIMUM SIDE YARD SETBACK	NONE	-	2.00'
MINIMUM BUILDING HEIGHT	MIN. 2 STORIES OR 26 FEET	-	2 STORIES (BUILDING 3C)
MINIMUM SHORE FRONTAGE	-	NONE (WITHIN EX. STRUCTURES ONLY)	N/A
SACO RIVER SETBACK (INCLUDING PARKING AREAS)	-	100' FROM NORMAL HIGH-WATER LINE	115.10'
SACO RIVER NO-CUT ZONE (SRCC)	-	75'	N/A
MAX LOT COVERAGE	100%	70% WITHN SHORELAND ZONE	TOTAL: 69.1% SHORELAND: 64%

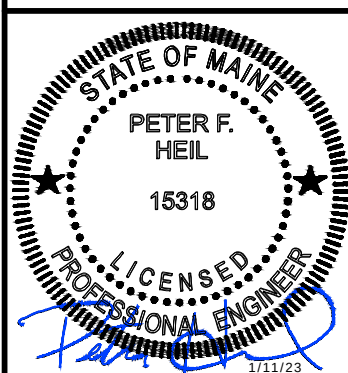
GARAGE FLOOR PLAN
1" = 30'SITE PLAN
1" = 30'PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SKETCH PLAN	PFH
PRELIMINARY	PFH
DEP SW AMENDMENT	PFH
SRCC	PFH
FINAL SITE PLAN	PFH

SITE PLAN	PEARL STREET REDEVELOPMENT
PROJECT NAME/ADDRESS:	PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD:	3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101	

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

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



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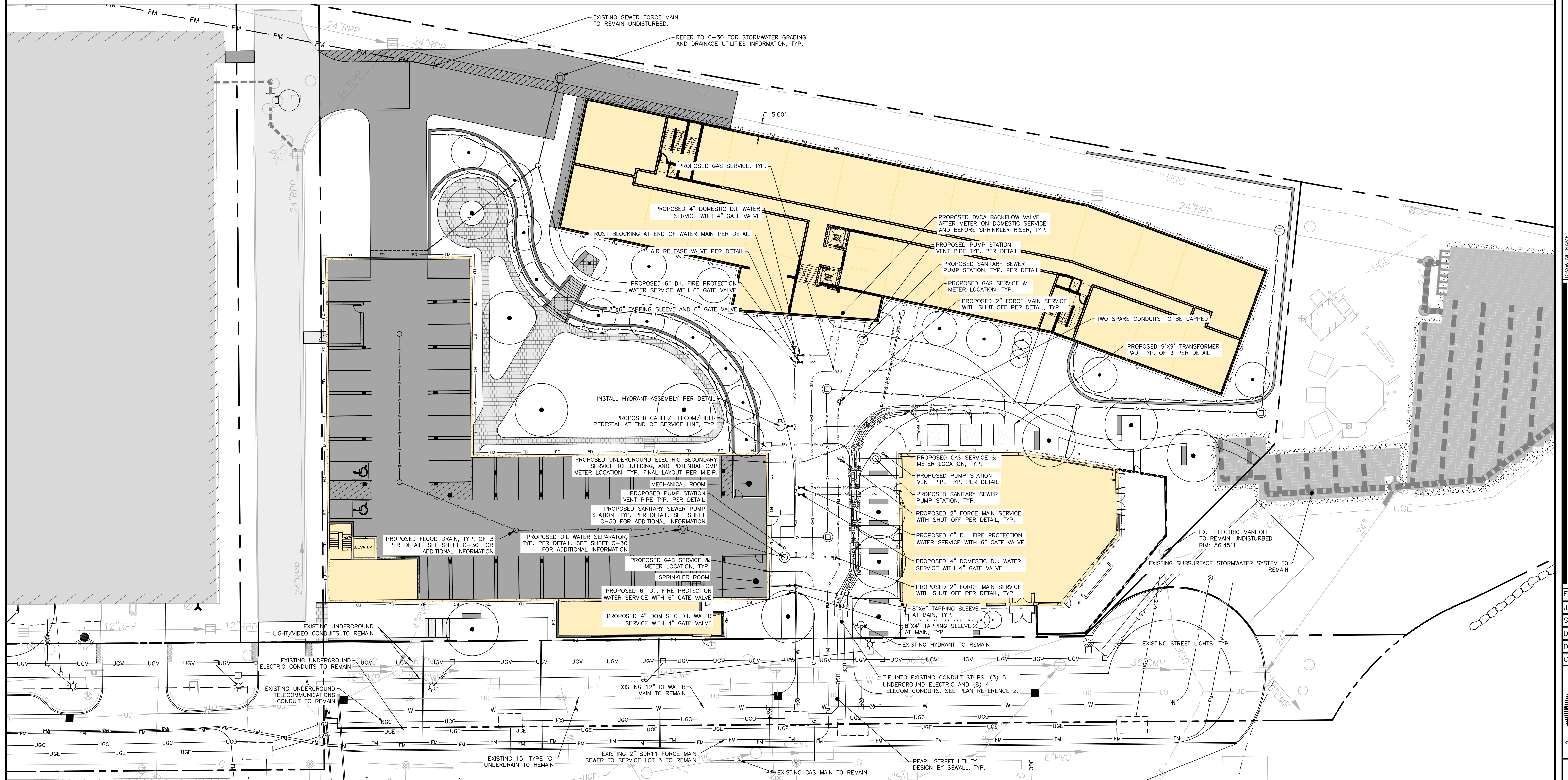
C-10

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION. REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENCES FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. **SEWER UTILITIES:** CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BIDDEFORD TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
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 COMPANY STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE MAINE WATER COMPANY AND CITY OF BIDDEFORD.
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 UNTIL.
8. **ELECTRIC UTILITIES:** ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY SPECTRUM AND CONSOLIDATED COMMUNICATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. CONTRACTOR SHALL REVIEW THE GEO TECHNICAL REPORT, PREPARED BY SUMMIT GEOTECHNICAL SERVICES, DATED 6/14/22. BEDROCK AND 4" THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIALS REQUIRED TO INSTALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET.

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.

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

[illegible]

UTILITY PLAN	
PROJECT NAME/ADDRESS:	PEARL STREET REDEVELOPMENT PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD:	3 LINCOLN, LLC 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

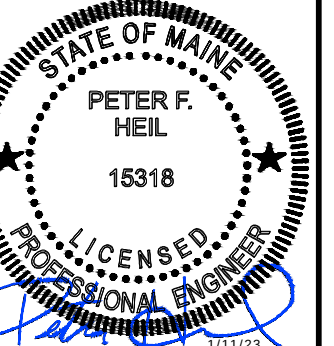
A C O R N

ENGINEERING, INC.

ACORN ENGINEERING, INC.
PO BOX 3370
DALLAS, TEXAS 75265
(214) 775-2855

MORPHEUS ANTI-CRACK
FRISK COAT[®] ENGINEERING
OR OTHERWISE, SHALL BE AT THE USER'S SOLE
RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DATE:	11/24/2014
TIME:	11:24
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

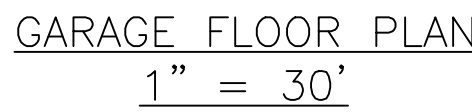


DRAWING NO.

C-20

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF BIDEFORD TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SLOPE RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES INCIDENT OF ACTIVE CONSTRUCTION
5. SEDIMENTATION BARRIERS BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY
6. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT, PREPARED BY SUMMIT GEOENGINEERING SERVICES, DATED 6/14/22, BEDROCK AND APPROX 44 FEET THICK CONCRETE SLABS ARE ANTICIPATED TO BE ENCOUNTERED IN CERTAIN AREAS. CONTRACTOR TO ACCOUNT FOR APPROPRIATE BLASTING AND/OR REMOVAL OF MATERIAL REQUIRED FOR SMALL SITE IMPROVEMENTS, INCLUDING UTILITIES, AS DEPICTED WITHIN THE PLAN SET.

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2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

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GRADING PLAN

PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

3 LINCOLN, LLC

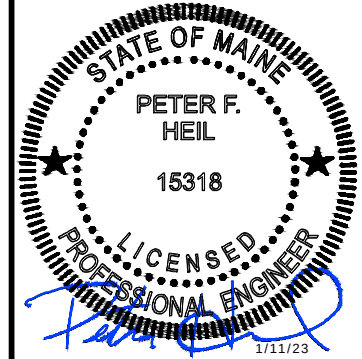
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

DRAWING NAME:

ENGINEERING, INC.

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

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DESIGNED BY:	PFH
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CHECKED BY:	WHS

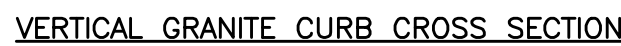


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C-30



VERTICAL GRANITE CURB PLAN VIEW



- NOTES:

1. CURB SHALL BE RESET IN ACCORDANCE WITH MDOT 609.08 WITH THE EXCEPTION OF CURB SPACING TO BE INSTALLED PER DETAIL.
2. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
3. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10 INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF THE CURB.
4. CURBING SHALL BE SET IN A 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
5. WOODEN SHIMS MAY BE USED TO SET CURB.

VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION
IN EXISTING STREETS DETAIL
NOT TO SCALE

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	24-36"

- NOTES:

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

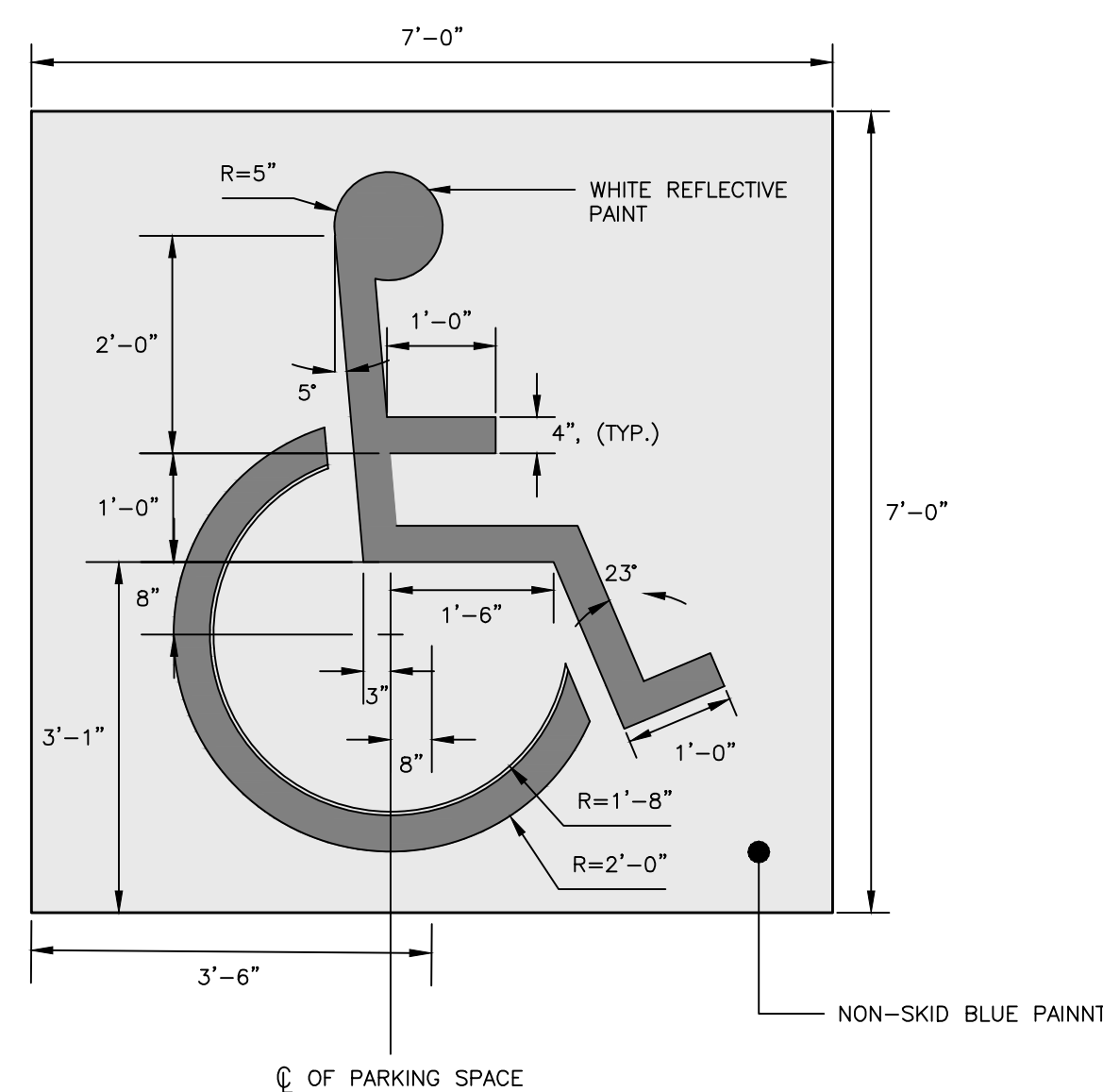


LIGHT POLE BASE
NOT TO SCALE

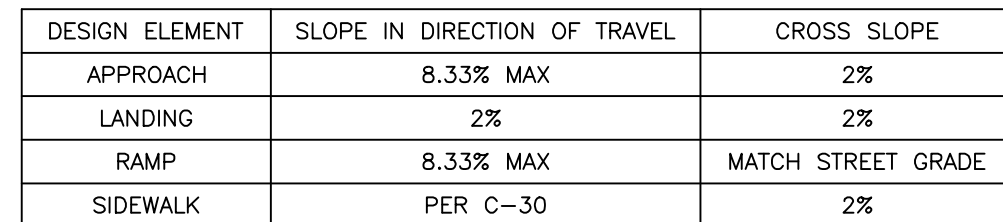


1. NUMBERS TO BE PAINTED AS THE SAME COLOR AS THE CORRESPONDING PARKING SPACE.
2. BOTTOM OF NUMBER TO BE FLUSH WITH THE FRONT OF THE PARKING SPACE.

PARKING STALL NUMBER DETAIL
NOT TO SCALE



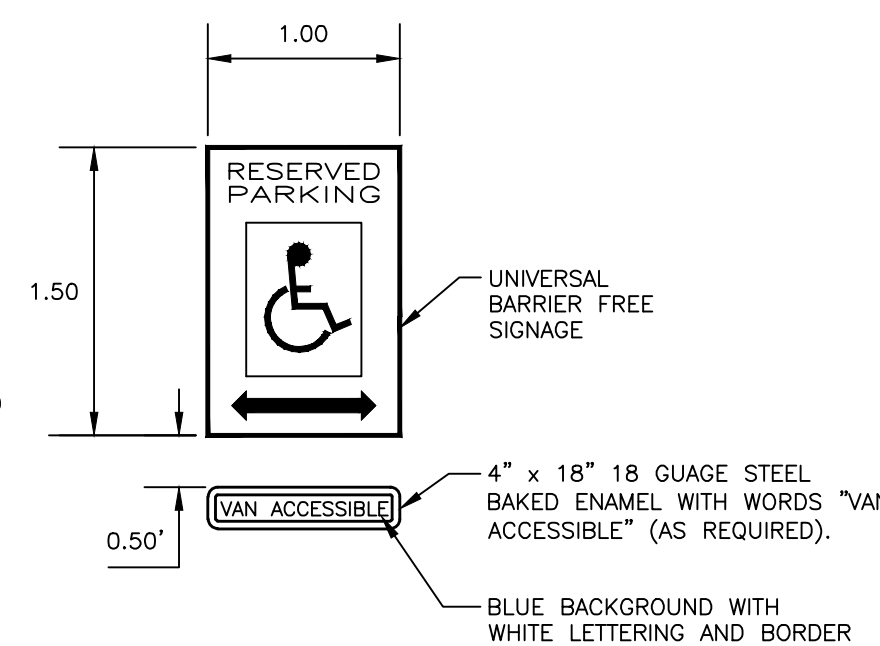
INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE



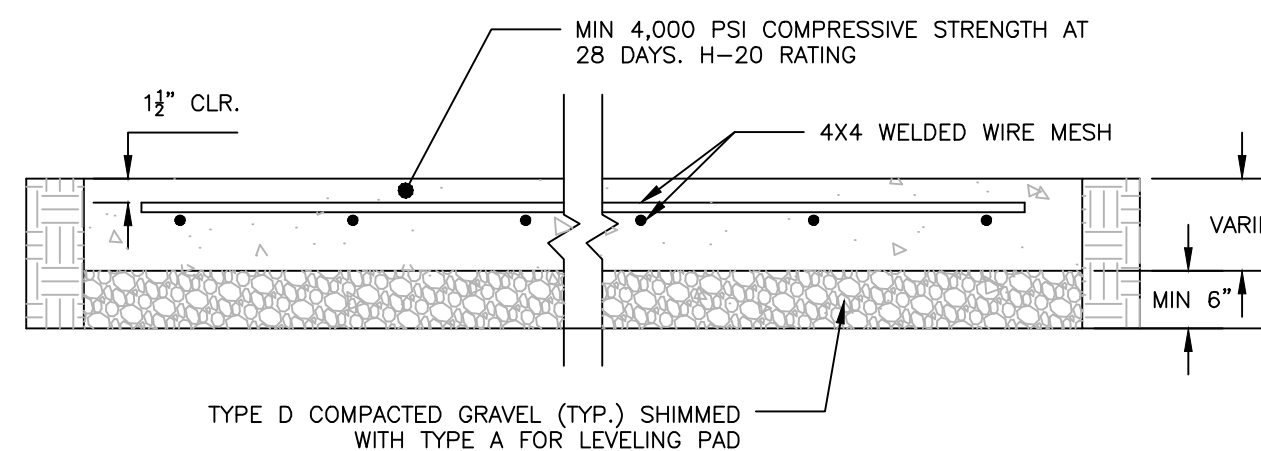
SIDEWALK RAMP LAYOUT
NOT TO SCALE

- NOTES:

1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8b OR R7-8b.
3. IF NOT MOUNTED, SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.



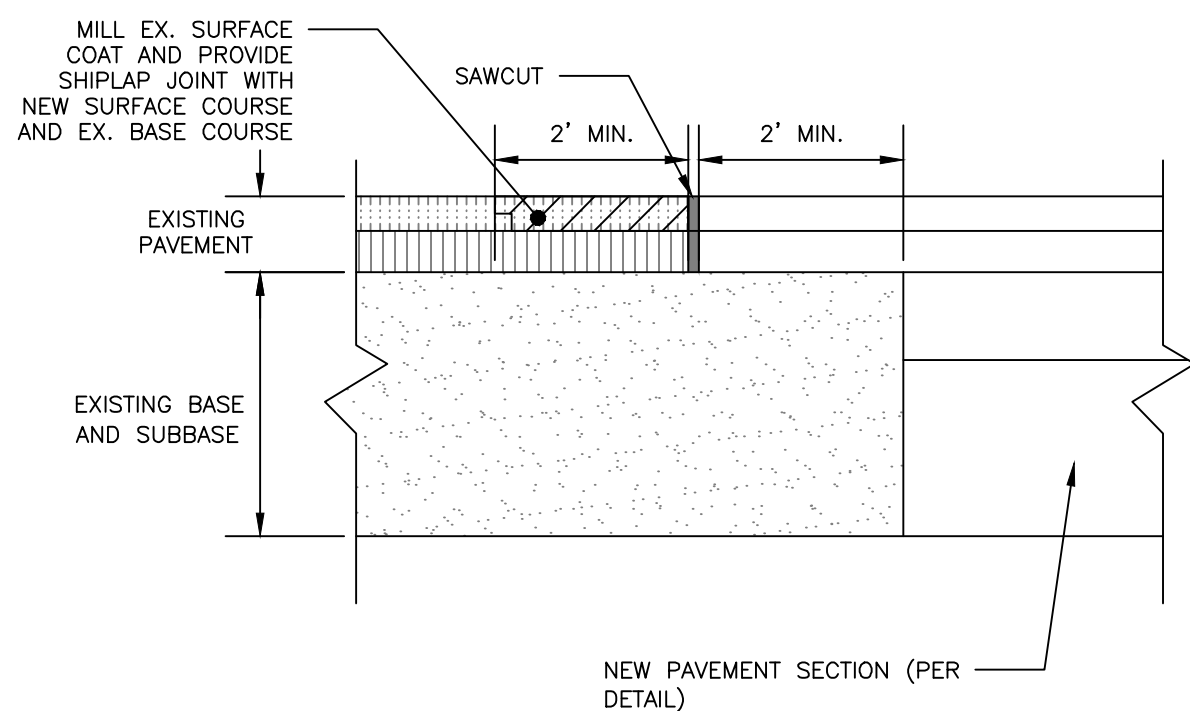
BARRIER FREE PARKING SIGN
NOT TO SCALE



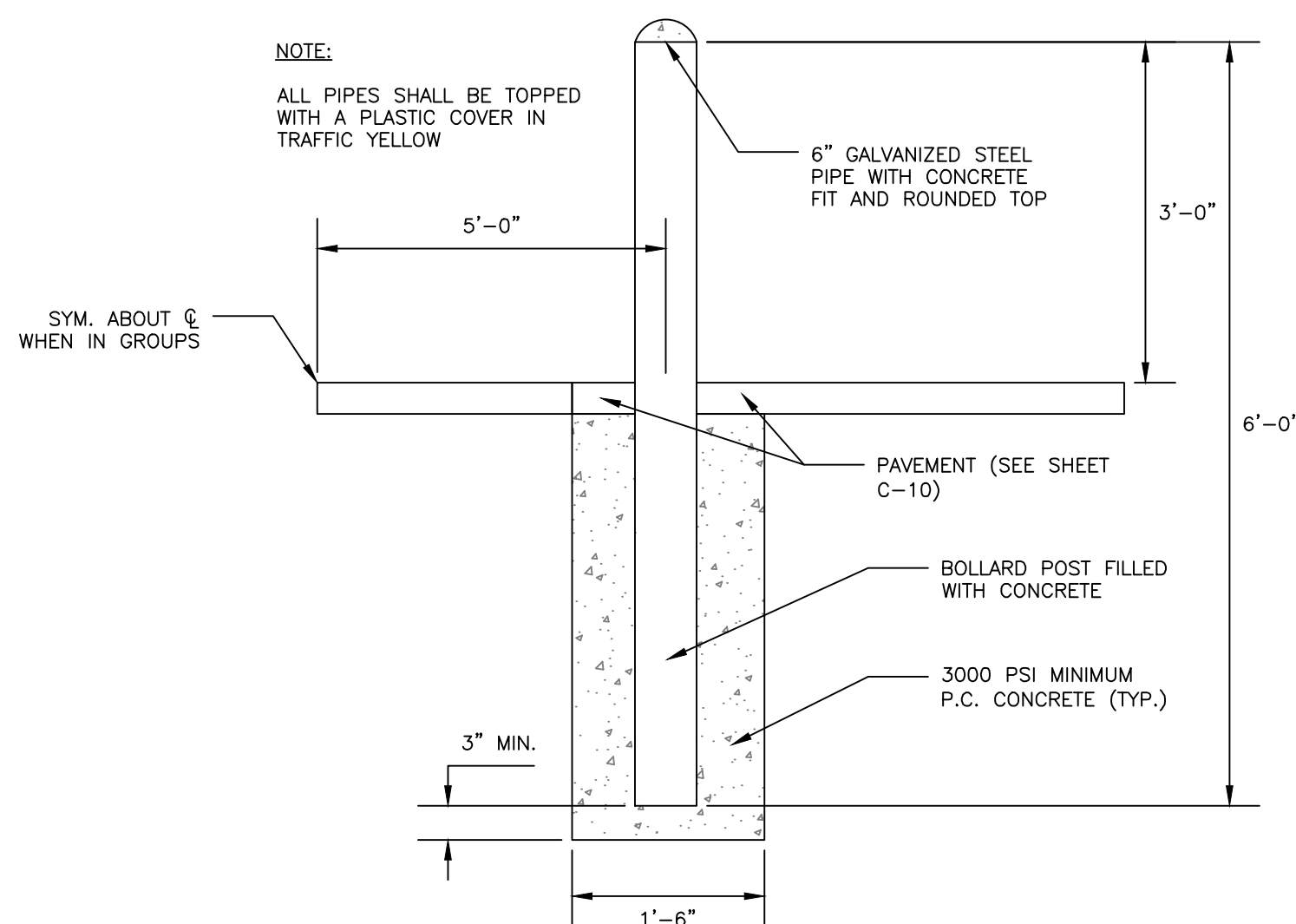
CONCRETE PAD DETAIL
NOT TO SCALE

- NOTES:

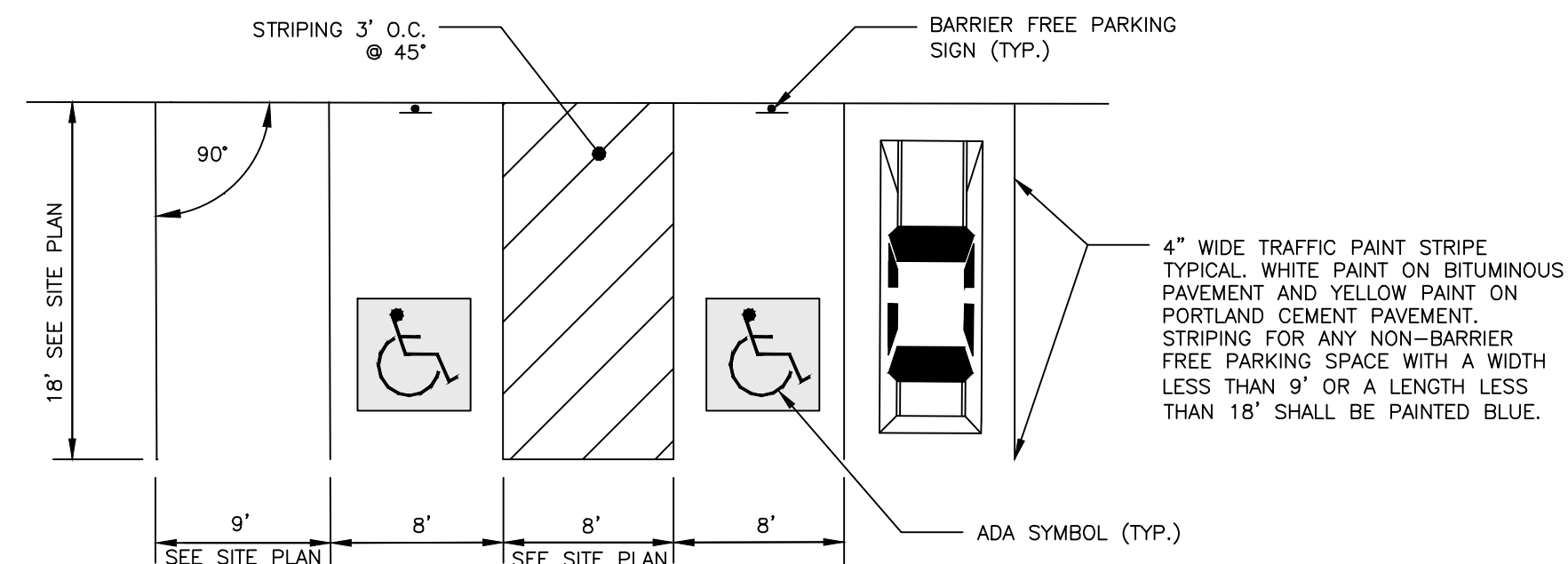
1. SAWCUT EXISTING PAVEMENT AND REMOVE 2" STRIP OF EXISTING PAVEMENT. CREATE UNIFORM AND RIGID BUTT JOINT AND APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE



PARKING SPACE DIMENSIONS
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

[illegible]

SITE DETAILS - 1

PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

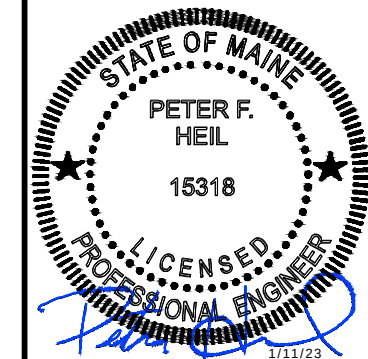
OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

DRAWING NAME:

R N
ENGINEERING, INC.

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

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
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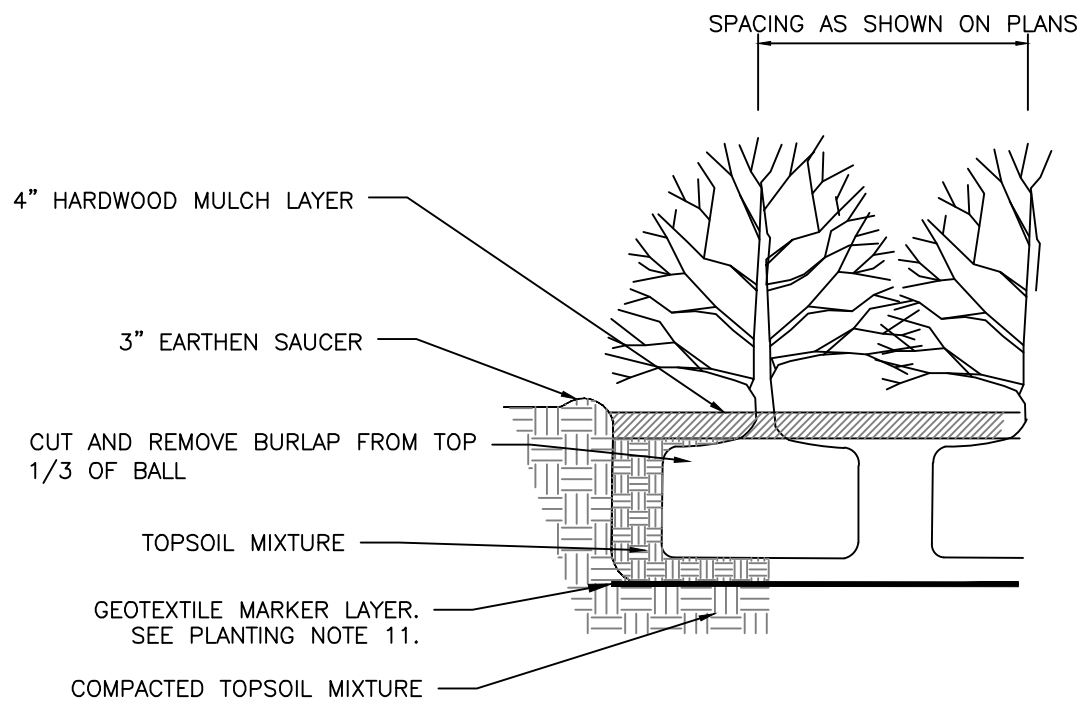


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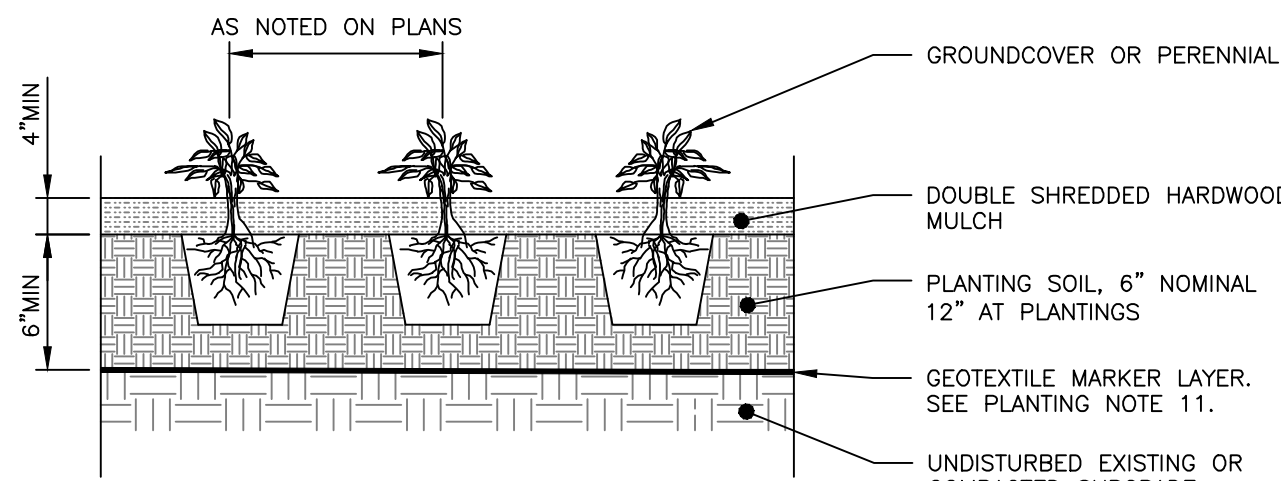
C-40

PLANTING NOTES:

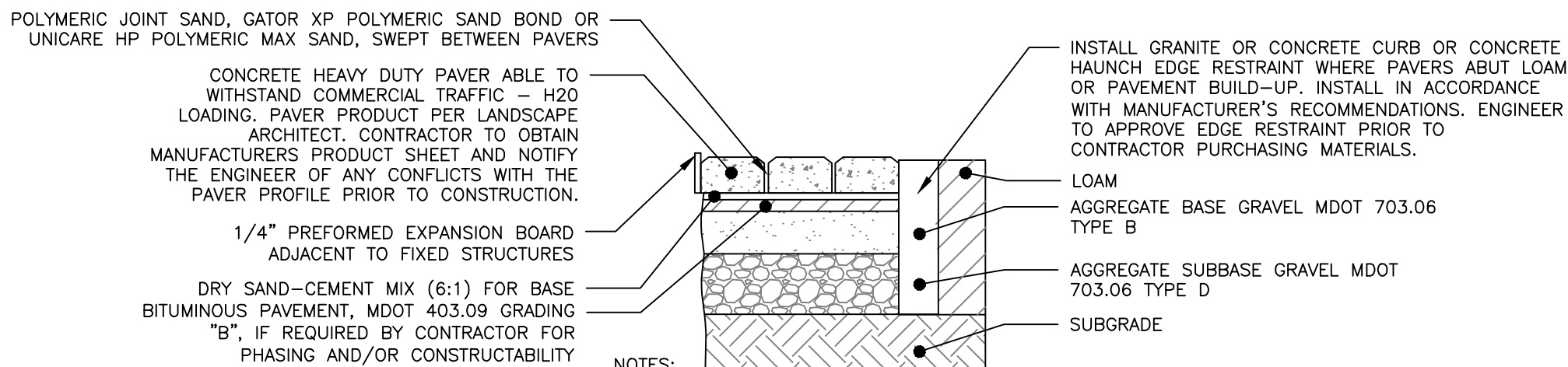
1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WILL THE CITY OF BIDDEFORD TECHNICAL MANUAL.
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER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



SHRUB PLANTING DETAIL
NOT TO SCALE



PERENNIAL PLANTING DETAIL
NOT TO SCALE



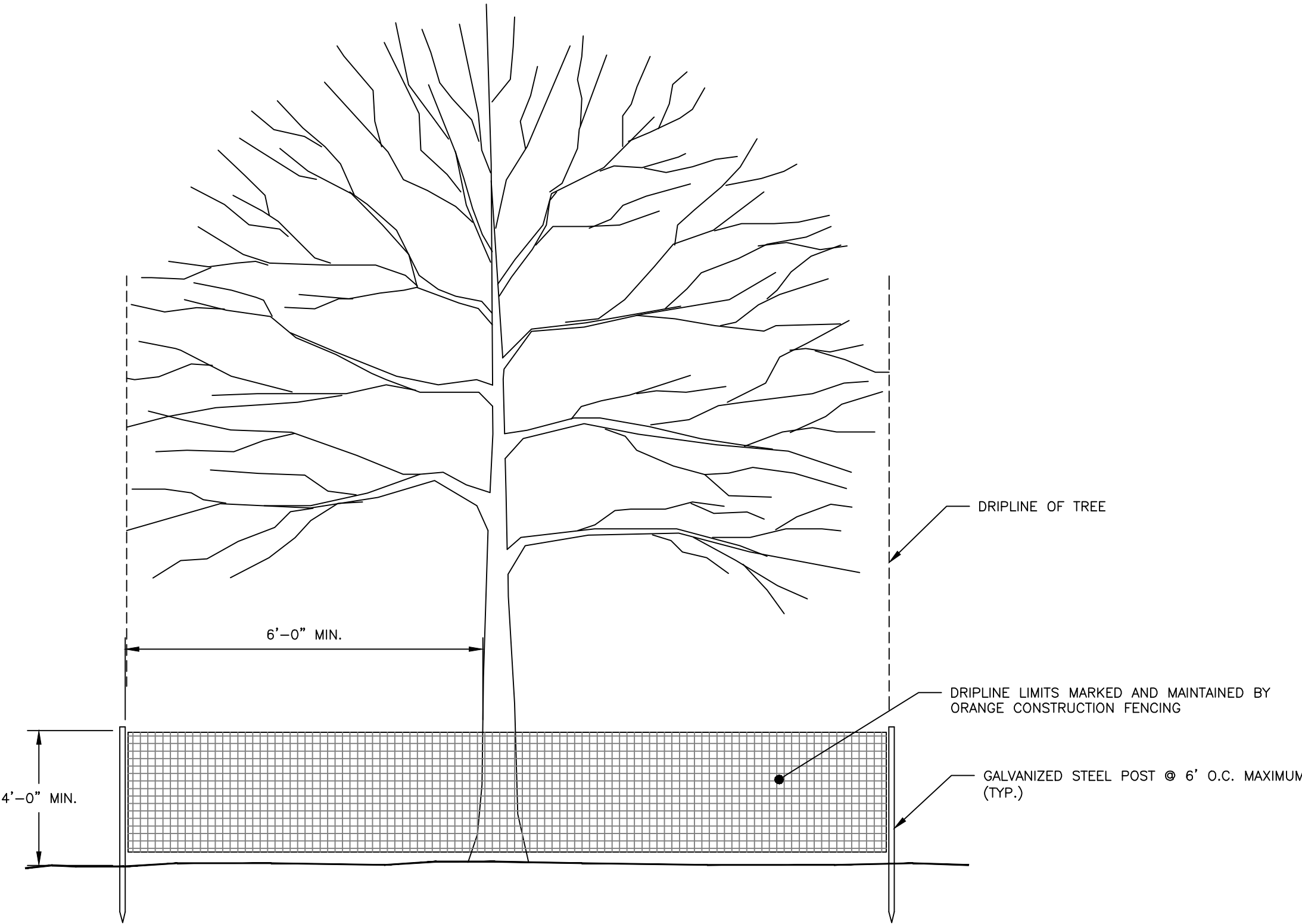
NOTES:

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

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

THICKNESS OF LAYERS	
STANDARD	LAYERS
2-3/4"	CONCRETE PAVEMENT (DEPTH TBD BASED UPON MANUFACTURER)
1"	DRY SAND-CEMENT MIX (6:1)
2"	BITUMINOUS MDT 403.09 GRADING "B"
3"	AGGREGATE BASE GRAVEL MDT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDT 703.06 TYPE D

PAVER PROFILE
NOT TO SCALE



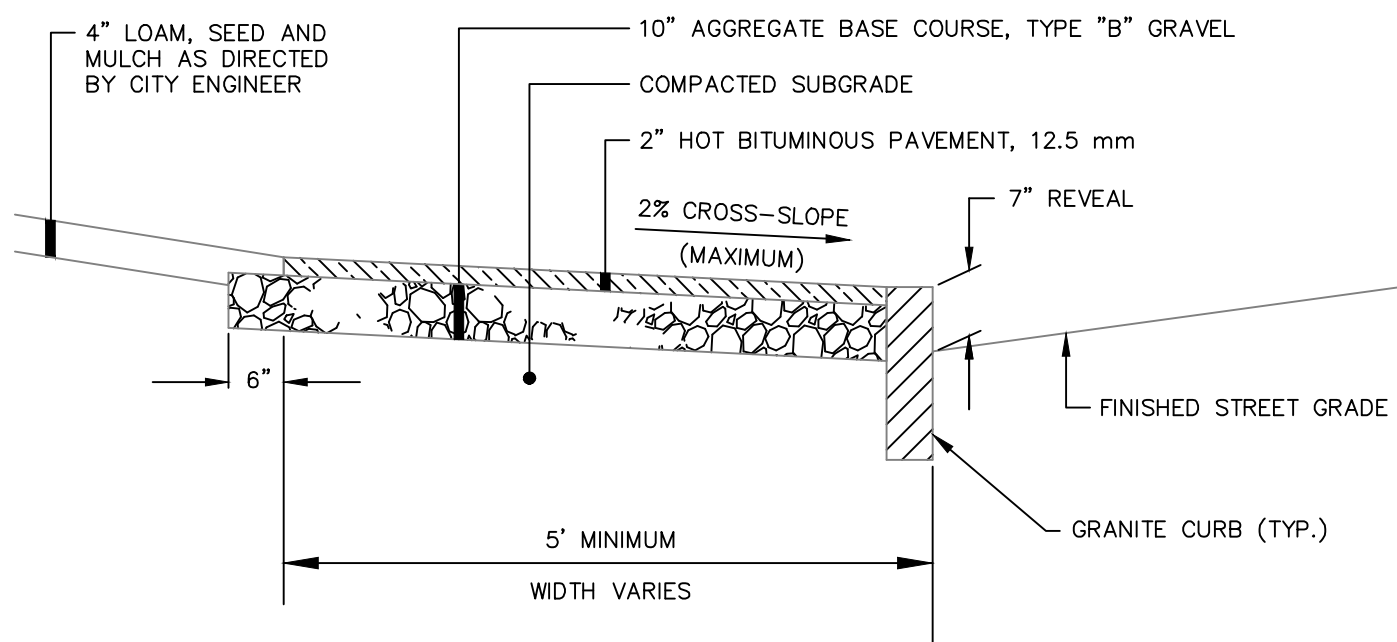
NOTES:

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

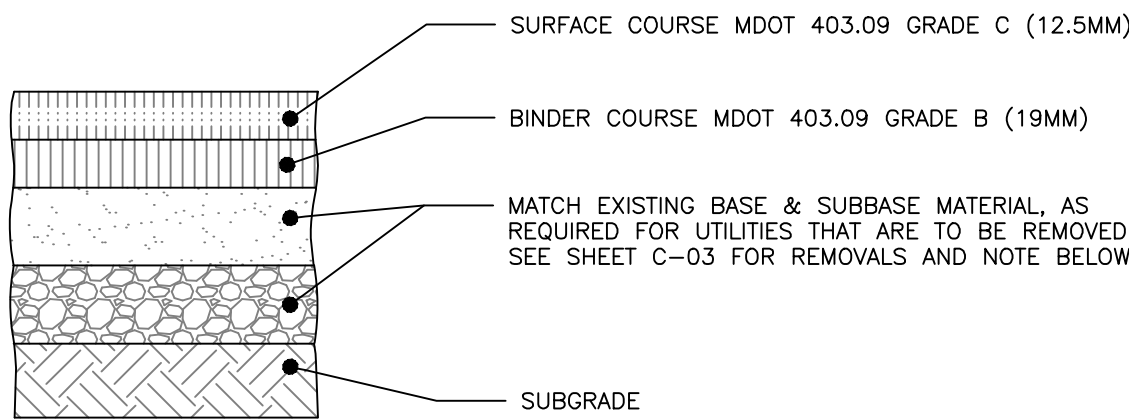
TREE PROTECTION DETAIL
NOT TO SCALE

NOTE:

COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557



BITUMINOUS SIDEWALK
NOT TO SCALE



NOTE:

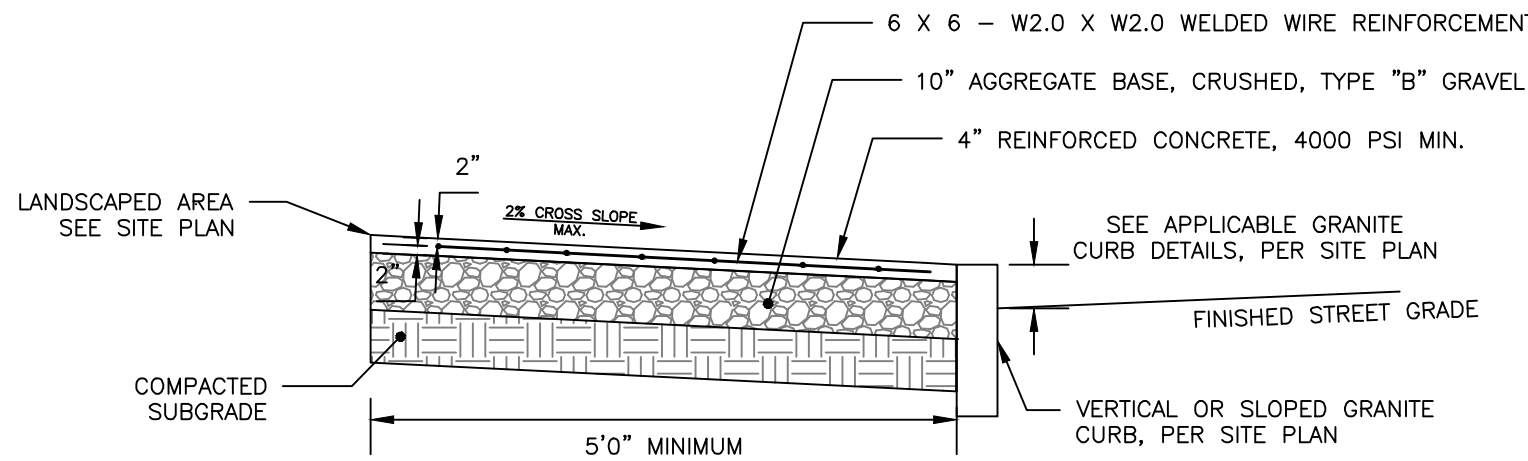
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
2. CONTRACTOR TO VERIFY EXISTING GOOD STREET BASE AND SUBBASE MATERIALS AND MATCH EXISTING.
3. PROJECT PROPOSES TO MILL EXISTING PAVEMENT AND INSTALL NEW BITUMINOUS PAVEMENT PER DETAIL. REFER TO APPLICABLE UTILITY CROSS SECTIONS FOR NEW UTILITY INSTALLATION.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1.25"	SURFACE COURSE MDT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDT 403.09 GRADE B (19mm)
4"	AGGREGATE BASE GRAVEL MDT 703.06 TYPE B OR A
18"	AGGREGATE SUBBASE GRAVEL MDT 703.06 TYPE D

PAVEMENT PROFILE:
NOT TO SCALE

NOTES:

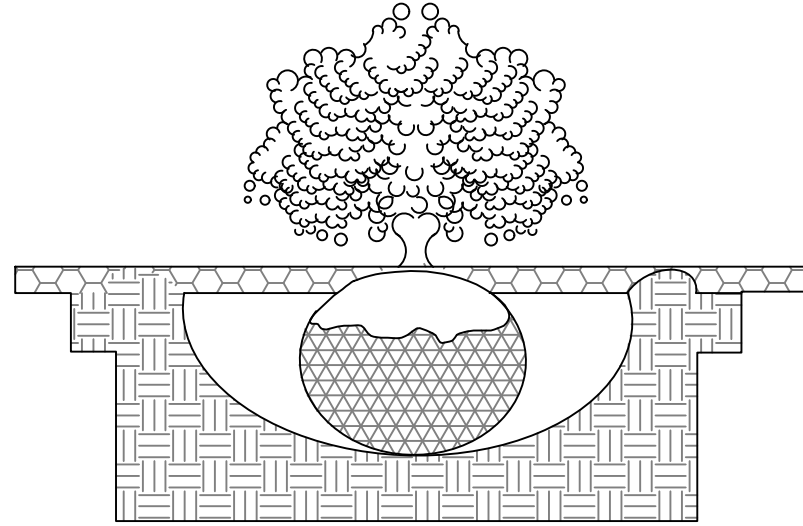
1. AT A MINIMUM, TESTING SHALL CONSIST OF ENTRAINED AIR AND SLUMP TESTS ON SITE PRIOR TO POURING THE SIDEWALKS. ENTRAINED AIR TESTS SHALL BE DONE IN ACCORDANCE WITH AASHTO T152. TEST FIRST TWO LOADS AND EVERY THIRD LOAD THEREAFTER PROVIDED CONSISTENT RESULTS ARE ACHIEVED.
2. WELDED WIRE FABRIC SHALL BE PLACED 2 INCHES ABOVE THE CRUSHED GRAVEL, AND 2 INCHES FROM ALL FINISHED EDGES, EXPANSION JOINTS AND CURBS. ALL FABRIC JOINTS SHALL BE OVERLAPPED A MINIMUM OF 1 FOOT AND BE PROPERLY TIED. IF THE CONTRACTOR ELECTS TO USE REBAR, ONLY 4-GAUGE WILL BE ACCEPTABLE. IF THE CONTRACTOR ELECTS TO USE A PRE-MIXED FIBER MESH, A SPECIFICATION SHEET MUST BE SUBMITTED AND PRE-APPROVED BY THE ENGINEER PRIOR TO ITS APPLICATION.
3. SLABS SHALL BE PLACED ALTERNATELY IN LENGTHS NOT TO EXCEED 30 FEET OR AS DIRECTED AND SHALL BE SEPARATED BY AN EXPANSION JOINT OF PREFORMED EXPANSION FILLER 1/2 INCH IN THICKNESS.
4. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A 1/2 INCH THICK PREFORMED JOINT FILLER SHALL BE USED BETWEEN THE SLAB AND THE STRUCTURE.
5. THE SIDEWALK SURFACE SHALL BE SCORED INTO BLOCK UNITS NO GREATER THAN 40 SQUARE FEET AS DIRECTED. THE DEPTH OF THE SCORING SHALL BE AT LEAST ONE QUARTER OF THE THICKNESS OF THE SLAB.
6. ANY MATCHING INTO EXISTING SIDEWALKS SHALL BE DONE SO WITH A CLEAN VERTICAL FACE CONNECTION.
7. THE SURFACE SHALL BE FINISHED TO PRODUCE A BROOKLIKE "BRUSHED" PATTERN. NO PLASTERING OF THE SURFACE WITH MORTAR WILL BE PERMITTED. THE FINISH SHALL RESULT IN A SURFACE OF UNIFORM TEXTURE AND COLOR. ALL OUTSIDE EDGES OF THE SLAB AND ALL JOINTS SHALL BE ROUNDED WITH A 1/2 INCH RADIUS EDGING TOOL.
8. CONCRETE SHALL BE CURED FOR 72 HOURS. CURING SHALL BE BY MEANS OF THOMPSON'S WATER SEAL AS MANUFACTURED BY E.A. THOMPSON CO., INC. OF MEMPHIS, TENNESSEE, BOILED LINSEED OIL, WHITE PIGMENTED CURING COMPOUND, OR BY OTHER APPROVED METHODS. CONCRETE SIDEWALK TO BE SEALED WITH CONSOLDECK SALTGUARD WB OR APPROVED EQUAL 28 DAYS AFTER PLACEMENT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION.
9. GENERAL CONTRACTOR TO COLLECT DELIVERY SLIPS AND TRANSFER TO THE OWNER.
10. WHERE REINFORCED CONCRETE SIDEWALK IS PROPOSED IN A PUBLIC RIGHT OF WAY, THE DETAIL MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO THE INSTALLATION OF THE WALK.



REINFORCED CONCRETE SIDEWALK
NOT TO SCALE

NOTES:

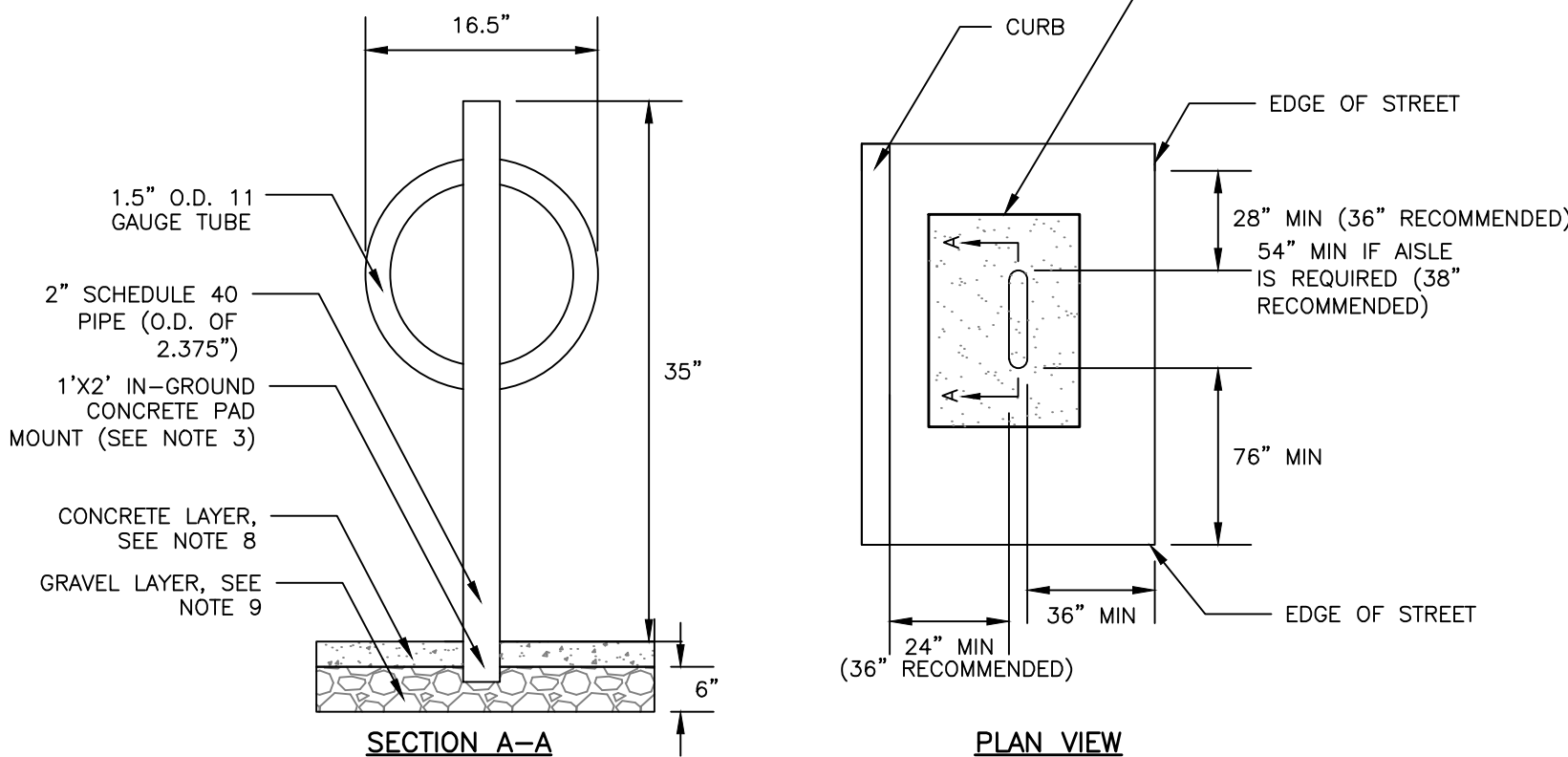
1. DIG HOLE AT LEAST 2 TIMES THE DIAMETER OF THE ROOT BALL AND AS DEEP AS THE ROOT BALL (NO DEEPER). SET ROOT BALL CENTERED, WITH THE TOP AT DOWNHILL EDGE OF THE HOLE.
2. TOPSOIL BACKFILL SHALL BE NATURAL FRIABLE, FERTILE, FINE LOAMY SOIL POSSESSING THE CHARACTERISTICS OF TOPSOIL IN THE VICINITY WHICH PRODUCE A HEAVY GROWTH. TOPSOIL SHALL CONTAIN NOT LESS THAN 6% NOR MORE THAN 20% ORGANIC MATTER. TOP SOIL SHALL HAVE A PH VALUE OF NOT LESS THAN 5.5 NOR MORE THAN 7.0.
3. CONTAINER GROWN STOCK - REMOVE CONTAINER PROTECTING THE ROOT BALL. GENTLY COMB OUT THE ROOTS. PRUNE DAMAGED ROOTS.
4. BACKFILL THE HOLE WITH TOPSOIL TO A DEPTH NOT TO EXCEED 8" THEN WATER SUFFICIENTLY TO SETTLE TOPSOIL. REPEAT SOIL BACKFILL, WATER DRAIN. TOPSOIL SHALL BE TAMPED UNDER EDGES OF THE BALLED PLANTS. BACKFILL TO FINISH GRADE AND CREATE AN EARTHEN SAUCER. SOAK PLANTS TWICE WITHIN THE FIRST TWENTY-FOUR HOURS OF PLANTING.



TYPICAL PLANTING
NOT TO SCALE

NOTES:

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



DERO BIKE HITCH
NOT TO SCALE

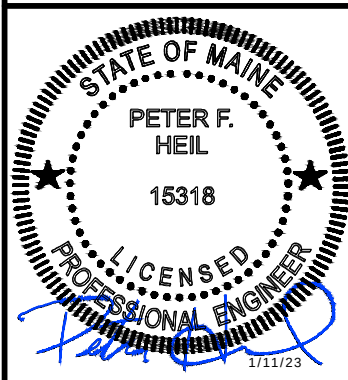
PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SKETCH PLAN	PH
PRELIMINARY	PH
DEP SW AMENDMENT	PH
SRCC	PH
FINAL SITE PLAN	PH

DRAWING NAME:	SITE DETAILS - 2
PROJECT NAME/ADDRESS:	PEARL STREET REDEVELOPMENT PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD:	3 LINCOLN, LLC 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

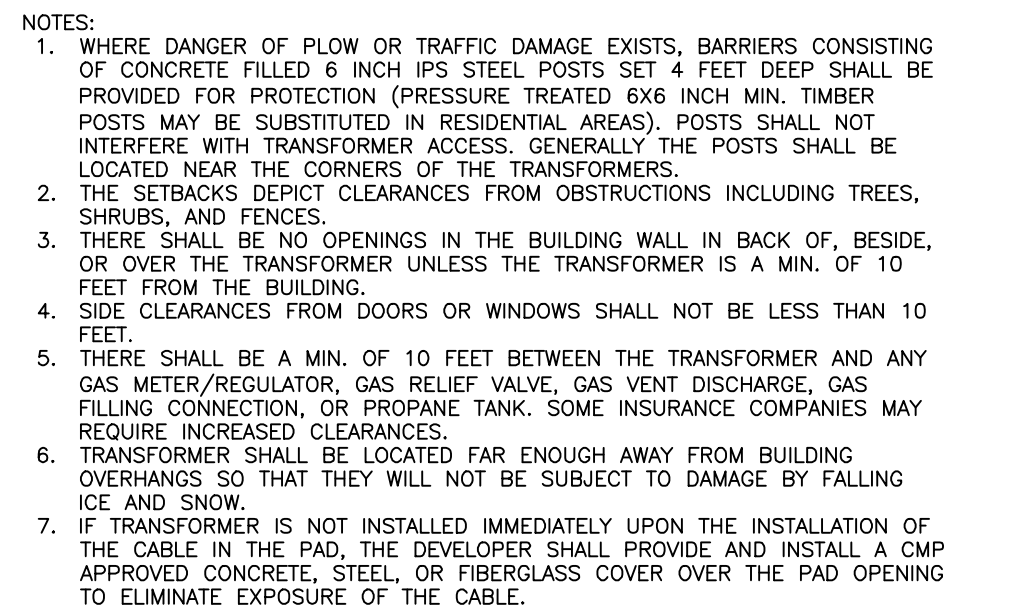
ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04101 (207) 775-2655	ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND MAINE 04101 (207) 775-2655
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FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.

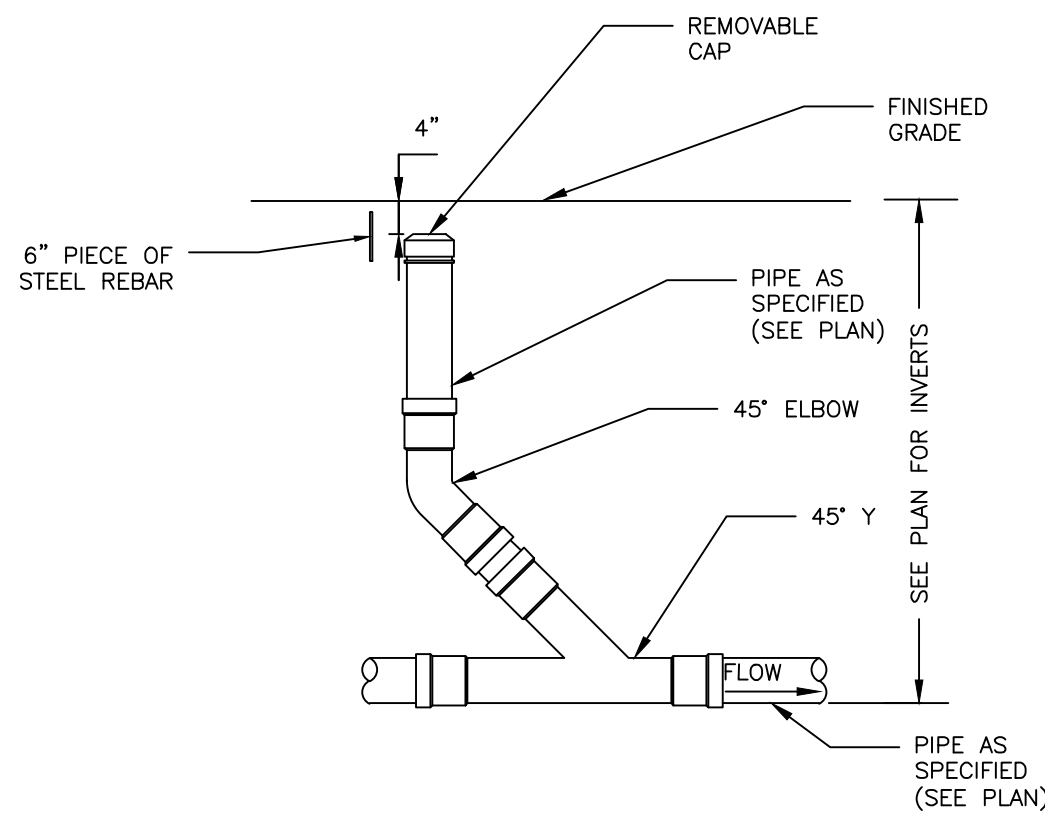
C-41



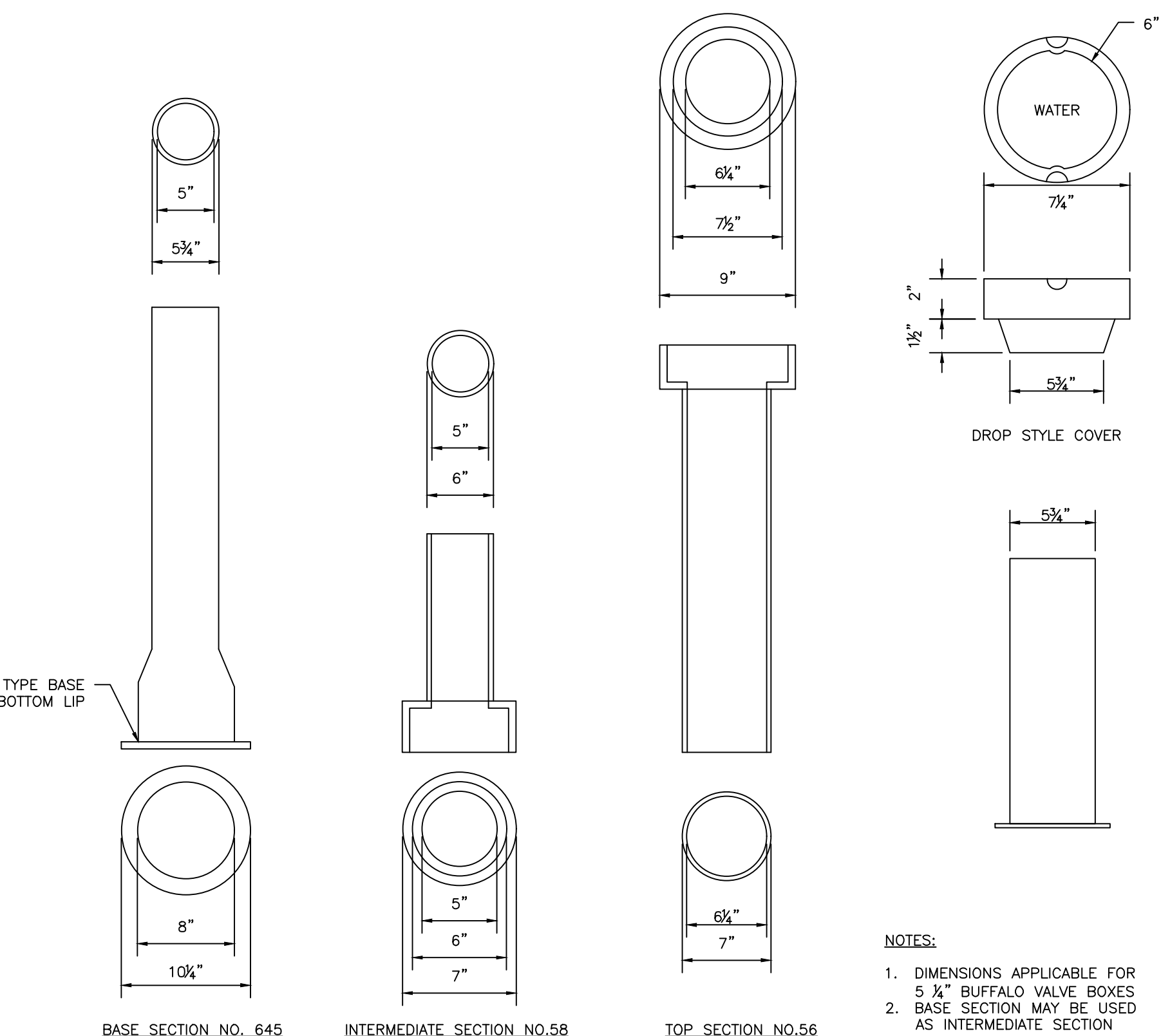
NOTES:

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

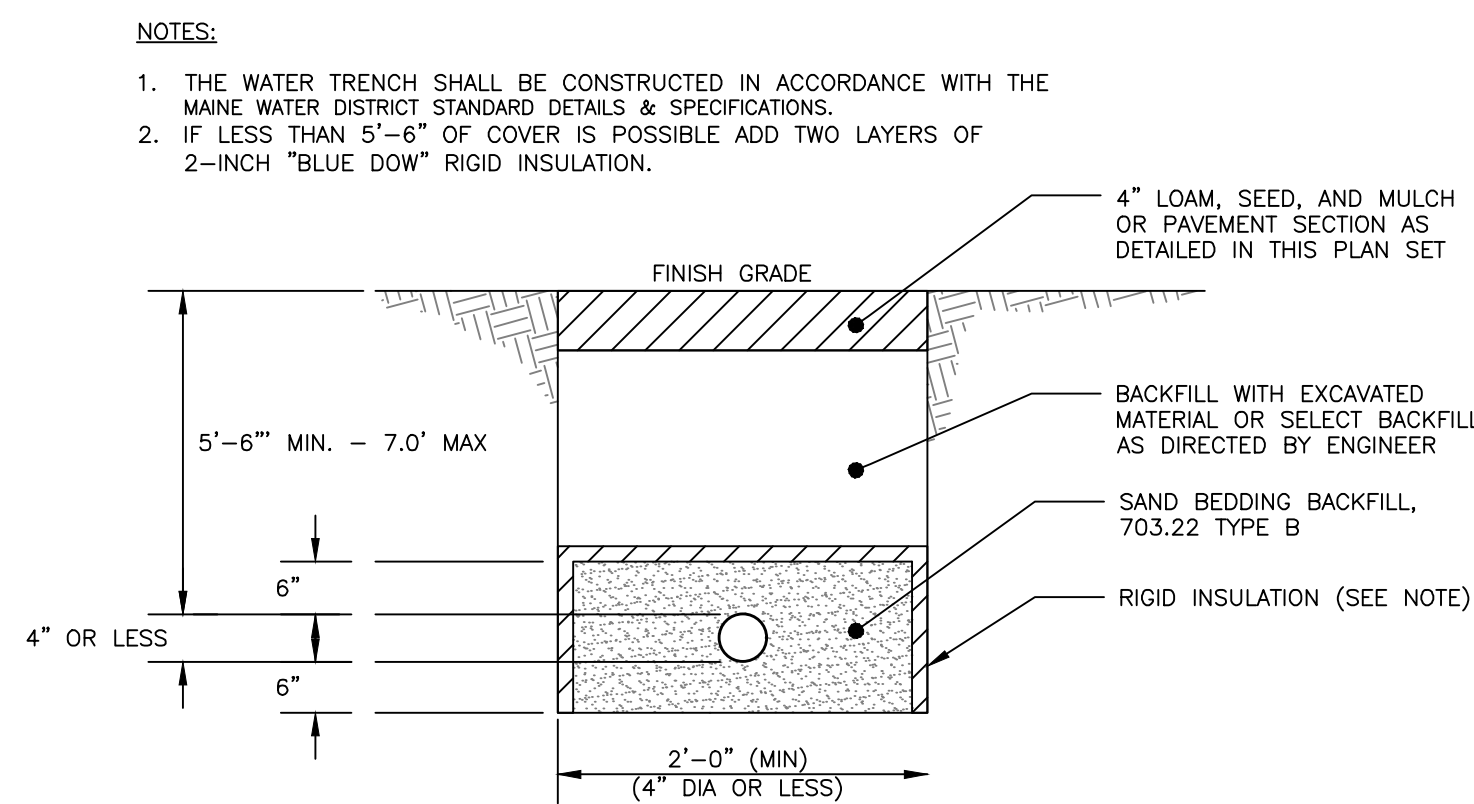
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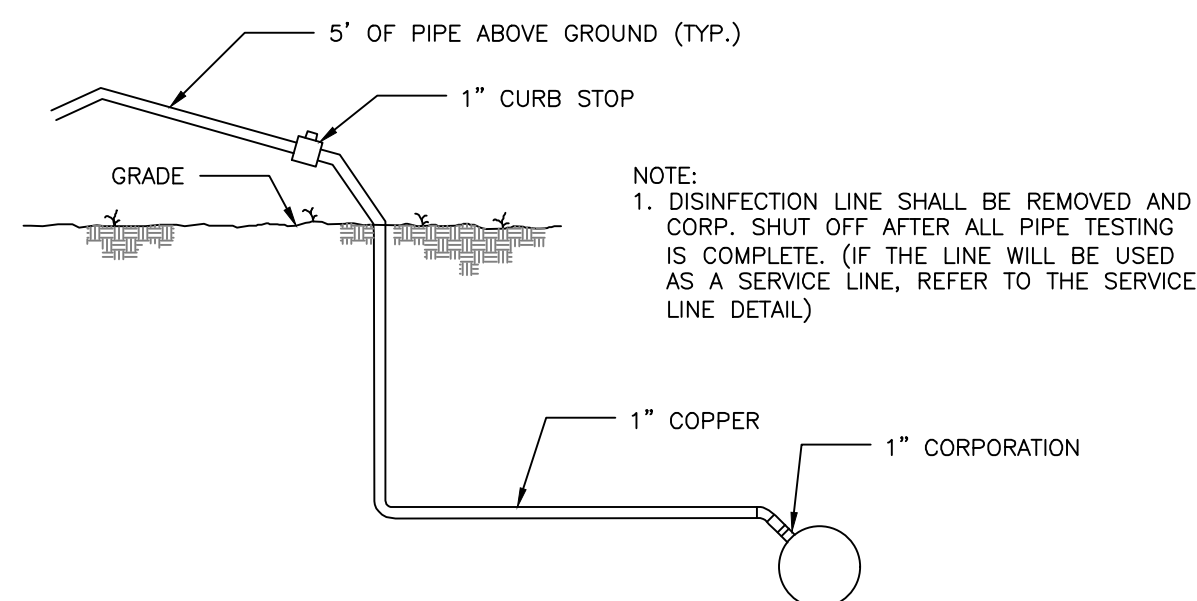
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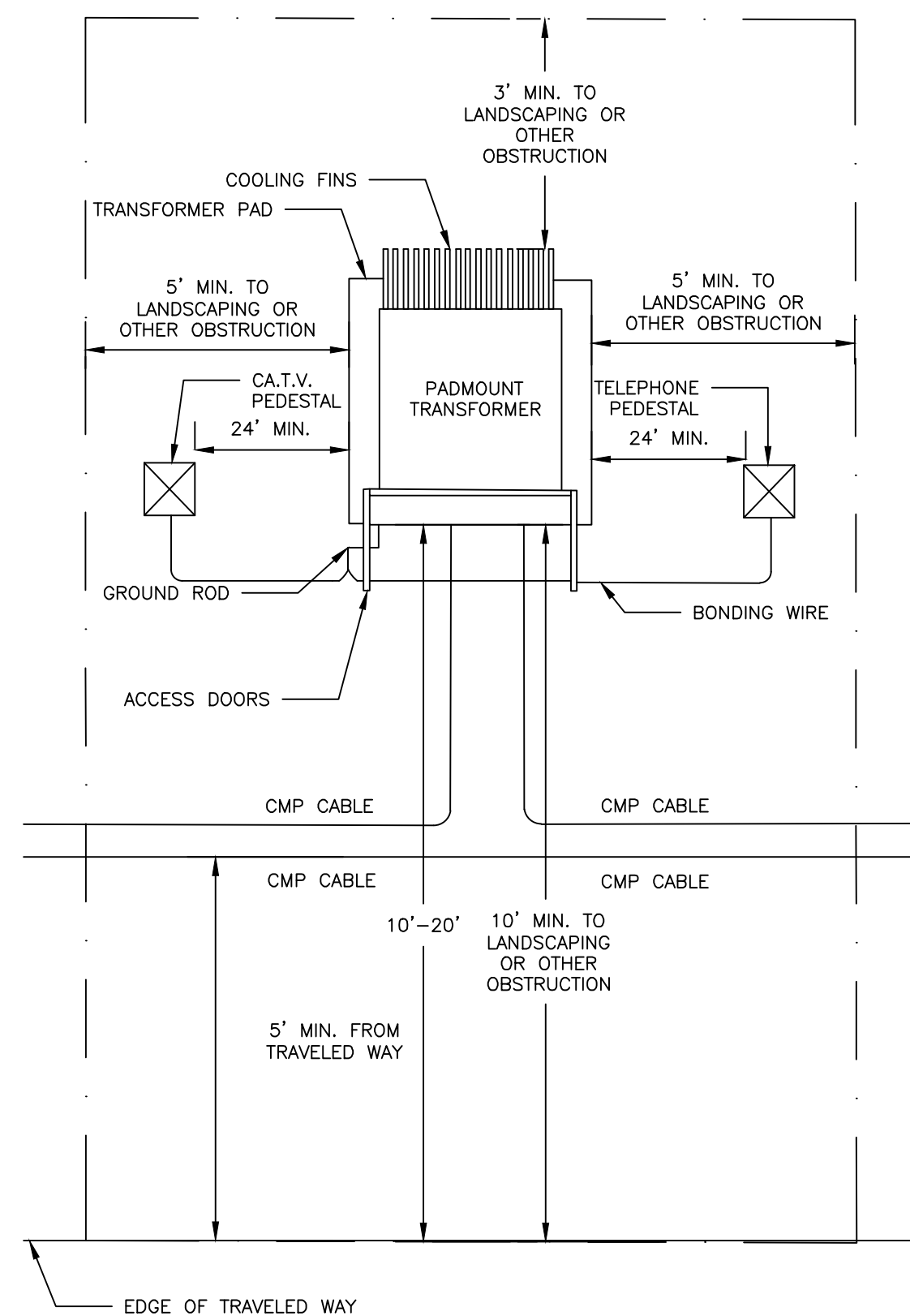
VALVE BOX & COVER
NOT TO SCALE



WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE



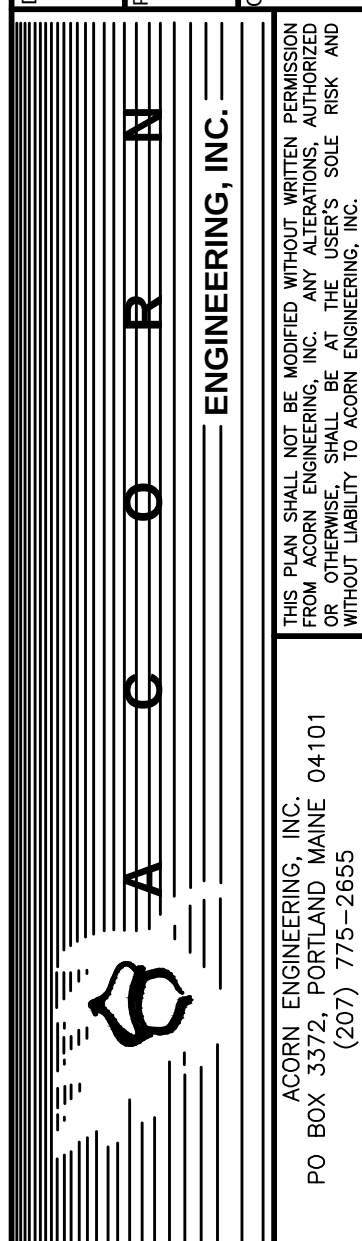
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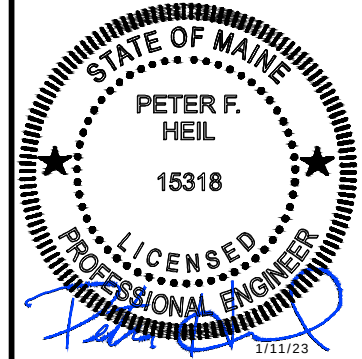
PAD MOUNTED TRANSFORMER
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

UTILITY DETAILS - 1	
PROJECT NAME/ADDRESS:	PEARL STREET REDEVELOPMENT PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD:	3 LINCOLN, LLC 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

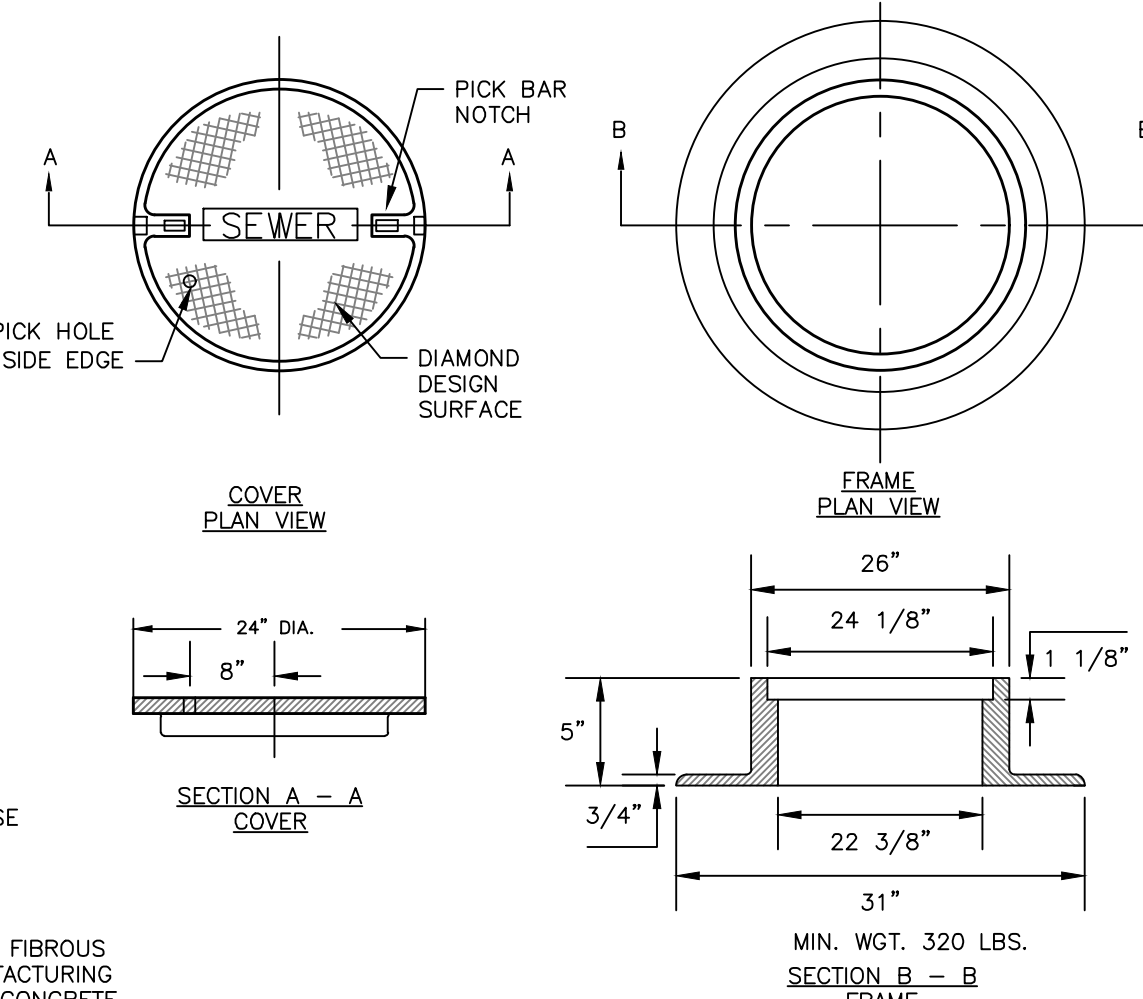
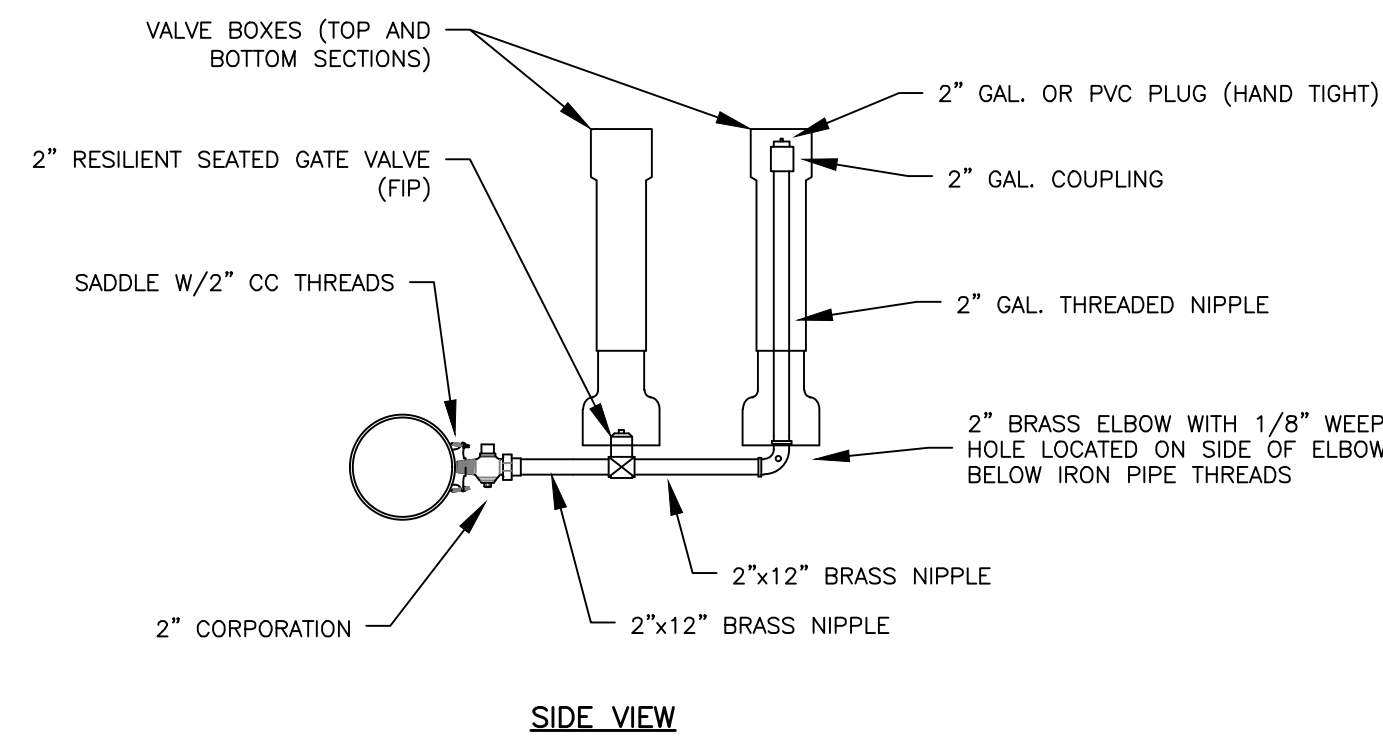
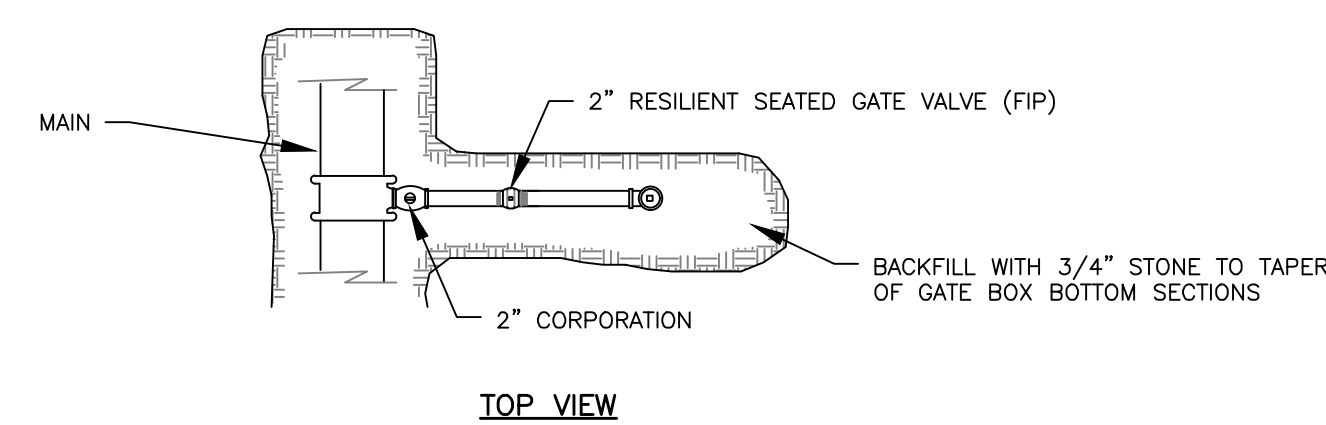
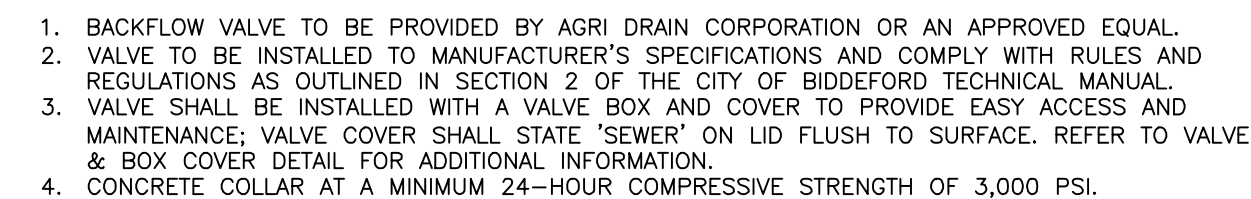
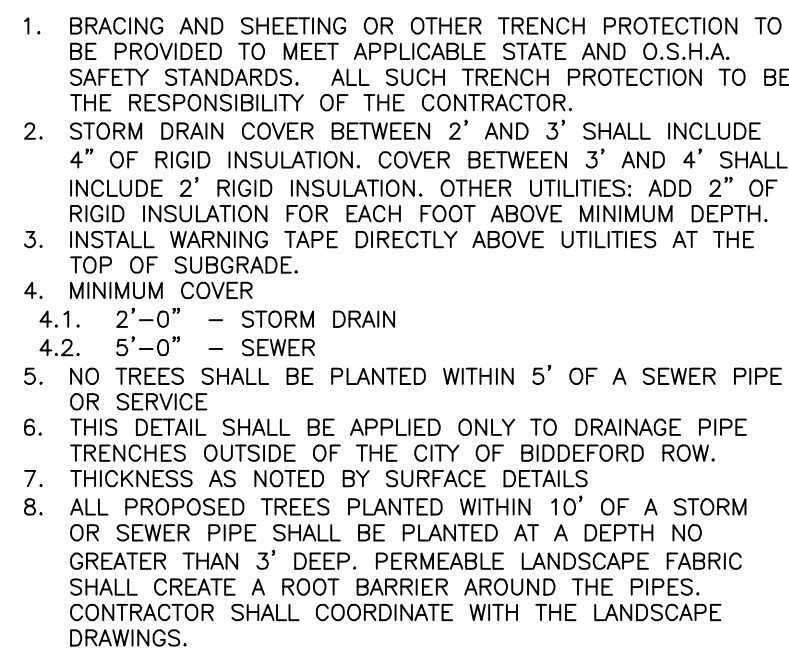
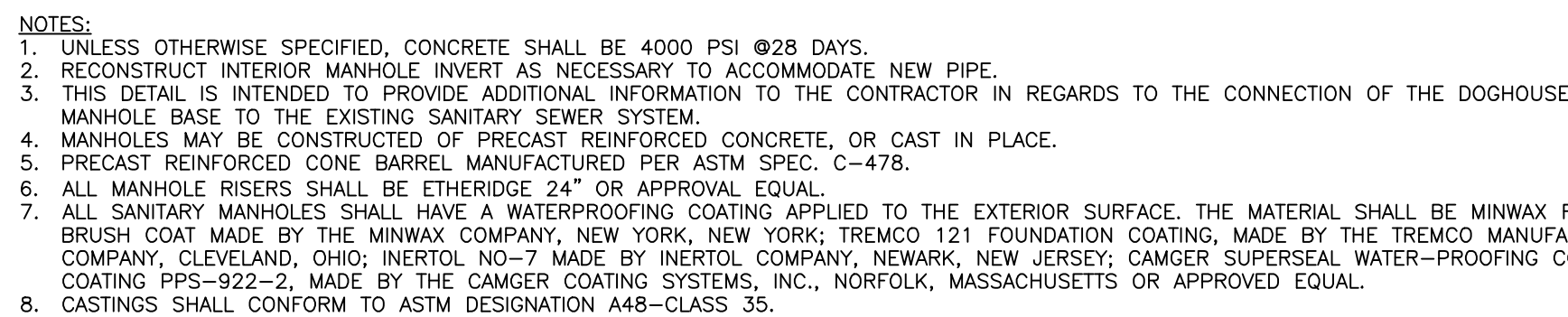
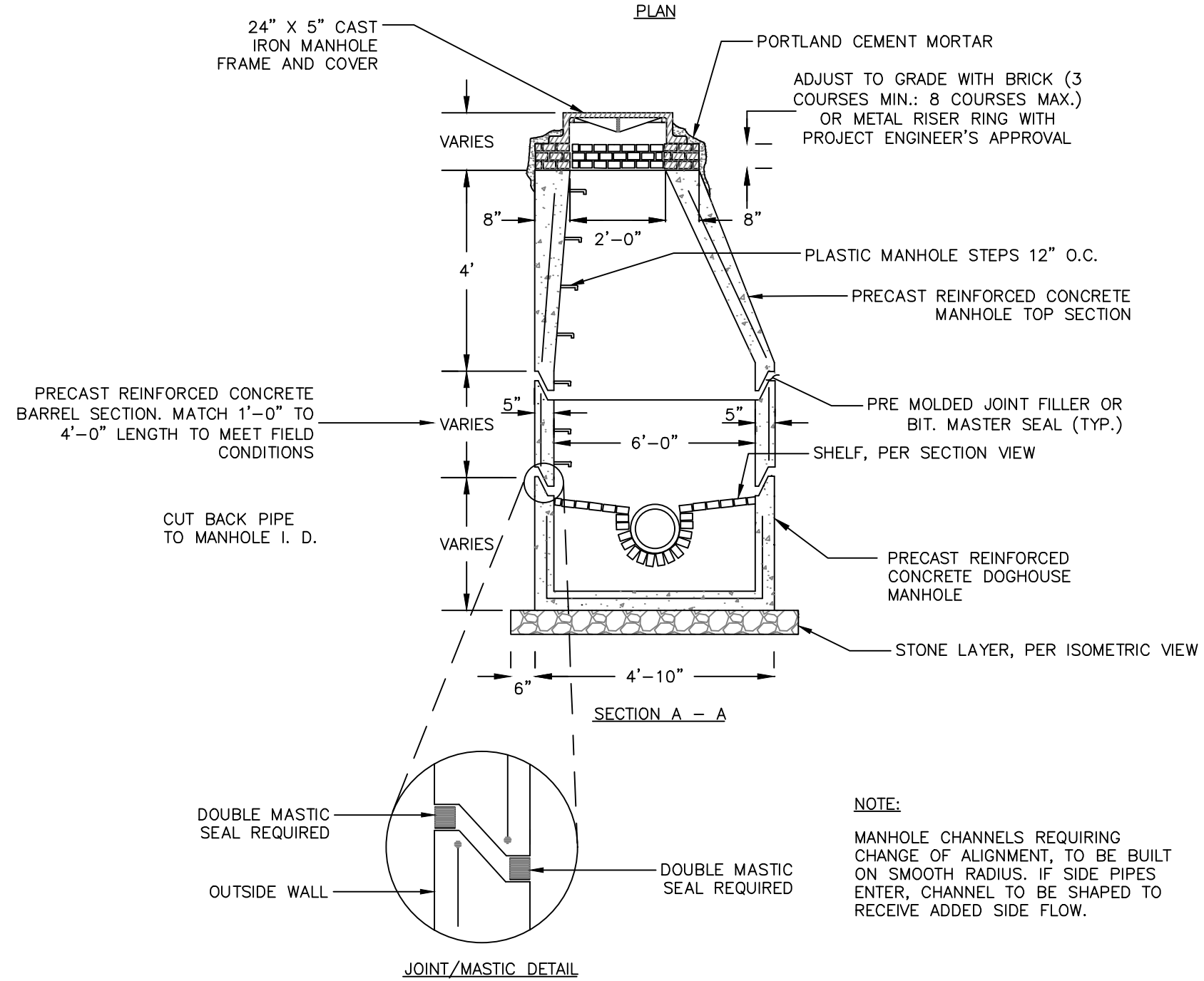
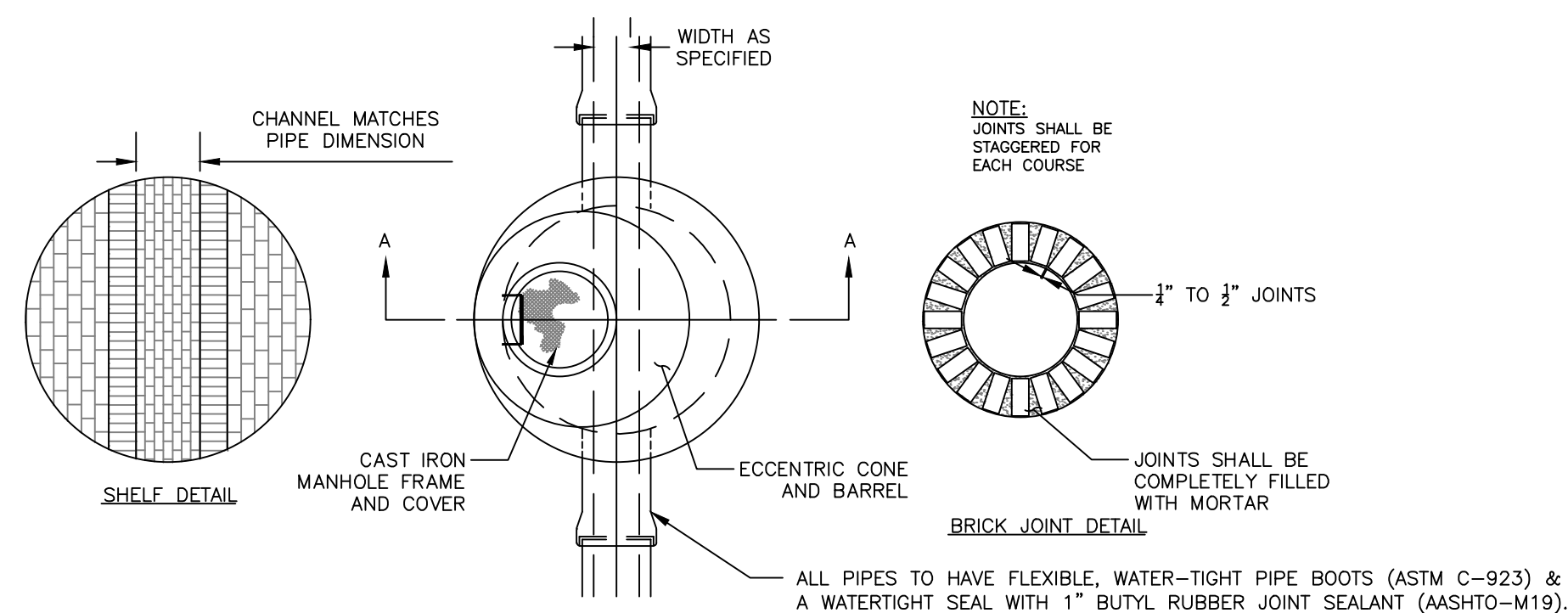
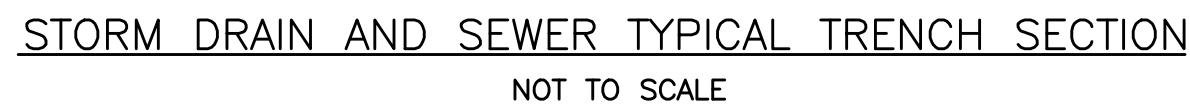
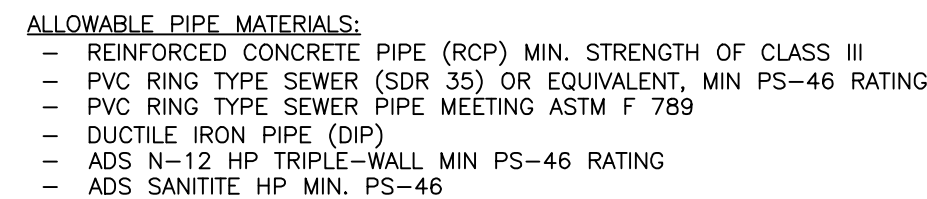
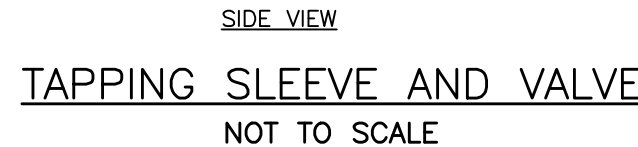
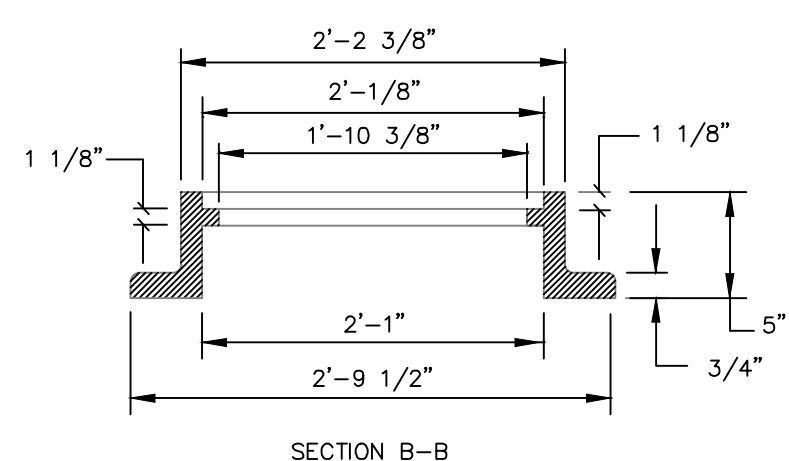
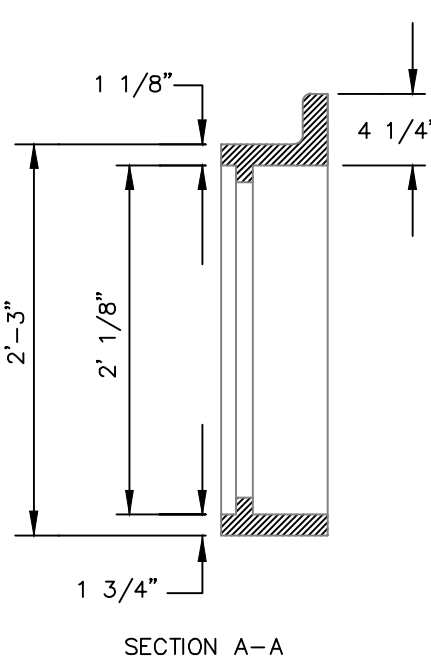
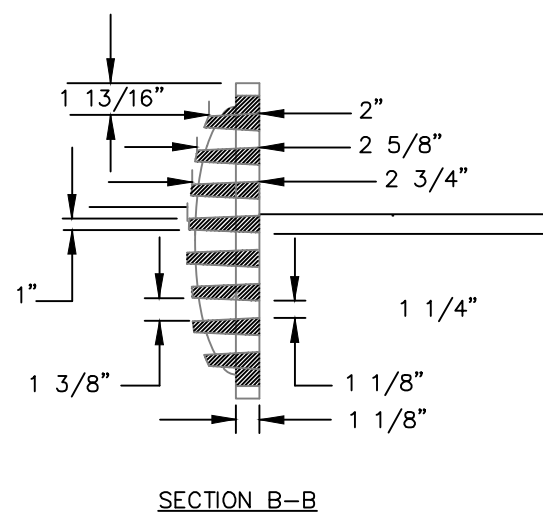
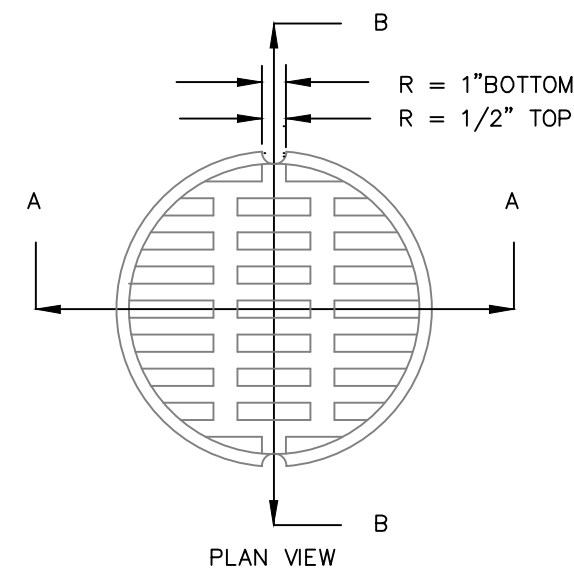
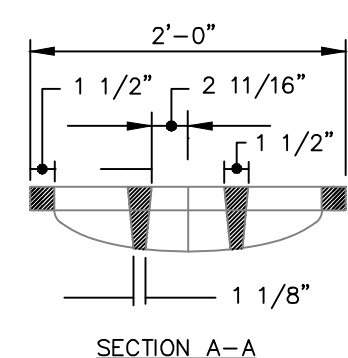
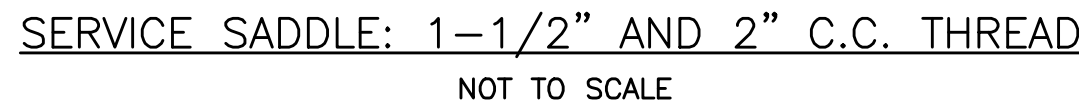
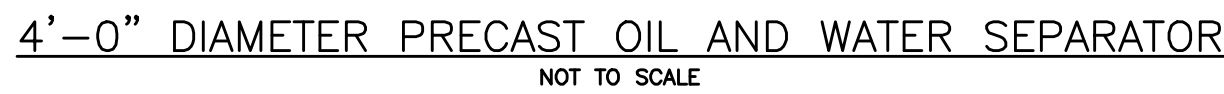


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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS



DRAWING NO.

C-42



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

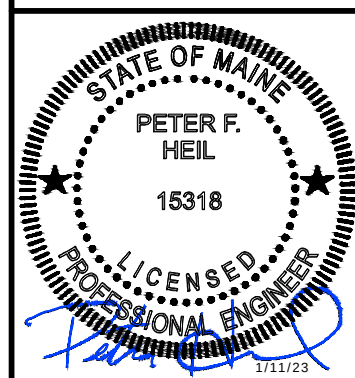
UTILITY DETAILS - 2

PROJECT NAME/ADDRESS: PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

CLIENT/OWNER OF RECORD: 3 LINCOLN, LLC
80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

[illegible]

FILE:	1124_CIVIL
JN:	1124
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

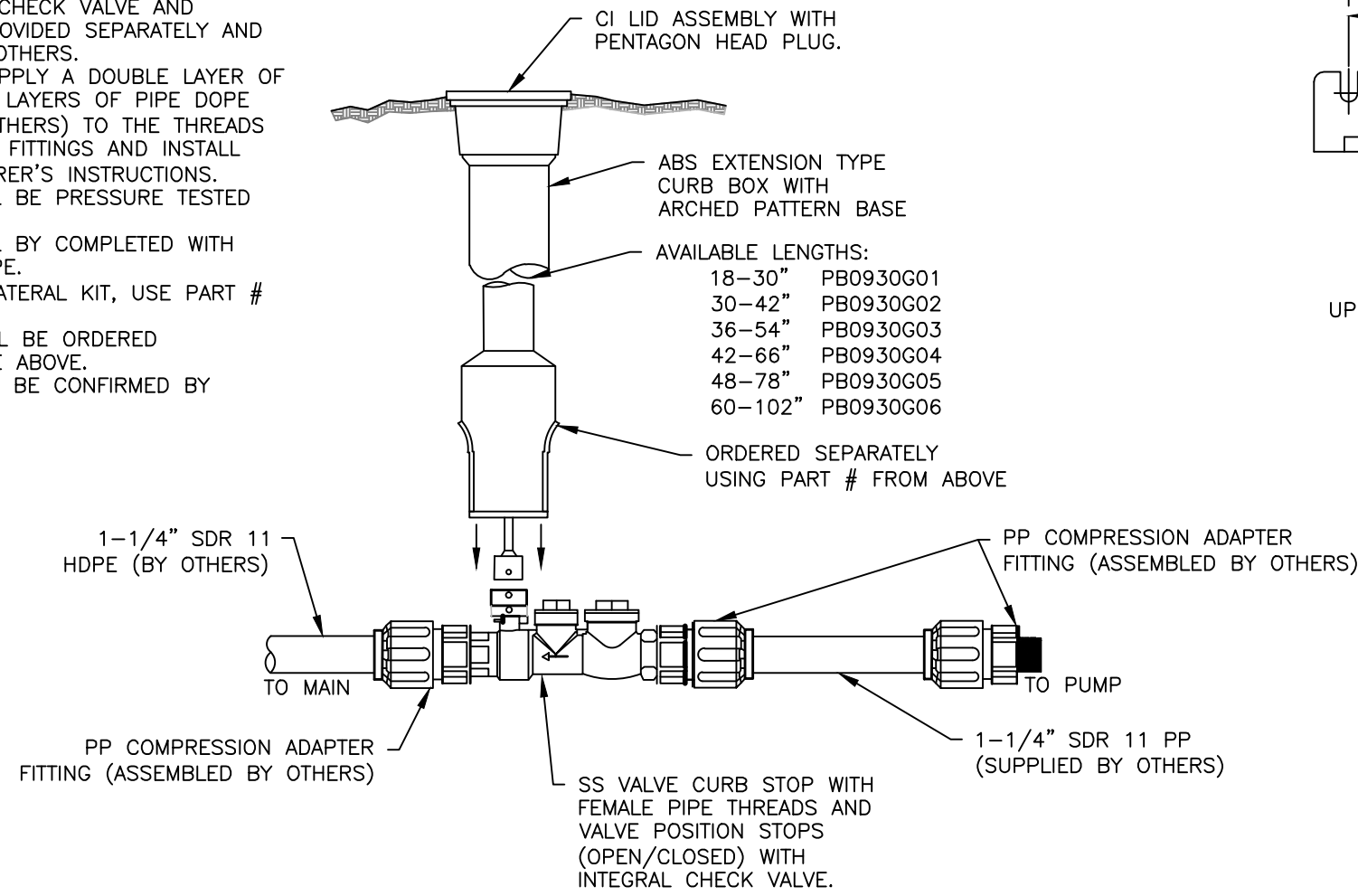


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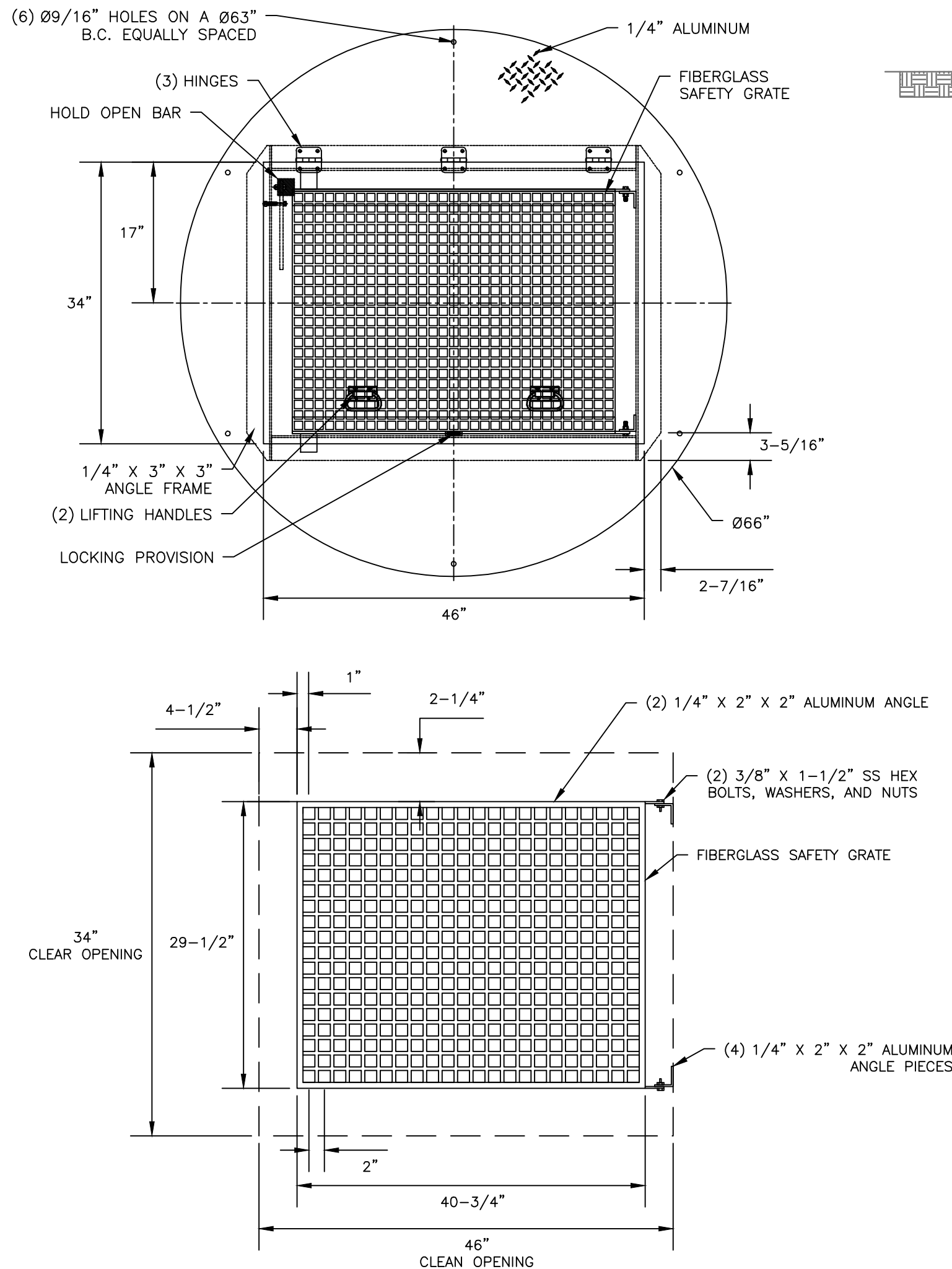
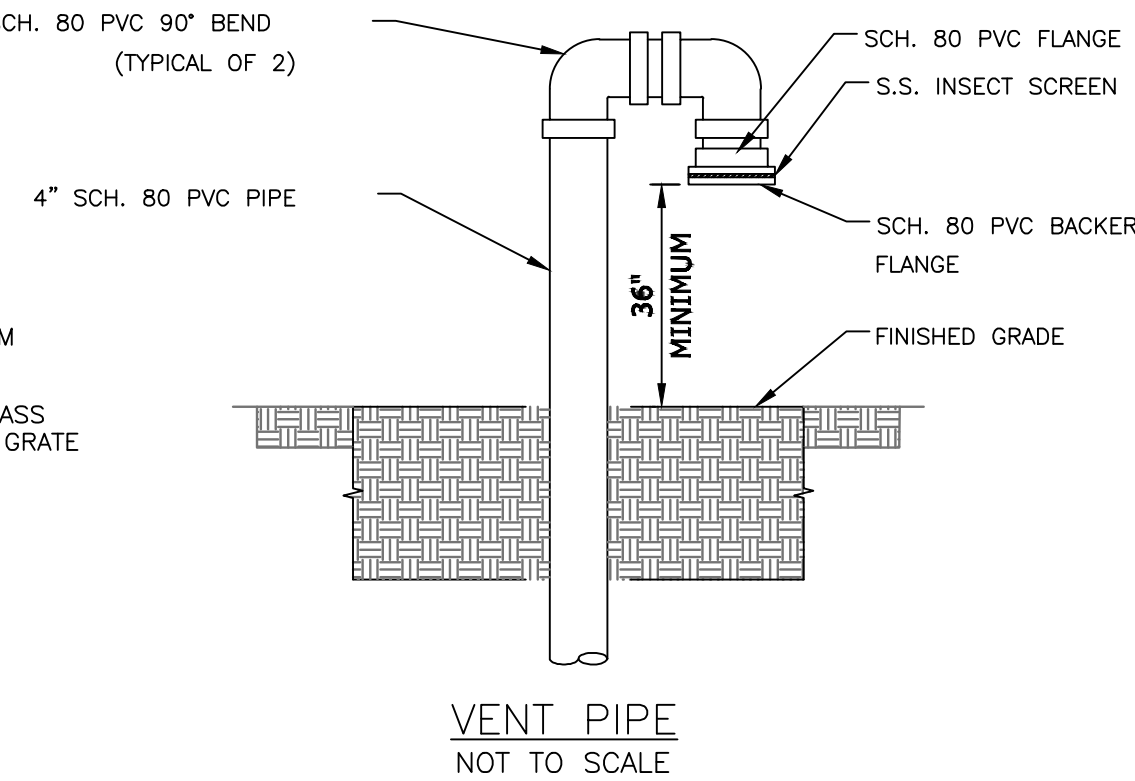
C-43

- NOTES:
1. PLACE TRENCH BACKFILL MATERIAL IN 12" LIFTS.
 2. COMPACT MATERIAL LIFTS TO 92% OF MAX. DRY DENSITY.
 3. PAVED AREAS SHALL MATCH TYPICAL ROAD SECTION WHEN LOCATED WITHIN PAVED AREAS.
 4. WORK WITHIN UPPER FALLS WAY SHALL BE COORDINATED WITH THE DEPARTMENT OF PUBLIC WORKS DIRECTOR. PAVEMENT CUT IN UPPER FALLS WAY 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'.

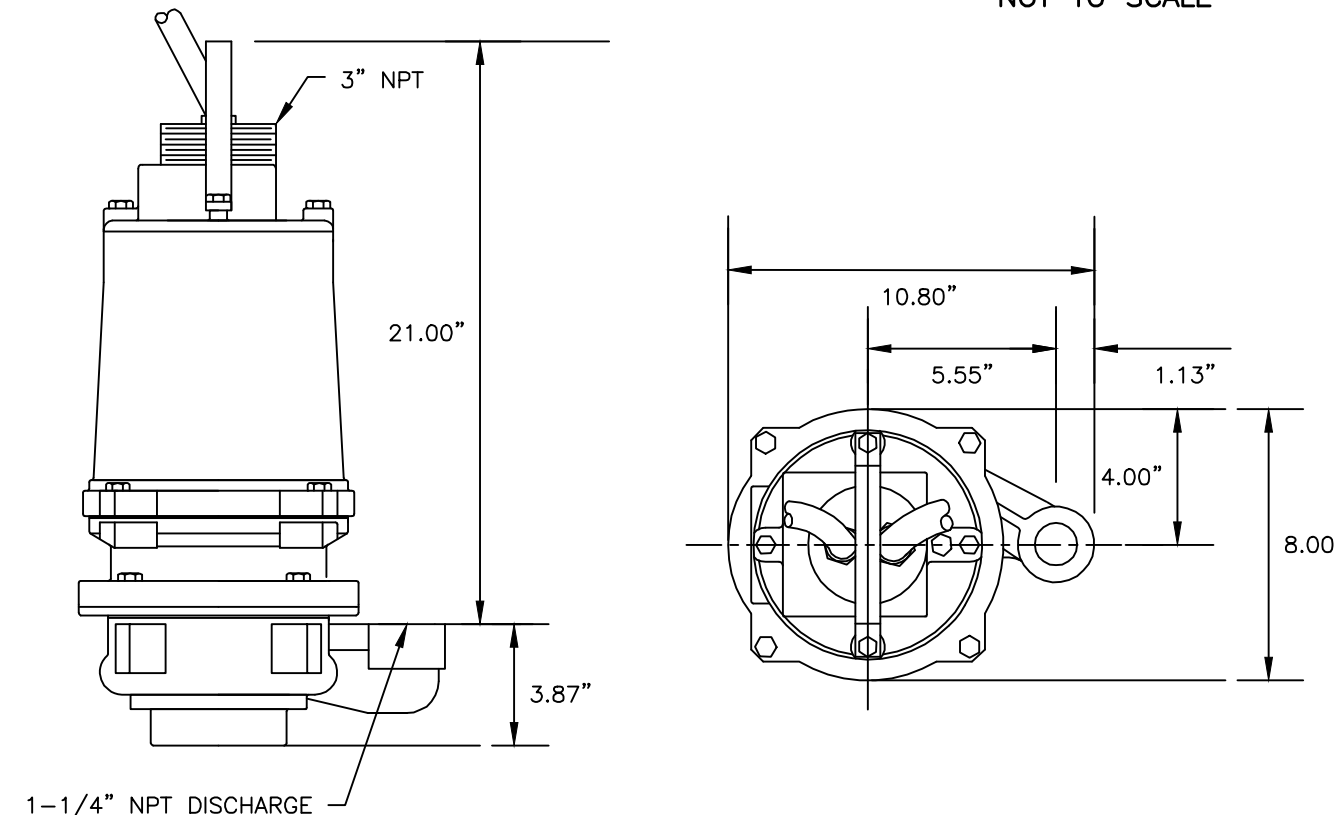
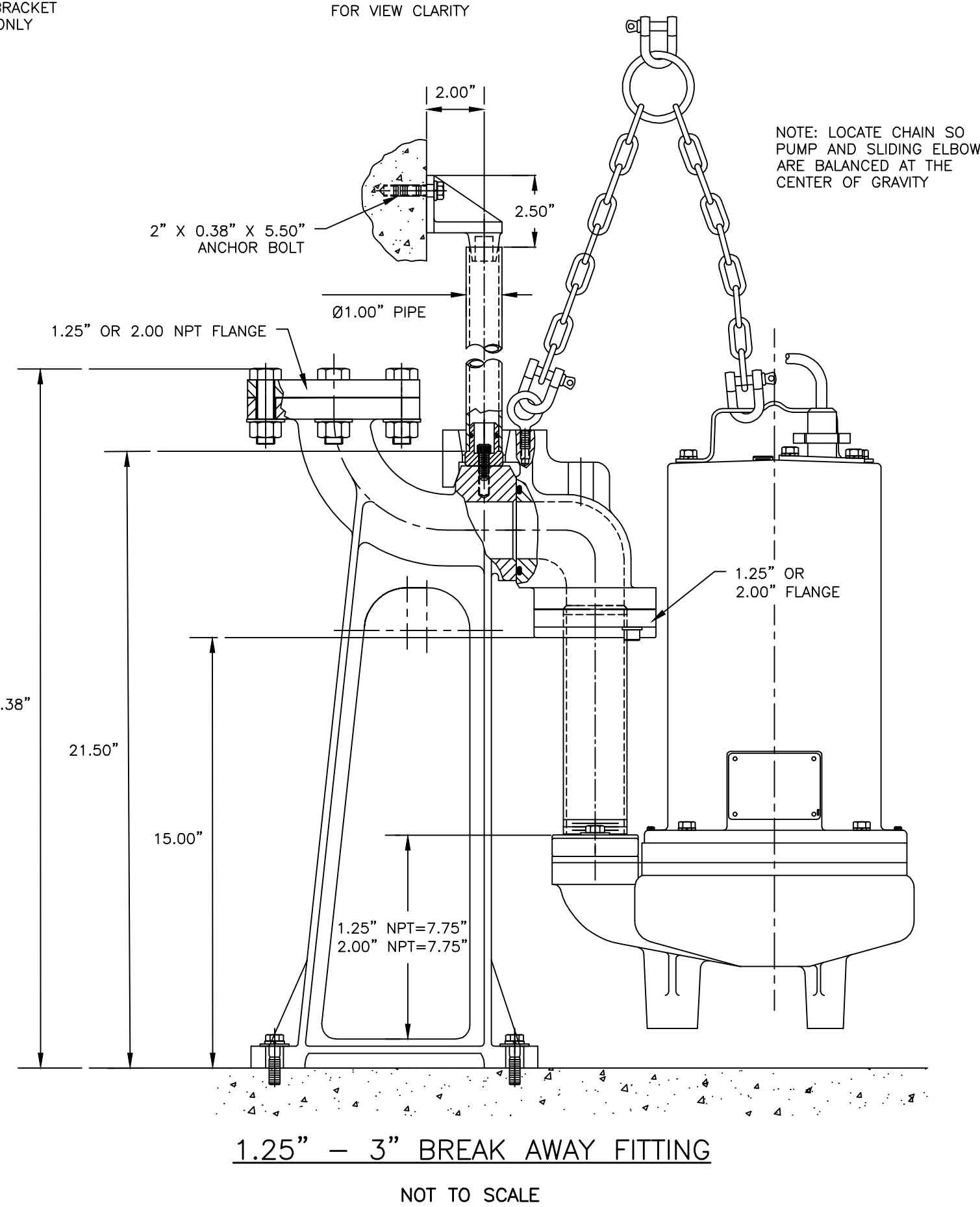
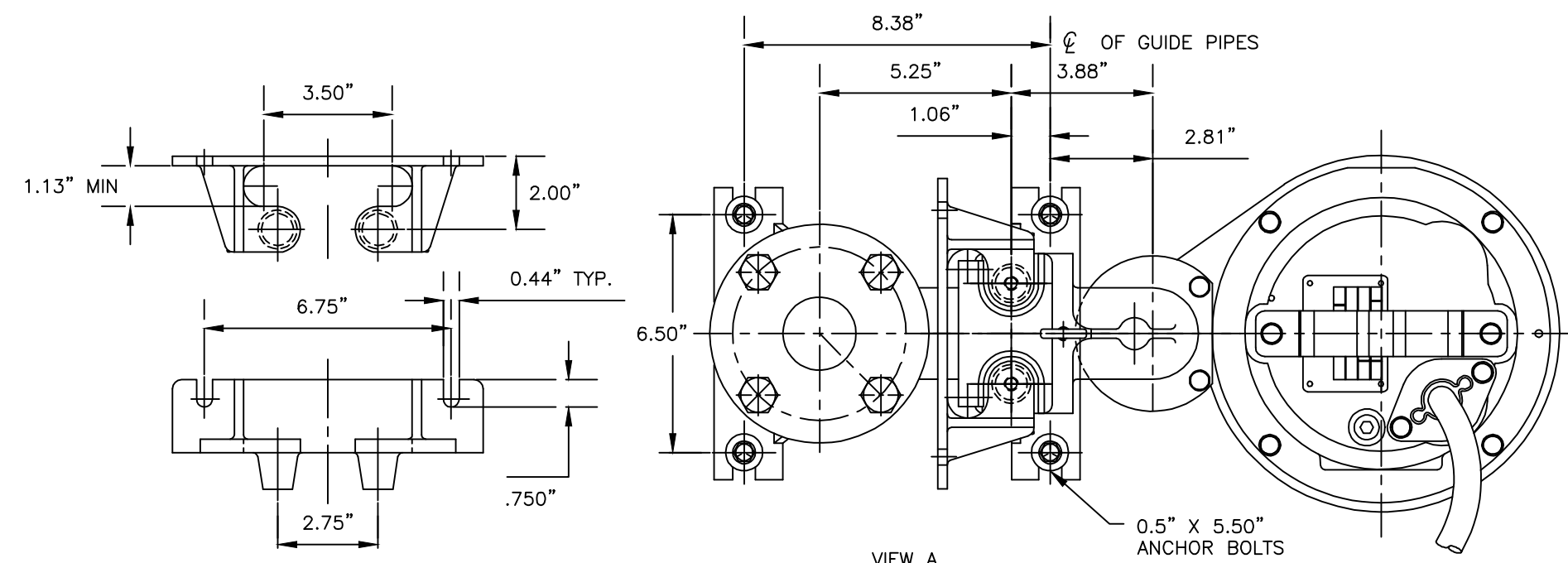
- NOTES:
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY AND ASSEMBLED BY OTHERS.
 2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, A LAYERS OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 3. ASSEMBLY SHALL BE PRESSURE TESTED BY OTHERS.
 4. ASSEMBLY SHALL BE COMPLETED WITH SDR11 HDPE PIPE.
 5. TO ORDER SS LATERAL KIT, USE PART # N0193G0.
 6. CURB BOX SHALL BE ORDERED SEPARATELY, SEE ABOVE.
 7. PIPE SIZE SHALL BE CONFIRMED BY OTHERS.



FORCE MAIN SHUT-OFF DETAIL
NOT TO SCALE



1-1/4" ALUMINUM HDC W/ SAFETY GRATE
NOT TO SCALE



MODEL NO.	PART NO.	HP	VOLT/PH	Hz	RPM (NOM)	NEMA START CODE	FULL LOAD AMPS	LOCKED ROTOR AMPS	CORD SIZE	CORD TYPE	CORD O.D INCH (MM)
XSGV2022L	127325	2	230/1	60	3450	H	15	53.8	10/4	SOW	0.75 (19)
XSGV2062L	127326	2	200/3	60	3450	J	11	42	10/4	SOW	0.75 (19)
XSGV2032L	127327	2	230/3	60	3450	J	9	36	10/4	SOW	0.75 (19)
XSGV2042L	127328	2	460/3	60	3450	J	4.5	18	10/4	SOW	0.75 (19)
XSGV2052L	127329	2	575/3	60	3450	J	3.2	14.4	10/4	SOW	0.75 (19)

SUBMERSIBLE GRINDER PUMP
NOT TO SCALE

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
SKETCH PLAN	PFH
PRELIMINARY	PFH
DEP SW AMENDMENT	PFH
SRCC	PFH
FINAL SITE PLAN	PFH

UTILITY DETAILS - 3

PEARL STREET REDEVELOPMENT
PEARL STREET, BIDDEFORD, MAINE

3 LINCOLN, LLC

80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 04101

ENGINEERING, INC.

ACORN ENGINEERING, INC.

PO BOX 3372, PORTLAND MAINE 04101

(207) 775-2655

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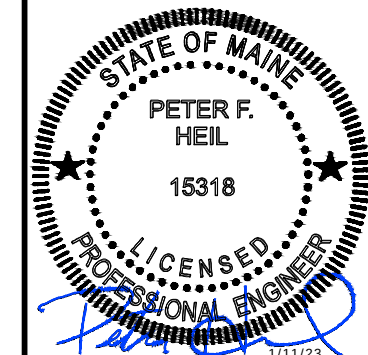
JN: 1124

SCALE: AS NOTED

DESIGNED BY: PFH

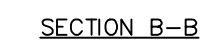
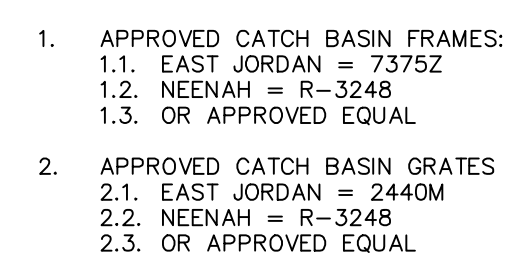
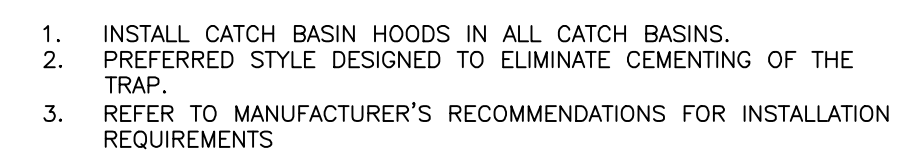
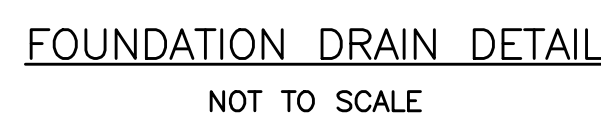
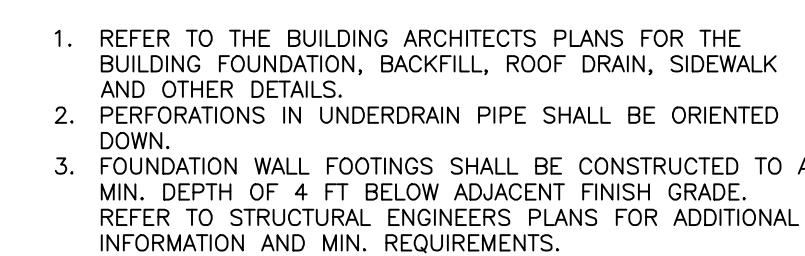
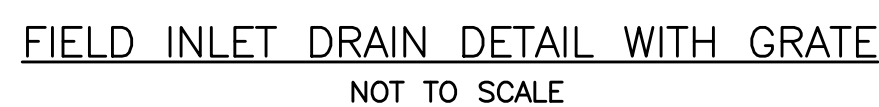
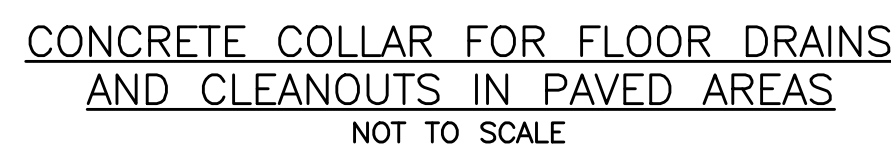
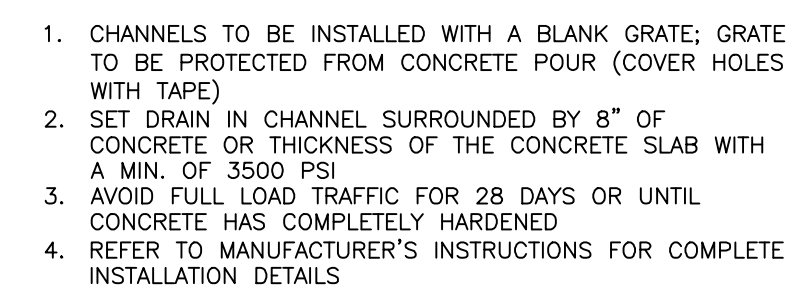
DRAWN BY: ZMS

CHECKED BY: WHS



DRAWING NO.

C-44



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

DRAINAGE DETAILS
PROJECT NAME/ADDRESS: PEARL STREET REDEVELOPMENT PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD: 3 LINCOLN, LLC 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME, 0


A C O R N

ENGINEERING, INC.

THIS FIRM HAS NOT BEEN QUALIFIED AS A CONSULTANT BY THE BOARD OF ENGINEERS FROM ACORN ENGINEERING, INC. ANY CONTRACTS ENTERED INTO BY THIS FIRM FOR ANY OTHER PROJECTS, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC. 04101
 P.O. BOX 330 (207) 779-2655

DRAWING NO.

C-45

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

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

1.1 TEMPORARY EROSION CONTROL MEASURES

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

- 1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
 - THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
 - GEOTEXTILE FABRIC (WOVEN OR NON-WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
 - THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAYS.
- 1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
- 1.1.3 MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENuded OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
- 1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC1508N BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.
- 1.1.5 PEARL STREET AND SMITH STREET SHALL BE SWEEPED TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.
- 1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.
- 1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.
- 1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ¼ THE DESIGN HEIGHT.
- 1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.
- 1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.
- 1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.
- 1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.
- 1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

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

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

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

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

3.0 DETAILS AND SPECIFICATIONS

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

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

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

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

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

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

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENuded UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED AT AN APPLICATION RATE OF 5 LBS./1,000 S.F. ALL AREAS SEEDD DURING THE WINTER SHALL BE SEEDD AT A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

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

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDD AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDD 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 SEEDD DURING THE WINTER SHALL BE SEEDD AT A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDD 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 SEEDD SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.

- STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

- STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDD 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 SEEDD 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 STABILIZATION OF THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

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

5.1 SEDIMENT BARRIERS

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

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

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

5.3 MULCHED AREAS

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

5.4 DUST CONTROL

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

5.5 STORMWATER APPURTENANCES

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

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: PETER HEIL, PE

TELEPHONE: (207) 775-2655

QUALIFICATIONS:

ø MAINE PROFESSIONAL ENGINEERING LICENSE #15318

ø MAINE DEP CERTIFIED THIRD PARTY INSPECTOR

ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #7071

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

6.0 IMPLEMENTATION SCHEDULE

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

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

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

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

7.0 SEEDING PLAN

7.1 SITE PREPARATION

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

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10-10-10 (N-P2O5-K2O) OR EQUIVALENT.

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

7.3 SEEDING

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

TEMPORARY SEED APPLICATION RATES			
	SEED	LBS / ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	2.57		8/15 TO 10/1
	0.45		4/1 TO 7/1 8/15 TO 9/15
ANNUAL RYGRASS	0.92		4/1 TO 7/1
	0.92		5/15 TO 8/15
PERENNIAL	0.92		8/15 TO 9/15
	7.17	LBS/ACRE	

7.4 MULCHING

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

8.0 CONCLUSION

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

HOUSEKEEPING

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

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : [HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGENCIES/](http://www.MAINE.GOV/DEP/SPILLS/EMERGENCIES/)

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

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

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

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

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

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

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

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

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

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

- (a) DISCHARGES FROM FIREFIGHTING ACTIVITY;
- (b) FIRE HYDRANT FLUSHINGS;
- (c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
- (d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
- (e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
- (f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) IF DETERGENTS ARE NOT USED;
- (g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- (h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;
- (i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
- (j) UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
- (k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
- (l) LANDSCAPE IRRIGATION.

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

- (a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- (b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- (c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- (d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

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

INSPECTION & MAINTENANCE STANDARDS

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

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

3. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTIONS TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTION AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS AND VEHICLE ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPs THAT NEED MAINTENANCE, BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION AND LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT AND LOCATION NEEDING ADDITIONAL BMPs, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN

DRAWING NAME	EROSION & SEDIMENTATION CONTROL DETAILS
PROJECT NAME/ADDRESS	PEARL STREET REDEVELOPMENT PEARL STREET, BIDDEFORD, MAINE
CLIENT/OWNER OF RECORD	3 LINCOLN, LLC 80 EXCHANGE STREET, SUITE 400, PORTLAND, ME; 04101

FILE: 1124_CIVIL
JN: 1124A
SCALE: AS NOTED
DESIGNED BY: PFH
DRAWN BY: ZMS
CHECKED BY: WHS



01/15/2023

C-47

1. PLAN TITLED "BIDDEFORD PARKING GARAGE MERC SITE" PREPARED BY DESMAN DESIGN MANAGEMENT DATED 12/20/2019 AND REVISED 1/14/2020.
2. PLAN TITLED "PEARL STREET RECONSTRUCTION PROJECT" PREPARED BY SEWALL DATED 2/4/2022
3. PLAN TITLED "EXISTING CONDITIONS SURVEY" PREPARED BY OWEN HASKELL, INC. DATED 8/5/2021 & REVISED 9/29/21

1. OWNER OF RECORD: CITY OF BIDDEFORD
TAX MAP 71 LOT 2
Y.C.R.D. BOOK 16838 PAGE 255
Y.C.R.D. BOOK 16475 PAGE 186

2. BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE
SYSTEM, WEST ZONE, NAD 83.

3. ELEVATIONS ARE BASED ON NAVD 88 DATUM.

EXISTING:
1. REFER TO PLAN REFERENCE 3 FOR
EXISTING EASEMENTS

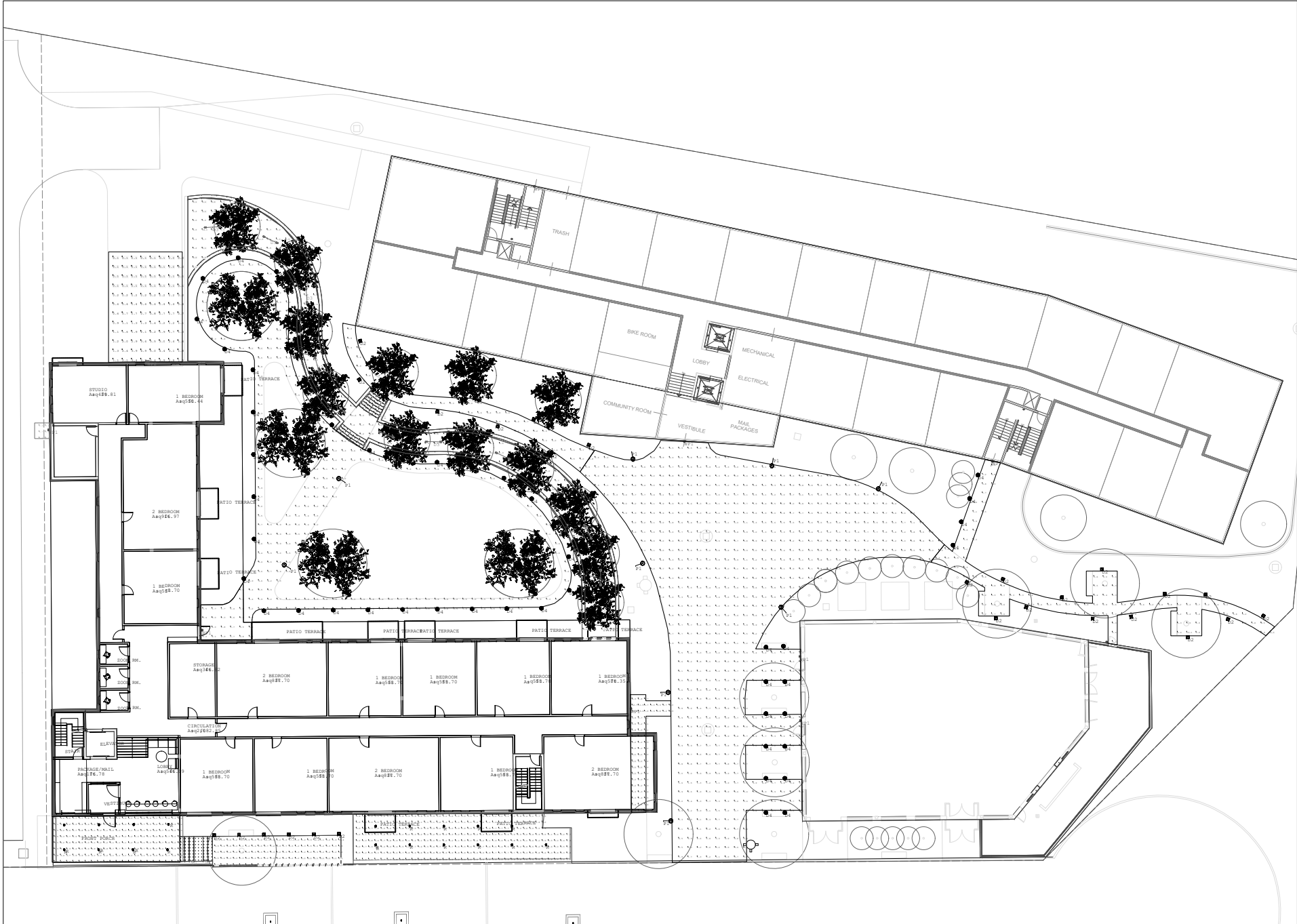
1. THERE ARE NO PROPOSED EASEMENTS

SEE BELOW FOR THE PROPOSED WAIVERS
1. A WAIVER IS REQUESTED TO ELIMINATE THE PARKING
REQUIREMENT FOR THE COMMERCIAL USES

1. IBC

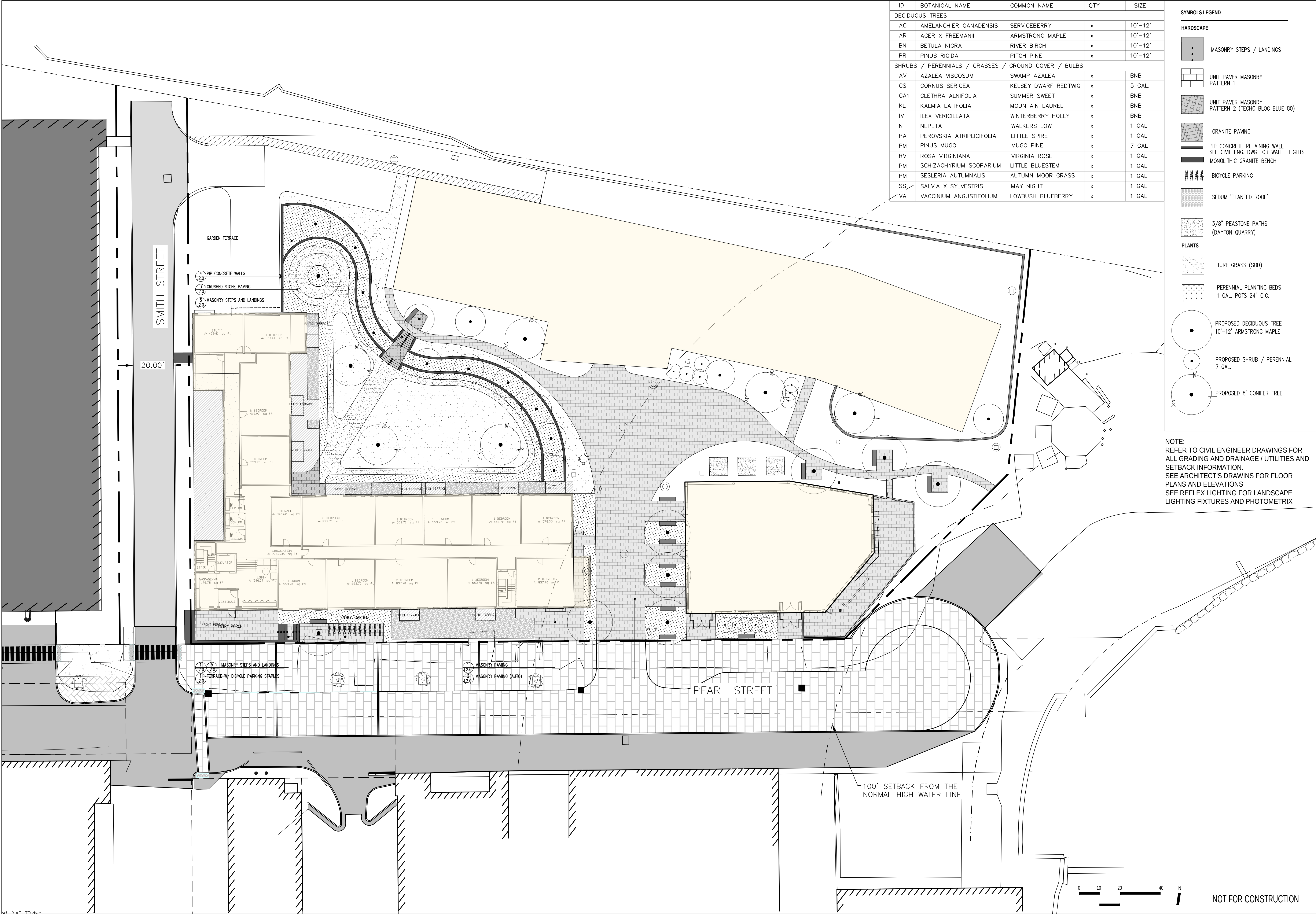
1. ALL SIDEWALK AND CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF BIDEFORD STANDARDS.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF BIDEFORD & MUTCD STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFF SITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET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

1083



Luminaire Schedule									
Symbol	Qty	Label	Description	Tag	Arrangement	LLF	Luminaire Lumens	Luminaire Watts	Mounting Height
8	D1	LIGMAN: VI-40307-W30	Stair Light	Single	0.900 46	4.9	2.5, 3.5, 5.5		
28	D2	LIGMAN: RA-10751-W30 Rev 2	Bollard	Single	0.900 124	4.5			
11	D3	WAC: 6211-30-BZ	Spotlight	Back-Back	0.900 364	8.21124	8.167		
49	D4	WAC: 6011-30BZ A122315	Pathway Light	Single	0.900 151	8.2	1.83, 7.83		
9	P1	LIGMAN: TA-20011-T4-W30	Pole Light	Single	0.900 2491	37.8	12, 18		
19	R	DMF: DRD2M/7630G-CAO-DRD2TRJHWH	Recessed Canopy	Single	0.900 599	9.5	10, 14		
9	WP1	LIGMAN: LEE-30001-T4-W30	Entry Door Wallpack	Single	0.900 642	7.6	8, 14		
1	WP2	LIGMAN: LEE-30011-T4-W30	Garage Wallpack	Single	0.900 1466	13.8	10		

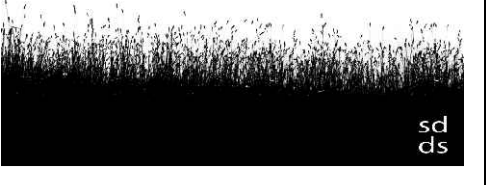
Calculation Summary					
Label	Units	Avg	Max	Min	Avg/Min
Courtyard - Central	Fc	2.00	7.4	0.2	10.00
Courtyard Path - East	Fc	1.93	15.4	0.1	19.30
Courtyard Path - West	Fc	1.47	11.4	0.2	7.35
Grade - Mid	Fc	3.07	14.5	0.0	N.A.
Grade - Raised Terrace	Fc	2.02	6.6	0.1	20.20
Lot 3A - East Entrance	Fc	2.67	14.8	0.1	26.70
Lot 3A - Entry Porch	Fc	4.21	5.3	2.2	1.91
Lot 3A - Garage Entrance	Fc	1.11	5.0	0.0	N.A.
Lot 3A - Lower Front Porch	Fc	1.57	20.0	0.1	15.70
Lot 3A - Rear Entrance Floor	Fc	4.49	6.3	1.0	4.49
Lot 3A - West Entrance	Fc	3.47	3.7	3.2	1.08



ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
DECIDUOUS TREES				
AC	AMELANCHIER CANADENSIS	SERVICEBERRY	x	10'-12'
AR	ACER X FREEMANII	ARMSTRONG MAPLE	x	10'-12'
BN	BETULA NIGRA	RIVER BIRCH	x	10'-12'
PR	PINUS RIGIDA	PITCH PINE	x	10'-12'
SHRUBS / PERENNIALS / GRASSES / GROUND COVER / BULBS				
AV	AZALEA VISCOSUM	SWAMP AZALEA	x	BNB
CS	CORNUS SERICEA	KELSEY DWARF REDTWIG	x	5 GAL.
CA1	CLETHRA ALNIFOLIA	SUMMER SWEET	x	BNB
KL	KALMIA LATIFOLIA	MOUNTAIN LAUREL	x	BNB
IV	ILEX VERICILLATA	WINTERBERRY HOLLY	x	BNB
N	NEPETA	WALKERS LOW	x	1 GAL
PA	PEROVSKIA ATRIPLICIFOLIA	LITTLE SPIRE	x	1 GAL
PM	PINUS MUGO	MUGO PINE	x	7 GAL
RV	ROSA VIRGINIANA	VIRGINIA ROSE	x	1 GAL
PM	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	x	1 GAL
PM	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	x	1 GAL
SS	SALVIA X SYLVESTRIS	MAY NIGHT	x	1 GAL
VA	VACCINIUM ANGUSTIFOLIUM	LOWBUSH BLUEBERRY	x	1 GAL

- SYMBOLS LEGEND**
- HARDSCAPE**
- MASONRY STEPS / LANDINGS
 - UNIT PAVER MASONRY PATTERN 1
 - UNIT PAVER MASONRY PATTERN 2 (TECHO BLOC BLUE 80)
 - GRANITE PAVING
 - PIP CONCRETE RETAINING WALL SEE CIVIL ENG. DWG FOR WALL HEIGHTS
 - MONOLITHIC GRANITE BENCH
 - BICYCLE PARKING
 - SEDUM 'PLANTED ROOF'
 - 3/8" PEASTONE PATHS (DAYTON QUARRY)
- PLANTS**
- TURF GRASS (SOD)
 - PERENNIAL PLANTING BEDS 1 GAL. POTS 24" O.C.
 - PROPOSED DECIDUOUS TREE 10'-12' ARMSTRONG MAPLE
 - PROPOSED SHRUB / PERENNIAL 7 GAL.
 - PROPOSED 8' CONIFER TREE

NOTE:
REFER TO CIVIL ENGINEER DRAWINGS FOR ALL GRADING AND DRAINAGE / UTILITIES AND SETBACK INFORMATION.
SEE ARCHITECT'S DRAWINGS FOR FLOOR PLANS AND ELEVATIONS
SEE REFLEX LIGHTING FOR LANDSCAPE LIGHTING FIXTURES AND PHOTOMETRIX



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PEARL STREET: LOT 3 DEVELOPMENT

BIDDEFORD, MAINE

No: Revision Date:

△
△
△
△
△

issue: PLANNING BOARD REVIEW
date: OCTOBER 4, 2022
scale: As Noted
drawn: XX
checked: XX

L1.0

LANDSCAPE PLAN



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PEARL STREET: LOT 3 DEVELOPMENT
BIDDEFORD, MAINE

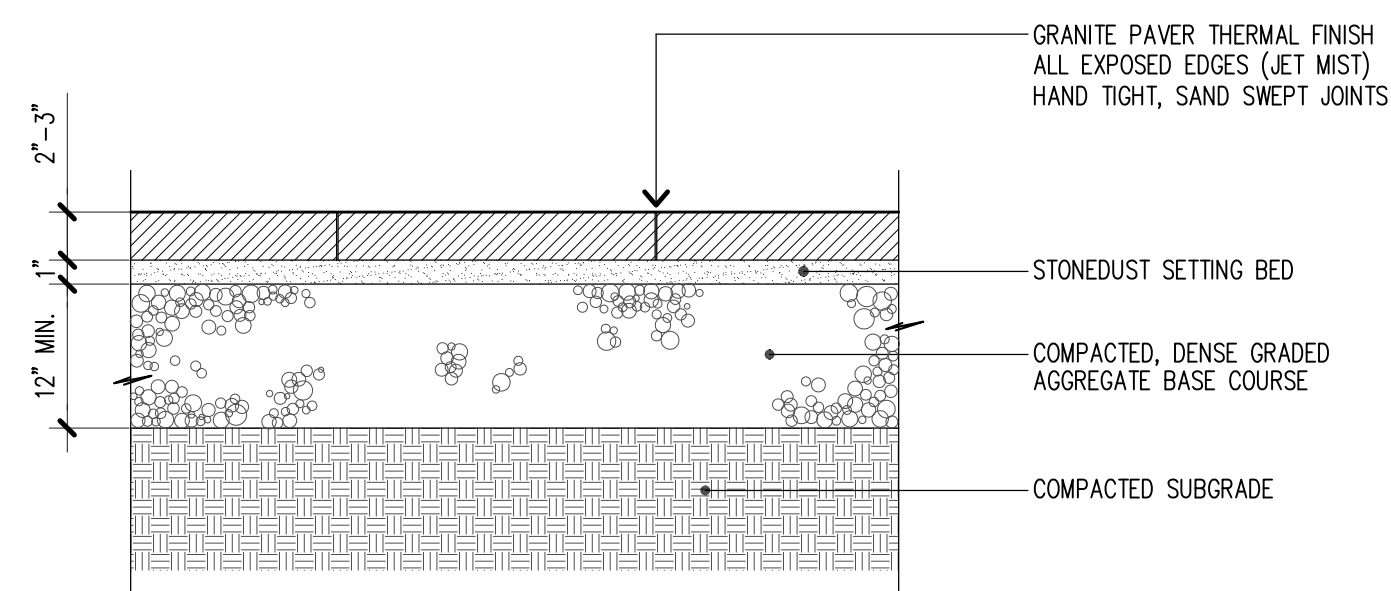
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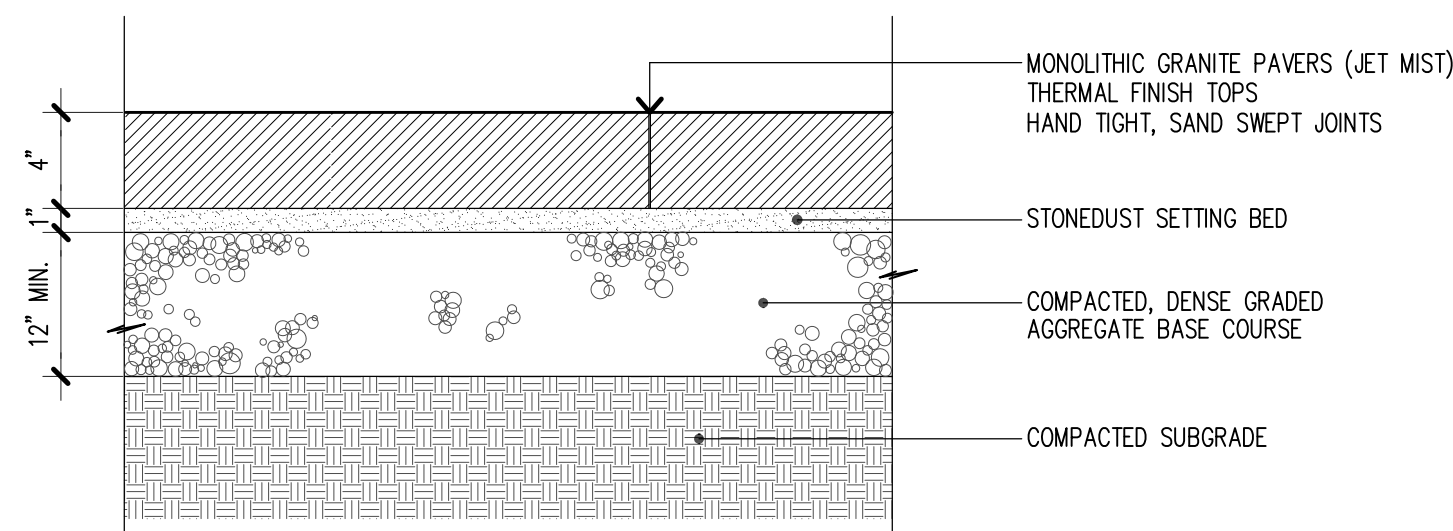
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date: JUNE 2, 2022
scale: As Noted
drawn: XX
checked: XX

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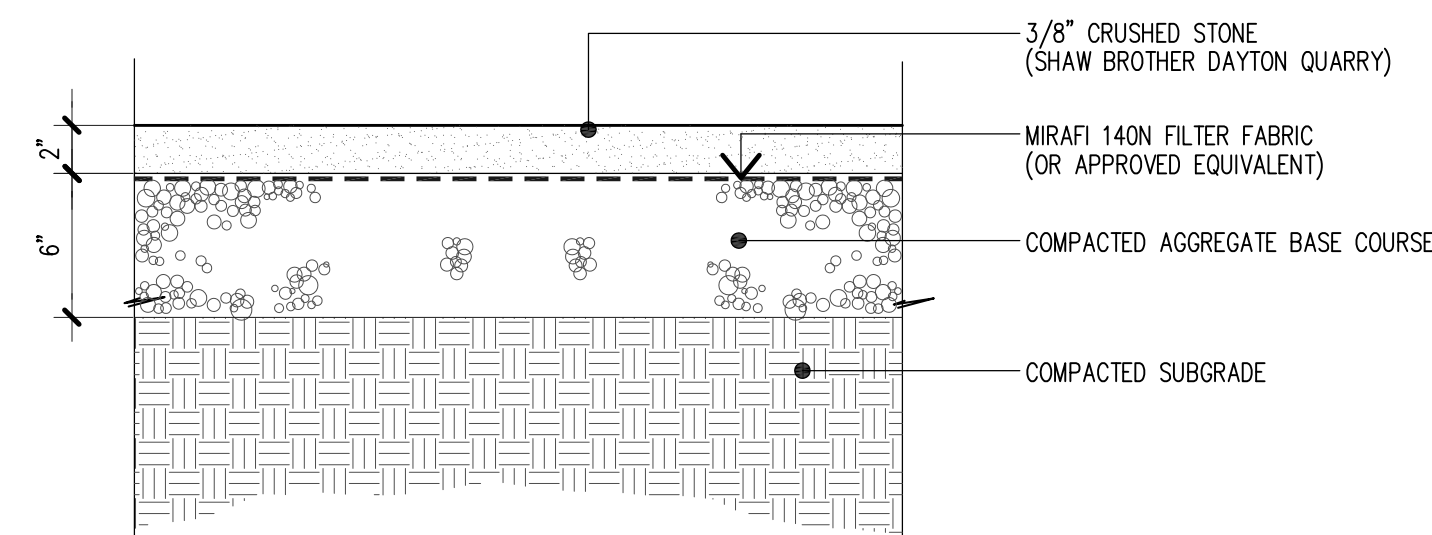
LANDSCAPE DETAILS



1 GRANITE PAVING (PEDESTRIAN)
L2.0 SCALE: 1 1/2" = 1'-0"



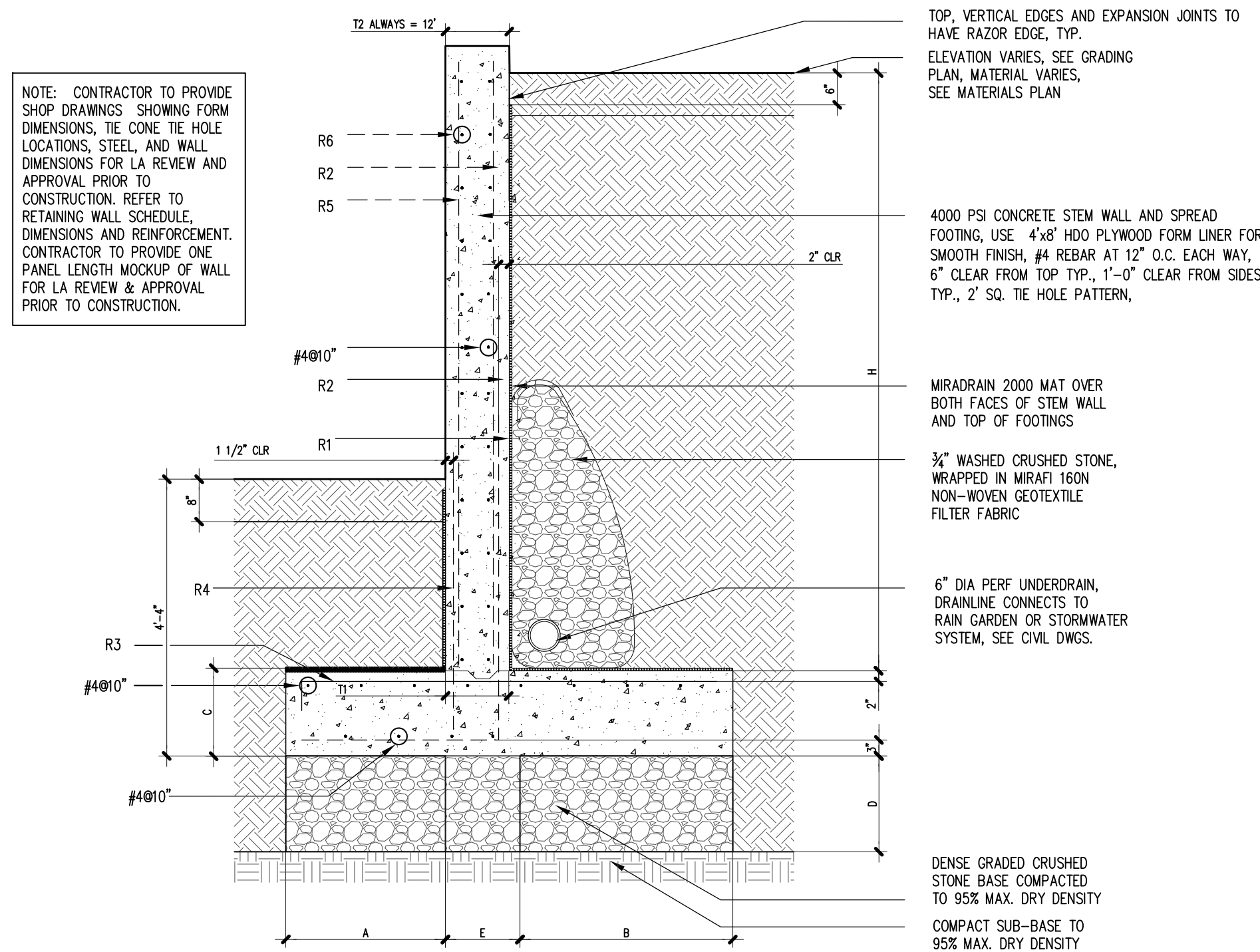
2 GRANITE PAVERS (AUTO)
L2.0 SCALE: 1 1/2" = 1'-0"



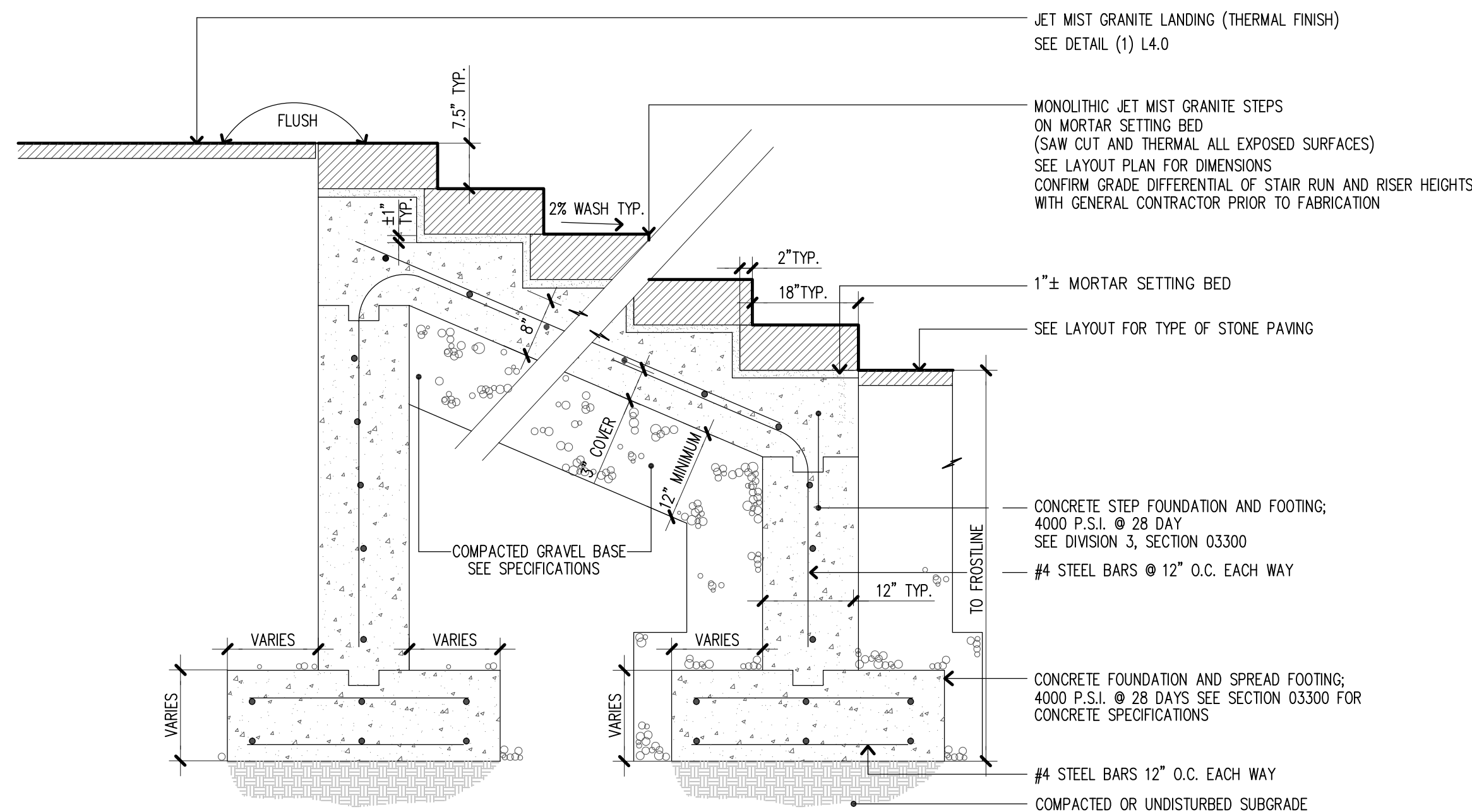
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CRUSHED STONE PAVING
SCALE: 1-1/2" = 1'-0"

RETAINING WALL SCHEDULE						EQUIV. FLUID PRESSURE: 45#/FT²/FT							
RETAINED HEIGHT	WALL DIMENSIONS		FOOTING DIMENSIONS			KEY DIMENSIONS		REINFORCEMENT					
H	T1	T2	A	B	C	D	E	R1	R2	R3	R4	R5	R6
0' LESS THAN 4'-0"	10"	10"	1'-0"	1'-4"	1'-0"	NO KEY	NO KEY	#4@ 10"	#4@ 10"	#4@ 10"	N/A	NO REINF.	NO REINF.
4'-1" - 6'-0"	10"	10"	1'-6"	1'-10"	1'-0"	NO KEY	NO KEY	#5@ 12"	#5@ 12"	#4@ 10"	N/A	NO REINF.	NO REINF.

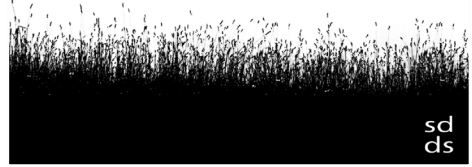


4 PIP CONCRETE RETAINING WALL
L2.0 SCALE: 1-1/2" = 1'-0"



5 STONE STEPS ON CONCRETE (AT LIVING TERRACE)
L2.0 SCALE: NOT TO SCALE

NOT FOR CONSTRUCTION



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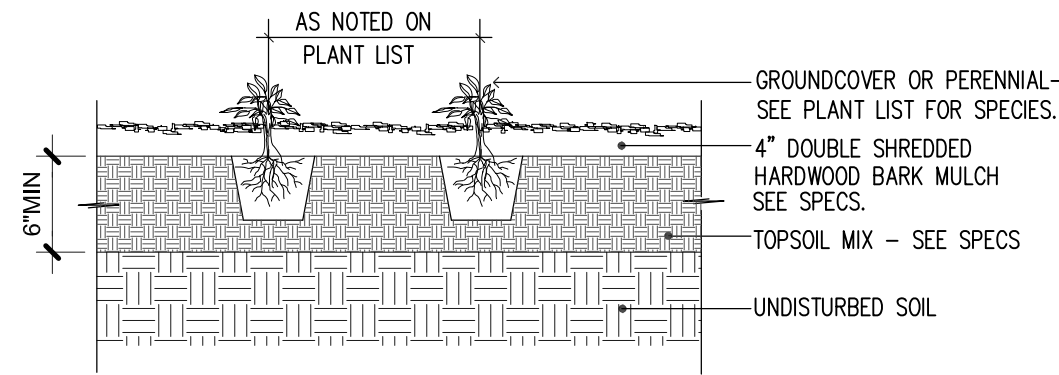
PEARL STREET: LOT 3 DEVELOPMENT
BIDDEFORD, MAINE

No:	Revision	Date:
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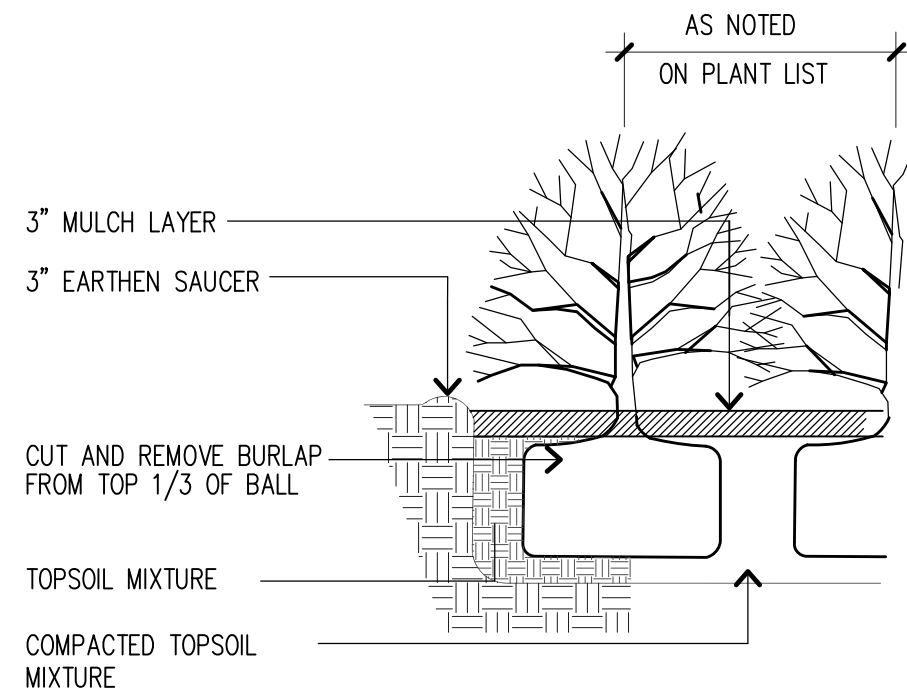
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L2.1

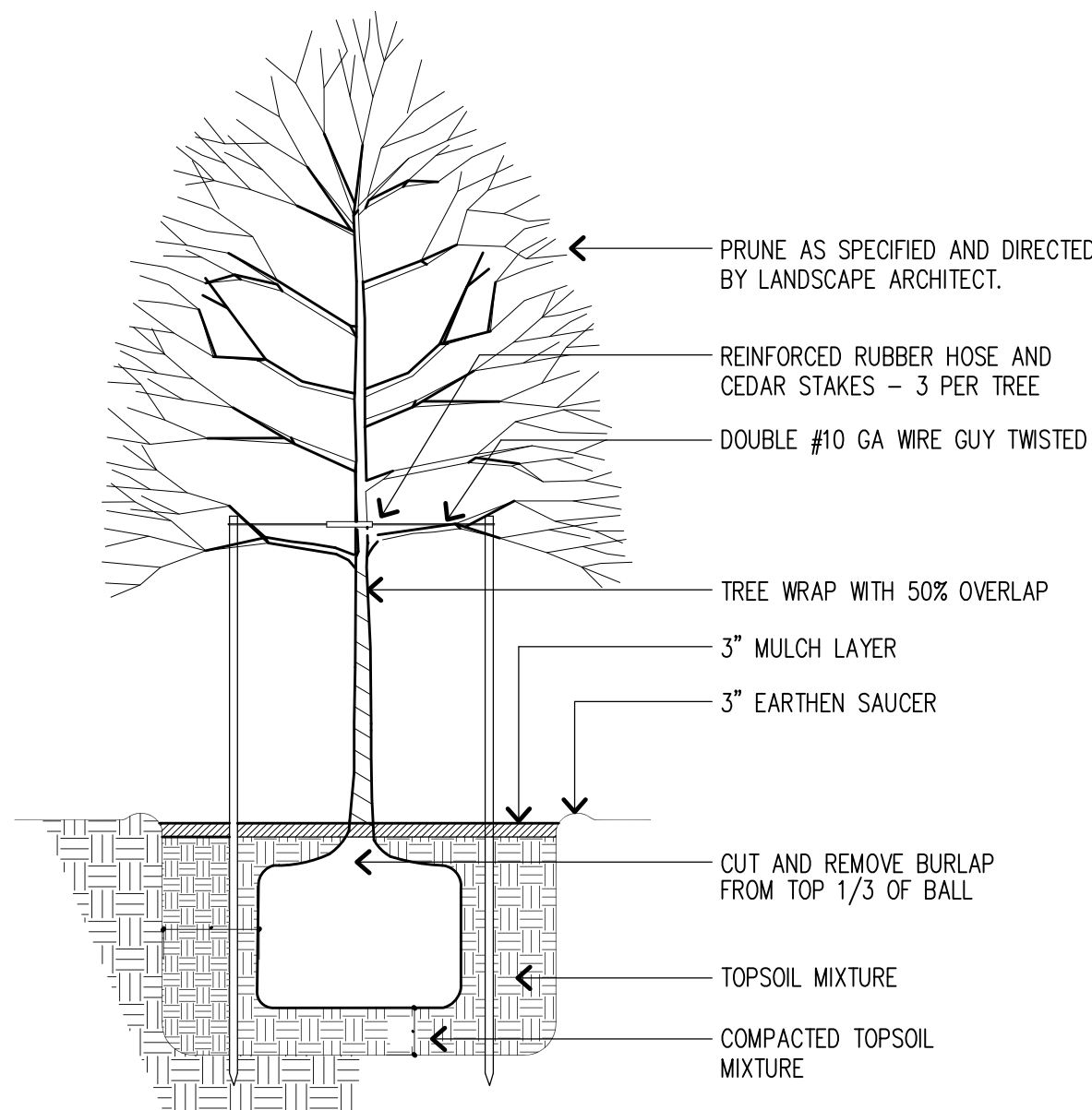
PLANTING DETAILS



1 GROUND COVER PLANTING
L2.1 SCALE: 1" = 1'-0"

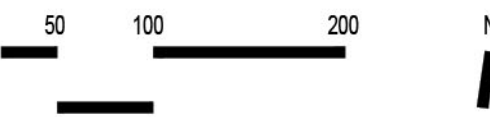
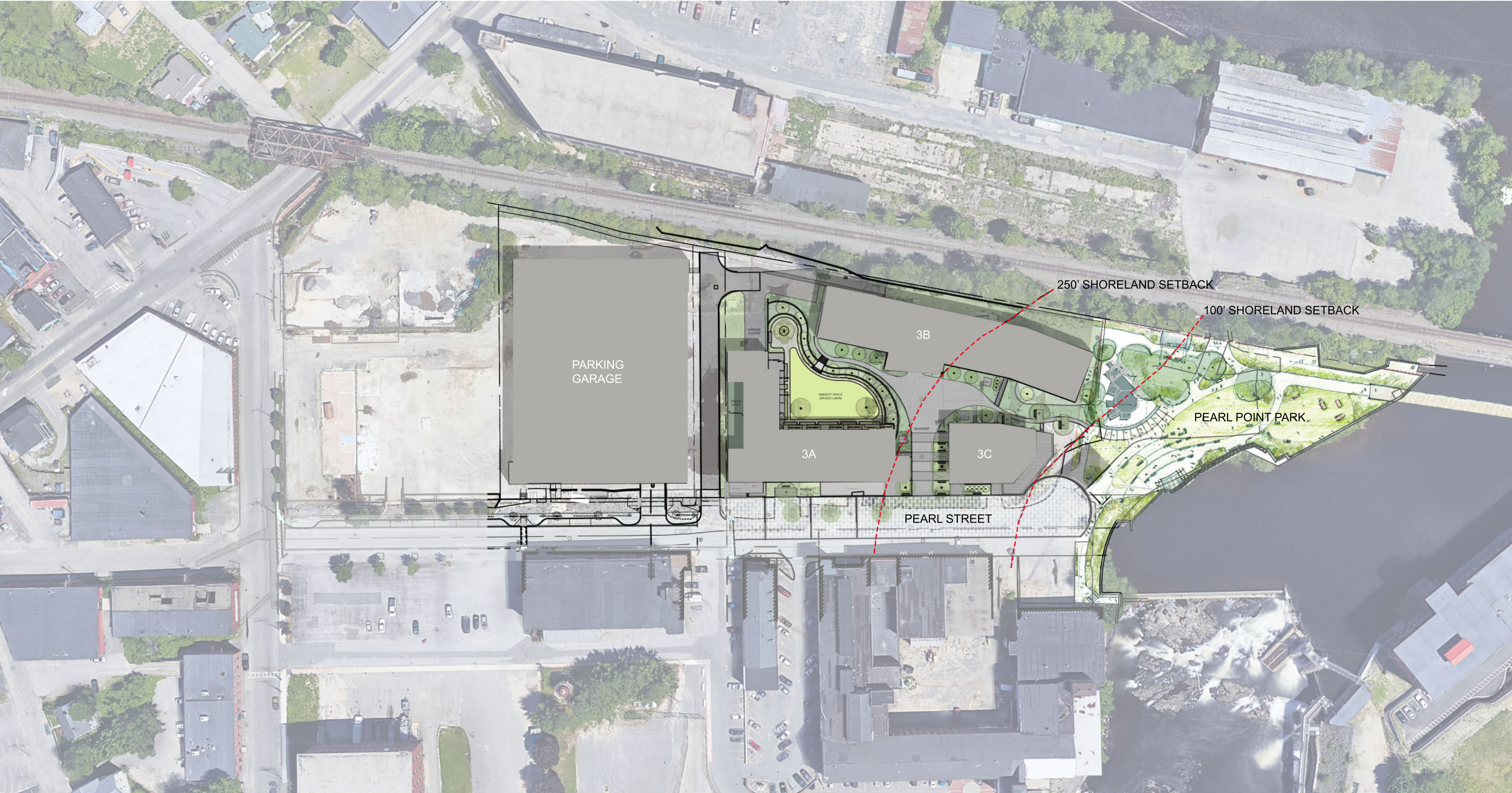


2 SHRUB PLANTING
L2.1 SCALE: 1" = 1'-0"



3 TREE PLANTING
L2.1 SCALE: 3/4" = 1'-0"

NOT FOR CONSTRUCTION



PEARL STREET | PLAN VIEW

BIDDEFORD, MAINE







ARRIVAL | STEPS AND LANDINGS (cut stone)

1091

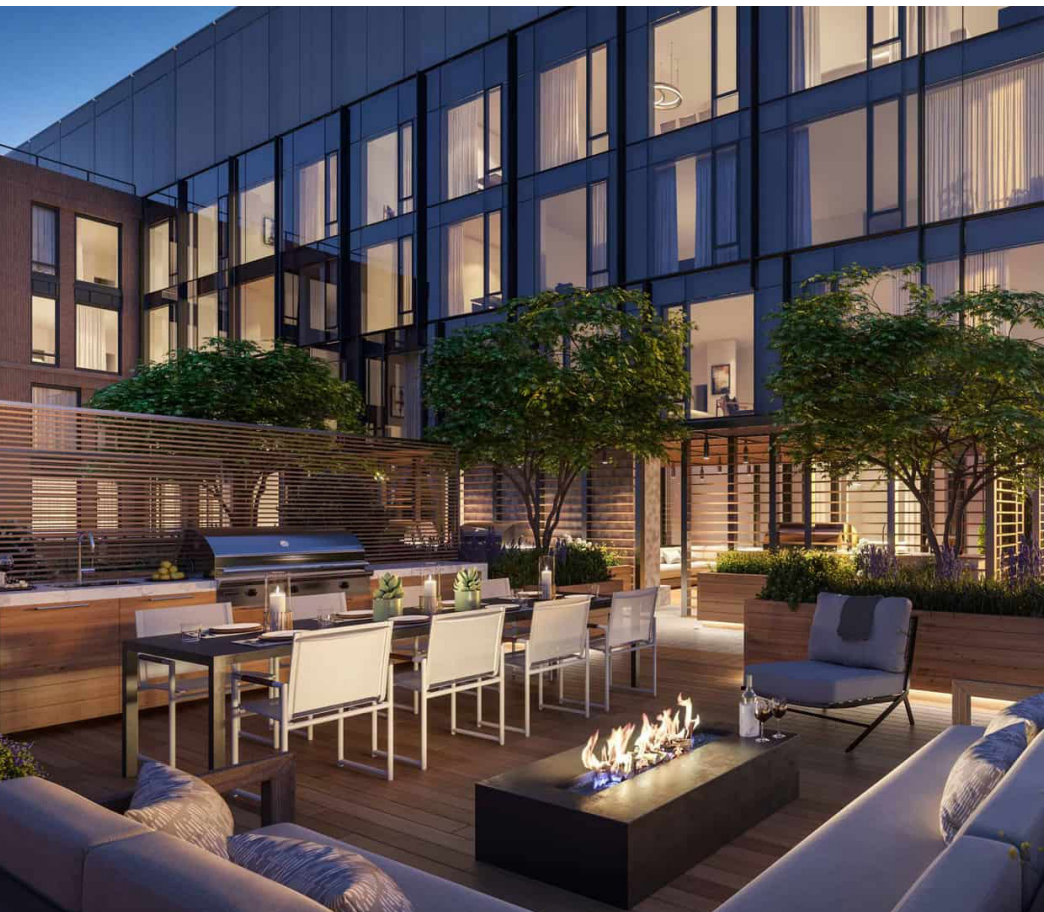
LOT 3 | SCHEMATIC DESIGN



ARRIVAL | STEPS AND LANDINGS (gabion walls)

1092

LOT 3 | SCHEMATIC DESIGN



grill | fire | screening



outdoor room



arbor?



planted form



concrete



corten steel

CURVED WALL PRECEDENTS

1094

LOT 3 | SCHEMATIC DESIGN



garden steps



stone steps



corten

STEP PRECEDENTS

1095

LOT 3 | SCHEMATIC DESIGN



curved gabion walls



gradient of infill stone sizes gabion walls



refined gabions (herzog demeuron)

GABION PRECEDENTS

1096

LOT 3 | SCHEMATIC DESIGN



ELEC. TRANSFORMER SCREEN PRECEDENTS





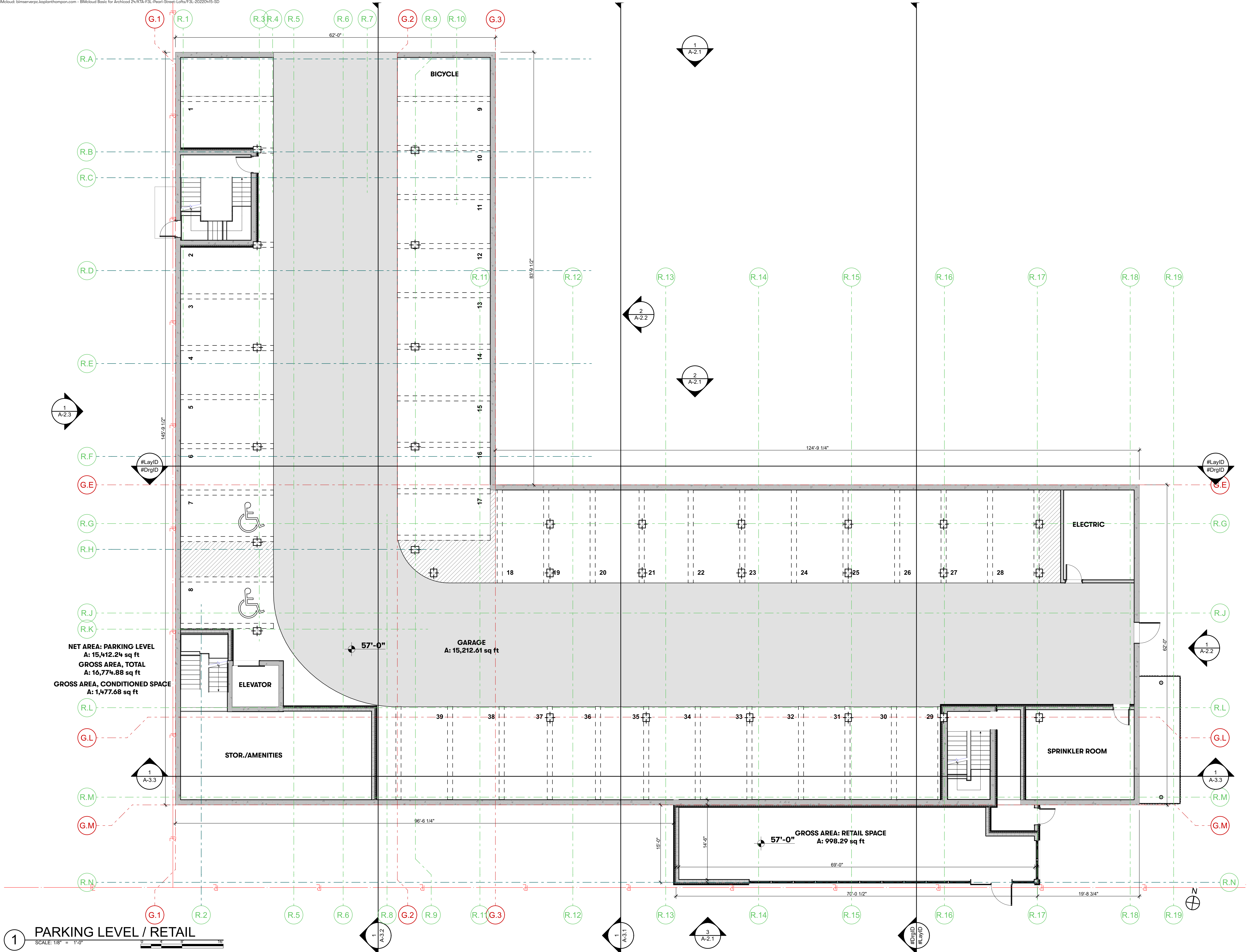
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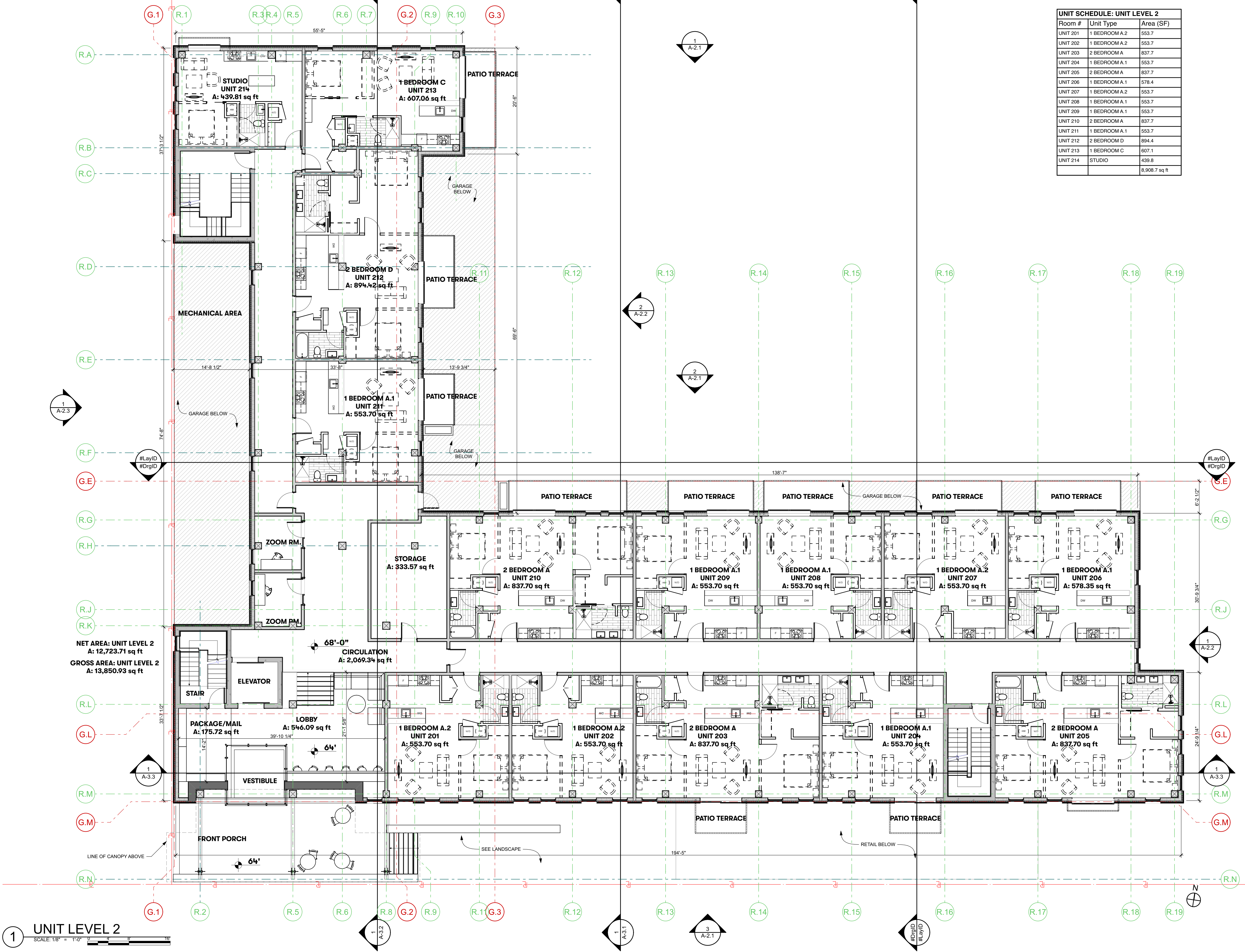
NOT FOR CONSTRUCTION

PROJECT	F3L
DATE	9/29/22
REVISED 1	
REVISED 2	
DRAWN BY	JT/CB/SS/SBH
PHASE	SCHEMATIC DESIGN

PARKING LEVEL PLAN

A-1.1





Kaplan
Thompson
Architects

102 Exchange Street
Portland, ME 04101
(207) 842-2888
kaplanthompson.com

PROJECT

Pearl Street Lofts 3A

Pearl Street
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STRUCTURAL

Thornton Tomasetti

14 York Street
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CIVIL

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500 Washington Avenue, Suite 202
Portland, ME 04103
p: 207 775-2655

Landscape

**Soren deNiord Design
Studio**

43 Wellwood Road
Portland, ME 04103
p: 207 400-2450

MECHANICAL/PLUMBING

**Design Day
Mechanicals, Inc.**

PO Box 447
Ipswich, NH 03071
p: 207 337-2473

ELECTRICAL

MEGA Engineering

Portland, ME 04103
p: 207 749-4514

DATE	6/9/22
CHANGE NAME	
CHANGE NO.	
DESCRIPTION	
ISSUE NO.	A
SCHEMATIC DESIGN	

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PROJECT	F3L
DATE	9/29/22
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PHASE	SCHEMATIC DESIGN

UNIT LEVEL 2 PLAN

A-1.2



Kaplan
Thompson
Architects

102 Exchange Street
Portland, ME 04101
(207) 842-2888
kaplanthompson.com

PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

Thornton Tomasetti

14 York Street
Portland, ME 04101
p: 207 245-6060

CIVIL

Acorn Engineering, Inc.

500 Washington Avenue, Suite 202
Portland, ME 04103
p: 207 775-2655

Landscape

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MECHANICAL/PLUMBING

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PO Box 447
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ELECTRICAL

MEGA Engineering

Portland, ME 04103
p: 207 749-4514

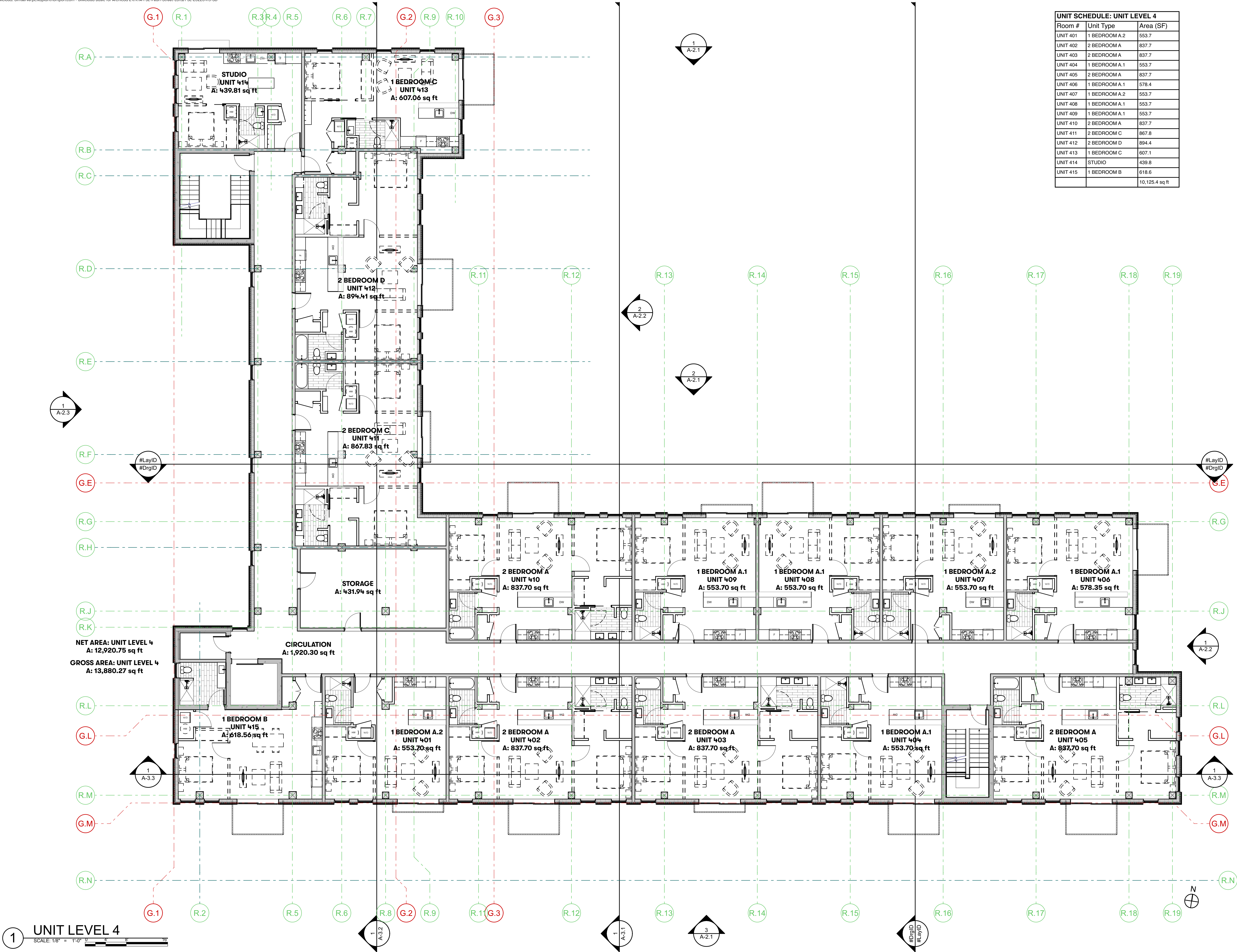
DATE	6/9/22
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PROJECT	F3L
DATE	9/29/22
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PHASE	SCHEMATIC DESIGN

UNIT LEVEL 3 PLAN

A-1.3



Kaplan
Thompson
Architects

102 Exchange Street
Portland, ME 04101
(207) 842-2888
kaplanthompson.com

PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

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Portland, ME 04101
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MEGA Engineering

Portland, ME 04103
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UNIT LEVEL 4 PLAN

A-1.4



Kaplan Thompson Architects
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PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

Thornton Tomasetti

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Portland, ME 04101
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Landscape

Soren deNiord Design Studio

43 Wellwood Road
Portland, ME 04103
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Design Day Mechanicals, Inc.

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PHASE	SCHEMATIC DESIGN

UNIT LEVEL 5 PLAN
A-1.5



UNIT SCHEDULE: UNIT LEVEL 6		
Room #	Unit Type	Area (SF)
UNIT 601	1 BEDROOM A.2	553.7
UNIT 602	2 BEDROOM A	837.7
UNIT 603	2 BEDROOM A	837.7
UNIT 604	1 BEDROOM A.1	553.7
UNIT 605	2 BEDROOM A	837.7
UNIT 606	1 BEDROOM A.1	578.4
UNIT 607	1 BEDROOM A.2	553.7
UNIT 608	1 BEDROOM A.1	553.7
UNIT 609	1 BEDROOM A.1	553.7
UNIT 610	2 BEDROOM A	837.7
UNIT 611	2 BEDROOM C	867.8
UNIT 612	2 BEDROOM D	956.0
UNIT 613	2 BEDROOM B	1,008.5
UNIT 615	1 BEDROOM B	618.6
		10,148.6 sq ft

**Kaplan
Thompson
Architects**

2 Exchange Street
Portland, ME 04101
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PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

Thornton Tomasetti

14 York Street
Portland, ME 04101
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Landscape

Soren deNiord Design Studio

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Mechanicals, Inc.**

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Ipswich, NH 03071
p: 207 337-2473

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MEGA Engineering

Portland, ME 04103
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PROJECT	F3L
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PHASE	SCHEMATIC DESIGN

UNIT LEVEL 6 PLAN

A-1.6



Kaplan
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PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

Thornton Tomasetti

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Mechanicals, Inc.**

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ELECTRICAL

MEGA Engineering

Portland, ME 04103
p: 207 749-4514

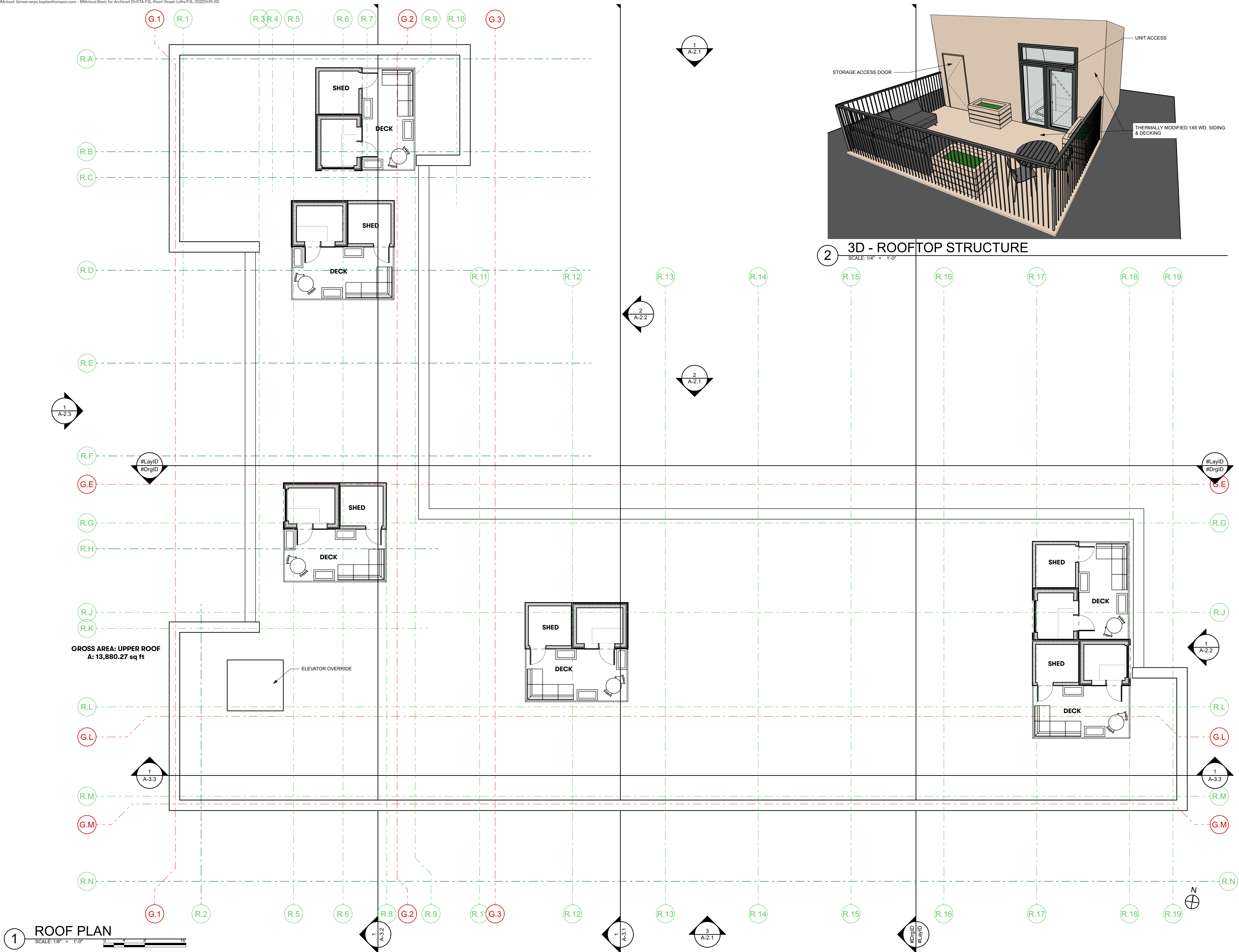
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DATE	9/29/22
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PHASE	SCHEMATIC DESIGN

UNIT LEVEL 7 PLAN

A-1.7



PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL
Thornton Tomasetti
14 York Street
Portland, ME 04101
p: 207 245-6060

CIVIL
Acorn Engineering, Inc.
500 Washington Avenue, Suite 202
Portland, ME 04103
p: 207 775-2655

Landscape
**Soren deNiord Design
Studio**
43 Wellwood Road
Portland, ME 04103
p: 207 400-2450

MECHANICAL/PLUMBING
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MEGA Engineering
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p: 207 749-4514

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PROJECT	F3L
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PHASE	SCHEMATIC DESIGN

ROOF PLAN
A-1.8

EXTERIOR FINISHES KEY

 CAST CONCRETE FORM LINER AP SYSTEM #3101-AC OR SIM. RANDOM STRUTTED H/S PRECAST CONCRETE WALL	 SLATE STONE TILE VERMONT STRAPLAP SLATE, GRAY/SLATE NATURAL CLEFT FINISH
 FIBER CEMENT PANEL 1 2' X 4' VERTICAL PANEL	 THERMALLY MODIFIED WOOD 1" X 6" SHRAPLAP SIDING
 FIBER CEMENT PANEL 2 4' X 8' VERTICAL PANEL	



PROJECT

Pearl Street Lofts 3A

Pearl Street
Biddeford, ME 04005

STRUCTURAL

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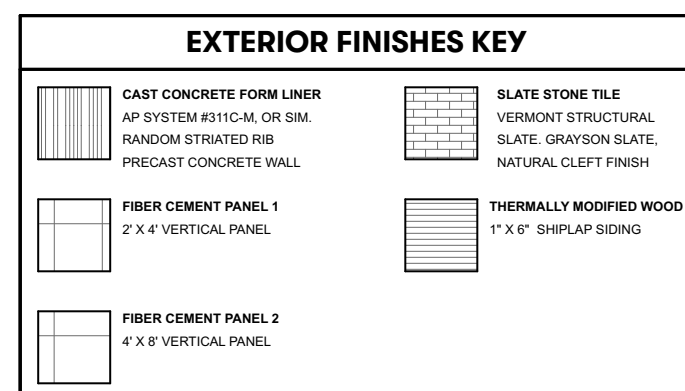
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NORTH ELEVATIONS

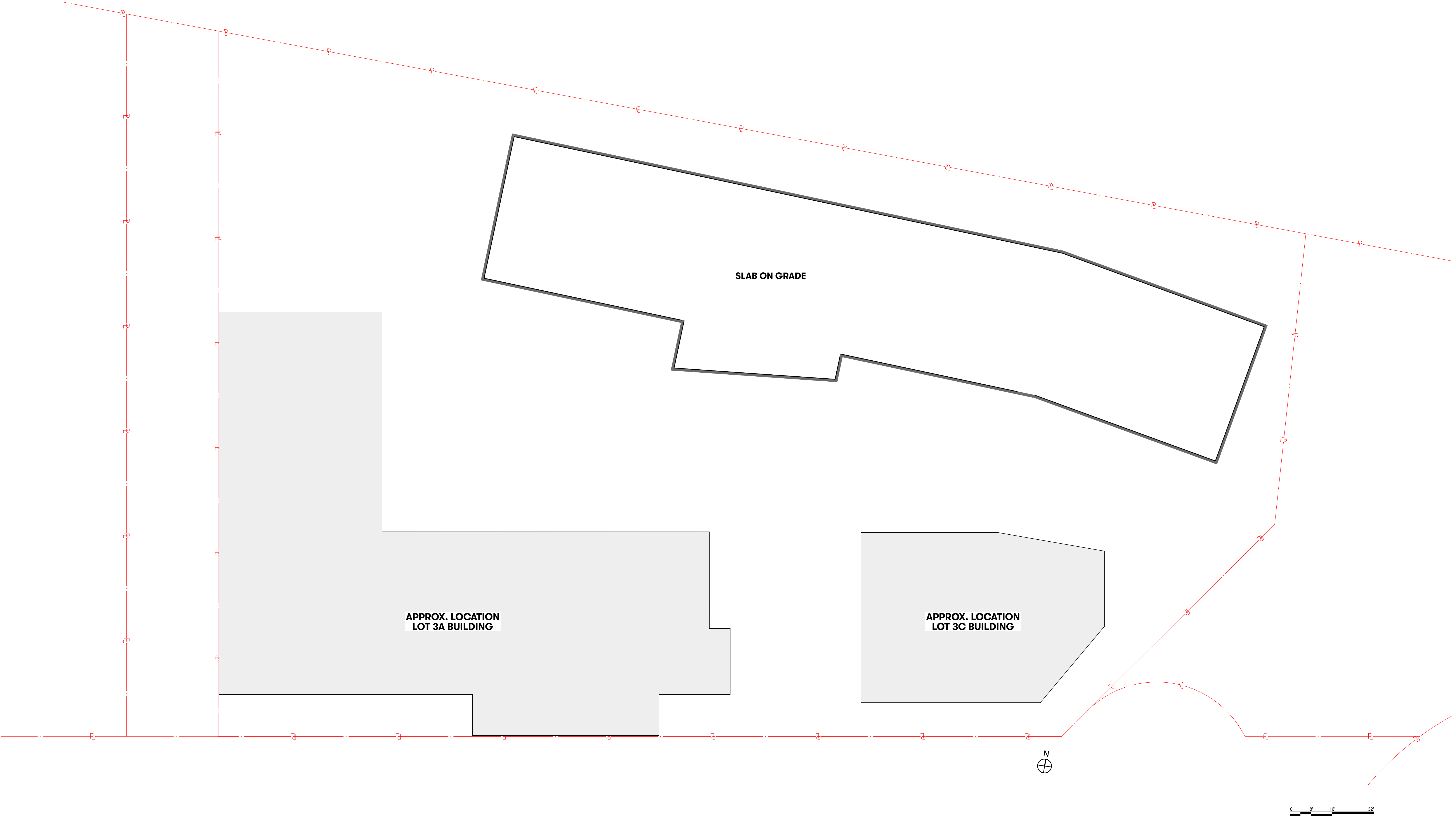
A-2.1



1 WEST ELEVATION
SCALE: 3/32" = 1'-0"

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PHASE	SCHEMATIC DESIGN



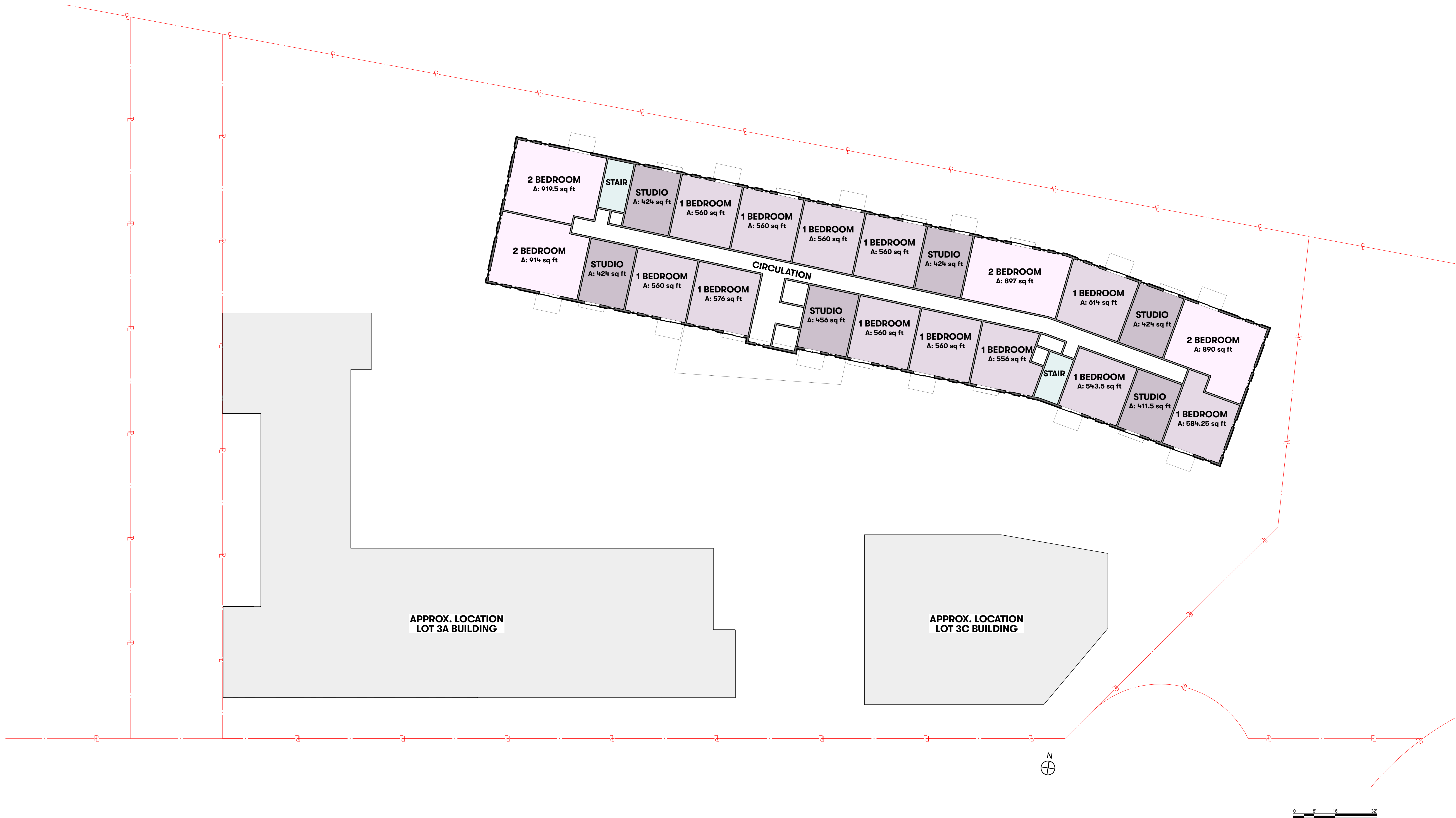
PARKING LEVEL PLAN

Pearl Street Lofts 3B
Fathom Companies
Pearl Street Biddeford ME 04005



MAIN LEVEL PLAN

Pearl Street Lofts 3B
Fathom Companies
Pearl Street Biddeford ME 04005

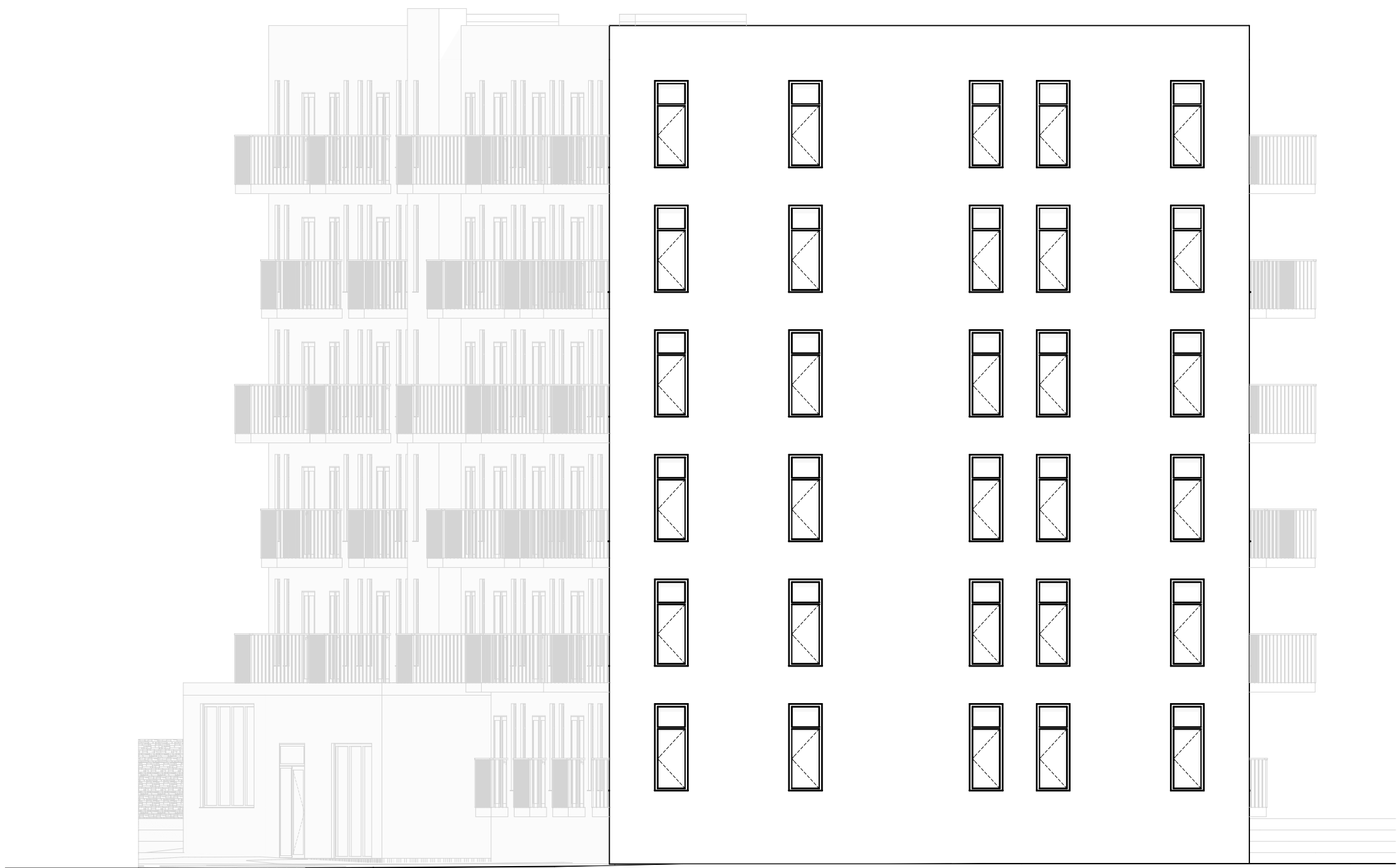
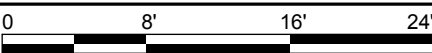


UPPER LEVEL PLAN

Pearl Street Lofts 3B
Fathom Companies
Pearl Street Biddeford ME 04005



1 NORTH ELEVATION
SCALE: 3/32" = 1'-0"



2 EAST ELEVATION
SCALE: 3/32" = 1'-0"

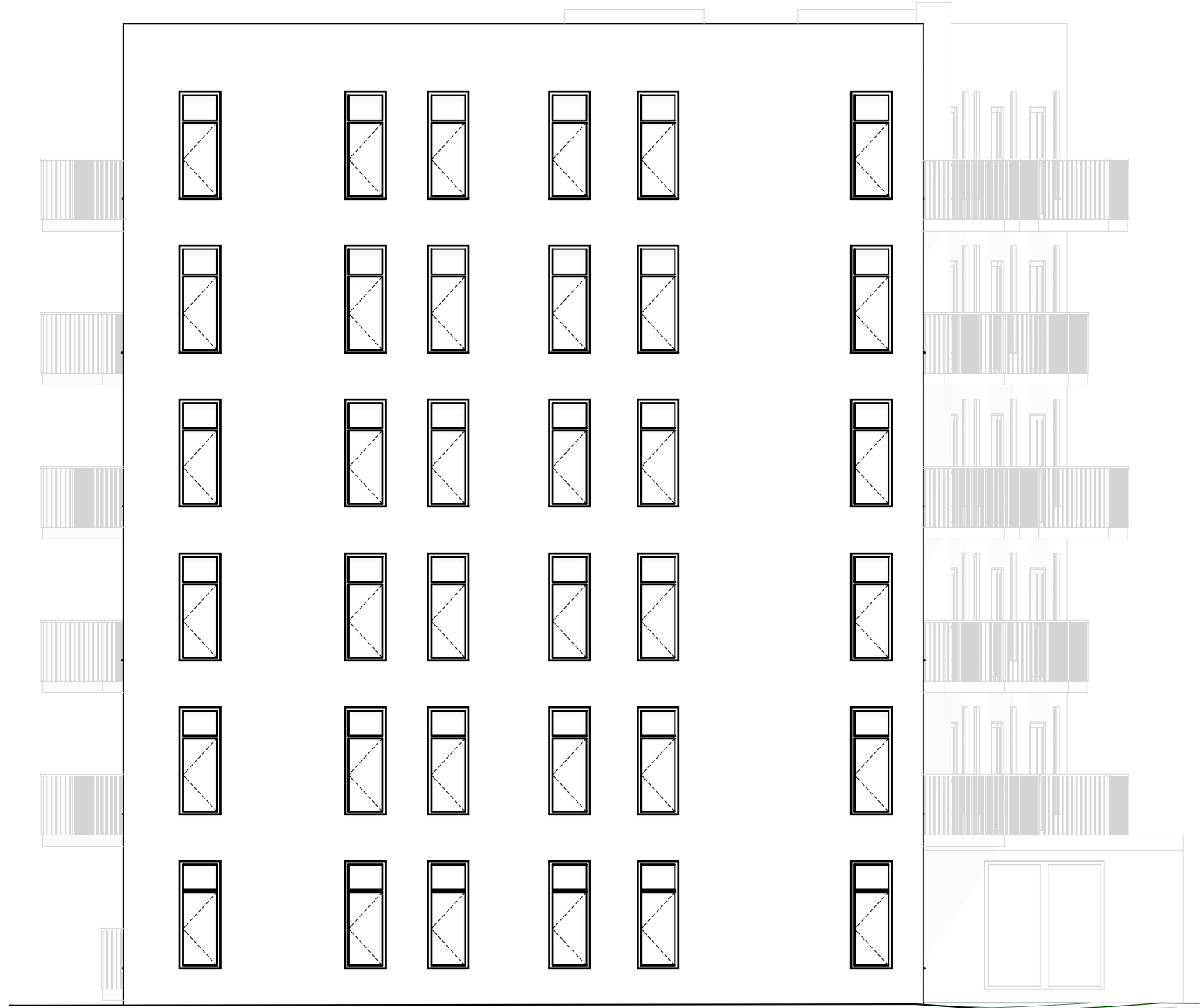


3B NORTH & EAST ELEVATIONS

Pearl Street Lofts 3B
Fathom Companies
Pearl Street Biddeford ME 04005



1 SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



2 WEST ELEVATION
SCALE: 3/32" = 1'-0"

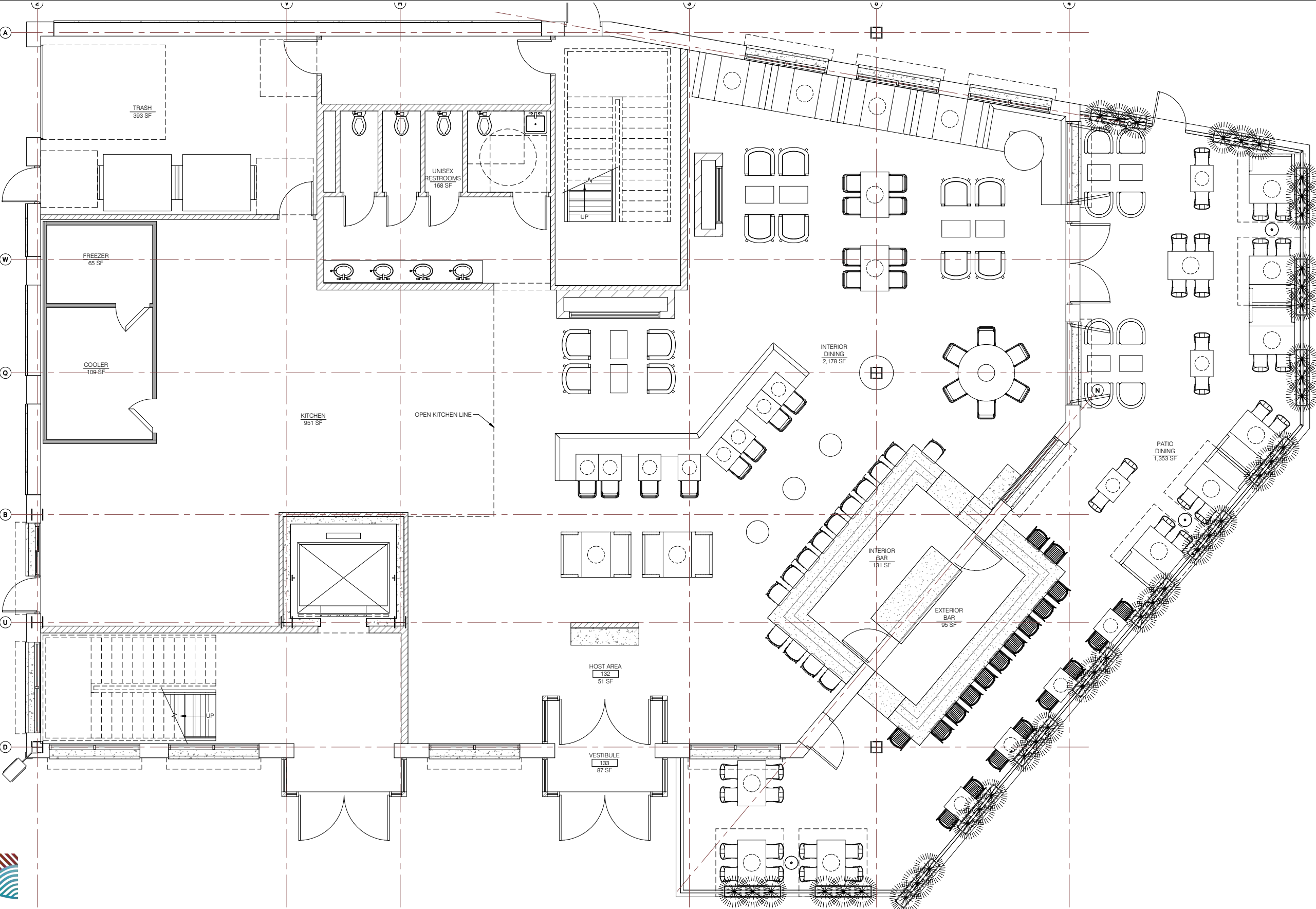


3B SOUTH & WEST ELEVATIONS

Pearl Street Lofts 3B
Fathom Companies
Pearl Street Biddeford ME 04005

Main Level Floor Plan

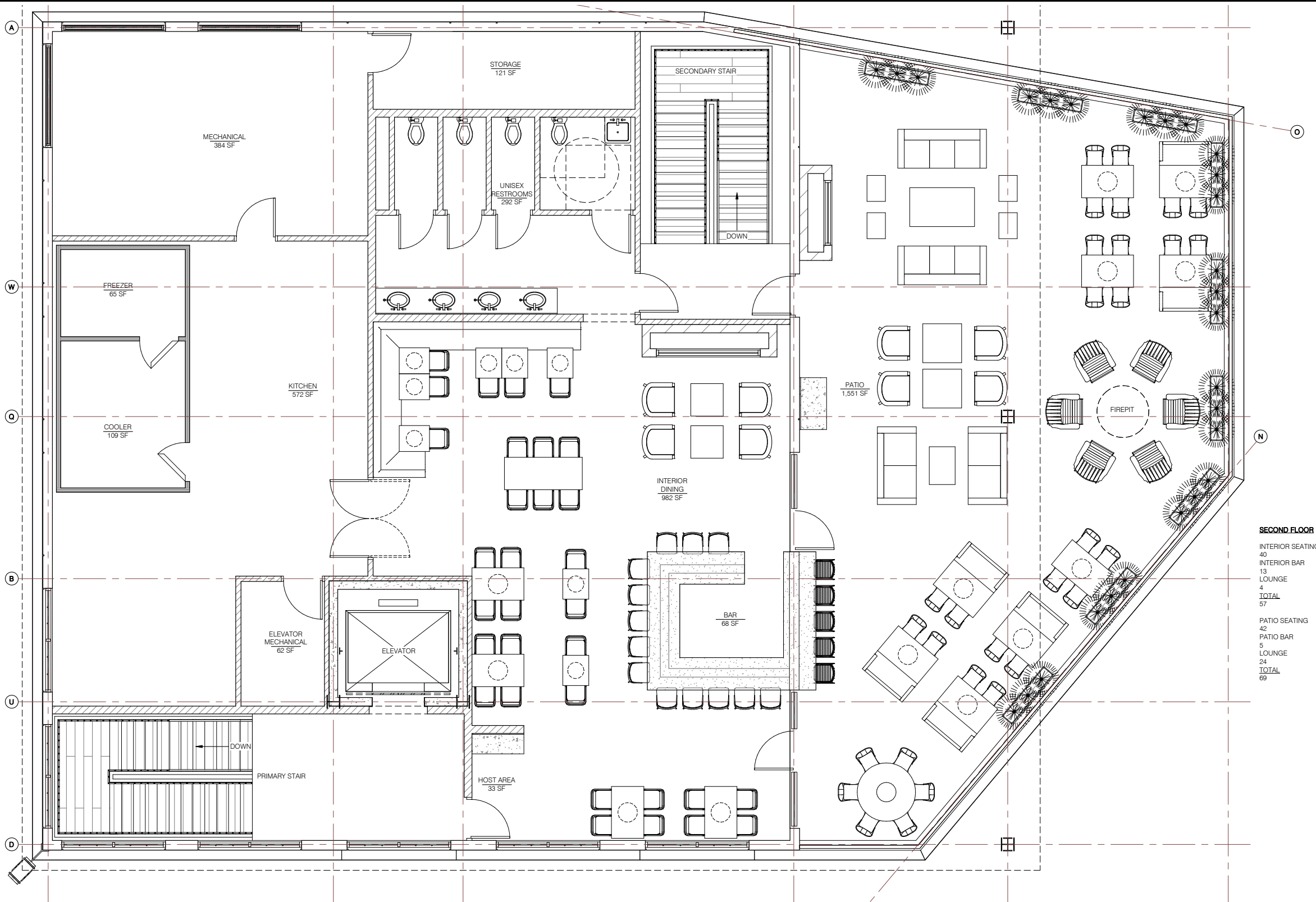
JULY 22, 2021
BIDDEFORD, ME



SEAT COUNT	
LOWER LEVEL	
BAR	14
DINING	82
PATIO BAR	12
PATIO DINING	62
TOTAL TENANT 1	170
UPPER LEVEL	
BAR	13
DINING	44
PATIO BAR	5
PATIO DINING	66
TOTAL TENANT 2	128

Upper Level Floor Plan

JULY 22, 2021
BIDDEFORD, ME

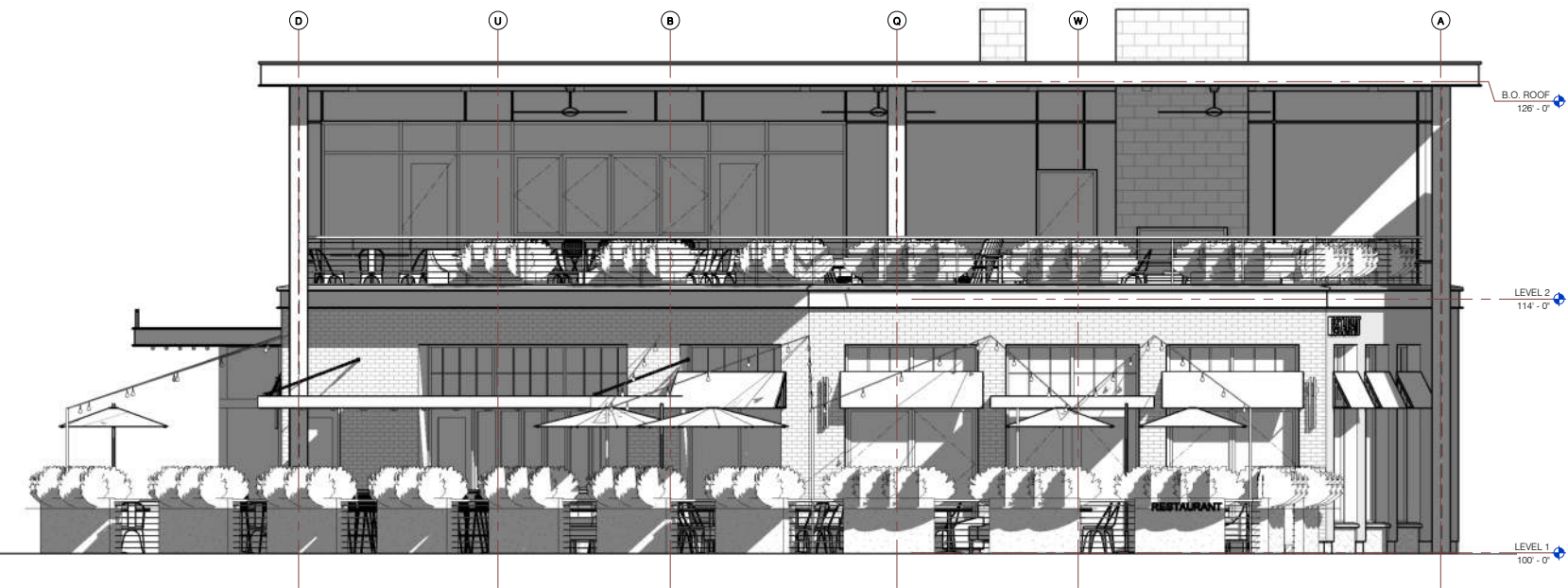


SECOND FLOOR
INTERIOR SEATING 40
INTERIOR BAR 13
LOUNGE 4
TOTAL 57
PATIO SEATING 42
PATIO BAR 5
LOUNGE 24
TOTAL 69

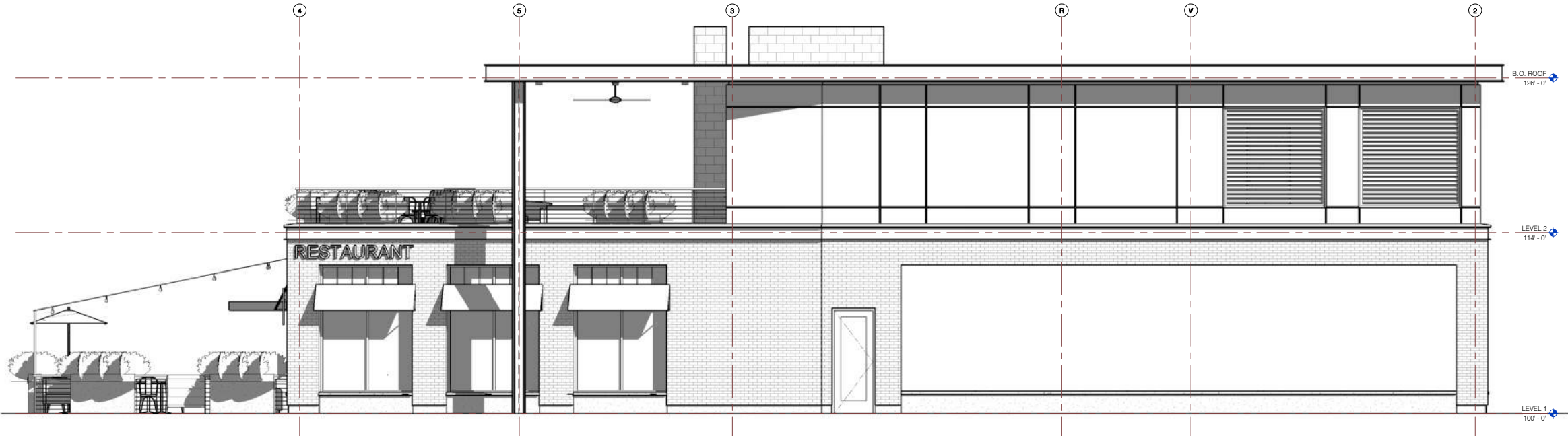
SEAT COUNT	
LOWER LEVEL	
BAR	14
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PATIO BAR	12
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TOTAL TENANT 1	170
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BAR	13
DINING	44
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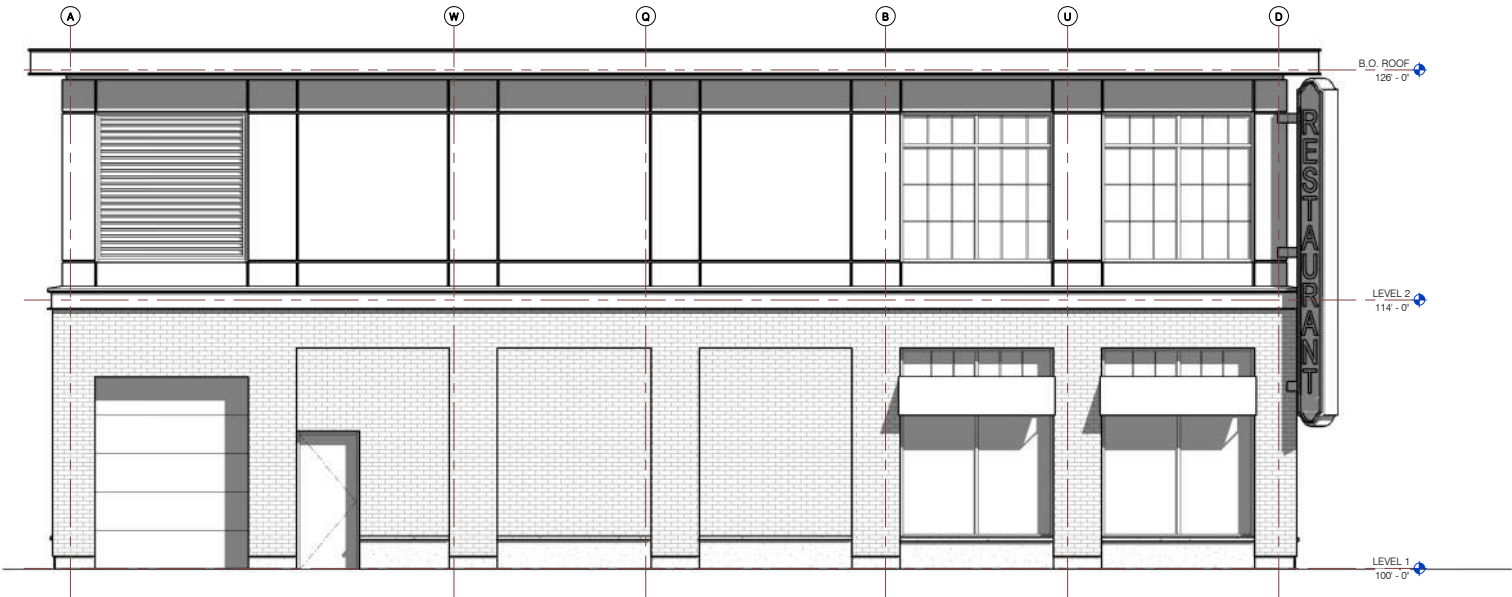
South Elevation



East Elevation



North Elevation - with Mural Opportunity



West Elevation

Master Plan Development Agreement

This Master Plan Development Agreement (this “Agreement”) dated November 17, 2020 (“Effective Date”), is executed between 3 Lincoln, LLC, a Maine limited liability company (the “Developer”), having an address at P.O. Box 7486, Portland, Maine 04112 and the City of Biddeford, Maine, a Maine municipal corporation and body politic with offices at 205 Main Street, Biddeford, Maine (the “City”). The Developer and the City are collectively referred to as the “Parties.”

RECITALS

WHEREAS, the City owns the parcel of land in Biddeford, Maine commonly known as the “MERC” site located at 3 Lincoln Street, a plan of which is attached hereto as Exhibit A and a legal description of which is attached as Exhibit B (the “Site”). The Site is an irregularly shaped parcel containing approximately 8.4 acres of land bound to the west by Lincoln Street, the east by the Saco River, to the north by the Boston & Maine Railroad, Gooch Street, and to the south by Pearl Street and several commercial/industrial buildings.

WHEREAS, the City, working with a team established by the City Council, developed the 3 Lincoln Street Redevelopment Market and Feasibility Study in conjunction with Camoin Associates (the “Camoin Study”), to establish a blueprint for the redevelopment of the Site (the “Project”).

WHEREAS, the City has selected the Developer to serve as the master developer for the Project.

WHEREAS, the goals of the Project are to develop up to 400,000 square feet of new, mixed use commercial space, create between 800 and 1,800 new jobs, and increase the City’s base property value by up to \$63,000,000.

WHEREAS, the Project is expected to become an anchor within the City’s so-called “Mill District,” with the goal that the Project will support activities in the existing surrounding buildings, the RiverWalk and its amenities, and associated business development in the surrounding area.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and mutual agreements contained herein and other consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be bound hereby, the Parties agree as follows:

ARTICLE I

GENERAL TERMS & COMMITMENTS

1.1 Purpose. This Agreement sets forth the major terms and conditions under which the Parties intend to pursue the Project. The Parties recognize that, as the Project progresses, further definitions and agreements expanding the terms of this Agreement may be warranted and/or necessitated. The Parties have sought in this Agreement to (i) provide a sufficient degree of definition to facilitate planning, design and implementation within a broad scope and (ii) make certain commitments that are necessary to achieve the successful realization of the Project.

1.2 Description of the Project. The Project consists of the planning, permitting, and development of the Site, including coordination of the development by the City of a municipal parking garage (the “Municipal Parking Garage”) on the portion of the Site shown on Exhibit A as the site for those improvements (“Garage Site”) and the development of buildings adjacent to the Municipal Parking Garage generally located on the east and west sides of that structure on the development sites shown on Exhibit A (collectively the “Development Sites”) as commercial, residential, academic, hospitality, retail or other uses (collectively the “Adjacent Buildings”). The Parties shall progress through each stage of the Project, consistent with Section 1.3 below, giving due consideration to Site conditions, financial feasibility, and other commercially reasonable development considerations. The Parties expressly acknowledge the need to provide reasonable flexibility to the Developer to enable the Developer to respond to changing market conditions and intend that the scope of the Project be interpreted and adjusted by the City and the Developer in a manner that will promote, and not hinder, a commercially reasonable and economically viable redevelopment of the Site. Without limitation of the foregoing, as of the date of the Agreement, the Project and its various elements are envisioned to be generally consistent with the Camoin Study. In the course of modifying and refining these initial plans throughout the development process, the Developer will seek to incorporate a mixture of residential, retail, office, hospitality, education and service uses with the adjacent Municipal Parking Garage, park area, street system, the RiverWalk and other amenities intended to foster the creation of an economically vibrant, urban style mixed use destination, generally as contemplated by the Camoin Study and in accordance with the principles enumerated in Section 3.1 of this Agreement.

1.3 Project Schedule. The Project shall proceed in accordance with the following schedule (the “Project Development Schedule”):

As of the Effective Date, the City shall deliver to Developer a garage concept plan deemed suitable by the Developer (as set forth in Section 3.2 below) including, without limitation, all four elevations, a section plan, parking space count, structural plan, and other AIA standard elements (“Garage Concept Plan”) (the date of delivery referred to as the “Start Date”).

1.3.2 Within three (3) months following the Start Date, the Developer shall prepare (or have prepared) and present to the City a concept plan for the development of each of the Development Sites (the “Preliminary Concept Plan”). In the event that the City determines that the Preliminary Concept Plan is not suitable, and the City and the Developer are unable to

agree to revisions to the Preliminary Concept Plan that make such plan suitable to the City, the City shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.2, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.3 Within the six (6) month period following written notice of acceptance of the Preliminary Concept Plan by the City, the Parties shall agree to a financial plan and, utilizing design plans associated with the Municipal Parking Garage, shall work together to create concept plans depicting the layout and design of the Development Sites and the Site as a whole, including site design concepts, internal layout, and building use scenarios (the “Site Concept Plans”). The Site Concepts Plans also shall set forth a timetable by which Developer shall complete the improvements described in the Site Concept Plans with agreed upon financial penalties if such timetables are not reasonably accomplished. In the event that the City or the Developer determines that the proposed Site Concept Plans are not suitable, and the City and the Developer are unable to agree to revisions to the Site Concept Plans that make such plans suitable to the City or the Developer, the City or Developer shall be permitted to terminate this Agreement in accordance with Article VI; provided, that in the event that the City terminates this Agreement pursuant to this Section 1.3.3, the City shall reimburse the Developer for all costs and expenses incurred prior to the date of termination, plus twenty percent (20%) to partially compensate the Developer for its time and effort.

1.3.4 During the six (6) month period following the approval by the City and Developer of the Site Concept Plans, each of the City and the Developer shall use commercially reasonable efforts to obtain all federal, state and municipal permits and approvals (“Governmental Approvals”) necessary to proceed with the development and improvements described in the Site Concept Plans. The City shall have primary responsibility for the Governmental Approvals required for the Municipal Parking Garage and related improvements and the Developer shall have primary responsibility for the Governmental Approvals required for the buildings and related improvements to be located on the Development Sites; provided that the Parties acknowledge that as an integrated master development the Governmental Approvals are likely to be highly integrated and interdependent, and therefore agree to work cooperatively and on a coordinated basis to obtain the Governmental Approvals.

1.3.5 Throughout the period specified in Sections 1.3.2-1.3.4 above, the Parties shall work together to identify candidates as potential tenants, joint venture participants, co-developers, or other users for the Development Sites.

1.3.6 The milestone dates set forth in Sections 1.3.2, 1.3.3 and 1.3.4 shall be extended in the event the Municipal Parking Garage has not achieved the same milestone as specified in each Section for the Project. The extension of the applicable milestone shall be coterminous with the date the Municipal Parking Garage achieves its corresponding milestone, in order to assure that the pace of development of the Project does not proceed at a substantially

more rapid rate than the development of the Municipal Parking Garage, which is an critical element in the Developer's ability to successfully develop the Project.

1.4 Exclusive Development. The Parties shall work exclusively with each other, in good faith, to develop the Project. This Agreement shall not extend to any other activities, transactions or relationships other than with respect to the Project and the transactions contemplated by this Agreement. Nothing in this Agreement shall preclude or restrict either Party from conducting its business as it determines in its sole and absolute discretion other than in connection with the Project, and neither Party shall have any rights or obligations in and to the other Party's independent ventures or the income or profits derived therefrom, including any ventures located proximate to the site.

1.5 Personnel and Resources. Each Party shall make available, at all reasonable times and location, the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Project.

1.6 Manner of Development. The Parties acknowledge and agree that the development of the Adjacent Buildings may be undertaken by the Developer through whatever means or transaction structure the Developer determines appropriate, including through direct ownership and development by Developer, leasing or re-sale to third parties, co-development with joint venture partners, subdivision and sale for development of all or portions of the Development Sites or Adjacent Buildings, declaration of one or more condominiums or through use of any other means or transaction structures as Developer determines appropriate, with the overall goal of developing the Development Sites on the basis described herein (the foregoing being referred to herein as "Development Relationships"). Developer agrees that in the event the development of the Adjacent Buildings is undertaken by anyone other than Developer or its related entities, Developer shall first obtain the written consent of the City to the involvement of any third party individuals or entities, which consent shall not be unreasonably withheld.

ARTICLE II PURCHASE OPTION

2.1 Purchase Option. The City hereby grants to the Developer an exclusive option (the "Option") to purchase either or both of the Development Sites, including all rights, privileges, easements and appurtenances thereto existing or as necessary or convenient for the construction, development and operation of the Adjacent Buildings and other improvements identified and defined in the Site Concept Plans, but specifically excluding the cell tower site (the "Subject Property"). This Option applies to the Subject Property both in its current state and in the event it is further developed. The Subject Property shall be conveyed together with all improvements thereon, all easements and rights of way relating thereto, all appurtenances thereto, as well as any common element interests therein, and subject to the terms and conditions set forth in this Agreement.

2.2 Terms of the Option. The Option granted hereby shall have the following terms and conditions:

2.2.1 Term: The Option shall have a term beginning on the Effective Date and expiring eighteen (18) months following receipt of all Governmental Approvals pursuant to Section 1.3.5 hereof, unless the same shall sooner be exercised or terminated in accordance with the terms hereof ("Option Term").

2.2.2 Purchase Price: The total purchase price for the Subject Properties if they are purchased together shall be One Million Two Hundred Thousand Dollars (\$1,200,000) (the "Purchase Price").

2.2.3 Exercise of Option: Upon satisfaction of the Condition of Exercise described in Section 2.2.4 below, the Option may be exercised by the Developer by the transmittal of a signed written notice of the Developer's exercise of the Option ("Notice of Exercise"), and specifying the date, time and place for closing on the purchase of the Subject Property, which shall not be later than ninety (90) days following the date of the Notice of Exercise ("Closing Date"). The Developer shall have the right to exercise the Option with respect to either or both Subject Properties, and if exercised for one of the Subject Properties the Option shall continue in force for the other Subject Property for the remainder of the Option Term. If the Developer exercises the Option separately, the purchase price for the first property shall be Seven Hundred Thousand Dollars (\$700,000) and the purchase price for the second property shall be Seven Hundred Thousand Dollars (\$700,000) for a combined purchase price of One Million Four Hundred Thousand Dollars (\$1,400,000).

2.2.4 Condition of Exercise: It shall be a condition of exercise of the Option that the Site Concept Plans shall have been completed pursuant to Section 1.3.3 above.

2.2.5 Closing: The closing of the purchase of each Subject Property hereunder shall be conducted in accordance with the following provisions:

(a) The City shall sell, assign, convey, transfer and deliver title to the Subject Property together with all easements, licenses, rights of way and appurtenant rights reasonably required in order to develop the Subject Property in accordance with the Site Concept Plan, and together therewith all surveys, plans, specifications, title commitments or policies and other records, files or information related to the development of the Subject Property in accordance with the Site Concept Plan, free and clear of any liens, encumbrances or restrictions of any nature, except for the Permitted Real Property Liens. "Permitted Real Property Liens" means: (i) real property taxes for the current tax year that are not due and payable as of the Closing date, (ii) any liens, encumbrances or other title exception or nonconformity accepted by, or not expressly objected to in writing by, the Developer at or before Closing, and (iii) local, state and federal laws, ordinances or governmental regulations, including but not limited to, building and zoning laws, ordinances and regulations.

(b) The Developer shall pay the Purchase Price by wire transfer to an account specified by the City, as increased or decreased by applicable prorations and adjustments, including (i) all real and personal property taxes and similar ad valorem obligations levied with respect to the Subject Property for a taxable period that includes (but does not end on) the Closing Date based on the number of days of such taxable period included in the period ending with and including the Closing Date, (ii) any and all other income and expenses items that relate to the Subject Property that are incurred during a period beginning before the Closing Date and ending after the Closing Date, including but not limited to (i) water, sewer, electricity, gas, oil, telephone and other utility expenses, and (ii) payments under any contracts or agreements related to the Subject Property that Developer agrees to accept an assignment (collectively, the “Prorations”). The Prorations shall be apportioned as of the Closing Date such that the City shall be liable for that portion of such Prorations relating to, or arising in respect of, periods through and including the Closing Date and Developer shall be liable for (and shall reimburse the City to the extent City shall have paid) that portion of such expense items relating to, or arising in respect to, periods after the Closing Date.

2.3 Memorandum of Option. The Parties agree that upon request of either Party, a Memorandum of Option incorporating the terms hereof may be filed in the York County Registry of Deeds in lieu of the filing of the whole of this Agreement.

ARTICLE III RESPONSIBILITIES OF PARTIES

The Developer and the City have agreed to implement the vision and objectives embodied in the Camoin Study by agreeing to complete the responsibilities of each Party enumerated in this Agreement. The Parties acknowledge that this is a joint public and private enterprise in which the Parties will work closely together to further the completion of the Project. The following responsibilities are hereby assigned to the Parties:

3.1 Developer Responsibilities. The Developer shall use commercially reasonable efforts to:

3.1.1 Perform its obligations pursuant to Article I hereof.

3.1.2 Design, develop and construct the Adjacent Buildings in accordance with the Site Concept Plans, or arrange for their design, development and construction through one or more Development Relationships. The Parties agree that the development of the Adjacent Buildings may be phased.

3.1.3 In designing and developing the Adjacent Buildings, the Developer shall consider the following factors:

- a. Site use plans that incorporate urban mixed use principles;

b. Transit and pedestrian orientation with existing or future facilities in the Mill District;

c. Connection to surrounding properties, including cross track connections to the Saco-Lowell Building, potential use of buildings and building sites on Elm Street and the potentially re-aligned Lincoln and Pearl Streets; and

d. Coordination with mill owners in the Mill District, particularly as it relates to energy self-sufficiency.

3.2 City Responsibilities. Perform its obligations pursuant to Article I hereof.

3.2.2 The City shall continue to move forward with and make progress on the development of the Municipal Parking Garage and shall use best efforts to keep the Developer apprised of all design plans and changes. The Developer's responsibilities under this Agreement shall be conditional upon the Developer's deeming suitable the Garage Concept Plan, which shall include the Developer having sufficient time and opportunity to review the Garage Concept Plan and to exercise the Developer's judgment, at its sole discretion, regarding the suitability of such Garage Concept Plan. In the event that the Developer determines that the Garage Concept Plan is not suitable, and the City and the Developer are unable to agree to revisions to the Garage Concept Plan that make such plan suitable to the Developer, the Developer shall be permitted to terminate this Agreement with no further obligation and without penalty, as specified in Article VI.

3.2.3 The City shall continue to move forward on the planning, design and construction of the next phase of the RiverWalk.

3.2.4 The City shall pursue the planning and design of smart infrastructure for the benefit of 3 Lincoln Street and downtown Biddeford, including without limitation, gigabit internet service, wireless broadband mesh network, LED lighting, video and sensor technology, and the software required to store, analyze and secure data transmitted through this smart infrastructure.

3.2.5 The City and Maine Energy Recovery Company, LP, the former owner of the Site, pursuant to a Voluntary Response Action Plan ("VRAP"), completed environmental remedial actions on the Site resulting in a Maine Department of Environmental Protection Certification of Completion of a Voluntary Response Action Plan. The Certification of Completion is recorded in the York County Registry of Deeds in Book 17072, Page 169. Developer recognizes and agrees that the Certification of Completion and the Declaration of Environmental Covenant recorded in the York County Registry of Deeds in Book 17098, Page 898 imposes certain covenants, conditions and restrictions on the Site that are binding upon Developer and its successors and assigns. Developer agrees that the Certification of Completion is satisfactory evidence that all required environmental remediation on the Site was completed as of the date of the Certification of Remediation and that the City's obligations to complete any additional environmental remediation at the Site required in order to allow for the development of the Site contemplated hereby, including the financing of such development with financial institutions, is limited to environmental conditions occurring after the date of the Certification of

Completion. In the event that any such remediation is necessary, the City will provide to Developer, on or before the Closing Date for each Subject Property, evidence of the required remediation in form reasonably acceptable to Developer and any financial institutions financing the Municipal Parking Garage and Adjacent Buildings, including the environmental clearances listed on Exhibit C hereto.

3.2.6 The City shall provide the Developer with all environmental site assessments (phase 1 and 2 together with any additional test results), geotech studies, the results from test borings, soil samples, monitoring wells, and all other background information in the City's possession, or under its control, pertaining to the Site.

3.2.7 The City will assist the Developer in any local or state reviews necessary for the development of the Site.

3.2.8 The City shall exercise best efforts to assure that the Developer is not required to bear the cost of all offsite improvements necessary to support the contemplated development of the Project, including any costs necessary to ensure that utilities adequate to support the contemplated development are delivered to the Subject Property.

3.2.9 The City will work with the Developer to identify a full range of financial, tax, and development incentives for the redevelopment of the Site; provided, that the City's obligations under this Section 3.2.9 are subject to the Developer's cooperation in providing reasonably requested financial and project-level information. Any such financial information provided by the Developer shall be treated as confidential information pursuant to this Agreement and as confidential business information to the extent allowed by law and protected as such.

3.2.10 The City shall promptly provide to the Developer all information it has related to potential Development Relationships.

3.3 Joint Party Responsibilities.

3.3.1 Performance: Time is of the essence and a material provision of this Agreement. The Developer and the City shall exercise commercially reasonable efforts to coordinate their development efforts and recognize that meeting the timelines contained herein are, in part, contingent upon the overall success of developing their respective portions of the Projects and market trends. The Parties may agree to mutually extend the timeframes specified herein as appropriate based on overall development progress; provided, however, that if one or more of the Parties does not meet a timeframe specified in this Agreement and the Parties cannot mutually agree upon an extension of such timeframe, such failure to meet the original timeframe shall be treated as an Event of Default, as defined below.

3.3.2 Access to Information: Upon reasonable request, each Party shall provide the other Party with full and complete access to data, documents, and any other information pertinent to the Project in order to permit each Party to perform an adequate due diligence review of matters related to the Project at each stage of development.

3.3.3 Cooperation: In addition to the actions recited herein and contemplated to be performed, executed and delivered by each Party, each Party shall perform, execute and deliver or cause to be performed, executed and delivered hereafter any and all further acts, deeds and assurances as the other Party may reasonably require to consummate or evidence the consummation of the transaction and/or the discharge of the obligations contemplated herein. The City and the Developer shall use reasonable efforts to coordinate the timing and installation/construction of all offsite improvements, if any, required in connection with the development of the Project.

3.3.4 Confidentiality: Neither Party, nor any permitted affiliate, agent or advisor of either Party shall: (a) disclose to any third party any information concerning the Project, the Site, prospective or actual Developer Relationships, the other Party, its affiliates or this Agreement; or (b) use any such information in any manner which may directly or indirectly negatively impact the Project, the other Party, or its affiliates, except that such information may be disclosed by such Party if required by law or, following written notice to the Party whose information is to be disclosed, to any lender or prospective lender or other entity necessary to develop or finance each portion of the Project. This confidentiality requirement shall not restrict the release of information which: (i) is or becomes generally available to the public other than as a result of disclosure by the other Party or its representatives, (ii) was or becomes available to the receiving Party on a non-confidential basis from a source other than the disclosing Party or its representatives; provided, that, to the receiving Party's knowledge and after due inquiry, such source is not prohibited from disclosing such information to the receiving Party by a contractual, legal or fiduciary obligation to the disclosing Party or its representatives, or (iii) is independently developed by the receiving Party without violating its obligations hereunder. In the event that this Agreement terminates prior to the purchase of the Subject Property by the Developer pursuant to Article 2 herein, then all such data, plans, proposals, and other materials furnished hereunder shall be returned to the Party from whom received, with an appropriate assurance that all copies thereof have been destroyed, except for those materials that were presented to the Developer, the Biddeford City Council or other governing body of the Parties. The obligations established pursuant to this section shall survive any termination of this Agreement and the withdrawal of a Party for a period of three (3) years.

ARTICLE IV LIMIT OF LIABILITY

Notwithstanding any other provision of this Agreement, in no event shall the Parties or any of their Affiliates, by reason of any of their respective acts or omissions relating to the development, negotiation, design, financing, ownership, construction, operation or maintenance of the Project, or relation to any of their obligations under this Agreement, be liable whether in contract, tort, misrepresentation, warranty, negligence, strict liability, or otherwise for any special, indirect, or consequential damages arising out of or in connection with this Agreement, or the performance, non-performance or breach thereof.

ARTICLE V

INDEMNIFICATION

Each Party shall indemnify, defend, and hold harmless the other Party and its agents, servants, officers, directors, employees and Affiliates from and against any loss, cost, liability, claim, damage, expense (including, without limitation, all out-of-pocket expenses, reasonable attorneys' and paralegal fees, disbursements and costs), penalty or fine incurred in connection with any claim or cause of action arising from or in connection with any claim or cause of action arising from or in connection with the Project or this Agreement to the extent caused by the negligence, misrepresentation, fraud, fault or misconduct of the indemnifying Party or any of its Affiliates.

The City's duty to indemnify shall not waive any defense, immunity or limitations of liability, which may be available to the City, its officers, agents, or employees, under the Maine Tort Claims Act, 14 M.R.S. §8101, et seq., or any other privileges or immunities as may be provided by law.

The Developer shall maintain commercial general liability insurance with coverage for personal injury liability and/or property damage liability with minimum limits of not less than \$1,000,000 per occurrence, and shall name the City as an additional insured on such policies.

ARTICLE VI

DEFAULT AND REMEDIES

6.1 Events of Default. The following shall each constitute an event of default under this Agreement (each, an "Event of Default"),

6.1.1 The Developer's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.2 The City's failure to observe or perform any covenant, agreement, or obligation of the Developer set forth in this Agreement, whether or not specifically identified in this Agreement as an Event of Default.

6.1.3 The filing by the Developer of any petition or the initiation of any proceedings under the United States Bankruptcy Code or under any act or acts, state or federal, dealing with, or relating to the subject or subjects of bankruptcy or insolvency, or under any amendment of such act or acts, either as a bankrupt or as an insolvent, or as a debtor, or in any similar capacity, by the Developer; or any involuntary petition in bankruptcy is filed against the Developer and the same is not stayed or discharged within sixty (60) days from such filing; or any other petition or any other proceedings of the foregoing or similar kind or character is filed or instituted or taken against the Developer, or a receiver of the business or of the property or assets

of the Developer, is appointed by any court, except a receiver appointed at the insistence or request of the City; or the Developer makes any assignment for the benefit of its creditors;

6.2 Opportunity to Cure. If an Event of Default occurs, the non-breaching Party shall give the breaching Party written notice of the Event of Default and an opportunity to cure of not less than thirty (30) days, and if the default is, of its nature, not curable within 30 days, then a reasonable period to effect a cure given the nature of the default.

6.3 Remedies. In the event that the breaching Party fails to cure an Event of Default within the cure period set forth in Section 6.2, then the non-breaching Party shall be entitled to pursue any and all legal or equitable remedies available to it under the circumstances.

ARTICLE VII REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties. Each Party represents and warrants to the other that:

7.1.1 it is duly qualified to do business and is in good standing in the State of Maine;

7.1.2 it has full power and authority to execute, deliver and perform its obligations under this Agreement;

7.1.3 the execution, delivery and performance of this Agreement has been duly and validly authorized by all necessary action by such Party; and

7.1.4 the execution and delivery of this Agreement by such Party and the performance of the terms, covenants and conditions contained herein will not violate the articles of incorporation or by-laws of such Party, or any order of a court or arbitrator, and will not conflict with and will not constitute a material breach of, or default under, the provisions of any material contract by which either Party is bound.

ARTICLE VIII FORCE MAJEURE

The timeframes and deadlines for performance of the obligations of the Parties shall be specified herein shall be extended during the period of any force majeure. For the purposes of this Agreement, “force majeure” shall mean and include all factors, circumstances, transactions, occurrences and other actions beyond the direct control of the Party, including without limiting the generality of the foregoing, labor disputes, civil disturbance, war, war-like operations, invasions, rebellion, hostilities, military or usurped power, sabotage, fires or other casualty, or acts of God that have the effect of rendering practically unavailable materials or labor or other resources necessary to perform the obligation or responsibility in a timely manner.

ARTICLE IX
MISCELLANEOUS

9.1 Right to Require Performance. The failure of either Party at any time to require performance by the other Party of any provisions hereof shall in no way affect the right of such Party thereafter to enforce same. Nor shall waiver by either Party of any breach of any provisions hereof be taken or held to be a waiver of any succeeding breach of such provisions or as a waiver of any provision itself.

9.2 City Agencies and Regulators. This Agreement is not intended to supersede the authority granted by law to any regulatory board or agency of the City. Such regulatory boards and agencies must perform their responsibilities in accordance with the law governing that performance. Therefore, nothing in this Agreement shall be construed or implied to require the City's planning, zoning, land use or other regulatory boards or agencies (however designated) to approve the plans for any aspect of the Project or other action required under this Agreement. Such boards and agencies are not obligated in any way by this Agreement

9.3 Relationship of Parties This Agreement shall not be interpreted or construed to independently create an association, joint venture, or partnership between the Parties or to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent of representative of, or to otherwise bind, the other Party.

9.4 Affiliates. The Developer may form or employ related Affiliates for purposes of participating in the Project. It is expressly recognized that the Developer contemplates use of one or more special purpose entities to develop the Adjacent Buildings.

9.5 Definition of Terms. It is agreed by the Parties hereto that reference in this Agreement to the City and the Developer, and all expressions referring thereto, shall mean the party, person, or persons named above as the City and the Developer, as the case may be, their successors and assigns, or any person, persons, or parties claiming by, through or under them.

9.6 Integration. This Agreement encompasses the entire Agreement of the Parties, and supersedes all previous understandings and agreements between the Parties, whether oral or written. The Parties hereby acknowledge and represent, by affixing their hands and seals hereto, that the Parties have not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this Agreement, made by or on behalf of any other Party or any other person or entity whatsoever, prior to the execution of this Agreement. The Parties hereby waive all rights and remedies, at law or in equity, arising or which may arise as the result of a Party's reliance on such representation, assertion, guarantee, warranty, collateral contract or other assurance, provided that nothing herein contained shall be construed as a restriction or limitation of the Party's right to remedies associated with the gross negligence, willful misconduct or fraud of

any person or party taking place prior to, or contemporaneously with, the execution of this Agreement.

9.7 No Oral Modifications. This Agreement may not be amended or terminated orally. This Agreement and all the covenants, terms and provisions contained herein shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns. Except for an affiliated single purpose entity organized by the Developer to construct and operate the Project, neither this Agreement nor any of the rights, interests or obligations under this Agreement may be assigned or delegated by any Party, without the prior written consent of the other Party. This Agreement is not intended to confer any rights or benefits to any entity other than to the City and to the Developer, its affiliate entity organized to construct and operate the Project, and its affiliates.

9.8 Mutual Cooperation and Further Agreements. The Parties acknowledge that the obligations set further herein may be further described in other agreements as agreed to by the Parties. The City and the Developer agree to cooperate in good faith with regard to each and every aspect required for the completion of all operations contemplated by this Agreement. The Parties further agree to negotiate in good faith and to enter such other and further agreements as may be necessary to implement any aspect of design, engineering, construction or facility operation contemplated under this Agreement.

9.9 Expenses. Each Party shall pay all charges and fees in connection with employment of its respective attorneys relating to the negotiation of this Agreement, the Option, and the Definitive Agreement.

9.10 Notice. All notices required to be given to the City or the Developer under this Agreement shall be in writing and deemed given upon the earlier of actual receipt by personal delivery or two (2) days after being mailed by U.S. priority, registered or certified mail, return receipt requested, or a reputable overnight courier as follows:

City	City of Biddeford c/o James A. Bennett, (or the then current) City Manager P.O. Box 586 205 Main Street Biddeford, Maine 04005
With a copy to	Keith R. Jacques, Esq. Woodman Edmands Danylik Austin Smith & Jacques, P.A. P.O. Box 468 234 Main Street Biddeford, Maine 04005
Developer	3 Lincoln LLC

c/o James H. Brady, manager
P.O. Box 7486
Portland, ME 04112-7486

With a copy to Christopher E. Howard
Pierce Atwood LLP
254 Commercial Street
Portland, Maine 04101

9.11 Governing Law. This Agreement is and shall constitute a contract under and is to be construed in accordance with the laws of the State of Maine. Any dispute resulting in legal action and not resolved by arbitration, mediation, or such other method as may be mutually agreed to by the Parties shall be adjudicated within the jurisdiction of the State of Maine.

9.12 Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Parties, who agree that the Agreement shall be reformed to replace such stricken provisions or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provisions.

9.13 Survival. All express representations, warranties, indemnifications or limitations of liability made in or given in this Agreement shall survive the expiration or the termination of this Agreement for any reason.

9.14 Mediation/Arbitration. The Parties hereto agree that prior to filing litigation they will consider alternative dispute resolution techniques such as mediation and arbitration to resolve all claims, counterclaims, disputes and other matters in question between the Parties arising out of this Agreement.

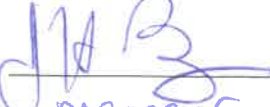
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IN WITNESS WHEREOF, the Parties hereto have set their hands and seals as of this
17 day of Nov, 2020.



Witness Jonathan Benoit

DEVELOPER:
3 Lincoln, LLC

By: 

Its: manager

CITY OF BIDDEFORD

Witness

By: _____
Name: James A. Bennett
Title: City Manager

City of Biddeford, Maine

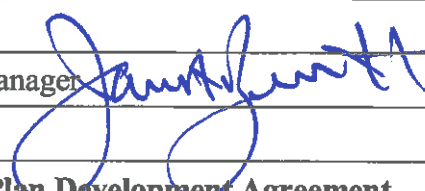


The Office of
City Manager

James A. Bennett

Email: jbennett@biddefordmaine.org

MEMORANDUM

TO:	BE Fidler LLC
FROM:	James A. Bennett, City Manager 
DATE:	December 19, 2019
RE:	Clarification to Master Plan Development Agreement

This memo issued to clarify .section 1.3.6 of the Master Plan Development agreement. That section contemplates that milestone dates within the agreement shall be extended if the parking garage was unable to meet its milestone. This section shall be broadly interpreted to include any delays that might occur that are a result of any infrastructure design, approval or construction required to serve the parking garage, including, but not limited to:

- Pearl Street Road Design and Construction;
- Pearl Street Utilities Design and Construction, including water and sewer improvements;
or
- Pearl Street Pedestrian and Landscape design and construction, including direct links to the Riverwalk.

Finally, nothing within the agreement, nor within this memo prohibits the parties to mutually extend any deadline contained within the agreement. Any extension shall be done in writing.