

City of Biddeford
Planning Board
September 07, 2022 6:00 PM City Hall & Zoom
Council Chambers,
<https://biddeford.zoom.us/j/95757971259?pwd=NnBaNmJyZDh1QnppRm05SnU2Zys0QT09>
Zoom ID #957 5797 1259 Passcode: 032781

STATUS: Planning Board Meeting 6:00 Wednesday, September 7, 2022, Council Chambers & Zoom

1. PLEDGE OF ALLEGIANCE

2. DECLARATION OF QUORUM/VOTING MEMBERS

3. ADJUSTMENTS TO THE AGENDA

4. PLANNER'S BUSINESS

5. CONSENT AGENDA

5.A. Approval of Meeting Minutes from August 3, 2022 & August 17, 2022.

[PB Minutes 080322-DRAFT.pdf](#)

[PB Minutes 081722-DRAFT.pdf](#)

6. UNFINISHED BUSINESS

7. NEW BUSINESS

7.A. 2022.33 Review and application to determine the Greatest Practical Extent for Dan & Kathy Hutchens to replace and expand a structure in the Coastal Residential, Shoreland Overlay Zone at 111 Mile Stretch Road (Tax Map 59, Lot 3-1).

[2022.33 Hutchens 111 Mile Stretch GPE FOF.pdf](#)

[2022.33 Hutchens 111 Mile Stretch GPE SR.pdf](#)

[Planning Board Letter for 111 Mile Stretch.pdf](#)

[Planning Board Application.pdf](#)

[111-113 Mile Stretch Survey Existing Conditions.pdf](#)

[111 Mile Stretch Wetlands Search.pdf](#)

[Hutchens - flood zone determination - 111 Mile Stretch \(corrected\).pdf](#)

[Site Photos.pdf](#)

[111 Mile Stretch Proposed Condition Survey.pdf](#)

[Planning Board Letter for 111 Mile Stretch 1.pdf](#)

7.B. 2022.34 Application to determine the Greatest Practical Extent for James & Story Leonard to remove and reconstruct a structure in the Coastal Residential, Shoreland Overlay Zone at 10 Lester B. Orcutt Boulevard (Tax Map 59, Lot 23).

[2022.34 Leonard 10 Lester B. Orcutt Rd GPE FOF.pdf](#)

[2022.34 Leonard 10 Lester B. Orcutt Rd GPE SR.pdf](#)

[Leonard- 10 LB Orcutt Blvd PB appl FINAL 8-16-2022.pdf](#)

[10 LB Orcutt Blvd proposed plan 8-15-2022.pdf](#)

[10 LB Orcutt Blvd existing cond survey 11-2-2021.pdf](#)

7.C. 2022.36 Review a Shoreland Zoning Application by Scott Strynar, Landscape Architect,

LLC for Richard Hogan dba Pool GhouL, LLC to build a permanent pier, stabilize the coastline and replace steps at 15 St. Martins Lane in the Coastal Residential, Shoreland Overlay Zone (Tax Map 57, Lot 5).

[2022.36. Hogal 15 St. Martin Lane Dock FOF.pdf](#)

[2022.36 Hogan 15 St. Martin Lane Dock SR.pdf](#)

[Pool GhouL PB Submission Binder 8-16-22.pdf](#)

[147-MEDEP Supplemental Binder 9-2-22.pdf](#)

[Pool GhouL PB Submission Site Plan 8-16-22.pdf](#)

[147-Base 9-7-22-PB-Site Plan.pdf](#)

[NRPA-App Pool GhouL 4-29-22.pdf](#)

- 7.D. 2021.08 Review of a Final Subdivision Application for E & R Development Corp to establish 19 Lot Cluster Subdivision (West Brook Subdivision) on an 8.31 acre lot off of Winding Creek Lane (Tax Map 8, Lots 3-1 and a portion of lot 3) in the R1-A Zone.

[2021.08 Winding Creek Lane FOF.pdf](#)

[2021.08 Winding Creek Lane Final SR.pdf](#)

[West Brook Final Subd App Packet SW and PlanSet 8-17-22.pdf](#)
[Deed.pdf](#)

[Clifford Park Land Swap visual.pdf](#)

[Final turtle fence summary 0191316 090622.pdf](#)

[Atlas 5-20-22.pdf](#)

[Beisiegel 5-13-22.pdf](#)

[Buerkens 5-25-22.pdf](#)

[Cassavant to Hamm 6-7-20.pdf](#)

[Clifford to City of Biddeford.pdf](#)

[Conservation Commission.pdf](#)

[Cote 5-23-22.pdf](#)

[Daly 5-20-22.pdf](#)

[Davies 9-1-22.pdf](#)

[Gastellum 5-23-22.pdf](#)

[Hamm 6-7-22.pdf](#)

[Johnstone 5-24-22.pdf](#)

[McCready 8-31-22.pdf](#)

[Pinard 5-20-22.pdf](#)

[Sicliano 8-30-22.pdf](#)

[Uribe 5-24-22.pdf](#)

[Letter from Conservation Commission.pdf](#)

[Conlon 9-4-22.pdf](#)

[Conlon 9-4-22.pdf](#)

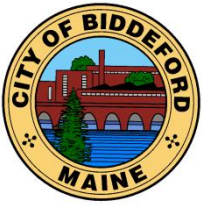
[Robinson 9-7-22.pdf](#)

[Seaver 9-7-22.pdf](#)

8. OTHER BUSINESS

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

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Planning Board Meeting Minutes **DRAFT**

Date: August 3, 2022
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Quorum Present: Bill Southwick (Chair), Roch Angers, Alexa Plotkin, Larry Patoine, & Susan Deschambault
Staff Present: Matt Grooms (City Planner), & Nan Whitten
Chair Southwick opened the meeting at 6:00 PM
3. Adjustments to the Agenda
4. Planner's Business
5. Consent Agenda
Approval of Meeting Minutes for July 6, 2022
MOTIONS: 6:03 PM
Angers-Motion-to Approve Meeting Minutes from July 6, 2022 with the condition of some errors be corrected
Patoine-Second
Chair Southwick-Roll Call for Vote-Motion Passed, 4-0 (Angers, Plotkin, Patoine & Deschambault)
6. Unfinished Business
7. New Business
7.A. 2022.17 Review of Sketch Plan & Preliminary Approval for Peter & Susan McPheeters at 81 Guinea Road (Tax Map 76, Lot 37 & Tax Map 77, Lot 35) in the SR-1 & RF zones. The McPheeters would like to subdivide their 20-acre parcel into 4 residential house lots.
 - Grooms introduced the item noting that this would only be a Sketch Plan this evening. The applicant will need to return for preliminary approval. Grooms explained that this is 2 acres of vacant land; the proposal is to create a private road and add utilities. There are no building envelopes shown at this time.
 - The applicant will need several permits such as from Army Corp of Engineers and DEP. Applicant will also need to add fill, however the staff sees nothing major to note.

- The engineers have suggested 3 waivers: Road Slope, Grading & Language in the Performance Guarantee to be amended.
- Staff recommends this be treated as a major subdivision.
- Paul Gadbois represented the applicant.
- Gadbois would like to avoid the waiver on the slope of the road; he doesn't feel it is necessary. The ordinance says a maximum of 8% slope with the exception of times when the slope can go to 14%. The slope is at 9% so he feels it is well within the acceptable ratio according to the City of Biddeford ordinance. He is also planning to bring in a Geo Technical firm to assist with designing the build of the road.
- Gadbois told the Board that some neighbors were concerned about some of the trees. The applicant reached out to such neighbors and addressed their concerns.
- Gadbois talked about the culverts both existing and needed, he feels he will have that worked out before they appear before the Board again for preliminary approval.

Comments from the public:

- Matt Hass-36 Meetinghouse Road. He is very concerned about the preservation of Moors Brook and the surrounding vegetation.
- Grooms mentioned that the staff would like to be on the same page with the applicant and will look into the waivers suggested.
- Grooms spoke on the concerns about Moors Brook he acknowledged that there are environment constraints, a process to consider and the resulting impacts on the environment. This would be a project referred to the Conservation Commission for review and report back to the Planning Board of their recommendations.
- Grooms ended by saying this project does meet zoning criteria.

Chair Southwick opened the item to the Board for questions

- Members of the Board asked about the possibility of the street becoming a City street. Mr. Gadbois answered that there is no plan for this street to go from private to public. There are no plans to pave this private road.

MOTIONS: 6:29 PM

Angers-Motion-To request the Conservation Commission do a study on this proposed subdivision and provide the Planning Board with a report advising the Planning Board on their findings and recommendations.

Plotkin-Second

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

Angers-Motion- to classify the 4-lot subdivision at 81/97 Guinea Road (Tax Map 76/Lot 37 and Map 77/Lot35) a Major Subdivision.

Patoine-Second

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

7.B. 2022.26 Review of a Conditional Use Permit for Edwin J. Larrivee, Jr. at 597 Elm Street (Tax Map 15, Lot 8-1) in the I-1 zone. Mr. Larrivee would like use the upstairs of the structure for cannabis, cannabis infused food & candy for wholesale & retail

- Grooms introduced the project telling the Board that it is a medical marijuana facility (retail & manufacturing) in an existing building. The second floor of this building has been rehabbed for this business. The applicants did provide the necessary information on odor mitigation and a business plan. The staff has no concerns with the application.
- The applicant has requested a Full Site Plan Review waiver.
- Staff wants to ensure no parking is displaced due to the opening of this business.
- Edwin J. Larrivee the owner of the property introduced himself at the meeting. He will be running his countertop business out of the first floor.
- Jeremie Remian owner of the business told the Board the reason for the application is that the building of his original location (412 Hill Street) was sold. He will not have a grow operation at this facility, just medical retail and manufacturing cannabis infused candy and baked goods in the kitchen. They will be selling items that are brought in from other manufacturers (third party).
- Items coming in will be prepackaged.
- The name of the business will be GCF (Ganja Candy Factory)
- There were no public comments.
- The Board was concerned about parking issues. Mr. Larrivee assured the Board that he has ample parking for both businesses and the employees.
- A member of the Board asked about security. Mr. Remian said that the interior and exterior have full security systems including cameras.

MOTIONS: 6:46 PM

Angers-Motion-to Waive Article XI, Section II – Full Site Plan Review

Patoine-Second

Chair Southwick-roll call for vote-Motion Passed 4-0 (Angers, Plotkin, Patoine & Deschambault)

Angers-Motion- to approve the Conditional Use Permit for Ganja Candy Factory and Glass Emporium, LLC for a Medical Marijuana Caregiver store and Marijuana Product Manufacturing Facility at 597 Elm Street, 2nd Floor (Tax Map 15/Lot 8-1) and approve the Findings of Fact based on the conditions recommended by Staff in its Report dated July 28, 2022.

Patoine-Second

Chair Southwick-roll call for vote-Motion Passed 4-0 (Angers, Plotkin, Patoine & Deschambault)

7.C. 2022.30 Review of a Conceptual Plan for Shawn Brown to create a 5 lot subdivision in the Residential 2 Zone at 355 Pool Street (Tax Map 44, Lot 21).

- Grooms introduced this project stating that this subdivision is based on 5 lots. There is no road or utility just a division of land. Two lots are considered spaghetti lots that do not meet requirements.
- There is a property dispute with this property with an abutter.

- Bill Thompson from BH2M represented the applicant (filled in for Walter Pelkey)
- Thompson stressed that this is an amended subdivision. The Planning Board approved this subdivision several years ago.
- The property is 8.2 acres served by public water
- The Spaghetti Lot does not pertain in this case due to a provision in the Saco River Corridor Act.
- The property dispute will be settled prior to the applicant returning for preliminary approval.

Public Comments:

- Andrew Tarte-direct abutter to the property. He requested changes to some of the notes on the plan as well as a Shoreland overlay. He said the easements are correct with the exception of footpath easement to the river being omitted. According to Biddeford zoning, there should be a 100' setback from the water and the applicant only showed the 75' setback, which is a Saco River Corridor Commission regulation. He feels the applicant is showing an inaccurate plan and the easements are in the deeds.
- Scott Joslin-neighbor to the property. He also felt changes need to be made to the plan by showing the edge of high water and the 100' setback. He suggested the Board suspend this project until the litigation has been resolved.
- Sandra Guay-attorney for the applicant. The easements are being litigated; this is an amendment to a previously approved subdivision. One of the easements being discussed is a sewer easement to the hospital, which no longer exists. There is a question of how the easements were added to the deeds after the plan was approved. She also noted that the general easement for Mr. Tarte to get to his mooring stays indefinitely but because it has no description it cannot be located on the face of the earth therefore not on the plan. Mr. Brown will determine where this general easement will be for Mr. Tarte.

Chair Southwick ended the public comment section of the meeting.

- Plotkin asked Grooms the rules on litigation.
- Grooms answered that it is up to the Board whether they want to table this item or proceed. Tabling is not necessary in the sketch plan phase. This can be declared a major subdivision.
- Plans will have all of the overlays and setbacks; this is for sketch plan only.
- Deschambault reminded the Board and the audience that the Saco River Corridor Commission has authority over that area of land and the applicant must comply with the standards of the City of Biddeford and the Saco River Corridor Commission.

MOTIONS: 7:16 PM

Angers-Motion- to designate the application for a 5-lot subdivision at 355 Pool Street (Tax Map 44/Lot 21) as a Major Subdivision.

Plotkin-Second

Chair Southwick-roll call for vote-Motion passed 4-0 (Angers, Plotkin, Patoine & Deschambault)

8. Other Business

- Chair Southwick told the Board the next meeting will have a portion focused on the comp plan and the next steps needed to move forward.

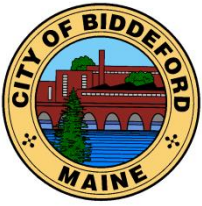
9. Adjourn

Meeting adjourned at 7:18 PM

Planning Board Chair/Vice Chair

Date

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



CITY OF BIDDEFORD

Planning and Development Department

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Planning Board Meeting Minutes **DRAFT**

Date: August 17, 2022
Time: 6:00 PM
Location: Council Chambers & Zoom

1. Pledge of Allegiance
2. Declaration of Quorum/Voting Members
Quorum Present: Bill Southwick (Chair), Roch Angers, Shawn Tarpey, Alexa Plotkin, Michael Cantara, Larry Patoine, & Susan Deschambault
Staff Present: Matt Grooms (City Planner), Greg Mitchell (Director of Planning & Economic Development) & Nan Whitten
Chair Southwick opened the meeting at 6:01 PM
3. Adjustments to the Agenda
4. Planner's Business
 - Matt Grooms gave an update on the schedule for the Comp Plan.
 - Mr. Grooms commented that the schedule is ambitious and this is a top priority for Planning & the Board
 - Unfortunately, the Comp Plan has been derailed by COVID and then staffing changes but things are settling down now.
 - He shared a Plan Gantt Chart
 - Two tasks to focus on are cleaning up the data & the chapters
 - Grooms feels the heaviest lifts of the process are done.
 - There will be a working draft to be sent to Council in a couple of months
 - December is the goal date for the Public Hearing to send the final plan onto Council.
 - There will be a Workshop for the Comp Plan on Wednesday, September 21, 2022
5. Consent Agenda
6. Unfinished Business
7. New Business
2022.32 Public Hearing regarding the following proposed zoning amendment:
Amendment to Article V, Table B, Footnote B (Dimensional Requirements) to implement changes to the City's density bonus regulation, to clarify applicability of the regulation, affordability requirements and enforcement protocols.
 - Matt Grooms introduced and explained the proposal
 - The purpose of the proposed change is to make the policy cleaner, easier and more user friendly

- The 10-year Time Frame is a suggested time, which can be discussed.
Public Comments:
Patricia Boston-asked for clarification on the documents
Guy Gagnon-Director of the Biddeford Housing Authority
Does not want a timeframe or the timeframe extended
Mr. Gagnon suggests the City use the FMR published by the Biddeford Housing Authority. The 80% is based on a formula, which HUD lags behind in publicizing.
 - Public Hearing Closed, back to Board
 - The Board members discussed leaving the time with no end, leaving the 10 years, going 20 years or structure the item to the time is tiered until it is gone.
 - They discussed the economic benefit to the homeowners and that it is 99 years with Maine Housing.
- MOTIONS: 6:44 PM**
Cantara-Motion-Motion to recommend the zoning text amendment to Article V, Table B, Footnote B.1 as drafted with the condition of using 80% of the published Biddeford Housing Authority rate and a 20-year agreement with the City of Biddeford when sent to the City Council for approval.
Angers-Second
Chair Southwick-roll call for vote-Motion Passed 4-0 (Angers, Tarpey, Plotkin, & Cantara)

7.B. 2022.24 Public Hearing for a proposed Contract Zone for Devine Capital, LLC at 558 & 590 Alfred Street (Tax Map 2, Lots 6 & 12) to construct up to 216 residential units in 9 multi-family residential buildings, with up to 24 dwelling units per building, the units will range from studios to 1, 2 & 3 bedroom units.

- Mr. Grooms introduced the project and told the Board that at this time, the applicant is not requesting a Contract Zone. This item is for Sketch Plan Review only.
- The applicant will appear before the Board for a Contract Zone later. A Contract Zone is necessary for this project, as it is not allowed in the B2 zone.
- The applicant is aware that additional permits are required such as MDOT, Traffic Movement, DEP, Stormwater & SLODA.
- The Board's only decision is to determine whether this is a minor or major subdivision.
- Representing the applicants:
Bill Fletcher, Fletcher, Selser & Devine
Rick Meek, Terradyne Engineering
John Devine, Devine Capital, LLC
Ben Devine, Devine Capital, LLC
- Mr. Fletcher made a presentation showing other projects the Devines have completed much like the proposal in Biddeford.
- He showed the project in Scarborough, which is a mixture of 1, 2 & 3 bedroom units located off the Haigis Parkway.
- Mr. Fletcher told the Board that the team made a presentation the Biddeford City Council in January.

- These will be market rate units.
- The applicants are giving \$500,000.00 to the City for affordable housing.
- The Council stipulated that they would like to see a Family Area, Playground, Day Care and a Conservation Easement.
- Ben Devine gave the Board a breakdown of the proposed housing mix of 27 studio apartments, 18-1 bedroom apartments, 36-1 bedroom apartments with a den that can be used as a second bedroom, 108-2 bedroom apartments and 27-3 bedroom apartments.
- Mr. Devine told the Board they would like to have the Contract Zone approved in September with the other permits coming along and begin construction in the spring.
- **Public Comments:**
 Jim Boyle-abutter on Andrews Road, after seeing the proposal, he is excited for the development
 Guy Gagnon-Biddeford Housing Authority, he supports this development but he would like the applicants to build one more unit with 24 units at an affordable housing rate. He doesn't feel the \$500,000.00 will go very far to help with the affordable housing issue.
- Chair closed Public Comment Session
- The Board asked what the current rates are being charged in the applicant's other developments. Mr. Fletcher did not know but will provide that information at a later date.
- The Board asked about affordable housing, space for school transportation and a bus stop.
- The Board would like sidewalks throughout the project and bike lanes on Route 111.
- Mr. Devine told the Board that there would be public trails; the project is on public water and sewer. They have been working with the Maine Turnpike Authority and the City and have very good relationships with both.
- He told the Board that they are not affordable housing developers and the money they give the state for affordable housing is to be leveraged and matched by the state.
- Mr. Devine told the Board that all of the garages at the Scarborough project are 100% rented at \$100 per month. The garages are for cars but are sure some people use them for storage.
- The Board discussed various ways of having the tenants cross Route 111 for shopping an underground tunnel and a footbridge over 111 were both suggested.

MOTIONS: 7:37 PM

Angers-Motion- to designate the application for a 216-unit multifamily residential subdivision at 588 and 590 Alfred Street (Tax Map 2, Lots 6 & 12) as a Major Subdivision.

Cantara-Second

Chair Southwick-roll call for vote-Motion Passed 4-0 (Angers, Tarpey, Plotkin, & Cantara)

7.C. 2022.23 Review of a Shoreland Zoning Application for Nicola Shannon at 29 Twin Island Drive (Tax Map 47, Lot 34-1) in the Suburban Residential 1 Zone with Limited Residential Overlay. The proposed project is to construct a recreational dock consisting of a landing, steps, a 6' X 16' pier, a 3' X 40' ramp, and a 12' X 24' float.

- Mr. Grooms introduced the project; he told the Board that because this is to be a permanent dock it must have Planning Board approval.
- This project must complete 11 performance standards.
- Tim Forrester of Atlantic Environmental represented the applicant.
- Mr. Forrester told the Board about changes made to the plan in order to accommodate the Harbor Master's comments. The applicant has made some changes such as the angle of the docks.
- Public Comments:
Ray Lemay-the abutter to the North, he has seen 3 different sets of plans but nothing from the Army Corp of Engineers or the DEP. He is very concerned about the channel being blocked.
- Public Comment Session Closed
- The Board asked about the specifics of the docks and float and measurements. They also asked about approvals from the Saco River Corridor Commission, which Mr. Forrester said was not necessary per the Commission.
- It was determined that the float is 12' X 12' and the dock is less than 6' wide.

MOTIONS: 7:57 PM

Cantara-Motion-to waiver full site plan review

Plotkin-Second

Chair Southwick-roll call for a vote-Motion passed 4-0 (Angers, Tarpey, Plotkin & Cantara)

Cantara-Motion-to approve the Shoreland Zoning Permit for Nicola Shannon at 29 Twin Island Drive and approve the Findings of Fact and Conclusions of Law dated August 10, 2022, with the condition that any permits required from the DEP, Saco River Corridor Commission, or Army Corp of Engineers are presented to the Planner and found to be acceptable to him.

Angers-Second

Chair Southwick-roll call for vote-Motion passed 3-1 (Angers, Plotkin & Cantara for, Tarpey against).

8. Other Business

- Mr. Grooms announced that the next meeting would be September 7 and due to the number of submissions, there will be an interim Planning Board Meeting on September 14 to finish all projects and September 21 will be a Comp Plan Workshop.
- There is a seminar on Planning Boards on August 24 by the MMA, let the Chair know if you would like to attend.
- A new Assistant Planner has been hired who will start August 22, 2022.

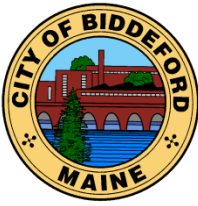
9. Adjourn

Meeting adjourned at 8:02 PM

Planning Board Chair/Vice Chair

Date

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CITY OF BIDDEFORD

Planning and Development Department

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FINDINGS OF FACT AND CONCLUSIONS OF LAW

Determination of the Required Setback to the Greatest Practical Extent

Pursuant to the provisions of the City of Biddeford Land Development Regulations, Article XIV, Shoreland Zoning, the Biddeford Planning Board has considered the application of Dan Hutchens and Kathy Hutchens, including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

1. FINDINGS OF FACT

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant / Property Owner	Dan and Kathy Hutchens 113 Mile Stretch Road Biddeford, ME 04005
2.	Engineer/Surveyor	David Hughes/Livingston Hughes 88 Guinea Road Kennebunkport, ME 04046
3.	Project Location	111 Mile Stretch Road
4.	Map/Lot	Map 59, Lot 3-1
5.	City Approvals Required	Greatest Practical Extent (GPE) determination
6.	Existing Zoning	Coastal Residential (CR)
7.	Overlay Zoning	Resource Protection
8.	Existing Use	Single-family residential
9.	Proposed Use	Single-family residential
10.	Uses in the Vicinity	Single-family residential
11.	Parcel Size	1.84 acres
12.	Water Supply	Public water
13.	Sewerage Disposal	Private sewer
14.	Solid Waste Disposal	Public trash
15.	Fire Protection	City of Biddeford
16.	Ownership of Road	Public road
17.	Waivers Needed/Requested	Full Site Plan Review
18.	Waivers Granted	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	September 7, 2022

2. CONCLUSIONS OF LAW

The Planning Board has determined that based on the following factors, as outlined in Article XIV (Shoreland Zoning), Section 12.C.2. (Land Use Standards) of the Land Development Regulations, the plan for Dan Hutchens and Kathy Hutchens, Nowak approved by the Planning Board on September 7, 2022 and signed by the City Planner demonstrates the limits of the Greatest Practical Extent setback from the resource:

- a. The size of the lot limits the ability to locate further from the resource;
- b. The slope of the land limits the ability to locate further from the resource;
- c. The potential for soil erosion limits the ability to locate further from the resource;
- d. The location of other structures on the property and on adjacent properties limits the ability to locate further from the resource;
- e. The location of the septic system and other on-site soils suitable for septic systems limits the ability to locate further from the resource; and
- f. The type and amount of vegetation to be removed to accomplish the relocation limits the ability to locate further from the resource.

4. DETERMINATION

Based on the evidence available and the conclusions above, the Biddeford Planning Board grants the determination of the Greatest Practical Extent for the proposed project summarized above, located at 111 Mile Stretch Road (Tax Map 59, Lot 3-1), in accordance with the submitted application, supporting data, representations made, other related materials on file, and the following Conditions of Approval:

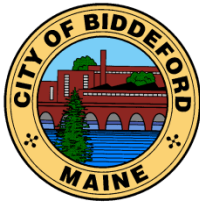
Conditions of Approval:

- 1. The new building shall be no closer than 25 feet from the Highest Annual Tide (HAT) line of Biddeford Pool, as denoted on the approved plan.**
- 2. Trees removed in order to relocate a structure must be replanted with at least one native tree, three feet in height, for every tree removed. If more than five trees are planted, no one species of tree shall make up more than 50% of the number of trees planted. Replaced trees must be planted no further from the water or wetland than the trees that were removed. Other woody and herbaceous vegetation and ground cover that are removed or destroyed in order to relocate a structure must be reestablished. An area at least the same size as the area where vegetation and/or ground cover was disturbed, damaged, or removed must be reestablished within the setback area. The vegetation and/or ground cover must consist of similar native vegetation and/or ground cover that was disturbed, destroyed or removed.**
- 3. Where feasible, when a structure is relocated on a parcel, the original location of the structure shall be replanted with vegetation which may consist of grasses, shrubs, trees, or a combination thereof.**
- 4. Obtain required permits from Maine DEP and the Biddeford Code Enforcement.**
- 5. This determination of Greatest Practical Extent shall expire one year from the date of approval if a substantial start is not made in construction. If a substantial start is made within one year of the issuance of the determination, the applicant shall have one additional year to complete the project, at which time any building permits shall expire.**

Planning Board Chairman

Date

DRAFT



CITY OF BIDDEFORD

Planning and Development Department

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PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Matthew Grooms, Deputy Director/City Planner

DATE: September 1, 2022

RE: 2022.33 Determination of the Greatest Practical Extent for the demolition and replacement of an existing nonconforming structure in the Resource Protection Shoreland Overlay zone at 111 Mile Stretch Road (Tax Map 59, Lot 3-1).

MEETING DATE: Wednesday, September 7, 2022 at 6:00 pm

1. INTRODUCTION

The project site is located within the Resource Protection overlay (RP) of the Shoreland Zone and the Coastal Residential (CR) base zone. The site is bordered by Biddeford Pool to the Northwest, and is located between the intersections of Mile Stretch Road with Gilbert Place and Elphis Road. For the case of this Shoreland Zoning Greatest Practical Extent determination, Biddeford Pool is the protected resource. The existing structure is located a minimum of 25 feet from the Highest Annual Tide (HAT) of Biddeford Pool.

The plan calls for the demolition of the existing building, and construction of a new building not to exceed 30% of the existing building's floor area, or the height of the existing building at the roof beam. In addition to meeting the required setbacks of the shoreland zone and Coastal Residential zone, the building is also required to be located outside of an existing access easement, which runs along the east side of the property. The western half of the property falls within two separate flood zones, the A2 and the X500. Given these site encumbrances, the proposal calls the new building to be built generally in the same location as the existing building. At this time, no building plans are available, and the exact design and placement of the building would need to be confirmed by the City's Code Enforcement Officer prior to any building permits being issued.

2. PROJECT INFORMATION

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant / Property Owner	Dan and Kathy Hutchens 113 Mile Stretch Road Biddeford, ME 04005
2.	Engineer/Surveyor	David Hughes/Livingston Hughes

		88 Guinea Road Kennebunkport, ME 04046
3.	Project Location	111 Mile Stretch Road
4.	Map/Lot	Map 59, Lot 3-1
5.	City Approvals Required	Greatest Practical Extent (GPE) determination
6.	Existing Zoning	Coastal Residential (CR)
7.	Overlay Zoning	Resource Protection
8.	Existing Use	Single-family residential
9.	Proposed Use	Single-family residential
10.	Uses in the Vicinity	Single-family residential
11.	Parcel Size	1.84 acres
12.	Water Supply	Public water
13.	Sewerage Disposal	Private sewer
14.	Solid Waste Disposal	Public trash
15.	Fire Protection	City of Biddeford
16.	Ownership of Road	Public road
17.	Waivers Needed/Requested	Full Site Plan Review
18.	Waivers Granted	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	September 7, 2022

3. COMPLIANCE WITH CITY ORDINANCES

The existing home is a legally existing nonconforming structure due to the following factors:

1. **Street frontage**

- a. Required: 150'
- b. Existing: 30'

2. **Setback from Highest Annual Tide (HAT) of Biddeford Pool**

- a. Required: 250'
- b. Existing: 25'

As such, the structure is subject to the provisions set in the Biddeford Shoreland Zoning Ordinance, *Article XIV, Section 12.C.1 Expansions and 12.C.2 Foundations.*

12.C.1.a - *Expansion of any portion of a structure within 25 feet of the normal high-water line of a water body, tributary stream, or upland edge of a wetland is prohibited, even if the expansion will not increase nonconformity with the water body, tributary stream or wetland setback requirement.*

Satisfied. No portion of the new building will be sited within 25 feet of the normal high-water line of Biddeford Pool.

12.C.1.c.i - *For structures located less than 75 feet but greater than 25 feet from the normal high-water line of a water body, tributary stream, or the upland edge of a wetland the maximum height of any structure may not be made greater than 20 feet or the height of the existing structure, whichever is greater.*

Satisfied. The height of the structure will not exceed the height from grade of the existing building at the roof beam.

12.C.1.c.ii - *In addition to the limitations in Subparagraph i, for structures that are legally nonconforming due to their location within the Resource Protection District, the maximum combined total footprint for all structures may not be expanded to a size greater than 1,500 square feet or 30% larger than the footprint that existed at the time the Resource Protection District was established on the lot, whichever is greater.*

Satisfied. The building to replace the existing structure will be an entirely new design with attached garage, likely to be oriented at a 90-degree angle to the existing structure, to better comply with setback requirements, avoid areas of the property within identified flood zones, and avoid the access easement to the property. The footprint of the new building will likely be 30% greater than the current structure. While no final building plans are available to present at this time, the City's Code Enforcement Officer will confirm that the new building satisfies the expansion requirement as part of their review of the building permit.

12.C.2 - Foundations. *Whenever a new, enlarged, or replacement foundation is constructed under a nonconforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in Section 12C3 (Relocation) below.*

Satisfied. While plans for the new building are not available, the applicant is proposing that no portion of the new building be sited closer than 25 feet from the high-water line of Biddeford Pool.

12.C.3 - *In determining whether the building relocation meets the setback to the greatest practical extent, the Planning Board shall consider the size of the lot, the slope of the land, the potential for soil erosion, the location of other structures on the property and on adjacent properties, the location of the septic system and other on-site soils suitable for septic systems, and the type and amount of vegetation to be removed to accomplish the relocation.*

The applicant is proposing to maintain the same location for the structure. The Greatest Practical Extent review is triggered based upon the value of the proposed improvements, as replacement of the existing building will involve more than 50% of the assessed value of the structure. While the property totals 1.84 acres, it is in fact fairly constrained, based upon the location of the HAT line, the geometry of the lot, and a requirement that buildings be setback a minimum of 10' feet from an existing access easement which runs along the easterly property boundary of Parcel 1. This, in effect limits the buildable envelope area to precisely where the current building is located, with some minimal area to maneuver either north or south. In order to maintain side yard setback requirements, the proposed building is being sited where the current structure is located. The site is flat, with minimal vegetation, and it is expected that rebuilding in the same general location as the current structure will minimize adverse impacts.

4. WAIVER REQUESTS

Full Site Plan Review

5. OUTSTANDING ITEMS TO BE ADDRESSED PRIOR TO APPROVAL

The final plan should include the following revision:

- a. Add plan note that reads: *Purpose of this Plan: This plan depicts the expansion and reconstruction of a non-conforming structure to meet the shoreland setback requirement to the greatest practical extent, pursuant to Article XIV Shoreland Zoning Ordinance, Section 12.C.2 of the City of Biddeford's Land Development Regulations. The new building shall be no closer than 25 feet from the Highest Annual Tide (HAT) of Biddeford Pool.*
- b. Add signature block: Matthew Grooms, City Planner, duly authorized to sign on behalf of the Biddeford Planning Board.

6. STAFF RECOMMENDATIONS

If the Board approves the project, Staff recommends doing so with the following Conditions of Approval attached:

1. **The new building shall be no closer than 25 feet from the Highest Annual Tide (HAT) line of Biddeford Pool, as denoted on the approved plan.**
2. **Trees removed in order to relocate a structure must be replanted with at least one native tree, three feet in height, for every tree removed. If more than five trees are planted, no one species of tree shall make up more than 50% of the number of trees planted. Replaced trees must be planted no further from the water or wetland than the trees that were removed. Other woody and herbaceous vegetation and ground cover that are removed or destroyed in order to relocate a structure must be reestablished. An area at least the same size as the area where vegetation and/or ground cover was disturbed, damaged, or removed must be reestablished within the setback area. The vegetation and/or ground cover must consist of similar native vegetation and/or ground cover that was disturbed, destroyed or removed.**
3. **Where feasible, when a structure is relocated on a parcel, the original location of the structure shall be replanted with vegetation which may consist of grasses, shrubs, trees, or a combination thereof.**
4. **Obtain required permits from Maine DEP and the Biddeford Code Enforcement.**
5. **This determination of Greatest Practical Extent shall expire one year from the date of approval if a substantial start is not made in construction. If a substantial start is made within one year of the issuance of the determination, the applicant shall have one additional year to complete the project, at which time any building permits shall expire.**

August 3, 2022

To the Planning Board
City of Biddeford, Maine

On behalf of ourselves, Dan and Kathy Hutchens, owners of 111 Mile Stretch Road, I am requesting Planning Board approval of a Greatest Practical Extent (GPE) setback, demolition of an existing structure (single family home) and rebuild/expansion as per GPE. Once approved, we will continue to work with Code Enforcement to rebuild/expand within the approved buildable area as per Code.

Project Overview:

We have lived year-round at 113 Mile Stretch Road for the past 7 years and purchased 111 Mile Stretch Road in 2019 with the existing building on it. Over the past year we have been in discussions with the Code Enforcement office regarding this proposal to prepare for a review by the Planning Board and demo/rebuild/expand as per GPE. The existing house on the 111 property is sited between the 25 and 75 foot offsets from the HAT line. The house is also bound on the other side by a Utility ROW which requires a 10 foot building set back. Due to the very tight building envelope, the present existing house location is the only logical location for the rebuild/expansion.

The primary goals of the project are:

- Remove the existing structure and re-build per Planning Board approved GPE as allowed by Code.

Some general points on our GPE proposal:

- The lot is in the Resource Protection zone which allows rebuilding and expansion, with Planning Board approval of GPE, and as per Code
- Dave Hughes, PLS has documented the existing conditions.
- Wetlands were delineated by Longview Partners
- Current house is serviced by public sewer, public water and electricity which are in place and would not need to be relocated if the new house remains in its existing location.
- The existing concrete foundation would be able to be reused if the house remains in its original location.
- There would be minimal disturbance to the site if the house remains in its original location.
- Once GPE is approved, we will work with the Code Enforcement Office on the rebuild/expansion, and that will comply with Codes and specifically allowable lot coverage and expansion for the building.
- **Enclosed and attached you will find the following:**
- Planning Board Application Form
- Flood Zone determination
- Wetlands search
- Photos of site
- Survey
 - o Existing conditions

If you have any questions or need any further information, please call me at 207-459-4289

Thank you,

Dan Hutchens
Dan Hutchens

*Response to Shoreland Zone Code
Section 12.3.C paragraph 2*

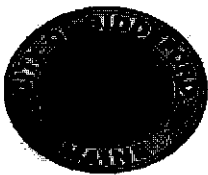
(Hutchens, 111 Mile Stretch Rd project)

Extracted from: <https://ecode360.com/15175405?highlight=shoreland&searchId=11433102739674595>

(numbers added for clarity)

*In determining whether the building relocation meets the setback to the greatest practical extent, the Planning Board shall consider **(1)** the size of the lot **(2)** the slope of the land **(3)** the potential for soil erosion **(4)** the location of other structures on the property and on adjacent properties, **(5)** the location of the septic system and other on-site soils suitable for septic systems, and **(6)** the type and amount of vegetation to be removed to accomplish the relocation. **(7)** When it is necessary to remove vegetation within the water or wetland setback area in order to relocate a structure, the Planning Board shall require replanting of native vegetation to compensate for the destroyed vegetation in accordance with Section 15S. In addition, the area from which the relocated structure was removed must be replanted with vegetation.*

1. **Size of the Lot.**
 - a. The lot is 1.84 acres, bounded on the East by a single-family home (113 Mile Stretch Road), the South is bounded by a single family home (the Old Hatties Restaurant), the West is bounded by Biddeford Pool and the North is bounded by a single-family home (1 Yates Street). The wetlands were located and flagged by Jim Logan CSS/LSE, then recorded by Dave Hughes, PLS on the Existing Conditions Survey
2. **Slope of the land**
 - a. The land is relatively flat; minimal elevation change across the property & proposed building area
 - b. Aside from minor grading at the foundation as is customary, there is no plan to change the overall slope of the land
3. **Potential for soil erosion**
 - a. During demo/reconstruction, erosion control will be used consistent with Code and best practices
4. **Location of other structures on the property**
 - a. There are no other structures on the property
5. **Location of the septic system and other on-site soils suitable for septic systems**
 - a. There is public sewer, public water and electricity currently in place at the current house location
6. **The type and amount of vegetation to be removed to accomplish the relocation**
 - a. Any vegetation removed that is subject to Code will be replanted/replaced as per Code
7. **When it is necessary to remove vegetation within the water or wetland setback area in order to relocate a structure, the Planning Board shall require replanting of native vegetation to compensate for the destroyed vegetation in accordance with Section 15S. In addition, the area from which the relocated structure was removed must be replanted with vegetation.**
 - a. It is not necessary to remove native or established vegetation within the wetland setback area
 - b. We will comply with all applicable Code requirements, relative to vegetation removal/replacement/replanting for anything impacted during a demo/rebuild

**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: Dan & Kathy HutchensMailing Address: 113 Mile Stretch Road, Biddeford ME 04005Telephone: 207-459-4289 (Dan) / 207-459-4293 (Kathy)Email: danh.mtdplastics@gmail.com / kathyhutch27@gmail.com

What is your legal interest in the property?

☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement**Owner's Information:**Name: 111 Sunset View, LLCMailing Address: 113 Mile Stretch Road, Biddeford ME 04005Telephone: 207-459-4289Email: danh.mtdplastics@gmail.com**Agent's Information:**Name: NA

Mailing Address: _____

Telephone: _____

Email: _____

Engineer/Surveyor's Information:Name: David Hughes / Livingston Hughes SurveyorsMailing Address: 88 Guinea Rd, Kennebunkport, ME 04046Telephone: 207-967-9761Email: emily@livingstonhughes.com**Project Location and Lot Information:**Street Address: 111 Mile Stretch Road Drainage Watershed: Biddeford PoolTax Map: 59Lot: 3-1Current Zoning: RPShoreland Zoning: RPSize of Lot: 1.84 (X) acres () s.f. Lot Frontage: 36 feetExisting Use of Property: single family home**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 see Wetlands SearchIs the project within the 100-year floodplain? ☐ (Yes) ☒ (No) if yes attach information see Flood Zone DeterminationDo you plan to bring fill onto the lot? ☐ (Yes) ☒ (No) if yes attach information only for backfill of slab, foundation

Description of proposed use of property:

Project/Proposed Use:

Single family house

Property to be Serviced by:

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

Limits of Disturbance: < 3000 () acres (X)s.f.

Net change in impervious cover: 350 () acres (X)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%): 17.8% after expansion

Percent of structure expansion (Max 30%): 30%

If Subdivision Review, number of lots proposed: NA

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

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

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

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

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

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

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

C. Photographs of Site.

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

E. Engineering Plans, as required.

F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

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

Required Signatures:

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

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

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

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

111 Sunset View, LLC

Signature of Applicant: *Ban Hitch*, member Date *8/3/2022*

Signature of Property Owner: *Ban Hitch* Date *8/3/2022*

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:

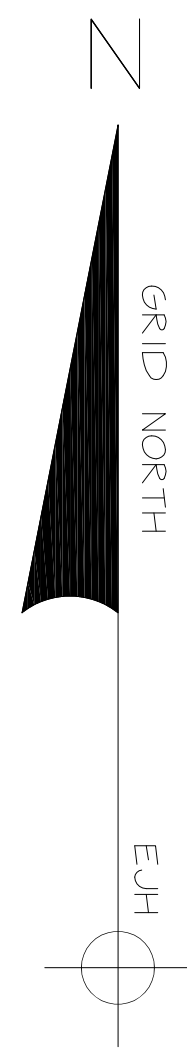
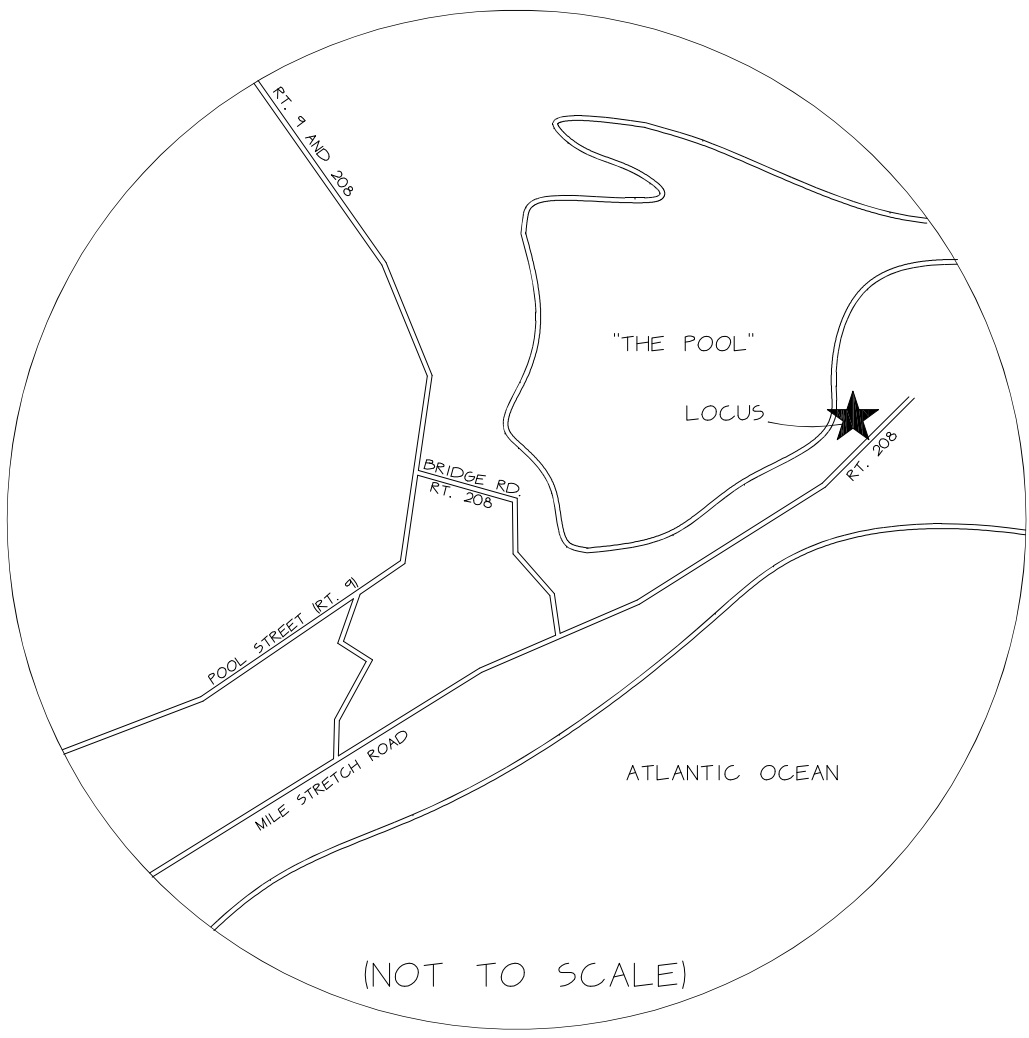
- A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)
 - Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVIDUAL DRAWING NAME.pdf'
- B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.
- C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & 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

LOCATION SKETCH



PRELIMINARY LAND SWAP CALCULATIONS:		
PARCEL 1:	824.0 SQ. FT.	
PARCEL 2:	187.0 SQ.FT.	PARCEL 3: 1011.0 SQ.FT.
TOTAL:		1011.0 SQ.FT.

LOCUS DEED REFERENCE

YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18058 PAGE: 324

PLAN REFERENCES

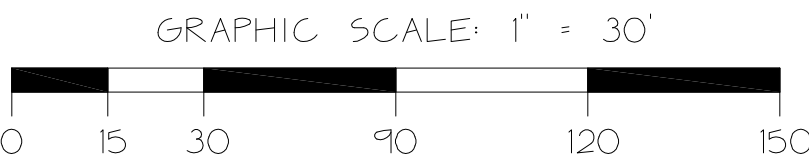
PLAN SHOWING LAND AT 113 MILE STRETCH ROAD,
BIDDEFORD, MAINE, MADE FOR DAN HUTCHENS,
PREPARED BY LIVINGSTON-HUGHES LAND
SURVEYORS, DATED DECEMBER 23, 2013.
UNRECORDED.

NOTES

1. WETLANDS WERE DELINEATED BY LONGVIEW PARTNERS.
2. ELEVATIONS ARE PER NAVD 1988 DATUM.

LEGEND

- N/F - NOW OR FORMERLY
- TM - TAX MAP
- IPF - IRON PIPE FOUND
- CIRF - CAPPED IRON ROD FOUND
- IRF - IRON ROD FOUND
- MN - MAG NAIL
- U.P. - UTILITY POLE



REVISION NO.	DATE	REVISION PURPOSE
1	07-26-21	RE-LOCATE HAT LINE
2	08-18-21	ADDED PRELIMINARY LAND SWAPS

PRELIMINARY

REVISION NO.	DATE	BY	CHECK	FIELD BOOK	PROJECT
1	11-15-2011	DAVID L.J. HUGHES	FLSH	2234	M-054

BOUNDARY SURVEY

111 MILE STRETCH ROAD
BIDDEFORD, MAINE

MADE FOR
OWNER OF RECORD:

DAN HUTCHENS

MAILING ADDRESS:
113 MILE STRETCH ROAD, BIDDEFORD, MAINE 04005

BY

LIVINGSTON-HUGHES
PROFESSIONAL LAND SURVEYING CORPORATION
88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046



U.S. Fish and Wildlife Service

National Wetlands Inventory

111 Mile Stretch Road



U.S. Fish and Wildlife Service, National Standards and Support Team,
wetlands_team@fws.gov

August 2, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

FLOOD ZONE DETERMINATION SUPPLEMENTAL REPORT

LOCATION	Street Address	111 MILE STRETCH RD, BIDDEFORD, ME 04005-9272		
	County Name	YORK COUNTY		
	Community Name	Biddeford, City Of		
	Lat, Long	43.443514, -70.353988		
	APN	31050_61-33	FIPS / MSA / Tract	23031 / 38860 / 254

STANDARD	Flood Zone	C	MASSIVE	Next Nearest Flood Zone	A (11,682 ft)
	Comm No.	230145		Base Flood Elevation (BFE)	n/a
	Map Number	2301450006B		BFE Conversion	n/a
	Map Datum	n/a		Estimated Ground Elevation	8 ft NAVD88
	Map Date	05/15/1984		Elevation Certificate On-File	No
	Initial FIRM Date	05/15/1984		Policies in Force	213 (comm-wide)
	CBRS / OPA	No		Historic Flood Loss Claims	\$843,750 (comm-wide)
	LOMC Date	No		Distance to Fresh Water	622 ft
	LOMC Case	No		Distance to Salt Water	1,499 ft
	NFIP Program	PARTICIPATING		NFIP Discount	N/A (comm-wide)

PRIOR COMMUNITY-PANEL, DATE, ZONE: Not Available

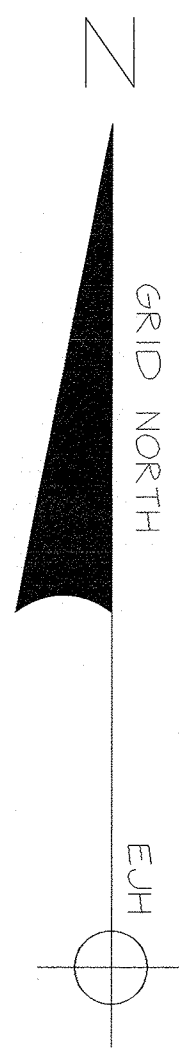
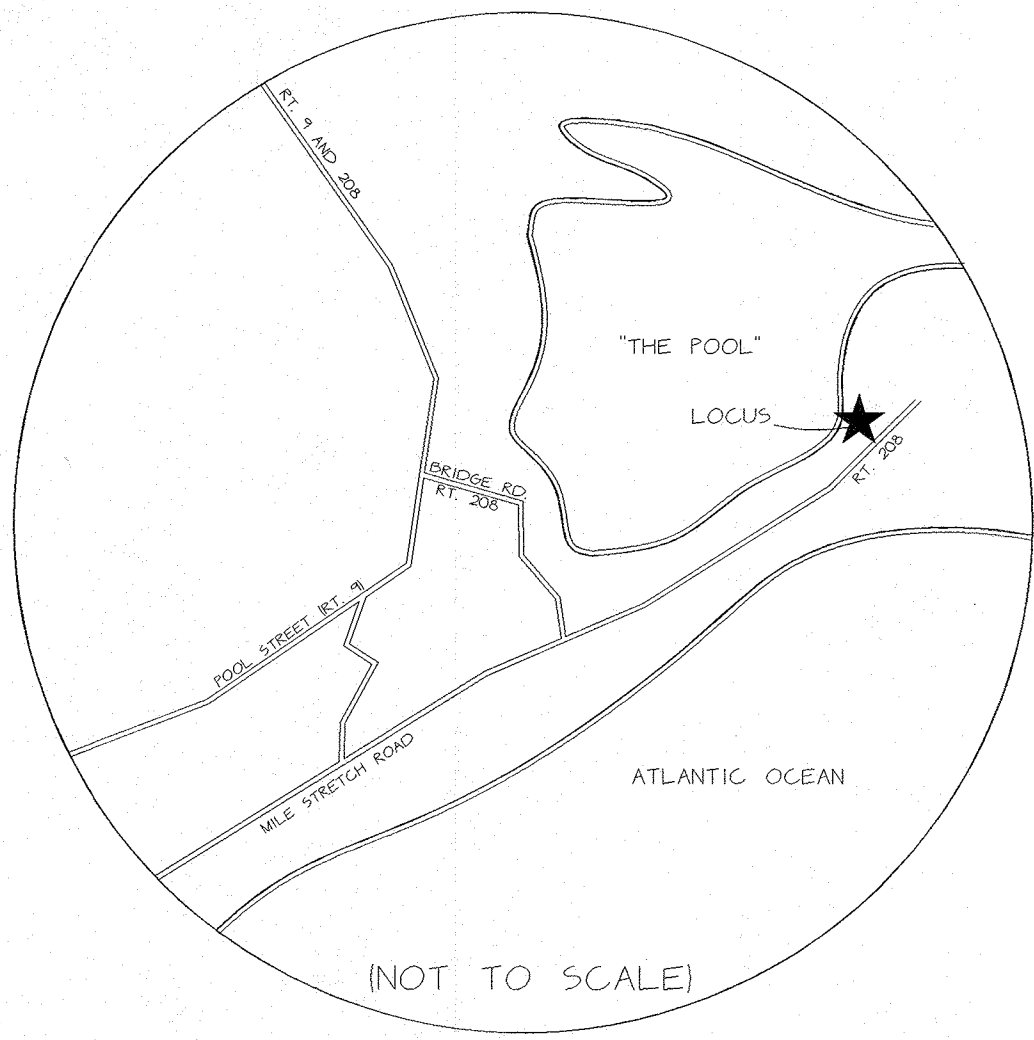


Copyright MassiveCert, Inc. All Rights Reserved. This is not a guaranteed flood hazard determination, is not a substitute for an elevation certificate, and it cannot be used to acquire a Letter of Map Amendment. For flood hazard determination disputes, note the determination number and visit the MassiveCert online dispute resolution center at <https://determinations.massivecert.com/service-dispute.html>.





LOCATION SKETCH



PRELIMINARY LAND SWAP CALCULATIONS		
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PARCEL 2: 187.0 SQ.FT.		PARCEL 3: 1011.0 SQ.FT.
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YORK COUNTY REGISTRY OF DEEDS (YCRD)
BOOK: 18058 PAGE: 324

PLAN REFERENCES

PLAN SHOWING LAND AT 113 MILE STRETCH ROAD, BIDDEFORD, MAINE, MADE FOR DAN HUTCHENS, PREPARED BY LIVINGSTON-HUGHES LAND SURVEYORS, DATED DECEMBER 23, 2013, UNRECORDED.

NOTES

1. WETLANDS WERE DELINEATED BY LONGVIEW PARTNERS.
2. ELEVATIONS ARE PER NAVD 1988 DATUM.

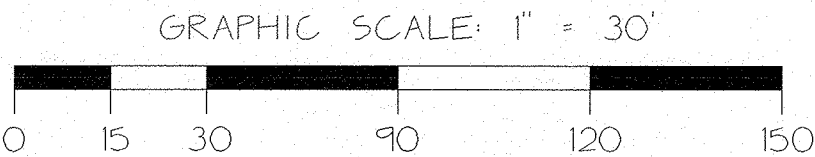
Purpose of this Plan: This plan depicts the expansion and reconstruction of a non-conforming structure to meet the shoreland setback requirement to the greatest practical extent, pursuant to Article XIV Shoreland Zoning Ordinance, Section 12.C.2 of the City of Biddeford's Land Development Regulations. The new building shall be no closer than 25 feet from the Highest Annual Tide (HAT) of Biddeford Pool.

Signed by: _____

Matthew Grooms, City Planner, duly authorized to sign on behalf of the Biddeford Planning Board

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REVISION NO.	DATE	REVISION PURPOSE
1	07-26-21	RE-LOCATE HAT LINE
2	08-18-21	ADDED PRELIMINARY LAND SWAPS

PRELIMINARY

Proposed Condition Survey

111 MILE STRETCH ROAD
BIDDEFORD, MAINE

MADE FOR
OWNER OF RECORD:

DAN HUTCHENS

MAILING ADDRESS:
113 MILE STRETCH ROAD, BIDDEFORD, MAINE 04046

BY

LIVINGSTON-HUGHES

PROFESSIONAL LAND SURVEYING CORPORATION

88 GUINEA ROAD, KENNEBUNKPORT, MAINE 04046

REVISION NO.		500 BOILER ROAD, RENEWALPORT, MAINE 05070					
1	DAVID L.J. HUGHES	PL54 2234	DATE: 11-15-2019	DRAWN E.J.H	CHECK: D.L.J.H	FIELD BOOK: 1047-11	PROJECT: 19-054

August 3, 2022

To the Planning Board
City of Biddeford, Maine

On behalf of ourselves, Dan and Kathy Hutchens, owners of 111 Mile Stretch Road, I am requesting Planning Board approval of a Greatest Practical Extent (GPE) setback, demolition of an existing structure (single family home) and rebuild/expansion as per GPE. Once approved, we will continue to work with Code Enforcement to rebuild/expand within the approved buildable area as per Code.

Project Overview:

We have lived year-round at 113 Mile Stretch Road for the past 7 years and purchased 111 Mile Stretch Road in 2019 with the existing building on it. Over the past year we have been in discussions with the Code Enforcement office regarding this proposal to prepare for a review by the Planning Board and demo/rebuild/expand as per GPE. The existing house on the 111 property is sited between the 25 and 75 foot offsets from the HAT line. The house is also bound on the other side by a Utility ROW which requires a 10 foot building set back. Due to the very tight building envelope, the proposed new house location shown on the proposed condition survey is the only logical location for the rebuild/expansion.

The primary goals of the project are:

- Remove the existing structure and foundation and re-build per Planning Board approved GPE as allowed by Code.

Some general points on our GPE proposal:

- The lot is in the Resource Protection zone which allows rebuilding and expansion, with Planning Board approval of GPE, and as per Code.
- Dave Hughes, PLS (Professional Land Surveyor) has documented the existing conditions.
- Wetlands were delineated by Jim Logan, Wetlands Scientist at Longview Partners, LLC.
- The existing house is serviced by public sewer, public water and electricity which are in place and would not need to be relocated if the new house is rebuilt in the proposed location on the Proposed Condition survey.
- Currently the existing house protrudes 8 feet into the 0-25 foot HAT line offset and protrudes 5 feet into the 10 foot ROW set back. By rebuilding the foundation / house in the proposed location per the Proposed Condition survey the house would be brought back within the 25-75 foot HAT line offset and would also be in compliance with the 10 foot ROW setback, thus making the new house less non-conforming.
- The existing house was built in the 60's and rebuilding the house would allow for the new house to be built to current code.
- There would be minimal disturbance to the site if the new house is rebuilt in the proposed location on the Proposed Condition survey.
- Once GPE is approved, we will work with the Code Enforcement Office on the rebuild/expansion that will comply with Codes and specifically allowable lot coverage and expansion for the building.
- **Enclosed and attached you will find the following:**
- Planning Board Application Form
- Flood Zone determination
- Wetlands search
- Photos of site
- Survey
 - o Existing Conditions survey
 - o Proposed Conditions survey

If you have any questions or need any further information, please call me at 207-459-4289

Thank you,

Dan Hutchens

*Response to Shoreland Zone Code
Section 12.3.C paragraph 2*

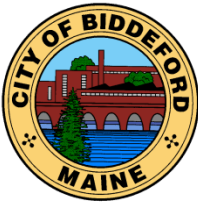
(Hutchens, 111 Mile Stretch Rd project)

Extracted from: <https://ecode360.com/15175405?highlight=shoreland&searchId=11433102739674595>

(numbers added for clarity)

*In determining whether the building relocation meets the setback to the greatest practical extent, the Planning Board shall consider **(1)** the size of the lot **(2)** the slope of the land **(3)** the potential for soil erosion **(4)** the location of other structures on the property and on adjacent properties, **(5)** the location of the septic system and other on-site soils suitable for septic systems, and **(6)** the type and amount of vegetation to be removed to accomplish the relocation. **(7)** When it is necessary to remove vegetation within the water or wetland setback area in order to relocate a structure, the Planning Board shall require replanting of native vegetation to compensate for the destroyed vegetation in accordance with Section 15S. In addition, the area from which the relocated structure was removed must be replanted with vegetation.*

1. [Size of the Lot.](#)
 - a. The lot is 1.84 acres, bounded on the East by a single-family home (113 Mile Stretch Road), the South is bounded by a single family home (the Old Hatties Restaurant), the West is bounded by Biddeford Pool and the North is bounded by a single-family home (1 Yates Street). The wetlands were located and flagged by Jim Logan CSS/LSE, then recorded by Dave Hughes, PLS on the Existing Conditions Survey
2. [Slope of the land](#)
 - a. The land is relatively flat; minimal elevation change across the property & proposed building area
 - b. Aside from minor grading at the foundation as is customary, there is no plan to change the overall slope of the land
3. [Potential for soil erosion](#)
 - a. During demo/reconstruction, erosion control will be used consistent with Code and best practices
4. [Location of other structures on the property](#)
 - a. There are no other structures on the property
5. [Location of the septic system and other on-site soils suitable for septic systems](#)
 - a. There is public sewer, public water and electricity currently in place at the current house location
6. [The type and amount of vegetation to be removed to accomplish the relocation](#)
 - a. Any vegetation removed that is subject to Code will be replanted/replaced as per Code
7. [When it is necessary to remove vegetation within the water or wetland setback area in order to relocate a structure, the Planning Board shall require replanting of native vegetation to compensate for the destroyed vegetation in accordance with Section 15S. In addition, the area from which the relocated structure was removed must be replanted with vegetation.](#)
 - a. It is not necessary to remove native or established vegetation within the wetland setback area
 - b. We will comply with all applicable Code requirements, relative to vegetation removal/replacement/replanting for anything impacted during a demo/rebuild



CITY OF BIDDEFORD
Planning and Development Department

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

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Determination of the Required Setback to the Greatest Practical Extent

Pursuant to the provisions of the City of Biddeford Land Development Regulations, Article XIV, Shoreland Zoning, the Biddeford Planning Board has considered the application of James & Story Leonard, including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

1. FINDINGS OF FACT

1.	Applicant:	James & Story Leonard 1853 Sun Mountain Drive. Santa Fe, NM 87505
2.	Owner of Property:	James Leonard
3.	Agent:	Mike Morse – Archipelago 22 Free St. Suite 403 Portland, ME 04101
4.	Surveyor:	Lower Village Survey Co. P.O Box 2625 Kennebunkport, ME 04064
5.	Project Location:	110 Lester B. Orcutt Blvd
6.	Project Tax Map #/Lot #:	Tax Map 59, Lot 23
7.	Lot Size:	8,071 sqft
8.	Base Zoning:	Coastal Residential
9.	Overlay Zoning:	Limited Residential, Resource Protection District
10.	Designations:	
11.	Existing Use:	Single Family Residential
12.	Proposed Use:	Single Family Residential
13.	Floodplain Status:	Flood Hazard Zone A2 (Elevation 10) per FRIM Panel 2301450011B effective date May 15, 1984.

14.	Approvals Required:	Determination of the Required Setback to the Greatest Practical Extent
15.	Uses in the Vicinity:	Single Family Residential
16.	Shoreland Zoning Setbacks:	Limited Residential: Minimum Setback from the normal high-water line (Highest Annual Tide) of other water bodies, tributary streams, or the upland edge of a wetland: 250' or as depicted on the plan. Reconstruction of a nonconforming structure located less than the required setback for a new structure is to be located to the greatest practical extent from the shoreline (HAT) as depicted on the approved plans (referenced below) and signed by the Planning Board considering all factors outlined in Section 12.C.3 and 12.C.4 of Article XIV (Shoreland Zoning Ordinance) of the City's Land Development Regulations and subject to the Board's Conditions of Approval.
17.	Waivers Needed:	a. None
18.	Waivers Granted:	a. None
19.	Variances Needed for Approval:	None
20.	Other Approvals Required:	Building Permits from the Biddeford Code Enforcement Office.
21.	Other Permits Obtained:	None
22.	Other Non-City Permits Required:	Maine DEP NRPA
23.	LDR Attachment A: Fees Paid:	Yes
24.		1. Application form (dated 08/16/2022) 2. Plan entitled: <i>10 LB Orcutt Blvd proposed plan : 10 Lester B. Orcutt Rd, Biddeford, Maine 04005</i>. Prepared by Michael Morse (dated 08/15/2022) 3. <i>Plan entitled: 10 LB Orcutt Blvd existing cond survey (dated 11/02/2021)</i> Survey prepared by Leon L. Blood - Lower Village Survey Co. (dated 11/02/2021) 4. Proof of abutter notice (dated 08/25/2022) Proof of payment (dated 08/17/2022)

2. CONCLUSIONS OF LAW

The Planning Board has determined that based on the following factors, as outlined in Article XIV (Shoreland Zoning), Section 12.C.2. (Land Use Standards) of the Land Development Regulations, the plan for James & Story Leonard approved by the Planning Board on September 7th, and signed by the City Planner demonstrates the limits of the Greatest Practical Extent setback from the resource:

- a. The size of the lot limits the ability to locate further from the resource;
- b. The slope of the land limits the ability to locate further from the resource;
- c. The potential for soil erosion limits the ability to locate further from the resource;
- d. The location of other structures on the property and on adjacent properties limits the ability to locate further from the resource;
- e. The location of the septic system and other on-site soils suitable for septic systems limits the ability to locate further from the resource; and
- f. The type and amount of vegetation to be removed to accomplish the relocation limits the ability to locate further from the resource.

4. DETERMINATION

Based on the evidence available and the conclusions above, the Biddeford Planning Board grants the determination of the Greatest Practical Extent for the proposed project summarized above, located at 10 Lester B. Orcutt Blvd. (Tax Map 59 – Lot 23) in accordance with the submitted application, supporting data, representations made, other related materials on file, and the following Conditions of Approval:

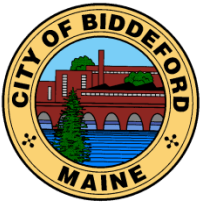
Conditions of Approval:

- 1. The new building shall be no closer than 193.56 feet from the Highest Annual Tide, elevation 7.4' (HAT) of the Atlantic Ocean, as denoted on the approved plan.**
- 2. The Code Enforcement Officer shall review and approve conformance to Section 15 of the Shoreland Zoning Ordinance.**
- 3. Obtain all required permits from Maine Department of Environmental Protection and the Biddeford Code Enforcement Office.**
- 4. This approval shall expire one year from the date below if a substantial start is not made in construction. If a substantial start is made within one year of the date below, the applicant shall have one additional year to complete the project, thereafter this approval shall expire.**

Planning Board Chairman

Date

DRAFT



CITY OF BIDDEFORD

Planning and Development Department

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

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Eric Freeman, Assistant City Planner

DATE: September 1, 2022

RE: **2022.34 Determination of the Greatest Practical Extent for the reconstruction of a nonconforming residential structure in the Coastal Residential (CR) Zone and Limited Residential Shoreland Overlay Zone for James Leonard at 10 Lester B. Orcutt Blvd. (Tax Map 59, Lot 23).**

MEETING DATE: Wednesday, September 7th, 2022 @ 6:00 PM

PROJECT DESCRIPTION

The project site is located within the Limited Residential overlay (LR) of the Shoreland Zone and the Coastal Residential (CR) base zone. There is currently a 2-story residence on the property. The applicant seeks to demolish this structure and construct a new smaller residence in its place. The Planning Board must determine the setbacks from the protected resource (Atlantic Ocean / Biddeford Pool) across Yates Street from the lot to the *greatest practical extent*.

COMPLIANCE WITH CITY ORDINANCES

The application is before the Planning Board for reconstruction of a nonconforming structure within the Shoreland Zone per the Shoreland Zoning Ordinance (Article XIV, Section 12.C.4 *Reconstruction*). As outlined in this provision, the Planning Board is required to determine the greatest practical extent, the distance the new structure can be located from the protected resource, as directed in Section 12.C.3 *Relocation*.

The existing building is located **193.56 feet** from the coastal wetland as shown on a survey plan dated October 6, 2021, by Lower Village Survey Co. As such, the structure is a non-conforming structure under the Code. According to City Assessor records, the structure was constructed in 1920.

When determining the greatest practical extent, the Board must consider factors outlined in Section 12.C.3 and included below:

- The size of the lot,
- The slope of the land,
- The potential for soil erosion,
- The location of other structures on the property and on adjacent properties
- The location of the septic system and other on-site soils suitable for septic systems,
- The type and amount of vegetation to be removed to accomplish the relocation.

PROJECT DATA/INFORMATION

1.	Applicant:	James & Story Leonard 1853 Sun Mountain Drive. Santa Fe, NM 87505
2.	Owner of Property:	James Leonard
3.	Agent:	Mike Morse – Archipelago 22 Free St. Suite 403 Portland, ME 04101
4.	Surveyor:	Lower Village Survey Co. P.O Box 2625 Kennebunkport, ME 04064
5.	Project Location:	110 Lester B. Orcutt Blvd
6.	Project Tax Map #/Lot #:	Tax Map 59, Lot 23
7.	Lot Size:	8,071 sqft
8.	Base Zoning:	Coastal Residential
9.	Overlay Zoning:	Limited Residential, Resource Protection District
10.	Designations:	
11.	Existing Use:	Single Family Residential
12.	Proposed Use:	Single Family Residential
13.	Floodplain Status:	Flood Hazard Zone A2 (Elevation 10) per FRIM Panel 2301450011B effective date May 15, 1984.
14.	Approvals Required:	Determination of the Required Setback to the Greatest Practical Extent
15.	Uses in the Vicinity:	Single Family Residential
16.	Shoreland Zoning Setbacks: Limited Residential: Minimum Setback from the normal high-water line (Highest Annual Tide) of other water bodies, tributary streams, or the upland edge of a wetland: 250' or as depicted on the plan. Reconstruction of a nonconforming structure located less than the required setback for a new structure is to be located to the greatest practical extent from the shoreline (HAT) as depicted on the approved plans (referenced below)	

	and signed by the Planning Board considering all factors outlined in Section 12.C.3 and 12.C.4 of Article XIV (Shoreland Zoning Ordinance) of the City's Land Development Regulations and subject to the Board's Conditions of Approval.	
17.	Waivers Needed:	a. Full Site Plan Review
18.	Waivers Granted:	a. None
19.	Variances Needed for Approval:	None
20.	Other Approvals Required:	Building Permits from the Biddeford Code Enforcement Office.
21.	Other Permits Obtained:	None
22.	Other Non-City Permits Required:	Maine DEP NRPA
23.	LDR Attachment A: Fees Paid:	Yes
24.	Application Materials Submitted: 1. Application form (dated 08/16/2022) 2. Plan entitled: <i>10 LB Orcutt Blvd proposed plan : 10 Lester B. Orcutt Rd, Biddeford, Maine 04005</i>. Prepared by Michael Morse (dated 08/15/2022) 3. <i>Plan entitled: 10 LB Orcutt Blvd existing cond survey (dated 11/02/2021)</i> Survey prepared by Leon L. Blood - Lower Village Survey Co. (dated 11/02/2021) 4. Proof of abutter notice (dated 08/25/2022) 5. Proof of payment (dated 08/17/2022)	
25.		

WAIVER REQUESTS

Full Site Plan Review.

COMPLIANCE WITH CITY ORDINANCES

The existing home is a legally existing nonconforming structure due to the following factors:

- 1. Lot Coverage**
 - a. Required: 20%
 - b. Existing: 52.9%
- 2. Street frontage**
 - a. Required: 150'
 - b. Existing: 129.11'
- 3. Setback from Critical Resource**
 - a. Required: 250'
 - b. 193.56'

12.C.1.a - *Expansion of any portion of a structure within 25 feet of the normal high-water line of a water body, tributary stream, or upland edge of a wetland is prohibited, even if the expansion will not increase nonconformity with the water body, tributary stream or wetland setback requirement.*

Satisfied. The portion of the structure being expanded is located greater than 25 feet from the normal high-water line.

12.C.1.c.i - For structures located less than 75 feet but greater than 25 feet from the normal high-water line of a water body, tributary stream, or the upland edge of a wetland the maximum height of any structure may not be made greater than 20 feet or the height of the existing structure, whichever is greater.

Satisfied. The height of the structure will not exceed the existing height (35 feet).

12.C.1.c.ii - In addition to the limitations in Subparagraph i, for structures that are legally nonconforming due to their location within the Resource Protection District, the maximum combined total footprint for all structures may not be expanded to a size greater than 1,500 square feet or 30% larger than the footprint that existed at the time the Resource Protection District was established on the lot, whichever is greater.

Satisfied. The proposal will decrease the overall building footprint by 299 sq.ft, which does not exceed the allowed size.

12.C.2 - Foundations. Whenever a new, enlarged, or replacement foundation is constructed under a nonconforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by the Planning Board, basing its decision on the criteria specified in Section 12C3 (Relocation) below.

Satisfied. The applicant is proposing a replacement foundation within the footprint of the existing building.

See below for justification for GPE.

12.C.3 - In determining whether the building relocation meets the setback to the greatest practical extent, the Planning Board shall consider the size of the lot, the slope of the land, the potential for soil erosion, the location of other structures on the property and on adjacent properties, the location of the septic system and other on-site soils suitable for septic systems, and the type and amount of vegetation to be removed to accomplish the relocation.

The applicant is proposing to construct a smaller building within the same footprint of the existing structure, reducing lot coverage by 299 Sq. ft.

There also will be a reduction in impervious surfaces of 2,495 sq. ft .

Relocating the structure would be much more intensive. The existing structure is located on the highest portion of the parcel and is the furthest from the protected resource as possible. Maintaining the same structure location will minimize soil and vegetation disturbance and create the least amount of impact across the site overall. Additionally, it allows the new septic system to be located as far from the protected resource as possible.

CONCLUSION

This project meets the requirements of all city ordinances and existing zoning. The Planning Board should make a determination regarding the setback from the shoreline to the greatest practical extent for the reconstruction of a nonconforming structure and determine if it concurs with the required setback from the shoreline proposed.

With the submittal of a site plan to the City Planner for review and approval, the application appears to address the applicable provisions in the City's Shoreland Zoning Ordinance (Article

XIV), and a conditional approval (conditioned to recommended plan revisions) appears to be in order. Suggested conditions of approval can be found in the draft Findings of Fact.

NEXT STEPS/SUGGESTED ACTIONS

- A. If the applicant has addressed the outstanding items to the satisfaction of the Planning Board, and Planning Board approves the project, Staff recommend doing so with the following Conditions of Approval attached:**
- 1. The new building shall be no closer than 193.56 feet from the Highest Annual Tide, elevation 7.4' (HAT) of the Atlantic Ocean, as denoted on the approved plan.**
 - 2. The Code Enforcement Officer shall review and approve conformance to Section 15 of the Shoreland Zoning Ordinance.**
 - 3. Obtain all required permits from Maine Department of Environmental Protection and the Biddeford Code Enforcement Office.**
 - 4. This approval shall expire one year from the date below if a substantial start is not made in construction. If a substantial start is made within one year of the date below, the applicant shall have one additional year to complete the project, thereafter this approval shall expire.**



Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

22 Free Street, Ste 403
Portland, Maine 04101
(207) 558-0102

August 16, 2022

Planning Board
City of Biddeford
P.O. Box 586
Biddeford, Maine 04005

RE: James & Story Leonard, 10 Lester B. Orcutt Boulevard: Non-Conforming Structure Relocation

Dear Members of the Biddeford Planning Board:

On behalf of James and Story Leonard, please find enclosed our application for the Board's relocation determination of a non-conforming structure located at 10 Lester B. Orcutt Boulevard. We respectfully request that this application be placed on the Planning Board's September 7th agenda for its full consideration of the matter.

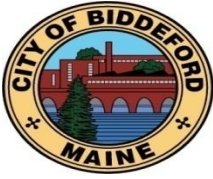
Pursuant to Article XIV, Section 12(C)(4) of the City of Biddeford Code of Ordinances, whenever a non-conforming structure is removed by more than 50% of its market value and is proposed for reconstruction, such reconstruction is allowed provided that the Board determines that the footprint of the structure meets the coastal wetland setback to the greatest practical extent. Accordingly, the enclosed application requests the Board's determination.

I have enclosed 7 complete copies of the application along with 3 additional rolled copies of the proposed plan. One of the additional plan copies is intended for signature and recordation at the Registry of Deeds. Payment of \$375 for the fees associated with this application is also enclosed.

Please don't hesitate to contact me with any questions. Thank you in advance for your consideration of this matter. I look forward to discussing this with you in the near future.

Sincerely,

Mike Morse

**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: James & Story Leonard
Mailing Address: 1853 Sun Mountain Drive, Santa Fe, NM 87505
Telephone: 505-670-7579
Email: jimleonard505@gmail.com

What is your legal interest in the property?

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

Owner's Information:

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

Agent's Information:

Name: Mike Morse, Archipelago
Mailing Address: 22 Free Street, Suite 403
Telephone: 207-558-0102
Email: mmorse@archipelagona.com

Engineer/Surveyor's Information:

Name: Lower Village Survey Co.
Mailing Address: P.O. Box 2625, Kennebunkport, ME 04046
Telephone: 207-967-3545
Email: info@lowervillagesurveyco.com

Project Location and Lot Information:

Street Address: 10 Lester B. Orcutt Boulevard Drainage Watershed: Drains to Biddeford Pool
Tax Map: 59 Lot: 23
Current Zoning: Coastal Residential Shoreland Zoning: Resource Protection District
Size of Lot: 8,071 () acres (X)s.f. Lot Frontage: 49.21'
Existing Use of Property: Residential dwelling and improvements

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 (incidental fill for house construction only- e.g. foundation backfill, loam for lawn)

Description of proposed use of property:

Project/Proposed Use:

The project proposed to remove and reconstruct an existing non-conforming structure. City Code requires Planning Board review to determine whether the structure footprint can be relocated to meet the shoreline setback to the greatest practical extent. This review is the sole request for this application.

Property to be Serviced by:

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

Limits of Disturbance: ~4,000 () acres (X)s.f.

Net change in impervious cover: -2,495 () acres (X)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)

X If in a Shoreland Zone:

Percent of residential lot coverage (Max 20%): Existing: 52.89% Proposed: 22%

Percent of structure expansion (Max 30%): No expansion proposed. Existing: 1,576 SF; Proposed: 1,277 SF

☐ **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): None

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): \$300

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

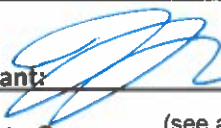
Required Signatures:

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

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

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

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

Signature of Applicant: 

Date August 16, 2022

Signature of Property Owner: (see attached authorization)

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

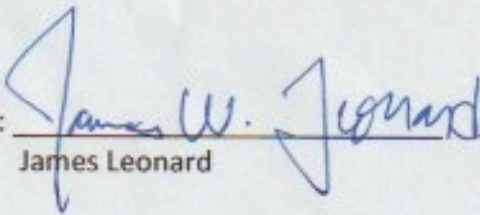
Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

22 Free Street, Ste 403
Portland, Maine 04101
(207) 558-0102

To whom it may concern:

James and Story Leonard, owners of property located at 10 Lester B. Orcutt Boulevard, Biddeford, Maine, hereby authorize Mike Morse and Archipelago, to submit permit applications on their behalf to the City of Biddeford. Such permit applications are intended for the proposed removal and reconstruction of a residential structure and other improvements, located at 10 Lester B. Orcutt Boulevard, Biddeford.

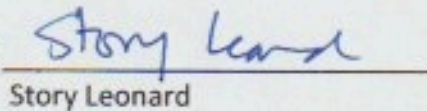
Signature:


James Leonard

Date:

8/15/22

Signature:


Story Leonard

Date:

8/15/22

Location Map

10 Lester B. Orcutt Boulevard
Biddeford, Maine





Michael Morse
Senior Environmental Consultant
MMorse@ArchipelagoNA.com

22 Free Street, Ste 403
Portland, Maine 04101
(207) 558-0102

James & Story Leonard
Non-conforming Structure Relocation Review
10 Lester B. Orcutt Boulevard, Biddeford

Project Description

The applicant purchased the subject property in December 2020. The parcel is developed with a residential dwelling and integrated apartment with attached decks and concrete patios, a stone retaining wall, a wooden privacy fence, customary lawn and landscaped areas, and a driveway. The dwelling structure and nearly all the property is located within a Resource Protection District that extends 250 feet inland from the upland edge of the coastal wetland at Biddeford Pool. The minimum setback distance for structures from a coastal wetland in a Resource Protection District is 250 feet.

The structure is located 193.56 feet from the coastal wetland as shown on a survey plan dated October 6, 2021, by Lower Village Survey Co. As such, the structure is a non-conforming structure under the Code. According to City Assessor records, the structure was constructed in 1920.

The existing structure footprint is 1,576 square feet in area. The project proposes to remove the existing structure and reconstruct it as a smaller single family dwelling with a footprint of 1,277 square feet. Such projects are allowed, subject to City Code, Article XIV, Section 12(C)(4), Reconstruction or Replacement. Specifically, the Code allows the removal and reconstruction of a non-conforming structure within the shoreland zone provided that the structure's footprint is relocated to be in conformity with the shoreline setback to the greatest practical extent, as determined by the Planning Board. Greatest practical extent relocation determination by the Planning Board is the exclusive purpose of this application.

Pursuant to the City's Code, when relocating a non-conforming structure in compliance with the shoreline setback to the greatest practical extent, the Planning Board shall consider 6 specific criteria (see Article XIV, Section 12 (C)(3)). These criteria include, and are limited to the following:

- 1) Size of the lot

- 2) Slope of the land
- 3) Potential for soil erosion
- 4) Location of other structures on the property and on adjacent properties
- 5) Location of the septic system and other on-site soils suitable for septic systems
- 6) The type and amount of vegetation to be removed to accomplish the relocation

Discussion

The subject lot is 8,071 square feet. The existing and proposed structure locations are affected by the minimum shoreline setback and the minimum lot line / road setback requirements. Roby Fecteau, City of Biddeford CEO, agreed with the location of the upland edge of the coastal wetland and further agreed to a minimum front lot line/road setback of 19.75 feet for the project. Mr. Fecteau has also authorized an administrative setback reduction to a minimum of 10 feet from side lot lines. The closest point of the existing structure to the easterly side lot line is less than one foot.

With respect to the 6 relocation criteria outlined in the Code, we provide the following:

- 1) Size of the lot: Considering the very modest lot size and multiple minimum setback restrictions, there is no practical opportunity for the structure footprint to be relocated to better conform to the coastal wetland setback requirement. In the attached site plan prepared by Soren Deniord Design Studio, dated August 15, 2022, we propose to reduce the size of the structure and relocate it in a northwesterly direction. This enables conformity with the 10-foot side lot line setback on both sides of the structure, and conformity with the front lot line setback (19.75' from L.B. Orcutt Blvd). The side lot line and front-line setback requirements prohibit relocating the structure's footprint further from the shoreline. Given these constraints the shoreline setback for the proposed footprint remains at the same distance as the existing structure (193.56').
- 2) Slope of the land: The land slopes in decreasing elevation from Lester B. Orcutt Boulevard toward Yates Street, with vertical elevations decreasing from ~24' to ~7' (NAVD88). The slope of the land in the area of the lot that is subject to this proposal is not prohibitive to construction and does not interfere with the structure relocation as proposed.
- 3) Potential for soil erosion: There are no unique soil conditions or other soil features such that the relocation of the structure footprint would create risk of soil erosion from the lot.

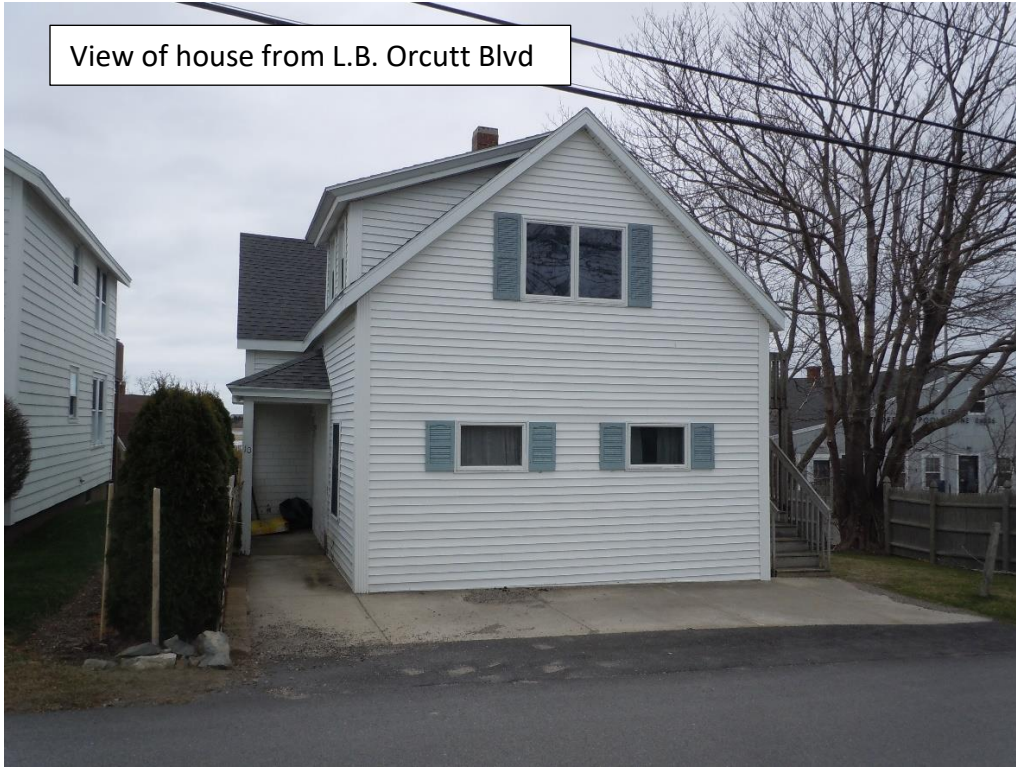
- 4) Location of other structures on the property and on adjacent properties: There are no other structures that are located on the property that would affect the proposed relocation. There are structures located on the adjacent properties to the east and west of the subject lot, however, the locations of those structures are immaterial to the proposed structure footprint relocation- those structures do not limit footprint relocation on the subject lot.
- 5) Location of the septic system and other on-site soils suitable for septic systems: The property is currently served by public sewer. The sewer connection does not inhibit the proposed structure relocation.
- 6) The type and amount of vegetation to be removed to accomplish the relocation: Vegetation removal does not impede structure footprint relocation under the City Code. The existing location from where the structure will be relocated will be replanted with grass vegetation as specified in the Code.

Relocation Summary

Due to the very small lot size and minimum setback requirements established in the Code, and as otherwise discussed above, it is not practical to relocate the existing structure footprint any further away from the coastal wetland than the existing structure. The proposed plan reduces the footprint of the structure to achieve conformity with the front and side lot line setback requirements. Accordingly, the applicant respectfully requests the Planning Board's concurrence that the structure footprint's greatest practical extent relocation on the lot remains at 193.56 feet from the upland edge of the Biddeford Pool coastal wetland.

Photos

View of house from L.B. Orcutt Blvd



View of house from L.B. Orcutt Blvd



View of house from Yates Street side parking area



View of parking area on westerly side of house
(Biddeford Pool in background)

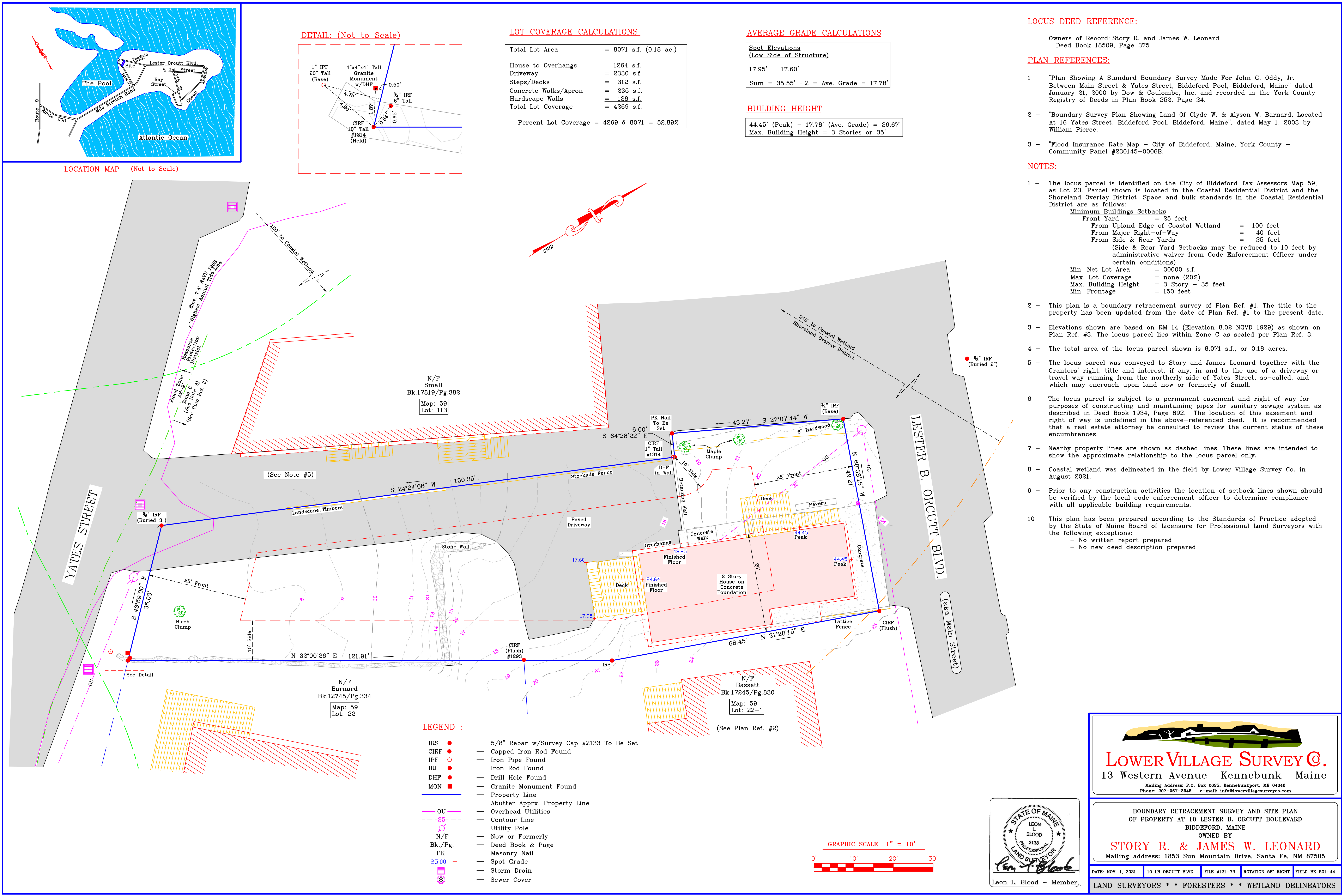
View of property from Yates Street

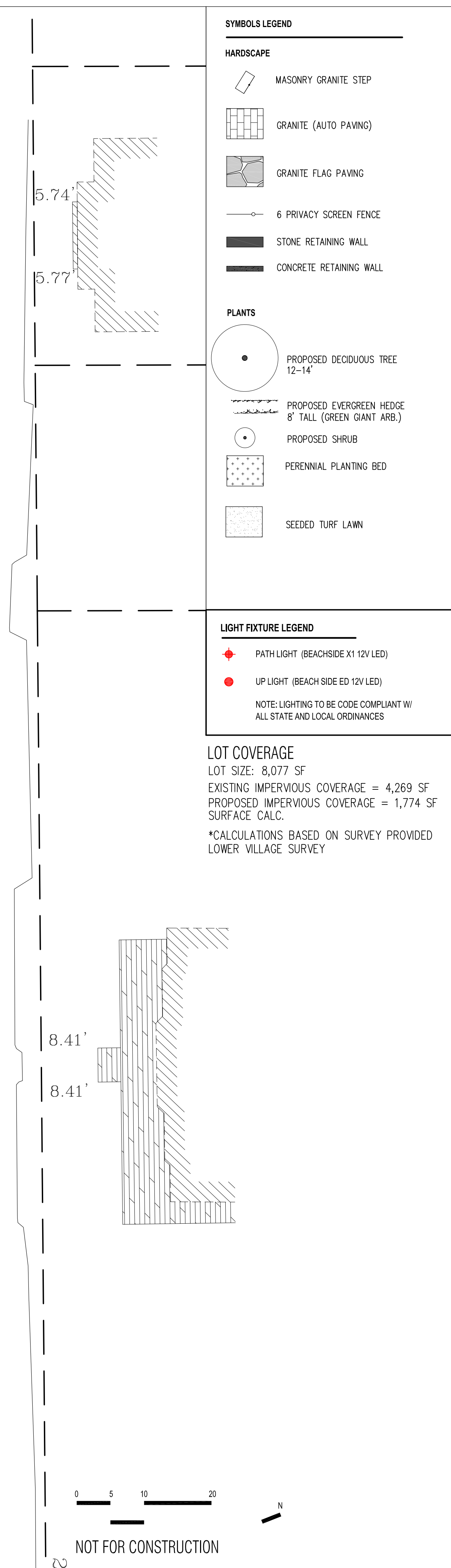
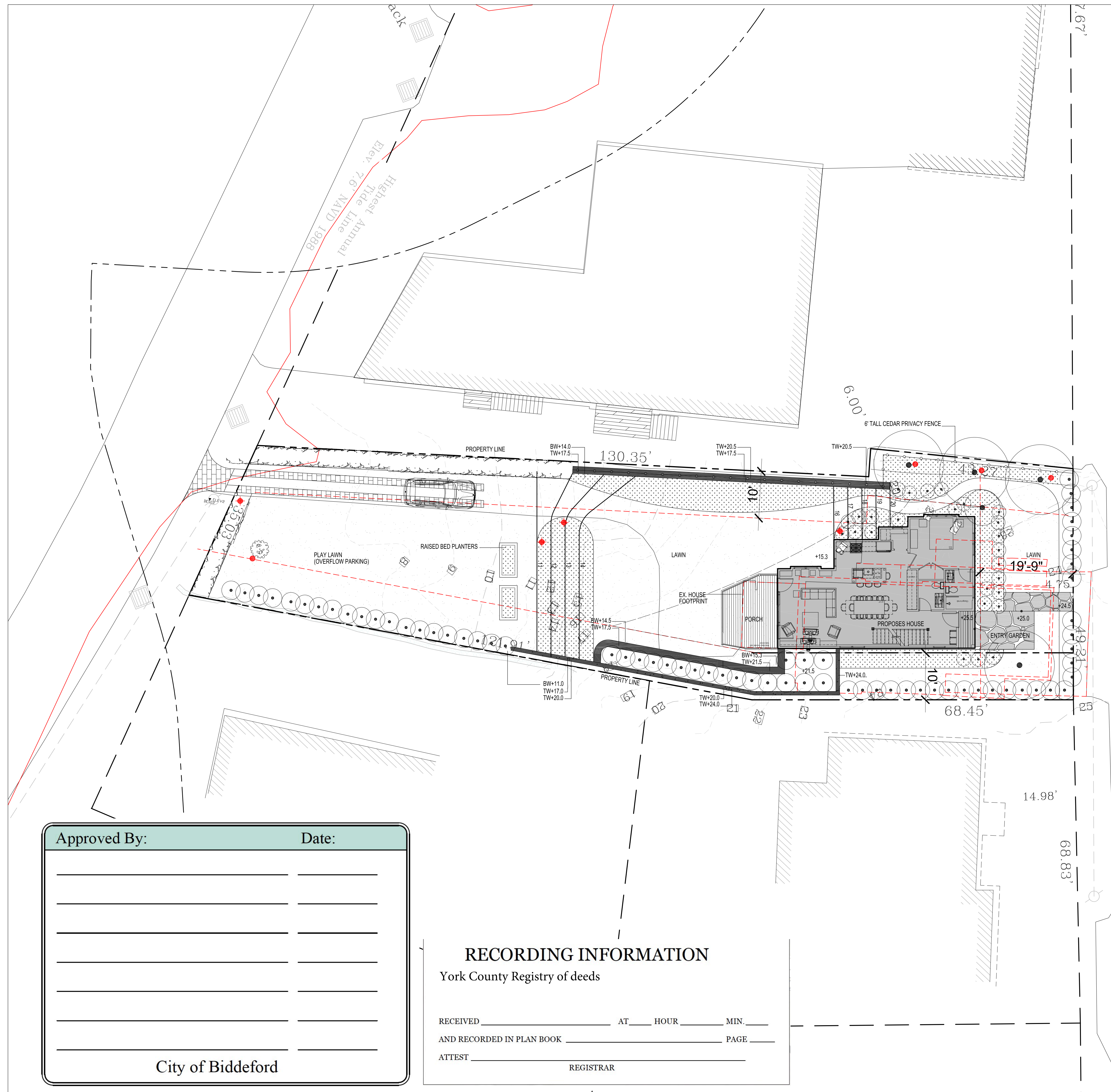


Aerial Photo 10 Lester B. Orcutt Boulevard



Site Plans





Deed

2p →
AFTER RECORDING RETURN TO:
 Woodman, Edmands, Danylik & Austin
 234 Main Street, P. O. Box 468
 Biddeford, ME 04005

NANCY E HAMMOND, REGISTER OF DEEDS



Bk 18509 PG 375
 Instr # 2020068358
 12/31/2020 01:48:55 PM
 Pages 2 YORK CO

(space above is reserved for recording information)

WARRANTY DEED
JOINT TENANCY

Maine Statutory Short Form

KNOW ALL MEN BY THESE PRESENTS, That **H. Augustus Carey**, sometimes called H. August Carey and **Jennifer R. Carey** of Ambler, County of Montgomery and Commonwealth of Pennsylvania, for consideration paid, grant to **James W. Leonard** and **Story R. Leonard**, both having a mailing address of 1853 Sun Mountain Drive, Santa Fe, New Mexico 87505, with **WARRANTY COVENANTS**, AS JOINT TENANTS, the land in Biddeford, in the County of York and State of Maine, described as follows:

A certain lot or parcel of land, with the buildings thereon, situated in the City of Biddeford, County of York and State of Maine, (in that part of the City of Biddeford known as Biddeford Pool), and described as follows, to wit:

BEGINNING at the Easterly corner of land now or formerly of Carlos Goldthwaite, formerly Thompson, on the Southwesterly side of Main Street (now known as Lester B. Orcutt Boulevard) in said Biddeford Pool;

THENCE Southeasterly by Main Street a distance of forty-nine and 2/10 (49.2) feet to land conveyed to Bessie H. Garnache by deed of Orcutt, dated 1943;

THENCE Southwesterly by other land now or formerly of Bessie H. Garnache and by a line at right angles to said Main Street, said line passing four and 93/100 (4.93) feet Southeasterly from the cornerboard at the Southerly corner of the house, standing on the land hereby conveyed and passing two and 74/100 (2.74) feet Southeasterly from the cornerboard at the Southerly corner of said house, sixty-eight and 47/100 (68.47) feet to a drill hole in the ledge;

THENCE Southwesterly by other land now or formerly of Bessie H. Garnache and by a line which deflects to the right 11° 8' from the last described line, one hundred twenty-three and 12/100 (123.12) feet, more or less, to a point in the Northeasterly line of Yates Street, which is fifty (50) feet Northwesterly from the Southerly corner of other land of Bessie H. Garnache, measured along said Yates Street;

THENCE Northwesterly by Yates Street a distance of fifty-one and 05/100 (51.05) feet, more or less, to land of said Goldthwaite;

THENCE Northeasterly by said Goldthwaite's land a distance of one hundred sixty-seven and 48/100 (167.48) feet, more or less, to the point of beginning.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

EXCEPTING HEREFROM, however, that portion of the above described premises described in deed of Jeffrey A. Oddy, Debora A. Oddy, John G. Oddy, III and Diane Oddy to Frederick J. Small and Leslye E. Small by deed dated April 12, 2000, and recorded in the York Registry of Deeds in Book 9983, Page 92.

ALSO INCLUDING those premises described in deed of Frederick Small and Leslye E. Small to Jeffrey A. Oddy, Debora A. Oddy, John G. Oddy, III and Diane Oddy dated April 12, 2000, and recorded in the York Registry of Deeds in Book 9983, Page 90.

The above described premises are conveyed subject to a certain easement given by Dorothy L. Oddy to Guy A. Marcotte et al dated January 14, 1972 and recorded in the York County Registry of Deeds in Book 1934, Page 892, to the extent it remains in use and in full force and effect.

The above described premises are further conveyed together with the Grantors' right, title and interest, if any, in and to the use of a driveway or travel way running from the northerly side of Yates Street, so-called, and which may encroach upon land now or formerly of Small.

Being the same premises conveyed from Susan M. Stanford-Rue, Trustee of The Susan M. Stanford-Rue Revocable Trusts established under Trust Indenture dated December 9, 1998, to H. August Carey and Jennifer R. Carey by deed dated October 15, 2001 and recorded in the York Registry of Deeds in Book 11037, Page 14.

WITNESS our hands this 29th day of December, 2020.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF:

Sherry Campbell
Witness
Sherry Campbell
Witness

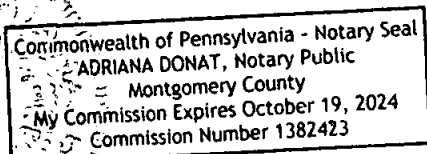
H. August Carey
H. Augustus Carey
Jennifer R. Carey
Jennifer R. Carey

COMMONWEALTH OF PENNSYLVANIA
Montgomery ss.

December 29th, 2020

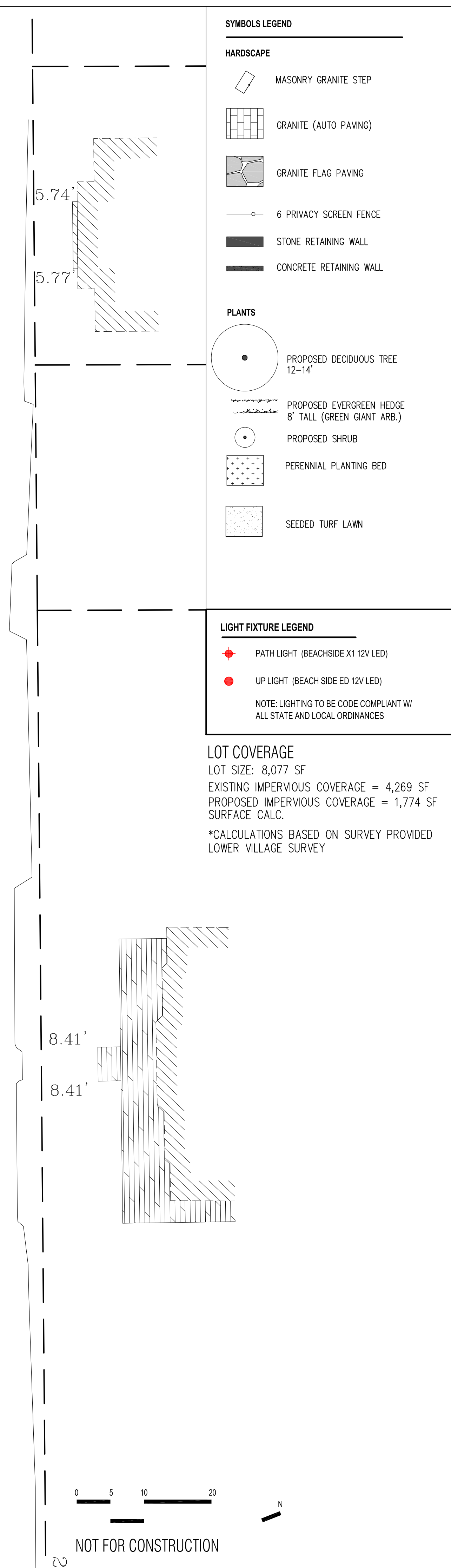
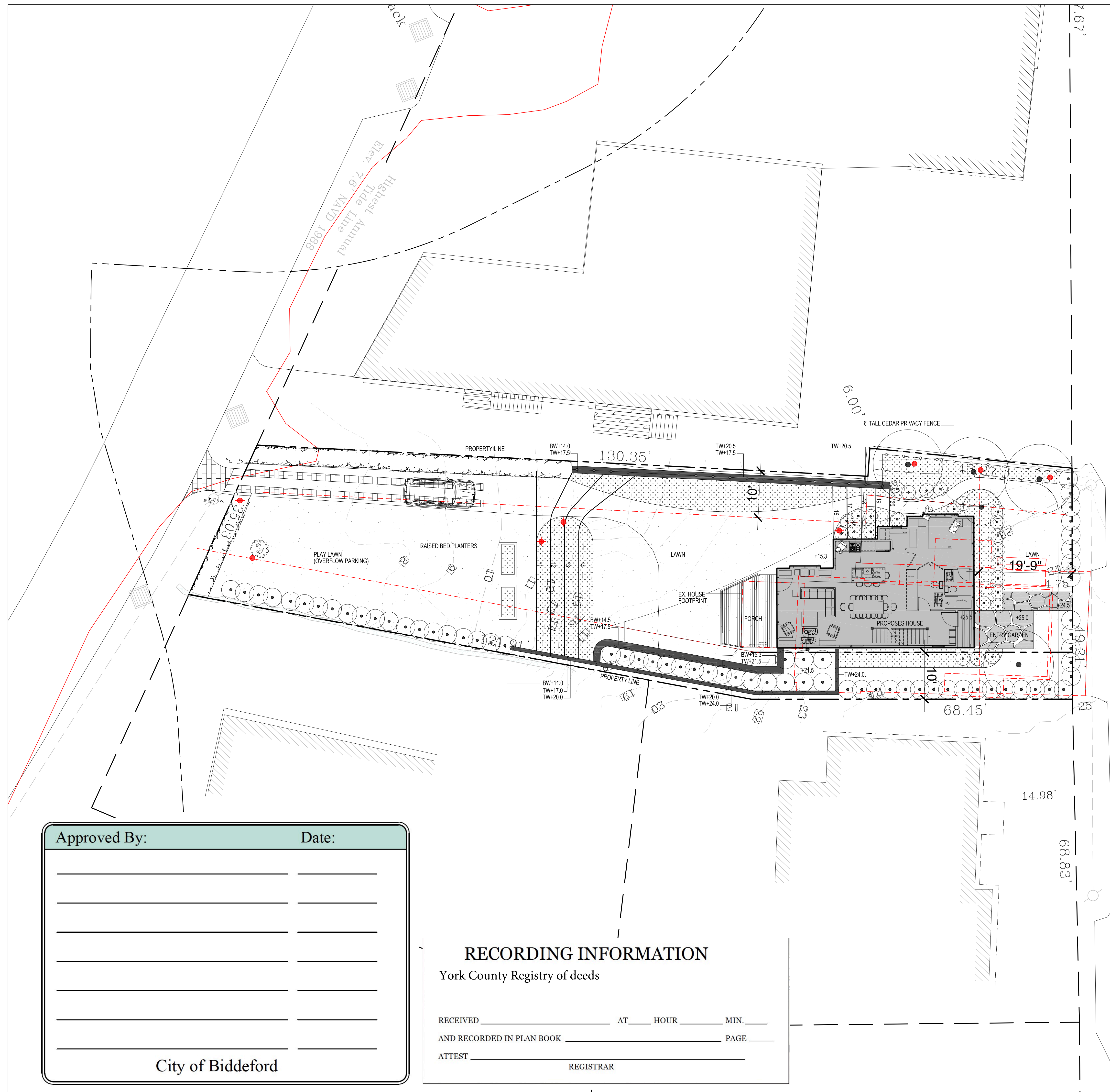
Personally appeared the above named H. Augustus Carey and Jennifer R. Carey and acknowledged the foregoing instrument to be their free act and deed.

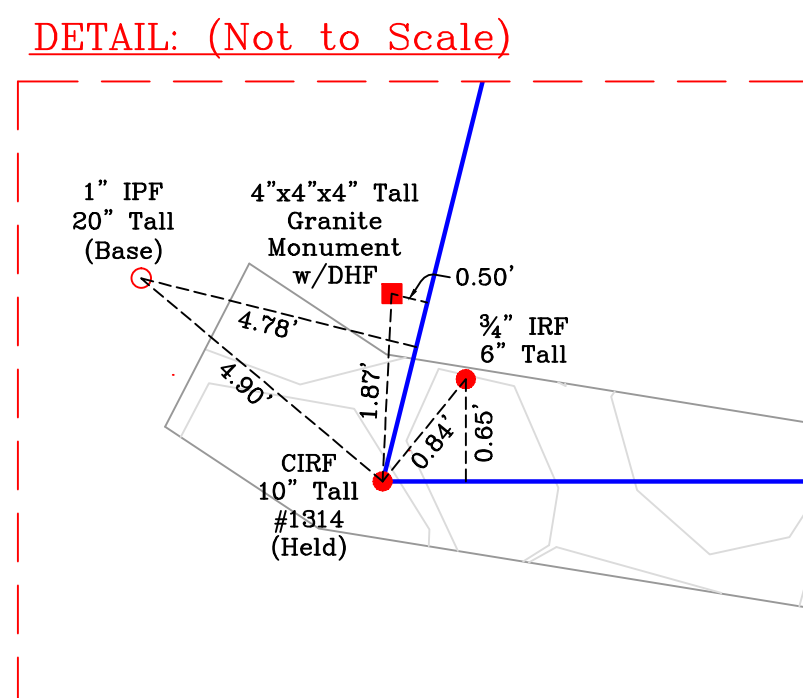
Before me,



Adriana Donat
Notary Public
Adriana Donat
Print Name
10/19/2024
My Commission Expires:

SEAL





LOT COVERAGE CALCULATIONS:

Total Lot Area	=	8071 s.f.	(0.18 ac.)
House to Overhangs	=	1264 s.f.	
Driveway	=	2330 s.f.	
Steps/Decks	=	312 s.f.	
Concrete Walks/Apron	=	235 s.f.	
Hardscape Walls	=	<u>128 s.f.</u>	
Total Lot Coverage	=	4269 s.f.	
Percent Lot Coverage = $4269 \div 8071 = 52.89\%$			

AVERAGE GRADE CALCULATIONS

<u>Spot Elevations</u> <u>(Low Side of Structure)</u>	
17.95'	17.60'
Sum = 35.55' ÷ 2 = Ave. Grade = 17.78'	

BUILDING HEIGHT

44.45' (Peak) - 17.78' (Ave. Grade) = 26.67'
Max. Building Height = 3 Stories or 35'

LOCUS DEED REFERENCE:

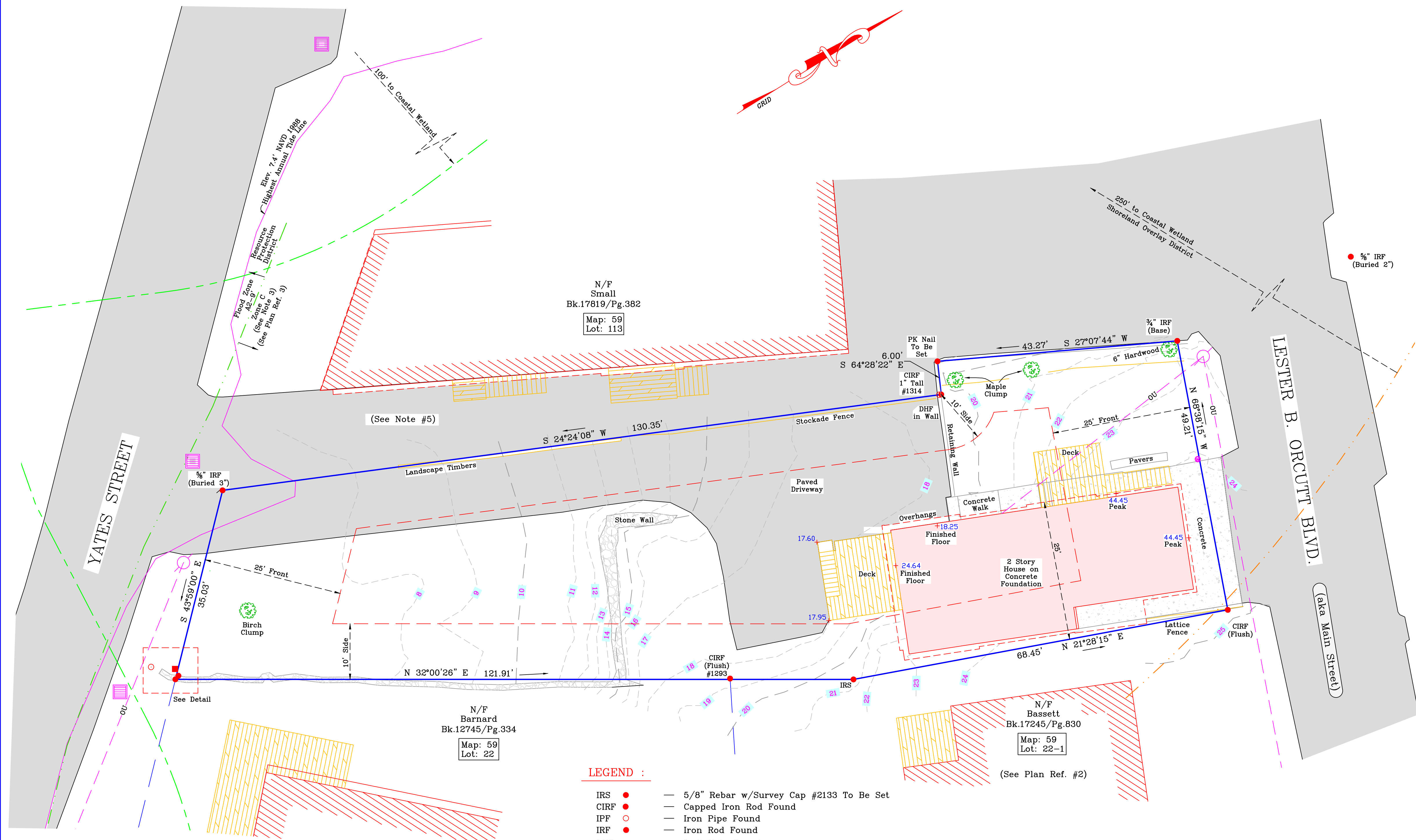
Owners of Record: Story R. and James W. Leonard
Deed Book 18509, Page 375

PLAN REFERENCES:

- 1 - "Plan Showing A Standard Boundary Survey Made For John G. Oddy, Jr. Between Main Street & Yates Street, Biddeford Pool, Biddeford, Maine" dated January 21, 2000 by Dow & Colombe, Inc. and recorded in the York County Registry of Deeds in Plan Book 252, Page 24.
- 2 - "Boundary Survey Plan Showing Land Of Clyde W. & Alyson W. Barnard, Located At 16 Yates Street, Biddeford Pool, Biddeford, Maine", dated May 1, 2003 by William Pierce.
- 3 - "Flood Insurance Rate Map - City of Biddeford, Maine, York County - Community Panel #230145-0006B.

NOTES:

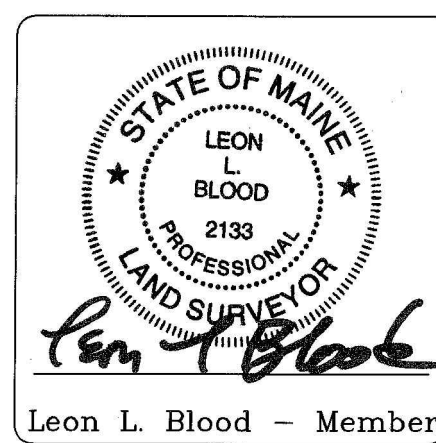
- 1 - The locus parcel is identified on the City of Biddeford Tax Assessors Map 59, as Lot 23. Parcel shown is located in the Coastal Residential District and the Shoreland Overlay District. Space and bulk standards in the Coastal Residential District are as follows:
 - Minimum Buildings Setbacks
 - Front Yard = 25 feet
 - From Upland Edge of Coastal Wetland = 100 feet
 - From Major Right-of-Way = 40 feet
 - From Side & Rear Yards = 25 feet
 - (Side & Rear Yard Setbacks may be reduced to 10 feet by administrative waiver from Code Enforcement Officer under certain conditions)
 - Min. Net Lot Area = 30000 s.f.
 - Max. Lot Coverage = none (20%)
 - Max. Building Height = 3 Story - 35 feet
 - Min. Frontage = 150 feet
- 2 - This plan is a boundary retracement survey of Plan Ref. #1. The title to the property has been updated from the date of Plan Ref. #1 to the present date.
- 3 - Elevations shown are based on RM 14 (Elevation 8.02 NGVD 1929) as shown on Plan Ref. #3. The locus parcel lies within Zone C as scaled per Plan Ref. 3.
- 4 - The total area of the locus parcel shown is 8,071 s.f., or 0.18 acres.
- 5 - The locus parcel was conveyed to Story and James Leonard together with the Grantors' right, title and interest, if any, in and to the use of a driveway or travel way running from the northerly side of Yates Street, so-called, and which may encroach upon land now or formerly of Small.
- 6 - The locus parcel is subject to a permanent easement and right of way for purposes of constructing and maintaining pipes for sanitary sewage system as described in Deed Book 1934, Page 892. The location of this easement and right of way is undefined in the above-referenced deed. It is recommended that a real estate attorney be consulted to review the current status of these encumbrances.
- 7 - Nearby property lines are shown as dashed lines. These lines are intended to show the approximate relationship to the locus parcel only.
- 8 - Coastal wetland was delineated in the field by Lower Village Survey Co. in August 2021.
- 9 - Prior to any construction activities the location of setback lines shown should be verified by the local code enforcement officer to determine compliance with all applicable building requirements.
- 10 - This plan has been prepared according to the Standards of Practice adopted by the State of Maine Board of Licensure for Professional Land Surveyors with the following exceptions:
 - No written report prepared
 - No new deed description prepared



LEGEND :

- | | | | |
|---------|---|---|---|
| IRS | ● | — | 5/8" Rebar w/Survey Cap #2133 To Be Set |
| CIRF | ● | — | Capped Iron Rod Found |
| IPF | ○ | — | Iron Pipe Found |
| IRF | ● | — | Iron Rod Found |
| DHF | ● | — | Drill Hole Found |
| MON | ■ | — | Granite Monument Found |
| | | — | Property Line |
| | | — | Abutter Apprx. Property Line |
| OU | — | — | Overhead Utilities |
| -25- | — | — | Contour Line |
| ♀ | — | — | Utility Pole |
| N/F | — | — | Now or Formerly |
| Bk./Pg. | — | — | Deed Book & Page |
| PK | — | — | Masonry Nail |
| 25.00 | + | — | Spot Grade |
| | | — | Storm Drain |
| | Ⓢ | — | Sewer Cover |

GRAPHIC SCALE 1" = 10'



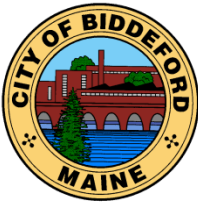

LOWER VILLAGE SURVEY CO.
13 Western Avenue Kennebunk Maine
Mailing Address: P.O. Box 2925, Kennebunkport, ME 04046
Phone: 207-967-3545 e-mail: info@lowervillagesurveyco.com

BOUNDARY RETRACEMENT SURVEY AND SITE PLAN
OF PROPERTY AT 10 LESTER B. ORCUTT BOULEVARD
BIDDEFORD, MAINE

STORY R. & JAMES W. LEONARD
Mailing address: 1853 Sun Mountain Drive, Santa Fe, NM 8750

DATE: NOV. 1, 2021	10 LB ORCUTT BLVD	FILE #121-73	ROTATION 58° RIGHT	FIELD BK 501-44
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LAND SURVEYORS * * FORESTERS * * WETLAND DELINEATORS



CITY OF BIDDEFORD
Planning and Development Department

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

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Shoreland Zoning Permit

Pursuant to the provisions of the City of Biddeford Land Development Regulations, Article XIV, Shoreland Zoning, the Biddeford Planning Board has considered the application of Richard Hogan, including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

1. FINDINGS OF FACT

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant / Property Owner	Richard Hogan 15 St. Martins Lane Biddeford, ME 04006
2.	Engineer/Surveyor	Scott Strynar, Landscape Architect Scott Strynar Landscape Architect, LLC 98 Meehan Lane North Berwick, ME 03906
3.	Project Location	111 Mile Stretch Road
4.	Map/Lot	Map 57, Lot 5
5.	City Approvals Required	Shoreland Zone – Permanent Dock
6.	Existing Zoning	Coastal Residential (CR)
7.	Overlay Zoning	Limited Residential Shoreland Overlay
8.	Existing Use	Single-family residential
9.	Proposed Use	Single-family residential
10.	Uses in the Vicinity	Single-family residential
11.	Parcel Size	2.3 acres
12.	Water Supply	Private Well
13.	Sewerage Disposal	Private Septic
14.	Solid Waste Disposal	Private Hauler
15.	Fire Protection	City of Biddeford
16.	Ownership of Road	Private Road
17.	Waivers Needed/Requested	Full Site Plan Review
18.	Waivers Granted	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	September 7, 2022

	<u>SUBJECT</u>	<u>INFORMATION</u>
21.	Applicant / Property Owner	Richard Hogan 15 St. Martins Lane Biddeford, ME 04006
22.	Engineer/Surveyor	Scott Strynar, Landscape Architect Scott Strynar Landscape Architect, LLC 98 Meehan Lane North Berwick, ME 03906

2. CONCLUSIONS OF LAW

1. The proposed use meets specific requirements set forth in this ordinance and would be in compliance with applicable state or federal laws;
2. The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles and would not create hazards through the storage of chemicals and wastes;
3. The proposed exterior lighting, where allowed, would not create hazards to motorists traveling on adjacent public streets or is adequate for the safety of occupants or users of the site or would not damage the value and diminish the usability of adjacent properties;
4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;
6. The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
7. The proposed use would generate a volume of traffic that can reasonably be accommodated by the existing road network, or would not create unreasonable traffic hazards or would not exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;
8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties which could be avoided by reasonable modification of the proposal;
9. The proposed use would not have an adverse impact on the privacy of the residents of the immediate area (within 500 feet) which could be avoided by reasonable modification of the proposal;
10. The proposed use would be in compliance with Biddeford's Comprehensive Plan;
11. The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;
12. The design of the site would not result in significant flood hazards or flood damage or would be in conformance with applicable flood hazard protection requirements;
13. Adequate provision has been made for disposal of wastewater or solid waste or for the prevention of ground or surface water contamination;

14. Adequate provision has been made to control erosion or sedimentation;
15. Adequate provision has been made to handle stormwater runoff or other drainage problems on the site; and the proposed development will not unduly burden off-site surface water systems;
16. The proposed water supply would meet the demands of the proposed use for fire protection purposes;
17. Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
18. The proposed use would not have an adverse impact on scenic vistas or on significant wildlife habitat or wetland areas and water bodies which could be avoided by reasonable modification of the proposal;
19. When located in the Shoreland Zone, the proposed use would meet the purposes of Shoreland Zoning as identified in Article XIV, Section 1 (Purposes) of this ordinance.

4. DETERMINATION

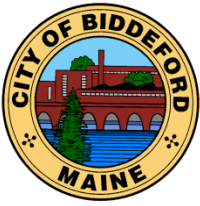
Based on the evidence available and the conclusions above, the Biddeford Planning Board grants the determination of the Greatest Practical Extent for the proposed project summarized above, located at 15 St. Martins Lane. (Tax Map 57 – Lot 5) in accordance with the submitted application, supporting data, representations made, other related materials on file, and the following Conditions of Approval:

Conditions of Approval:

1. **Obtain required permits from Maine DEP and the Biddeford Code Enforcement.**
2. **This plan approval shall expire one year from the date of approval if a substantial start is not made in construction. If a substantial start is made within one year of the issuance of the determination, the applicant shall have one additional year to complete the project, at which time any building permits shall expire.**

Planning Board Chairman

Date



CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Matthew.Grooms@biddefordmaine.org

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Matthew Grooms, Deputy Director/City Planner

DATE: September 1, 2022

RE: 2022.36 Shoreland Zone permit for replacement of a permanent dock at 15 St. Martins Lane (Tax Map 57/Lot 5) in the Coastal Residential zone and Limited Residential Shoreland Overlay zone.

MEETING DATE: Wednesday, September 7, 2022 at 6:00 pm

1. INTRODUCTION

The applicant is seeking a Shoreland Zoning Permit to convert a seasonal pier to become a permanent structure on their property at 15 St. Martins Lane, which requires Planning Board approval. Additionally, the property owner would stabilize the adjacent shoreline and reconstruct historic steps to the beach. Specific details on the dimensions of the proposed dock are included in the application package. The site of the proposed improvements would be on shore frontage in Wood Island Harbor. The applicant has received an NRPA permit from the Maine DEP, a requirement per the City's Shoreland zoning ordinance.

2. PROJECT INFORMATION

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant / Property Owner	Richard Hogan 15 St. Martins Lane Biddeford, ME 04006
2.	Engineer/Surveyor	Scott Strynar, Landscape Architect Scott Strynar Landscape Architect, LLC 98 Meehan Lane North Berwick, ME 03906
3.	Project Location	111 Mile Stretch Road
4.	Map/Lot	Map 57, Lot 5
5.	City Approvals Required	Shoreland Zone – Permanent Dock
6.	Existing Zoning	Coastal Residential (CR)
7.	Overlay Zoning	Limited Residential Shoreland Overlay
8.	Existing Use	Single-family residential

9.	Proposed Use	Single-family residential
10.	Uses in the Vicinity	Single-family residential
11.	Parcel Size	2.3 acres
12.	Water Supply	Private Well
13.	Sewerage Disposal	Private Septic
14.	Solid Waste Disposal	Private Hauler
15.	Fire Protection	City of Biddeford
16.	Ownership of Road	Private Road
17.	Waivers Needed/Requested	Full Site Plan Review
18.	Waivers Granted	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	September 7, 2022

3. COMPLIANCE WITH CITY ORDINANCES

To receive Planning Board approval, the applicant must demonstrate compliance with Article XIV *Shoreland Zoning*, Section 15.C *Performance Standards - Piers, docks, wharfs, bridges, and other structures and uses extending over or below the normal high-water line of a water body or within a wetland*.

Responses to each of these standards are outlined below.

1. Except as provided in Section 15C11 and Section 15X7, no more than one pier, dock, wharf or similar structure extending or located below the normal high-water line of a water body or within a wetland is allowed on a single residential lot; except that when a single lot contains at least twice the minimum shore frontage as specified in Section **15A**, a second structure may be allowed and may remain as long as the lot is not further divided.

Staff Comment: Standard is met. Just one dock is proposed.

2. Access from shore shall be developed on soils appropriate for such use and constructed so as to control erosion.

Staff Comment: Based upon the applicant's materials, it appears that there will be minimal disturbance. Applicant has demonstrated plans to control erosion and runoff.

3. The location shall not interfere with existing developed or natural beach areas.

Staff Comment: Based upon the applicant's materials, it appears there is no disturbance to existing beach areas. In fact, the proposal will also stabilize the shoreline in the vicinity of the project.

4. The facility shall be located so as to minimize adverse effects on fisheries.

Staff Comment: Based upon the applicant's materials, it appears there is no disturbance to existing fisheries.

5. The facility shall be no larger in dimension than necessary to carry on the activity and be consistent with the surrounding character and uses of the area. A temporary pier, dock, or wharf in nontidal waters shall not be wider than six feet for noncommercial uses.

Staff Comment: Dock is in tidal water and is proposed as a permanent structure to account for tidal forces. Given this, this standard is not applicable, and the proposed dock measures no wider than 6 feet.

6. No new structure shall be built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland unless the structure requires direct access to the water body or wetland as an operational necessity.

Staff Comment: Standard is met. No additional structures proposed

7. New permanent piers and docks on nontidal waters shall not be permitted unless it is clearly demonstrated to the Planning Board that a temporary pier or dock is not feasible, and a permit has been obtained from the Department of Environmental Protection, pursuant to the Natural Resources Protection Act.

Staff Comment: Dock is in tidal water. Standard is met

8. No existing structures built on, over or abutting a pier, dock, wharf or other structure extending beyond the normal high-water line of a water body or within a wetland shall be converted to residential dwelling units in any district.

Staff Comment: No structure is proposed atop the permanent dock. Standard is met

9. Except in the General Development District, structures built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland shall not exceed 20 feet in height above the pier, wharf, dock or other structure.

Staff Comment: The project is not within a General Development District, and structure is proposed atop the dock. Standard is not applicable.

NOTE: Permanent structures projecting into or over water bodies shall require a permit from the Department of Environmental Protection pursuant to the Natural Resources Protection Act, Title 38 M.R.S.A., Section 480-C.

10. Vegetation may be removed in excess of the standards in Section 15P of this ordinance in order to conduct shoreline stabilization of an eroding shoreline, provided that a permit is obtained

from the Planning Board. Construction equipment must access the shoreline by barge when feasible as determined by the Planning Board.

- a. When necessary, the removal of trees and other vegetation to allow for construction equipment access to the stabilization site via land must be limited to no more than 12 feet in width. When the stabilization project is complete, the construction equipment access way must be restored.
- b. Revegetation must occur in accordance with Section 15S.

Staff Comment: As stated in the application materials, there may be limited vegetation removal to complete the shoreline stabilization work being proposed, and will be replaced upon completion of work. Standard is met

NOTE: A permit pursuant to the Natural Resource Protection Act is required from the Department of Environmental Protection for shoreline stabilization activities.

- 11. A deck over a river may be exempted from the shoreland setback requirements if it is part of a downtown revitalization project that is defined in a project plan approved by the legislative body of the municipality, and may include the revitalization of structures formerly used as mills that do not meet the structure setback requirements, if the deck meets the following requirements:
 - a. The total deck area attached to the structure does not exceed 700 square feet;
 - b. The deck is cantilevered over a segment of a river that is located within the boundaries of the downtown revitalization project;
 - c. The deck is attached to or accessory to an allowed commercial use in a structure that was constructed prior to 1971 and is located within the downtown revitalization project;
 - d. The construction of the deck complies with all other applicable standards, except the shoreline setback requirements in Section 15B; and
 - e. The construction of the deck complies with all other state and federal laws

Staff Comment: Dock is in tidal water, and not on a river. As such, this standard does not apply.

4. WAIVER REQUESTS

Full Site Plan Review.

5. OUTSTANDING ITEMS TO BE ADDRESSED PRIOR TO APPROVAL

The final plan should include the following revision:

- a. Add signature block: Matthew Grooms, City Planner, duly authorized to sign on behalf of the Biddeford Planning Board.

6. STAFF RECOMMENDATIONS

If the Board approves the project, Staff recommends doing so with the following Conditions of Approval attached:

- 1. Provide a copy of the approved DEP NRPA permit to the Planning Department for Department records.**

Scott Strynar Landscape Architect, LLC
98 Meehan Lane
North Berwick, ME 03906
Office: 207-957-4441
Email: sstrynar@gmail.com

August 16, 2022

Attn: Mr. William Southwick, Chairperson
City of Biddeford Planning Board
205 Main Street
Biddeford, ME 04005

RE: Mr & Mrs Richard Hogan, 15 St. Martins Lane, Biddeford Maine– Tax Map 57 Lot 5
Shoreland Zone Application for New Pier, Shoreline Stabilization and rebuilt historic Steps
to Beach in the Coastal Residential District w/ Limited Residential Overlay

Dear Mr. Southwick,

On behalf of Mr. & Mrs. Richard Hogan, Scott Strynar Landscape Architect, LLC (SSLA) is pleased to submit a Shoreland Zoning Permit Application for the City of Biddeford Planning Board's review and approval.

Per the City of Biddeford's Article XIV Shoreland Zoning Ordinance, Section 15.C Piers, Docks, wharfs, Bridges and other structures and uses extending over or below the normal high-water line of a water body or within a wetland. We are proposing to convert a seasonal pier to a become a permanent structure, stabilize the adjacent shoreline and re-construct historic steps to the beach. The new pier will be (6) feet wide by (55) feet long with a (4) foot wide by (60) foot long aluminum ramp. The shoreline stabilization area is approximately 132 linear feet and all work will be above the Highest Annual Tide (H.A.T.) Line. The historic steps to the beach will be (4) feet wide and approximately (15) feet in length, also above the H.A.T. line.

We have concurrently submitted an Individual NRPA Permit Application to the Maine Department Of Environmental Protection on April 29, 2022. We have met on site with the MEDEP Staff reviewer and are awaiting delivery of our approved application. A copy of the NRPA permit application is on file at the City of Biddeford's Code Enforcement Office. We have also submitted a permit application to the US Army Corp of Engineers for the new proposed pier and we are awaiting permit approval.

Thank you in advance for your consideration of this application. If you require any additional information or clarification, please feel free to contact me at 207-957-4441 or by email at sstrynar@gmail.com.

Regards,



Scott M Strynar, ASLA
Maine Licensed Landscape Architect

Attachments;

Letter of Authorization
City of Biddeford Shoreland Zone Application
Deed
Maine Corporation Status
Exhibit A: Project Description
Exhibit B: Performance Standards
Exhibit C: Site Location Map
Exhibit D: Site Photos
Site Plan 24x36

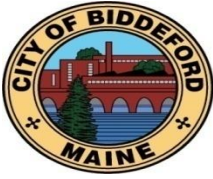
From: [Richard Hogan](#)
To: [Scott Strynar LA LLC](#)
Cc: [Jared Prentiss](#)
Subject: Permission
Date: Wednesday, October 27, 2021 1:26:50 PM

Dear Mr. Scott Strynar,

By this letter, I authorize Scott Strynar Landscape Architect, LLC to act as agent for the express purpose of providing design and regulatory permitting services for site improvements proposed for the property located at 15 St. Martins Lane, Biddeford, Maine. Town of Biddeford Tax Map 57 Lot 5.

Sincerely,
Richard Hogan
d.b.a. Pool Ghoul, LLC
(415) 939-4525

Rich
(415) 939-4525

**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: (Agent) Scott Strynar Landscape Architect, LLC
Mailing Address: 98 Meehan Lane, North Berwick Maine 03906
Telephone: (207) 957-4441
Email: sstrynar@gmail.com

What is your legal interest in the property? (Agent)

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

Owner's Information:

Name: Mr. Richard Hogan (d.b.a. Pool Ghoul, LLC)
Mailing Address: 15 St. Martins Lane, Biddeford, Maine 04006
Telephone: (415) 939-4525
Email: rhoagy@gmail.com

Agent's Information:

Name: Scott Strynar Landscape Architect, LLC
Mailing Address: 98 Meehan Lane, North Berwick, Maine 03906
Telephone: (207) 957-4441
Email: sstrynar@gmail.com

Engineer/Surveyor's Information:

Name: Surveyor - Sebago Technics
Mailing Address: 75 John Roberts Road, South Portland, Maine 04106
Telephone: (207) 200-2100
Email: www.sebagotechnics.com

Project Location and Lot Information:

Street Address: 15 St. Martin Lane Drainage Watershed: Biddeford Pool
Tax Map: 57 Lot: 5
Current Zoning: LR + CR Shoreland Zoning: YES
Size of Lot: 2.3 Acres ☒ (X) acres () s.f. Lot Frontage: None Required
Existing Use of Property: Single Family Residence

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:

Existing Single Family Residential property, propose to replace seasonal pier ramp & float with a permanent pier and seasonal ramp & float. Shoreline stabilization for eroding soil work adjacent to replacement pier and steps to beach. Concurrent Application to MEDEP for Full NRPA Permit for all work.

Property to be Serviced by:

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

Limits of Disturbance: 5,000 +/- _____ () acres (X) s.f.

Net change in impervious cover: Pier Lands on Ledge () acres (X) 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%): N/A No increase lot coverage

Percent of structure expansion (Max 30%): N/A No structure expansion

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 N/A

☐ Ability to Serve for Water Service – Maine Water – 282-1543 N/A

☐ Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118 N/A

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

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

C. Photographs of Site. (See Attached)

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

E. Engineering Plans, as required. N/a

F. Stormwater Management Report, as required. N/a

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:

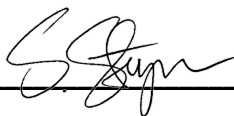
By signing this application, as the foresaid applicant or authorized agent:

- 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.**

Signature of Applicant: (Agent)



Date 8-16-22

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

TRUSTEES' DEED

DLN: 1001940081018

KNOW ALL BY THESE PRESENTS THAT, Margot R. Anderson (formerly Margot A. Pattison), William P. Anderson V, and Grenville Anderson, as Trustees of the ANDERSON REALTY TRUST u/t/d December 15, 1988 (the "Grantor"), by the power conferred by law, and every other power, in consideration of One Dollar and other valuable consideration paid by POOL GHOUL, LLC, a Maine limited liability company, with a mailing address of 100 Upper Road, Ross, California 94957, the receipt and sufficiency of which are hereby acknowledged, do hereby give, grant, bargain, sell and convey unto the said POOL GHOUL, LLC, its successors and assigns forever, the following described property:

PARCEL I:

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

Beginning at the southerly corner of land herein described at an iron pin in the line now or formerly of Dorothy Hubbard; thence by the said Hubbard's land North sixty degrees nine minutes East (N 60° 09' E) eighty-nine (89) feet to an iron pin; thence North fifty-four degrees twenty-six minutes East (N 54° 26' E) one hundred sixty-two (162) feet, more or less, to an iron pin and other land now or formerly of Joseph G. Deering; thence by the said Deering's land North fifty-three degrees twenty-four minutes West (N 53° 24' W) through an iron pin set in the bank, to the sea; thence southwest by the sea to the land now or formerly of Dorothy Hubbard; thence by said Hubbard's land South thirty-three degrees fifty-two minutes East (S 33° 52' E) to a copper bolt in the ledge on the shore; thence the same course two hundred thirty-six and two tenths (236.2) feet to the point of beginning.

Together with all appurtenant easements including any and all appurtenant rights-of-way in common with others extending by and from the above described premises to Main Street and over St. Martin's Lane, so-called, to said Main Street.

The Grantee herein, by the acceptance of this Deed, hereby agrees to discharge all obligations with respect to the maintenance of said rights-of-way as contained in a certain indenture dated the 19th day of March, A.D. 1929, and recorded in the York County Registry of Deeds in Book 806, Page 384.

The foregoing premises are a portion of the premises conveyed to this Grantor's predecessor in title by deed of Joseph G. Deering by deed dated April 14, 1959 and recorded with said Registry in Book 1401, Page 415.

PARCEL II:

A certain lot or parcel of land situated at Biddeford Pool, in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

Beginning at a solid iron driven into the ground at the southerly corner of land now or formerly of Dorothy B. Hubbard; thence North thirty-four degrees two minutes West (N 34° 02' W) by the said land of Dorothy B. Hubbard two hundred thirty-six and fourteen one-hundredths (236.14) feet to a copper bolt in the ledge at the top of the bank of the Ocean; thence the same course and by other land of the said Dorothy B. Hubbard to the Ocean; thence Southwesterly by the Ocean to land now or formerly of the Abenakee Golf Club; thence South fifty-one degrees ten minutes East (S 51° 10' E) by said Golf Club to an iron pipe driven into the ground at the top of the bank, a traverse line along the bank connecting the above mentioned copper bolt and said iron pipe is as follows: beginning at said copper bolt, thence South twenty-six degrees three minutes East (S 26° 03' E) eighty-two and seventy one-hundredths (82.70) feet; thence South twenty-nine degrees fifty minutes West (S 29° 50' W) One Hundred fifty-eight and five one-hundredths (158.05) feet to said iron pipe; thence from said iron pipe South fifty-one degrees ten minutes East (S 51° 10' E) by said Golf Club land one hundred ninety and eighteen one-hundredths (190.18) feet to an iron pipe driven into the ground and land now or formerly of Dorothy Hubbard; thence North fifty-seven degrees twenty-seven minutes East (N 47° 27' E) by land of said Hubbard two hundred twenty-nine and nineteen one-hundredths (229.19) feet to a large spike driven into the center line of the tarred driveway leading from St. Martin's Lane to said other land of the Grantor; thence Easterly by a regular curve deflecting to the left and by the center of said

driveway the chord of which is North eighty-eight degrees fifty-one minutes East (N 88° 51' E) fifty-three and fifty-eight one-hundredths (53.58) feet; thence North seventy-six degrees forty-six minutes East (N 76° 46' E) by the center of said driveway thirty-three and sixty-five one-hundredths (33.65) feet; thence Southeasterly by a regular curve deflecting to the right and by the center of said driveway, the chord of which is South sixty-four degrees eleven minutes East (S 64° 11' E) sixty-nine and ninety one-hundredths (69.90) feet; thence South twenty-five degrees nine minutes East (S 25° 09' E) by the center of said driveway forty-three and fifty-nine one-hundredths (43.59) feet to a large spike driven into the middle of said driveway at its junction with the Northwesterly sideline of St. Martin's Lane, the last four courses being by land of said Hubbard; thence North forty-nine degrees eight minutes East (N 49° 08' E) by said Land twenty-seven and twenty-three one-hundredths (27.23) feet to an iron pipe driven into the ground and land now or formerly of Joseph G. Deering; thence North forty degrees thirty-two minutes West (N 40° 32' W) by said Deering land two hundred three and eighty one-hundredths (203.80) feet to an iron pipe driven into the ground and said other land of said Hubbard; thence South fifty-four degrees twenty-four minutes West (S 54° 24' W) by said other land of said Hubbard one hundred forty-eight and seventy-five one-hundredths (148.75) feet to an iron pipe driven into the ground near the Westerly edge of said driveway; thence South fifty-nine degrees fifty-seven minutes West (S 59° 57' W) by other land of said Hubbard ninety-six and sixty-eight one-hundredths (96.68) feet to the point of beginning.

Subject to whatever rights the Central Maine Power Company has over said land.

Said parcel is conveyed with the understanding that the above mentioned driveway shall be used in common by said Grantor and said Hubbard, their heirs and assigns for the entire length of the following four courses mentioned above, "North eighty-eight degrees fifty-one minutes East (N 88° 51' E) fifty-three and fifty-eight one-hundredths (53.58) FEET; north seventy-six degrees forty-six minutes East (N 76° 46' E) thirty-three and sixty-five one-hundredths (33.65) feet; South sixty-four degrees eleven minutes East (S 64° 11' E) sixty-nine and ninety one-hundredths (69.90) feet; and South twenty-five degrees nine minutes East (S 25° 09' E) forty-three and fifty-nine one-hundredths (43.59) feet."

The above bearings refer to the 1960 magnetic meridian.

For further ties and information see "Plan showing a proposed sale, Hubbard to Anderson, Biddeford Pool, Biddeford, Maine and made by Libby & Dow, Jan. 5, 1960" as recorded with the York County Registry of Deeds on November 3, 1960 in Plan Book 30, Page 21.

Said parcel is also conveyed upon the condition that no structures will be built on any of the land herein conveyed except a boathouse or a beach house, said beach house not to be used for dwelling purposes. However structures not within view of the inhabitants of the dwelling located on the remaining land of the Grantor may be built; this restriction to run with the land until the year 2000.

Said parcel is also conveyed subject to all rights, privileges, duties and obligations with reference to St. Martin's Lane as described in agreement recorded with said Registry in Book 806, Page 384.

Said above described premises being a portion of the premises conveyed to the Grantor's predecessor in title by deed of Dorothy B. Hubbard dated February 15, 1960 and recorded with said Registry in Book 1423, Page 514.

Subject to all matters of record in the York County Registry of Deeds, and also subject to real estate taxes not yet due and payable, which the grantees hereof agree to pay.

Being the same premises conveyed to Grantor by deed dated December 15, 1988 from William G. Anderson and Jane F. Anderson, recorded in the York County Registry of Deeds at Book 4940, Page 200.

The Grantor hereby warrant and covenant that they have full authority under the terms of the said Trust to execute this deed and to convey the property as above-described, that no actions are pending with respect to the Trust which could affect the Trustees' ability to convey the said property, and on behalf of the Trust, hereby convey the property.

[Signature Pages Follow; Remainder Intentionally Left Blank]

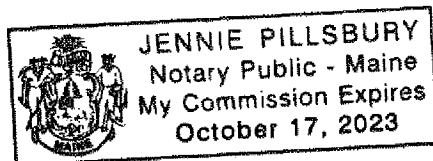
ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: Margot R. Anderson
Margot R. Anderson, Trustee

STATE OF MAINE
COUNTY OF YORK

November 15, 2019

Then before me personally appeared the above-named Margot R. Anderson, as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said Trust.



Jennie Pillsbury
Notary Public

Print Name: Jennie Pillsbury

My Commission Expires: 10/17/2023

ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: WT

William P. Anderson V. Trustee

STATE OF Massachusetts
COUNTY OF Worcester

Dec 4th, 2019

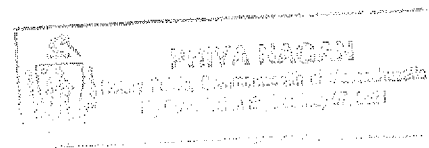
Then before me personally appeared the above-named William P. Anderson V. as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Trust.

Priya Nagan

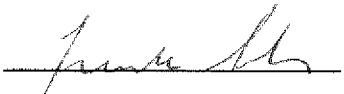
Notary Public

Print Name: PRIYA NAGAN

My Commission Expires: 5/7/2021



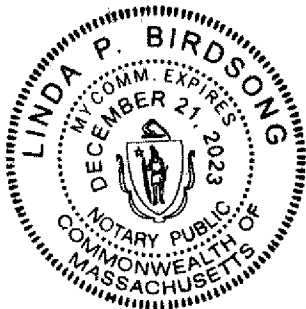
ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: 
Grenville Anderson, Trustee

STATE OF Massachusetts
COUNTY OF Suffolk

December 2, 2019

Then before me personally appeared the above-named Grenville Anderson, as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Trust.





Notary Public

Print Name: Linda P. Birdsong

My Commission Expires: 12-21-2023



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: Wed Oct 27 2021 08:24:36. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
POOL GHOUL, LLC	20132730DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
02/27/2013	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

AMY MCNALLY, ESQ.
P.O. BOX 468
BIDDEFORD, ME 04005

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amendments
\(\\$30.00\)](#)

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If you encounter problems, visit the [troubleshooting page](#).



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EXHIBIT A: Project Description

The applicant owns an approximate 2.3-acre parcel of land located on St. Martins Lane and adjacent to Saco Bay in the City of Biddeford, Maine. The site is developed with residential structure and associated development. There is an existing seasonal wooden pier, ramp and float that has been on site since the 1940's. The applicant is proposing to replace the seasonal pier ramp and float with a permanent pier and repair shoreline erosion by reinforcing the shoreline with rip-rap. We are proposing to plant native vegetation at the top of the rip-rap and restore the damaged lawn from construction activities. A set of historic stairs will be re-construction to access the beach. At the request of the MEDEP Staff, top half of the steps will be stone pinned to ledge and the bottom half will be constructed out of metal or wood and be removable. The lower portion of the stairs will be suspended above the floor of the beach.

In order to provide all-tide access, the new permanent pier will be (6) six feet in width by (55) fifty-five feet in length. The pier will be supported by timber bents and will reuse existing granite ballast stones on the shore. A (4) four foot wide by (60) sixty-foot-long aluminum ramp and (12) twelve foot by (24) twenty-four foot timber float will be removed seasonally and stored in a upland location. The mud flat is very flat, so the float will be constructed with skids to allow it to rest on the floor during an extremely low tide (i.e. -1.0 tide).

EXHIBIT B: Performance Standards

City of Biddeford

Part III: Land Development Regulations

Article XIV: Shoreland Zoning Ordinance

Section 15: Land Use Standards

Section C: Piers, docks, wharfs, bridges, and other structures and uses extending over or below the normal high-water line of a water body or within a wetland.

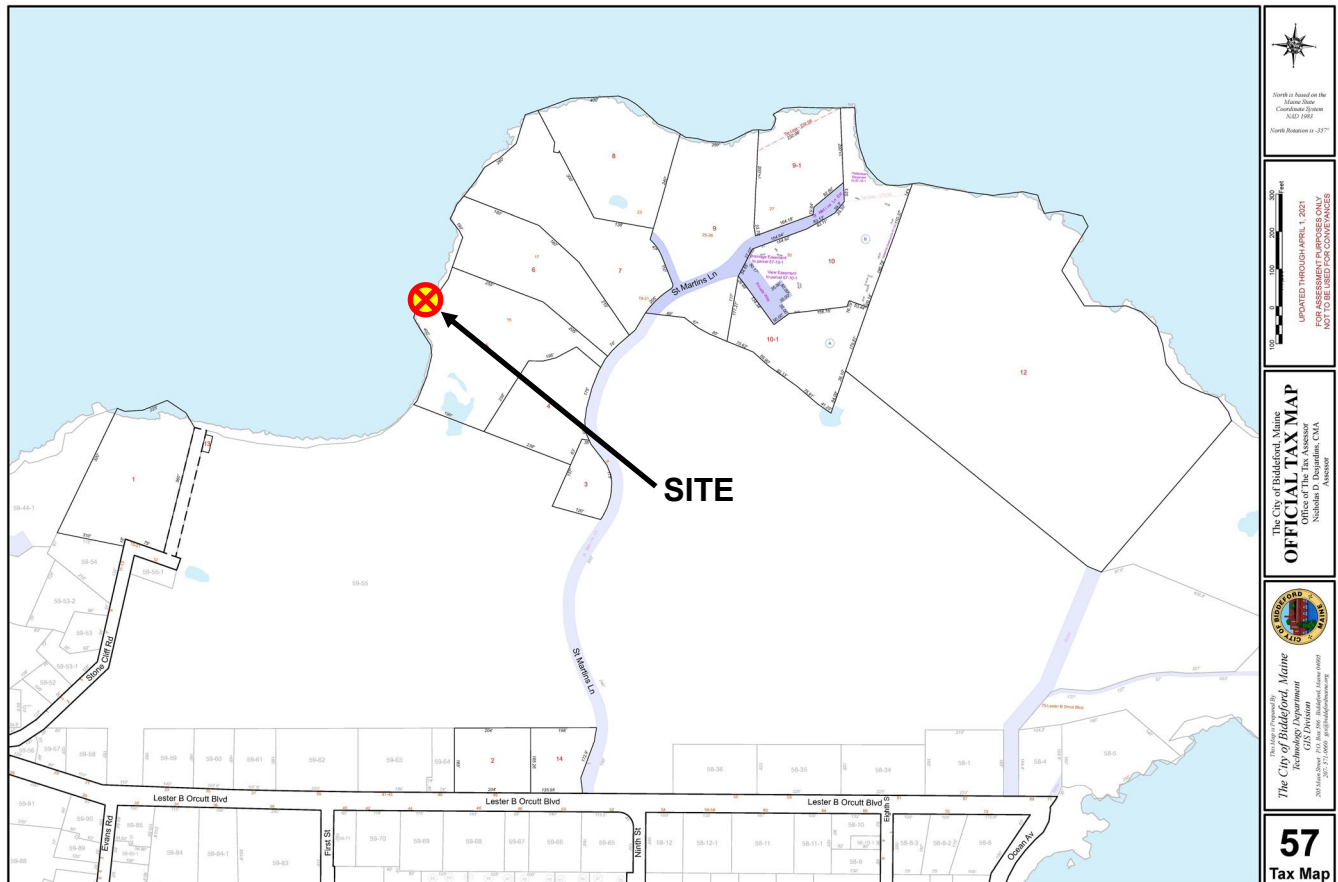
1. Except as provided in Section 15C11 and Section 15X7, no more than one pier, dock, wharf or similar structure extending or located below the normal high-water line of a water body or within a wetland is allowed on a single residential lot; except that when a single lot contains at least twice the minimum shore frontage as specified in Section 15A, a second structure may be allowed and may remain as long as the lot is not further divided. The applicant proposes one dock on their property.
2. Access from shore shall be developed on soils appropriate for such use and constructed so as to control erosion. The proposed dock and piles will be pinned to ledge and re-use existing granite ballast stones. Any area of disturbance will be stabilized with vegetation and mulch in accordance with MEDEP Erosion and Sedimentation Control BMPs manual.
3. The location shall not interfere with existing developed or natural beach areas. The proposed permanent pier will be in the same location as the existing seasonal pier that has been in place since the 1940's.
4. The facility shall be located so as to minimize adverse effects on fisheries. The new pier will provide reasonable tidal access over ledge and cobble beach. The end of the float will extend just beyond the mean low water (MLW).
5. The facility shall be no larger in dimension than necessary to carry on the activity and be consistent with existing conditions, use, and character of the area. A temporary pier, dock, or wharf in nontidal waters shall not be wider than six feet for noncommercial uses. The applicant is proposing a dock that is consistent with existing docks that are located within the surrounding area. The proposed length provides for all-tide access and

will allow the float to be elevated above the substrate. The dock will be no wider than (6) six feet.

6. No new structure shall be built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland unless the structure requires direct access to the water as an operational necessity. The applicant does not propose any structures on, over or abutting the proposed dock.
7. New permanent piers and docks on nontidal waters shall not be permitted unless it is clearly demonstrated to the Planning Board that a temporary pier or dock is not feasible, and a permit has been obtained from the Department of Environmental Protection, pursuant to the Natural Resources Protection Act. The dock is located on tidal waters and a permit has been submitted to the MEDEP & ACOE.
8. No existing structures built on, over or abutting a pier, dock, wharf or other structure extending beyond the normal high-water line of a water body or within a wetland shall be converted to dwelling units in any district. The applicant does not propose to convert any structures on, over or abutting the proposed dock to a dwelling unit.
9. Except in the General Development District, structures built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland shall not exceed 20 feet in height above the pier, wharf, dock or other structure.
NOTE: Permanent structures projecting into or over water bodies shall require a permit from the Department of Environmental Protection pursuant to the Natural Resources Protection Act, Title 38 M.R.S.A., Section 480-C. The applicant does not propose to construct any structure on, over, or abutting the proposed dock that will exceed twenty (20) feet in height. A permit application has been submitted to the MEDEP. Awaiting receipt of final approval.
10. Vegetation may be removed in excess of the standards in Section 15P of this ordinance in order to conduct shoreline stabilization of an eroding shoreline, provided that a permit is obtained from the Planning Board. Construction equipment must access the shoreline by barge when feasible as determined by the Planning Board.
 - a. When necessary, the removal of trees and other vegetation to allow for construction equipment access to the stabilization site via land must be limited to no more than 12 feet in width. When the stabilization project is complete, the construction equipment accessway must be restored. Existing shrubbery will be removed and replaced with native vegetation in the shoreland stabilization area. No trees will be removed. The construction access pathway will be repaired and returned to lawn at the end of construction.
11. A deck over a river may be exempted from the shoreland setback requirements if it is part of a downtown revitalization project that is defined in a project plan approved by the legislative body of the municipality, and may include the revitalization of structures formerly used as mills that do not meet the structure setback requirements, if the deck meets the following requirements:
 - a. The total deck area attached to the structure does not exceed 700 square feet;
 - b. The deck is cantilevered over a segment of a river that is located within Section 15 Section 15 :7 the boundaries of the downtown revitalization project;
 - c. The deck is attached to or accessory to an allowed commercial use in a structure that was constructed prior to 1971 and is located within the downtown revitalization project;
 - d. The construction of the deck complies with all other applicable standards, except the shoreline setback requirements in Section 15B; and
 - e. The construction of the deck complies with all other state and federal laws.
The Applicant does not propose to construct a deck as part of a downtown revitalization project.
 - f. Revegetation must occur in accordance with Section 15S. NOTE: A permit pursuant to the Natural Resource Protection Act is required from the Department of Environmental Protection for shoreline stabilization activities.

Town of Biddeford

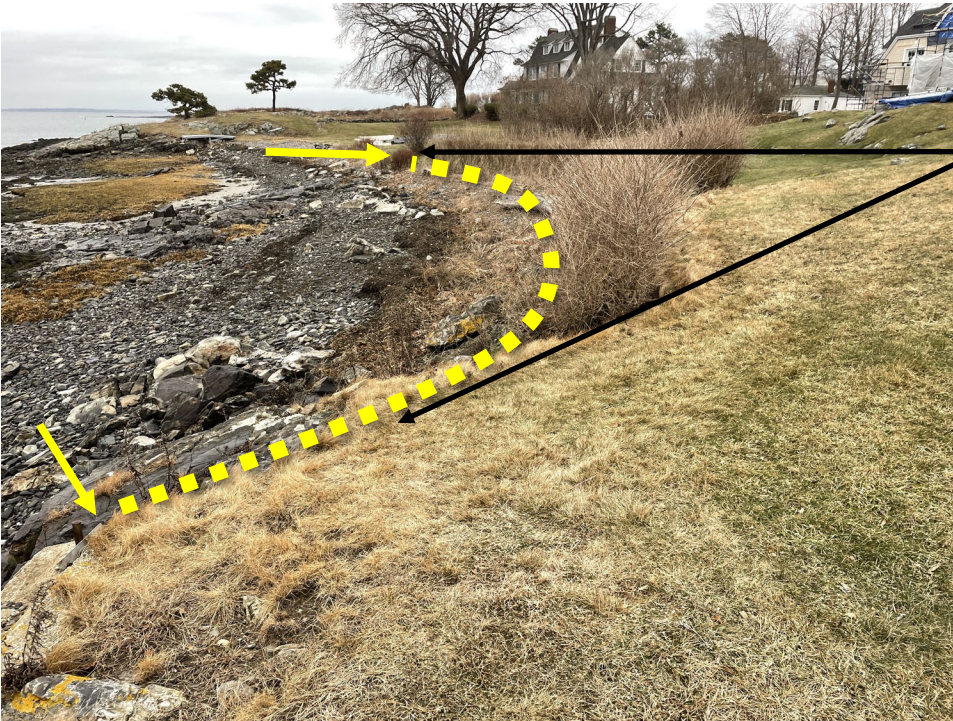
Tax Map 57 Lot 5



Site Location
15 St. Martins Lane
Biddeford, ME



Pins to mount existing seasonal pier, ramp and float.



Area of shoreline erosion, from pier to shrub in the far distance.
Approximately 130 linear feet of shoreline stabilization.

Photos Taken by SSLA on January 5, 2022

Site Photos

Ex. Pier Pins & Shoreline Stabilization

Biddeford, Maine

Scott Strynar Landscape Architect, LLC

April 29, 2022



Shoreline erosion, roots of shrubbery exposed to air.



Shoreline stabilization ends at large shrub, existing grade rises above elevation 10.5—11

Photos Taken by SSLA on January 5, 2022

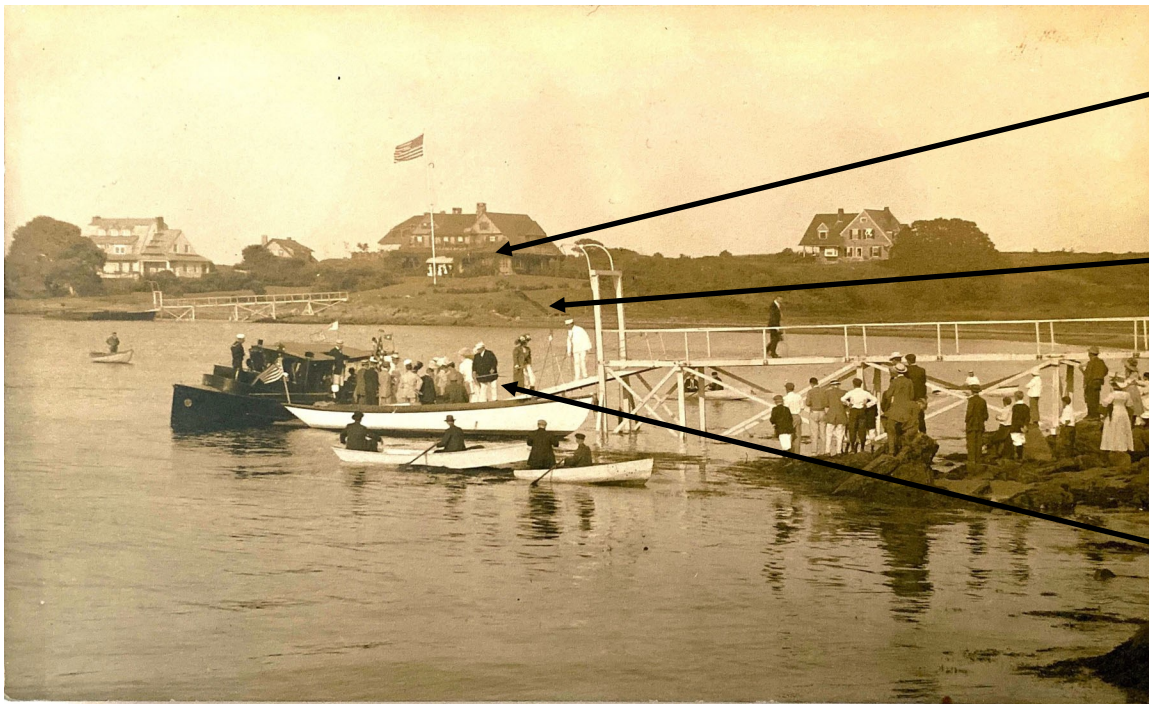
Site Photos

Shoreline Stabilization

Biddeford, Maine

Scott Strynar Landscape Architect, LLC

April 29, 2022



Hogan Residence
15 St. Martin Lane

Stairs

President Taft

Historic Photo of President Taft exiting Boat circa early 1900's



Stepping stone in
lawn



Stone Remains of
stairway.

Photos Taken by SSLA on January 5, 2022

Site Photos

Historic Steps to Beach

Biddeford, Maine

Scott Strynar Landscape Architect, LLC

April 29, 2022

PLAN REFERENCE:

Property Boundary, topography, highest annual tide line, high water line, low water line and wetlands taken from file provided by Sebago Technics, South Portland. Plan titled 'Tree Inventory Plan', dated 01/24/2020.



Scott Strynar Landscape Architect, LLC
Landscape Architect
98 Meehan Ln, North Berwick, ME 03906
(207) 957-4441
sstrynar@gmail.com

Date: 9/2/2022
Project: 15 St. Martin
Biddeford Pool
Drafted By: SS

NRPA Submission; Existing Conditions and Erosion Controls
Seasonal Pier, Existing Erosion and Historic Stairs to Beach

Sheet
1
OF
6

PLAN REFERENCE:
See Sheet 1 for Plan References.

DETAILED PLAN VIEW

132 LF OF SHORELINE
STABILIZATION, NO RIP-RAP
BELOW H.A.T. LINE

NEW 6FT WIDE X 55 FT LONG PIER
W/ 4FT X 60FT TIDE RAMP AND-
12X24 FLOAT.

EROSION CONTROLS
SILT-SOCK 150LF

LOCATION OF HISTORIC STEPS
TO BE REBUILT

REPAIR LAWN FROM CONSTRUCTION & SEED/SOD

 $\frac{3}{5}$

100'

DRIVE COURT

HOUSE

GARDEN

POOL

FRESHWATER
WETLAND

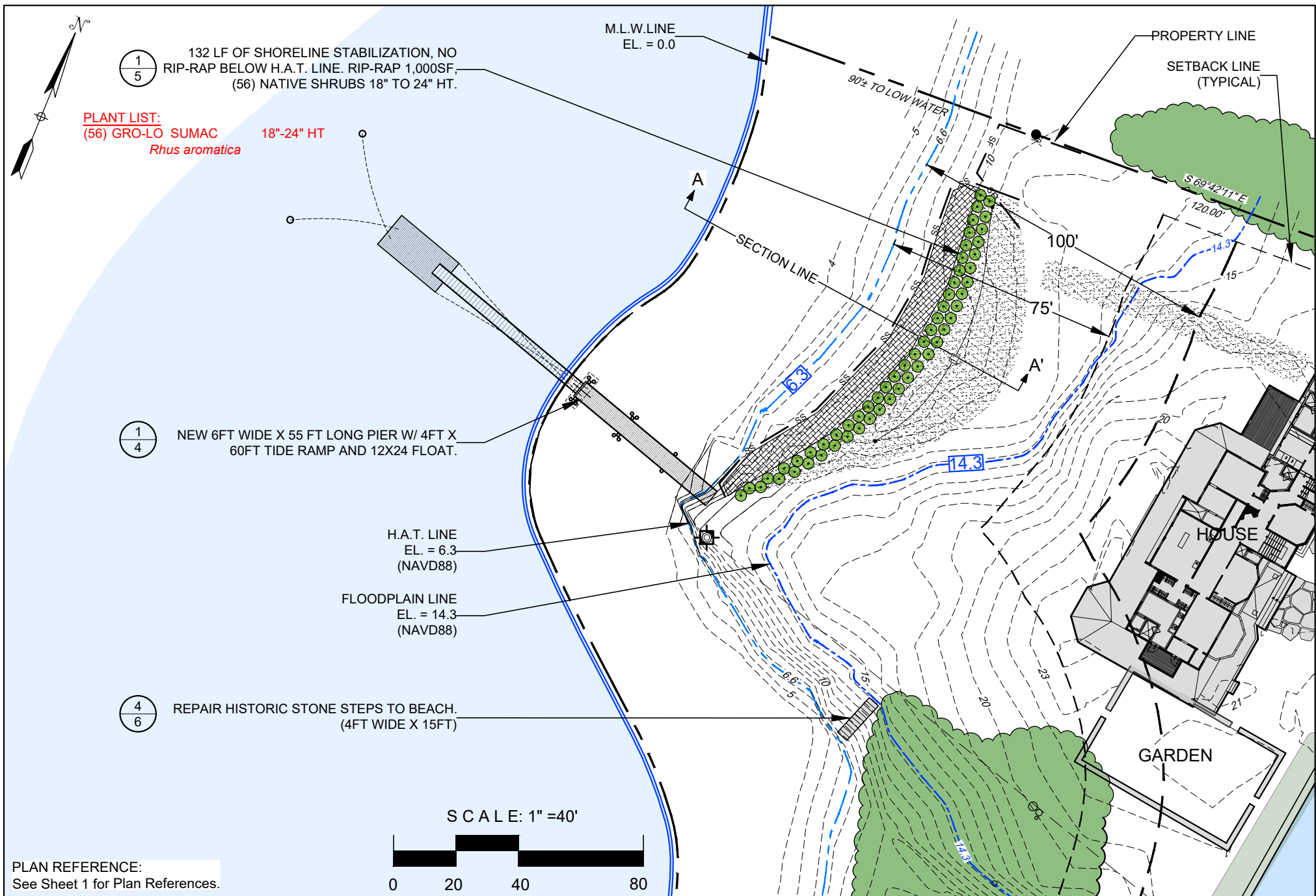
SCALE: 1" = 80'

Scott Strynar Landscape Architect, LLC
Landscape Architect
98 Meehan Ln, North Berwick, ME 03906
(207) 957-4441
sstrynar@gmail.com

Date: 9/2/2022
Project: 15 St. Martin
Biddeford Pool
Drafted By: SS

NRPA Submission; New Permanent Pier, Ramp & Float, Shoreline Stabilization and Repair of Historic Stair to Beach

Sheet
2
OF
6

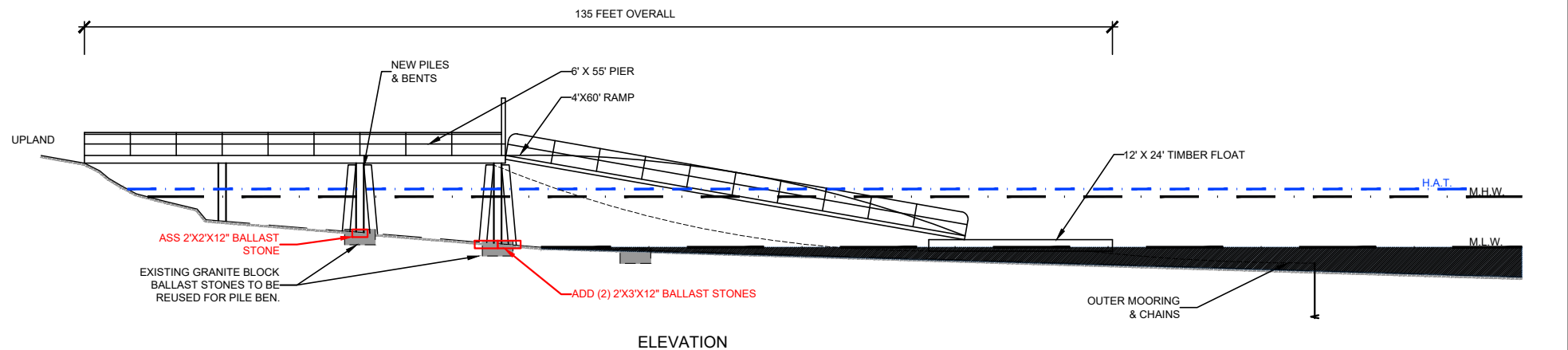
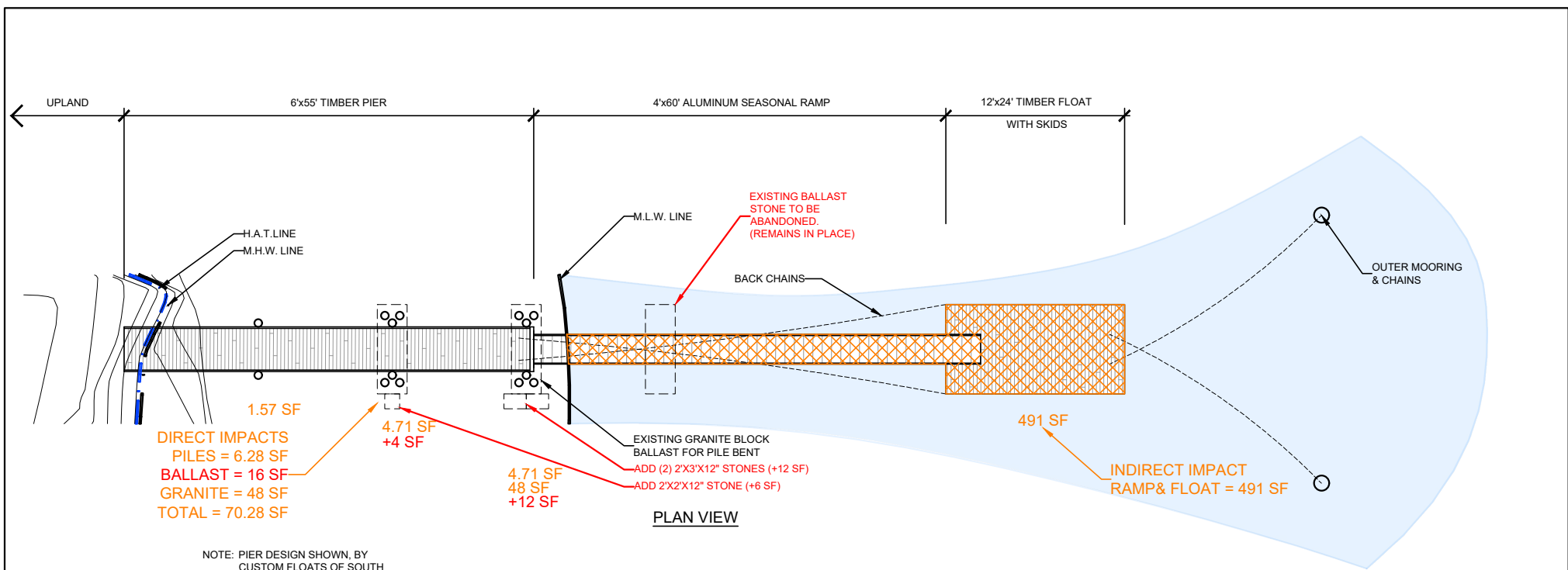


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 sstrynar@gmail.com

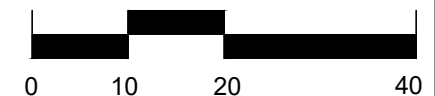
Date: 9/2/2022
Project: 15 St. Martin
 Biddeford Pool
Drafted By: SS

NRPA Submission; Detailed Plan For New Permanent Pier, Ramp & Float,
 Shoreline Stablzation and Repair of Historic Stair to Beach

Sheet
 3
 OF
 6



SCALE: 1" = 20'

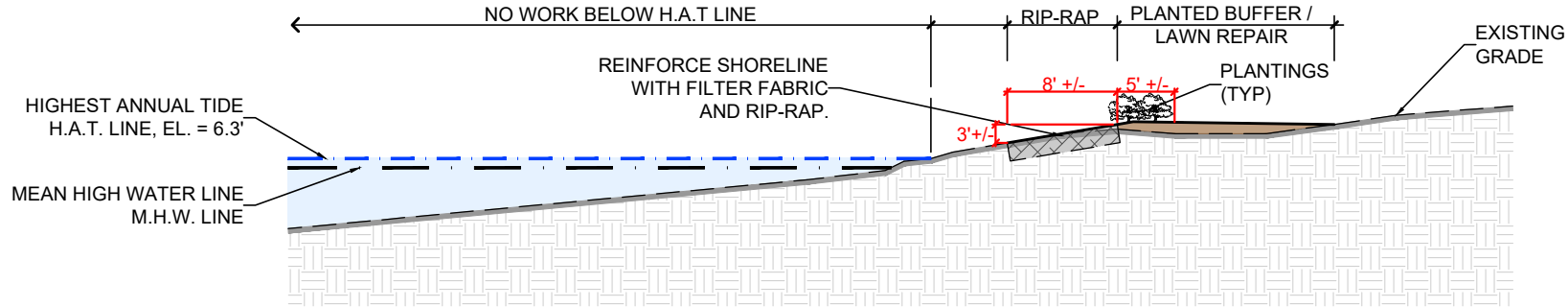


Scott Strynar Landscape Architect, LLC
Landscape Architect
98 Meehan Ln, North Berwick, ME 03906
(207) 957-4441
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Date: 9/2/2022
Project: 15 St. Martin
Biddeford Pool
Drafted By: SS

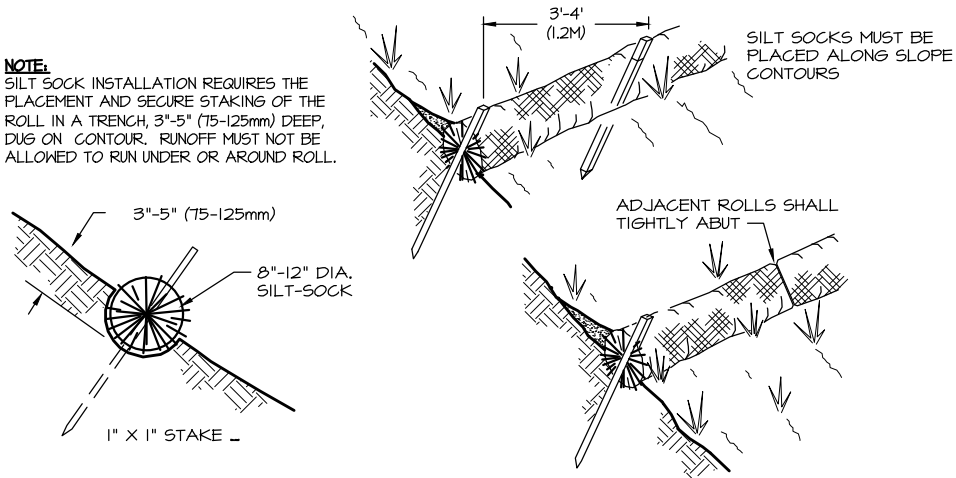
NRPA Submission; New Pier, Ramp & Float Detailed Plan and Elevation

Sheet
4
OF
6

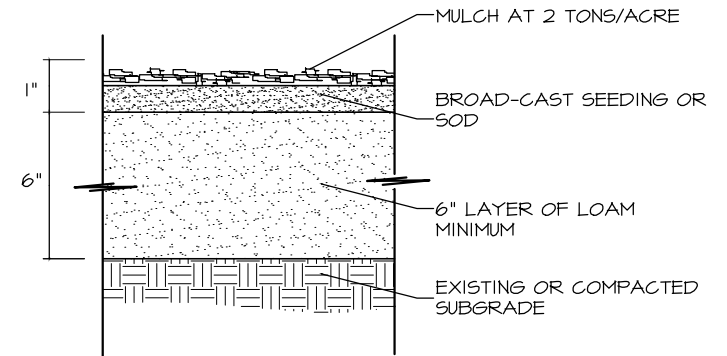


1 SECTION A - A'
NOT TO SCALE

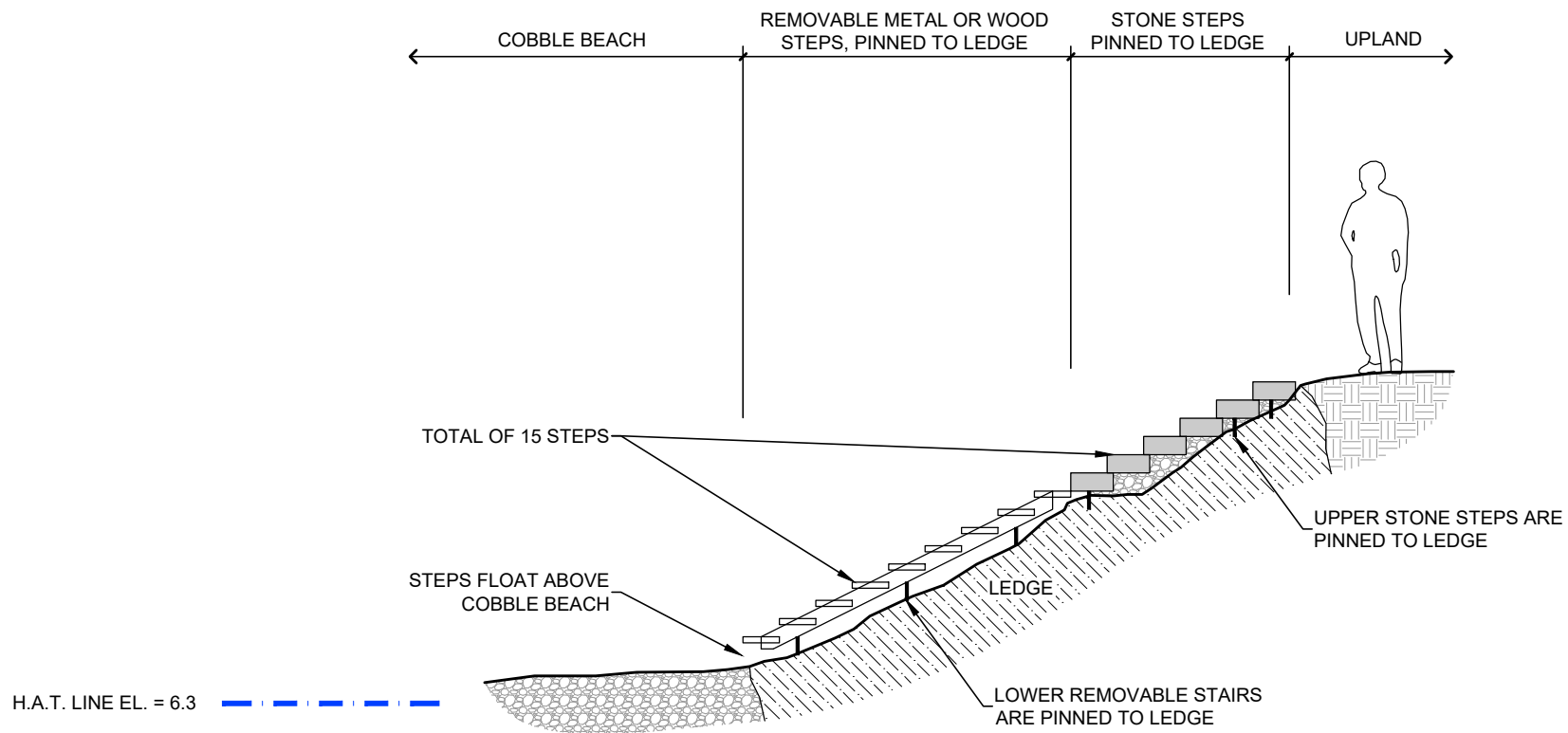
NOTE:
SILT SOCK INSTALLATION REQUIRES THE
PLACEMENT AND SECURE STAKING OF THE
ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP,
DUG ON CONTOUR. RUNOFF MUST NOT BE
ALLOWED TO RUN UNDER OR AROUND ROLL.



2 SILT-SOCK INSTALLATION
NOT TO SCALE



3 LOAM & SEED/SOD
NOT TO SCALE



4 BEACH ACCESS STEPS OVER LEDGE
NOT TO SCALE



1. Property Boundary, topography, highest annual tide line, high water line, low water line and wetlands taken from file provided by Sebago Technics, South Portland. Plan titled 'Tree Inventory Plan', dated 01/24/2020.

M.E.D.E.P N.R.P.A. PERMITTING:

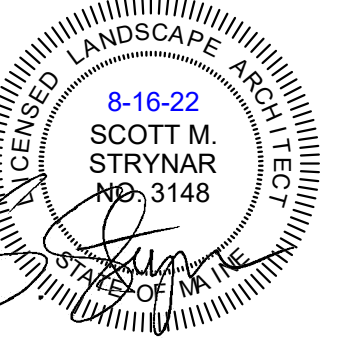
1. Natural Resource Protection Act, Individual Permit Submitted to the Maine Department of Environmental Protection on April 29, 2022. Individual Permit for Permanent Pier, Shoreline Stabilization and Steps to Beach. Copy of Submitted permit application on file at the City of Biddeford Code Enforcement Office. Awaiting Issuance of Permit By MEDEP Staff.
2. Army Corp of Engineers Permit submitted. Awaiting Issuance of Permit by ACOE Staff.

PLANNING BOARD APPROVAL

Date: _____

BIDDEFORD PLANNING BOARD SUBMISSION 8-16-22

Scott Strynar
Landscape Architect, LLC.
98 Meehan Lane
North Berwick, ME 03906
(t) 207-957-4441
www.scottstrynarla.com



consultants:

Surveyor:
Sebago Technics
75 John Roberts Rd, Suite 4A
South Portland, ME 04106
(t) 207-200-2100

Pier Contractor:
Custom Float Services
11 Wallace Ave.
South Portland, ME 04106

POOL GHOU, LLC
15 St. Martens Lane, Biddeford, Maine

Site:
SITE PLAN

[illegible]



1. Property Boundary, topography, highest annual tide line, high water line, low water line and wetlands taken from file provided by Sebago Technics, South Portland. Plan titled 'Tree Inventory Plan', dated 01/24/2020.

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APPROVAL

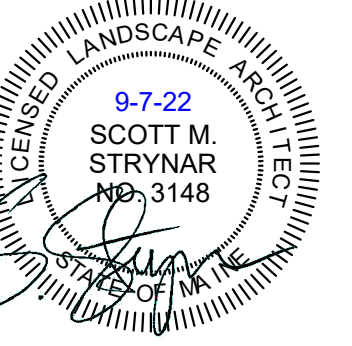
Matthew Grooms, City Planner, duly
authorized to sign on behalf of the
Biddeford Planning Board.

Date: _____

Date: _____

PLANNING BOARD APPROVAL

Scott Strynar
Landscape Architect, LLC.
98 Meehan Lane
North Berwick, ME 03906
(t) 207-957-4441
www.scottstrynarla.com



tants:

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John Roberts Rd, Suite 4A
North Portland, ME 04106
707-200-2100

Contractor:
 om Float Services
 Wallace Ave.
 Portland, ME 04106

POOL GHOU, LLC
15 St. Martens Lane, Biddeford, Maine

TE PLAN

[illegible]

SP1

Scott Strynar Landscape Architect, LLC
98 Meehan Lane
North Berwick, ME 03906
Office: 207-957-4441
Email: sstrynar@gmail.com

April 29, 2022

Attn: Ms. Alison Sirois,
Maine Department of Environmental Protection
Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103

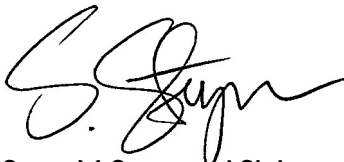
RE: Mr & Mrs Richard Hogan, 15 St. Martins Lane, Biddeford Maine– Tax Map 57 Lot 5
Ch. 305 – Natural Resource Protection Act (DEP) Application for New Pier, Shoreline
Stabilization and Historic Steps to Beach

Dear Alison,

On behalf of Mr. & Mrs. Richard Hogan, Scott Strynar Landscape Architect, LLC (SSLA) is pleased to submit an Individual Natural resource Protection Act (NRPA) Permit Application to the Maine Department of Environmental Protection. We are proposing to convert a seasonal pier, ramp and float to a be a permanent structure, stabilize the adjacent shoreline and re-construct historic steps to the beach. The new pier will be (6) feet wide by (55) feet long with a (4) foot wide by (60) foot long aluminum ramp. The shoreline stabilization area is approximately 132 linear feet and the work will be above the Highest Annual Tide (H.A.T.) Line. The historic steps to the beach will be (4) feet wide and approximately (15) feet in length, also above the H.A.T. line. A copy of this application has been submitted to the U.S. Army Corps of Engineers (ACOE), Maine Projects Office in Augusta, Maine and the City of Biddeford, Maine.

Thank you in advance for your consideration of this application. If you require any additional information or clarification, please feel free to contact me at 207-957-4441 or by email at sstrynar@gmail.com.

Regards,



Scott M Strynar, ASLA
Maine Licensed Landscape Architect
Scott Strynar Landscape Architect, LLC

Natural Resources Protection Act Application

to

Construct a permanent pier, Shoreline Stabilization and Historic Steps to Beach

located at

15 St. Martin Lane
Biddeford, Maine

Submitted to:

Maine Department of Environmental Protection
312 Canco Road
Portland, ME 04103

Submitted by:

Scott Strynar Landscape Architect, LLC
98 Meehan Lane
North Berwick, Maine 03906

April 29, 2022

Department of Environmental Protection
Bureau of Land & Water Quality
17 State House Station
Augusta, Maine 04333
Telephone: 207-287-7688

FOR DEP USE

ATS # _____
L- _____
Total Fees: _____
Date Received: _____

APPLICATION FOR A NATURAL RESOURCES PROTECTION ACT PERMIT

→ PLEASE TYPE OR PRINT IN **BLACK INK ONLY**

1. Name of Applicant: Mr. Richard Hogan (d.b.a. Pool Ghoul, LLC)		5. Name of Agent: Scott Strynar Landscape Architect, LLC							
2. Applicant's Mailing Address: 15 St. Martins Lane, Biddeford, ME 04006		6. Agent's Mailing Address: 98 Meehan Lane, North Berwick, ME 03906							
3. Applicant's Daytime Phone #: (415)-939-4525		7. Agent's Daytime Phone #: 207-957-4441							
4. Applicant's Email Address (Required from either applicant or agent): rhoagy@gmail.com		8. Agent's Email Address: sstrynar@gmail.com							
9. Location of Activity: (Nearest Road, Street, Rt.#) L.B. Orcutt Blvd.		10. Town: Biddeford	11. County: Cumberland						
12. Type of Resource: (Check all that apply)	☐ River, stream or brook ☐ Great Pond ☒ Coastal Wetland ☐ Freshwater Wetland ☐ Wetland Special Significance ☐ Significant Wildlife Habitat ☐ Fragile Mountain		13. Name of Resource: Casco Bay						
	14. Amount of Impact: (Sq.Ft.) ☐ 0 - 4,999 sq ft. ☐ 5,000-9,999 sq ft ☒ 10,000-14,999 sq ft		Fill: Dredging/Veg Removal/Other:						
15. Type of Wetland: (Check all that apply)	☐ Forested ☐ Scrub Shrub ☐ Emergent ☐ Wet Meadow ☐ Peatland ☒ Open Water ☐ Other _____	FOR FRESHWATER WETLANDS <table border="1"> <thead> <tr> <th>Tier 1</th> <th>Tier 2</th> <th>Tier 3</th> </tr> </thead> <tbody> <tr> <td> ☐ 0 - 4,999 sq ft. ☐ 5,000-9,999 sq ft ☒ 10,000-14,999 sq ft </td> <td> ☐ 15,000 – 43,560 sq. ft. </td> <td> ☐ > 43,560 sq. ft. or ☐ smaller than 43,560 sq. ft., not eligible for Tier 1 </td> </tr> </tbody> </table>		Tier 1	Tier 2	Tier 3	☐ 0 - 4,999 sq ft. ☐ 5,000-9,999 sq ft ☒ 10,000-14,999 sq ft	☐ 15,000 – 43,560 sq. ft.	☐ > 43,560 sq. ft. or ☐ smaller than 43,560 sq. ft., not eligible for Tier 1
	Tier 1	Tier 2	Tier 3						
☐ 0 - 4,999 sq ft. ☐ 5,000-9,999 sq ft ☒ 10,000-14,999 sq ft	☐ 15,000 – 43,560 sq. ft.	☐ > 43,560 sq. ft. or ☐ smaller than 43,560 sq. ft., not eligible for Tier 1							
16. Brief Activity Description: Installation permanent of Pier, adjacent Shoreline Stabilization & Historic steps to beach									
17. Size of Lot or Parcel & UTM Locations:		☐ _____ square feet, or ☒ 2.37 acres UTM Northing: 4811584 UTM Easting: 391059							
18. Title, Right or Interest: ☒ own ☐ lease ☐ purchase option ☐ written agreement									
19. Deed Reference Numbers: Book#:18116 Page: 942		20. Map and Lot Numbers: Map #: 57 Lot #: 5							
21. DEP Staff Previously Contacted: Alison Sirois		22. Part of a larger project: ☐ Yes ☒ No After-the-Fact: ☐ Yes ☒ No							
23. Resubmission of Application?: ☐ Yes → ☒ No		If yes, previous application # _____ Previous project manager: _____							
24. Written Notice of Violation?: ☐ Yes → ☒ No		If yes, name of DEP enforcement staff involved: _____ 25. Previous Wetland Alteration: ☐ Yes ☒ No							
26. Detailed Directions to the Project Site:		Take I-295 South to ME-26 to US rte1 South, I-296 S to I-95 S to US Rte 1s/Main Street in Saco. Take exist 2A from I-195, continue on Main Street, take Pool Street to St. Martins Lane in Biddeford.							
27. TIER 1		TIER 2/3 AND INDIVIDUAL PERMITS							
☐ Title, right or interest documentation ☐ Topographic Map ☐ Narrative Project Description ☐ Plan or Drawing (8 1/2" x 11") ☐ Photos of Area ☐ Statement of Avoidance & Minimization ☐ Statement/Copy of cover letter to MHPC		☒ Title, right or interest documentation ☒ Topographic Map ☒ Copy of Public Notice/Public Information Meeting Documentation ☒ Wetlands Delineation Report (Attachment 1) that contains the information listed under Site Conditions ☒ Alternatives Analysis (Attachment 2) including description of how wetland impacts were Avoided/Minimized ☒ Erosion Control/Construction Plan ☒ Functional Assessment (Attachment 3), if required ☐ Compensation Plan (Attachment 4), if required ☒ Appendix A and others, if required ☒ Statement/Copy of cover letter to MHPC ☐ Description of Previously Mined Peatland, if required							
28. FEES Amount Enclosed: \$564.00									

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 :

DEP SIGNATORY REQUIREMENT

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor a permit be issued.

CORPS SIGNATORY REQUIREMENT

USC Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry shall be fined not more than \$10,000 or imprisoned not more than five years or both. I authorize the Corps to enter the property that is subject to this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

DEP SIGNATORY REQUIREMENT

"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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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 address located on the front page of this application (see #4 for the applicant and #8 for the agent)."

Date: **4-29-2022**

SIGNATURE OF AGENT/APPLICANT

NOTE: Any changes in activity plans must be submitted to the DEP and the Corps in writing and must be approved by both agencies prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

From: [Richard Hogan](#)
To: [Scott Strynar LA LLC](#)
Cc: [Jared Prentiss](#)
Subject: Permission
Date: Wednesday, October 27, 2021 1:26:50 PM

Dear Mr. Scott Strynar,

By this letter, I authorize Scott Strynar Landscape Architect, LLC to act as agent for the express purpose of providing design and regulatory permitting services for site improvements proposed for the property located at 15 St. Martins Lane, Biddeford, Maine. Town of Biddeford Tax Map 57 Lot 5.

Sincerely,
Richard Hogan
d.b.a. Pool Ghoul, LLC
(415) 939-4525

Rich
(415) 939-4525

Table of Contents

Exhibit 1. Activities Description

Exhibit 2. Alternatives Analysis

Exhibit 3. Location Map

Exhibit 4. Photographs

Exhibit 5. Plans

Exhibit 6. Construction Plan

Exhibit 7. Erosion Control Plan

Exhibit 8. Appendices A & B

Exhibit 9. Notice of Intent to File

Exhibit 10. List of Abutters, Tax Map, Deed, Including Title, Right, or Interest

Exhibit 11. MHPC and Tribal Notifications

Exhibit 12. Coastal Wetland Characterization Summary

Exhibit 13. Compensation

Exhibit 1.0: Activity Description

The applicant owns an approximate 2.37 acre parcel of land on St. Martins Lane adjacent to Casco Bay in the City of Biddeford, Maine (see Exhibit 3.0). The site is developed with a residential structure, inground pool and pool equipment shed (all currently undergoing renovations and repairs). The existing seasonal pier, which has been in existence since the early 1900's, was damaged in a storm in 2020 and the applicant proposes to replace the seasonal pier with a permanent structure. The property will be used by the applicant and family; therefore, the applicant proposes to construct a permanent pier ramp and float system to provide safe water access for kayaking, boating and swimming. Existing ballast stones will be re-used to help support the new pier along with wooden bents. The adjacent shoreline to the east of the pier is eroding, and the root systems of the existing shrubbery is exposed. We propose to install rip-rap and new vegetation to stabilize the shoreline and prevent future erosion. Lastly, the application would like to re-build a set of historic steps to the beach, located just to the west of the pier.

Scott Strynar Landscape Architect, LLC (SSLA) and Atlantic Environmental (AE) investigated the site and surrounding area to confirm that the current new pier location would meet the project goals while avoiding and minimizing impacts to the environment. SSLA and AE determined that the existing pier location was the preferred location for the permanent pier to provide water access for the majority of tides. On extremely low tides (-1.0), the float will sit on the mud flats for a short period of time.

Exhibit 2.0: Alternatives Analysis

The Applicant considered several alternatives to determine the most effective means to meet the project purpose of recreational water access and to stabilize the shoreline where there is existing erosion. Factors considered in this analysis include: shoreline characteristics, soils, vegetation, access to the site, identified natural resources, proximity to existing public and private facilities, causes of erosion, avoiding and minimizing impacts to the coastal wetland, and protection of existing structures.

SHORELINE STABILIZATION

2.1 ALTERNATIVE ONE

The Applicant considered not stabilizing the shoreline; however, the no action alternative will result in further erosion to the shoreline. If the erosion continues it could jeopardize the safety and integrity of the bank and the development at the top of the bank which includes the existing access to the resource. In addition, the Applicant's residential structure is located nearly one hundred (100) feet from top of the bank. For this reason, the no action alternative was rejected.

2.2 ALTERNATIVE TWO

The Applicant considered designing a stabilization plan that utilizes vegetation only. The erosion appears to be due to storm surge. Given the need for a stabilization system that will withstand direct storm surge, the Applicant determined that vegetation alone would not be sufficient to stabilize the eroding bank. Therefore, this alternative was rejected.

2.3 ALTERNATIVE THREE – (selected alternative)

The Applicant determined that placing larger riprap along a portion of the shoreline that is exhibiting erosion will ensure stability of the shoreline and protect the existing structures.

DOCK CONSTRUCTION

2.1(a) ALTERNATIVE ONE

The Applicant considered not modifying the existing seasonal dock. The Applicant's project purpose is to provide access to the resource for safe recreational boating and similar activities such as swimming and kayaking. The existing seasonal dock was destroyed in a storm and the Applicant would like a more substantial structure that will withstand future storm events. The Applicant determined that a seasonal dock would not result in a safe or stable structure and the safest and most secure way to do this is to construct a permanent pier that connects to a seasonal ramp and float.

2.2(a) ALTERNATIVE TWO

The Applicant considered not constructing a dock; however, the property has had water access for boating for over eighty (80) years. Removing the dock would not meet the Applicant's project purpose of safe access to the resource. The intertidal consists of ledge and mixed coarse and fines. It is unsafe to land watercraft within the intertidal and the shoreline is impossible to safely traverse with watercraft. Given this, the Applicant determined that the construction of a dock would provide safe access to the resource. Therefore, the no dock alternative was rejected since it would not meet the project purpose.

2.3(a) ALTERNATIVE FOUR

The Applicant considered public and private facilities. The nearest publicly owned boat launch is approximately one (1) mile from the project site. The launch does not provide as readily available access to meet the Applicant's project purpose. In addition, the Applicant intends to utilize the dock for other recreational activities such as utilizing low impact watercraft (kayaking and paddle boarding) as well as swimming. For these reasons, the Applicant determined the launch does not meet their project purpose.

There are several marinas nearby that are located in Biddeford and Saco. The Applicant determined that given the annual cost to maintain a slip and that a marina does not provide recreational access for swimming, paddleboard, and kayaking, this was not a practicable alternative to meet their project goals.

2.4(e) ALTERNATIVE FIVE (*selected alternative*)

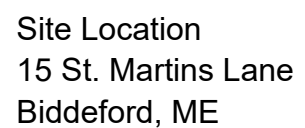
The preferred location and proposed dimensions were selected for several reasons:

- a. No public or private facility can accommodate the Applicant's needs.
- b. The proposed location and dimensions of the dock provide a reasonable depth of water at the float for recreational access and allow the float to land in a reasonable distance from the ledge and substrates that are located in the intertidal area.
- c. The Applicant has minimized the dimensions of the dock to the minimal necessary to meet the project purpose.
- d. The proposed location meets all applicable setbacks.

2.6 STATEMENT OF AVOIDANCE AND MINIMIZATION

In summary, the Applicant considered several alternatives before determining that the placement

of riprap and the dock construction were the most practicable alternatives to meet project goals. In order to minimize impacts, riprap has been designed with a 1H : 1V slope. The proposed dock is the necessary length to reach navigable waters on a reasonable tidal basis and avoids landing the float on ledge. In addition, all seasonal structures will be stored outside of the coastal wetland during the off-season.





Pins to mount existing seasonal pier, ramp and float.



Area of shoreline erosion, from pier to shrub in the far distance.
Approximately 130 linear feet of shoreline stabilization.

Photos Taken by SSLA on January 5, 2022

Site Photos

Ex. Pier Pins & Shoreline Stabilization

Biddeford, Maine

Scott Strynar Landscape Architect, LLC

April 29, 2022



Shoreline erosion, roots of shrubbery exposed to air.



Shoreline stabilization ends at large shrub, existing grade rises above elevation 10.5—11

Photos Taken by SSLA on January 5, 2022

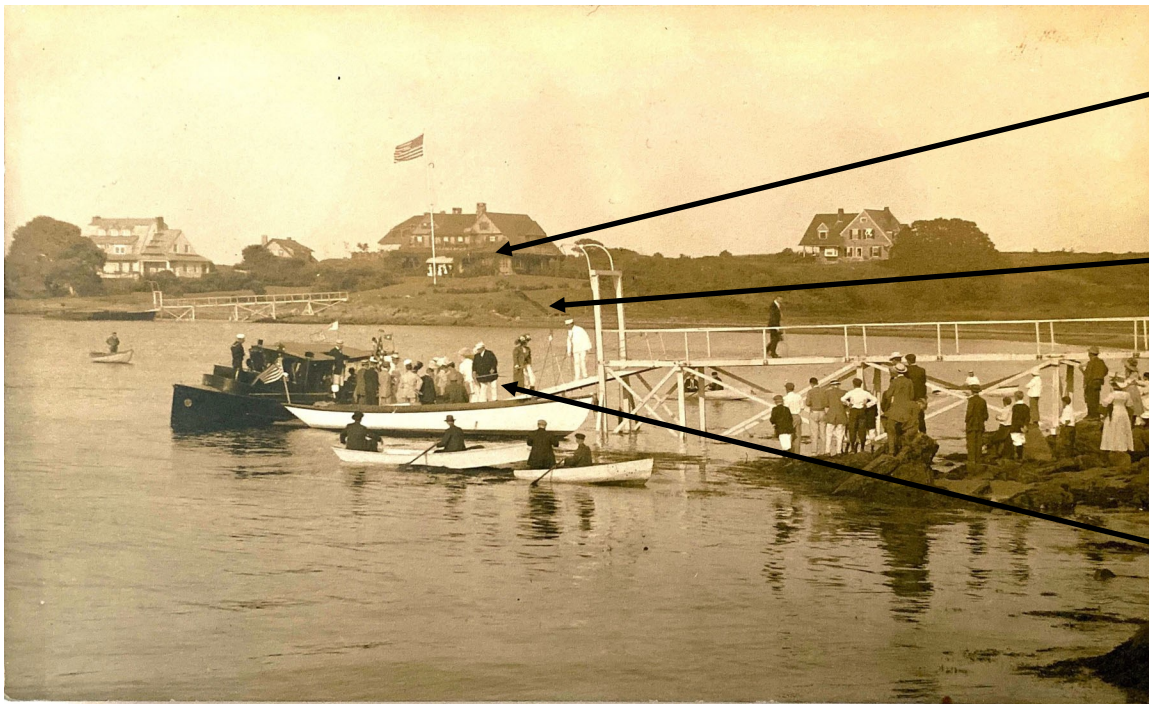
Site Photos

Shoreline Stabilization

Biddeford, Maine

Scott Strynar Landscape Architect, LLC

April 29, 2022



Hogan Residence
15 St. Martin Lane

Stairs

President Taft

Historic Photo of President Taft exiting Boat circa early 1900's



Stepping stone in
lawn



Stone Remains of
stairway.

Photos Taken by SSLA on January 5, 2022

Site Photos

Historic Steps to Beach

Biddeford, Maine

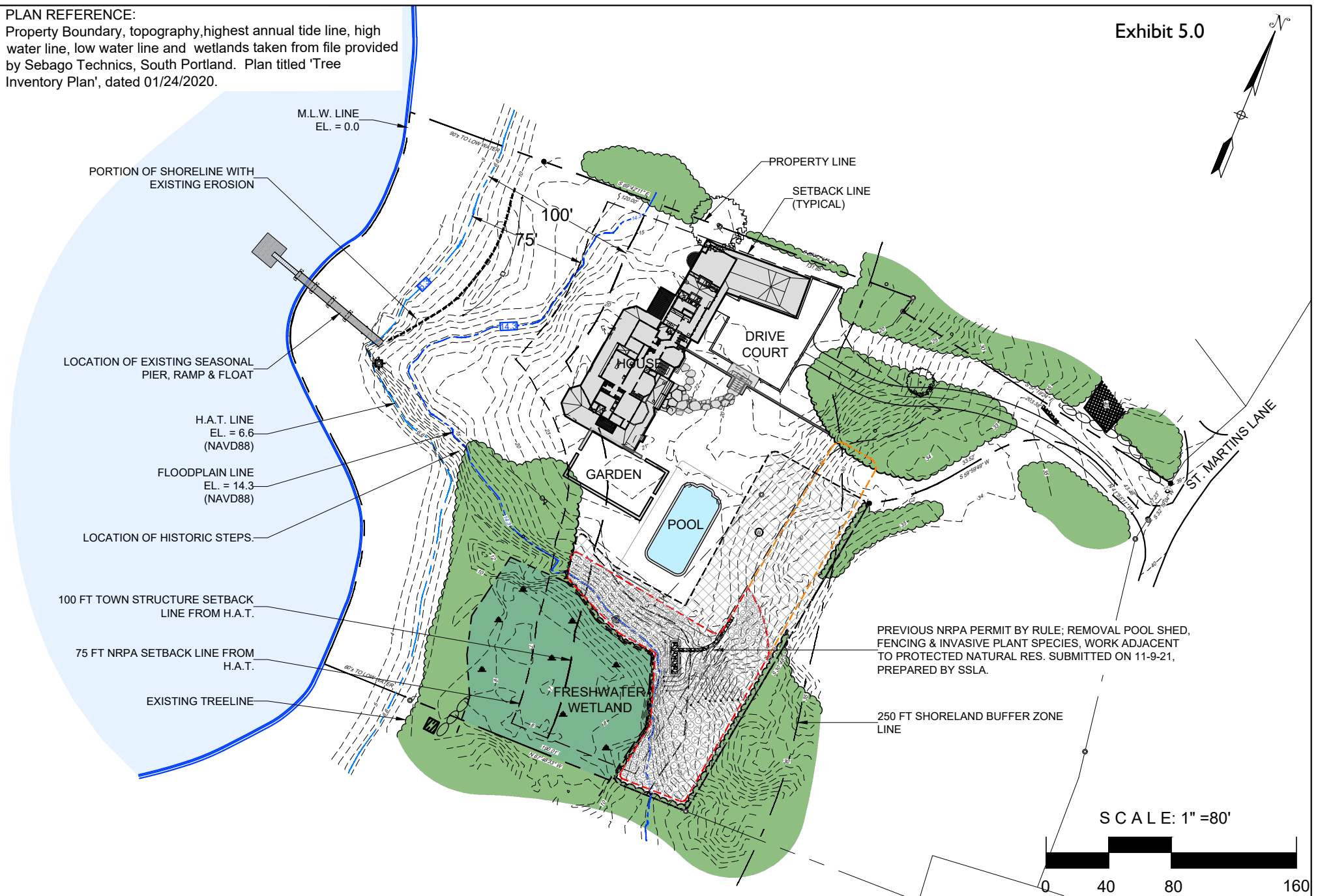
Scott Strynar Landscape Architect, LLC

April 29, 2022

PLAN REFERENCE:

Property Boundary, topography, highest annual tide line, high water line, low water line and wetlands taken from file provided by Sebago Technics, South Portland. Plan titled 'Tree Inventory Plan', dated 01/24/2020.

Exhibit 5.0



Scott Strynar Landscape Architect, LLC
 Landscape Architect
 98 Meehan Ln, North Berwick, ME 03906
 (207) 957-4441
 sstrynar@gmail.com

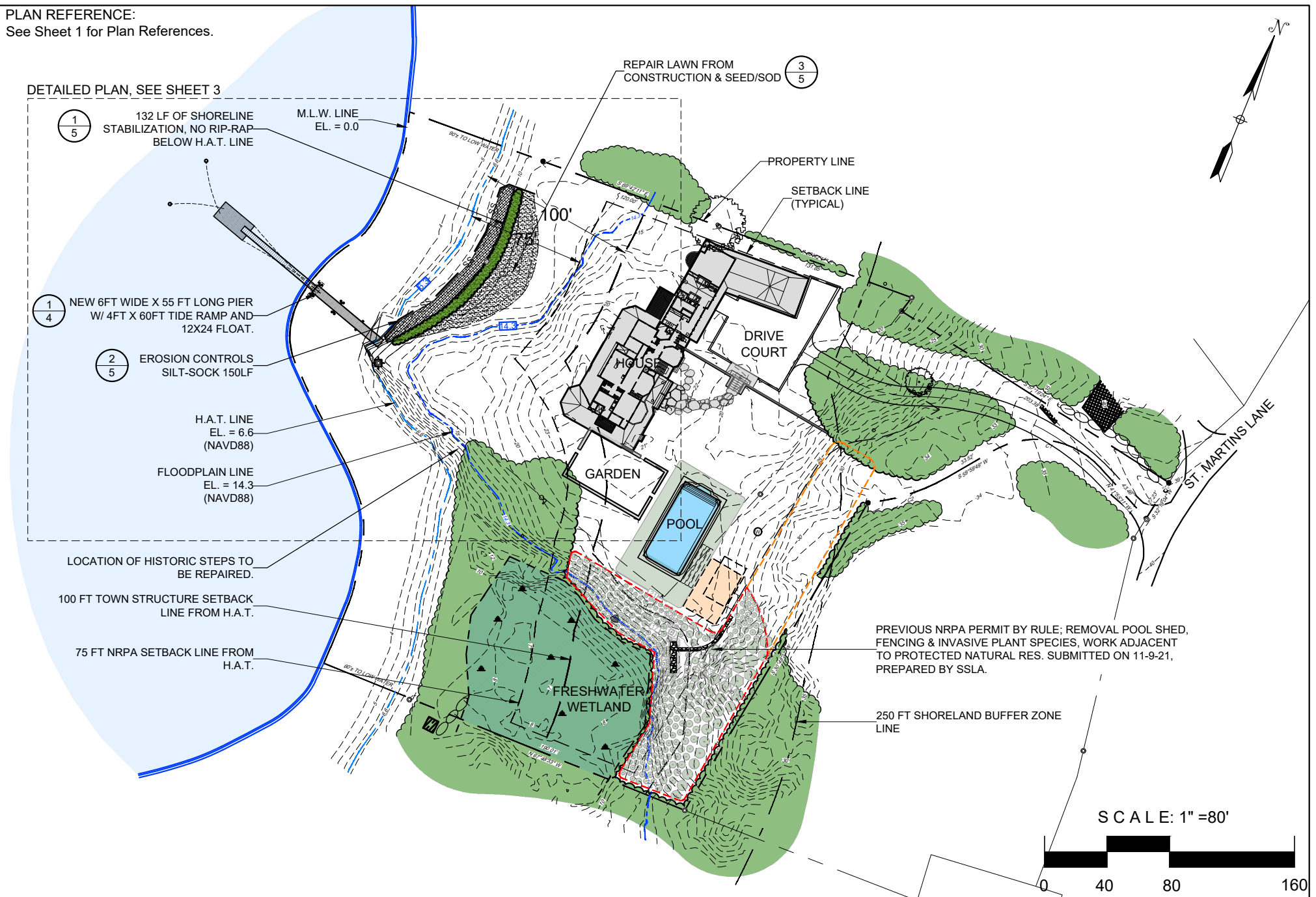
Date: 4/25/2022
Project: 15 St. Martin
 Biddeford Pool
Drafted By: SS

NRPA Submission; Existing Conditions and Erosion Controls
 Seasonal Pier, Existing Erosion and Historic Stairs to Beach

Sheet
 1
 OF
 5

113

PLAN REFERENCE:
See Sheet 1 for Plan References.



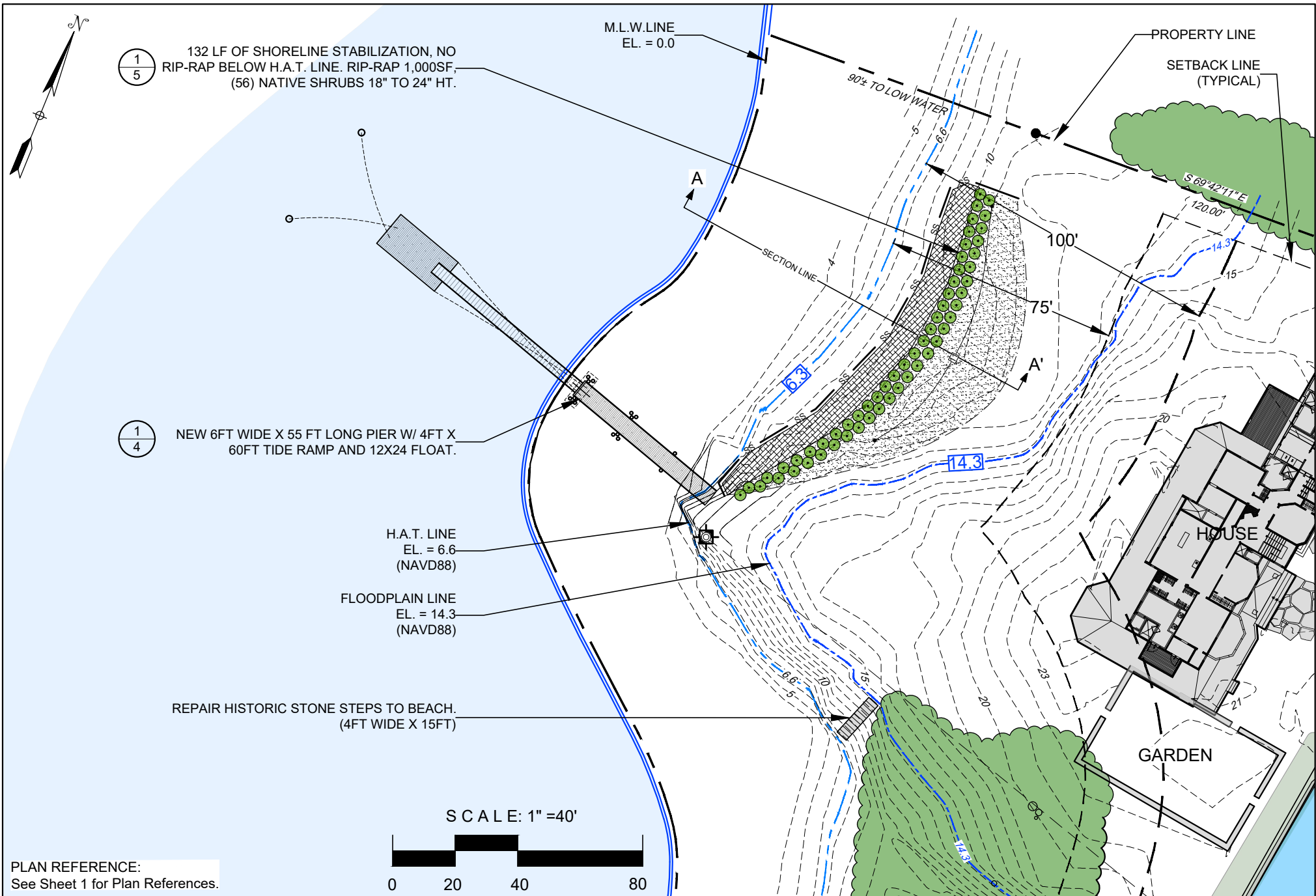
Scott Strynar Landscape Architect, LLC
Landscape Architect
98 Meehan Ln, North Berwick, ME 03906
(207) 957-4441
sstrynar@gmail.com

Date: 4/25/2022
Project: 15 St. Martin
Biddeford Pool
Drafted By: SS

NRPA Submission; New Permanent Pier, Ramp & Float, Shoreline Stablzation
and Repair of Historic Stair to Beach

Sheet
2
OF
5

114

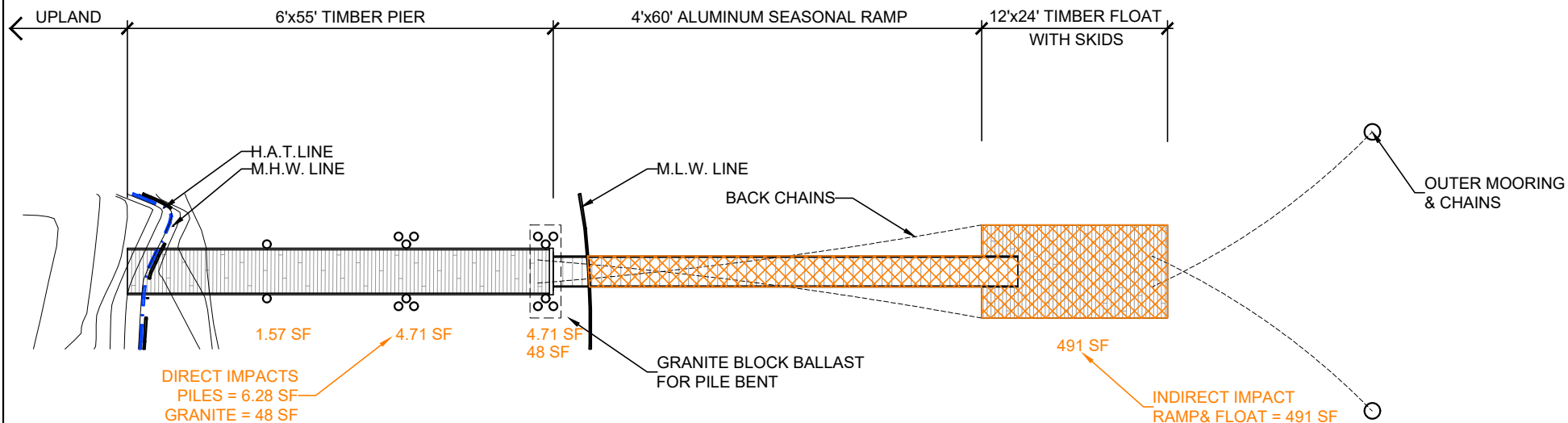


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 sstrynar@gmail.com

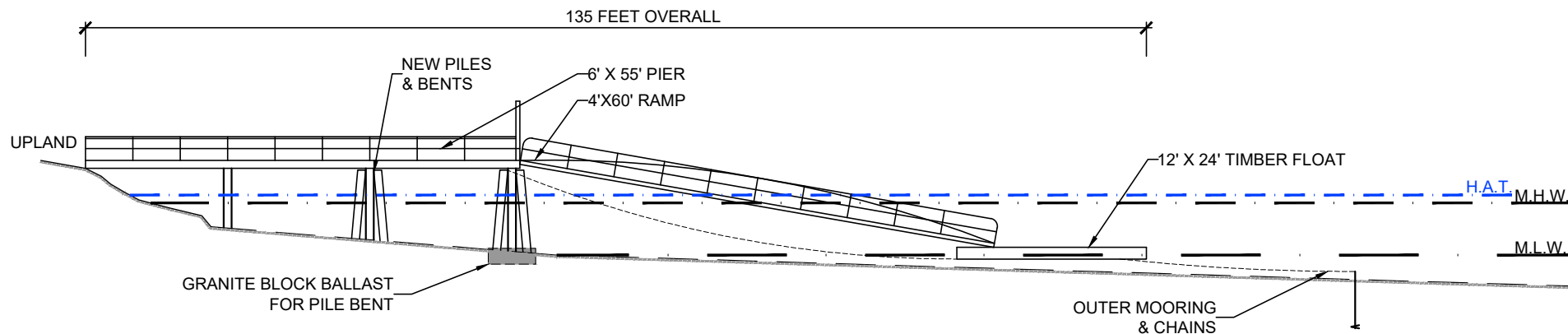
Date: 4/25/2022
Project: 15 St. Martin
 Biddeford Pool
Drafted By: SS

NRPA Submission; Detailed Plan For New Permanent Pier, Ramp & Float,
 Shoreline Stablzation and Repair of Historic Stair to Beach

Sheet
 3
 OF
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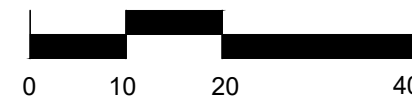


PLAN VIEW



ELEVATION

SCALE: 1" = 20'

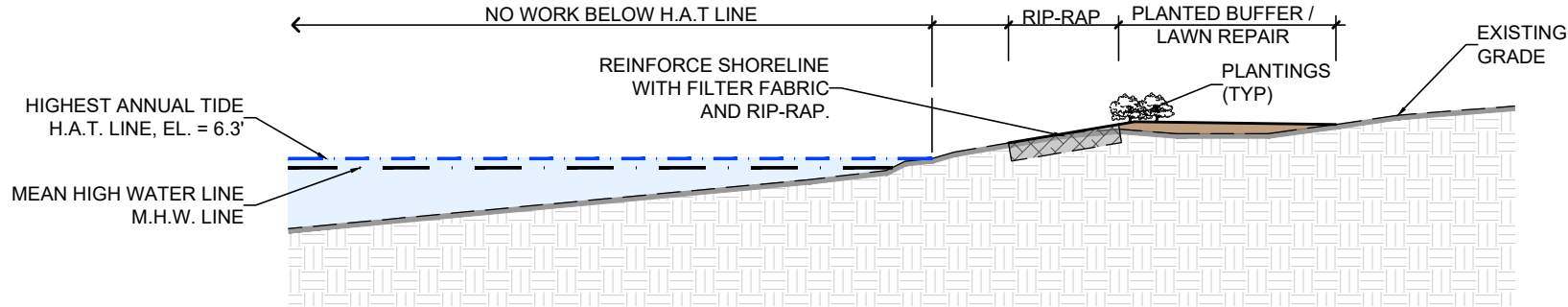


Scott Strynar Landscape Architect, LLC
Landscape Architect
98 Meehan Ln, North Berwick, ME 03906
(207) 957-4441
sstrynar@gmail.com

Date: 4/25/2022
Project: 15 St. Martin
Biddeford Pool
Drafted By: SS

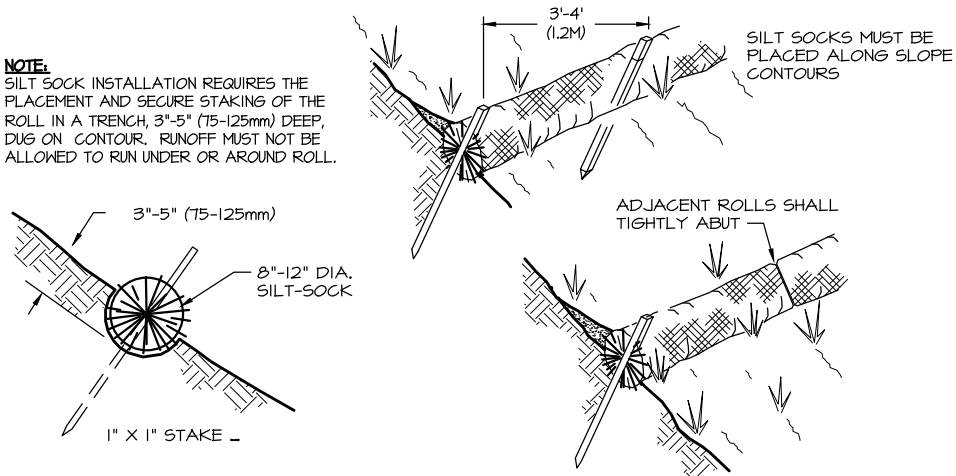
NRPA Submission; New Pier, Ramp & Float Detailed Plan and Elevation

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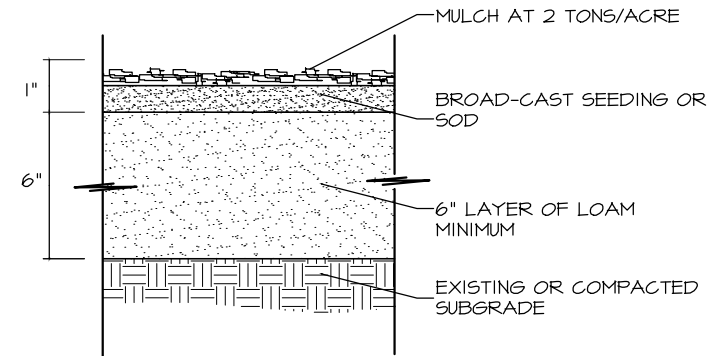


1 SECTION A - A'
NOT TO SCALE

NOTE:
SILT SOCK INSTALLATION REQUIRES THE
PLACEMENT AND SECURE STAKING OF THE
ROLL IN A TRENCH, 3"-5" (75-125mm) DEEP,
DUG ON CONTOUR. RUNOFF MUST NOT BE
ALLOWED TO RUN UNDER OR AROUND ROLL.



2 SILT-SOCK INSTALLATION
NOT TO SCALE



3 LOAM & SEED/SOD
NOT TO SCALE

Exhibit 6.0: Construction Plan

The new wooden pier will be constructed and installed by Custom Float Services located in Portland Maine along with the assistance of the existing site contractor. The existing ballast block stones will be re-used along with pressure treated wooden piles and bents. Helical anchors will be used for the outer mooring chains and the inner chains will be mounted to the outer pile bents. While equipment is on site for the pier installation the rip-rap shoreline stabilization and historic steps will be installed to minimize the soils disturbance as a result of construction.

Exhibit 7.0: Erosion Control Plan

The goal of the project is to perform construction activities with minimal resource impact. The selected contractor will be familiar with and comply with the Maine Erosion and Sediment control Handbook for Construction: Best Management Practices (latest edition)

Material stockpile: The project will require small deliveries of loose material for the project. When these materials are not transported directly to their point of use, material will be placed in an upland stockpile away from the resource. Silt fence or hay bales will be placed on the down slope perimeter to prevent migration of fines.

**APPENDIX A - MDEP VISUAL EVALUATION
FIELD SURVEY CHECKLIST**

(Natural Resources Protection Act, 38 M.R.S. §§ 480 A - Z)

Name of applicant: Pool Ghoul, LLC _____ Phone: (415)-939-4525 _____

Application Type: Individual NRPA _____

Activity Type: (brief activity description) Pier, Shoreline Stabilization & Steps to Beach _____

Activity Location: Town: Biddeford _____ County: Cumberland _____

GIS Coordinates, if known: _____

Date of Survey: January 5, 2022 _____ Observer: Scott Strynar _____ Phone: (207)-957-4441 _____

**Distance Between the Proposed Visibility Activity
and Resource (in Miles)**

1. Would the activity be visible from:	0-1/4	1/4-1	1+
<i>A. A National Natural Landmark or other outstanding natural feature?</i>			X
<i>B. A State or National Wildlife Refuge, Sanctuary, or Preserve or a State Game Refuge?</i>			X
<i>C. A state or federal trail?</i>			X
<i>D. A public site or structure listed on the National Register of Historic Places?</i>			X
<i>E. A National or State Park?</i>			X
<i>F. 1) A municipal park or public open space?</i>			X
<i>2) A publicly owned land visited, in part, for the use, observation, enjoyment and appreciation of natural or man-made visual qualities?</i>			X
<i>3) A public resource, such as the Atlantic Ocean, great pond or a navigable river?</i>	X		
2. What is the closest estimated distance to a similar activity?	X		
3. What is the closest distance to a public facility intended for a similar use?			X
4. Is the visibility of the activity seasonal? (i.e., screened by summer foliage, but visible during other seasons)		☐ Yes	☒ No
5. Are any of the resources checked in question 1 used by the public during the time of year during which the activity will be visible?		☒ Yes	☐ No

(blue)

**APPENDIX B: MDEP COASTAL WETLAND CHARACTERIZATION:
INTERTIDAL & SHALLOW SUBTIDAL FIELD SURVEY CHECKLIST**

NAME OF APPLICANT: Pool Ghou, LLC PHONE: (415) 939 - 4525

APPLICATION TYPE: Individual NRPA

ACTIVITY LOCATION: Biddeford COUNTY: York

ACTIVITY DESCRIPTION: fill ☒ pier lobster pound ☒ shoreline stabilization dredge other:

DATE OF SURVEY: January 5, 2022

OBSERVER: Tim Forrester

TIME OF SURVEY: 8:00 am

TIDE AT SURVEY: Low-Tide

SIZE OF DIRECT IMPACT OR FOOTPRINT (square feet):

Intertidal area: +/- 56 square feet Subtidal area: 0

SIZE OF INDIRECT IMPACT, if known (square feet):

Intertidal area: +/-338 square feet Subtidal area: +/- 491 square feet

HABITAT TYPES PRESENT(check all that apply):

☐ sand beach ☐ boulder/cobble beach ☐ sand flat ☒ mixed coarse & fines ☒ salt marsh
☒ ledge ☒ rocky shore ☐ mudflat (sediment depth, if known:_____)

ENERGY: ☐ protected ☐ semi-protected ☐ partially exposed ☒ exposed

DRAINAGE: ☒ drains completely ☐ standing water ☐ pools ☐ stream or channel

SLOPE: ☐ >20% ☐ 10-20% ☐ 5-10% ☐ 0-5% ☒ variable

SHORELINE CHARACTER:

☐ bluff/bank (height from spring high tide:_____) ☐ beach ☒ rocky ☒ vegetated

FRESHWATER SOURCES: ☐ stream ☐ river ☒ wetland ☒ stormwater

MARINE ORGANISMS PRESENT:

	absent	occasional	common	abundant
mussels	☒			
clams	☒			
marine worms	☒			
rockweed			☒	
eelgrass	☒			
lobsters	☒			
other	☒			

SIGNS OF SHORELINE OR INTERTIDAL EROSION? ☒ yes ☐ no

PREVIOUS ALTERATIONS? ☒ yes* ☐ no

*Seasonal Dock

CURRENT USE OF SITE AND ADJACENT UPLAND:

☐ undeveloped ☒ residential ☐ commercial ☐ degraded ☒ recreational

PLEASE SUBMIT THE FOLLOWING:

☒ Photographs ☒ Overhead drawing

(pink)

Exhibit 9.0: Public Notice Requirements

Public Notice:

Notice of intent to File

Please take notice that Mr. & Mrs. Richard Hogan (Agent #207-957-4441) is intending to file a Natural Resources Protection Act permit application with the Maine Department of Environmental Protection on or about April 30, 2022. The application is to construct a new permanent pier, stabilize the shoreline and reconstruct historic steps to the beach located at 15 St. Martins Lane (Tax Map 57, Lot 5) in Biddeford ME. 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 during normal working hours and an electronic copy is available by contacting the DEP office below. A copy of the application may also be seen at the municipal offices in Biddeford, Maine. Written public comments may be sent to the regional office in Portland where the application is filed for public inspection: MDEP, Southern Maine Regional Office, 312 Canco Road, Portland, Maine 04103.

PUBLIC NOTICE FILING AND CERTIFICATION

Department Rules, Chapter 2, require an applicant to provide public notice for all Tier 2, Tier 3 and individual Natural Resources Protect Act projects. 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 the names and addresses of the owners of abutting property.

CERTIFICATION

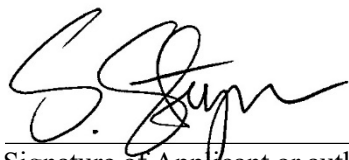
By signing below, the applicant or authorized agent certifies that:

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 and held a public informational meeting, if required, in accordance with Chapter 2, Rules Concerning the Processing of Applications, Section 13, 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 NOT APPLICABLE.

Date

Approximately N/A members of the public attended the Public Informational Meeting.



Signature of Applicant or authorized agent

April 30, 2022

Date

(blue)

Exhibit 10: List of Abutters, Tax Map & Deed

J. Thomas Scrivener
J. Thomas Scrivener Trust
P.O. Box 95
Glenwood, MD 21738
Taxmap 57 Lot 4

19-21 St Martin's Lane, LLC
6500 Rock Spring Drive. Suite 5
Bethesda, MD 20814
Taxmap 57 Lot 7

Allen B & Elise Morgan Sr.
3170 Southern Ave 8 West
Memphis, TN 38111
Taxmap 57 Lot 6

Abenakee Club
Stonecliff Road
P.O. Box 468
Biddeford, ME 04005
Taxmap 59 Lot 55

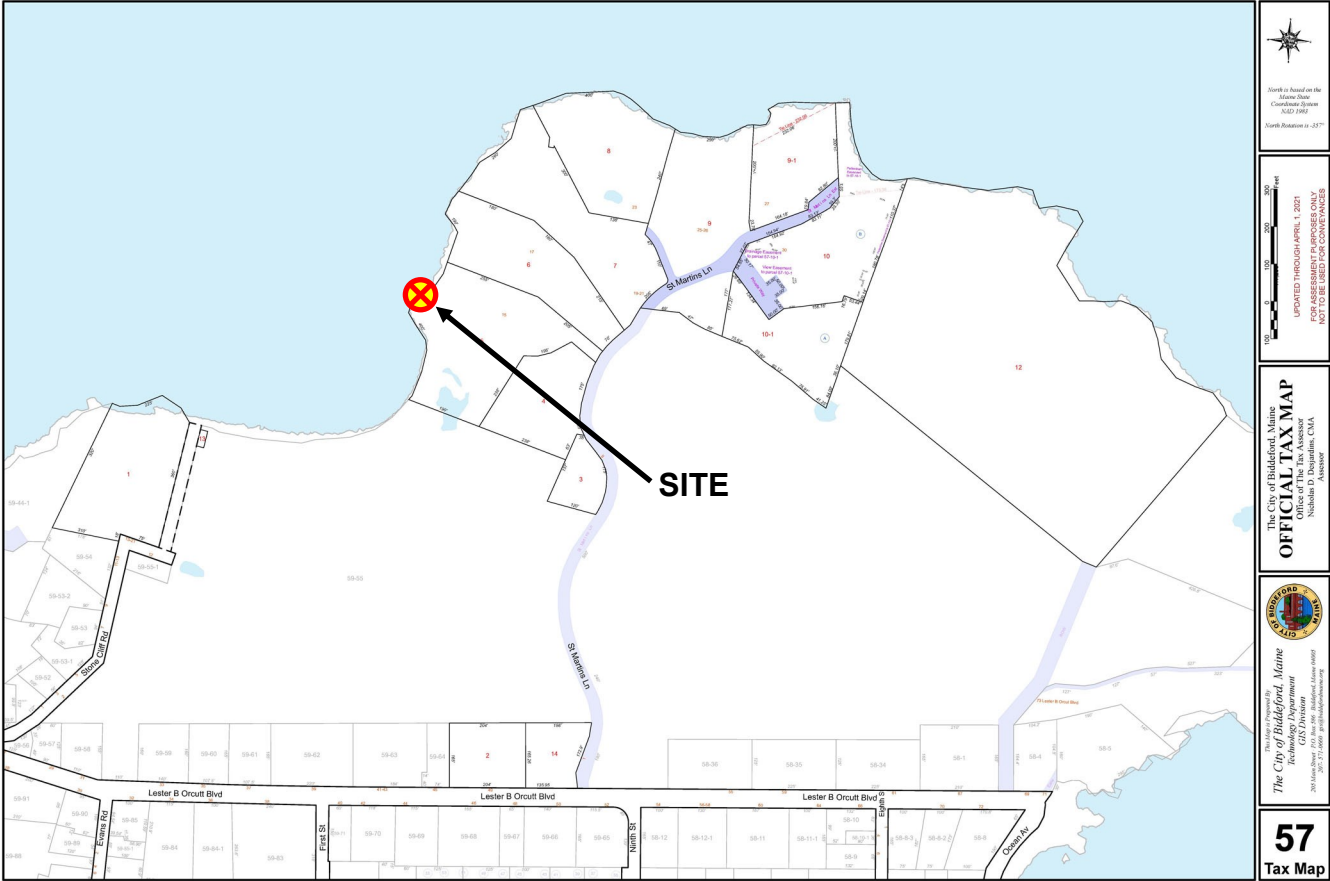
Elizabeth B. & Richard Cashin
10 Gracie Sq. Apt. 8-G
New York, NY 10028-8031
Taxmap 57 Lot 8

Robert W. Ittmann
P.O. Box 468
Biddeford, ME 04005
Taxmap 57 Lot 9

St. Martins In The Field
c/o Anne Umphrey
P.O. Box 274
Biddeford, ME 04006
Taxmap 57 Lot 3

Pool Ghoul, LLC
P.O. Box 367
Ross, CA 94957
Taxmap 57 Lot 5

Town of Biddeford
Tax Map 57 Lot 5



Site Location
15 St. Martins Lane
Biddeford, ME

TRUSTEES' DEED

DLN: 1001940081018

KNOW ALL BY THESE PRESENTS THAT, Margot R. Anderson (formerly Margot A. Pattison), William P. Anderson V, and Grenville Anderson, as Trustees of the ANDERSON REALTY TRUST u/t/d December 15, 1988 (the "Grantor"), by the power conferred by law, and every other power, in consideration of One Dollar and other valuable consideration paid by POOL GHOUL, LLC, a Maine limited liability company, with a mailing address of 100 Upper Road, Ross, California 94957, the receipt and sufficiency of which are hereby acknowledged, do hereby give, grant, bargain, sell and convey unto the said POOL GHOUL, LLC, its successors and assigns forever, the following described property:

PARCEL I:

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

Beginning at the southerly corner of land herein described at an iron pin in the line now or formerly of Dorothy Hubbard; thence by the said Hubbard's land North sixty degrees nine minutes East (N 60° 09' E) eighty-nine (89) feet to an iron pin; thence North fifty-four degrees twenty-six minutes East (N 54° 26' E) one hundred sixty-two (162) feet, more or less, to an iron pin and other land now or formerly of Joseph G. Deering; thence by the said Deering's land North fifty-three degrees twenty-four minutes West (N 53° 24' W) through an iron pin set in the bank, to the sea; thence southwest by the sea to the land now or formerly of Dorothy Hubbard; thence by said Hubbard's land South thirty-three degrees fifty-two minutes East (S 33° 52' E) to a copper bolt in the ledge on the shore; thence the same course two hundred thirty-six and two tenths (236.2) feet to the point of beginning.

Together with all appurtenant easements including any and all appurtenant rights-of-way in common with others extending by and from the above described premises to Main Street and over St. Martin's Lane, so-called, to said Main Street.

The Grantee herein, by the acceptance of this Deed, hereby agrees to discharge all obligations with respect to the maintenance of said rights-of-way as contained in a certain indenture dated the 19th day of March, A.D. 1929, and recorded in the York County Registry of Deeds in Book 806, Page 384.

The foregoing premises are a portion of the premises conveyed to this Grantor's predecessor in title by deed of Joseph G. Deering by deed dated April 14, 1959 and recorded with said Registry in Book 1401, Page 415.

PARCEL II:

A certain lot or parcel of land situated at Biddeford Pool, in the City of Biddeford, County of York and State of Maine, bounded and described as follows:

Beginning at a solid iron driven into the ground at the southerly corner of land now or formerly of Dorothy B. Hubbard; thence North thirty-four degrees two minutes West (N 34° 02' W) by the said land of Dorothy B. Hubbard two hundred thirty-six and fourteen one-hundredths (236.14) feet to a copper bolt in the ledge at the top of the bank of the Ocean; thence the same course and by other land of the said Dorothy B. Hubbard to the Ocean; thence Southwesterly by the Ocean to land now or formerly of the Abenakee Golf Club; thence South fifty-one degrees ten minutes East (S 51° 10' E) by said Golf Club to an iron pipe driven into the ground at the top of the bank, a traverse line along the bank connecting the above mentioned copper bolt and said iron pipe is as follows: beginning at said copper bolt, thence South twenty-six degrees three minutes East (S 26° 03' E) eighty-two and seventy one-hundredths (82.70) feet; thence South twenty-nine degrees fifty minutes West (S 29° 50' W) One Hundred fifty-eight and five one-hundredths (158.05) feet to said iron pipe; thence from said iron pipe South fifty-one degrees ten minutes East (S 51° 10' E) by said Golf Club land one hundred ninety and eighteen one-hundredths (190.18) feet to an iron pipe driven into the ground and land now or formerly of Dorothy Hubbard; thence North fifty-seven degrees twenty-seven minutes East (N 47° 27' E) by land of said Hubbard two hundred twenty-nine and nineteen one-hundredths (229.19) feet to a large spike driven into the center line of the tarred driveway leading from St. Martin's Lane to said other land of the Grantor; thence Easterly by a regular curve deflecting to the left and by the center of said

driveway the chord of which is North eighty-eight degrees fifty-one minutes East (N 88° 51' E) fifty-three and fifty-eight one-hundredths (53.58) feet; thence North seventy-six degrees forty-six minutes East (N 76° 46' E) by the center of said driveway thirty-three and sixty-five one-hundredths (33.65) feet; thence Southeasterly by a regular curve deflecting to the right and by the center of said driveway, the chord of which is South sixty-four degrees eleven minutes East (S 64° 11' E) sixty-nine and ninety one-hundredths (69.90) feet; thence South twenty-five degrees nine minutes East (S 25° 09' E) by the center of said driveway forty-three and fifty-nine one-hundredths (43.59) feet to a large spike driven into the middle of said driveway at its junction with the Northwesterly sideline of St. Martin's Lane, the last four courses being by land of said Hubbard; thence North forty-nine degrees eight minutes East (N 49° 08' E) by said Land twenty-seven and twenty-three one-hundredths (27.23) feet to an iron pipe driven into the ground and land now or formerly of Joseph G. Deering; thence North forty degrees thirty-two minutes West (N 40° 32' W) by said Deering land two hundred three and eighty one-hundredths (203.80) feet to an iron pipe driven into the ground and said other land of said Hubbard; thence South fifty-four degrees twenty-four minutes West (S 54° 24' W) by said other land of said Hubbard one hundred forty-eight and seventy-five one-hundredths (148.75) feet to an iron pipe driven into the ground near the Westerly edge of said driveway; thence South fifty-nine degrees fifty-seven minutes West (S 59° 57' W) by other land of said Hubbard ninety-six and sixty-eight one-hundredths (96.68) feet to the point of beginning.

Subject to whatever rights the Central Maine Power Company has over said land.

Said parcel is conveyed with the understanding that the above mentioned driveway shall be used in common by said Grantor and said Hubbard, their heirs and assigns for the entire length of the following four courses mentioned above, "North eighty-eight degrees fifty-one minutes East (N 88° 51' E) fifty-three and fifty-eight one-hundredths (53.58) FEET; north seventy-six degrees forty-six minutes East (N 76° 46' E) thirty-three and sixty-five one-hundredths (33.65) feet; South sixty-four degrees eleven minutes East (S 64° 11' E) sixty-nine and ninety one-hundredths (69.90) feet; and South twenty-five degrees nine minutes East (S 25° 09' E) forty-three and fifty-nine one-hundredths (43.59) feet."

The above bearings refer to the 1960 magnetic meridian.

For further ties and information see "Plan showing a proposed sale, Hubbard to Anderson, Biddeford Pool, Biddeford, Maine and made by Libby & Dow, Jan. 5, 1960" as recorded with the York County Registry of Deeds on November 3, 1960 in Plan Book 30, Page 21.

Said parcel is also conveyed upon the condition that no structures will be built on any of the land herein conveyed except a boathouse or a beach house, said beach house not to be used for dwelling purposes. However structures not within view of the inhabitants of the dwelling located on the remaining land of the Grantor may be built; this restriction to run with the land until the year 2000.

Said parcel is also conveyed subject to all rights, privileges, duties and obligations with reference to St. Martin's Lane as described in agreement recorded with said Registry in Book 806, Page 384.

Said above described premises being a portion of the premises conveyed to the Grantor's predecessor in title by deed of Dorothy B. Hubbard dated February 15, 1960 and recorded with said Registry in Book 1423, Page 514.

Subject to all matters of record in the York County Registry of Deeds, and also subject to real estate taxes not yet due and payable, which the grantees hereof agree to pay.

Being the same premises conveyed to Grantor by deed dated December 15, 1988 from William G. Anderson and Jane F. Anderson, recorded in the York County Registry of Deeds at Book 4940, Page 200.

The Grantor hereby warrant and covenant that they have full authority under the terms of the said Trust to execute this deed and to convey the property as above-described, that no actions are pending with respect to the Trust which could affect the Trustees' ability to convey the said property, and on behalf of the Trust, hereby convey the property.

[Signature Pages Follow; Remainder Intentionally Left Blank]

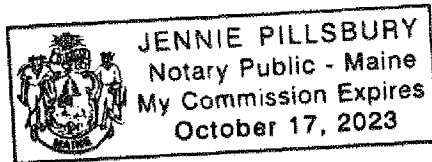
ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: Margot R. Anderson
Margot R. Anderson, Trustee

STATE OF MAINE
COUNTY OF YORK

November 15, 2019

Then before me personally appeared the above-named Margot R. Anderson, as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said Trust.



Jennie Pillsbury
Notary Public

Print Name: Jennie Pillsbury

My Commission Expires: 10/17/2023

ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: WT

William P. Anderson V. Trustee

STATE OF Massachusetts
COUNTY OF Worcester

Dec 4th, 2019

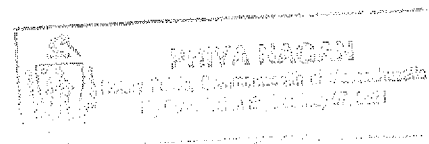
Then before me personally appeared the above-named William P. Anderson V. as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Trust.

Priya Nagan

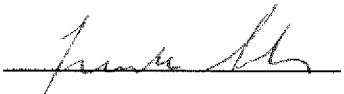
Notary Public

Print Name: PRIYA NAGAN

My Commission Expires: 5/7/2021



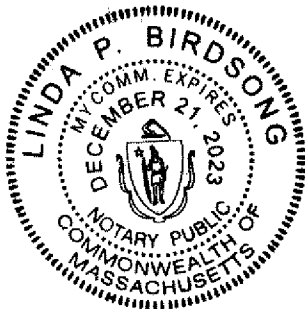
ANDERSON REALTY TRUST, u/d/t
December 15, 1988

By: 
Grenville Anderson, Trustee

STATE OF Massachusetts
COUNTY OF Suffolk

December 2, 2019

Then before me personally appeared the above-named Grenville Anderson, as Trustee of the Anderson Realty Trust, u/d/t December 15, 1988 and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Trust.





Notary Public

Print Name: Linda P. Birdsong

My Commission Expires: 12-21-2023



MAINE

Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

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Information Summary

[Subscriber activity report](#)

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Legal Name	Charter Number	Filing Type	Status
POOL GHOUL, LLC	20132730DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
02/27/2013	N/A	MAINE

Other Names (A=Assumed ; F=Former)

NONE

Clerk/Registered Agent

AMY MCNALLY, ESQ.
P.O. BOX 468
BIDDEFORD, ME 04005

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Scott Strynar

Landscape Architect, LLC
98 Meehan Lane
N. Berwick, ME 03906
(207) 957-4441

April 30, 2022

Mr. Claudette Coyne
Maine Historic Preservation Commission
State House Station 65
Augusta, Maine 04333-0065

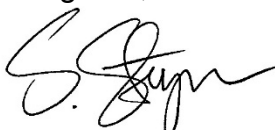
Re: Maine Department of Environmental Protection (MEDEP), Natural Resources Protection Act (NRPA) Application for the construction of a new permanent pier, shoreline stabilization and historic steps to beach on behalf of Mr. & Mrs. Richard Hogan located at 15 St. Martins Lane, Biddeford, Maine (Tax Map 57, Lot 5)

Dear Ms. Coyne,

Mr. & Mrs. Richard Hogan (Applicant) has applied for a NRPA permit requesting approval to construct a new permanent pier, shoreline stabilization and historic steps to beach located at 15 St. Martins Lane in Biddeford, Maine. The proposed new pier will be 6 feet wide x 55 feet long with a seasonal ramp (4'x60') and wooden float (12'x24'). The adjacent 130 linear feet of shoreline stabilization and 4ft wide by 15ft long stone steps to the beach to Casco Bay. The pier will provide recreational water access for kayaking, swimming, and boating for the applicant and extended family. Please find a copy of a Location Map and Photographs for your review.

If you have any questions or concerns with this project, please feel free to contact me directly at (207) 957-4441 or by email at sstrynar@gmail.com. Thank you in advance for your timely review and comments.

Regards,



Scott Strynar
Scott Strynar Landscape Architect, LLC.

Cc: Kendyl Reis, Aroostook band of Micmacs
Donald Soctomah, Passamaquoddy Tribe of Indians, PPR
Issac St. John, Houlton Band of Maliseet Indians
Chris Sockalexis, Penobscot Nation
Donald Soctomah, Passamaquoddy Tribe of Indians, IPR

EXHIBIT 12.0: COASTAL WETLAND CHARACTERIZATION

12.1 INTRODUCTION

AE personnel conducted a site visit at the Applicant's property on January 5, 2022. The purpose of the site visit was to gather data to perform a coastal wetland characterization of the natural resources at the site. The assessment was conducted at low-tide.

12.2 METHODOLOGIES

The site was evaluated based on DEP methodologies that include, "Maine's Coastal Wetlands: I. Types, Distribution, Rankings, Functions, and Values" (1999) and "Maine's Coastal Wetlands: II. Recommended Functional Assessment Guidelines" (1999) of which Appendix B, MDEP COASTAL WETLAND CHARACTERIZATION: INTERTIDAL & SHALLOW SUBTIDAL FIELD SURVEY CHECKLIST of the Natural Resources Protection Act, 38 M.R.S.A. §§ 480-A to 480-BB NRPA Application is based upon. A copy of Appendix B is attached herein.

12.3 RESULTS

The site of the proposed project is an approximately 2.5 acre parcel of land that is located off St. Martins Lane in the City of Biddeford, Maine. The site is developed with a residential structure and associated development. The upland at the site consists of lawn area and vegetation that extends to an exposed ledge bank along the southwesterly property line and an eroding bank along the westerly/northwesterly shoreline. The middle intertidal area consists of mixed coarse and fines, rockweed ledge, and areas of fringing marsh vegetation that transition to sand and subtidal substrates in the lower intertidal and subtidal. Based on the most recent survey layer of the Maine Office of GIS, Eelgrass (*Zostera marina*) is located within the project vicinity. AE conducted a visual analysis and desktop analysis to determine if the eelgrass bed would be impacted by the proposed structures and determined there was no eelgrass identified

in the location of the proposed dock or riprap. According to the Department's Geographic Information System (GIS) Significant Wildlife Habitat map, the site is mapped in Tidal Waterfowl and Wading, significant wildlife habitat.

The energy level is considered exposed, the site drains completely, and there is a freshwater wetland located on the project site to the south of the proposed dock as shown on the project plans. Based on this plan, there are no proposed impacts to the wetland. The general slope in the area where the proposed dock will be located is approximately 0 - 5% and 5 – 10% in the location of the shoreline stabilization.

Seven (7) general habitat types were identified in the vicinity of the project site: Upland, Exposed Ledge, Rockweed Covered Ledge, Mixed Coarse and Fines, Fringing Marsh Vegetation, Sand, and Subtidal Substrates. The dock will be located over the upland, exposed ledge, rockweed covered ledge, sand, and subtidal substrates. The shoreline stabilization will be located in the upland.

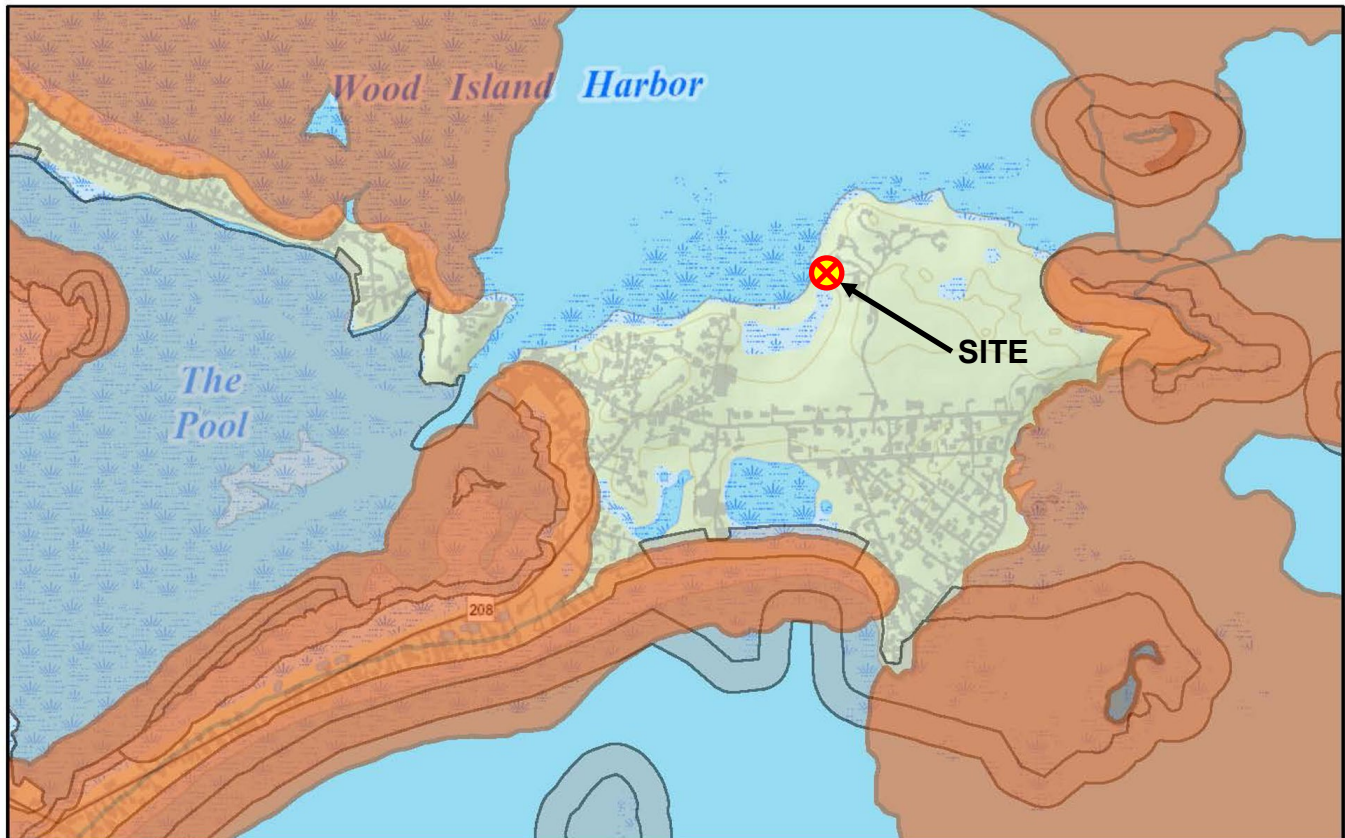
12.4 DISCUSSION AND CONCLUSIONS

The primary organisms that utilize the entire habitat area include: small crustaceans, juvenile fish, and tidal waterfowl.

Based on the site characterization and conditions of the site and the avoidance and minimization measures proposed, all organisms identified within the footprint of the proposed structures are common within the surrounding area and will continue to utilize the area at the completion of construction. It is not anticipated there will be a loss of wetland functions or values as a result of the proposed project. The Applicant does not propose to cut trees for the proposed dock or shoreline stabilization.

I.F & W. Significant Wildlife Habitats.
High Value Plant & Animal Habitats

IF&W Habitats



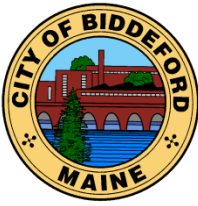
October 27, 2021

ETSC Animal Habitat Buffers Seabird Nesting Island
Shorebird Habitat

1:18,056
0 0.1 0.2 0.4 mi
0 0.17 0.35 0.7 km

This map is intended for planning purposes and should not be used for
Copyright 2016 Beginning With Habitat

Site Location
15 St. Martins Lane
Biddeford, ME



CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

Matthew.Grooms@biddefordmaine.org

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Pursuant to the provisions of the City of Biddeford Code of Ordinances Chapter 66 (Subdivisions) and the Land Development Regulations, Article VI, Section 16 Cluster development, the Biddeford Planning Board has considered the application of **E&R Development Corp for a nineteen-lot cluster development subdivision at Winding Creek Lane**, including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

Findings of Fact:

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant/Property Owner	E&R Development Corp. P.O. Box 444 Biddeford, ME 04005
2.	Agent/Engineer	William Thompson, P.E. 380B Main Street Gorham, ME 04038
3.	Project Location	Winding Creek Lane
4.	Map/Lot	Tax Map 8/Lot 3-1 & portion of Lot 3
5.	City Approvals Required	Major Subdivision/Site Plan
6.	Existing Zoning	R-1A Residential
7.	Overlay Zoning	N/A
8.	Existing Use	Undeveloped property. Woodlands with trails
9.	Proposed Use	19-Lot Single-Family Residential Subdivision
10.	Uses in the Vicinity	Residential
11.	Parcel Size	8.3 acres
12.	Water Supply	Maine Water
13.	Sewerage Disposal	Public Sewer
14.	Solid Waste Disposal	City of Biddeford
15.	Fire Protection	City of Biddeford
16.	Parking Spaces Required	2 spaces/dwelling unit
17.	Parking Spaces Provided	Minimum of 38 (within driveways)

18.	Ownership of Road	Public Street
19.	Estimated Site Development Costs	\$624,085.00
20.	Financial Capacity Letter	Letter received from Biddeford Savings Bank confirming financial capacity.
21.	Waivers Needed/Requested	Building Separation
22.	Waivers Granted	N/A
23.	Additional Approvals/Permits Needed	DEP Maine Construction General Permit, DEP Stream Crossing permit, and both a DEP and Army Corps of Engineers Wetland Fill permit
24.	Fees Paid (LDR Attachment A)	All application fees paid
25.	Planning Board Review History	Preliminary Review – 8/3/2022

Conclusions of Law:

The Planning Board concludes based on the application information submitted, peer-review and staff reports prepared and testimony provided at their meetings, the application conforms to the following provisions:

A. Section 66-39 (below) applicable standard and requirements of Chapter 66 of the City's subdivision ordinance:

1. The project will not result in undue water or air pollution.
2. The project has sufficient water available for the reasonably foreseeable needs of the subdivision;
3. The project will not cause an unreasonable burden on an existing water supply, if one is utilized;
4. The project will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy, condition may result;
5. The project will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways or public roads existing or proposed;
6. The project will provide for adequate sewage waste disposal;
7. The project will not cause unreasonable burden on the ability of the municipality to disposal of solid waste and sewage if municipal services are to be utilized;
8. The project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas or public rights for physical or visual access to the shoreline. Environmentally sensitive areas, including but not limited to wetlands, steep slopes, floodplains, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, and sand and gravel aquifers will be maintained and preserved to the maximum extent;
9. The project is in conformance with a duly adopted subdivision regulation or ordinance, Comprehensive Plan, development plan, or land use plan, if any.
10. The subdivider has adequate financial and technical capacity to meet the above stated standards;

11. Whenever situated, in whole or in part, within 250 feet of any lake, pond, river or tidal waters, the project will not adversely affect the quality of that body of water, or unreasonably affect the shoreline of that body of water, as indicated on the City of Biddeford, Official Zoning Map and referenced in the City's Comprehensive Plan;
12. The project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water;
13. The project is not in a flood prone area;
14. The project will not unreasonably obstruct abutting properties or structures access to direct sunlight;
15. If any portion of the site has been identified as containing historic or archaeological resources, the development shall include appropriate measures for protecting these resources, including but not limited to modification of the proposed design of the site, timing of construction, and limiting the extent of construction.

B. Section 16, Cluster development, Article VI Performance Standards and other applicable standards of the of the City's Land Development Regulations.

Determination:

Based on the evidence available and the conclusions above, the Biddeford Planning Board approves the application with the following conditions:

Conditions of Approval:

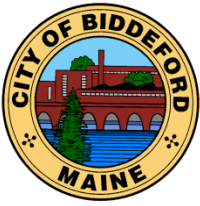
1. **Prior to any ground disturbance, street openings, or the issuance of any permits:**
 - i. The applicant shall provide an updated stormwater maintenance agreement for review and approval by the Department of Public Works.
 - ii. A draft of the Home Owner's Association Documents shall be provided for consideration of stormwater maintenance systems.
 - iii. The applicant shall provide a detailed response to comments by the City's engineering peer reviewer, and update the final site plans as needed.
 - iv. A pre-construction meeting with the contractor needs to be held with the Planning and Engineering Departments to discuss inspection requirements.
 - v. A Performance Guarantee (acceptable to the Planning Department) shall be submitted to the Planning Department.
2. **Prior to Release of the Performance Guarantee**
 - vi. All Standard Conditions of Approval shall apply.
 - vii. The applicant shall coordinate with the Department of Public Works to have the proposed street inspected and adopted as a public street.
 - viii. The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance as necessary for roadway construction and the extension of utilities to service this development.

- ix. **The Planning Department shall conduct a compliance inspection and shall determine that all required site improvements related to the public's health, safety, and welfare have been completed and that the City holds a Performance Guarantee sufficient to cover any remaining site improvements and/or deficiencies.**

Planning Board Chairman

Date

DRAFT



CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Matthew.Grooms@biddefordmaine.org

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Matthew Grooms, AICP, City Planner

DATE: September 1, 2022

RE: 2021.08 Final Plan Review for 19-lot single-family cluster subdivision at the terminus of Winding Creek Lane (Tax Map 8/Lot 3-1 & portion of Lot 3) in the R-1A Residential zone.

MEETING DATE: Wednesday, September 7, 2022 at 6:00 pm

I. INTRODUCTION

The proposal before the Planning Board is for final site plan/subdivision review of a 19-lot, single-family cluster subdivision of an 8.3-acre parcel of land at the terminus of Winding Creek Lane in the R-1A Residential zone. This property is immediately adjacent to Clifford Park, a wooded public open space and trail network accessible off of Pool Street, which abuts significant undeveloped private property, with connecting trails. While in practice, these properties operate as an extension of the park, there are no formal agreements which permit public access.

A key element of the proposed subdivision is a three party land conveyance between the City of Biddeford, E&R Development (the Applicant), and Gervais Dube. When executed, this land conveyance would transfer 102 acres of property to the City of Biddeford, in exchange for a 4.286-acre parcel being conveyed from the City to E&R Development. This land conveyance would more than double the proper boundary of Clifford Park.

The Planning Board previously reviewed a sketch plan for this proposal in March of 2021, and approved the preliminary site plan and subdivision in May of 2022.

II. PROJECT INFORMATION

	<u>SUBJECT</u>	<u>INFORMATION</u>
1.	Applicant/Property Owner	E&R Development Corp. P.O. Box 444 Biddeford, ME 04005
2.	Agent/Engineer	William Thompson, P.E. 380B Main Street

		Gorham, ME 04038
3.	Project Location	Winding Creek Lane
4.	Map/Lot	Tax Map 8/Lot 3-1 & portion of Lot 3
5.	City Approvals Required	Major Subdivision/Site Plan
6.	Existing Zoning	R-1A Residential
7.	Overlay Zoning	N/A
8.	Existing Use	Undeveloped property. Woodlands with trails
9.	Proposed Use	19-Lot Single-Family Residential Subdivision
10.	Uses in the Vicinity	Residential
11.	Parcel Size	8.3 acres
12.	Water Supply	Maine Water
13.	Sewerage Disposal	Public Sewer
14.	Solid Waste Disposal	City of Biddeford
15.	Fire Protection	City of Biddeford
16.	Parking Spaces Required	2 spaces/dwelling unit
17.	Parking Spaces Provided	Minimum of 38 (within driveways)
18.	Ownership of Road	Public Street
19.	Estimated Site Development Costs	\$624,085.00
20.	Financial Capacity Letter	Letter received from Biddeford Savings Bank confirming financial capacity.
21.	Waivers Needed/Requested	Waiver to reduce building separation requirement to less than 30 feet.
22.	Waivers Granted	N/A
23.	Additional Approvals/Permits Needed	DEP Maine Construction General Permit, DEP Stream Crossing permit, and both a DEP and Army Corps of Engineers Wetland Fill permit
24.	Fees Paid (LDR Attachment A)	All application fees paid
25.	Planning Board Review History	March 2021, May 2022, September 2022.

III. **AREAS OF REVIEW**

The proposed development is subject to the following areas of review.

A. Zoning:

The property is zoned R-1A Residential, a zone which permits single-family residential uses and which allows for subdivisions to be 'clustered' as defined and described in Article VI, Section 16 of the Biddeford Code of Ordinances. Clustering permits smaller lot sizes and variations to dimensional requirements in instances where a significant parcel of land is being developed (> 5 acres), and it is in the public interest to preserve additional open space or natural features. The level of deviation depends upon the availability of public utility infrastructure. Given that this property includes both water and sanitary sewer service, the development is eligible to reduce lot sizes to 75% of the R-1A minimum lot size (10,000 square feet). Therefore, the required minimum lot size is 7,500 square feet.

The regulation imposes additional restrictions, such as a requirement that there be a minimum of 30 feet of separation between buildings, that buildings be set back at least 40 feet from a major public

right-of-way, and 25 feet from interior roads, that landscaped buffers be introduced, and that the plans clearly designate natural features for preservation.

According to the draft plat, the minimum lot area is 7,818 square feet with a minimum frontage of 75 feet, and minimum front setback of 25 feet, with rear and side setbacks of 10 feet. The applicant is requesting a waiver of the minimum building separation requirement of 30 feet, to reduce this amount. Staff is asking for clarification on the exact amount of relief being requested.

B. Subdivision:

The City's subdivision ordinance specifies that the subdivision of property into five or more lots which include roadway and/or utility improvements is considered a major subdivision. A major subdivision requires a minimum of three public meetings; sketch plan, preliminary plan, and final plan review, with varying submittal requirements for each plan type. Sketch Plan and Preliminary Plan review occurred in March, 2021 and May, 2022 respectively. If the Planning Board approves the Final Plan submission, the applicant may proceed in pursuing building permits. Content requirements for a final subdivision plan are outlined in Section 66-52 of the Biddeford Code of Ordinances.

The following are comments that the Board should consider:

1. Mitigation of Environmental Impacts:

A major point of discussion throughout review of this application has been whether the project adequately addresses the anticipated impact to environmentally sensitive areas being disturbed under this proposal. While the City is being conveyed 102 acres of undeveloped private property for inclusion as part of Clifford Park, the site of Winding Creek Lane extension is a natural pinch point separating two large, contiguous areas of woodlands, and is situated proximate to wetlands of special significance. In response the applicant funded the development of the 'Clifford Park Habitat Connectivity Report', produced by Biodiversity Research Institute, a firm selected by the City of Biddeford. The report reviews potential impacts of residential development on wildlife and wildlife habitat in the vicinity of Clifford Park, assessing not only the 19-unit subdivision being reviewed by the Planning Board, but two additional residential spurs, which may happen in the future. Based upon the findings of this report, BRI recommended:

- Clustering of development to minimize habitat fragmentation.
- Introducing development buffers up to 300 feet from habitats utilized by these species.
- Consultation with the Maine Department of Inland Fish and Wildlife prior to approval.

These recommendations were presented to the Planning Board as part of the project's preliminary subdivision/site plan review, which were reviewed against the plans provided at that time. The provided plan materials clearly identify wetlands on the property, and establish a 300-foot wide wildlife corridor along the southerly edge of the property, along West Brook. In order to delineate the wildlife corridor, a 2-foot critter fence with associated signage would be erected, which would allow for wildlife to easily pass through the fence, while informing others to the presence of a wildlife corridor. The critter fence and associated wildlife corridor are discussed in detail as part of the draft deeds drafted for the Board's consideration.

The BRI report also requested that the Board and applicant explore whether Site Location of Development (SLODA) review is necessary. While the 19-unit subdivision alone does not trigger this level of review, the request was made given that there are tentatively two additional spurs of new residential development being considered, which when considered together, would like trigger SLODA review. For reference, the threshold for a subdivision, is disturbance of 20+ acres. As these two additional spurs are not yet being developed, staff indicated that this review threshold is not met, and that when or if these future phases of development occur, that SLODA review would then be triggered, and would be assessing not just the new phases of development, but past phases as well.

With this information, the Planning Board voted unanimously to approve the preliminary application. Based upon this finding, and the fact that the Final Plans are generally consistent with, or expand upon environmental mitigation features identified in the preliminary plans, staff find the proposal to be consistent with the environmental standards listed under Section 66-39 of the Subdivision Ordinance.

The one outstanding item mentioned at the Planning Board's May meeting in consideration of the preliminary plan, was a request to have the applicant reach out and coordinate with MDIFW regarding any additional mitigation they'd suggest. The applicant has contacted MDIFW, who provided recommendations on the critter fence being proposed delineating the wildlife corridor.

C. Site Plan Review:

Per Article XI (Site Plan), Section 4.B.II, all subdivisions as defined in state statute trigger major site plan review. Content requirements and applicable review criteria for major site plans are outlined in Section 5 of the Site Plan ordinance. Discussion of the applicable standards is listed below.

1. Site Development Plan

- i. The applicant shall confirm whether the road right of way and stormwater management facilities are based upon a field survey.
- ii. Existing stormdrain inverts and rim elevations are depicted on Sheet 2 as being at the same elevation. This information should be reviewed and clarified.
- iii. Spot grades should be provided on the ends of turnarounds. Additionally, spot grades should be provided in the detention basin to ensure proper drainage to the underdrain system.

2. Drainage

- i. The model indicates that the treatment and detention basin spillway will be activated in the 10-year and 25-year storm events. Since this spillway is located in an area of the basin with an 8 ft. embankment height, it would be more appropriate to route the stormwater through a structure and outlet pipe, or relocate the principal spillway to an alternate area of the basin.
- ii. The applicant commented that they have relocated the spillway and flattened the slope on the outlet side. However, the concern regarding more frequent activation of the spillway and the potential to erode the embankment remains. The model indicates the 10-year stormwater runoff rate over the embankment will be 2.14 cubic feet per second (cfs), which is almost 1,000 gallons per minute (gpm), while the 25-year stormwater runoff rate would be 9.12 cfs, or over 4,000 gpm. The water has the potential to concentrate and flow along the toe of the 8 ft high section of the embankment, increasing the chance for erosion. We stand by our recommendation to route the runoff through a principal spillway consisting of a structure and outlet pipe.

- iii. The applicant should revise their draft Inspection and Maintenance Plan to require inspections of erosion and sedimentation control features after each 0.5 inch rain event during the course of construction.
- iv. The City will need to confirm whether maintenance requirements for the drainage system will be assumed by the City following construction, and whether foundation drains may feed into this system.
- v. As part of the City's review of the preliminary plan set for this project, the City requested that the applicant provide a detail which is referenced in Note 16 on Sheet 1 of the Plan set. As follow-up to this comment, the applicant shall expand this detail to include a condition where a driveway slopes away from the road.
- vi. Drainage easements are generally shown as 30 feet in width. Sheet 4 identifies the easement between lots 13 and 14 as being 20 feet in width. The applicant should clarify whether this is accurate or correct.
- vii. Underdrains should be provided in all areas where the subgrade will be in a cut section and the location shown on the roadway typical section.
- viii. A note shall be added to applicable drawings identifying a minimum 15" diameter culvert.

3. Utilities

- i. Chapter 62 requires insulation over storm drains where cover is less than 4 feet. The response provided to preliminary review comments reports one location where this condition exists and notes the use of insulation. There are additional locations that should be identified, including on the inlet side of several of the drain manholes.
- ii. Manholes, where currently shown within sidewalk areas, should be relocated away from sidewalks.

4. Parking

- i. Off-street parking shall be provided at a minimum rate of 2 spaces per dwelling, to be located within the driveway of each home.

5. Design of Buildings

- i. The proposal before the Board does not involve any buildings. Separate building permits will be reviewed for each home as they are proposed.

6. Setbacks

- i. As the subdivision is being built along a local residential street, the required front setback is 25 feet per the City's cluster subdivision standards. This standard is met.

7. Fire Protection

- i. The development incorporates an emergency vehicle turn around as part of its design, and features fire hydrants as required to service the development site.

8. Landscaping

- i. The project establishes conserved, undeveloped open space areas at the rear of all properties, with a note on the plan stating that the development will attempt to preserve existing trees

within the public right-of-way to the extent practicable to serve as street trees. In the event that the contractor is unable to preserve existing trees, the plan commits that a minimum of 20, 2 ½" caliper trees will be planted within the esplanade of the street.

9. Service, Storage and Utility Areas

- i. The applicant has supplied information demonstrating that utility providers are able to service this development based upon the improvements shown. Utilities shall have minimal visual impact, given that all utilities will be provided through underground service. A single transformer is to be provided, which will be set back from the right of way.
- ii. The City will determine whether stormwater infrastructure will be maintained by the City, or whether such infrastructure will be maintained by the Home Owners Association.

10. Paving, Parking and Storage Areas

- i. A detail showing typical driveway grading should be provided. Given the potential grades for some of the driveways, it would be preferable to maintain a gutter at the edge of the travel way to minimize water from the road sheeting down the drives and onto private property.
- ii. The City recommends that extruded curb tip downs at driveway locations be thickened to be 12" below the finished pavement for the entire length of the tipdown, or that granite tipdowns be used instead.

11. Handicap Accessibility

- i. The 5' foot bituminous sidewalk along the north side of Winding Creek Lane shall be continued into this development, and will be built to ADA standards.

12. Loading Facilities

- i. As this is a single-family subdivision, this requirement is not applicable.

13. Parking, Loading and Protective Buffers

- i. As this is a single-family subdivision, this requirement is not applicable.

14. Open Space

- i. The minimum site plan requirement for new residential development is that 1,000 square feet of open space be set aside for each dwelling unit. As this is a single-family subdivision, this space is being provided as both open space as part of each individual lot, as well as conserved open space totaling 121,858 square feet, or 33.34% of the development site. In addition to the open space provided on-site, the development features trail access to adjacent Clifford Park.

15. External Lighting

- i. Street lighting shall be provided in accordance with City standards for public streets, provide adequate and safe light levels for pedestrians.

16. Signs

- i. No signage shall be erected under this application.

Aside from specific subdivision requirements outlined in Section 66, the City has also reviewed this application against relevant zoning performance standards, including Sections 26 (Erosion Control), 50 (Preservation of Landscape/Natural Vegetation), 51 (Private Ways and Roads), 61 (Stormwater Management), and 70 (Wildlife Preservation). Review comments are provided below.

D. Waivers:

The following waivers have been identified by the City's peer review engineer as being required for the project to proceed. The applicant shall submit formal waiver requests to be evaluated by the City.\

1. Article VI, Section 16. This standard requires that the separation between buildings within cluster subdivisions be no less than 30 feet. Staff request that the applicant identify the rationale for this request, and what degree of relief is being requested.

IV. CONCLUSION

The submitted application fully satisfies the City of Biddeford's requirements for a final plan submission, subject to the draft conditions of approval, which are being suggested for the Board's consideration.

A. Draft Conditions of Approval

Prior to any ground disturbance, street openings, or the issuance of any permits:

- i. The applicant shall provide an updated stormwater maintenance agreement for review and approval by the Department of Public Works.
- ii. A draft of the Home Owner's Association Documents shall be provided for consideration of stormwater maintenance systems.
- iii. The applicant shall provide a detailed response to comments by the City's engineering peer reviewer, and update the final site plans as needed.
- iv. A pre-construction meeting with the contractor needs to be held with the Planning and Engineering Departments to discuss inspection requirements.
- v. A Performance Guarantee (acceptable to the Planning Department) shall be submitted to the Planning Department.

Prior to Release of the Performance Guarantee

- vi. All Standard Conditions of Approval shall apply.
- vii. The applicant shall coordinate with the Department of Public Works to have the proposed street inspected and adopted as a public street.
- viii. The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance as necessary for roadway construction and the extension of utilities to service this development.
- ix. The Planning Department shall conduct a compliance inspection and shall determine that all required site improvements related to the public's health, safety, and welfare have been completed and that the City holds a Performance Guarantee sufficient to cover any remaining site improvements and/or deficiencies.

V. SAMPLE MOTIONS

- A. Motion to grant the waiver to Article VI, Section 16 – to permit building separation of less than 30 feet within a cluster subdivision.
- B. Motion to approval the Final Subdivision and Site Plan for Winding Creek Lane, a 19-lot single-family subdivision (Tax Map 8/Lot 3-1 & portion of Lot 3) in the R-1A Residential zone and approve the Findings of Fact.
- C. Motion to deny the project based upon the following reasons:
 - i. _____

FINAL SUBDIVISION APPLICATION

**WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE**

FOR

**E & R DEVELOPMENT CORP.
P.O. BOX 444
BIDDEFORD, MAINE**

August 2022

Prepared By:

**Berry Huff McDonald Milligan, Inc.
Engineers Surveyors
380B Main Street
Gorham, ME 04038
207-839-2771
wthompson@bh2m.com**

WEST BROOK SUBDIVISION

TABLE OF CONTENTS

- 1. RESPONSE TO SITE DESIGN ASSOCIATES 3/4/22 COMMENTS**
- 2. COVER LETTER / NARRATIVE**
- 3. APPLICATION, CHECKLIST & ABUTTERS**
- 4. PARCEL DEED**
- 5. USGS MAP**
- 6. SAND & GRAVEL AQUIFER MAP**
- 7. MED INTENSITY SOIL MAP**
- 8. WETLAND REPORT & VERNAL POOL REPORTS**
- 9. LETTERS OF APPROVAL**
 - Fire Department**
 - Water Company**
 - Sewer Department**
 - E-911 Road name designation**
 - Maine Historic Preservation Commission**
- 10. EXHIBITS FOR WILDLIFE CORRIDOR
AND PRE DEVELOPMENT EXISTING GRADE PLAN**



Civil Engineering | Surveying

Matthew Grooms
Biddeford City Planner
P.O. Box 586
Biddeford, Maine 04005

August 17, 2022

Re: West Brook Subdivision
Winding Creek Lane
Response to Site Design Associates 3/4/22 Comments

Dear Matthew;

We have reviewed the comments from Tom Saucier of Site Design Associates dated March 4, 2022, provided via email on March 10, 2022, and offer the following responses. We have included the original comment (*italics*) and our responses (**bold**).

A. Stormwater Management

The report and drainage plans indicate that subsequent to development, the post development stormwater runoff rates for the 2, 10, and 25 year storms will be less than the existing rates of runoff at the analysis points. Additionally, an underdrained soil filter has been designed to enhance the stormwater runoff quality. The stormwater quality calculations were prepared based on the developer selling the lots to others for the home construction.

Several comments related to the stormwater analysis follow below. When these have been addressed, we will continue with our review of the stormwater management information.

RESPONSE: Stormwater calculations have been revised based on updates to the plans as well as recommendations provided below.

B. Drainage Plans and Calculations

- 1. The analysis utilizes a maximum length of 150 ft. for the time of concentration sheet flow component. Based on the topography, we do not believe this reflects the conditions in the field, and suggest a maximum of 100 ft. would be more appropriate.*

RESPONSE: The Tc calculations have been revised based on this suggestion.

- 2. The models for the field inlets, FI 1-3, estimate the headwater depths generated in the downgradient drain manholes. The analysis of the headwater depths should be at the inlet ends of the pipes into the drain manholes, to determine the ponding depths and any potential impacts on the proposed road.*

RESPONSE: Inlet conditions are now included, with inverts and pipe sizes being revised to ensure sizing is appropriate.

3. *The model indicates that the treatment and detention basin spillway will be activated in the 10 and 25 year storm events. Since this spillway is located in an area of the basin with an 8 ft. embankment height, it would be more appropriate to route the stormwater through a structure and outlet pipe, or relocate the principal spillway to an alternate area of the basin.*

RESPONSE: The primary spillway has been revised to a shorter section of the embankment. Grading has also been revised to have a 5:1 slope for the spillway outlet to allow for a less erosive condition.

4. *A treatment plan should be provided which depicts the various areas to be treated, and which includes the treatment calculations.*

RESPONSE: A treatment plan has been provided as Sheet C.

5. *A stormwater Inspection and Maintenance plan was submitted. We have not yet had the opportunity to review that in detail, but will do so during our final review to ensure compliance with DEP and city requirements. We do note that the plan is not particularly clear on who is responsible for maintenance of the stormwater management facilities located outside the road right of way. It appears that there are stormwater facilities on the existing portion of Winding Creek Lane; however, we are unaware of who is responsible for maintenance.*

It is common that an easement is granted to the municipality to permit road runoff from the street to outlet to the facilities, and the facilities are maintained by the homeowners association. In that case, a maintenance agreement between the city and the homeowners association is executed, with the agreement including provisions to allow the city to maintain the facilities and bill the association, if the association fails to maintain the facilities in accordance with the approved inspection and maintenance plan.

RESPONSE: The road and its drainage facilities are proposed to be accepted by the City. This includes the swale along the uphill side of the road and the field inlets, cross culverts, and level spreaders. Easements are proposed in the areas outside of the ROW and open spaces for access by the City. A homeowners association will be formed to maintain these systems in the interim between when construction is completed and the City accepts the road.

C. Drawings

1. *Sheet 1 – Preliminary Subdivision Plan*
 - a. *Based on the project boundaries shown on this plan, it is apparent that a portion of the stormwater management facilities are located outside of the project boundaries, and a portion located within the project boundaries. Should the project boundaries encompass the entire stormwater management system which serves the development?*

RESPONSE: The limits of the project have been the subject of negotiation between the applicants and the City, involving land swaps and donations of significant portions of previously held parcels. Per the conditions of the land swaps, areas outside the project boundaries were allowed to be utilized for stormwater facilities. Easements for the limits of the stormwater facilities will be retained per the conditions of the land swap, and limits of these easements are now shown on the plans.

- b. *We recommend that since the road is to be offered for public acceptance, a note be provided which prohibits foundation drain outlets in the road ditch in the right of way. This reduces the potential for damage due to periodic maintenance by the city.*

RESPONSE: Note 22 on the Final Plan, Sheet 1, has been revised to specifically address this concern. Sheets 3 and 4 now show foundation drain stubs for the lots upgradient of the access road connecting to the proposed drainage system. The downgradient lots will have appropriate grade differential to allow for gravity drains without needing to tie into the proposed closed drainage system.

- c. *The detail referred to in note 16 should be provided on the drawings.*

RESPONSE: A detail of typical driveway sections, showing grading detail for maintaining a gutter line along the driveways has been provided on Sheet 6.

- d. *Note 17 should be expanded to prohibit driveways off any portion of a turnaround.*

RESPONSE: This note has been revised as suggested.

- e. *In regards to note 20, as we noted previously, we recommend that the homeowners association be responsible for the maintenance of the stormwater management facilities.*

RESPONSE: Stormwater management facilities are proposed to be accepted by the City when accepting the road. A homeowner's association will assume responsibility in the interim between construction completion and the City's acceptance of the road. The City has previously agreed to this final condition and is open to acceptance, pending final approval based on the as-constructed condition.

- f. *Drainage easements 30 ft. in width should be shown between lots 13 and 14, 15 and the open space, 18 and 19, and on lot 15 for the level spreader.*

RESPONSE: Drainage easements have been revised to be a minimum of 30' wide. Drainage configuration has been revised in this latest proposed condition to be located in some areas of open space, not requiring an access easement. These areas show there is a minimum of 30' wide unincumbered width.

- g. *Is the wildlife corridor shown on the plan a no disturb area?*
RESPONSE: The wildlife corridor will be a limited disturbance area based on proposed deed restrictions, per Note 26 on the Final Plan, Sheet 1. The wildlife corridor will feature signage as well as a 24" high "critter fence" to protect potential turtle species from upslope development.
- h. *Have the permit requirements been determined per note 22?*
RESPONSE: We understand that a Maine DEP Stormwater PBR will be required based on the extents of impacts currently proposed. This will be applied for alongside a revised submission to the City Planning Board, and final approvals will be provided the City once granted.

2. *Sheet 2 – Existing Conditions Plan*

- a. *What is the source of the topographic information? The topography for the proposed road, drainage, and stormwater management facilities should be based on ground survey. Based on information shown on Sheet 3, the existing grade at Sta 0+10.38 differs from the contour information by approximately 15 inches, which indicates that the contours may not be the result of a field survey.*
RESPONSE: The contours for this preliminary submission were based on LiDAR information available from the Maine office of GIS. Additional field survey has been conducted and topography has been adjusted to be accurate to current existing field conditions. Updated LiDAR information shows good fit to field verification.
- b. *What are the horizontal and vertical datums?*
RESPONSE: Horizontal Datum is Maine State Plane West NAD 83, and Vertical Datum to NAVD 88. This is noted on Sheet 2, Existing Conditions Plan.
- c. *Existing stormdrain inverts and rim elevations should be shown.*
RESPONSE: This is now provided on Sheet 2, Existing Conditions Plan..

3. *Sheets 3, 4, and 5 – Plan/Profiles/Grading*

- a. *Underdrains should be provided in all areas where the subgrade will be in a cut section and the location shown on the roadway typical section.*
RESPONSE: This condition has been assessed, and given the extents and depth of the upgradient swale, and downgradient fill conditions, underdrains are not applicable.
- b. *Spot grades should be provided on the ends of the turnaround and at the mail box turnout.*

RESPONSE: Spot grades are provided on Sheet 3.

- c. *A detail showing typical driveway grading should be provided. Given the potential grades for some of the drives, it would be preferable to maintain a gutter at the edge of the travel way to minimize water from the road sheeting down the drives and onto private property.*

RESPONSE: A detail of typical driveway sections, showing grading detail for maintaining a gutter line along the driveways has been provided on Sheet 6.

- d. *Chapter 62 requires insulation over storm drains where cover is less than 4ft.*

RESPONSE: This condition has been assessed, and found that the drain crossing at 0+52 requires insulation, and has been noted as such.

- e. *Does the existing pump station have the capacity for the additional sewage from the development?*

RESPONSE: In the planning stages of this proposed subdivision, the City Engineer was consulted on wastewater capacities. The pump station was analyzed and determined to have capacity.

- f. *Plans reflect a 10 inch diameter sewer main at a slope of 0.004 ft/ft. Will the flow rate be sufficient to maintain a cleansing velocity in the sewer main? It appears this may be the last development on the road. If so, a smaller sewer main diameter would increase the velocity in the pipe if necessary.*

RESPONSE: Per the above response to item “e”, this section of sewer was consulted on with the City Engineer. At their suggestion, we are showing a flatter pipe with a larger diameter than typical for the wastewater flows anticipated to provide as much gravity sewer along the road as possible.

- g. *Lots 7-15 will be served by low pressure sewer pumps and force mains. Is this acceptable to the city? The sewer pumps are shown in the road right of way. We recommend that they be moved onto the lots, assuming they will be private lift stations.*

RESPONSE: As a point of clarification, the low pressure pump stations are not proposed to be installed at the time of road construction, but will be installed by future homeowners at the time of lot development. The project currently proposes to install the sewer lateral assemblies as shown on the utility details. These will act as a stub for future low pressure sewer connections, and include a curb stop assembly. The plans show a curb box associated with the curb stop for the low pressure sewer system to be located within the ROW for use by the City. Pump system details are provided for future development of the lots.

- h. *The plans show the use of extruded slip form concrete curb along the road. It has been our experience that in a development of this nature, it is best to establish the driveway locations as part of the approval process, to avoid the need to alter curb after it has been installed. The curb is an integral part of the stormwater management system, and will likely be installed before the house lot construction is complete. Altering that type of curb tends to be difficult after it is installed. Driveway culverts with a minimum diameter of 15 inches should also be shown where required.*

RESPONSE: Driveway aprons have been provided for each proposed lot, with breaks in the curb as appropriate. The apron is proposed to be installed to back of sidewalk, and will not require a culvert in the interim condition.

- i. *Because extruded curb tip downs at the driveway locations can be thin if they are simply shaved off, some municipalities are requiring the installation of granite tip downs to prevent the damage to the concrete tip downs. There also are alternative details for installing the tip downs deep to provide strength.*

RESPONSE: The Extruded Concrete Cape Cod Curb detail, found on Sheet 6, has been revised to show a proposed condition where the curb is “tipped down” at each driveway apron. The detail proposes to depress the full depth of curb at 8’ horizontal and 6” vertical at each driveway apron. This will provide a stable curb end at each opening.

- j. *Given the major grade differences between the road and lots in some areas, and the depth of the ditch on the north side of the road, we suggest that inverts for the sewer services and pump stations be determined and shown on the drawings to verify adequate cover.*

RESPONSE: The inverts of the gravity sewers proposed on the upgradient side of the road have been evaluated and inverts along the sewer and at the stub end of the sewer have been provided on Sheet 3, showing that there is a minimum of 4’ cover between the invert of the swale and the top of a 4” service. Other areas propose a low pressure sewer service that can be constructed to provide appropriate cover. It was found that Lot 6 did not provide appropriate cover in a gravity condition, and has been revised to a low pressure sewer service.

- k. *Will lots 17, 18, or 19 require pump stations?*

RESPONSE: These lots along the downhill side of the road are conceptually designed to have fill placed to elevate the lots. We assume that the front of the lots will grade back towards the street, and finished floor elevations will be high enough to provide gravity flow to the sewer.

- l. *Will Maine Water require that the water main be installed under the travel way, rather than in the esplanade? Any water main maintenance required in the esplanade would likely result in damage to the sidewalk,*

curb, and road.

RESPONSE: Water main and underground electric locations has been swapped in these revised documents to show underground electric in the esplanade and water main along the southern side of the proposed road. Transformers are proposed to remain along the southern side of the road as to not interfere with sidewalk and swale locations.

- m. We recommend that DMH 3, 4, and 6 be moved to the north of the sidewalk rather than located in the walk.*

RESPONSE: Given the limited room on the northern side of the ROW with utilities proposed in the esplanade and storm drains located along the curb line, drain manholes located under the sidewalk appears to be the most appropriate location. As these drain manholes are proposed to have solid covers, there should not be accessibility issues for pedestrians using the sidewalk.

- n. Is any street lighting proposed?*

RESPONSE: Proposed street lights will include one at approximately station 6+70 and one at the proposed roadway turnaround. Style will match the lighting used at McKenney Drive project completed by the applicant.

- o. We are curious why the ditch northerly of the road is somewhat deeper than necessary.*

RESPONSE: Grading of the ditch has been revised in the proposed conditions to better match grading of the proposed road and provide a more uniform depth across the length of the ditch.

- p. A sawcut and butt joint should be called for where the new pavement will meet the existing.*

RESPONSE: The pavement joint detail is included on Sheet 6 and a note to sawcut the proposed joint has been included on Sheet 3.

- q. The profile shows a cut of 15-18 inches where the new road meets the existing road.*

RESPONSE: The existing and proposed grades have been revised based on updated LiDAR and field location and verification of existing grades.

- r. Cascade type grates should be specified for CB 3-6.*

RESPONSE: Cascade grates are now called out for these catch basins located along running grades. See Sheet 3 and 4.

- s. CB 6 should be shown adjacent to the curb.*

RESPONSE: This catch basin location has been adjusted to be flush with the proposed curb.

- t. *The turnaround should be dimensioned.*
RESPONSE: Dimensions for the turnaround are provided on Sheet 4.
- u. *The underground electric and cable should be located outside the travel way.*
RESPONSE: The underground electric and cable are now shown in the esplanade area.
- v. *Riprap inlet and outlet aprons should be shown at the culvert inlets and outlets.*
RESPONSE: Riprap aprons are now provided for culvert inlet and outlets.
- w. *It appears the stormdrain pipes into and out of CB 7 and 8 could be lowered a bit. As shown, it may be difficult to fabricate the structures and provide the required brick/risers and frames.*
RESPONSE: These structures have been revised to provide additional cover over the drain. See Sheet 4 profile details.
- x. *The reflective barrier at the end of the road should be shown.*
RESPONSE: The location of the barrier is shown on Sheet 4, and a detail for the barrier is shown on Sheet 6.
- y. *The riprap shown at the basin spillway should be extended for the full length of the slope inside and outside the basin. The thickness and size should be specified. A level spreader should be provided at the base of the riprap embankment slope.*
RESPONSE: The spillway has been revised to show riprap for the full slope inside and outside the basin. A detail on Sheet 9 has been provided for embankment noting the proposed riprap size and depth.
- z. *How will the basin be accessed for maintenance?*
RESPONSE: The embankment crest is proposed as 8' wide allowing for access around the perimeter. Grading has been revised to show an 8' wide traversable slope from the end of the hammerhead to access the embankment crest.
- aa. *Cleanouts should be shown on the ends of all the underdrains and at the bend, and a detail provided.*
RESPONSE: Cleanouts are shown at the end of the underdrains, and a detail has been provided on Sheet 9.
- bb. *The turnaround radii should be increased to 25 ft.*
RESPONSE: Curb radii have been revised as shown on Sheet 4.

4. *Sheets 6 and 8 - Details C-302 – Site Civil Details 1*

a. *Typical Roadway Section*

- *Show underdrain on the typical section to be installed where subgrade is in cut sections.*

RESPONSE: This detail was evaluated and found that underdrain is not required.

- *Aggregate subbase course should have a maximum stone size of 3 inches per chapter 62.*

RESPONSE: We understand that there is a discrepancy between the current Maine DOT material specifications for Type A base and Type D subbase, and Section 62-130 of the City Code. We ask that the City Engineer review this section of the code as it seems that the intention is to use Maine DOT specification materials as “equivalent”. The main discrepancy between DOT and City Code is DOT showing Type A must pass a 2” sieve and Type D must pass a 6” sieve, where City Code states ¾” and 3” respectively. Providing Maine DOT specification material will ensure a better supply without having to result in a custom gradation to conform to City Code.

- *Update MDOT specification reference.*

RESPONSE: The Typical Roadway Section on Sheet 6 has been updated to provide the up to date specification.

- *How was the 26 ft travel way width determined? Is it to match the existing width?*

RESPONSE: The road has been designed in conformance with section 62-109(1), specifying that a minimum lane width for a curbed road is 13’ wide, or 26’ total for two lanes. This also matches the existing width of Winding Creek Lane.

- *Specify 95% compaction for all materials.*

RESPONSE: The Typical Roadway Section on Sheet 6 has been updated to include this compaction requirement.

- *The typical section should include a note that all fill below the subgrade should be gravel borrow extended to the side slopes. This will provide proper road subdrainage. Otherwise, underdrain would be required for the length of the road.*

RESPONSE: The Typical Roadway Section on Sheet 6 has been updated to include this subbase requirement.

b. *Precast Catch Basin Detail*

- *Provide a detail with a cone as well, which is preferred when*

possible.

RESPONSE: An alternate detail has been provided on Sheet 6 for areas of less than 3' between the invert and proposed rim

- *A stainless steel band and boot should be called for at the pipeconnection. (for the drain manhole as well)*

RESPONSE: The details on Sheet 6 have been updated to include a boot and stainless steel strap.

Pavement Joint Detail

- *Call for grinding the surface course of existing pavement.*

RESPONSE: A pavement joint detail on Sheet 6 has been provided showing this requirement.

c. Stormwater Basin

- *Provide forebay details*

RESPONSE: Forebay details are shown on the underdrain soil filter details, found on Sheet 9.

- *Provide a typical embankment section*

RESPONSE: Typical embankment section has been provided on Sheet 9.

- *Provide riprap spillway details*

RESPONSE: The riprap spillway details are provided as part of the Typical embankment section has been provided on Sheet 9.

Thank you for providing these comments. We trust that these responses will address initial concerns with the project, and will provide additional detail for final review. We look forward continuing to work with City staff and the Planning Board to provide final acceptance of the project.

Sincerely,



Christopher MacDonald, P.E.
Civil Engineer

COVER LETTER / NARRATIVE



August 17, 2022

Matthew Grooms
Biddeford City Planner
PO Box 586
Biddeford, Maine 04005

Re: Final Submission
West Brook Subdivision
Winding Creek Lane

Dear Matthew;

On behalf of the application E & R Development, we are submitting the final design and application for the West Brook Subdivision.

Our proposal is for a 19-lot cluster residential subdivision. All lots will be served by public water, sewer and underground electric & cable tv. Stormwater will be collected in a catch basin system and directed to a stormwater soil filter at the far end of our project.

To design the final Subdivision, we have reviewed the emails and comments received from the Conservation Commission and others. We presented a Preliminary Plan at the May 4, 2022 planning board meeting and received preliminary approval.

After receiving Preliminary approval, the applicant has been working with their consultant, Tracy Tarr of GZA Environmental, Inc. to review options in addressing the concerns associated with our proposed wildlife corridor. The applicant also met virtually with staff from Inland Fisheries and Wildlife.

The proposal is to install a 2-foot high "critter fence" which is black pvc coated, hot dipped galvanized steel with ½" grid. This fence will be pinned at the ground to prevent should there be turtles in this area traveling onto lots and associated road. Our subdivision plan and wildlife corridor plan show the proposed location with installation details on plan sheet 6.

We have addressed the review letters from City Staff and consultant and have incorporated these changes into our design. Attached to this submission are those comments and responses.

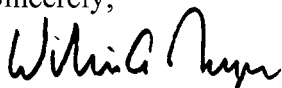
Our final subdivision application includes the following:

1. Response to Site Design Associates 3/4/22 comments
2. Cover Letter / Narrative
3. Application & Cost Estimate Worksheet

4. Parcel Deed
5. USGS Map
6. Aquifer Map
7. Medium Intensity Map
8. Wetland and vernal pool reports
9. Letters of approval from departments
 - a. Fire Department has submitted to us an e-mail recommendation to install one new hydrant between lots 18 and 19.
 - b. Water Company letter has been requested from Maine Water Co. Our design is to connect an 8-inch watermain to the end of the existing 8-inch water line to station 2+00 and then reduce this water line to a 4-inch for the remaining roadway with a blow-off valve at station 10+00.
 - c. Sewer Department approval letter for our design and for the ability to serve these 19 lots. Our design will include a low-pressure force main with individual e-one pumps for 10 of these lots. This force main will connect to a sewer manhole with a gravity sewer serving the remaining 9 lots. This proposed sewer utility will connect to the existing pump station at the end of the existing Winding Creek Subdivision.
 - d. E-911 has approved the proposed street name and the number sequence for the 19 new lots.
 - e. Letter response from Maine Historic Preservation Commission.
10. Exhibits for Wildlife Corridor plan and pre development existing grading plan.

All submissions will be both paper copies and an electronic copy. All application fees will be paid directly by the applicant. We look forward to being on the September 7th planning board agenda for final approval.

Sincerely,



William A. Thompson
Project Manager

cc: E & R Development

APPLICATION / CHECKLIST / ABUTTERS

**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: E&R Development Corp.

Applicant's Mailing Address: P.O. Box 444 Biddeford, Maine 04005

Applicant's Telephone: 207 283-3000

What is Applicant's legal interest in the property?

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

Owner's Name: Same as Applicant

Owner's Address: _____

Owner's Telephone: _____

Agent's Name: William Thompson - BH2M

Agent's Address: 380B Main Street Gorham, Maine 04038

Telephone: 207 839-2771

Engineer/Surveyor: Robert Libby - BH2M PLS #2190

Engineer/Surveyor's Address: 380B Main Street Gorham, Maine 04038

Telephone: 207 839-2771

Project Location and Lot Information:

Street Address: Winding Creek Lane

Tax Map: 8 Lot: 3-1 & portion of Lot 3

Current Zoning: Residential IA (RI-A) Shoreland Zoning: N/A

Size of lot: 8.30 ☒ acres ☐ s.f. Lot Frontage: 55'

Existing Use of Property: Wooded parcel with trails

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

Mapped forested wetlands to be protected

Description of proposed use of property:

Project/Proposed Use Description: Proposed 19 Lot Cluster Subdivision with public sewer, water
and underground electric

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%): _____

Percent of structure expansion (Max. 30%): _____

☒ If Subdivision Review, number of lots proposed: 19 Lots

☐ 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: _____

Total new square feet paving/parking: _____

Waiver Requests (attach details):

1. **Waiver granted for of distance between buildings requiring to be no less than 30'**
2. _____
3. _____
4. _____
5. _____

Attachments:

A. Letters of Approval

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

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

☒ Ability to Serve for Sewer Service- Engineering Dept (Sewer) - Tom Milligan 284-9118

☒ Police Department - E-911 Road Name Designation - Contact Joanne Fisk - 282-5127

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

C. Photographs of site.

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

E. Engineered Plans, as required.

Fees (due at time of application):

Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

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

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

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

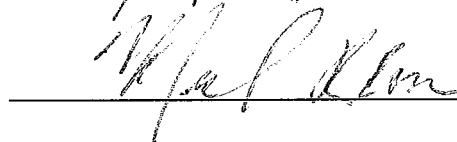
-Project may need to apply for a Maine Construction General Permit and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.

Signature of applicant:



Date: 8/17/2022
12/14/2021

Signature of owner of property:



Date: 8/17/2022
12/14/2021

**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. |

N/A

N/A

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.
N/A
- ☒ ☐ 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.
N/A
- ☒ ☐ 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.
- ☐ N/A ☐ 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.
- ☐ N/A ☐ 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.

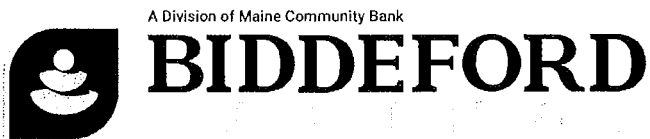
YES **NO**

- | | | |
|-------------------------------------|--------------------------|---|
| ☒ | ☐ | 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. |

WEST BROOK SUBDIVISION – BIDDEFORD

ABUTTER LIST

Tax Map 30 Lot 66	Edward Milhorn & Carrie Cote 32 Winding Creek Lane Biddeford, Maine 04005
Tax Map 30 Lot 67	Christopher & Kimberly Quint 33 Winding Creek Lane Biddeford, Maine 04005



April 28, 2022

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

RE: E&R Development, Westbrook Subdivision, Winding Creek Lane Extension, Biddeford, ME

To Whom It May Concern:

This letter is intended as support for E&R Development's submission for approvals regarding the West Brook Subdivision Project located at Winding Creek Lane Extension, Biddeford, Maine. Biddeford Savings, a Division of Maine Community Bank, is supportive of properly planned development in the City and is interested in working with E&R Development in regards to this project.

I am in receipt of, and have reviewed the plans and budget for this project and it is believed that E&R Development has the financial means and backing to satisfactorily undertake and complete the project contemplated at Winding Creek Lane Extension. The Bank has worked with E&R Development and Mr. Eon (personally) in the past on other projects and have found that he and the company are thorough and diligent in completing projects in a timely and professional manner.

If I can be of any further assistance or provide you with any additional information please do not hesitate to contact me.

Sincerely yours,

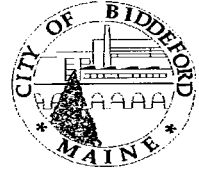
Daniel F. Colby

Sr. Vice President / Sr. Business Banker & Market Manager

City of Biddeford, Maine

COST ESTIMATE WORKSHEET

August 17, 2022



OWNER/APPLICANT: E&R Development Corp.

PROJECT NAME: West Brook Subdivision

	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Clearing and Grubbing	Acre	2	5,000	10,000
2	Erosion/Sediment Control	Lump Sum	1	10,000	10,000
3	Site Stabilization	Lump Sum	1	2,000	2,000
4	Ledge Removal	Cubic Yard	1,000	50	50,000
5	Sanitary Sewer Gravity Sewer	Linear Foot	445	40	17,800
	Manholes	Each	4	2,500	10,000
	Main Pressure Sewer	Linear Foot	570'	30	17,100
	House Services	Linear Foot	315	25	7,875
6	Water Main				
	Main	Linear Foot	980	50	49,000
	House Services	Linear Foot	630	30	18,900
	Hydrants	Each	1	5,000	5,000
7	Electric				
	Underground Utility Trench	Linear Foot	1,600	20	32,000
	Conduit/Wiring	Linear Foot	1,600	20	32,000
	Transformer Bases	Each	5	1,000	5,000
8	Storm Drainage				
	Pipe/Culvert	Linear Foot	911	40	36,440
	Catch Basin	Each	8	2,500	20,000
	Other Treatment Devices Filters	Each	1	10,000	10,000
9	Stormwater Management				
	Outlet Control Structure	Each			
	Stormwater Management Facilities	Each			
10	Excavate and Grade Subgrade	Cubic Yard	1,000	15	15,000
11	Roadways				
	Subbase Gravel	Cubic Yard	3,000	25	75,000
	Base/Finish Gravel	Cubic Yard	1,000	30	30,000
	Base Paving	Ton	408	100	40,800
	Finish Paving	Ton	240	100	24,000
	Geotextile Fabric	Ton			
12	Sidewalks				
	Subbase Gravel	Cubic Yard			
	Base/Finish Gravel	Cubic Yard	200	30	6,000
	Base Paving	Ton	35	100	3,500
	Finish Paving	Ton	35	100	3,500
13	Parking Lots/Other Areas				
	Subbase Gravel	Cubic Yard			
	Base/Finish Gravel	Cubic Yard			
	Base Paving	Ton			
	Finish Paving	Ton			

City of Biddeford, Maine

COST ESTIMATE WORKSHEET

14	Curbing – Bituminous	Linear Foot			
15	Curbing - Concrete	Linear Foot	2,330	10	23,290
15	Curbing – Granite	Linear Foot			
16	Pavement Striping	Linear Foot			
17	Guardrail Reflecting Barrier	Linear Foot	30	100	3,000
18	Fencing Critter Fence	Linear Foot	1,010	18	18,180
19	Loam and Seed	1,000 Square Feet	6	4,000	24,000
20	Riprap	Cubic Yard	55	20	1,100
21	Landscaping Street Trees	each Lump Sum	20	250	5,000
22	Street Lights	Each	2	1,000	2,000
23	Site Lighting	Each			
24	Monuments/Iron Pipes	Lump Sum	76	10	7,600
25	Clean Up	Lump Sum	1	2,000	2,000
26	As Builts	Lump Sum	1	3,000	3,000
27	Other Cluster Mailbox	each	1	4,000	4,000
28	Other				
29	Other				
30	Other				
31	Other				

COST ESTIMATE TOTAL: \$624,085.00

150% of TOTAL: \$936,127.50

FOR OFFICE USE ONLY

EROSION CONTROL/SITE STABILIZATION BOND (IF APPLICABLE): _____

PERFORMANCE GUARANTEE REQUIRED: _____

Name: _____

Signature: _____

Date: _____

PARCEL DEED

Know all Men by these Presents,

That Claire R. Laverriere

of Biddeford, County of York, State of Maine

being unmarried, for consideration paid, grant to

E & R DEVELOPMENT CORPORATION, a Maine Corporation with
established place of business at Biddeford, York County, Maine,
XXX XXXXXX XXXX

whose mailing address is

311 Alfred Street
Biddeford, Maine 04005

with warranty covenants, the land in Biddeford, County of York

State of Maine, described as follows:

A certain lot or parcel of land, situated in said Biddeford, and further described as being located on the Southwesterly side of the Pool Road, so-called, and beginning at a point which is located four hundred fifty and 5/10 (450.5) feet south fifty-one degrees thirty minutes (51°30') west from said Pool Road at a solid iron representing the Southerly corner of land now or formerly of Curro and the Northwesterly sideline of land now or formerly of Davis; thence South fifty-one degrees thirty minutes (51°30') West four thousand seven hundred forty-nine and 2/10 (4,749.2) feet to land of Gagne; thence North thirty-eight degrees thirty minutes (N38°30'W) West a distance of six hundred sixty-five (665) measured feet (Gagne deed reads seven hundred seventeen and 75/100 (717.75) feet) to land of Bowdoin Park; thence by the following five (5) courses by land of Bowdoin Park or owner unknown: North fifty-two degrees thirty minutes (52°30') East a distance of eight hundred thirty-nine and 5/10 (839.5) feet; North fifty-five degrees twenty minutes (55°20') East, for two hundred thirteen (213) feet; North fifty degrees forty-five minutes (50°45') East two hundred sixty (260) feet; North forty-nine degrees forty-two minutes (49°42') East, two hundred forty-four and 5/100 (244.5) feet; North thirty-eight degrees thirty minutes (38°30') West a distance of nine hundred sixty-two and 8/10 (962.8) feet to land of the City of Biddeford (Clifford Park) or owner unknown; thence by land of the City of Biddeford (Clifford Park) or owner unknown the following thirteen courses and distances: North sixty-seven degrees (67°) East for one thousand two hundred five (1,205) feet; North sixty-two degrees fifty minutes (62°50') East two hundred twenty-one (221) feet; North seventy-two degrees (72°) East two hundred eighty-eight (288) feet; South seventy-six degrees thirty minutes (76°30') East one hundred thirty-four (134) feet; South eighty-two degrees thirty-five minutes (82°35') East, two hundred fifty-three and 4/10 (253.4) feet to a stump and wire; Southerly fifty (50) feet more or less to a big oak tree with wire; north thirteen degrees five minutes (13°05') West three hundred thirty-five (335) feet; by the remains of an old fence and stone wall! North eight degrees (8°) East seventy-nine (79) feet; North thirty-five degrees forty minutes (35°40') East one hundred (100) feet; North thirty-two degrees thirty minutes (32°30') East three hundred twenty-four and 5/10 (324.5) feet; North thirty-three degrees thirty-five minutes (33°35') East one hundred thirteen and 7/10 (113.7) feet; North fifty-two degrees forty-five minutes (52°45') East two hundred five (205) feet; North fifty-five degrees twenty-five minutes (55°25') East two hundred three and 3/10 (203.3) feet to land of the Knights of Columbus or owner; thence South fifty nine degrees fifty minutes East (S59°50'E) by said Knights of

MAINE REAL ESTATE TRANSFER TAX PAID

Columbus land a distance of five hundred forty eight and 16/100 (548.16) feet to a point; thence North fifty-three degrees twenty-five minutes (N 53°25'E) by said Knights of Columbus land a distance of four hundred ninety six and 09/100 (496.09) feet to an iron pipe driven into the ground and the southwesterly side of the Pool Road; thence South eighteen degrees fifty-four minutes forty-five seconds East (S18°54'45" E) by said Pool Road a distance of one hundred fifty nine and seventy-five hundredths (159.75) feet to a State Highway Commission monument on the Southwesterly side of the Pool Road; thence continuing Southeasterly by said Pool Road and by a circular curve deflecting to the left having a radius of 1960.08 feet an arc distance of fifty-three and forty-five hundredths (53.45) feet to an iron pipe driven into the ground and remaining land of the within grantor; thence South sixty one degrees fifty-four minutes thirty seconds West (S61°54'30" W) by said remaining land of the within grantor, a distance of two hundred fifty seven and forty-five hundredths (257.45) feet to an iron pipe driven into the ground; thence South fifty six degrees forty-four minutes fifteen seconds West (S 56°44'15" W) still by remaining land of the within grantor a distance of two hundred fifty four and ninety-six one-hundredths (254.96) feet to an iron rod set in the ground; thence South thirty-eight degrees fifty-one seconds East (S38°51'E) still by remaining land of the grantor a distance of forty-eight and sixty-nine hundredths (48.69) feet to a point and land now or formerly of one Landry; thence South thirty-eight degrees fifty-one minutes East (S 38°51'E) by said Landry land a distance of two hundred eighty and fifty-six hundredths (280.56) feet to an iron set in the ground; thence South thirty-nine degrees thirty-nine minutes East (S 39°39'E) by land now or formerly of one Morin a distance of one hundred five (105) feet to an iron pipe set in the ground and land now or formerly of one Googins; thence South thirty-eight degrees East (S 38° E) by said Googins land a distance of ninety and eighty-two hundredths (90.82) feet to an old iron set in the ground at land now or formerly of one Curro; thence South thirty-eight degrees East (S38°E) by said Curro land a distance of one hundred twelve and five tenths (112.5) feet to a solid iron driven into the ground and the point of beginning.

For grantors' source of title reference is made to the following deeds:

A. Willie H. Laverriere to Willie H. Laverriere and Claire Laverriere dated September 2, 1975 and recorded in York Registry of Deeds in Book 2093, page 65.

B. Warranty Deed of Camille L. Dubreuil to Willie H. Laverriere and Claire R. Laverriere as joint tenants dated May 13, 1950 and recorded in York Registry of Deeds in Book 1156, Page 74.

The said Willie H. Laverriere is deceased and title passed to the within grantor by operation of law.

BOOK 3458 FILE 45

Aspek

[illegible]

Witness my hand and seal this 18th day of the month of
January, 19 85/

Signed, Sealed and Delivered
in presence of

Claire R. Laverriere
Claire R. Laverriere

Florida
State of ~~FLORIDA~~, County of Dade ss. January 18, 1985

Then personally appeared the above named Claire B. Laverriere

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

Before me,

Print name of Notary:

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. OCT 10, 1988
BONDED THRU GENERAL INS. UNO.

1935 FEB 1 AM 10:12
RECORDED REGISTRY 1, 12, 1935

LETTER OF UNDERSTANDING

By Order of the Biddeford City Council (2020.100), the City Manager has been authorized to enter into a land conveyance agreement with both E & R Development Corporation (or official designee) and Mr. Gervais Dube (or official designee) under the terms of which there shall be an exchange of interests in certain parcels of real estate situated at and near Clifford Park, so-called, in Biddeford, Maine. The land mentioned as being owned by Mr. Gervais Dube in said Order is actually owned by Gervais Dube Properties, Inc. which will be hereinafter referred to as "Dube" and E & R Development Corporation shall be hereinafter referred to as "E & R". The City of Biddeford shall be referred to as "Biddeford".

E & R intends to transfer to Biddeford two separate parcels of land being designated as "Land to be Conveyed to the City of Biddeford from E & R Development Corp. 35.1 +/- Acres" and "Land to be Conveyed to the City of Biddeford from E & R Development Corp., 24.1 +/- Acres" in exchange for the transfer of land designated "Land to be Conveyed to E & R Development Corp. from the City of Biddeford-4.3 +/- acres", all as shown as diagonally lined areas on plan entitled "Proposed Land Conveyances" attached hereto as Exhibit A.

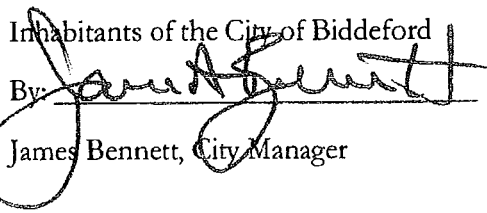
Dube intends to transfer to Biddeford a parcel of land designated as "Land to be Conveyed to the City of Biddeford from Gervais Dube-42.6 +/- Acres" as shown as box lined areas on the above referenced plan. The City shall be obligated to provide Dube with an appraisal of the property to be transferred and an enforceable agreement that the transferred property shall only be used for recreational purposes.

E & R intends to develop portions of its remaining property, the property it is acquiring from the City and property it intends to acquire from Dube as additions to the existing Parkside Subdivision and the existing Winding Creek subdivision, said additions to contain a total of 50 residential lots, more or less. E & R understands and agrees that it shall promptly apply for and proceed diligently to obtain approvals for such additions, it being the desire of E & R that all municipal reviewing agencies give due consideration to the transfers made hereunder in the reviewing process and the issuance of all licenses, approvals and permits. E & R shall be entitled to retain such necessary drainage easements, filter beds, and outfall areas as may be required to secure approval of the development plans by any applicable governmental agencies.

The parties hereto recognize that E & R will be expending significant sums of money in reliance on the understanding set forth herein.

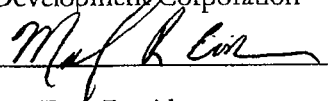
Dated: January 15, 2021

Inhabitants of the City of Biddeford

By: 

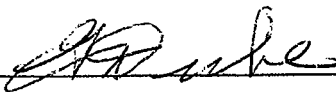
James Bennett, City Manager

E & R Development Corporation

BY: 

Michael R. Eon, President

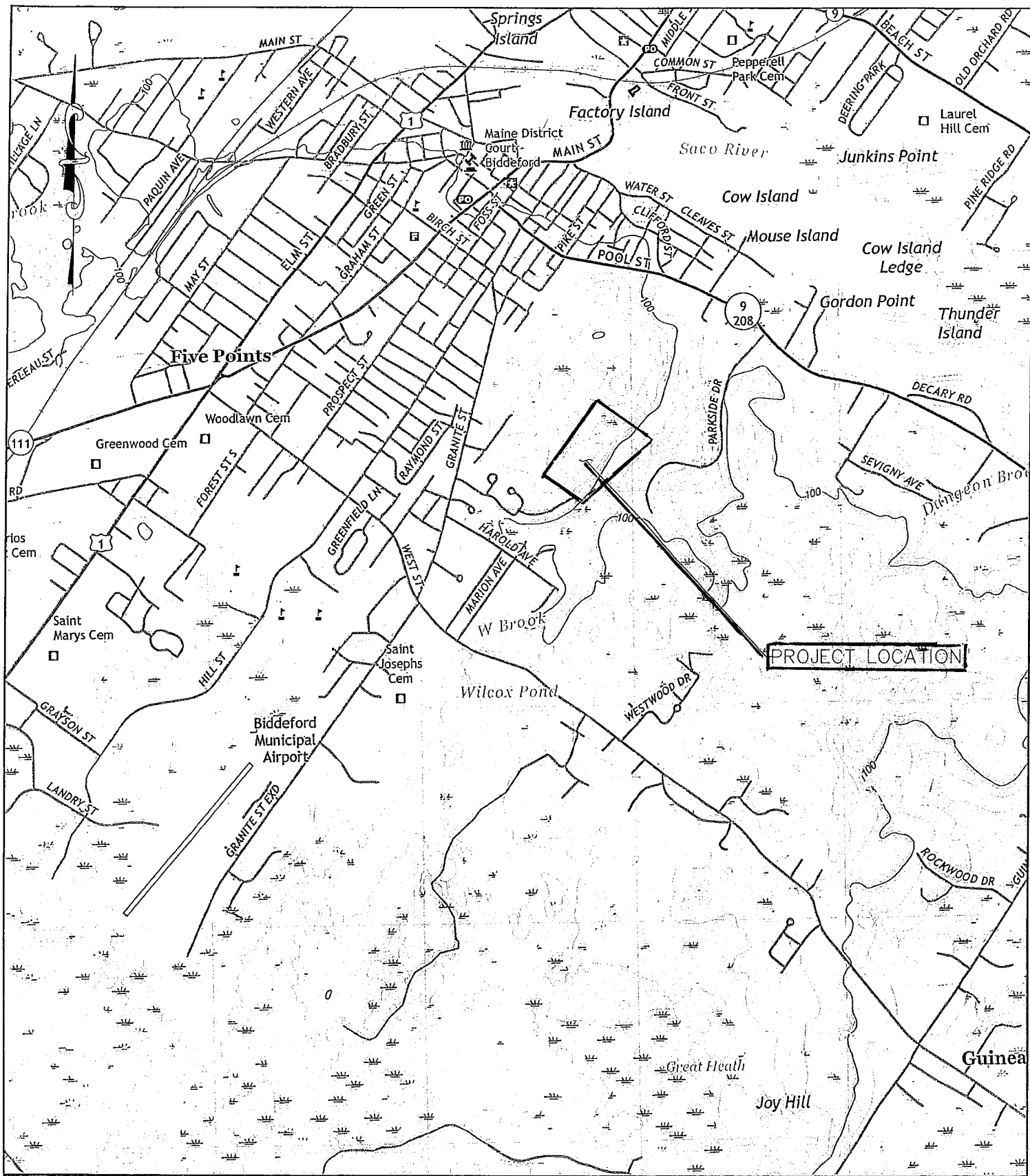
Gervais Dube Properties, Inc.

By: 

Gervais Dube, President

1022-114-ltrunderstading/1/revised1/14/2020

USGS MAP



REFERENCES:

1. USGS QUADRANGLE BIDDEFORD, ME 2021

Scale: 1" = 2000'



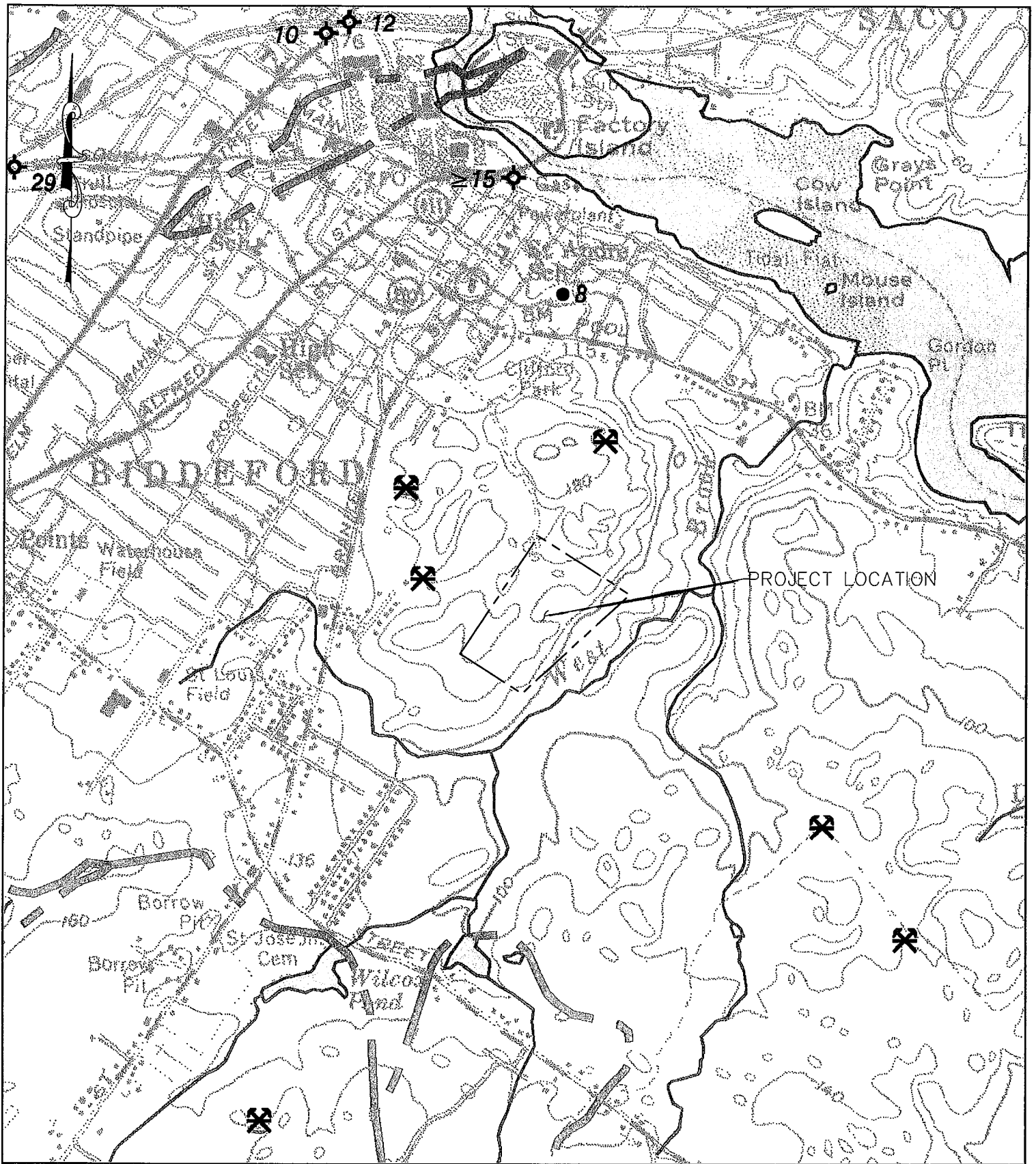
BH2M

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

380B Main Street
Gorham, Maine 04038

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

SAND & GRAVEL AQUIFER MAP



REFERENCES:

1. SIGNIFICANT SAND AND GRAVEL AQUIFERS – BIDDEFORD QUADRANGLE, ME 1998

Scale: 1" = 2000'



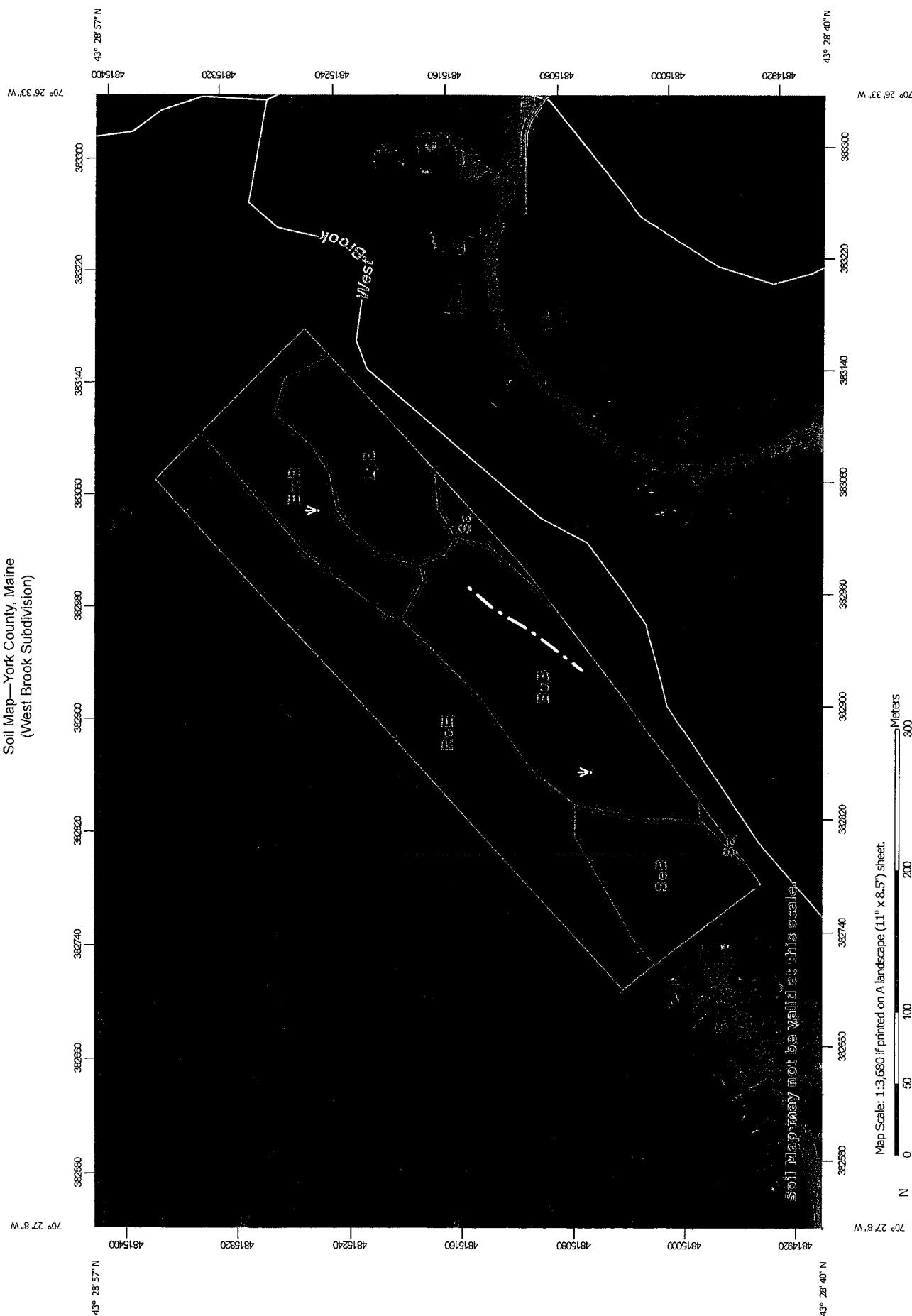
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

380B Main Street
Gorham, Maine 04038

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

MEDIUM INTENSITY SOIL MAP

Soil Map—York County, Maine (West Brook Subdivision)



Map Scale: 1:3,680 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

USDA
Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

2/1/2022
Page 1 of 3

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Buxton silt loam, 3 to 8 percent slopes	4.6	25.6%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	2.3	13.0%
LyB	Lyman-Rock outcrop complex, 3 to 8 percent slopes	2.3	12.9%
RoE	Rock outcrop-Lyman complex, 15 to 80 percent slopes	6.2	34.6%
Sa	Saco mucky silt loam	0.4	2.1%
SeB	Scio silt loam, 3 to 8 percent slopes	2.1	11.8%
Totals for Area of Interest		17.9	100.0%

WETLAND REPORT
& VERNAL POOL REPORTS



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

5899

October 20, 2019

Mr. Bill Thompson
BH2M
28 State Street
Gorham, ME 04038

Re: Delineation of wetlands on 30+ acres Parkside Drive Biddeford, ME

Dear Bill,

I have completed a delineation of wetlands on an 30+ acre portion of a parcel located at Parkside Drive 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 wetland I found on the parcel was 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 to your office. The wetland found onsite are forested wetlands. The wetlands located adjacent to West Brook will 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 V. Hampton C.S.S., L.S.E.

Certified Soil Scientist #216

Licensed Site Evaluator #263



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

5899
February 7, 2022

Mr. Bill Thompson
BH2M
28 State Street
Gorham, ME 04038

Re: Soil Suitability West Brook Subdivision Biddeford, ME

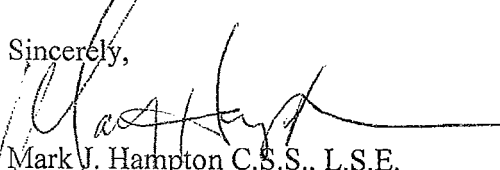
Dear Bill,

I have previously completed a delineation of wetlands on the property designated for the development of the extension of Winding Creek Lane and the new West Brook Subdivision. I also completed preliminary soil evaluations on all the proposed lots for soil suitability for all proposed improvements.

It is my professional opinion, that the soils within this project are suitable for the proposed development, including foundation construction, site development and septic designs, if needed.

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

Cc: E&R Development



MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

5899
May 2, 2022

Mr. Mike Eon
Mike Eon Associates, Inc
P. O. Box 444
Biddeford, ME 04005

Re: Vernal Pool Assessment, Proposed West Brook Subdivision Biddeford, ME

Dear Mike,

I have completed a vernal pool assessment on the proposed West Brook Subdivision property 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 last week in March. I found no vernal pools on the property. There is a potentially significant vernal pool off the property which I had previously located with gps and had sent that information to Bill Thompson at BH2M.

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

LETTERS OF APPROVAL

Fire Department

Water Company

Sewer Department

E-911 Road name designation

Maine Historic Preservation Commission

From: Mike Eon
Sent: Monday, November 22, 2021 1:36 PM
To: William Thompson
Cc: Mike; Bernie Roberge
Subject: Fwd: Winding Creek

FYI, I found it in my e-mail.

Mike

Begin forwarded message:

From: "Labrecque, Paul" <paul.labrecque@biddefordmaine.org>
Subject: RE: Winding Creek
Date: June 29, 2021 at 4:09:50 PM EDT
To: William Thompson <wthompson@bh2m.com>
Cc: Mike Eon <meon@mikeeonassoc.com>

Good afternoon William,

I have reviewed the proposed new addition to Winding Creek Lane. My only recommendation at this time would be to add a fire hydrant in the vicinity of Lot 17 & 18 of the new addition. The existing fire hydrant is located at 14 Winding Creek. The estimated distance from this hydrant to the end of current Winding Creek is currently 526' +/- . By installing an additional hydrant between lot 17 & 18, I estimate the remaining distance from this new hydrant to the end of the proposed road would be under 800' if my estimates are correct.

Please contact me if you have any questions or concerns.

Regards,

Paul

From: William Thompson <wthompson@bh2m.com>
Sent: Tuesday, June 15, 2021 4:06 PM
To: Labrecque, Paul <paul.labrecque@biddefordmaine.org>
Cc: Mike Eon <meon@mikeeonassoc.com>
Subject: FW: Winding Creek

Hi Assistant Chief LaBrecque , I have been asked by my client, Mike Eon to forward this concept plan to you showing a proposed subdivision at the end of Winding Creek Lane . A few months ok, Mike Eon met with you to outline this proposal . Since that meeting, we have met with the planning board and revised the concept to create a cluster design



WILLIAM A. THOMPSON
ROBERT C. LIBBY, Jr.
WALTER E. PELKEY
ANDREW S. MORRELL
STEVEN J. BLAKE

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

380B Main Street
Gorham, Maine 04038

Tel. (207) 839-2771
www.bh2m.com

April 12, 2022

Marcus Knipp
Maine Water
93 Industrial Park Road
Saco, Maine 04072

Re: Ability to Serve – West Brook Subdivision
19 Lot Subdivision – Biddeford

Dear Marcus;

We are preparing a design for a 19-lot residential subdivision on the extension of Winding Creek Lane. Winding Creek Lane was constructed around 2008 with 16-residential lots served by an eight-inch water main.

We have contacted the Fire Chief to discuss location for a fire hydrant. The request was to install a new hydrant between Lots 18 and 19. We will propose installing an 8-inch waterline up to this point and then reduce to a 4-inch waterline to the end of the proposed road.

Please review our design and hopefully prepare a letter for the ability to serve along with your details. If you need anything else, please let us know.

Sincerely,

William A. Thompson
Project Manager

encl.

From: William Thompson
Sent: Thursday, August 11, 2022 11:26 AM
To: Marcus Knipp
Cc: Chris MacDonald
Subject: West Brook , Biddeford review

Hi Marcus, We are putting together the final plans for the 19 lot subdivision . Our e-mail records show we sent you a pdf on 2/23/22 at your request .

Can you send me the comments that you prepared for our review . We are just trying to re- group on this project as time has moved on .

Thanks, Bill

William Thompson
Project Manager
380B Main Street
Gorham, Maine 04038
207 839-2771 x 202
www.bh2m.com





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 West Brook Subdivision Off end of Winding Creek Lane

William Thompson
BH2M Engineers
Main Street
Gorham, Maine

April 29, 2022

Brief description of project: **West Brook Subdivision off end of Winding Creek Lane,
Biddeford, Maine-** Estimated flows: **4500 gpd.**

Determination

The applicant is proposing a 19 lot single family residential subdivision off the end of Winding Creek Drive.

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 treatment facility, the City has sufficient capacity at the City's Wastewater Treatment Facilities to treat flows from the above described project. It is estimated that 4500 gpd of flow will be added from the 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.

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. Design Plans must be submitted to the City for review and comment. The Planning Department, Engineering Department or other persons from the Wastewater Department

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.*

may require further studies, calculations or documentation to determine any actions that may need to be taken to address any impacts/capacity issues this project may have on the City's sewer collection and conveyance system(s) or its components.

Thomas Milligan, PE
City Engineer
City of Biddeford Engineering Department
Tom.milligan@biddefordmaine.org
207-284-9118

CC: Jeff Demers, Public Works/Wastewater Director
Roby Fecteau, Code Enforcement
Hannah Bonnie, City Planner
Alex Buechner, Superintendent
Craig Chekan, Deputy City Engineer
E&R Development, applicant

From: Fisk, JoAnne
Sent: Tuesday, August 16, 2022 2:02 PM
To: William Thompson
Subject: FW: West Brook Subd.

From: Fisk, JoAnne
Sent: Friday, April 29, 2022 10:36 AM
To: Bonine, Hannah <Hannah.Bonine@Biddefordmaine.org>; Whitten, Nan <nan.whitten@biddefordmaine.org>
Cc: 'meon@mikeeonassoc.com' <meon@mikeeonassoc.com>
Subject: West Brook Subd.

Bonnie & Nan,

I had previously worked with Mike Eon on this project and am all set with it going forward and we will finalize numbering sequences once everything is said and done.

Thanks,
JoAnne



The contents of this e-mail message and any attachments are confidential and are intended solely for addressee. The information may also be legally privileged. This transmission is sent in trust, for the sole purpose of delivery to the intended recipient. If you have received this transmission in error, any use, reproduction or dissemination of this transmission is strictly prohibited. If you are not the intended recipient, please immediately notify the sender by reply e-mail or phone and delete this message and its attachments, if any.

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.



WILLIAM A. THOMPSON
ROBERT C. LIBBY, Jr.
WALTER E. PELKEY
ANDREW S. MORRELL
STEVEN J. BLAKE

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Engineers, Surveyors

380B Main Street
Gorham, Maine 04038

Tel. (207) 839-2771
www.bh2m.com

January 27, 2022

Joanne Fisk
Biddeford – 911 designation
P.O. Box 586
Biddeford, Maine 04005

Re: West Brook Subdivision
Winding Creek Lane

Dear Joanne;

On behalf of the applicant, Mike Eon of E & R Development, we are forwarding a copy of the proposed 19-lot residential subdivision. We are going before the Planning Board at the March board meeting to present our Preliminary Subdivision plan.

We would appreciate your review of the project road name along with the numbering for each house. If you have any questions, please give me or Mike Eon a call.

Sincerely,


William A. Thompson
Project Manager

encl.



BH2M

Civil Engineering | Surveying



April 28, 2022

Kirk Mohney
Maine Historic Preservation Commission
55 Capital Street
65 State House Station
Augusta, Maine 04333-0065

Re: Proposed 19 Lot Residential Development
off Winding Creek Lane, Biddeford

Dear Kirk;

We are preparing an application for a City of Biddeford Planning Board permit for a residential project referenced above.

As part of the application process, we need to request a review for any historic sites. This development is located on an 8.3-acre parcel surrounded by undeveloped wood land.

We are attaching a USGS Map with our project shown on it. We would appreciate your departments review.

Sincerely,

William A. Thompson
Project Manager

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

5/16/22
Date

EXHIBITS FOR WILDLIFE CORRIDOR
& PRE DEVELOPMENT EXISTING GRADING PLAN

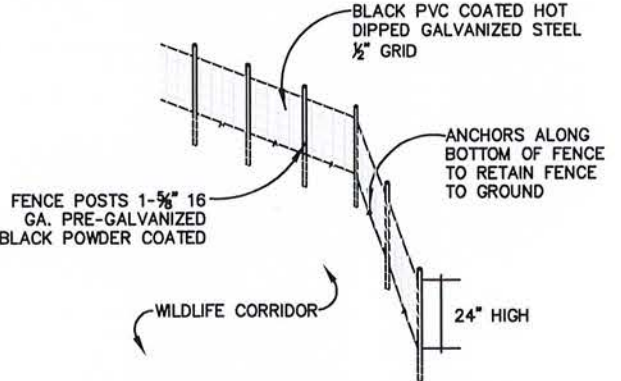
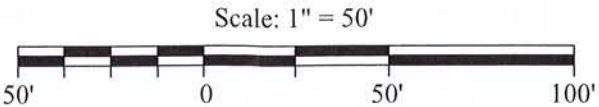


SIMILAR INSTALLATION CRITTER FENCE



WILDLIFE CORRIDOR PLAN

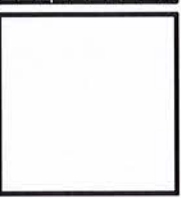
SCALE: 1" = 50'



CRITTER FENCE BARRIER

NTS

REVISION		DESCRIPTION
NO.	DATE	DESCRIPTION
1	2-9-22	Minor Revisions per Client Request
2	3-16-22	Minor Revisions per Client Request
3	4-8-22	Minor Revisions per Client Request
4	7-28-22	Add Critter Fence
5	8-4-22	Minor Revisions to Critter Fence Location
6	8-5-22	Minor Revisions to Critter Fence Location
7	8-8-22	Minor Revisions to Critter Fence Location



BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
3809 Main Street
Biddeford, Maine 04008
Tel: (207) 439-2772
www.bh2m.com

FOR
E & R Development Corp.
280 Main Street
Biddeford, Maine

WILDLIFE CORRIDOR PLAN
WEST BROOK SUBDIVISION
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN W. Pelkey	SCALE 1" = 50'
CHECKED W. Thompson	JOB. NO. 20217

SHEET
E-1

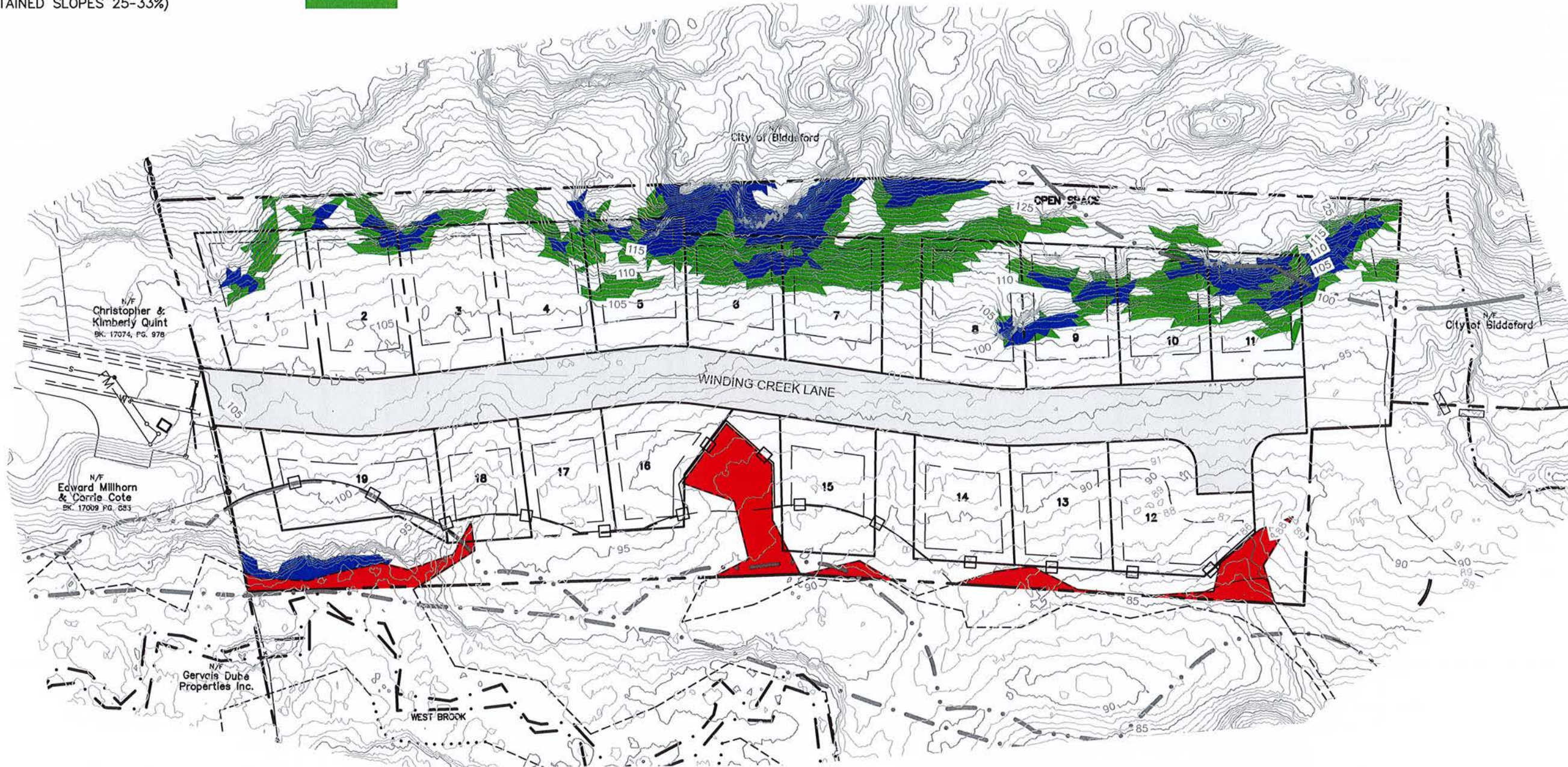
NET RESIDENTIAL DENSITY CALCULATION

TOTAL PARCEL AREA	365,457 S.F.
1 100 YEAR FLOOD ZONE	0 S.F.
2 WETLANDS	13,489 S.F.
3 SUSTAINED SLOPES (50% >33%)	10,548 S.F.
4 VERY POORLY DRAINED SOILS	0 S.F.
5 POORLY DRAINED SOILS	0 S.F.
6 RIGHT OF WAY	52,105 S.F.
	289,315 S.F.

SPACE STANDARD FOR RESIDENTIAL 1A
MINIMUM DENSITY - 10,000 S.F.

NET RESIDENTIAL DENSITY: $\frac{289,315 \text{ S.F.}}{10,000 \text{ S.F.}} = 28.9 \text{ LOTS}$

SUSTAINED SLOPES 25-33%



NO.	DATE	REVISION	DESCRIPTION
1	3/9/22		Revised per Client Request



BH2M
BERRY, HUFF, McDONALD, MILLIGAN, INC.
Engineers, Surveyors
3809 Main Street
Biddeford, Maine 04005
Tel: (207) 899-2771
www.bh2m.com

FOR
E & R Development Corp.
P.O. Box 444
Biddeford, ME

PRE-DEVELOPMENT
EXISTING GRADING PLAN
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE March 2022
DRAWN W. Pelkey	SCALE 1" = 100'
CHECKED W. Thompson	JOB. NO. 20217

SHEET
E-2

STORMWATER MANAGEMENT REPORT

WEST BROOK SUBDIVISION Biddeford, Maine

Submitted by:

E&R Development Corporation

Prepared by:



Date:

February 2022

Updated: April 2022

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	OVERVIEW OF MODELING METHODOGY AND SOURCE INFORMATION....	1
1.2	DESCRIPTION OF POINTS OF ANALYSIS.....	2
1.3	PRE DEVELOPMENT CONDITIONS	3
1.4	POST DEVELOPMENT CONDITIONS.....	3
1.5	BASIC STANDARDS.....	4
1.6	GENERAL STANDARDS.....	4
1.7	FLOODING STANDARD	5
1.8	CLOSURE	6

LIST OF APPENDICES

APPENDIX A	SOILS REPORT
APPENDIX B	PRE DEVELOPMENT CALCULATIONS
APPENDIX C	POST DEVELOPMENT CALCULATIONS
APPENDIX D	TREATMENT CALCULATIONS
APPENDIX E	INSPECTION AND MAINTENANCE MANUAL

1.0 **INTRODUCTION**

E&R Development Corporation is proposing the development of the West Brook Subdivision (the project). The project proposes a 19 lot Cluster Subdivision located at the end of Winding Creek Lane in Biddeford, Maine.

The scope of work includes but is not limited to:

- Construction of an approximate 1000' long paved road meeting City standards
- Construction of sidewalks and esplanades
- Extension of municipal utilities for water, sewer, electrical and communications
- Construction of a closed drainage systems and stormwater management facilities

The proposed infrastructure improvements will create approximately 0.77 acres of new impervious area, which excludes single family home development.

In accordance with the City of Biddeford code requirements, the Stormwater Management Plan has been prepared to satisfy the requirements of the Maine Department of Environmental Protections "Stormwater Management Rules" Chapters 500, 501 and 502 as well as the most recent version of the "Maine Stormwater Best Management Practices Manual". Per the post construction stormwater discharge management standards of the City code, the proposed project will need to meet quality and quantity standards of Chapter 500, requiring meeting the Basic, General, and Flooding Standards.

1.1 **OVERVIEW OF MODELING METHODOGY AND SOURCE INFORMATION**

Hydrologic Analysis: The pre and post development conditions have been modeled using modeling software (Hydrocad Version 10) which is based upon the methodology contained within the USDA Soil Conservation Service Technical Release 55. Type III 24-hour storm distributions for York County were used for the analysis. The following frequencies and 24-hour rainfall depths were used for the analysis:

Return Period	24-Hour Rainfall Depth
2-Year Storm	3.30 inches
10-Year Storm	4.90 inches
25-Year Storm	6.20 inches

Soils: The soils boundaries used for the stormwater analysis were digitized from the Natural Resource Conservation Service (NRCS), web soil survey website. The source of the data is the York County Soil Survey (Class D). Refer to the following for additional documentation regarding the soils used for modeling:

- Appendix A of this Report
- Pre and Post Development Watershed Plans (Sheets A and B)

The soils include:

Soil Map Unit	Unit Description	Hydrologic Soil Group*
BuB	Buxton silt loam, 3-8% slopes	D
EmB	Elmwood fine sandy loam, 0-8% slopes	B
LyB	Lyman-Rock outcrop complex, 3-8% slopes	D
RoE	Rock outcrop-Lyman complex, 15-80% slopes	D*
Sa	Saco mucky silt loam	B/D**
SeB	Scio silt loam, 3-8% slopes	C

*Assumed as D

**Assumed as D for areas of known wetland

Boundary Survey: Field survey by BH2M

Topography: LIDAR data from the Maine Office of GIS

Natural Resources: Wetland delineations performed by Mark Hampton Associates

1.2 **DESCRIPTION OF POINTS OF ANALYSIS**

The watershed model analyzes the discharge of runoff at two Analysis Points as described below:

Analysis Point #1

Description: Discharge from wetland area bordering West Brook along the south west parcel line

Pre-Development Tributary Drainage Areas: 6.36 acres

Post Development Tributary Drainage Areas: 4.57 acres

Analysis Point #2

Description: Concentrated discharge along wetland area along the south east corner of parcel

Pre-Development Tributary Drainage Areas: 9.06 acres

Post Development Tributary Drainage Areas: 10.86 acres

1.3 PRE DEVELOPMENT CONDITIONS

The Pre Development Conditions are shown on Sheet A – Pre Development Stormwater Plan of the accompanying plans. The project located off the end of Winding Creek Lane in Biddeford. The site is bounded by West Brook to the south, the Winding Creek Subdivision to the west, and undeveloped wooded areas to the north and east. The project area to be disturbed is approximately 2.3 acres, excluding single family home development.

The watershed that was analyzed for this project is approximately 15.4 acres. Analysis points are described in Section 1.2 of this report. The project watershed is mostly comprised of wooded hillside marked by a steep section with some areas of ledge to the north, gradually reducing in slope to the south to West Brook. Following up on a comment from the City's review engineer, lengths used to calculate sheet flow time of concentration will be limited to 100' for the areas along the northern ridge line, as the steep slopes that exist along this ridge and areas of exposed ledge likely result in water concentrating in a shorter distance than the conventional 150' assumption.

The Pre Development Stormwater plans are included as Sheet of the accompanying plans and the Calculations are attached as Appendix B.

The Pre Development Watershed Model predicts the following peak flow rates:

Pre Development Peak Flows (cu. ft./sec)			
Analysis Point	2-Year	10-Year	25-Year
AP-1	6.07	12.93	18.96
AP-2	9.10	18.85	27.40

1.4 POST DEVELOPMENT CONDITIONS

The proposed project will include development of a 19 Lot Cluster Subdivision. The applicant proposes to construct approximately 1,000 linear feet of road and sidewalk, extend municipal utilities, and construct drainage systems, but is not proposing to construct the houses or grade lots for development. These lots will be offered for sale for individual development by others. Given this, the watersheds have been analyzed

with assumed cover types for lawn and homes to ensure that the flooding standard will be met for the ultimate build out.

Under proposed conditions, a swale is proposed along the northern side of the road to capture run off from the hillside above. This swale will be drained by culvert inlets, piped across the road, then outlet to level spreaders before draining to West Brook.

The proposed project will utilize an underdrained soil filter with a benched impoundment area both water quality treatment and storage for run off attenuation. Refer to Section 1.6 for detailed design calculations of the underdrained soil filter.

The Post Development Stormwater plans are included as Sheet B of the accompanying plan set, and the Calculations are attached as Appendix C.

The Post-Development Watershed Model predicts the following peak flow rates:

Post Development Peak Flows (cu. ft./sec)			
Analysis Point	2-Year	10-Year	25-Year
AP-1	4.11	8.37	12.08
AP-2	6.72	13.46	26.52

1.5 **BASIC STANDARDS**

The proposed project is required to meet the Basic Standards. To meet the Basic Standards the project design must demonstrate that the erosion and sedimentation control, inspection and maintenance, and housekeeping standards specified in Appendices A, B, and C of 06-096 Chapter 500 are met, and that the grading or other construction activity will not impede or otherwise alter drainageways so as to have an unreasonable adverse impact on a wetland or waterbody, or an adjacent downslope parcel.

The proposed project will provide temporary (during construction) BMP's and post-construction BMP's. Refer to Sheet 8 of the Project Plans for erosion and sedimentation control narratives and details. The project requirements for inspection and maintenance during construction and post-construction are described in the Inspection and Maintenance Plan for Stormwater Facilities found in Appendix E.

1.6 **GENERAL STANDARDS**

The proposed project is required to meet the General Standards. To meet the general standards, the project design must demonstrate that the stormwater management system includes treatment measures that will provide pollutant removal or treatment, and mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms and potential temperature impacts. This must be achieved by providing treatment of no less than 95% of the impervious area and no less than

80% of the developed area. For linear portions of projects, the treatment requirements can be reduced to no less than 75% of the impervious area and no less than 50% of the developed area (See 06-096 Chapter 500 4.C(5)(c)). As the project proposes to develop only the subdivision's road and associated drainage, the project is considered to be linear needing to meet the 75%/50% criteria.

Stormwater Treatment Method

The proposed project will utilize a grassed underdrained soil filter to meet treatment requirements. A closed drainage system will collect run off from along the road and outlet to a sedimentation forebay upgradient of the soil filter. The soil filter also provides additional storage for run off in a benched area above the soil filter in the southern portion of the system. This benched area will not be constructed as soil filter, but will function to retain additional run off from upgradient areas to minimize peak run off to less than existing conditions. A portion of the roadside ditch will empty into the forebay, allowing sections of the ditch to be treated by the filter and run off to be stored above the water quality volume.

Linear Project Components

Linear project components consist of elements of the 1,000 linear feet of roadway: the proposed 26' wide road, 5' sidewalk, 4' wide grassed esplanade, 3' deep swales, and roadside build up areas. The total proposed linear impervious area requiring treatment is 33,367 sq. ft. (0.77 acres).

The following Table summarizes the treatment calculations for linear project development.

Linear Treatment Summary	
Total Proposed (Linear) Impervious Area	0.77 acres
Total Proposed (Linear) Developed Area	2.27 acres
Total Treated (Linear) Impervious Area	0.77 acres
Total Treated (Linear) Developed Area	1.51 acres
Linear Impervious Area Treatment %	100.00% (75% required)
Linear Developed Area Treatment %	66.71% (50% required)

As shown in the Table above, the stormwater management system has been designed to meet the General Standards requirements. Detailed linear treatment calculations can be found in Appendix D and the proposed location of the underdrained soil filter is shown on Sheets 4 and 5.

1.7 FLOODING STANDARD

The proposed project is required to meet the Flooding Standards. To meet the Flooding Standard, the project design must demonstrate that the stormwater management systems will accomplish the following:

- a) The system must detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project.
- b) The design of piped or open channel systems must be based on a 10-year, 24-hour storm without overloading or flooding beyond channel limits.
- c) The areas expected to be flooded by runoff from a 10-year or 25-year, 24-hour storm must be defined, and no buildings or other similar facilities may be planned within such areas.
- d) Runoff from the project may not flood the primary access road to the project and any public roads bordering the project as a result of a 25-year, 24-hour storm.

The following Table compares the Pre and Post Development peak flow rates for the 2-year, 10-year, and 25-year return periods. Refer to Appendix B for the Pre Development model and Appendix C for Post Development model.

Peak Flow Comparison (cu. ft./sec)						
Analysis Point	2-Year		10-Year		25-Year	
	Pre	Post	Pre	Post	Pre	Post
AP-1	6.07	4.11	12.93	8.37	18.96	12.08
AP-2	9.10	6.72	18.85	13.46	27.40	26.52

As illustrated in the table above, development of the proposed project will not create a condition where peak flows of stormwater from the post development project site exceed the peak flows of existing conditions.

1.8 **CLOSURE**

The proposed stormwater management facilities have been designed to mitigate stormwater impacts associated with development of the proposed project. In accordance with City of Biddeford code requirements of meeting “quality and quantity standards of Chapter 500”, the proposed stormwater management facilities have been designed to meet the Basic, General and Flooding Standards.



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

West Brook Subdivision



Preface

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

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

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

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

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

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

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

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

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
York County, Maine.....	13
BuB—Buxton silt loam, 3 to 8 percent slopes.....	13
EmB—Elmwood fine sandy loam, 0 to 8 percent slopes.....	14
LyB—Lyman-Rock outcrop complex, 3 to 8 percent slopes.....	15
RoE—Rock outcrop-Lyman complex, 15 to 80 percent slopes.....	16
Sa—Saco mucky silt loam.....	18
SeB—Scio silt loam, 3 to 8 percent slopes.....	19
References	20

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

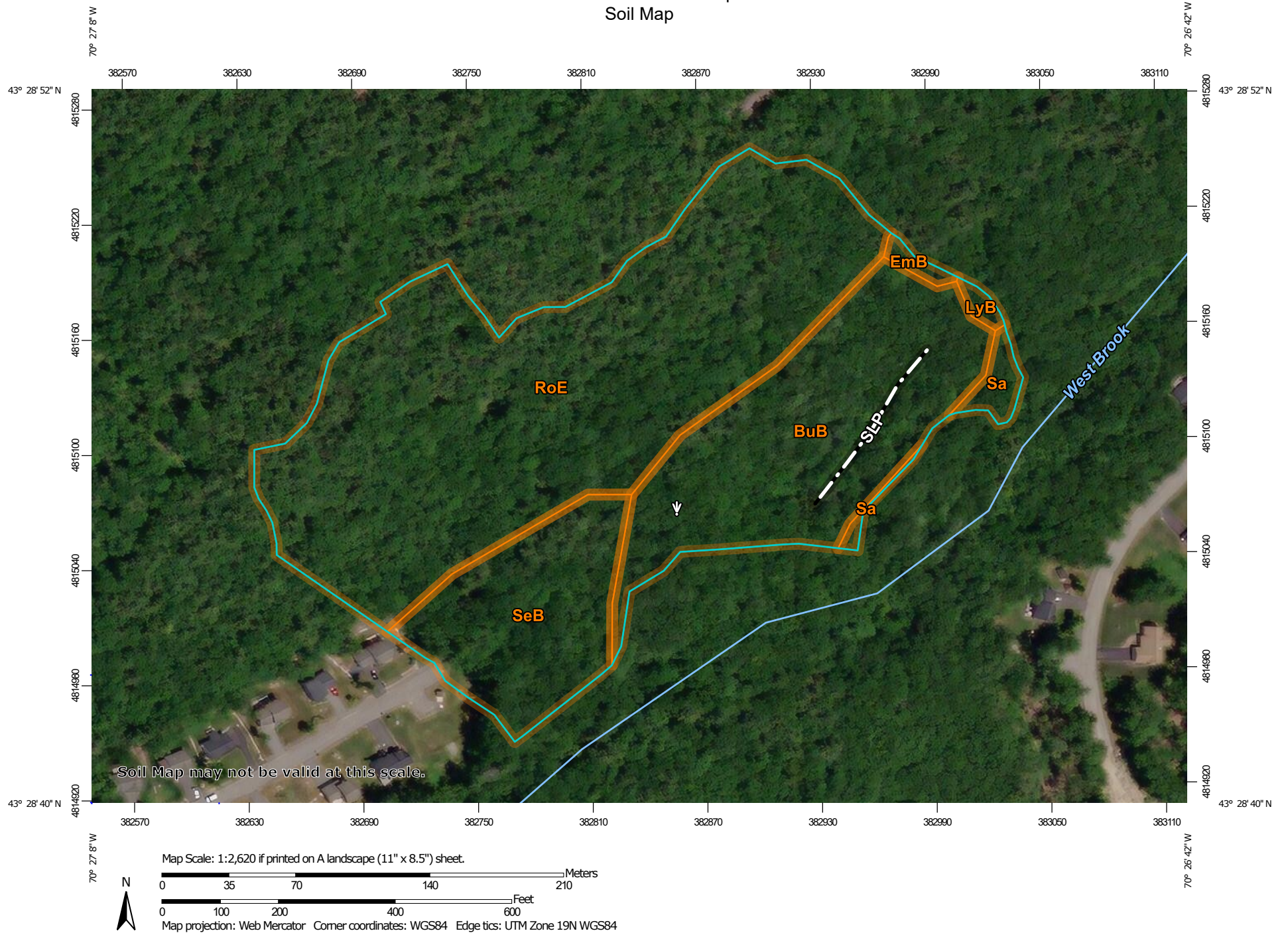
Custom Soil Resource Report

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 20, Aug 31, 2021

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Buxton silt loam, 3 to 8 percent slopes	4.1	25.7%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	0.1	0.6%
LyB	Lyman-Rock outcrop complex, 3 to 8 percent slopes	0.1	0.5%
RoE	Rock outcrop-Lyman complex, 15 to 80 percent slopes	9.1	57.5%
Sa	Saco mucky silt loam	0.3	1.6%
SeB	Scio silt loam, 3 to 8 percent slopes	2.2	14.2%
Totals for Area of Interest		15.8	100.0%

Map Unit Descriptions

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

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

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

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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

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

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

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

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

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

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

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

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

York County, Maine

BuB—Buxton silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9k54

Elevation: 10 to 900 feet

Mean annual precipitation: 34 to 48 inches

Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Buxton and similar soils: 85 percent

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

Description of Buxton

Setting

Landform: Coastal plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Glaciolacustrine deposits derived from siltstone and/or fine-silty marine deposits

Typical profile

H1 - 0 to 7 inches: silt loam

H2 - 7 to 19 inches: silt loam

H3 - 19 to 37 inches: silty clay

H4 - 37 to 65 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 7 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: D

Hydric soil rating: No

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9k5h

Elevation: 10 to 900 feet

Mean annual precipitation: 38 to 55 inches

Mean annual air temperature: 43 to 46 degrees F

Frost-free period: 130 to 195 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Elmwood and similar soils: 89 percent

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

Description of Elmwood

Setting

Landform: Outwash plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material

H1 - 2 to 15 inches: fine sandy loam

H2 - 15 to 21 inches: very fine sandy loam

H3 - 21 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B

Hydric soil rating: No

LyB—Lyman-Rock outcrop complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2trqh

Elevation: 0 to 560 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 60 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Lyman, very stony, and similar soils: 65 percent

Rock outcrop: 20 percent

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

Description of Lyman, Very Stony

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

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Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainbase, side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 10 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Very low to very high (0.00 to 14.17 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

RoE—Rock outcrop-Lyman complex, 15 to 80 percent slopes

Map Unit Setting

National map unit symbol: 2trqv

Elevation: 0 to 1,180 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 60 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Rock outcrop: 64 percent

Lyman, very stony, and similar soils: 21 percent

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

Description of Rock Outcrop

Setting

Landform: Mountains, hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainflank, side slope, crest, free face

Custom Soil Resource Report

Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 10 inches: bedrock

Properties and qualities

Slope: 15 to 80 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Very low to very high
(0.00 to 14.17 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: Unranked

Description of Lyman, Very Stony

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loam
E - 3 to 5 inches: fine sandy loam
Bhs - 5 to 7 inches: loam
Bs1 - 7 to 11 inches: loam
Bs2 - 11 to 18 inches: channery loam
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 15 to 80 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F144BY701ME - Shallow Till
Hydric soil rating: No

Sa—Saco mucky silt loam

Map Unit Setting

National map unit symbol: 9k6j
Elevation: 10 to 1,750 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 80 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Saco and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Saco

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty alluvium

Typical profile

H1 - 0 to 13 inches: mucky silt loam
H2 - 13 to 24 inches: silt loam
H3 - 24 to 65 inches: very fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: FrequentNone
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 16.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

SeB—Scio silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9k6l

Elevation: 0 to 300 feet

Mean annual precipitation: 48 to 51 inches

Mean annual air temperature: 45 to 46 degrees F

Frost-free period: 145 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Scio and similar soils: 89 percent

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

Description of Scio

Setting

Landform: Lakebeds

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Very fine sand glaciolacustrine deposits

Typical profile

H1 - 0 to 7 inches: silt loam

H2 - 7 to 26 inches: silt loam

H3 - 26 to 36 inches: silt loam

H4 - 36 to 65 inches: very fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

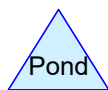
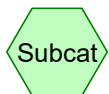
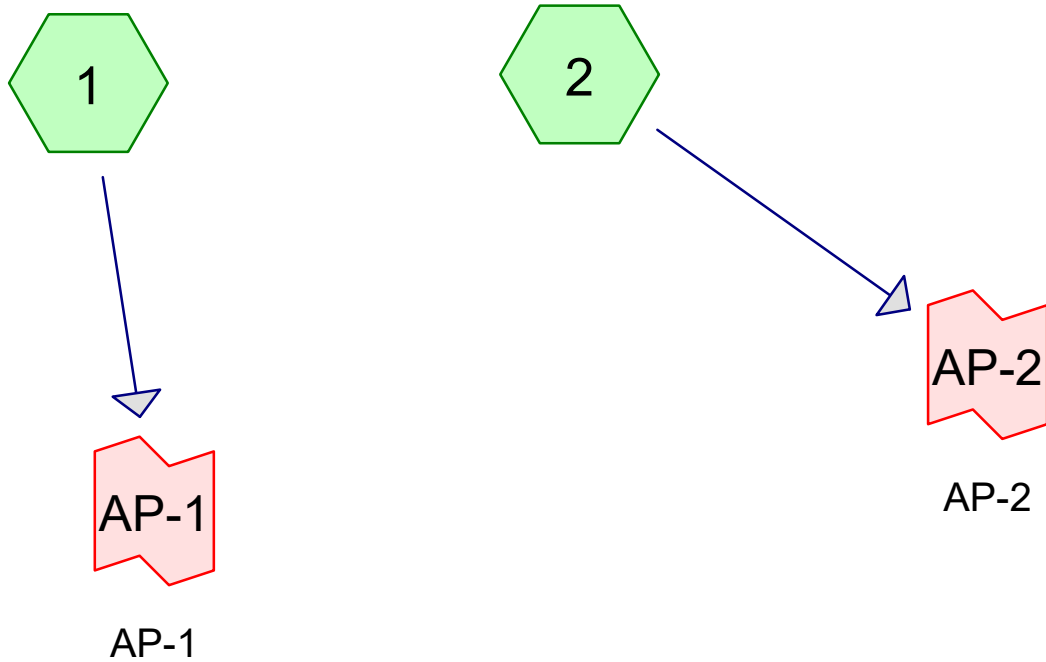
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Routing Diagram for West Brook Pre Development
Prepared by BH2M, Printed 4/4/2022
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West Brook Pre Development

Type III 24-hr 25 YR Rainfall=6.20"

Prepared by BH2M

Printed 4/4/2022

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Page 2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=277,225 sf 0.00% Impervious Runoff Depth>3.21"
Flow Length=806' Tc=16.0 min CN=75 Runoff=18.96 cfs 1.702 af

Subcatchment 2:

Runoff Area=394,708 sf 0.00% Impervious Runoff Depth>3.31"
Flow Length=1,086' Tc=16.4 min CN=76 Runoff=27.40 cfs 2.497 af

Link AP-1: AP-1

Inflow=18.96 cfs 1.702 af
Primary=18.96 cfs 1.702 af

Link AP-2: AP-2

Inflow=27.40 cfs 2.497 af
Primary=27.40 cfs 2.497 af

Total Runoff Area = 15.425 ac Runoff Volume = 4.199 af Average Runoff Depth = 3.27"
100.00% Pervious = 15.425 ac 0.00% Impervious = 0.000 ac

West Brook Pre Development

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 3

Summary for Subcatchment 1:

Runoff = 18.96 cfs @ 12.22 hrs, Volume= 1.702 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
82,085	70	Woods, Good, HSG C
195,140	77	Woods, Good, HSG D
277,225	75	Weighted Average
277,225		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	100	0.1200	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.5	521	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	185	0.0700	15.79	736.64	Parabolic Channel, W=35.00' D=2.00' Area=46.7 sf Perim=35.3' n= 0.030
16.0	806	Total			

Summary for Subcatchment 2:

Runoff = 27.40 cfs @ 12.23 hrs, Volume= 2.497 af, Depth> 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
9,560	55	Woods, Good, HSG B
14,586	70	Woods, Good, HSG C
370,562	77	Woods, Good, HSG D
394,708	76	Weighted Average
394,708		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0800	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	102	0.1760	20.27	270.28	Parabolic Channel, W=10.00' D=2.00' Area=13.3 sf Perim=11.0' n= 0.035
3.4	342	0.1111	1.67		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	542	0.0332	10.89	580.56	Parabolic Channel, W=40.00' D=2.00' Area=53.3 sf Perim=40.3' n= 0.030
16.4	1,086	Total			

Summary for Link AP-1: AP-1

Inflow Area = 6.364 ac, 0.00% Impervious, Inflow Depth > 3.21" for 25 YR event
Inflow = 18.96 cfs @ 12.22 hrs, Volume= 1.702 af
Primary = 18.96 cfs @ 12.22 hrs, Volume= 1.702 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link AP-2: AP-2

Inflow Area = 9.061 ac, 0.00% Impervious, Inflow Depth > 3.31" for 25 YR event
Inflow = 27.40 cfs @ 12.23 hrs, Volume= 2.497 af
Primary = 27.40 cfs @ 12.23 hrs, Volume= 2.497 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type III 24-hr 2 YR Rainfall=3.30"

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Page 1

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=277,225 sf 0.00% Impervious Runoff Depth>1.06"
Flow Length=806' Tc=16.0 min CN=75 Runoff=6.07 cfs 0.562 af

Subcatchment 2:

Runoff Area=394,708 sf 0.00% Impervious Runoff Depth>1.12"
Flow Length=1,086' Tc=16.4 min CN=76 Runoff=9.10 cfs 0.843 af

Link AP-1: AP-1

Inflow=6.07 cfs 0.562 af
Primary=6.07 cfs 0.562 af

Link AP-2: AP-2

Inflow=9.10 cfs 0.843 af
Primary=9.10 cfs 0.843 af

Total Runoff Area = 15.425 ac Runoff Volume = 1.404 af Average Runoff Depth = 1.09"
100.00% Pervious = 15.425 ac 0.00% Impervious = 0.000 ac

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Type III 24-hr 10 YR Rainfall=4.90"

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Page 2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1:

Runoff Area=277,225 sf 0.00% Impervious Runoff Depth>2.19"
Flow Length=806' Tc=16.0 min CN=75 Runoff=12.93 cfs 1.161 af

Subcatchment 2:

Runoff Area=394,708 sf 0.00% Impervious Runoff Depth>2.27"
Flow Length=1,086' Tc=16.4 min CN=76 Runoff=18.85 cfs 1.714 af

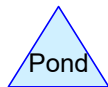
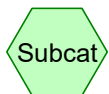
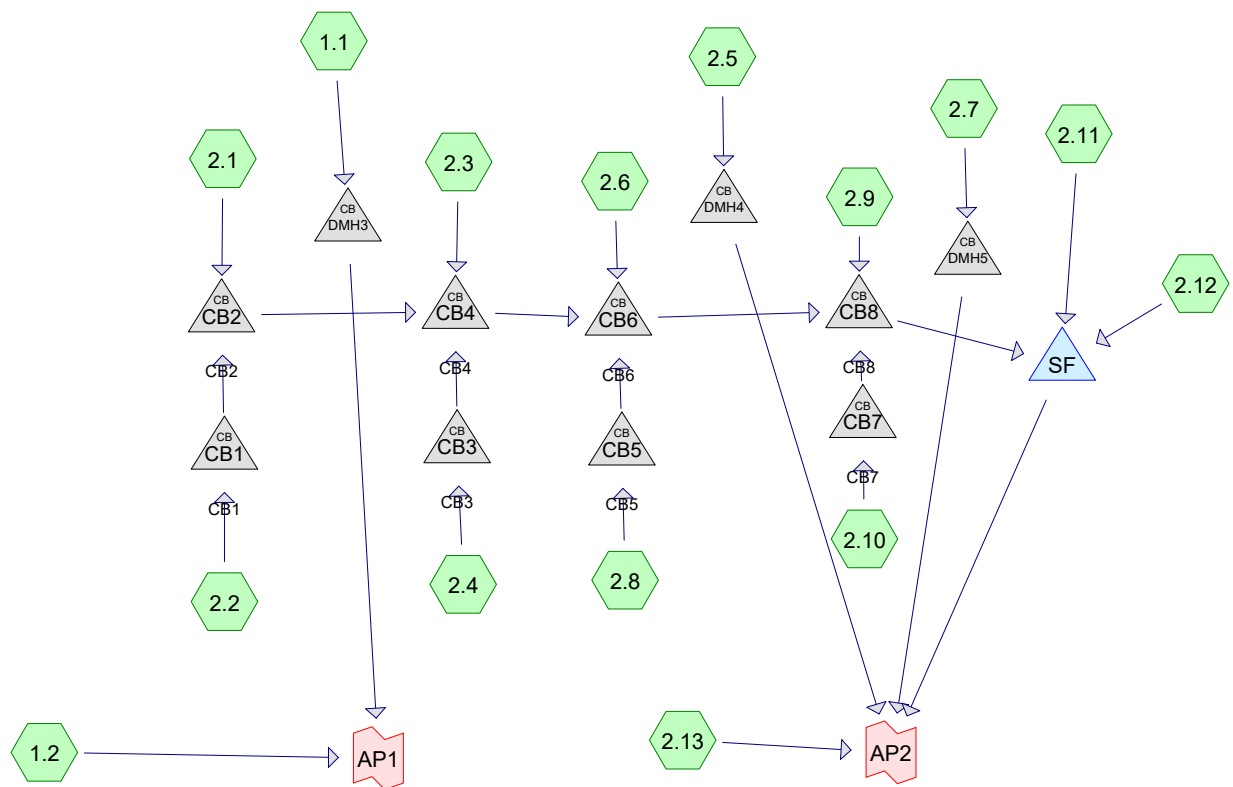
Link AP-1: AP-1

Inflow=12.93 cfs 1.161 af
Primary=12.93 cfs 1.161 af

Link AP-2: AP-2

Inflow=18.85 cfs 1.714 af
Primary=18.85 cfs 1.714 af

Total Runoff Area = 15.425 ac Runoff Volume = 2.875 af Average Runoff Depth = 2.24"
100.00% Pervious = 15.425 ac 0.00% Impervious = 0.000 ac



Routing Diagram for West Brook Post Development
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Type III 24-hr 25 YR Rainfall=6.20"

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Page 2

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1.1:	Runoff Area=162,502 sf 5.34% Impervious Runoff Depth>3.49" Flow Length=738' Tc=24.3 min CN=78 Runoff=10.17 cfs 1.086 af
Subcatchment 1.2:	Runoff Area=36,530 sf 0.00% Impervious Runoff Depth>2.83" Flow Length=150' Slope=0.0933 '/' Tc=15.8 min CN=71 Runoff=2.21 cfs 0.198 af
Subcatchment 2.1:	Runoff Area=6,795 sf 88.40% Impervious Runoff Depth>5.27" Tc=6.0 min CN=95 Runoff=0.91 cfs 0.068 af
Subcatchment 2.10:	Runoff Area=19,380 sf 56.87% Impervious Runoff Depth>4.76" Flow Length=276' Tc=9.4 min CN=90 Runoff=2.19 cfs 0.177 af
Subcatchment 2.11:	Runoff Area=82,756 sf 8.84% Impervious Runoff Depth>3.61" Flow Length=506' Tc=12.1 min CN=79 Runoff=6.98 cfs 0.571 af
Subcatchment 2.12:	Runoff Area=19,459 sf 0.00% Impervious Runoff Depth>3.72" Tc=6.0 min CN=80 Runoff=2.02 cfs 0.138 af
Subcatchment 2.13:	Runoff Area=118,781 sf 0.00% Impervious Runoff Depth>3.30" Flow Length=779' Tc=23.8 min CN=76 Runoff=7.10 cfs 0.750 af
Subcatchment 2.2:	Runoff Area=15,687 sf 59.00% Impervious Runoff Depth>4.55" Flow Length=257' Tc=9.3 min CN=88 Runoff=1.72 cfs 0.137 af
Subcatchment 2.3:	Runoff Area=6,753 sf 87.43% Impervious Runoff Depth>5.27" Tc=6.0 min CN=95 Runoff=0.90 cfs 0.068 af
Subcatchment 2.4:	Runoff Area=16,736 sf 63.92% Impervious Runoff Depth>4.87" Flow Length=337' Tc=9.0 min CN=91 Runoff=1.95 cfs 0.156 af
Subcatchment 2.5:	Runoff Area=106,121 sf 5.84% Impervious Runoff Depth>3.60" Flow Length=758' Tc=15.6 min CN=79 Runoff=8.17 cfs 0.732 af
Subcatchment 2.6:	Runoff Area=2,412 sf 87.06% Impervious Runoff Depth>5.36" Tc=6.0 min CN=96 Runoff=0.32 cfs 0.025 af
Subcatchment 2.7:	Runoff Area=64,789 sf 7.25% Impervious Runoff Depth>3.61" Flow Length=409' Tc=12.2 min CN=79 Runoff=5.45 cfs 0.447 af
Subcatchment 2.8:	Runoff Area=7,461 sf 54.91% Impervious Runoff Depth>4.76" Flow Length=132' Tc=6.6 min CN=90 Runoff=0.93 cfs 0.068 af
Subcatchment 2.9:	Runoff Area=5,772 sf 86.82% Impervious Runoff Depth>5.36" Tc=6.0 min CN=96 Runoff=0.78 cfs 0.059 af
Pond CB1: CB1	Peak Elev=99.17' Inflow=1.72 cfs 0.137 af 12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=1.72 cfs 0.137 af

West Brook Post Development

Type III 24-hr 25 YR Rainfall=6.20"

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Page 3

Pond CB2: CB2

Peak Elev=99.19' Inflow=2.59 cfs 0.205 af
12.0" Round Culvert n=0.013 L=515.0' S=0.0054 '/ Outflow=2.59 cfs 0.205 af

Pond CB3: CB3

Peak Elev=96.36' Inflow=1.95 cfs 0.156 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=1.95 cfs 0.156 af

Pond CB4: CB4

Peak Elev=96.63' Inflow=5.41 cfs 0.429 af
15.0" Round Culvert n=0.013 L=106.0' S=0.0151 '/ Outflow=5.41 cfs 0.429 af

Pond CB5: CB5

Peak Elev=94.57' Inflow=0.93 cfs 0.068 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=0.93 cfs 0.068 af

Pond CB6: CB6

Peak Elev=94.82' Inflow=6.64 cfs 0.522 af
18.0" Round Culvert n=0.013 L=254.0' S=0.0088 '/ Outflow=6.64 cfs 0.522 af

Pond CB7: CB7

Peak Elev=92.35' Inflow=2.19 cfs 0.177 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=2.19 cfs 0.177 af

Pond CB8: CB8

Peak Elev=93.40' Inflow=9.56 cfs 0.757 af
18.0" Round Culvert n=0.013 L=26.0' S=0.0050 '/ Outflow=9.56 cfs 0.757 af

Pond DMH3:

Peak Elev=104.17' Inflow=10.17 cfs 1.086 af
Outflow=10.17 cfs 1.086 af

Pond DMH4:

Peak Elev=102.19' Inflow=8.17 cfs 0.732 af
Outflow=8.17 cfs 0.732 af

Pond DMH5:

Peak Elev=98.22' Inflow=5.45 cfs 0.447 af
Outflow=5.45 cfs 0.447 af

Pond SF:

Peak Elev=91.38' Storage=31,698 cf Inflow=17.82 cfs 1.467 af
Outflow=9.12 cfs 0.825 af

Link AP1:

Inflow=12.08 cfs 1.284 af
Primary=12.08 cfs 1.284 af

Link AP2:

Inflow=26.52 cfs 2.753 af
Primary=26.52 cfs 2.753 af

Total Runoff Area = 15.425 ac Runoff Volume = 4.680 af Average Runoff Depth = 3.64"
87.95% Pervious = 13.567 ac 12.05% Impervious = 1.859 ac

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 4

Summary for Subcatchment 1.1:

Runoff = 10.17 cfs @ 12.34 hrs, Volume= 1.086 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
2,153	70	Woods, Good, HSG C
131,512	77	Woods, Good, HSG D
16,110	74	>75% Grass cover, Good, HSG C
4,056	80	>75% Grass cover, Good, HSG D
5,955	98	Roofs, HSG D
2,716	98	Paved parking, HSG D
162,502	78	Weighted Average
153,831		94.66% Pervious Area
8,671		5.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	218	0.1100	16.93	677.05	Parabolic Channel, W=30.00' D=2.00' Area=40.0 sf Perim=30.4' n= 0.035
2.3	233	0.1150	1.70		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.7	187	0.0100	4.51	54.17	Trap/Vee/Rect Channel Flow, Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.035
24.3	738	Total			

Summary for Subcatchment 1.2:

Runoff = 2.21 cfs @ 12.22 hrs, Volume= 0.198 af, Depth> 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
26,011	70	Woods, Good, HSG C
1,916	77	Woods, Good, HSG D
8,183	74	>75% Grass cover, Good, HSG C
420	80	>75% Grass cover, Good, HSG D
36,530	71	Weighted Average
36,530		100.00% Pervious Area

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 5

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.8	150	0.0933	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"

Summary for Subcatchment 2.1:

Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.068 af, Depth> 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
788	74	>75% Grass cover, Good, HSG C
6,007	98	Paved parking, HSG C
6,795	95	Weighted Average
788		11.60% Pervious Area
6,007		88.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Assumed

Summary for Subcatchment 2.10:

Runoff = 2.19 cfs @ 12.13 hrs, Volume= 0.177 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
8,358	80	>75% Grass cover, Good, HSG D
3,264	98	Roofs, HSG D
7,758	98	Paved parking, HSG D
19,380	90	Weighted Average
8,358		43.13% Pervious Area
11,022		56.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	43	0.0070	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.30"
1.9	233	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.4	276	Total			

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 6

Summary for Subcatchment 2.11:

Runoff = 6.98 cfs @ 12.17 hrs, Volume= 0.571 af, Depth> 3.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
58,607	77	Woods, Good, HSG D
16,836	80	>75% Grass cover, Good, HSG D
4,968	98	Roofs, HSG D
2,345	98	Paved parking, HSG D
82,756	79	Weighted Average
75,443		91.16% Pervious Area
7,313		8.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.1400	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	201	0.1790	2.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	205	0.0100	4.51	54.17	Trap/Vee/Rect Channel Flow, Bot.W=2.00' D=2.00' Z= 2.0 ' / Top.W=10.00' n= 0.035
12.1	506	Total			

Summary for Subcatchment 2.12:

Runoff = 2.02 cfs @ 12.09 hrs, Volume= 0.138 af, Depth> 3.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
230	77	Woods, Good, HSG D
19,229	80	>75% Grass cover, Good, HSG D
19,459	80	Weighted Average
19,459		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Assumed

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 7

Summary for Subcatchment 2.13:

Runoff = 7.10 cfs @ 12.33 hrs, Volume= 0.750 af, Depth> 3.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
74,811	77	Woods, Good, HSG D
34,410	80	>75% Grass cover, Good, HSG D
9,560	55	Woods, Good, HSG B
118,781	76	Weighted Average
118,781		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.8	150	0.0467	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.7	80	0.0250	0.79		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	549	0.0200	7.24	386.23	Parabolic Channel, W=40.00' D=2.00' Area=53.3 sf Perim=40.3' n= 0.035
23.8	779	Total			

Summary for Subcatchment 2.2:

Runoff = 1.72 cfs @ 12.13 hrs, Volume= 0.137 af, Depth> 4.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
6,432	74	>75% Grass cover, Good, HSG C
3,348	98	Roofs, HSG C
5,907	98	Paved parking, HSG C
15,687	88	Weighted Average
6,432		41.00% Pervious Area
9,255		59.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	43	0.0070	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.30"
1.8	214	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.3	257	Total			

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 8

Summary for Subcatchment 2.3:

Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.068 af, Depth> 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
310	74	>75% Grass cover, Good, HSG C
539	80	>75% Grass cover, Good, HSG D
5,904	98	Paved parking, HSG D
6,753	95	Weighted Average
849		12.57% Pervious Area
5,904		87.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Assumed

Summary for Subcatchment 2.4:

Runoff = 1.95 cfs @ 12.12 hrs, Volume= 0.156 af, Depth> 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
2,384	74	>75% Grass cover, Good, HSG C
3,654	80	>75% Grass cover, Good, HSG D
4,028	98	Roofs, HSG C
6,670	98	Paved parking, HSG C
16,736	91	Weighted Average
6,038		36.08% Pervious Area
10,698		63.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	43	0.0070	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.30"
1.5	294	0.0250	3.21		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.0	337	Total			

Summary for Subcatchment 2.5:

Runoff = 8.17 cfs @ 12.21 hrs, Volume= 0.732 af, Depth> 3.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 9

Area (sf)	CN	Description
85,018	77	Woods, Good, HSG D
2,234	74	>75% Grass cover, Good, HSG C
12,669	80	>75% Grass cover, Good, HSG D
4,557	98	Roofs, HSG D
1,643	98	Paved parking, HSG D
106,121	79	Weighted Average
99,921		94.16% Pervious Area
6,200		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	100	0.1200	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.8	453	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	205	0.0250	7.14	85.66	Trap/Vee/Rect Channel Flow, Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.035
15.6	758	Total			

Summary for Subcatchment 2.6:

Runoff = 0.32 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 5.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
312	80	>75% Grass cover, Good, HSG D
2,100	98	Paved parking, HSG D
2,412	96	Weighted Average
312		12.94% Pervious Area
2,100		87.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Assumed

Summary for Subcatchment 2.7:

Runoff = 5.45 cfs @ 12.17 hrs, Volume= 0.447 af, Depth> 3.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 10

Area (sf)	CN	Description
45,593	77	Woods, Good, HSG D
14,497	80	>75% Grass cover, Good, HSG D
3,264	98	Roofs, HSG D
1,435	98	Paved parking, HSG D
64,789	79	Weighted Average
60,090		92.75% Pervious Area
4,699		7.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	100	0.1200	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.5	195	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.4	114	0.0100	4.51	54.17	Trap/Vee/Rect Channel Flow, Bot.W=2.00' D=2.00' Z= 2.0 '/' Top.W=10.00' n= 0.035
12.2	409	Total			

Summary for Subcatchment 2.8:

Runoff = 0.93 cfs @ 12.10 hrs, Volume= 0.068 af, Depth> 4.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

Area (sf)	CN	Description
3,364	80	>75% Grass cover, Good, HSG D
1,608	98	Roofs, HSG C
2,489	98	Paved parking, HSG C
7,461	90	Weighted Average
3,364		45.09% Pervious Area
4,097		54.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	29	0.0070	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 3.30"
1.1	103	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
6.6	132	Total			

Summary for Subcatchment 2.9:

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 5.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YR Rainfall=6.20"

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 11

Area (sf)	CN	Description
761	80	>75% Grass cover, Good, HSG D
5,011	98	Paved parking, HSG D
5,772	96	Weighted Average
761		13.18% Pervious Area
5,011		86.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Assumed

Summary for Pond CB1: CB1

Inflow Area = 0.360 ac, 59.00% Impervious, Inflow Depth > 4.55" for 25 YR event
 Inflow = 1.72 cfs @ 12.13 hrs, Volume= 0.137 af
 Outflow = 1.72 cfs @ 12.13 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.72 cfs @ 12.13 hrs, Volume= 0.137 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 99.17' @ 12.13 hrs

Flood Elev= 104.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	98.30'	12.0" Round Culvert L= 20.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 98.30' / 98.20' S= 0.0050 ' / S= 0.0050 ' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.69 cfs @ 12.13 hrs HW=99.16' (Free Discharge)↑**1=Culvert** (Barrel Controls 1.69 cfs @ 3.16 fps)**Summary for Pond CB2: CB2**

Inflow Area = 0.516 ac, 67.89% Impervious, Inflow Depth > 4.77" for 25 YR event
 Inflow = 2.59 cfs @ 12.11 hrs, Volume= 0.205 af
 Outflow = 2.59 cfs @ 12.11 hrs, Volume= 0.205 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.59 cfs @ 12.11 hrs, Volume= 0.205 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 99.19' @ 12.11 hrs

Flood Elev= 105.17'

Device	Routing	Invert	Outlet Devices
#1	Primary	98.10'	12.0" Round Culvert L= 515.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 98.10' / 95.32' S= 0.0054 ' / S= 0.0054 ' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.55 cfs @ 12.11 hrs HW=99.17' (Free Discharge)↑**1=Culvert** (Barrel Controls 2.55 cfs @ 3.75 fps)

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 12

Summary for Pond CB3: CB3

Inflow Area = 0.384 ac, 63.92% Impervious, Inflow Depth > 4.87" for 25 YR event
 Inflow = 1.95 cfs @ 12.12 hrs, Volume= 0.156 af
 Outflow = 1.95 cfs @ 12.12 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.95 cfs @ 12.12 hrs, Volume= 0.156 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 96.36' @ 12.12 hrs

Flood Elev= 100.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	95.42'	12.0" Round Culvert L= 20.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 95.42' / 95.32' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.90 cfs @ 12.12 hrs HW=96.35' (Free Discharge)

↑1=Culvert (Barrel Controls 1.90 cfs @ 3.27 fps)

Summary for Pond CB4: CB4

Inflow Area = 1.055 ac, 69.31% Impervious, Inflow Depth > 4.88" for 25 YR event
 Inflow = 5.41 cfs @ 12.11 hrs, Volume= 0.429 af
 Outflow = 5.41 cfs @ 12.11 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.41 cfs @ 12.11 hrs, Volume= 0.429 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 96.63' @ 12.11 hrs

Flood Elev= 100.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	95.17'	15.0" Round Culvert L= 106.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 95.17' / 93.57' S= 0.0151 '/ Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=5.31 cfs @ 12.11 hrs HW=96.60' (Free Discharge)

↑1=Culvert (Inlet Controls 5.31 cfs @ 4.32 fps)

Summary for Pond CB5: CB5

Inflow Area = 0.171 ac, 54.91% Impervious, Inflow Depth > 4.76" for 25 YR event
 Inflow = 0.93 cfs @ 12.10 hrs, Volume= 0.068 af
 Outflow = 0.93 cfs @ 12.10 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.93 cfs @ 12.10 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.57' @ 12.10 hrs

Flood Elev= 98.97'

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Page 13

Device	Routing	Invert	Outlet Devices
#1	Primary	93.97'	12.0" Round Culvert L= 20.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 93.97' / 93.87' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.92 cfs @ 12.10 hrs HW=94.57' (Free Discharge)↑**1=Culvert** (Barrel Controls 0.92 cfs @ 2.70 fps)**Summary for Pond CB6: CB6**

Inflow Area = 1.282 ac, 68.16% Impervious, Inflow Depth > 4.88" for 25 YR event
Inflow = 6.64 cfs @ 12.11 hrs, Volume= 0.522 af
Outflow = 6.64 cfs @ 12.11 hrs, Volume= 0.522 af, Atten= 0%, Lag= 0.0 min
Primary = 6.64 cfs @ 12.11 hrs, Volume= 0.522 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.82' @ 12.11 hrs

Flood Elev= 98.97'

Device	Routing	Invert	Outlet Devices
#1	Primary	93.47'	18.0" Round Culvert L= 254.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 93.47' / 91.23' S= 0.0088 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=6.56 cfs @ 12.11 hrs HW=94.81' (Free Discharge)↑**1=Culvert** (Inlet Controls 6.56 cfs @ 3.94 fps)**Summary for Pond CB7: CB7**

Inflow Area = 0.445 ac, 56.87% Impervious, Inflow Depth > 4.76" for 25 YR event
Inflow = 2.19 cfs @ 12.13 hrs, Volume= 0.177 af
Outflow = 2.19 cfs @ 12.13 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min
Primary = 2.19 cfs @ 12.13 hrs, Volume= 0.177 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 92.35' @ 12.13 hrs

Flood Elev= 96.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.33'	12.0" Round Culvert L= 20.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 91.33' / 91.23' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.15 cfs @ 12.13 hrs HW=92.34' (Free Discharge)↑**1=Culvert** (Barrel Controls 2.15 cfs @ 3.38 fps)

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 14

Summary for Pond CB8: CB8

Inflow Area = 1.859 ac, 66.79% Impervious, Inflow Depth > 4.89" for 25 YR event
 Inflow = 9.56 cfs @ 12.11 hrs, Volume= 0.757 af
 Outflow = 9.56 cfs @ 12.11 hrs, Volume= 0.757 af, Atten= 0%, Lag= 0.0 min
 Primary = 9.56 cfs @ 12.11 hrs, Volume= 0.757 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 93.40' @ 12.11 hrs

Flood Elev= 96.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.13'	18.0" Round Culvert L= 26.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 91.13' / 91.00' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.40 cfs @ 12.11 hrs HW=93.37' (Free Discharge)↑ **1=Culvert** (Barrel Controls 9.40 cfs @ 5.32 fps)**Summary for Pond DMH3:**

Inflow Area = 3.731 ac, 5.34% Impervious, Inflow Depth > 3.49" for 25 YR event
 Inflow = 10.17 cfs @ 12.34 hrs, Volume= 1.086 af
 Outflow = 10.17 cfs @ 12.34 hrs, Volume= 1.086 af, Atten= 0%, Lag= 0.0 min
 Primary = 10.17 cfs @ 12.34 hrs, Volume= 1.086 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 104.17' @ 12.34 hrs

Flood Elev= 105.29'

Device	Routing	Invert	Outlet Devices
#1	Device 2	102.29'	24.0" Round Culvert L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 102.29' / 102.19' S= 0.0100 '/ Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Primary	100.12'	18.0" Round Culvert L= 124.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 100.12' / 99.50' S= 0.0050 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=10.12 cfs @ 12.34 hrs HW=104.17' (Free Discharge)↑ **2=Culvert** (Passes 10.12 cfs of 13.00 cfs potential flow)↑ **1=Culvert** (Barrel Controls 10.12 cfs @ 4.28 fps)

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 15

Summary for Pond DMH4:

Inflow Area = 2.436 ac, 5.84% Impervious, Inflow Depth > 3.60" for 25 YR event
 Inflow = 8.17 cfs @ 12.21 hrs, Volume= 0.732 af
 Outflow = 8.17 cfs @ 12.21 hrs, Volume= 0.732 af, Atten= 0%, Lag= 0.0 min
 Primary = 8.17 cfs @ 12.21 hrs, Volume= 0.732 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 102.19' @ 12.21 hrs

Flood Elev= 103.30'

Device	Routing	Invert	Outlet Devices
#1	Device 2	100.30'	18.0" Round Culvert L= 10.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 100.30' / 100.20' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Primary	93.80'	18.0" Round Culvert L= 65.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 93.80' / 93.48' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=8.09 cfs @ 12.21 hrs HW=102.17' (Free Discharge)

2=Culvert (Passes 8.09 cfs of 23.19 cfs potential flow)


1=Culvert (Barrel Controls 8.09 cfs @ 4.71 fps)
Summary for Pond DMH5:

Inflow Area = 1.487 ac, 7.25% Impervious, Inflow Depth > 3.61" for 25 YR event
 Inflow = 5.45 cfs @ 12.17 hrs, Volume= 0.447 af
 Outflow = 5.45 cfs @ 12.17 hrs, Volume= 0.447 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.45 cfs @ 12.17 hrs, Volume= 0.447 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 98.22' @ 12.17 hrs

Flood Elev= 99.73'

Device	Routing	Invert	Outlet Devices
#1	Device 2	96.73'	18.0" Round Culvert L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 96.73' / 96.63' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Primary	91.00'	18.0" Round Culvert L= 64.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 91.00' / 90.68' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.35 cfs @ 12.17 hrs HW=98.20' (Free Discharge)

2=Culvert (Passes 5.35 cfs of 21.29 cfs potential flow)


1=Culvert (Barrel Controls 5.35 cfs @ 3.84 fps)

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Type III 24-hr 25 YR Rainfall=6.20"

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Page 16

Summary for Pond SF:

Inflow Area = 4.206 ac, 33.52% Impervious, Inflow Depth > 4.19" for 25 YR event
 Inflow = 17.82 cfs @ 12.12 hrs, Volume= 1.467 af
 Outflow = 9.12 cfs @ 12.36 hrs, Volume= 0.825 af, Atten= 49%, Lag= 14.4 min
 Primary = 9.12 cfs @ 12.36 hrs, Volume= 0.825 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 91.38' @ 12.36 hrs Surf.Area= 11,101 sf Storage= 31,698 cf

Plug-Flow detention time= 159.0 min calculated for 0.822 af (56% of inflow)
 Center-of-Mass det. time= 80.1 min (848.7 - 768.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	87.00'	38,810 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
87.00	2,405	228.3	0	0	2,405
88.00	3,118	247.2	2,754	2,754	3,159
88.50	7,299	412.7	2,531	5,285	11,851
89.00	7,925	422.1	3,805	9,090	12,510
90.00	9,220	441.0	8,564	17,654	13,878
91.00	10,571	459.8	9,888	27,542	15,298
92.00	11,979	478.7	11,268	38,810	16,786

Device	Routing	Invert	Outlet Devices									
#1	Primary	91.00'	15.0' long x 10.0' breadth Broad-Crested Rectangular Weir									
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60									
			Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64									

Primary OutFlow Max=9.01 cfs @ 12.36 hrs HW=91.38' (Free Discharge)
 ↑1=**Broad-Crested Rectangular Weir** (Weir Controls 9.01 cfs @ 1.58 fps)

Summary for Link AP1:

Inflow Area = 4.569 ac, 4.36% Impervious, Inflow Depth > 3.37" for 25 YR event
 Inflow = 12.08 cfs @ 12.31 hrs, Volume= 1.284 af
 Primary = 12.08 cfs @ 12.31 hrs, Volume= 1.284 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link AP2:

Inflow Area = 10.856 ac, 15.29% Impervious, Inflow Depth > 3.04" for 25 YR event
 Inflow = 26.52 cfs @ 12.31 hrs, Volume= 2.753 af
 Primary = 26.52 cfs @ 12.31 hrs, Volume= 2.753 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type III 24-hr 2 YR Rainfall=3.30"

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Page 1

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1.1:	Runoff Area=162,502 sf 5.34% Impervious Runoff Depth>1.23" Flow Length=738' Tc=24.3 min CN=78 Runoff=3.57 cfs 0.383 af
Subcatchment 1.2:	Runoff Area=36,530 sf 0.00% Impervious Runoff Depth>0.85" Flow Length=150' Slope=0.0933 '/' Tc=15.8 min CN=71 Runoff=0.62 cfs 0.059 af
Subcatchment 2.1:	Runoff Area=6,795 sf 88.40% Impervious Runoff Depth>2.59" Tc=6.0 min CN=95 Runoff=0.46 cfs 0.034 af
Subcatchment 2.10:	Runoff Area=19,380 sf 56.87% Impervious Runoff Depth>2.13" Flow Length=276' Tc=9.4 min CN=90 Runoff=1.02 cfs 0.079 af
Subcatchment 2.11:	Runoff Area=82,756 sf 8.84% Impervious Runoff Depth>1.30" Flow Length=506' Tc=12.1 min CN=79 Runoff=2.52 cfs 0.206 af
Subcatchment 2.12:	Runoff Area=19,459 sf 0.00% Impervious Runoff Depth>1.37" Tc=6.0 min CN=80 Runoff=0.75 cfs 0.051 af
Subcatchment 2.13:	Runoff Area=118,781 sf 0.00% Impervious Runoff Depth>1.11" Flow Length=779' Tc=23.8 min CN=76 Runoff=2.36 cfs 0.253 af
Subcatchment 2.2:	Runoff Area=15,687 sf 59.00% Impervious Runoff Depth>1.95" Flow Length=257' Tc=9.3 min CN=88 Runoff=0.77 cfs 0.059 af
Subcatchment 2.3:	Runoff Area=6,753 sf 87.43% Impervious Runoff Depth>2.59" Tc=6.0 min CN=95 Runoff=0.46 cfs 0.033 af
Subcatchment 2.4:	Runoff Area=16,736 sf 63.92% Impervious Runoff Depth>2.21" Flow Length=337' Tc=9.0 min CN=91 Runoff=0.92 cfs 0.071 af
Subcatchment 2.5:	Runoff Area=106,121 sf 5.84% Impervious Runoff Depth>1.30" Flow Length=758' Tc=15.6 min CN=79 Runoff=2.95 cfs 0.264 af
Subcatchment 2.6:	Runoff Area=2,412 sf 87.06% Impervious Runoff Depth>2.69" Tc=6.0 min CN=96 Runoff=0.17 cfs 0.012 af
Subcatchment 2.7:	Runoff Area=64,789 sf 7.25% Impervious Runoff Depth>1.30" Flow Length=409' Tc=12.2 min CN=79 Runoff=1.95 cfs 0.161 af
Subcatchment 2.8:	Runoff Area=7,461 sf 54.91% Impervious Runoff Depth>2.13" Flow Length=132' Tc=6.6 min CN=90 Runoff=0.43 cfs 0.030 af
Subcatchment 2.9:	Runoff Area=5,772 sf 86.82% Impervious Runoff Depth>2.69" Tc=6.0 min CN=96 Runoff=0.40 cfs 0.030 af
Pond CB1: CB1	Peak Elev=98.84' Inflow=0.77 cfs 0.059 af 12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=0.77 cfs 0.059 af

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Type III 24-hr 2 YR Rainfall=3.30"

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Page 2

Pond CB2: CB2

Peak Elev=98.74' Inflow=1.21 cfs 0.092 af
12.0" Round Culvert n=0.013 L=515.0' S=0.0054 '/' Outflow=1.21 cfs 0.092 af

Pond CB3: CB3

Peak Elev=96.02' Inflow=0.92 cfs 0.071 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=0.92 cfs 0.071 af

Pond CB4: CB4

Peak Elev=95.98' Inflow=2.57 cfs 0.197 af
15.0" Round Culvert n=0.013 L=106.0' S=0.0151 '/' Outflow=2.57 cfs 0.197 af

Pond CB5: CB5

Peak Elev=94.36' Inflow=0.43 cfs 0.030 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=0.43 cfs 0.030 af

Pond CB6: CB6

Peak Elev=94.31' Inflow=3.17 cfs 0.239 af
18.0" Round Culvert n=0.013 L=254.0' S=0.0088 '/' Outflow=3.17 cfs 0.239 af

Pond CB7: CB7

Peak Elev=91.96' Inflow=1.02 cfs 0.079 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=1.02 cfs 0.079 af

Pond CB8: CB8

Peak Elev=92.39' Inflow=4.56 cfs 0.348 af
18.0" Round Culvert n=0.013 L=26.0' S=0.0050 '/' Outflow=4.56 cfs 0.348 af

Pond DMH3:

Peak Elev=103.29' Inflow=3.57 cfs 0.383 af
Outflow=3.57 cfs 0.383 af

Pond DMH4:

Peak Elev=101.25' Inflow=2.95 cfs 0.264 af
Outflow=2.95 cfs 0.264 af

Pond DMH5:

Peak Elev=97.52' Inflow=1.95 cfs 0.161 af
Outflow=1.95 cfs 0.161 af

Pond SF:

Peak Elev=90.88' Storage=26,325 cf Inflow=7.51 cfs 0.605 af
Outflow=0.00 cfs 0.000 af

Link AP1:

Inflow=4.11 cfs 0.442 af
Primary=4.11 cfs 0.442 af

Link AP2:

Inflow=6.72 cfs 0.678 af
Primary=6.72 cfs 0.678 af

Total Runoff Area = 15.425 ac Runoff Volume = 1.724 af Average Runoff Depth = 1.34"
87.95% Pervious = 13.567 ac 12.05% Impervious = 1.859 ac

West Brook Post Development

Prepared by BH2M

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Type III 24-hr 10 YR Rainfall=4.90"

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Page 3

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1.1:	Runoff Area=162,502 sf 5.34% Impervious Runoff Depth>2.43" Flow Length=738' Tc=24.3 min CN=78 Runoff=7.11 cfs 0.756 af
Subcatchment 1.2:	Runoff Area=36,530 sf 0.00% Impervious Runoff Depth>1.87" Flow Length=150' Slope=0.0933 '/' Tc=15.8 min CN=71 Runoff=1.45 cfs 0.131 af
Subcatchment 2.1:	Runoff Area=6,795 sf 88.40% Impervious Runoff Depth>4.07" Tc=6.0 min CN=95 Runoff=0.71 cfs 0.053 af
Subcatchment 2.10:	Runoff Area=19,380 sf 56.87% Impervious Runoff Depth>3.57" Flow Length=276' Tc=9.4 min CN=90 Runoff=1.67 cfs 0.132 af
Subcatchment 2.11:	Runoff Area=82,756 sf 8.84% Impervious Runoff Depth>2.53" Flow Length=506' Tc=12.1 min CN=79 Runoff=4.93 cfs 0.400 af
Subcatchment 2.12:	Runoff Area=19,459 sf 0.00% Impervious Runoff Depth>2.62" Tc=6.0 min CN=80 Runoff=1.44 cfs 0.098 af
Subcatchment 2.13:	Runoff Area=118,781 sf 0.00% Impervious Runoff Depth>2.26" Flow Length=779' Tc=23.8 min CN=76 Runoff=4.88 cfs 0.514 af
Subcatchment 2.2:	Runoff Area=15,687 sf 59.00% Impervious Runoff Depth>3.37" Flow Length=257' Tc=9.3 min CN=88 Runoff=1.30 cfs 0.101 af
Subcatchment 2.3:	Runoff Area=6,753 sf 87.43% Impervious Runoff Depth>4.07" Tc=6.0 min CN=95 Runoff=0.71 cfs 0.053 af
Subcatchment 2.4:	Runoff Area=16,736 sf 63.92% Impervious Runoff Depth>3.67" Flow Length=337' Tc=9.0 min CN=91 Runoff=1.50 cfs 0.117 af
Subcatchment 2.5:	Runoff Area=106,121 sf 5.84% Impervious Runoff Depth>2.52" Flow Length=758' Tc=15.6 min CN=79 Runoff=5.76 cfs 0.512 af
Subcatchment 2.6:	Runoff Area=2,412 sf 87.06% Impervious Runoff Depth>4.16" Tc=6.0 min CN=96 Runoff=0.25 cfs 0.019 af
Subcatchment 2.7:	Runoff Area=64,789 sf 7.25% Impervious Runoff Depth>2.53" Flow Length=409' Tc=12.2 min CN=79 Runoff=3.84 cfs 0.313 af
Subcatchment 2.8:	Runoff Area=7,461 sf 54.91% Impervious Runoff Depth>3.57" Flow Length=132' Tc=6.6 min CN=90 Runoff=0.71 cfs 0.051 af
Subcatchment 2.9:	Runoff Area=5,772 sf 86.82% Impervious Runoff Depth>4.16" Tc=6.0 min CN=96 Runoff=0.61 cfs 0.046 af
Pond CB1: CB1	Peak Elev=99.03' Inflow=1.30 cfs 0.101 af 12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/' Outflow=1.30 cfs 0.101 af

West Brook Post Development

Type III 24-hr 10 YR Rainfall=4.90"

Prepared by BH2M

Printed 4/4/2022

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Page 4

Pond CB2: CB2

Peak Elev=98.97' Inflow=1.97 cfs 0.154 af
12.0" Round Culvert n=0.013 L=515.0' S=0.0054 '/ Outflow=1.97 cfs 0.154 af

Pond CB3: CB3

Peak Elev=96.21' Inflow=1.50 cfs 0.117 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=1.50 cfs 0.117 af

Pond CB4: CB4

Peak Elev=96.28' Inflow=4.14 cfs 0.324 af
15.0" Round Culvert n=0.013 L=106.0' S=0.0151 '/ Outflow=4.14 cfs 0.324 af

Pond CB5: CB5

Peak Elev=94.48' Inflow=0.71 cfs 0.051 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=0.71 cfs 0.051 af

Pond CB6: CB6

Peak Elev=94.59' Inflow=5.09 cfs 0.394 af
18.0" Round Culvert n=0.013 L=254.0' S=0.0088 '/ Outflow=5.09 cfs 0.394 af

Pond CB7: CB7

Peak Elev=92.18' Inflow=1.67 cfs 0.132 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0050 '/ Outflow=1.67 cfs 0.132 af

Pond CB8: CB8

Peak Elev=92.90' Inflow=7.33 cfs 0.572 af
18.0" Round Culvert n=0.013 L=26.0' S=0.0050 '/ Outflow=7.33 cfs 0.572 af

Pond DMH3:

Peak Elev=103.79' Inflow=7.11 cfs 0.756 af
Outflow=7.11 cfs 0.756 af

Pond DMH4:

Peak Elev=101.74' Inflow=5.76 cfs 0.512 af
Outflow=5.76 cfs 0.512 af

Pond DMH5:

Peak Elev=97.92' Inflow=3.84 cfs 0.313 af
Outflow=3.84 cfs 0.313 af

Pond SF:

Peak Elev=91.15' Storage=29,126 cf Inflow=13.14 cfs 1.070 af
Outflow=2.14 cfs 0.430 af

Link AP1:

Inflow=8.37 cfs 0.887 af
Primary=8.37 cfs 0.887 af

Link AP2:

Inflow=13.46 cfs 1.770 af
Primary=13.46 cfs 1.770 af

Total Runoff Area = 15.425 ac Runoff Volume = 3.297 af Average Runoff Depth = 2.56"
87.95% Pervious = 13.567 ac 12.05% Impervious = 1.859 ac

Appendix D
Treatment Calculations

WATER QUALITY CALCULATIONS

West Brook Subdivision Biddeford

Subcatchment ID	Proposed Impervious Area (sq. ft.)	Proposed Lawn Area (sq. ft.)	Proposed Developed Area (sq. ft.)	Treated Impervious Area (sq. ft.)	Treated Developed Area (sq. ft.)	BMP ID
Road	28,463	0	28,463	28,463	28,463	Soil Filter
Sidewalk	4,904	0	4,904	4,904	4,904	Soil Filter
Esplanade	0	9,737	9,737	0	9,737	Soil Filter
Soil Filter	0	19,229	19,229	0	19,229	Soil Filter
Eastern Ditch	0	3,654	3,654	0	3,654	Soil Filter
Western Ditches	0	10,360	10,360	0	0	None
Southern Roadside	0	22,575	22,575	0	0	None
Total	33,367	65,555	98,922	33,367	65,987	

Treatment Summary	
Total Proposed Impervious Area (sq. ft.)=	33,367
Total Proposed Developed Area (sq. ft.)=	98,922
Total Treated Impervious Area (sq. ft.)=	33,367
Total Treated Developed Area (sq. ft.)=	65,987
Impervious Area Treatment % =	100.00%
Developed Area Treatment % =	66.71%

Grassed Underdrain Soil Filter Calculations

Subcatchment ID	Proposed Impervious Area (ft ²)	WQ Impervious Area Runoff Depth (inches)	WQ Impervious Volume Required (ft ³)	Proposed Landscaped Area (ft ²)	WQ Landscape Area Runoff Depth (inches)	WQ Landscape Volume Required (ft ³)	Total WQ Volume Required (ft ³)
Road	28,463	1.00	2,372	0	0.40	0	2,372
Sidewalk	4,904	1.00	409	0	0.40	0	409
Esplanade	0	1.00	0	9,737	0.40	325	325
Soil Filter	0	1.00	0	19,229	0.40	641	641
Eastern Ditch	0	1.00	0	3,654	0.40	122	122
Total	33,367		2,781	32,620		1,087	3,868

Summary of Underdrain Filter Sizing	
Total WQ Volume Required (ft ³)	3,868
WQ Volume Provided (ft ³)	5,642
Filter Surface Elevation	87.00
WQ Surface Elevation	88.50
Invert of Underdrain	84.67
5% of Tributary Impervious Area (ft ²)	1,668
2% of Tributary Landscaped (ft ²)	652
Filter Surface Area Required (ft ²)	2,321
Filter Surface Area Provided (ft ²)	2,411

OK

OK

Orifice Sizing	
Discharge Coefficient	0.62
Orifice Size (inches)	2.25
Orifice Size (feet)	0.19
Orifice Area (ft ²)	0.028
Orifice Centerline Elevation	84.92

Underdrain Filter Volume				
Elevation	Surface Area (ft ²)	0.4	Stage Volume (ft ³)	Cumulative Volume (ft ³)
87	2,411			0
		2,748	2,748	
88	3,086			2,748
		5,787	2,893	
88.5	8,488			5,642
		8,819	4,410	
89	9,151			10,052
		9,834	9,834	
90	10,518			19,886
		11,230	11,230	
91	11,943			31,116
		12,683	12,683	
92	13,423			43,799
Water Quality Volume Provided (at Elevation 88.5) =				5,642

Orifice Eqn:

$$C \cdot A \cdot (2gH)^{1/2}$$

Q (cfs)	Stage Elevation	Total Drawdown at Stage	Pond Area	Drawdown Time (hrs)
0.1980	87	0.00	2,411	0.00
0.2409	88	1.00	3,086	3.56
0.2773	89	1.00	9,151	9.17
0.3094	90	1.00	10,518	9.44
0.3385	91	1.00	11,943	9.80
Total Drawdown Time =				31.97

INSPECTION & MAINTENANCE PLAN
FOR STORMWATER FACILITIES

For
E&R Development Corporation
West Brook Subdivision
Biddeford, Maine

Prepared By:

Berry Huff McDonald Milligan, Inc.
Engineers Surveyors Planners
380B Main Street
Gorham, ME 04038
207-839-2771
cmacdonald@bh2m.com

Project Narrative

The proposed project is a 19 lot cluster subdivision. The development includes a 1,000 linear foot roadway with a closed drainage system, sidewalk and esplanade, upgradient swale drained by field inlets, a grassed underdrained soil filter, and level spreaders. The proposed development is subject to the standard conditions of the City of Biddeford stormwater ordinance. The following outlines the proposed BMP's and their required inspection, maintenance, and reporting:

The Applicant, E&R Development Corp., will be responsible for all operation and maintenance of the proposed site improvements during construction. If an inspection determines that corrective action is required during construction the applicant's contractor is responsible for making the repair. This repair shall begin by the end of the following work day and completed within seven days or before the next storm event.

The Applicant, E&R Development Corp., will also be responsible for post construction operations and maintenance until such time that facilities are accepted by The West Brook Home Owners Association, to be established, or the City of Biddeford.

Contacts:

Design Engineer: BH2M
380B Main Street
Gorham, Me. 04038
(207) 839-2771

Developer/Applicant: E&R Development Corp.
P.O. Box 444
Biddeford, Maine 04005

Owner: E&R Development Corp.
P.O. Box 444
Biddeford, Maine 04005

Post Construction Stormwater Inspector: (See definition of Inspector in Post Construction
Stormwater Infrastructure Management Ordinance)

Contractors:

Inspection

The applicant, E&R Development Corp., is responsible for complying with the City of Biddeford stormwater ordinance. The Applicant will be responsible for inspection and maintenance during construction and will also be responsible for Post-Construction operations. The development is not subject to permitting by the Maine DEP for Stormwater Law.

Purpose

The following O&M Plan provides guidance and schedules for compliance with the City's Post Construction Stormwater Infrastructure Management Ordinance.

Definitions

Significant Period of Rain: 1" or more of rain in a 24-hour period.

Inspection Scope

Construction inspections shall include all disturbed and impervious areas, material storage areas, vehicle access points, and all erosion and sediment control measures.

Inspection Frequency

An inspection is required at least once a week and before and after (within twenty-four (24) hours) a significant storm event during construction. If an inspection determines that corrective action is required, the repair shall begin by the end of the following work day and completed within seven (7) days or before the next storm event.

Inspector Qualifications

For Post-Construction Inspections, the qualified post-construction stormwater inspector with knowledge of erosion and stormwater control, including the standards and conditions of this projects permit shall be retained by the owner.

During construction, it is the responsibility of the applicant and the applicant's contractor to inspect, maintain and repair Post-Construction BMP's until such time that the BMP's are accepted by the West Brook Home Owners Association or City of Biddeford.

Inspection/Maintenance Responsibility

The Applicant, E&R Development Corp., shall be responsible for inspection and maintenance during construction. If an inspection determines that corrective action is required during construction the applicant's contractor is responsible for making the repair. This repair shall begin by the end of the following work day and completed within seven days or before the next storm event.

It shall also be E&R Development Corp's responsibility to retain the services of the Post-Construction Stormwater Inspector and provide for the repair and maintenance noted by inspections, if any. When maintenance is required by inspection, E&R Development Corp. shall perform the required maintenance and/or repairs in a timely fashion and notify the inspector when the maintenance is complete.

Documentation

Construction inspection forms and documentation of corrective active actions shall be maintained for at least three (3) years. Post construction inspection forms and documentation of corrective active actions shall be maintained for at least five (5) years.

O&M Plan

The following is a summary of the required inspection and maintenance for the Post-Construction BMP's:

Access Roads

1. On-site inspection of the roads shall be performed at least twice annually and after a significant period of rainfall.
 - a) All low spots of pooling water shall be re-graded to direct the water off the pavement and to the appropriate, catch basin or ditch.
 - b) Areas of erosions shall be repaired immediately. This includes all grassy area adjacent to the road.
 - c) Sweeping the roadway free of sand after the winter season should be completed annually in the spring of the year.

Storm Drain and Catch Basins

1. Inspect catch basin inlets on a monthly basis for debris or conditions which could inhibit flow entry. Remove debris and properly dispose.
2. Inspect all catch basin structures annually.
 - a) Check that rims are securely attached and properly set to optimize flow entry.
 - b) Measure and record silt accumulation, if any. Sumps shall be cleaned at least on a yearly basis in the spring. All sediment removed should be disposed of properly.
3. Check pipelines annually to determine silt accumulation, if any. Remove excess silt if found.

Vegetated Swales/Ditches

1. On-site inspection of the vegetated ditches shall be on a monthly schedule and after a significant period of rainfall.
 - a) Ditches should be inspected to repair erosion problems, remove any accumulated debris and to check the condition and integrity of the check dams.
 - b) Ditches shall be mowed periodically to a minimum grass height of 6". Ditches shall be maintained such that woody vegetation is removed from the flow line of the ditch or areas that may impede the capacity of the ditch.
 - c) Any basin field inlets along ditches shall be inspected periodically to ensure that the inlets are free from debris or clogging that would impair run off from entering the structure.
 - d) The use of pesticides and fertilizer should be limited to what is needed to promote a healthy/stable growth of vegetation.

Sediment Forebay

1. On-site inspection of the rip-rap on a monthly schedule or after a significant period of rainfall.
 - a.) Carefully inspect to determine if high flows have caused scour beneath the rip-rap or dislodged any of the stones. If repairs are needed, they should be accomplished immediately.

Grassed Underdrain Filter

1. On-site inspection of Grassed Underdrain Filters shall be twice per year (May 1 and October 1). The following shall be accomplished:
 - a.) Record date of inspection
 - b.) Identify person making the inspection
 - c.) Record observed water depth. (If no rain within last 24-36 hours should be dry.
 - d.) Inspect rip rap for debris accumulation
 - e.) Remove debris.
 - f.) Inspect for evidence of snow storage.
 - g.) Inspect for evidence of vehicles driving on bmp.
 - h.) Mow grassed slopes and/or repair slopes if eroded.
 - i.) Clean accumulated sediment from forebay.

Attachments

1. Inspection & Maintenance Log
2. See attached Appendix B “Inspection and Maintenance” from MDEP Stormwater Regulations.
3. See attached “Appendix C” from MDEP Stormwater Regulations for performance standards.
4. Final Site Plan – Pomerleau Street

INSPECTION SUMMARY
West Brook Subdivision

<u>Inspection of</u>	<u>Schedule *</u>
• Roadway Inspect Sweep Paved Areas	Twice Annually Annually
• Storm Drain and Catch Basins Inspect (CB Inlets) Inspect (CB Sumps) Measure Silt & Remove	Monthly Annually Annually
• Sediment Forebay Inspect Remove Litter	Monthly Annually
• Grassed Underdrain Filter Inspect Remove Litter	Bi-Annually Annually

* After significant rainstorm in addition to regular inspections. Inspections shall be within 3 days of significant rainfall.

INSPECTION AND MAINTENANCE LOG

West Brook Subdivision
Post Construction Stormwater
Inspection & Maintenance Log

Date of Inspection: _____

Inspection by: _____

Purpose of Inspection: Monthly, Yearly, Significant Rainfall (circle one)

- Access Drives and Parking Areas

Description of Conditions:

Maintenance & Date of Repairs:

Annual Sweeping (date & Contractors):

Follow Up Needed:

- Storm drain and catch basins

Description:

Description of Conditions:

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed:

- Sediment Forebay
Description of Conditions:

Maintenance & Date of Repairs:

Follow Up Needed:

- Grassed Underdrained Soil Filter
Description:

Description of Conditions:

Evidence of Snow Storage: Y / N

Evidence of Vehicle on Filter: Y / N

Maintenance & Date of Repairs:

Sediment Inspection & Removal:

Date & Contractor for Sump Cleaning:

Follow Up Needed:

Inspector Signature

WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

FOR
E & R DEVELOPMENT CORP.
P.O. BOX 444
BIDDEFORD, MAINE

PLAN INDEX

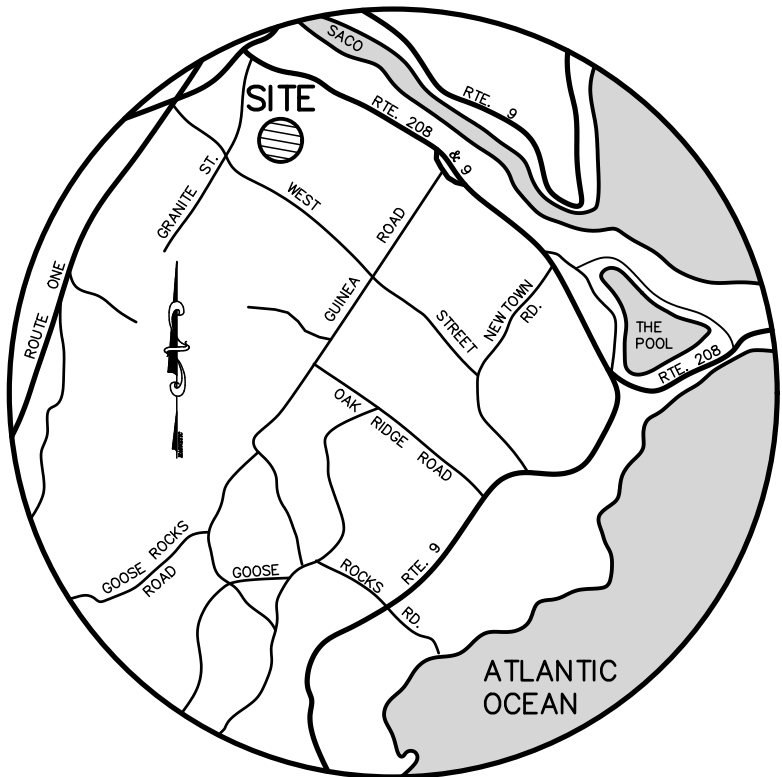
1	FINAL PLAN
2	EXISTING CONDITIONS & STANDARD BOUNDARY SURVEY PLAN
3	PLAN & PROFILE - WINDING CREEK LANE (STA. 0+00 to 5+00)
4	PLAN & PROFILE - WINDING CREEK LANE (STA. 5+00 to 10+22)
5	SITE GRADING & EROSION CONTROL PLAN
6	STANDARD DETAILS
7	UTILITY DETAILS
8	EROSION CONTROL DETAILS
9	EROSION CONTROL DETAILS 2
A	PRE DEVELOPMENT WATERSHED
B	POST DEVELOPMENT WATERSHED
C	TREATMENT PLAN



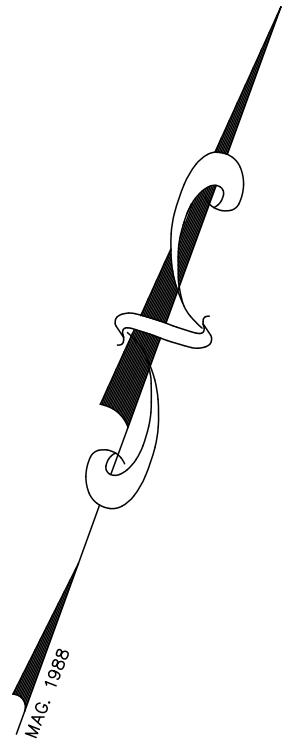
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors

380B Main Street
Gorham, Maine 04038

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



LOCATION MAP
SCALE: 1" = 2 MILES



NOTES:

1. APPLICANT: E & R DEVELOPMENT CORP.
P.O. BOX 444, BIDDEFORD, ME
2. SURVEYOR: ROBERT C. LIBBY JR., PLS#2190
BH2M
380 B MAIN STREET
GORHAM, ME
3. ENGINEER: CHRISTOPHER MACDONALD, PE#11985
BH2M
380B MAIN STREET
GORHAM, ME
4. ZONE: RESIDENTIAL 1A (R1-A)
5. LOT STANDARDS:
MIN. LOT SIZE: 10,000 S.F.
MIN. STREET FRONTAGE: 100'
MIN. SETBACKS: FRONT 40'
SIDE & REAR 10'
CLUSTER - MIN. LOT SIZE: 7,500 S.F.
MIN. FRONTAGE - 75'
MIN. SETBACKS
FRONT 25'
SIDE AND REAR 10'
MIN. DISTANCE BETWEEN BLDGS - 30'
WAIVER REQUEST-SECTION 16,
CLUSTER DEVELOPMENTS,
SECTION C-8
6. PROPOSED USE: RESIDENTIAL SUBDIVISION (CLUSTER)
7. WATER SUPPLY: PUBLIC WATER
8. SEWER: PUBLIC SEWER
9. TAX MAP: MAP 8 LOT 3-1 & P.O. 3

10. PARCEL DEED: BOOK 3458 PAGE 43
11. TOTAL PARCEL: 8.30 ACRES
12. WETLANDS & VERNAL POOLS: MARK HAMPTON
HAMPTON ASSOCIATES
PORTLAND, ME
13. ELECTRIC/TELEPHONE: UNDERGROUND
14. EASEMENTS SHALL BE RESERVED FOR PATHS/TRAILS FROM WINDING CREEK TO ACCESS CLIFFORD PARK.
15. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE EROSION PREVENTION PROVISIONS OUTLINED IN THE MAINE EROSION CONTROL AND SEDIMENTATION HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES.
16. DRIVEWAY CUTS NEED TO BE BUILT PER CITY DETAIL TO KEEP STREET ASSOCIATED STORMWATER IN THE GUTTER LINE.
17. NO DRIVEWAYS ALLOWED IN TRAIL EASEMENTS AND SHALL NOT BE LOCATED ALONG THE SOUTHERN SIDE OF THE HAMMERHEAD TURN AROUND AT THE END OF WINDING CREEK LANE. NO DRIVEWAY SHALL RESTRICT THE FUNCTION OF ANY DRAINAGE EASEMENTS.
18. THE ROADWAY IS PROPOSED TO BE PUBLIC UPON COMPLETION OF CONSTRUCTION AND ACCEPTED BY THE CITY, HOWEVER NO CITY SERVICES WILL BE PROVIDED UNTIL SAID STREET IS ACCEPTED BY THE CITY.
19. THE CONTRACTOR SHALL NOTIFY THE CITY OF BIDDEFORD ENGINEERING DEPARTMENT FOR REQUIRED INSPECTION OF THE ROADWAY.
20. ALL LOT OWNERS WILL BE REQUIRED TO BE A MEMBER OF THE WEST BROOK HOME OWNERS ASSOCIATION RESPONSIBLE FOR MAILBOXES, PLOWING, TRASH REMOVAL, SEWER, STORMWATER FACILITIES, AND CRITTER FENCE UNTIL SUCH TIME AS THE CITY ACCEPTS THE STREET AND ANY IMPROVEMENTS.

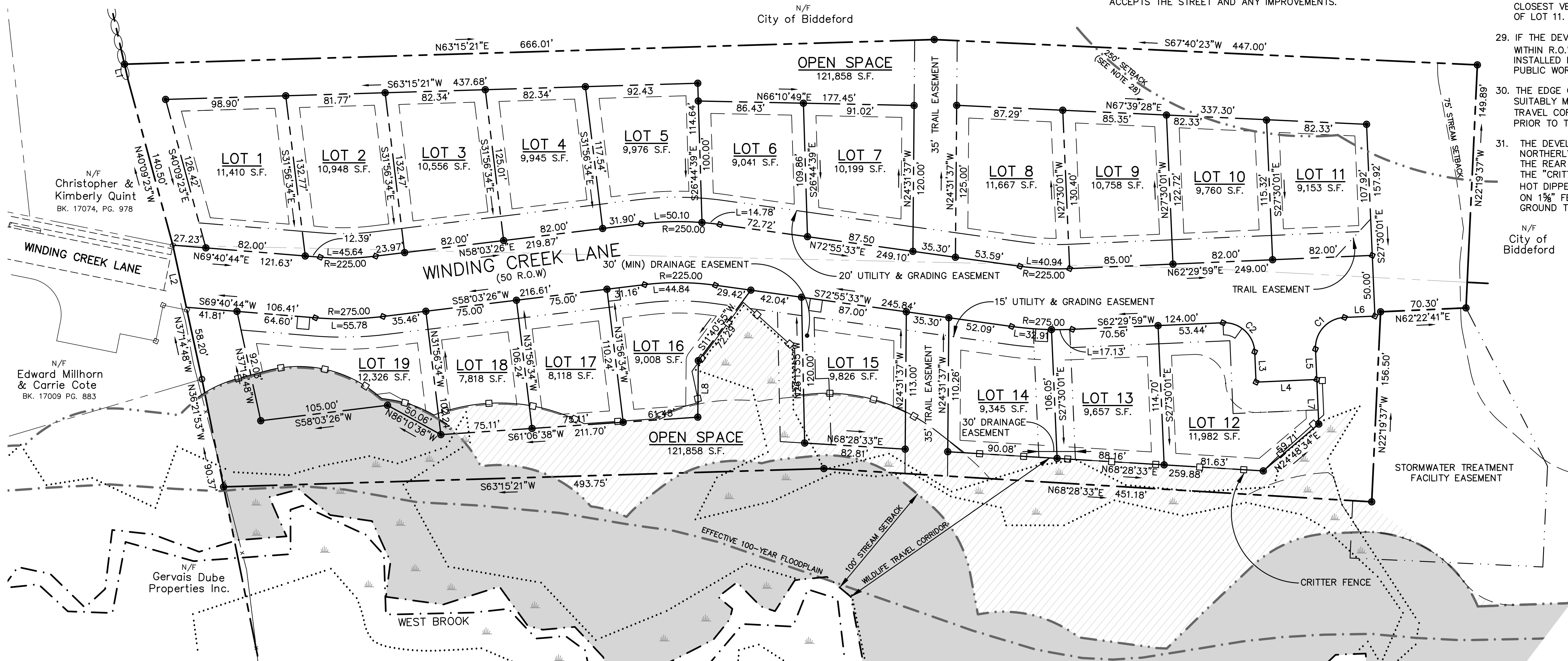
21. ROADWAY RIGHT OF WAY AND ALL NECESSARY EASEMENTS WILL BE DEDICATED TO THE CITY OF BIDDEFORD.
22. FOUNDATION DRAINS SHALL NOT BE OUTLET TO THE PROPOSED DITCH ALONG THE NORTHERLY SIDE OF WINDING CREEK LANE.
23. DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMITS:
1) STORMWATER PBR
24. NET RESIDENTIAL DENSITY CALCULATION

TOTAL PARCEL AREA	365,457 S.F.
1 100 YEAR FLOOD ZONE	0 S.F.
2 WETLANDS	13,489 S.F.
3 SUSTAINED SLOPES (>33%)	10,548 S.F.
4 VERY POORLY DRAINED SOILS	N/A
5 POORLY DRAINED SOILS	52,105 S.F.
6 RIGHT OF WAY	289,315 S.F.

SPACE STANDARD FOR RESIDENTIAL 1A
MINIMUM DENSITY- 10,000 S.F.

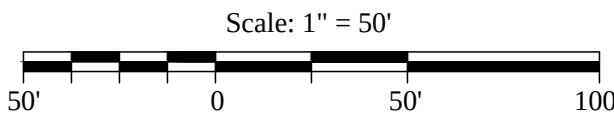
289,315 S.F.
NET RESIDENTIAL DENSITY: 10,000 S.F. = 28.9 LOTS

25. OPEN SPACE: PROPOSED - 121,858 S.F.
PARCEL AREA - 365,457 S.F.
% OPEN SPACE - 33.34%
OPEN SPACE SHALL BE DEEDED TO THE CITY OF BIDDEFORD.
26. LIMITED ACTIVITIES PERMITTED WITHIN WILDLIFE CORRIDOR, SEE DEED RESTRICTIONS.
27. FINAL SITE GRADING PLAN SHALL BE COMPLETED FOR EACH LOT AS PART OF THE BUILDING PERMIT APPLICATION. FINAL GRADING WITHIN THE BUILDING WINDOW SHALL NOT EXCEED 25%.
28. 250' SETBACK IS FROM THE WETLAND ASSOCIATED WITH THE CLOSEST VERNAL POOL LOCATED AT CLIFFORD PARK NORTHERLY OF LOT 11.
29. IF THE DEVELOPER CAN'T PRESERVE SUFFICIENT EXISTING TREES WITHIN R.O.W. THEN UP TO 20- 2 1/2" CAL. TREES WILL BE INSTALLED IN THE R.O.W. AS APPROVED AND DIRECTED BY PUBLIC WORKS DIRECTOR BEFORE ACCEPTANCE OF THE STREET.
30. THE EDGE OF THE WILDLIFE CORRIDOR ON EACH LOT SHALL BE SUITABLY MARKED WITH 12"x18" SIGNS, LABELED "WILDLIFE TRAVEL CORRIDOR PRESERVATION PROTECTED" ON GREEN POSTS PRIOR TO THE ISSUANCE OF BUILDING PERMITS.
31. THE DEVELOPER SHALL INSTALL A FENCE BARRIER ALONG THE NORTHERLY EDGE OF THE PROPOSED WILDLIFE CORRIDOR ALONG THE REAR OF LOTS 12 THRU 19 AS SHOWN ON FINAL PLAN. THE "CRITTER FENCE" WILL BE 2' HIGH BLACK PVC COATED HOT DIPPED GALVANIZED STEEL 1/2" GRID. INSTALLATION WILL BE ON 1 1/2" FENCE POSTS AND FENCE WILL BE PINNED AT THE GROUND TO ELIMINATE TRAVEL UNDER THIS FENCE.



SYMBOL	DESCRIPTION
○ IPI / IRI	IRON PIPE/ROD FOUND
● IRS	5/8" IRON ROD W/ CAP TO BE SET
□ GMS	GRANITE MONUMENT TO BE SET
—	STONE WALL
—	WETLANDS
—	PROPERTY LINE
—	ABUTTER'S PROPERTY LINE
—	EDGE OF PAVEMENT
—	CRITTER FENCE
—	EXISTING CONTOUR
—	ABOVE GROUND
—	NOW OR FORMERLY

LINE/CURVE DATA
L1 = S37°51'03"E 13.52'
L2 = N37°14'48"W 52.26'
L3 = N27°30'01"W 25.00'
L4 = S62°29'59"W 50.00'
L5 = S27°30'01"E 25.00'
L6 = N62°29'59"E 25.00'
L7 = S27°30'01"E 36.69'
L8 = S24°28'10"E 46.50'
C1 = L=39.27', R=25.00'
C2 = L=39.27', R=25.00'



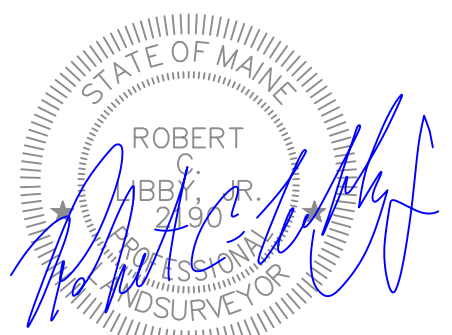
I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT

THIS PLAN REVIEWED AND APPROVED BY THE CITY OF BIDDEFORD PLANNING BOARD.

DATE

CHAIR



ROBERT C. LIBBY JR.

PLS #2190



Barry, Huff, MacDonald, Milfigan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

FINAL PLAN
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED R. Libby Jr.	JOB. NO. 20217

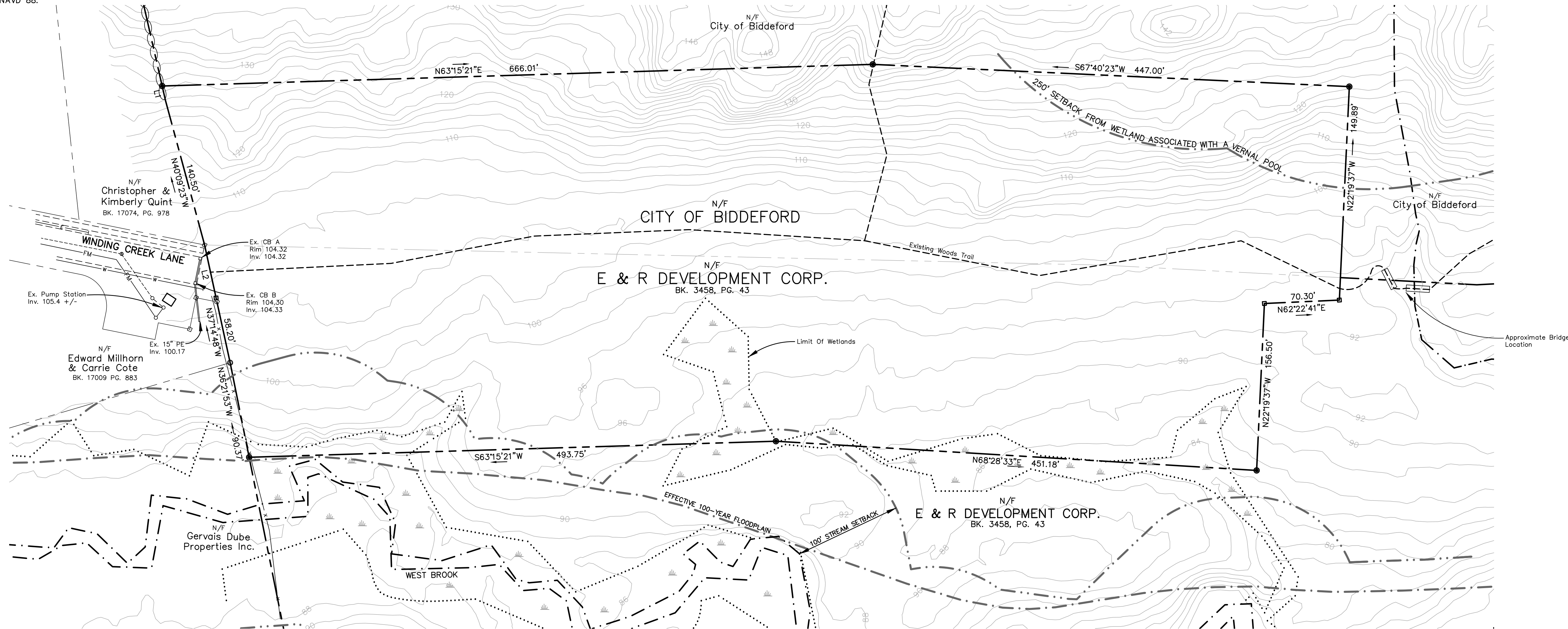
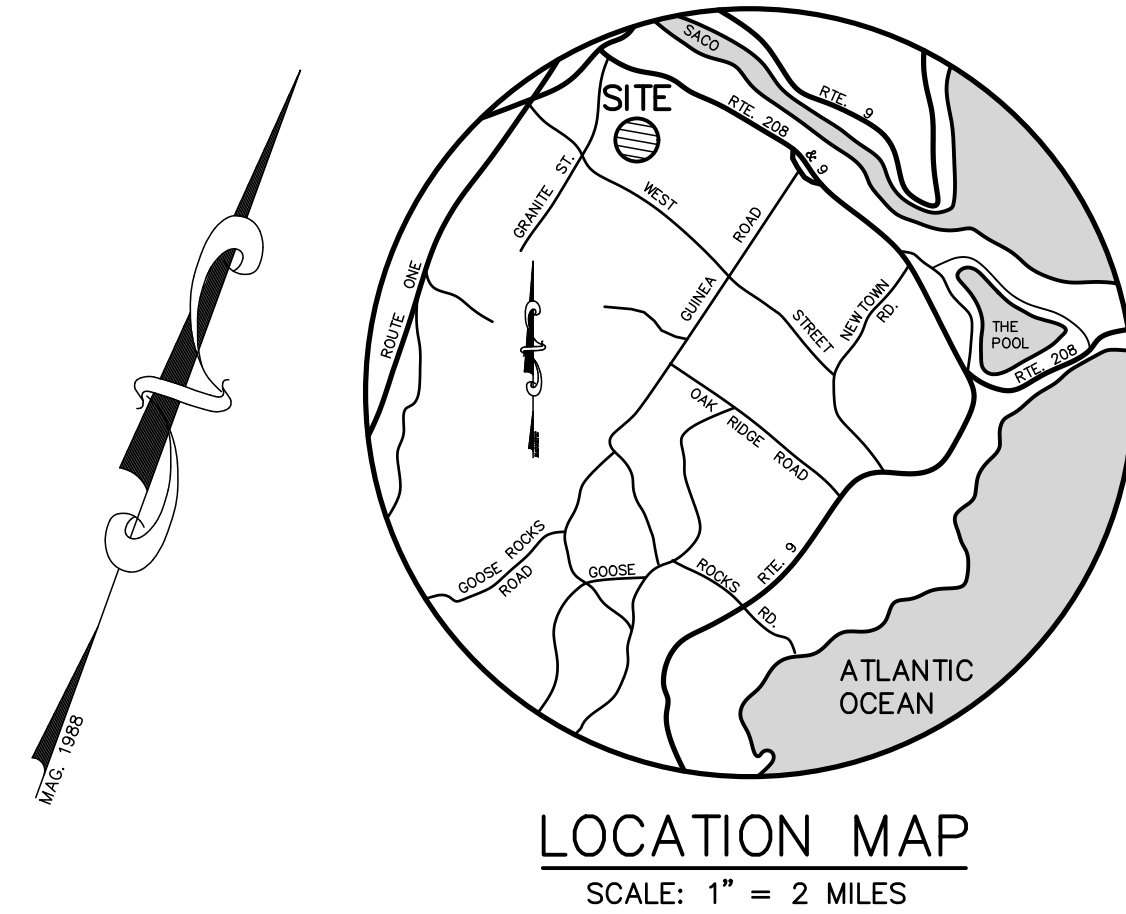
SHEET

1

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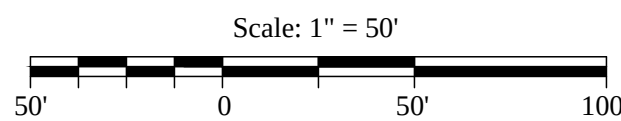
NOTES:

1. OWNER: E & R DEVELOPMENT CORP.
P.O. BOX 444
BIDDEFORD, ME
2. SURVEYOR: ROBERT C. LIBBY JR., PLS#2190
BH2M
380B MAIN STREET
GORHAM, ME
3. ZONE: RESIDENTIAL 1A (R1-A)
4. TAX MAP: MAP 8 LOT 3-1 & P.O. 3
5. PARCEL DEED: BOOK 3458 PAGE 43
6. TOTAL PARCEL: 8.390 ACRES
7. WETLAND MAPPING: MARK HAMPTON
HAMPTON ASSOCIATES
PORTLAND, ME
8. EASEMENTS SHALL BE RESERVED FOR PATHS/TRAILS FROM WINDING CREEK TO ACCESS CLIFFORD PARK.
9. EXISTING TOPOGRAPHY SHOWN IS BASED ON LIDAR INFORMATION TAKEN FROM THE MAINE OFFICE OF GIS.
10. HORIZONTAL DATUM IS MAINE STATE PLANE WEST NAD 83 AND VERTICAL DATUM IS NAVD 88.



LINE DATA
L1 = S37°51'03"E 13.52'
L2 = N37°14'48"W 52.26'

SYMBOL	DESCRIPTION
—●—●—●—	STONE WALL
—●—●—●—	WETLANDS
—●—●—●—	PROPERTY LINE
—●—●—●—	ADJUTER'S PROPERTY LINE
—●—●—●—	EDGE OF PAVEMENT
—●—●—●—	EXISTING CONTOUR
—●—●—●—	ABOVE GROUND
—●—●—●—	NOW OR FORMERLY



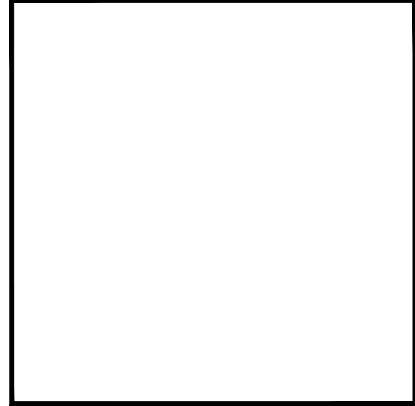
I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT



ROBERT C. LIBBY JR. PLS #2190

NO.	DATE	REVISION	DESCRIPTION
1	2-9-22		City Of Biddeford Submission
2	2-16-22		Revised Grading and Drainage
3	3-30-22		Interim Modifications for Planning Review
4	8-17-22		Final Staff and Peer Review Revisions



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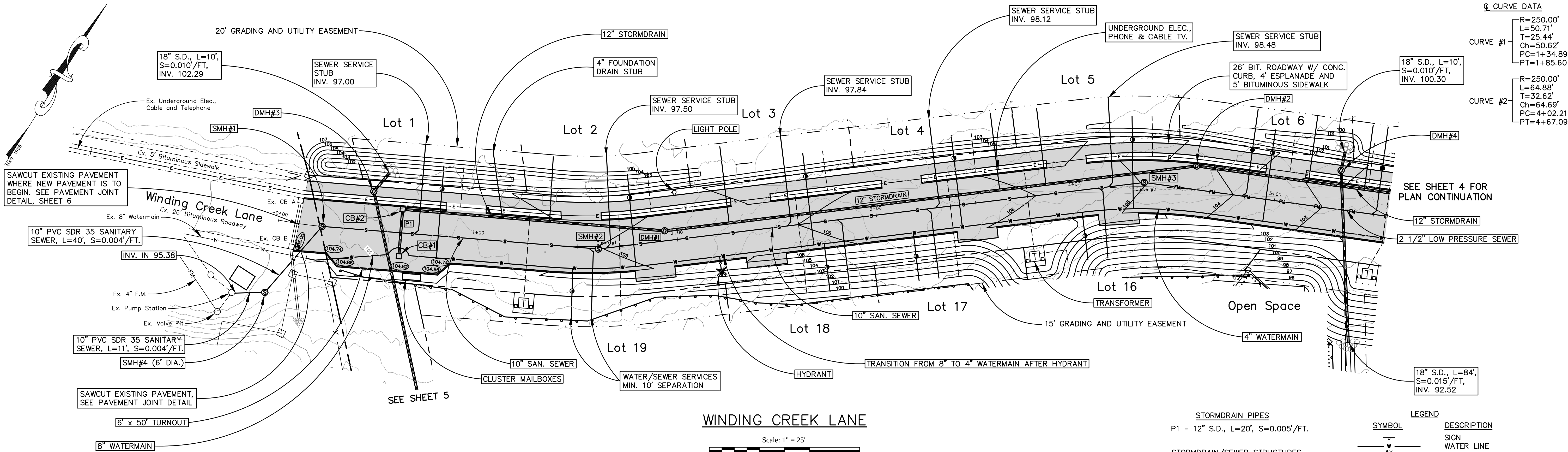
FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

EXISTING CONDITIONS
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

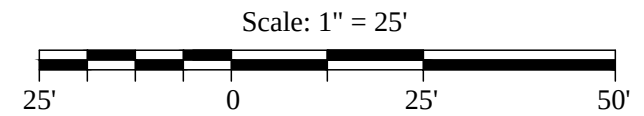
DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED R. Libby Jr.	JOB. NO. 20217

SHEET
2

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WINDING CREEK LANE

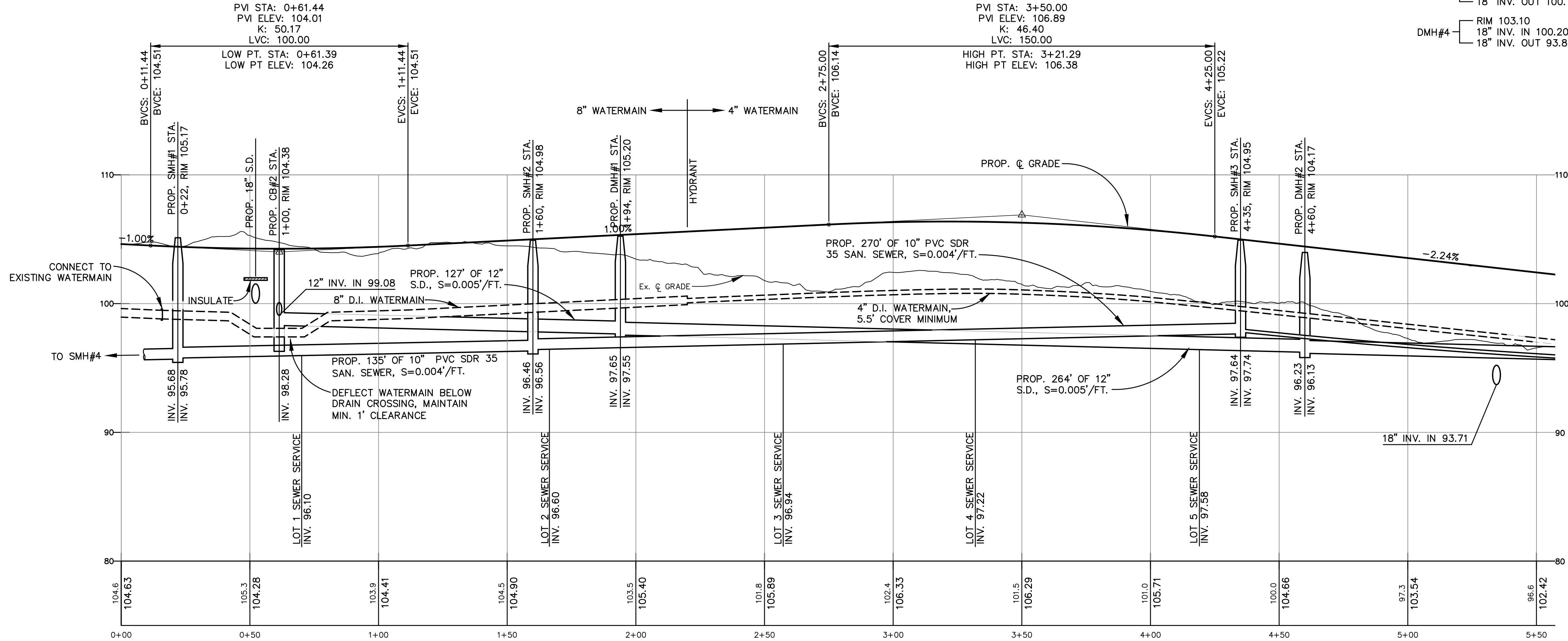


STORMDRAIN PIPES
P1 - 12" S.D., L=20', S=0.005'/FT.

STORMDRAIN/SEWER STRUCTURES

CB#1	RIM 104.38 INV. 99.18
SMH#4 (6" DIA.)	RIM 105.0± INV. IN 95.52 INV. OUT 95.42
DMH#3	RIM 105.29 18" INV. IN 102.19 18" INV. OUT 100.12
DMH#4	RIM 103.10 18" INV. IN 100.20 18" INV. OUT 93.80

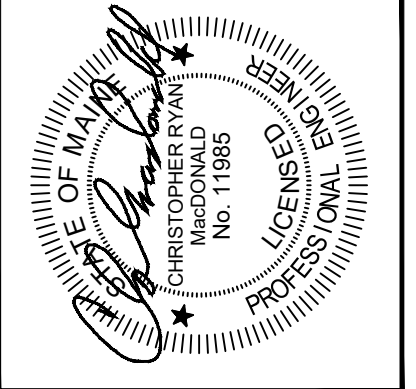
SYMBOL	DESCRIPTION
[Symbol]	SIGN
[Symbol]	WATER LINE
[Symbol]	WATER VALVE
[Symbol]	SHUTOFF VALVE (BALL VALVE)
[Symbol]	PRESSURE SEWER
[Symbol]	SEWER
[Symbol]	UNDERGROUND ELECTRIC
[Symbol]	SILT FENCE
[Symbol]	EXISTING CONTOUR
[Symbol]	PROPOSED CONTOUR
[Symbol]	TRANSFORMER PAD
[Symbol]	UTILITY POLE
[Symbol]	HYDRANT
[Symbol]	SEWER MANHOLE
[Symbol]	PROPERTY LINE/RIGHT OF WAY EASEMENT



PROFILE

SCALE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 25'

NO.	DATE	REVISION	DESCRIPTION
1	2-5-22		City Of Biddeford Submission
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BH2M

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Gorham, Maine 04038

Tel. (207) 839-2771
www.bh2m.com

FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

WINDING CREEK LANE
STA. 0+00 to 5+50

WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED C. MacDonald	JOB. NO. 20217

SHEET
3

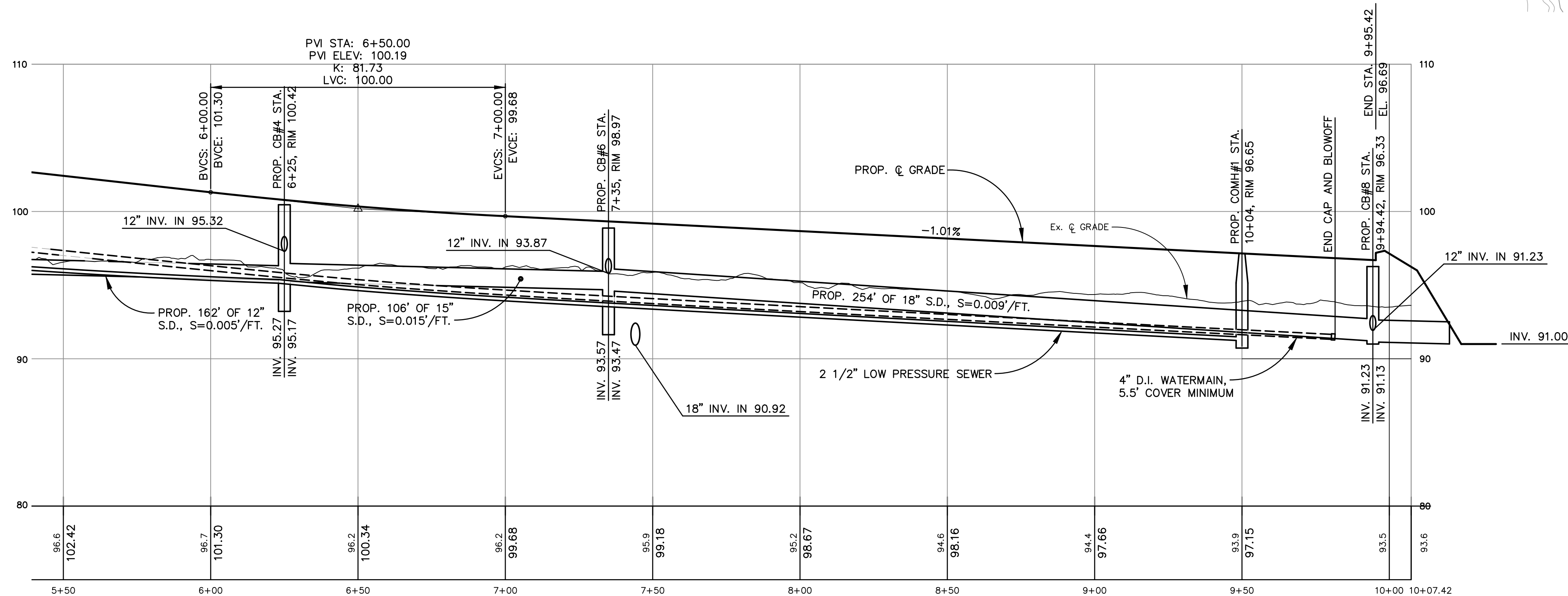
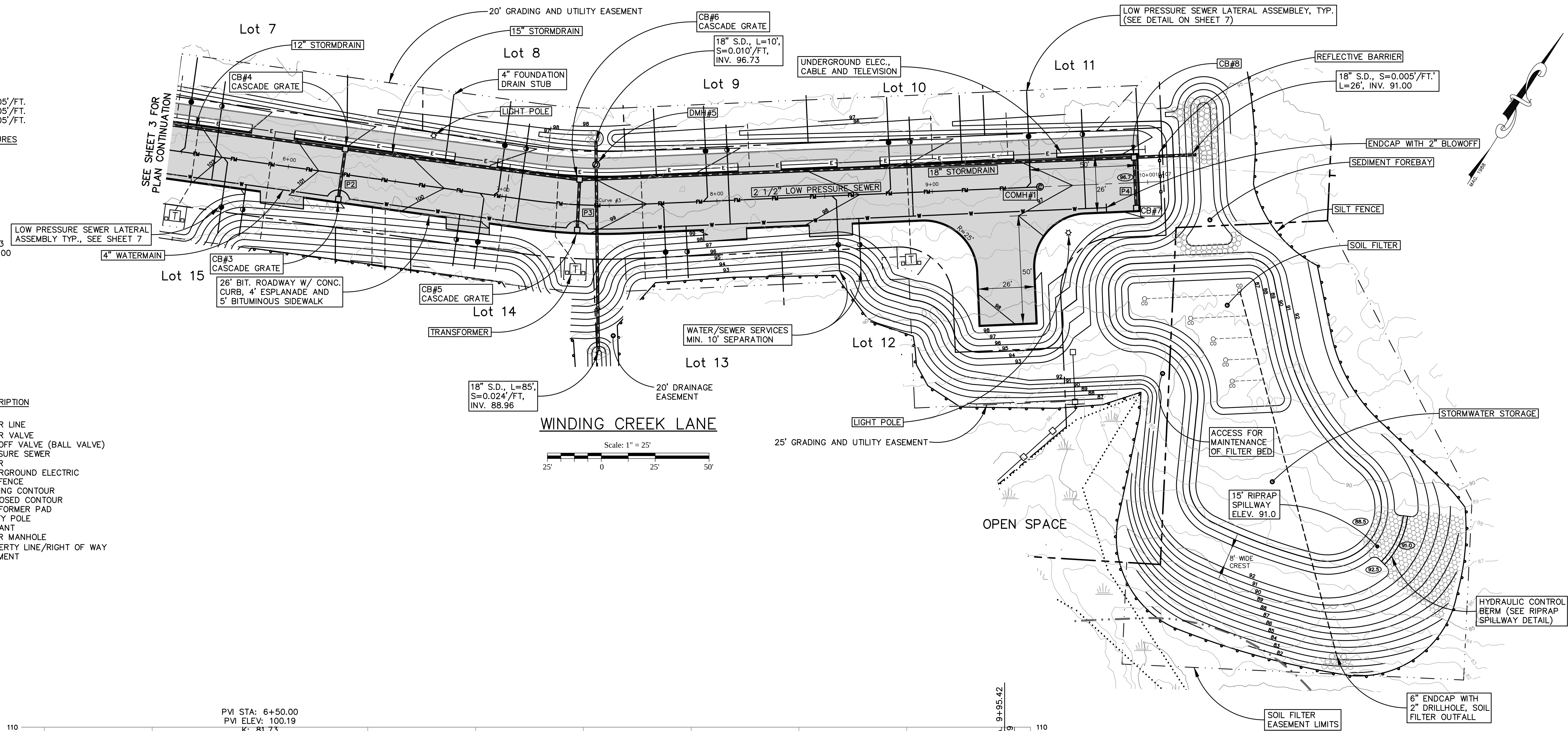
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Q CURVE DATA
R=250.00'
L=45.49'
T=22.81'
Ch=45.43'
PC=7+12.93
PT=7+58.42

STORMDRAIN PIPES
P2 - 12" S.D., L=20', S=0.005'/FT.
P3 - 12" S.D., L=20', S=0.005'/FT.
P4 - 12" S.D., L=20', S=0.005'/FT.

STORMDRAIN/SEWER STRUCTURES
CB#3 - RIM 100.42
INV. 95.42
CB#5 - RIM 98.97
INV. 93.97
CB#7 - RIM 96.33
INV. 91.33
DMH#5 - RIM 99.5
18" INV. IN 96.63
18" INV. OUT 91.00

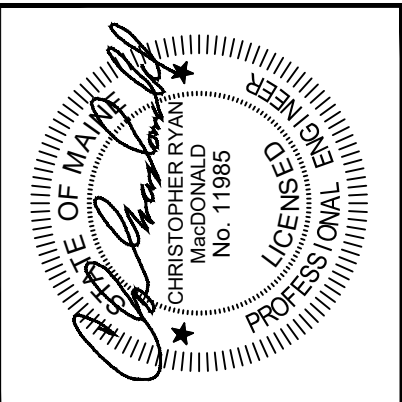
SYMBOL	DESCRIPTION
	SIGN
	WATER LINE
	WATER VALVE
	SHUTOFF VALVE (BALL VALVE)
	PRESSURE SEWER
	SEWER
	UNDERGROUND ELECTRIC
	SILT FENCE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	TRANSFORMER PAD
	UTILITY POLE
	HYDRANT
	SEWER MANHOLE
	PROPERTY LINE/RIGHT OF WAY EASEMENT



PROFILE

SCALE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 25'

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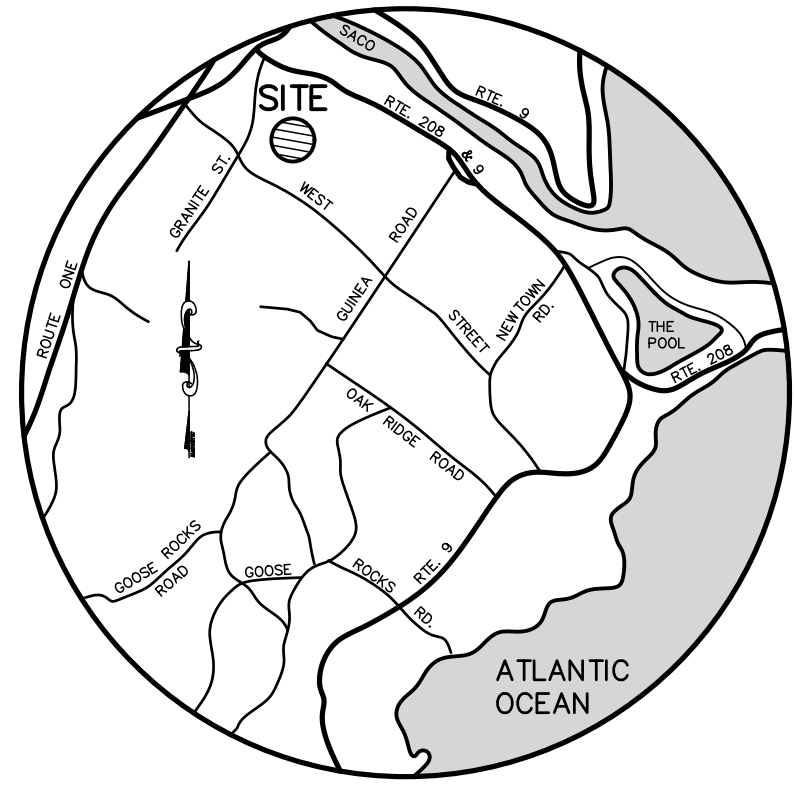
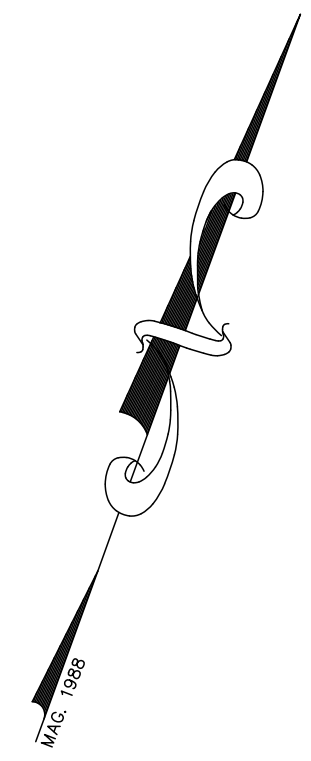
FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

WINDING CREEK LANE
STA. 5+50 TO 10+00
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED W. Thompson	JOB. NO. 20217

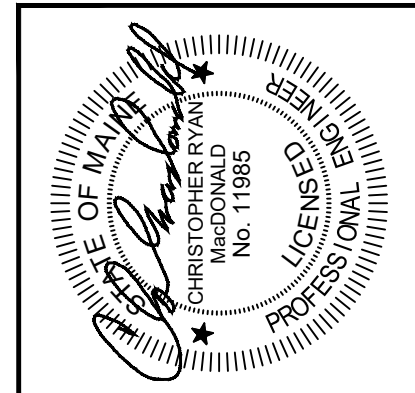
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4

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LOCATION MAP
SCALE: 1" = 2 MILES

NO.	DATE	REVISION	DESCRIPTION
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FOR

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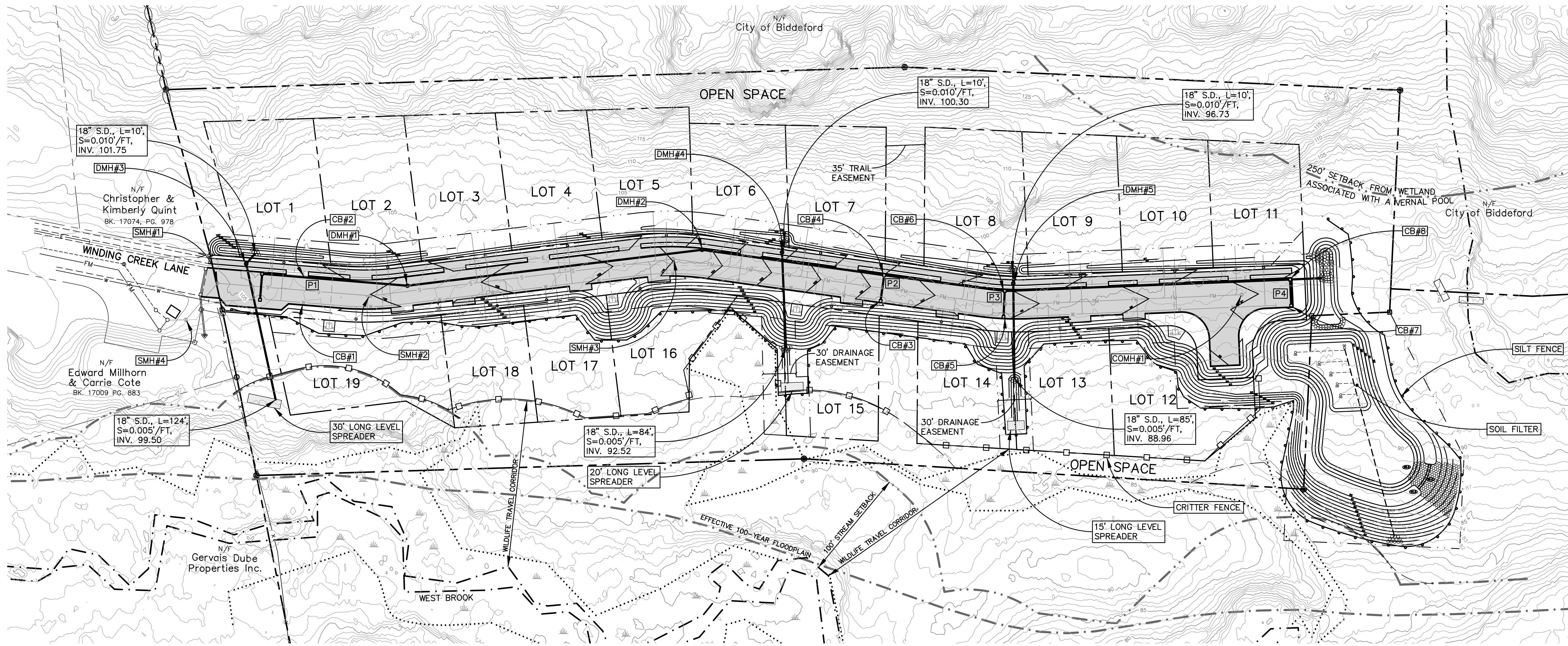
SITE GRADING & EROSION
CONTROL SITE
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED R. Libby Jr.	JOB. NO. 20217

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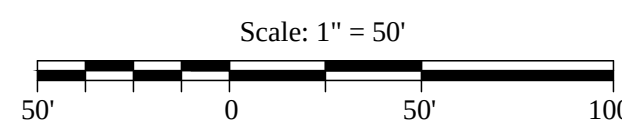
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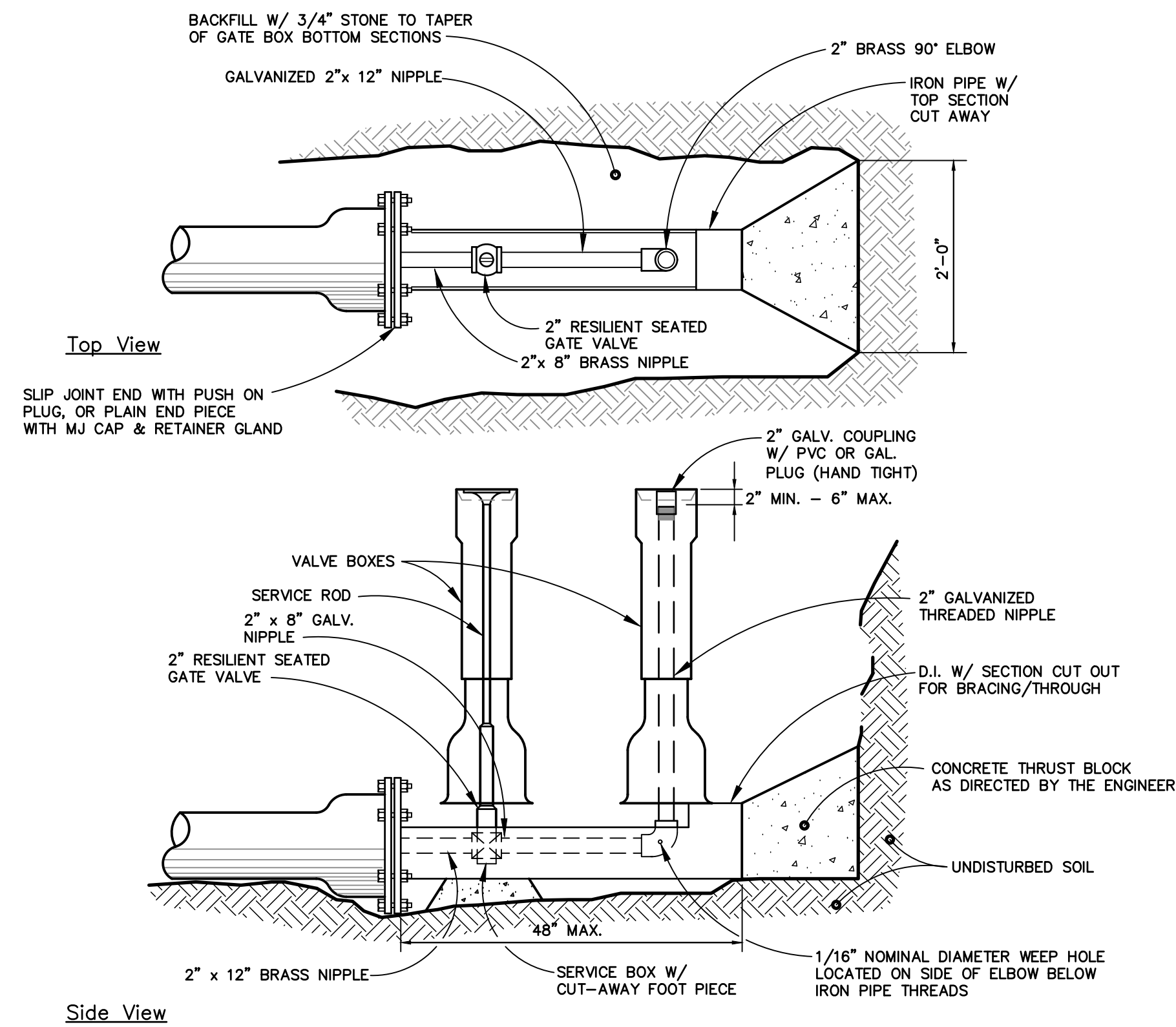


LINE DATA
L1 = S37°51'03"E 13.52'
L2 = N37°14'48"W 52.26'

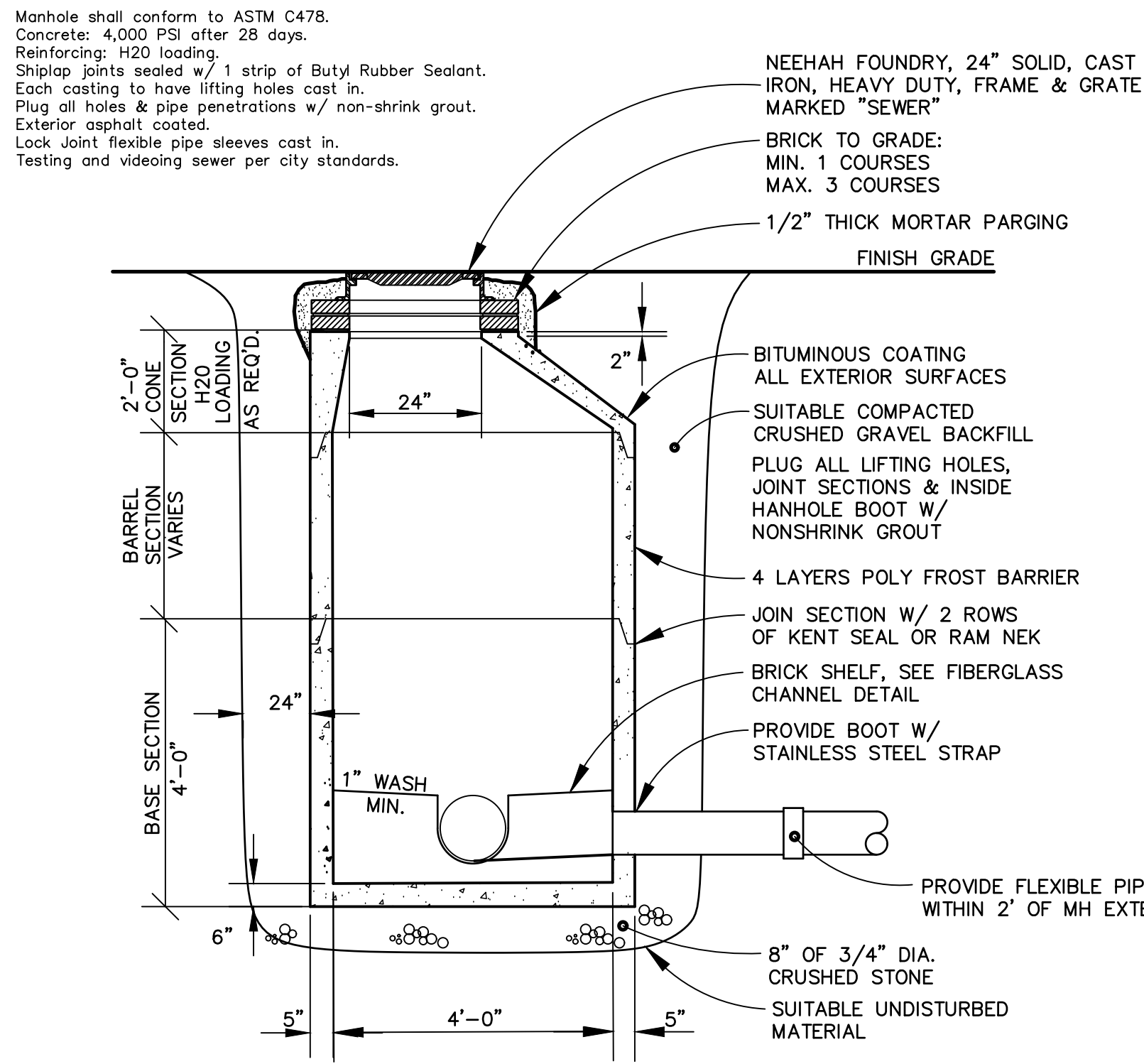
SYMBOL	DESCRIPTION
	STONE WALL
	WETLANDS
	PROPERTY LINE
	ABUTTER'S PROPERTY LINE
	EDGE OF PAVEMENT
	EXISTING CONTOUR
	ABOVE GROUND
	NOW OR FORMERLY



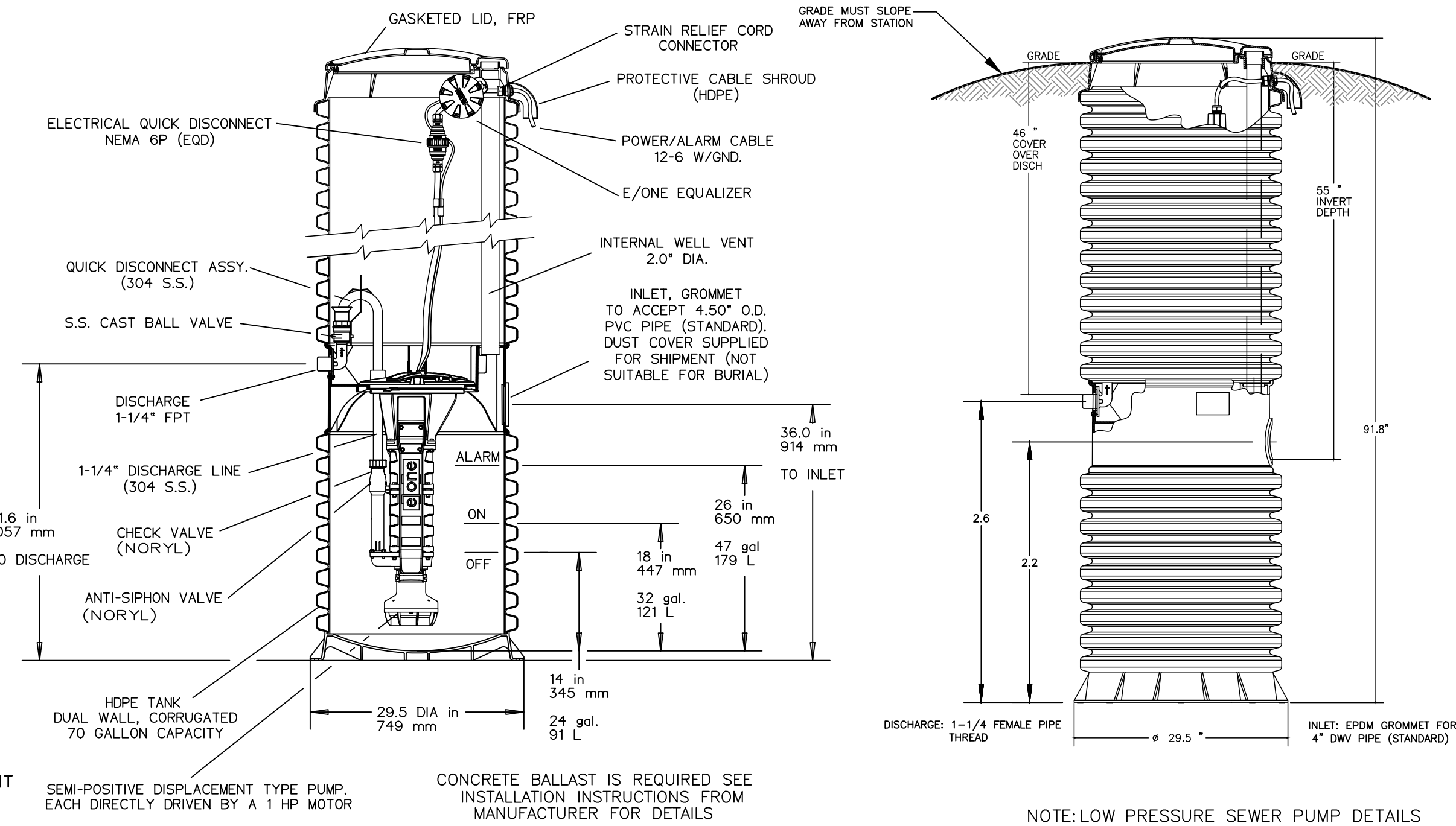
STORMDRAIN STRUCTURES	
DMH#3	RIM 105.29 18" INV. IN 102.19 18" INV. OUT 100.12
DMH#4	RIM 103.10 18" INV. IN 100.20 18" INV. OUT 93.80
DMH#5	RIM 99.5 18" INV. IN 96.63 18" INV. OUT 91.00



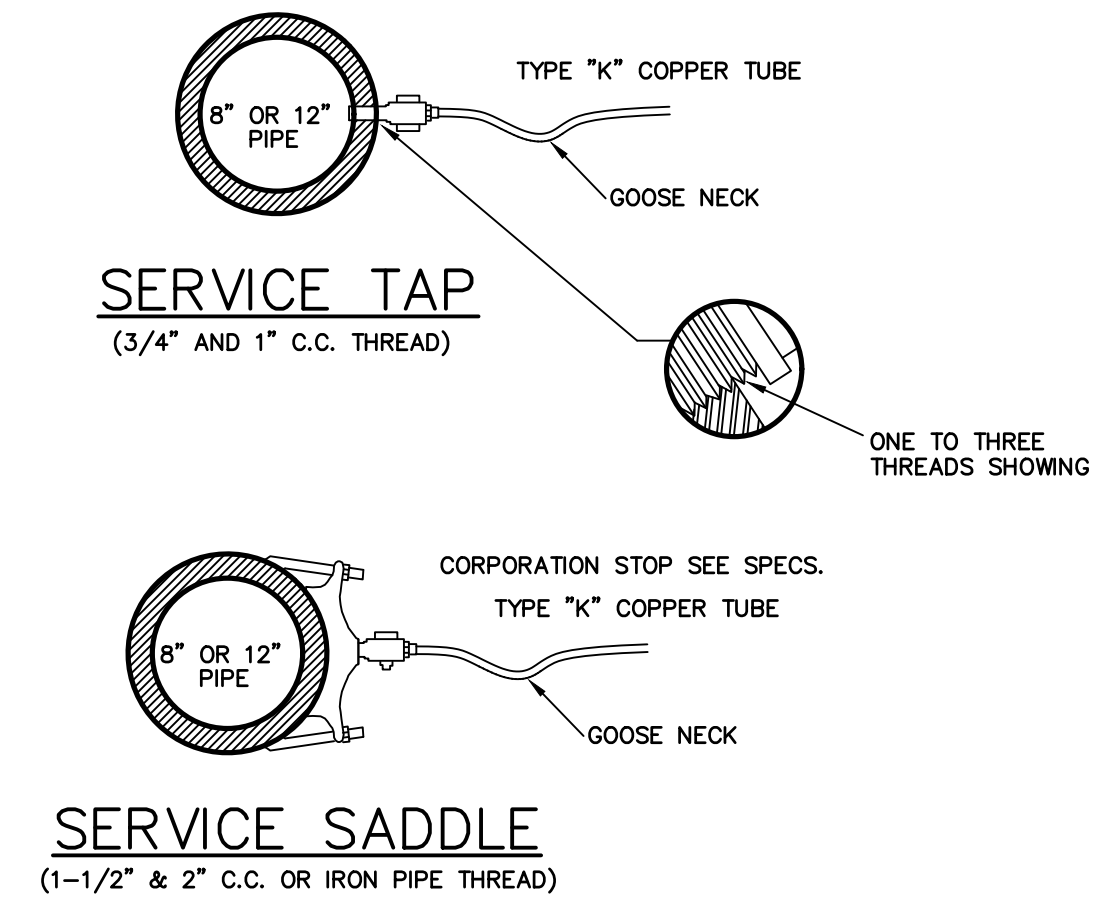
STANDARD 2" WATER BLOW OFF
N.T.S.



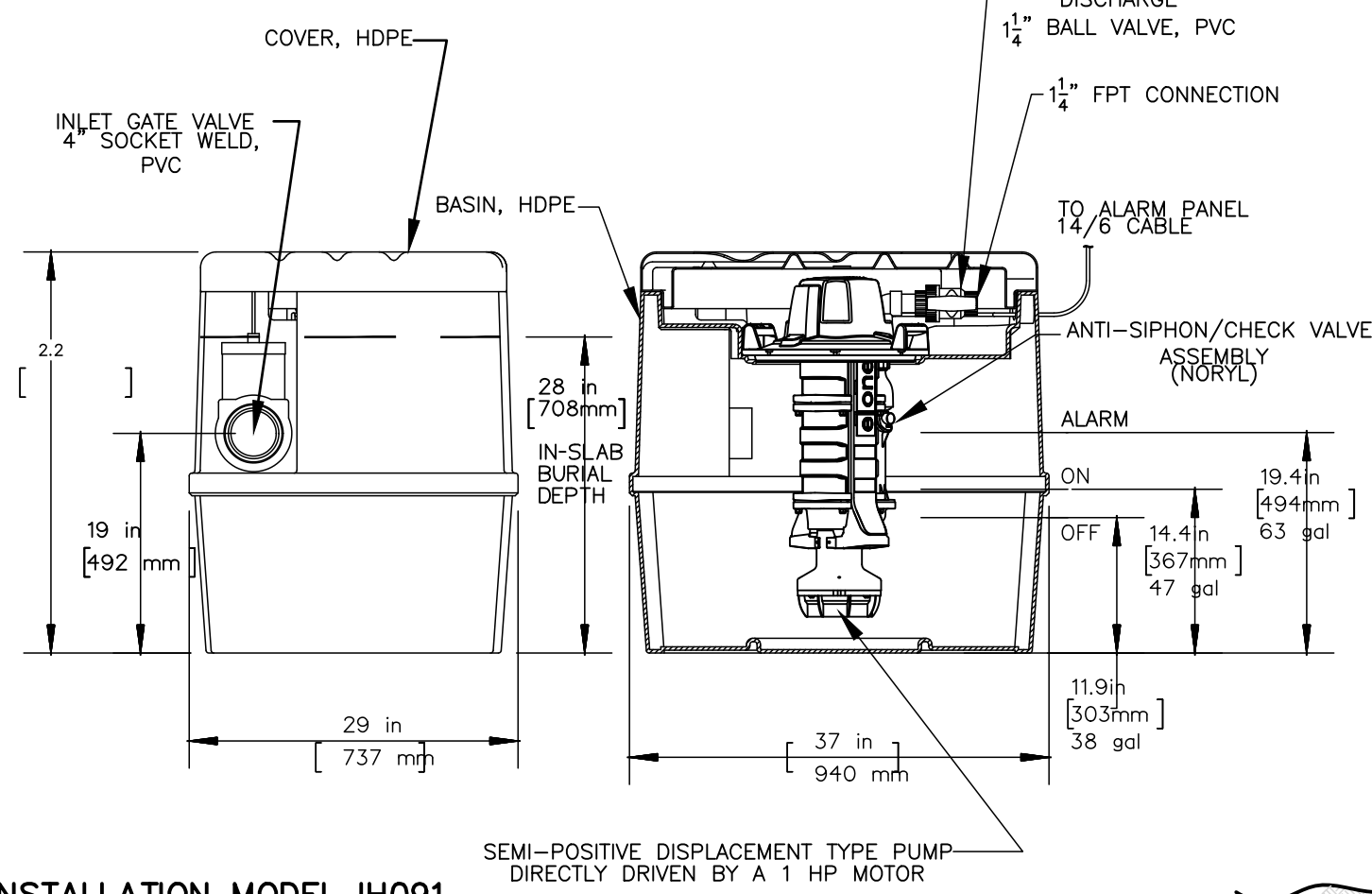
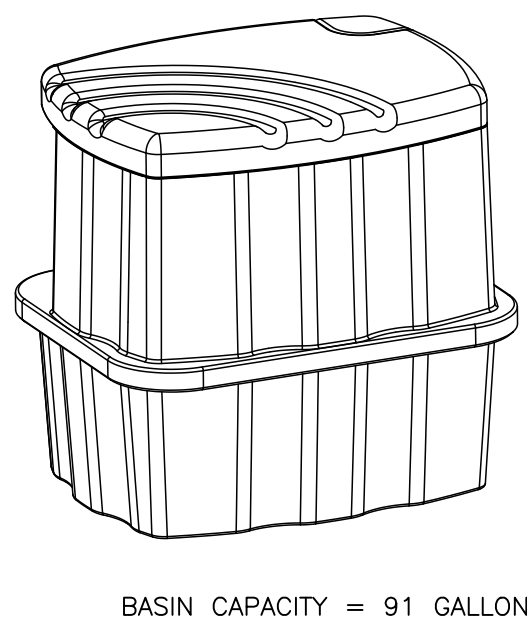
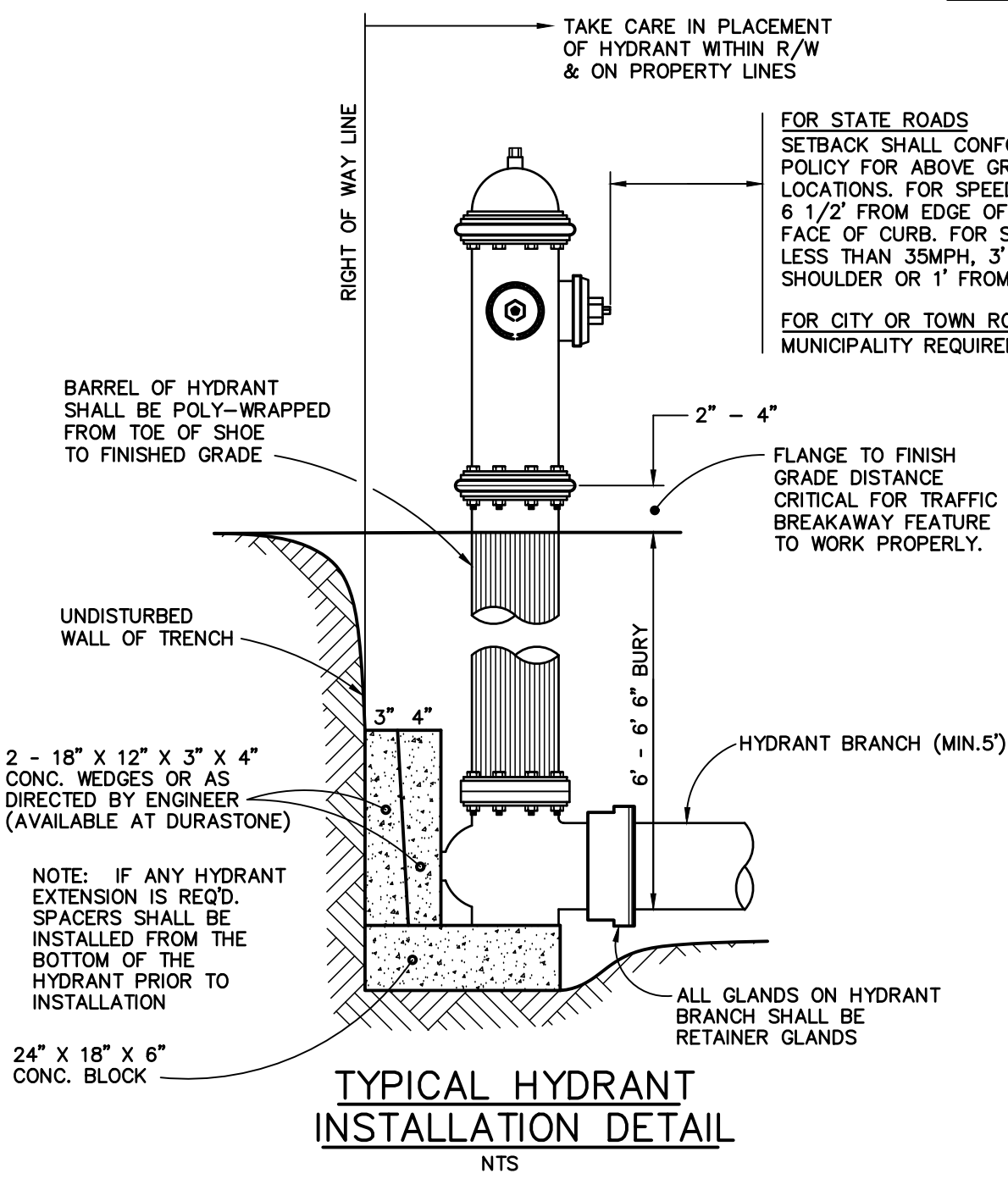
PRECAST CONCRETE
SANITARY SEWER MANHOLE
N.T.S.



(MODEL DH071-93)
E ONE LOW PRESSURE SEWER PUMP DETAIL
NTS

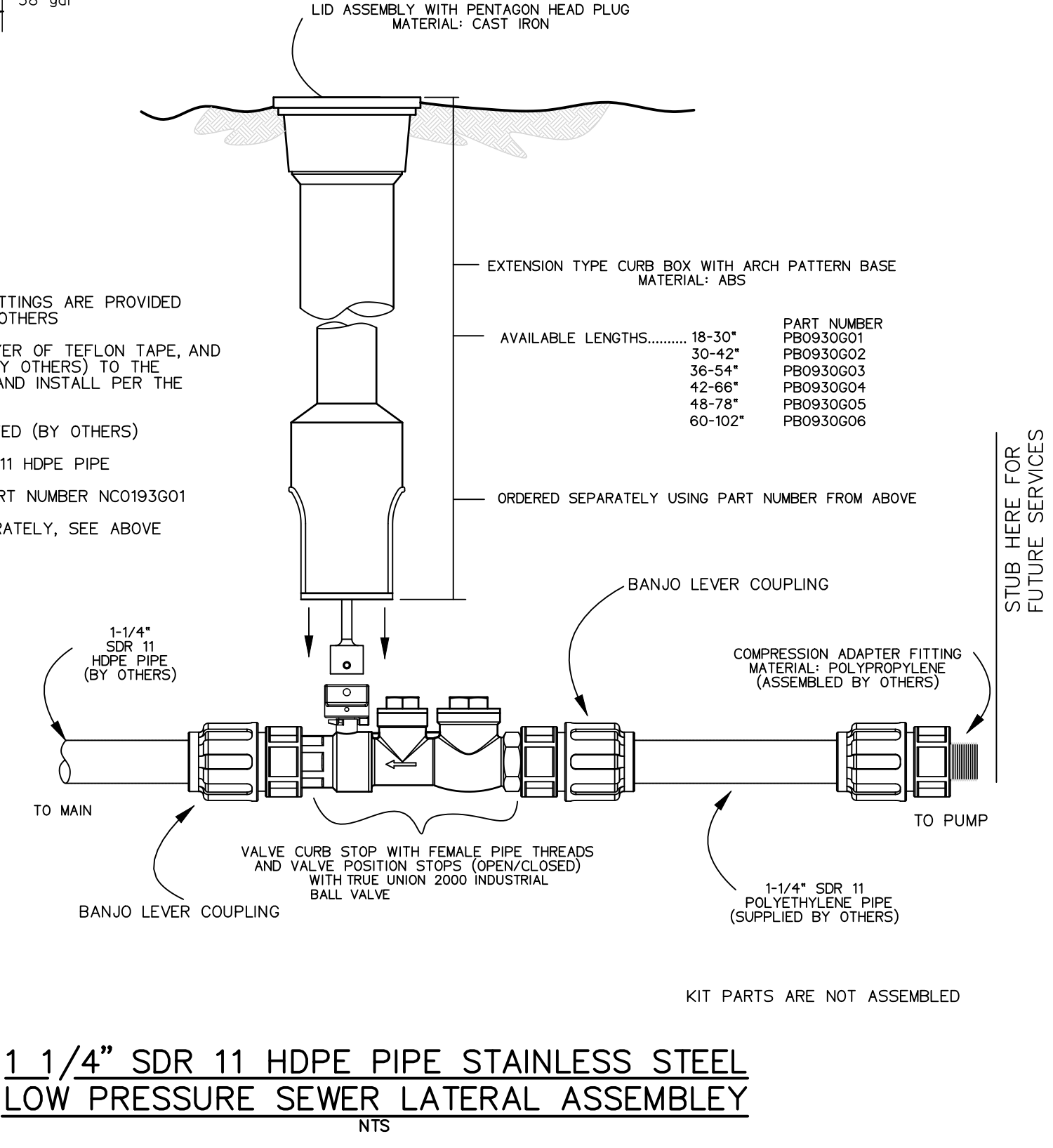
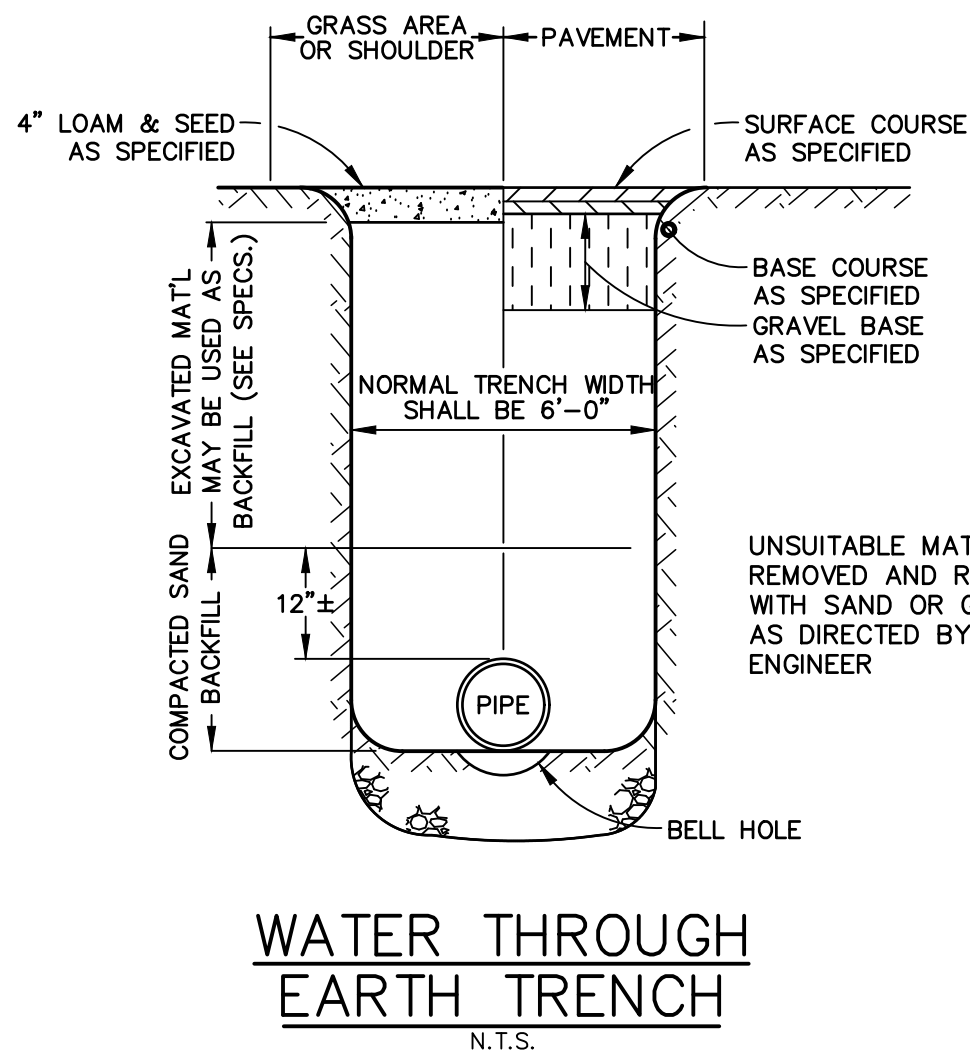
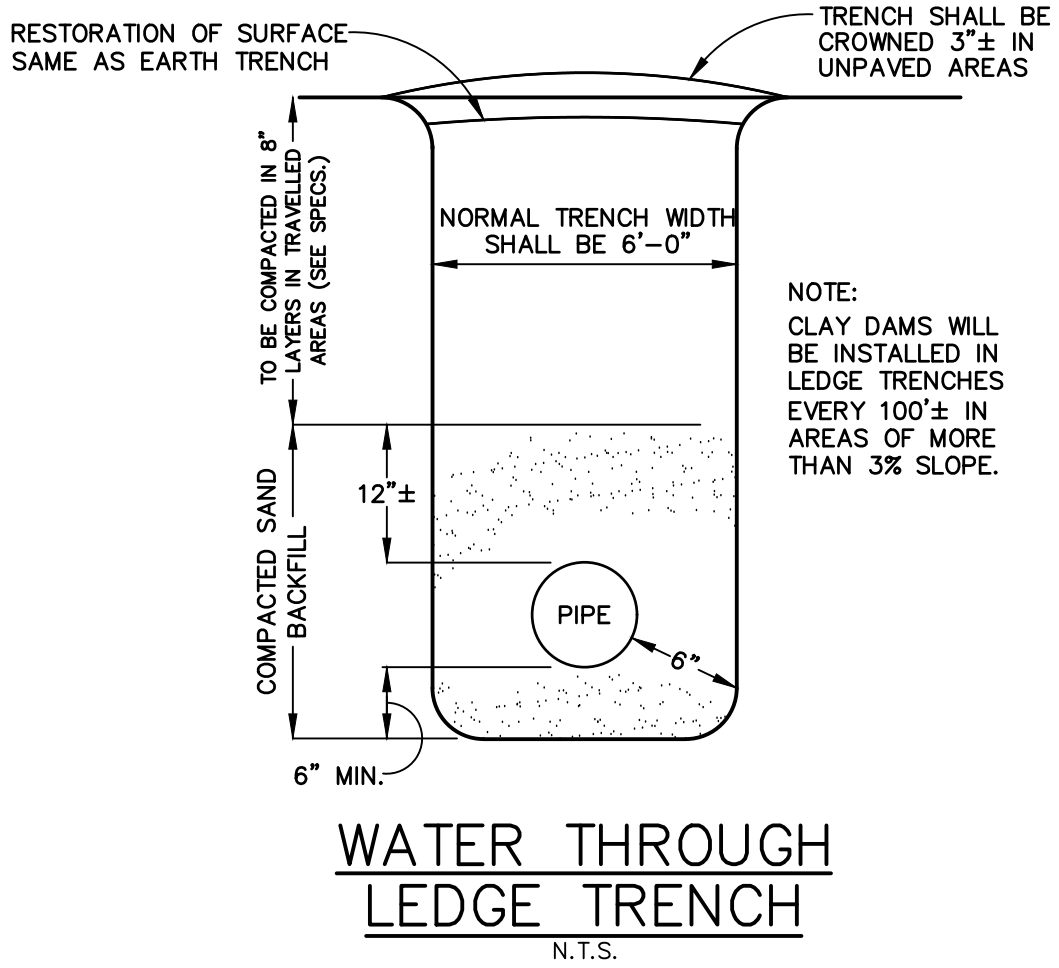
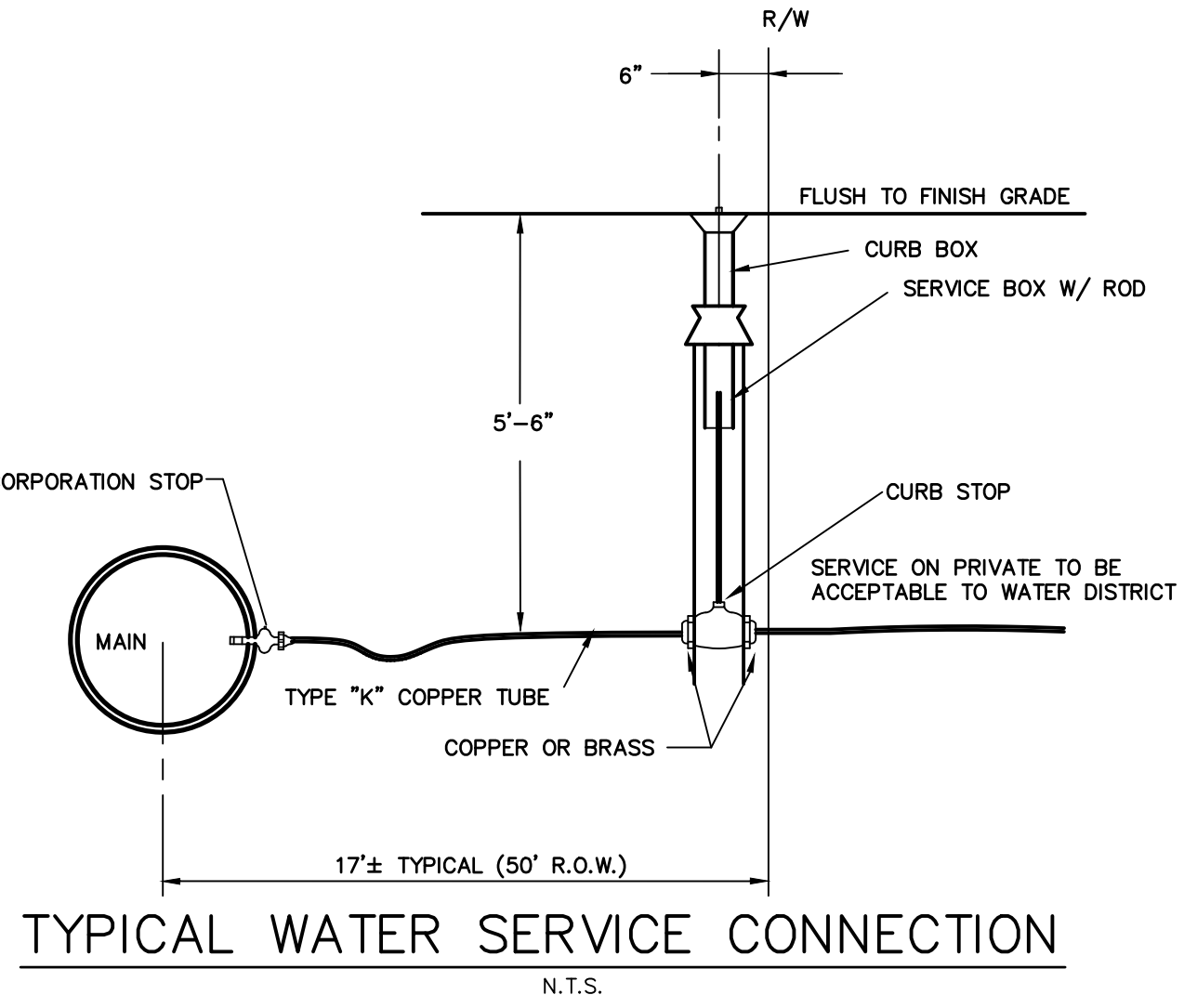
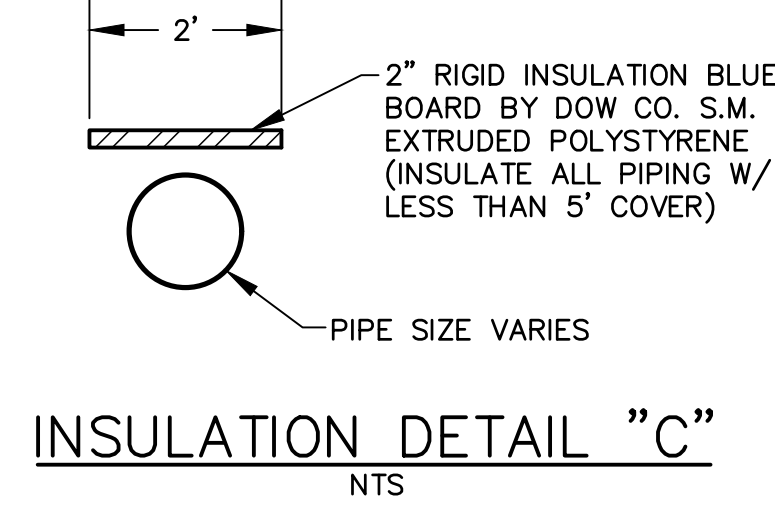


NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION (SEE DETAILS).

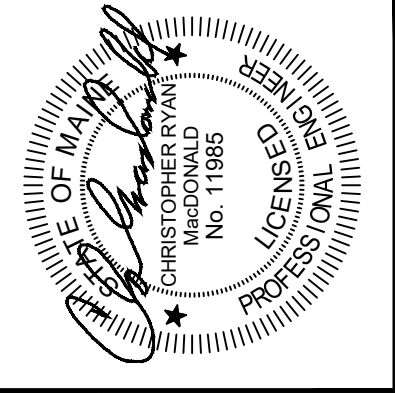


INDOOR INSTALLATION MODEL IH091
E ONE PUMP DETAIL
NTS

- NOTES:
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
 2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
 3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
 4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE
 5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193G01
 6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE



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Gorham, Maine 04038

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FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

UTILITY DETAILS

WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE Dec. 2020
DRAWN Dept.	SCALE As Noted
CHECKED C. MacDonald	JOB. NO. 20217

SHEET
7

REPRODUCTION OR REUSE OF THIS DOCUMENT WITHOUT THE EXPRESSED WRITTEN CONSENT OF BH2M INC. IS PROHIBITED

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

DURING CONSTRUCTION THE DEVELOPER/APPLICANT OR THEIR REPRESENTATIVES WILL BE RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL BMP'S AS WELL ROUTINE INSPECTIONS AND MAINTENANCE OF THE BMP'S.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A MET WEATHER EVENT (1 INCH OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.

2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.

4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.

7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.

8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #1. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8X OR WHERE THERE IS FLOWING WATER.

10. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.

11. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).

12. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

13. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.

14. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.

15. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:

- a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE THINNESS IS CRITICAL, APPLY AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P-K=205-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (136 LB PER 1,000 SQ. FT.).
- c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED A MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
- d. HAY MULCH AT THE RATE OF 70-80 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1" SQ. YD. BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED. APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.
- e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.

16. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 80% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.

17. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.

18. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.

19. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

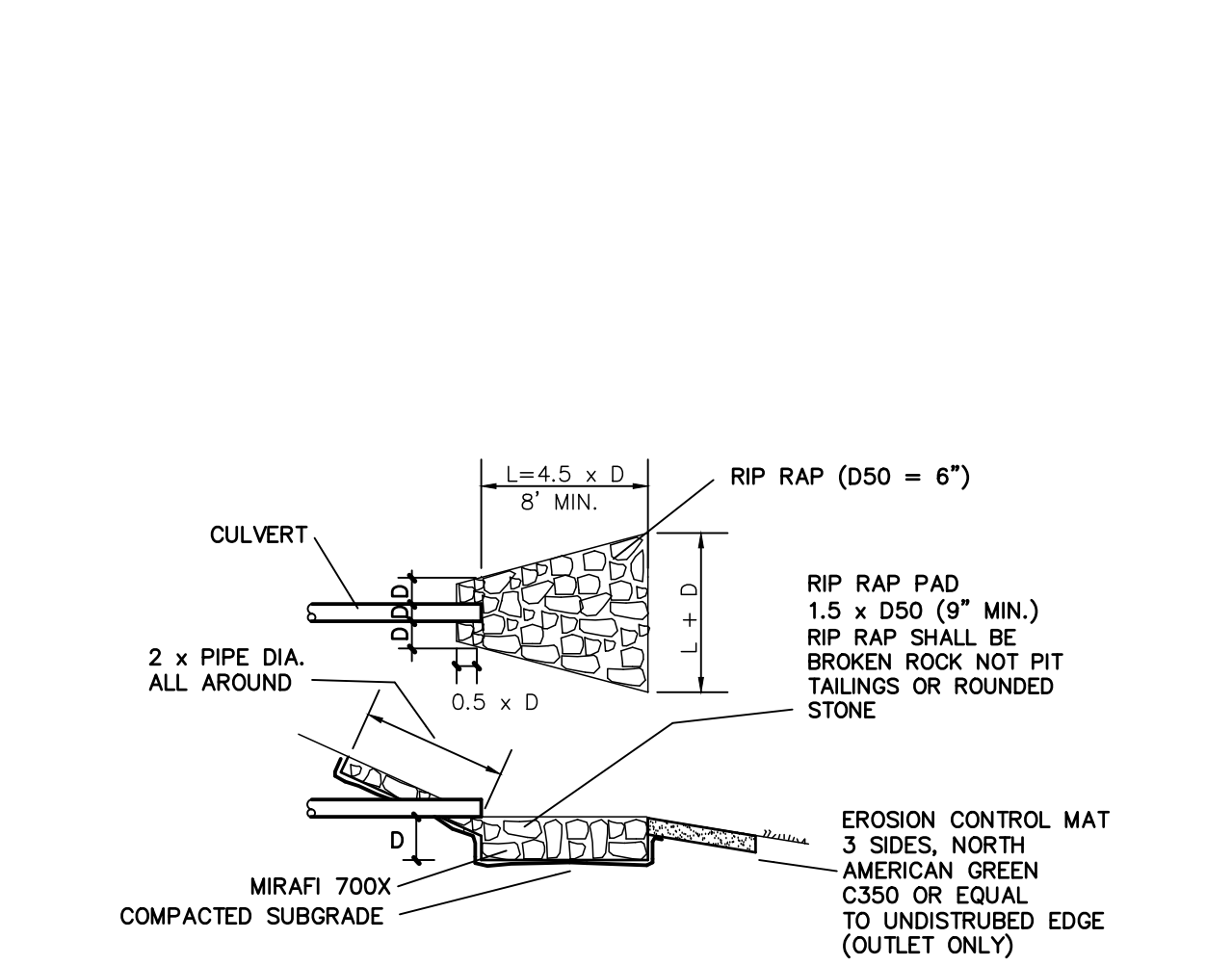
SEASON	SEED	RATE
SUMMER (5/15 - 8/15)	SUDAGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 - 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 - 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 - 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 - 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP'S MANUAL. ECM ON SLOPES GREATER THAN 3:1 BUT LESS THAN 4:1 MUST BE COMPOSED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20" OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5:1). EROSION CONTROL MIX IS AN ACCEPTABLE STABILIZATION MEASURE FOR SLOPES UP TO 3:1, WITH LIMITS THAT ARE COVERED BY NOTES ON THIS SHEET. SLOPES BETWEEN 3:1 AND 2:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS, AND ALL SLOPES GREATER THAN 2:1 SHALL BE STABILIZED WITH RIPRAP. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.



PIPE INLET/OUTLET PROTECTION
N.T.S.

EROSION CONTROL DURING CONSTRUCTION

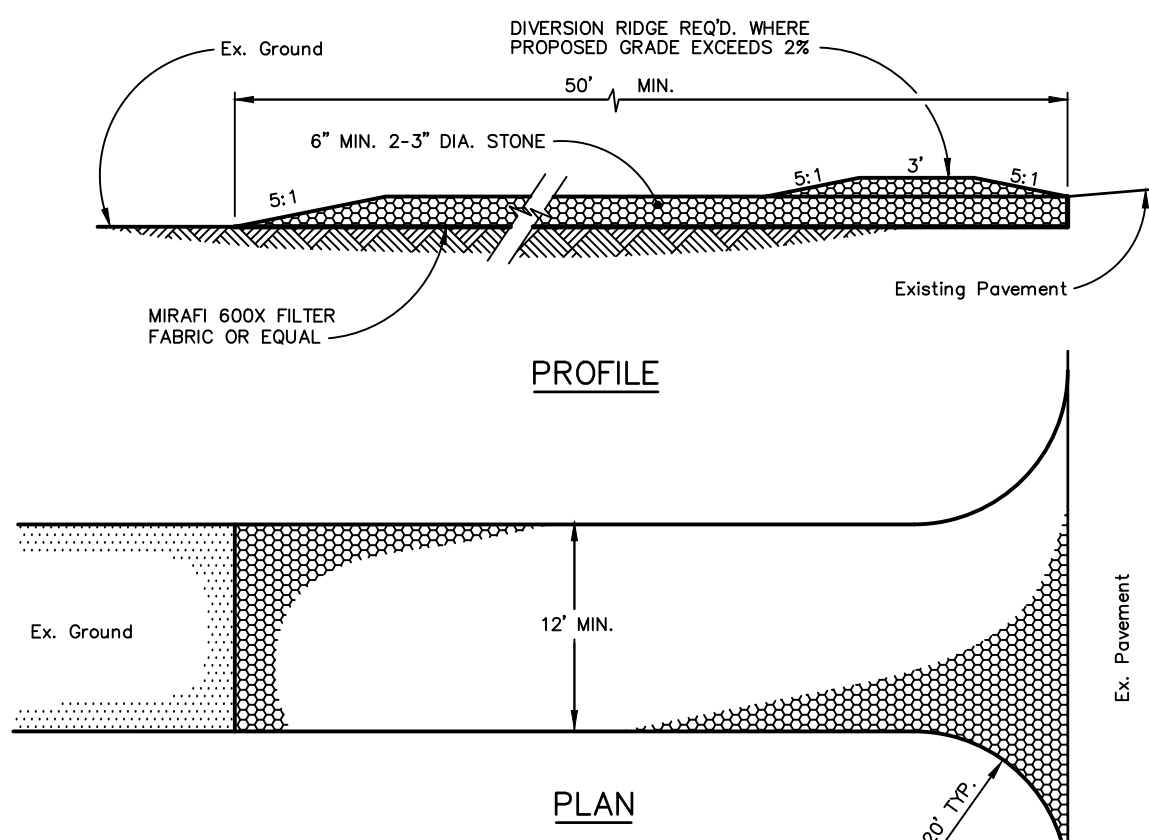
WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15
2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
- A. INSTALL A SOD LINING IN THE DITCH:
A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. 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. ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
- B. INSTALL A STONE LINING IN THE DITCH:
A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR MUST INCREASE THE DITCH PRIOR TO PLACING THE STONE LINING SOD TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15X TO BE A "SLOPE". IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER: STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET 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 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
- A. STABILIZE THE SOIL WITH SOD:
THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. 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. THE CONTRACTOR MUST NOT USE LATE SEASON SOD TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 30% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
- C. STABILIZE THE SOIL WITH STONE RIPRAP:
PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
4. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
- A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET. LIGHTLY MULCH THE SEEDING SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
- B. STABILIZE THE SOIL WITH SOD:
STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. 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.
- C. STABILIZE THE SOIL WITH MULCH:
BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET 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. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8X.

5. MAINTENANCE:
IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING RUNOFF, THE SITE SUPERVISOR/CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO MAINTAIN FUNCTION. IF THE CONTRACTOR OBSERVES ANY DAMAGE TO THE TEMPORARY VEGETATION AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.
- STABILIZATION SCHEDULE BEFORE WINTER:
- SEPTEMBER 15 ALL DISTURBED AREAS MUST BE SEED AND MULCHED.
- OCTOBER 1 IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEED, ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
- NOVEMBER 15 ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.
6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

HOUSEKEEPING

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1" ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAMINANT, AND RESPONSE PLANNING AND IMPLEMENTATION.
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 SOIL TRENCHING, FACTOR OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL DIKES, BERMS, SHELTERS, 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.
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. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUM IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.
4. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING: TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COTTER DAMS, PONDERS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA EITHER THROUGH GRAVITY OR PUMPING, AND 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 COTTERDAM, SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. 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:
- DISCHARGES FROM FIREFIGHTING ACTIVITY;
 - FIRE HYDRANT FLUSHINGS;
 - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
 - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
 - ROUTINE EXTERNAL BUILDING WASH-DOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
 - 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;
 - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
 - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
 - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
 - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX (C)5) MAINE DEP 06-096 CHAPTER 500);
 - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
 - LANDSCAPE IRRIGATION.
7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX (C)6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
 - FUELS, OILS OR OTHER FLUIDS AND EQUIPMENT OILS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
 - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
 - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

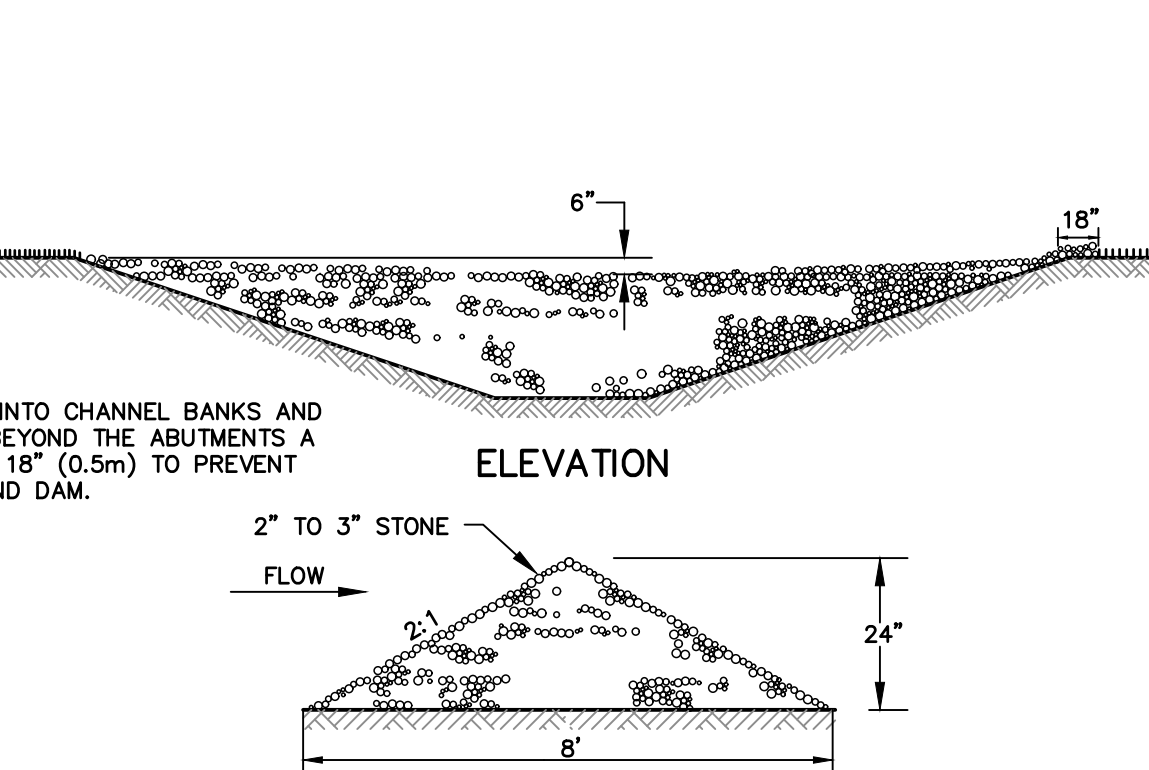


NOTES:

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

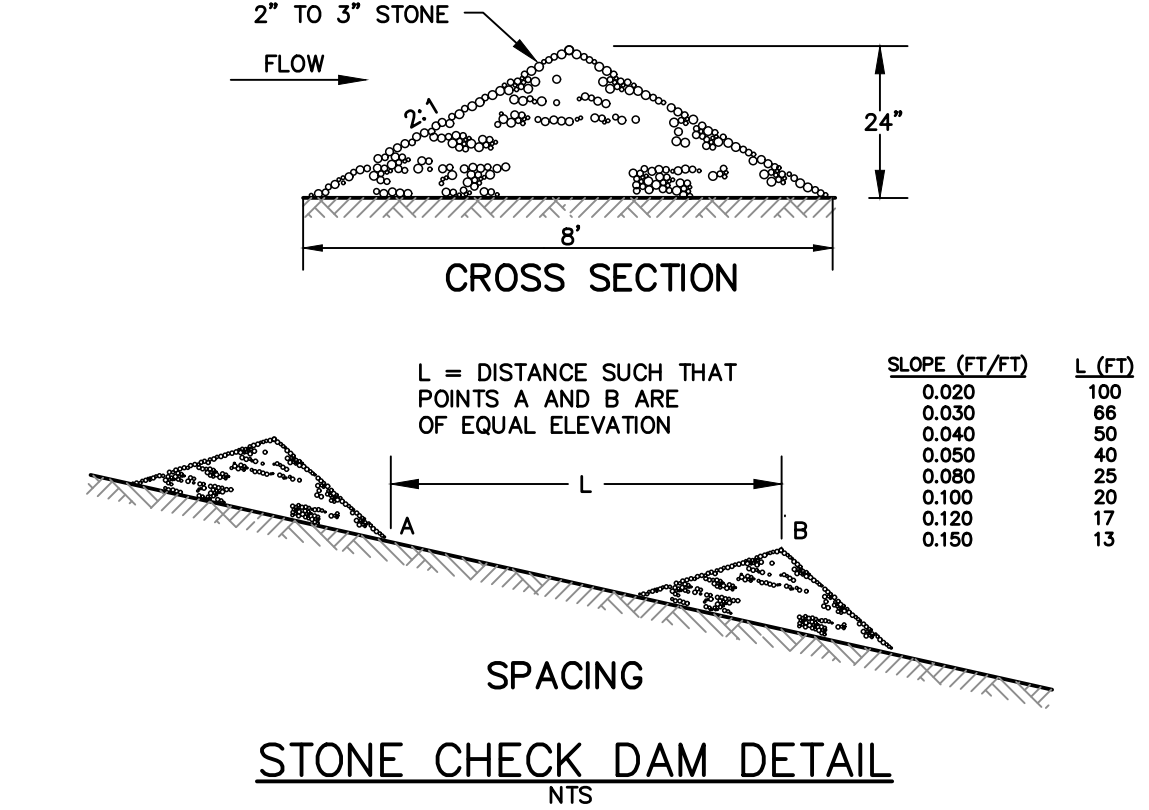
WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE
NTS



NOTE:

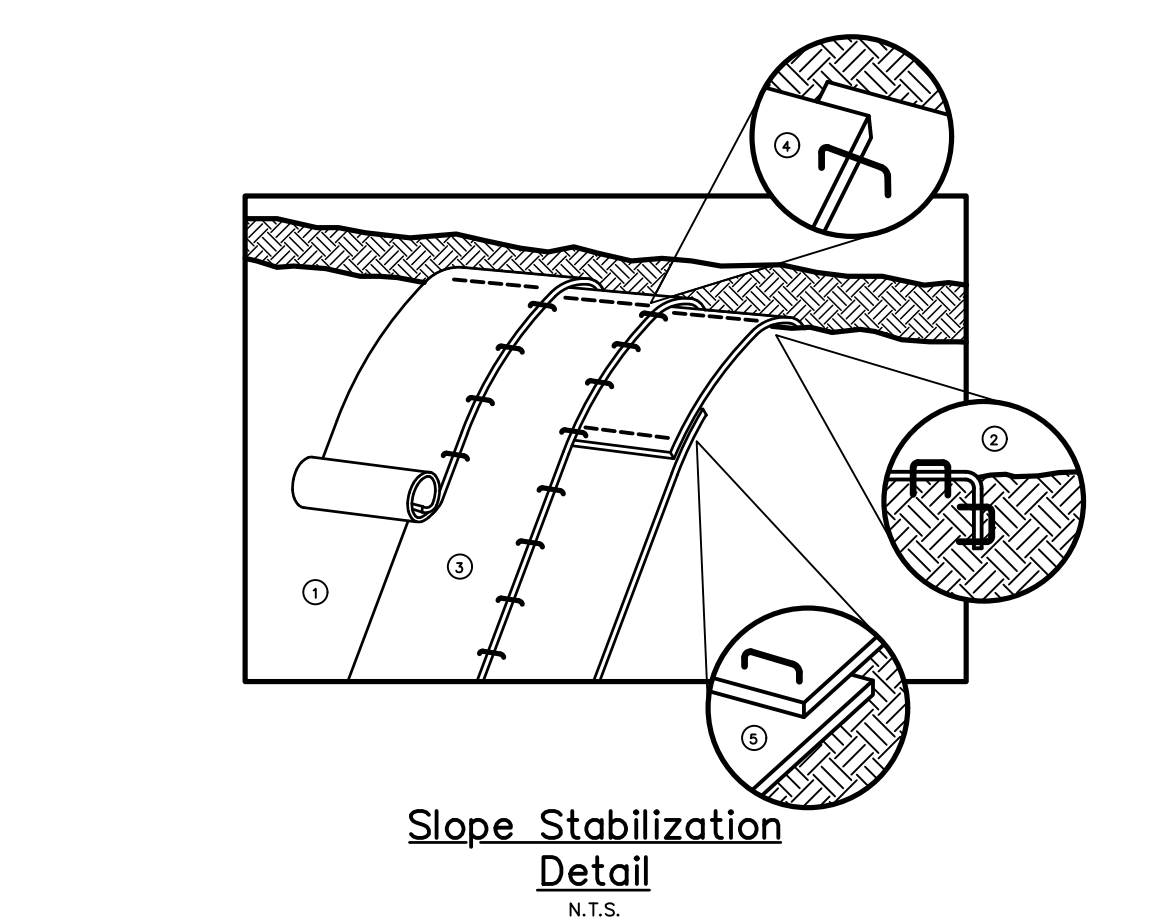
KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" (0.5m) TO PREVENT FLOW AROUND DAM.



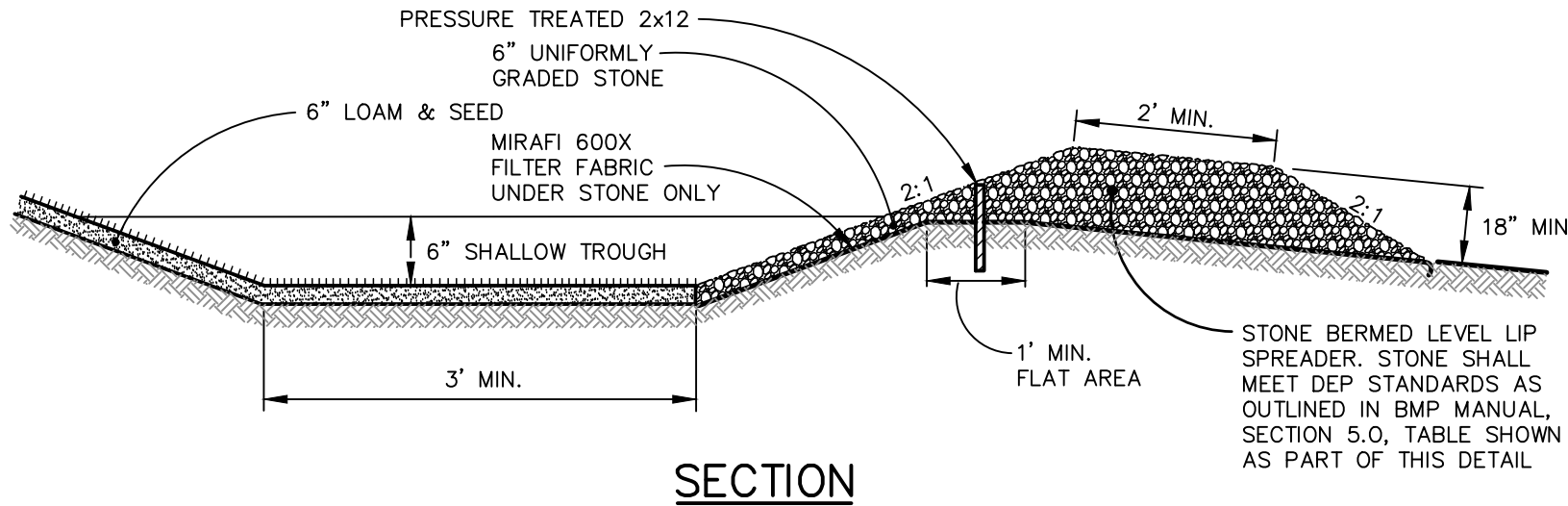
STONE CHECK DAM DETAIL
NTS

1. Prepare soil before installing blankets, including lime, fertilizer & seed.
2. Begin at top of slope by anchoring blanket in 6" x 6" trench. Backfill & compact trench after stapling.
3. Roll blankets down or horizontally across slope.
4. The edges of parallel blankets must be stapled with approx. 2" overlap.
5. When blankets must be spliced down the slope, place blankets end over end (shingle style) with approx. 4" overlap. Staple through overlapped area, approx. 12" apart.

Slope Stabilization:
Erosion Control Blanket shall be in accordance with M.D.O.T. standard specifications, Section 6.13, Temporary Erosion Control Blankets and Extended Use Erosion Control Blankets.



Slope Stabilization
Detail
N.T.S.



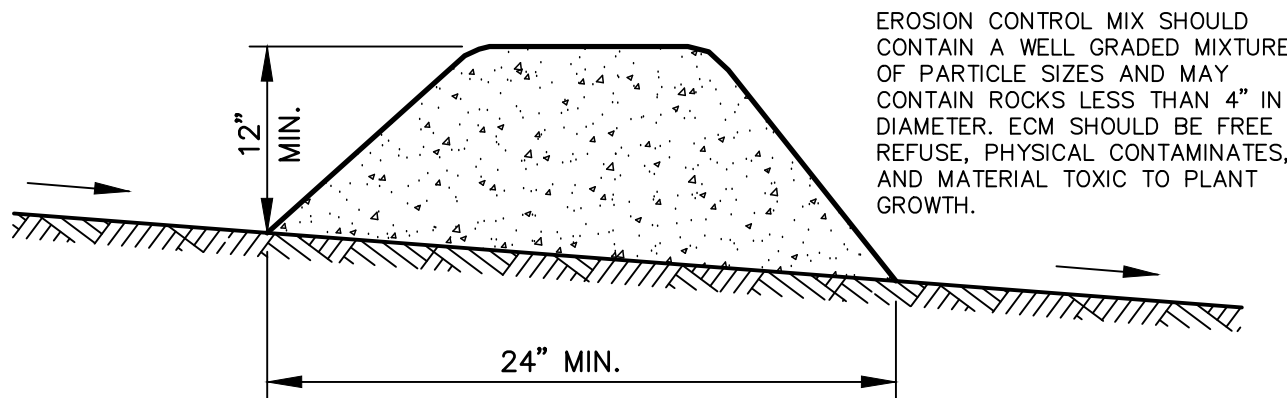
CONSTRUCTION SPECIFICATIONS:

1. SPREADERS SHALL BE INSTALLED WITH A LEVEL INSTRUMENT. CONSTRUCT LEVEL UP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOW/LEVEL. SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL, NOT FILL.
2. SELECTED GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SANDS, SILTS, CLAYS, ETC.).
3. PLACE UNIFORMLY GRADED STONE (SEE TABLE 5-3).
4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER.
5. THE RUNOFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.
7. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE FROM UPHILL SIDE ONLY. LEVEL LIP AND AREA BELOW SPREADER SHALL BE AT EXISTING GRADES AND UNDISTURBED BY EARTHWORK OR EQUIPMENT EXCEPT AS NOTED ON PLAN.
8. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED.
9. DOWN GRADIENT AND RECEIVING AREA MUST BE NATURALLY WELL VEGETATED.
10. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM, CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY.

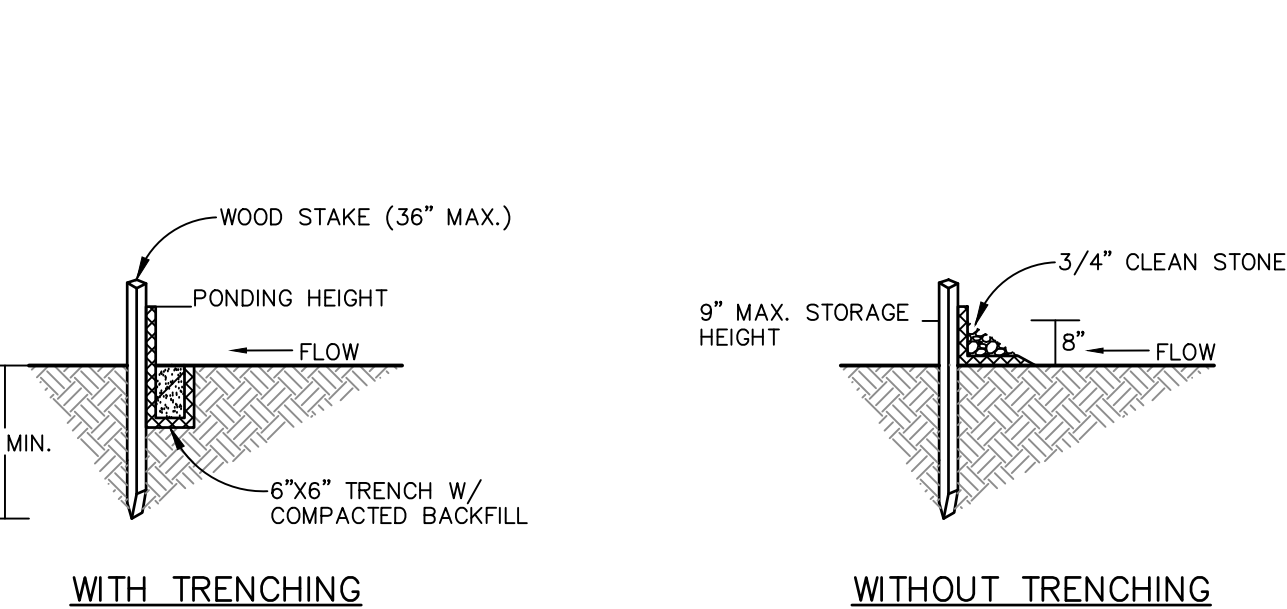
SIEVE DESIGNATION	BERM STONE SIZE	% BY WEIGHT PASSING
METRIC	US CUSTOMARY	SQUARE MESH SIEVES
300 MM	12"	84-100
150 MM	6"	68-83
75 MM	3"	42-55
25.4 MM	1"	8-12
4.75 MM	NO. 4	

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR. ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8X OR WHERE THERE IS FLOWING WATER. SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

-ORGANIC MATTER > 80% DRY WEIGHT
-PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN
-ORGANIC PORTION TO BE FIBROUS & ELONGATED
-SOLUBLE SALT CONTENT < 4.0 MMHOS/CM.
-PH TO BE BETWEEN 5.0 & 8.0

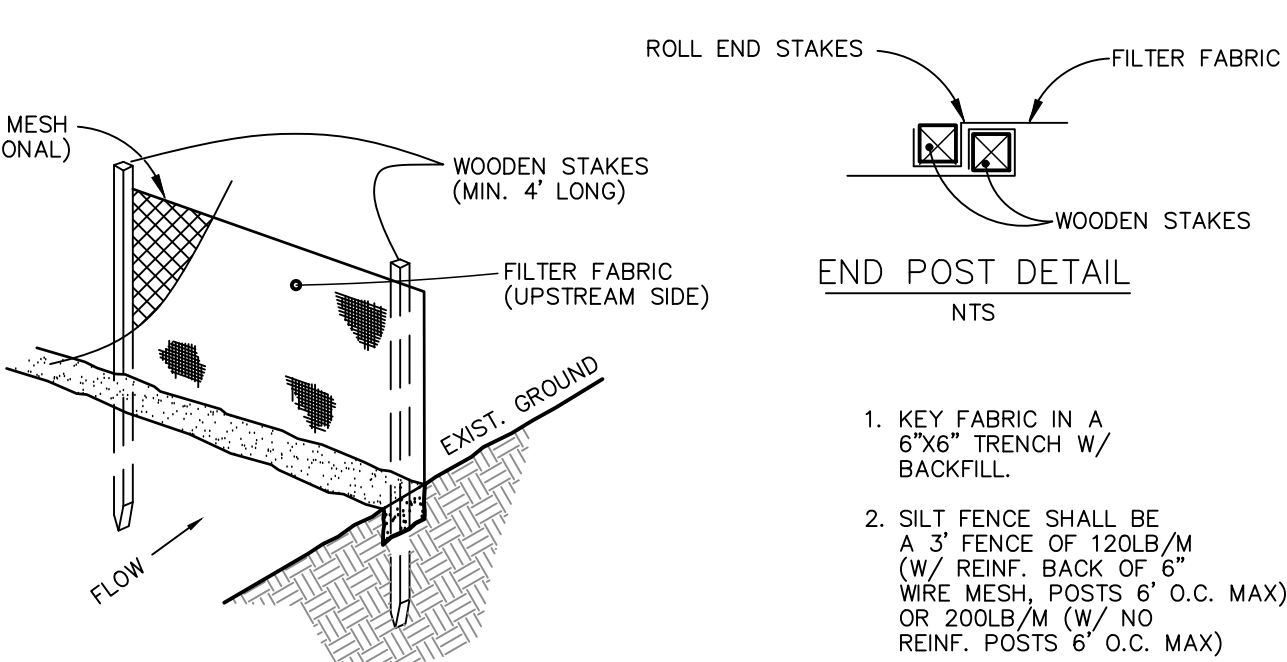


EROSION CONTROL MIX BERM
NTS



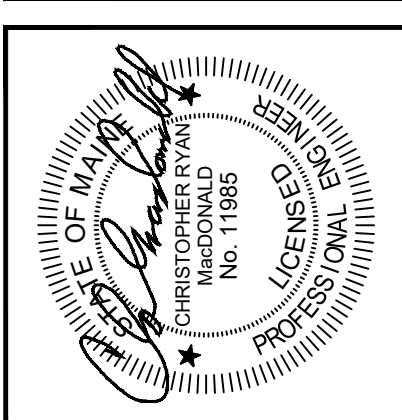
WITH TRENCHING

WITHOUT TRENCHING



SILT FENCE DETAIL
N.T.S.

REVISION	DESCRIPTION	DATE
1	City Of Biddeford Submission	2-15-22
2	Revised Grading and Drainage	2-16-22
3	Interim Modifications for Planning Review	3-30-22
4	Final Staff and Peer Review Revisions	8-17-22



BH2M

Barry Huff, MacDonald, Milligan Inc.
Engineers, Surveyors

3808 Main Street
Gorham, Maine 04038

Tel. (207) 839-2771
www.bh2m.com

FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

EROSION CONTROL
DETAILS

WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED	DATE
W. Pelley	March 2021
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
C. MacDonald	20217

SHEET

8

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- REFERENCES
1. MAINE STORMWATER BEST MANAGEMENT PRACTICES (BMP), VOLUME III BMP TECHNICAL DESIGN MANUAL, CHAPTER 7 FILTRATION BMP'S (LATEST REVISION).
- CONSTRUCTION METHODS
1. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MATERIALS, INSTALLATION, MEANS, METHODS, AND SCHEDULING.
 2. ALL WORK SHALL BE IN CONFORMANCE WITH THE PROJECT PLANS AND BMP'S REFERENCED ABOVE.
 3. THE SOIL FILTER MEDIA AND VEGETATION SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURES, 90% VEGETATION COVER OR PERMANENT STABILIZATION.

- DE-WATERING PLAN
1. DURING CONSTRUCTION OF THE SITE AND VEGETATED SOIL FILTER, THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT A DEWATERING PLAN IN ANTICIPATION OF HEAVY RAIN EVENTS.
 2. THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND MAY BE USED FOR A SEDIMENT TRAP FOR THE SITE DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM SHALL BE INSTALLED AT THE APPROPRIATE ELEVATION AND PROTECTED WITH A SEDIMENT BARRIER. THE BASIN IS TO BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE MULCHED AND MAINTAINED TO PREVENT EROSION.

- SOIL MEDIA
1. THE SOIL MEDIA SHALL CONSIST OF SILTY SANDY SOIL OR SOIL MIXTURE COMBINED WITH 20% TO 25% BY VOLUME (NO LESS THAN 10% BY DRY WEIGHT) OF MODERATELY SHREDDED BARK OR WOOD FIBER MULCH.
 2. THE SOIL FILTER MEDIA SAND SHALL MEET THE GRADATION IN TABLE 7-2 (MDOT 703.01) WITH ADDITIONAL FINES ADDED IF NECESSARY.
 3. THE RESULTING SOIL FILTER MEDIA SHALL HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE AND SHALL HAVE A CLAY CONTENT OF LESS THAN 2%.
 4. THE COARSE GRAVEL MATERIAL SHALL MEET THE GRADATION OF TABLE 7.1 (MDOT 703.22 UNDERDRAIN, TYPE B).
 5. THE FILTER MEDIA SHALL BE LIGHTLY COMPACTED BY SATURATING THE MEDIA IN 6" TO 9" LIFTS AND SHALL HAVE A PERMEABILITY OF 2.4 IN/HR TO 4 IN/HR.
 6. THE CLAY CONTENT SHALL BE < 2%.

- CONSTRUCTION
1. SOIL FILTER MEDIA, COARSE GRAVEL, AND UNDERDRAIN BEDDING MATERIAL SHALL BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR.
 2. PERFORATED UNDERDRAIN PIPE SHALL BE 4" AND 6" SCHEDULE 40 OR SDR 35 PVC PIPE. SPACED 8 FEET AND 4 FEET ON CENTER AS SHOWN ON PLANS.
 3. TRIBUTARY AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF THE SOIL FILTER MEDIA MIXTURE AND UNDERDRAIN. STABILIZED IS DEFINED AS PAVED IF IN A PARKING AREA OR ROADWAY AND 90% GRASS CATCH IF IN A VEGETATED AREA.
 4. OUTFLOW OF THE VEGETATED SOIL FILTER SHALL BE CONTROLLED BY A 2" PLASTIC TYPE 34-6 BALL VALVE WITH TYPE B15 BALL VALVE HANDLE EXTENSION (AVAILABLE FROM E.J. PRESCOTT OR EQUIVALENT). A THREE-PIECE VALVE BOX (AVAILABLE FROM E.J. PRESCOTT OR EQUIVALENT) SHALL BE INSTALLED OVER THE VALVE.
 5. ALL EQUIPMENT USED WITHIN THE LIMITS OF THE VEGETATED SOIL FILTER SHALL BE LOW GROUND PRESSURE VEHICLES (LESS THAN 2.0 PSI) WHEN FULLY LOADED.
 6. IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE CONTRACTOR SHALL INSTALL A 2-3 INCH LAYER OF LOAM (WITH LESS THAN 2% CLAY AS TESTED VIA HYDROMETER TEST) ON THE SURFACE OF THE GRASS FILTER AND RE-SEED/MULCH.
 7. THE SURFACE OF THE VEGETATED SOIL FILTER SHALL BE PLANTED WITH A GRASS SPECIES THAT IS TOLERANT OF FREQUENT INUNDATION AND WELL-DRAINED SOILS. UPON SEEDING, THE SURFACES SHALL BE MULCHED WITH HAY OR AN EROSION CONTROL BLANKET BUT SHALL NOT BE FERTILIZED. AN APPROPRIATE SEED MIXTURE SHOULD CONTAIN THE FOLLOWING OR BE AN EQUIVALENT CONSERVATION TYPE MIX:

CREeping RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDFOOT TREFOIL	8 LBS/ACRE
TOTAL	48 LBS/ACRE

- TESTING AND SUBMITTALS
1. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL TESTING RESULTS SHALL BE SUBMITTED TO THE PROJECT ENGINEER.
 2. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PILE FACE. SAMPLE SIZE WILL BE DETERMINED BY TESTING LABORATORY.
 3. THE CONTRACTOR SHALL PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM D136 (STANDARD TEST METHODS FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES, 1996A) ON EACH TYPE OF SAMPLE MATERIAL INCLUDING A HYDROMETER TEST FOR CLAY CONTENT.
 4. THE CONTRACTOR SHALL PERFORM A PERMEABILITY TEST ON THE SOIL MEDIA MIXTURE CONFORMING TO ASTM D2434.
 5. THE CONTRACTOR SHALL PERFORM ONE COMPACTION DENSITY TEST ON THE IN-PLACE SOIL FILTER MEDIA FOR EVERY 1,500 S.F. OF BED OR FRACTION THEREOF. THE TEST SHALL CONFORM TO ASTM D2922.
 6. UPON COMPLETION OF THE VEGETATED SOIL FILTER MEDIA AND THE ESTABLISHMENT OF 90% CATCH OF GRASS OVER THE FILTER MEDIA, THE CONTRACTOR SHALL FLOOD THE VEGETATED BASIN TO THE SPILLWAY WITH CLEAR WATER AND ADJUST THE OUTFLOW TO OBTAIN A 24-HOUR TO 32-HOUR RELEASE TIME.

- CONSTRUCTION OVERSIGHT
1. THE CONTRACTOR SHALL MEET THE "CONSTRUCTION OVERSIGHT" SECTION OF CHAPTER 7, FILTRATION BMP'S (REVISED MAY 2016) OF THE STORMWATER MANAGEMENT FOR MAINE, VOLUME III, BMP'S TECHNICAL DESIGN MANUAL.
 2. THE DESIGN ENGINEER SHALL BE CONDUCTING PERIODIC SITE OVERSIGHT OF THE CONSTRUCTION AS DESCRIBED BELOW AND IN COMPLIANCE WITH THE PERMITS.
 3. THE ENGINEER SHALL REVIEW AND APPROVE ALL CONTRACTOR SUBMITTALS.
 4. THE CONTRACTOR SHALL GIVE THE ENGINEER A PROPOSED CONSTRUCTION SCHEDULE AND A 48-HOUR NOTICE FOR ALL SITE VISITS.
 5. INSPECTIONS SHALL INCLUDE:
 - PRE-CONSTRUCTION MEETING WITH CONTRACTOR
 - INSPECTION OF EXCAVATION IF USED FOR SEDIMENT TRAP
 - INSPECTION OF EXCAVATED HOLE
 - AFTER PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND
 - ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACK-FILLED
 - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO INSTALLATION OF THE FILTER MEDIA
 - AFTER FILTER MEDIA HAS BEEN INSTALLED AND SEEDING
 - AFTER ONE YEAR TO INSPECT VEGETATION UPTAKE AND OBSERVE FLOODING TEST.

LEVEL SPREADER STONE SIZE		
SIEVE DESIGNATION	SIEVE DESIGNATION	% BY WEIGHT PASSING
METRIC	US CUSTOMARY	SQUARE MESH SIEVES
300 MM	12"	100
150 MM	6"	84-100
75 MM	3"	68-83
25.4 MM	1"	42-55
4.75 MM	NO. 4	8-12

TABLE 7-1
UNDERDRAIN SPECS.
MDOT #703.22

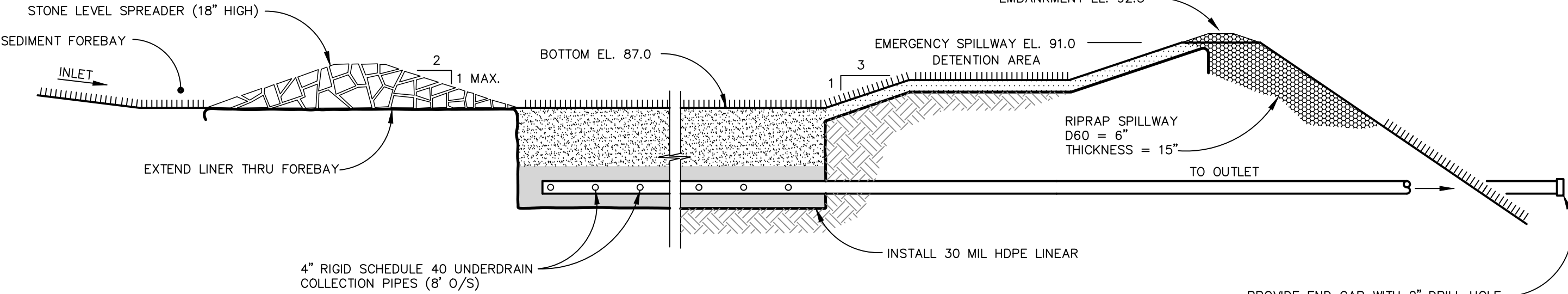
SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE B	
1/2"	90-100
#4	75-100
#20	50-100
#50	15-80
#200	0-5
UNDERDRAIN TYPE C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5

TABLE 7-2
AGGREGATE SPECS.
MDOT #703.01

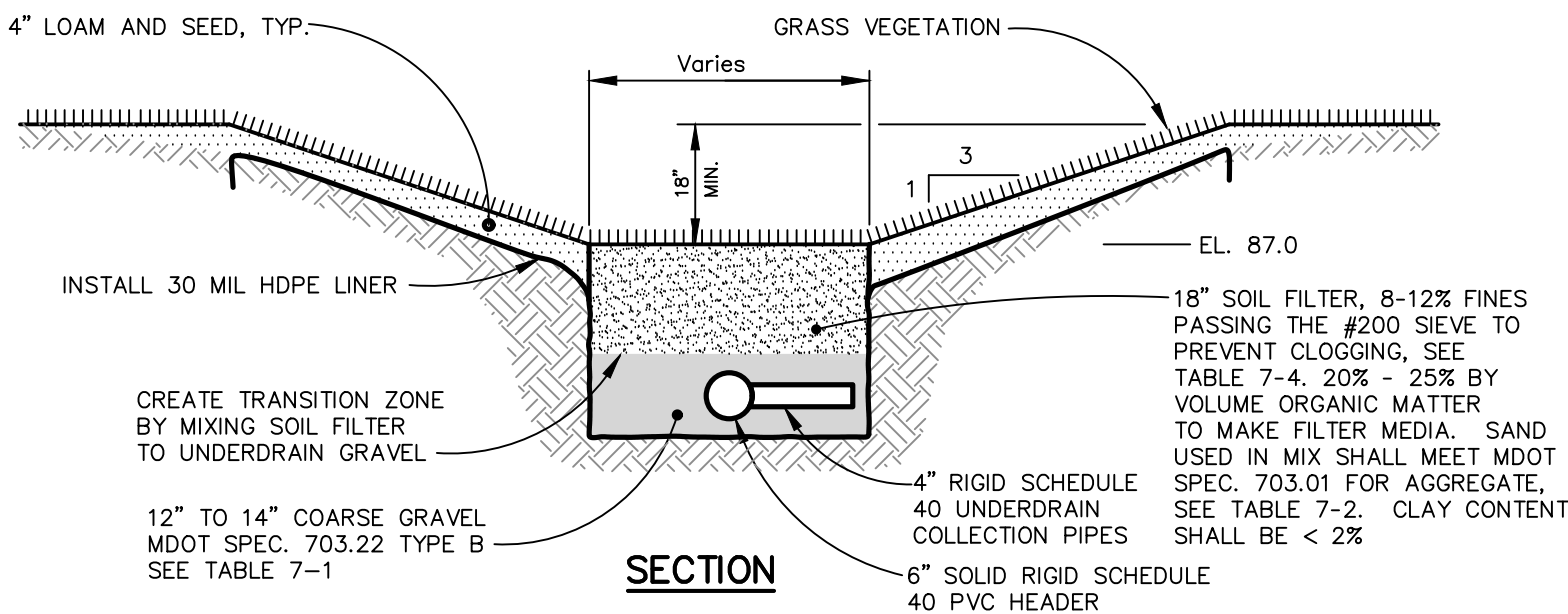
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#5	90-100
#10	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5

TABLE 7-4
COARSE LOAMY SAND SIEVE
ANALYSIS SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15

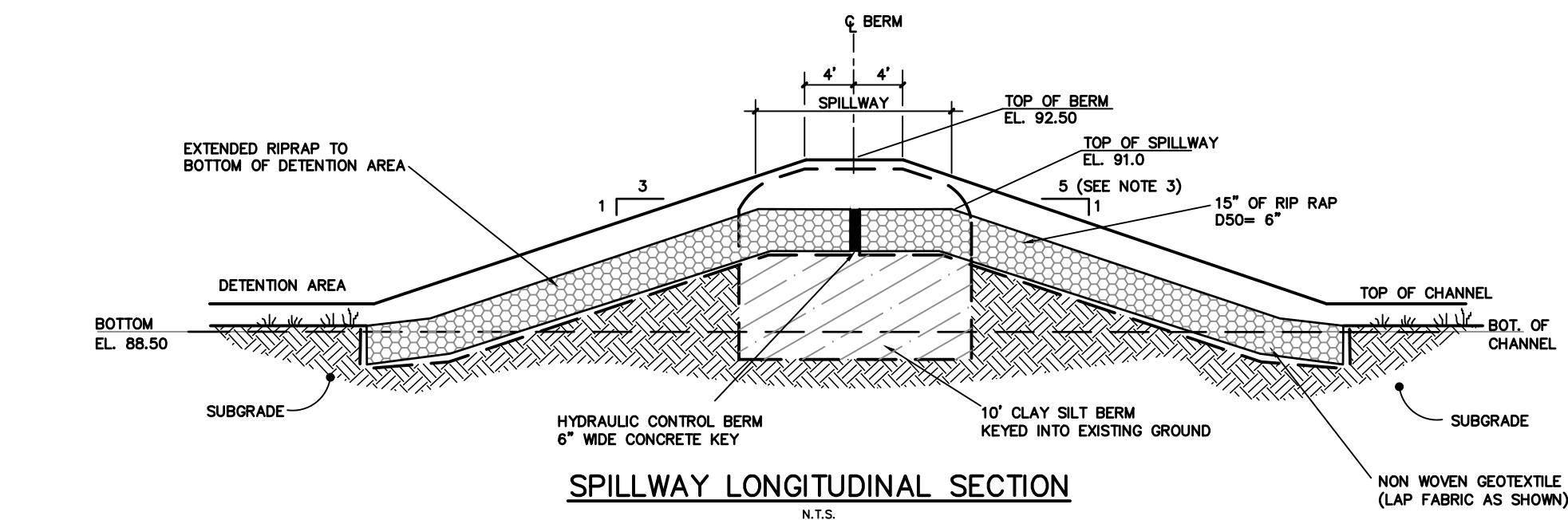


PROFILE

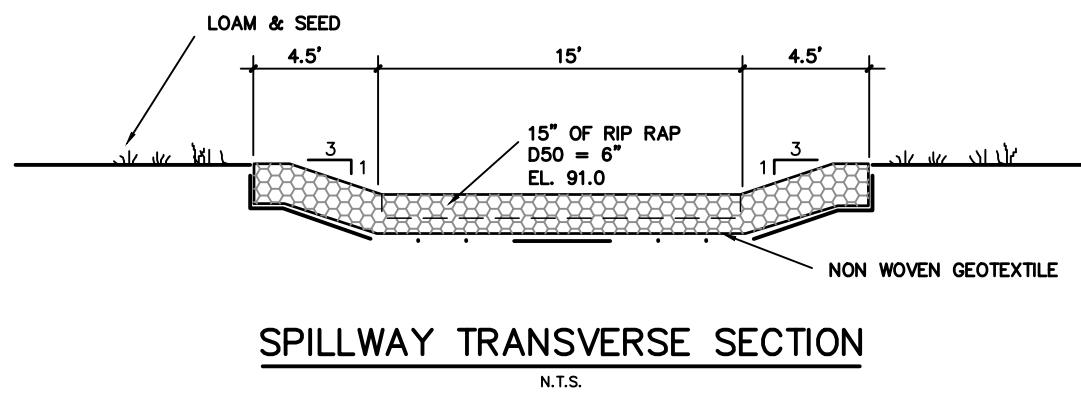


SECTION

GRASSED UNDERDRAIN SOIL FILTER NTS



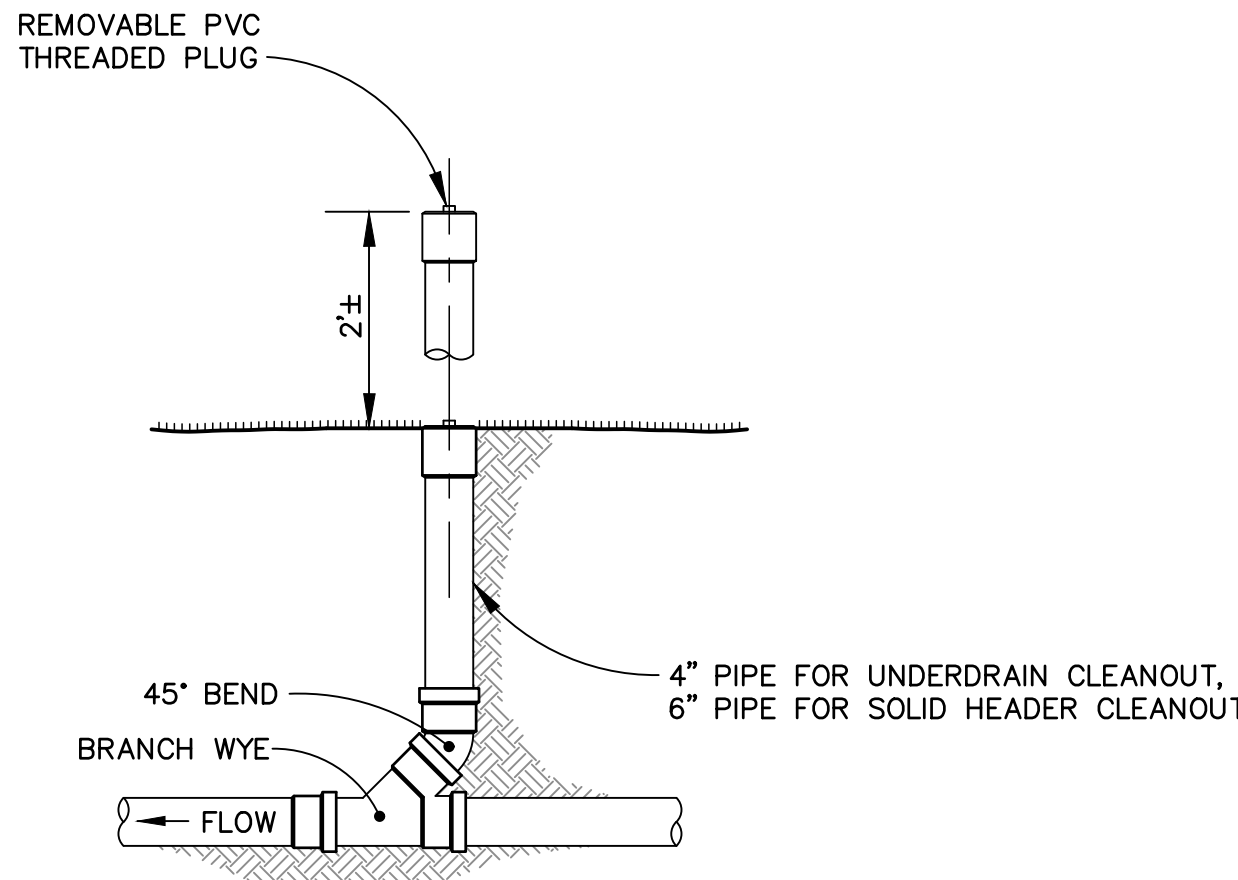
SPILLWAY LONGITUDINAL SECTION



SPILLWAY TRANSVERSE SECTION

DETENTION POND EMBANKMENT NOTES:

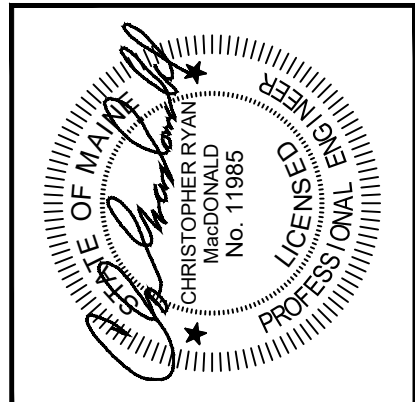
1. THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, ROOTS, BRUSH, BOULDERS, SOD, RUBBISH & TOPSOIL. THE ENGINEER SHALL OBSERVE & APPROVE THE EMBANKMENT SUBGRADE PRIOR TO PLACING ANY FILL TO DETERMINE SUITABILITY & POSSIBLE NEED FOR A CUTOFF TRENCH.
2. FILL MATERIAL FOR THE EMBANKMENT SHALL CONSIST OF SILT AND/OR CLAY MATERIAL APPROVED BY THE ENGINEER. THE CONTRACTOR SHOULD NOTE THAT ACCEPTABLE MATERIAL MAY NOT BE FOUND ON-SITE. ALL FILL MATERIAL SHALL BE FREE OF SOD, ROOTS, FROZEN SOIL, STONES GREATER THAN 6" IN DIA. & OTHER OBJECTIONABLE MATERIAL. ALL SNOW, ICE, OR FROZEN FILL SHALL BE REMOVED PRIOR TO ADDING ADDITIONAL FILL. FILLING SHALL COMMENCE IN THE LOWEST POINT OF THE CUTOFF TRENCH AND/OR DAM & CONTINUE IN HORIZONTAL LIFTS NO GREATER THAN 12" 95% MODIFIED PROCTOR DENSITIES SHALL BE OBTAINED IN EACH LIFT PRIOR TO ADDITIONAL LIFTS. THE DISTRIBUTION & GRADATION OF THE FILL SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF SUBSTANTIALLY DIFFERENT MATERIALS ARE PLACED IN THE LAYERS IN THE EMBANKMENT. FILL WITHIN 5' OF THE DISCHARGE PIPE & STRUCTURE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.
3. SLOPE OF RIPRAP SPILLWAY AT 5:1, AREA OUTSIDE OF SPILLWAY TRANSITION TO 3:1 AND A MAXIMUM OF 2:1.



CLEANOUT DETAIL N.T.S.

RIPRAP SPILLWAY DETAIL NTS

REVISION		DESCRIPTION
NO.	DATE	
1	2-9-22	City Of Biddeford Submission
2	2-16-22	Revised Grading and Drainage
3	3-30-22	Interim Modifications for Planning Review
4	8-17-22	Final Staff and Peer Review Revisions



BH2M

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FOR
E & R Development Corp.
P.O. Box 444
Biddeford, Maine

EROSION CONTROL
DETAILS 2

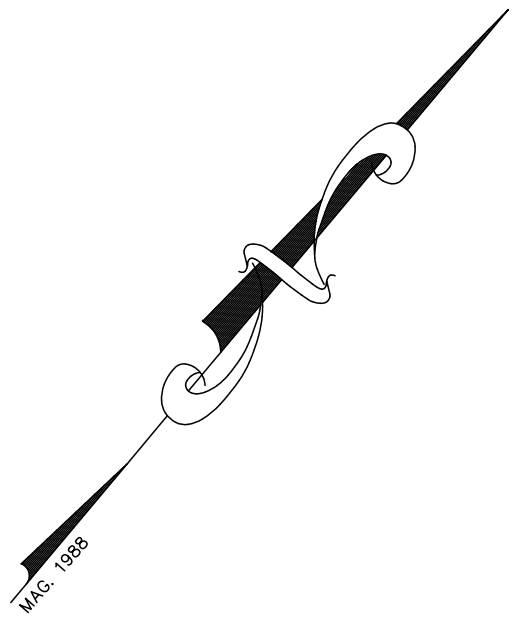
WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED W. Pelkey	DATE March 2021
DRAWN Dept.	SCALE As Noted
CHECKED C. MacDonald	JOB. NO. 20217

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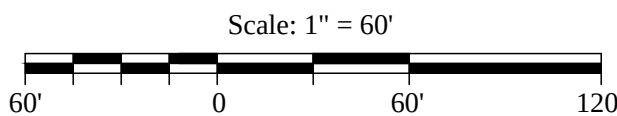
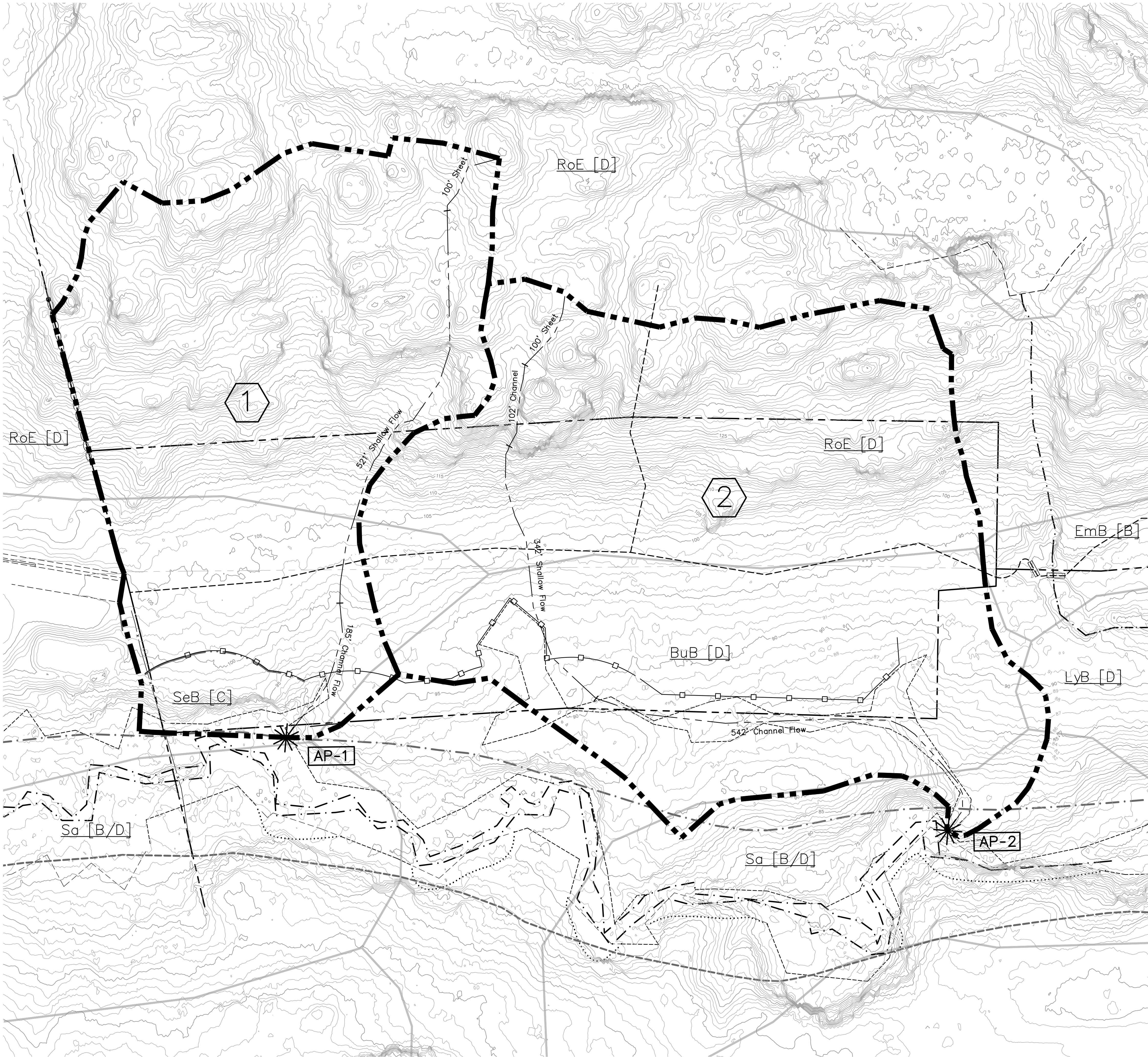
PRE DEVELOPMENT FLOWS			
ANALYSIS POINT	2 YR. STORM	10 YR. STORM	25 YR. STORM
AP-1	6.07 CFS	12.93 CFS	18.96 CFS
AP-2	9.10 CFS	18.85 CFS	27.40 CFS

SYMBOL	DESCRIPTION
	DRAINAGE SUB AREA
	DRAINAGE AREA BOUNDARY
	TIME OF CONCENTRATION ROUTE

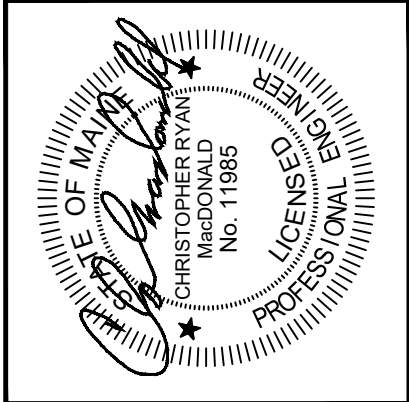
SOILS LEGEND	
SYMBOL	DESCRIPTION
	SOIL BOUNDARY LINES
	LIMIT OF WETLANDS

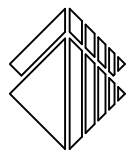
HYDROLOGIC SOIL GROUP*		
SYMBOL	SOIL	GROUP
BuB	BUXTON SILT LOAM (3-8%)	D
EmB	ELMWOOD FINE SANDY LOAM (0-8%)	B
LyB	LYMAN-ROCK OUTCROP COMPLEX (3-8%)	D
RoE	ROCK OUTCROP-LYMAN COMPLEX (15-80%)	D
Sa	SACO MUCKY SILT LOAM	B/D
SeB	SCIO SILT LOAM (3-8%)	C

* SOILS INFORMATION PROVIDED BY NRCS FROM USDA WEB SOIL SURVEY
FOR YORK COUNTY, MAINE, SURVEY AREA DATA VERSION 20, DATED AUGUST 31, 2021.



NO.	DATE	REVISION	DESCRIPTION
1	2-16-22		Revised Grading and Drainage



**BH2M**

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Tel. (207) 839-2771
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FOR

E & R Development Corp.
260 Main Street
Biddeford, Maine

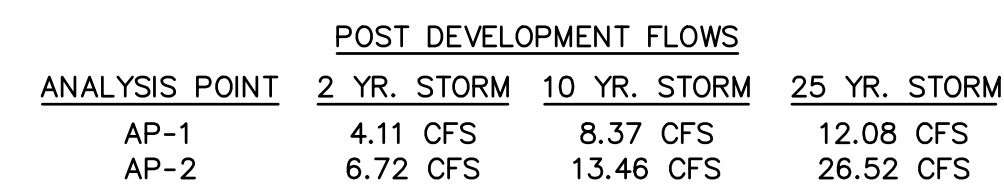
PRE DEVELOPMENT
STORMWATER PLAN
WEST BROOK SUBDIVISION
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED C. MacDonald	DATE February 2022
DRAWN Staff	SCALE 1" = 60'
CHECKED C. MacDonald	JOB. NO. 20217

SHEET

A

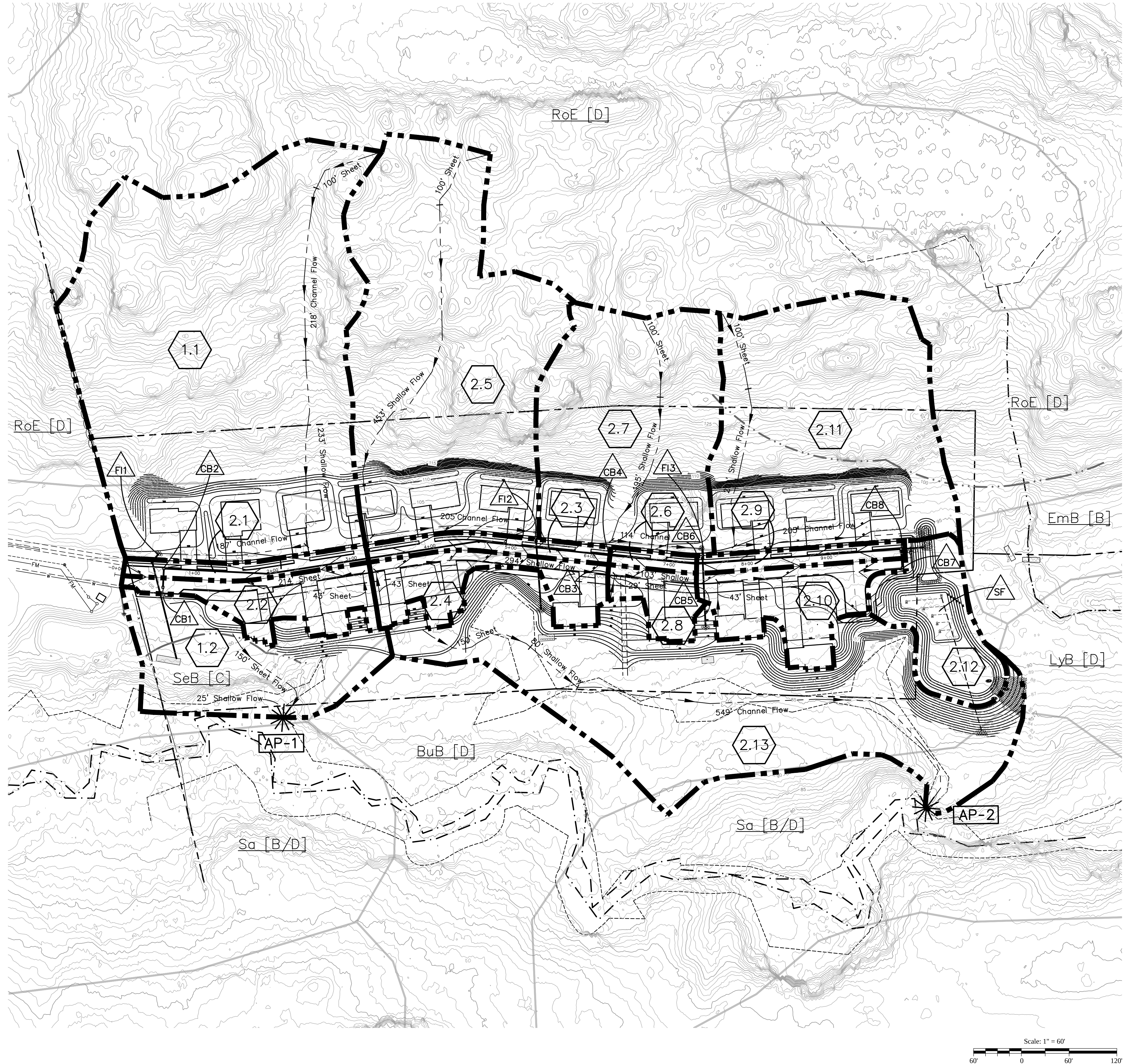
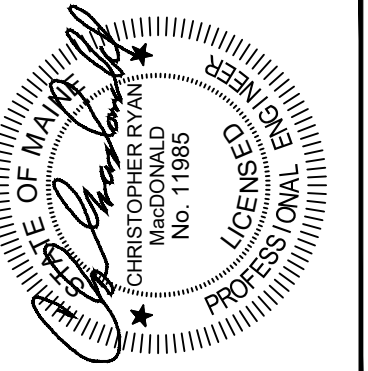
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<u>SYMBOL</u>	<u>LEGEND</u>	<u>DESCRIPTION</u>
	DRAINAGE SUB AREA	
	DRAINAGE AREA BOUNDARY	
	TIME OF CONCENTRATION ROUTE	
<u>SOILS LEGEND</u>		
<u>SYMBOL</u>		<u>DESCRIPTION</u>
		SOIL BOUNDARY LINES
		LIMIT OF WETLANDS

HYDROLOGIC SOIL GROUP*		
SYMBOL	SOIL	GROUP
BuB	BUXTON SILT LOAM (3-8%)	D
EmB	ELMWOOD FINE SANDY LOAM (0-8%)	B
LyB	LYMAN-ROCK OUTCROP COMPLEX (3-8%)	D
RoE	ROCK OUTCROP-LYMAN COMPLEX (15-80%)	D
Sa	SACO MUCKY SILT LOAM	B/D
SeB	SCIO SILT LOAM (3-8%)	C

* SOILS INFORMATION PROVIDED BY NRCS FROM USDA WEB SOIL SURVEY
FOR YORK COUNTY, MAINE, SURVEY AREA DATA VERSION 20, DATED AUGUST 31, 2021.

[illegible]

BH2M



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Engineers, Surveyors

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Gorham, Maine 04038

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FOR
E & R Development Corp.
260 Main Street
Biddeford, Maine

POST DEVELOPMENT
STORMWATER PLAN
WEST BROOK SUBDIVISION

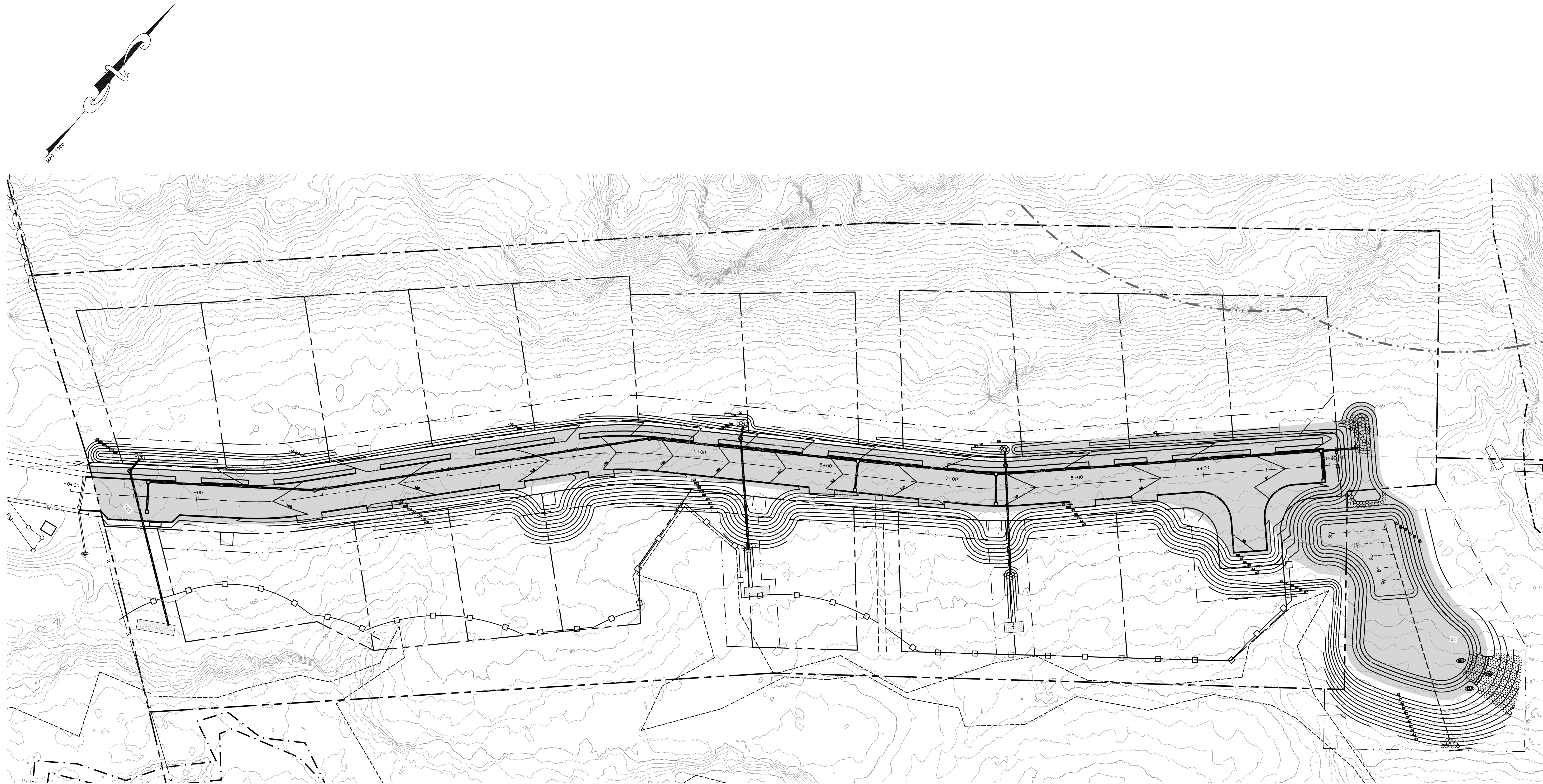
WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED C. MacDonald	DATE February 2022
DRAWN Staff	SCALE 1" = 60'
CHECKED C. MacDonald	JOB. NO. 20217

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G:\2020\20217-24\Main Road Treatment.dwg

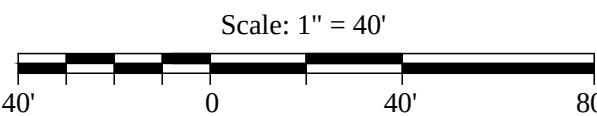


LEGEND	
SYMBOL	DESCRIPTION
	EXISTING CONTOUR
	PROPOSED CONTOUR
	DRAIN MANHOLE
	CATCH BASIN
	DRAIN
	WETLANDS
	PROPERTY LINE/RIGHT OF WAY
	EASEMENT
	STONE WALL

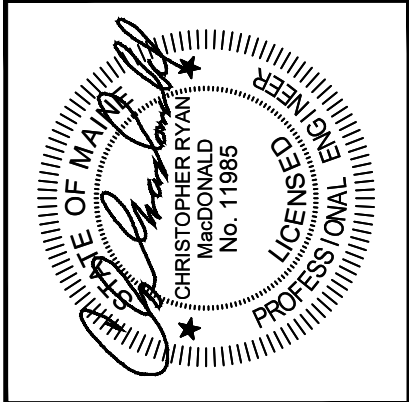
Subcatchment ID	Proposed Impervious Area (sq. ft.)	Proposed Lawn Area (sq. ft.)	Proposed Developed Area (sq. ft.)	Treated Impervious Area (sq. ft.)	Treated Developed Area (sq. ft.)	BMP ID
Road	26,483	0	26,483	26,483	26,483	Soil Filter
Sidewalk	4,904	0	4,904	4,904	4,904	Soil Filter
Essel race	0	5,737	5,737	0	5,737	Soil Filter
Soil Filter	0	19,229	19,229	0	19,229	Soil Filter
Eastern Ditch	0	2,654	2,654	0	2,654	Soil Filter
Western Ditches	0	10,360	10,360	0	0	None
Southern Roads de	0	22,575	22,575	0	0	None
Total	33,387	65,555	98,922	33,387	65,987	

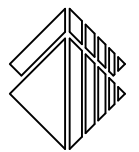
Treatment Summary	
Total Proposed Impervious Area (sq. ft.)	33,387
Total Proposed Developed Area (sq. ft.)	98,922
Total Treated Impervious Area (sq. ft.)	33,387
Total Treated Developed Area (sq. ft.)	65,987
Impervious Area Treatment %	100.00%
Developed Area Treatment %	66.71%

NOTE: DEVELOPED AREAS PROPOSED TO BE TREATED BY THE GRASSED UNDERDRAINED SOIL FILTER ARE SHOWN AS HATCHED GRAY.



REVISION		DESCRIPTION
NO.	DATE	
1	8-17-22	Final Peer and Staff Review Comment Responses



**BH2M**

Barry Huff, MacDonald, Milfigan Inc.
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FOR

E & R Development Corp.
260 Main Street
Biddeford, Maine

STORMWATER
TREATMENT PLAN

WEST BROOK SUBDIVISION

WINDING CREEK LANE
BIDDEFORD, MAINE

DESIGNED C. MacDonald	DATE August 2022
DRAWN Staff	SCALE 1" = 40'
CHECKED C. MacDonald	JOB. NO. 20217

SHEET

C

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 (space above reserved for recording information)

WARRANTY DEED
Maine Statutory Short Form

KNOW ALL MEN BY THESE PRESENTS, That E & R DEVELOPMENT CORPORATION, a Maine corporation with a place of business at 260 Main Street, Biddeford, Maine 04005, for consideration paid, grants to _____, having a mailing address of _____, 04005, with **WARRANTY COVENANTS**, as joint tenants, the land in Biddeford in the County of York and State of Maine, described as follows:

That certain lot or parcel of land situated on Winding Creek Lane, , so-called, in Biddeford, York County, Maine, and being Lot _____ as shown and depicted on plan entitled "_____, dated _____, as revised through _____, prepared by BH2M, and being recorded in York Registry of Deeds in Plan Book _____, page _____, , to which plan and the record thereof reference is made for a more particular description of the within conveyed premises.

Except as may be modified by the terms and conditions of EXHIBIT A attached hereto, the above described premises are conveyed together with the right, in common with E & R Development Corporation , its successors and assigns, and all other lot owners as shown on said Plan in and to that area shown on the Plan as Winding Creek Lane to and by the within conveyed premises for purposes of ingress and egress on foot or in vehicles and for the use, introduction, placement, maintenance, repair and replacement of all utility services customarily placed over, on or under such streets or ways for service to the within conveyed premises. The use of such roadway and the obligations with respect to the maintenance thereof as well as portions of the forced sewer system and surface and subsurface water drainage systems shall be subject to the terms and conditions contained in restriction 15 attached hereto and which shall be applicable to in so far as road maintenance only is concerned until such time as the roadway shall be accepted as a public street by the City of Biddeford. Duties and obligations under the terms hereof have been or shall be assigned to the Homeowner's Association hereinafter described.

The above described premises are conveyed subject to those restrictions set forth in EXHIBIT A attached hereto and made a part hereof and all conditions, restrictions and reservations of Planning Board Approval or other items in the nature of restrictions, easements, or conditions,

as shown on said Plan as "NOTES" or otherwise.

The within Grantor reserves for itself, its successors and its specific assigns, the right to use any portion of the remaining land areas shown on said Plan for any and all purposes such as for instance, for access to other land, and also reserves the right, subject to any necessary municipal approvals, to relocate and reconstruct any easement areas shown on said Plan which lie on land it owns or controls, provided that such relocation and reconstruction shall be done in such a manner and fashion that it shall not materially impair or adversely affect any existing use of the easement area by other owners on said Plan.

The within Grantee(s) do(es) hereby understand(s) that gate valves have been previously installed on all non-gravity sewerage connections and the same shall be maintained by the individual lot owners with a right to enforce such obligation in the homeowner's association hereinafter referred to.

The above described premises are hereby conveyed: (1) subject to such utility service easements or other easements or rights-of-way on, over, under or across said property as may now have any legal existence, including but not limited to the drainage easements shown on the above plan; (2) together with the benefit of any appurtenant utility service easements or other easements or rights-of-way; and (3) subject to all federal, state and local land use statutes, ordinances and regulations.

Reserving to E & R Development Corporation, its successors and assigns, perpetual easements for all purposes relating to the installation and maintenance of all utility services and the installation, maintenance, repair and replacement of the "Critter Fence" as the same is described in the Notes on the Plan and in Restriction 15 attached hereto and for the construction and maintenance of drainage ways to provide surface and sub-surface water drainage of the within conveyed premises and other lots on the aforesaid Plan. The areas encumbered by these easements are parallel, and interior to and adjacent to all lot boundaries of the above described lot, shall be ten (10) feet in width adjacent to all rear and side lot lines, twenty (20) feet in width adjacent to the frontlines and this reservation shall include the right-of-entry by men and machines. It shall be a condition of the grant that the person exercising its rights to construct or maintain such drainage ways shall suitably re-grade and re-seed any areas disturbed by such construction or maintenance. The within Grantee(s) shall have the right to use such areas for all purposes not inconsistent with the reservation herein.

The above described parcel being a portion of the premises conveyed to E & R DEVELOPMENT CORPORATION by the following deeds:

- A.
- B.
- C.

IN WITNESS WHEREOF, the said E & R **DEVELOPMENT CORPORATION**, has caused this instrument to be signed in its corporate name and behalf by **Michael R. Eon**, its PRESIDENT, duly authorized, all as of the ___ day of _____, 2022.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF:

E & R DEVELOPMENT
CORPORATION

By: _____
Michael R. Eon, Its President

STATE OF MAINE
COUNTY OF YORK, SS.

_____, 2022

Personally appeared the above named **MICHAEL R. EON**, President of E & R Development Corporation and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,

Notary Public/Attorney-At-Law
Print Name: _____

roughdraftdeedWestBrook Subdivision/rev.3/13/2022/rev3/15/2022

EXHIBIT A
WEST BROOK SUBDIVISION
(Winding Creek Lane)

Each of the numbered lots (jointly and severally the "Lots") depicted on plan referred to in the deed to which this is attached (the "Plan") is conveyed subject to the following conditions and restrictions which shall run with and bind the premises conveyed hereby and the other numbered lots contained on the aforementioned Plan, shall be enforceable until December 31, 2053,(provided, however that the duties and obligations under paragraph 15 hereof shall not expire) and E & R. Development Corporation and the other numbered lot owners on said plan and the West Brook Homeowners' Association , their respective heirs, successors and assigns, shall have the right at any time or times to proceed at law or in equity against any person violating or attempting to violate any of the provisions hereof and to compel compliance with the terms hereof, but said E & R Development Corporation , its successors and assigns, shall be under no obligation to enforce any of said restrictions:

1. No structures except one and two family residences and/or associated Accessory Dwelling Units as may be permitted under local land use ordinances and structures ordinarily appurtenant thereto shall be built or erected upon each numbered lot herein conveyed. The main living structure shall contain at least 960 square feet of living area, if a single story structure, and at least 650 square feet of living area on each floor, if a two story structure and at least a one (1) car garage shall be built at the time of initial construction either as an integral part of the residential structure or as a separate structure. Living area shall not include basements, garages, porches, breezeways or decks and the areas must be suitable, when finished, for occupancy on a year round basis. "Structures ordinarily appurtenant thereto" shall include, but shall not be limited to, garages for use of the owner of the lot constructed either as an integral part of the dwelling or as a detached building, a swimming pool, suitable garden structures including a greenhouse, and such additional structures as shall from time to time be used in connection with residential uses situated in similar neighborhoods.

2. No building or structure of any type shall be erected, placed or permitted to remain on the above described premises unless the exterior color, finish and design and placement of such building or structure on the lot shall be approved by E & R Development Corporation, its successors or specific assigns, or by its duly authorized agent, such approval shall not be unreasonably withheld, delayed or conditioned. The approval required by this paragraph shall only apply until such time as E & R Development Corporation or its successors or specific assigns shall cease to have any ownership interest in the real property as shown on said recorded Plan or adjacent thereto and this restriction does not necessitate the approval in any form of any other lot owner on said Plan or West Brook Homeowners' Association. In general, all one and two story structures shall have a minimum roof pitch of 7/12. This does not include the roof pitch of a garage or dormers, all roof shingles shall be architectural shingles in earth tone colors, and vinyl siding shall be of a finish and appearance comparable to natural materials.

3. The Grantees herein agree to complete all building construction and landscaping within twelve (12) months from the beginning of construction. Completion, as used herein, includes, but is not limited to, porches, steps, decks, platforms, carports, other outside living terraces, grading and seeding of lawns. All driveways shall be paved with asphalt or finished with pavers or finished concrete within two (2) years of the commencement of construction.

4. No junk or abandoned vehicles or vehicles of a size larger than one (1) ton in carrying capacity, nor accumulations of trash or debris shall be allowed on said premises.

5. No animals other than ordinary household pets may be kept, boarded or otherwise maintained on the premises.

6. No mobile homes shall be placed on the property at any time; provided, however, that trailers used for camping or so-called recreational vehicles, boats, trailers or similar vehicles may be stored upon the property provided they are stored in a neat and reasonable manner.

7. The within Grantees, their heirs, successors and assigns, shall not alter the area encompassed within the bounds of the drainage easements or natural drainage courses as indicated on the aforesaid plan in any manner which would impede or adversely affect the drainage of the adjacent areas to the above described premises.

8. All curb cuts shall be made and driveways shall be constructed in such fashion so as not to impede or adversely affect the drainage of surface water in the location of the streets as shown on said plan into the drainage easements situated either in said streets or on the lots themselves and all construction shall be done in accordance with the specifications and in the manner required by the Public Works Director of the City of Biddeford, Maine.

In the event curb cuts shall be made or driveways shall be constructed in a fashion so as to violate this covenant and restriction, E & R Development Corporation may, but shall not be required to, correct the construction so that it does not violate this paragraph and the holder of title to the above lot shall be liable for all costs of the same. Costs shall include all direct and indirect costs and all costs of collection including, but not limited to, filing fees, sheriff's fees and reasonable attorney's fees. Similarly, the holder of title to the above lot shall be liable for all costs to repair asphalt, pavement or curbing caused as a result of construction activity by the owner or his agents, contracts and employees.

9. All pulpwood and firewood shall be stored in the backyard of the dwelling.

10. Trees standing upon the within conveyed premises or trees thereafter growing thereon in excess of six (6) inches in diameter measured five (5) feet above the surface of the ground shall not be cut or removed, except as hereinafter provided. Trees of such diameter which are dead, dying or diseased may be cut and removed and living trees may be trimmed or minimally thinned in accordance with good forestry practice. Trees of lesser diameter which are dead, dying or diseased may be cut and removed and living trees may be trimmed or selectively thinned in

accordance with good forestry practice and to provide growth space for larger trees. Further, trees, whether alive or dead may be cut and removed by the title holder thereof or the duly authorized agent of the title holder only to such extent as shall be minimally necessary for the construction of the buildings and accessory uses permitted upon the property and for the construction of driveways and normal lawn areas. It is further provided that all softwoods which may present a danger to persons or property may be cut.

To the extent a portion of a lot is contained within the limits of the Wildlife Corridor as shown on the Plan, no trees or growth of any sort may be cut, trimmed or removed within such corridor, except to the extent to prevent damage to adjacent structures in the event such trees or growth are of a condition that such damage is likely to occur from high winds, large amounts of precipitation or other likely weather conditions.

11. No signs, advertising the sale of the lot herein conveyed, or structure thereon, or for any other purpose, shall be permitted to be erected on the property other than one sign having dimensions of not more than 24 inches by 24 inches may be placed upon the lot to be sold and any informational signage or numbering required by any municipal authority to satisfy the provisions of any life safety codes shall be permitted.

During the period of construction of the improvements allowed to be constructed upon the lot conveyed, the builder may maintain one construction information sign of a size and design approved by E & R Development Corporation.

12. E & R Development Corporation, for itself, its successors and specific assigns, reserves the right to use all of the street and ways and areas marked as rights of way in any fashion shown on the Plans of the Subdivision for access to any other land adjacent or near to said Subdivision it may own or hereafter acquire. It is further agreed and understood that no purchaser of such adjacent or near land from E & R Development Corporation shall have the right to use such streets and ways for such purposes unless such right shall have been specifically granted to such purchaser by E & R Development Corporation. It is further understood and agreed that no purchaser shall have a right to access abutting land without the approval of E & R Development Corporation, which consent may be withheld or conditioned for any reason.

13. E & R Development Corporation, for itself, its successors and specific assigns, reserves the right to use all such streets and ways and rights of way shown and depicted on said Plans, all areas shown and depicted on said Plans as utility or other easement areas (in any fashion) for the use, introduction and maintenance of all utility services and to use all existing or hereinafter installed infrastructure improvements for use of lots in the Subdivision or to any other adjacent or nearby land owned by it or its specific assigns or hereinafter acquired by it or them. It is further agreed and understood that no purchaser of such adjacent or near land from E & R Development Corporation shall have the right to use such streets and ways for such purposes unless such right shall have been specifically granted to such purchaser by E & R Development Corporation.

14. E & R Development Corporation, reserves for itself, its successors and specific assigns, the right and privilege to alter, amend, reconfigure, combine or re-subdivide any unsold lots in the Subdivision or any adjacent real estate in its ownership or to use any such lots for access to and for the use, introduction, installation, and maintenance of utility services to any adjacent land owned by E & R Development Corporation, or hereinafter acquired by it or its specific assigns and to alter, amend or change the location of any streets, rights-of-way or access roads shown on said Plans to a location of its choosing provided that access to the premises to be conveyed is not materially impaired or affected.

15. Each owner of a lot in the Subdivision (and any owner of a lot created hereinafter from land now owned by or hereinafter acquired by E & R Development Corporation which is made specifically subject to these restrictions or obligations created herein) shall be a member of the West Brook Homeowners' Association (the "Association"), a Maine not-for-profit corporation at the time of the purchase of a lot or lots on the Plan. Each lot owner shall have one vote in the association for each lot owned. In the event there are multiple owners of a lot, such owners in the aggregate shall be entitled to one vote. The Association shall be charged with the costs of maintenance, repair, replacement and snow plowing of the roadways in the Subdivision and any surface or subsurface drainage systems including the detention pond or forced main sewer installations, pipes, cleanouts and appurtenances in or out of the Subdivision to the point where they become public improvements, but not the initial installation cost thereof, in the event the roadways, the drainage systems or sewer installations are not accepted by the City of Biddeford as public streets or public improvements and shall also be responsible for the maintenance and landscaping of all entrance areas, esplanades and boulevards, the maintenance, repair and replacement of the "Crittter Fence" as outlined in Notes 20 and 31 on the above plan, and the maintenance, repair and replacement of any identification signage or common mailbox systems and any appurtenances thereto. In addition, and unless the City of Biddeford shall undertake responsibility therefor, it shall be the responsibility of the Association to implement, maintain and report to appropriate municipal officials with respect to the requirements of the maintenance plan for the detention pond and stormwater system and all associated parts thereof, all in accordance with the conditions of approval by the Planning Board of the City of Biddeford. It shall be the responsibility of each individual lot owner to make suitable arrangements for trash removal and for the installation, maintenance, repair and replacement of all portions of the forced main sewer system from the connection to the line located within the right of way to and including all components within the structure or structures erected on the lot.

It is specifically provided, however, that in the event adjacent land shall become subject to these restrictions, such land shall not be obligated to pay for the costs of maintenance, operation, repair and replacement of any services or utilities to which it is not connected and/or does not utilize.

16. The above restrictions contained in paragraphs (1) through (15) hereof shall not apply to any remaining land of E & R Development Corporation which may lie near or adjacent to the above described premises, except to the extent it shall be specifically made subject to the same.

Existing Clifford Park Boundary

Land to be Conveyed to The City of Biddeford from Gervais Dubé: 42.64 Acres

Land to be Conveyed to E & R Development Corp from Gervais Dubé: 5.11 Acres

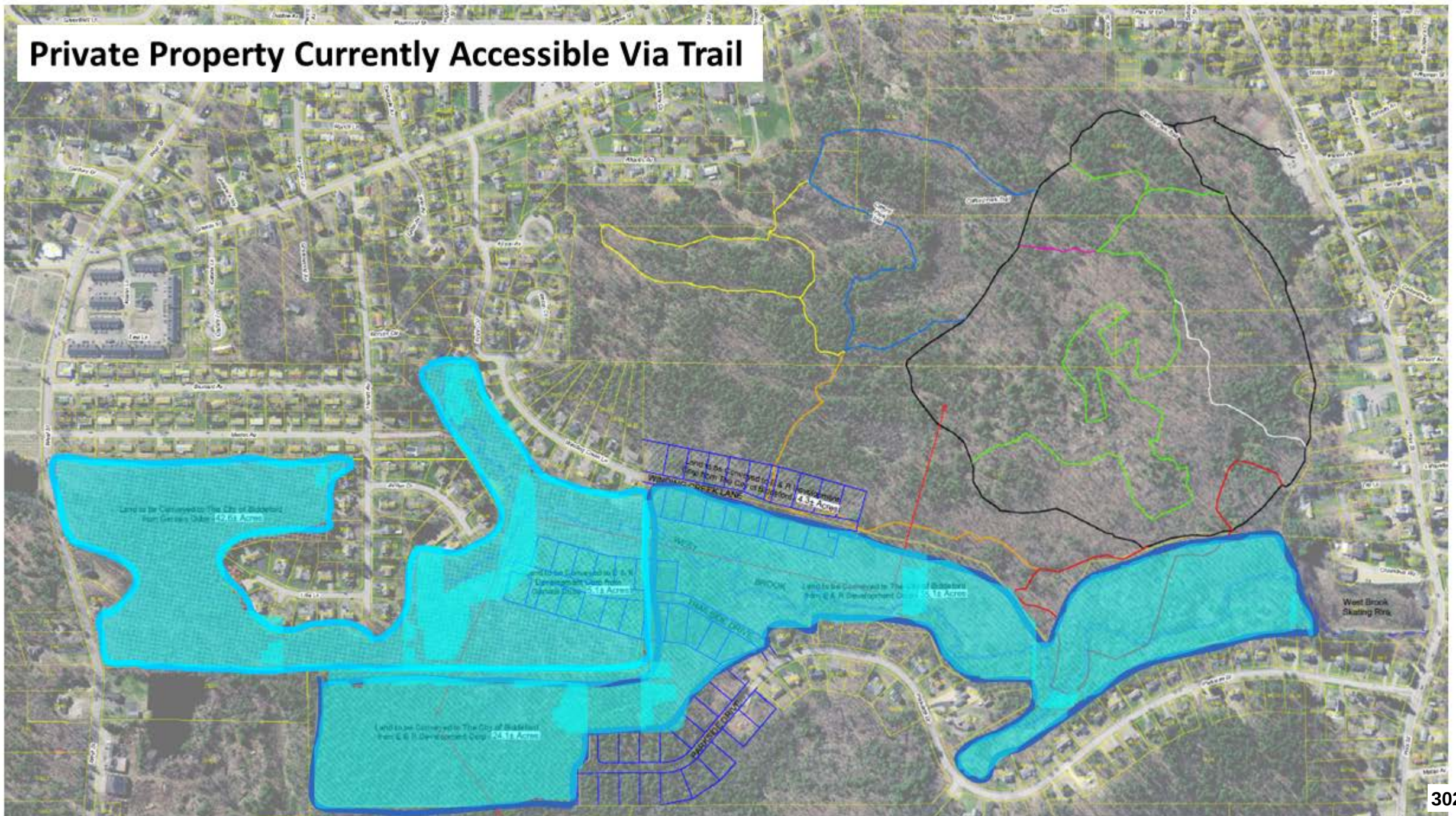
Land to be Conveyed to The City of Biddeford from E & R Development Corp: 35.18 Acres

Land to be Conveyed to The City of Biddeford from E & R Development Corp: 24.11 Acres

Land to be Conveyed to E & R Development Corp: 4.57 Acres

West Brook Skating Rink

Private Property Currently Accessible Via Trail

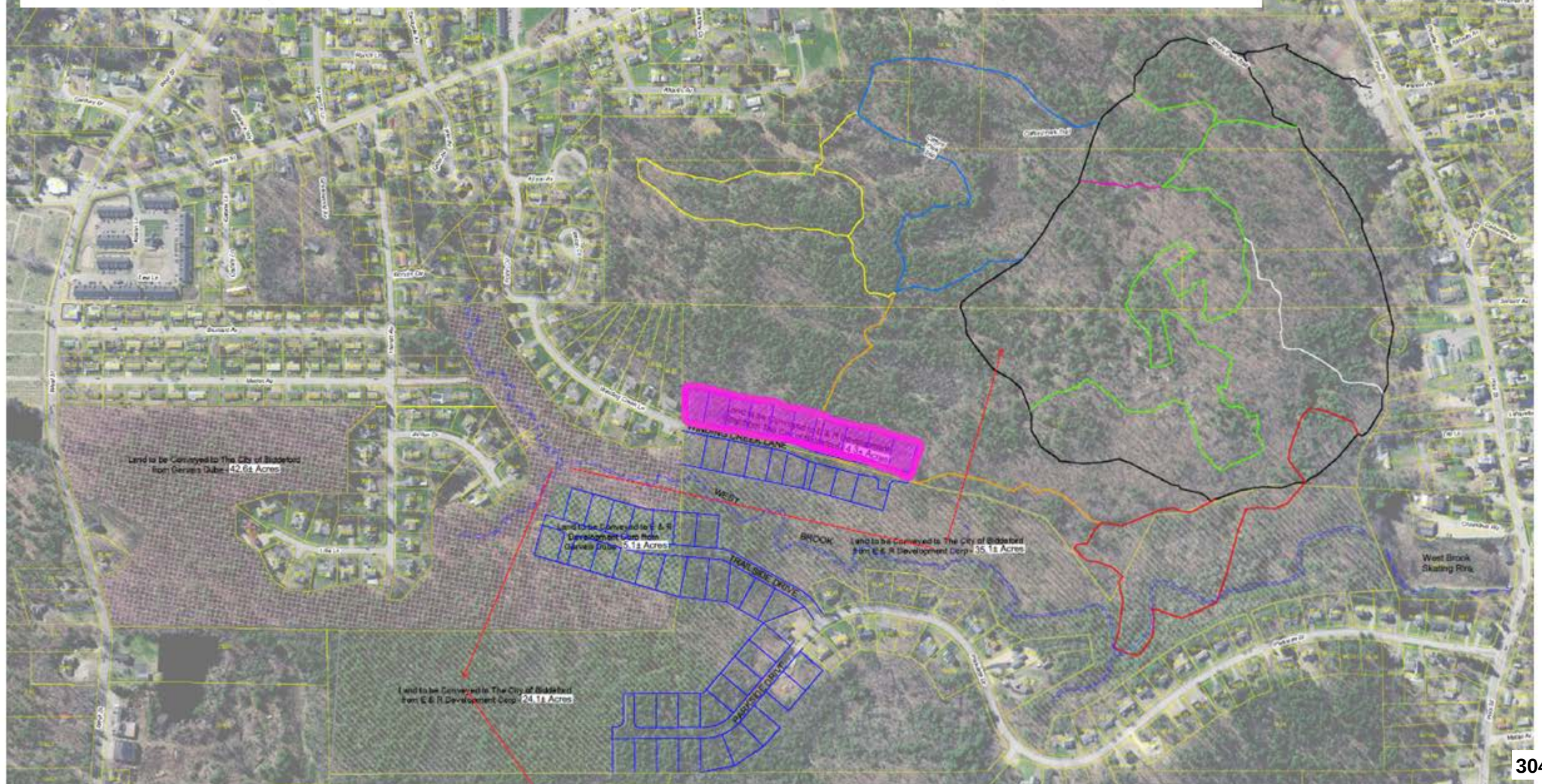


Property Being Conveyed to City of Biddeford for Clifford Park

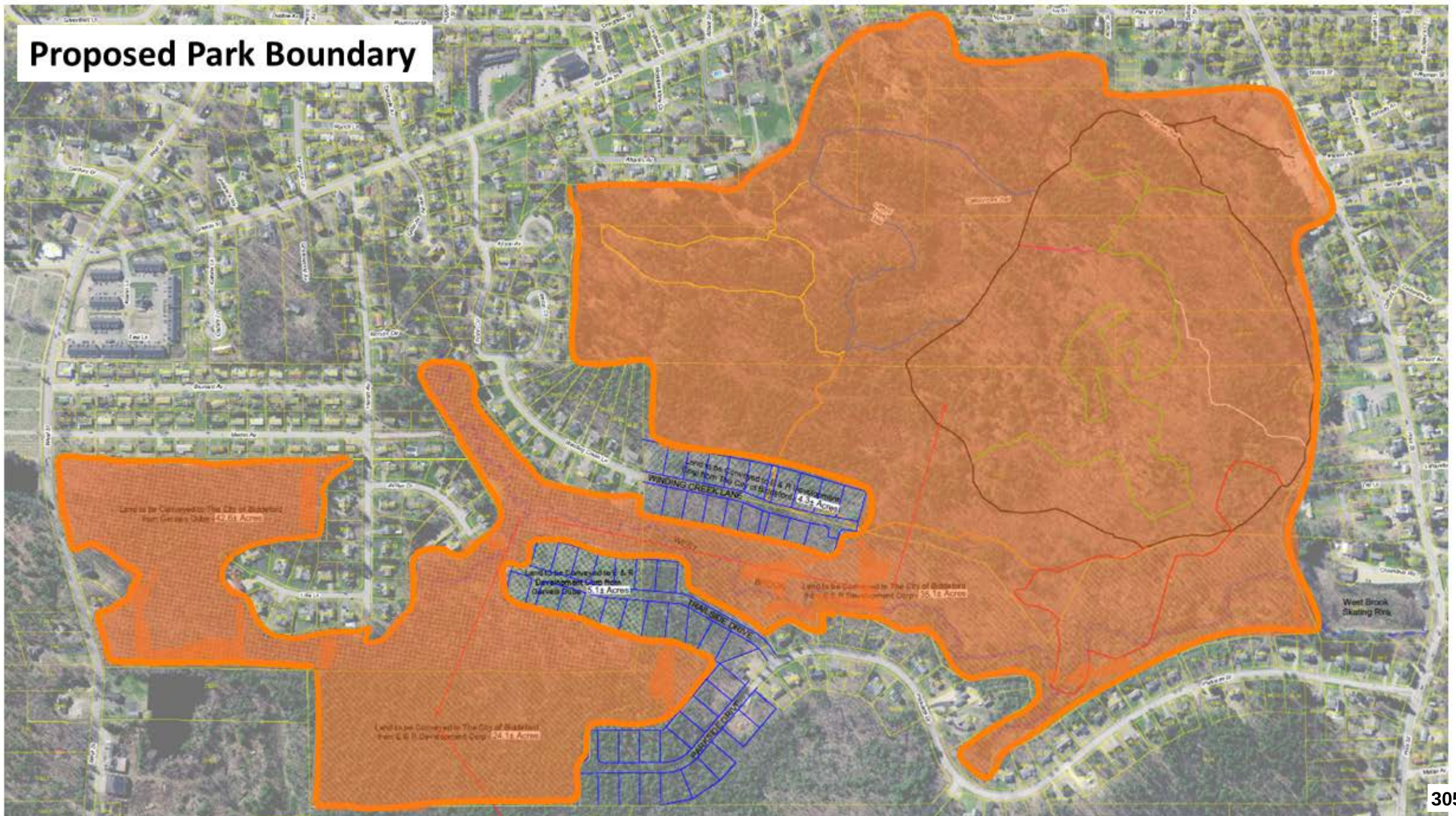
The map displays several key areas and streets:

- Streets:** Greenfield Ln, Main St, Winding Creek Lane, Brook, Trail Side Drive, and others.
- Land to be Conveyed to The City of Biddeford from Gervais Dubé: 1.51 Acres** (highlighted in yellow).
- Land to be Conveyed to R & R Development Corp from Gervais Dubé: 5.11 Acres** (highlighted in blue).
- Land to be Conveyed to R & R Development Corp from The City of Biddeford: 4.31 Acres** (highlighted in blue).
- Land to be Conveyed to The City of Biddeford from R & R Development Corp: 1.51 Acres** (highlighted in yellow).
- West Brook Skating Rink** is also visible on the right side of the map.

Property Being Conveyed to E&R Development for Winding Creek Lane



Proposed Park Boundary





Known for excellence.
Built on trust.

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

5 Commerce Park North
Suite 201
Bedford, NH 03110
T: 603.623.3600
F: 603.624.9463
www.gza.com



Via Email

September 6, 2022
File No. 04.0191316.00

E & R Development Corp.
Attn: Michael R. Eon
P.O. Box 444
Biddeford, Maine 04005

Re: Westbrook Subdivision
Winding Creek Lane
Biddeford, Maine

Dear Mr. Eon:

GZA GeoEnvironmental, Inc. (GZA) is pleased to submit the following letter in support of local permitting for proposed construction of the Westbrook Subdivision in Biddeford, Maine (Site, see attached plan titled "Wildlife Corridor Plan" prepared by BH2M). The purpose of this correspondence is to outline the recent steps taken by the project team to address feedback from the Maine Department of Inland Fisheries and Wildlife (MDIFW). As you know, GZA coordinated a review for rare species with MDIFW during June 2022. E & R Development Corp., BH2M, and GZA met with MDIFW to review the proposed wildlife corridor and discuss best management practices for wildlife. MDIFW indicated that Blanding's turtle (*Emydoidea blandingii*) are known to occur in the larger landscape and that there is potential for Blanding's turtle to travel between known locations to the south and habitat within Clifford Park. Turtles may be subject to additive mortality from a variety of factors including unleashed dogs, collection for the pet trade, and impact with cars. Therefore, MDIFW requested that E & R Development Corp. consider the installation of a short fence between the wildlife corridor area and the proposed subdivision to exclude turtles from the subdivision. Subsequent to the request, Tracy Tarr of GZA and Michael Eon of E & R Development Corp. completed a site visit on August 3, 2022 to review the proposed fence location. The attached plan includes revisions completed during the site walk. The fence was intentionally placed above and out of wetland areas to both maximize habitat and avoid wetland impact. Further, E & R Development Corp. has selected a fence style that limits overall excavation and need for concrete. In addition, an approximate two-foot fence is proposed to avoid the creation of a barrier for larger animals (e.g., white-tailed deer). This plan was provided to MDIFW on August 16, 2022 and feedback was received on September 6, 2022. MDIFW requested minor modifications to the fence including "jump-out gates" for turtles that may enter the wildlife corridor from the proposed residential development. GZA understands that E & R Development Corp. is including these proposed features in a revised plan. In GZA's opinion, the overall fence concept meets the request of MDIFW during the meeting on June 30, 2022.



Please contact Tracy Tarr at 603-235-6992 or tracy.tarr@gza.com if you have any questions or concerns.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "Logan Young".

Logan Young
Senior Field Biologist

A handwritten signature in black ink, appearing to read "Deborah M. Zarta Gier".

Deborah M. Zarta Gier, CNRP
Consultant/Reviewer

A handwritten signature in black ink, appearing to read "Tracy L. Tarr".

Tracy L. Tarr, CWS, CWB, CESSWI
Associate Principal

LTY/TLT/DMZ

p:\04\jobs\0191300s\04.0191316.00\work\turtle fence\final turtle fence summary 0191316 090522.docx

Attachment: Wildlife Corridor Plan prepared by BH2M

From: Mills, Bobby
Sent: Friday, May 20, 2022 10:35 AM
To: Whitten, Nan
Cc: Maya Atlas
Subject: Re: Please Stop the Winding Creek Development

Thanks for your emails. I do appreciate them. I was unaware that this was being considered by the planning board. I will definitely look into it. Thank you.
Bob Mills
Ward 4 City Councilor

Sent from my iPhone

On May 20, 2022, at 7:50 AM, Whitten, Nan <Nan.Whitten@biddefordmaine.org> wrote:

Good Morning Maya:

Thank you for your comments. We will share them with the Planning Board and the applicant as well as document the file. Please let us know if we can be of additional assistance.

Respectfully,

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

From: Maya Atlas <atlas.mi@gmail.com>
Sent: Friday, May 20, 2022 7:41 AM
To: Tansley, Greg <Greg.Tansley@Biddefordmaine.org>; Casavant, Alan <Alan.Casavant@Biddefordmaine.org>; Contact all Councilors <ContactallCouncilors@Biddefordmaine.org>; Erin Sheehan <erin.sheehan@gmail.com>; Mills, Bobby <Bobby.Mills@Biddefordmaine.org>
Subject: Please Stop the Winding Creek Development

Hello and good morning, Planning Board and Biddeford City Council!

My name is Maya, I am a homeowner in Ward 4 of Biddeford and a Member of the Biddeford Conservation Commission as well as the BSOOB Transit Committee. I fear that this message may be coming too late. I met Ward 3 Representative Martin Grohman at the ribbon cutting for our new fleet of electric buses and it sounded as if the decision regarding the Winding Creek Subdevelopment has been made.

My spouse and I moved to Biddeford nearly five years ago. It was essentially an accident because it was the only place we could find housing and that offered us access to nature. We had a hard time finding something in Southern Maine until we were taken off the waitlist at the Pepperell Mill. We had heard about Biddeford, a place with a book antiquarian that focused on food and beverage and the "best tuna melt the world had seen" -- as food industry folks, this seemed like enough to say "sure, let's try it out; the lease is just one year". Since our first week in Biddeford and continuing through today, there has not been a week in which I have spent fewer than 4 days walking the trails of Clifford Park. Clifford Park, and what it represents for Biddeford, inspired us to buy a home in Biddeford (our realtor really wanted to show us other cities, but boy were we stubborn), I have joined two city commissions/committees, my spouse left his job in Portland so he could work for a Biddeford based company, we've made new friends attached to our locale-- most of whom we met for the first time in our beloved Clifford Park.

For many reasons, I believe that the approval of the Winding Creek Subdivision is short sighted and irresponsible. Not only is it not a solution to the housing crisis we are facing, but it is likely to destroy the flora and fauna of one of the greatest natural resources Biddeford has to offer. Even with its updates and modifications, this development does not honor and respect the recommended buffer zones for threatened species as well as the plants, animals, and critters that are crucial to a healthy ecosystem. It is nearsighted to think that leaving a corridor as small as this will not eventually deplete and change the landscape to the point where it is no longer recognizable. You have access to all the same documents and studies that I have reviewed from Planning Board agendas so I will not go deeper into the facts of why this a problematic development.

COVID showed us how lucky we are as residents of Biddeford to have safe access to healthy landscapes -- taxpayers, residents, and visitors of our city will be drawn to a city that puts it's cherished lands in trusts, protects its wildlife (much like the beaches have done with the piping plover), invests in electric buses (check, done!).

Lastly, Biddeford is experiencing a housing crisis -- we need developers that are focused on affordable housing options like condos, apartments, or low-impact cluster sub developments that centralize utilities, minimize land-use, and keep housing affordable for the people who live and work in Biddeford.

Please consider the weight of this decision on our natural resources and consider focusing our energies, efforts, and dollars on solutions that benefit the whole of Biddeford, not just those who can afford to have a park-on-hospice in their backyard.

Please reach out if you have any questions, I'd love to meet you in Clifford Park to introduce myself and discuss our beloved city.

-Maya Atlas
Ward 4
--

pronouns: [she/her](#)
303-918-2341

Whitten, Nan

From: Nathanael Beisiegel <njbeisiegel@gmail.com>
Sent: Friday, May 13, 2022 11:51 AM
To: Whitten, Nan
Cc: Bonine, Hannah; Loren McCready ♥
Subject: Re: Looking to attend next planning meetings

Hi again Nan,

Thank you so much for the info. We are not on the abutter list for notifications on this project, would you mind adding both of us? Thank you!

For the feedback, we'd like to share a website we put together with our concerns: <https://stopwestbrook.com>. It's a short petition we are sharing with neighbors and other Biddeford residents this week. It might have slight adjustments and more signatures over time, but generally has our concerns on the project written out. If we can clarify anything or help answer questions please let us know! We are hopeful an alternative outcome can happen and would love to open any discussions.

Thank you again, and wish you a fantastic Friday.
Nathanael

On May 12, 2022, at 8:20 AM, Whitten, Nan <Nan.Whitten@Biddefordmaine.org> wrote:

Good Morning:

At this time, we do not know when the West Brook Subdivision will appear for final approval. They obtained preliminary approval at the last Planning Board Meeting.

If you would like to send us feedback in writing we will add it to the file and share it with the Board and applicant so that it can be addressed. This feedback can be addressed to me. If you are not on the abutter list to receive notifications of when this project comes before the Planning Board, we are happy to add you.

Thank you for checking in, please let us know if you have any questions.

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

-----Original Message-----
From: Nathanael Beisiegel <njbeisiegel@gmail.com>
Sent: Wednesday, May 11, 2022 10:01 PM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Subject: Looking to attend next planning meetings

Hello Nan!

My name is Nathanael Beisiegel. I hope this email finds you well!

I'm writing to ask for information and notice on the next Planning Board meeting. My partner Loren (cc'd) and I would like to hear updates on the West Brook development project extending Winding Creek into Clifford Park. We have concerns with the project and we're hoping to respectfully join the discussion to share feedback before final decisions are made.

Our contact information is:

Nathanael Beisiegel
njbeisiegel@gmail.com
413-464-2692

Loren McCready
loren.mccready@gmail.com
719-761-8569

We live on 29 Winding Creek Ln. If you have any pointers on the best way to share feedback, please let us know. We want to be respectful of everyone's time.

Thank you! Wish you a wonderful week.
Nathanael

The contents of this e-mail message and any attachments are confidential and are intended solely for addressee. The information may also be legally privileged. This transmission is sent in trust, for the sole purpose of delivery to the intended recipient. If you have received this transmission in error, any use, reproduction or dissemination of this transmission is strictly prohibited. If you are not the intended recipient, please immediately notify the sender by reply e-mail or phone and delete this message and its attachments, if any.

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.

From: Frances Buerkens <frances@whitemountainproperties.com>
Sent: Wednesday, May 25, 2022 12:00 AM
To: Tansley, Greg
Subject: Clifford park development

Greetings!

I am writing to voice my dissent regarding the development proposal for Clifford Park. As a successful real estate investor and property owner on Granite Street, I know well the housing crisis that Biddeford faces. However, this proposal neglects to address Biddeford's housing shortage. We need condos/townhomes or densely clustered single family homes - not single family homes wastefully sprawled across an acre or two per the city's zoning standards.

It also goes against the spirit of public land. My husband and I moved to Biddeford because of Clifford park and its phenomenal trail system. Please do not make a decision to sell with such short term gains. We, as your citizens, would be very disappointed in this decision. We love Biddeford and want the best for this special place we call home.

Thank you for your consideration!

Frances Buerkens and Kyle Gautreau

Frances Buerkens, MBA
General Partner
White Mountain Properties, LLC

From: Casavant, Alan
Sent: Tuesday, June 7, 2022 2:26 PM
To: 'Fish & Whistle'; Tansley, Greg; Contact all Councilors
Subject: RE: clifford park proposal

Hi Kate:

Thank you for reaching out. I can't wait to visit your restaurant!

There is some general confusion about this issue. It is actually a land swap that was agreed upon over a year ago. The city gave Mike Eon about 4 acres of land, and the city received 101 acres of land, so the park is actually expanding, all the way to West Street. Additionally, we now have ownership of the waterfalls, which once belonged to Mr. Eon.

At this point in time, the Council has no authority in the process, as it is now in the hands of the Planning Board. The Board must proceed with all environmental laws as the bedrock of their deliberations.

Hope this helps.

Alan

From: Fish & Whistle <fishandwhistlemaine@gmail.com>
Sent: Tuesday, June 7, 2022 2:20 PM
To: Tansley, Greg <Greg.Tansley@Biddefordmaine.org>; Casavant, Alan <Alan.Casavant@Biddefordmaine.org>; Contact all Councilors <ContactallCouncilors@Biddefordmaine.org>
Subject: clifford park proposal

Hi there,

Writing to you all as a resident of Saco and a business owner in Biddeford. I am deeply concerned over the development plan for the subdivision that will eat up a chunk of Clifford park. Clifford park has been a refuge for me both before and throughout the pandemic, and the idea of sacrificing a portion of it for the benefit of very few is extremely upsetting to me.

I don't understand the purpose of having environmental protections in place if they are so easily tossed aside. And while I would wholeheartedly support this proposal if it provided affordable housing for the community, I don't believe an expensive new subdivision is in the best interest for the community as a whole.

I'm asking you to please take into consideration the impact of this on the environment as well as the varied community members that enjoy the park.

Thanks for your time!

Kate Hamm

Know all Men by these Presents, That

Of the Mary Ann Clifford and Achsah S. Clifford both of Biddeford in the County of York and State of Maine.

In consideration of fifteen hundred dollars, paid by The City of Biddeford in said County of York

the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said City of Biddeford ~~Heirs and Assigns~~ forever,

a certain lot or parcel of land situated on the South West side of Pool Street in said City of Biddeford bounded as follows, viz: on the South East by land of Charles W. Goodwin and Alfred Goodwin and land of William P. Freeman; on the South-west by land of Charles W. Bragdon and Son; on the North West by land of Margaret J. Gilpatrick and on the North East by said Pool Street - and said land is conveyed upon the following conditions, that it shall be forever kept & held as a public Park and shall be named and known as "Clifford Park"; that it shall be forever inalienable by said City - a breach of any of these conditions shall revoke and annul this deed and said City shall thereby forfeit all right and claim under the same.

To Have and to Hold the above granted and bargained premises with all the privileges and appurtenances thereof to the said City of Biddeford for the purposes above ^{specified to it} ~~Heirs and Assigns~~ to their use and behoof forever.

And we do covenant with the said Grantee ~~Heirs and Assigns~~ that we are lawfully seized in fee of the premises; that they are free of all incumbrances;

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our ~~Heirs and Assigns~~ will WARRANT AND DEFEND the same to the said Grantee for the above named purpose ~~Heirs and Assigns~~ forever, against the lawful claims and demands of all persons.

In Witness Whereof, we the said Grantors,

have hereunto set our hand and seal this first day of September in the year of our Lord one thousand eight hundred and ninety four

Signed, Sealed and Delivered
in presence of

S. W. Louques

Mary A. Clifford (Seal)

Achsah S. Clifford (Seal)

State of Maine, York, ss. September 1st 1894. Personally appeared the above named Mary Ann Clifford & Achsah S. Clifford and acknowledged the above instrument to be their free act and deed.

Before me, Samuel W. Louques JUSTICE OF THE PEACE.

Recorded according to the original received January 8, 1895 at 12 h. 50 m. P. M.

Attest: Martin M. Leavitt REGISTER.

From: Chrystina Gastelum
Sent: Tuesday, May 31, 2022 4:58 PM
To: Contact all Councilors; Casavant, Alan; William Southwick
Cc: Whitten, Nan; Bonine, Hannah; Erik Heumiller; Maya Atlas; Michael Lowell; Richard Rhames; Brian Hadler; Denis Rioux
Subject: Winding Creek Development

Mayor, Council, and Planning Board:

The Biddeford Conservation Commission is concerned about the potential impacts that proposed development abutting our city's public lands will have on the wildlife and plant habitats—not only within Clifford Park, but also those located south of Clifford Park and west of "Blandings Park Wildlife Sanctuary" (between Winding Creek Lane and Parkside Drive). The application received preliminary approval by the Biddeford Planning Board at its May 4th meeting. The draft Letter of Understanding between E&R Development Corp., Mr. Gervais Dube, and the City states that proposed “additions to Parkside Subdivision and Winding Creek” **will** [emphasis added] be developed and “contain a total of 50 residential lots, more or less.”

Development at such scale would ordinarily trigger a Site Law review involving IF&W and DEP.** While seeking such a review was proposed by planning board member Michael Cantara at the 5/4/22 meeting, the board ultimately decided against invoking such a regulatory process and elected to only consider the first 19 lots on but 8.3 of the total acreage. The board members did express concern that the city’s review might appear to be colored by a potential conflict arising from the existing Letter of Understanding regarding the land-swap arrangement. Nonetheless, preliminary approval was granted.

The Conservation Commission is concerned that something so unique—a State-designated Focus Area) including significant wildlife habitat—will be irreversibly harmed by the proposed development, especially if there is not a comprehensive review by state environmental agencies that comes with a Site Law review permit.

The city previously engaged Biodiversity Resources Institute (BRI) for an environmental review. Their initial report (see below) identifies general threats to endangered and threatened species habitat in this area. A revision by the developer did not adequately respond to the concerns raised in the report. The Commission believes it is pertinent to obtain more specific guidance on the application that is before the Planning Board to provide an opportunity to maximize preservation of significant and critical habitats. From the May 4th Planning Board meeting, it appears there are Board members that are not convinced that the current plan does this.

The Conservation Commission discussed this matter and unanimously approved this letter at their May 31st meeting following discussion from their May 26th meeting. We are presently unsure that the council fully understood the environmental implications of the LoU and the “entitlements” it confers.

We respectfully request the Planning Board and/or the City Council of Biddeford request a Site Law review of this development considering the entirety of the ultimate project.

Sincerely,

Members of Biddeford’s Conservation Commission:

Maya Atlas, Secretary
Chrystina Gastelum, Chair
Bryan Hadler
Erik Heumiller
Michael Lowell
Richard Rhames, Vice Chair
Denis Rioux

P.S. With the transition to new city email addresses, the planningboard@biddefordmaine.org address does not appear to be working correctly (it is still listed on the PB website). So, if Mr. Southwick or Ms. Bonine could please share this letter with the board, I would be grateful.

Supporting Documents:

https://legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/1353546/Board_Report_-_West_Brook_Subdv_Prelim_Plan.pdf

See also: Commentary & recommendations prepared by frequent BCC consultant, ecologist Mark Ward, in January, 2022:

1/4/22

The proposed development site is located in the Biddeford-Kennebunkport Vernal Pool Complex—a Focus Area of Statewide Significance with particular importance for Rare, Threatened, and Endangered turtle species. BRI produced a thorough review of existing information on the proposed area to be developed in the wildlife study that they conducted. In the report, and in their presentation to the planning board, they repeatedly described the region as “high quality habitat”. The designation of the B-K Vernal Pool Complex as a statewide focus area is largely driven by its importance as wildlife habitat for rare turtle species. The focus area is known to provide habitat for two rare turtle species of in Maine, the state-endangered Blanding’s turtle and the state-threatened spotted turtle. Both species use a variety of wetland and upland habitats over the course of the year. They move between wetlands crossing through upland habitat to do so. Females of both species seek upland sites to lay eggs during the month of June. Adults of both species also spend considerable time estivating (a type of summertime hibernation) in uplands during the hottest times of year in July and August. Both species therefore use a variety of different wetland and upland areas over the course of the year. A given individual of either

species may not use the exact same set of wetlands (or upland habitat) from one year to the next. This all makes the protection of habitat for these species’ challenging and is why they tend to only be found in relatively large unfragmented areas that contain both uplands and a variety of wetland types

Information documenting the presence of both of these turtle species in the area to the east of the proposed development was provided by IFW in the BRI report. The information provided by IFW is a compilation of different records that make a clear case for the use of the area east of the proposed development by both of these rare turtle species in the form of a number of overlapping circles. The importance of this area for rare turtle species has been known to the BCC for a number of years and the information in the report captures it well.

The information provided by IFW in the BRI report did not however include relatively recent documentation by Glynn in 2020 of spotted turtles in Clifford Park located to the west of the proposed development. The spotted turtle information from Glynn (included in her report to the BCC) was also provided to IFW. It is unclear why this information did not appear on the maps provided by IFW for the BRI report.

The presence of spotted turtles to both the east and west of the proposed development strongly suggests that the undeveloped habitat in between, at the very least, provides connectivity for spotted turtles. Further narrowing of the already limited connectivity between Clifford Park and the rest of the West Brook habitat block will likely inhibit this species’ ability to traverse the intervening area and may isolate sub-populations and reduce their ability to persist. The proposed development along a lengthened Winding Creek Road does this.

Even without awareness of the potential connectivity of the proposed development area for spotted turtles, BRI makes 3 recommendations:

- Increase stream buffer to at least 250ft (and ideally 300ft)
- Conduct a focused turtle study on the habitat (July-August timing in 2021 was not ideal to find turtle species at the site)
- Consult with IFW before (and during) the site development

It does not appear as though the revised cluster proposal plans to incorporate any of the report’s recommendations. The revised cluster proposal does not take the stream buffer recommendations of the report, but instead proposes a 150 ft stream buffer with some areas of 100-ft buffer with much of this limited buffer falling in the back yards of some of the proposed lots.

Meaningful clustering of units on the proposed site to accommodate wildlife habitat for rare turtles would aim to cluster housing as close as possible to the existing terminus of Winding Creek Lane and dedicate open space and/or trail easements to the areas designated as Lots 8-13, and Lot 19 and the retention pond in the cluster sketch plan.

******<https://www.maine.gov/dep/land/sitelaw/>

This law requires review of developments that may have a substantial effect upon the environment. These types of development have been identified by the Legislature, and include developments such as projects occupying more than 20 acres, large structures and subdivisions, and oil terminal facilities. A permit is issued if the project meets applicable standards addressing areas such as stormwater management, groundwater protection, infrastructure, wildlife and fisheries, noise, and unusual natural areas.

<http://www.maine.gov/sos/cec/rules/06/096/096c375.docx> Page 37 - Habitat Concerns

Whitten, Nan

From: Carrie Cote <CCote@firstam.com>
Sent: Monday, May 23, 2022 10:20 AM
To: Whitten, Nan
Subject: FW: Clifford to City of Biddeford Deed
Attachments: Clifford to City of Biddeford.pdf; Tax map 8 .pdf; Vision Government Solutions.pdf

Hi Nan,

I was at the Public Meeting walkthrough of the West Brook Subdivision on Saturday morning at the end of Winding Creek Lane. At the meeting, one of the homeowners on Winding Creek gave a copy of a deed to the Planning Board members. I have attached a copy here as I understand you are the gatekeeper for the board. The deed attached is the deed from two Clifford sisters to the City of Biddeford from 1894. It specifically provides a condition that the land be used as a public park and that the City cannot transfer the title of it. If the condition is broken, then it would revert back to the Cliffords, their heirs or assigns. If the City land comprising tax map 8, lot 3-1 is made up of land originally included in the 1894 deed, then I do not see how the City can transfer this property to Mr. Eon for his project. The Assessor’s website typically will provide a Book and Page reference for each taxable lot within the City limits. In this case, there is no book and page reference for Tax Map 8, Lot 3-1 – so it is not something I can definitively determine, however I can find no proof to the contrary either. I did some research on the lineage of the Clifford sisters, both died without having a spouse or children. They did have many brothers and sisters who had children, so the number of heirs is running into the dozens if not over 100 at this point.

When the meeting on Saturday adjourned, I did speak with Mr. Eon and the surveyor who was present. Neither knew where the City of Biddeford derived its title to the property identified as Tax Map 8, Lot 3-1, but assumed the City would have records for this. I suppose that is possible, but I could not find any.

Thank you for your time.

Respectfully,

Carrie B. Cote
Senior Underwriting Counsel



First American Title Insurance Co
707 Sable Oaks DrSte 370, South Portland, ME 04106
<http://www.firstam.com> | [NYSE: FAF](#)

Work Phone: 207-228-7901
Mobile: 207-233-9094
Email: ccote@firstam.com

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Thank you.

FAFLD

From: Meaghan Daly <meaghamelizabethdaly@gmail.com>
Sent: Friday, May 20, 2022 11:59 AM
To: Contact all Councilors; Tansley, Greg; Casavant, Alan
Subject: West Brook Subdivision - Winding Creek Lane

Dear Mayor, City Councilors, & Members of the Planning Board:

I am writing with regard to the proposed West Brook Subdivision on Winding Creek Lane.

This proposed subdivision is located on a parcel with extremely high recreational and environmental value, situated at the intersection of Clifford Park and an undeveloped 939-acre habitat block of statewide ecological significance. The most recent site plan submitted by E&R Development would cut off a crucial wildlife habitat corridor and does not provide sufficient buffers along waterways/wetlands (as recommended by BRI Environmental & Maine Dept of Inland Fisheries & Wildlife). Additionally, the current plan would destroy a key portion of a highly used trail located within Clifford Park.

As indicated in the Planning Board Report prepared by Longmeadow Planning & Landscape Architecture (dated 4.28.22), the proposed plan will have an outsized environmental impact in this sensitive area. Therefore, **I strongly urge the Planning Board fully adhere to the City's Cluster Development ordinance, which "shall be used when parcels of land sustain significant wildlife habitats or other significant natural features that would be destroyed if ordinary development approaches were used" for the "maximum preservation of agricultural and forested land"** (Biddeford LDR, Article VI Performance Standards, Section 16: Cluster Developments, available at: <https://ecode360.com/15169496>).

This could include working with the developer to facilitate an alternative form of development (such as clustered duplexes, see sketch provided in 4.28.22 Planning Board Report). Pursuing something other than single-family lots would vastly reduce the overall footprint of the development, thereby providing Biddeford with much needed housing stock while reducing impacts on the environment and recreation. While this would likely require the creation of a contract zone, such alternatives should be vigorously considered and pursued by the Planning Board and City Council given the large public benefit that would be derived from protecting the singular ecological and recreational assets associated with this specific parcel.

There is no question that Biddeford is growing. But as we do, let's make sure that we do so wisely. Let's enact Smart Growth that provides safe and affordable housing for our residents while also protecting our irreplaceable natural resources.

As always, thank you for your continued hard work and consideration.

Sincerely,
Meaghan Daly
Resident, Ward 7

Whitten, Nan

From: Paul Davies <paulrdavies1968@gmail.com>
Sent: Thursday, September 1, 2022 1:28 PM
To: Grooms, Matthew; Larry Patoine; Alexa Plotkin; Michael Cantara; Roch Angers; Sean Tarpey; Susan Deschambault; William Southwick
Cc: njbeisiegel@gmail.com; loren.mccready@gmail.com; Casavant, Alan; Bennett, James; wemhiser@biddefordmaine.org; swhiting@biddefordmaine.org; mgrohman@biddefordmaine.org; llafountain@biddefordmaine.org; amy.clearwater@biddeford.maine.org; Belanger, Norman; Mills, Bobby; Ortiz, Doris; Lessard, Marc; Favreau, Brad; Lamontagne, Danica; Phinney, Brian; Milligan, Tom; Mitchell, Gregory; Ryan.Fecteau@legislature.maine.gov; Traci.Gere@legislature.maine.gov; Erin.Sheehan@legislature.maine.gov; Chrystina Gastelum; Whitten, Nan; twells@mainelymediallc.com; Portland Press Herald - York County; newsdesk@sacobaynews.com
Subject: Doubling Clifford Park

Dear Biddeford Planning Board:

I understand that a local developer has presented the City of Biddeford with a proposal that, if fully implemented, would almost double the size of Clifford Park. I guess there’s also a meeting next week during which opposition will try to stop the project. I’ve seen their signs in a couple places in town, and their intent is crystal clear: **stop** West Brook. That is even in the URL for their website, and I very much appreciate their clarity. Not collaborate, not compromise, but **STOP**.

I took the opportunity to review their web site carefully this morning. The histrionics and melodrama are amazing. Not to mention the multitude of inaccuracies. But that is typical of all NIMBY operations, so I was not that surprised. The strategy is to throw anything and everything at the planning board, see what sticks, and to make an emotional appeal to you in the desperate hope that you will keep their world the way it is.

This organization has existed for several months now, perhaps even longer than that. As just one example of trying to throw the kitchen sink at you, their first proposed solution on their website is, “Negotiate a fair purchase price for the developer’s 60-acre property without trading land from Clifford Park.”

I have two modest requests of the planning board. First, during next week’s meeting, would a member please ask one of their organizers how much money they have raised toward the purchase of the developer’s land. If they have succeeded in raising several hundred thousand dollars, that certainly would demonstrate seriousness of purpose, and would indicate a possibility that perhaps the board should encourage the developer to explore. If in these many intervening months they have raised little or nothing, that pretty much cements the reality that this is emotion-based NIMBYism intended to stampede the board.

Second, when it comes to the developer, please make sure he or she is adhering to all laws, rules and regulations. The board’s very narrow mission is simply to make sure of that.

Thank you for considering my email, and thank you for your service to the community.

From: Chrystina Gastelum <chrystina.gastelum@gmail.com>
Sent: Monday, May 23, 2022 2:02 PM
To: Contact all Councilors; Tansley, Greg; Casavant, Alan
Subject: Winding Creek Development

Dear Mayor, Councilors and Members of the Planning Board,

As you've heard from many well-informed people, the proposed Winding Creek development has some environmental and social concerns that should be addressed before going forward--and significant changes should be made to improve the chance of survival for both the wild animals and plants as well as the human citizens of Biddeford.

Wild animals need adequate space to safely travel from one area to another throughout the year and throughout their life cycle. For amphibians, this can mean moving from a vernal pool to a dryer spot at a higher elevation, for example. Deer move around with vegetation. In short, they're nomadic and they need access to a wide range.

Currently we have two major large undeveloped areas in eastern Biddeford: Clifford Park and Blandings Wildlife Sanctuary. The reason not many roads connect Pool Street to West Street is because critters that don't use roads live in there and we (up to now) haven't decided to tromp on their territory. Winding Creek (and its sister project Parkside Drive) stand to threaten the connection between these two critical wildlife areas.

Imagine replacing I-95 (and all its rest stops, hotels, routes to other towns, etc.) with an overgrown, winding dirt road and no GPS--but definitely some bears and other unknown hazards. Would you feel safe getting to grandma's house? That's what we would be handing these critters if we develop what is currently their corridor -- you can't get there from here. Plus we'd lose lady slippers and other rare plants, bats (who eat mosquitoes) and other beneficial wildlife with this proposal. Plus, disrupted wildlife are more likely to show up in our backyards looking for food, shelter, safety, which isn't always welcome news for gardeners, etc.

We have amazing natural resources in Biddeford, especially for a town this size. As we grow, we need to take into consideration which resources we want to exploit and which we can save for future generations. As you're acutely aware, Biddeford lacks affordable housing and increasing housing cost is outpacing income growth, or so it seems from my perspective. So, adding large houses that take up a tremendous amount of space and only serve one family are hardly serving the residents of Biddeford who are working to stay put in the city that has served them for generations. So, not only are we uprooting lady slippers and Blandings turtles, we are uprooting the very people whose ancestors built this city with developments like the one proposed.

I know we can't stop development entirely, and I'm not asking for that, but we can build neighborhoods that serve more people and are less impactful to the natural resources we all share and enjoy.

Building multifamily dwellings in a more clustered development can serve to support both the humans and the other life in this city. If we were to pave all of Biddeford and forget about all the lovely woods and waters, I doubt we'd be able to sustain the level and growth of interest we have enjoyed in the last 10 or so years since we eliminated the incinerator. I know this project isn't paving all of Biddeford, but we need to start making forward-thinking decisions, especially since the evidence from surveys in the Comprehensive Planning process shows that our citizens are demanding smarter, more future-oriented planning. No, the comp plan isn't complete, but much of the analysis is and it would behoove us to pay attention to it before it's too late. A multi-family cluster may require a contract zone, but would be worth it.

This project has another component, potentially, which involves extending Parkside Drive, which would thoroughly choke off any chance of wildlife passing through there safely. We need to prioritize sharing this land with the other critters that inhabit it or we stand to lose it -- and the peacefulness and serenity it provides in an increasingly chaotic world.

Thank you,
Chrystina Gastelum
58 Pike Street

--
Chrystina Gastelum (gas-TELL-um) - she/her

From: Fish & Whistle <fishandwhistlemaine@gmail.com>
Sent: Tuesday, June 7, 2022 2:20 PM
To: Tansley, Greg; Casavant, Alan; Contact all Councilors
Subject: clifford park proposal

Hi there,

Writing to you all as a resident of Saco and a business owner in Biddeford. I am deeply concerned over the development plan for the subdivision that will eat up a chunk of Clifford park. Clifford park has been a refuge for me both before and throughout the pandemic, and the idea of sacrificing a portion of it for the benefit of very few is extremely upsetting to me.

I don't understand the purpose of having environmental protections in place if they are so easily tossed aside. And while I would wholeheartedly support this proposal if it provided affordable housing for the community, I don't believe an expensive new subdivision is in the best interest for the community as a whole.

I'm asking you to please take into consideration the impact of this on the environment as well as the varied community members that enjoy the park.

Thanks for your time!

Kate Hamm

From: K Johnstone <katiajohnstone@gmail.com>
Sent: Tuesday, May 24, 2022 11:29 AM
To: Tansley, Greg; Casavant, Alan; Contact all Councilors
Subject: Saving Clifford Park

Dear the Planning Board, Mayor Casavant, and City Council Members,

My name is Katia Johnstone and I am a current resident of Biddeford. I live over on Crescent st. and I walk in Clifford Park at least two or three times a week. Clifford Park is an incredibly valuable part of my life here in Biddeford, it is a place where I go to enjoy a nice day, to process a hard day, or to connect with friends as we enjoy the woods. My life, and I know many others would be fundamentally changed if the city decides to go through with this development.

In addition to this, it is clear that the development has no plans to respect the recommendations of multiple independent contractors in regards to habitat loss for all of the other creatures that call Clifford Park and the surrounding woods home. If the developer has to ask for an except to the state mandate to protect buffer zones around vulnerable habitat than it is not a project the city should embrace. Now more than ever in the face of climate change we have to consider the larger ecological impacts of our development actions.

Lastly, this proposed development does not align with Biddeford's mission to become a place that offers solutions to the nation wide housing crisis. Putting in single family houses does not ease the housing crisis - it only creates a larger gap between those that can access housing and those that cannot. The city should be focused on putting in more housing stock that aligns with the city needs - such as condos, apartments or low-impact cluster sub developments that centralize utilities and minimalizes land use.

I know there are a lot of competing interests in the world, but please take time to weigh heavily the ultimate goals and values of this city against the short term gains offered by this development.

Best,
Katia

--
Katia Johnstone
katiajohnstone@gmail.com
(c) 646-342-5577

Whitten, Nan

From: Whitten, Nan
Sent: Wednesday, August 31, 2022 1:12 PM
To: 'Loren McCready'
Cc: Nathanael Beisiegel; Grooms, Matthew; Freeman, Eric; meon@mikeeonassoc.com; William Thompson; Alexa Plotkin; Larry Patoine; Michael Cantara; Roch Angers; Sean Tarpey; Susan Deschambault; William Southwick
Subject: RE: September 7th PB Meeting - West Brook Vote

You will be getting a corrected card in the mail showing The meeting is indeed in person. In organizing the agenda we take several things into consideration and this is where the West Brook subdivision landed. All are welcome Wednesday whether it be via zoom or in person.

Thank you for reaching out.

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

*NOTE: Starting the week of June 27, 2022, new City Hall business hours will be:
Monday & Tuesday – 7:00 a.m. to 5:00 p.m.
Wednesday & Thursday – 8:00 a.m. to 4:00 p.m.
Closed on Fridays*

From: Loren McCready <loren.mccready@gmail.com>
Sent: Wednesday, August 31, 2022 1:04 PM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Cc: Nathanael Beisiegel <njbeisiegel@gmail.com>; Grooms, Matthew <Matthew.Grooms@biddefordmaine.org>
Subject: Re: September 7th PB Meeting - West Brook Vote

Hi Nan,
We've received interest from several individuals wanting to attend the meeting on September 7th. Is there any particular reason this item is scheduled last on the agenda and might go into an overflow meeting? Are there other items by chance that may not have as much public interest that could go into the overflow meeting?

We've also received emails from community members wondering if this could be in person. I've noticed that there hasn't been a meeting since May that is remote only. Would the Planning Board consider offering this in person? We've spoken to the Conservation Commission and I know they were planning on presenting. I think it would be important to have this impactful decision happen in Council Chambers.

Thank you for your consideration, and let me know if you have any questions.

Best,
Loren

On Mon, Aug 29, 2022 at 9:37 AM Loren McCready <loren.mccready@gmail.com> wrote:

Okay, thank you for letting me know. Is it scheduled toward the end of the meeting? I just wouldn't want a lot of people to sit through an hour-hour and a half of other agenda items. Would you say the PB will be discussing this by about 7 pm?

On Mon, Aug 29, 2022 at 9:29 AM Whitten, Nan <Nan.Whitten@biddefordmaine.org> wrote:

Hi Loren:

I did get this message and unfortunately the agenda is complete and they are scheduled for the 7th, the 14th only if we run out of time.

Thank you

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

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From: Loren McCready <loren.mccready@gmail.com>
Sent: Monday, August 29, 2022 9:27 AM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Cc: Nathanael Beisiegel <njbeisiegel@gmail.com>; Grooms, Matthew <Matthew.Grooms@biddefordmaine.org>
Subject: Re: September 7th PB Meeting - West Brook Vote

Hi Nan,

I just wanted to make sure that you saw this message from last week. Do you think we could save the discussion on West Brook for September 14th so people who are interested in this project don't have to attend two meetings (especially knowing that it might not be discussed on the 7th because of the full agenda)? We'd like to let interested individuals know a specific date either today or tomorrow so they can make plans.

Thanks again!

Loren

On Wed, Aug 24, 2022 at 1:19 PM Loren McCready <loren.mccready@gmail.com> wrote:

Hi Nan,

Thank you for letting me know. Would it be possible to guarantee a date for the public to hear the final vote on this and give their comments before any final decision is made? In our [petition list](#), we have over 300 community members who expressed their interest in Planning Board meetings on this project. We certainly don't expect that many people to attend the meeting, but if we give them a date, we'd just like to ensure there will be ample time for discussion.

I know this isn't a decision for you to make, but since there is substantial public interest in this project, would it be possible to dedicate this to a full meeting on September 14th and to take it off the September 7th agenda? We would appreciate it if the Planning Board takes this into consideration and allows the public to be adequately represented and heard.

Thanks!

Loren

On Wed, Aug 24, 2022 at 9:25 AM Whitten, Nan <Nan.Whitten@biddefordmaine.org> wrote:

We cannot guarantee this item will be heard on the 7th. Our goal is to discuss it on the 7th but due to the size of the agenda, it may go on the overflow meeting of 9-14-22. Sorry we can't be more definitive.

Nan.

From: Loren McCready <loren.mccready@gmail.com>
Sent: Wednesday, August 24, 2022 9:18 AM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Cc: Nathanael Beisiegel <njbeisiegel@gmail.com>; Grooms, Matthew <Matthew.Grooms@biddefordmaine.org>
Subject: Re: September 7th PB Meeting - West Brook Vote

Hi Nan,

Thank you so much for providing this packet. Before we email those who are interested in this development, just want to confirm that this will be discussed on September 7th at 6 p.m. in City Hall, is that correct?

Best,

Loren

On Tue, Aug 23, 2022 at 9:36 AM Whitten, Nan <Nan.Whitten@biddefordmaine.org> wrote:

Good Morning Loren:

Attached is the complete packet that has been submitted to us for final review of the West Brook Subdivision.

Please let us know if you have any questions.

Thank you

Nan Whitten

Office Manager

City of Biddeford

Planning & Development

207-284-9115

NOTE: Starting the week of June 27, 2022, new City Hall business hours will be:

Monday & Tuesday – 7:00 a.m. to 5:00 p.m.

Wednesday & Thursday – 8:00 a.m. to 4:00 p.m.

Closed on Fridays

From: Loren McCready <loren.mccready@gmail.com>
Sent: Tuesday, August 23, 2022 9:10 AM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Cc: Nathanael Beisiegel <njbeisiegel@gmail.com>
Subject: September 7th PB Meeting - West Brook Vote

Hello Nan,

I hope you have been enjoying your summer! Nathanael and I were informed by a member of the Conservation Commission that the Planning Board will be reviewing the final plans for the West Brook Development on **September 7th**. She said that Matthew Grooms provided this information.

Before we begin sharing this date publicly, I wanted to confirm with you first that this will be on the agenda. We expect that many people will like to attend the meeting in person, and we want to give them ample time to plan their schedules.

Also, I was wondering if the developer submitted his final plan to the Planning Board that addresses all board and staff comments, as discussed in the preliminary approval meeting on May 4th. If possible, we would like to review and share these plans before a vote is made on the development and identify any concerns before the meeting takes place.

Please let me know if you have any questions, and thank you in advance for your help!

All the best,

Loren McCready

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From: Katie Pinard <katiepinard@yahoo.com>
Sent: Friday, May 20, 2022 3:34 PM
To: Tansley, Greg; Casavant, Alan; Contact all Councilors
Subject: Please Protect Clifford Park

Dear Planning Board, City Council, and Mayor Casavant,

As a born-and-raised native of Biddeford, I'm extremely concerned to hear about potential negative impacts to Clifford Park for E & R Development Corp's proposed West Brook Subdivision.

I would hope that in your wisdom and foresight you would require the developer to modify their current plan in order to honor the recommended wildlife buffer between developments and wildlife habitat. Please work with the developer to create a housing option that is less impactful of our City's precious and irreplaceable natural resources.

Sincerely,
Kathleen Pinard
44 Grayson Street

Whitten, Nan

From: Whitten, Nan
Sent: Tuesday, August 30, 2022 7:08 AM
To: 'Laura Siciliano'
Cc: Tim Siciliano; Grooms, Matthew; Freeman, Eric; Mitchell, Gregory
Subject: RE: Protect Clifford Park

Importance: High

Tracking:	Recipient	Delivery
	'Laura Siciliano'	
	Tim Siciliano	
	Grooms, Matthew	Delivered: 8/30/2022 7:08 AM
	Freeman, Eric	Delivered: 8/30/2022 7:08 AM
	Mitchell, Gregory	Delivered: 8/30/2022 7:08 AM

Good Morning Mr. & Mrs. Siciliano:

Thank you for reaching out with your comments about Clifford Park. We have passed your comments onto the Planning Board & applicants so they can address your concerns.

Please let us know if you have any questions.

Thank you,

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

*NOTE: Starting the week of June 27, 2022, new City Hall business hours will be:
Monday & Tuesday – 7:00 a.m. to 5:00 p.m.
Wednesday & Thursday – 8:00 a.m. to 4:00 p.m.
Closed on Fridays*

From: Laura Siciliano <lauramsiciliano@gmail.com>
Sent: Monday, August 29, 2022 8:47 PM
To: Whitten, Nan <Nan.Whitten@Biddefordmaine.org>
Cc: Tim Siciliano <timothydsiciliano@gmail.com>
Subject: Protect Clifford Park

Dear Ms. Written,

Our family, and our neighbors, are devastated by the possibility of the Westbrook development becoming a reality. In order to build here, the developers will level several acres of the Clifford Park trails that are well traversed by dog walkers, hikers, and bicyclists alike. This area is not just well traveled, but it is beautiful, full of wildlife, and densely forested. The wildlife corridor will be decimated, and the blasting and deforestation that must occur in order to build here will traumatize the natural wildlife for years to come. In the last few weeks alone, we have seen deer, porcupines, foxes, owls, and turtles roam through our backyards and into Clifford Park. The magnitude of the impending development would permanently end this. Please protect our park for generations to come and say no to any further development of Biddeford’s precious green space.

Sincerely,
Laura and Tim Siciliano

From: Jonathan Karl Uribe <jonathan.uribe@gmail.com>
Sent: Tuesday, May 24, 2022 6:11 PM
To: Tansley, Greg; Contact all Councilors; Casavant, Alan
Subject: Winding Creek Subdivision

Good evening,

My name is Jonathan Uribe, and I am a homeowner and resident of Biddeford, residing in Ward 4. I am writing today in defense of Clifford Park, the natural resources therewithin, as well as the thousands of residents that enjoy the benefits of having an expansive park so close to the city center.

When my wife and I first moved to Biddeford, Clifford Park was a major draw. We are both drawn to the outdoors, and the ability to walk from our home into an amazing park with our dogs was incredibly important to us. Between my running, and walking our dogs, I would estimate that we spend 350 days a year in Clifford. I have seen it quiet and still in Winter, with minimal animal tracks dotting the trails. I have seen it teeming with new life in Spring — porcupines, turtles, foxes, and new plant growth all utilizing the bastion that Clifford is.

I believe, much like the State and BRI recommends, that the destruction of a large swath of Clifford Park to allow for the construction of single family homes will drastically impact the natural resources that call Biddeford home. The word “Buffer” is defined as “*a person or thing that prevents incompatible or antagonistic people or things from coming into contact with or harming each other.*” It is further defined as an act to “*lessen or moderate the impact of (something).*” And the buffers that the state has put in place to protect our natural resources are there for a reason. Any unchecked encroachment within these zones will undoubtedly lead to catastrophic effects on the flora and fauna of Clifford Park. The natural corridor between Clifford Park and Blandings Preserve is one that I believe to be essential to the continued ability of our bats (who eat mosquitos), our foxes (who help with rodent and snake control), and our deer (who provide food for the many hunters that enjoy harvesting them during deer season). It would be akin to replacing our beloved Main Street with an overgrown path, replete with bears, coyotes, and many other animals that wish us harm.

My request is that the Planning Board heeds the counsel of the independent studies that have been conducted, and do not allow this planned subdivision to go forward. Also, as the report from BRI states:

The site walk was completed outside of the active breeding season for obligate species, and therefore we cannot determine the significance of vernal pools on Site. Nine potentially significant vernal pools were identified within the Survey Area, and none of these were identified within the PAD. Most of the observed potential vernal pools (PVP) were identified within pocket wetlands, which appear to provide high quality habitat.

We recommend that the development better utilize the property to cluster development in order to reduce fragmentation and increase riparian corridors in size. Based on the current layout we have reviewed **the riparian buffer provided in some locations is less than 100 feet**, and does not include any buffer on wetlands adjacent to streams.

Even more concerning are the societal harms that this project would cause. We are in a housing crisis, there is no denying that. And it cannot be more disrespectful to the people that built Biddeford, to have new construction whose homes only benefit single family's. Construction is going to happen, that is a given, but if we focus our energies on building neighborhoods that serve more people and are less impactful to the natural resources that we all share and enjoy. If Biddeford stands for the lowest among it, it will continue to be a shining example to the rest of the State.

If you have not had the opportunity to spend time in Clifford lately, I would love to walk its trails with you. It is in prime condition right now, and deserves to be seen.

Jonathan Uribe
5 Raymond Street

Dear Council, Planning Board, Mayor, City Manager,

[The letter below was approved by the Biddeford Conservation Commission during a meeting on 7/21/2022 in City Hall. I have copied the "contact all councilors" email address as well as Mr. Bennett, Mr. Southwick, Mr. Grooms, and Ms. Whitten. Please distribute to full Planning Board. If that email doesn't work for councilors, could someone please also distribute this to them? Thanks - Chrystina Gastelum]

During a recent city council meeting (June 7), it became clear that the Letter of Intent between the city and Mr. Eon regarding the land swap in Clifford Park is not finalized. Biddeford has remarkable natural resources that are often overlooked, especially with the tremendous growth recently in property values and social cache--but we are in a position to preserve them and to employ smart growth strategies as we balance the needs of both our local residents, public, and wildlife to ensure our ecosystem thrives.

Upon further review, the October 20, 2020 city council meeting (and same-day Finance Committee meeting) where this was agreed, makes it clear that this major decision to acquire ~100 acres in exchange for ~4.5 acres seemed uncontroversial and was therefore very easily passed. However, the discussion did not include any analysis of the potential negative impact of developing those particular 4.5 acres.

When asked if there was any downside -- both in the finance meeting and the full council meeting -- none was indicated by staff. However, as we now know, when a trained planner (Chris DiMatteo) looked at this parcel as part of an application to the Planning Board, his analysis clearly indicated that this was an important part of the habitat in the Biddeford/Kennebunkport Vernal Pool Complex (BKVPC), and that development here would effectively cut Clifford (which has had recently documented egg masses, indicating amphibious life) off from related territory in Blandings preserve. While the word "corridor" suggests a narrow passage, for it to be useful to wildlife, it must be wide enough to find a safe passage with the right kind of terrain and vegetation. This parcel is a critical part of that passage. While the development plan currently proposed for Winding Creek includes what it refers to as a corridor, the winding path following the river (which is simply part of the legal setback -- and doesn't prevent fencing etc) is not adequate for safe passage of these threatened, endangered, and "special concern" animals.

Learn more about the BKVPC state focus area here:

https://www.maine.gov/dacf/mnap/focusarea/biddeford_kennebunk_vernal_pool_focus_area.pdf

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Biddeford/Kennebunkport Vernal Pool Complex

Focus Areas of Statewide Ecological Significance: Biddeford/Kennebunkport Vernal Pool Complex 4 or degradation of wetlands, regardless of size, including fill-ing, dredging, sedimentation, or changing hydrology unless

www.maine.gov

In brief, this report includes the fact that "Further fragmentation of the large forested blocks that make up this site will gradually lead to a decline in habitat suitability for certain area-sensitive species, and will increase road mortality for rare turtles." Fragmentation will happen if this corridor between Clifford and Blandings is developed.

During the June 7 meeting, where several people from the public expressed concern and the mayor invited Mr. Bennet to respond, Mr. Bennet indicated that changing course on this land swap could be "painful" during the most recent city council meeting. He didn't indicate any specifics about that pain.

As you have seen from vocal members of our community, this issue is very concerning for a broad part of this city -- not just abutters. We ask that you re-consider this land swap and fully understand the negative impacts it could cause before finalizing any agreements. We ask that a more complete understanding of the "pain" that changing course will cause. We also ask that any discussion of this topic receive more robust coverage and a more direct invitation to the public for comment. This is Public land that is being traded and people have a right to know about it. It's not enough just to put it in a city council agenda.

While the commission generally supports protecting more land from development, we do understand the need for growth -- but we recommend a more strategic approach with full consideration of the non-human and environmental impacts, especially when it requires us to give up critical habitat that we know will have an impact on our local ecosystem.

Sincerely,

The Biddeford Conservation Commission

Chrystina Gastelum, Chair

Richard Rhames, Vice Chair

Maya Atlas, Secretary

Bryan Hadler

Erik Heumiller

Mike Lowell

Denis Rioux

From: Patrick Conlon <paddymike2@gmail.com>
Sent: Sunday, September 4, 2022 9:43 PM
To: Whitten, Nan
Subject: West Brook

I work for the Eastern Trail Alliance as a Trail Manager. Off road trails are an important amenity for people. They contribute to good physical and mental health. They provide us the opportunity to play and experience mother nature while at the same time leaving very little impact on the natural course of our forest ecosystems. The development of the trails in Clifford Park are a great example of this. The same can not be said about a development like West Brook. In fact we know that in this case it's the opposite. The offer of a large amount of other land to be given to the city in exchange for the 4 acres of Clifford Park should be labeled for what it is... a bribe. I encourage the city and the planning board to vote to reject this bribe and protect Clifford Park from this inappropriate development and it's negative impact on this focus area of statewide ecological significance.

Patrick Conlon
79 Granite St.
Biddeford

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Patrick Conlon
79 Granite St.
Biddeford

Whitten, Nan

From: Mark Robinson <markrobinson@maine.rr.com>
Sent: Wednesday, September 7, 2022 10:59 AM
To: William Southwick
Cc: Grooms, Matthew; Whitten, Nan; Mitchell, Gregory
Subject: Clifford Park

Mr. William Southwick
Chair
Planning Board, City of Biddeford
205 Main Street
Biddeford, Maine 04005

Dear Mr. Southwick,

If you could relay my sentiments to the rest of the Board, thank you. If there is not enough time for you to do so before tonight’s meeting, I certainly understand.

I’m an outdoor enthusiast who likes to bike, hike, snowshoe and cross-country ski on conservation land open to the public. I would like to register my full support for the work that city officials have been doing to expand Clifford Park, to extend the Riverwalk, and to advance all associated efforts to improve the quality of life for Biddeford residents, especially those who live in the city proper, near the downtown.

While tonight’s Planning Board meeting is about the development that helps expand Clifford Park, I would like to say that I do not believe approving that project should be contained to just thinking about Clifford Park. A broader, more long-term view may be helpful. If a new entry point to the Park is to be on West Street, that is a very short distance to the end of Granite Street Extension. From there, residents have easy access to additional hundreds of acres that are connected to Proctor Road and all the land that has been protected by the Kennebunkport Conservation Trust --- all the way to the Seashore Trolley Museum!

These initiatives are very exciting. All this new connectivity is enormously valuable to future generations of Biddeford citizens. I really didn’t do a very good job, but I tried to do a quick video using Google Earth to show that expanding Clifford Park actually is a much bigger deal than simply expanding the park. It’s crude, but I hope the perspective helps: <https://youtu.be/ZtP311Rjhus>

In the 60s my parents would take me to see Painchaud’s Band in the park. Then in the Fall of 1973, I really discovered what a gem Clifford Park is when I was running cross country for Biddeford Junior High School. I’ve driven by Wilcox Pond thousands of times and have always wondered what the territory in the woods is like just to the northeast --- now I’ll (hopefully) have the chance to find out!

I’ve seen the political signs. I realize narrow and parochial interests are trying to stop this from happening. I am reminded of the Biddeford City Council in July of 2012, who also endured intense lobbying from narrow and parochial interests who urged the Council, earnestly and forcefully, to refuse the deal to buy and close the MERC incinerator. I know those were very difficult times for those particular Councilors who had to face that acute pressure and still make the correct decision. History proves they were right to have had the courage.

The long-term and visionary effort to promote connectivity and outdoor activities in the general Saco-Biddeford-Kennebunkport area is well worth it, in my humble opinion, for our general well-being. Thank you for taking the time to hear me out.

Sincerely,

Mark Robinson
128 Fortunes Rocks Road
Biddeford

Whitten, Nan

From: Randy Seaver <randyseaver01@gmail.com>
Sent: Wednesday, September 7, 2022 11:18 AM
To: Grooms, Matthew
Cc: Whitten, Nan
Subject: Clifford Park

Dear Mr. Grooms,

If you would, please pass this note along to the Biddeford Planning Board.

Thank you!

Dear members of the Biddeford Planning Board,

I am aware of the proposal to expand Clifford Park. In my opinion, a note sent to the City on Sunday night accusing the developer of having tried to “bribe” the City is an outrageous ad hominem attack. It is even further out of bounds because it implies not only did the developer attempt a bribe, but that the Planning Board is possibly susceptible to one. Both notions are outrageous.

Mr. Conlon, who made the accusation, appears to be a member or supporter of Stop West Brook. I am not surprised. His histrionics are fairly typical of the exaggerations, distortions and inaccuracies I have been hearing about the proposal. The members of the Planning Board have my sympathies because I expect that you will be subjected to similar hysteria and melodrama during your (probably very long) meeting tonight.

Yes, I do support the expansion of Clifford Park, and I think the plan to do so is clearly in the long-term interests of the City. But my opinion about that part of the plan is immaterial. What I’m more concerned about is the level of debate, the tone and tenor of the conversations. I understand that your task is to determine if the development observes relevant laws and regulations. I have absolute faith in the wisdom of the Board. I am sure you will reach the proper conclusion whatever that may be, and I am even more certain that you will deliberate with thoughtfulness and consideration.

Thank you for your professionalism and for your service to Biddeford.

Sincerely,

Randy Seaver
23 Lamothe Avenue
Biddeford, Maine 04004
(207)409-0366