

CITY OF DOVER

DOVER CONSERVATION COMMISSION – AGENDA

REVISED

Meeting Type: Regular Meeting
Meeting Location: City Council Conference Room - 288 Central Avenue Dover NH
Meeting Date: **Monday, June 8, 2026**
Meeting Time: **5:30 pm**

1. CALL TO ORDER AND ROLL CALL

2. CITIZEN'S FORUM

3. APPROVAL OF THE PRIOR MEETING MINUTES – May 11, 2026

4. OLD BUSINESS

5. NEW BUSINESS

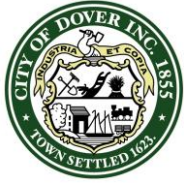
- A. *(Continued)* City of Dover Conditional Use Permit for Stephanie Retrosi, Map L, Lot 114 zoned R-20 located at 318 Dover Point Road. Proposal is to construct permanent shore stabilization resulting in approximately 1,113 s.f. of permanent impacts and 2,015 s.f. of temporary impacts, overlapping within the Wetland Protection and Conservation Districts. (COND-2026-0024)
- B. Amended NHDES Major Impact Wetland Permit Application for Saddle Trail Drive Home Owners Association. Assessor's Map N Lot 8-1, zoned R-40, located at off Saddle Trail Drive. Proposal is to construct a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 30' x 57' gangway and an "L" design with one 8' x 25', one 6' x 25', and two 6' x 20' floats. The floats will be 10 feet from the federal navigation channel instead of the original 19.3 feet. The helical moorings facing the channel will be removed. Application was before the commission previously in February of 2023.
- C. NHDES Expedited Minimum Impact Wetlands Permit Application for City of Dover. Assessor's Map B Lot 19-I and Map C Lot 3-C, zoned R-40, located off of Country Farm Road. Proposal is for a replacement of a damaged culvert in between the two parcels.

6. REPORT FROM THE CHAIR

- A. Review of Correspondence Received from NH Department of Environmental Services

7. OTHER BUSINESS

8. ADJOURNMENT



CITY OF DOVER

DOVER CONSERVATION COMMISSION – MINUTES

Meeting Type: Regular Meeting
Meeting Location: City Council Conference Room - 288 Central Avenue, Dover, NH
Meeting Date: Monday May 11, 2026
Meeting Time: 5:30 pm

MEMBERS PRESENT: Bill Hunt (Chair), Steve Fellows (Vice Chair), Robert Atwood (Secretary), Russ Warnock, Thomas Fargo

Absent (Excused): Abigail Lyon, Brianna Group, Kristen Murphy (Alternate)

Absent (Unexcused):

STAFF PRESENT: Makayla Edgecomb (Conservation Planner)

OTHERS PRESENT:

1. CALL TO ORDER AND ROLL CALL

The meeting was convened at 5:30PM.

2. CITIZENS' FORUM

The Chair gave instructions for Citizens' forum

No one spoke

3. APPROVAL OF THE PRIOR MEETING MINUTES- April 13, 2026

T. Fargo moved to approve the minutes of April 13th as submitted. S. Fellows seconded. Vote: All in favor

4. OLD BUSINESS

M. Edgewood presented an update about the Smith well lot.

Discussion continued about some emails received, artificially recharged wells and restrictions which the state may require.

The engineer has reached out a few times to the state and is waiting to hear back.

5. NEW BUSINESS

- A.** City of Dover Conditional Use Permit for Aidan Ahern, Map 30, Lot 45 zoned RM-U located at 63 Sixth St. Proposal is to allow for repair of existing foundation, reconstruction of an existing bulkhead, drainage improvements and regrading, as well as installation of a permeable patio. Resulting in 575 sf of temporary impacts and 950 sf of permanent impacts to the Conservation District. (COND-2026-0025)

Aidan Ahearn, property owner, presented the item and explained the issues and the plan. He answered questions asked by the members. Discussion included grading, runoff and vegetation.

R. Warnock moved to approve the plan with the recommendation of adding a riparian buffer zone planting plan to reduce runoff into the brook. S. Fellows seconded. Vote: All in favor

- B.** City of Dover Conditional Use Permit for Stephanie Retrosi, Map L, Lot 114 zoned R-20 located at 318 Dover Point Road. Proposal is to construct permanent shore stabilization resulting in approximately 1,113 s.f. of permanent impacts and 2,015 s.f. of temporary impacts, overlapping within the Wetland Protection and Conservation Districts. (COND-2026-0024)

There was no one present to address the application. The committee members noted they would like more information provided when the item is presented. M. Edgecomb will reach out to the applicant.

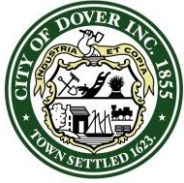
S. Fellows moved to continue the item to the next meeting. R. Warnock seconded. Vote: All in favor

2026.05.11_ConservationCommission.MinutesDRAFT

Document Created by: Jessica Marchant

Posted: May 14, 2026

T
Page 1 of 2



CITY OF DOVER

DOVER CONSERVATION COMMISSION – MINUTES

Meeting Type: Regular Meeting
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6. REPORT FROM THE CHAIR

A. Review of Correspondence Received from NH Department of Environmental Services

M. Edgecomb noted one letter received from DES regarding 191 Spur which was mistakenly denied but is now approved.

7. OTHER BUSINESS

A. By laws

M. Edgecomb highlighted the changes to the by laws. Discussion ensued about non-residents having the opportunity to speak during Citizens Forum or by vote.

S. Fellows moved to adopt the revised by laws as presented. R. Atwood seconded. Vote: All in favor

B. Handbook

Members gave some suggestions for additional edits.

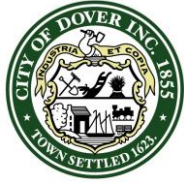
T. Fargo moved to approve the handbook with the edits presented and changes discussed tonight. R. Warnock seconded. Vote: All in favor

8. ADJOURNMENT

S. Fellows moved to adjourn. R. Atwood seconded. Vote: All in favor

The meeting was adjourned at 6:05 PM.

DRAFT



CITY OF DOVER

CONSERVATION COMMISSION - STAFF MEMO FILE #COND-2026-0024

Application Type: Conditional Use Permit
Applicant(s): Riverside & Pickering Marine Contractors
Owner(s): Anthony and Stephanie Retrosi
Location: 318 Dover Point Road (Map L, Lot 114)
Meeting Date: June 8, 2026

INTENT: Proposal is to construct permanent shore stabilization resulting in approximately 1,113 square feet of permanent impacts and 2,015 square feet of temporary impacts, overlapping within the Wetland Protection and Conservation Districts.

AGENDA ITEM #: 5-A

FILE: COND-2026-0024

OWNER: Anthony and Stephanie Retrosi

APPLICANT: Riverside & Pickering Marine Contractors

LOTS/UNITS PROPOSED: N/A (no change)

ACREAGE: 0.54 ± ac. (23,555 s.f.)

ZONING DISTRICT: R-20, Conservation District, Wetland Protection District

EXISTING/PROPOSED LAND USE: Residential

SURROUNDING LAND USE: Residential, Piscataqua River

WAIVERS REQUESTED: N/A

ZBA ACTION: N/A

PERMITS REQUIRED: City of Dover CUP for proposed proposed environmental impacts and NHDES Standard Dredge and Fill Wetlands Permit

APPLICATION IS COMPLETE: Yes

TECHNICAL REVIEW COMMITTEE: N/A

ATTACHMENTS: Impact Plan, Application Materials.

Summary of Request and Background:

The applicant is proposing shore stabilization work along the rear of the subject property with the intent to protect the salt marsh habitat.

The proposal results in 1,113± square feet of permanent impacts and 2,015± square feet of temporary impacts, within the overlapping areas of the Wetland Protection and Conservation Districts.

As the total proposed impacts are within the Conservation District, the Conservation District regulations were considered for the request. However, in the findings below, staff notes the proposed impacts to the wetlands and associated buffers.

The applicant received authorization from the U.S. Army Corps of Engineers for the proposed shoreline work, to include dredging and filling, on March 23, 2026.

A NHDES Standard Dredge and Fill Wetlands Permit was approved for the project on November 18, 2025.

Consistency with Land Use Regulations – CUP 170-28.F

The Wetlands Protection District ordinance §170-28.F provides for Conditional Use Permits to allow impacts to the Wetlands Protection District if standards related to demonstration that no practicable alternative is available, impact avoidance was considered, impacts were minimized, mitigation has been sought, and approval of the wetlands impact from NHDES Wetlands Bureau has been granted.

Planning Staff feels that the applicant considered and met all of the criteria as specified in §170-28.F per their narrative. Planning Staff have reviewed the materials submitted by the applicant and the following items are of note. The parcel is located within the Conservation District and Wetlands Protection District. A functions and values assessment was completed for the wetlands, with shoreline stabilization determined as the primary function and value. Although impacts are being proposed to the tidal wetlands, there is no reasonable alternative as the proposed work is intended to stabilize the shoreline and support the salt marsh.

As mentioned, the applicant has been granted an NHDES Standard Dredge and Fill Wetlands Permit and received authorization from the U.S. Army Corps of Engineers for the proposed shoreline work.



PERMIT SNAPSHOT REPORT COND-2026-0024 FOR CITY OF DOVER, N.H.

Permit Type Conditional Use **Project:** **App Date:** 04/27/2026
Work Class: Environmental **District:** None **Exp Date:** NOT AVAILABLE
Status: In Review **Square Feet:** 0.00 **Completed:** NOT COMPLETED
Valuation: \$0.00 **Assigned To:** Edgecomb, Makayla **Approval**
Expire Date:
Description: Shoreline Erosion Repair with 108 sf of permanent impacre to the previously developed TBZ and 397 sf of permanent impacts to the wetlan resource below HOTL using choir log, rip rap, and a sill

Parcel: L0114-000000 **Main** **Address:** 318 Dover Point Rd **Main** **Zone:** R-20(Residential - Low Density)
Dover, NH

Contractor Kuerstin M Fordham 34 Patterson Lane Newington, NH 03801 Business: (603) 427-2824 Mobile: (603) 997-6278	Applicant Kuerstin M Fordham 34 Patterson Lane Newington, NH 03801 Business: (603) 427-2824 Mobile: (603) 997-6278	Owner Stephanie Retrosi 318 DOVER POINT RD DOVER, 03820 Mobile: (603) 674-0787	Plan Preparer John Chagnon 200 Griffin Road Unit 14 Unit 14 Portsmouth, NH 03801 Business: (603) 766-2988
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Permit Custom Fields

Select Permit Type	Conservation District	General Purpose	Alteration / Addition	Project Zone	Residential
Work	Shoreline Stabilization, we propose permanent impacts of 108 sf and temporary impacts of 1,078 sf to the previously developed TBZ, and permanent impacts of 397 sf and temporary impacts of 1,266 sf to the wetland resource below HOTL (Choir Log 101 sf [solid blue] 197 sf [solid green] and boulders 99 sf [light green]	permitstatefed	Approved New Hampshire Department of Environmental permit, Approve ACOE permit		

Attachment File Name	Added On	Added By	Attachment Group	Notes
Signature_Kuerstin_Fordham_4/27/2026.jpg	04/27/2026 15:46	Fordham, Kuerstin		Uploaded via CSS
Permit Snapshot Report.pdf	04/27/2026 15:47	Service, EnerGov		Attached by IO - ATTACH: Initial Permit Snapshot

Invoice No.	Fee	Fee Amount	Amount Paid
INV-2026001325	Planning General Application Fee	\$200.00	\$200.00
Total for Invoice INV-2026001325		\$200.00	\$200.00
Grand Total for Permit		\$200.00	\$200.00

Submittal Name	Status	Received Date	Due Date	Complete Date	Resubmit	Completed
Conditional Use Review v.1	In Review	04/27/2026	05/11/2026		No	No
Item Review Name	Department	Assigned User	Status	Assigned Date	Due Date	Completed Date
Planning	Planning	Edgecomb, Makayla	In Review	04/27/2026	05/25/2026	

Workflow Step / Action Name	Action Type	Start Date	End Date
Review v.1		04/27/2026 0:00	
Confirm application complete v.1	Generic Action		04/27/2026 16:08
Conditional Use Review v.1	Receive Submittal	04/27/2026 16:08	

Planning Board v.1

PERMIT SNAPSHOT REPORT (COND-2026-0024)

Planning Board Agenda v.1	Task
Invoice for Notices v.1	Task
Send Notices v.1	Task
Planner Creates Staff Recommendations v.1	Permit Activity
Distribute Planning Board Materials v.1	Task
Planning Board Hearing v.1	Hold Hearing
Planning Board Decision v.1	Permit Activity
NOD Sent to Applicant v.1	Create Report
Issue Permit v.1	
Verify Fees Prior to Permit v.1	Generic Action
Issue and Review Permit v.1	Generic Action
Print and Email Permit v.1	Generic Action
Plans uploaded to Treeno v.1	Generic Action
Internal Notification of Plan Completion v.1	Generic Action
Recording v.1	Task



April 22, 2026

Gina Cruikshank
Planning Board Chairperson
288 Central Ave
Dover, NH

Re: Conditional Use Permit Application, Tax Map #7, Lot #6

Dear Ms. Cruikshank:

This letter transmits a City of Dover Conditional Use Permit (CUP) application request to permit the construction to permanently stabilize the shoreline and support the existing salt marsh from erosion and infestation by *Phragmites Australis* at 318 Dover Point Road, Dover, NH. The project site is approximately .54 acres in size. As designed, the proposed project would require impacts to tidal wetlands and the 100' previously developed Tidal Buffer Zone (TBZ).

The tidal wetlands associated with this project area were identified and characterized through field surveys, review of publicly available information, and agency consultations. Haley Ward Inc.(HW) conducted site visits in April 2025 to characterize the tidal wetlands and collect the necessary information to complete a functions and values assessment. In addition, HW contacted the New Hampshire Natural Heritage Bureau (NHB) regarding existing information of documented rare species or natural communities within the vicinity of the project site.

The proposed shoreline design attempted to minimize impacts to the greatest extent practicable while allowing reasonable use of the property. The wetland is suitable for 9 functions and values, with the principal being Shoreline Stabilization. Based on the assessment of the current functions and values of the tidal wetland, the impacts associated with the installation of the shoreline stabilization project will have negligible negative effects on its ability to continue to provide these functions and values.

The project proposes shoreline stabilization along 60 linear feet (measured at HOTL) of shoreline on the Piscataqua River. Installation is a hybrid approach including soft and hard techniques designed to stabilize and fortify the existing marsh.

OVERLAY DISTRICT SETBACKS IMPACT TYPE

CONSERVATION DISTRICT

The proposed impacts within the 100' Conservation District setback will be stabilized and reinforce the actively eroding water-ward edge of the existing salt marsh with choir logs to be planted with spartina plantings which will prevent the continued loss of the salt marsh. Additionally, choir log will also be used to form a wave break behind the salt marsh which will also provide an additional planting area and will reinforce the edge of the existing upland lawn. The exposed faces of the choir logs will be reinforced with

rip rap to provide permanent stabilization and prevent erosion. Additionally, a sill consisting of a row of boulders will be installed as a wave-break in the inter-tidal zone to absorb and disrupt erosive energy from wave action.

WETLAND PROTECTION DISTRICT

The proposed impacts within the 50' Wetland Protection setback is a stone sill with choir log installation and choir log protection with rip rap. The proposed stabilization project has a complex set of impact areas (see sheet C2). We propose permanent impacts of 108 sf and temporary impacts of 1,078 sf to the previously developed TBZ, and permanent impacts of 397 sf and temporary impacts of 1,266 sf to the wetland resource below HOTL (Choir Log 101 sf [solid blue] 197 sf [solid green] and boulders 99 sf [light green])

Demonstration of Need: The proposed construction is essential to the productive use of land or water outside the Wetlands Protection.

The impacts from the proposed shoreline stabilization and marsh restoration are necessary to protect against wave action continuing to erode the bank landward and increased erosion of the existing high functioning marsh. The stone sill diffuses wave energy and prevents erosion. Another necessary function of the stabilization is the choir log behind the salt marsh is to hold the salt water back in this area, providing additional time for it to saturate the area and provide a favorable condition to allow spartina to out-compete the Phragmites.

Avoidance: The potential impacts have been avoided to the maximum extent practicable.

The proposed impacts have been minimized to the greatest extent practicable while allowing reasonable use of the property. Based on our assessment of the current functions and values of the tidal wetland, the impacts associated with installation of the shoreline stabilization project will have negligible negative effects on its ability to continue to provide these functions and values.

Minimization:

Any unavoidable impacts have been minimized. No reasonable alternative to the proposed construction exists which does not impact a wetland, or which has less detrimental impact on a wetland. Design, construction and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.

Sincerely,



Kuerstin Fordham
Riverside & Pickering Marine Contractors
34 Patterson Lane
Newington, NH 03801

RETROSI ANTHONY AND STEPHANIE REVOCABLE LIVING TRUST
318 DOVER POINT RD
DOVER, NH

Applicant/Owner(s)

Ambit Engineering Abutter List

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City, St

Edgar and Anne Crothers
312 Dover Point Road
Dover, NH 03820



PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions

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Total

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City, St

Boat Works Condominium Association
316 Dover Point Road
Dover, NH 03820



PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions

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City

Banley Revocable Trust of 2014
320 Dover Point Road
Dover, NH 03820



PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions

25 June, 2025

To Whom It May Concern:

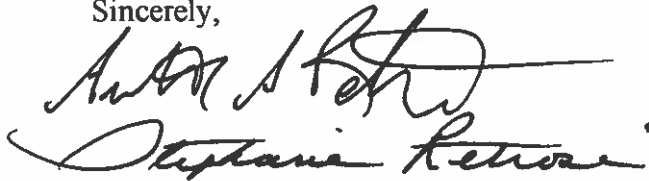
RE: State of New Hampshire DES Wetlands Bureau Standard Dredge and Fill Application for proposed shoreline stabilization within the previously developed 100' Tidal Buffer Zone and jurisdictional wetlands for Anthony & Stephanie Retrosi of 318 Dover Point Road Dover, NH 03842

This letter is to inform the City of Dover and NH DES in accordance with State Law that the following entities:

Riverside & Pickering Marine Contractors
Haley Ward, Inc

are authorized to represent me as my agent in the approval process.
Please feel free to call me if there are any questions regarding this authorization.

Sincerely,

Handwritten signatures of Anthony and Stephanie Retrosi. The signature of Anthony Retrosi is on top, and the signature of Stephanie Retrosi is below it.

Stephanie Retrosi
Anthony Retrosi
318 Dover Point Road
Dover, NH 03842



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

March 23, 2026

Regulatory Division
File Number: NAE-2025-02493

Anthony & Stephanie Retrosi Revocable Trust
318 Dover Point Road
Dover, NH 03820

Dear Mr. & Mrs. Retrosi:

The U.S. Army Corps of Engineers (USACE) has reviewed your application to discharge dredged or fill material waterward of the high tide and mean high water lines of the Piscataqua River to construct a living shoreline off Dover Point Road in Dover, New Hampshire. The work includes impacting a total of 2,271 SF of mud flat and salt marsh to stabilize an eroding shore by placing coir logs, rip rap, boulders, and plantings along 60 linear feet of river frontage. Total permanent impacts are 397 square feet (SF) and temporary impacts are 1,874 square feet (SF). The work is shown on the enclosed plans titled "Retrosi Residence Shoreland Stabilization," on 4 sheets, and dated April 22, 2025.

Based on the information in your application, we verify that this work is authorized under General Permit # 20 of the enclosed September 29, 2022, federal permits known as the New Hampshire General Permits (GPs). The GPs are also available at <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/New-Hampshire-General-Permit>.

Please review the enclosed GPs carefully, in particular the general conditions beginning on page 36, and ensure that you and all personnel performing work authorized by the GPs are fully aware of and comply with its terms and conditions. A copy of the GPs and this verification letter shall be available at the work site as required by General Condition 17. You must perform this work in compliance with the following special conditions:

1. You shall implement and abide by the enclosed "5-year monitoring and adaptive management plan Retrosi Residence – 318 Dover Point Road, Dover, NH 03820" dated "3/12/2026". You must maintain and monitor the survival of native salt marsh species for at least five years after the plantings have been installed. The first year of monitoring will be the first year that the site has been through a full growing period after completion of construction and planting.
2. You must submit annual monitoring reports for five years (Monitoring Years 1-5). Each annual monitoring report shall include written and photographic documentation on plant mortality and replanting efforts and must document

whether the performance standards are being met (80% coverage of native salt marsh vegetation). Photos must be taken from established points and used repeatedly for each monitoring year. The photo location points must be identified on an appropriate drawing. Annual monitoring reports must be submitted to the U.S. Army Corps of Engineers at cenae-r-nh@usace.army.mil by December 15 of each monitoring year.

You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work.

This authorization expires on September 29, 2027. You must commence or have under contract to commence the work authorized herein by September 29, 2027, and complete the work by September 29, 2028. If not, you must contact this office to determine the need for further authorization and we recommend you contact us *before* the work authorized herein expires. Please contact us immediately if you change the plans or construction methods for work within our jurisdiction as we must approve any changes before you undertake them. Performing work within our jurisdiction that is not specifically authorized by this determination or failing to comply with all the applicable terms and conditions of the GPs may subject you to the enforcement provisions of our regulations.

This authorization does not obviate the need to obtain other federal, state or local authorizations required by law, including those listed in the GPs. You are responsible for applying for and obtaining any other approvals.

We continually strive to improve our customer service. To better serve you, we would appreciate your completing our Customer Service Survey located at <https://regulatory.ops.usace.army.mil/customer-service-survey>.

Please contact Stephanie Morrison, project manager, at (978) 318-8003 or stephanieann.prokopmorrison@usace.army.mil if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Colin M. Greenan', written in a cursive style.

Colin M. Greenan
Chief, New Hampshire & Vermont Section
Regulatory Division

Enclosures

cc:

Kaj Overturf, Haley Ward; koverturf@haleyward.com

Jacalyn Gorczynski, Haley Ward; jgorczynski@haleyward.com

Keegan Feero, Haley Ward; kfeero@haleyward.com

Darlene Forst, NHDES; darlene.forst@des.nh.gov

Mary Ann Tilton, NHDES; maryann.tilton@des.nh.gov

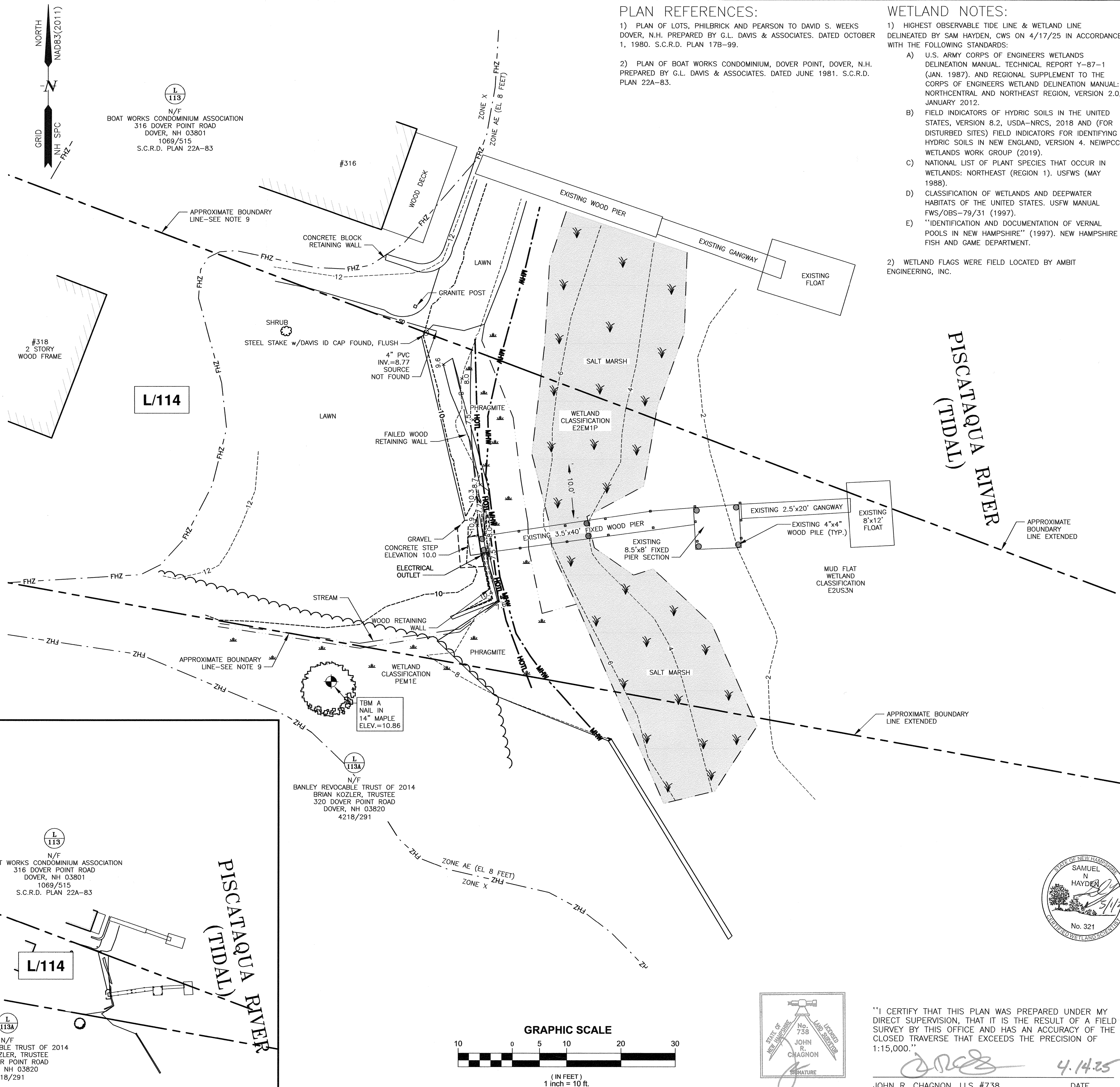
Rumi Shrestha, NHDES; rumi.shrestha@des.nh.gov

Melissa Rusinski, NHDES; melissa.f.rusinski@des.nh.gov

U.S. Army Corps of Engineers (USACE) CERTIFICATION OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT For use of this form, see Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act of 1899, and Section 103 of the Marine Protection, Research, and Sanctuaries Act; the proponent agency is CECW-COR.		Form Approved - OMB No. 0710-0003 Expires 2027-10-31
The Agency Disclosure Notice (ADN)		
The Public reporting burden for this collection of information, 0710-0003, is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.		
PURPOSE: This form is used by recipients of U.S. Army Corps of Engineer Regulatory permits to certify compliance with the permit terms and conditions. Your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.		
Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the U.S. Army Corps of Engineers, <u>New England</u> District, Regulatory Office. The certification can be submitted by email at <u>stephanicann.prokopmorrison</u>@usace.army.mil or by mail at the below address: U.S. Army Corps of Engineers New England District Office Street Address: <u>696 Virginia Road</u> City: <u>Concord</u> State: <u>MA</u> ZIP Code: <u>01742</u>		
COMPLETED BY THE CORPS		
Corps Action Number: <u>NAE-2025-02493</u> Permit Type: <u>General Permit</u> General Permit Number and Name (<i>if applicable</i>): <u>GP 20 Living Shorelines</u> Name of Permittee: <u>Anthony & Stephanie Retrosi Revocable Trust</u> Project Name: <u>Dover Point Road Dover</u> Project Location (<i>physical address</i>): <u>318 Dover Point Road</u> <u>Dover, NH 03820</u>		
PERMITTEE'S CERTIFICATION		
Date Work Started: <u> </u> Date Work Completed: <u> </u> Enclose photographs showing the completed project (<i>if available</i>). I <u> </u> hereby certify that the work authorized by the above referenced permit has been completed in accordance with all of the permit terms and conditions, and that any required compensatory mitigation has been completed in accordance with the permit conditions.		
Name	Date	Signature

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
SCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
○	RAILROAD SPIKE FOUND
○	IRON ROD/IRON PIPE FOUND
○	DRILL HOLE FOUND
○	STONE/CONCRETE BOUND FOUND
○	RAILROAD SPIKE SET
○	IRON ROD SET
○	DRILL HOLE SET
○	GRANITE BOUND SET
---	BOUNDARY
---	BUILDING SETBACK
---	MEAN HIGH WATER LINE
---	NHDES HIGHEST OBSERVABLE TIDE LINE
---	FRESHWATER WETLAND LINE
---	FRESHWATER WETLAND BUFFER LINE
---	NHDES 50' PRIMARY STRUCTURE SETBACK
---	NHDES 100' TIDAL BUFFER ZONE
---	NHDES 150' NATURAL WOODLAND BUFFER
---	NHDES 250' PROTECTED SHORELAND
---	FEMA SPECIAL FLOOD HAZARD AREA LINE
---	OVERHEAD ELECTRIC/WIRES
---	CONTOUR
---	SPOT ELEVATION
---	EDGE OF PAVEMENT (EP)
---	WOODS / TREE LINE
---	EDGE OF WETLAND FLAGGING
---	SWAMP / MARSH
---	ELEVATION
---	INVERT
---	TEMPORARY BENCHMARK
---	TYPICAL
---	LANDSCAPED AREA

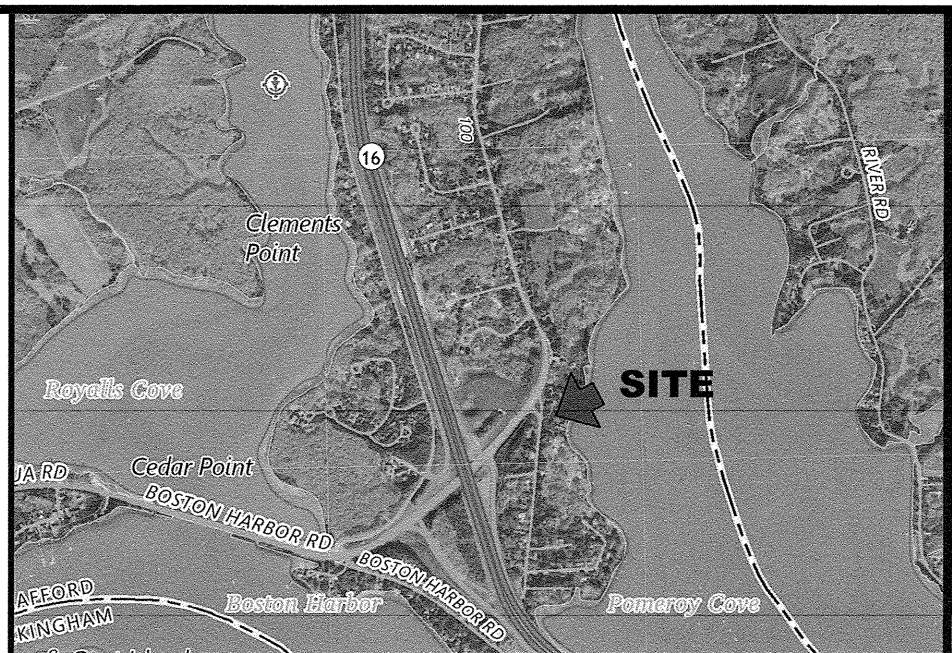


PLAN REFERENCES:

- 1) PLAN OF LOTS, PHILBRICK AND PEARSON TO DAVID S. WEEKS DOVER, N.H. PREPARED BY G.L. DAVIS & ASSOCIATES. DATED OCTOBER 1, 1980. S.C.R.D. PLAN 17B-99.
- 2) PLAN OF BOAT WORKS CONDOMINIUM, DOVER POINT, DOVER, N.H. PREPARED BY G.L. DAVIS & ASSOCIATES. DATED JUNE 1981. S.C.R.D. PLAN 22A-83.

WETLAND NOTES:

- 1) HIGHEST OBSERVABLE TIDE LINE & WETLAND LINE DELINEATED BY SAM HAYDEN, CWS ON 4/17/25 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN. 1987), AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, NEWPPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.
- 2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.



LOCATION MAP: SCALE: 1"=2000'

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP L AS LOT 114.
- 2) OWNERS OF RECORD:
THE ANTHONY A. RETROSI AND
STEPHANIE W. RETROSI REVOCABLE LIVING TRUST
ANTHONY A. RETROSI &
STEPHANIE W. RETROSI, TRUSTEES
318 DOVER POINT ROAD
DOVER, NH 03820
4726/147
S.C.R.D. PLAN 17B-99 (LOTS A & B)
- 3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.8), AS SHOWN ON FIRM PANEL 33017C0340E. EFFECTIVE DATE SEPTEMBER 30, 2015.
- 4) EXISTING LOT AREA:
23,555 S.F. (PER PLAN REFERENCE 1)
- 5) PARCEL IS LOCATED IN THE LOW RESIDENTIAL (R-20) ZONING DISTRICT AND PORTIONS ARE SUBJECT TO THE WETLAND PROTECTION & CONSERVATION OVERLAY DISTRICTS AND PORTIONS ARE SUBJECT TO THE PROVISIONS OF THE FLOODPLAIN DEVELOPMENT ORDINANCE.
- 6) DIMENSIONAL REQUIREMENTS:

MIN. LOT AREA:	20,000 S.F.
FRONTAGE:	125 FEET
SETBACKS:	FRONT 20 FT MIN.-35 FT MAX.
	SIDE 20 FEET
	REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM LOT COVERAGE:	30%
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON A PORTION OF ASSESSOR'S MAP L LOT 114 IN THE CITY OF DOVER.
- 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (±0.2"). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.
- 9) APPROXIMATE BOUNDARY LINES ARE FROM PLAN REFERENCES 1 & 2. THIS IS NOT A BOUNDARY SURVEY.
- 10) PARCEL IS SUBJECT TO A SEWER EASEMENT TO THE CITY OF DOVER, EASEMENT IS NOT WITHIN AREA SHOWN.

0	04/14/2025	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK.

PERMIT PLAN

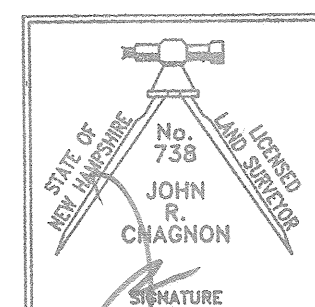
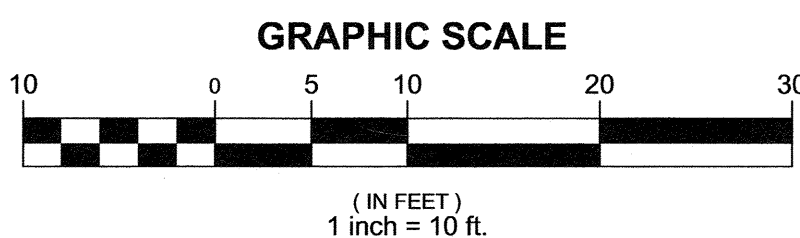
HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Rd. Unit 14
Portsmouth, NH 03801
603.430.9282
WWW.HALEYWARD.COM

PROJECT
RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

EXISTING CONDITIONS PLAN

DATE	MARCH 2025	SCALE	1" = 10'
DRAWN BY	CBA	DESIGNED BY	JRC
PROJECT No.	5010180.3050.32	FIELD BOOK AND PAGE	FB 515 PG 3
DRAWING No.		REV.	

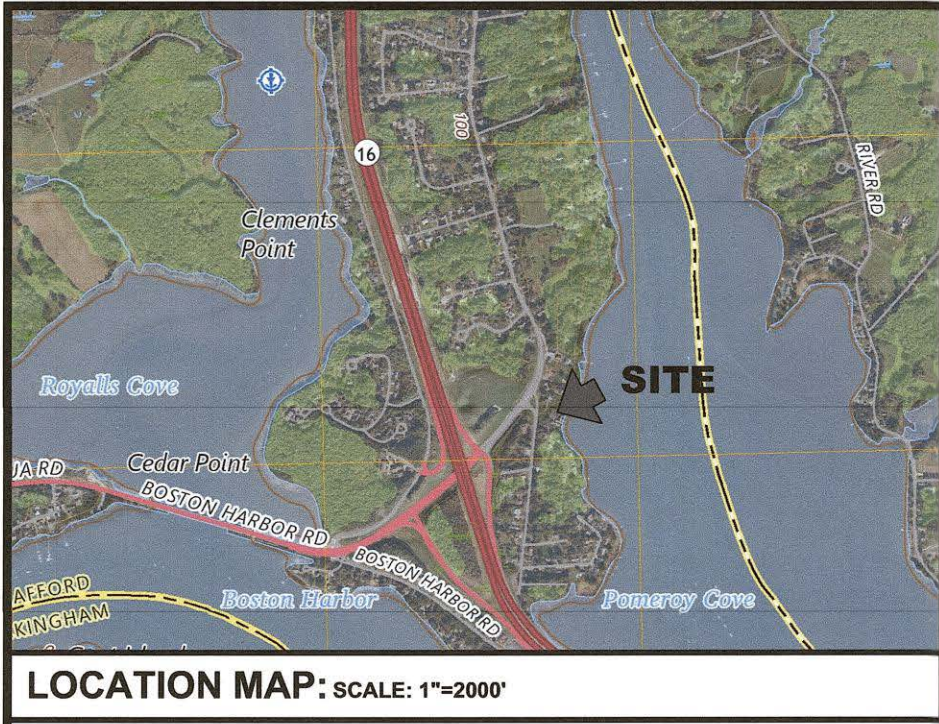
SHEET C1 0

PROPERTY OVERVIEW
SCALE 1"=50'

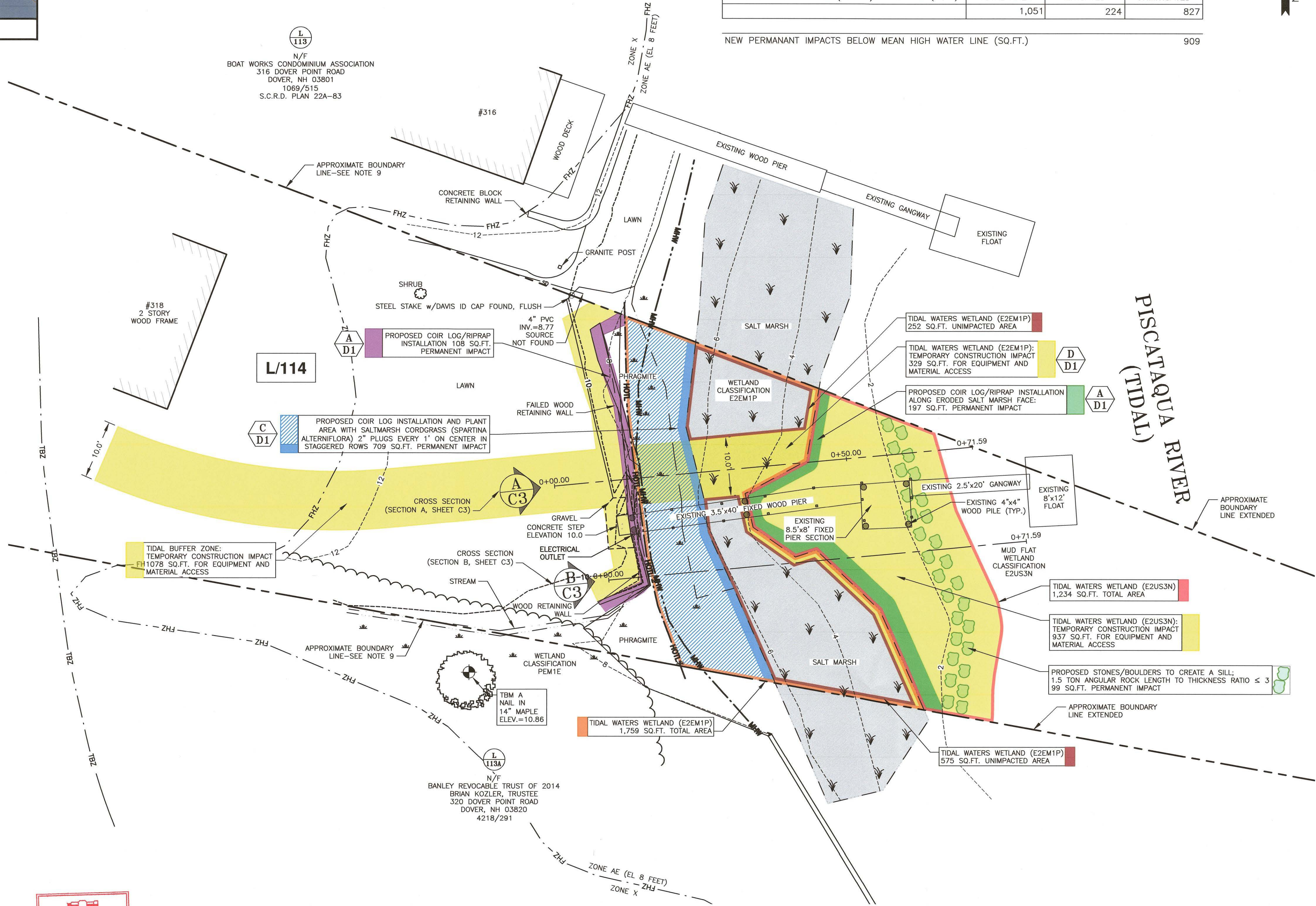
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS #738

DATE



LEGEND:
SEE SHEET C1



PROPOSED WETLAND IMPACT AREAS (IN SQ.FT.)			
	PERMANENT IMPACT (SF)	TEMPORARY IMPACT (SF)	TOTAL IMPACT (SF)
TIDAL WATERS WETLAND (E2US3N)	296	937	1,233
TIDAL WATERS WETLAND (E2EM1P)	709	329	1,038
100' TIDAL BUFFER ZONE	108	1,078	1,186
TOTAL IMPACT			3,457

TIDAL WATERS WETLAND (E2M1P) MITIGATION (SQ.FT)	TOTAL AREA	MITIGATED	UNMITIGATED
	1,051	224	827

NEW PERMANANT IMPACTS BELOW MEAN HIGH WATER LINE (SQ.FT.) 909

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 - 11) IC LOG WITH PE NETTING FROM NEW ENGLAND GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

0	04/14/25	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

PERMIT PLAN



PROJECT

RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

TITLE

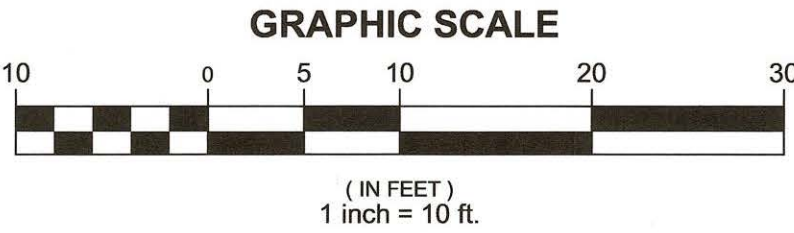
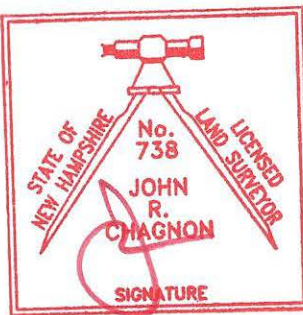
SHORELAND STABILIZATION PERMIT PLAN

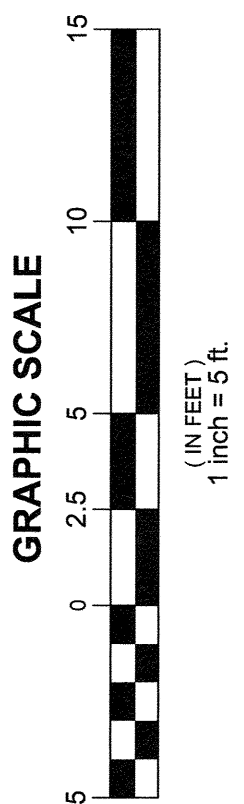
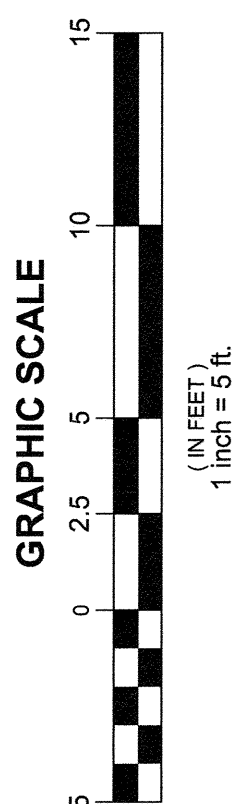
DATE MARCH 2025		SCALE 1" = 10'			
DRAWN BY CBA		DESIGNED BY JRC		CHECKED BY JRC	
PROJECT No. 5010180.3050.32			FIELD BOOK AND PAGE FB 515 PG 3		
DRAWING No.				REV.	
SHEET C2				0	

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JOHN R. CHAGNON, LLS #738

DATE





NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

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GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL
PER MANUFACTURER'S RECOMMENDATIONS.

0	04/22/2025	ISSUED FOR COMMENT	CBA	J
REV	DATE	DESCRIPTION	BY	C

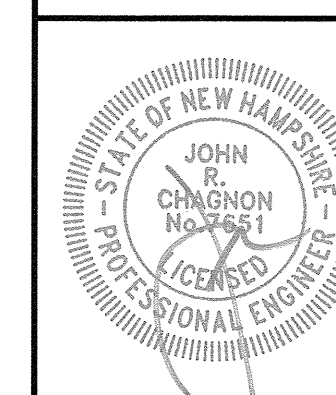
PERMIT PLAN



PROJECT

RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

SHORELAND STABILIZATION PROFILES



DATE MARCH 2025		SCALE 1" = 10'	
DRAWN BY CBA		DESIGNED BY JRC	
		CHECKED BY JRC	
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3	
DRAWING No.			REV.
SHEET C3			C

SEQUENCE OF CONSTRUCTION

- 1) MOBILIZATION OF EXCAVATOR, BOBCAT, AND MATERIALS TO THE SITE VIA APPROVED ACCESS AND LAYDOWN AREAS.
- 2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.
- 3) LAYOUT OF WORK AREA EXTENTS TO BE COMPLETED PRIOR TO START OF WORK. MARSH ELDER COLONY AREAS TO BE FLAGGED AND PROTECTED WITH FENCING IN AREAS WHERE IN CLOSE PROXIMITY TO WORK.
- 4) EROSION CONTROL FENCING TO BE INSTALLED IN AREAS WHERE FEASIBLE. REMOVE DEBRIS FROM INTERTIDAL ZONE.
- 5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.
- 6) MOST WORK TO BE COMPLETED FROM THE TOP OF THE EMBANKMENT BY EXCAVATOR. CRANE MATS WILL BE USED UNDER THE EXCAVATOR TO TRAVERSE AND WORK IN THE INTERTIDAL AREA. THE AREA OF TEMPORARY IMPACT FROM ACCESS BY THE EXCAVATOR IS ENTIRELY OVER AN AREA OF SHALE/LEDGE SO THERE WILL BE MINIMAL IMPACT.
- 7) IN AREAS WHERE STABILIZATION WILL OCCUR, THE EMBANKMENT WILL BE RESHAPED WHERE POSSIBLE, A TOE DUG IN AND A NON WOVEN GEOTEXTILE FILTER FABRIC INSTALLED. WORK ON THE SLOPE WILL BE LIMITED TO THE MAXIMUM AREA THAT CAN BE RESHAPED AND STABILIZED IN A WORKDAY THUS MINIMIZING EROSION FROM OPEN SOIL.
- 8) AFTER INSTALLATION OF THE FILTER FABRIC AND THE LAYER OF CRUSHED GRAVEL WILL BE BROUGHT IN AND LAID ON TOP. FINALLY ARMOUR STONE WILL BE SET ON TOP OF THE CRUSHED GRAVEL AND THEN CHINKED, STARTING WITH THE INSTALLATION OF THE TOE.
- 9) ONCE THE RIPRAP HAS BEEN INSTALLED THE REMAINING PORTION OF THE SLOPE WILL BE STABILIZED USING THE PROPOSED VEGETATIVE STABILIZATION PLAN.
- 10) ALL TEMPORARY AREAS OF IMPACT FROM ACCESS AND LAYDOWN WILL BE RESTORED AFTER COMPLETION OF THE PROPOSED STABILIZATION WORK. ONCE ALL AREAS HAVE BEEN STABILIZED THEN EROSION CONTROL SYSTEMS WILL BE REMOVED.

DISCHARGES. AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORPS AND AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACE AND AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

- UNLESS SPECIFICALLY AUTHORIZED USACE AND AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT IN WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PS), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDUROY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE RESTRICTIONS

- I. WORK ANTICIPATED TO BE COMPLETED DURING THE LATE SUMMER OR EARLY FALL. LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.

WORK SITE RESTORATION

- UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS PROHIBITED.
- IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.
- WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS OTHERWISE AUTHORIZED.

SEDIMENTATION AND EROSION CONTROL

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS

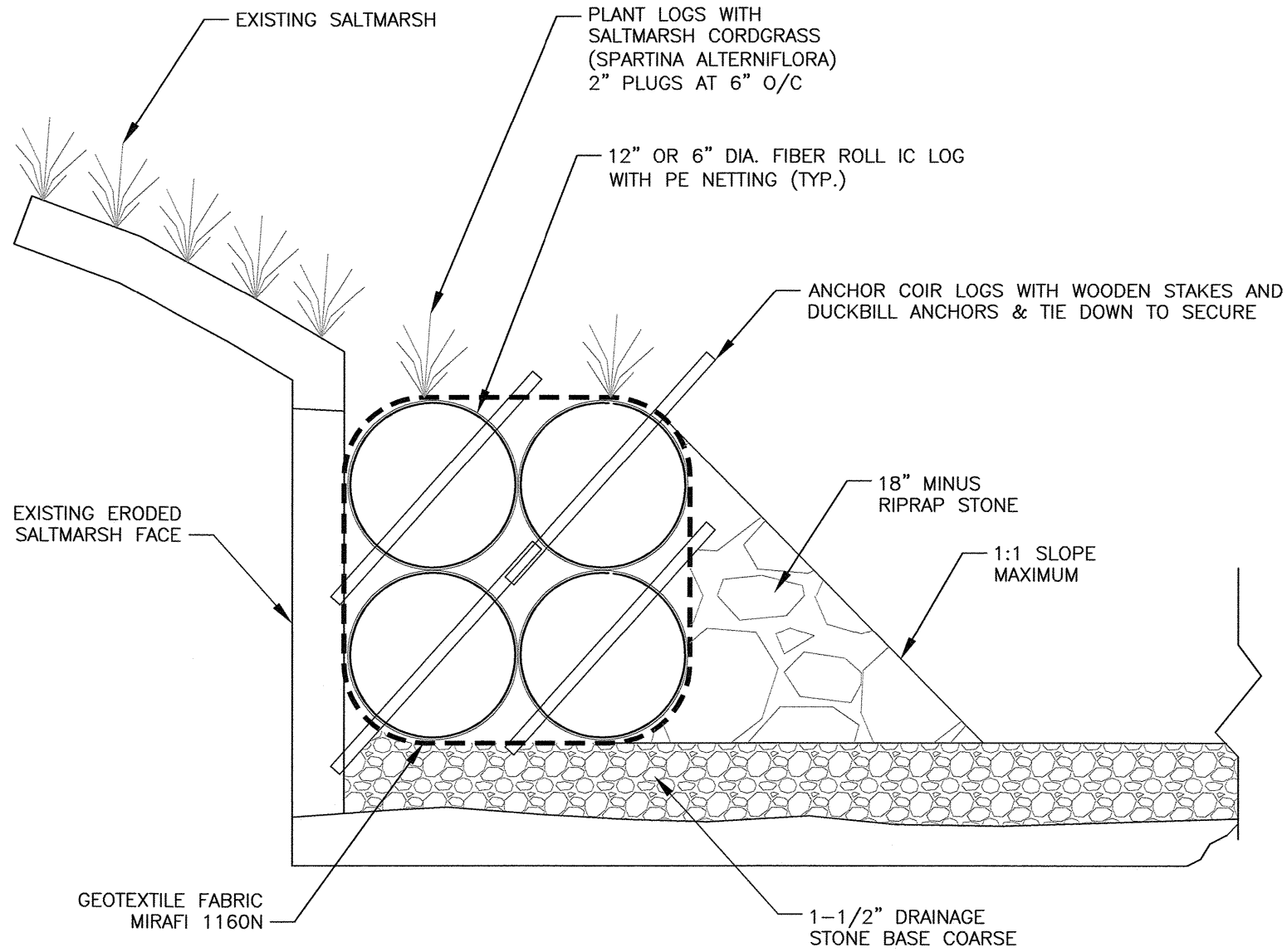
DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT [HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/](http://WWW.NAE.USACE.ARMY.MIL/REGULATORY/) FOR CONTROL METHODS.

INSPECTIONS

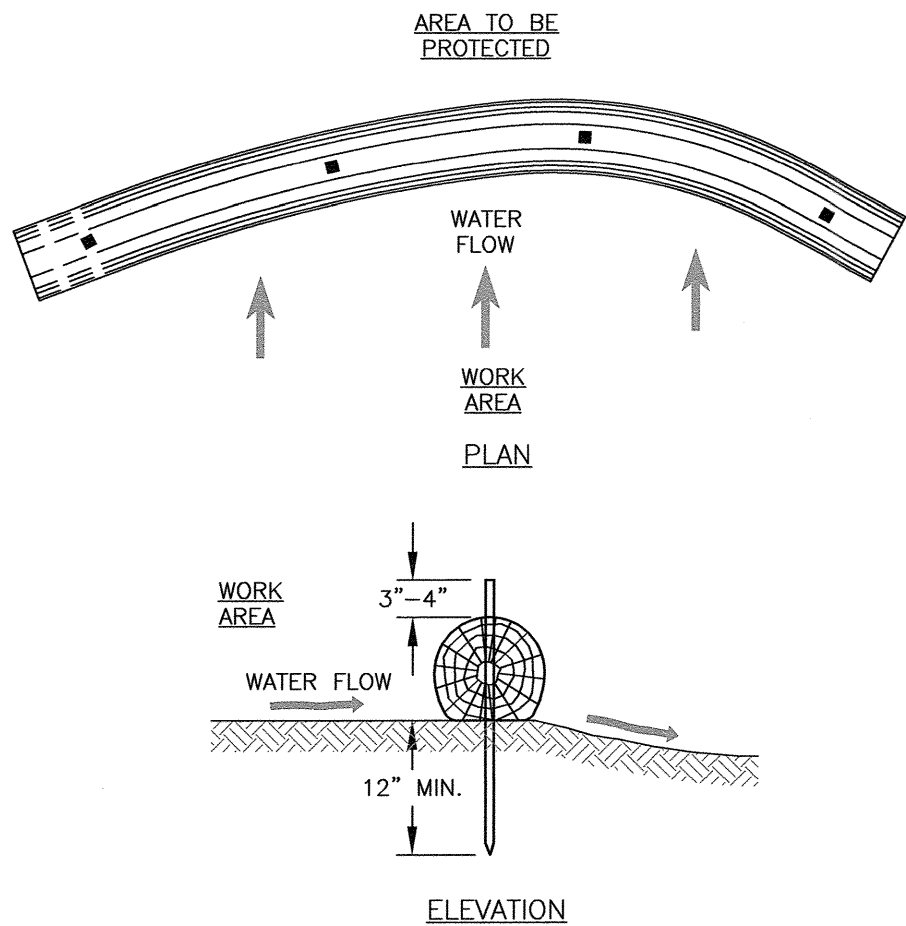
THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK.



A COIR LOG & RIPRAP STABILIZATION DETAIL

C2 AT SALT MARSH FACE NTS

NOTE: AT UPLAND EDGE 2 STACKED 12" COIR LOGS AND NO PLANTINGS

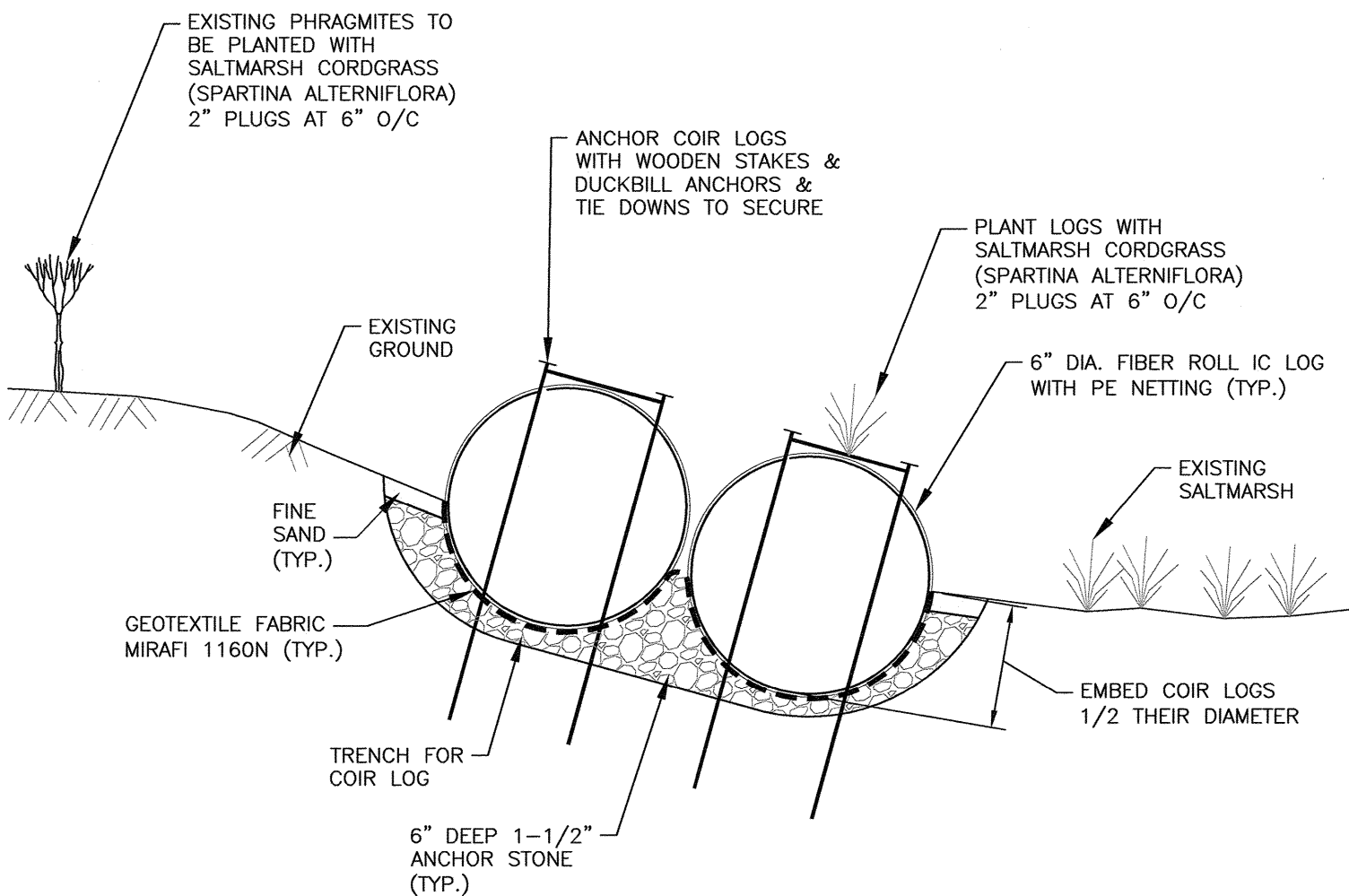


- NOTES:
1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
 2. FILTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
 3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
 4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
 5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

B FILTREXX® SILTSOXX™ FILTRATION SYSTEM

(INSTALL IF NEEDED)

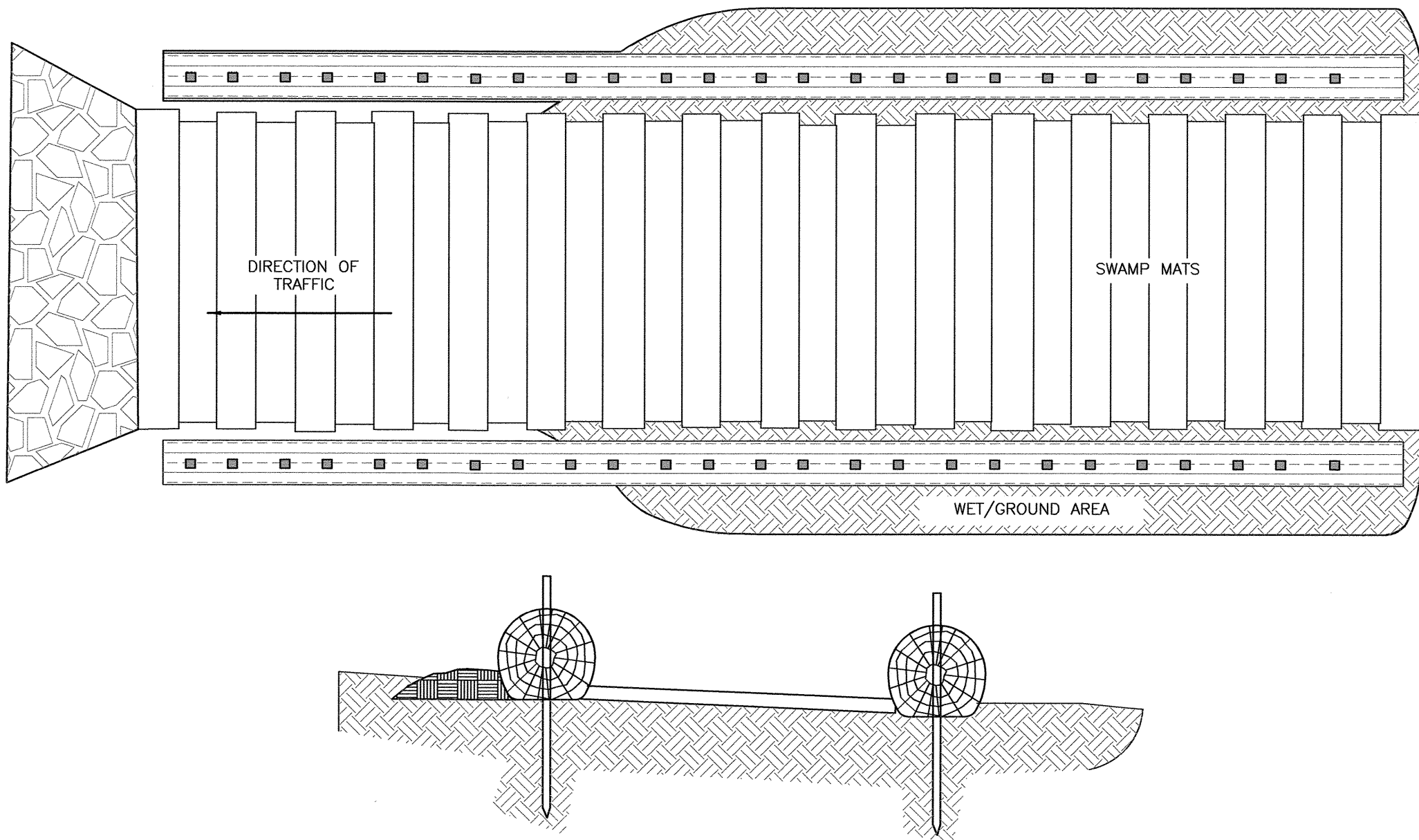
NTS



C COIR LOG STABILIZATION DETAIL

NOT TO SCALE

INSTALL PER MANUFACTURER RECOMMENDATIONS



D SWAMP MATS

AS NEEDED

NTS

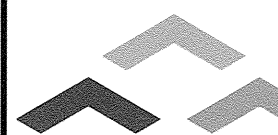
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0	04/14/2025	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK

DRAWING ISSUE STATUS

PERMIT PLAN



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Rd. Unit 14
Portsmouth, NH 03801
603.430.9282
WWW.HALEYWARD.COM

PROJECT
RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

SHORELAND STABILIZATION DETAILS

DATE MARCH 2025		SCALE AS NOTED	
DRAWN BY CBA	DESIGNED BY JRC	CHECKED BY JRC	
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3	
DRAWING No.			REV.
SHEET D1			0



5-YEAR MONITORING AND ADAPTIVE MANAGEMENT PLAN

Retrosi Residence – 318 Dover Point Road, Dover, NH 03820

INTRODUCTION

This Monitoring and Adaptive Management Plan was prepared for the Anthony A. Retrosi and Stephanie Retrosi Revocable Living Trust living shoreline project located at 318 Dover Point Road, Dover, New Hampshire.

The project site is a 0.54-acre lot identified as Lot 114 on Map L of the City of Dover's tax maps. The project site consists of a tidal wetland that is part of a larger tidal system (Piscataqua River) that spans a large geographical area. The upland area of the site consists of a residential structure, lawn, and a stream that outlets to the tidal wetland on the southern edge of the property. A failed wooden retaining wall spans the frontage of the property and an existing fixed, wooden pier extends into the intertidal area. The intertidal is comprised of a large salt marsh that spans approximately from elevation 6' to 3'. The landward edge of the salt marsh is dominated by *Phragmites* spp.

The project proposes the stabilization of 60 linear feet of shoreline on the Piscataqua River using a hybrid approach consisting of vegetative and armored techniques designed to stabilize and fortify the existing salt marsh. The seaward edge of the existing salt marsh will be stabilized and reinforced with coir log, providing a location for additional *Spartina* plantings and providing protection from wave action to prevent the continued loss of salt marsh habitat. Coir log will also be used behind the salt marsh to provide additional planting area and to reinforce the edge of the existing upland lawn. Riprap will be used on the exposed coir logs for permanent stabilization. A riprap sill is proposed in the intertidal area to absorb and disrupt erosive energy from wave action. Additionally, it will encourage the further deposition of sediment into the salt marsh area. The limited and strategic use of hard structures in the project design will provide additional support to enhance the salt marsh and allow it to regenerate.

GENERAL MONITORING PROTOCOL

The purpose of this monitoring protocol is to assess the success or failure of the living shoreline regarding vegetation enhancement/retention, restoration of tidal wetland habitat, structure, and function, and embankment stability. To examine how the salt marsh responds to the altered shoreline over time, three main components will be analyzed:

- Presence, density, and coverage of salt marsh vegetation within the intertidal area
- Expansion of salt marsh habitat as evidenced through the collection of elevation data and measured d soil characteristics
- Shifts in tidal hydrology across the site.



Pre-restoration monitoring will be conducted to collect baseline data to establish the existing ecological condition of the site. This monitoring will take place prior to the start of the construction, no more than one year before.

Post-restoration monitoring will begin four to five weeks after the living shoreline has been completed. To assess the ecological conditions of the salt marsh, a site visit and monitoring report will be completed twice per year; once in the spring (March-May), and once in the fall (August-October) for a period of five years post-restoration. Additionally, to examine the overall stability and effectiveness of the stabilization, an inspection will be performed after major flooding events.

Transects will be placed evenly along the 60-foot shore frontage of the project at increments of 12 feet (five transects total). Transects will run perpendicular to the shore and locations of the transect will be permanently marked and easily located at the landward and seaward ends of the project area. The landward and seaward markers of each transect will also be used as a location for photographic monitoring. During each site visit, a measuring tape will be laid across each transect. Quadrat sampling will be employed at a minimum of five elevations for each transect spaced evenly across the width of the marsh. Each quadrat will consist of a one-meter squared area and will be placed randomly within two feet of each transect location. Each quadrat will be used to visually assess the presence and density of salt marsh vegetation as well as other metrics as outlined below.

VISUAL ASSESSMENT PROCEDURES

A visual assessment will be conducted during the spring monitoring events to provide a general description of the following parameters:

- General site hydrology: Visual hydraulic surveys to describe trends in tidal inundation regimes and erosion and sedimentation processes
- Indication of soil erosion or instability
- Presence or absence of invasive species
- Stability assessment of riprap and associated embankment

Spring visual monitoring will include a site walk to document changes in the structural integrity of the stabilization and the embankment, a general meandering survey of the site and nearby untreated areas to document presence and relative abundance of non-native marine invertebrates and invasive plants, a description of the presence and condition of shellfish resources, and any evidence suggesting the use of the area by fish and wildlife. These data will be collected through photographs of the project site with detailed descriptions of observations. The general state of the stabilization will be documented, including the anchor/tie-in integrity of the riprap and coir logs as tested through manual checks, documentation of the presence of scour around riprap structures, and the location/position, dimensions, and elevation of installed structures.



VEGETATION MONITORING PROCEDURES

An assessment of the establishment of planted vegetation will occur once per year during the fall site visit. The goal of the assessment will be to analyze the long-term stability of the proposed project and to establish whether the project meets restoration goals. The performance target for plantings is 85% survival at the end of five years with at least an 80% coverage of native salt marsh vegetation. During the fall site visit, the following parameters will be measured:

- Percent vegetative cover in each transect, elevation, and quadrat
- Plant species occurring in each quadrat
- Signs of vegetative distress, disease, predation, damage, or other disturbance in each quadrat
- Stem density in randomly selected sub-quadrat (0.25 meters squared) within each quadrat
- Plant height in randomly selected sub-quadrat within each quadrat
- Vegetation zone transition distances along each transect

SEDIMENT MONITORING PROCEDURES

During the fall monitoring event, examinations into the expansion of the salt marsh will be conducted. The performance target is to see a general upwards trend in total area of salt marsh in the intertidal area from year to year. With the implementation of a wave attenuating structure and the planting of additional native salt marsh vegetation, there is also the expectation that additional sediment deposition will occur. Each site visit will collect data for the following parameters:

- Changes in vegetation zone transition distances over time
- Total area of the intertidal area comprised of salt marsh vegetation
- Visual evidence through photographs of increased sediment deposition

This data will be used alongside the vegetation data from the quadrats to determine if changes in elevation across the site due to the wave attenuating structure can attribute to the success of the salt marsh vegetation.

ADAPTIVE MANAGEMENT PROCEDURES

The goal of the monitoring plan is also to establish adaptive management procedures in the event that the proposed project does not meet performance standards. Adaptive management includes actions to be taken on the site after completion of the project to address potential ongoing issues (such as the removal of newly established invasive species), or it can include more drastic measures such as project redesign and implementation should the originally proposed project consistently fail to meet performance standards. Below is a table of failure conditions and the associated adaptive management procedures should a failure occur:



FAILURE CONDITION	ADAPTIVE MANAGEMENT PROCEDURE
Less than 85% survival of planted vegetation or less than 80% coverage of target vegetation	Additional native vegetation will be planted. In the event that establishment continues to fail for a period of two or more years after project completion, an ecologist will investigate the failure and recommend modifications to the project or plant species as appropriate.
Establishment of non-native, invasive species into the restored habitat	Hand removal of invasive species and subsequent replanting of native species to ensure vegetative coverage standards are met.
Salt marsh size decreases, no significant change in elevation across the marsh, no changes or reduction in size of vegetation zones, etc.	Consult with an ecologist and hydrologist to determine the efficacy of the riprap / sediment sill and propose a new redesign.
Continued soil instability, riprap instability/loss	Replacement of riprap or additional plantings to bolster soil stability. In the event of catastrophic failure, consultation with engineers/hydrologists to alter project design.

ANNUAL MONITORING AND REPORT SUBMISSIONS

The proposed monitoring and adaptive management plan includes the submittal of annual monitoring reports to track how closely the project is aligned with its performance standards. The content of these reports will be as required by the U.S. Army Corps of Engineers' Regulatory Guidance Letter 08-03 and 33 CFR 332.6, which specifies the required content of mitigation monitoring reports.

Each annual report will contain an overview of the project site, including information regarding the purpose of the approved project, size and type of the impacted aquatic resource, a general description of the location of the project, the dates when the project commenced and was completed, and a summary of the project's performance standards, corrective or maintenance activities conducted to meet those performance standards, and specific recommendations for additional corrective or remedial actions. A table will be provided that will evaluate whether the project site is successfully achieving its performance standards.



As described in the monitoring procedures above, both spring and fall monitoring events will be included in the report. Each monitoring event will include photo documentation of the project site from consistent locations across the site, metrics such as vegetative cover across transect and quadrat (during the fall site visit only), and descriptions of site characteristics. Additionally, maps and plans will be provided indicating sample points, transect and quadrat locations, elevation, and areas where remediation occurred. As-built plans will be submitted with the first year's monitoring report.



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



November 18, 2025

ANTHONY A RETROSI AND STEPHANIE RETROSI REVOCABLE
318 DOVER POINT RD
DOVER NH 03820

Re: Approved Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2025-01822
Subject Property: 318 Dover Point Road, Dover, Tax Map/Block/Lot(s): L/no block/114

Dear Applicant:

On November 17, 2025, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau approved the above-referenced Standard Dredge and Fill Wetlands Permit Application. Enclosed please find Wetlands Permit # 2025-01822 to Impact a total of 3,457 square feet of jurisdictional area to include 1,005 square feet of permanent impact and 1,266 square feet of temporary impact of intertidal wetlands, permanently impact 108 square feet and temporarily impact 1,078 square feet within the previously-developed 100-foot tidal buffer zone for the construction of a living shoreline to stabilize an eroding shore along 60 linear feet of frontage. The permittee shall notify the department in writing at least one week prior to commencing any work under this permit and shall file a notice of completion of work and certificate of compliance with the department within 10 working days of completion of the work authorized by this permit.

This permit is not valid unless signed by the permittee and the principal contractor, if any, who will build or install the project. Prior to start of construction, a copy of this permit shall be posted in a secure manner in a prominent place at the site of the approved project. It shall remain posted until the project is completed. Transfer of this permit to a new owner shall require notification to, and approval of, the NHDES. **This permit does not convey any property right, nor does it preclude the need to meet any other applicable state, federal, or municipal legal requirements.**

In accordance with RSA 482-A:10, RSA 21-O:14, and Rules Ec-Wet 100-200, **any person aggrieved by this decision may file a Notice of Appeal directly with the NH Wetlands Council (Council) within 30 days of the decision date, November 17, 2025.** Every ground claiming the decision is unlawful or unreasonable must be fully set forth in the Notice of Appeal. Only the grounds set forth in the Notice of Appeal are considered by the Council. Information about the Council, including Council Rules, is available at <https://www.nhec.nh.gov/wetlands-council/about>. For appeal related issues, contact the Council Appeals Clerk at (603) 271-3650.

This approval is based on the following findings:

1. This is classified as a minimum impact project per Rule Env-Wt 609.10(a)(3), as this is a living shoreline project that is fully exposed at low tide.
2. Per Rule Env-Wt 311.06(h), the Dover Conservation Commission did not provide comments on the proposed project.
3. Per Rule Env-Wt 311.01(b), the applicant coordinated with the NH Fish and Game Department and the Natural Heritage Bureau to determine how to avoid and minimize project-related impacts on rare or protected animal species and habitat, and on protected plants or exemplary natural communities.

If you have any questions, please contact me at Alexander.D.Feuti@des.nh.gov or (603) 271-2917.

Sincerely,



Alexander Feuti
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

Enclosure

Copied: Sam Hayden, Hayley Ward
Municipal Clerk/Conservation Commission



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



WETLANDS PERMIT 2025-01822

NOTE CONDITIONS

PERMITTEE: ANTHONY A RETROSI AND STEPHANIE RETROSI REVOCABLE
318 DOVER POINT RD
DOVER NH 03820

PROJECT LOCATION: 318 DOVER POINT ROAD, DOVER
Tax Map/Block/Lot(s): L/no block/114

WATERBODY: PISCATAQUA RIVER

APPROVAL DATE: NOVEMBER 17, 2025 **EXPIRATION DATE:** NOVEMBER 17, 2030

The New Hampshire Department of Environmental Services' (NHDES) review of permit application 2025-01822 has found that it is consistent with RSA 482-A. NHDES hereby issues this Wetlands Permit authorizing the impacts described provided the Conditions imposed are met. To validate this Permit, the Permittee and the Principal Contractor are required to sign below.

PERMIT DESCRIPTION:

Impact a total of 3,457 square feet of jurisdictional area to include 1,005 square feet of permanent impact and 1,266 square feet of temporary impact of intertidal wetlands, permanently impact 108 square feet and temporarily impact 1,078 square feet within the previously-developed 100-foot tidal buffer zone for the construction of a living shoreline to stabilize an eroding shore along 60 linear feet of frontage.

THIS PERMIT IS SUBJECT TO THE FOLLOWING PROJECT-SPECIFIC CONDITIONS:

1. In accordance with Env-Wt 307.16, all work shall be done in accordance with plans by Haley Ward dated March 2025 and revised through April 14, 2025 as received by the NH Department of Environmental Services (NHDES) on October 17, 2025.
2. In accordance with Env-Wt 314.02(b) and (c), the permittee shall record this permit is at the Rockingham County Registry of Deeds. Any limitations or conditions in the permit so recorded shall run with the land beyond the expiration of the permit. The permittee shall provide the department with a copy of the permit stamped by the registry with the book and page and date of receipt.
3. In accordance with Env-Wt 307.07, all development activities associated with any project shall be conducted in compliance with applicable requirements of RSA 483-B and Env-Wq 1400 during and after construction.
4. In accordance with Env-Wt 307.03(g)(1), the person in charge of construction equipment shall inspect such equipment for leaking fuel, oil, and hydraulic fluid each day prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
5. In accordance with Env-Wt 307.03(g)(3) and (4), the person in charge of construction equipment shall maintain oil spill kits and diesel fuel spill kits, as applicable to the type(s) and amount(s) of oil and diesel fuel used, on site so as to be readily accessible at all times during construction; and train each equipment operator in the use of the spill kits.
6. In accordance with Env-Wt 307.03(g)(2), the person in charge of construction equipment shall repair any leaks prior to using the equipment in an area where such fluids could reach groundwater, surface waters, or wetlands.
7. In accordance with Env-Wt 307.03(h), equipment shall be staged and refueled outside of jurisdictional areas (unless allowed) and in accordance with Env-Wt 307.15.

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3503 • Fax: (603) 271-2867 • TDD Access: Relay NH 1-800-735-2964

8. In accordance with Env-Wt 307.03(c)(5), water quality control measures shall be maintained so as to ensure continued effectiveness in minimizing erosion and retaining sediment on-site during and after construction.
9. In accordance with Env-Wt 609.10(b)(4), all work shall be done at low tide when the work area is fully exposed for the construction of the toe protection.
10. In accordance with Env-Wt 307.11(a), fill shall be clean sand, gravel, rock, or other material that meets the project's specifications for its use; and does not contain any material that could contaminate surface or groundwater or otherwise adversely affect the ecosystem in which it is used.
11. In accordance with Env-Wt 307.12(e), wetland soils from areas vegetated with purple loosestrife or other invasive plant species shall not be used in the area being restored.
12. Restoration of all temporary impacts shall meet all of the conditions listed in Rule Env-Wt 307.12(a) through (i).
13. In accordance with Env-Wt 514.05(h), within 60 days of completion of construction, the applicant shall submit a post-construction report that has been prepared by a professional engineer, certified wetland scientist, or qualified professional, as applicable, and contains narrative, exhibits, and photographs, as necessary to report the status of the project area and restored jurisdictional area.

ANY INDIVIDUAL CONDUCTING WORK UNDER THIS PERMIT IS ADVISED OF THE FOLLOWING:

1. This permit does not preclude the need to meet any other applicable state, federal, or municipal legal requirements.
2. The permit holder is responsible for reading, and ensuring compliance with, the applicable general conditions established in Env-Wt 307.
3. This permit does not in any way authorize the take of threatened or endangered species, as defined by RSA 212-A:2, or of any protected species or exemplary natural communities, as defined in RSA 217-A:3.
4. This approval does not convey any property right. The permittee is responsible for ensuring that they have the legal authority to access the subject lands and conduct the impacts described.

APPROVED:



Alexander Feuti
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

THE SIGNATURES BELOW ARE REQUIRED TO VALIDATE THIS PERMIT (Env-Wt 314.01).

PERMITTEE SIGNATURE (required)

PRINCIPAL CONTRACTOR SIGNATURE (required)



**NHDES WETLAND APPLICATION
RETROSI SHORELINE STABILIZATION**

Photo No. 1

Photo Date:
4/10/2025

Site Location:
318 Dover Point
Road, Dover, NH.

Description:
View east of
workspace /
shoreline

Photo By:
SNH



Photo No. 2

Photo Date:
4/10/2025

Site Location:
318 Dover Point
Road, Dover, NH.

Description:
View south of
workspace /
shoreline.

Photo By:
SNH





**NHDES WETLAND APPLICATION
RETROSI SHORELINE STABILIZATION**

Photo No. 3

Photo Date:
4/10/2025

Site Location:
318 Dover Point
Road, Dover, NH.

Description:
View northwest of
workspace /
shoreline.

Photo By:
SNH





**NHDES WETLAND APPLICATION
RETROSI SHORELINE STABILIZATION**

Photo No. 4	
Photo Date: 4/10/2025	
Site Location: 318 Dover Point Road, Dover, NH.	
Description: View west of severe undercutting along edge of salt marsh.	
Photo By: SNH	5

FILE LOCATION: P:\NH\0510180\RYERSIDE & PICKERING\0300.32\DOVER PT. RD. (RETROSIS) (SR02) CAO, FLESCV\10018180.0000.03.C-SP DWG. 2025.05.01, 3:14 PM

LEGEND:

- N/F
RP
SCRD

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21

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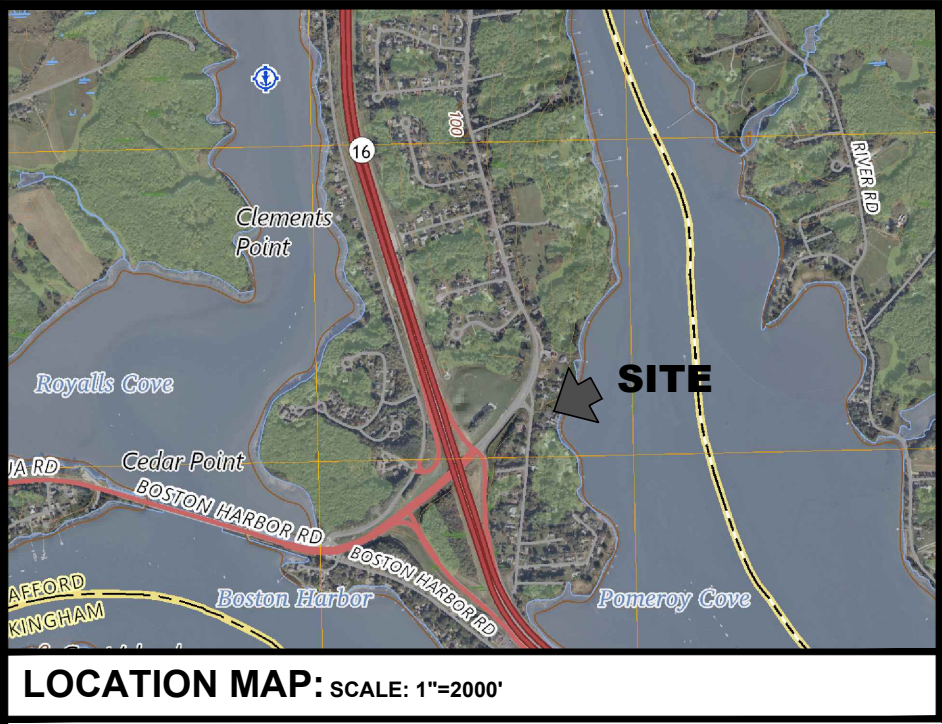
■
- RAILROAD SPIKE FOUND
IRON ROD/IRON PIPE FOUND
DRILL HOLE FOUND
STONE/CONCRETE BOUND FOUND
RAILROAD SPIKE SET
IRON ROD SET
DRILL HOLE SET
GRANITE BOUND SET

BOUNDARY
BUILDING SETBACK
MEAN HIGH WATER LINE
NHDES HIGHEST OBSERVABLE TIDE LINE
FRESHWATER WETLAND LINE
FRESHWATER WETLAND BUFFER LINE
NHDES 50' PRIMARY STRUCTURE SETBACK
NHDES 100' TIDAL BUFFER ZONE
NHDES 150' NATURAL WOODLAND BUFFER
NHDES 250' PROTECTED SHORELAND
FEMA SPECIAL FLOOD HAZARD AREA LINE
OVERHEAD ELECTRIC/WIRES
CONTOUR
SPOT ELEVATION
EDGE OF PAVEMENT (EP)
WOODS / TREE LINE
- EDGE OF WETLAND FLAGGING
SWAMP / MARSH
ELEVATION
INVERT
TEMPORARY BENCHMARK
TYPICAL
LANDSCAPED AREA

A-1

EL.
INV.
TBM
TYP.
LSA
- NORTH
NAD83(2011)
GRID
NH SPC
FHZ
- N/F
BOAT WORKS CONDOMINIUM ASSOCIATION
316 DOVER POINT ROAD
DOVER, NH 03801
1069/515
S.C.R.D. PLAN 22A-83
- #318
2 STORY
WOOD FRAME
- L/114
- SHRUB
- STEEL STAKE w/DAVIS ID CAP FOUND, FLUSH
4" PVC
INV.=8.77
SOURCE
NOT FOUND
- FAILED WOOD
RETAINING WALL
- GRAVEL
CONCRETE STEP
ELEVATION 10.0
ELECTRICAL
OUTLET
- STREAM
- WETLAND
CLASSIFICATION
PEM1E
- TBM A
NAIL IN
14" MAPLE
ELEV.=10.86
- N/F
BANLEY REVOCABLE TRUST OF 2014
BRIAN KOZLER, TRUSTEE
320 DOVER POINT ROAD
DOVER, NH 03820
4218/291
- N/F
BOAT WORKS CONDOMINIUM ASSOCIATION
316 DOVER POINT ROAD
DOVER, NH 03801
1069/515
S.C.R.D. PLAN 22A-83
- L/114
- N/F
BANLEY REVOCABLE TRUST OF 2014
BRIAN KOZLER, TRUSTEE
320 DOVER POINT ROAD
DOVER, NH 03820
4218/291
- N/F
RANDY L. DEMAND & STEPHANIE MANSOUR
321 DOVER POINT ROAD
DOVER, NH 03820
4676/653
- DOVER POINT ROAD
- PISCATAQUA RIVER
(TIDAL)
- PLAN REFERENCES:
- 1) PLAN OF LOTS, PHILBRICK AND PEARSON TO DAVID S. WEEKS DOVER, N.H. PREPARED BY G.L. DAVIS & ASSOCIATES. DATED OCTOBER 1, 1980. S.C.R.D. PLAN 17B-99.
 - 2) PLAN OF BOAT WORKS CONDOMINIUM, DOVER POINT, DOVER, N.H. PREPARED BY G.L. DAVIS & ASSOCIATES. DATED JUNE 1981. S.C.R.D. PLAN 22A-83.
- WETLAND NOTES:
- 1) HIGHEST OBSERVABLE TIDE LINE & WETLAND LINE DELINEATED BY SAM HAYDEN, CWS ON 4/17/25 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN. 1987), AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.
 - 2) WETLAND FLAGS WERE FIELD LOCATED BY AMBIT ENGINEERING, INC.
-
- LOCATION MAP: SCALE: 1"=2000'
- NOTES:
- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP L AS LOT 114.
 - 2) OWNERS OF RECORD:
THE ANTHONY A. RETROSI AND
STEPHANIE W. RETROSI REVOCABLE LIVING TRUST
ANTHONY A. RETROSI &
STEPHANIE W. RETROSI, TRUSTEES
318 DOVER POINT ROAD
DOVER, NH 03820
4726/147
S.C.R.D. PLAN 17B-99 (LOTS A & B)
 - 3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.8), AS SHOWN ON FIRM PANEL 33017C0340E. EFFECTIVE DATE SEPTEMBER 30, 2015.
 - 4) EXISTING LOT AREA:
23,555 S.F. (PER PLAN REFERENCE 1)
 - 5) PARCEL IS LOCATED IN THE LOW RESIDENTIAL (R-20) ZONING DISTRICT AND PORTIONS ARE SUBJECT TO THE WETLAND PROTECTION & CONSERVATION OVERLAY DISTRICTS AND PORTIONS ARE SUBJECT TO THE PROVISIONS OF THE FLOODPLAIN DEVELOPMENT ORDINANCE.
 - 6) DIMENSIONAL REQUIREMENTS:

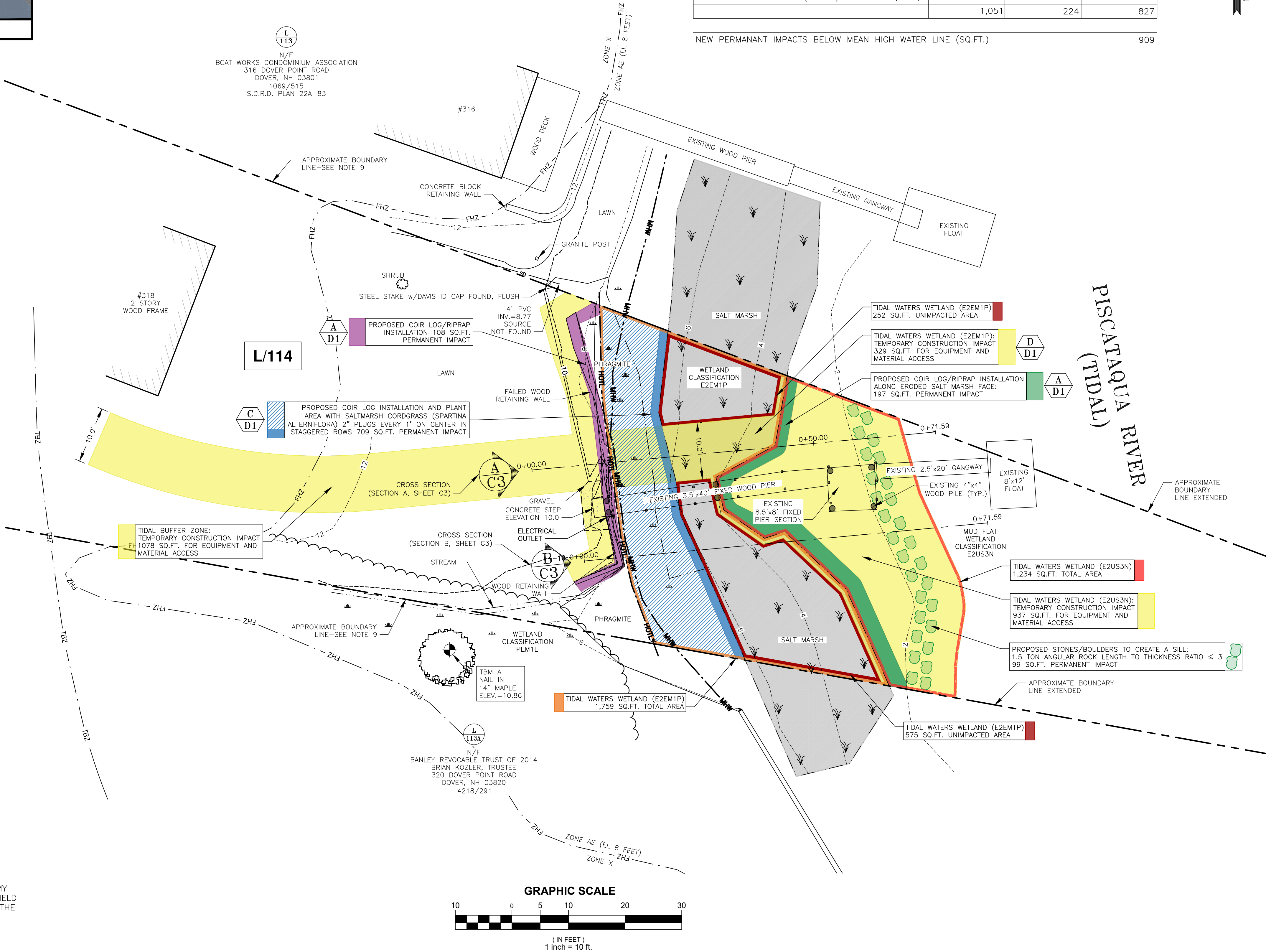
MIN. LOT AREA:	20,000 S.F.
FRONTAGE:	125 FEET
SETBACKS:	FRONT 20 FT MIN.-35 FT MAX. SIDE 20 FEET REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
MAXIMUM LOT COVERAGE:	30%
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS ON A PORTION OF ASSESSOR'S MAP L LOT 114 IN THE CITY OF DOVER.
 - 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (±0.2'). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.
 - 9) APPROXIMATE BOUNDARY LINES ARE FROM PLAN REFERENCES 1 & 2. THIS IS NOT A BOUNDARY SURVEY.
 - 10) PARCEL IS SUBJECT TO A SEWER EASEMENT TO THE CITY OF DOVER, EASEMENT IS NOT WITHIN AREA SHOWN.
- | | | | | |
|-----|------------|--------------------|-----|-----|
| 0 | 04/14/2025 | ISSUED FOR COMMENT | CBA | JRC |
| REV | DATE | DESCRIPTION | BY | CHK |
- PERMIT PLAN
-
- PROJECT
RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION
- EXISTING CONDITIONS PLAN
- | | | |
|--------------------------------|------------------------------------|-------------------|
| DATE
MARCH 2025 | SCALE
1" = 10' | |
| DRAWN BY
CBA | DESIGNED BY
JRC | CHECKED BY
JRC |
| PROJECT No.
5010180.3050.32 | FIELD BOOK AND PAGE
FB 515 PG 3 | |
| DRAWING No. | REV. | |
- SHEET C1 0
- "I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."
- JOHN R. CHAGNON, LLS #738 DATE
-
- PROPERTY OVERVIEW
SCALE 1"=50'



LEGEND:

SEE SHEET C1

L 113
N/F
BOAT WORKS CONDOMINIUM ASSOCIATION
316 DOVER POINT ROAD
DOVER, NH 03801
1069/515
S.C.R.D. PLAN 22A-83



PROPOSED WETLAND IMPACT AREAS (IN SQ.FT.)			
	PERMANENT IMPACT (SF)	TEMPORARY IMPACT (SF)	TOTAL IMPACT (SF)
TIDAL WATERS WETLAND (E2US3N)	296	937	1,234
TIDAL WATERS WETLAND (E2M1P)	709	0	709
100' TIDAL BUFFER ZONE	108	1,078	1,187
TOTAL IMPACT			3,130

TIDAL WATERS WETLAND (E2M1P) MITIGATION (SQ.FT.)	TOTAL AREA	MITIGATED	UNMITIGATED
	1,051	224	827

NEW PERMANANT IMPACTS BELOW MEAN HIGH WATER LINE (SQ.FT.) 909

NORTH
GRID
NAD83(2011)
NH SFC

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP L AS LOT 114.
- 2) OWNERS OF RECORD:
THE ANTHONY A. RETROSI AND
STEPHANIE W. RETROSI REVOCABLE LIVING TRUST
ANTHONY A. RETROSI &
STEPHANIE W. RETROSI, TRUSTEES
318 DOVER POINT ROAD
DOVER, NH 03820
4726/147
S.C.R.D. PLAN 17B-99 (LOTS A & B)
- 3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.8), AS SHOWN ON FIRM PANEL 33017C0340E. EFFECTIVE DATE SEPTEMBER 30, 2015.
- 4) EXISTING LOT AREA:
23,555 S.F. (PER PLAN REFERENCE 1)
- 5) PARCEL IS LOCATED IN THE LOW RESIDENTIAL (R-20) ZONING DISTRICT AND PORTIONS ARE SUBJECT TO THE WETLAND PROTECTION & CONSERVATION OVERLAY DISTRICTS AND PORTIONS ARE SUBJECT TO THE PROVISIONS OF THE FLOODPLAIN DEVELOPMENT ORDINANCE.
- 6) DIMENSIONAL REQUIREMENTS:
MIN. LOT AREA: 20,000 S.F.
FRONTAGE: 125 FEET
SETBACKS: FRONT 20 FT MIN.-35 FT MAX.
SIDE 20 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET
MAXIMUM LOT COVERAGE: 30%
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SHORELAND STABILIZATION IMPROVEMENTS ON A PORTION OF ASSESSOR'S MAP L LOT 114 IN THE CITY OF DOVER.
- 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (±0.2'). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.
- 9) APPROXIMATE BOUNDARY LINES ARE FROM PLAN REFERENCES 1 & 2. THIS IS NOT A BOUNDARY SURVEY.
- 10) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
- 11) IC LOG WITH PE NETTING FROM NEW ENGLAND GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

0	04/14/25	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK

DRAWING ISSUE STATUS

PERMIT PLAN



PROJECT
RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

TITLE
SHORELAND STABILIZATION PERMIT PLAN

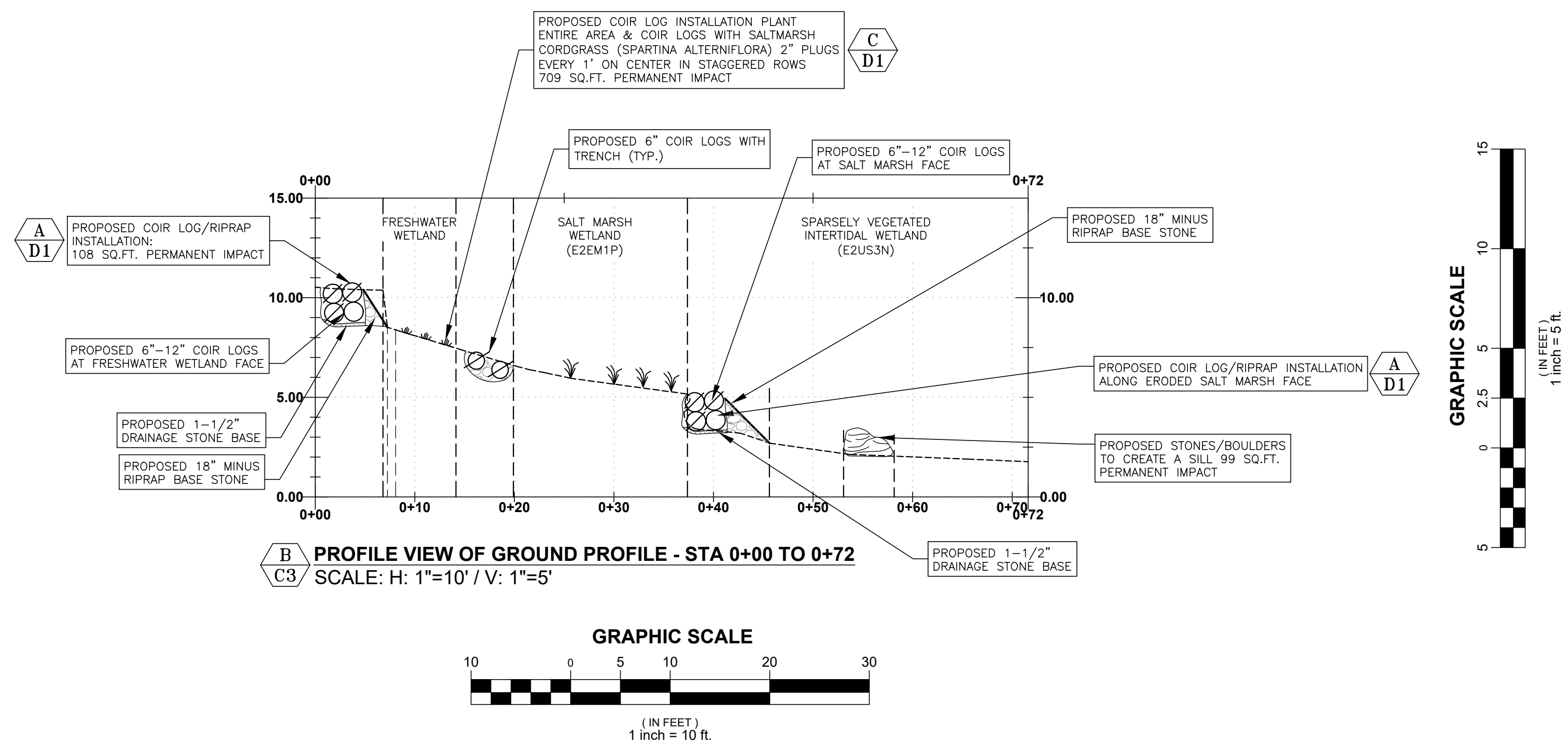
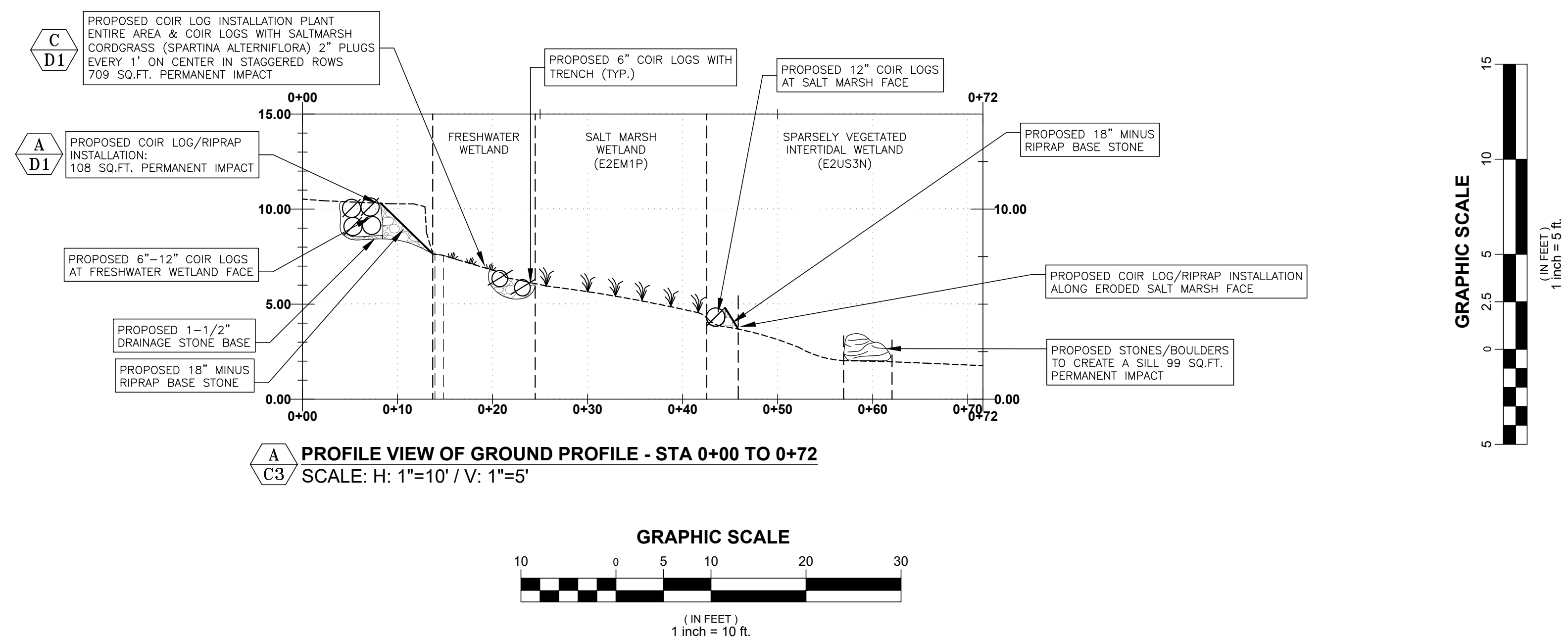
DATE MARCH 2025		SCALE 1" = 10'	
DRAWN BY CBA	DESIGNED BY JRC	CHECKED BY JRC	
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3	
DRAWING No.		REV.	
SHEET C2		0	

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS #738

DATE

FILE LOCATION: P:\NH\5010180\B\RYERSIDE & PICKERING\3050.32\DOVER PT. RD. (RETROSI) (5010180) (118) 2009.03.C-SP.DWG, 2025.03.01, 3:34 PM



NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).

11) IC LOG WITH PE NETTING FROM NEW ENGLAND
GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL
PER MANUFACTURER'S RECOMMENDATIONS.

0	04/22/2025	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK.

PERMIT PLAN



PROJECT	RETROSI RESIDENCE 318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE SHORELAND STABILIZATION
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SHORELAND STABILIZATION PROFILES

DATE MARCH 2025		SCALE 1" = 10'	
DRAWN BY CBA		DESIGNED BY JRC	
		CHECKED BY JRC	
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3	
DRAWING No.			REV.

SHEET C3

0

SEQUENCE OF CONSTRUCTION

- 1) MOBILIZATION OF EXCAVATOR, BOBCAT, AND MATERIALS TO THE SITE VIA APPROVED ACCESS AND LAYDOWN AREAS.
- 2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.
- 3) LAYOUT OF WORK AREA EXTENTS TO BE COMPLETED PRIOR TO START OF WORK. MARSH ELDER COLONY AREAS TO BE FLAGGED AND PROTECTED WITH FENCING IN AREAS WHERE IN CLOSE PROXIMITY TO WORK.
- 4) EROSION CONTROL FENCING TO BE INSTALLED IN AREAS WHERE FEASIBLE. REMOVE DEBRIS FROM INTERTIDAL ZONE.
- 5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.
- 6) MOST WORK TO BE COMPLETED FROM THE TOP OF THE EMBANKMENT BY EXCAVATOR. CRANE MATS WILL BE USED UNDER THE EXCAVATOR TO TRAVERSE AND WORK IN THE INTERTIDAL AREA. THE AREA OF TEMPORARY IMPACT FROM ACCESS BY THE EXCAVATOR IS ENTIRELY OVER AN AREA OF SHALE/LEDGE SO THERE WILL BE MINIMAL IMPACT.
- 7) IN AREAS WHERE STABILIZATION WILL OCCUR, THE EMBANKMENT WILL BE RESHAPED WHERE POSSIBLE, A TOE DUG IN AND A NON WOVEN GEOTEXTILE FILTER FABRIC INSTALLED. WORK ON THE SLOPE WILL BE LIMITED TO THE MAXIMUM AREA THAT CAN BE RESHAPED AND STABILIZED IN A WORKDAY THUS MINIMIZING EROSION FROM OPEN SOIL.
- 8) AFTER INSTALLATION OF THE FILTER FABRIC AND THE LAYER OF CRUSHED GRAVEL WILL BE BROUGHT IN AND LAID ON TOP. FINALLY ARMOUR STONE WILL BE SET ON TOP OF THE CRUUSHED GRAVEL AND THEN CHINKED, STARTING WITH THE INSTALLATION OF THE TOE.
- 9) ONCE THE RIPRAP HAS BEEN INSTALLED THE REMAINING PORTION OF THE SLOPE WILL BE STABILIZED USING THE PROPOSED VEGETATIVE STABILIZATION PLAN.
- 10) ALL TEMPORARY AREAS OF IMPACT FROM ACCESS AND LAYDOWN WILL BE RESTORED AFTER COMPLETION OF THE PROPOSED STABILIZATION WORK. ONCE ALL AREAS HAVE BEEN STABILIZED THEN EROSION CONTROL SYSTEMS WILL BE REMOVED.

DISCHARGES. AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORPS AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACE AND AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

- UNLESS SPECIFICALLY AUTHORIZED USACE AND AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT IN WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDUROY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE RESTRICTIONS

- I. WORK ANTICIPATED TO BE COMPLETED DURING THE LATE SUMMER OR EARLY FALL. LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.

WORK SITE RESTORATION

- UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS PROHIBITED.
- IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.
- WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS OTHERWISE AUTHORIZED.

SEDIMENTATION AND EROSION CONTROL

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS

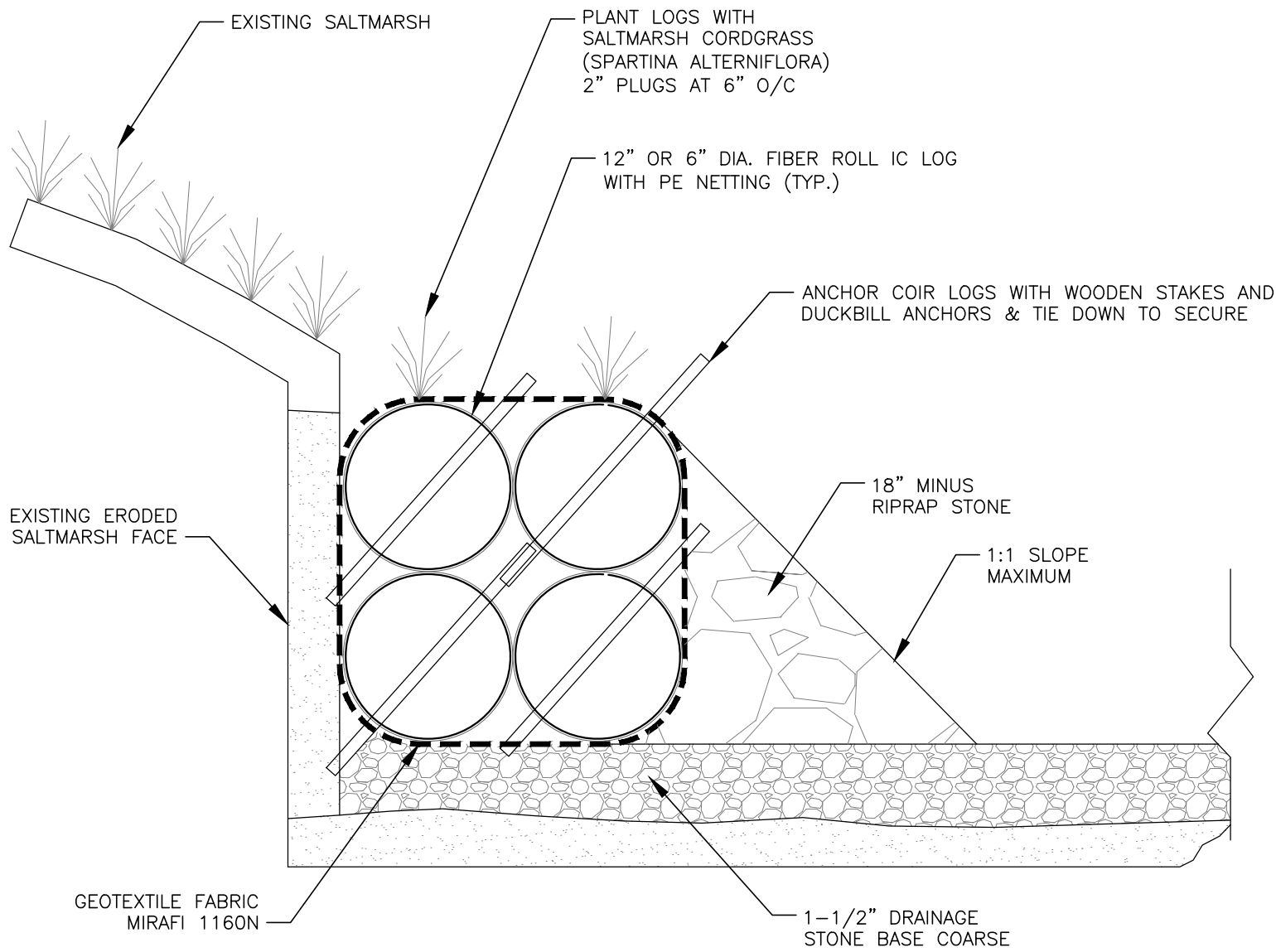
DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT [HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/](http://WWW.NAE.USACE.ARMY.MIL/REGULATORY/) FOR CONTROL METHODS.

INSPECTIONS

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK.

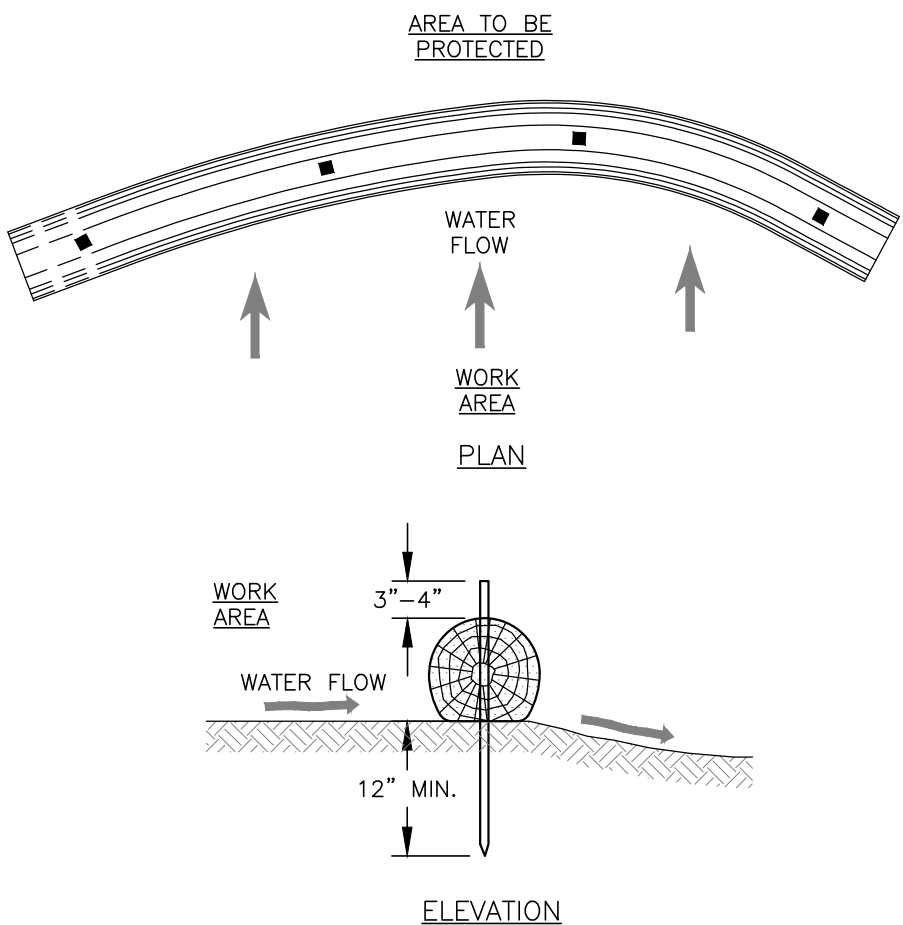


A C2 COIR LOG & RIPRAP STABILIZATION DETAIL

AT SALT MARSH FACE

NTS

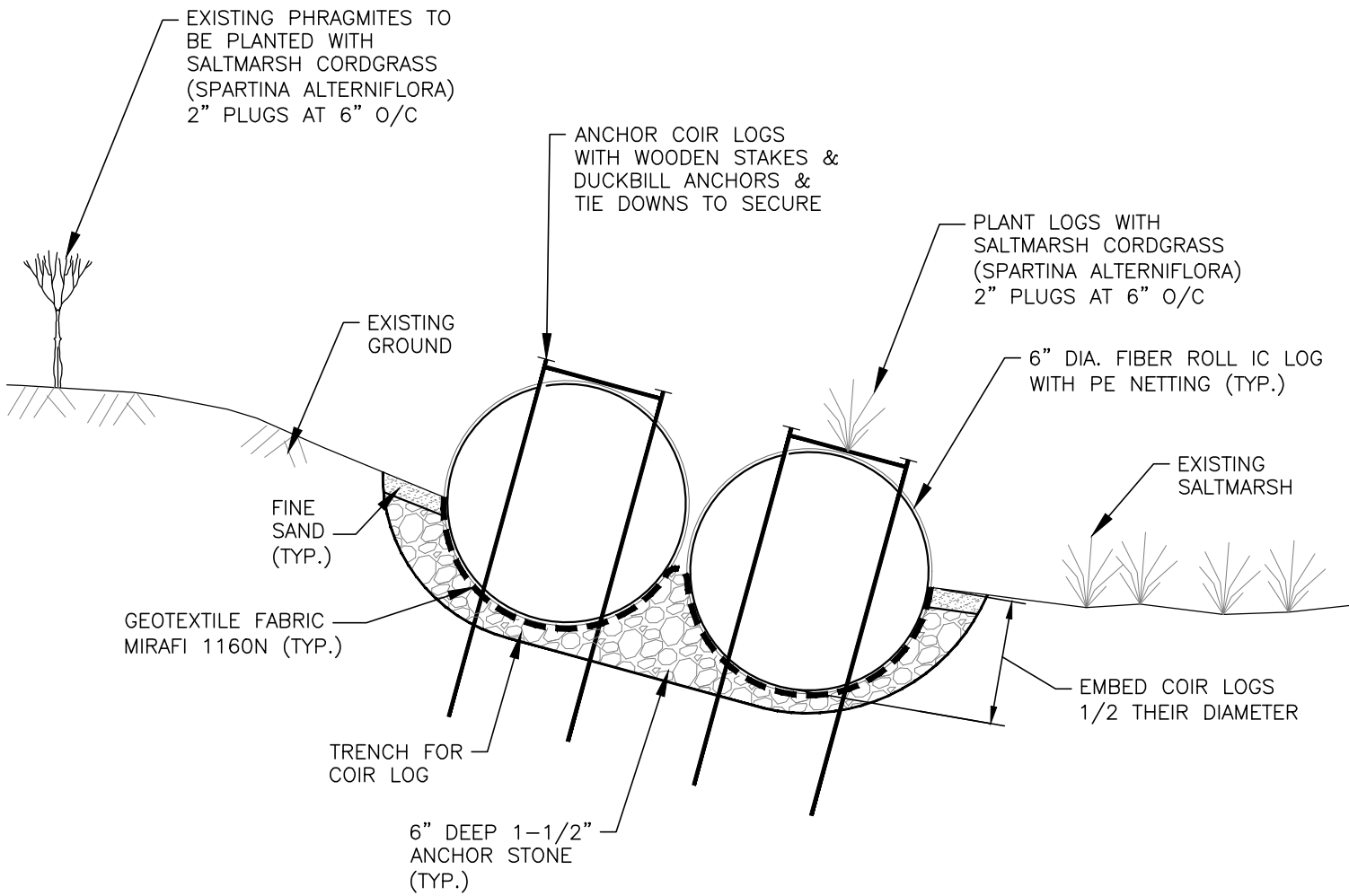
NOTE: AT UPLAND EDGE 2 STACKED 12" COIR LOGS AND NO PLANTINGS



NOTES:

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILTREXX SYSTEM SHALL BE INSTALLED BY A CERTIFIED FILTREXX INSTALLER.
3. THE CONTRACTOR SHALL MAINTAIN THE COMPOST FILTRATION SYSTEM IN A FUNCTIONAL CONDITION AT ALL TIMES. IT WILL BE ROUTINELY INSPECTED AND REPAIRED WHEN REQUIRED.
4. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES, GREATER SLOPES MAY REQUIRE ADDITIONAL PLACEMENTS.
5. THE COMPOST FILTER MATERIAL WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.

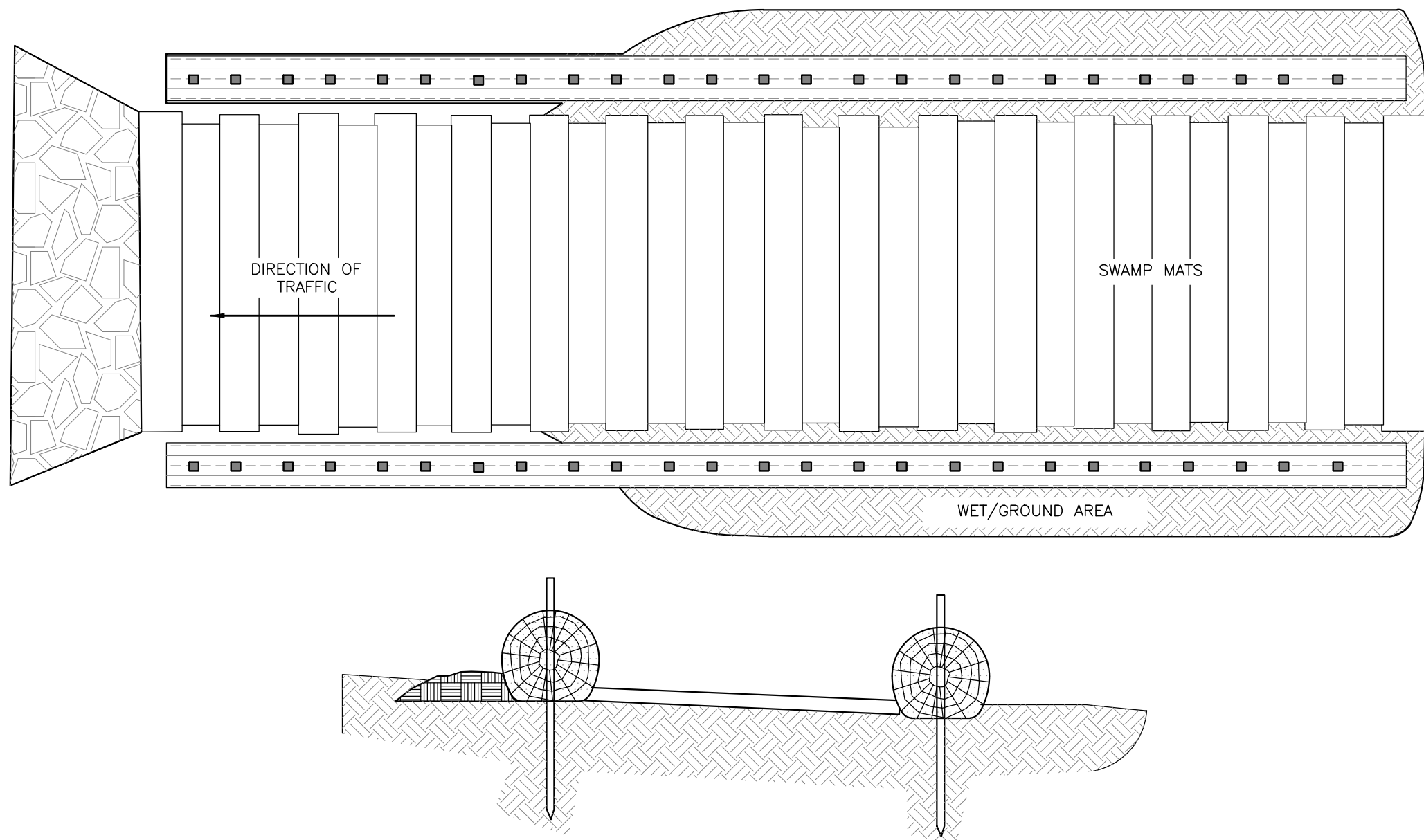
B FILTREXX® SILTSOXX™ FILTRATION SYSTEM (INSTALL IF NEEDED) NTS



C C2 COIR LOG STABILIZATION DETAIL

NOT TO SCALE

INSTALL PER MANUFACTURER RECOMMENDATIONS



D SWAMP MATS

AS NEEDED

NTS

NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
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- 11) IC LOG WITH PE NETTING FROM NEW ENGLAND GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

0	04/14/2025	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK

DRAWING ISSUE STATUS

PERMIT PLAN



HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING
200 Griffin Rd, Unit 14
Portsmouth, NH 03801
603.430.9282

PROJECT
RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE
SHORELAND STABILIZATION

SHORELAND STABILIZATION DETAILS

DATE MARCH 2025		SCALE AS NOTED	
DRAWN BY CBA	DESIGNED BY JRC	CHECKED BY JRC	
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3	
DRAWING No.		REV.	
SHEET D1		0	

NHB25-1592 NEW HAMPSHIRE FISH AND GAME CONSERVATION MEASURES:

1. SHORTNOSE STURGEON (STATE AND FEDERALLY ENDANGERED), ATLANTIC STURGEON (STATE AND FEDERALLY THREATENED), NEW ENGLAND COTTONTAIL (STATE ENDANGERED), COMMON TERN (STATE THREATENED), CLIFF SWALLOW (STATE THREATENED), AND EASTERN MEADOWLARK (STATE THREATENED) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHOULD BE MADE AWARE OF THEIR POTENTIAL PRESENCE. SEE PLAN SHEET D2
2. NO IN-WATER WORK IS PROPOSED AND ALL WORK WILL BE CONDUCTED "IN THE DRY". IF WORK MUST BE CONDUCTED IN THE WATER NHFG MAY REQUIRE RECONSULTATION.
3. NO VEGETATION REMOVAL IS PROPOSED.
 - a. SCRUB-SHRUB VEGETATION SHALL BE MAINTAINED ON SITE TO PROVIDE CONNECTIVITY IN THE LANDSCAPE FOR NEW ENGLAND COTTONTAIL.
4. IF NESTING CLIFF SWALLOWS ARE OBSERVED IN OR DIRECTLY ADJACENT TO THE PROJECT AREA, NHFG SHALL BE NOTIFIED FOR FURTHER COORDINATION AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATA CHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION. CLIFF SWALLOWS MAY NEST IN STRUCTURAL FIGURES ON NEARBY BUILDINGS SUCH AS EAVES, GUTTERS, DORMER, RAFTER, ROOF, OR SIMILAR FEATURES ON A STRUCTURE. SEE PLAN SHEETS C1 & C2.
5. EQUIPMENT AND MATERIALS SHALL NOT BE STAGED OR STORED IN THE MARSH UNTIL BEING INSTALLED. SEE PLAN SHEET C2.
6. PROPER EROSION CONTROL SHALL BE INSTALLED TO PREVENT SEDIMENTATION FROM REACHING INTO THE WATERBODY. SEE PLAN SHEET D1.
7. AVOID OR MINIMIZE THE USE OF FERTILIZERS IN UPLAND AREAS OR TRANSITION ZONES. IF FERTILIZERS ARE NECESSARY, USE ORGANIC VERSUS SYNTHETIC FERTILIZERS OPTIONS. SYNTHETIC OPTIONS SHOULD BE AVOIDED; HOWEVER, IF CHOSEN, THEY SHOULD BE CONTROLLED-RELEASED/SLOW-RELEASED AND AT LOW STRENGTHS. SEE PLAN SHEET C2 & D1.
8. NATIVE SPECIES SHOULD BE USED FOR RESEEDING OR LANDSCAPING DISTURBED AREAS, IF APPLICABLE. SEE PLAN SHEETS C2, C3 & D1.
9. IF HYDROSEEDING IS DEEMED NECESSARY, THE MIX SHOULD NOT CONTAIN MICROPLASTICS AND DYES SHALL BE WATER-SOLUBLE AND ECO-FRIENDLY. HYDROSEEDING SHALL NOT OCCUR WITHIN 50 FEET OF THE RIVERS OR STREAMS TO MAINTAIN WATER QUALITY. SEE PLAN SHEET C2.
10. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, WITH THE EXCEPTION OF TURF REINFORCEMENT MATS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHOULD NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES. SEE PLAN SHEET C2 & D1.
11. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHOULD BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION.
 - a. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHOULD BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
12. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHOULD NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG.
13. NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHOULD HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

REPORT OBSERVATIONS OF EASTERN MEADOWLARK



The NH Fish & Game Department is requesting observations of Eastern Meadowlark that could be encountered onsite. Report sightings immediately to NHFG Wildlife Division at 603-271-2461 (M-F 8-4) or to NHFG Wildlife Biologist Melissa Winters 603-479-1129 (cell) anytime. Please report promptly, noting specific location and date – Photographs strongly encouraged



Photo credit: Cornell lab of ornithology

- **State Threatened**
 - Possession and take prohibited.
 - Nests protected.
- Medium-sized bird (slightly larger but more compact than an American Robin, smaller than a Blue Jay) ~ 7.5-10.2 inches from tip to end of tail.
- Wingspan is 13.8-15.8 inches.
- Mottled brown back.
- Bright yellow throat and breast.
- Distinctive black "V" on chest.



Photo credit: Mike Allen

- **Nesting occurs typically between mid-late May and early August**
- Nests consist of 2-7 eggs.
- Eggs are white with brown speckles.
- May have more than 1 nest in a season.
- Nest is built on the ground with a roof of woven grasses, often not obvious when viewed directly from above.
- Incubation is for 13-16 days, nestling period lasts for 10-12 days



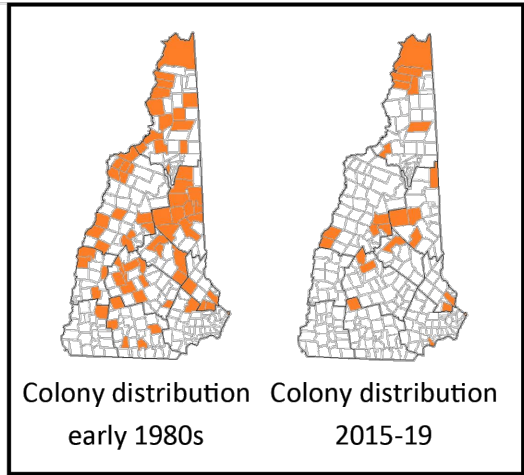
Photo credit: Mike Allen

- Adults may act agitated if disturbed within the vicinity of the nest. This may include:
 - Sharp alarm calls.
 - Flying from perch to perch, centered on a certain location.
 - Presence of two adults.

Cliff Swallows in New Hampshire: Fast Facts

Distribution and trends (see maps):
Early 1980s: over 80 colonies
Early 2000s: fewer than 40 colonies
2015-2019: 20-25 colonies

Existing colonies are primarily located in northern Coos County, with a second cluster in the Lakes Region. Most are on houses or barns, with two known sites on bridges. They range in size from single pairs to over 30, with most in the 5-10 range.



Migration:

- Arrive in early May and depart in August
- Rarely linger into September

Breeding:

- Lay eggs by end of May (sometimes later in the north)
- Incubation for two weeks
- Young leave nest in three weeks
- Most breeding completed by end of July

Cliff Swallows belong to a group of birds collectively known as "aerial insectivores," meaning that they feed primarily on insects caught while in flight. This group includes all swifts, swallows, flycatchers, and night-jars (nighthawks and whip-poor-wills), and shows some of the strongest declines among North American birds.

Most aerial insectivores in the Northeast are declining, and several additional species are considered "species of greatest conservation need" in New Hampshire including:

- Common Nighthawk (endangered)
- Purple Martin (threatened)
- Bank Swallow
- Chimney Swift
- Eastern Whip-poor-will
- Olive-sided Flycatcher

For more information on these species, please see the NH Wildlife Action Plan <https://www.wildlife.state.nh.us/wildlife/wap.html>

For more detail on NH Cliff Swallows or to report sightings, contact Pam Hunt at NH Audubon (phunt@nhaudubon.org, 603-224-9909 x328). Additional information available at: <https://www.cliffswallow.org/>

Acknowledgments

Brochure developed by NH Audubon and the NH Fish and Game Department's Nongame Program with funding from a USFWS State Wildlife Grant and private donations.



NH's Threatened

Cliff Swallows



Photo by Alan Schmierer

The Cliff Swallow (*Petrochelidon pyrrhonota*) is a colonial swallow that builds mud nests on vertical surfaces across most of North America. The number of colonies in New Hampshire has declined from over 80 in the 1980s to less than 25 today, and as a result it was added to the state's list of threatened species in 2017.



The nest is gourd-shaped, made of mud, and attached to a vertical surface under an overhang (e.g., building eave). Nests are often very close together, even overlapping.

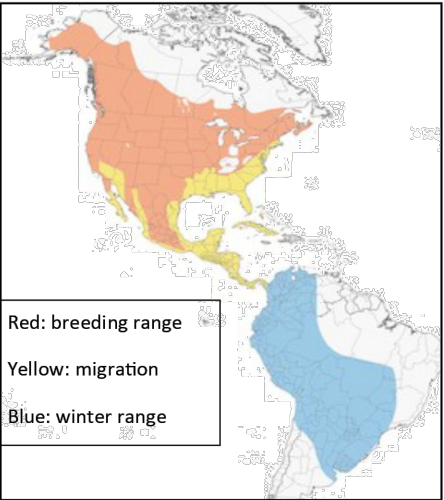
Species Overview

Cliff Swallows may be confused with the related Barn Swallow, which is far more common in NH. Barn Swallows are easily recognized by their long forked tails, while those of Cliff Swallows are short and square. They also have a buffy rump and white forehead.

Cliff Swallows breed across most of North America and spend the winter in South America.



Photo by Dick Dionne



Historically, they nested on vertical natural cliffs in western North America, but were rare in the largely forested east. Agricultural clearing in the late 1800s created the open habitat needed for foraging, and allowed the species to expand its range into New England. The birds that colonized the east tended to nest on buildings, since natural cliffs were rare. More recently the species also took to nesting on bridges.

Threats to Cliff Swallows

Disturbance

Cliff Swallows and active nests are protected under state and federal law but nests are sometimes removed by homeowners who do not want mud or droppings on the sides of their houses. Nests are also vulnerable to removal during bridge-cleaning.

Competition

Non-native House Sparrows often occur in the same agricultural settings as Cliff Swallows, and may take up residence in old swallow nests before swallows arrive in the spring. Even if swallows build new nests, the sparrows may take them over, and are also known to remove eggs or kill nestling swallows in the process.

Pesticides

Pesticide use in heavily agricultural landscapes may result in declines in Cliff Swallows' insect prey. Data linking agricultural intensification to swallow reproductive success are inconclusive, and more research is needed.

Climate change

Cold wet weather in late spring suppresses flying insects, and thus reduces food availability for swallows. If weather patterns become increasingly variable in this manner, swallows may fail to reproduce or suffer direct mortality.

Habitat loss

As farms are abandoned, the availability of barns for nesting and associated fields for foraging may become lower. Many formerly-occupied sites in NH do not appear to have changed so this threat is presumed low.

How You Can Help Cliff Swallows

Please don't knock down their nests!

With so few colonies in NH, we need to help Cliff Swallows as much as we can. If nests are resulting in a mess on the outside of your house, please wait until August to remove them and contact NH Audubon or NHFG for further guidance. Cliff Swallows and active nests are protected under state and federal law.

Provide artificial nests

Sometimes Cliff Swallows will build their nests on clay replicas attached to eaves of buildings, and this may be a way to get them to move locations. Nests should be placed at the top of a wall and directly under the eaves, and taken down for cleaning over the winter.

Provide a source of mud

If you do have nesting Cliff Swallows, you can help them out by maintaining a mud puddle nearby. They'll use this throughout the season to refurbish their nests. Make sure the mud is sticky (e.g., a good clay content).



Minimize use of insecticides

Report colonies to NH Audubon

If you see Cliff Swallows on your property during the summer, report them, even if you don't see nests.

0	04/14/2025	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK
DRAWING ISSUE STATUS				
PERMIT PLAN				
 HALEY WARD ENGINEERING ENVIRONMENTAL SURVEYING 200 Griffin Rd, Unit 14 Portsmouth, NH 03801 603.430.9282				
PROJECT RETROSI RESIDENCE 318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE 03820 SHORELAND STABILIZATION				
TITLE NH FISH & GAME CONSERVATION MEASURES				
DATE MARCH 2025		SCALE AS NOTED		
DRAWN BY CBA	DESIGNED BY JRC	CHECKED BY JRC		
PROJECT No. 5010180.3050.32		FIELD BOOK AND PAGE FB 515 PG 3		
DRAWING No.			REV.	
SHEET D2			0	

An aerial map showing a residential area with several streets. A yellow rectangle highlights a specific parcel located between Dover Point Rd and Spaulding Turnpike. The map includes various street names such as Route 4, Spaulding Turnpike, Hilton Rd, and Dover Point Rd. Numerous house numbers are visible, including 301, 302, 304, 306, 308, 312, 316, 318, 320, 322, 324, 326, 330, 332, 334, 336, 337, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500. A scale bar in the bottom right corner indicates 1" = 299.37418818415887 ft. The Google logo is visible in the bottom left corner.

Location	318 DOVER POINT RD
Owner	RETROSI ANTHONY & STEPHANIE TRUSTEES
Land Use	101R
Zoning Code	R-20
Property Id	L0114-000000

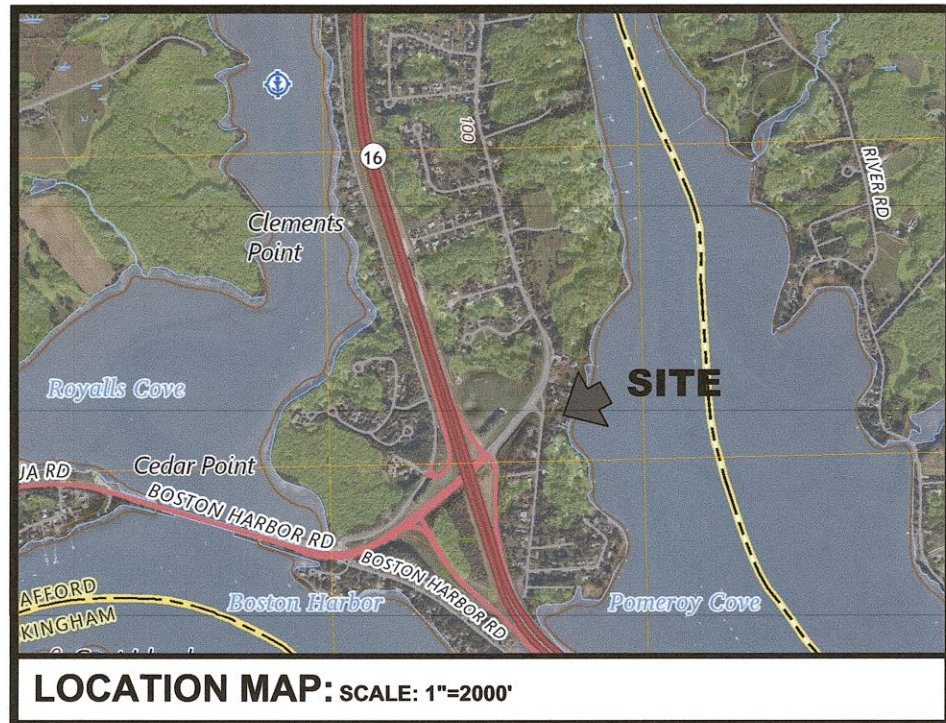


MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

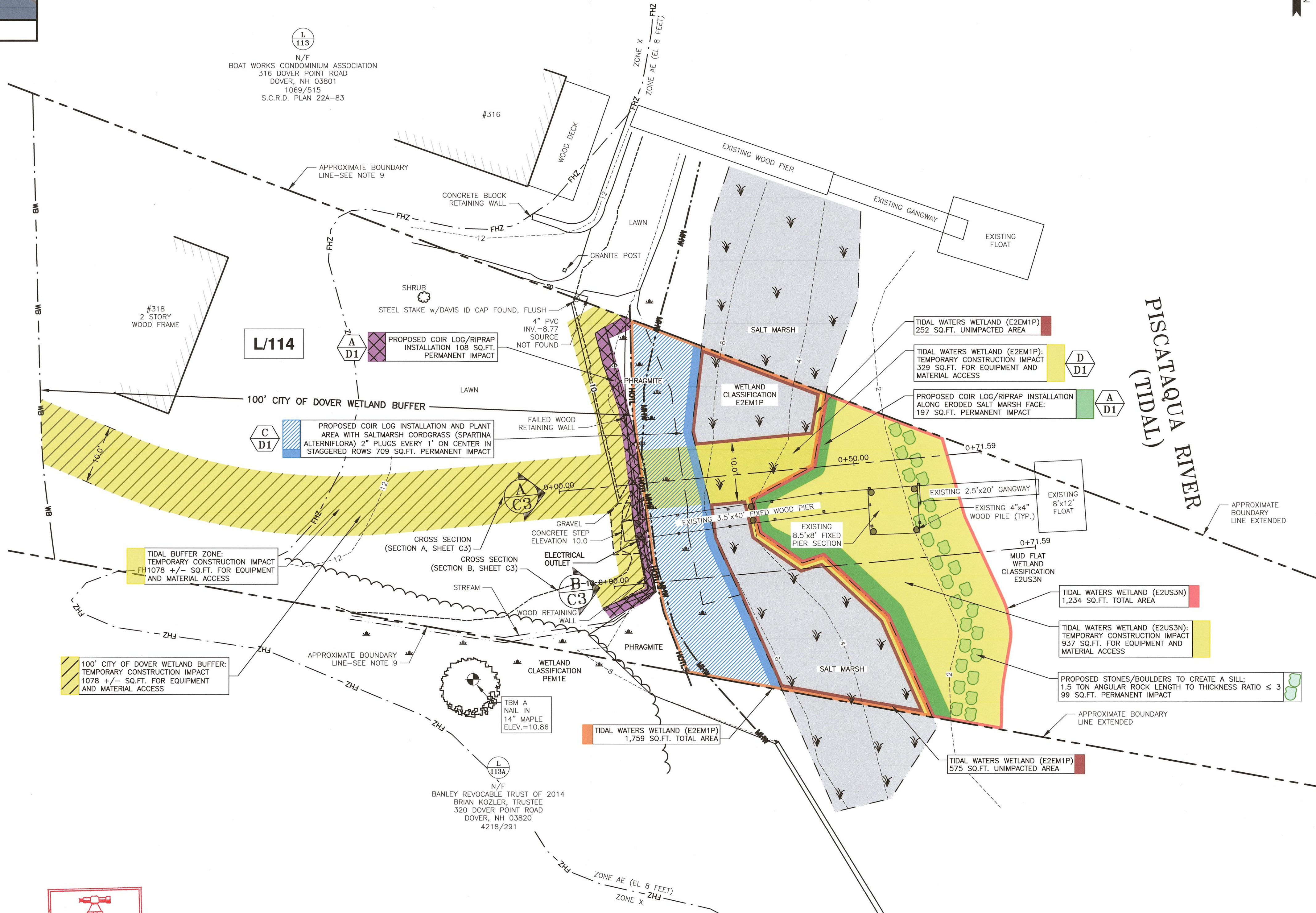
City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 10/30/2023
Data updated Daily

Print map scale is approximate.
Critical layout or measurement
activities should not be done using
this resource.



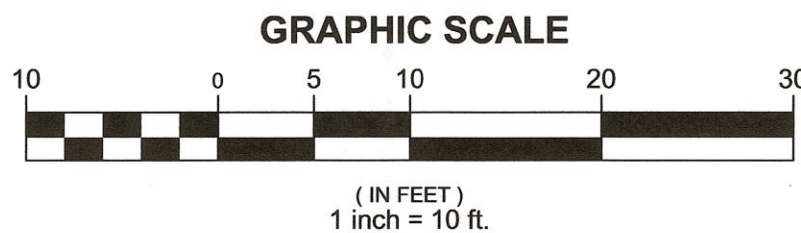
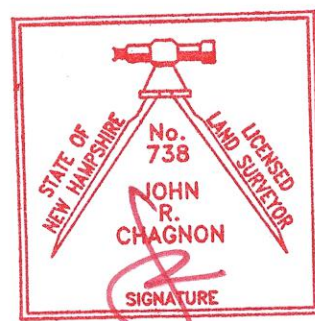
LEGEND:
SEE SHEET C1



"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

5.6.26

JOHN R. CHAGNON, LLS #738 DATE



100' CITY OF DOVER WETLAND IMPACT AREAS (IN SQ.FT.)			
	PERMANENT IMPACT (SF)	TEMPORARY IMPACT (SF)	TOTAL IMPACT (SF)
100' CITY OF DOVER WETLAND BUFFER	108	1,078 +/-	1,186 +/-

NORTH
NAD83(2011)
GRID
NH SPC

- NOTES:
- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP L AS LOT 114.
 - 2) OWNERS OF RECORD:
THE ANTHONY A. RETROSI AND
STEPHANIE W. RETROSI REVOCABLE LIVING TRUST
ANTHONY A. RETROSI &
STEPHANIE W. RETROSI, TRUSTEES
318 DOVER POINT ROAD
DOVER, NH 03820
4726/147
S.C.R.D. PLAN 17B-99 (LOTS A & B)
 - 3) A PORTION OF THE PARCEL IS IN A SPECIAL FLOOD HAZARD AREA ZONE AE (EL.8), AS SHOWN ON FIRM PANEL 33017C0340E. EFFECTIVE DATE SEPTEMBER 30, 2015.
 - 4) EXISTING LOT AREA:
23,555 S.F. (PER PLAN REFERENCE 1)
 - 5) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SHORELAND STABILIZATION IMPROVEMENTS ON A PORTION OF ASSESSOR'S MAP L LOT 114 IN THE CITY OF DOVER.
 - 6) DIMENSIONAL REQUIREMENTS:
MIN. LOT AREA: 20,000 S.F.
FRONTAGE: 125 FEET
SETBACKS: FRONT 20 FT MIN.-35 FT MAX.
SIDE 20 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET
MAXIMUM LOT COVERAGE: 30%
 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SHORELAND STABILIZATION IMPROVEMENTS ON A PORTION OF ASSESSOR'S MAP L LOT 114 IN THE CITY OF DOVER.
 - 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (± 0.2). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.
 - 9) APPROXIMATE BOUNDARY LINES ARE FROM PLAN REFERENCES 1 & 2. THIS IS NOT A BOUNDARY SURVEY.
 - 10) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES DECEMBER 2008).
 - 11) IC LOG WITH PE NETTING FROM NEW ENGLAND GEOTEXTILE CO. INC. PHONE: (508) 458-5081 INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

0	05/06/26	ISSUED FOR COMMENT	CBA	JRC
REV	DATE	DESCRIPTION	BY	CHK.

DRAWING ISSUE STATUS

PERMIT PLAN



PROJECT

RETROSI RESIDENCE
318 DOVER POINT ROAD DOVER, NEW HAMPSHIRE 03820
SHORELAND STABILIZATION

TITLE

DOVER CUP PLAN

DATE	SCALE
MARCH 2025	1" = 10'
DRAWN BY	DESIGNED BY
CBA	JRC
CHECKED BY	JRC
PROJECT NO.	FIELD BOOK AND PAGE
5010180.3050.32	FB 515 PG 3
DRAWING NO.	REV.
SHEET C4	0



PLANNING DEPARTMENT
RECEIVED

MAY 18 2026

DOVER, NEW HAMPSHIRE

May 15, 2026

Gina Cruikshank
Planning Board Chairperson
288 Central Ave
Dover, NH

Re: Conditional Use Permit Application, Tax Map #7, Lot #6, Coir Logs

Dear Ms. Cruikshank:

Coir logs are a biodegradable erosion control product manufactured from densely compacted coconut fiber and wrapped in natural fiber netting.

They are commonly utilized along shorelines, stream banks, and other environmentally sensitive areas to provide stabilization while native vegetation becomes established.

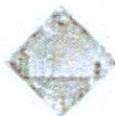
When properly installed, coir logs help dissipate wave action, reduce the velocity of stormwater runoff, and minimize the loss of sediment from eroding banks. In addition to stabilizing the shoreline, the coir fiber retains moisture and creates a suitable environment for the establishment of native plantings, allowing root systems to develop and provide long-term stabilization benefits.

Because coir logs are constructed from natural biodegradable materials, they are considered a low-impact and environmentally sensitive erosion control measure that is commonly accepted for use in wetland and waterfront restoration projects throughout New Hampshire, including projects subject to review by the NH DES Wetlands Bureau.

Sincerely,

A handwritten signature in black ink, reading "Kuerstin Fordham".

Kuerstin Fordham
Riverside & Pickering Marine Contractors
34 Patterson Lane
Newington, NH 03801



FIBERWONDERS

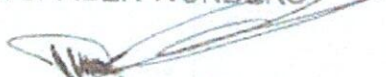
PERUMPARA JM., KURUPPANKULANGARA P.O. CHERTHALA INDIA, PIN-688 551, PHONE: 919447165988, 916238566969, Fax-0478 2865988
E mail: joy@fiberwonders.com

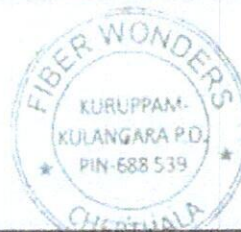
COIR LOG SPECIFICATIONS:- **12"x10'-HIGH DENSITY**



Material	100% Natural Coir
Size - Length	10 feet
Size – Diameter	12 inch
Construction/Weave	Fibers compressed in a tubular coir mesh netting
Construction type	Hand woven .
Weight	Between 30 to 31 kgs.
Mesh type	Coir yarn
Inner Core	Well graded Coir Fiber

For FIBER WONDERS


Managing Partner



Manufacturers and Exporters of :- Coir (coco) Door Mats and Matings, Jute Matings, Sisal, Sea Grass, Rubber, Cotton Handloom And Other Allied Products.



COIR LOGS

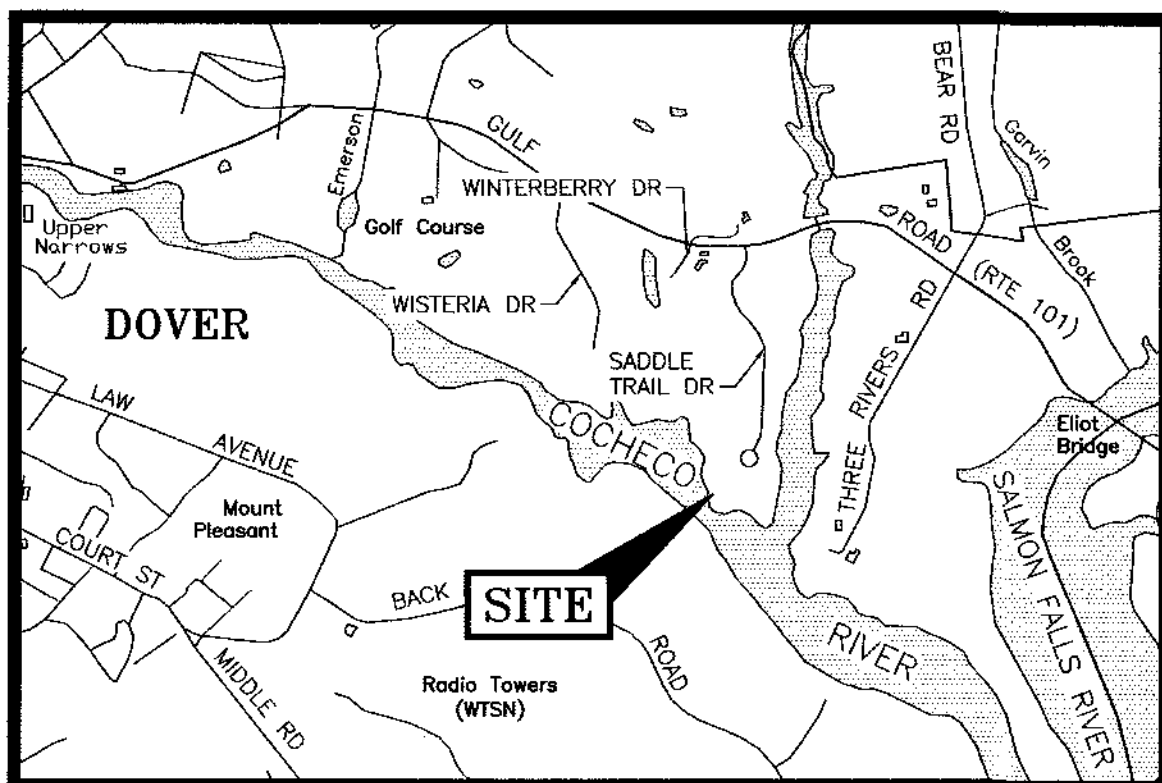
PRODUCT SPECIFICATIONS

(Regular & Drilled)



DESCRIPTION	12" X10'	16" x 10'	20" x10'
MATERIAL	100% Natural Coir	100% Natural Coir	100% Natural Coir
DIAMETER	12 inches	16 inches	20 inches
LENGTH	10 feet	10 feet	10 feet
DENSITY	9 lbs./sq. ft.	9 lbs./sq. ft.	9 lbs./sq. ft.
WEIGHT	31 kg/log	45-47 kg/log	65 kg/log
MESH TYPE	Coir Yarn	Coir Yarn	Coir Yarn
INNER CORE	Coir Fiber	Coir Fiber	Coir Fiber





LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	EDGE OF SALTMARSH
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
TYP.	TYPICAL
EL.	ELEVATION

PLAN REFERENCES:

- 1) LOT LINE ADJUSTMENT PLAN FOR TAX MAP N LOT 8-10-0 SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATION TAX MAP N LOT 8-2-0 DAVID DELLA PENTA & KAREN DELLA PENTA GULF ROAD, SADDLE TRAIL DRIVE & WISTERIA DRIVE DOVER, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, LLC DATED JANUARY 2022. S.C.R.D. PLAN #12621

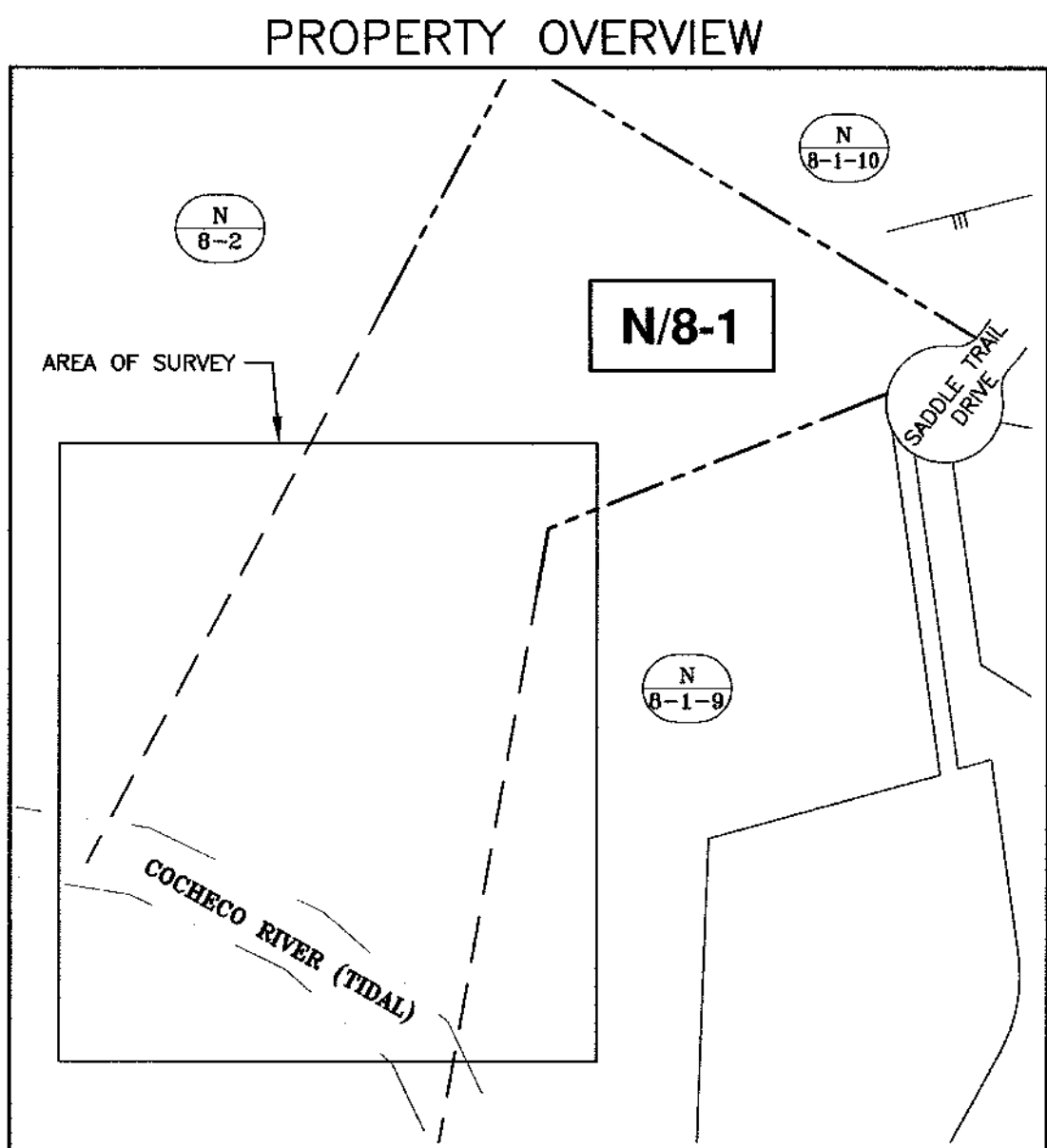
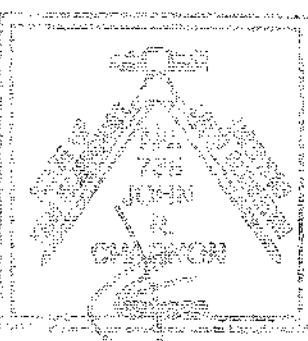
WETLAND NOTES:

- 1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.
- 2) HOTEL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

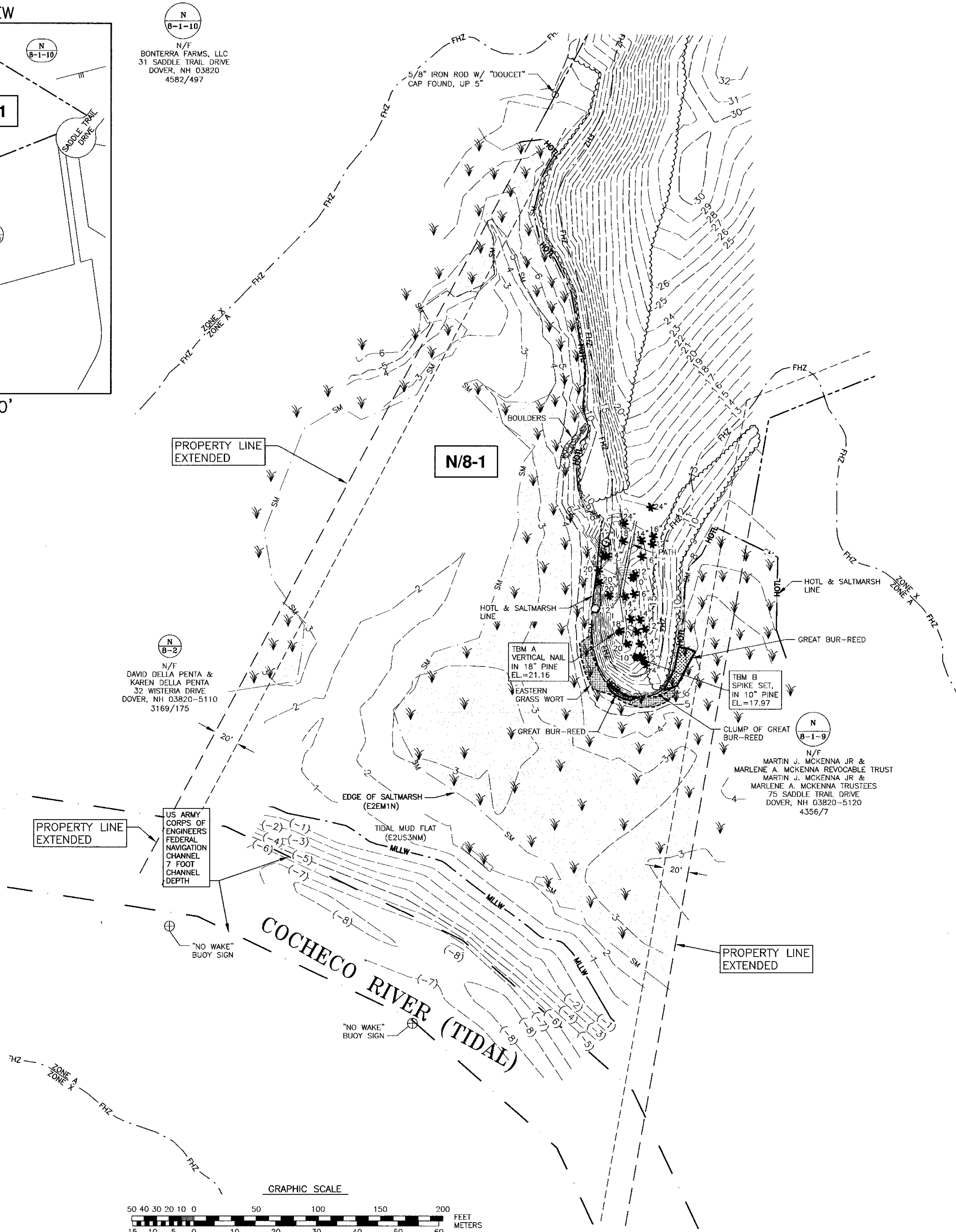
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS #738

DATE



SCALE: 1" = 200'



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
- 2) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
- 3) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
- 4) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW
- 5) PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.
- 6) DIMENSIONAL REQUIREMENTS:

MIN. LOT SIZE:	40,000 S.F.
MAX. LOT COVERAGE:	10%
FRONTAGE:	150 FEET
SETBACKS:	FRONT 40 FEET
	SIDE 25 FEET
	REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
- 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

**SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.**

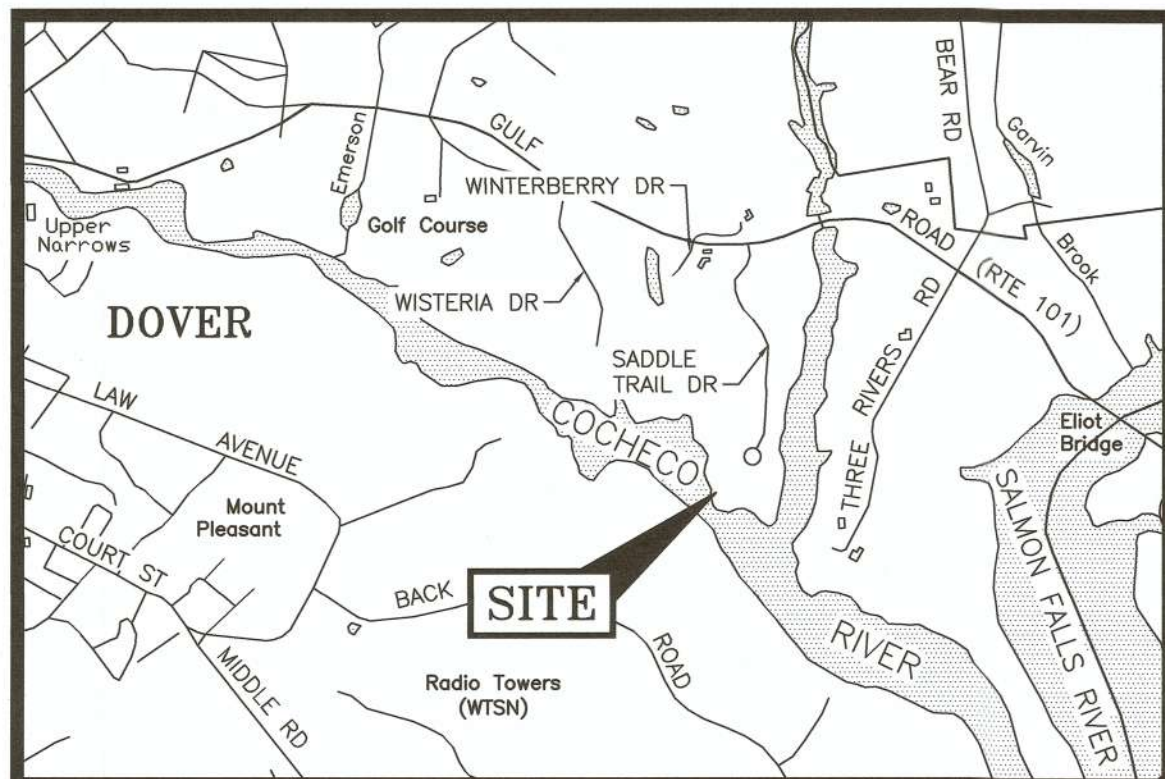
NO.	DESCRIPTION	DATE
2	EXTEND SATLMARSH TO HOTEL	6/13/23
1	ADDED PROTECTED SPECIES LOCATIONS	6/7/23
0	ISSUED FOR COMMENT	11/29/22
REVISIONS		

SCALE: 1"=50'

SEPTEMBER 2022

**EXISTING CONDITIONS
PLAN**

C1

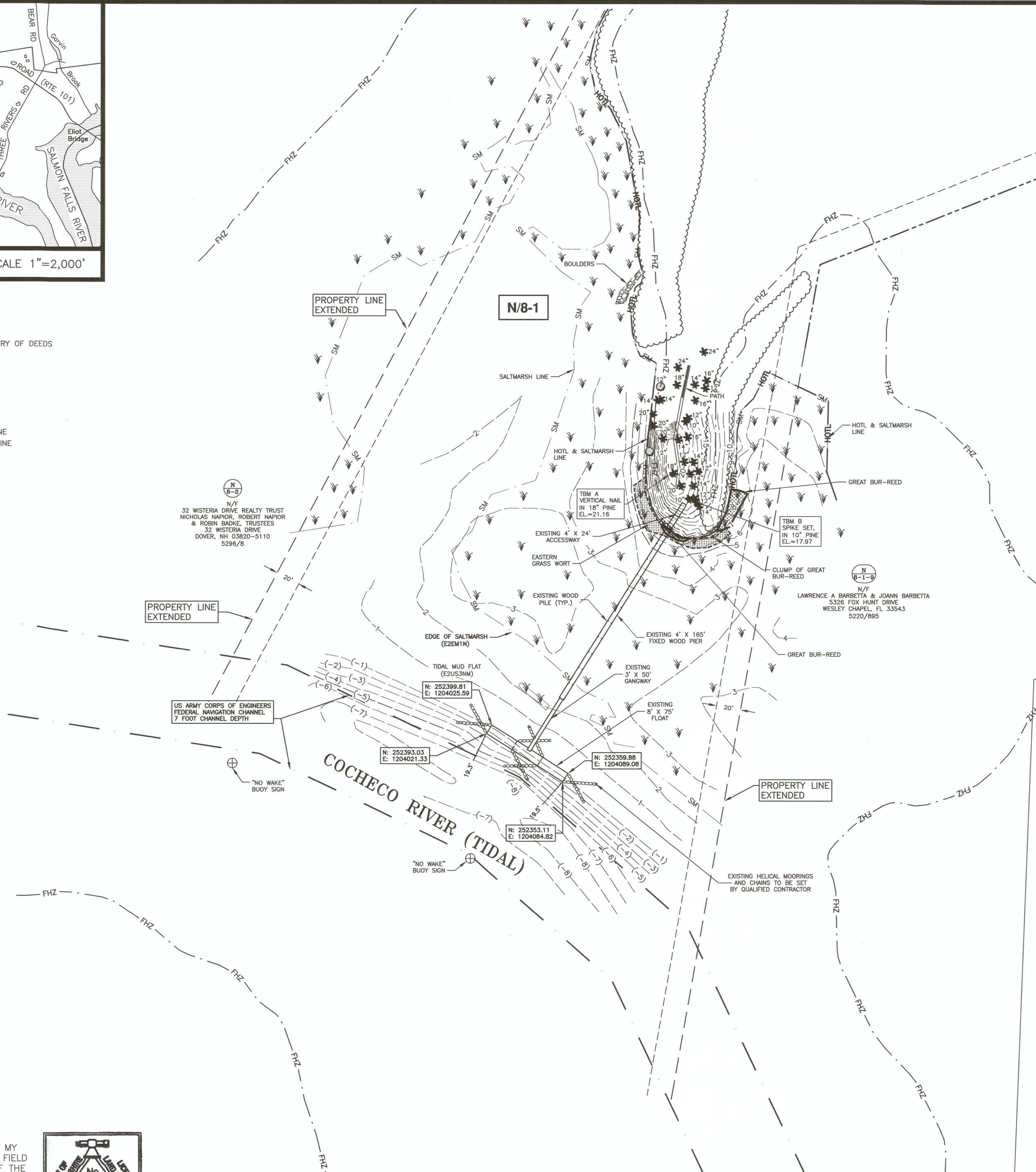


LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	EDGE OF SALTMARSH
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
TYP. EL.	TYPICAL ELEVATION



GRID
NAD83(2011)
NORTH



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
- 2) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
- 3) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
- 4) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW
- 5) PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.
- 6) DIMENSIONAL REQUIREMENTS:
MIN. LOT SIZE: 40,000 S.F.
MAX. LOT COVERAGE: 10%
FRONTAGE: 150 FEET
SETBACKS: FRONT 40 FEET
SIDE 25 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
- 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.

0	ISSUED FOR COMMENT	3/23/26
NO.	DESCRIPTION	DATE
REVISIONS		

SCALE: 1"=40'

MARCH 2026

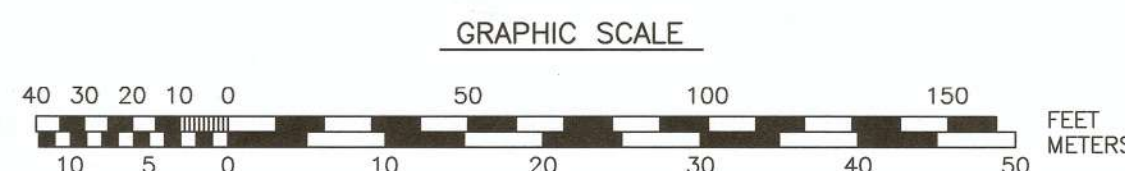
AS-BUILT
PLAN

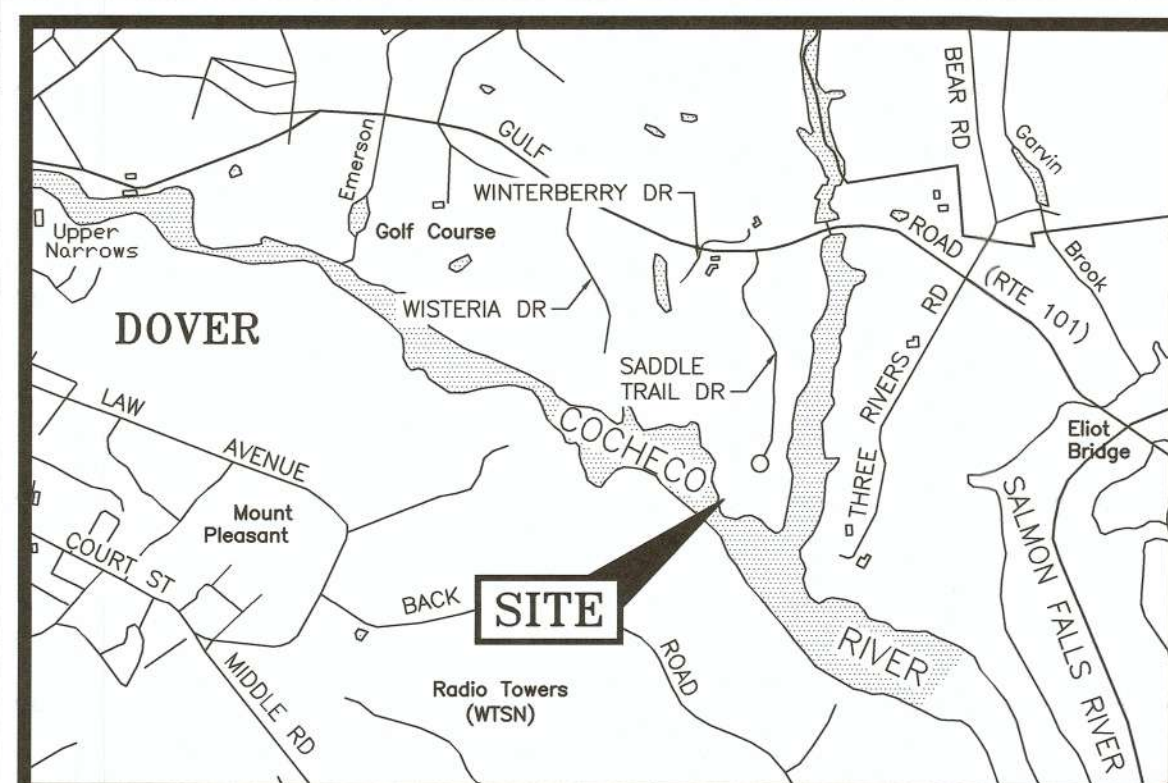
C2

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSEST AVAILABLE THAT EXCEEDS THE PRECISION OF 1:15,000.

CHARLES S. ADAMS, LLS #1622

DATE





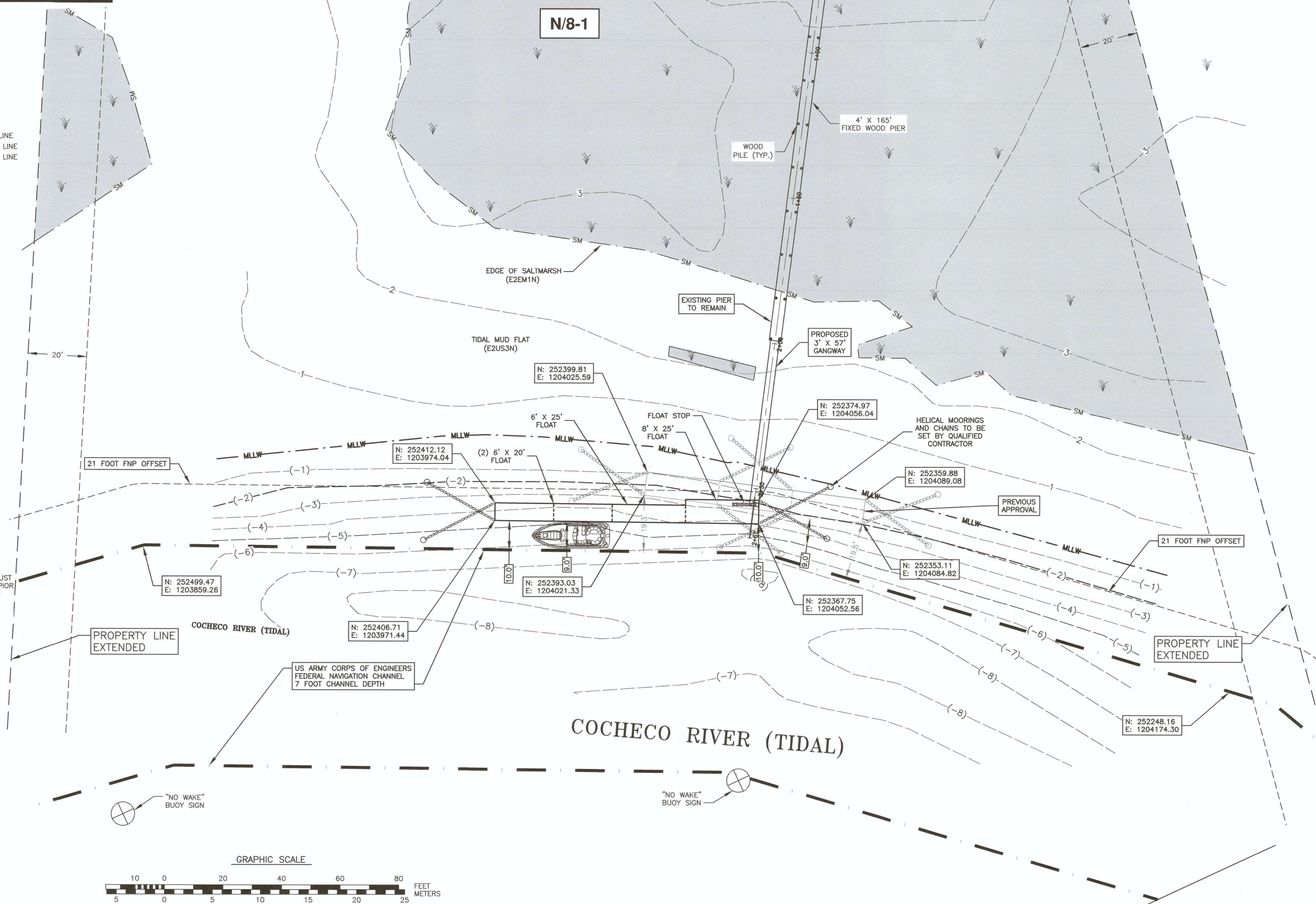
LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY
	REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
---	TYPICAL ELEVATION

N/F
32 WISTERIA DRIVE REALTY TRUST
NICHOLAS NAPIOR, ROBERT NAPIOR
& ROBIN BADKE, TRUSTEES
32 WISTERIA DRIVE
DOVER, NH 03820-5110
5296/8



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
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NOTES:

PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.

1) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397

2) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.

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264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW

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REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET

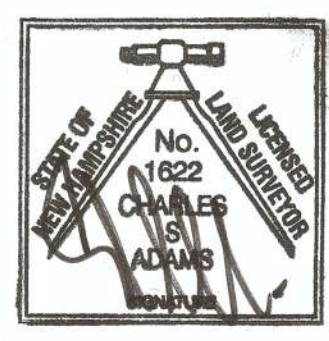
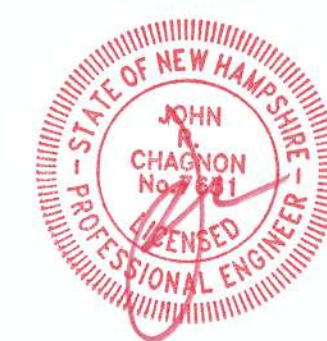
6) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED TIDAL DOCKING STRUCTURE ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.

7) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

**SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.**

6	DOCK LAYOUT	3/24/26
5	BATHYMETRY	10/1/25
4	RELOCATED PILE SET	6/15/23
3	EXTEND SALTMARSH TO HOTEL	6/13/23
2	ADDED PROTECTED SPECIES LOCATION	6/7/23
1	ADD COORDINATE OF FNP & APPLICABLE OFFSET	4/4/23
0	ISSUED FOR COMMENT	11/29/22
NO.	DESCRIPTION	DATE

REVISIONS



SCALE: 1"=20'

MARCH 2026

**NH DES PERMIT PLAN
57' GANGWAY
"L DOCK"**

C3



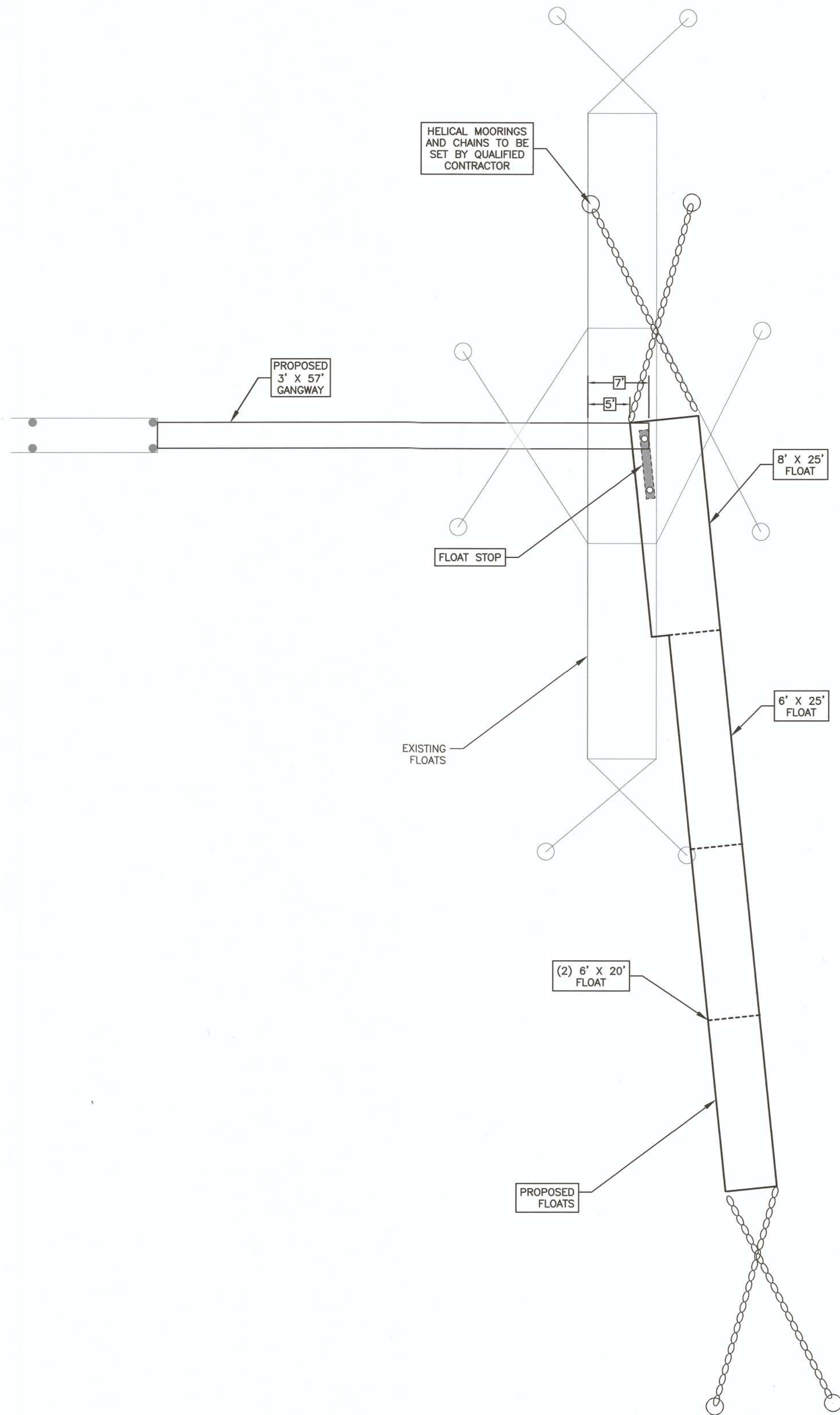
AMBIT ENGINEERING, INC.

Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

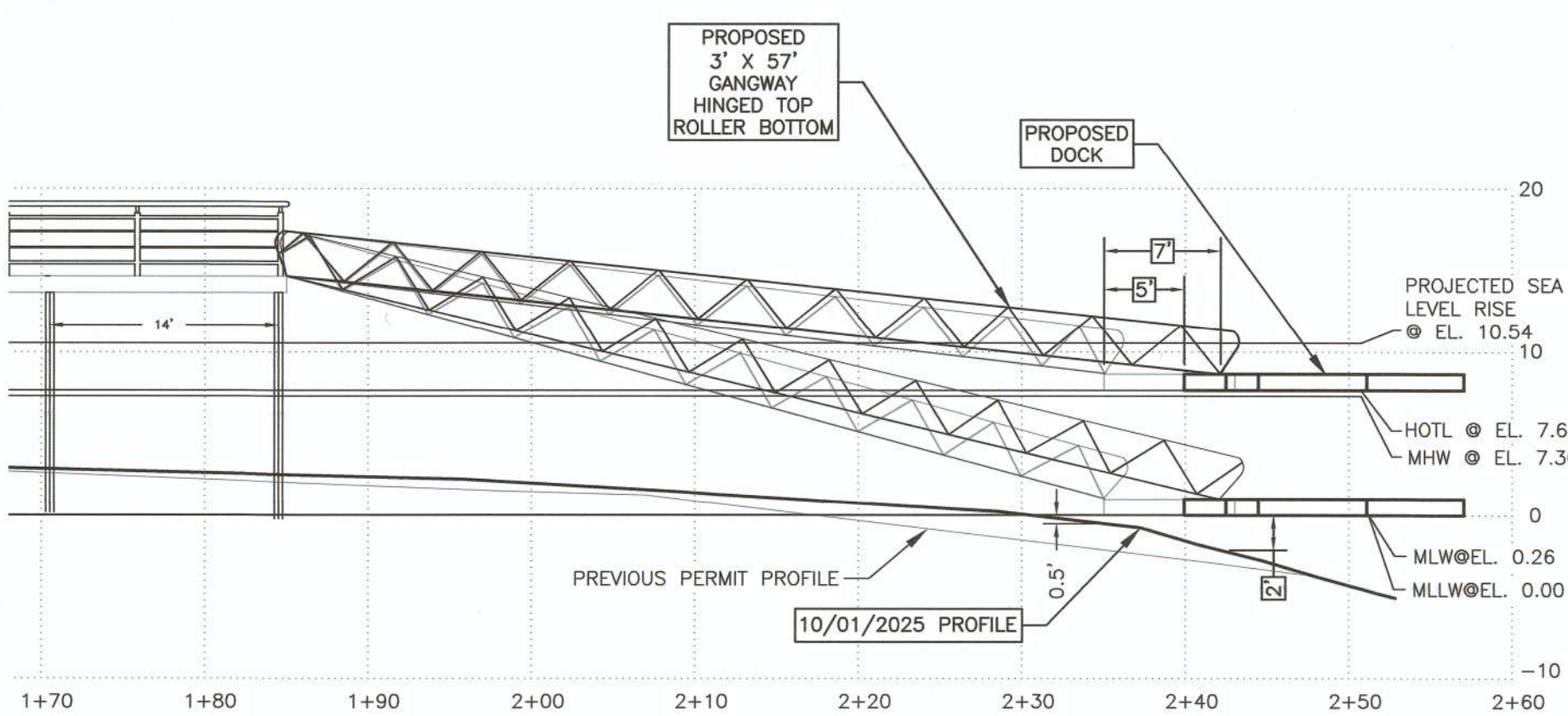
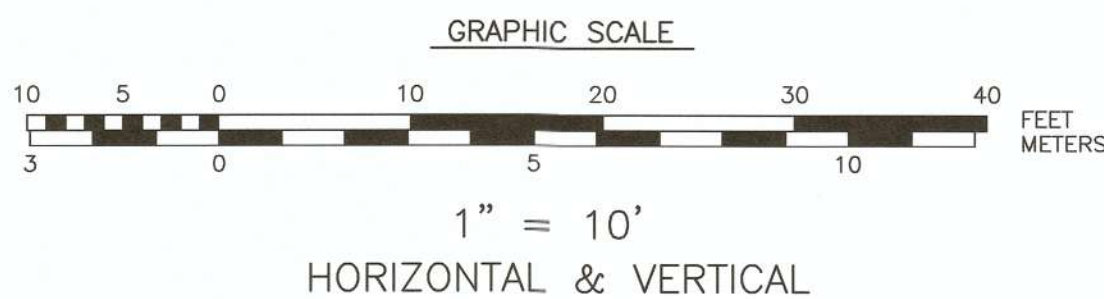
NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- 3) EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS, MARCH 2015.
- 4) NUMBER OF PILES TO BE DRIVEN FOR DOCKING STRUCTURE NOT TO EXCEED 4 AS DEPICTED ON PROPOSED DOCK ELEVATION. ALSO NOTE TIME OF YEAR AND NOISE RESTRICTIONS FOR DRIVING OF PILES.



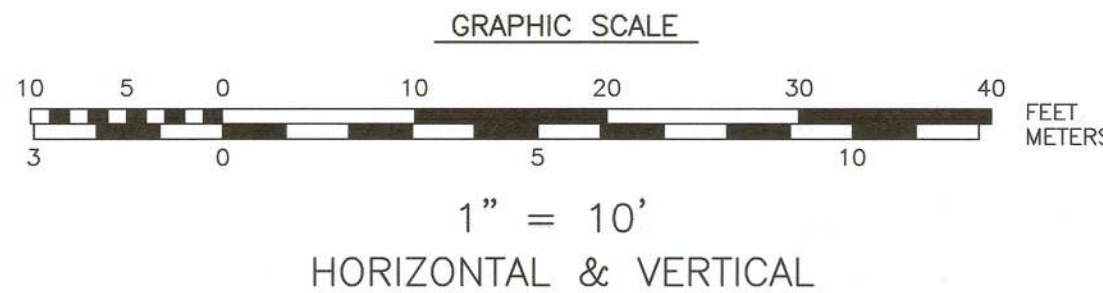
PROPOSED GANGWAY & FLOAT

PROPOSED DOCK PLAN



PROPOSED GANGWAY & FLOAT

PROPOSED DOCK ELEVATION



SEQUENCE OF CONSTRUCTION

- 1) MOBILIZATION OF A CRANE BARGE, PUSH BOAT, WORK SKIFF, MATERIALS AND PREFABRICATED COMPONENTS SUCH AS THE GANGWAY AND FLOAT TO THE SITE VIA APPROVED ACCESS.
- 2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.
- 3) THE BARGE WILL BE POSITIONED ALONGSIDE THE PROPOSED LOCATION OF THE NEW DOCK AND WATERWAY OF ANY EMERGENT VEGETATION TO MINIMIZE IMPACTS.
- 4) INSTALLATION OF THE SUB STRUCTURE WILL BE PERFORMED FROM A CRANE BARGE OR SKIFF TO REDUCE THE AMOUNT OF FOOT TRAFFIC IN THE INTERTIDAL AREA.
- 5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.

DISCHARGES, AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORPS AND AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACE AND AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

UNLESS SPECIFICALLY AUTHORIZED USACE AND AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT IN FRESH WATER WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDUROY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE RESTRICTIONS

- I. PILES INSTALLED IN-THE-DRY OR DURING LOW WATER, OR
 - II. MUST BE DRILLED AND PINNED TO LEDGE, OR
 - III. VIBRATORY HAMMERS USED TO INSTALL ANY SIZE AND QUANTITY OF WOOD, CONCRETE OR STEEL PILES, OR
 - IV. IMPACT HAMMERS LIMITED TO ONE HAMMER AND <50 PILES INSTALLED/DAY WITH THE FOLLOWING: WOOD PILES OF ANY SIZE, CONCRETE PILES <18-INCHES DIAMETER, STEEL PILES 12-INCHES DIAMETER IF THE HAMMER IS <3000 LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.
- FOR II-IV ABOVE:
- I. IN-WATER NOISE LEVELS SHALL NOT >187DB SEL RE IMPA OR 206DB PEAK RE IMPA AT A DISTANCE >10M FROM THE PILE BEING INSTALLED, AND
 - II. IN-WATER NOISE LEVELS >155DB PEAK RE IMPA SHALL NOT EXCEED 12 CONSECUTIVE HOURS ON ANY GIVEN DAY AND A 12 HOUR RECOVERY PERIOD (I.E., IN-WATER NOISE BELOW 155DB PEAK RE IMPA) MUST BE PROVIDED BETWEEN WORK DAYS.

WORK SITE RESTORATION

- I. UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- II. THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS PROHIBITED.
- III. IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.
- IV. WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS AUTHORIZED.

SEDIMENTATION AND EROSION CONTROL

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS

DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

STORAGE OF SEASONAL STRUCTURES

COASTAL STRUCTURES SUCH AS PIER SECTIONS, FLOATS, ETC., THAT ARE REMOVED FROM THE WATERWAY FOR A PORTION OF THE YEAR (OFTEN REFERRED TO AS SEASONAL STRUCTURES) SHALL BE STORED IN AN UPLAND LOCATION, LOCATED ABOVE HIGHEST OBSERVABLE TIDE LINE (HOTL) AND NOT IN TIDAL WETLANDS. THESE SEASONAL STRUCTURES MAY BE STORED ON THE FIXED, PILE-SUPPORTED PORTION OF THE STRUCTURE THAT IS SEAWARD OF HOTL. THIS IS INTENDED TO PREVENT STRUCTURES FROM BEING STORED ON THE MARSH SUBSTRATE AND THE SUBSTRATE SEAWARD OF MHW.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/ FOR CONTROL METHODS.

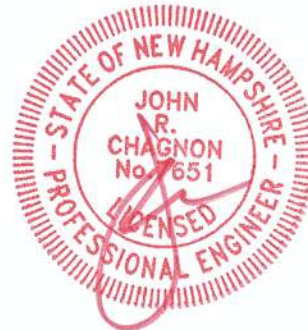
INSPECTIONS

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK, AND POST-DREDGING SURVEY DRAWINGS FOR ANY DREDGING WORK.

**SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.**

NO.	DESCRIPTION	DATE
4	REVISED DOCK LAYOUT	3/24/26
3	ADD THRU-FLOW DECKING	6/28/23
2	REVISED TIME OF YEAR RESTRICTION	6/19/23
1	RAISED PIER ELEV. & RELOCATED PILE	6/15/23
0	ISSUED FOR COMMENT	11/29/22

REVISIONS



SCALE: AS SHOWN SEPTEMBER 2022

DOCK DETAILS

D1

February 12, 2026

Re: New Hampshire Wetland Amendment for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

Dear Reviewer:

This letter transmits a request for a permit amendment for 2023-00062. Due to a survey error, the originally approved dock did not have enough water depth to be functional. We have proposed moving the floats out further by lengthening the gangway, and reconfiguring them to maximize usable water depth and to avoid the federal navigation channel. No new wetland impacts will result from this amendment and the total float size has been reduced from 600 to 590 square feet. Please do not hesitate to reach out to me with questions at kover turf@haleyward.com.

Sincerely,
Haley Ward, Inc.



Kaj Overturf
Scientist | GIS Specialist



**AMENDMENT REQUEST FORM
FOR A WETLANDS APPLICATION OR PERMIT**
Water Division/Land Resources Management
Wetlands Bureau



RSA/Rule: RSA 482-A:3, XIV(e)/ Env-Wt 311.13; Env-Wt 314.07

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

Any request for an amendment to a wetlands application or permit must be submitted to the Department on this form. An applicant may request an amendment to a pending permit application or an existing permit, provided the proposed change does not constitute a **"significant amendment."** A **"significant amendment"** means an amendment which changes the proposed or previously approved acreage of the permitted fill or dredge area by 20 percent or more, includes a prime wetland, or elevates the project's impact classification. This meaning of "significant amendment" shall not apply to an application amendment that is in response to a request from the Department (RSA 482-A:3, XIV(e)).

SECTION 1 - REQUESTED AMENDMENT TYPE AND AMENDMENT CRITERIA

Does the proposed change constitute a "significant amendment" as provided in RSA 482-A:3, XIV(e) and described above? ☐ Yes ☒ No

If you answered "yes" to the previous question, then you cannot request an amendment using this form and must file a new permit application.

☐ AMENDMENT TO PENDING PERMIT APPLICATION, NHDES FILE NUMBER: (proceed to Section 2)

☒ AMENDMENT TO EXISTING PERMIT NUMBER: 2023-00062 (proceed to Section 3)

SECTION 2 - AMENDMENT TO A PENDING PERMIT APPLICATION

☒ Not applicable

To request an amendment to a pending permit application, the applicant must:

- Submit the information required by Env-Wt 311.03, showing the changes prior to the Department's issuance of a final decision on the application, including but not limited to, a revised set of plans and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, I(b) or (c) as applicable, and
- Provide notice to each person to whom notice of the original application was sent prior to filing the amended application with the Department (Env-Wt 311.13).

☐ By checking this box, you confirm that you have provided all information required pursuant to Env-Wt 311.03 to the Department and provided the required notice(s) as described above.

irm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, PO Box 95, Concord, NH 03303-0095

www.des.nh.gov

SECTION 3 - AMENDMENT TO AN EXISTING PERMIT

☐ Not applicable

To request an amendment to an existing permit, the permittee must:

- Submit the information required and filed with the original permit application, including but not limited to a revised set of plans, and revised application fees for any additional square footage of impacts calculated pursuant to RSA 482-A:3, I(b) or (c) as applicable, and
- Provide notice to all who received notice of the original application prior to filing the amended application with the Department (Env-Wt 314.07).

☒ By checking this box, you confirm that you have provided all necessary information to the Department and provided the required notice(s) as described above.

irm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, PO Box 95, Concord, NH 03303-0095

www.des.nh.gov



LOCATION MAP

SCALE 1"=2,000'

LEGEND:

- N/F

RP

RCRD

17

21
- BOUNDARY

SETBACK

— MHW —

— MLW —

— MLLW —

— HOTL —

— SM —

100

TYP. EL.
- NOW OR FORMERLY

RECORD OF PROBATE

STRAFFORD COUNTY

REGISTRY OF DEEDS

MAP 11 / LOT 21

MEAN HIGH WATER LINE

MEAN LOW WATER LINE

MEAN LOWER LOW WATER LINE

HIGHEST OBSERVABLE TIDE LINE

HIGHEST OBSERVABLE TIDE LINE

CONTOUR

WOODS / TREE LINE

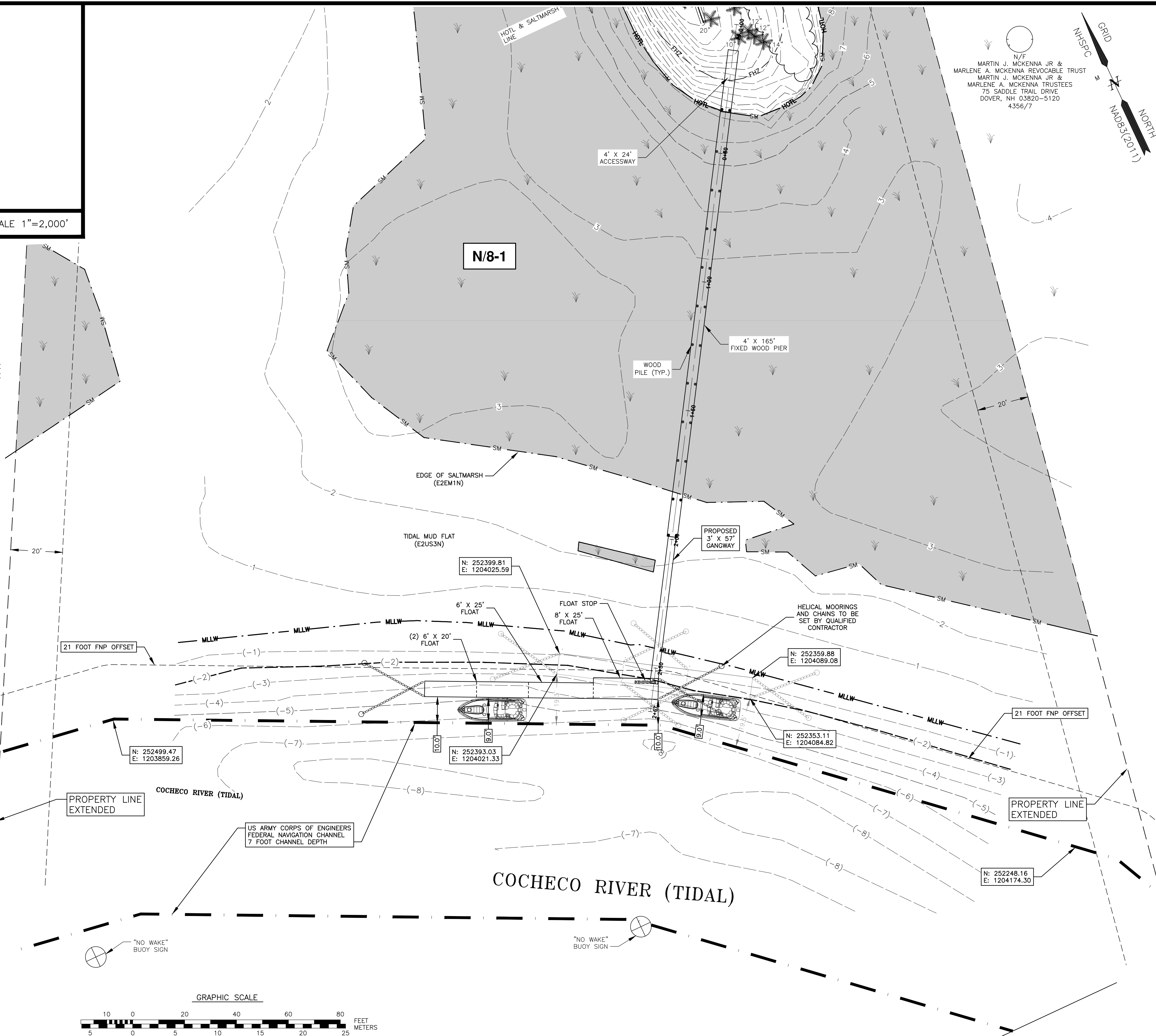
TEMPORARY BENCHMARK

SALTMARSH GRASS

TYPICAL ELEVATION

- WETLAND NOTES:**
- 1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
- A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN. 1987), AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFWS MANUAL FWS/OBS-79/31 (1997).
 - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.
- 2) HOTL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

N/F
DAVID DELLA PENTA &
KAREN DELLA PENTA
32 WISTERIA DRIVE
DOVER, NH 03820-5110
3169/175



N/F
MARTIN J. MCKENNA JR &
MARLENE A. MCKENNA REVOCABLE TRUST
MARTIN J. MCKENNA JR &
MARLENE A. MCKENNA TRUSTEES
75 SADDLE TRAIL DRIVE
DOVER, NH 03820-5120
4356/7

GRID
NAD83(2011)
NORTH

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 430-2315

- NOTES:**
- PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
- OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
 - PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
 - EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW
 - PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.
 - DIMENSIONAL REQUIREMENTS:
MIN. LOT SIZE: 40,000 S.F.
MAX. LOT COVERAGE: 10%
FRONTAGE: 150 FEET
SETBACKS: FRONT 40 FEET
SIDE 25 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET
 - THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED TIDAL DOCKING STRUCTURE ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
 - VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.

5	BATHYMETRY	10/1/25
4	RELOCATED PILE SET	6/15/23
3	EXTEND SALTMARSH TO HOTL	6/13/23
2	ADDED PROTECTED SPECIES LOCATION	6/7/23
1	ADD COORDINATE OF FNP & APPLICABLE OFFSET	4/4/23
0	ISSUED FOR COMMENT	11/29/22
NO.	DESCRIPTION	DATE

REVISIONS	

SCALE: 1"=20' SEPTEMBER 2022

NH DES PERMIT PLAN
57' GANGWAY
"L DOCK"

C2

February 11, 2026

Kaj Overturf
Haley Ward
1 Merchants Plaza, Suite 701
Bangor, ME 04401

Re: 44 Saddle Trail Dr., Dover, NH

Dear Mr. Overturf:

We have reviewed the plans for a pier and floating dock system on the Cocheco River in Dover belonging to:

The Saddle Trail Drive Homeowner's Association
44 Saddle Trail Drive
Dover, NH

We examined the proposed site and found that the project will have no negative effect on navigation in the channel.

Respectfully,



Adam Winkler
Acting Chief Harbor Master

Adam Winkler

From: Kaj Overturf <koverturf@haleyward.com>
Sent: Monday, February 2, 2026 12:08 PM
To: Adam Winkler
Subject: DES and Army Corps Section 408 dock review request Saddle Trail Dover
Attachments: 5010180.3402.09-C-SP-C2 DES PERMIT - 57' L Dock (2).pdf; USGS Topo Map 3402.09.pdf; Plan OVERLAY with old design.pdf

You don't often get email from koverturf@haleyward.com. [Learn why this is important](#)

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Adam,

Thanks for taking my call. As I mentioned, we have a proposed dock that needs to be reviewed at the request of Army corps section 408 to confirm no concerns with navigation in the channel. I believe DES will also require this letter but we have not filed with them yet. This is a previously approved dock that we are modifying. The section 408 reviewer will be Christina Comeau and the DES reviewer will most likely be Kristin Duclos. I've attached the new plan and a site location map, as well as a plan showing the new dock overlayed over the old one. The maximum beam of vessels docking here will be 9 feet. Please let me know if you need any more information from me.

Thanks!
Kaj



Kaj Overturf
Scientist | GIS Specialist
t: 207.989.4824 d: 207.747.0805 m: 207.904.0454
a: One Merchants Plaza, Suite 701, Bangor, ME 04401
Chat With Me On Teams

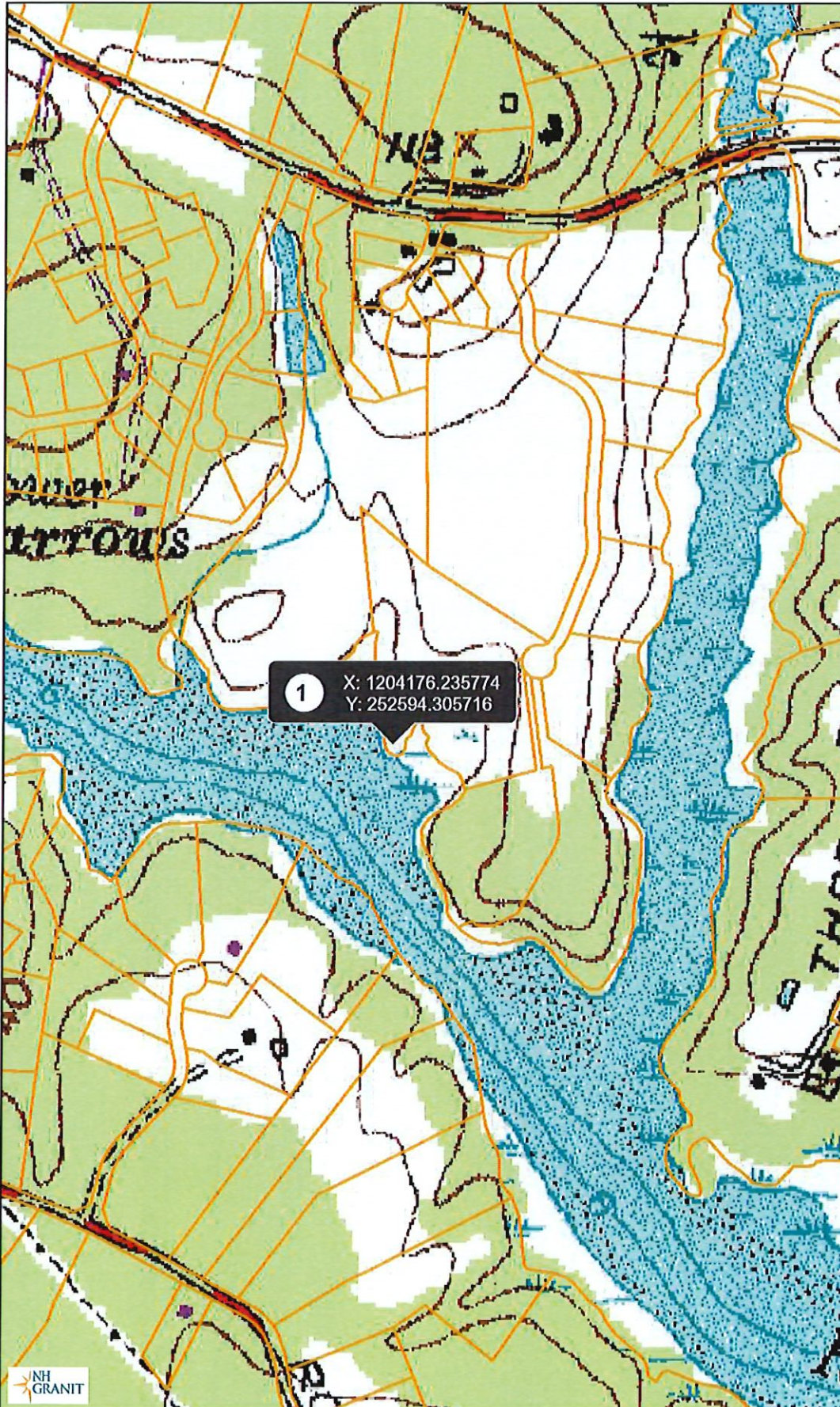


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Map by NH GRANIT



Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 6,494

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Map Generated: 9/23/2022



Notes



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\$ Sent	
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City, State	
PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions	

Napier Nicholas & Robert & Badke R TTS
32 Wisteria Drive
Dover, NH 03820

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City, State	
PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions	

Bonterra Farms, LLC
31 Saddle Trail Drive
Dover, NH 03820

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\$ Total	
\$ Sent	
Street	
City, State	
PS Form 3800, January 2023 PSN 7530-02-000-9047 See Reverse for Instructions	

Lawrence and Joann Barbetta
5326 Fox Hunt Drive
Wesley Chapel, FL 33543



AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

1 January 2023

Wetland Inspector
New Hampshire Department of Environmental Services
Wetlands Bureau
29 Hazen Drive / P.O. Box 95
Concord, New Hampshire 03302

**Re: NHDES Major Impact Wetland Permit Application
Tax Map N, Lot 8-1
Saddle Trail Drive
Dover, New Hampshire**

Dear Wetland Inspector:

This letter transmits a New Hampshire Department of Environmental Services (NHDES) Major Impact Wetland Permit Application request to construct a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands.

Attached to this application you will find a "NH DES Dock Permit Plan-C2" which depicts the existing lot, jurisdictional areas, abutting parcels, existing structures, proposed work, and permanent impact areas.

Per Env-Wt 306.05, Certified Wetland Scientist Steve Riker from Ambit Engineering, Inc. classified all jurisdictional areas and identified the predominant functions off all relevant resources. The Highest Observable Tide Line marks the reference line for the 100' TBZ, as well the beginning of Tidal Wetland on the attached plan set. Attached to this application is a Wetland Functions and Values Assessment and Coastal Vulnerability Assessment summarizing these functions; as this project is subject to the requirements of Env-Wt 603.04 and Env-Wt 603.05.

The proposed structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. The project will have no impact on the functions and values of the adjacent tidal wetland. The docking structure has been designed to allow the adjacent tidal resource to maintain its current functions and values. The docking structure will not contribute to additional storm water or pollution. It is anticipated that there will be no affect on any fish and wildlife species that currently use the site for food, cover, and/or habitat. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. The float and gangway will be temporary docking structures and will be removed during winter months as to not interfere with ice floe.

The docking structure has been designed to provide recreational boating access utilizing the natural grade of the dock location. There is no grading of the shoreline required to construct the dock. There will be no construction activity that will disturb the area adjacent to the use. All work will be performed from a crane barge at low tide. The barge floats into position and the piles are driven by the crane equipped with a

vibratory hammer. This method eliminates any contact of construction equipment with the protected resource. Portions of the docking structure are pre-fabricated off site and transported to the site via crane barge.

The construction sequence for the proposed structure are as follows:

- Mobilization of a crane barge, push boat, work skiff, materials and prefabricated components such as the gangway and float to the site via the Cocheco River.
- Mobilization of equipment trucks to the site.
- The barge will be positioned alongside the proposed location of the new dock and waterward of any emergent vegetation to minimize impacts.
- Installation of the sub structure will be performed from a crane barge or skiff to reduce the amount of foot traffic in the intertidal area.
- All work will be performed at low tide to minimize sedimentation.
- Piles will be driven by a vibratory hammer eliminating any excavation for installation of the pilings. Piles are driven to refusal.
- Piles are cut and beam caps are installed and the super structure of the pier is built. Materials are lifted from the barge and set into position by the crane.
- Once the pier is complete, the gangway and float are brought into position and installed.

The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property.

Per Env-Wt 603.02(b), attached to this application you will find a plan set which depicts the existing lot, jurisdictional areas, all natural resources in the area, abutting parcels, existing structures, and proposed structures. Also included in this application are maps created in accordance with Env-Wt 603.03 and Env-Wt 603.05.

In order to complete the application package for this project, the DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(2) has been evaluated and addressed below.

(2) a. Contains any documented occurrences of protected species or habitat for such species, using the NHB DataCheck tool;

Attached to this application are the results of the NHB review and it was determined that low brackish riverbank marsh and great bur-reed (*Sparganium eurycarpum*) has the potential to occur within the project area. Ambit Engineering, Inc. surveyed the property for salt marsh and has depicted the locations on the attached plan set. Ambit Engineering will coordinate with NHB regarding the presence of great bur-reed and comments will be forwarded to NH DES upon receipt.

(2) b. Is a bog;

Utilizing the NH DES WPPT, the subject property is not a bog, nor does it contain any portion of a bog.

- (2) c. Is a floodplain wetland contiguous to a tier 3 or higher watercourse;

Utilizing the NH DES WPPT, the subject property does contain a floodplain wetland contiguous to a tier 3 or higher watercourse.

- (2) d. Does the property contain a designated prime wetlands or a duly established 100-foot buffer; or

The property does not contain a prime wetland or duly established 100 foot buffer.

- (2) e. Does the property contain a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone;

The property does not contain a sand dune. The property does contain a tidal wetland and tidal waters.

The DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(4) and (a)(7) has been evaluated and addressed below.

- (4) a. Is the subject property within LAC jurisdiction;

The property does not fall within an area of LAC jurisdiction.

- (4) b. Does the subject property fall within or contain any areas that are subject to time of year restrictions under Env-Wt 307;

The property does not fall within or contain any areas that are subject to time of year restrictions.

- (7) Does the project have potential to impact impaired waters, class A waters, or outstanding resource waters;

I do not believe the nature of the proposed project has the potential to impact an impaired water.

The DES Wetlands Bureau rules in Chapter Env-Wt 603.02 (e) & (f) have been evaluated and addressed below.

- (e)(1) The project meets the standard conditions in Env-Wt 307;

The project meets the standard conditions in Env-Wt 307 as the proposed docking structure meets the standards of Env-Wq 1000, RSA 483-B and Env-Wq 1400. Sediment and erosion controls will also be used and maintained during the proposed construction ensuring protection of water quality on the site. Since the construction will be conducted during low tide conditions, it is not anticipated that there will be any impacts to fish or shellfish. Under Env-Wt 306.05 (a)(2)a. a NHB review has been performed to ensure there are no impacts to protected species or habitats of such species. The protection of Prime Wetlands or Duly-Established 100 foot buffers does not apply as none exist on or adjacent to the subject lot.

- (e)(2) The project meets the approval criteria in Env-Wt 313.01;

The project meets the approval criteria in Env-Wt 313.01 as the project requires a functional assessment (attached), meets the avoidance and minimization requirements specified in Env-Wt 313.03, does not require compensatory mitigation, meets applicable conditions specified in Env-Wt 307 (above), meets project specific criteria listed in Env-Wt 600 (above), and the project is located entirely within the boundary of the applicants property.

- (f)(1) The project design narrative as described in Env-Wt 603.06;

The project design narrative is provided above.

(f)(2) Design plans that meet the requirements of Env-Wt 603.07;

The design plans meet the above standard.

(f)(3) The water depth supporting information required by Env-Wt 603.08;

The design plans provide water depth information.

(f)(4) A statement regarding impact on navigation and passage required by Env-Wt 603.09.

The Permit Plan Set will be provided to the Pease Development Authority, Division of Ports and Harbors, for formal review and comment by the Harbormaster. That documentation will be provided to NH DES upon receipt.

The proposed tidal docking structures will serve a group of residences which are members of good standing within the Saddle Trail Drive Homeowners Association. I believe that since the dock will provide recreational boating access to multiple residences, the proposed application meets the criterion defined in Env-Wt 606.07(d) and (f).

In accordance with New Hampshire Administrative Rule Env-Wt 606.02(a) and 606.06(e), the marine contractor which will be constructing the proposed dock modification utilizes a vibratory hammer to install piles. The vibratory hammer uses vibration to install the pile in the marine sediment, instead of a standard hammer which uses a physical force to drive the pile, and subsequently a much greater noise impact. Using the vibratory hammer is the least impacting alternative to drive piles for dock construction.

The proposed pile locations for the dock are located above the Mean Low Water (MLW) line will be installed at low tide. Installation during "the dry" greatly reduces the amount of noise that is transmitted into the water column, as no water will be present at the pile location.

Lastly, the proposed structure will use CCA (Chromated Copper Arsenate) treated lumber. The proposed piles will be CCA treated 12" diameter southern yellow pine. Attached to this application is a Safety Data Sheet for CCA treated wood. Per the data sheet, toxicity is limited to inhalation of wood dust originating from CCA treated lumber. Additionally, per the Safety Data Sheet, 12. Ecological Information (page 12) "The product is not classified as environmentally hazardous. However, this does exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment." The product is also insoluble in water. The marine contractor that will be constructing the proposed docking structure receives the timber piles and lumber pre-treated. The marine contractor does not treat the lumber, and therefore there is no risk of spilling the treatment chemical in or near resource areas.

Please contact me if you have any questions or concerns regarding this application.

Respectfully submitted,



Steven D. Riker, CWS
NH Certified Wetland Scientist/Permitting Specialist
Ambit Engineering, Inc.

20 December, 2022

To Whom It May Concern:

RE: State of New Hampshire DES Wetlands Bureau Standard Dredge and Fill Application for proposed shoreline stabilization within the previously developed 100' Tidal Buffer Zone and jurisdictional wetlands for Saddle Trail Homeowners Association at Saddle Trail Drive Dover, NH 03820

This letter is to inform the City of Dover in accordance with State Law that the following entities:

Riverside Marine Construction, Inc.
Ambit Engineering, Inc

Are authorized to represent me as my agent in the approval process.

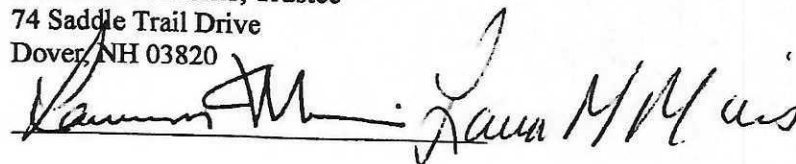
Please feel free to call me if there is any question regarding this authorization.

Sincerely,

Daniel A. Meyers & Carla Meyers Revocable Trust
Carla Meyers, Trustee
Lot #3
44 Saddle Trail Drive
Dover, NH 03820



The Lawrence F. Morris & Laura M. Morris Revocable Living Trust
Lawrence F. Morris, Trustee
74 Saddle Trail Drive
Dover, NH 03820



Bonterra Farms, LLC Trust
Blythe Brown, Trustee
Lot#1 26 Saddle Trail Dr.
Lot #10 31 Saddle Trail Dr.
Lot #2 Vacant Land
Dover, NH 03820

Blythe Brown, Trustee

Peter T Paul Living Trust
Peter Paul, Trustee
56 Saddle Trail Drive
Dover, NH 03820

Peter Paul



STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division/Land Resources Management
Wetlands Bureau



[Check the Status of your Application](#)

RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: Saddle Trail Drive Homeowners Association

TOWN NAME: Dover

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the [Waiver Request Form](#).

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the [Wetland Permit Planning Tool \(WPPT\)](#), the Natural Heritage Bureau (NHB) [DataCheck Tool](#), the [Aquatic Restoration Mapper](#), or other sources to assist in identifying key features such as: [priority resource areas \(PRAs\)](#), [protected species or habitats](#), coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	☐ Yes ☒ No
• Protected species or habitat? - o If yes, species or habitat name(s): low brackish riverbank marsh, great bur-reed - o NHB Project ID #: 22-3168	☒ Yes ☐ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information:	☐ Yes ☒ No
• Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year: N/A	

lrn@des.nh.gov or (603) 271-2147

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For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	
SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i)) Provide a brief description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.	
The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands.	
SECTION 3 - PROJECT LOCATION Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.	
ADDRESS: Saddle Trail Drive	
TOWN/CITY: Dover	
TAX MAP/BLOCK/LOT/UNIT: Map N, Lot 8-1	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Cocheco River	
☐ N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):	
	X: 1,204,176.2357° North
	Y: 252,594.3057° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: Saddle Trail Drive Homeowners Association C/O Carla Meyers

MAILING ADDRESS: 56 Saddle Trail Drive

TOWN/CITY: Dover

STATE: NH

ZIP CODE: 03820

EMAIL ADDRESS: cmeyers178@att.net

FAX:

PHONE: 978-752-5334

ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))☐ N/A

LAST NAME, FIRST NAME, M.I.: Riker, Steven, D.

COMPANY NAME: Ambit Engineering, Inc.

MAILING ADDRESS: 200 Griffin Road, Unit 3

TOWN/CITY: Portsmouth

STATE: NH

ZIP CODE: 03801

EMAIL ADDRESS: sdr@ambitengineering.com

FAX:

PHONE: 603-430-9282

ELECTRONIC COMMUNICATION: By initialing here *SR*, I hereby authorize NHDES to communicate all matters relative to this application electronically.**SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))**

If the owner is a trust or a company, then complete with the trust or company information.

☐ Same as applicant

NAME:

MAILING ADDRESS:

TOWN/CITY:

STATE:

ZIP CODE:

EMAIL ADDRESS:

FAX:

PHONE:

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):

Please see attached narrative.

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)).* Any project with unavoidable jurisdictional impacts must then be minimized as described in the [Wetlands Best Management Practice Techniques For Avoidance and Minimization](#) and the [Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet](#). For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the [Avoidance and Minimization Checklist](#), the [Avoidance and Minimization Narrative](#), or your own avoidance and minimization narrative.

**See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.*

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

If unavoidable jurisdictional impacts require mitigation, a mitigation [pre-application meeting](#) must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month: Day: Year:

☒ N/A - Mitigation is not required

SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

☒ N/A – Compensatory mitigation is not required

SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. *Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.*

For perennial streams/ivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland						
	Scrub-shrub Wetland						
	Emergent Wetland						
	Wet Meadow						
	Vernal Pool						
	Designated Prime Wetland						
	Duly-established 100-foot Prime Wetland Buffer						
Surface Water	Intermittent / Ephemeral Stream						
	Perennial Stream or River						
	Lake / Pond						
	Docking - Lake / Pond						
	Docking - River						
Banks	Bank - Intermittent Stream						
	Bank - Perennial Stream / River						
	Bank / Shoreline - Lake / Pond						
Tidal	Tidal Waters						
	Tidal Marsh						
	Sand Dune						
	Undeveloped Tidal Buffer Zone (TBZ)						
	Previously-developed TBZ	96					
	Docking - Tidal Water	1410					
TOTAL		1506					

SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)

☐ **MINIMUM IMPACT FEE:** Flat fee of \$400.

☐ **NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of \$400 (refer to RSA 482-A:3, 1(c) for restrictions).

☒ **MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking):		SF	×	\$0.40 =	\$	
Seasonal docking structure:	750	SF	×	\$2.00 =	\$	1500
Permanent docking structure:	756	SF	×	\$4.00 =	\$	3024
Projects proposing shoreline structures (including docks) add \$400 =					\$	400
Total =					\$	4924
The application fee for minor or major impact is the above calculated total or \$400, whichever is greater =						\$

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SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)

Indicate the project classification.

☐ Minimum Impact Project☐ Minor Project☒ Major Project**SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)**

Initial each box below to certify:

Initials:

SR

To the best of the signer's knowledge and belief, all required notifications have been provided.

Initials:

SR

The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.

Initials:

SR

The signer understands that:

- The submission of false, incomplete, or misleading information constitutes grounds for NHDES to:
 1. Deny the application.
 2. Revoke any approval that is granted based on the information.
 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1.
- The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.
- The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.

Initials:

SR

If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER):

PRINT NAME LEGIBLY:

DATE:

SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):

PRINT NAME LEGIBLY:

DATE:

SIGNATURE (AGENT, IF APPLICABLE):

Steven Riker

PRINT NAME LEGIBLY:

Steven D. Riker

DATE:

1/1/2023

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.

TOWN/CITY CLERK SIGNATURE:

PRINT NAME LEGIBLY:

TOWN/CITY:

DATE:

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to "Treasurer – State of NH".



COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management Wetlands Bureau

[Check the Status of your Application](#)



RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: Saddle Trail Drive Homeowners Association

Applicability: This worksheet may be used to present the information required for projects in coastal areas in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)

The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose including a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. The dock has been designed to represent least impacting alternative with the least amount of surface area located over salt marsh while also maintaining a 20 foot setback to property lines extended. The proposed tidal docking structure will provide recreational boating access to Fresh Creek and the Cocheco River.

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For standard permit projects, provide:

- ☒ A Coastal Functional Assessment (CFA) report (refer to Section 3); and
- ☒ A vulnerability assessment (refer to Section 4).

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 603.04, Env-Wt 311.07, and Env-Wt 313.

A Coastal Functional Assessment and a Coastal Vulnerability Assessment is attached to this application per Env-Wt 603.04. An Avoidance & Minimization Form is attached to this application, and also described in the attached narrative letter per Env-Wt 311.07 and Env-Wt 313.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

The project plan set, specifically the Details-Sheet D1 includes all notes demonstrating compliance with Env-Wt 307 and Env-Wt 313.01.

Provide a project design narrative that includes the following:

- ☒ A discussion of how the proposed project:
 - Uses best management practices and standard conditions in Env-Wt 307;
 - Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
 - Meets approval criteria in Env-Wt 313.01;
 - Meets evaluation criteria in Env-Wt 313.01(c);
 - Meets CFA requirements in Env-Wt 603.04; and
 - Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;
- ☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and
- ☒ A discussion of how the completed project will be maintained and managed.

The completed project will result in a permanent fixed pier, with an attached gangway and associated float. The gangway and float are/will be seasonal structures and will be removed in the non-boating season. Other than removal and re-installation, there is no maintenance or management of the tidal docking structure over its expected life span, which is 50-100 years.

- ☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);
- ☒ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and
- ☒ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

Review and comment by the Pease Development Authority will be provided to NH DES upon receipt.

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

- ☒ Existing salt marsh and salt marsh migration pathways;
- ☒ Eelgrass beds;
- ☒ Documented shellfish sites;
- ☒ Projected sea-level rise; and
- ☒ 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

- ☒ [National Oceanic and Atmospheric Administration \(NOAA\) Tides & Currents](#); and
- ☒ [NOAA Essential Fish Habitat Mapper](#).
- ☒ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

- ☒ Not impair the navigation, recreation, or commerce of the general public; and
- ☒ Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

- ☒ Adverse impacts to beach or tidal flat sediment replenishment;
- ☒ Adverse impacts to the movement of sediments along a shore;
- ☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and
- ☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

- ☒ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:
 - ☒ Performed by a qualified coastal professional; and
 - ☒ Completed using one of the following methods:
 - a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or
 - b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands or tidal waters or associated sand dunes, the applicant shall:

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- ☐ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters or associated sand dunes;
- ☐ Design the proposed project to have the least impact to tidal wetlands, tidal waters or associated sand dunes;
- ☐ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and
- ☐ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

- ☐ Minimize adverse impacts to finfish, shellfish, crustacea, and wildlife;
- ☐ Minimize disturbances to groundwater and surface water flow;
- ☐ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and
- ☐ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

- a. Determine the time period over which the project is designed to serve;

A Coastal Vulnerability Assessment is attached to this application.

- b. Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas;

See attached CVA

- c. Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss;

See attached CVA

- d. Identify areas of the proposed project site subject to flooding from SLR;

See attached CVA

- e. Identify areas currently located within the 100-year floodplain and subject to coastal flood risk;

See attached CVA

- f. Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans;

See attached CVA

- g. Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held: **N/A**

irm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO BOX 95, Concord, NH 03302-0095

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SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements:

- ☒ The plan view shall depict the following:
- ☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;
 - ☒ The location of tidal datum lines depicted as a line with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.
 - ☒ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
 - ☒ The location of all special aquatic sites at or within 100 feet of the subject property;
 - ☒ Existing bank contours;
 - ☒ The name and license number, if applicable, of each individual responsible for the plan, including:
 - a. The agent for tidal docking structures who determined elevations represented on plans; and
 - b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan; and
 - ☒ The location and dimensions of all existing and proposed structures and landscape features on the property;
 - ☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and
 - ☒ Location of all special aquatic sites within 100-feet of the property.
- ☒ The elevation view shall depict the following:
- ☒ The nature and slope of the shoreline;
 - ☒ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and
 - ☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.
- ☒ See specific design and plan requirements for certain types of coastal projects:
- Overwater structures (Env-Wt 606);
 - Tidal shoreline stabilization (Env-Wt 609);
 - Dredging activities (Env-Wt 607);
 - Protected tidal zone (Env-Wt 610);
 - Tidal beach maintenance (Env-Wt 608);
 - Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least 3 tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

- ☒ Mean lower low water;
- ☒ Mean low water;
- ☒ Mean high water;
- ☒ Mean tide level;
- ☒ Mean higher high water;
- ☒ Highest observable tide line; and
- ☒ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined:

- ☒ The date, time of day, and weather conditions when water depths were recorded; and
- ☒ The name and license number of the licensed land surveyor who conducted the field measurements.
- ☐ For tidal stream crossing projects, provide water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d), and for repair, rehabilitation or replacement of tier 4 stream crossings, demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on:

- ☒ The standard conditions in Env-Wt 307;
- ☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☒ The approval criteria in Env-Wt 313.01;
- ☒ The evaluation criteria in Env-Wt 313.05;
- ☒ The project specific criteria in Env-Wt 600;
- ☒ The CFA required by Env-Wt 603.04; and
- ☒ The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

- ☐ To protect public safety; and
- ☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

- ☒ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and
- ☒ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

- ☒ The standard conditions in Env-Wt 307;
- ☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☒ The approval criteria in Env-Wt 313.01;
- ☒ The evaluation criteria in Env-Wt 313.05;
- ☒ The project specific criteria in Env-Wt 600;
- ☒ The CFA required by Env-Wt 603.04; and
- ☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

- ☒ Provide habitat values;
- ☒ Protect tidal environments from potential sources of pollution;
- ☒ Provide stability of the coastal shoreline; and
- ☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

- ☒ The standard conditions in Env-Wt 307;
- ☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- ☒ The approval criteria in Env-Wt 313.01;
- ☒ The evaluation criteria in Env-Wt 313.05;
- ☒ The project specific criteria in Env-Wt 600;
- ☒ The CFA required by Env-Wt 603.04; and
- ☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

- ☒ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;
- ☒ Be designed with a preference for living shorelines over hardened stabilization practices; and
- ☒ Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

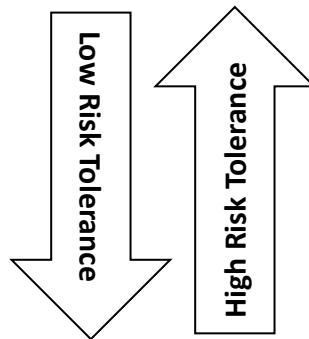
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission’s Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project’s willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical Infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.



STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS



Water Division/Land Resources Management
Wetlands Bureau

[Check the Status of your Application](#)

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT LAST NAME, FIRST NAME, M.I.: Saddle Trail Drive Homeowners Association

Attachment A can be used to satisfy some of the additional requirements for minor and major projects regarding avoidance and minimization, as well as functional assessment.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THE PROJECT PROPOSES THE CONSTRUCTION OF A TIDAL DOCKING STRUCTURE CONSISTING OF A 4' X 24' ACCESSWAY, A 4' X 165' FIXED WOOD PIER, A 3' X 50' GANGWAY AND A 8' X 75' FLOAT TOTALING 96 SQ. FT. OF PERMANENT IMPACT TO THE PREVIOUSLY DEVELOPED 100' TIDAL BUFFER ZONE AND 1,410 SQ. FT. OF PERMANENT IMPACT TO TIDAL WETLANDS. OVERALL STRUCTURE LENGTH WILL BE 223 FEET LOCATED ON FRONTAGE ALONG THE COCHECO RIVER. THE PROPOSED STRUCTURE HAS BEEN LOCATED ALONG THE SUBJECT SHORELINE TO IMPACT THE LEAST AMOUNT SALT MARSH AREA POSSIBLE, DEMONSTRATING THE LEAST IMPACTING ALTERNATIVE.

lrn@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

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SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value.

The proposed location represents the least impacting alternative as impacts to salt marshes to construct the proposed dock are located to impact the least amount of square footage over saltmarsh as possible .

SECTION I.III – HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. Since the docking structure will be constructed on piles, the structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

Per the NHB Review, low brackish riverbank marsh and great bur-reed has been identified on or near the project site. The proposed dock demonstrates the least impacting alternative in regards to square footage of structure placed over the natural community. Coordination with NHB regards to low brackish riverbank marsh and great bur-reed is expected and comments will be forwarded to NH DES upon receipt.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The proposed tidal docking structure has been designed to not impede recreation, public commerce, and navigation. The docking structure does not extend into any federal or local navigation channel.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The project does not propose any impacts to floodplain wetlands as the dock will be constructed on piles therefore providing no significant decrease in flood storage potential.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB –MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The project does not propose impacts to riverine forested wetland systems and scrub shrub marsh complexes.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The wetland resources associated with the project site are not hydrologically connected to a groundwater aquifer or drinking water supply.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

The project does not propose any impacts to stream channels.

PART II: FUNCTIONAL ASSESSMENT**REQUIREMENTS**

Ensure that project meets requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).

FUNCTIONAL ASSESSMENT METHOD USED:

Wetland functions and values were assessed using the Highway Methodology Workbook, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEPP-360-1-30a.

NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: STEVEN D. RIKER, CWS

DATE OF ASSESSMENT: APRIL 12, 2022

Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒

For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☒

Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.



**AVOIDANCE AND MINIMIZATION
WRITTEN NARRATIVE**
Water Division/Land Resources Management
Wetlands Bureau
[Check the Status of your Application](#)



RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1),b; Env-Wt 313.01(c)

APPLICANT LAST NAME, FIRST NAME, M.I.: Saddle Trail Drive Homeowners Association

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide this narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1))

Is the primary purpose of the proposed project to construct a water access structure?

Yes. The project proposes to construct a tidal docking structure for recreational boating access.

SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1))

Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?

No. This is not applicable.

SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2))

For any project that proposes permanent impacts of more than one acre or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?

Since the proposal includes the construction of a tidal docking structure, providing a water dependent function, this is not applicable.

SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values on the subject property or on other property that is reasonably available to the applicant as described in the *Wetlands Best Management Practice Techniques for Avoidance and Minimization*?

The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. The dock has been designed to represent least impacting alternative with the least amount of surface area located over salt marsh while also maintaining a 20 foot setback to property lines extended.

SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))

How does the project conform to Env-Wt 311.10(c)? Please note that for a minimum impact project, the applicant may replace this explanation with a certification signed by a certified wetland scientist that the project is located and designed to minimize impacts to wetlands functions and values.

The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. The docking structure has been designed to allow the adjacent tidal resource to maintain its current functions and values. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. As a result, The project will have no impact on the functions and values of the adjacent tidal wetland. A Wetland Functions and Values Assessment is attached to this application.

Map by NH GRANIT



Legend

- Parcels
 - Parcel Polygons
 - Attributes for Additional Lines
- State
- County
- City/Town

Map Scale

1: 6,494

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Map Generated: 9/23/2022



Notes



**Property Information**

Property ID N0008-001000
Location SADDLE TRAIL DR
Owner SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATIO
Land Use 911
Zoning Code R-40

**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 5/3/2021
Data updated Daily

Print map scale is approximate.
Critical layout or measurement activities should not be done using this resource.

Saddle Trail Drive Homeowners Association
44 Saddle Trail Drive
Dover, NH

Job # 3402.09

Applicant/Owner(s)

[illegible]

Engineer	Ambit Engineering Civil Engineers & Land Surveyors		200 Griffin Road, Unit #3	Portsmouth	NH	03801
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Other Consultants						
Other Consultants						
Other Consultants						

[illegible]



AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

David & Karen Della Penta
32 Wisteria Drive
Dover, NH 03820

RE: New Hampshire Wetland Application for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

Dear Property Owner,

Under NH RSA 482-A, this letter is to inform you in accordance with State Law that a Wetlands Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact jurisdictional wetlands for the construction of a tidal docking structure**, on behalf of your abutter, **the Saddle Trail Drive Homeowners Association**.

This letter is sent to inform you as an abutter to the above-referenced property (according to local Municipal records) that **the Saddle Trail Drive Homeowners Association** proposes a project that requires construction in the previously developed tidal buffer zone, and jurisdictional wetland areas.

Plans are on file at this office, and once the application is filed, plans that show the proposed project and wetland and other jurisdictional impacts will be available for viewing during normal business hours at the office of the **Dover** clerk, **Dover city offices**, or once received by DES, at the offices of the DES Wetlands Bureau, (8 a.m. to 4 p.m.) (603) 271-2147. It is suggested that you call ahead to the appropriate office to ensure the application is available for review.

Please feel free to call if you have any questions or comments.

Sincerely,

Steven D. Riker
NH Certified Wetland Scientist – Permitting Specialist

CERTIFIED MAIL/Return Receipt Requested



AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

Bonterra Farms, LLC
31 Saddle Trail Drive
Dover, NH 03820

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CERTIFIED MAIL/Return Receipt Requested



AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

Martin J. Jr. & Marlene A. McKenna Trust
17 Littleworth Road
Dover, NH 03820

RE: New Hampshire Wetland Application for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

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Sincerely,

Steven D. Riker
NH Certified Wetland Scientist – Permitting Specialist

CERTIFIED MAIL/Return Receipt Requested

2022 0410 0002 6015 7937

2022 0410 0002 6015 7920

0022 0410 0002 6015 7913

Site Photograph #1

September 2022







Map by NH GRANIT



Legend

- Parcels - polygons
 - Parcel Polygons
 - Attributes for Additional Lines
- Current Shellfish Beds
 - Blue Mussel
 - Oyster
 - Razor Clam
 - Softshell Clam
 - Surf Clam
- Coastal 2019 1-foot RGB
- World Imagery
- Low Resolution 15m Imager
- High Resolution 60cm Imager
- High Resolution 30cm Imager
- Citations
- 1.2m Resolution Metadata

Map Scale

1: 3,247

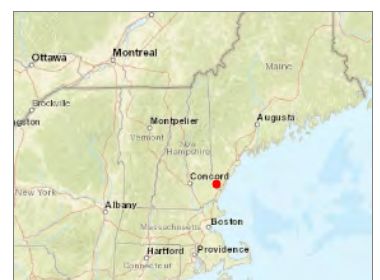
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Map Generated: 9/23/2022



Notes

Current Shellfish Beds



Map by NH GRANIT



Legend

- Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines
- 2021
- Coastal 2019 1-foot RGB
- World Imagery
- Low Resolution 15m Imager
- High Resolution 60cm Imager
- High Resolution 30cm Imager
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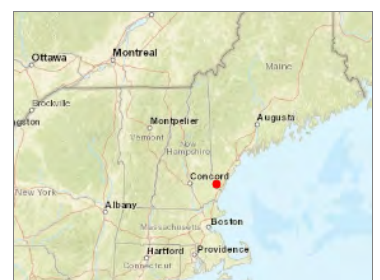
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Map Generated: 9/23/2022

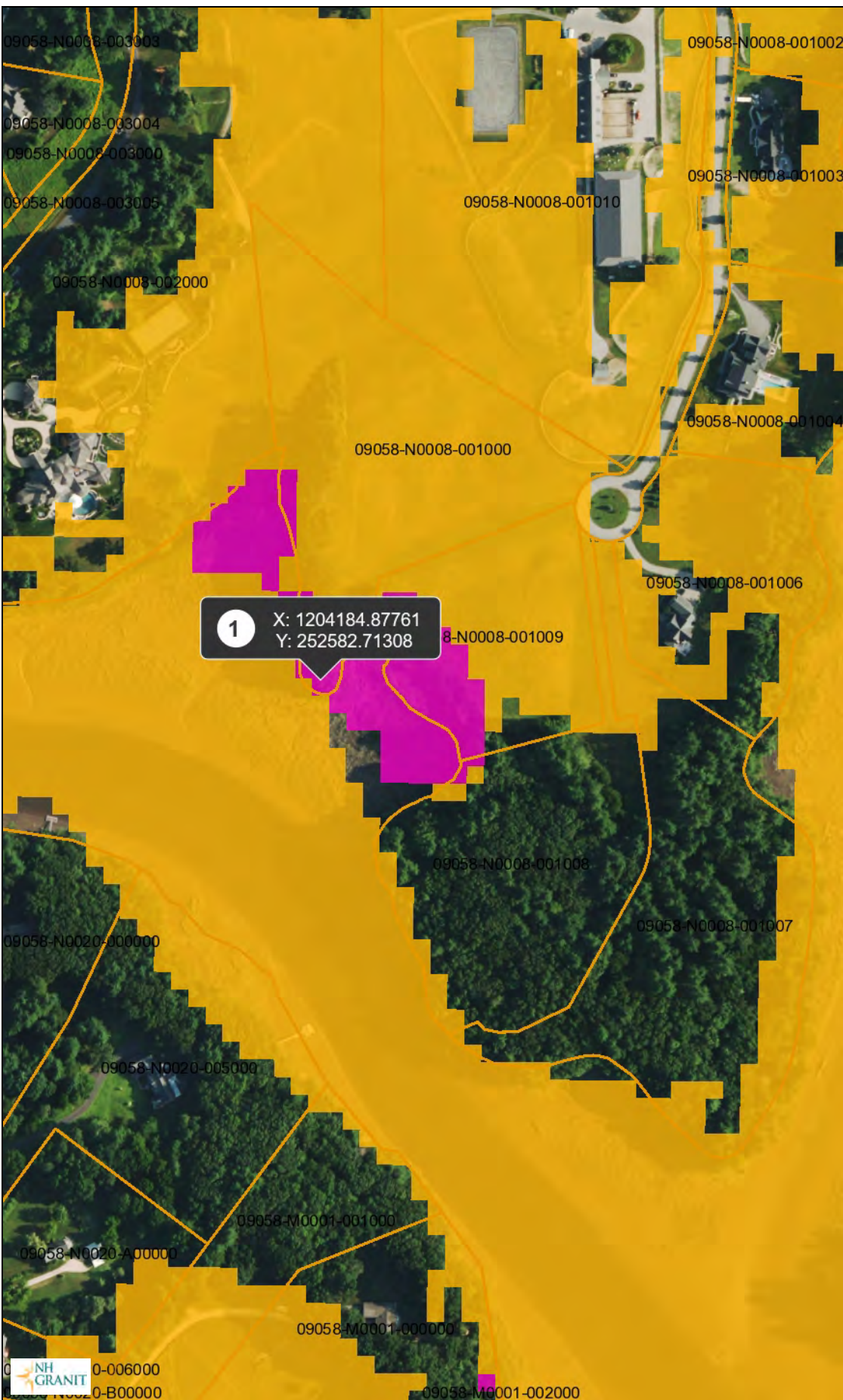


Notes

2021 Eelgrass



Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons

 Attributes for Additional Lines

Highest Ranked Wildlife Hat

☐ Not Top Ranked

■ Highest Ranked Habitat in NH

 Highest Ranked Habitat in Region

Supporting Landscape

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247

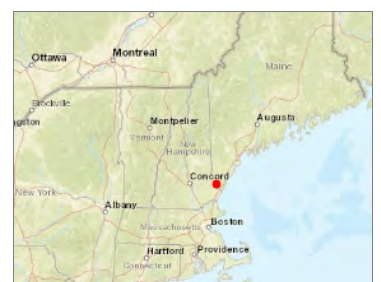
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Map Generated: 9/23/2022



Notes

Highest Ranked Wildlife Habitat



Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: John Chagnon, Ambit Engineering, Inc.
200 Griffin Road
Unit 3
Portsmouth, NH 03801

From: NHB Review, NH Natural Heritage Bureau

Date: 10/7/2022 (valid until 10/07/2023)

Re: Review by NH Natural Heritage Bureau

Permits: NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: NHB22-3168 Town: Dover Location: Saddle Trail Drive
Description: The project proposes the construction of a tidal docking structure consisting of a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 100' float providing recreational boating access to the Cocheco River.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB:** The proposed new tidal docking structure is within an exemplary Low Brackish Riverbank Marsh. Please evaluate if there are other potential locations where this structure could be placed that do not impact this natural community. If not possible, indicate how this project minimizes impacts to the community. Provide proposed conditions plans and photos of the project area during the growing season.
F&G: No comments at this time.

Natural Community	State ¹	Federal	Notes
Low brackish riverbank marsh	--	--	

Plant species	State ¹	Federal	Notes
great bur-reed (<i>Sparganium eurycarpum</i>)*	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

Disclaimer: A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

IMPORTANT: NHFG Consultation

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

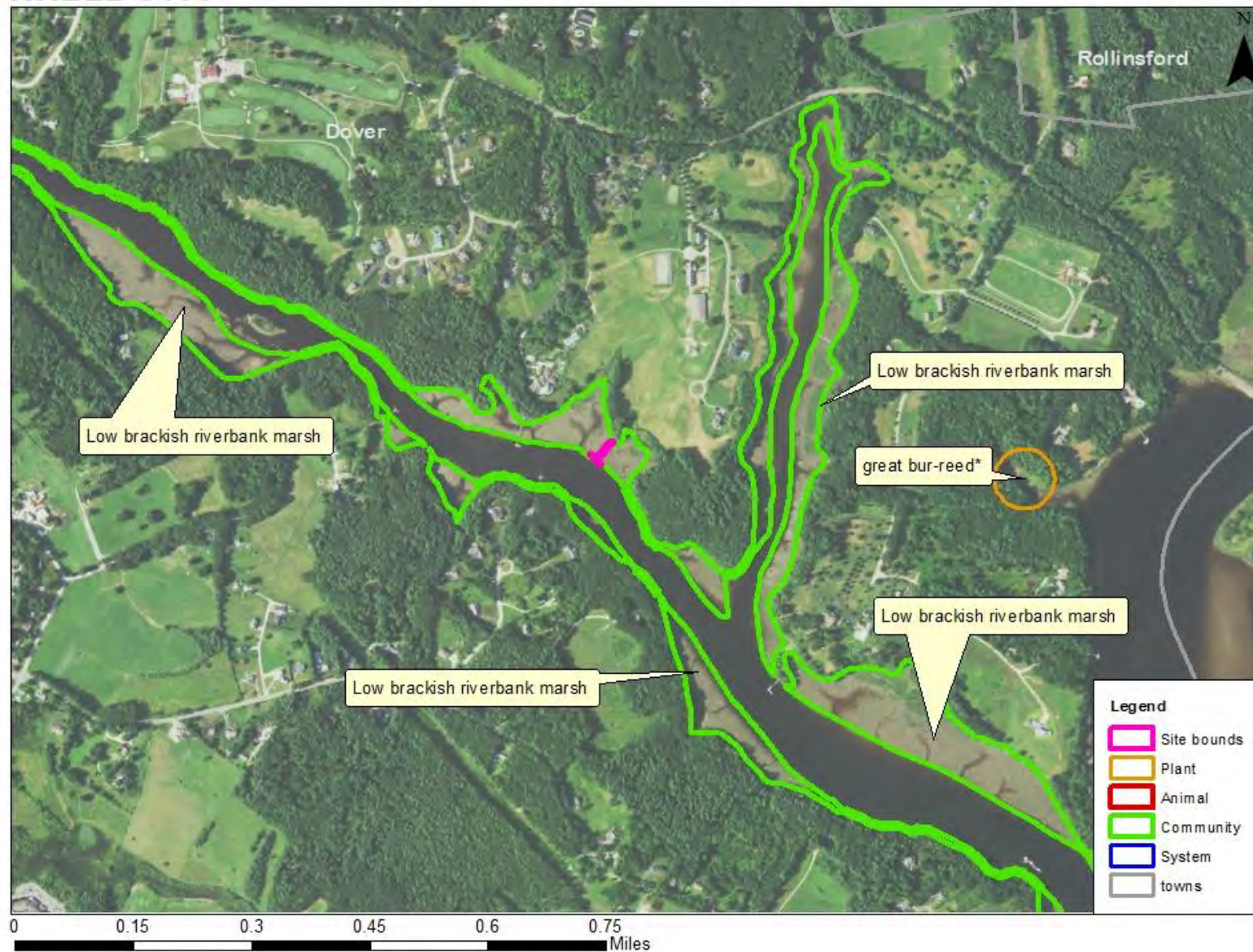
If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://wildlife.state.nh.us/wildlife/environmental-review.html>. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB Datacheck results letter number and “Fis 1004 consultation request” in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle kim.tuttle@wildlife.nh.gov with a copy to NHFGreview@wildlife.nh.gov, and include the NHB Datacheck results letter number and “review request” in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB22-3168



New Hampshire Natural Heritage Bureau - Community Record

Low brackish riverbank marsh

Legal Status

Federal: Not listed
State: Not listed

Conservation Status

Global: Not ranked (need more information)
State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2004: Dominant species are *Spartina alterniflora* (smooth cord-grass), *Amaranthus cannabinus* (water hemp), and *Typha angustifolia* (narrow-leaved cattail). Less frequent are *Lemna minor* (lesser duckweed), *Polygonum hydropiper* (water-pepper), *Argentina egedii* (coastal silverweed), *Eleocharis parvula* (small spike-rush), *Ranunculus cymbalaria* (seaside crowfoot), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Samolus parviflorus* (false water pimpernel). 1988: Forms a narrow zone along the river, dominated by *Spartina alterniflora* (smooth cord-grass). A few stands of *Typha angustifolia* (narrow-leaved cattail) exist, mostly less than an acre in size. Rare plant species present are *Samolus parviflorus* (false water pimpernel), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Eleocharis parvula* (small spike-rush). *Spartina alterniflora* (smooth cord-grass) is dominant. A few stands of *Typha angustifolia* (narrow-leaved cat-tail) exist. Many exotic species are present. The bases of steep, rocky slopes support virtually no emergent vegetation.

General Area: 2004: This low marsh lies adjacent to a sparsely or narrowly vegetated **high brackish tidal riverbank marsh**. The high tidal riverbank is often an unvegetated zone grading into the adjacent upland. Some characteristic species are *Solidago sempervirens* (seaside goldenrod) and *Spartina pectinata* (fresh-water cord-grass). Along most of the riverbank community, moderate residential and commercial development occurs on adjacent lands. High levels of development occur along the west end of the riverbank in downtown Dover. 1988: A narrow zone along the river. Bordered by steep forested slopes and heavily impacted areas.

General Comments: --

Management Comments: 2004: Several invasive species occur on the higher margins of the riverbank community, especially at the west end nearest downtown Dover. They include *Lythrum salicaria* (purple loosestrife), *Phalaris arundinacea* (reed canary-grass), *Rorippa nasturtium-aquaticum* (true watercress), *Polygonum cuspidatum* (Japanese knotweed), and *Solanum dulcamara* (nightshade). These plants should be monitored. 1988: Guard against future development. Current disturbance includes impacts by rock fill, dams, clearing, and power plant construction.

Location

Survey Site Name: Cocheco River Narrows
Managed By:

County: Strafford

Town(s): Dover

Size: 94.2 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Cocheco River downstream of downtown Dover. 2004: The tidal riverbank marsh extends from downtown Dover (beginning downstream of Washington Street) to the mouth of the Cocheco. For the tidal marsh nearest downtown Dover, park at Henry Law Park. For the tidal marsh 0.75 miles eastward, from Henry Law Avenue, turn north onto access road to baseball fields. Park in lot for baseball fields and walk NE, across power line corridor, to Cocheco River. 1988: Tidal wetlands and shores along Cocheco River between upper and lower narrows, due east and just downstream of downtown Dover.

Dates documented

First reported: 1988-09-13

Last reported: 2004-09-23

New Hampshire Natural Heritage Bureau - Plant Record

great bur-reed (*Sparganium eurycarpum*)**Legal Status**

Federal: Not listed
State: Listed Threatened

Conservation Status

Global: Demonstrably widespread, abundant, and secure
State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).

Comments on Rank: Few plants but area safe from development.

Detailed Description: 2007: Searched for but not found. 1985: 2 plants seen in mature fruit.

General Area: 1985: Brackish swamp or circumneutral basin swamp. With *Aster radula* (rough-leaved aster), *Calamagrostis canadensis* (bluejoint), *Eupatorium perfoliatum* (perfoliate boneset), *Viburnum nudum* var. *cassinoides* (witherod) and *Clematis virginiana* (virgin's bower). Uplands include old fields, regrowth forest, and agricultural fields. Slowly being developed. The only areas with minimal disturbance are directly along the Piscataqua River, where there are still frequent paths, boat storage, and moorings.

General Comments: 2007: New boat launch proposed on nearby private property. 1985: The habitat is large and possibly supports more large bur-reed plants.

Management
Comments: --

Location

Survey Site Name: Piscataqua-Cocheco Point

Managed By: Davis Easement

County: Strafford

Town(s): Dover

Size: 2.8 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Piscataqua-Cocheco point. Take Rte. 101 south to Eliot bridge, walk south along shore to first major drainage.

Dates documented

First reported: 1985-08-13

Last reported: 1985-08-13



SAFETY DATA SHEET

1. Identification

Product identifier

CCA Treated Wood

Other means of identification

SDS number

92-KPC

Recommended use

Preservative Treated Wood for various weather protected and exterior uses.

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name

Koppers Performance Chemicals Inc.

Address

1016 Everee Inn Rd., Griffin, GA 30224

Telephone number

770-233-4200

Contact person

Regulatory Manager, KPC Inc.

Emergency Telephone

CHEMTREC 1-800-424-9300

Number

E-mail

KPCmgrsds@koppers.com

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Carcinogenicity (Inhalation)

Category 1A

OSHA defined hazards

Combustible dust

Label elements



Signal word

Danger

Hazard statement

May cause cancer by inhalation. May form combustible dust concentrations in air.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.

Response

If exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use water fog, foam, carbon dioxide, dry chemical for extinction. Collect spillage.

Storage

Store away from incompatible materials.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5
Wood	N/A	<85

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Components not listed are either non-hazardous or are below reportable limits.

Depending on the additives applied to the treating solution, this wood may also contain <1 % of mold inhibitors, <1% of a non-hazardous oil emulsion, and <% of a colorant.

4. First-aid measures**Inhalation**

Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact

Do not rub eye. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyelids wide apart. If irritation persists get medical attention.

Ingestion

Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort continues.

Most important symptoms/effects, acute and delayed

Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

Indication of immediate medical attention and special treatment needed

If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures**Suitable extinguishing media**

Water fog. Foam. Carbon dioxide (CO₂). Dry chemical powder. Apply extinguishing media carefully to avoid creating airborne dust.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust in a contained area may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards- 654 and 664 for guidance. Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Do not burn preserved wood. Do not use preserved wood as Mulch. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, spark, open flames and other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Wood Dust (CAS N/A)	PEL	5 mg/m ³	Respirable dust.
		15 mg/m ³	Total fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Trivalent Chromium (CAS 1308-38-9)	PEL	0.5 mg/m ³

ACGIH

Components	Type	Value	Form
Wood Dust (CAS N/A)	TWA	1 mg/m ³	Inhalable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value
Arsenic Pentoxide (CAS 1303-28-2)	TWA	0.01 mg/m ³
Trivalent Chromium (CAS 1308-38-9)	TWA	0.5 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Arsenic Pentoxide (CAS 1303-28-2)	Ceiling	0.002 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Copper Oxide (CAS 1317-39-1)	TWA	1 mg/m3	Dust and mist.
Trivalent Chromium (CAS 1308-38-9)	TWA	0.5 mg/m3	
Wood Dust (CAS N/A)	TWA	1 mg/m3	Dust.

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Arsenic Pentoxide (CAS 1303-28-2)	35 µg/l	Inorganic arsenic, plus methylated metabolites, as As	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear dust-resistant safety goggles with side shields where there is danger of eye contact.

Skin protection

Hand protection

When handling wood, wear leather or fabric gloves.

Other

Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH-approved respirator if there is a potential for exposure to dust exceeding exposure limits (See 29 CFR 1910.134, respiratory protection standard).

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

If wood dust contacts the skin, workers should wash the affected areas with soap and water. Clothing contaminated with wood dust should be removed, and provisions should be made for the safe removal of the chemical from the clothing. Persons laundering the clothes should be informed of the hazardous properties of wood dust. A worker who handles wood dust should thoroughly wash hands, forearms, and face with soap and water before eating, using tobacco products, using toilet facilities, applying cosmetics, or taking medication. Workers should not eat, drink, use tobacco products, apply cosmetics, or take medication in areas where wood dust is handled, or processed.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid.
Color	Yellow/green.

Odor Wood odor.

Odor threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Combustible solid.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Highly insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Density	As wood.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, sparks and open flame. Minimize dust generation and accumulation. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Wood dust, treated or untreated, is irritating to the nose, throat and lungs. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer.
Skin contact	Handling may cause splinters. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals.
Eye contact	Dust may irritate the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting. If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects in humans.

Symptoms related to the physical, chemical and toxicological characteristics

Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes.

Respiratory or skin sensitization

ACGIH Sensitization

Wood (CAS N/A)

Dermal sensitization

Respiratory sensitization

Respiratory sensitization

Exposure to wood dusts can result in hypersensitivity,

Skin sensitization

Exposure to wood dust can result in the development of contact dermatitis. The primary irritant dermatitis resulting from skin contact with wood dusts consist of erythema, blistering, and sometimes erosion and secondary infections occur.

Germ cell mutagenicity

No component of this product present at levels greater than or equal to 0.1% is identified as a mutagen by OSHA.

Carcinogenicity

May cause cancer by inhalation.

This classification is based on an increased incidence of nasal and paranasal cancers in people exposed to wood dusts.

IARC Monographs. Overall Evaluation of Carcinogenicity

Arsenic Pentoxide (CAS 1303-28-2)

1 Carcinogenic to humans.

Trivalent Chromium (CAS 1308-38-9)

3 Not classifiable as to carcinogenicity to humans.

Wood (CAS N/A)

1 Carcinogenic to humans.

NTP Report on Carcinogens

Arsenic Pentoxide (CAS 1303-28-2)

Known To Be Human Carcinogen.

Wood Dust (CAS N/A)

Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2)

Cancer

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard

Not likely, due to the form of the product.

Chronic effects

Chronic exposure to wood dusts can result in pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis. Individuals with pre-existing disease in or a history of ailments involving the skin, kidney, liver, respiratory tract, eyes, or nervous system are at a greater than normal risk of developing adverse effects from woodworking operations with this product.

Further information

The effects of industrial exposure to the chrome-copper-arsenic preservative used to treat CCA wood has been evaluated in three independent epidemiology studies. In each case the authors concluded that workers exposed on a daily basis to these preservatives were at no increased risk of death or disease as a result of their exposure.

Recreational exposure to children using CCA treated wood playground equipment has been evaluated. The results of this study indicate that the amount of arsenic transferred from the wood surface to the child is within the normal variation of total arsenic exposure to children and that the maximum risks of skin cancer associated with the exposure approximates the skin cancer risk from the sunlight experienced during play periods. Leaf, stem, and fruit of grape plants grown adjacent to CCA treated wood poles did not take up preservative components from the poles above background levels (limit of detection 0.2 and 0.05 ppm for chrome and arsenic, respectively).

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility in soil

The product is insoluble in water.

Mobility in general

The product is not volatile but may be spread by dust-raising handling.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. DO NOT BURN! Ash may be toxic and a hazardous waste; combustion vapors may be toxic. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste P List: Reference

Arsenic Pentoxide (CAS 1303-28-2) P011

Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2)	Cancer Liver Skin Respiratory irritation Nervous system Acute toxicity
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CERCLA Hazardous Substance List (40 CFR 302.4)

Arsenic Pentoxide (CAS 1303-28-2)	LISTED
Copper Oxide (CAS 1317-39-1)	LISTED
Trivalent Chromium (CAS 1308-38-9)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Arsenic Pentoxide	1303-28-2	1		100	10000

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)

US. New Jersey Worker and Community Right-to-Know Act

Arsenic Pentoxide (CAS 1303-28-2)
Copper Oxide (CAS 1317-39-1)
Trivalent Chromium (CAS 1308-38-9)
Wood Dust (CAS N/A)

US. Pennsylvania Worker and Community Right-to-Know Law

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)
Wood Dust (CAS N/A)

US. Rhode Island RTK

Arsenic Pentoxide (CAS 1303-28-2)
Copper Oxide (CAS 1317-39-1)
Trivalent Chromium (CAS 1308-38-9)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Wood Dust (CAS N/A)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-April-2015
Revision date 01-June-2015
Version # 02

Further information

HMIS® is a registered trade and service mark of the NPCA.
E - Safety Glasses, Gloves, Dust Respirator

PERCENTAGE OF HAZARDOUS INGREDIENTS COMPONENT %:

0.25 pcf

Arsenic Pentoxide 0.3%, Copper Oxide 0.15%, Chromium Trioxide 0.4%, Wood Dust* 84.28%

0.4 pcf

Arsenic Pentoxide 0.4%, Copper Oxide 0.2%, Chromium Trioxide 0.6%, Wood Dust* 83.98%

0.6 pcf

Arsenic Pentoxide 0.6%, Copper Oxide 0.3%, Chromium Trioxide 0.9%, Wood Dust* 83.47%

1.0 pcf

Arsenic Pentoxide 1.0%, Copper Oxide 0.6%, Chromium Trioxide 1.4%, Wood Dust* 82.45%

2.5 pcf

Arsenic Pentoxide 2.6%, Copper Oxide 1.3%, Chromium Trioxide 3.3%, Wood Dust* 78.88%

* This represents the maximum amount of wood dust that could be generated if the wood was completely machined.

The above percentages are based on the applicable retention, a wood density of 32 pcf., and a moisture content of 15%, the above values may vary due to the variability of treatment and the natural variability of wood.

HMIS® ratings

Health: 1*

Flammability: 1

Physical hazard: 0

Personal protection: E

NFPA ratings



Disclaimer

Koppers Performance Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Wetland Functions and Values Assessment

Prepared for:

**Saddle Trail Drive Homeowners Association
Saddle Trail Drive
Dover, New Hampshire 03820**

Prepared By:

**Ambit Engineering, Inc
200 Griffin, Unit 3
Portsmouth, New Hampshire 03801**



Date: September 23, 2022

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INTRODUCTION

The applicant is proposing the construction of a tidal docking structure off Saddle Trail Drive, Dover, New Hampshire. The project site is identified on Dover Tax Map N as Lot 8-1 and is approximately 6.07 acres in size. As currently designed, the proposed project would require impacts to tidal wetlands associated with the Cocheco River.

The purpose of this report is to present the existing functions and values of the tidal wetlands and to assess any impacts the proposed project may have on their ability to continue to perform these functions and values. The tidal wetlands being impacted were assessed with consideration to their association with Little Bay and the larger marine ecosystem and was not limited to the tidal wetlands immediately on-site.

METHODS

DATA COLLECTION

The tidal wetlands associated with this project area were identified and characterized through field survey and review of existing information. Ambit Engineering, Inc. (Ambit) conducted a site visit in April 2022 to characterize the tidal wetlands and collect the necessary information to complete a functions and values assessment. In addition, Ambit contacted the New Hampshire Natural Heritage Bureau (NHB) regarding existing information of documented rare species or natural communities within the vicinity of the project site.

WETLAND FUNCTIONS AND VALUES ASSESSMENT

Ambit assessed the ability of the tidal wetlands to provide certain functions and values and analyzed the potential affects the proposed project may have on their ability to continue to provide those functions and values. Wetland functions and values were assessed using the *Highway Methodology Workbook, Wetland Functions and Values: A Descriptive Approach*.¹ This method bases function and value determinations on the presence or absence of specific criteria for each of the 13 wetland functions and values (see definitions below). These criteria are assessed through direct field observations and a review of existing resource maps and databases. As part of the evaluation, the most important functions and values associated with the on-site wetlands are identified. In addition, the ecological integrity of the wetlands is evaluated based on the existing levels of disturbance and the overall significance of the wetlands within the local watershed.

- **Groundwater Interchange (Recharge/Discharge)**

This function considers the potential for the project area wetlands to serve as groundwater recharge and/or discharge areas. It refers to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

- **Floodwater Alteration (Storage and Desynchronization)**

This function considers the effectiveness of the wetlands in reducing flood damage by attenuating floodwaters for prolonged periods following precipitation and snow melt events.

- **Fish and Shellfish Habitat**

This function considers the effectiveness of seasonally or permanently flooded areas within the subject wetlands for their ability to provide fish and shellfish habitat.

- **Sediment/Toxicant Retention**

This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland to function as a trap for sediments, toxicants, or pathogens, and is generally related to factors such as the type of soils, the density of vegetation, and the position in the landscape.

- **Nutrient Removal/Retention/Transformation**

This wetland function relates to the effectiveness of the wetland to prevent or reduce the adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

¹ U.S. Army Corps of Engineers. 1999. *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach*. U.S. Army Corps of Engineers. New England Division. 32pp. NAEPP-360-1-30a.

- **Production Export (Nutrient)**

This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

- **Sediment/Shoreline Stabilization**

This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion, primarily through the presence of persistent, well-rooted vegetation.

- **Wildlife Habitat**

This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered.

- **Recreation (Consumptive and Non-Consumptive)**

This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities such as hiking, canoeing, boating, fishing, hunting, and other active or passive recreational activities.

- **Educational/Scientific Value**

This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

- **Uniqueness/Heritage**

This value relates to the effectiveness of the wetland or its associated water bodies to provide certain special values such as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

- **Visual Quality/Aesthetics**

This value relates to the visual and aesthetic qualities of the wetland.

- **Endangered Species Habitat**

This value considers the suitability of the wetland to support threatened or endangered species.

FUNCTIONS AND VALUES ASSESSMENT

Results of the wetland functions and values assessment are presented below. This assessment includes a discussion of potential changes to existing wetland functions and values that may occur as a result of the proposed project:

Groundwater Interchange (Recharge/Discharge)

Because there is no identified sand and gravel aquifer underlying the project area, and the wetlands are not underlain by sands or gravel, it is unlikely that significant groundwater recharge is occurring within the tidal wetlands.

Floodwater Alteration (Storage and Desynchronization)

The tidal wetlands associated with the Cocheco River receive floodwaters from the surrounding watershed and connected waterways; therefore, is considered a principal function considering the large size of the combined waterways.

Fish and Shellfish Habitat

The greater tidal wetland does provide fish and shellfish habitat, is associated with the Cocheco River and the Piscataqua River; therefore, is considered a principal function.

Sediment/Toxicant Retention

The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Nutrient Removal/Retention/Transformation

The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Production Export (Nutrient)

Production export is a wetland function that typically occurs in the form of nutrient or biomass transport via watercourses, foraging by wildlife species, and removal of timber and other natural products. Because the greater tidal wetland provides fish and wildlife habitat, commercial and recreational fisheries opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.

Sediment/Shoreline Stabilization

Due to the tidal nature and wave action of this wetland; sediment/shoreline stabilization is considered a principal function.

Wildlife Habitat

The greater tidal wetland and the Cocheco River provide a variety of coastal and marine habitats, therefore would be considered a principal function.

Recreation (Consumptive and Non-Consumptive)

The greater tidal wetland and the Cocheco River provides a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.

Education/Scientific Value

The greater tidal wetland and the Cocheco River are part of a larger marine ecosystem with multiple areas of public access making this a principal value.

Uniqueness/Heritage

The tidal wetland and the Cocheco River are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with the Cocheco River and the surrounding areas making this a principal value.

Visual Quality/Aesthetics

The Cocheco River provides aesthetically pleasing coastal views that are viewable from surrounding uplands as well as from the water, making this a principal function.

Endangered Species Habitat

An online inquiry with the NHB resulted in the potential for low brackish riverbank marsh and great bur-reed to occur near the project area. Ambit Engineering has survey located the salt marsh communities associated with the property and these locations are depicted on the NH DES Wetland Application plan set. This information will be provided to NHB and comment will be provided to NH DES upon receipt.

PROPOSED IMPACTS

This report is accompanying a New Hampshire Department of Environmental Services (NHDES) Major Impact Wetland Permit Application request to construct to construct a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. Since the proposed tidal dock will serve to provide a water dependent function, practicable alternatives along the shoreline are reduced due to the presence of saltmarsh and maintaining a 20 foot setback to property lines extended.

SUMMARY AND CONCLUSIONS

The jurisdictional tidal wetland is part of a large marine system and provides eleven principal functions and values when evaluated as a whole. These functions and values include: floodflow alteration, fish and shellfish habitat, production export, sediment/shoreline stabilization, wildlife habitat, recreation, education/scientific value, uniqueness/heritage, and visual quality aesthetics. While the entire marine system provides these principal functions and values, the proposed impacts associated with the dock modification will not have any effect on its ability to continue to provide them.

The proposed impacts have been minimized to the greatest extent practicable, while allowing reasonable use of the property. The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts. The docking structure will not contribute to additional storm water or pollution. It is anticipated that there will be no effect on any fish or wildlife species that currently use the site for food, cover, and/or habitat. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. The float and gangway will be temporary docking structures and will be removed during winter months as to not interfere with ice floe.

The docking structure has been designed to provide recreational boating access utilizing the natural grade of the dock location. There is no grading of the shoreline required to construct the dock. There will be no construction activity that will disturb the area adjacent to the use. All work will be performed from a crane barge at low tide. A majority of the piles to be driven are above the Mean Low Water line and there is no need for erosion control as there will be no water in this location during pile driving and therefore no temporary disturbance associated with construction. The barge floats into position and the piles are driven by the crane equipped with a vibratory hammer. This method eliminates any contact of construction equipment with the protected resource. Portions of the docking structure are pre-fabricated off site and transported to the site via crane barge.

Based on our assessment of the current functions and values, the proposed tidal docking structure including methods of construction & design and DES Rules under Env-Wt 606.06 Residential Tidal Docks Criteria and Env-Wt 606.07 Residential Tidal Docks: Design Standards; it is our belief that the proposed project will have no significant impact on the tidal wetlands or greater marine systems ability to continue to provide their functions and values.

APPENDIX A

WETLAND FUNCTION - VALUE EVALUATION FORM

Wetland Function – Value Evaluation Form

Wetland Description: Wetland A is a tidal wetland associated with the Cochecho River.		File number: 3402.09	
		Wetland identifier: Wetland A	
		Latitude: X: 1,204,176.23	Longitude: Y: 252,594
		Preparer(s): Ambit Engineering, Inc.	
		200 Griffin Road	
		Date: September 23, 2022	

Function/Value	Capability Y N		Summary	Principal Yes/No
 Groundwater Recharge/Discharge		X	This wetland does not possess the characteristics needed to provide this function as there are no identified underlying sand or gravel aquifers.	—
 Floodwater Alteration	X		The tidal wetland and the Cochecho River do receive floodwater from the surrounding watershed and connected waterways; therefore, this would be considered a principal function.	Y
 Fish and Shellfish Habitat	X		The tidal wetland and the Cochecho River are part of a larger coastal marine system and provide both fish and shellfish habitat. This is considered a Principal Function.	Y
 Sediment/Toxicant Retention	X		The immediate tidal wetland contains dense vegetation and a source of sediments and toxicants, therefore a principal function.	Y
 Nutrient Removal	X		The immediate tidal wetland contains dense vegetation and a source of nutrients, therefore a principal function.	Y
 Production Export	X		Because the tidal wetland provides fish and wildlife habitat, commercial and recreational fishing opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.	Y
 Sediment/Shoreline Stabilization	X		Due to the tidal nature and wave action of this wetland; sediment/shoreline stabilization is considered a principal function.	Y
 Wildlife Habitat	X		The greater tidal wetland and the Cochecho River provides a variety of coastal and marine habitat, therefore would be considered a principal function.	Y
 Recreation	X		The adjacent tidal wetland provides a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.	Y
 Education/Scientific Value	X		The tidal wetland and the Cochecho River are part of a larger marine ecosystem with multiple areas of public access making this a principal value.	Y
 Uniqueness/Heritage	X		The tidal wetland and the Cochecho River are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with the Cochecho River and the surrounding areas making this a principal value.	Y
 Visual Quality/Aesthetics	X		The Cochecho River provides aesthetically pleasing coastal views that are seeable from surrounding uplands as well as from the water, making this a principal function.	Y
ES Endangered Species Habitat	X		An online inquiry with the NH Natural Heritage Bureau resulted in an occurrence of a sensitive species near the project area. Ambit Engineering will coordinate with NHB and NHF & G and will forward comment to NH DES upon receipt.	—
Other				

Notes:

* Attach list of considerations.

APPENDIX B

PHOTO LOG

Site Photograph #1

September 2022







APPENDIX C

NEW HAMPSHIRE NATURAL HERITAGE BUREAU CORRESPONDENCE

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: John Chagnon, Ambit Engineering, Inc.
200 Griffin Road
Unit 3
Portsmouth, NH 03801

From: NHB Review, NH Natural Heritage Bureau

Date: 10/7/2022 (valid until 10/07/2023)

Re: Review by NH Natural Heritage Bureau

Permits: NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: NHB22-3168 Town: Dover Location: Saddle Trail Drive
Description: The project proposes the construction of a tidal docking structure consisting of a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 100' float providing recreational boating access to the Cocheco River.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB:** The proposed new tidal docking structure is within an exemplary Low Brackish Riverbank Marsh. Please evaluate if there are other potential locations where this structure could be placed that do not impact this natural community. If not possible, indicate how this project minimizes impacts to the community. Provide proposed conditions plans and photos of the project area during the growing season.
F&G: No comments at this time.

Natural Community	State ¹	Federal	Notes
Low brackish riverbank marsh	--	--	

Plant species	State ¹	Federal	Notes
great bur-reed (<i>Sparganium eurycarpum</i>)*	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

Disclaimer: A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

IMPORTANT: NHFG Consultation

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

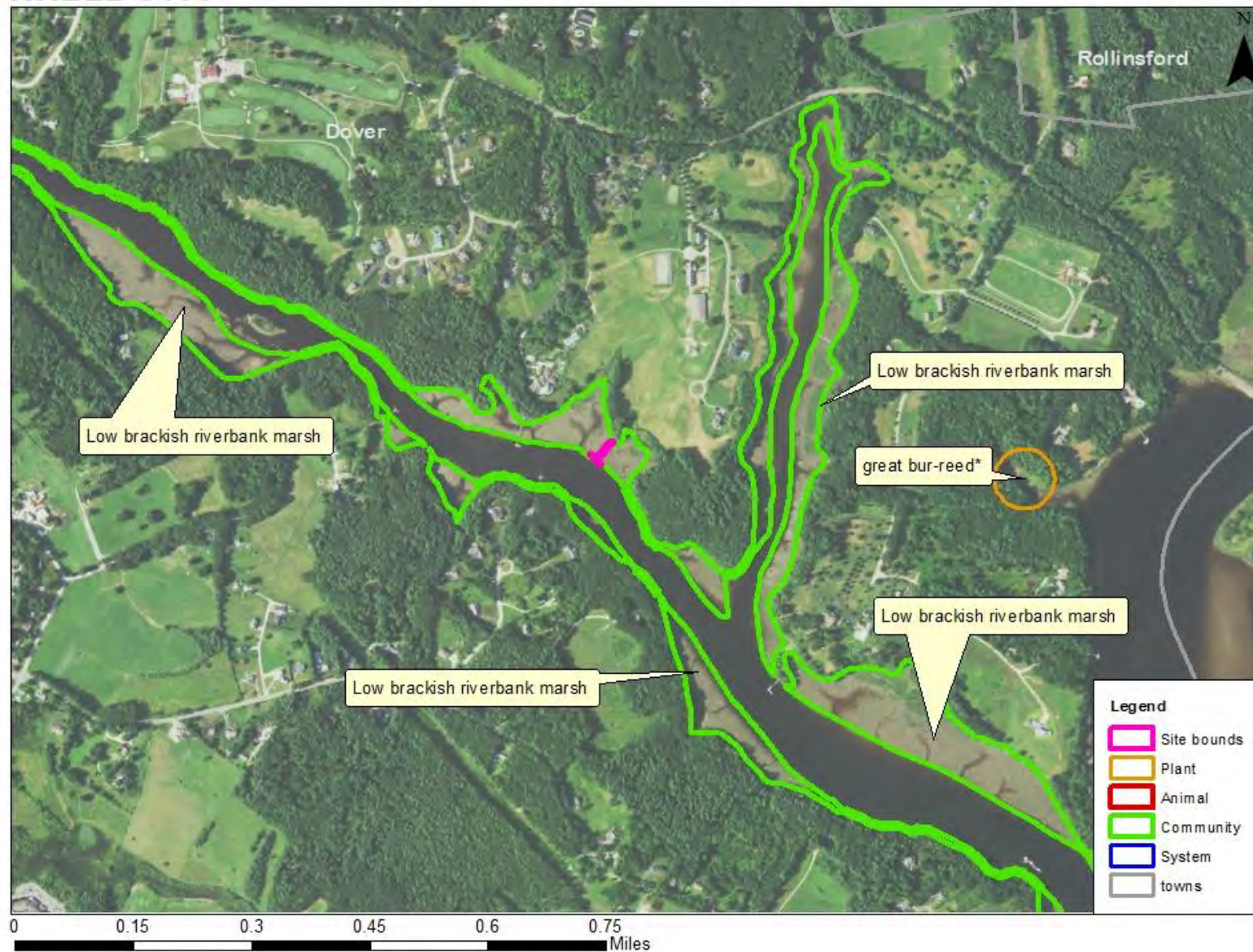
If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://wildlife.state.nh.us/wildlife/environmental-review.html>. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB Datacheck results letter number and “Fis 1004 consultation request” in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle kim.tuttle@wildlife.nh.gov with a copy to NHFGreview@wildlife.nh.gov, and include the NHB Datacheck results letter number and “review request” in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB22-3168



New Hampshire Natural Heritage Bureau - Community Record

Low brackish riverbank marsh

Legal Status

Federal: Not listed
State: Not listed

Conservation Status

Global: Not ranked (need more information)
State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2004: Dominant species are *Spartina alterniflora* (smooth cord-grass), *Amaranthus cannabinus* (water hemp), and *Typha angustifolia* (narrow-leaved cattail). Less frequent are *Lemna minor* (lesser duckweed), *Polygonum hydropiper* (water-pepper), *Argentina egedii* (coastal silverweed), *Eleocharis parvula* (small spike-rush), *Ranunculus cymbalaria* (seaside crowfoot), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Samolus parviflorus* (false water pimpernel). 1988: Forms a narrow zone along the river, dominated by *Spartina alterniflora* (smooth cord-grass). A few stands of *Typha angustifolia* (narrow-leaved cattail) exist, mostly less than an acre in size. Rare plant species present are *Samolus parviflorus* (false water pimpernel), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Eleocharis parvula* (small spike-rush). *Spartina alterniflora* (smooth cord-grass) is dominant. A few stands of *Typha angustifolia* (narrow-leaved cat-tail) exist. Many exotic species are present. The bases of steep, rocky slopes support virtually no emergent vegetation.

General Area: 2004: This low marsh lies adjacent to a sparsely or narrowly vegetated **high brackish tidal riverbank marsh**. The high tidal riverbank is often an unvegetated zone grading into the adjacent upland. Some characteristic species are *Solidago sempervirens* (seaside goldenrod) and *Spartina pectinata* (fresh-water cord-grass). Along most of the riverbank community, moderate residential and commercial development occurs on adjacent lands. High levels of development occur along the west end of the riverbank in downtown Dover. 1988: A narrow zone along the river. Bordered by steep forested slopes and heavily impacted areas.

General Comments: --

Management Comments: 2004: Several invasive species occur on the higher margins of the riverbank community, especially at the west end nearest downtown Dover. They include *Lythrum salicaria* (purple loosestrife), *Phalaris arundinacea* (reed canary-grass), *Rorippa nasturtium-aquaticum* (true watercress), *Polygonum cuspidatum* (Japanese knotweed), and *Solanum dulcamara* (nightshade). These plants should be monitored. 1988: Guard against future development. Current disturbance includes impacts by rock fill, dams, clearing, and power plant construction.

Location

Survey Site Name: Cocheco River Narrows
Managed By:

County: Strafford

Town(s): Dover

Size: 94.2 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Cocheco River downstream of downtown Dover. 2004: The tidal riverbank marsh extends from downtown Dover (beginning downstream of Washington Street) to the mouth of the Cocheco. For the tidal marsh nearest downtown Dover, park at Henry Law Park. For the tidal marsh 0.75 miles eastward, from Henry Law Avenue, turn north onto access road to baseball fields. Park in lot for baseball fields and walk NE, across power line corridor, to Cocheco River. 1988: Tidal wetlands and shores along Cocheco River between upper and lower narrows, due east and just downstream of downtown Dover.

Dates documented

First reported: 1988-09-13

Last reported: 2004-09-23

New Hampshire Natural Heritage Bureau - Plant Record

great bur-reed (*Sparganium eurycarpum*)**Legal Status**

Federal: Not listed
State: Listed Threatened

Conservation Status

Global: Demonstrably widespread, abundant, and secure
State: Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).

Comments on Rank: Few plants but area safe from development.

Detailed Description: 2007: Searched for but not found. 1985: 2 plants seen in mature fruit.

General Area: 1985: Brackish swamp or circumneutral basin swamp. With *Aster radula* (rough-leaved aster), *Calamagrostis canadensis* (bluejoint), *Eupatorium perfoliatum* (perfoliate boneset), *Viburnum nudum* var. *cassinoides* (witherod) and *Clematis virginiana* (virgin's bower). Uplands include old fields, regrowth forest, and agricultural fields. Slowly being developed. The only areas with minimal disturbance are directly along the Piscataqua River, where there are still frequent paths, boat storage, and moorings.

General Comments: 2007: New boat launch proposed on nearby private property. 1985: The habitat is large and possibly supports more large bur-reed plants.

Management
Comments: --

Location

Survey Site Name: Piscataqua-Cocheco Point

Managed By: Davis Easement

County: Strafford

Town(s): Dover

Size: 2.8 acres

Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the map.

Directions: Piscataqua-Cocheco point. Take Rte. 101 south to Eliot bridge, walk south along shore to first major drainage.

Dates documented

First reported: 1985-08-13

Last reported: 1985-08-13

Coastal Vulnerability Assessment

Prepared for:

**Saddle Trail Drive Homeowners Association
Saddle Trail Drive
Dover, New Hampshire 03820**

Prepared By:

**Ambit Engineering, Inc
200 Griffin, Unit 3
Portsmouth, New Hampshire 03801**



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Introduction

This Coastal Vulnerability Assessment (CVA) is being provided in support of a New Hampshire Department of Environmental Services (NHDES) Wetland Permit Application for the construction of a tidal docking structure off Saddle Trail Drive, Dover, NH (herein referred to as “project site”). The project site is a vacant lot located to the south of the terminal end of Saddle Trail Drive and to the north of the Cocheco River. The subject lot is owned by a homeowners association and the proposed tidal docking structure will serve the recreational boating needs of several residences. The surrounding land use is residential with similar docking structures.

Methods

On April 12, 2022, Steven D. Riker, CWS from Ambit Engineering, Inc. conducted a site visit to evaluate coastal characteristics of the project site, as well as the functions and values of the tidal wetland area (see attached Coastal Functions and Values assessment). This CVA was completed utilizing the NH Coastal Flood Risk Science and Technical Advisory Panel (2019). New Hampshire Coastal Flood Risk Summary Part: Guidance for Using Scientific Projections. Report Published by the University of New Hampshire (herein referred to as Guidance Document).

Part 1.1 – Project Type

This project proposes the construction of a tidal docking structure on a vacant lot adjacent to the Cocheco River.. The purpose for the docking structure is to provide the applicant with recreational boating access to the Cocheco River. For more details regarding construction of the docking structure and construction sequences; please refer to the NH DES Wetlands Bureau Application Letter to the Wetlands Inspector and attached NHDES Permit Plan – C2 and Detail Sheet D1.

Part 1.2 – Project Location

The project location is Saddle Trail Drive, Dover, NH, Tax Map N, Lot 8-1 and consists of 6.07 acres of upland and shoreline frontage along the Cocheco River. Access to the project site will be from Saddle Trail Drive for the staging of equipment, and the Cocheco River for the staging of the barge to be used for dock and pile installation.

Part 1.3 – Timeline for Desired Useful Life

The desired useful life for this project is considered to be 2100 (50-100 years) due to the fact that it is a docking structure which has a life expectancy of approximately 50-75 years.

2.1 – Project Risk Tolerance

The proposed project is considered to have a high risk tolerance considering that the docking structure has a relatively low cost, is relatively easy to modify, proposes little to no implications on public function and/or safety; and has relatively low sensitivity to inundation, as docks are designed to withstand fluctuating tidal conditions including storm surge.

2.2 – Risk Tolerance of Important Access and Service Areas

The risk tolerance of surrounding access and service areas is not applicable to this project, as the project occurs on a residential, private lot and is intended for private use; primary access of which would be by foot.

3.1 – Relative Sea Level Rise Scenario (RSLs)

Based on Table 3 in the Guidance Document (see table below), the RSLs for this project (based on the previously determined high risk tolerance) is considered to be on the lower magnitude, and higher probability. The following table depicts the probable sea level rise from 2000 through 2150.

Table 3 from the Guidance Document:

Risk Tolerance	High	Medium	Low	Extremely Low
Example Project	Walking Trail *Docking structure & Stone Revetment	Local Road Culvert	Wastewater Treatment Facility	Hospital
Timeframe	Manage to the following sea level rise (ft*) Compared to the sea level in the year 2000			
	Lower magnitude Higher probability			Higher magnitude Lower probability
2030	0.7	0.9	1.0	1.1
2050	1.3	1.6	2.0	2.3
2100	2.9	3.8	5.3	6.2
2150	4.6	6.4	9.9	11.7

*Added by Ambit Engineering, Inc. based on the application of the Guidance Document towards our project.

3.2 – RSLR Impacts to the Project Evaluation

Please see the attached Figure 1 – Projected SLR's; which depicts the project site and relevant Highest Observable Tide Line (HOTL), MHHW, and the projected SLR's for the year 2100. Relative to surrounding topography and considering the High Risk Tolerance of this project; it is not expected the projected RSLR for this project needs to be a strong consideration. The fixed pier will be constructed at elevation 12. The projected sea level rise in year 2100 is 2.9 feet resulting in future HOTL elevation of 10.54 feet. MHW and projected SLR is depicted in the profile view on Details-Sheet D1 in relation to the proposed dock elevation.

3.3 – Other Factors

Other factors were evaluated in conjunction with RSLR including surface water levels, groundwater levels, and current velocities which will increase with sediment erosion and deposition, which will also change. The projects position in the landscape was also considered relative to other infrastructure. The closest surface water to the project site is the adjacent Little Bay, projections of RSLR of which have already been depicted and discussed. There are no current restrictions on the project site or associated with the proposed project. The HOTL associated with the project site is located approximately at elevation 7.64. Considering a 2.9 foot RSLR in the year 2100 resulting in an elevation of 10.54, and the proposed tidal docking structure constructed at elevation 12 the structure will function as intended throughout the expected useful life of the residential structure they will serve, simply by the means in which it will be constructed.

4.1 – RSLR and Coastal Storms

Due to the project site location being immediately adjacent to the Cocheco River, it is anticipated that RSLR and storm surge on the proposed project site will be comparable to adjacent properties with similar docking structures. Considering the high risk tolerance of this project, it is not

anticipated that this project has a significant level of vulnerability to RSLR and coastal storms given the method in which tidal docks are constructed.

4.2 – Other Factors

Other factors such as surface water levels, groundwater levels, wind and current velocities have been considered. Considering the high risk tolerance of this project, it is not anticipated that this project has a significant level of vulnerability to groundwater levels, wind and current velocities given the method in which tidal docks are constructed.

5.1 – Projected RSL-Induced Groundwater Rise

Based on the Sea-Level Rise Mapper, there is projected groundwater rise associated with RSLR on the project site, however given that the project provides a structure that has a water dependent use, we do not believe groundwater rise should be a strong consideration.

5.2 – Projected Groundwater Depth at the Project Location

Based on knowledge of the site and soil morphology of the site, groundwater depth (Estimated Seasonal High Water Table) is between 30-40” below the soil surface.

6.1 – Best Available Precipitation Estimates

Please see the attached Extreme Precipitation Tables from the Northeast Regional Climate Center.

7.1 – Cumulative Coastal Flood Risk to the Project

Based on the high risk tolerance of this project combined with all other factors including RSLR, coastal storms, RSLR-induced groundwater rise, extreme precipitation and/or freshwater flooding occurring together; this project is not considered to be at high risk from coastal flooding.

7.2 – Possible Actions to Mitigate Coastal Flood Risk

Given the high risk tolerance of the proposed project, it is not anticipated that it is necessary to mitigate for coastal flood risk beyond what has already been incorporated into the design plan for the docking structure. The projected SLR scenario through 2100 is 2.9’ (See profile view on Sheet D1), and the proposed docking structure has been designed to account for this projection.

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	
Location	
Longitude	70.745 degrees West
Latitude	43.071 degrees North
Elevation	0 feet
Date/Time	Tue, 21 Jan 2020 12:37:30 -0500

Precipitation estimates multiplied by 1.15 are listed below:

1-yr: 3.06
2-yr: 3.69
10-yr: 5.59
50-yr: 8.49

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.04	1yr	0.70	0.98	1.21	1.56	2.03	2.66	2.92	1yr	2.35	2.81	3.22	3.94	4.55	1yr
2yr	0.32	0.50	0.62	0.81	1.02	1.30	2yr	0.88	1.18	1.52	1.94	2.49	3.21	3.57	2yr	2.84	3.43	3.94	4.68	5.33	2yr
5yr	0.37	0.58	0.73	0.98	1.25	1.61	5yr	1.08	1.47	1.89	2.43	3.14	4.07	4.58	5yr	3.60	4.40	5.04	5.94	6.70	5yr
10yr	0.41	0.65	0.82	1.12	1.45	1.89	10yr	1.25	1.73	2.23	2.90	3.75	4.86	5.53	10yr	4.30	5.32	6.09	7.11	7.98	10yr
25yr	0.48	0.76	0.97	1.34	1.78	2.34	25yr	1.54	2.15	2.78	3.64	4.74	6.17	7.10	25yr	5.46	6.83	7.81	9.02	10.05	25yr
50yr	0.54	0.86	1.10	1.54	2.08	2.77	50yr	1.79	2.53	3.30	4.33	5.67	7.38	8.58	50yr	6.54	8.25	9.43	10.81	11.97	50yr
100yr	0.60	0.97	1.25	1.78	2.43	3.27	100yr	2.09	2.99	3.92	5.17	6.77	8.85	10.37	100yr	7.83	9.98	11.39	12.96	14.26	100yr
200yr	0.68	1.11	1.43	2.05	2.84	3.85	200yr	2.45	3.53	4.63	6.14	8.09	10.60	12.54	200yr	9.38	12.06	13.76	15.54	17.00	200yr
500yr	0.80	1.32	1.72	2.50	3.50	4.79	500yr	3.02	4.40	5.79	7.72	10.23	13.47	16.13	500yr	11.92	15.51	17.68	19.77	21.47	500yr

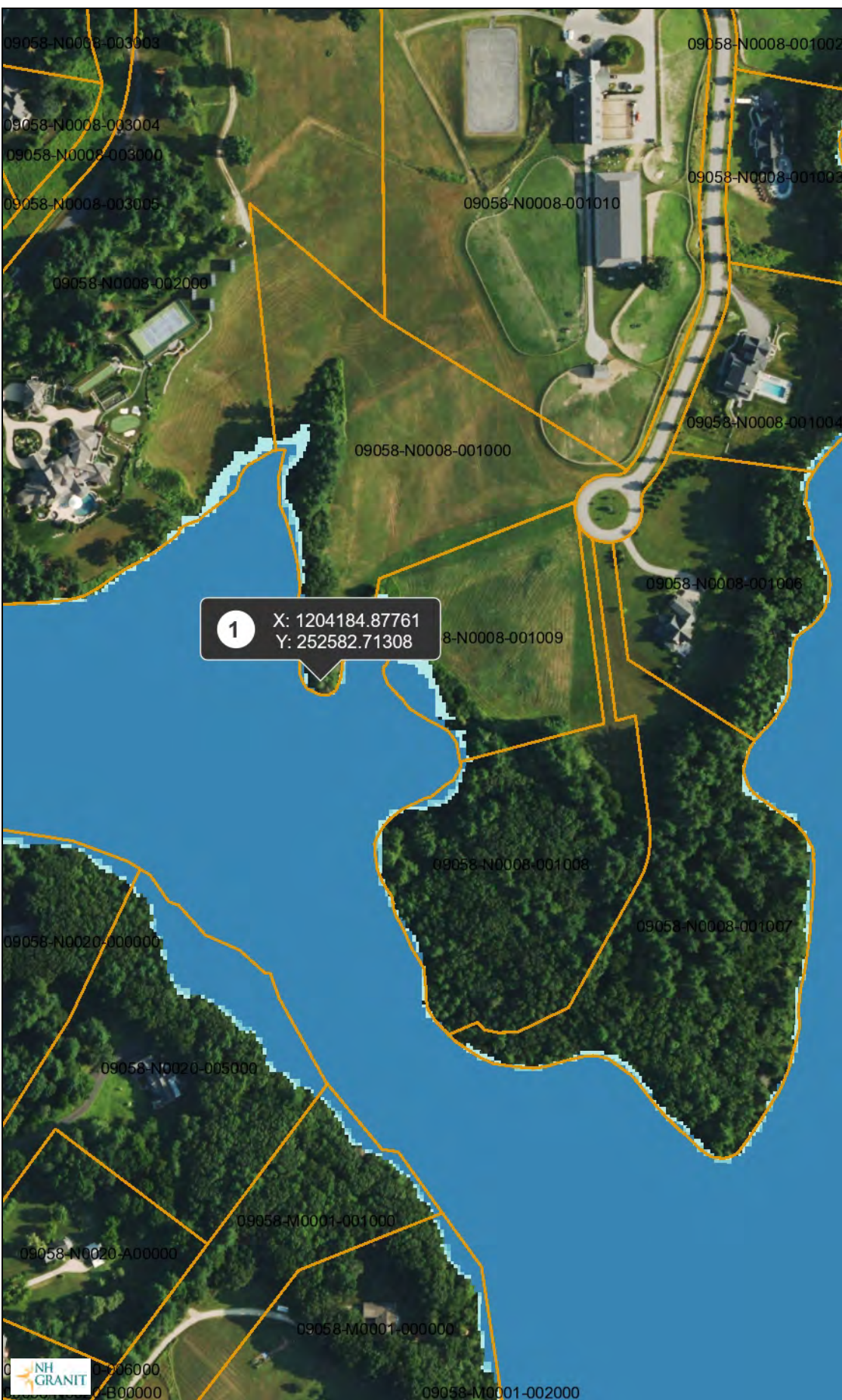
Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.36	0.44	0.59	0.72	0.88	1yr	0.62	0.86	0.93	1.33	1.69	2.25	2.48	1yr	1.99	2.38	2.87	3.20	3.91	1yr
2yr	0.31	0.49	0.60	0.81	1.00	1.19	2yr	0.86	1.16	1.37	1.82	2.33	3.06	3.45	2yr	2.71	3.32	3.82	4.55	5.09	2yr
5yr	0.35	0.54	0.67	0.92	1.17	1.40	5yr	1.01	1.37	1.61	2.11	2.73	3.78	4.18	5yr	3.35	4.02	4.72	5.53	6.23	5yr
10yr	0.39	0.59	0.73	1.03	1.33	1.60	10yr	1.14	1.56	1.80	2.38	3.05	4.36	4.85	10yr	3.86	4.66	5.43	6.40	7.18	10yr
25yr	0.44	0.67	0.83	1.19	1.56	1.90	25yr	1.35	1.86	2.10	2.75	3.52	4.74	5.87	25yr	4.20	5.64	6.62	7.77	8.66	25yr
50yr	0.48	0.73	0.91	1.31	1.76	2.16	50yr	1.52	2.12	2.34	3.06	3.91	5.36	6.76	50yr	4.75	6.50	7.69	9.01	9.99	50yr
100yr	0.53	0.81	1.01	1.46	2.01	2.46	100yr	1.73	2.41	2.62	3.40	4.32	6.03	7.80	100yr	5.34	7.50	8.92	10.47	11.53	100yr
200yr	0.59	0.89	1.13	1.63	2.27	2.81	200yr	1.96	2.75	2.93	3.76	4.76	6.77	8.99	200yr	5.99	8.64	10.34	12.17	13.33	200yr
500yr	0.68	1.02	1.31	1.90	2.70	3.36	500yr	2.33	3.28	3.41	4.28	5.40	7.89	10.84	500yr	6.99	10.43	12.56	14.89	16.15	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.44	0.54	0.72	0.89	1.09	1yr	0.77	1.06	1.26	1.74	2.20	2.97	3.17	1yr	2.63	3.05	3.58	4.37	5.04	1yr
2yr	0.34	0.52	0.64	0.87	1.07	1.27	2yr	0.92	1.24	1.48	1.96	2.52	3.42	3.71	2yr	3.03	3.57	4.10	4.84	5.62	2yr
5yr	0.40	0.62	0.77	1.05	1.34	1.62	5yr	1.15	1.59	1.89	2.54	3.26	4.34	4.97	5yr	3.84	4.78	5.38	6.39	7.17	5yr
10yr	0.47	0.72	0.89	1.25	1.61	1.98	10yr	1.39	1.94	2.29	3.11	3.97	5.34	6.22	10yr	4.72	5.98	6.84	7.86	8.77	10yr
25yr	0.58	0.88	1.09	1.56	2.05	2.58	25yr	1.77	2.52	2.96	4.08	5.17	7.74	8.37	25yr	6.85	8.05	9.20	10.36	11.43	25yr
50yr	0.67	1.03	1.28	1.84	2.47	3.14	50yr	2.13	3.07	3.61	5.02	6.35	9.69	10.50	50yr	8.57	10.10	11.51	12.76	13.99	50yr
100yr	0.79	1.20	1.50	2.17	2.98	3.83	100yr	2.57	3.74	4.39	6.18	7.81	12.11	13.17	100yr	10.72	12.66	14.41	15.74	17.13	100yr
200yr	0.93	1.40	1.77	2.57	3.58	4.68	200yr	3.09	4.57	5.36	7.61	9.61	15.19	16.53	200yr	13.44	15.89	18.08	19.41	20.97	200yr
500yr	1.16	1.72	2.21	3.21	4.57	6.07	500yr	3.94	5.94	6.96	10.07	12.67	20.50	22.33	500yr	18.14	21.48	24.39	25.60	27.40	500yr

Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons
- Attributes for Additional Lines

MHHW + 1-ft SLR

0-2
2-4

☐ 0 - 2
☐ 2 - 4
☒ 4 - 6

☐ 2 - 4
☐ 4 - 6
☐ 6 - 8

4-5
 6-8
 8-10

8 - 10

Coastal 2019 1-foot RGB

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale
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1: 3,247

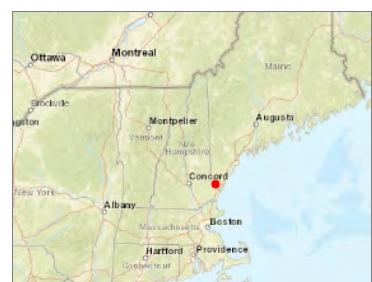
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Map Generated: 9/23/2022

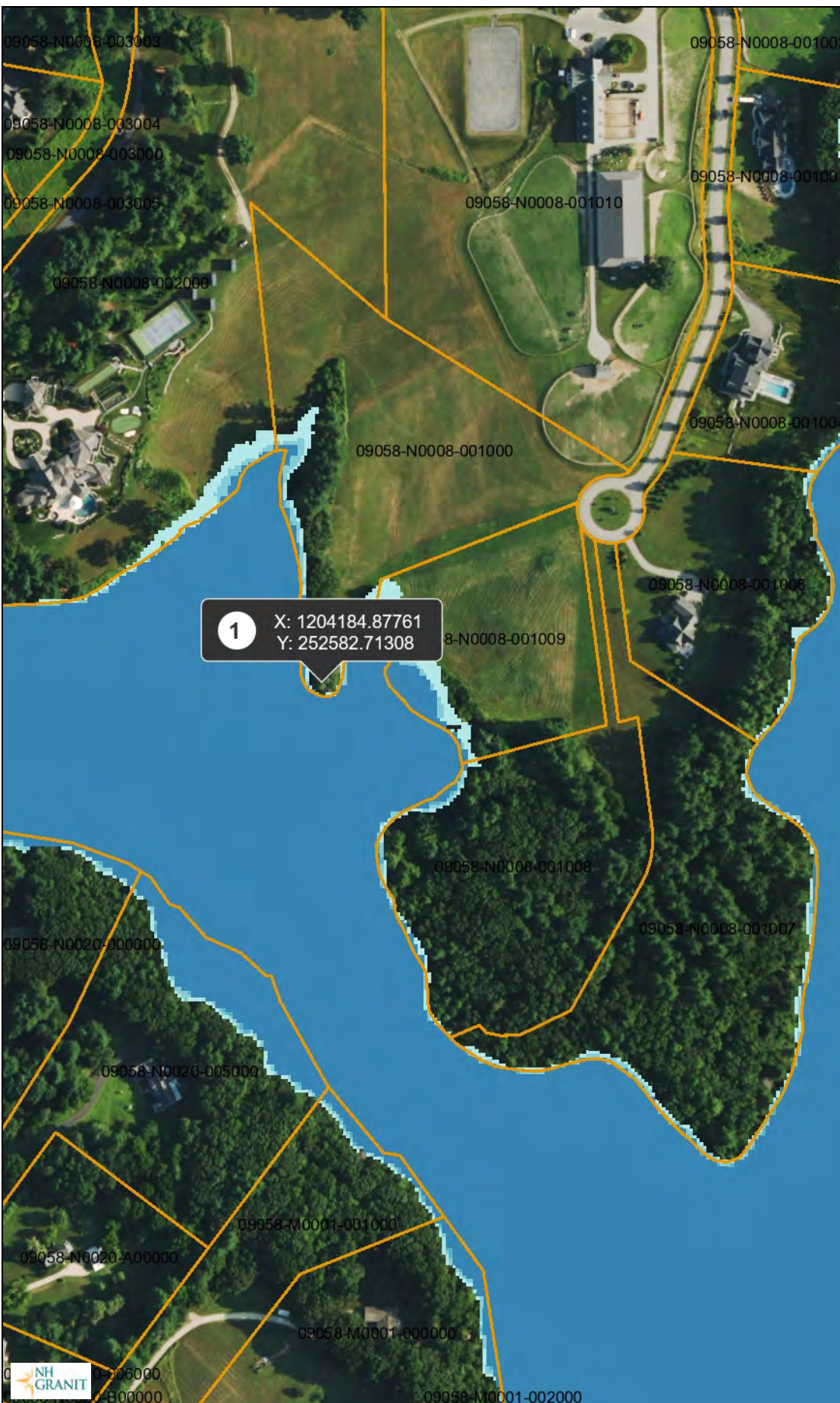
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Notes
1 Foot SLR

1 Foot SLR	
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Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons

Attributes for Additional Lines

MHHW + 2-ft SLR

0-2

2 - 4

4 - 6

6-8

8 - 10

10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247

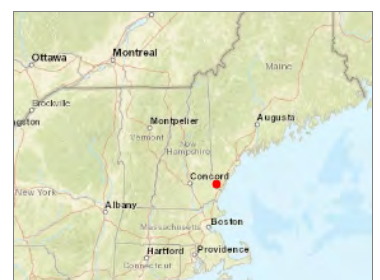
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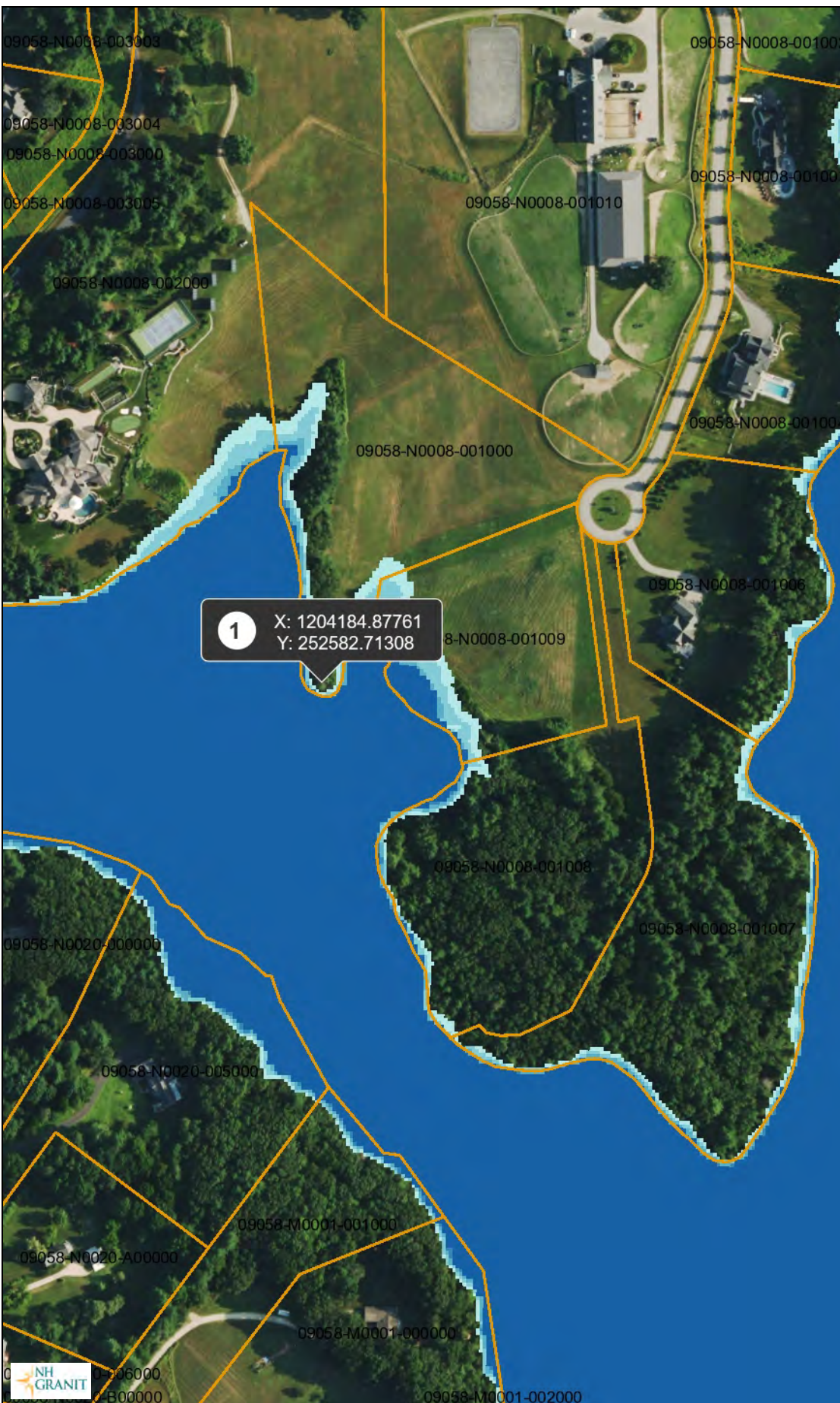


Notes

2 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons

Attributes for Additional Lines

MHHW + 4-ft SLR

0-2

2 - 4

4 - 6

6-8

8 - 10

10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale 

1: 3,247

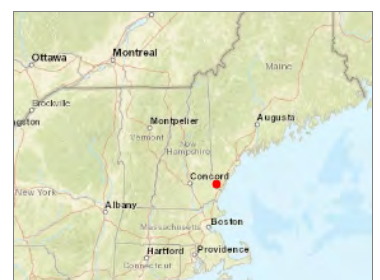
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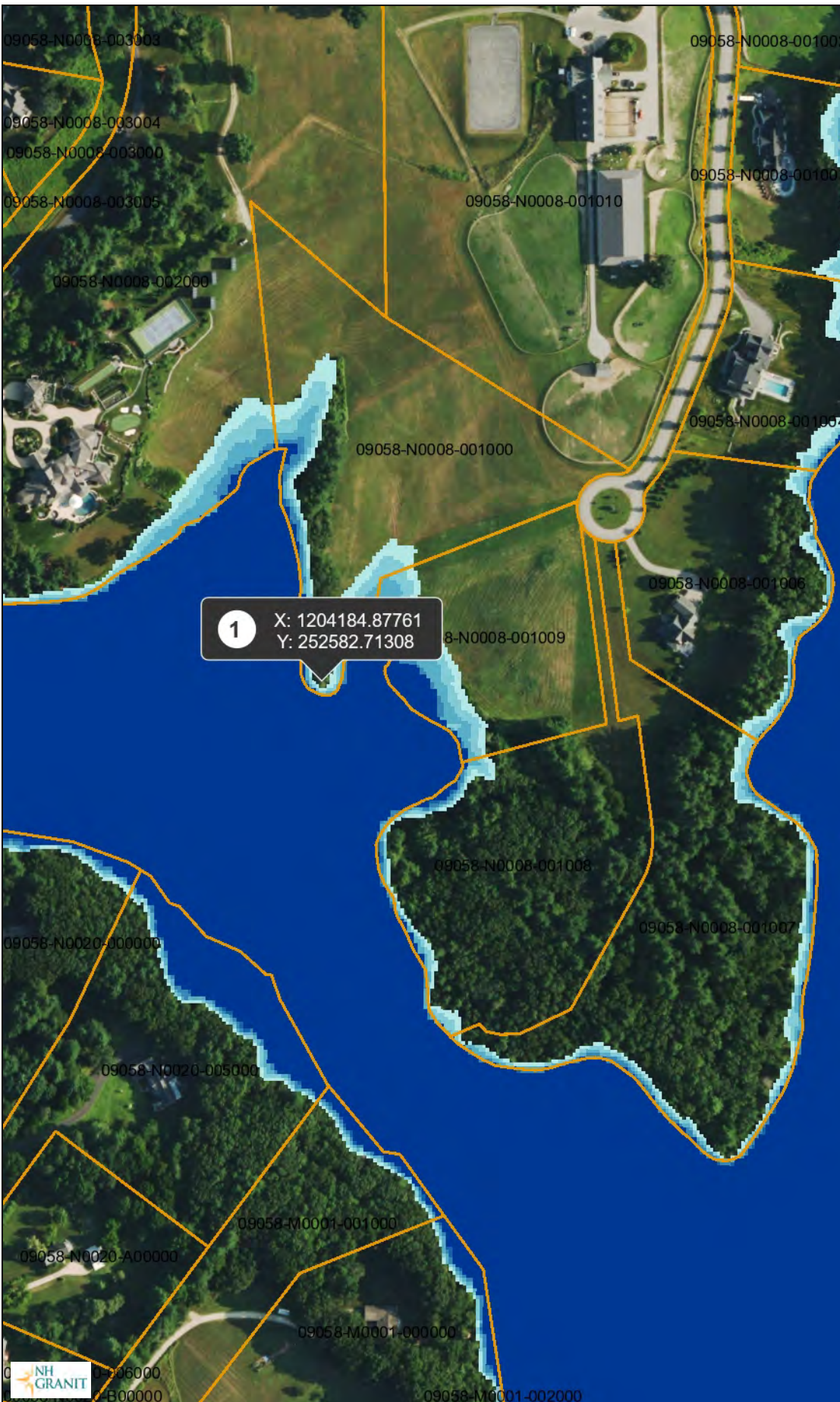


Notes

4 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons

Parcel Polygons

 Attributes for Additional Lines

MHHW + 6-ft SLR

0-2

2-4

4 - 6

6-8

8 - 10

■ 10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

1.2.111 Resolution Metadata

Map Scale 

1: 3,247

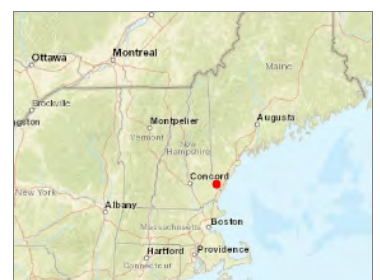
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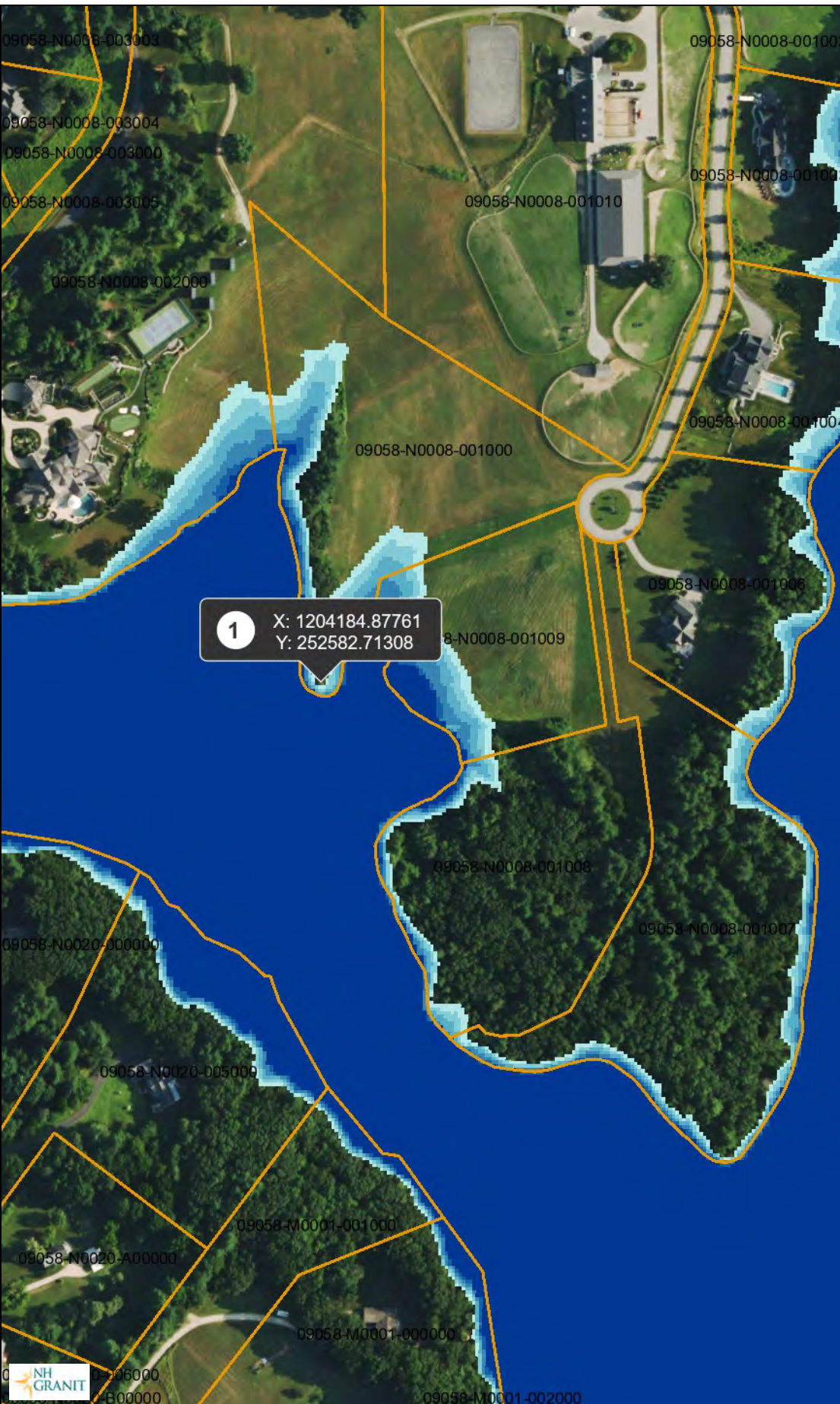


Notes

6 Foot SLR	
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Map by NH GRANIT



Legend

Parcels - polygons

Parcel Polygons

 Attributes for Additional Lines

MHHW + 8-ft SLR

0 - 2

☒ 2-4

4 - 6

6 - 8

8 - 10

10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

Low Resolution 1500 Image
High Resolution 6000 Image

High Resolution 60cm Image

High Resolution 30cm Image
City

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247 

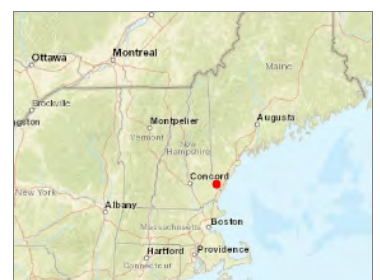
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Map Generated: 9/23/2022



Notes

8 Foot SLR	
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CATHERINE A. BERUBE
Register of Deeds, Strafford County
LCHIP STA187823 25.00

Return to:

Baroff & Craven PA
740 Chestnut Street
Manchester, NH 03104
Transfer Tax: \$0.00

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS that Bonterra Farms, LLC, a New Hampshire limited liability company, with a mailing address of 31 Saddle Trail Drive, Dover, New Hampshire 03820, for consideration paid grants to Saddle Trail Drive Homeowners' Association, a New Hampshire non-profit corporation, with a mailing address of 44 Saddle Trail Drive, Dover, New Hampshire 03820, with quitclaim covenants the following describe premises:

Three certain tracts or parcels of land, and any improvements thereon, located in the City of Dover, County of Strafford and State of New Hampshire, described as follows:

Tract 1: Saddle Trail Drive

Parcel 1

The private roadway shown as "Saddle Trail Drive" on a plan of land entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Parcel 2

Area B as shown on plan entitled, "BOUNDARY LINE ADJUSTMENT PLAN FOR WOODWIND FARMS, LLC," prepared by Doucet Survey, Inc. and recorded in the Strafford County Registry of Deeds as Plan No. 101-99.

Tract 2: Open Space A

"Open Space 'A' as shown on a plan of land entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Tract 3: Open Space B

“Open Space ‘B’ as shown on a plan of land entitled, “OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD,” dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Subject to the following:

1. Current Land Use as filed with the City of Dover by Elie A. Sehnaoui & Carolyn Sehnaoui recorded June 21, 1984 at Book 1135, Page 731.
2. Matters including 100' City of Dover Conservation District, “Proposed Septic Easement”, utility easements, 100' buffer, conditions, restrictions, notes, etc. as incorporated in deed into the current owner recorded at Book 4582, Page 497, as well as depicted on Plans 93-55 and 93-56, Plans 101-99, 100 and 101, 93-68, 105-10.
3. Requirement for Open Space to be owned by a homeowners association and permanently preserved as undeveloped open space, as noted on Plan 93-55.
4. Utility easement to Public Service Company of New Hampshire and Verizon New England, Inc. as described in deed of Woodwind Farms, LLC dated April 3, 2006 and recorded at Book 3357, Page 362.
5. Well Maintenance and Easement Agreement by and between Woodwind Farms, LLC and Linda M. Gorman, Trustee of The Linda M. Gorman 2006 Revocable Trust dated December 1, 2008 and recorded at Book 3696, Page 488.
6. Rights of owners of Lots 1, 2, 3, 4, 6, 7, 8, 9, and 10 of The Paddocks at Tidewater Farm, for ingress and egress, including appurtenant rights in “Saddle Trail Drive” and/or “Open Spaces A & B.
7. Septic Easement over a portion of Open Space A shown on Plans 93-55 and 56, as well as a utility easement over Area B, both benefitting Lot 8 shown on Plan 101-99, as conveyed to Tidewater Farm, LLC by deed dated September 6, 2011 and recorded at Book 3937, Page 676.
8. Restrictive Covenants —Woodwind Farms, LLC dated April 6, 2005 and recorded at Book 3169, Page 182, Re-Recorded at Book 3172, Page 355.
9. Declaration of Restrictive Covenants — The Paddocks at Tidewater Farms Subdivision, dated 3/5/2008 and recorded at Book 3622, Page 18, with Amended and Restated Declaration of Restrictive Covenants The Paddocks at Tidewater Farm Subdivision dated 1/25/2013 and recorded at Book 4097, Page 246, as affected by First Amendment to the Amended and Restated Declaration of Restrictive Covenants at Tidewater Farm

Subdivision dated 11/5/2013 and recorded at Book 4179, Page 187, including Blanket Road/ Utility Easement.

10. The Paddocks at Tidewater Farm Homeowners Association, Dover, NH By-Laws, dated January 25, 2013 and recorded at Book 4097, Page 257, as affected by First Amendment to The Paddocks at Tidewater Farm Homeowners Association By-Laws dated November 5, 2013 and recorded at Book 4179, Page 185.
11. Wetland and Non-Site Specific Permit by New Hampshire Department of Environmental Services, dated November 13, 2003, Expiration Date: November 13, 2008, recorded at Book 2943, Page 716.
12. Easement to Twin State Gas and Electric Company as described in deed of Ellen R. Hollister and Sarah R. Childs dated 9/19/1940 recorded at Book 498, Page 153.
13. Flowage release to the State of New Hampshire as described in deed of Grace W. Rollins, Sarah H. Childs and Ellen R. Hollister dated 8/2/1948, recorded at Book 562, Page 444.
14. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Grace W. Rollins, Sarah R. Childs and Ellen R. Hollister, dated August 2, 1948 and recorded at Book 562, Page 445.
15. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Grace W. Rollins dated October 25, 1949 and recorded at Book 574, Page 499.
16. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Sarah R. Childs and Ellen R. Hollister dated October 10, 1949 and recorded at Book 575, Page 489.
17. Riparian rights in and to Cocheco River.
18. Matters, including City of Dover Conservation District Boundary, as shown on a set of plans entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.
19. Matters shown on a set of plans entitled, "BOUNDARY LINE ADJUSTMENT PLAN FOR WOODWIND FARMS, LLC," prepared by Doucet Survey, Inc. and recorded in the Strafford County Registry of Deeds as Plan Nos. 101-99, 101-100, and 101-101.

RESERVING to the Grantor, the right, but not the obligation, to install, at Grantor's expense, an electronic gate and all associated components thereof across Saddle Trail Drive near the intersection of Saddle Trail Drive and Gulf Road ("Gate"), and once installed, the Gate shall belong to the Grantee and shall be maintained, repaired, replaced and insured by the Grantee so that Saddle Trail Drive at all times remains a gated private way. Grantor, its successors and assigns shall be entitled to enforce the provisions hereof.

The Grantee hereby indemnifies and holds the Grantor harmless from and against any and all claims associated with (a) the Gate once installed; and (b) title to the parcels conveyed hereby including all of the Grantor's reasonable attorneys' fees and costs incurred in defending any such action.

Meaning and intending to describe and convey a portion of the same premises conveyed to Bonterra Farms, LLC by Deed of Linda M. Gorman, Trustee of The Linda M. Gorman 2006 Revocable Trust dated July 6, 2018 and recorded in the Strafford County Registry of Deeds at Book 4582, Page 497. See also, Foreclosure Deed from People's United Bank to Linda M. Gorman, as Trustee of the Linda M. Gorman 2006 Revocable Trust dated January 17, 2013 and recorded in the Strafford County Registry of Deeds at Book 4090, Page 0726.

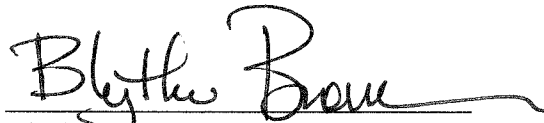
This is not homestead property of the within Grantor.

This is a non-contractual transfer pursuant to RSA 78-B:2, IX.

Witness my hand this 13 day of Oct, 2021.

Bonterra Farms, LLC

By:

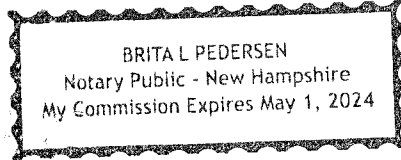


Blythe G. Brown, Manager

Duly Authorized

STATE OF New Hampshire
COUNTY OF Strafford

On this 13 day of October, 2021, before me, the undersigned officer, personally appeared Blythe G. Brown, who acknowledged herself to be (or satisfactorily proven to be) the Manager of Bonterra Farms, LLC, a New Hampshire limited liability company, and that she, in this capacity, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing her name on behalf of the LLC.



A handwritten signature in black ink, appearing to be "Brita L. Pedersen", written over a horizontal line.

Justice of the Peace/Notary Public

My Commission Expires: 05/01/2024

<signatures continue on next page>

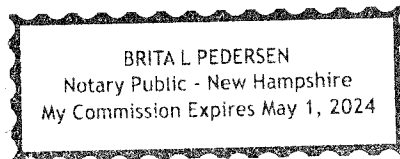
The Grantee, Saddle Trail Drive Homeowners' Association, is signing this deed to acknowledge the rights and obligations set forth herein.

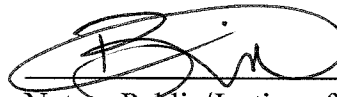
Saddle Trail Drive Homeowners' Association

By: 
Carla Meyers
Its duly authorized President

STATE OF NEW HAMPSHIRE
COUNTY OF STRAFFORD

Then personally appeared the above-named Carla Meyers, the President of Saddle Trail Drive Homeowners' Association, this 13 day of October, 2021, known to me or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument, and acknowledges that she executed the same as her free act and deed for the purposes therein contained on behalf of Saddle Trail Drive Homeowners' Association.




Notary Public/Justice of the Peace
Commission Expires: 05/01/2024



AMBIT ENGINEERING, INC.

A DIVISION OF HALEY WARD, INC. 

29 June 2023

Kristin L. Duclos, Wetlands Specialist
Wetlands Bureau, Land Resources Management
Water Division, NH Department of Environmental Services
P.O. Box 95
Concord, NH 03302-0095

**Re: Response to Request For More Information
NH DES Wetland File: 2023-00062
Tax Map N, Lot 8-1
Saddle Trail Drive
Dover, NH 03820**

Dear Kristin:

This letter transmits a response to a "Request for More Information" dated March 1, 2023 in regards to the above referenced file. Responses below are formatted and numbered to coincide with the numbered items in the "Request for More Information" as requested.

- 1. As the applicant is an organization, please identify the official of the applicant, in this case the president or other authorized representative of the homeowners association who has been authorized to sign the application and provide either a copy of the signed and dated signature page of the application or an authorization letter that includes their name and title on the application in accordance with Env-Wt 311.11(b).**

Attached to this response is a signed and dated letter of authorization from the authorized representative of the homeowners association which includes name and title.

- 2. In order to demonstrate compliance with Env-Wt 606.06(c), Env-Wt 606.06(d) and Env-Wt 606.06(k), please provide a map of the properties included within the homeowners association and indicate which properties within this homeowners association will be provided with deeded access to this community docking structure. Please note that properties that have an existing residential tidal dock will not be eligible to utilize this docking structure in accordance with Env-Wt 606.06(d).**

Attached to this response is a tax map which depicts the properties within the homeowners association and which properties within the homeowners association will be provided with deeded access to the community docking structure. The labeled lots on the tax map represents lots (properties) that will be provided with deeded access.





3. **Please provide copies of the written follow-up communications such as additional memos or email communications with the Natural Heritage Bureau (NHB) regarding the threatened or endangered plant species and exemplary natural communities located within the vicinity of the project as identified in the NHB DataCheck (NHB ID: NHB22- 3168) in accordance with Env-Wt 311.06(g), and make any necessary changes to the application and plans to include all recommendations made by NHB in accordance with Env-Wt 311.01(b).**

Attached to this response is correspondence with NHB.

4. **Please provide a statement from the Pease Development Authority Division of Ports and Harbors (“DP&H”) chief harbormaster, or designee, for the subject location relative to the proposed structure’s impact on navigation in accordance with Env-Wt 603.09(a).**

Attached to this response is a letter from the Pease Development Authority Chief Harbormaster.

5. **Please revise the plans to show the buffer zone of the horizontal limits of a federal navigation project (FNP), which is 3 times the authorized depth of a constructed FNP as measured on a horizontal plane, in order to demonstrate that no portion of the proposed residential tidal dock is located within the buffer zone as required in accordance with Rule Env-Wt 606.06(h).**

Attached to this response is a revised NH DES Permit Plan-Sheet C2 which depicts the buffer zone associated with the Federal Navigation Project (FNP).

Please do not hesitate to contact me if you need anything else in regards to this NH DES Wetland Permit Application.

Sincerely,

Steve Riker, CWS
Project Scientist/Project Manager
sriker@haleyward.com

Cc: Dover Municipal Clerk/Conservation Commission

29 June, 2023

To Whom It May Concern:

RE: State of New Hampshire DES Wetlands Bureau Standard Dredge and Fill Application for proposed shoreline stabilization within the previously developed 100' Tidal Buffer Zone and jurisdictional wetlands for Saddle Trail Homeowners Association at Saddle Trail Drive Dover, NH 03820

This letter is to inform the City of Dover in accordance with State Law that the following entities:

Riverside Marine Construction, Inc.
Ambit Engineering, Inc

Are authorized to represent me as my agent in the approval process.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

A handwritten signature in dark ink, appearing to read "Larry Morris", with a stylized flourish at the end.

The Lawrence F. Morris & Laura M. Morris Revocable Living Trust
Larry Morris Trustee, Authorized Representative for Saddle Trail Homeowners Association
74 Saddle Trail Drive
Dover, NH 03820

**Property Information**

Property ID N0008-001008
Location SADDLE TRAIL DR
Owner CENTRELLA MICHAEL C
Land Use 130
Zoning Code R-40

**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 12/16/2022
Data updated Daily

Print map scale is approximate.
Critical layout or measurement
activities should not be done using
this resource.



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



March 01, 2023

SADDLE TRAIL DR HOMEOWNERS ASSOCIATION
C/O CARLA MEYERS
56 SADDLE TRAIL DR
DOVER NH 03820

Re: Request for More Information – Standard Dredge and Fill Wetlands Permit Application (RSA 482-A)
NHDES File Number: 2023-00062
Subject Property: Saddle Trail Dr, Dover, Tax Map #N, Lot #8-1

Dear Applicant:

On March 1, 2023, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau reviewed the above-referenced Standard Dredge and Fill Wetlands Permit Application (Application). Pursuant to RSA 482-A:3, XIV(a)(2) and Rules Env-Wt 100 through 900, NHDES Wetlands Bureau determined the following additional information is required to complete its evaluation of the Application:

1. As the applicant is an organization, please identify the official of the applicant, in this case the president or other authorized representative of the homeowners association who has been authorized to sign the application and provide either a copy of the signed and dated signature page of the application or an authorization letter that includes their name and title on the application in accordance with Env-Wt 311.11(b).
2. In order to demonstrate compliance with Env-Wt 606.06(c), Env-Wt 606.06(d) and Env-Wt 606.06(k), please provide a map of the properties included within the homeowners association and indicate which properties within this homeowners association will be provided with deeded access to this community docking structure. Please note that properties that have an existing residential tidal dock will not be eligible to utilize this docking structure in accordance with Env-Wt 606.06(d).
3. Please provide copies of the written follow-up communications such as additional memos or email communications with the Natural Heritage Bureau (NHB) regarding the threatened or endangered plant species and exemplary natural communities located within the vicinity of the project as identified in the NHB DataCheck (NHB ID: NHB22-3168) in accordance with Env-Wt 311.06(g), and make any necessary changes to the application and plans to include all recommendations made by NHB in accordance with Env-Wt 311.01(b).
4. Please provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation in accordance with Env-Wt 603.09(a).
5. Please revise the plans to show the buffer zone of the horizontal limits of a federal navigation project (FNP), which is 3 times the authorized depth of a constructed FNP as measured on a horizontal plane, in order to demonstrate that no portion of the proposed residential tidal dock is located within the buffer zone as required in accordance with Rule Env-Wt 606.06(h).

Please submit the required information as soon as practicable. Pursuant to RSA 482-A:3, XIV(a)(2), **the required information must be received by NHDES Wetlands Bureau within 60 days of the date of this request (no later than April 30, 2023), or the Application will be denied.** Should additional time be necessary to submit the required information, an extension of the 60-day time period may be requested. Requests for additional time must be received

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095

NHDES Main Line: (603) 271-3503 • Subsurface Fax: (603) 271-6683 • Wetlands Fax: (603) 271-6588

TDD Access: Relay NH 1 (800) 735-2964

prior to the deadline in order to be approved. In accordance with applicable statutes and regulations, the applicant is also expected to provide copies of the required information to the municipal clerk and all other interested parties.

Based on NHDES review your project has impacts to tidal wetlands. To ensure that you obtain permitting under the Clean Water Act, please contact the U.S. Army Corps of Engineers (USACE) at 1-978-318-8832, 1-978-318-8295, or by email at cenae-r-nh@usace.army.mil to see if additional mitigation may be required from the USACE.

Pursuant to RSA 482-A:3, XIV(a)(3), NHDES Wetlands Bureau will approve or deny the Application within 30 days of receipt of all required information, or schedule a public hearing, if required by RSA 482-A or associated rules.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,



Kristin L. Duclos
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

cc: Dover Municipal Clerk/Conservation Commission
Ambit Engineering, Inc., c/o Steven D. Riker

May 9, 2023

NH Department of Environmental Service
Coastal Division
Pease Field Office
222 International Drive, Suite 175
Portsmouth, NH 03801

Attn: Kristin Duclos

Re: 44 Saddle Trail Drive, Map N Lot 8-1

Dear Kristin,

We reviewed plans for the construction of a pier and float system on the
Cocheco River in Dover at property belonging to

Saddle Trail Homeowners Association
Dover, NH

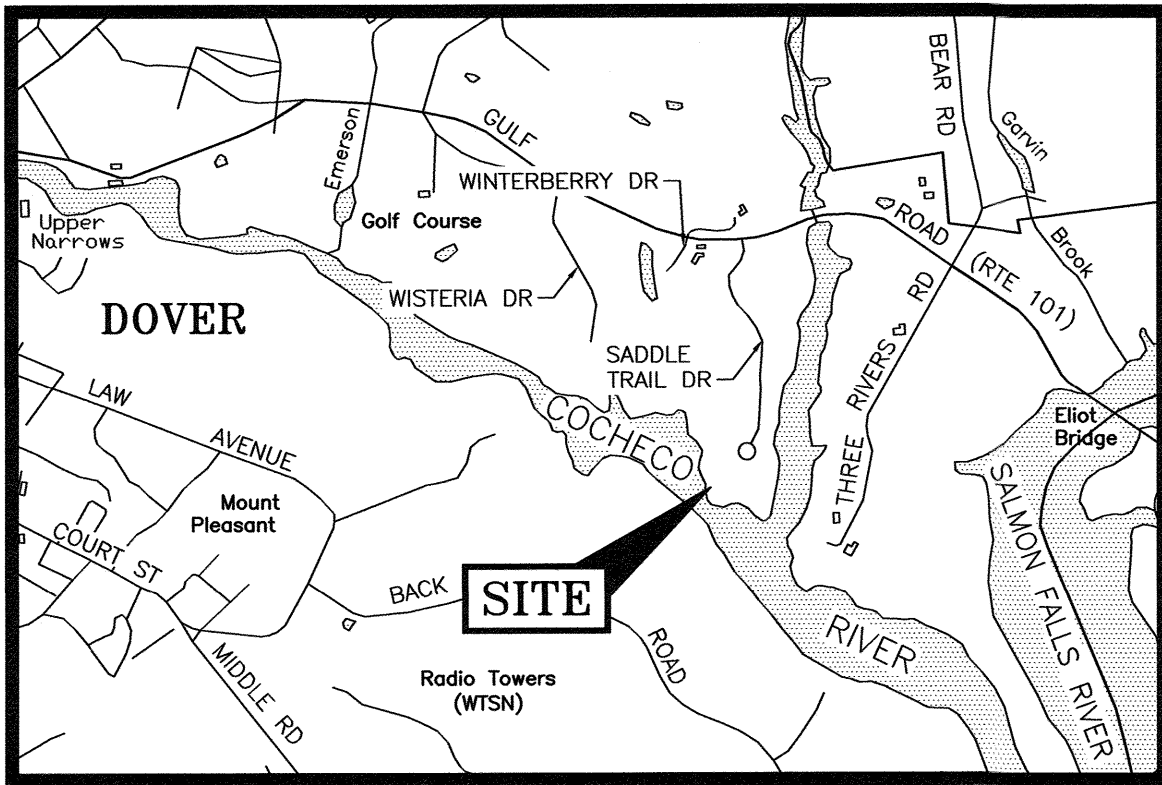
We examined the proposed site and found that the structure will have no negative
effect on navigation in the channel.

Sincerely,



Tracy R. Shattuck
Chief Harbor Master

Cc: Stephen Riker
Ambit Engineering
200 Griffin Road Unit 3
Portsmouth, NH 03801



LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
(11/21)	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	EDGE OF SALT MARSH
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALT MARSH GRASS
---	TYPICAL ELEVATION

PLAN REFERENCES:

- 1) LOT LINE ADJUSTMENT PLAN FOR TAX MAP N LOT 8-10-0 SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATION TAX MAP N LOT 8-2-0 DAVID DELLA PENTA & KAREN DELLA PENTA GULF ROAD, SADDLE TRAIL DRIVE & WISTERIA DRIVE DOVER, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, LLC DATED JANUARY 2022. S.C.R.D. PLAN #12621

WETLAND NOTES:

- 1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPPCC WETLANDS WORK GROUP (2019).
 - C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

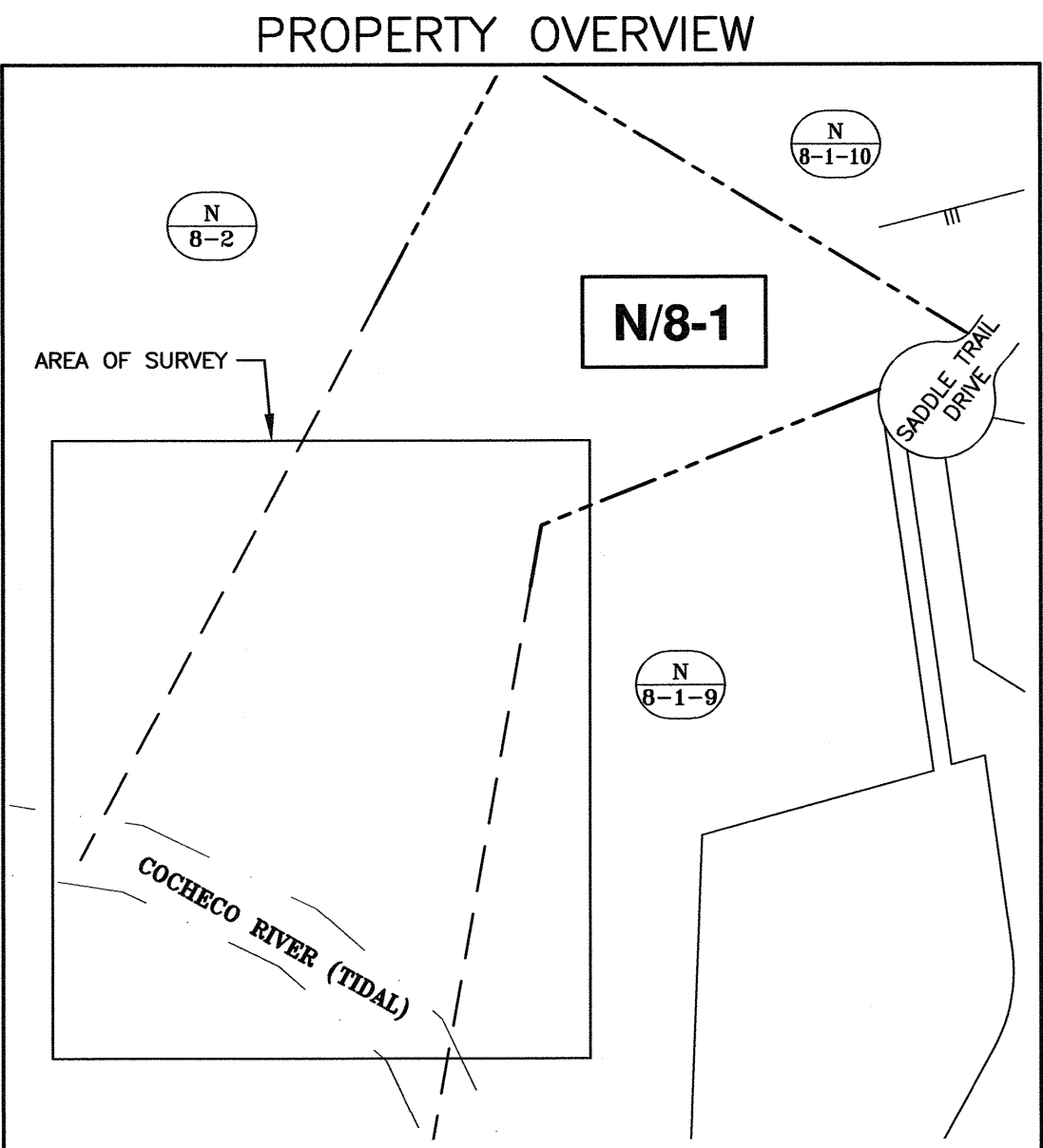
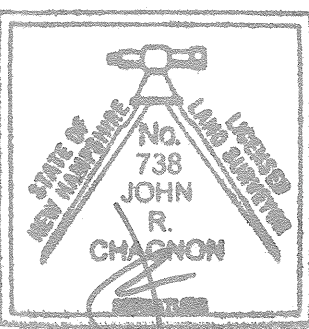
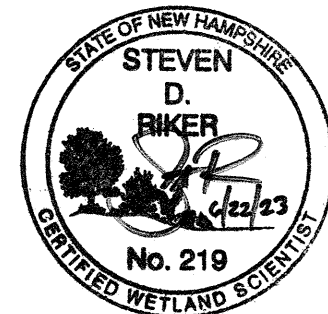
- 2) HOTL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS #738

DATE

6.13.23



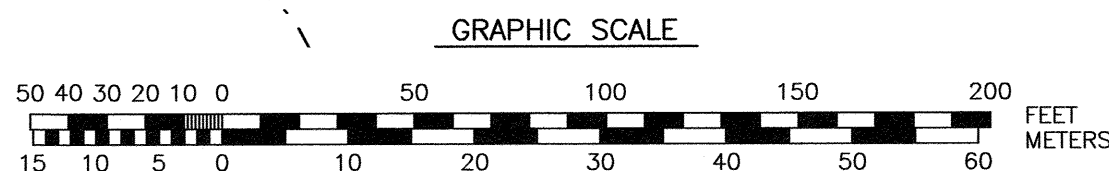
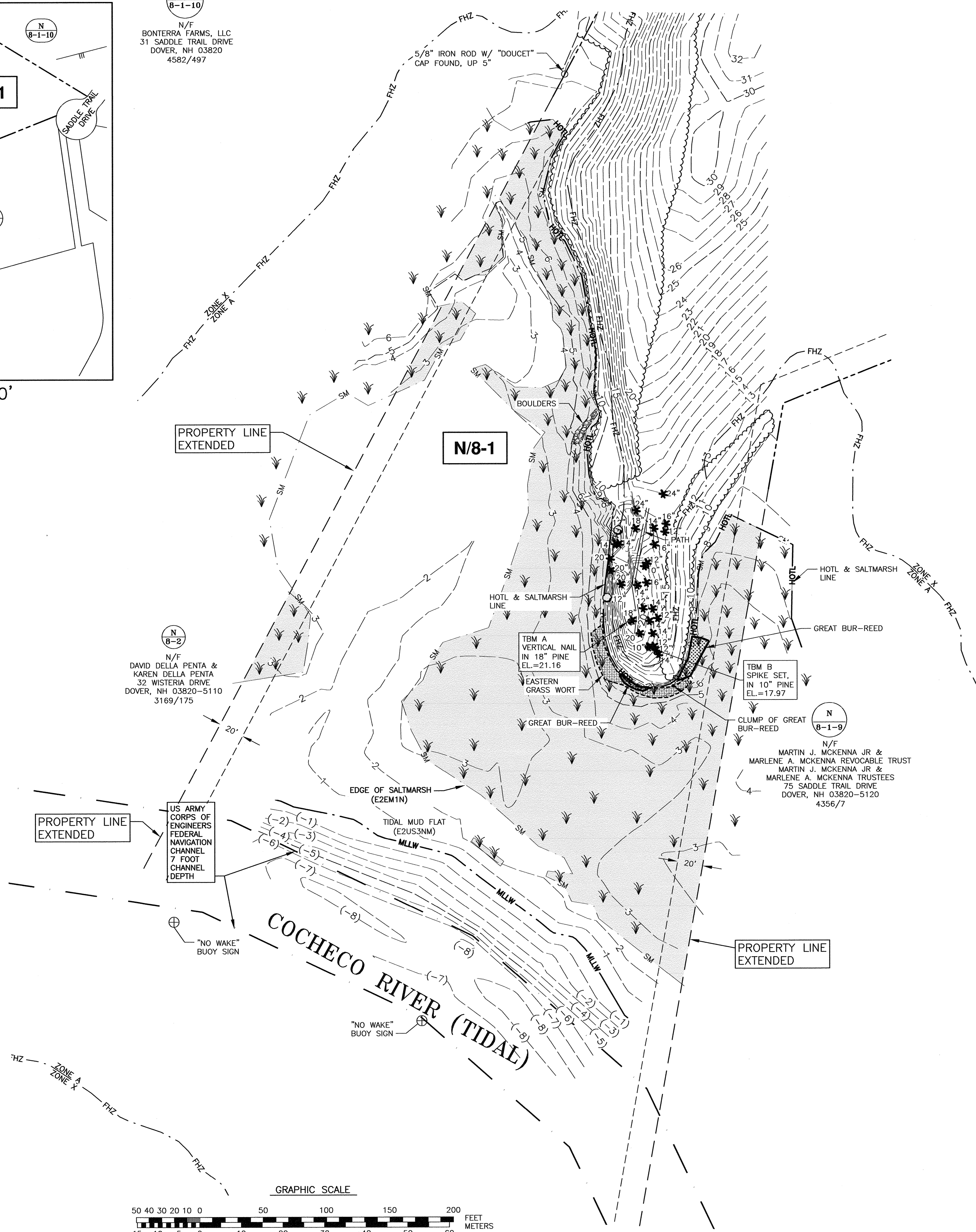
SCALE: 1" = 200'

N/F
BONTERRA FARMS, LLC
31 SADDLE TRAIL DRIVE
DOVER, NH 03820
4582/497

N/F
DAVID DELLA PENTA &
KAREN DELLA PENTA
32 WISTERIA DRIVE
DOVER, NH 03820-5110
3169/175

US ARMY
CORPS OF
ENGINEERS
FEDERAL
NAVIGATION
CHANNEL
7 FOOT
CHANNEL
DEPTH

N/F
MARTIN J. MCKENNA JR &
MARLENE A. MCKENNA REVOCABLE TRUST
MARTIN J. MCKENNA JR &
MARLENE A. MCKENNA TRUSTEES
75 SADDLE TRAIL DRIVE
DOVER, NH 03820-5120
4356/77



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

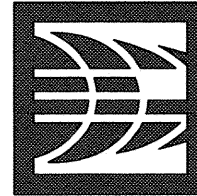
- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
- 2) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
- 3) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
- 4) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW
- 5) PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.
- 6) DIMENSIONAL REQUIREMENTS:
MIN. LOT SIZE: 40,000 S.F.
MAX. LOT COVERAGE: 10%
FRONTAGE: 150 FEET
SETBACKS: FRONT 40 FEET
SIDE 25 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET
- 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
- 8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.

NO.	DESCRIPTION	DATE
2	EXTEND SATLMARSH TO HOTL	6/13/23
1	ADDED PROTECTED SPECIES LOCATIONS	6/7/23
0	ISSUED FOR COMMENT	11/29/22

SCALE: 1"=50' SEPTEMBER 2022

EXISTING CONDITIONS PLAN	C1
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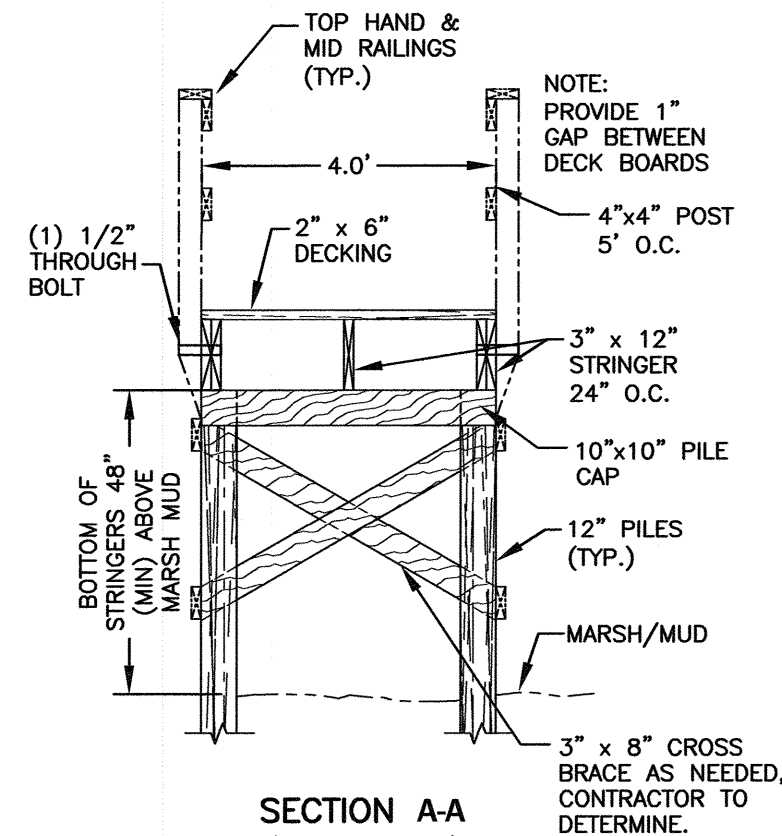
AMBIT ENGINEERING, INC.

Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.
- 3) EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS, MARCH 2015.
- 4) NUMBER OF PILES TO BE DRIVEN FOR DOCKING STRUCTURE NOT TO EXCEED 24 AS DEPICTED ON PROPOSED DOCK ELEVATION. ALSO NOTE TIME OF YEAR AND NOISE RESTRICTIONS FOR DRIVING OF PILES.

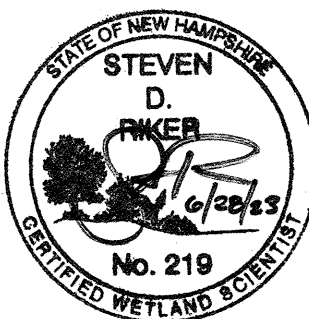
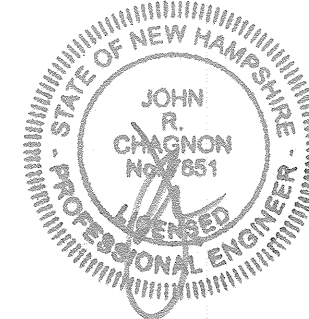


PROPOSED PIER DETAIL
NTS

SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.

NO.	DESCRIPTION	DATE
3	ADD THRU-FLOW DECKING	6/28/23
2	REVISED TIME OF YEAR RESTRICTION	6/19/23
1	RAISED PIER ELEV. & RELOCATED PILE	6/15/23
0	ISSUED FOR COMMENT	11/29/22

REVISIONS

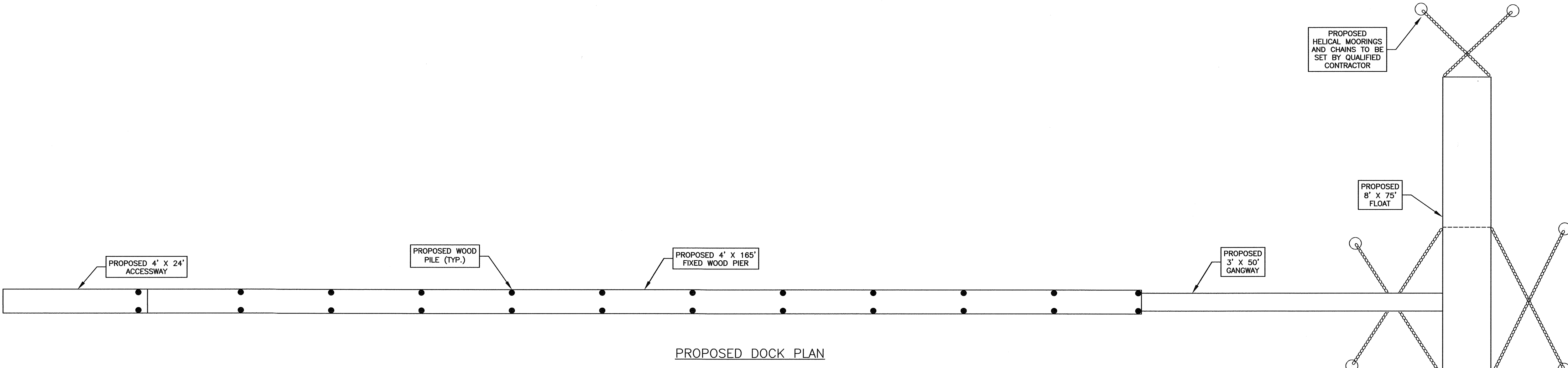


SCALE: AS SHOWN

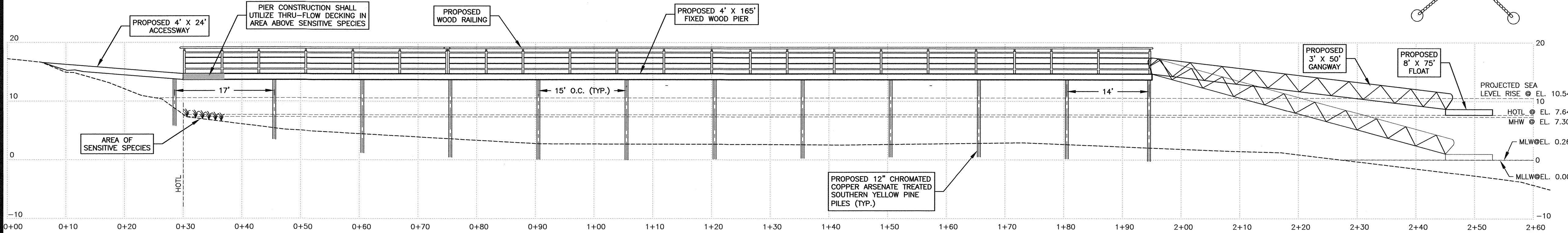
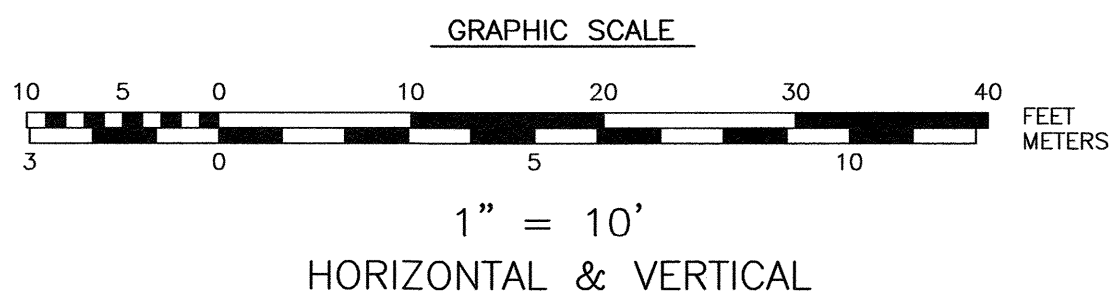
SEPTEMBER 2022

DOCK DETAILS

D1



PROPOSED DOCK PLAN



PROPOSED DOCK ELEVATION
PROPOSED PIER, GANGWAY & FLOAT

SEQUENCE OF CONSTRUCTION

- 1) MOBILIZATION OF A CRANE BARGE, PUSH BOAT, WORK SKIFF, MATERIALS AND PREFABRICATED COMPONENTS SUCH AS THE GANGWAY AND FLOAT TO THE SITE VIA APPROVED ACCESS.
- 2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.
- 3) THE BARGE WILL BE POSITIONED ALONGSIDE THE PROPOSED LOCATION OF THE NEW DOCK AND WATERWARD OF ANY EMERGENT VEGETATION TO MINIMIZE IMPACTS.
- 4) INSTALLATION OF THE SUB STRUCTURE WILL BE PERFORMED FROM A CRANE BARGE OR SKIFF TO REDUCE THE AMOUNT OF FOOT TRAFFIC IN THE INTERTIDAL AREA.
- 5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.
- 6) PILING WILL BE MECHANICALLY DRIVEN BY A CRANE ELIMINATING ANY EXCAVATION FOR INSTALLATION OF THE PILINGS. PILING ARE DRIVEN TO REFUSAL.
- 7) PILINGS ARE CUT AND BEAM CAPS ARE INSTALLED AND THE SUPER STRUCTURE OF THE PIER IS BUILT. MATERIALS ARE LIFTED FROM THE BARGE AND SET INTO POSITION BY THE CRANE.
- 8) ONCE THE PIER IS COMPLETE, THE GANGWAY AND FLOAT ARE BROUGHT INTO POSITION AND INSTALLED.

DISCHARGES, AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORP AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACE AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

- UNLESS SPECIFICALLY AUTHORIZED USACE AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT IN FRESH WATER WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDOURY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE RESTRICTIONS

- I. PILES INSTALLED IN-THE-DRY OR DURING LOW WATER, OR
 - II. MUST BE DRILLED AND PINNED TO LEDGE, OR
 - III. VIBRATORY HAMMERS USED TO INSTALL ANY SIZE AND QUANTITY OF WOOD, CONCRETE OR STEEL PILES, OR
 - IV. IMPACT HAMMERS LIMITED TO ONE HAMMER AND <50 PILES INSTALLED/DAY WITH THE FOLLOWING: WOOD PILES OF ANY SIZE, CONCRETE PILES ≤18-INCHES DIAMETER, STEEL PILES 12-INCHES DIAMETER IF THE HAMMER IS ≤3000 LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.
- FOR II-IV ABOVE:
- I. IN-WATER NOISE LEVELS SHALL NOT >187dB SEL RE L_{AP} OR 206dB PEAK RE L_{AP} AT A DISTANCE >10M FROM THE PILE BEING INSTALLED, AND
 - II. IN-WATER NOISE LEVELS >155dB PEAK RE L_{AP} SHALL NOT EXCEED 12 CONSECUTIVE HOURS ON ANY GIVEN DAY AND A 12 HOUR RECOVERY PERIOD (I.E., IN-WATER NOISE BELOW 155dB PEAK RE L_{AP}) MUST BE PROVIDED BETWEEN WORK DAYS.

WORK SITE RESTORATION

- UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS PROHIBITED.
- IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.
- WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS AUTHORIZED.

SEDIMENTATION AND EROSION CONTROL

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS

DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

STORAGE OF SEASONAL STRUCTURES

COASTAL STRUCTURES SUCH AS PIER SECTIONS, FLOATS, ETC., THAT ARE REMOVED FROM THE WATERWAY FOR A PORTION OF THE YEAR (OFTEN REFERRED TO AS SEASONAL STRUCTURES) SHALL BE STORED IN AN UPLAND LOCATION, LOCATED ABOVE HIGHEST OBSERVABLE TIDE LINE (HOTL) AND NOT IN TIDAL WETLANDS. THESE SEASONAL STRUCTURES MAY BE STORED ON THE FIXED, PILE-SUPPORTED PORTION OF THE STRUCTURE THAT IS SEAWARD OF HOTL. THIS IS INTENDED TO PREVENT STRUCTURES FROM BEING STORED ON THE MARSH SUBSTRATE AND THE SUBSTRATE SEAWARD OF MHW.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT [HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/](http://WWW.NAE.USACE.ARMY.MIL/REGULATORY/) FOR CONTROL METHODS.

INSPECTIONS

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK, AND POST-DREDGING SURVEY DRAWINGS FOR ANY DREDGING WORK.



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



March 13, 2026

SADDLE TRAIL DR HOMEOWNERS ASSOCIATION
C/O CARLA MEYERS
56 SADDLE TRAIL DR
DOVER NH 03820

Re: Request for More Information – Standard Dredge and Fill Wetlands Permit Amendment Application (RSA 482-A)
NHDES File Number: 2023-00062
Subject Property: Saddle Trail Dr, Dover, Tax Map #N, Lot #8-1

Dear Applicant:

On March 13, 2026, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau reviewed the above-referenced Standard Dredge and Fill Wetlands Permit Amendment Application (Application). Pursuant to RSA 482-A:3, XIV(a)(2) and Rules Env-Wt 100 through 900, NHDES Wetlands Bureau determined the following additional information is required to complete its evaluation of the Application:

1. The Amendment request included a single revised plan sheet and not a complete revised plan set that includes all information required in accordance with Env-Wt 311.05. Please provide a complete revised plan set prepared in accordance with the requirements in Env-Wt 311.05 as required in accordance with 311.03(b)(4).
2. The results of the Natural Heritage Bureau (NHB) Datacheck (NHB22-3168) submitted with the original Application for this project expired on October 7, 2023. Please either submit documentation of coordination with the NHDES Ecological Review Section (ERS) indicating that the results of the original NHB Datacheck are still valid or provide a new Datacheck Report from the ERS along with updated results, recommendations, and documentation of coordination with the ERS as applicable to determine how to avoid and minimize project-related impacts on the sensitive species and exemplary natural communities in the vicinity of the project in accordance with Env-Wt 311.01(b) and Env-Wt 311.06(g).

Please submit the required information as soon as practicable. Pursuant to RSA 482-A:3, XIV(a)(2), **the required information must be received by NHDES Wetlands Bureau within 60 days of the date of this request (no later than May 12, 2026), or the Application will be denied.** Should additional time be necessary to submit the required information, an extension of the 60-day time period may be requested. Requests for additional time must be received prior to the deadline in order to be approved. In accordance with applicable statutes and regulations, the applicant is also expected to provide copies of the required information to the municipal clerk and all other interested parties.

Pursuant to RSA 482-A:3, XIV(a)(3), NHDES Wetlands Bureau will approve or deny the Application within 30 days of receipt of all required information, or schedule a public hearing, if required by RSA 482-A or associated rules.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristin L. Duclos".

Kristin L. Duclos

Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

Copied: Dover Municipal Clerk/Conservation Commission
Haley Ward, Inc., c/o Kaj Overturf



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



April 24, 2026

SADDLE TRAIL DR HOMEOWNERS ASSOCIATION
44 SADDLE TRAIL DR
DOVER NH 03820

Re: Wetlands Bureau, NHDES File Number: 2023-00062
Subject Property: Saddle Trail Dr, Dover, Tax Map #N, Lot #8-1

Dear Applicant:

On April 24, 2026, the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau reviewed the applicant's response to NHDES' request for more information letter (RFMI), dated March 13, 2026, for the Permit Amendment Request (Amendment) for Standard Dredge and Fill Wetlands Permit #2023-00062, received by the Department on March 25, 2026 (the "Response"). Pursuant to RSA 482-A:3, XIV(a)(2) and Rules Env-Wt 100 through 1000, the NHDES Wetlands Bureau determined the following additional information is required to fully address the following outstanding items and complete its evaluation of the Application:

1. The Response indicates that the square footage of the proposed seasonal docking structures associated with this project will increase by a total of 11 square feet as a result of the proposed amendment request. Please recalculate and submit payment for the outstanding filing fee for the additional square footage of seasonal docking structure area as calculated as specified in RSA 482-A:3, I,(b).

Please submit the required information in order to address these outstanding items as soon as practicable. Pursuant to RSA 482-A:3, XIV(a)(2), the required information must be received by the NHDES Wetlands Bureau within 60 days of the date of the original request for more information (no later than **May 12, 2026**), or the Application will be denied.

Should additional time be necessary to submit the required information, an extension of the 60-day time period may be requested. Requests for additional time must be received prior to the deadline in order to be approved. In accordance with applicable statutes and regulations, the applicant is also expected to provide copies of the required information to the municipal clerk and all other interested parties. Pursuant to RSA 482-A:3, XIV(a)(3), the NHDES Wetlands Bureau will approve or deny the Application within 30 days of receipt of all required information, or schedule a public hearing, if required by RSA 482-A or associated rules.

If you have any questions, please contact me at Kristin.Duclos@des.nh.gov or (603) 559-1516.

Sincerely,

Kristin L. Duclos
Wetlands Specialist, Wetlands Bureau
Land Resources Management, Water Division

Copied: Dover Municipal Clerk/Conservation Commission
Haley Ward, Inc. c/o Kaj Overturf



RE: Previous project amendment datacheck

From DES: Ecological Reviews <EcologicalReviews@des.nh.gov>

Date Mon 3/16/2026 12:38 PM

To Kaj Overturf <koverturf@haleyward.com>

Hello Kaj,

Thank you for the detailed description of the project activities and previous project information. Based on your description, all work is in the open water and work will be performed from the water via barge. Because of this there are no expected impacts to protected plants or exemplary natural communities.

If the permit reviewer allows it, you may use this email as proof that no further coordination regarding protected species is needed and you do not need to submit for a new DataCheck Letter.

If the permit reviewer does require a new DataCheck Letter, choose the original wetlands permit type as the permit, and indicate in the project description that this is a permit amendment and include the permit file number and the information you have provided below. We will then be able to confirm within the DataCheck Letter that there are no concerns for impacts to protected species and you won't need to go through any further review.

Best,

Madeline (Maddie) Severance (*she/her/hers*)
Environmental Reviewer
Ecological Review Section
Land Resources Management Program
Water Division, NH Department of Environmental Services
P.O. Box 95
Concord, NH 03302-0095
(603)-271-6261 (*note the new number*)
EcologicalReviews@des.nh.gov
[DataCheck Tool](#)

NHDES would greatly appreciate your feedback and wants to hear from you. Please take a moment to fill out our short (5-question) [NHDES Customer Service Satisfaction Survey](#).

Please note as of December 1, 2025, all ecological reviews for wildlife will be completed by the NHDES Ecological Review Section if a NHDES permit, authorization, or approval is needed. All project information that used to be sent to NHFG should now be sent to ecologicalreviews@des.nh.gov. For projects not involving NHDES, a wildlife review may be requested from NHFGreview@wildlife.nh.gov.

From: Kaj Overturf <koverturf@haleyward.com>

Sent: Monday, March 16, 2026 12:22 PM

To: DES: Ecological Reviews <ecologicalreviews@des.nh.gov>

Subject: Previous project amendment datacheck

EXTERNAL EMAIL WARNING! This email originated outside of the New Hampshire Executive Branch network. Do not open attachments or click on links unless you recognize the sender and are expecting the email. Do not enter your username and password on sites that you have reached through an email link. Forward suspicious and unexpected messages by clicking the Phish Alert button in your Outlook and if you did click or enter credentials by mistake, report it immediately to helpdesk@doit.nh.gov!

Hello,

I have a question about a project that has been permitted and completed but now needs an amendment. I do not see options in the datacheck tool that seem to fit this specific scenario and the DEP reviewer suggested coordination with ecological review to determine if the old datacheck letter and recommendations would still be considered valid for this work.

We previously permitted a tidal floating dock with an access pier at Saddle Trail Drive in Dover (Map N, Lot 8-1). The floats need to be moved and realigned, which will not result in any new wetland impacts (the pier is remaining the same in place). This is a bit of a unique situation that datacheck doesn't seem to cover. The last datacheck letter raised concerns for sensitive communities and reed species. I've attached some survey results our last project manager put together for this along with the original letter and plan for new design overlayed with the current floats. The floats in their current and new locations are in open water away from the reeds so I do not foresee any impacts to any sensitive communities or species during the rearrangement process. Access would come from the water via barge to avoid impacting anything land side.

Please let me know if getting approval to use the previous letter and recommendations for this activity would be an option

Thank you,
Kaj

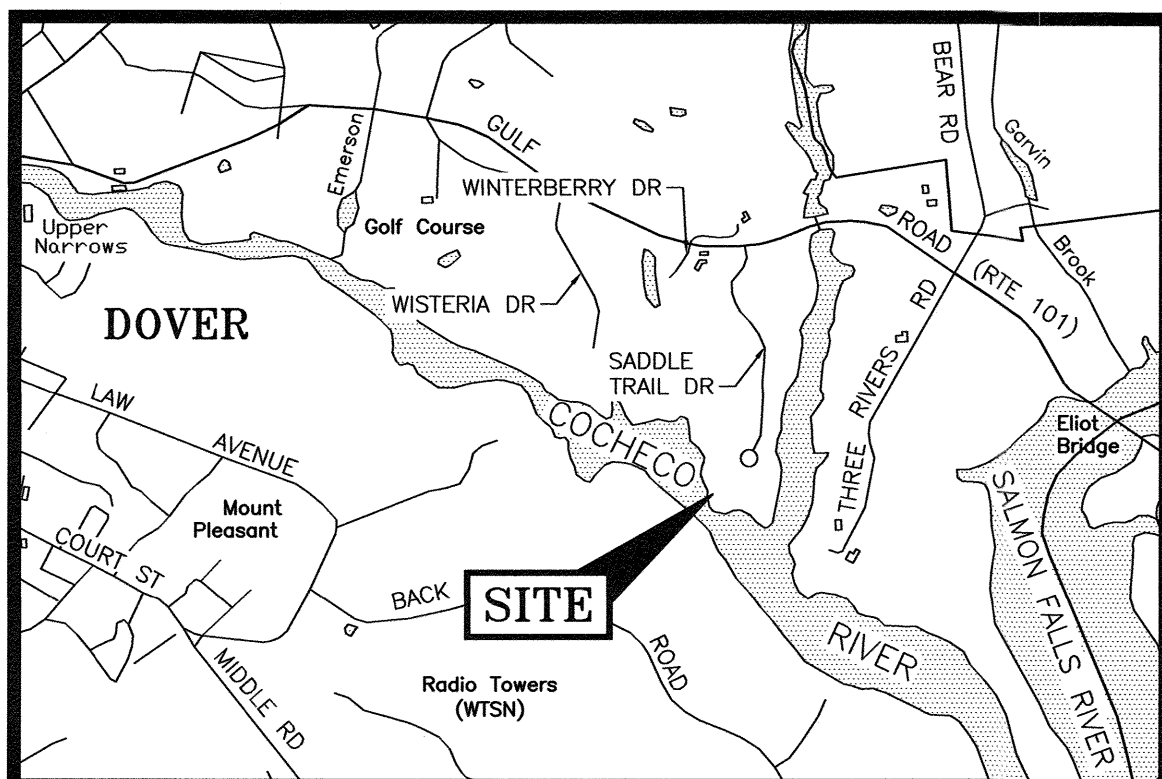


Kaj Overturf
Scientist | GIS Specialist
t: [207.989.4824](tel:207.989.4824) d: 207.747.0805 m: [207.904.0454](tel:207.904.0454)
a: One Merchants Plaza, Suite 701, Bangor, ME 04401

[Chat With Me On Teams](#)



This e-mail may be confidential and is intended solely for the use of the individual to whom it is addressed. Any views or opinions expressed are solely those of the author and do not necessarily represent those of Haley Ward, Inc. If you are not the intended recipient (or responsible for delivery of the message to such person), you may not use, copy, distribute or deliver to anyone this message (or any part of its contents) or take any action in reliance on it. In such case, you should delete this message, and notify us immediately at 207 989 4824 or by email bangor@haleyward.com.



LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	EDGE OF SALTMARSH
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
TYP. EL.	TYPICAL ELEVATION

PLAN REFERENCES:

- LOT LINE ADJUSTMENT PLAN FOR TAX MAP N LOT 8-10-0 SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATION TAX MAP N LOT 8-2-0 DAVID DELLA PENTA & KAREN DELLA PENTA GULF ROAD, SADDLE TRAIL DRIVE & WISTERIA DRIVE DOVER, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, LLC DATED JANUARY 2022. S.C.R.D. PLAN #12621

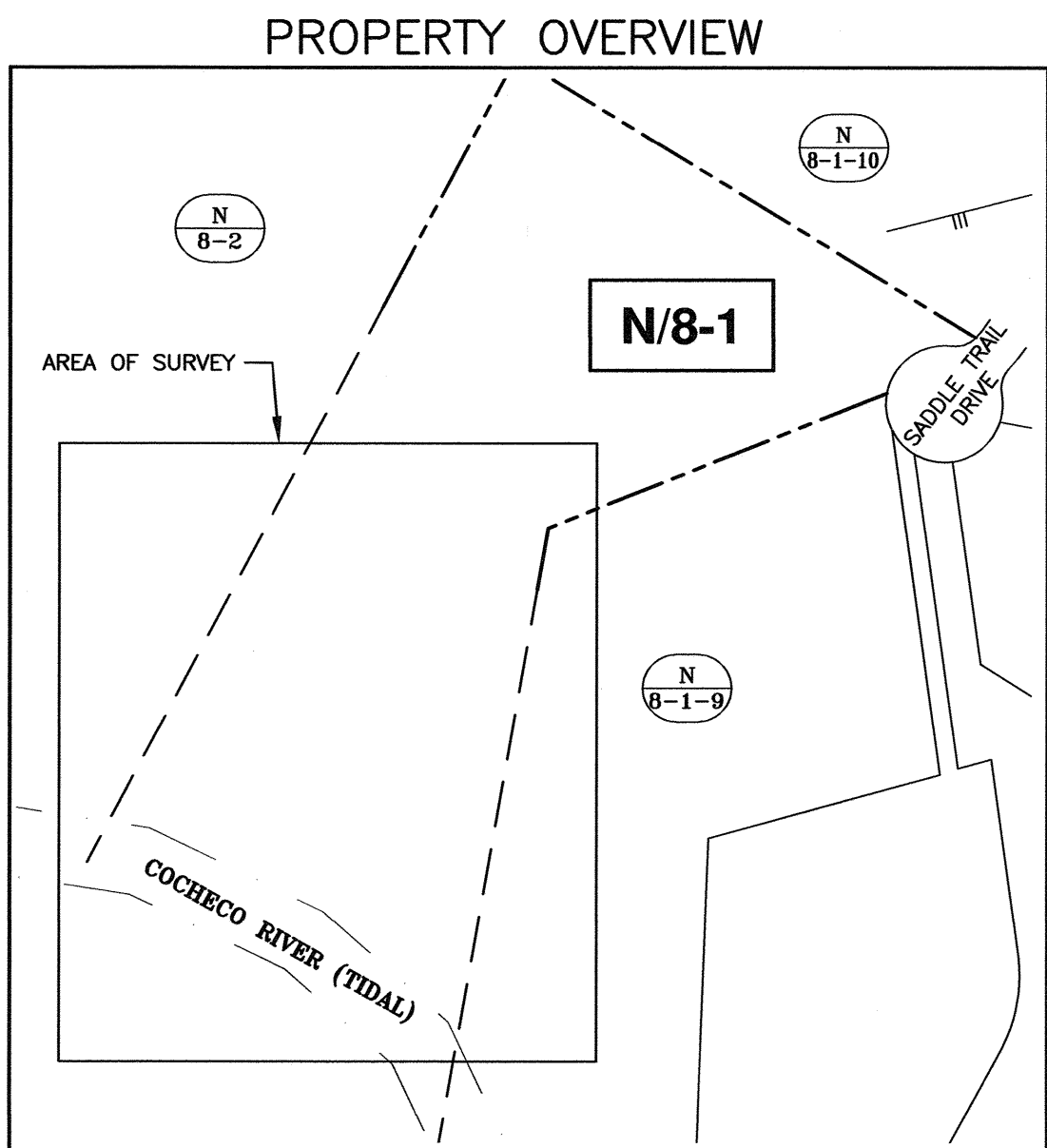
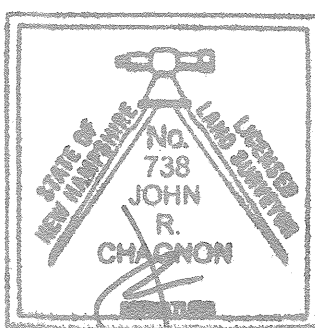
WETLAND NOTES:

- HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:
 - U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEWPCC WETLANDS WORK GROUP (2019).
 - NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).
 - CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).
 - "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.
- HOTL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

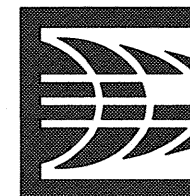
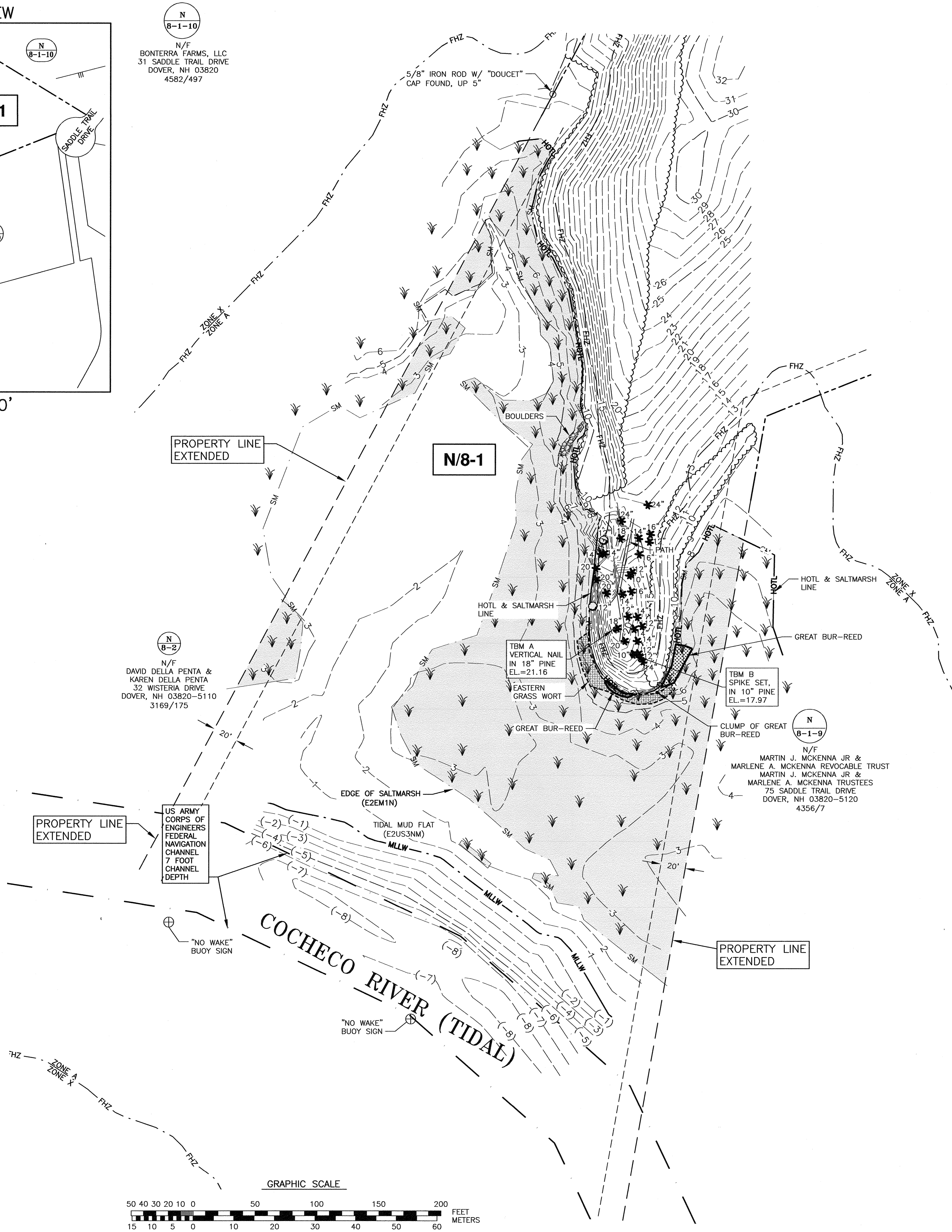
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

JOHN R. CHAGNON, LLS #738

DATE



SCALE: 1" = 200'



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

- PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
- OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
- PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
- EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW
- PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.
- DIMENSIONAL REQUIREMENTS:

MIN. LOT SIZE:	40,000 S.F.
MAX. LOT COVERAGE:	10%
FRONTAGE:	150 FEET
SETBACKS:	FRONT 40 FEET
	SIDE 25 FEET
	REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT:	35 FEET
- THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
- VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

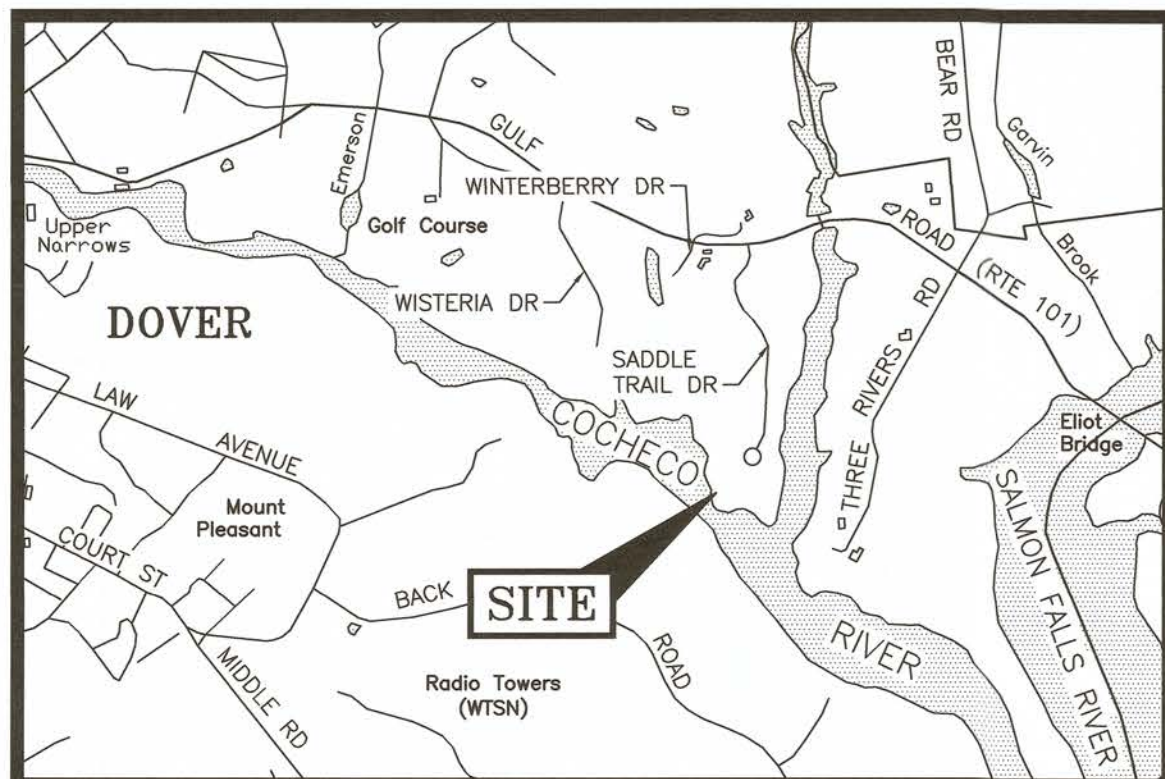
SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.

NO.	DESCRIPTION	DATE
2	EXTEND SATLMARSH TO HOTL	6/13/23
1	ADDED PROTECTED SPECIES LOCATIONS	6/7/23
0	ISSUED FOR COMMENT	11/29/22

SCALE: 1"=50' SEPTEMBER 2022

EXISTING CONDITIONS
PLAN

C1

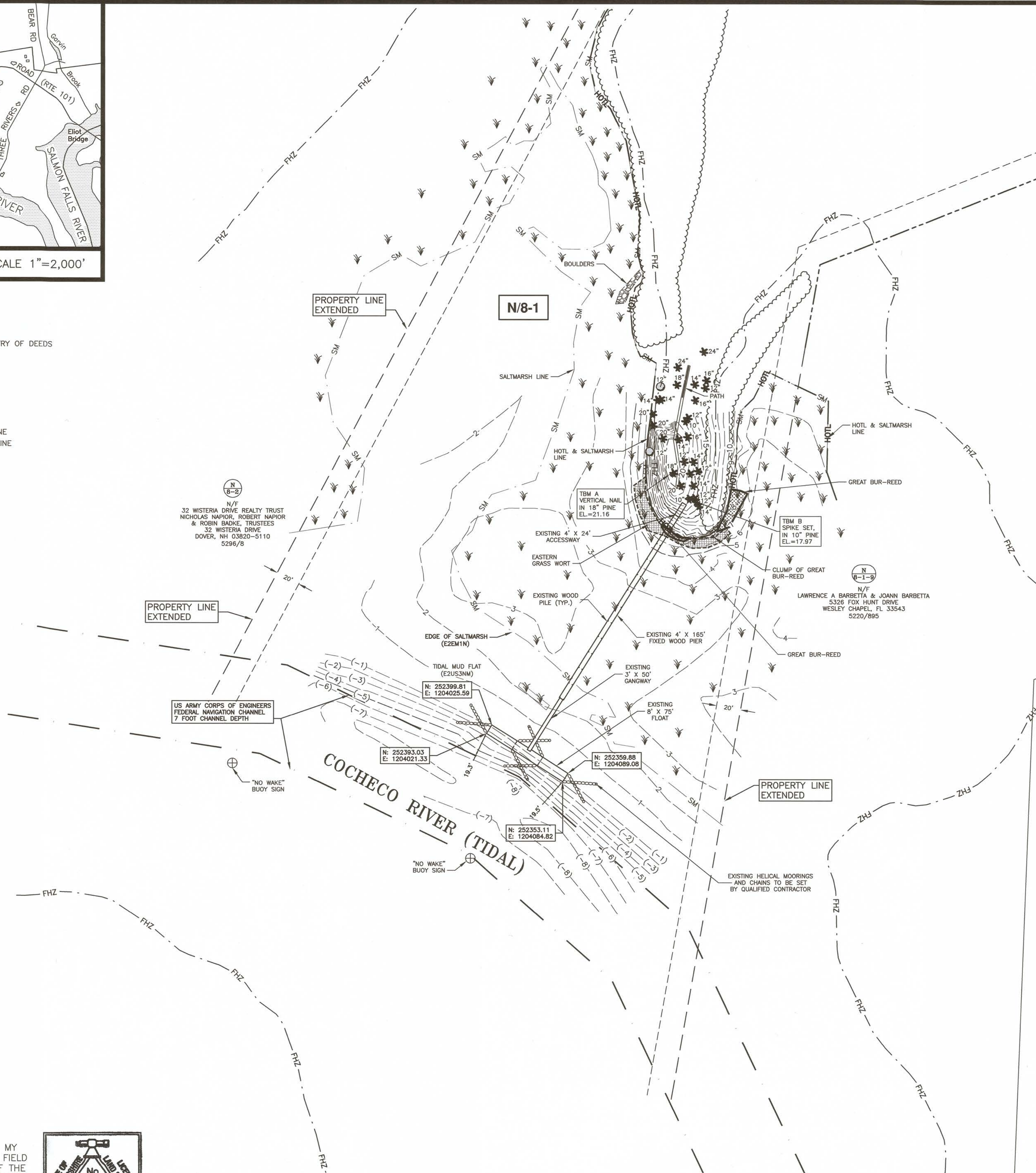


LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	EDGE OF SALTMARSH
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
TYP.	TYPICAL
EL.	ELEVATION



GRID
NAD83(2011)
NORTH

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

- NOTES:**
- 1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.
 - 2) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397
 - 3) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.
 - 4) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
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SIDE 25 FEET
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 - 7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.
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**SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.**

0	ISSUED FOR COMMENT	3/23/26
NO.	DESCRIPTION	DATE
REVISIONS		

SCALE: 1"=40' MARCH 2026

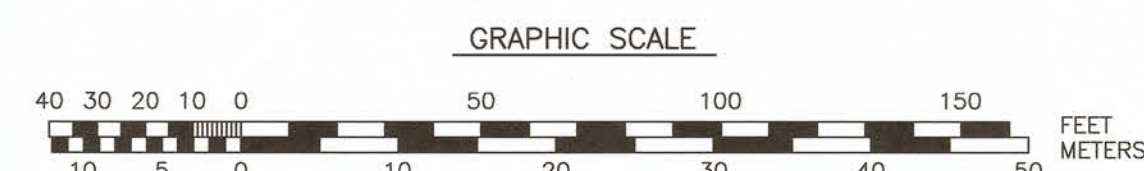
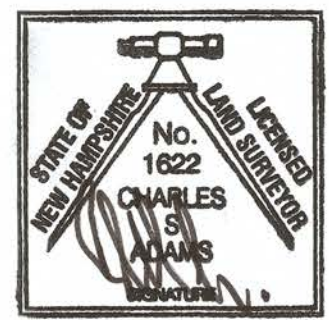
AS-BUILT
PLAN

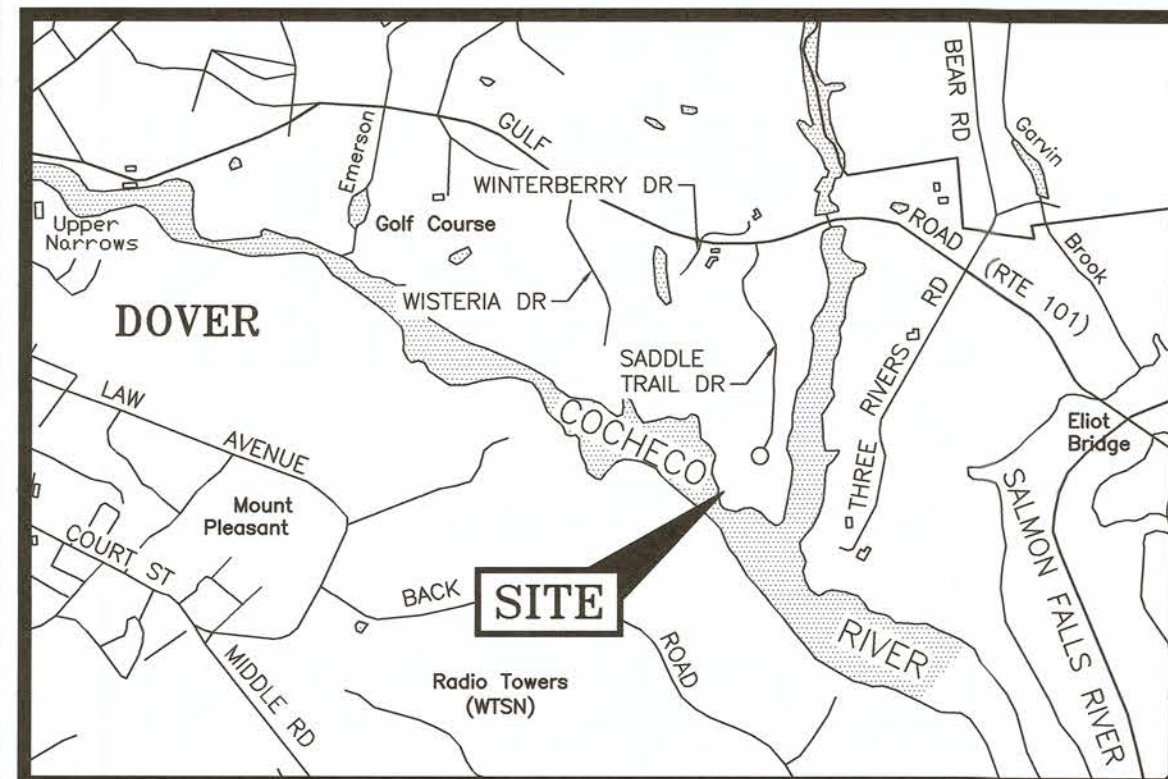
C2

"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSEST AVAILABLE THAT EXCEEDS THE PRECISION OF 1:15,000.

CHARLES S. ADAMS, LLS #1622

DATE





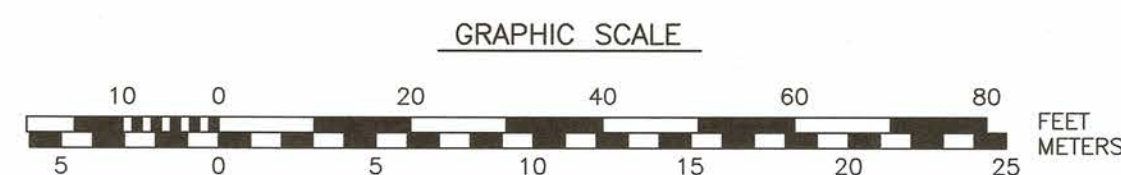
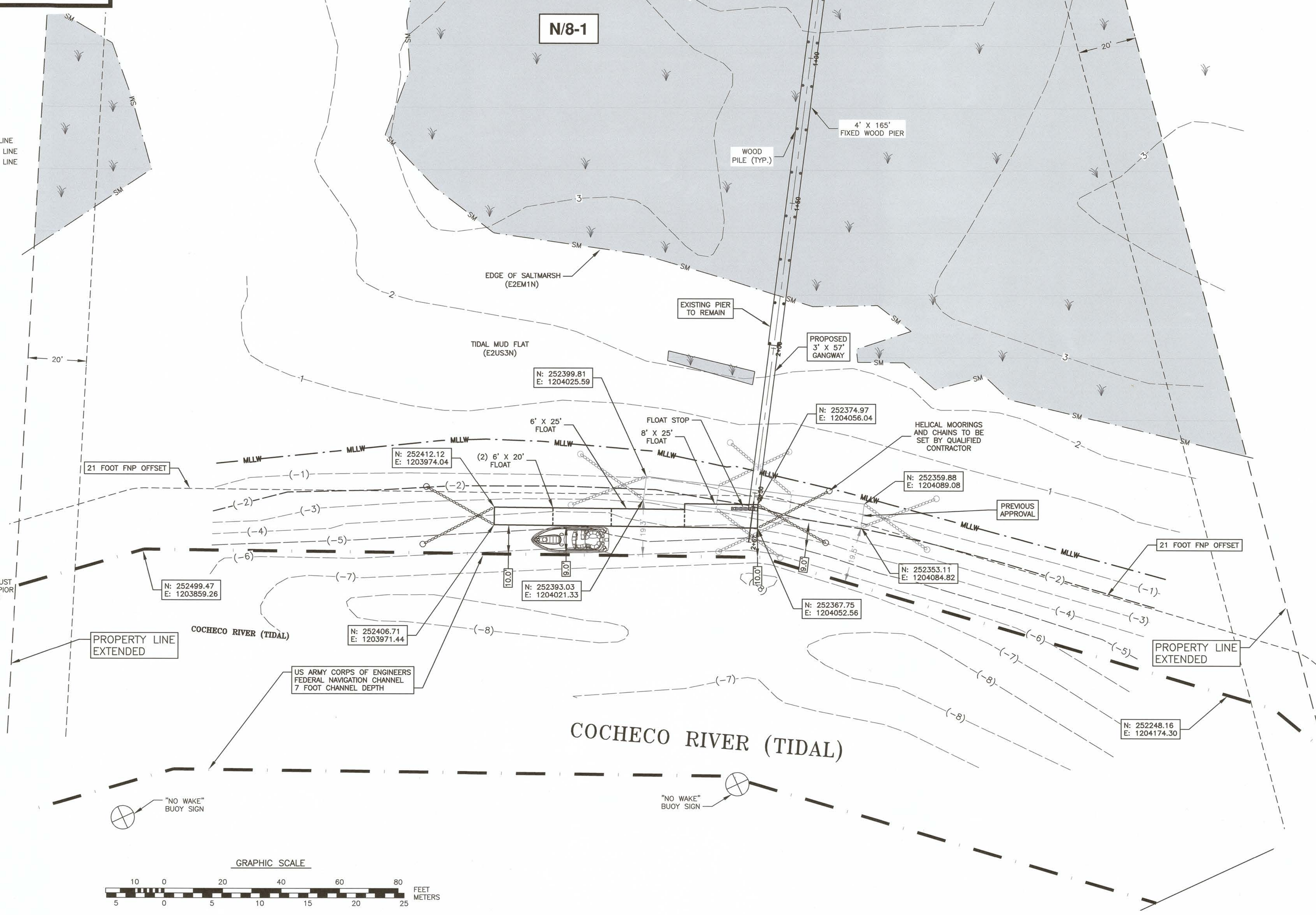
LOCATION MAP

SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY
	REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
---	BOUNDARY
---	SETBACK
---	MEAN HIGH WATER LINE
---	MEAN LOW WATER LINE
---	MEAN LOWER LOW WATER LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	HIGHEST OBSERVABLE TIDE LINE
---	CONTOUR
---	WOODS / TREE LINE
---	TEMPORARY BENCHMARK
---	SALTMARSH GRASS
---	TYPICAL ELEVATION

N/F
32 WISTERIA DRIVE REALTY TRUST
NICHOLAS NAPIOR, ROBERT NAPIOR
& ROBIN BADKE, TRUSTEES
32 WISTERIA DRIVE
DOVER, NH 03820-5110
5296/8



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road - Unit 3
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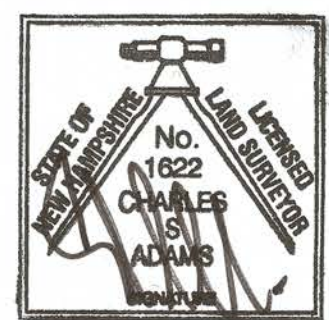
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FRONTAGE: 150 FEET
SETBACKS: FRONT 40 FEET
SIDE 25 FEET
REAR 30 FEET
MAXIMUM STRUCTURE HEIGHT: 35 FEET

6) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED TIDAL DOCKING STRUCTURE ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.

7) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FROM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

**SADDLE TRAIL DRIVE
HOA PROPERTY
SADDLE TRAIL DRIVE
DOVER, N.H.**

6	DOCK LAYOUT	3/24/26
5	BATHYMETRY	10/1/25
4	RELOCATED PILE SET	6/15/23
3	EXTEND SALTMARSH TO HOTEL	6/13/23
2	ADDED PROTECTED SPECIES LOCATION	6/7/23
1	ADD COORDINATE OF FNP & APPLICABLE OFFSET	4/4/23
0	ISSUED FOR COMMENT	11/29/22
NO.	DESCRIPTION	DATE



SCALE: 1"=20' MARCH 2026

**NH DES PERMIT PLAN
57' GANGWAY
"L DOCK"**

C3

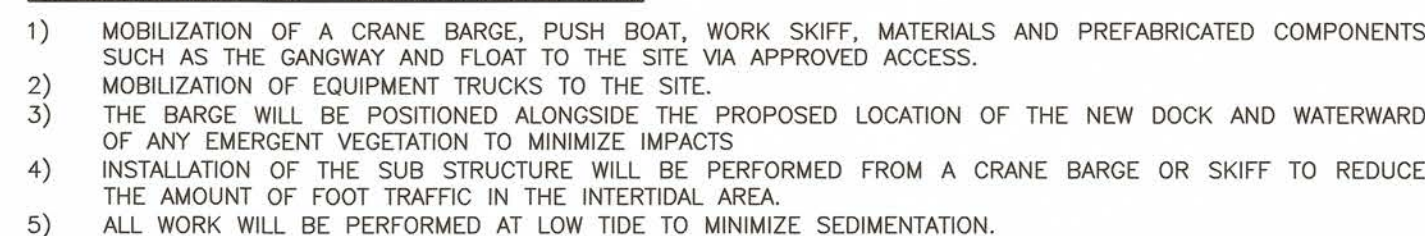
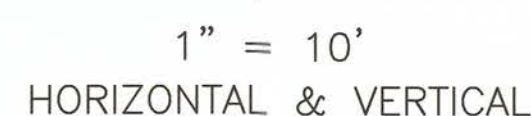


1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER

3) EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS, MARCH 2015.

4) NUMBER OF PILES TO BE DRIVEN FOR DOCKING
STRUCTURE NOT TO EXCEED 4 AS DEPICTED ON PROPOSED
DOCK ELEVATION. ALSO NOTE TIME OF YEAR AND NOISE
RESTRICTIONS FOR DRIVING OF PILES.



DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORP AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACE AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

- * UNLESS SPECIFICALLY AUTHORIZED USACE AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING THAN THE ALTERNATIVE. EQUIPMENT SHALL BE OPERATED IN SUCH A MANNER AS TO MINIMIZE THE DISTURBANCE TO WETLANDS. CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATIONS IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE THE DISTURBANCE TO WETLANDS. EQUIPMENT SHALL NOT BE PLACED ON SWAMP MATS THAT ARE NOT LIFTED OR UPLIFTED FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SUPPORTING EQUIPMENT SHALL BE USED TO SUPPORT EQUIPMENT. EQUIPMENT SHALL NOT BE OPERATED OR USED NOT USING MATS DURING DRY, FROZ, OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDOT AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. SWAMP MATS AND SWAMP CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

II. PILES INSTALLED IN-THE-DRY OR DURING LOW WATER, OR
 III. MUST BE DRILLED AND PINNED TO LEDGE, OR
 IV. IMPACT HAMMERS USED TO INSTALL SIZE AND QUANTITY OF WOOD, CONCRETE OR STEEL PILES, OR
 V. IMPACT HAMMERS LIMITED TO ONE-HAMMER AND <50 PILES INSTALLED/DAY WITH THE FOLLOWING: WOOD PILE
 OF ANY SIZE, CONCRETE PILES <18-INCHES DIAMETER, STEEL PILES 12-INCHES DIAMETER IF THE HAMMER IS
 <3000 LBS. AND A WOOD PILE USED BETWEEN THE HAMMER AND STEEL PILE.
 FOR II-IV ABOVE:
 IN-WATER NOISE LEVELS SHALL NOT >187DB SEL RE IMPA OR 206DB PEAK RE IMPA AT A DISTANCE >10M
 FROM PILE BEING INSTALLED, AND
 IN-WATER NOISE LEVELS >150DB PEAK RE IMPA SHALL NOT EXCEED 12 CONSECUTIVE HOURS ON ANY GIVEN
 DAY. A 12 HOUR AVERAGE PERIOD (I.E., IN-WATER NOISE BELOW 150DB PEAK RE IMPA) MUST BE
 PROVIDED BETWEEN WORK DAYS.

10 UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED, AND SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.

11 THE PRODUCTION OF ANY PLANT SPECIES NOT LISTED IN PLANT SPECIES LIST IS PROHIBITED.

12 IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.

13 AREAS WITHIN WETLAND AREAS WHERE THE ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS AUTHORIZED OTHERWISE.

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF PREVENTING THESE MATERIALS FROM BEING TRANSPORTED OFF-SITE. THE SEDIMENT AND MATERIALS BEING REMOVED SHALL, UPON COMPLETION OF WORK, BE PLACED IN THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND, ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

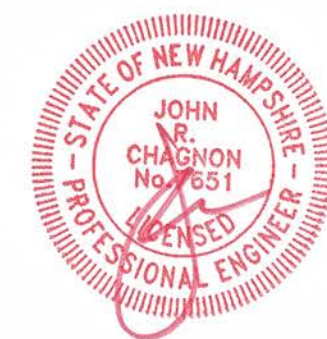
DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

COASTAL STRUCTURES SUCH AS PIER SECTIONS, FLOATS, ETC., THAT ARE REMOVED FROM THE WATERWAY FOR A PORTION OF THE YEAR (OFFERED REFERENCE TO AS SEASONAL STRUCTURES) SHALL BE STORED IN AN UPLAND LOCATION, LOCATED ABOVE HIGHEST OBSERVABLE TIDE LINE (HOTL) AND NOT IN TIDAL WETLANDS. THESE SEASONAL STRUCTURES MAY BE STORED ON THE FIXED, PILE-SUPPORTED PORTION OF THE STRUCTURE THAT IS SEAWARD OF HOTL. THIS IS INTENDED TO PREVENT STRUCTURES FROM BEING STORED ON THE MARSH SUBSTRATE AND THE SUBSTRATE SEAWARD OF MHW.

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT <http://www.nae.usace.army.mil/regulatory/> FOR CONTROL METHODS.

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK, AND POST-DREDGING SURVEY DRAWINGS FOR ANY DREDGING WORK.

4	REVISED DOCK LAYOUT	3/24/26
3	ADD THRU-FLOW DECKING	6/28/23
2	REVISED TIME OF YEAR RESTRICTION	6/19/23
1	RAISED PIER ELEV. & RELOCATED PILE	6/15/23
0	ISSUED FOR COMMENT	11/29/22
NO.	DESCRIPTION	DATE



DOCK DETAILS

D1



**EXPEDITED MINIMUM IMPACT (EXP)
WETLANDS PERMIT APPLICATION**
Water Division / Land Resources Management Program /
Wetlands Bureau
[Check application status](#)



RSA / Rule: RSA 482-A / Env-Wt 100-900 (Env-Wt 310.01)

Administrative use only	File number:	Initials:
	Check number:	Amount:
APPLICANT NAME: Matthew Gibbons, PE, Deputy City Engineer - Dover Community Services Department		
TOWN NAME: City of Dover		
SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; Env-Wt 603.03; Env-Wt 603.05) Please use the Land Resources Management Permit Planning Tool (LRMPPT) , the DataCheck Tool , the New Hampshire Stream Crossing Initiative Data Viewer or other sources to assist in identifying key features such as: Priority Resource Areas (PRAs) , protected species or habitats , coastal areas, designated rivers or designated prime wetlands.		
Does the property contain a PRA? ☒ Yes ☐ No (If yes, provide the following information.)		
Does the project qualify for an Impact Classification Adjustment (such as an NHDES Ecological Review Section agreement for a classification downgrade) or a Project-Type Exception (such as a Maintenance or Statutory Permit-by-Notification project) (Env-Wt 407.02 and Env-Wt 407.04)? ☐ Yes ☒ No		
Protected species or habitat? ☐ Yes ☒ No		DataCheck ID number: NHB25-1682
If yes, species or habitat name(s): N/A		
Bog? ☐ Yes ☒ No		
Floodplain wetland contiguous to a tier 3 or higher watercourse? ☒ Yes ☐ No		
Designated prime wetland or duly-established 100-foot buffer? ☐ Yes ☒ No		
Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? ☐ Yes ☒ No		
Is the property within a designated river corridor? ☒ Yes ☐ No		
If yes, name of Local River Management Advisory Committee (LAC): Cocheco River LAC		
If yes, a copy of the application was sent to the LAC on (mm-dd-yyyy): XX/XX/XXXX		
For dredging projects, is the subject property contaminated? ☐ Yes ☒ No		
If yes, list contaminant(s): N/A		
Is there potential to impact impaired waters, Class A waters or outstanding resource waters? ☒ Yes ☐ No		
For stream crossing projects, provide watershed size (see LRMPPT or Stream Stats): 51 acres		

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SECTION 2 - ELIGIBILITY (Env-Wt 306.03; Env-Wt 310.01; Env-Wt 310.03)

You must confirm that your project meets *all* of the following statements to qualify for the EXP process:

- The project qualifies as a minimum-impact project (Env-Wt 306.03).
 - The project does not include activities that are prohibited under RSA 482-A (Env-Wt 306.03(a)).
 - The project does not include any work in a jurisdictional area that was started without first obtaining applicable approval (Env-Wt 306.03(b)).
 - No work has been done on the subject property pursuant to another EXP or a Statutory Permit-by-Notification (SPN) within 12 months of the date this EXP will be issued. Alternatively, if any work has been done on the subject property pursuant to another EXP or a SPN within 12 months of the date this EXP will be issued, then you are submitting information, including a plan, with this application demonstrating that:
 - Work proposed in this application is wholly unrelated to and separate from work already done under EXP or SPN.
 - The work proposed in this EXP, when combined with work done under previously issued EXPs or SPNs within the last 12 months, does not constitute a project for which a Standard Permit is required (Env-Wt 310.03(a)).
 - If the project is located in a PRA, it also qualifies for an impact classification adjustment under Env-Wt 407.02 or a Project-Type Exception (PTE) under Env-Wt 407.04 (Env-Wt 310.01(d)(6)).
- ☒ My project meets all the statements above. *Proceed to Section 3.*
- ☐ My project does not meet all of the statements above. It does not qualify for the EXP process. It either is not permissible or requires a Standard Dredge and Fill Wetlands Permit Application.

SECTION 3 - INFORMATION ON THE PROPOSED PROJECT (Env-Wt 310.01(c))

Identify the rule(s) or provision(s) which make the project a minimum impact project. Refer to the project list below and the [Expedited Minimum Impact \(EXP\) Project Classification Guidance Document](#).

- ☐ Aquatic Vegetation Control Projects (Env-Wt 510.08(a)).
- ☐ Water Access Structure Construction Projects (Env-Wt 511.06(a)).
- ☐ Beach Replenishment Projects (Env-Wt 511.07(a)).
- ☐ Deck or Patio Repair Projects (Env-Wt 511.08(a)).
- ☐ Breakwater Maintenance and Repair Projects (Env-Wt 512.07(b)).
- ☐ Docking and Accessory Docking Structure Construction, Repair, and Replacement Projects (Env-Wt 513.24(a)).
- ☐ Docking Structure Modification Projects (Env-Wt 513.25(a)).
- ☐ Accessory Docking Structure Installation, Construction, Modification, Repair, Replacement (Env-Wt 513.26(a)).
- ☐ Canopy Projects (Env-Wt 513.27(a)).
- ☐ Bank or Shoreline Stabilization Construction Projects (Env-Wt 514.07(a)).
- ☐ Dug-in Basins and Boathouse Construction or Modification Projects (Env-Wt 515.06(a), (b)).
- ☐ Dug-in Basins and Boathouse Maintenance and Repair Projects (Env-Wt 515.07(a)).
- ☐ Intake and Outflow Structure Construction, Maintenance and Repair Projects (Env-Wt 516.05; Env-Wt 516.06(b)).
- ☐ Trail or Pathway Projects (Env-Wt 517.06(a); Env-Wt 517.06(d)).
- ☐ Boardwalk Projects (Env-Wt 517.07(a); (Env-Wt 517.09)).
- ☐ Dry Hydrants and Other Non-Docking Structure Projects (Env-Wt 518.07(a)(1), (b)).

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- ☐ Pond Construction, Maintenance, and Repair Projects (Env-Wt 519.08(a), (b); Env-Wt 519.09(a)).
- ☐ Residential Utility Installation Projects (Env-Wt 521.06(a)(7)).
- ☐ Non-tidal Dredging Projects (Env-Wt 523.04(a)).
- ☐ Residential, Commercial, and Industrial Development Projects (Env-Wt 524.06(b)).
- ☐ Restoration/Enhancement Projects (Env-Wt 525.05).
- ☐ Dam Construction, Reconstruction, or Replacement Projects (Env-Wt 526.06(a)).
- ☐ Dam Modification, Repair, or Maintenance Projects (Env-Wt 526.07(a)).
- ☐ Public Highway Projects (Env-Wt 527.06; Env-Wt 527.07).
- ☐ Coastal Projects (Env-Wt 600).
- ☒ Stream Crossing Projects (Env-Wt 903.01(e)).
- ☐ All Other Projects (Env-Wt 407.03).

Provide the project-specific information required by the rule(s) or provision(s). Refer to Chapters Env-Wt 500, Env-Wt 600, and/or Env-Wt 900, as applicable, for project-specific application and design requirements. Please see applicable [Standard Project Specific Worksheets](#) for guidance.

The proposed project involves installing a replacement of the existing culvert with two (2) 30-inch reinforced concrete pipe (RCP) culverts in parallel, including 12" of natural streambed material, headwalls and wingwalls for roadway stabilization, roadway restoration, and grading at the culvert inlet and outlet. The project will not alter the quantity of impervious area or create any significant changes to surface conditions or topography.

☐ Not applicable

For projects on waterbodies, provide shoreline frontage on the property in linear feet:

Briefly describe the project and its purpose. Outline the scope of work to be performed and whether impacts are temporary or permanent. *Do not* reply "See attached."

The proposed project includes the replacement of a culvert, headwall and wingwalls in order to stabilize the roadway and provide drainage improvements to prevent County Farm Road from over-topping during major storm events. The overall project includes the replacement of the damaged culvert, headwall and wingwalls, along with roadway restoration and grading at the culvert inlet and outlet. The project will not result in any significant change to surface conditions.

☐ Not applicable

Identify the type of jurisdictional resources to be impacted and the area of impact in square feet and/or linear feet:

The proposed work is anticipated to result in approximately 1,273 SF of temporary wetland disturbance, including temporary construction impacts due to dewatering and erosion controls required to install the proposed culvert replacement.

The project is anticipated to result in the following impacts:

- (Temporary) Wetland Disturbance = 1,273 SF
- 50-foot Waterfront Buffer = 1,314 SF

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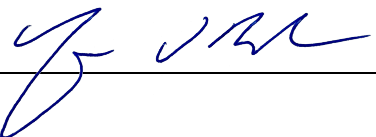
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SECTION 4 - PROJECT LOCATION (Env-Wt 310.01(b))		
Project address: County Farm Road		
Project town or city: Dover		
Project tax map / lot number: B-19-I-0/C-3-C-0		
US Geological Survey (USGS) topo map waterbody name: Cocheco River		☐ Not applicable
Latitude / longitude in decimal degrees (to five decimal places)	North: 43.217406	West: 70.925207
SECTION 5 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 310.01(a))		
<i>If the applicant is a trust or a company, enter the name of the trust or company as the applicant's name.</i>		
Applicant name: Matthew Gibbons, PE, Deputy City Engineer - Dover Community Services Department		
Applicant mailing address: 271 Mast Road		
Applicant town or city: Dover	Applicant state: NH	Applicant ZIP: 03820
Applicant phone: 603-396-3983	Applicant email address (optional): m.gibbons@dover.nh.gov	
By initialing here, the applicant authorizes NHDES to communicate all matters relative to this application electronically: MJG		
SECTION 6 - AUTHORIZED AGENT INFORMATION (Env-Wt 310.01(a))		
<i>If the agent is a company, then the name of the company should be written as the agent's name.</i>		
Agent name: Ryan J Paul, PE - Apex Companies, LLC.		
Agent mailing address: 18 Commerce Way, Suite 2000		
Agent town or city: Woburn	Agent state: MA	Agent ZIP: 01801
Agent phone: 617-657-0972	Agent email address (optional): ryan.paul@apexcos.com	
By initialing here, the agent authorizes NHDES to communicate all matters relative to this application electronically: RJP		
SECTION 7 - PROPERTY OWNER INFORMATION, IF DIFFERENT FROM APPLICANT (Env-Wt 310.01(a))		
<i>If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name.</i>		
Property owner name:		
Property owner mailing address:		
Property owner town or city:	Property owner state:	Property owner ZIP:
Property owner phone:	Property owner email address (optional):	
By initialing here, the property owner authorizes NHDES to communicate all matters relative to this application electronically:		
SECTION 8 - APPLICATION FEE (RSA 482-A:3, I)		
☒ \$600 for minimum impact projects. If filing offline, check or money order payable to "Treasurer, State of NH."		

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SECTION 9 - REQUIRED CERTIFICATIONS (Env-Wt 310.01(d)) <i>Initial each box below to certify.</i>		
Initials: RJP	The proposed project meets the conditions and limits of the applicable minimum impact project rule.	
Initials:	All abutters have been notified.	
Initials: RJP	If the project is to repair or replace a docking structure, the docking structure is an existing legal structure. (☐ N/A)	
Initials: RJP	The proposal is the alternative with the least adverse impact to jurisdictional areas (Env-Wt 313.03).	
Initials: RJP	The project is not an after-the-fact application.	
Initials: RJP	The project is either not located in a PRA or located in a PRA but subject to a classification adjustment under Env-Wt 407.02 or a project-type exception under Env-Wt 407.04.	
Initials:	The applicant is aware of the limits of the EXP and understands and will comply with all conditions in the EXP and all applicable conditions in Env-Wt 307.	
Initials:	To the best of the signer's knowledge and belief, all required notifications have been provided.	
Initials: RJP	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.	
Initials: RJP	The signer understands that submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the office of professional licensure and certification established by RSA 310.	
Initials:	If the applicant is not the property owner, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.	
SECTION 10 - REQUIRED SIGNATURES (Env-Wt 310.01(d))		
Owner signature*:	Print owner name legibly: Matthew Gibbons	Owner signature date: 4/22/2026
<i>* If the applicant is not the property owner, each property owner also shall sign and date the application provided that property owner signatures shall not be required for transportation projects adjacent to existing rights-of-way where an easement will be obtained prior to the start of construction (Env-Wt 311.11(d)).</i> <i>Check the following box if your project meets this exception: ☐.</i>		
Applicant signature (if different from owner):	Print applicant name legibly:	Applicant signature date:
Agent signature (if applicable): 	Print agent name legibly: Ryan J. Paul	Agent signature date: 4/23/2026

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SECTION 11 - CONSERVATION COMMISSION SIGNATURE (Env-Wt 310.01(h))**

The signed statement from the conservation commission may be submitted electronically. The signature below certifies that the municipal conservation commission or, if there is no conservation commission, the local governing body, has reviewed this application, and the municipality waives its right to intervene on the project, per RSA 482-A:11.

Authorized signature:	Print name legibly:	Signature date:
-----------------------	---------------------	-----------------

SECTION 12 - LOCAL RIVER MANAGEMENT ADVISORY COMMITTEE (LAC) SIGNATURE (Env-Wt 310.01(i))**

The signature below certifies that the LAC waives its right to intervene, per RSA 482-A:11.

☐ Not applicable- This project is not within a designated river corridor.

Authorized signature:	Print name legibly:	Signature date:
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***If the application is administratively complete, except for signed statement from the conservation commission and/or LAC, it will be processed under the timelines established in RSA 482-A:3, XIV (Env-Wt 310.02(h)). Applicants may also indicate that they are applying for a minimum impact application under standard processing timelines.*

SECTION 13 - TOWN OR CITY CLERK SIGNATURE (Env-Wt 310.01(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has provided a hard copy and a digital copy of a completed application form, with required attachments, to the town or city indicated below.

Clerk signature:	Print name legibly:
Town or city:	Signature date:

DIRECTIONS FOR TOWN OR CITY CLERK

1. Upon confirming receipt of one paper copy and one digital copy of this application, with its attachments, Immediately sign a copy of the application and return it to the applicant for submittal to the department.
2. Retain the hard copy for review by the public and immediately distribute a digital copy of the application package to each of the following bodies:
 - a. Local conservation commission.
 - b. Local governing body such as select board or town or city council.
 - c. Local planning board.

DIRECTIONS FOR APPLICANT

1. Bring one hard copy of the application and its attachments, and one digital copy of the same, to the municipal clerk(s) of the town(s) in which proposed jurisdictional impacts are located. Digital copies shall be in PDF format or other formats approved by NHDES.
2. Submit the copy of the complete application package signed by the municipal clerk(s) to NHDES.
3. State agency applicants may file simultaneously with NHDES and the municipal clerk.

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EXPEDITED MINIMUM IMPACT (EXP) WETLANDS PERMIT APPLICATION CHECKLIST



Keep this checklist for your reference. Do not submit it with your application.

REQUIRED FOR ALL APPLICATIONS

- ☐ Completed, dated, signed and certified application (Env-Wt 310.01).
- ☐ Application fee of \$600, as determined in RSA 482-A:3, I (Env-Wt 310.01(e)). If filing offline, please make check or money order payable to "Treasurer – State of NH".
- ☐ [US Army Corps of Engineers \(ACE\) Appendix B, New Hampshire General Permits \(GPs\), Required Information and Corps Secondary Impacts Checklist](#) and required attachments (Env-Wt 307.02) including [US Fish and Wildlife Service IPAC review](#) and New Hampshire [Section 106 Historic / Archaeological Resource review](#).
- ☐ Copy of town tax map(s) showing location of proposed project in relation to abutters (Env-Wt 310.01(b)(2)).
- ☐ List of abutter names and mailing addresses to cross-reference with the tax map (Env-Wt 310.01(b)(3)).
- ☐ Copy of appropriate US Geological Survey map with property and project clearly marked (Env-Wt 310.01(b)(4)).
- ☐ Photos that meet all of the following criteria:
 - ☐ Clearly show the area to be impacted.
 - ☐ Are mounted or printed no more than two per sheet on 8.5-inch x 11-inch paper.
 - ☐ Are annotated to explain impact (Env-Wt 310.01(b)(6)).
- ☐ DataCheck Tool results and identification number (Env-Wt 310.01(b)(8)), as well as documentation of any ecological review request made to NHDES with the results and recommendations.
- ☐ Accurate drawing showing the precise location, with detailed dimensions clearly annotated to document existing site conditions and to show the proposed impacts to the jurisdictional areas (Env-Wt 310.01(c)(4)).
- ☐ Accurate drawing to show impact of proposed activity on jurisdictional areas, including (Env-Wt 310.01(c)(5)):
 - ☐ Overview of the property and proposed impact areas in relation to property lines.
 - ☐ Scale, if any, used on the drawing.
 - ☐ If the drawing is not to scale, the dimensions of all existing and proposed structures, existing and proposed topography, and all other relevant features necessary to clearly define the project.
 - ☐ Labeled north-pointing arrow to indicate orientation.
 - ☐ Legend that clearly indicates all symbols, line types, and shading used on the plan.
 - ☐ Location of jurisdictional areas delineated and associated wetland delineation notes (Env-Wt 400).
 - ☐ Proposed construction sequence, including pre-construction through post-construction activities and the relative timing and progression of all work.
 - ☐ Location and type of siltation and turbidity controls indicated graphically, labeled or annotated as necessary.
 - ☐ For any project using a temporary coffer dam and for any repair of a tier 3 stream crossing, the date, signature, and seal of the licensed professional engineer who prepared or had responsibility for the plan(s).
 - ☐ For restoration/enhancement projects, information required to be shown on a map by Env-Wt 525.
- N/A ☐ For tidal minimum impact projects, information required to be shown on a map by Env-Wt 600.

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- ☒ For minimum impact stream crossing projects, information required to be shown on a map by Env-Wt 900.
- ☒ Plans or documents showing impacts have been avoided and minimized to the maximum extent practicable per Env-Wt 313.03(a).
- ☒ Linear distance of the project from abutting property boundaries (Env-Wt 310.01(c)(7)).

REQUIRED FOR CERTAIN PROJECT TYPES, AS APPLICABLE

- | | |
|-----|--|
| N/A | ☐ Type of dock construction (Env-Wt 310.01(c)(8)). |
| | ☒ Diameter of culvert(s) to be used for road or driveway crossings (Env-Wt 310.01(c)(8)). |
| N/A | ☐ Additional information specified in Env-Wt 522 for minimum-impact agricultural applications (Env-Wt 310.01(c)(8)). |
| N/A | ☐ Plans for maintenance of retaining walls, as specified in Env-Wt 514 (if applicable; Env-Wt 310.01(c)(8)). |
| N/A | ☐ Specifications and plans for maintenance of rip-rap, as required by Env-Wt 514 (Env-Wt 310.01(c)(8)). |
| N/A | ☐ Any other project-specific plan, cross section, or information required under Env-Wt 500 and as described in the project-specific worksheet (Env-Wt 310.01(c)(8)). |
| N/A | ☐ Information required on the Coastal Resource Worksheet for coastal projects under Env-Wt 600. |
| N/A | ☐ Prime Wetlands information required under Env-Wt 700. |
| | ☒ Information requested on the Stream Crossing Worksheet required by Env-Wt 900. |
| N/A | ☐ Agricultural activities only: signed statement by the county conservation district or certified wetland scientist certifying compliance with all conditions as described in Env-Wt 522.06(a)(2) (Env-Wt 310.01(g)). |

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EXPEDITED MINIMUM IMPACT (EXP) WETLANDS PERMIT APPLICATION REVIEW PROCESS



Keep this sheet for your reference. Do not submit it with your application.

In accordance with Env-Wt 310.02, NHDES must review EXPs for administrative completeness, and compliance with applicable rules, within 30 calendar days of receipt, if the application has been signed by the:

- Municipal conservation commission or, if there is no conservation commission, local governing body, certifying that the municipality waives its right to intervene on the project, which may be submitted electronically.
- LAC, if the project is within LAC jurisdiction, certifying that the LAC waives its right to intervene on the project. "LAC jurisdiction" means the authority conferred by RSA 483:8-a, III upon a local river management advisory committee relative to activities within a designated river or river corridor, provided that for the purpose of routine roadway maintenance activities conducted under an EXP, LAC jurisdiction is limited to activities in or within 250 feet of tier 2 or tier 3 designated rivers that have a direct surface water connection to the designated river (Env-Wt 103.27).

ADMINISTRATIVE COMPLETENESS REVIEW

If the application is administratively complete, complies with applicable requirements and has signature(s) mentioned above, NHDES will issue an EXP and post to [OneStop](#) within one business day of determining it is complete and in compliance with all applicable requirements.

If the application is lacking anything other than the signatures mentioned above, and the project qualifies for an EXP, the department will send a written notice to the applicant that:

- Identifies each item that is missing.
- Informs the applicant that in order to proceed under the EXP, the applicant must submit all necessary information within 20 days of the date of the notice or the application will be denied.

If the application is administratively complete, except for one or both signatures required above, NHDES will send a written notice to the applicant that it will be processed under processing times established in RSA 482-A:3, XIV.

If the applicant receives the above-mentioned notice and wishes to proceed under an EXP, the applicant must submit a revised application for an EXP that provides all required information within 20 days of the date of the notice. If the applicant does not submit all necessary information within 20 days, NHDES will deny the EXP.

TECHNICAL REVIEW

If the information submitted as part of the application is not sufficient for NHDES to determine that the project meets the criteria for an EXP, NHDES shall send a request for more information, together with any written technical comments the department deems necessary, within 30 calendar days of receipt of the application. Such requests and technical comments shall be sent by electronic means if the applicant or applicant's agent has indicated that doing so is acceptable.

If the project proposed in the EXP application does not comply with applicable requirements, NHDES will deny the application and notify the applicant in writing of the reason(s) for the denial.

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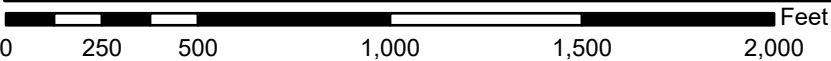
Appendix A

USGS & FEMA Flood Maps

National Flood Hazard Layer FIRMMette



70°55'51"W 43°13'16"N



1:6,000

70°55'14"W 43°12'50"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

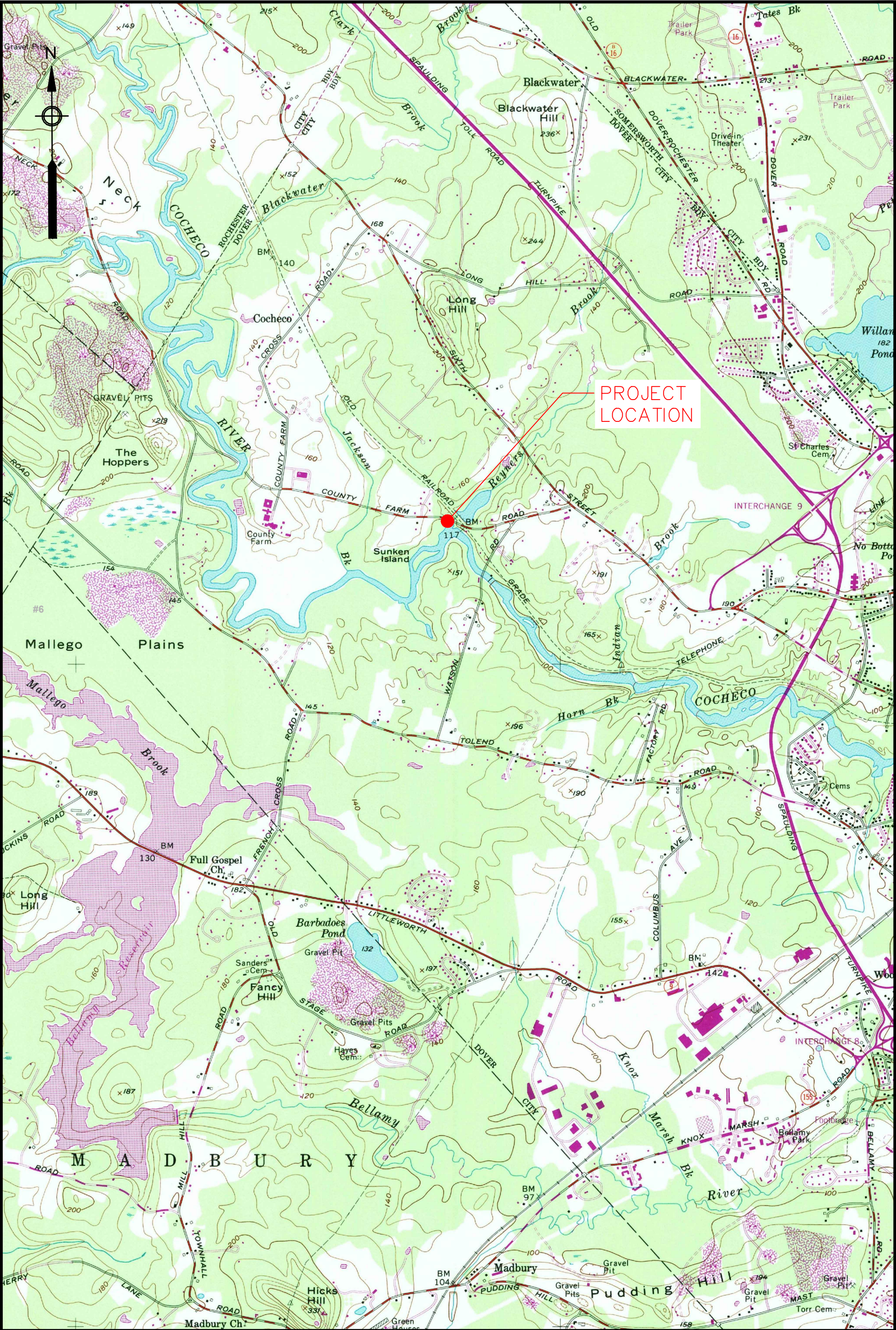


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/8/2026 at 12:52 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



	1"=2000'	COUNTY FARM ROAD CULVERT DESIGN TOWN OF DOVER, NH
	04/24/2026	
	#25007622	USGS LOCUS MAP

Appendix B

USACE Checklist



**US Army Corps
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New England District

Appendix B

New Hampshire General Permits (GPs) Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to <https://www.nae.usace.army.mil/Missions/Regulatory/> “Useful Documents, Forms and Publications” and then “Corps Application Form and Guidance.” Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- New Hampshire Department of Environmental Services (DES) Wetlands Permit Application.
- Request for Project Review Form by the New Hampshire Division of Historical Resources (DHR)
<https://www.nh.gov/nhdhr/review/rpr.htm>.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible plans no larger than 11”x17” with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
 - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
 - Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
 - Project limits with existing and proposed conditions.
 - Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
 - Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the OHW in inland waters and below the HTL in coastal waters.
 - Delineation of all waterways and wetlands on the project site,;
- Use Federal delineation methods and include Corps wetland delineation data sheets (GC 2).
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.



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**New Hampshire General Permits (GPs)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/ . The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	X	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	0 SF	
2.7 What is the area of the proposed fill in wetlands?	0 SF	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	0	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index	X	

3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		X
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		X
3.5 Are stream crossings designed in accordance with the GC 21?	X	
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	X	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		X
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**		X

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

Appendix C

Stream Crossing Worksheet



WETLANDS PERMIT APPLICATION STREAM CROSSING WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau



RSA/Rule RSA 482-A/ Env-Wt-900

This worksheet can be used to accompany Wetlands Permit Applications when proposing stream crossings.

SECTION 1 - TIER CLASSIFICATIONS

Determine the contributing watershed size at [USGS StreamStats](https://streamstats.usgs.gov/).

Note: Plans for tier 2 and 3 crossings shall be designed and stamped by a professional engineer who is licensed under RSA 310-A to practice in New Hampshire.

Size of contributing watershed at the crossing location: **51** acres

☒ **Tier 1:** A tier 1 stream crossing is a crossing located on a watercourse where the contributing watershed size is less than or equal to 200 acres.

☐ **Tier 2:** A tier 2 stream crossing is a crossing located on a watercourse where the contributing watershed size is greater than 200 acres and less than 640 acres.

☐ **Tier 3:** A tier 3 stream crossing is a crossing that meets **any** of the following criteria:

- ☐ On a watercourse where the contributing watershed is more than 640 acres.
- ☐ Within a [designated river corridor](#) unless:
 - a. The crossing would be a tier 1 stream based on contributing watershed size, or
 - b. The structure does not create a direct surface water connection to the designated river as depicted on the national hydrography dataset as found on GRANIT.
- ☐ Within a [100-year floodplain](#) (see Section 2 below).
- ☐ In a jurisdictional area having any protected species or habitat ([NHB DataCheck](#)).
- ☐ In a prime wetland or within a duly-established 100-foot buffer, unless a waiver has been granted pursuant to RSA 482-A:11, IV(b) and Env-Wt 706. Review the [Wetlands Permit Planning Tool \(WPPT\)](#) for town prime wetland and prime wetland buffer maps to determine if your project is within these areas.

☐ **Tier 4:** A tier 4 stream crossing is a crossing located on a tidal watercourse.

SECTION 2 - 100-YEAR FLOODPLAIN

Use the [FEMA Map Service Center](#) to determine if the crossing is located within a 100-year floodplain. Please answer the questions below:

☐ **No:** The proposed stream crossing *is not* within the FEMA 100-year floodplain.

☒ **Yes:** The proposed project *is* within the FEMA 100-year floodplain. Zone = **A**
Elevation of the 100-year floodplain at the inlet: **N/A** feet (FEMA EI. or Modeled EI.)

SECTION 3 - CALCULATING PEAK DISCHARGE

Existing 100-year peak discharge (Q) calculated in cubic feet per second (CFS): **39.76** CFS

Calculation method: **TR-20**

Estimated bankfull discharge at the crossing location: **N/A** CFS

Calculation method: **N/A**

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➡ **Note: If tier 1, then skip to Section 10** ⬅

SECTION 4 - PREDICTED CHANNEL GEOMETRY BASED ON REGIONAL HYDRAULIC CURVES

For **tier 2, tier 3 and tier 4** crossings only.

Bankfull Width: feet	Mean Bankfull Depth: feet
Bankfull Cross Sectional Area: square feet (SF)	

SECTION 5 - CROSS SECTIONAL CHANNEL GEOMETRY: MEASUREMENTS OF THE EXISTING STREAM WITHIN A REFERENCE REACH

For **tier 2, tier 3 and tier 4** crossings only.

Describe the reference reach location:
Reference reach watershed size: acres

Parameter	Cross Section 1 Describe bed form (e.g. pool, riffle, glide)	Cross Section 2 Describe bed form (e.g. pool, riffle, glide)	Cross Section 3 Describe bed form (e.g. pool, riffle, glide)	Range
Bankfull Width	feet	feet	feet	feet
Bankfull Cross Sectional Area	SF	SF	SF	SF
Mean Bankfull Depth	feet	feet	feet	feet
Width to Depth Ratio				
Max Bankfull Depth	feet	feet	feet	feet
Flood Prone Width	feet	feet	feet	feet
Entrenchment Ratio				

Use **Figure 1** below to determine the measurements of the Reference Reach Attributes

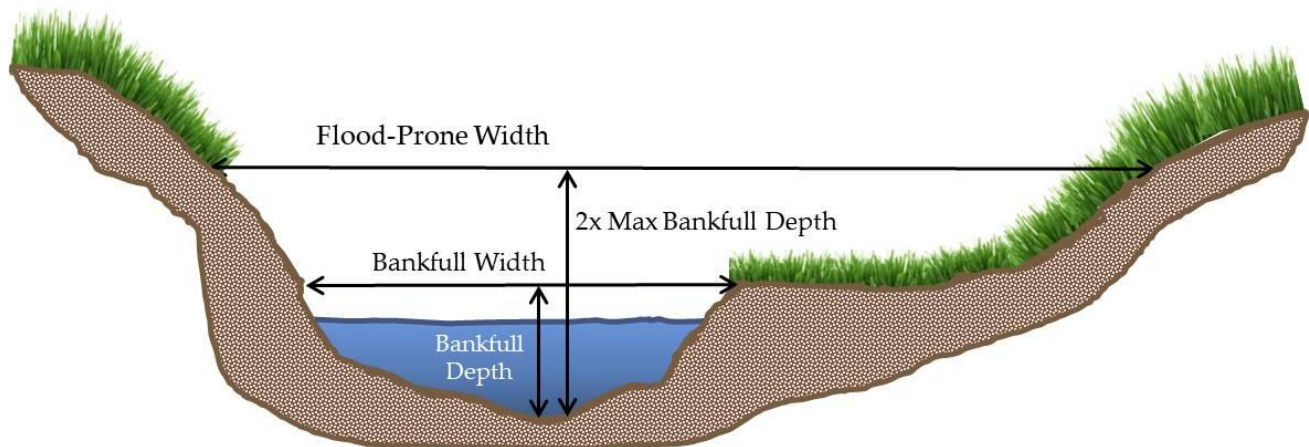


Figure 1: Determining the Reference Reach Attributes.

SECTION 6 - LONGITUDINAL PARAMETERS OF THE REFERENCE REACH AND CROSSING LOCATION

For **tier 2, tier 3 and tier 4** crossings only.

Average Channel Slope of the Reference Reach:
Average Channel Slope at the Crossing Location:

SECTION 7 - PLAN VIEW GEOMETRY

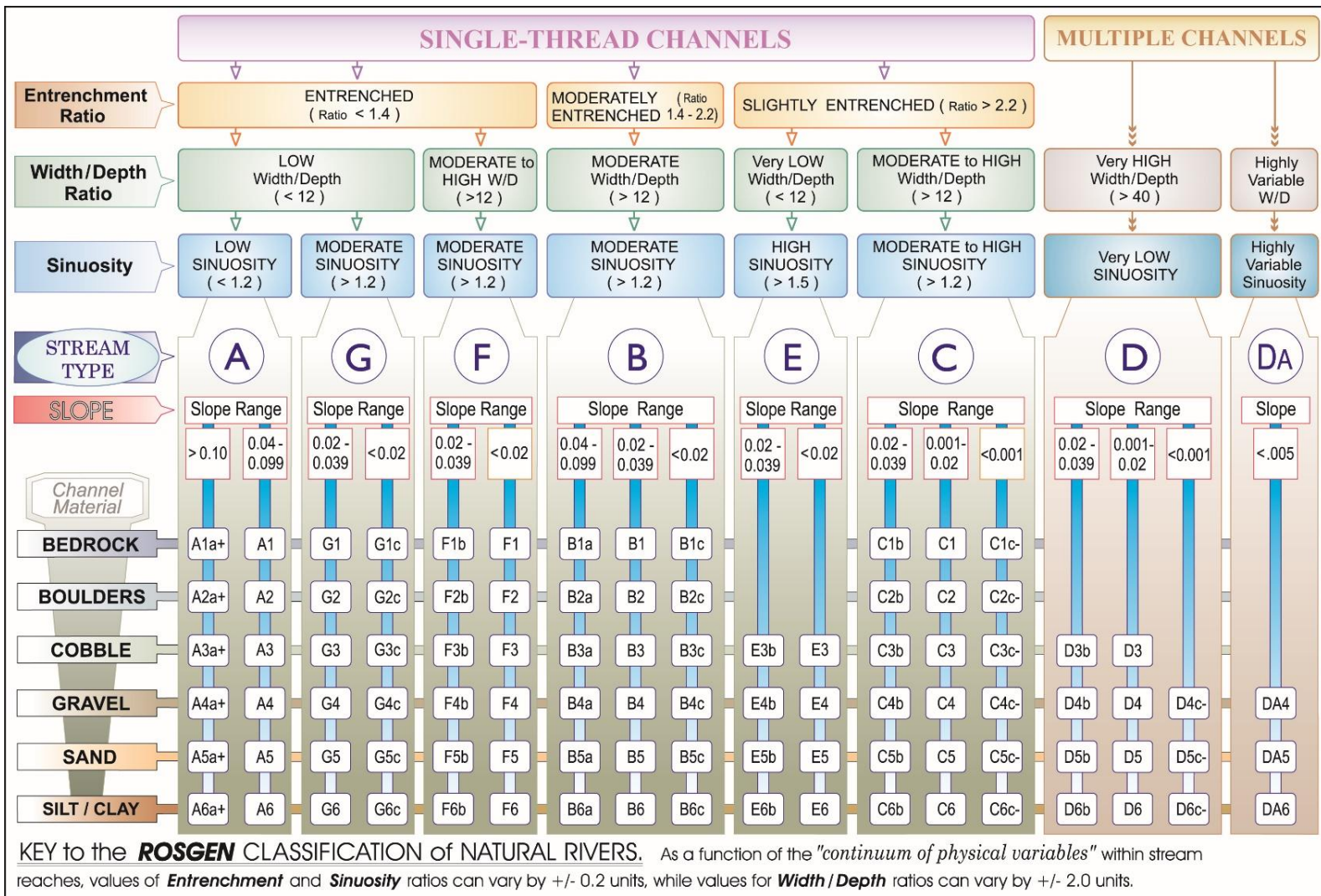
Note: Sinuosity is measured a distance of at least 20 times bankfull width, or 2 meander belt widths.

For **tier 2, tier 3 and tier 4** crossings only.

Sinuosity of the Reference Reach:
Sinuosity of the Crossing Location:

SECTION 8 - SUBSTRATE CLASSIFICATION BASED ON FIELD OBSERVATIONS*For tier 2, tier 3 and tier 4 crossings only.*

% of reach that is bedrock:	%
% of reach that is boulder:	%
% of reach that is cobble:	%
% of reach that is gravel:	%
% of reach that is sand:	%
% of reach that is silt:	%

SECTION 9 - STREAM TYPE OF REFERENCE REACH*For tier 2, tier 3 and tier 4 crossings only.*Stream Type of Reference Reach: Refer to Rosgen Classification Chart (**Figure 2**) below:**Figure 2:** Reference from Applied River Morphology, Rosgen, 1996.lrn@des.nh.gov or (603) 271-2147

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SECTION 10 - CROSSING STRUCTURE METRICS

Existing Conditions	Existing Structure Type: ☐ Bridge span ☐ Pipe arch ☐ Open-bottom culvert ☐ Closed-bottom culvert ☒ Closed-bottom culvert with stream simulation ☐ Other:				
	Existing Crossing Span: <i>(perpendicular to flow)</i> 1.8 feet		Culvert Diameter: N/A feet Inlet Elevation: El. 109.8 feet		
	Existing Crossing Length: <i>(parallel to flow)</i> 42 feet		Outlet Elevation: El. 109.4 feet Culvert Slope: 0.01		
Proposed Conditions	Proposed Structure Type:	Tier 1	Tier 2	Tier 3	Alternative Design
	Bridge Span	☐	☐	☐	☐
	Pipe Arch	☐	☐		☐
	Closed-bottom Culvert	☐	☐		☐
	Open-bottom Culvert	☐	☐	☐	☐
	Closed-bottom Culvert with stream simulation	☒	☐	☐	☐
	Proposed Structure Span: <i>(perpendicular to flow)</i> 6 feet	Culvert Diameter: (2) 2.5 feet w/ 12" of natural Inlet Elevation: El. 109.8 feet streambed material			
	Proposed Structure Length: <i>(parallel to flow)</i> 42 feet	Outlet Elevation: El. 109.4 feet Culvert Slope: 0.01			
Proposed Entrenchment Ratio:* N/A <i>For Tier 2, Tier 3 and Tier 4 Crossings Only. To accommodate the entrenchment ratio, floodplain drainage structures may be utilized.</i>					

* Note: Proposed Entrenchment Ratio must meet the minimum ratio for each stream type listed in **Figure 3**, otherwise the applicant must address the Alternative Design criteria listed in Env-Wt 904.10.

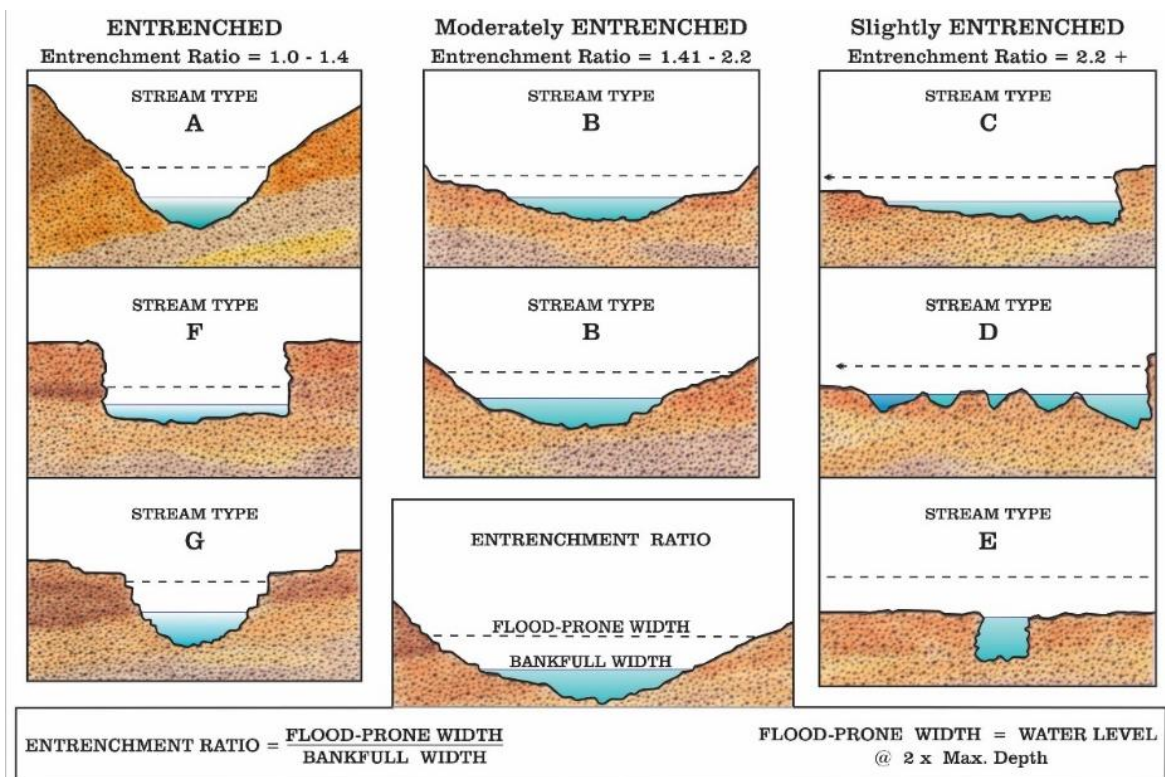


Figure 3: Reference from Applied River Morphology, Rosgen, 1996.

SECTION 11 - CROSSING STRUCTURE HYDRAULICS		
	Existing	Proposed
100 year flood stage elevation at inlet:	116.81	114.77
Flow velocity at outlet in feet per second (FPS):	11.36	9.3
Calculated 100 year peak discharge (Q) for the <i>proposed</i> structure in CFS:		57.25
Calculated 50 year peak discharge (Q) for the <i>proposed</i> structure in CFS:		48.52

SECTION 12 - CROSSING STRUCTURE OPENNESS RATIO
<i>For tier 2, tier 3 and tier 4 crossings only.</i>
Crossing Structure Openness Ratio* = 0.47 * Openness box culvert = (height x width)/length Openness round culvert = (3.14 x radius ²)/length

SECTION 13 - GENERAL DESIGN CONSIDERATIONS
Env-Wt 904.01 requires all stream crossings to be designed and constructed according to the following requirements. Check each box if the project meets these general design considerations.
All stream crossings shall be designed and constructed so as to: ☒ Not be a barrier to sediment transport. ☒ Prevent the restriction of high flows and maintain existing low flows. ☒ Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction. ☒ Not cause an increase in the frequency of flooding or overtopping of banks. ☒ Maintain or enhance geomorphic compatibility by: a. Minimizing the potential for inlet obstruction by sediment, wood, or debris, and b. Preserving the natural alignment of the stream channel. ☒ Preserve watercourse connectivity where it currently exists. ☒ Restore watercourse connectivity where: a. Connectivity previously was disrupted as a result of human activity(ies), and b. Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both. ☒ Not cause erosion, aggradation, or scouring upstream or downstream of the crossing. ☒ Not cause water quality degradation.

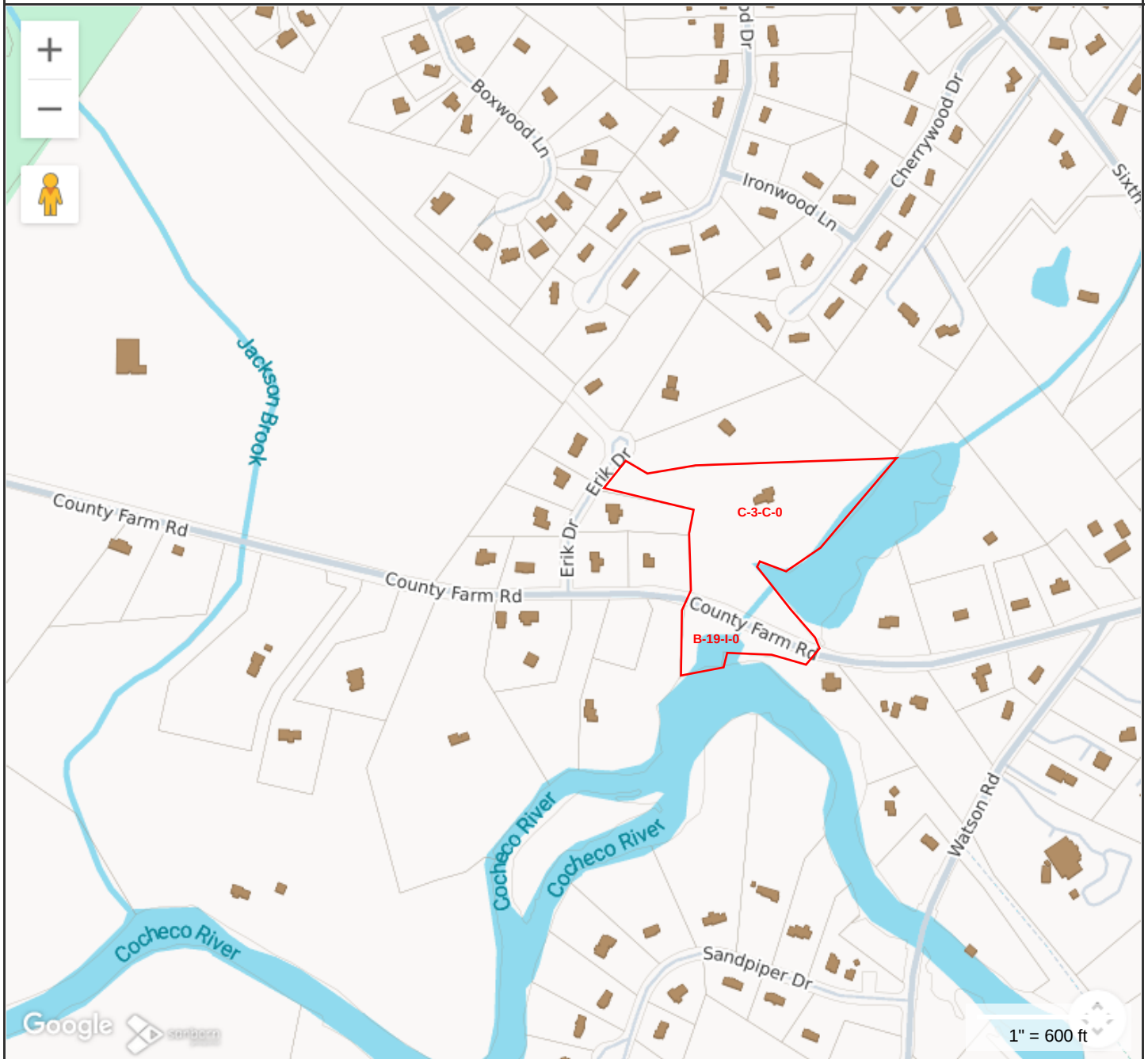
SECTION 14 - TIER-SPECIFIC DESIGN CRITERIA
Stream crossings must be designed in accordance with the tier specific design criteria listed in Part Env-Wt 904.
☒ The proposed project meets the tier specific design criteria listed in Part Env-Wt 904 and each requirement has been addressed in the plans and as part of the wetland application.

SECTION 15 - ALTERNATIVE DESIGN
NOTE: If the proposed crossing does not meet all of the general design considerations, the tier specific design criteria, or the minimum entrenchment ratio for each given stream type listed in Figure 3 , then an alternative design plan and associated requirements must be addressed pursuant to Env-Wt 904.10.
☐ I have submitted an alternative design and addressed each requirement listed in Env-Wt 904.10.

Appendix D

Abutter Information

Country Farm Road Culvert Design Abutters Reference Figure

**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 10/30/2023
Data updated Daily

Print map scale is approximate.
Critical layout or measurement
activities should not be done using
this resource.

Abutters List to B-19-I-0 and C-3-C-0

City of Dover, NH

Property ID	Location	Owner 1	Owner 2	Owner Address 1	City	State	Zip	Total Value	Land Value	Building Value	Deed Date	Last Sale Book/Page	State Class
B0019-000000	4 ERIK DR	VEZIRIS KOSMAS & CHRISTINA TRUSTESS	VEZIRIS KOSMAS & CHRISTINA REVOCABLE L	4 ERIK DRIVE	DOVER	NH	03820	7,613,00	194,300	567,000	8/13/08	3670/969	101R
B0019-H00000	11 ERIK DR	BUSKIRK HEATH L & LANETTA J TRUSTEES	BUSKIRK HEATH L & LANETTA J REV LIV TRST	11 ERIK DR	DOVER	NH	03820	626,500	211,000	415,500	1/21/25	5239/441	101R
B0023-D00000	83 COUNTY FARM RD	BARRETTO TIMOTHY E & MARY H TRUSTEES	BARRETTO FAMILY REVOCABLE TRUST 2024	83 COUNTY FARM RD	DOVER	NH	03820	755,600	306,900	448,700	2/1/24	5163/571	101R
B0023-E00000	65 COUNTY FARM RD	DAMM ANDREAS &	DAMM BIRGIT	65 COUNTY FARM RD	DOVER	NH	03820	656,400	330,500	325,900	4/2/08	3631/179	101R
B0019-G00000	15 ERIK DR	LAMPROS JOHN C & SHARON R CO-TRUSTEES	LAMPROS JOHN & SHARON REV LIV TRUST	15 ERIK DRIVE	DOVER	NH	03820	800,500	234,800	565,700	4/27/20	4754/579	101R
B0019-J00000	3 ERIK DR	BEHRMANN ERIKA & MICHAEL J TRUSTEES	THE AC BEHR TRUST	3 ERIK DR	DOVER	NH	03820	859,000	188,800	670,200	6/23/23	5119/901	101R
B0019-B00000	1 ERIK DR	HANSON DARRELL C	HANSON NATALIE R	1 ERIC DR	DOVER	NH	03820	665,600	186,700	478,900	4/30/01	2303/184	101R
B0019-E00000	8 ERIK DR	KENDALL KIMBERLY M & FRENCH SARA EL TTS	KENDALL KIMBERLY M REVOCABLE LIV TRUST	8 ERIK DR	DOVER	NH	03820	669,900	186,700	483,200	6/7/24	5189/654	101R
E0032-E00000	98 COUNTY FARM RD	LEHOCKY BARBARA TRUSTEE	LEHOCKY BARBARA LIVING TRUST	98 COUNTY FARM RD	DOVER	NH	03820	782,700	318,900	463,800	4/14/08	3634/511	101R
B0019-K00000	129 COUNTY FARM RD	QUELLETTE TANYA L		129 COUNTY FARM RD	DOVER	NH	03820	749,300	178,100	571,200	1/25/16	4354/342	101R
B0001-D00000	500 SIXTH ST	MARONE ADELE J	MARONE RICHARD A	500 SIXTH ST	DOVER	NH	03820	881,100	249,300	631,800	8/18/20	4795/314	101R
C0003-B00001	136 COUNTY FARM RD	SCHUMAN KIRT & BRITT TRUSTEES	SCHUMAN FAMILY REVOCABLE TRUST OF 2013	136 COUNTY FARM RD	DOVER	NH	03820	910,500	304,200	606,300	11/15/13	4180/174	101R
B0019-F00000	12 ERIK DR	ENO JAMES M &	VANDERWERF STEPHANIE B	12 ERIK DR	DOVER	NH	03820	760,900	222,100	538,800	6/30/99	2121/1	101R
B0019-D00000	6 ERIK DR	SYLVIA MATTHEW J & HEATHER DIANE TTS	SYLVIA FAMILY TRUST	603 EAGLE TRL	KELLER	TX	76248-8319	744,900	185,000	559,900	3/12/25	5249/59	101R
C0003-B00003	COUNTY FARM RD	SCHUMAN KIRT A & BRITT TRUSTEES	SCHUMAN FAMILY REVOCABLE TRUST	136 COUNTY FARM RD	DOVER	NH	03820	176,600	176,600	0	11/17/14	4257/4	130V
E0032-C00000	88 COUNTY FARM RD	VARNEY LINDA S & JAMES W TRUSTEES	VARNEY LINDA S LIVING REVOCABLE TRUST	88 COUNTY FARM ROAD	DOVER	NH	03820	688,700	222,400	466,300	4/21/06	3361/406	101R

Appendix E

Site Photo Log



SITE PHOTOS

(10/17/2025 & 01/07/2025)



Photo 1 – Inlet of Granite Box Culvert in Unnamed Stream at County Farm Rd Blocked w/ Debris



Photo 2 – Outlet of Granite Box Culvert w/ Granite & Concrete Headwall in Unnamed Stream at County Farm Road



Photo 3 – Outlet of Granite Box Culvert w/ Granite & Concrete Headwall in Unnamed Stream at County Farm Road



Photo 4 – Wetland Area at Inlet of Granite Box Culvert in Unnamed Stream



Photo 5 – Guardrail and Wetland Area on North Side of County Farm Road



Photo 6 – Roadway and Guardrail on South Side of County Farm Road

Appendix F

NHB Data Check & IPAC Determination

New Hampshire Natural Heritage Bureau

NHB DataCheck Results Letter

To: Drew Gallant
18 Commerce Way, Suite 2000
Woburn, MA 01801

From: NH Natural Heritage Bureau

Date: 6/6/2025 (This letter is valid through 6/6/2026)

Re: Review by NH Natural Heritage Bureau of request dated 6/6/2025

Permit Types: Shoreland Standard Permit
Standard Dredge & Fill - Minor
General Permit

NHB ID: NHB25-1682

Applicant: Drew Gallant

Location: Dover
Tax Map: C-3, Tax Lot: C-0
Address: County Farm Road

Proj. Description: Replacing an existing box culvert and associated headwalls in the unnamed brook which flows into the Cocheco River.

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

New Hampshire Natural Heritage Bureau
NHB DataCheck Results Letter

MAP OF PROJECT BOUNDARIES FOR: NHB25-1682





United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104



In Reply Refer To:

04/09/2026 14:08:14 UTC

Project Code: 2026-0074176

Project Name: County Farm Road Culvert Replacement - Dover, NH

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Updated 4/12/2023 - Please review this letter each time you request an Official Species List, we will continue to update it with additional information and links to websites may change.

About Official Species Lists

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Federal and non-Federal project proponents have responsibilities under the Act to consider effects on listed species.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested by returning to an existing project's page in IPaC.

Endangered Species Act Project Review

Please visit the “**New England Field Office Endangered Species Project Review and Consultation**” website for step-by-step instructions on how to consider effects on listed

species and prepare and submit a project review package if necessary:

<https://www.fws.gov/office/new-england-ecological-services/endangered-species-project-review>

NOTE Please do not use the **Consultation Package Builder** tool in IPaC except in specific situations following coordination with our office. Please follow the project review guidance on our website instead and reference your **Project Code** in all correspondence.

Northern Long-eared Bat - (Updated 4/12/2023) The Service published a final rule to reclassify the northern long-eared bat (NLEB) as endangered on November 30, 2022. The final rule went into effect on March 31, 2023. You may utilize the **Northern Long-eared Bat Rangewide Determination Key** available in IPaC. More information about this Determination Key and the Interim Consultation Framework are available on the northern long-eared bat species page:

<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>

For projects that previously utilized the 4(d) Determination Key, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective. If your project was not completed by March 31, 2023, and may result in incidental take of NLEB, please reach out to our office at newengland@fws.gov to see if reinitiation is necessary.

Additional Info About Section 7 of the Act

Under section 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether projects may affect threatened and endangered species and/or designated critical habitat. If a Federal agency, or its non-Federal representative, determines that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Federal agency also may need to consider proposed species and proposed critical habitat in the consultation. 50 CFR 402.14(c)(1) specifies the information required for consultation under the Act regardless of the format of the evaluation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/service/section-7-consultations>

In addition to consultation requirements under Section 7(a)(2) of the ESA, please note that under sections 7(a)(1) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Please contact NEFO if you would like more information.

Candidate species that appear on the enclosed species list have no current protections under the ESA. The species' occurrence on an official species list does not convey a requirement to

consider impacts to this species as you would a proposed, threatened, or endangered species. The ESA does not provide for interagency consultations on candidate species under section 7, however, the Service recommends that all project proponents incorporate measures into projects to benefit candidate species and their habitats wherever possible.

Migratory Birds

In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see:

<https://www.fws.gov/program/migratory-bird-permit>

<https://www.fws.gov/library/collections/bald-and-golden-eagle-management>

Please feel free to contact us at **newengland@fws.gov** with your **Project Code** in the subject line if you need more information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat.

Attachment(s): Official Species List

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
(603) 223-2541

PROJECT SUMMARY

Project Code: 2026-0074176

Project Name: County Farm Road Culvert Replacement - Dover, NH

Project Type: Culvert Repair/Replacement/Maintenance

Project Description: The proposed project involves installing a replacement of the existing culvert with two 30-inch RCP culverts in parallel, including headwalls and wingwalls for roadway stabilization, roadway restoration, and grading at the culvert inlet and outlet. The project will not alter the quantity of impervious area or create any significant changes to surface conditions or topography.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.2172531,-70.924770662496,14z>



Counties: Strafford County, New Hampshire

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Dover city
Name: Jamie Keel
Address: 18 Commerce Way
City: Woburn
State: MA
Zip: 01801
Email: jamie.keel@apexcoss.com
Phone: 6179342796

LEAD AGENCY CONTACT INFORMATION

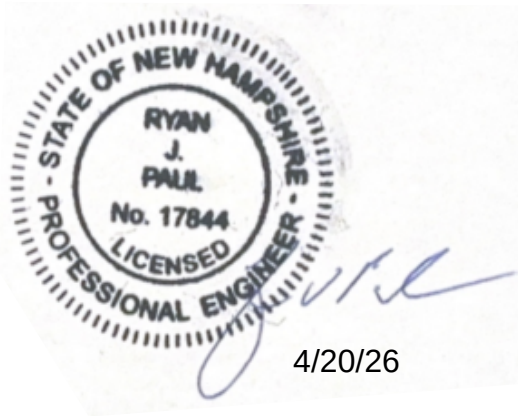
Lead Agency: New Hampshire Department of Environmental Services
Name: Jamie Keel
Email: jamie.keel@apexcoss.com

Appendix G
Permitting Design Plans
(Bound Separately)

COUNTY FARM ROAD CULVERT REPLACEMENT

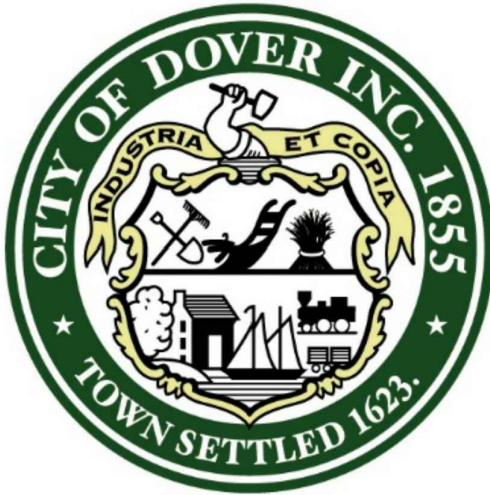
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- G-1 GENERAL NOTES AND LEGEND
- C-1 EXISTING CONDITIONS PLAN
- C-2 EROSION CONTROL, BYPASS, AND DEWATERING PLAN
- C-3 CULVERT SITE PLAN
- C-4 CULVERT CROSS SECTIONS
- CD-1 CIVIL DETAILS I
- CD-2 CIVIL DETAILS II
- CD-3 CIVIL DETAILS III



CITY OF DOVER, NH
CONTRACT #25007622

FOR PERMITTING
APRIL 2026

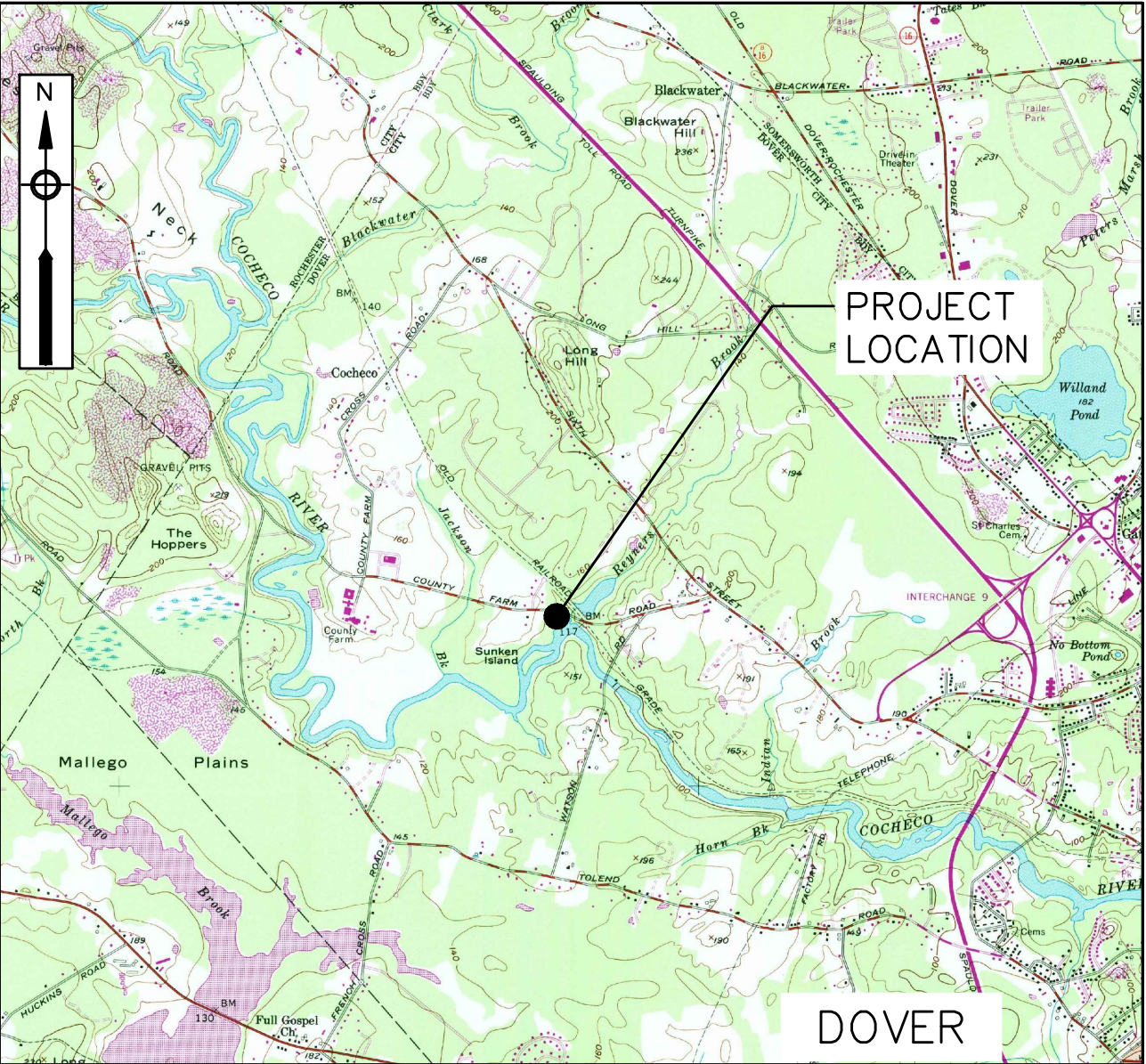


CITY OF DOVER

JILLIAN SEMPRINI, CITY ENGINEER

KENNETH MAVROGEORGE, ASSISTANT CITY
ENGINEER

MATTHEW GIBBONS, DEPUTY CITY ENGINEER



VICINITY MAP
1" = 1000'

GENERAL NOTES:

1. BASE MAP INFORMATION PREPARED BY SURVEYING AND MAPPING, LLC (SAM) ON NOVEMBER 3, 2025. ELEVATION REFERENCES ARE NAVD88. HORIZONTAL COORDINATE SYSTEM DATUM IS NEW HAMPSHIRE STATE PLANE COORDINATE ZONE (2800) NAD83, US SURVEY FEET.
2. PARCEL BOUNDARIES AS SHOWN HERON ARE BASED ON NHGRANT GIS DATA AND ARE IN THEIR ORIGINAL LOCATION.
3. ORDINARY HIGH WATER DELINEATED BY LEC ENVIRONMENTAL CONSULTANTS, INC ON OCTOBER 17, 2025.
4. NORTH DIRECTION SHOWN IS APPROXIMATE.
5. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY DIG SAFE AT LEAST 72 HOURS IN ADVANCE, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO ANY EXCAVATION.
6. DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS AND STATIONING SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
7. THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER UNLESS NOTED TO BE ALTERED.
8. ALL EXISTING STORM DRAIN, SEWER, AND WATER MAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED. THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER SHALL REPAIR ANY EXISTING SEWERS, STORM DRAIN LINES, WATER LINES OR CULVERTS DAMAGED DURING CONSTRUCTION.
9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE UTILITY COMPANY TO OBTAIN REQUIRED SERVICE. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES OR FOR ANY RELATED DELAYS.
10. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. DAMAGE TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. ALL UTILITIES REQUIRING REPAIR, RELOCATION, OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED BY THE CONTRACTOR, THROUGH THE RESPECTIVE UTILITY AND THE OWNER.
11. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE TREES, BUSHES, PLANTS, STONEWALLS, FENCES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS THEY ARE NOTED TO BE REMOVED. CONTRACTOR SHALL REPLACE ALL DAMAGED ITEMS AT NO ADDITIONAL COST TO OWNER.
12. THE CONTRACTOR SHALL REMOVE AND REPLACE NEW, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED OUTSIDE THE LIMIT OF WORK BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER AND ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
13. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH AND MAINTAIN A TELEPHONE NUMBER WHERE THE CONTRACTOR CAN BE REACHED 24 HOURS A DAY, 7 DAYS A WEEK.
14. THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO THE CITY AND THE ENGINEER. THE CONTRACTOR SHALL LIMIT WORK ACTIVITIES TO THESE AREAS. NO MATERIAL SHALL BE STORED ON THE PROJECT SITE.
15. THE CONTRACTOR SHALL IDENTIFY AND OBTAIN ALL NECESSARY PERMITS FOR WORK IN ROADWAYS AND TRENCHES. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL PERMITS AS AN INTEGRAL PART OF THE WORK.
16. THE CONTRACTOR SHALL SAW CUT ALL PAVEMENT TO ITS FULL DEPTH IN THE PROCESS OF INSTALLING NEW UTILITIES IN ALL PAVED AREAS INCLUDING STREETS, DRIVEWAYS, AND SIDEWALKS.
17. TEST PITS MAY BE ORDERED BY THE ENGINEER TO DETERMINE THE LOCATION OF EXISTING UTILITIES. THE CONTRACTOR MAY REQUEST TEST PITS TO VERIFY EXISTING UTILITIES AT NO ADDITIONAL COSTS TO THE OWNER.
18. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
19. CONCRETE WASHOUT AREAS SHALL BE OUTSIDE THE BUFFER ZONES OF ALL WETLAND RESOURCE AREAS.
20. THE FILTER SOCK AND OTHER EROSION AND SEDIMENT CONTROL MEASURES/DEVICES SHALL BE INSPECTED, CLEANED, REPLACED AND/OR REPAIRED AS NECESSARY, WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL.
21. CAREFULLY EXCAVATE THE EXISTING STREAM BED SEDIMENTS FROM THE BOTTOM OF THE CULVERT AND STOCKPILE OVER A MEMBRANE FOR LATER USE. DO NOT OVER EXCAVATE THE STREAMBED SEDIMENTS.

SUGGESTED CONSTRUCTION SEQUENCE:

1. INSTALL EROSION CONTROLS PRIOR TO ANY WORK ON THE SITE.
2. INSTALL BYPASS AND DEWATERING SYSTEMS PRIOR TO THE START OF EXCAVATION.
3. INSTALL CULVERT AND HEADWALLS.
4. ROUGH GRADE UPSTREAM AND DOWNSTREAM OF THE HEADWALLS.
5. REMOVE BYPASS AND DEWATERING SYSTEMS AND RESTORE STREAM FLOW.
6. COMPLETE SITE RESTORATION.
7. COMPLETE FINAL PAVING.

RESURFACING SCHEDULE

TRENCH PAVEMENT

PERMANENT PAVEMENT	7" BINDER COURSE
--------------------	------------------

FULL WIDTH MILLING AND OVERLAY

TOP COURSE	1.5" TOP COURSE
LEVELING COURSE	AS NEEDED
MILLING DEPTH	1.5" THICK

PERMANENT LOAM AND SEED

LOAM	4" (MIN.) LOAM
------	----------------

—

EDGE OF PAVEMENT (EP)

PROPERTY LINE

- - - -

GUARDRAIL



UTILITY POLE

— OHW —

ELECTRICAL OVERHEAD WIRE

— W —

WATER LINE

— (S) —

SEWER MANHOLE

— FM —

SEWER FORCE MAIN

- - - -

STONE



TREE



TREE LINE

— 55 —

CONTOURS

— WL —

WETLAND

 OHWM #

ORDINARY HIGH WATER MARK AND NUMBER

 B#

BORING

— 50 —

WATERFRONT BUFFER

— 100 —

100 FOOT BUFFER ZONE

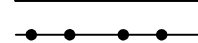
- - - -

NATURAL WOODLAND BUFFER

— — —

PROTECTED SHORELAND BOUNDARY

PROPOSED CULVERT



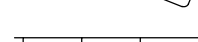
FILTER SOCK



TURBIDITY CURTAIN



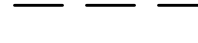
SAND BAG COFFERDAM



METAL GUARDRAIL

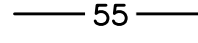


LIMIT OF WORK



55

PROPOSED CONTOUR LINE AND ELEVATION



TEST PIT



PHOTOGRAPH LOCATION, NUMBER, AND DIRECTION

1+00

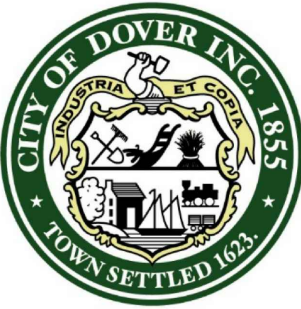
STATION

ABBREVIATIONS

APPROX	APPROXIMATE
CI	CAST IRON
CLDI	CEMENT LINED DUCTILE IRON
DIA	DIAMETER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FES	FLARED END SECTION
FM	FORCE MAIN
FT	FEET
LF	LINEAR FEET
LOW	LIMIT OF WORK
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OC	ON CENTER
OHW	OVERHEAD WIRE
OHWM	ORDINARY HIGH WATER MARK
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SF	SQUARE FEET
TEMP	TEMPORARY
TOO	TOP OF OUTLET
TYP	TYPICAL
UP	UTILITY POLE
W	WATER

SHEET MAP

SCALE: 1" = 150'







4/20/26	MARK	DATE	DESCRIPTION		

Scale	AS SHOWN
Date	APRIL 2026
Job No.	25007622
Designed by	DRG
Drawn by	JNK
Checked by	RJP
Approved by	RJP



COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

GENERAL NOTES AND LEGEND

FOR PERMITTING

Sheet No.

G-1

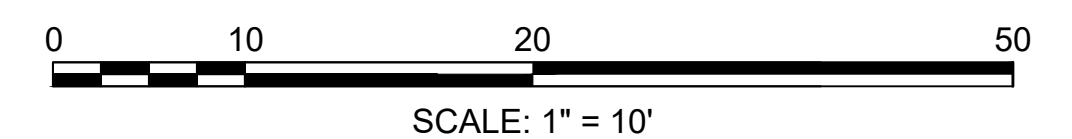


A diagram showing a magnetic needle with a circular head and a pointed tail. The needle is oriented vertically, with the head pointing towards the top-left corner. A small circle with a cross inside is located on the needle's shaft, near the head. The letter 'N' is written at the top-left corner, indicating the North direction.



P2: DOWNSTREAM COUNTY FARM ROAD CULVERT

PLAN
SCALE: 1"=10'



				Scale	AS SHOWN
				Date	APRIL 2026
				Job No.	25007622
				Designed by	DRG
				Drawn by	JNK
				Checked by	RJP
6	MARK	DATE	DESCRIPTION	Approved by	RJP

THIS LINE IS ONE INCH
LONG WHEN PLOTTED AT
FULL SCALE ON A 22" X
34" DRAWING

COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

EXISTING CONDITIONS PLAN

FOR PERMITTING

Sheet No.

C-1

DEWATERING AND EROSION CONTROL NOTES:

1.

THE CONTRACTOR SHALL SUBMIT A BY-PASS PUMPING AND DEWATERING PLAN TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF WORK. ALL WORK SHALL BE IN COMPLIANCE WITH THE CONDITIONS PROVIDED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NH DES).
2.

THE CONTRACTOR SHALL HANDLE GROUNDWATER, WHERE ENCOUNTERED. DURING ANY DEWATERING, THE CONTRACTOR SHALL USE TEMPORARY STONE AROUND THE SUCTION AND DISCHARGE ENDS TO MINIMIZE TRANSPORT OF TRENCH MATERIALS. THE DISCHARGED WATER SHALL PASS THROUGH FILTER FABRIC, SILT BAGS, FRAC TANKS OR A COMBINATION OF ALL.
3.

DEWATERING PUMPING SYSTEM DISCHARGE TO INCLUDE ENERGY DISSIPATION TO PREVENT SCOUR.
4.

TEMPORARY DEWATERING SEDIMENTATION BASINS, IF REQUIRED, WILL BE CHECKED AFTER EACH SIGNIFICANT RAINFALL AND CLEANED AS NEEDED TO RETAIN STORAGE CAPACITY.
5.

THE FILTER SOCK AND OTHER EROSION AND SEDIMENT CONTROL MEASURES/DEVICES SHALL BE INSPECTED, CLEANED, REPLACED AND/OR REPAIRED AS NECESSARY, WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL.
6.

INSTALL FILTER SOCK PRIOR TO COMMENCEMENT OF THE EARTHWORK OPERATIONS. INSPECT EROSION CONTROLS IMMEDIATELY AFTER EACH STORM AND REMOVE ACCUMULATED SEDIMENT AS REQUIRED. REPLACE DAMAGED EROSION CONTROLS AS REQUIRED.
7.

SPILL KITS SHALL BE MAINTAINED ON-SITE AT ALL TIMES.
8.

PUMPS AND GENERATORS SHALL BE EQUIPPED WITH DOUBLE CONTAINMENT FUEL TANKS TO PREVENT ANY FUEL LEAKAGE IN THE WETLAND RESOURCE AREA, UNDERLYING SOILS AND GROUNDWATER AND ADJACENT WATER SURFACES. FUEL TANKS SHALL HAVE A MINIMUM FUEL CAPACITY TO MAINTAIN AN UNINTERRUPTED 24-HOUR PUMPING PERIOD.
9.

THE CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENT CONTROL DEVICES IN ACCORDANCE WITH THE PLANS, OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION SHALL NOT COMMENCE UNTIL THESE MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE ENGINEER.

STREAM BYPASS NOTES:

1.

THE CONTRACTOR SHALL SUBMIT A BY-PASS PIPING PLAN TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF WORK.
2.

FLOW REQUIREMENTS FOR BYPASS PLANNING ARE AS FOLLOWS:

A. DRY WEATHER FLOW: 100 GPM

B. STORM FLOW: 1,400 GPM
3.

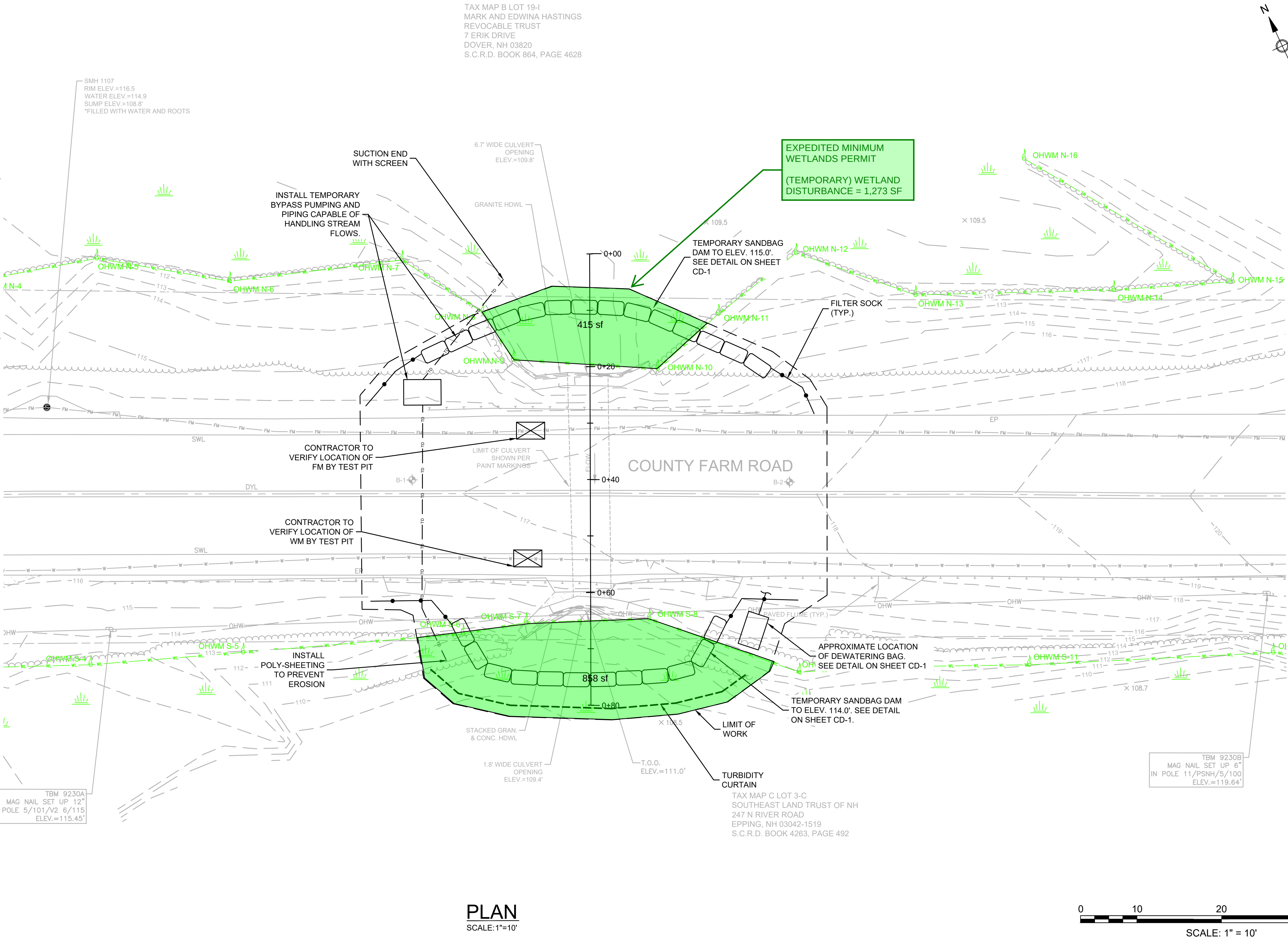
SECONDARY/STANDBY PUMP(S) SHALL BE CONNECTED AND ONLINE FOR STORM FLOW HANDLING. CONTRACTOR SHALL PROVIDE 100% BACKUP BYPASS PUMPING, AUTOMATICALLY OPERATED ON HIGH WATER LEVEL. CONTRACTOR SHALL SUBMIT A PLAN TO ENGINEER TO ACCOMMODATE UP TO 1,400 GPM UNDER STORM FLOW CONDITIONS.
4.

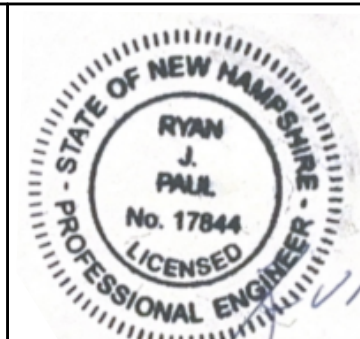
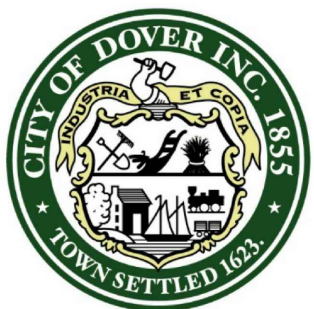
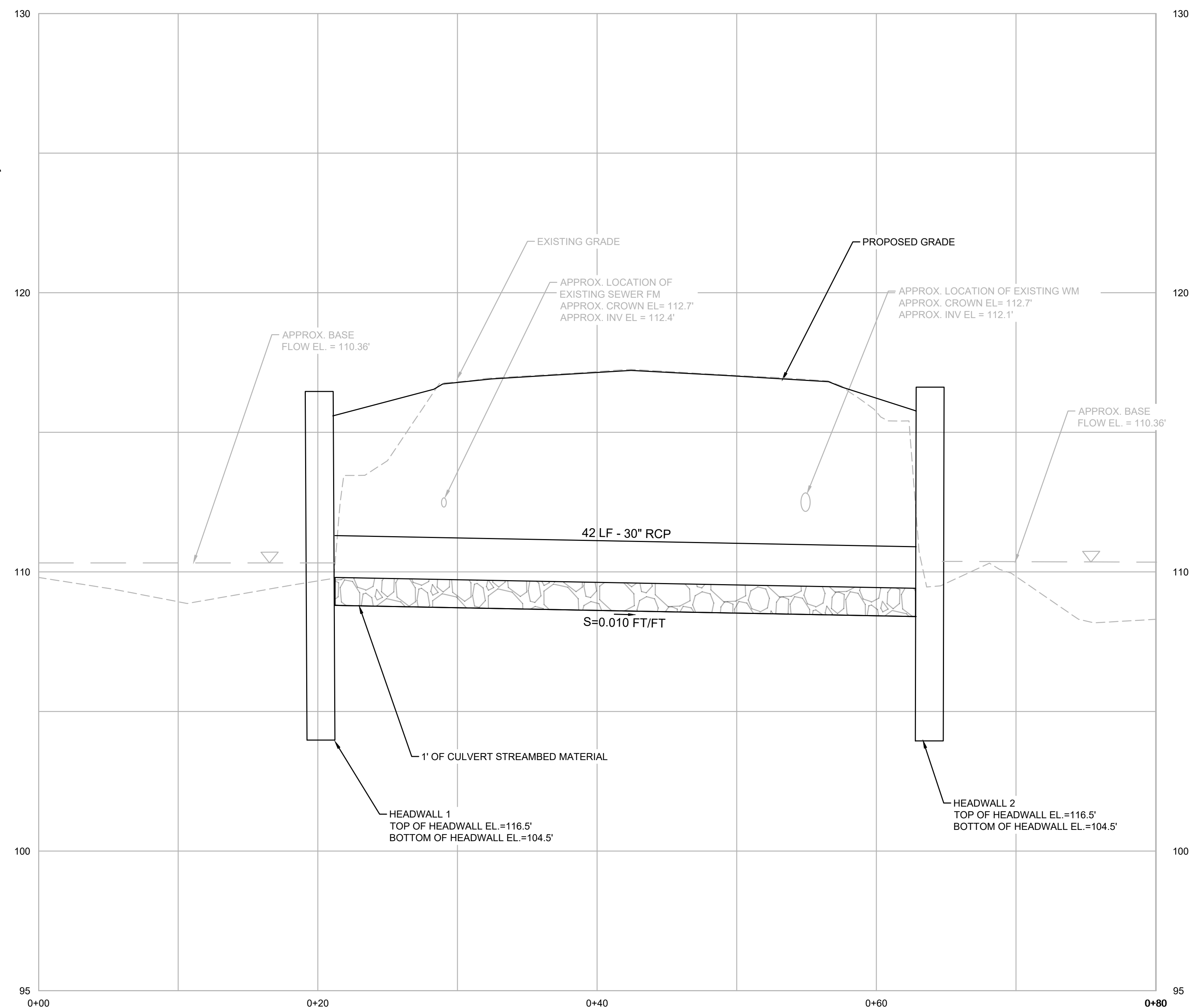
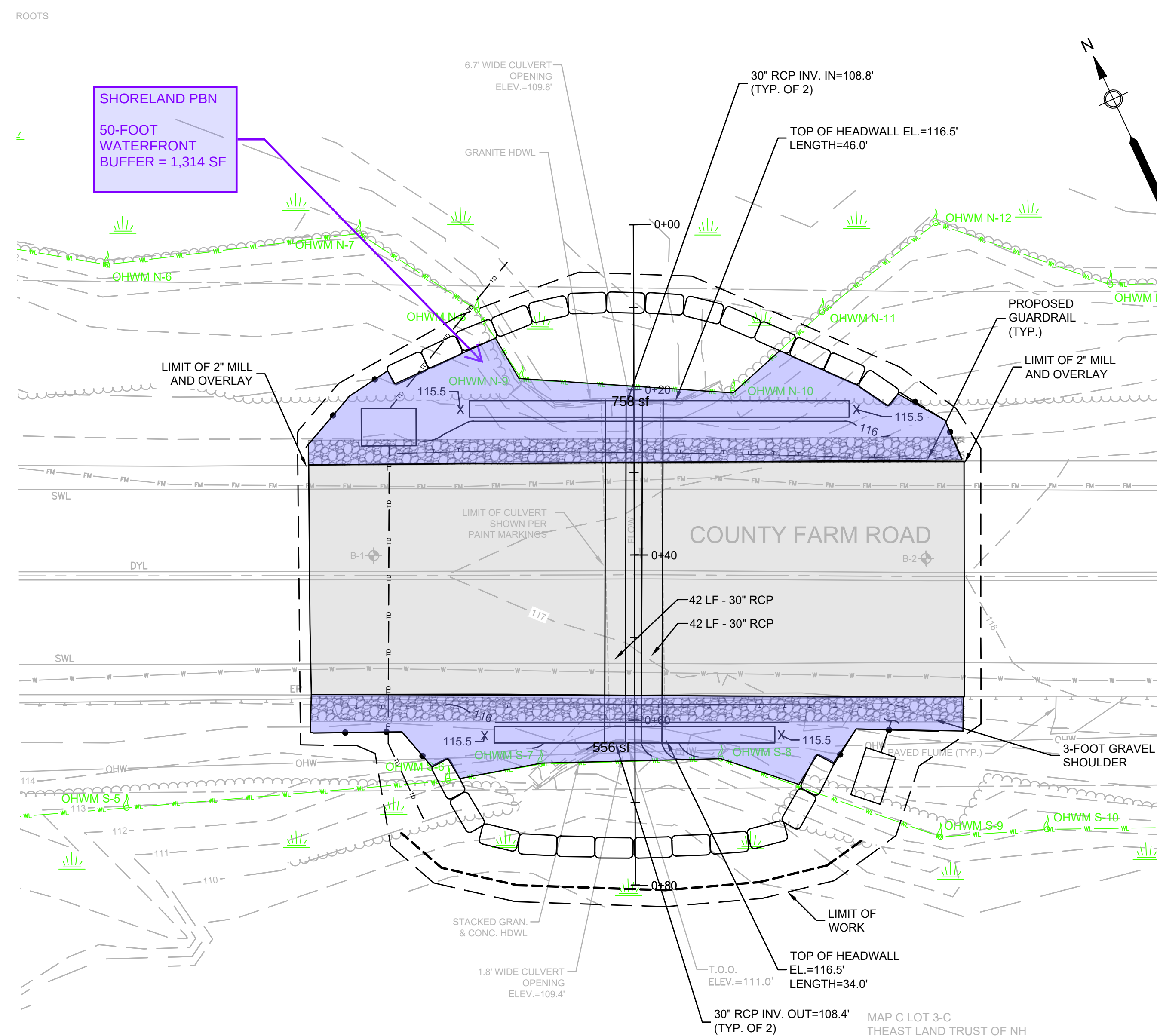
CLEARING AND GRUBBING FOR BYPASS PIPING AND ACCESSORIES SHALL BE COORDINATED WITH THE ENGINEER AND THE MUNICIPALITY PRIOR TO ANY WORK ACTIVITIES. NO WORK SHALL BEGIN UNTIL AUTHORIZATION IS GRANTED BY ENGINEER AND THE CITY.
5.

INSTALL TEMPORARY SANDBAG DAM SYSTEM ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE CULVERT AS SHOWN ON THIS SHEET. COORDINATE WITH ENGINEER FOR FINAL LOCATIONS OF THE TEMPORARY SANDBAG DAM SYSTEM. INSTALL POLYETHYLENE SHEETING ALONG THE OUTSIDE FACE OF THE SANDBAGS AS NECESSARY TO PREVENT SEEPAGE.
6.

BYPASS PUMP INTAKE(S) WITHIN THE TEMPORARY SANDBAG DAM SYSTEM SHALL BE EQUIPPED WITH A 1/4" SCREEN MESH SURROUNDING THE PUMP INTAKES AND PROPERLY SECURED TO THE STREAM/CULVERT/POND BOTTOM. TEMPORARY STONE SHALL BE USED TO MINIMIZE UPTAKE OF SEDIMENT.
7.

THE CONTRACTOR SHALL PROVIDE A DISSIPATER AT THE END OF THE BYPASS PIPE OUTLET(S) TO PREVENT ANY STREAMBED DISTURBANCE DOWNSTREAM OF THE WORK.





\$	MARK	DATE	DESCRIPTION

Scale	AS SHOWN
Date	APRIL 2026
Job No.	25007622
Designed by	DRG
Drawn by	JNK
Checked by	RJP
Approved by	RJP

THIS LINE IS ONE INCH
LONG WHEN PLOTTED AT
FULL SCALE ON A 22" X
34" DRAWING

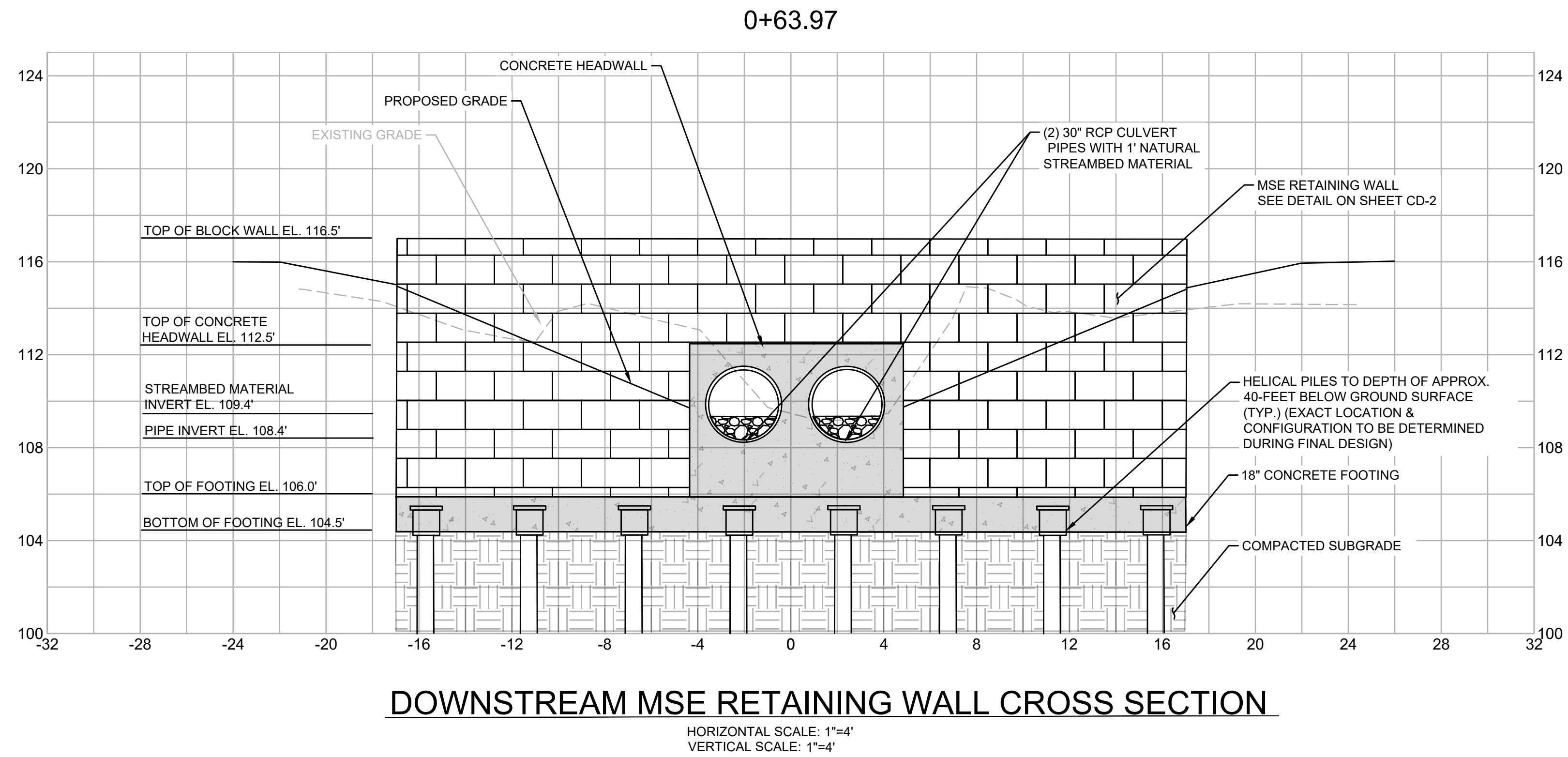
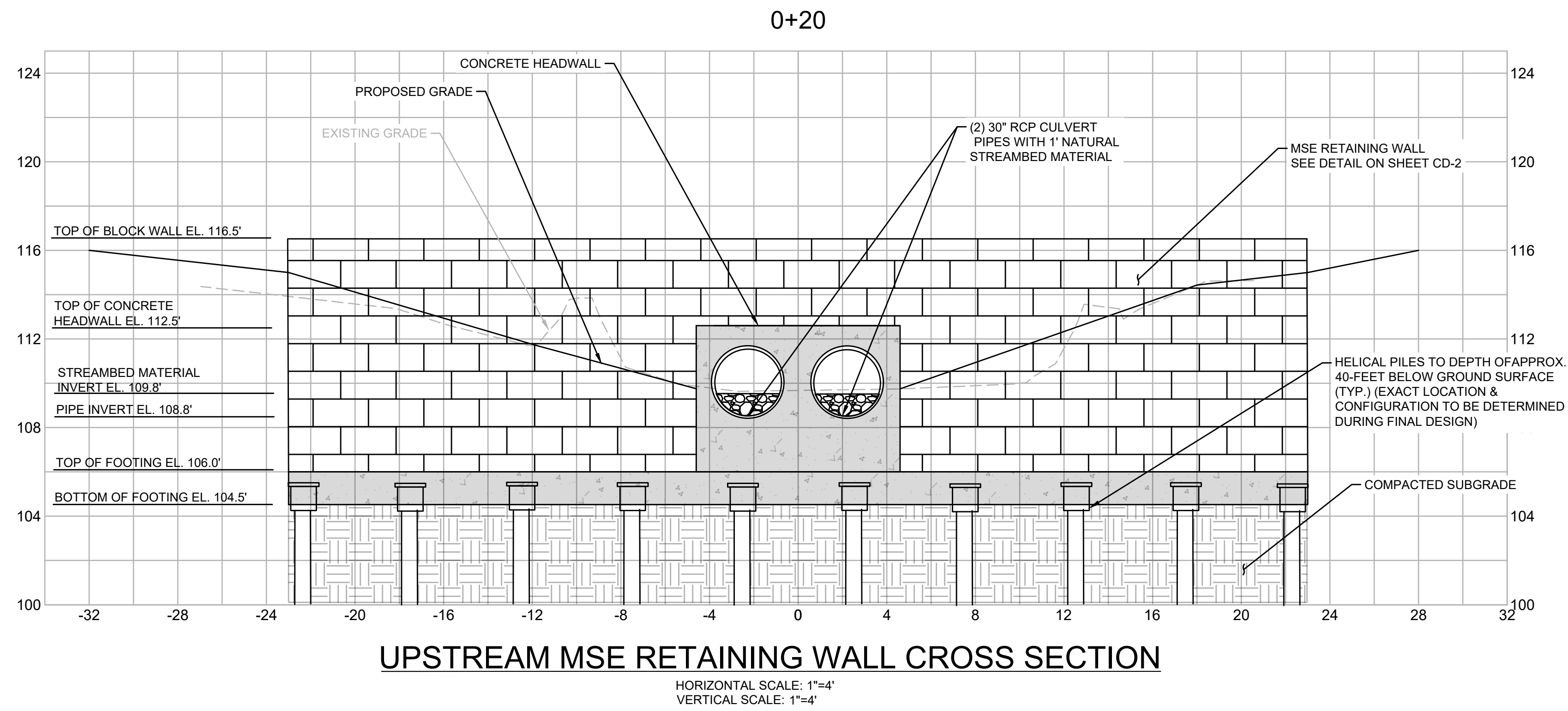
COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

CULVERT SITE PLAN

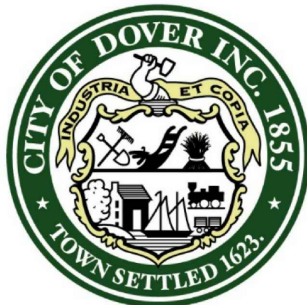
FOR PERMITTING

Sheet No.

C-3



Drawing file: I:\Dover NH\25007622 - County Farm Road Culvert Design\04 Drawings\02 Civil Sheets.dwg Plot Date: Apr 20 2026 11:43am



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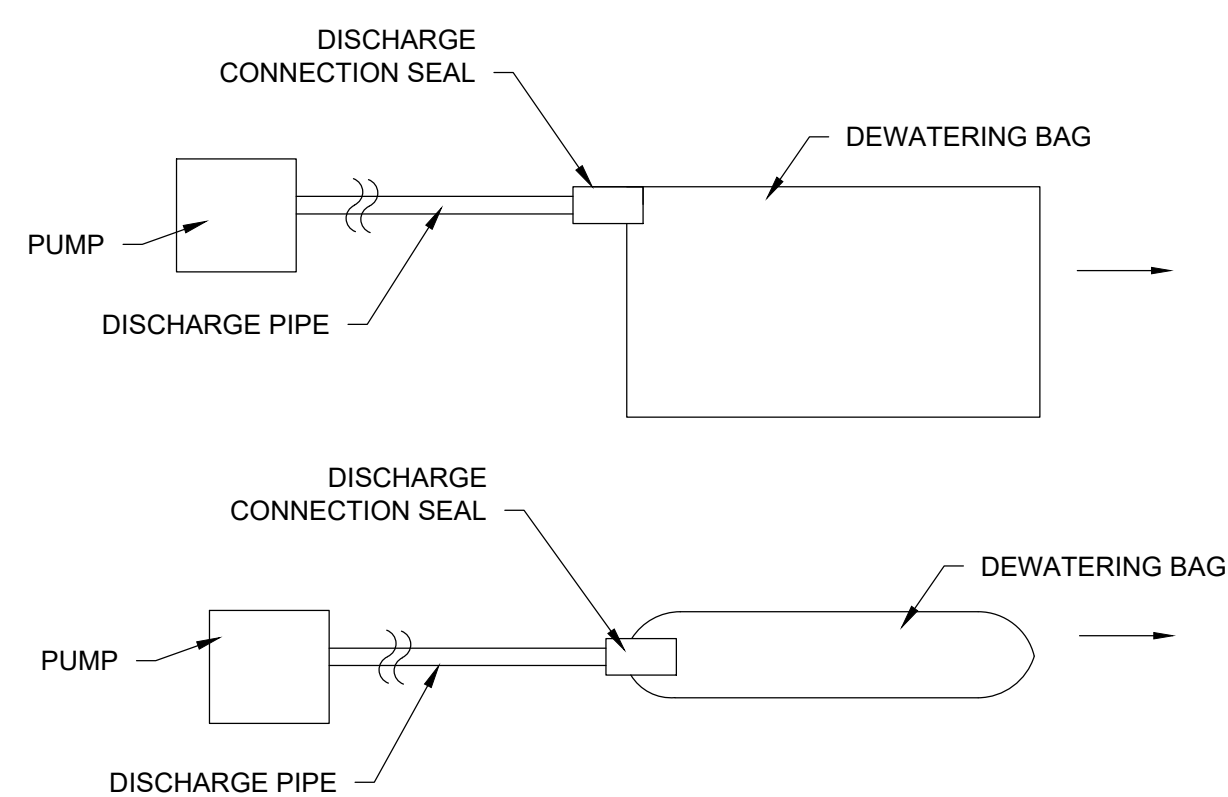
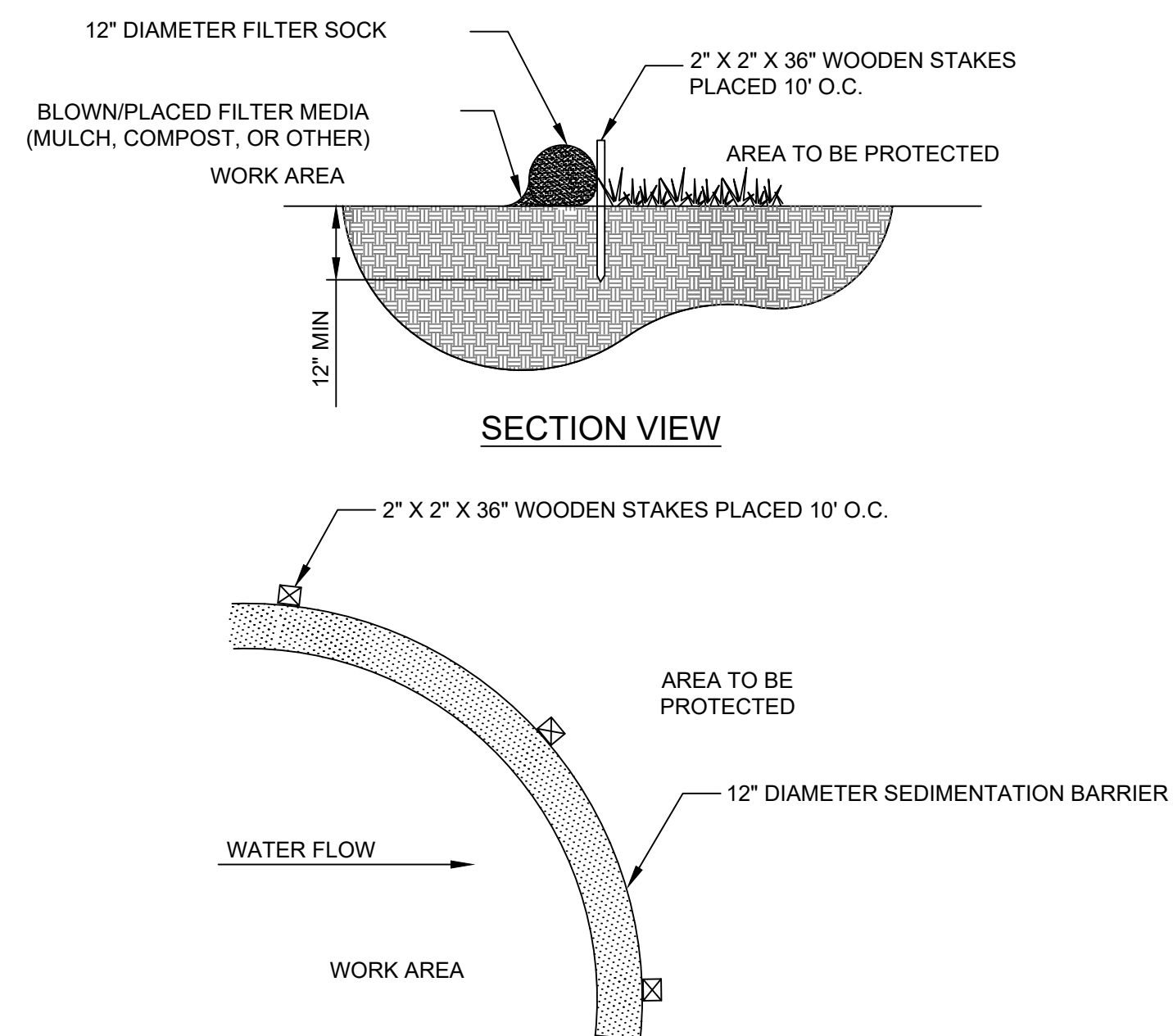
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34" DRAWING

COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

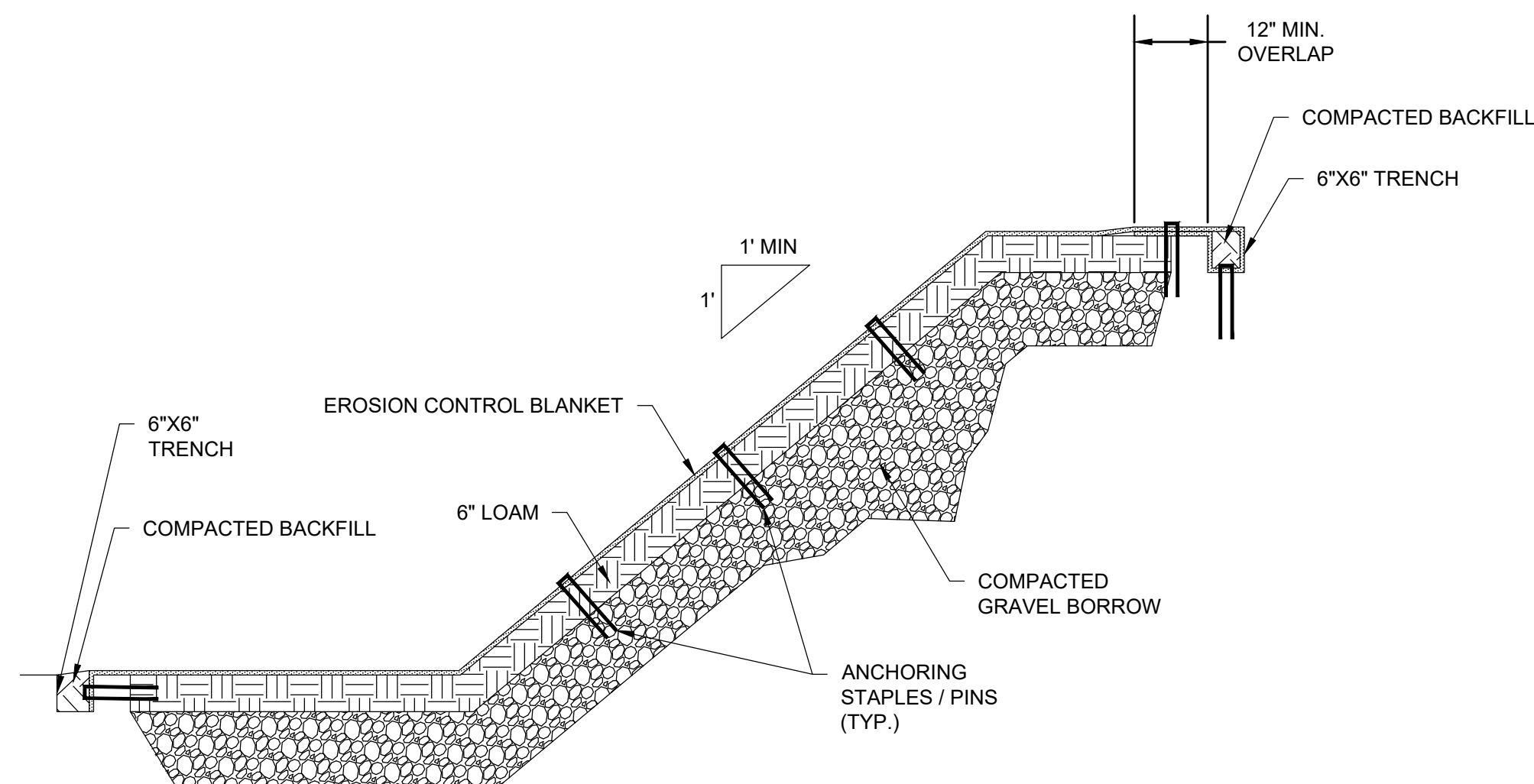
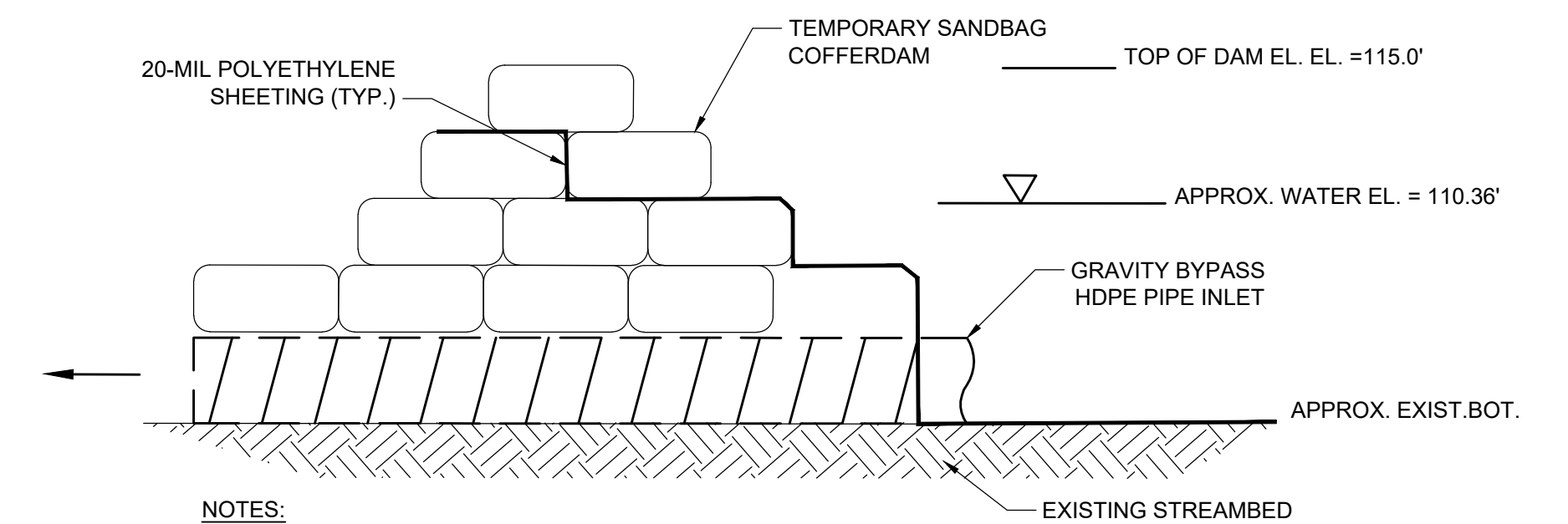
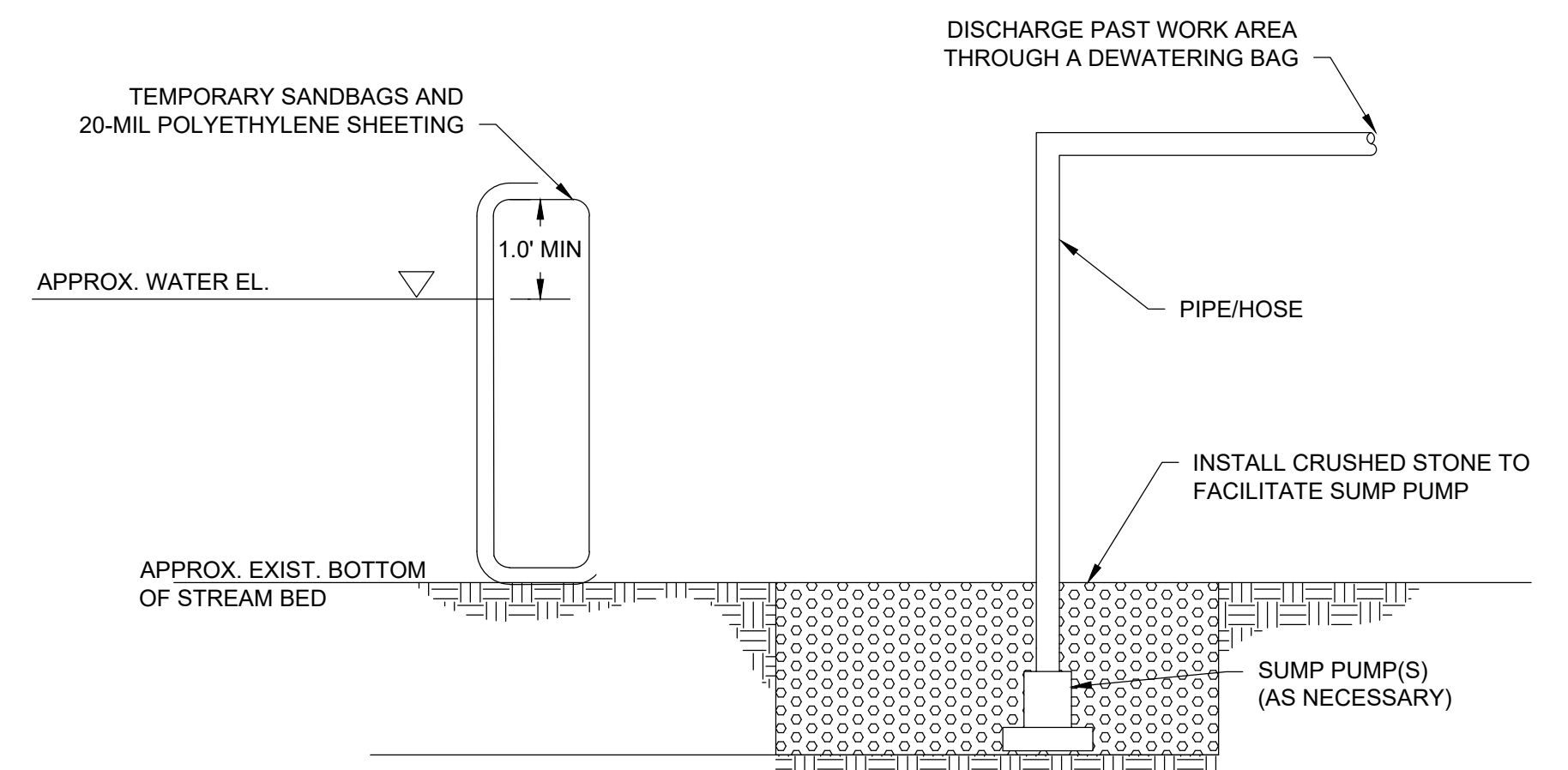
CULVERT CROSS SECTIONS

FOR PERMITTING
Sheet No.

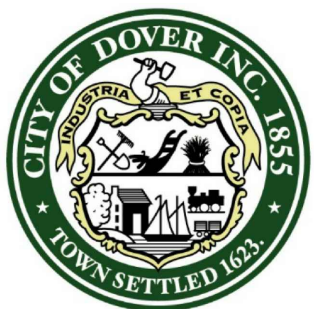
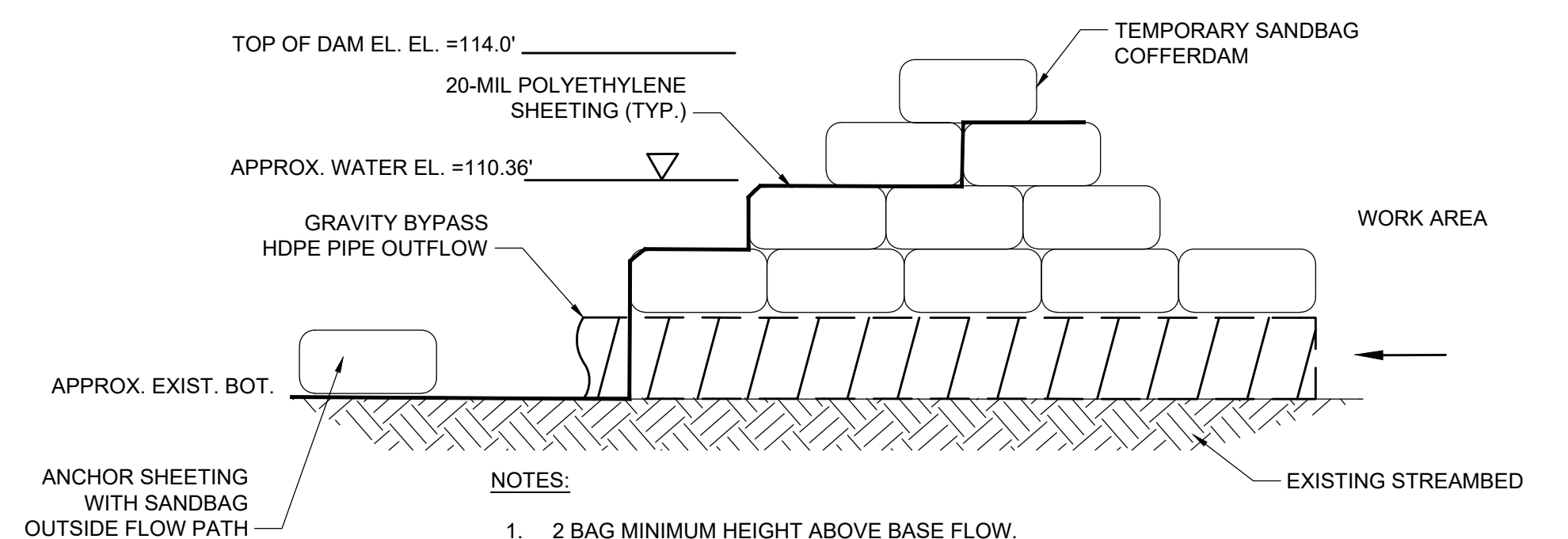
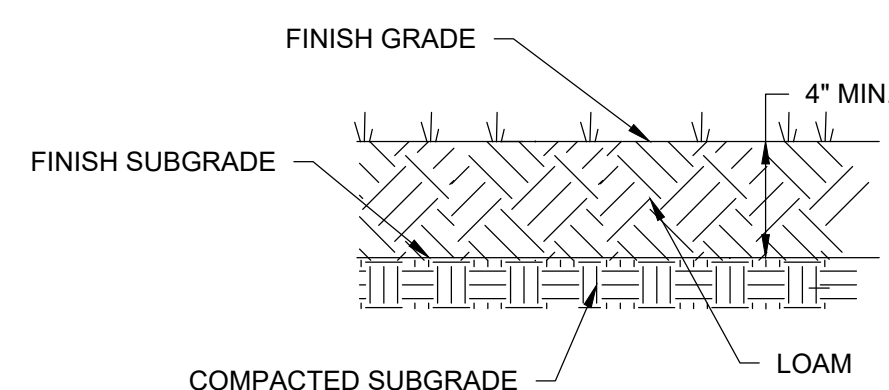
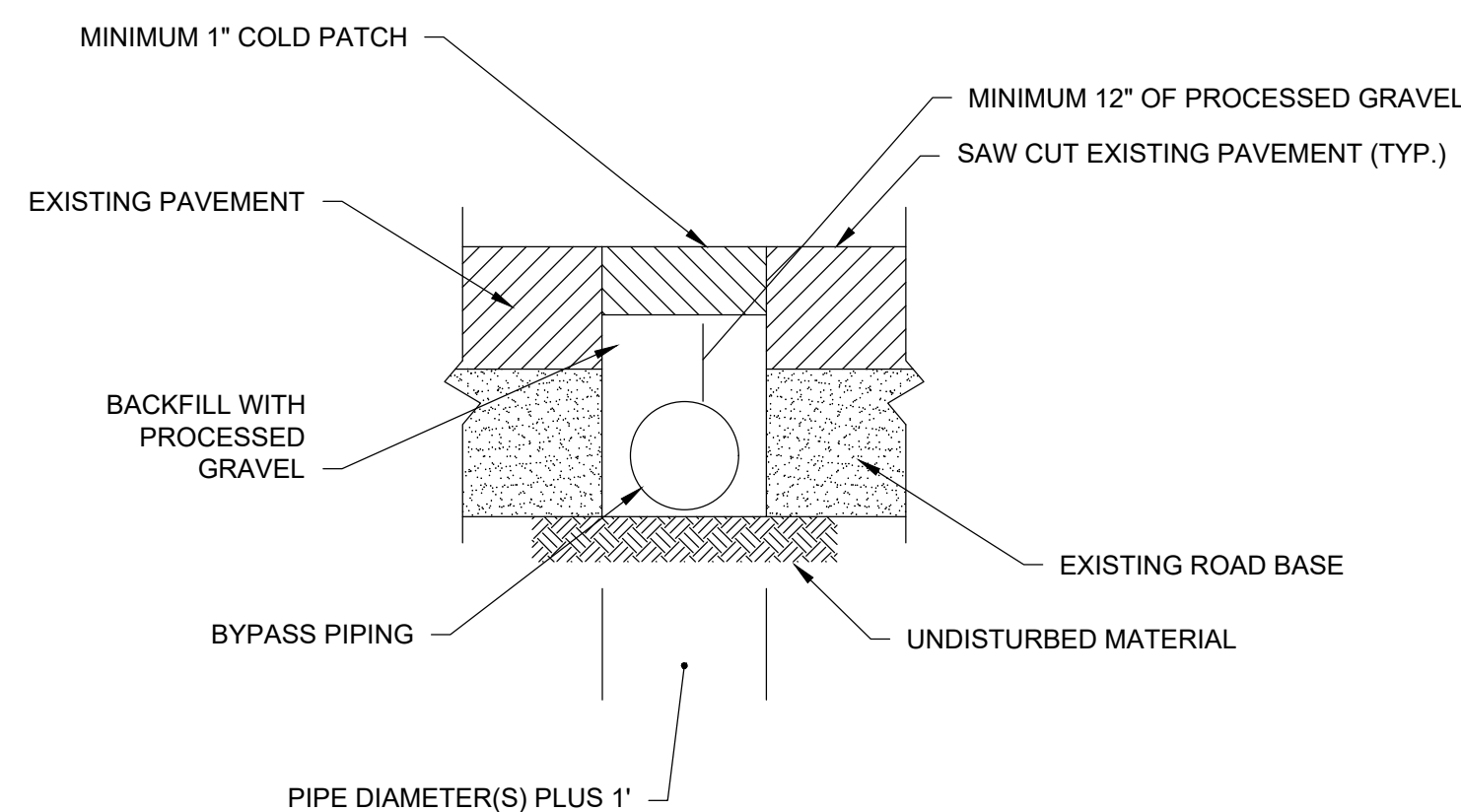
C-4



- NOTES:**
1. DEWATERING BAG SIZE AND QUANTITY SHALL BE AS NEEDED TO ADEQUATELY FILTER ALL PUMP EFFLUENT FROM DEWATERING ACTIVITIES. CONTRACTOR SHALL PROVIDE A REDUNDANT BAG ON SITE AT ALL TIMES.
 2. EACH BAG SHALL HANDLE A 2", 3", OR 4" DISCHARGE HOSE.
 3. DISCHARGE HOSES CAN BE PLACED ALONG ANY EDGE BY MAKING A SMALL INCISION INTO THE FABRIC, INSERTING THE HOSE, AND THEN CLAMPING THE FABRIC TO THE HOSE VIA WIRE, TIES, CLAMP, ROPE OR SIMILAR TO CREATE A GOOD SEAL.
 4. CONTRACTOR SHALL AVOID DISCHARGING MULTIPLE PIPES INTO ONE BAG.



- NOTES:**
1. EROSION CONTROL BLANKET SHALL BE ECSC-2B BY EAST COAST EROSION CONTROL, OR EQUAL.
 2. REFER TO THE MANUFACTURER'S GUIDELINES FOR STAPLE ANCHORING SPACING.

[illegible]

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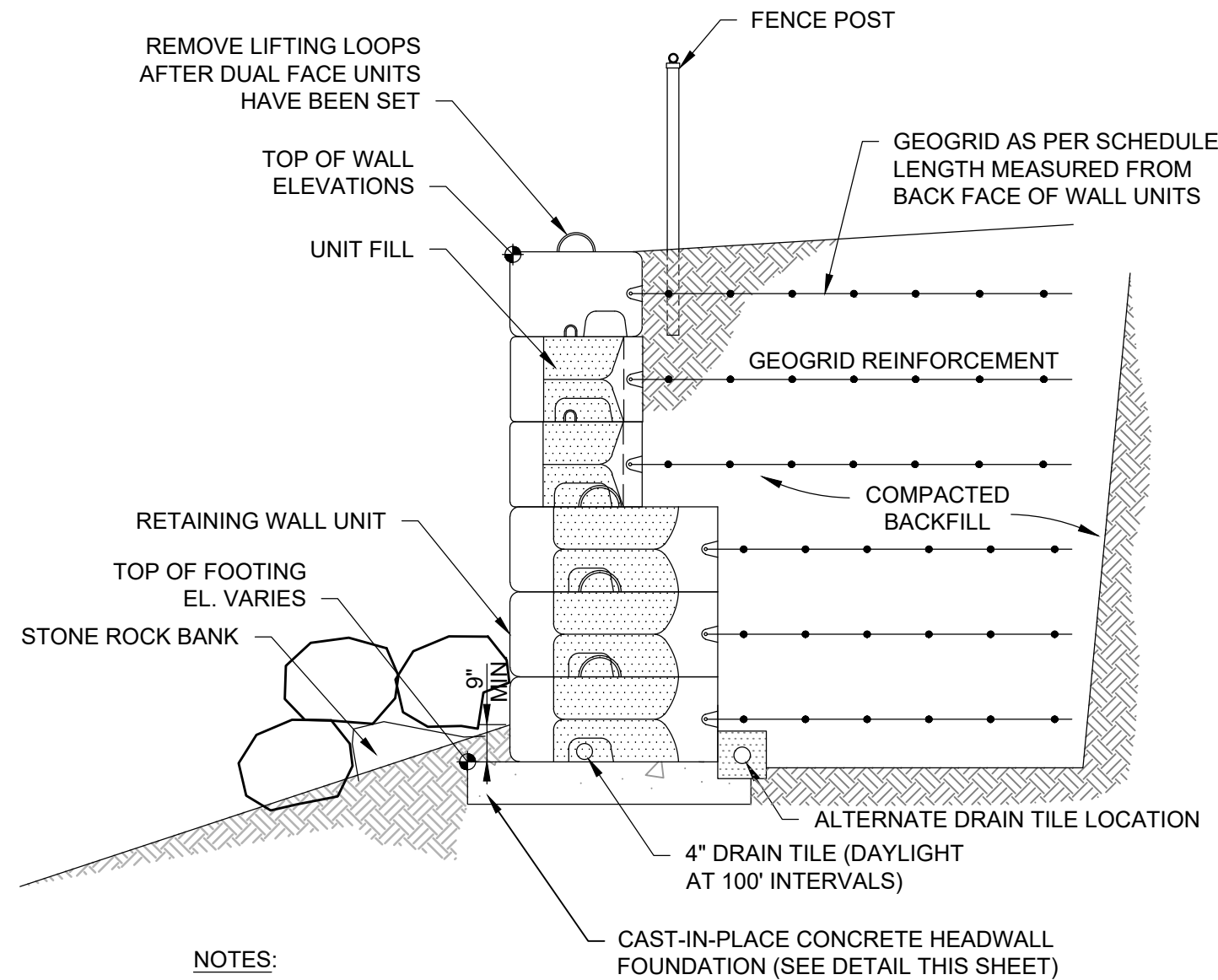
COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

CIVIL DETAILS I

FOR PERMITTING

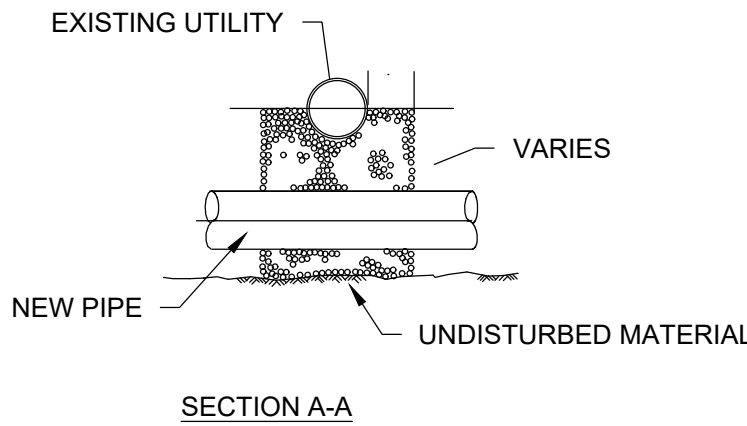
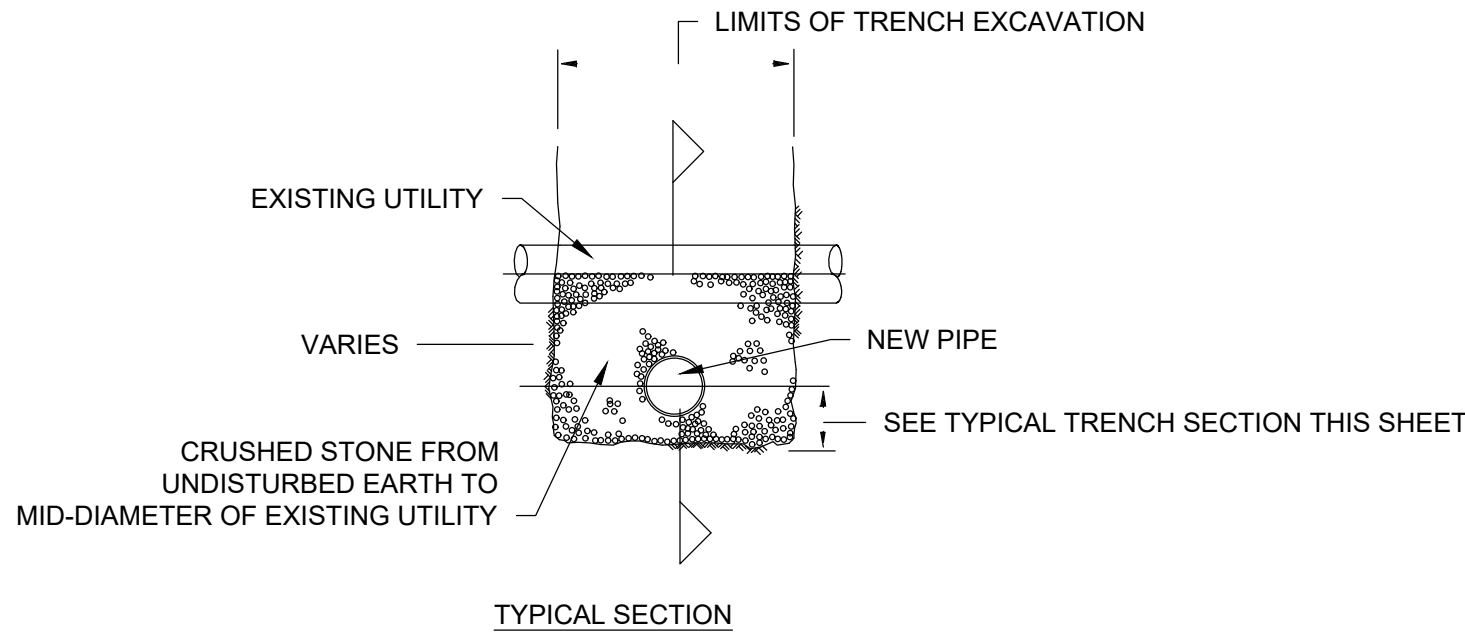
Sheet No.

CD-1

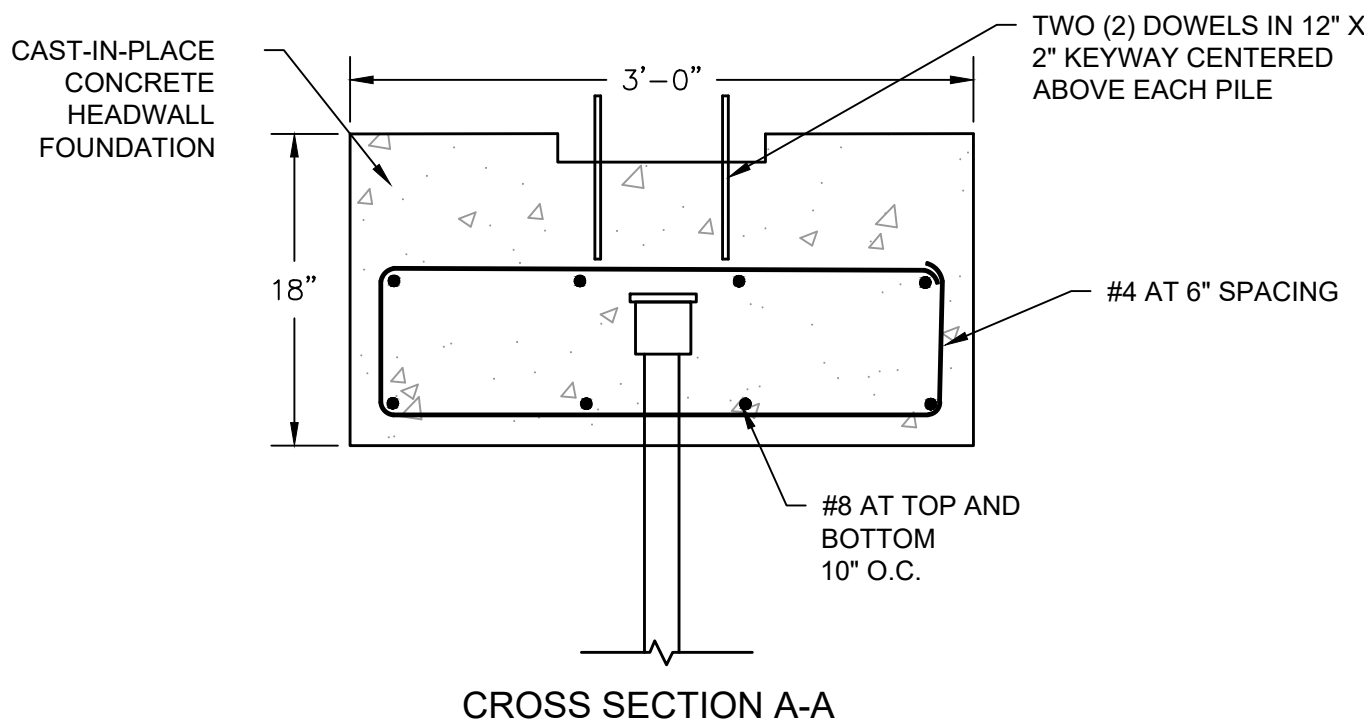
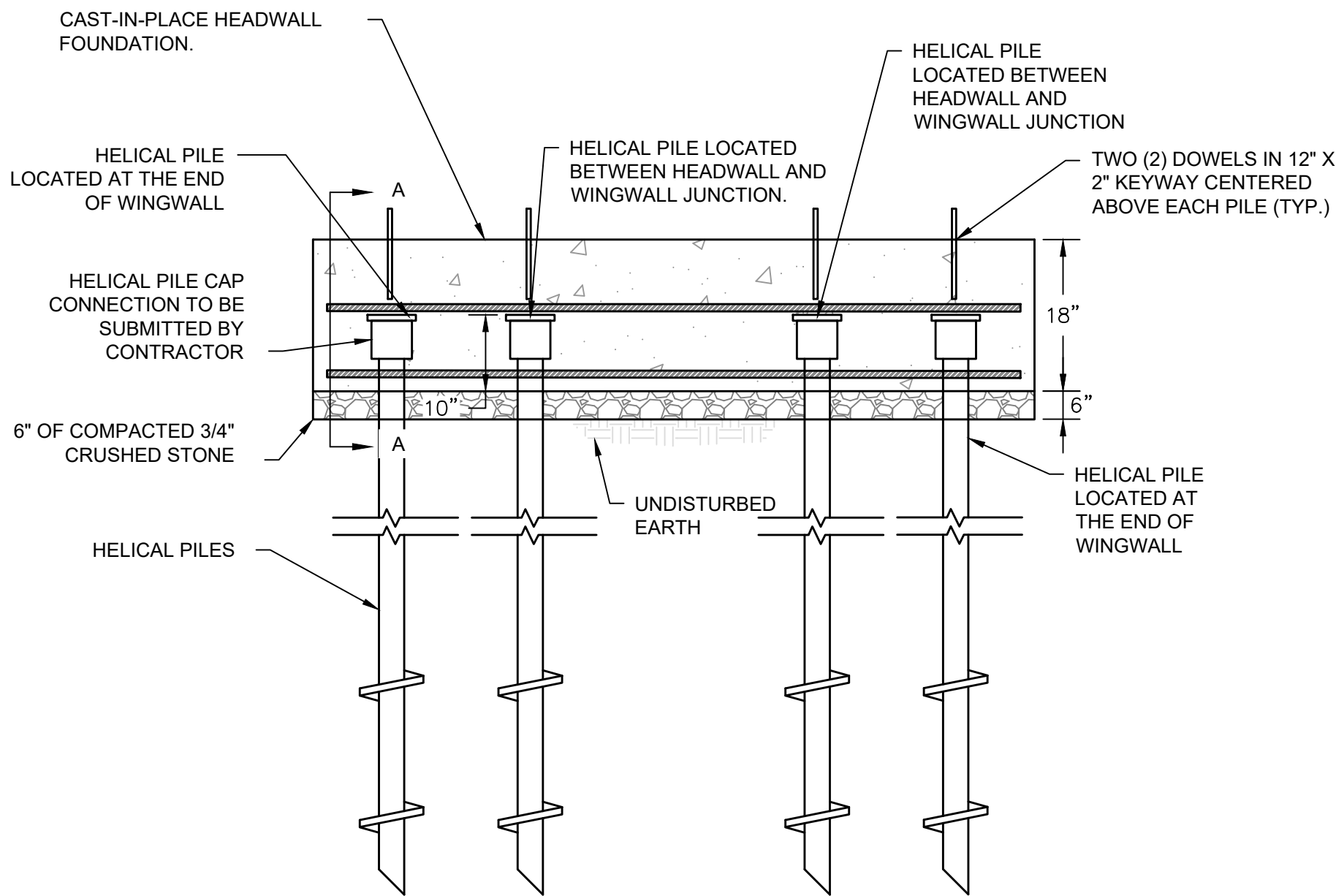


- NOTES:
1. THE CONTRACTOR SHALL SUBMIT MSE BLOCK WALL SHOP DRAWINGS STAMPED BY A LICENSED PROFESSIONAL ENGINEER.

MSE BLOCK WALL CROSS SECTION
SCALE: N.T.S.

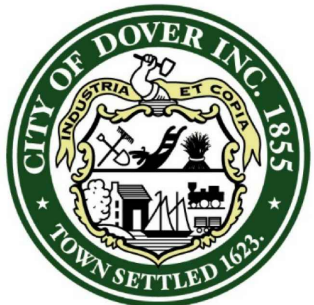


UTILITY CROSSING DETAIL
SCALE: N.T.S.



- NOTES:
1. HELICAP PILES TO BE SUBMITTED BY THE CONTRACTOR, INCLUDING HELICAL PILE CAP AND CONNECTION TO HEADWALL.

HEADWALL FOUNDATION DETAIL
SCALE: N.T.S.



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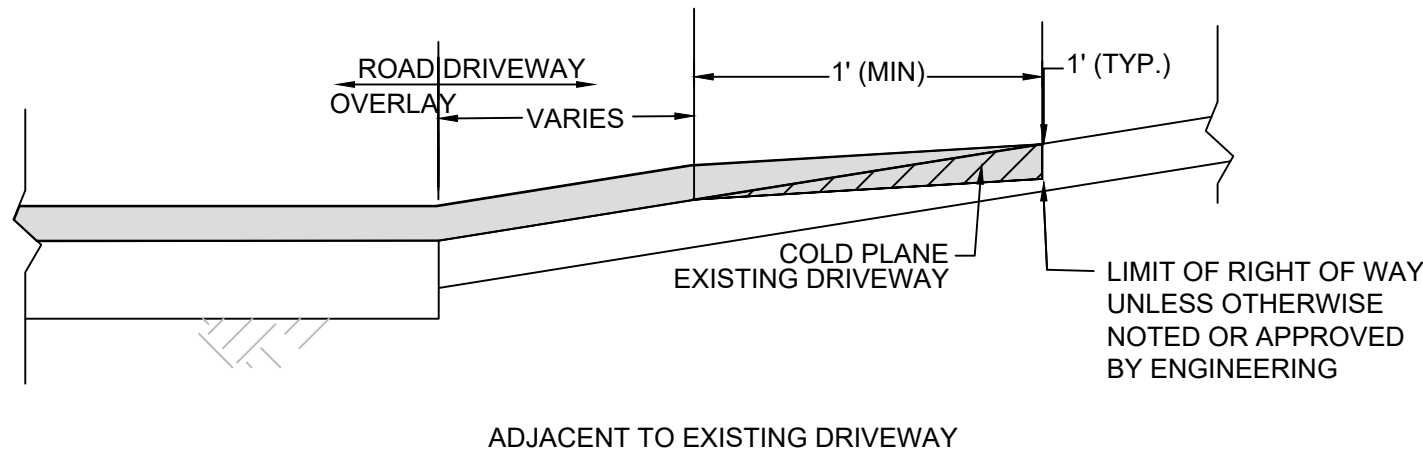
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COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

CIVIL DETAILS II

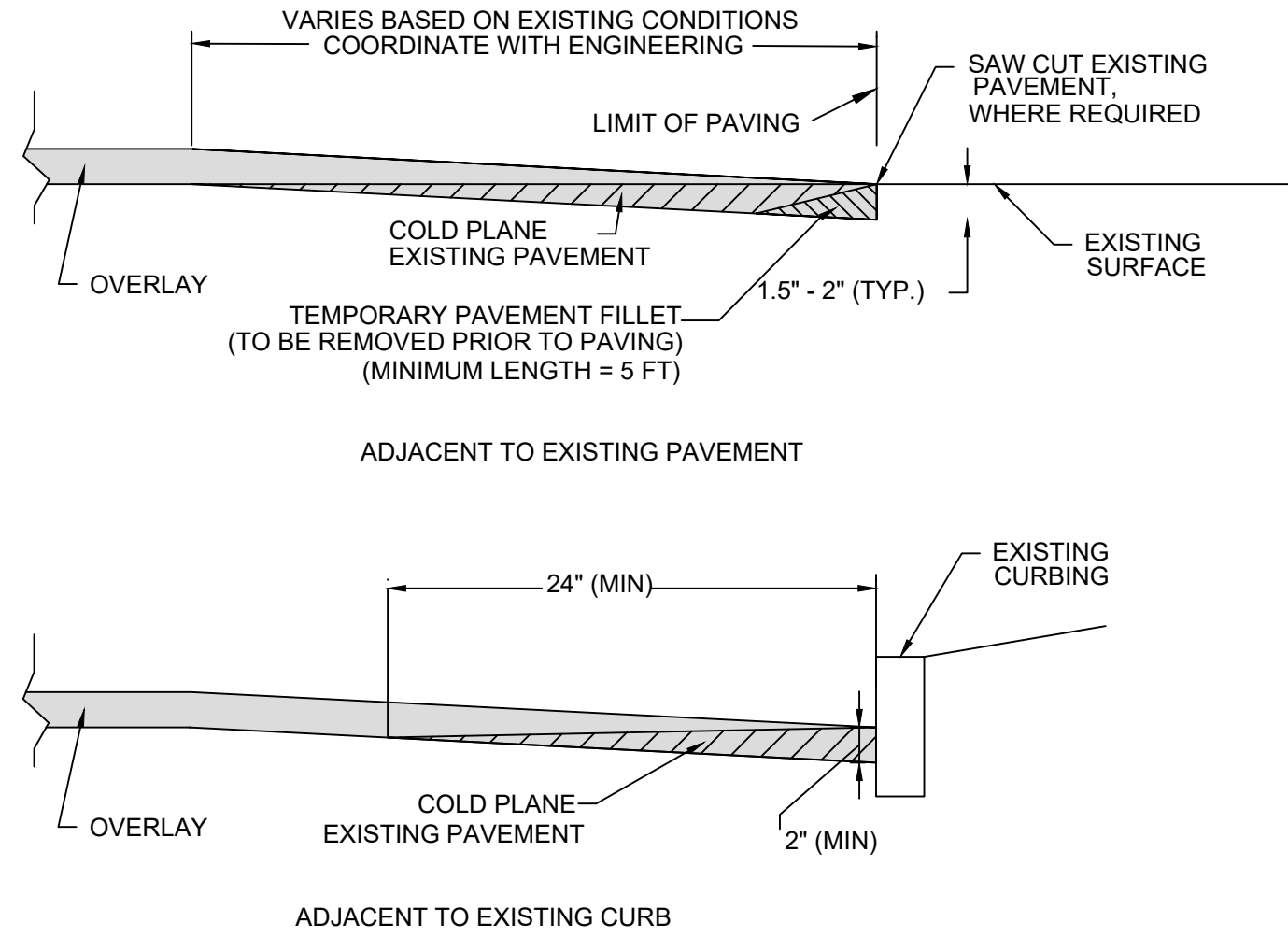
FOR PERMITTING
Sheet No.

CD-2



NOTES:

1. CONTRACTOR MAY SAWCUT DRIVEWAY TRANSITION AT HIS OPTION. PAVEMENT SHALL BE REMOVED AND REPLACED TO MATCH EXISTING

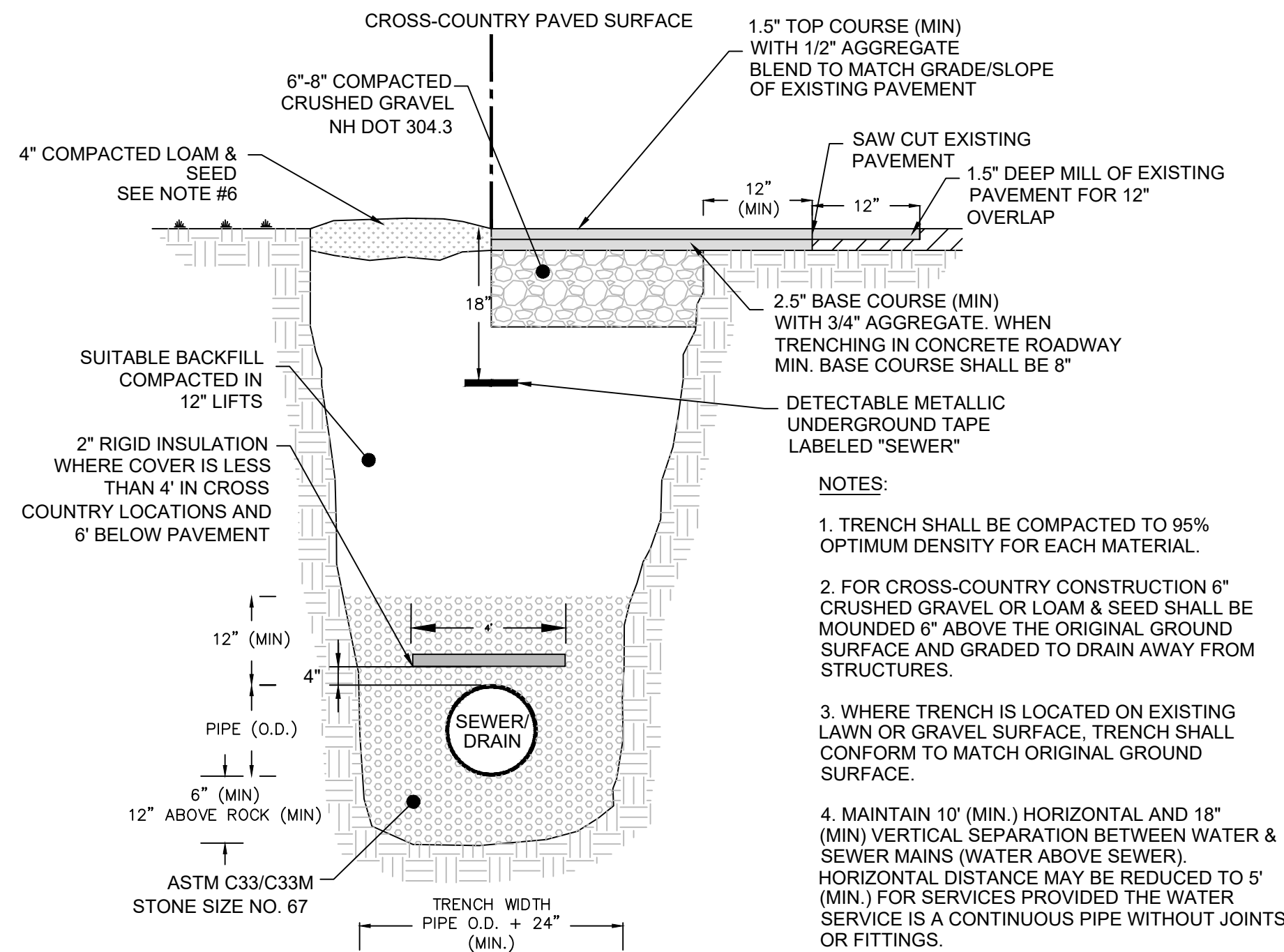


NOTES:

1. THE LENGTH OF THE TAPER MAY BE ADJUSTED AS ORDERED TO PROVIDE FOR VARYING FIELD CONDITIONS OR CHANGES IN SINGLE COURSE DEPTH

PUBLIC ROAD CROSS SECTION

SCALE: N.T.S.

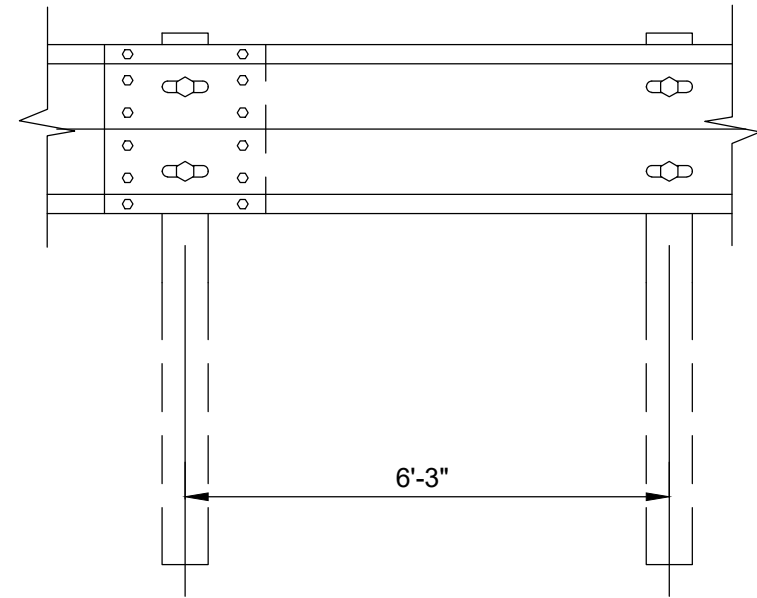


TYPICAL SEWER/DRAIN TRENCH

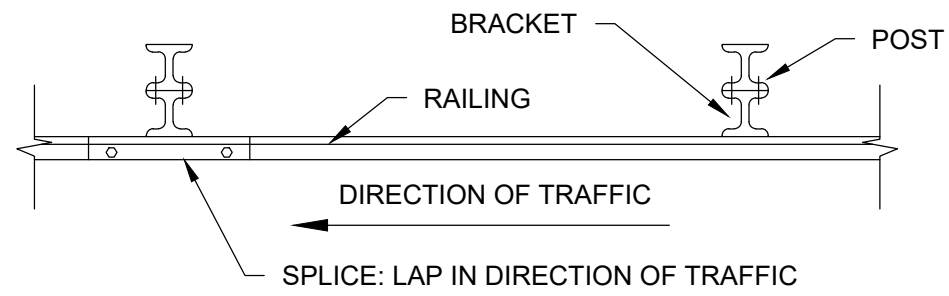
SCALE: N.T.S.

NOTES:

1. TRENCH SHALL BE COMPACTED TO 95% OPTIMUM DENSITY FOR EACH MATERIAL.
2. FOR CROSS-COUNTRY CONSTRUCTION 6" CRUSHED GRAVEL OR LOAM & SEED SHALL BE MOUNDED 6" ABOVE THE ORIGINAL GROUND SURFACE AND GRADED TO DRAIN AWAY FROM STRUCTURES.
3. WHERE TRENCH IS LOCATED ON EXISTING LAWN OR GRAVEL SURFACE, TRENCH SHALL CONFORM TO MATCH ORIGINAL GROUND SURFACE.
4. MAINTAIN 10" (MIN.) HORIZONTAL AND 18" (MIN) VERTICAL SEPARATION BETWEEN WATER & SEWER MAINS (WATER ABOVE SEWER). HORIZONTAL DISTANCE MAY BE REDUCED TO 5" (MIN.) FOR SERVICES PROVIDED THE WATER SERVICE IS A CONTINUOUS PIPE WITHOUT JOINTS OR FITTINGS.
5. BACKFILL MATERIAL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE: DEBRIS, PAVEMENT, ORGANIC MATTER, TOP SOIL, MUCK, PEAT AND ROCKS OVER 6" IN LARGEST DIMENSION
6. LOAM AND SEED SHOULD BE IN COMPLIANCE WITH NH DOT 641, 642, 643, 644 AND 645.



ELEVATION



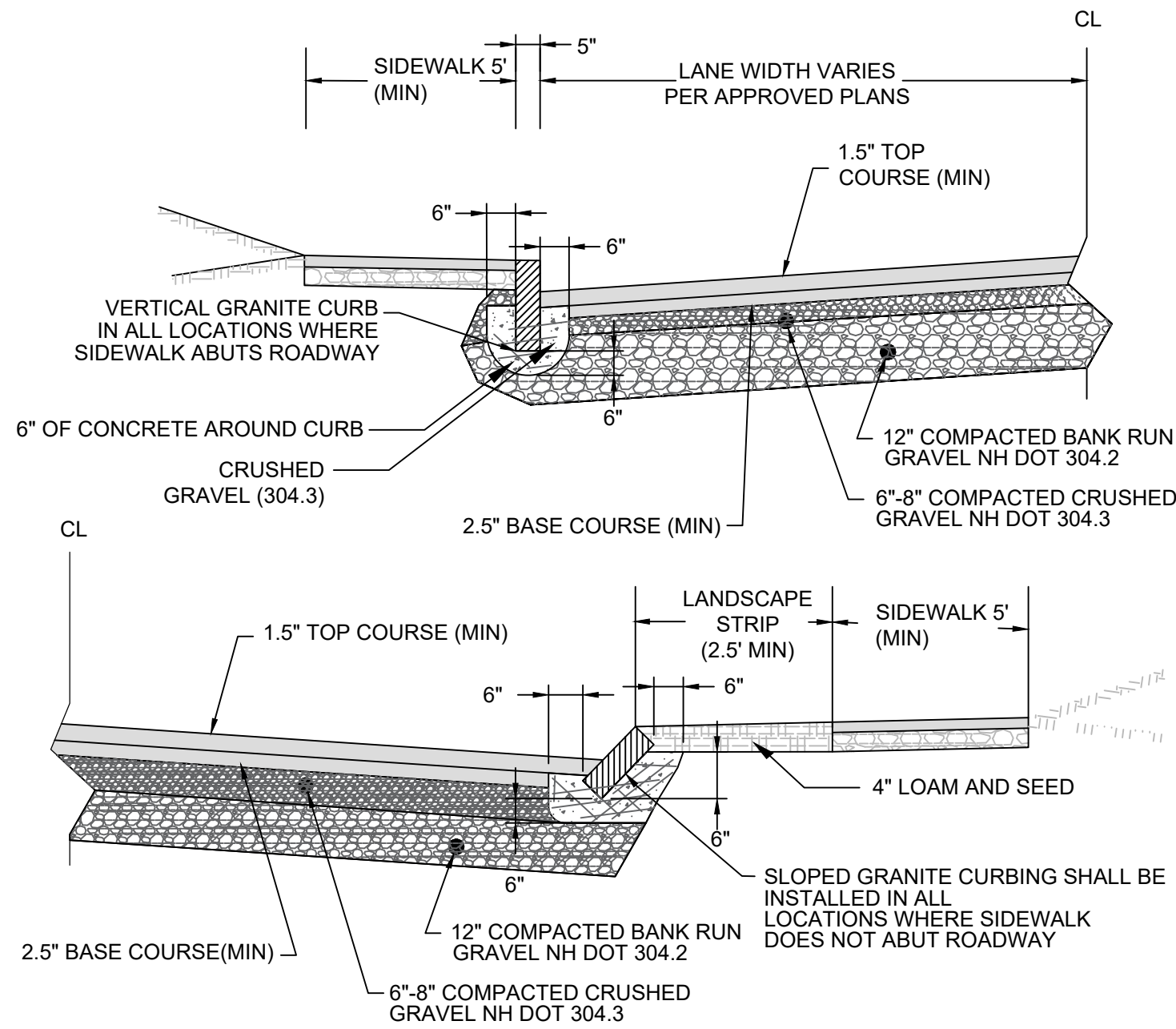
PLAN

NOTES:

1. GUARD RAIL SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NHDOT CONSTRUCTION DETAILS. CONTRACTOR'S BID PRICE SHALL INCLUDE THIS REQUIREMENT.
2. GUARD RAIL TO BE INSTALLED A MINIMUM OF 24" FROM THE EDGE OF ROADWAY.
3. GUARD RAIL POSTS INSTALLED IN THE GROUND SHALL BE DRIVEN TO A MINIMUM DEPTH OF FIVE FEET BELOW THE GROUND SURFACE.
4. THE UNDERSIDE OF THE GUARD RAIL SHALL BE SET A MINIMUM OF 8" ABOVE THE FINISHED ROAD SURFACE.

STEEL HIGHWAY GUARDRAIL DETAIL

SCALE: N.T.S.

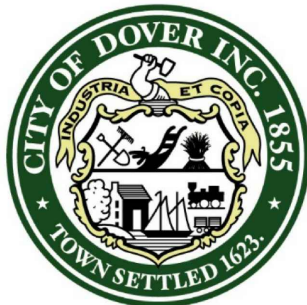


NOTES:

1. THIS DETAIL IS FOR GENERAL REVIEW PURPOSES ONLY, FINAL DESIGN SHALL BE BASED ON SPECIFIC CONDITIONS AND APPROVED PLANS.
2. SIDEWALK LOCATION AND MATERIAL SHALL BE AS APPROVED BY THE CITY OF DOVER

PAVEMENT OVERLAY

SCALE: N.T.S.



MARK	DATE	DESCRIPTION
	4/20/26	

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COUNTY FARM ROAD CULVERT REPLACEMENT
CITY OF DOVER, NH

CIVIL DETAILS III

FOR PERMITTING

Sheet No.

CD-3



April 20, 2026

Eben Lewis
Southeast Region Supervisor
NHDES, Wetlands Bureau, Land Resources Management, Water Division
222 International Drive, Suite 175
Portsmouth, NH 03801

RE: Concurrent Filing of EXP Min. Impact Wetlands Permit & Shoreland PBN
County Farm Road Culvert Design Project
City of Dover, NH

Dear Mr. Lewis:

On behalf of the City of Dover, Apex Companies (Apex) is submitting this concurrent filing of a NHDES Expedited Minimum Impact (EXP) Wetlands Permit Application and NHDES Shoreland Permit by Notification (PBN) for the proposed County Farm Road Culvert Design project. The proposed project is located within County Farm Road, east of Erik Drive, and includes the replacement of a damaged culvert which conveys an unnamed stream that flows from north to south from Sixth Street into the Cocheco River. The work is subject to the New Hampshire Wetlands Protection Rules (RSA 482-A) and the New Hampshire Shoreland Water Quality Protection Act (SWQPA). An electronic copy of this concurrent filing which includes the following attachments will be provided to the New Hampshire Department of Environmental Services (NHDES) via the online permitting tool (<https://onlineforms.nh.gov>). A hard copy and an electric copy of this concurrent filing with the following attachments will be provided to the City of Dover Conservation Commission.

- Expedited Minimum Impact (EXP Wetlands Permit Application)
 - Appendix A: USGS & FEMA Flood Maps
 - Appendix B: USACE Checklist
 - Appendix C: Stream Crossing Worksheet
 - Appendix D: Abutters Map & List
 - Appendix E: Site Photo Log
 - Appendix F: NHB Data Check & IPAC Determination
 - Appendix G: Permitting Design Plans
- Shoreland Permit by Notification (PBN)
 - Appendix A: Site Photo Log
 - Appendix B: Permitting Design Plans

The City has experienced several issues due to the condition of the existing culvert and associated headwalls, which are constructed of granite and concrete blocks. The upstream headwall is partially collapsed and blocked with debris which have built up at the entrance of the culvert. The downstream headwall shows evidence of

recent rehabilitation as indicated by the presence of two different headwall materials. Sediment has built up at the outlet of the culvert which limits hydraulic capacity of the culvert.

The proposed project involves replacement of the existing deteriorated culvert with two (2) 30" reinforced concrete pipes (RCP) culverts in parallel, including 12" of natural streambed material in the culverts, and headwalls and wingwalls for roadway stabilization. The project also includes grading at the culvert inlet and outlet, restoration of the roadway, and all necessary appurtenances and incidentals to complete the work. The project will not alter the quantity of impervious areas or create any changes to surface conditions.

The proposed work is located within NHDES jurisdictional wetland areas and within Zone A of the FEMA flood zones of the Cocheco River and the unnamed stream. All efforts were undertaken to minimize disturbance to the resource areas. The entirety of the project area and the proposed work in and around the wetland resource areas are depicted in the attached Permitting Design Plans.

If you have any questions or need any additional information, please do not hesitate to contact me at (617)-657-0260 or by email at ryan.paul@apexcos.com.

Sincerely,

Apex Companies, LLC

A handwritten signature in blue ink, appearing to read 'Ryan Paul', is positioned above the printed name.

Ryan Paul, P.E., C.F.M.
Principal
O: 617.657.0260
E: Ryan.Paul@apexcos.com

CC: Matt Gibbons, PE, Deputy City Engineer – Dover Community Services
Eric Kelley, PE, CHMM, Senior Principal – Apex Companies
Drew Gallant, PE, Senior Project Engineer – Apex Companies
Jamie Keel, EIT, Project Engineer – Apex Companies