

# STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

**DATE:** November 23, 2022

**FROM:** Joshua Brown  
Wetlands Program Analyst

**AT (OFFICE):** Department of  
Transportation

**SUBJECT** Dredge & Fill Application  
Rochester, 43303

**Bureau of  
Environment**

**TO** Karl Benedict, Public Works Permitting Officer  
New Hampshire Wetlands Bureau  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT Bureau of Turnpikes for the subject minimum impact project. The project is located along NH Route 125 and US Route 202 Connector in the Town of Rochester, NH. The purpose of this project is to repair/replace ten metal drainage pipes along the US Route 202 Connector, from Chestnut Hill Road to NH Route 125, in Rochester. The projects wetland impacts are associated with these two access areas, are temporary only, and will be restored to original conditions using a wetland seed mix post construction.

This project was reviewed at the Natural Resource Agency Coordination Meeting on September 21, 2022. A copy of the minutes has been included with this application package. A copy of this application and plans can be accessed on the Departments website via the following link: <http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm>.

NHDOT anticipates and request that this project be reviewed and permitted by the Army Corp of Engineers through the State Programmatic General Permit process. A copy of the application has been sent to the Army Corp of Engineers.

Mitigation was determined to not be required as this is a minimum impact project with only temporary impacts associated with the work.

The lead people to contact for this project are John Corcoran, Bureau of Turnpikes (485-3806 or [John.W.Corcoran@dot.nh.gov](mailto:John.W.Corcoran@dot.nh.gov)) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-3226 or [Andrew.O'Sullivan@dot.nh.gov](mailto:Andrew.O'Sullivan@dot.nh.gov)).

A payment voucher has been processed for this application (Voucher # 72450) in the amount of \$400.00.

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

JRB;  
cc:  
BOE Original  
Town of Rochester (4 copies via certified mail)  
Cocheco River LAC (1 copy via certified mail)  
David Trubey, NH Division of Historic Resources (Cultural Review Within)  
John Magee, NH Fish & Game (via electronic notification)  
Maria Tur, US Fish & Wildlife (via electronic notification)  
Jeanie Brochi, US Environmental Protection Agency (via electronic notification)  
Michael Hicks & Rick Kristoff, US Army Corp of Engineers (via electronic notification)  
Kevin Nyhan, BOE (via electronic notification)



**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:** New Hampshire Department of Transportation    **TOWN NAME:** Rochester

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](#).

<b>SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))</b>	
Please use the <a href="#">Wetland Permit Planning Tool (WPPT)</a> , the Natural Heritage Bureau (NHB) <a href="#">DataCheck Tool</a> , the <a href="#">Aquatic Restoration Mapper</a> , or other sources to assist in identifying key features such as: <a href="#">priority resource areas (PRAs)</a> , <a href="#">protected species or habitats</a> , coastal areas, designated rivers, or designated prime wetlands.	
Has the required planning been completed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the property contain a PRA? If yes, provide the following information:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&amp;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. <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>• Protected species or habitat?                             <ul style="list-style-type: none"> <li>○ If yes, species or habitat name(s): variable sedge, button sedge, clustered sedge, Long's bulrush, and Nuttall's reed grass <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>○ NHB Project ID #: NHB22-2793</li> </ul> </li> <li>• Bog? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></li> <li>• Floodplain wetland contiguous to a tier 3 or higher watercourse? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></li> <li>• Designated prime wetland or duly-established 100-foot buffer? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></li> <li>• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></li> </ul>	
Is the property within a Designated River corridor? If yes, provide the following information:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<ul style="list-style-type: none"> <li>• Name of Local River Management Advisory Committee (LAC): Cocheco River LAC</li> </ul>	

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

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

[www.des.nh.gov](http://www.des.nh.gov)

<ul style="list-style-type: none"> <li>A copy of the application was sent to the LAC on Month: <input type="text"/> Day: <input type="text"/> Year: <input type="text"/></li> </ul>	
For dredging projects, is the subject property contaminated? <ul style="list-style-type: none"> <li>If yes, list contaminant: <input type="text"/></li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
For stream crossing projects, provide watershed size (see <a href="#">WPPT</a> or Stream Stats): <input type="text"/>	

**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 purpose of this project is to repair/replace ten metal drainage pipes along the US Route 202 Connector, from Chestnut Hill Road to NH Route 125, in Rochester. On the westerly side of the project, near Chestnut Hill Road, five pipes will be sliplined with cured in place liners; one 36" cmp under the roadway and four 24" cmps from median catch basins. On the easterly side of the project, near NH Route 125, five cmp slope pipes will be replaced with plastic pipes. In order to access the pipes from the toe of slope, three access areas are proposed to complete this work. One temporary access road is proposed from the US 202 westbound on ramp from NH Route 125. Two access roads are proposed from NH Route 125 on the easterly side of the US 202 Connector, one of which is an existing access road. The projects wetland impacts are associated with these two access areas, are temporary only, and will be restored to original conditions using a wetland seed mix post construction. There are no permanent impacts associated with this work. The access will utilize a temporary steel plate to cross an intermittent stream and temporary timber matting to cross the wetlands. All proposed work is within the State right-of-way.

**SECTION 3 - PROJECT LOCATION**

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS: <input type="text"/> US Route 202 Connector
TOWN/CITY: <input type="text"/> Rochester
TAX MAP/BLOCK/LOT/UNIT: <input type="text"/> DOT ROW
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: <input type="text"/>
<input checked="" type="checkbox"/> N/A
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): <input type="text"/> ° North

[REDACTED] ° West		
<b>SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))</b>		
If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: New Hampshire Department of Transportation, John Corcoran		
MAILING ADDRESS: PO Box 2950		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03302
EMAIL ADDRESS: John.W.Corcoran@dot.nh.gov		
FAX: [REDACTED]	PHONE: 603-485-3806	
ELECTRONIC COMMUNICATION: By initialing here: [REDACTED], I hereby authorize NHDES to communicate all matters relative to this application electronically.		
<b>SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))</b>		
<input checked="" type="checkbox"/> N/A		
LAST NAME, FIRST NAME, M.I.: [REDACTED]		
COMPANY NAME: [REDACTED]		
MAILING ADDRESS: [REDACTED]		
TOWN/CITY: [REDACTED]	STATE: [REDACTED]	ZIP CODE: [REDACTED]
EMAIL ADDRESS: [REDACTED]		
FAX: [REDACTED]	PHONE: [REDACTED]	
ELECTRONIC COMMUNICATION: By initialing here [REDACTED], I hereby authorize NHDES to communicate all matters relative to this application electronically.		
<b>SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))</b>		
If the owner is a trust or a company, then complete with the trust or company information.		
<input type="checkbox"/> Same as applicant		
NAME: New Hampshire Department of Transportation, Andy O'Sullivan		
MAILING ADDRESS: 7 Hazen Drive; PO Box 483		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03302
EMAIL ADDRESS: Andrew.M.OSullivan@dot.nh.gov		
FAX: 271-7199	PHONE: 271-3226	
ELECTRONIC COMMUNICATION: By initialing here AMO, 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):

Env-Wt 400: Env-Wt 407.02-Classification Adjustments: ( c ) A project that is classified as a major project based solely on the documented occurrence of protected species or habitat and would otherwise qualify for an LSA, PBN, or as a minimum impact project, as applicable based on the other qualifying criteria, only if the applicant provides written documentation committing to implementation of recommendations from NHB or NHF&G , or both, as applicable, regarding the protected species or habitat. The wetlands were delineated by Josh Brown on 8/26/22.

Env-Wt 500: The project meets the requirements of public highway projects.

Env-Wt 600: N/A - no work in tidal or coastal wetlands

Env-Wt 700: N/A - no work in prime wetlands

Env-Wt 900: Env-Wt 901.03 Exemptions. The following activities and crossings shall be exempt from Env-Wt 903 and Env-Wt 904, provided they are conducted in accordance with all applicable conditions:

(f) Temporary crossings, so long as the area in which the crossing was placed is restored to preinstallation conditions when the crossing is removed.

### 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: 09 Day: 21 Year: 2022

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			<input type="checkbox"/>	1461		<input type="checkbox"/>
	Scrub-shrub Wetland			<input type="checkbox"/>	459		<input type="checkbox"/>
	Emergent Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Wet Meadow			<input type="checkbox"/>			<input type="checkbox"/>
	Vernal Pool			<input type="checkbox"/>			<input type="checkbox"/>
	Designated Prime Wetland			<input type="checkbox"/>			<input type="checkbox"/>
	Duly-established 100-foot Prime Wetland Buffer			<input type="checkbox"/>			<input type="checkbox"/>
Surface Water	Intermittent / Ephemeral Stream			<input type="checkbox"/>	210	30	<input type="checkbox"/>
	Perennial Stream or River			<input type="checkbox"/>			<input type="checkbox"/>
	Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - River			<input type="checkbox"/>			<input type="checkbox"/>
Banks	Bank - Intermittent Stream			<input type="checkbox"/>			<input type="checkbox"/>
	Bank - Perennial Stream / River			<input type="checkbox"/>			<input type="checkbox"/>
	Bank / Shoreline - Lake / Pond			<input type="checkbox"/>			<input type="checkbox"/>
Tidal	Tidal Waters			<input type="checkbox"/>			<input type="checkbox"/>
	Tidal Marsh			<input type="checkbox"/>			<input type="checkbox"/>
	Sand Dune			<input type="checkbox"/>			<input type="checkbox"/>
	Undeveloped Tidal Buffer Zone (TBZ)			<input type="checkbox"/>			<input type="checkbox"/>
	Previously-developed TBZ			<input type="checkbox"/>			<input type="checkbox"/>
	Docking - Tidal Water			<input type="checkbox"/>			<input type="checkbox"/>
<b>TOTAL</b>					<b>2130</b>	<b>30</b>	

**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:  SF × \$2.00 = \$

Permanent docking structure:  SF × \$4.00 = \$

Projects proposing shoreline structures (including docks) add \$400 = \$

Total = \$

**The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 400.0**

[irm@des.nh.gov](mailto:irm@des.nh.gov) or (603) 271-2147

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

[www.des.nh.gov](http://www.des.nh.gov)

**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: <i>JK</i>	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: <i>JK</i>	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: <i>JK</i>	The signer understands that: <ul style="list-style-type: none"> <li>The submission of false, incomplete, or misleading information constitutes grounds for NHDES to:                         <ol style="list-style-type: none"> <li>Deny the application.</li> <li>Revoke any approval that is granted based on the information.</li> <li>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.</li> </ol> </li> <li>The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.</li> <li>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.</li> </ul>
Initials: <i>JK</i>	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: <i>John Corcoran Jr</i>	DATE: <i>11/17/22</i>
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER): _____	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE): _____	PRINT NAME LEGIBLY:	DATE:

**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: _____	Exempt State Agency per RSA 482-A:3, I(a)(1)	PRINT NAME LEGIBLY:
TOWN/CITY:		DATE:



**DIRECTIONS FOR TOWN/CITY CLERK:**

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

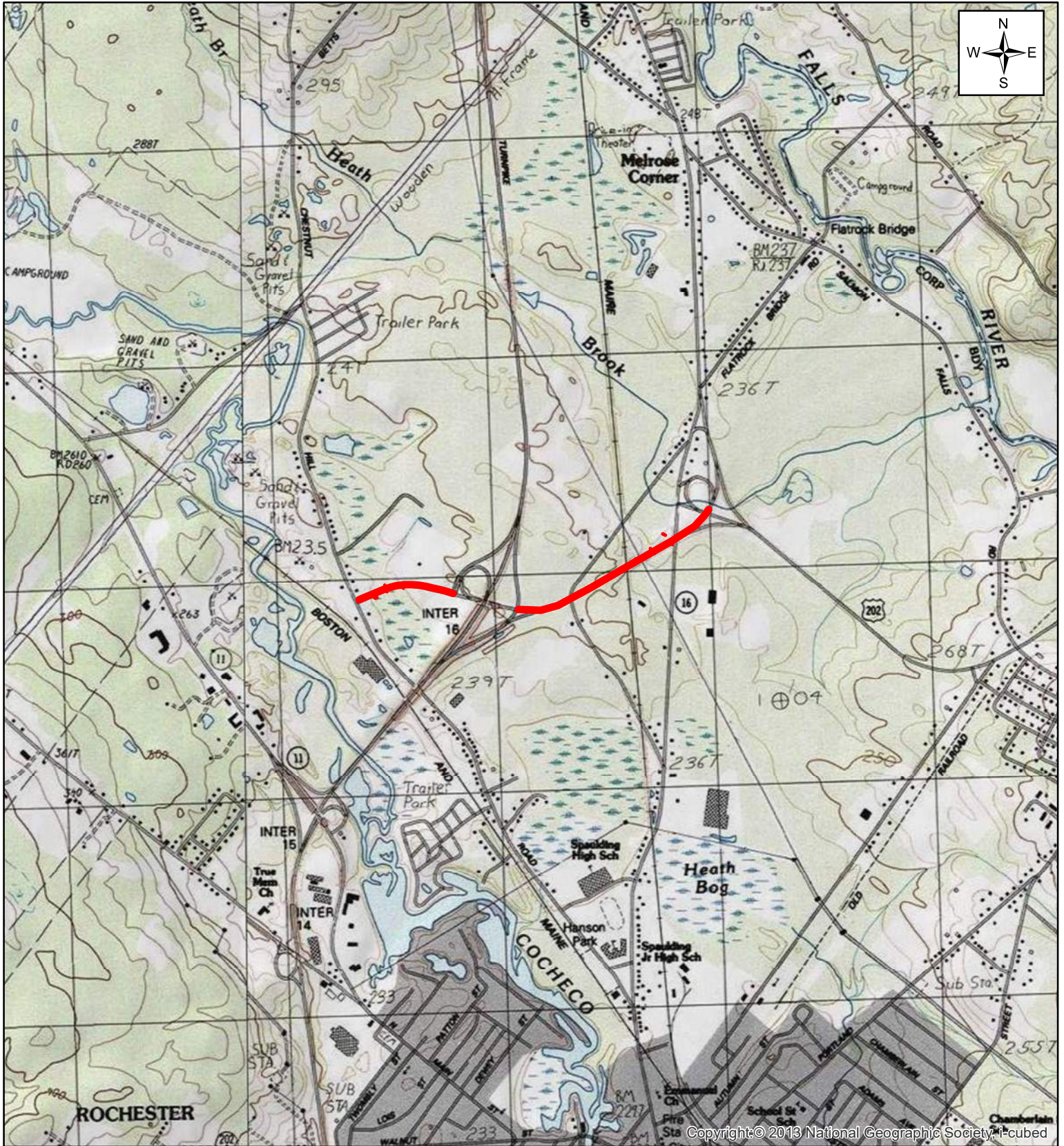
1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY 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".



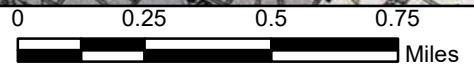
# Turnpike Drainage Rehabilitation 43303 (Rochester)



Map depicting US 202 Connector in Rochester

Map created by: K. Ryan on 9/13/2022

Source: S:\Environment\PROJECTS\Rochester 43303



1:24,000

**Legend**  
43303







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'S NAME:** NHDOT

**TOWN NAME:** Rochester

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 the 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?

No, this is a turnpike drainage maintenance project to maintain existing infrastructure.

**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 a turnpike maintenance project in order to maintain existing infrastructure in the State right-of-way.

**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?

*\*Except as provided in any project-specific criteria and except for NH Department of Transportation projects that qualify for a categorical exclusion under the National Environmental Policy Act.*

This project does not propose impacts of more than one acre or to a PRA.

The project will temporarily impact palustrine wetlands.

**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 as described in the [Wetlands Best Management Practice Techniques For Avoidance and Minimization?](#)

There are no feasible alternatives to avoid impacts. Due to the traffic counts, number of lanes, lane widths and slope steepness, all of the pipes cannot be accessed from the roadway in a safe manner. Therefore, this project requires access from the slope, as opposed from the roadway, at three pipe locations on the easterly side of the project area. One location, on the north easterly side of the 202 Connector jurisdiction wetlands will not be impacted but trees will be cut to allow for movement of machinery to do the work. Due to the small size of the pipes to be replaced, only small and easily maneuverable machinery will be necessary. This will allow for the larger trees to remain and require the removal of only smaller trees.

On the southeasterly side of the 202 Connector, trees will also need to be removed and will be handled in the same manner as the north easterly side of the 202 Connector. Work in this area will result in impacts to jurisdictional wetland areas. Rare plant species are also known to occur in this area. In order to minimize impacts to the palustrine wetlands, rare plant species, and an intermittent stream in this area, the Department chose the alternative that would utilize an existing access road, cross the intermittent stream at it's narrowest width, and utilize BMP's to minimize impacts rare plant species in the area.

**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)?

*\*\*Except for projects solely limited to construction or modification of non-tidal shoreline structures only need to complete relevant sections of Attachment A.*

Per RSA 310-A:79-Exemption III, Josh Brown, NHDOT Wetlands Specialist, performed the wetland identification and delineation on 8/26/22 according to the Army Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012, US Army Corps of Engineers.

**BUREAU OF ENVIRONMENT  
CONFERENCE REPORT**

**SUBJECT:** NHDOT Monthly Natural Resource Agency Coordination Meeting

**DATE OF CONFERENCE:** September 21, 2022

**LOCATION OF CONFERENCE:** Virtual meeting held via Zoom

**ATTENDED BY:**

**NHDOT**

Matt Urban  
Andrew O’Sullivan  
Jon Evans  
Emily Kulig  
Kerry Ryan  
Arin Mills  
Wendy Johnson  
Dan Prehemo  
Wayne Brooks

**ACOE**

Absent

**EPA**

Jean Brochi

**NHDES**

Karl Benedict  
Lori Sommer

**NHB**

Sabrina Stanwood  
Madeline Severance

**NH Fish & Game**

John Magee  
Mike Dionne  
Kevin Newton

**Federal Highway**

Absent

**The Nature Conservancy**

Absent

**Consultants/ Public  
Participants**

Christine Perron  
Brian Patinskas  
Linda Greer  
Lee Carboneau  
Kristen Clarke  
Ben Lundsted

**PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH:** *(minutes on subsequent pages)*

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## **Finalize Meeting Minutes**

Finalized and approved the August 17, 2022 meeting minutes.

### **Turnpike Drainage Rehab, 43303 (Non-Fed):**

Kerry Ryan, NHDOT Environmental Manager, gave an overview of the location of the proposed state funded Turnpike drainage rehabilitation project, located on the Spaulding Turnpike Connector/US 202 Connector, in Rochester and stated the work will be completed by a Contractor. Photos and aerial maps were shown of the project area, showing work locations and access areas.

Emily Kulig, NHDOT Bureau of Turnpikes, described the project which proposes to rehabilitate/replace ten pipes along the 202 Connector, which range in size from 12” to 36”, five to be slip-lined and five to be replaced. Preliminary wetland impact plans, wetland impact table, construction sequence, and alternatives were described.

K. Ryan described the area as partially within the protected designated river buffer of the Coheco River and the FEMA 100-year floodplain; no previous wetland permits, conservation lands, or highest ranked habitat were identified; the Wetland Permit Planning Tool identified PRA’s within the project area but that the proposed project would not result in impacts to the PRA’s; wildlife corridors were identified in the project area; LRS and invasive plant species would be managed according the BMP’s; project is consistent with the Section 106 Programmatic Agreement and has been determined to have no potential to cause effects to cultural resources; coordination is in process for species identified on the IPaC; and the NHB report identified several grass species and a plant survey was recommended by NHB. The results of the plant survey were described (button sedge was observed in the project area) and proposed avoidance/minimization measures were discussed (foot traffic only near plants near 24121 and use of timber mats, or similar, and avoiding excavation for the access of pipes 12916 and 58122).

Karl Benedict, NHDES, commented/confirmed the cross pipes are for drainage and no stream crossings; proposed wetland impacts are mostly for access; project should consider erosion control and the possible need for water management; asked about time of year sequencing specifically if work can be completed in frozen conditions; if the area has been assessed for vernal pools; minimizing clearing is a key component for the access; LAC should be notified; confirmed no wetland impacts to the north side of the 36” pipe but BMP’s should be considered due to proximity to the marsh.

Andy O’Sullivan asked if this project could be classified as a minimum impact project since there are <3000sq ft of temporary impacts. K. Benedict said due to the rare species in the work area the project would be elevated to a major project.

Lori Sommer, NHDES, reiterated the need to assess the area for vernal pools and stated if there are no vernal pools mitigation would not be required.

John Magee, NHFG, asked if the 36" pipe would be perched after slip-lining, which would be a barrier to turtles. E. Kulig stated this is a cured in place liner and does not require a full concrete liner; she wasn't sure how thick the liner is but thought it was less than 1"\*. She said the liner is pulled through, ballooned up, cured with heat, will conform to the pipe, and keep some of the existing corrugation.

Mike Dion, NHFG stated his questions, which were related to time of year (TOY) and the 36" pipe, were addressed by others.

A. O'Sullivan asked E. Kulig if she had a TOY of construction. She stated the project cannot be completed during frozen conditions because it would be too difficult to excavate the existing pipes. A. O'Sullivan recommended doing work in low flow conditions as feasible.

Mike Hicks, ACOE was not on the call.

Jean Brochi, reiterated the need to check for vernal pools and to make sure Section 106 consultation is completed.

Madeline (Maddie) Severance and Sabrina Stanwood, NHNHB. Sabrina stated that Maddy will send a rare plant reporting form to be filled out so the result can be verified and put into the database, asked that the species be flagged, and supports the use of sedimentation and erosion controls as button sedge is sensitive to changes in hydrology and runoff.

\*The slip-liner information was confirmed post meeting and it varies depending on calculations and manufacturer however, the plastic slip liner pipe is typically between 1" and 2" thick with smaller pipes closer to 1" thick.

### **Manchester RAISE Project, (Fed # Not Known):**

Linda Greer from Fuss & O'Neill introduced herself as the Project Manager for the RAISE Manchester, Connecting Communities Project for the City of Manchester and presented the project. Also present were Lee Carbonneau of Normandeau Associates and Kristen Clarke, City of Manchester Department of Public Works and Ben Lundsted, City of Manchester EPD. The consultant team for this project is Normandeau Associates for Environmental, HMMH for Noise and Air, GZA for Geotech, LM Preservation as the Historian, and Hartgen for Archaeology.

The project limits, bordered in white on slide 2, encompass what is called the Millyard shown in yellow, the South Millyard shown in pink and an area of the Downtown in blue. This area is the core economic area of the City, which has grown to near capacity. The project area is adjacent to the Downtown and to south is the Retail shopping area of South Willow Street. Currently the South Millyard from a transit standpoint is locked, as there is only one single access point into the area, which is the intersection of Granite Street and South Commercial. Within the South Millyard there is WMUR, Fisher Cat's stadium, SNHU University, multiple business, and the Riverwalk Condominiums. There is a real need for a second access point in and out of the South Millyard.

## Brown, Joshua

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**From:** Benedict, Karl  
**Sent:** Monday, November 14, 2022 7:53 AM  
**To:** Brown, Joshua  
**Subject:** RE: Rochester, 43303 Classification Adjustment

Hi Josh,

I concur with the process for reclassification exactly as you have summarized it. Essentially by performing the coordination with NHFG first, and incorporating the recommendations into the project plans, the requirement for reclassification is completed.

Thanks,

Karl Benedict, Public Works Subsection Supervisor  
Land Resources Management  
Water Division, NH Department of Environmental Services  
29 Hazen Drive, PO Box 95  
Concord, NH 03302  
Phone: (603) 271-4194  
Fax: (603) 271-6588  
Email: [Karl.Benedict@des.nh.gov](mailto:Karl.Benedict@des.nh.gov)

 [Follow us on Twitter!](#)

 [Like us on Facebook!](#)

We greatly appreciate your feedback, please take a moment to fill out our NHDES-LRM [customer satisfaction survey](#)

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**From:** Brown, Joshua <Joshua.R.Brown@dot.nh.gov>  
**Sent:** Wednesday, November 9, 2022 2:49 PM  
**To:** Benedict, Karl <Karl.D.Benedict@des.nh.gov>  
**Subject:** Rochester, 43303 Classification Adjustment

Hi Karl,

I hope you're great! I'm looking to get some concurrence from DES on a classification adjustment for a project that was presented at the [September Natural Resource Meeting in Rochester](#) (Link is to the minutes and slides are attached for reference).

There are very limited wetland impacts, but all of which are temporary just to access the slope pipes. We are temporarily crossing an intermittent stream and have less than 50 linear feet of impact to that stream and less than 3,000 ft<sup>2</sup> of impacts cumulative for the project.

The project would otherwise be a minimum project besides the fact that there were rare plants in the area. During the meeting you mentioned this upgrades the project to major when Andy asked, but we have since consulted with NHB and have implemented their recommendations, which will be included in the application.

The DOT would like to utilize a classification adjustment down to a standard minimum impact project based on the rule referenced in Env-Wt 407.02(c) which states:



*A project that is classified as a major project based solely on the documented occurrence of protected species or habitat and would otherwise qualify for an LSA, PBN, EXP, or as a minimum impact project shall be processed as an LSA, PBN, EXP, or standard minimum or minor impact project, as applicable based on the other qualifying criteria, only if the applicant provides written documentation committing to implementation of recommendations from NHB or NHF&G, or both, as applicable, regarding the protected species or habitat.*

Can you let me know if there's anything in the rules that would not allow this?

Thank you for your coordination!

Joshua R. Brown  
Wetlands Program Analyst  
NH Department of Transportation  
Bureau of Environment

# 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:** Kerry Ryan, NHDOT  
7 Hazen Drive  
Concord, NH 03301

**From:** NHB Review, NH Natural Heritage Bureau

**Date:** 8/30/2022 (valid until 08/30/2023)

**Re:** Review by NH Natural Heritage Bureau

**Permits:** NHDES - Wetland Standard Dredge & Fill - Major

**NHB ID:** NHB22-2793                      Town: Rochester                      Location: US Route 202 connector  
**Description:** The proposed project is a state funded turnpikes drainage project located in Rochester and Dover. The advertising date is March 2023. The purpose of the project is to repair and replace drainage along the 202 connector, east and west of NH Route 16 in Rochester. All proposed pipes are 36" or less. Additional activities include pipe and catch basin clean out and slope repair. All proposed work is within the State right-of-way.

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

**Comments** NHB: NHB recommends surveys by a qualified botanist for Variable sedge (*Carex polymorpha*), Button sedge (*Carex bullata*), Clustered sedge (*Carex cumulata*), Long's bulrush (*Scirpus longii*), and Nuttall's reed grass (*Calamagrostis coarctata*). Documented records of these species occur along and around the project area and may be impacted by the proposed project.

**Variable sedge is in fruit mid-June to late August.**

**Button sedge is in fruit late June to late August.**

**Clustered sedge is in fruit early July to early October.**

**Long's bulrush is in fruit mid-June to mid-July but can be ID'd vegetatively from early March to early November.**

**Nuttall's reed grass is flowering/ in fruit mid-August to early October**

**Please email survey results and photos to NHB as soon as completed so that NHB may determine any impact avoidance/minimization/mitigation measures, as needed.**

**F&G: No comments at this time.**

# 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.

Plant species	State <sup>1</sup>	Federal	Notes
button sedge ( <i>Carex bullata</i> )	E	--	As a resident of peatlands, this species is susceptible to any changes to the wetland's hydrology (especially that which causes pooling), increased nutrient input from stormwater runoff, and sedimentation from nearby disturbances.
clustered sedge ( <i>Carex cumulata</i> )*	T	--	This species occurs on rocky ridges/woodlands (below subalpine), cliffs/ledges, and sandplains/disturbed openings. Threats would primarily be direct destruction of plants, e.g., from recreational activities.
Long's bulrush ( <i>Scirpus longii</i> )	E	--	Potential threats include wetland degradation, water level changes, water quality degradation, development (of uplands), off road vehicles, and succession.
Nuttall's reed grass ( <i>Calamagrostis coarctata</i> )*	E	--	
variable sedge ( <i>Carex polymorpha</i> )	E	--	Threats include sand and gravel mining, and residential development.

<sup>1</sup>Codes: "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.

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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.

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### **IMPORTANT: NHEG 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](mailto: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

## 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.

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](mailto:kim.tuttle@wildlife.nh.gov) with a copy to [NHFGreview@wildlife.nh.gov](mailto: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.

## Ryan, Kerry

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**From:** DNCR: NHB Review  
**Sent:** Tuesday, October 25, 2022 3:00 PM  
**To:** Ryan, Kerry  
**Cc:** Mills, Arin; Stanwood, Sabrina  
**Subject:** RE: NHB22-2793 (3 of 3)

Hi Kerry,

Thank you for providing the plant survey results and proposed plan for NHB22-2793.

NHB has no further concerns about the proposed project as long as the following are adhered to:

1. Rare plants are fenced off and/or flagged to avoid impacts during construction;
2. Timber mats will be used where rare plants are proposed to be impacted to allow for equipment to traverse the area while minimizing wheels from rutting the ground. Timber matting will be removed upon completion of work in the vicinity of rare plants;
1. Erosion control measures will be installed prior to the start of work and will be maintained throughout the project. Please ensure enough space (about 2 feet) is maintained between erosion and sediment control barriers and rare plants to prevent impacts from foot traffic and sediment fallout to the plants.
3. No excavation will occur in the vicinity (within about 5 meters) of rare plants and work will occur on foot in these areas to the greatest extent possible.

Please contact NHB if you have any further questions.

Thank you,

Maddie Severance (she/her/hers)  
Ecological Data Assistant  
New Hampshire Natural Heritage Bureau (NHB)  
Division of Forests & Lands  
NH Dept. of Natural & Cultural Resources  
172 Pembroke Rd  
Concord, NH 03301  
(603)-271-0687 (office)

**Note: the information contained in the plant survey report is sensitive information therefore it has not been included in this application packet, which will be available to the public. However, NHB's final response to the survey is above.**

[NHB DataCheck Tool](#)

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**From:** Ryan, Kerry <Kerry.A.Ryan@dot.nh.gov>  
**Sent:** Friday, October 21, 2022 9:46 AM  
**To:** DNCR: NHB Review <nhbreview@dncr.nh.gov>  
**Cc:** Mills, Arin <Arin.J.Mills@dot.nh.gov>; Stanwood, Sabrina <Sabrina.m.stanwood@dncr.nh.gov>  
**Subject:** RE: NHB22-2793 (3 of 3)

Good Morning,

Please find attached a completed special plant survey form, narrative, photos, wetland impact plans, and erosion control plans. These plans have been updated, since the project was presented at the NRAM on 9/21/22, resulting in a decrease in wetland impacts.



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New England Ecological Services Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5094  
Phone: (603) 223-2541 Fax: (603) 223-0104

In Reply Refer To:  
Project Code: 2022-0056157  
Project Name: Rochester 43303

October 31, 2022

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:

*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 ECOS-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 Update** - Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, 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 (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

#### *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

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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, intentional or unintentional, 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 03301-5094

(603) 223-2541

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## Project Summary

Project Code: 2022-0056157

Project Name: Rochester 43303

Project Type: Drainage Project

Project Description: The proposed project is a state funded turnpikes drainage project located in Rochester. The purposed of the project is to repair and replace drainage along the 202 connector, east and west of NH Route 16 in Rochester. These pipes are 36" or less. All proposed work is within.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.1485021,-70.84334025,14z>



Counties: Strafford County, New Hampshire

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## Endangered Species Act Species

There is a total of 3 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 Fisheries<sup>1</sup>, 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
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Birds

NAME	STATUS
Roseate Tern <i>Sterna dougallii dougallii</i> Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2083">https://ecos.fws.gov/ecp/species/2083</a>	Endangered

### Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

### Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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## **IPaC User Contact Information**

Agency: New Hampshire Department of Transportation

Name: Kerry Ryan

Address: 7 Hazen Drive

City: Concord

State: NH

Zip: 03301

Email: [kerry.ryan@dot.nh.gov](mailto:kerry.ryan@dot.nh.gov)

Phone: 6032713717

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# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

December 22, 2021

To Whom It May Concern:

The U.S. Fish and Wildlife Service's (Service) New England Field Office has determined that individual review for specific types of projects associated with highway maintenance and upgrade activities **is not required**. These comments are submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Due to the high workload associated with responding to many individual requests for threatened and endangered species information, we are attempting to reduce the number of correspondences we conduct. We have evaluated our review process for highway maintenance actions and believe that individual correspondence with this office is not required for the following types of actions on existing roadways:

1. resurfacing projects;
2. intersection improvements, including the construction of traffic signals;
3. routine maintenance and installation of guard rails;
4. lighting improvements;
5. bridge expansion joints or bridge movement joints replacement;
6. sign replacements, sign installations on driven posts, and sign installations on existing infrastructure;
7. routine maintenance of existing drainage infrastructure and installation of underdrain; and
8. minor routine bridge maintenance including: repair of bridge approach slabs and railings; spot painting; joint cleaning, repair, sealing and replacement; and superficial deck repairs that do not impact the bridge below the deck.

In regard to other proposed highway actions along existing rights-of-way, your review of the list of threatened and endangered species locations in Vermont, New Hampshire, Rhode Island, Connecticut and Massachusetts (available on our website, see below) may confirm that no federally-listed, endangered or threatened species are known to occur in the town or county where the project is proposed. If a listed species is present in the town or county where the project is proposed, further review of the information provided on our website may allow you to conclude that suitable habitat for the species will not be affected. For example, our experience

demonstrates that there will be few, if any, highway projects that are likely to affect endangered roseate terns, threatened piping plovers, endangered Jesup's milk-vetch, or other such species found on islands, coastal beaches or in riverine habitats.

For projects that meet the criteria described above, there is no need to contact this office for further project review. A copy of this letter should be retained in your file as the Service's determination that no listed species are present, or that listed species in the general area will not be affected. This correspondence remains valid until January 31, 2023.

Updated official species lists can be obtained at:

<https://ecos.fws.gov/ipac> (accessed December 2021)

Updated consultation letters are available on our website:

<https://www.fws.gov/office/new-england-ecological-services> (accessed December 2021)

Thank you for your cooperation, and please contact us at 603-223-2541 or [newengland@fws.gov](mailto:newengland@fws.gov) for further assistance.

Sincerely yours,

**AUDREY  
MAYER**

Audrey Mayer  
Supervisor  
New England Field Office

Digitally signed by AUDREY  
MAYER  
Date: 2021.12.21 14:33:30  
-05'00'



**Appendix B Certification – Activities with Minimal Potential to Cause Effects**

**Date Reviewed:** 9/18/2022  
(Desktop or Field Review Date)

This Project uses only State funding; however project activities listed below comply with the PA.

**Project Name:** Turnpike Drainage Rehabilitation

**State Number:** 43303 **FHWA Number:** NA

**Environmental Contact:** Kerry Ryan **DOT Project Manager:** Emily Kulig  
**Email Address:** Kerry.a.ryan@dot.nh.gov

**Project Description:** The NH Department of Transportation (DOT) is planning the subject drainage project located along the Spaulding Turnpike Connector/US 202 Connector in Rochester. The purpose of the project is to rehabilitate/replace ten drainage pipes, ranging in size from 12” to 36”, along the roadway. This work will require tree minor cutting for accessing the pipes. It is anticipated a NH Department of Environmental Services (NHDES) wetlands permit will be required to complete this work. All proposed work is within the State right-of-way.

Please select the applicable activity/activities:

Highway and Roadway Improvements	
<input checked="" type="checkbox"/>	1. Modernization and general highway maintenance <b>that may require additional highway right-of-way or easement</b> , including: h. removal of trees, as part of roadway improvements Choose an item.
<input type="checkbox"/>	2. Installation of rumble strips or rumble stripes
<input type="checkbox"/>	3. Installation or replacement of pole-mounted signs
<input type="checkbox"/>	4. Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it does already), and there is no change in access associated with the extension
Bridge and Culvert Improvements	
<input checked="" type="checkbox"/>	5. Culvert replacement (excluding stone box culverts), when the culvert is less than 60" in diameter and excavation for replacement is limited to previously disturbed areas
<input type="checkbox"/>	6. Bridge deck preservation and replacement, as long as no character defining features are impacted
<input type="checkbox"/>	7. Non-historic bridge and culvert maintenance, renovation, or total replacement, <b>that may require minor additional right-of-way or easement</b> , including: Choose an item. Choose an item.
<input type="checkbox"/>	8. Historic bridge maintenance activities within the limits of existing right-of-way, including: Choose an item. Choose an item.
<input type="checkbox"/>	9. Stream and/or slope stabilization and restoration activities (including removal of debris or sediment obstructing the natural waterway, or any non-invasive action to restore natural conditions)
Bicycle and Pedestrian Improvements	
<input type="checkbox"/>	10. Construction of pedestrian walkways, sidewalks, sidewalk tip-downs, small passenger shelters, and alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons
<input type="checkbox"/>	11. Installation of bicycle racks
<input type="checkbox"/>	12. Recreational trail construction
<input type="checkbox"/>	13. Recreational trail maintenance when done on existing alignment

**Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding**

**Appendix B Certification – Activities with Minimal Potential to Cause Effects**

<input type="checkbox"/>	14. Construction of bicycle lanes and shared use paths and facilities within the existing right-of-way
<b>Railroad Improvements</b>	
<input type="checkbox"/>	15. Modernization, maintenance, and safety improvements of railroad facilities within the existing railroad or highway right-of-way, <b>provided no historic railroad features are impacted</b> , including, but not limited to: Choose an item. Choose an item.
<input type="checkbox"/>	16. In-kind replacement of modern railroad features (i.e. those features that are less than 50 years old)
<input type="checkbox"/>	17. Modernization/modification of railroad/roadway crossings provided that all work is undertaken within the limits of the roadway structure (edge of roadway fill to edge of roadway fill) and no associated character defining features are impacted
<b>Other Improvements</b>	
<input type="checkbox"/>	18. Installation of Intelligent Transportation Systems
<input type="checkbox"/>	19. Acquisition or renewal of scenic, conservation, habitat, or other land preservation easements where no construction will occur
<input type="checkbox"/>	20. Rehabilitation or replacement of existing storm drains.
<input type="checkbox"/>	21. Maintenance of stormwater treatment features and related infrastructure

Please describe how this project is applicable under Appendix B of the Programmatic Agreement.

The proposed project activities conform to undertakings in Appendix B (minimal potential to cause effects to historical resources) including (1) Modernization and general highway maintenance that may require additional highway right-of-way easement including (h) removal of trees, as part of roadway improvements, and (5) culvert replacement (excluding stone box culverts), when the culvert is less than 60” in diameter and excavation for replacement is limited to previously disturbed areas. Neither the Cultural Resources Program Manager, Jill Edelman, nor the Cultural Resources Program Specialist, Sheila Charles, detected any cultural resources that, based on the project scope, were determined to be likely to be impacted by the project.

*Please submit this Certification Form along with the Transportation RPR, including photographs, USGS maps, design plans and as-built plans, if available, for review. Note: The RPR can be waived for in-house projects, please consult Cultural Resources Program Staff.*

Coordination Efforts:

Has an RPR been submitted to NHDOT for this project?	No	NHDHR R&C # assigned?	Click here to enter text.
Please identify public outreach effort contacts; method of outreach and date:	Initial contact letters were sent to the Rochester city manager, conservation commission, fire chief, historical society, planning commission and, police chief via mail on 9/26/22.		

Finding: (To be filled out by NHDOT Cultural Resources Staff )

<input checked="" type="checkbox"/>	<b>No Potential to Cause Effects</b>	<input type="checkbox"/>	<b>No Historic Properties Affected</b>
This finding serves as the Section 106 Memorandum of Effect. No further coordination is necessary.			
<input type="checkbox"/>	<b>This project does not comply with Appendix B. Review will continue under Stipulation VII of the Programmatic Agreement. Please contact NHDOT Cultural Resources Staff to determine next steps.</b>		
NHDOT comments:			

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects



9/27/2022

\_\_\_\_\_  
NHDOT Cultural Resources Staff

\_\_\_\_\_  
Date

Coordination of the Section 106 process should begin as early as possible in the planning phase of the project (undertaking) so as not to cause a delay.

Project sponsors should not predetermine a Section 106 finding under the assumption a project is limited to the activities listed in Appendix B until this form is signed by the NHDOT Bureau of Environment Cultural Resources Program staff.

Every project shall be coordinated with, and reviewed by the NHDOT-BOE Cultural Resources Program in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the New Hampshire State Historic Preservation Office, the Army Corps of Engineers, New England District, the Advisory Council on Historic Preservation, and the New Hampshire Department of Transportation Regarding the Federal Aid Highway Program in New Hampshire*. In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

NHDOT and the State Historic Preservation Office may use provisions of the Programmatic Agreement to address the applicable requirements of NH RSA 227-C:9 in the location, identification, evaluation and management of historic resources, for projects funded by State funds.

If any portion of the project is not entirely limited to any one or a combination of the activities specified in Appendix B (with, or without the inclusion of any activities listed in Appendix A), please continue discussions with NHDOT Cultural Resources staff.

**This No Potential to Cause Effect or No Historic Properties Affected project determination is your Section 106 finding, as defined in the Programmatic Agreement.**

Should project plans change, please inform the NHDOT Cultural Resources staff in accordance with Stipulation VII of the Programmatic Agreement.



**US Army Corps  
of Engineers**®  
New England District

**Appendix B  
New Hampshire General Permits  
Required Information and USACE Section 404 Checklist**

**USACE Section 404 Checklist**

1. Attach any explanations to this checklist. Lack of information could delay a USACE 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 3 for information on single and complete projects.
4. Contact USACE at (978) 318-8832 with any questions.
5. The information requested below is generally required in the NHDES Wetland Application. See page 61 for NHDES references and Admin Rules as they relate to the information below.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See the following to determine if there is an impaired water in the vicinity of your work area. * <a href="https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/">https://nhdes-surface-water-quality-assessment-site-nhdes.hub.arcgis.com/</a> <a href="https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment">https://www.des.nh.gov/water/rivers-and-lakes/water-quality-assessment</a> <a href="https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx">https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx</a>		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 tidal SAS, prime wetlands, or priority resource areas? 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 <a href="https://www4.des.state.nh.us/NHB-DataCheck/">https://www4.des.state.nh.us/NHB-DataCheck/</a> .		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?	unknown	
2.7 What is the area of the proposed fill in wetlands?	N/A	
2.8 What % of the overall project sire will be previously and proposed filled wetlands?	unknown	
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: <a href="https://www4.des.state.nh.us/NHB-DataCheck/">https://www4.des.state.nh.us/NHB-DataCheck/</a> . USFWS IPAC website: <a href="https://ipac.ecosphere.fws.gov/">https://ipac.ecosphere.fws.gov/</a>	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: <ul style="list-style-type: none"> <li>• PDF: <a href="https://wildlife.state.nh.us/wildlife/wap-high-rank.html">https://wildlife.state.nh.us/wildlife/wap-high-rank.html</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul>		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 31?		N/A
<b>4. Flooding/Floodplain Values</b>	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
<b>5. Historic/Archaeological Resources</b>		
For a minimum, minor or major impact project - a copy of the RPR Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 37 GC 14(d) of the GP document**		X***
<b>6. Minimal Impact Determination (for projects that exceed 1 acre of permanent impact)</b>	Yes	No
Projects with greater than 1 acre of permanent impact must include the following: <ul style="list-style-type: none"> <li>• Functional assessment for aquatic resources in the project area.</li> <li>• On and off-site alternative analysis.</li> <li>• Provide additional information and description for how the below criteria are met.</li> </ul>		N/A
6.1 Will there be complete loss of aquatic resources on site?		
6.2 Have the impacts to the aquatic resources been avoided and minimized to the greatest extent practicable?		
6.3 Will all aquatic resource function be lost?		
6.4 Does the aquatic resource (s) have regional significance (watershed or ecoregion)?		
6.5 Is there an on-site alternative with less impact?		
6.6 Is there an off-site alternative with less impact?		
6.7 Will there be a loss to a resource dependent species?		
6.8 Are indirect impacts greater than 1 acre within and adjacent to the project area?		
6.9 Does the proposed mitigation replace aquatic resource function for direct, indirect, and cumulative impacts?		

\*Although this checklist utilizes state information, its submittal to USACE is a federal requirement.

\*\* If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

\*\*\*Project complies with Section 106 Programmatic Agreement, Appendix B Certification



Turnpike Drainage 43303



1. US 202 Connector, facing west from easterly side



2. US 202 Connector, facing east from westerly side

Turnpike Drainage 43303



3. US 202 Connector, pipes shown in red



4. US 202 Connector, westerly side



Turnpike Drainage 43303



5. Facing culvert 24121 from Route 202 Connector



6. Facing easterly on Route 202 Connector from culvert



Turnpike Drainage 43303



7. Facing culvert 24121 impact area (outlet)



8. Facing culvert 24121 (inlet)

Turnpike Drainage 43303

culvert #58121  
-no wetland impacts

culvert #58123  
-no wetland impacts



culvert #58124  
-no wetland impacts

culvert 12916  
-wetland impacts for access  
(PSS and intermittent stream)

9. US 202 easterly side

culvert #58122  
-wetland impacts for access  
(PFO)



10. Facing 58122 from Route 202 Connector





11. Facing Route 202 Connector from area of culvert 58122



12. Facing Route 202 Connector from culvert 12916



Turnpike Drainage 43303



13. Facing Route 202 Connector from Route 125



14. Access road from NH Route 125





15. Existing access road



16. Facing Route 125 from access road





17. Wetland in area of access road

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

WETLAND PERMIT APPLICATION

for

TURNPIKE DRAINAGE REHABILITATION 43303

ROCHESTER, NH

PROPOSED CONSTRUCTION SEQUENCE

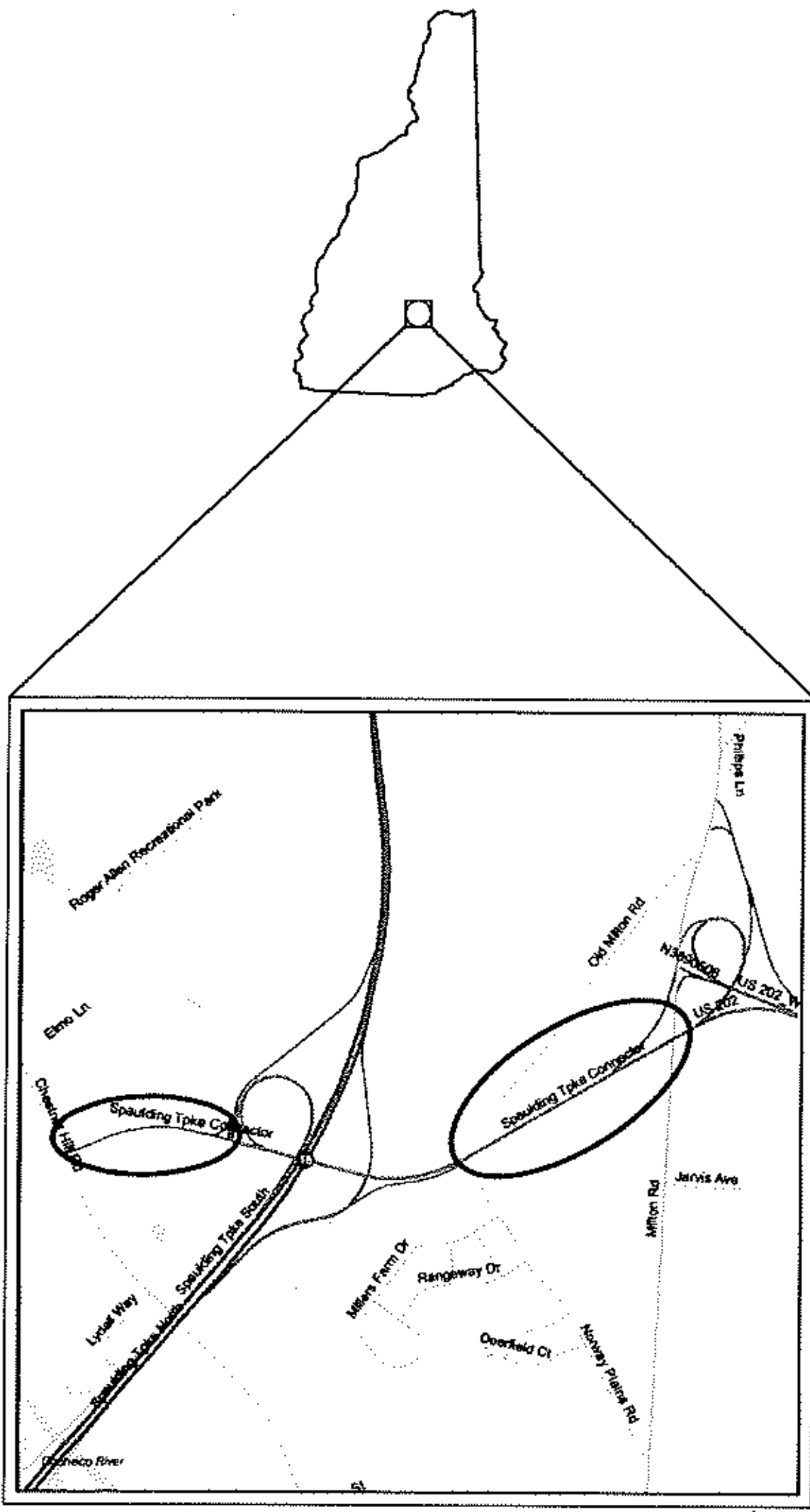
1. Install traffic control and signage as required to protect the construction access.
2. Install Perimeter Control (PC) along the wetlands on the south side of US 202 Connector at both locations before beginning construction of each location.
3. Rare plants are to be fenced off and/or flagged to avoid impacts during construction.
4. Erosion control measures will be installed prior to start of work and will be maintained throughout the duration of project. Ensuring enough space is maintained (about 2 feet) between erosion and sediment control barriers and rare plants to prevent impacts from foot traffic and sediment fallout to the plants.
5. Clear trees as necessary for construction access paths north and south of US route 202. Only the path south of 202 will have impacts.
6. Place metal plates and timber mats (or similar as accepted by The Engineer) within temporary impact areas including 2 intermittent stream crossing locations.
7. Timber mats will be used where rare plants are proposed to be impacted by equipment to traverse the area while minimizing rutting from the wheels.
8. For the 5 pipes near Chestnut Hill Road: slip-lining of all 5 pipes with cured in place liners. Construction for the 36" cross pipe will be from above the pipe (uphill) at the inlet.
9. For the 5 pipes east of Route 16: excavate existing metal pipes and install new plastic pipes in kind.
10. East of Route 16: Remove material from catch basin at SADES ID 58122.
11. East of Route 16: install stone outlets.
12. No excavation will occur in the vicinity of rare plants (within about 5 meters) and work will occur on foot in these areas to the greatest extent possible.
13. Restore temporary wetland impact area to original condition and reseed.
14. Remove Perimeter Control (PC) along the wetlands.



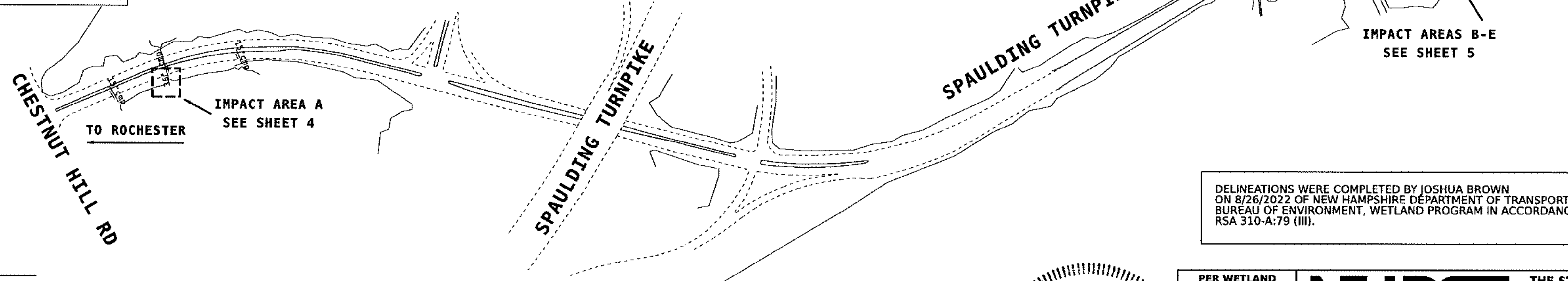
STATE OF NEW HAMPSHIRE  
DEPARTMENT OF TRANSPORTATION  
**WETLANDS PLANS**

N.H. PROJECT NO. 43303  
US ROUTE 202  
SPAULDING TURNPIKE CONNECTOR

DESIGN DATA		
AVERAGE DAILY TRAFFIC 20	21	13866
AVERAGE DAILY TRAFFIC 20	XX	N/A
PERCENT OF TRUCKS		9%
DESIGN SPEED		N/A
LENGTH OF PROJECT		1.1 MI



LOCATION MAP



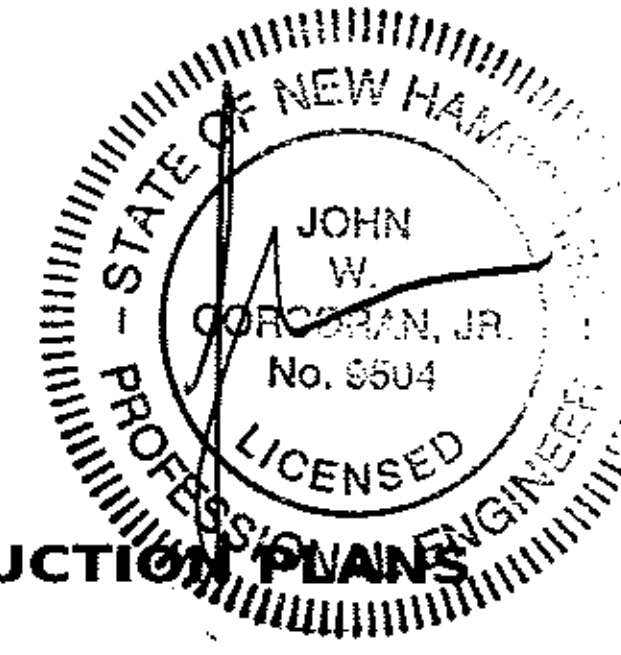
TOWN OF ROCHESTER  
COUNTY OF STRAFFORD  
SCALE: 1" = 200'

DELINEATIONS WERE COMPLETED BY JOSHUA BROWN ON 8/26/2022 OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, BUREAU OF ENVIRONMENT, WETLAND PROGRAM IN ACCORDANCE WITH RSA 310-A:79 (III).

DRAWN BY: EK  
CHECKED BY: SN  
DATE: 11-2022

INDEX OF SHEETS

1	FRONT SHEET
2-3	STANDARD SYMBOLS SHEETS
4-5	WETLAND IMPACT PLANS
6-8	EROSION CONTROL PLANS



PER WETLAND PLANS RULE(S) ENV-WT 311.05 FOR ENGINEERING	<b>NHDOT</b>	THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION		
<b>TURNPIKE DRAINAGE REHABILITATION WETLAND AND EROSION CONTROL PLANS</b>				
DRAWING NAME 43303fsw	FEDERAL PROJECT NO. N/A	STATE PROJECT NO. 43303	SHEET NO. 1	TOTAL SHEETS 8

FOR CONSTRUCTION AND ALIGNMENT DETAILS - SEE CONSTRUCTION PLANS

# GENERAL

EDGE OF PAVEMENT TRAVELED WAY	  
DRIVEWAYS	 (label surface type)
BUILDINGS	 (building to be removed)
BUILDINGS	 (label house or type of building)
FOUNDATIONS	 (label type)
LEACH FIELD	
BRIDGE CROSSINGS	 STREAM
BRIDGE CROSSINGS	 OVERPASS
STEPS AND WALK	 (label type)
INTERMITTENT WATER COURSE	
SHORE LINE	 river/stream
SHORE LINE	 pond (label name of water body)
POTENTIAL WET AREA SYMBOL	
BRUSH OR WOODS LINE	
TREES (PLANS)	(deciduous)
TREES (PLANS)	(coniferous)
TREES (PLANS)	(stump)
TREE OR STUMP (CROSS-SECTIONS)	 (show station, circumference in feet & type)
HEDGE	 (label type)
MONITORING WELL	
WELL	
FLAG POLE	

ORIGINAL GROUND (TYPICALS)	
ROCK OUTCROP	
ROCK LINE (TYPICALS & SECTIONS ONLY)	
GUARDRAIL (label type)	 
JERSEY BARRIER	
CURB (LABEL TYPE)	
STONE WALL	
RETAINING WALL (LABEL TYPE)	 (points toward retained ground)
FENCE (LABEL TYPE)	
SIGNS	(single post)
SIGNS	(double post)
GAS PUMP	
FUEL TANK (ABOVE GROUND)	(label size & type)
STORAGE TANK FILLER CAP	
SEPTIC TANK	
GRAVE	
MAILBOX	
VENT PIPE	
SATELLITE DISH ANTENNA	
PHONE	
GROUND LIGHT/LAMP POST	
BORING LOCATION	
TEST PIT	
INTERSTATE NUMBERED HIGHWAY	
UNITED STATES NUMBERED HIGHWAY	
STATE NUMBERED HIGHWAY	

# SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE	
DELINEATED WETLAND	
ORDINARY HIGH WATER	
TOP OF BANK	
TOP OF BANK & ORDINARY HIGH WATER	
NORMAL HIGH WATER	
WIDTH AT BANK FULL	
PRIME WETLAND	
PRIME WETLAND 100' BUFFER	
NON-JURISDICTIONAL DRAINAGE AREA	
COWARDIN DISTINCTION LINE	
TIDAL BUFFER ZONE	
DEVELOPED TIDAL BUFFER ZONE	
HIGHEST OBSERVABLE TIDE LINE	
MEAN HIGH WATER	
MEAN LOW WATER	
VERNAL POOL	
SPECIAL AQUATIC SITE	
REFERENCE LINE	
WATER FRONT BUFFER	
NATURAL WOODLAND BUFFER	
PROTECTED SHORELAND	
INVASIVE SPECIES LABEL	
INVASIVE SPECIES	

# FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY	
100 YEAR FLOODPLAIN BOUNDARY	
FLOODWAY	

# ENGINEERING

CONSTRUCTION BASELINE	
PC, PT, POT (ON CONST BASELINE)	
PI (IN CONSTRUCTION BASELINES)	
INTERSECTION OR EQUATION OF TWO LINES	
ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)	
PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)	
CLEARING LINE	
SLOPE LINE	
SLOPE LINE (FILL)	
SLOPE LINE (CUT)	
PROFILES AND CROSS SECTIONS:	
ORIGINAL GROUND ELEVATION (LEFT)	
FINISHED GRADE ELEVATION (RIGHT)	

STATE OF NEW HAMPSHIRE  
 ROCHESTER  
 DEPARTMENT OF TRANSPORTATION    BUREAU OF HIGHWAY DESIGN

## STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
02-25-2022	stdsyml-2-ce	43303	2	8



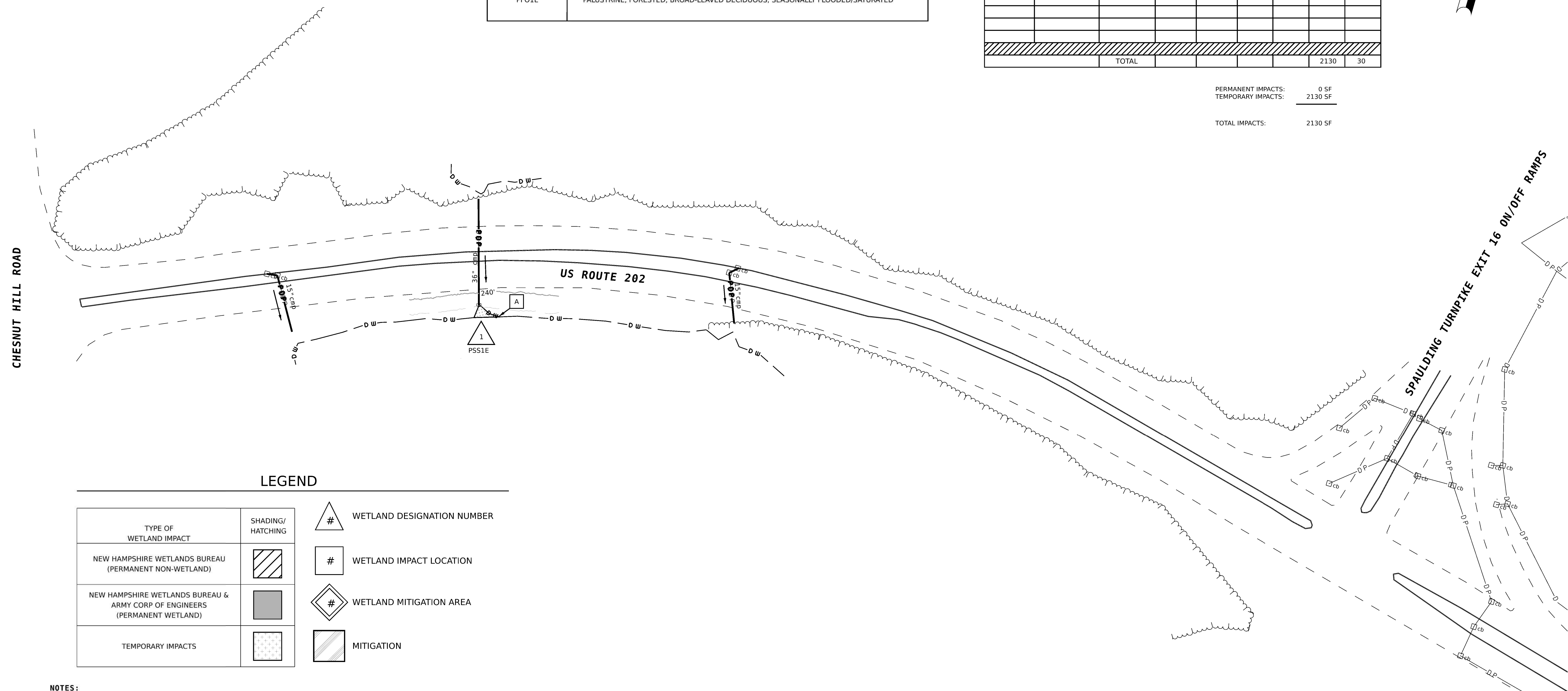
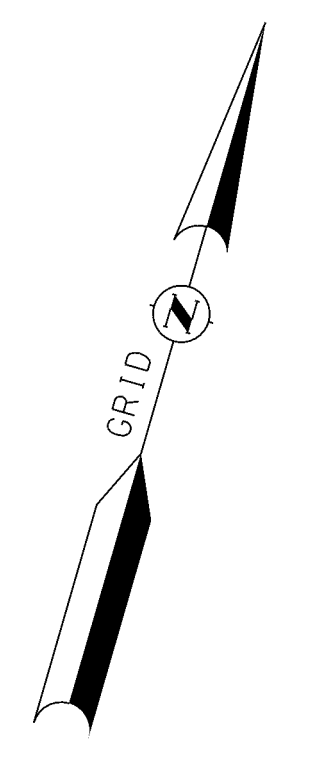
SDR PROCESSED	DATE	DATE	DATE	DATE	DATE
NEW DESIGN	11/2022	11/2022			
SHEET CHECKED	SN				
AS BUILT DETAILS					

REVISIONS AFTER PROPOSAL	DESCRIPTION
STATION	
STATION	
DATE	
NUMBER	

WETLAND CLASSIFICATION CODES	
PSSE1	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
R4SBC	RIVERINE, INTERMITTENT, STREAMBED, SEASONALLY FLOODED
PEM1E	PALUSTRINE, EMERGENT, BROAD-LEAVED DECIDUOUS SEASONALLY FLOODED/SATURATED
PFO1E	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED

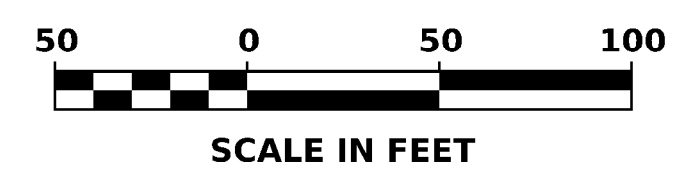
WETLAND IMPACT SUMMARY									
WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA IMPACTS						
			PERMANENT				TEMPORARY		
			N.H.W.B. (NON-WETLAND)		N.H.W.B. & A.C.O.E. (WETLAND)				
SF	LF	SF	LF	SF	LF	SF	LF		
1	PSS1E	A						131	
1	PSS1E	B						328	
5	R4SBC	C						149	15
4	PFO1E	D						1461	
5	R4SBC	E						61	15
TOTAL								2130	30

PERMANENT IMPACTS: 0 SF  
 TEMPORARY IMPACTS: 2130 SF  
 TOTAL IMPACTS: 2130 SF



LEGEND			
TYPE OF WETLAND IMPACT	SHADING/HATCHING	#	WETLAND DESIGNATION NUMBER
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	[Diagonal Hatching]	#	WETLAND IMPACT LOCATION
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	[Solid Grey]	#	WETLAND MITIGATION AREA
TEMPORARY IMPACTS	[Dotted Pattern]	[Diagonal Hatching]	MITIGATION

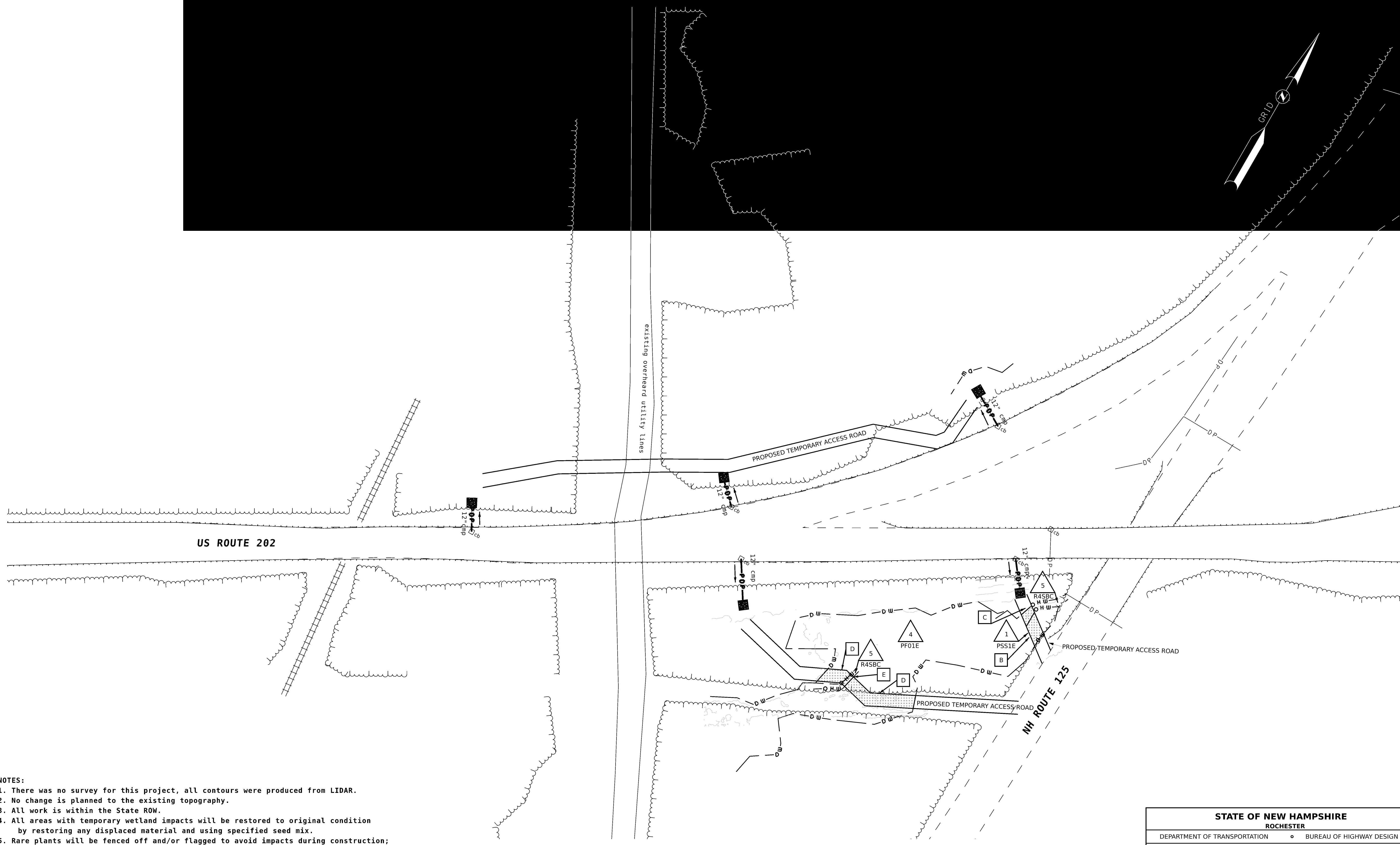
- NOTES:
- There was no survey for this project, all contours were produced from LIDAR.
  - No change is planned to the existing topography.
  - All work is within the State ROW.
  - All areas with temporary wetland impacts will be restored to original condition by restoring any displaced material and using specified seed mix.
  - Rare plants will be fenced off and/or flagged to avoid impacts during construction;
  - Timber mats will be used where rare plants are proposed to be impacted to allow equipment to traverse the area while minimizing wheels from rutting the ground. Timber matting will be removed upon completion of work in the vicinity of rare plants;
  - No excavation will occur in the vicinity (within about 5 meters) of rare plants and work will occur on foot in these areas to the greatest extent possible.



STATE OF NEW HAMPSHIRE ROCHESTER			
DEPARTMENT OF TRANSPORTATION		BUREAU OF HIGHWAY DESIGN	
<b>WETLAND IMPACT PLANS</b>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43303-WetPlans	43303	4	8

MODEL: WETSHEET1

SDR PROCESSED		REVISIONS AFTER PROPOSAL	
DATE	DATE	STATION	STATION
11/2022	11/2022		
NEW DESIGN	EK	DATE	DATE
SHEET CHECKED	SN		
AS BUILT DETAILS			



- NOTES:**
1. There was no survey for this project, all contours were produced from LIDAR.
  2. No change is planned to the existing topography.
  3. All work is within the State ROW.
  4. All areas with temporary wetland impacts will be restored to original condition by restoring any displaced material and using specified seed mix.
  5. Rare plants will be fenced off and/or flagged to avoid impacts during construction;
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<b>STATE OF NEW HAMPSHIRE</b>			
ROCHESTER			
DEPARTMENT OF TRANSPORTATION		BUREAU OF HIGHWAY DESIGN	
<b>WETLAND IMPACT PLANS</b>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43303-WetPlans	43303	5	8

MODEL: WETSHEET2



# EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:
  - 1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
  - 1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).
  - 1.3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.
  - 1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).
  - 1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS ([HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM](http://des.nh.gov/organization/commissioner/legal/rules/index.htm))
  - 1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.
  
2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:
  - 2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.
  - 2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.
  - 2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.
  - 2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
    - (A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
    - (B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
    - (C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;
    - (D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED
  - 2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.
  - 2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.
  - 2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.
  - 2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30<sup>th</sup> AND MAY 1<sup>st</sup> OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
    - (A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.
    - (B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15<sup>th</sup>, OR WHICH ARE DISTURBED AFTER OCTOBER 15<sup>th</sup>, SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
    - (C) AFTER NOVEMBER 30<sup>th</sup> INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.
    - (D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.
    - (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30<sup>th</sup>.
  
3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:
  - 3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.
  - 3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.
  - 3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.
  - 3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.
  - 3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.
  
4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:
  - 4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.
  - 4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.
  - 4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1<sup>st</sup> THROUGH NOVEMBER 30<sup>th</sup>, OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.
  
5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:
  - 5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.
  - 5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.
  - 5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.
  - 5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.
  - 5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS, VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.
  
6. PROTECT SLOPES:
  - 6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.
  - 6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.
  - 6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.
  - 6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.
  
7. ESTABLISH STABILIZED CONSTRUCTION EXITS:
  - 7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.
  - 7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.
  
8. PROTECT STORM DRAIN INLETS:
  - 8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.
  - 8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
  - 8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.
  - 8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.
  
9. SOIL STABILIZATION:
  - 9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.
  - 9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)
  - 9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR, IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.
  - 9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.
  
10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:
  - 10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.
  - 10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
  - 10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:
  - 11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.
  - 11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.
  - 11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.
  - 11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.
  - 11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.
  - 11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.
  - 11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.
  - 11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.
  - 11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

## BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:
  - 12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500; ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.
  - 12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.
  - 12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.
  - 12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.
  - 12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%, THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.
  - 12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.
  - 12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.
  
13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:
  - 13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.
  - 13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.
  - 13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRIXES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.
  - 13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.
  
14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:
  - 14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.
  - 14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.
  - 14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

**TABLE 1  
GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES**

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES <sup>2</sup>				ROLLED EROSION CONTROL BLANKETS <sup>3</sup>			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNCSB	DNCB
SLOPES <sup>1</sup>												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES <sup>1</sup>	YES <sup>1</sup>	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

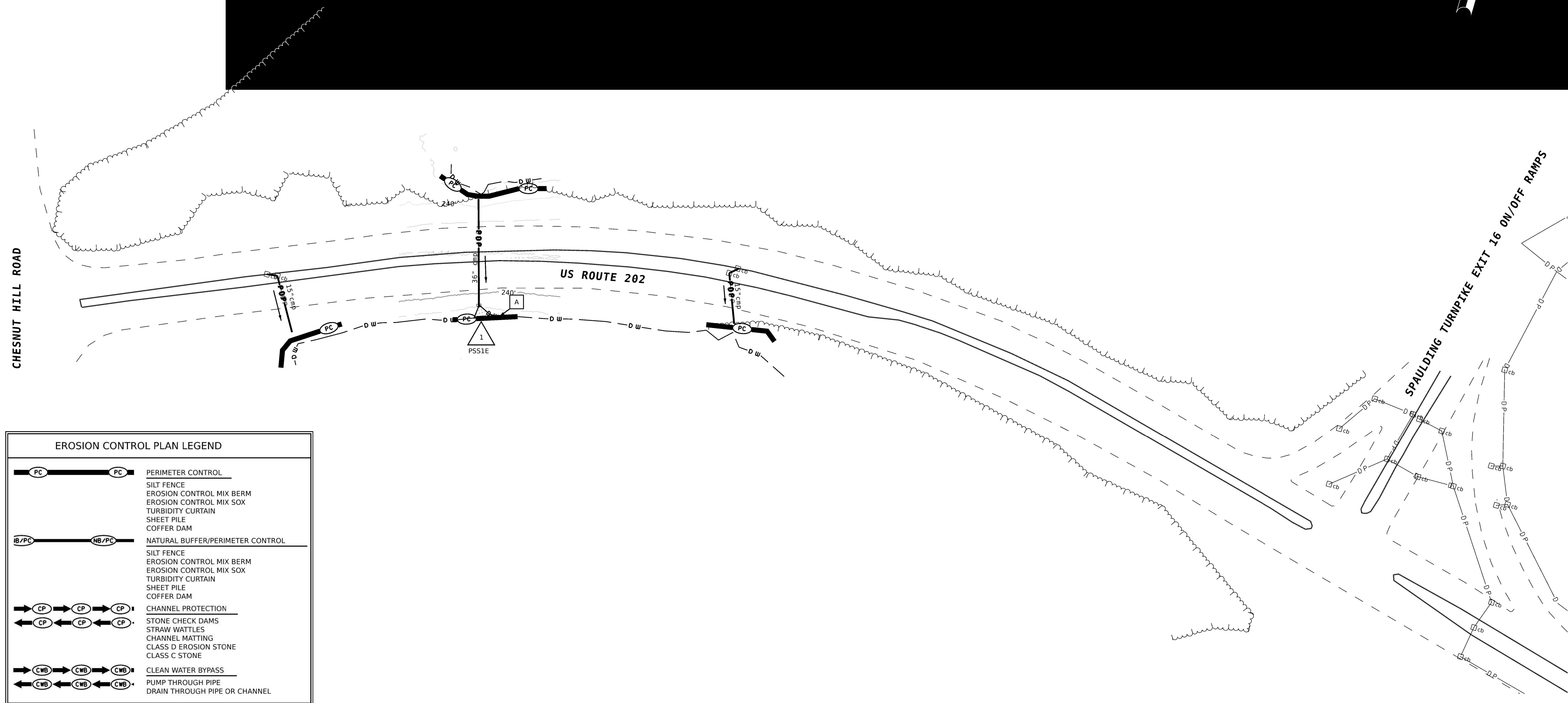
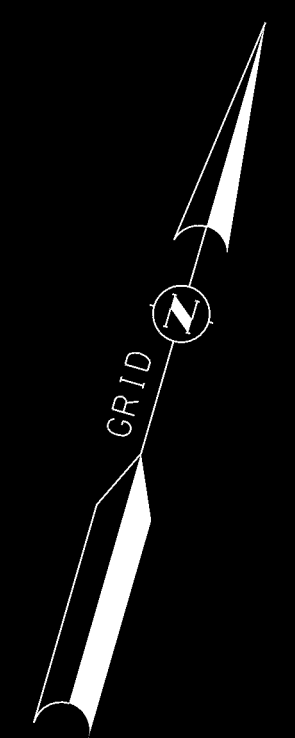
ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNCSB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

**NOTES:**

1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH \10 TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

<b>STATE OF NEW HAMPSHIRE ROCHESTER</b>				
DEPARTMENT OF TRANSPORTATION      ○      BUREAU OF HIGHWAY DESIGN				
<b><i>EROSION CONTROL STRATEGIES</i></b>				
<b>REVISION DATE</b>	<b>DGN</b>	<b>STATE PROJECT NO.</b>	<b>SHEET NO.</b>	<b>TOTAL SHEETS</b>
<b>02-25-2022</b>	<b>erosstrat-ce</b>	<b>43303</b>	<b>6</b>	<b>8</b>

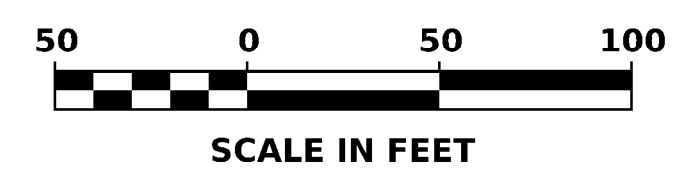
SDR PROCESSED		DATE		DATE		DATE		DATE	
NEW DESIGN		DATE 11/2022		DATE 11/2022		DATE		DATE	
SHEET CHECKED		EK		SN		DATE		DATE	
AS BUILT DETAILS		DATE		DATE		DATE		DATE	
REVISIONS AFTER PROPOSAL		STATION		STATION		STATION		STATION	
DESCRIPTION		DESCRIPTION		DESCRIPTION		DESCRIPTION		DESCRIPTION	



EROSION CONTROL PLAN LEGEND	
	PERIMETER CONTROL
	SILT FENCE
	EROSION CONTROL MIX BERM
	EROSION CONTROL MIX SOX
	TURBIDITY CURTAIN
	SHEET PILE
	COFFER DAM
	NATURAL BUFFER/PERIMETER CONTROL
	SILT FENCE
	EROSION CONTROL MIX BERM
	EROSION CONTROL MIX SOX
	TURBIDITY CURTAIN
	SHEET PILE
	COFFER DAM
	CHANNEL PROTECTION
	STONE CHECK DAMS
	STRAW WATTLES
	CHANNEL MATTING
	CLASS D EROSION STONE
	CLASS C STONE
	CLEAN WATER BYPASS
	PUMP THROUGH PIPE
	DRAIN THROUGH PIPE OR CHANNEL

NOTES:

1. There was no survey for this project, all contours were produced from LIDAR.
2. All work is within the State ROW
3. No change is planned to the existing topography
4. Erosion control measures will be installed prior to the start of work and will be maintained throughout the project. Please ensure enough space (about 2ft) is maintained between erosion and sediment control barriers and rare plants to prevent impacts from foot traffic and sediment fallout to the plants.



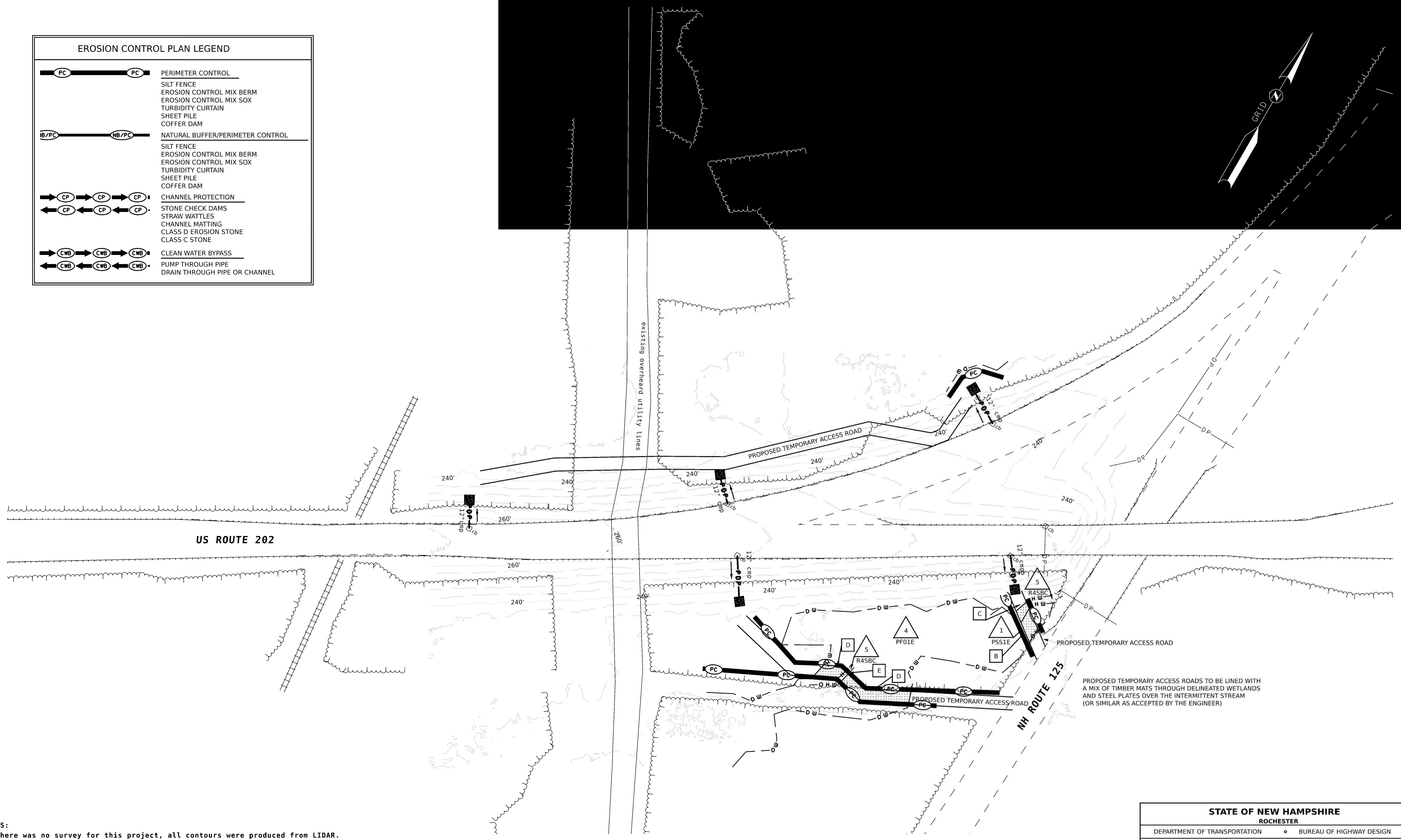
STATE OF NEW HAMPSHIRE ROCHESTER			
DEPARTMENT OF TRANSPORTATION		BUREAU OF HIGHWAY DESIGN	
<b>EROSION CONTROL PLANS</b>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43303-EroPlans	43303	7	8

MODEL: EROSHEET1



SDR PROCESSED	DATE	11/2022
NEW DESIGN	DATE	11/2022
SHEET CHECKED	DATE	
AS BUILT DETAILS	DATE	
REVISIONS AFTER PROPOSAL	STATION	
	DATE	
	NUMBER	
	DESCRIPTION	

EROSION CONTROL PLAN LEGEND	
	<b>PERIMETER CONTROL</b> SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	<b>NATURAL BUFFER/PERIMETER CONTROL</b> SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	<b>CHANNEL PROTECTION</b> STONE CHECK DAMS STRAW WATTLES CHANNEL MATTING CLASS D EROSION STONE CLASS C STONE
	<b>CLEAN WATER BYPASS</b> PUMP THROUGH PIPE DRAIN THROUGH PIPE OR CHANNEL



PROPOSED TEMPORARY ACCESS ROADS TO BE LINED WITH A MIX OF TIMBER MATS THROUGH DELINEATED WETLANDS AND STEEL PLATES OVER THE INTERMITTENT STREAM (OR SIMILAR AS ACCEPTED BY THE ENGINEER)

**NOTES:**  
 1. There was no survey for this project, all contours were produced from LIDAR.  
 2. All work is within the State ROW  
 3. No change is planned to the existing topography  
 4. Erosion control measures will be installed prior to the start of work and will be maintained throughout the project. Please ensure enough space (about 2ft) is maintained between erosion and sediment control barriers and rare plants to prevent impacts from foot traffic and sediment fallout to the plants.



STATE OF NEW HAMPSHIRE ROCHESTER			
DEPARTMENT OF TRANSPORTATION		BUREAU OF HIGHWAY DESIGN	
<b>EROSION CONTROL PLANS</b>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43303-EroPlans	43303	8	8

MODEL: EROSHEET2



# Turnpike Drainage Rehabilitation 43303 (Rochester)



**Legend**

- 43303
- Parcel Polygons
- Attributes for Additional Lines

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, NH Department of Revenue Administration, Axiomatic

Map depicting US 202 Connector in Rochester

Map created by: K. Ryan on 9/14/2022

Source: S:\Environment\PROJECTS\Rochester 43303

1:10,000





# Rochester-Dover 43303 (Rochester)



**Legend**

**Flood Hazard - Areas**  
**FLD\_ZONE\_SVD, FLOODWAY**

- 1 pct. Annual Chance Flood Hazard
- Floodway
- 0.2 pct. Annual Chance Flood Hazard
- Area of Undetermined Flood Hazard
- Area Protected by Levee

Map depicting US 202 Connector in Rochester

Map created by: K. Ryan on 9/12/2022

Source: S:\Environment\PROJECTS\Rochester 43303

500 0 500  
 Feet

1:9,954







## MEMORANDUM

TO: Kerry Ryan, Environmental Manager, Bureau of Environment, NH Dept. of Transportation  
FROM: Katie Paight, Principal Planner, Office of Planning and Development  
State National Flood Insurance Program Assistant Coordinator  
DATE: October 28, 2022  
SUBJECT: NHDOT Project: Rochester 43303

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I am writing in reference to your October 25, 2022 email regarding the above-referenced project's impact on floodplain areas. I have reviewed the contents of your email, which included a project description, a NHDOT topographic map, and a location map containing FEMA's National Flood Hazard Layer.

It appears that portions of the project area are in a special flood hazard area (SFHA) designated as Zone A on the Flood Insurance Rate Map (FIRM).

Since the State of New Hampshire is a participant of the National Flood Insurance Program (NFIP), any development occurring in a special flood hazard area should meet at least the minimum NFIP requirements contained in 44 CFR and the requirements in the flood provisions of the State Building Code. Development is defined under the NFIP as "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

For development proposed in Zone A, best judgment should be used in determining if further study is necessary. If the proposed project will not present a new obstruction to flood flows or alter drainage, then additional coordination is likely not necessary.

If you need further assistance, please contact me at 603-271-1755 or at [kathryn.o.nelson@livefree.nh.gov](mailto:kathryn.o.nelson@livefree.nh.gov).