

**STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION**

DATE: June 23, 2023

FROM: Andrew O'Sullivan
Wetlands Program Manager

AT (OFFICE): Department of
Transportation

SUBJECT Shoreland Permit-by-Notification
Newington-Dover, 11238S

Bureau of
Environment

TO: Calvin Diessner, Shoreland Program Supervisor
NHDES Shoreland Program
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NHDOT Bureau of Bridge Design for the subject shoreland permit-by-notification. The project is located along Spaulding Turnpike in the Towns of Newington and Dover, NH. NHDOT has previously submitted a NHDES Standard Dredge and Fill Wetlands Permit Application (File #2023-00601). Proposed impacts beyond the 100-foot Tidal Buffer Zone and within the 250-foot Protected Shoreland include construction access and staging in Newington and Dover, in-kind pathway reconstruction in Newington, and installation of conduit for a future potable water line installation beneath the existing pathway in Newington.

This project was reviewed at the Natural Resource Agency Coordination Meeting on April 18, 2018, 2021, June 19, 2019, and October 19, 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>.

The lead people to contact for this project are Jennifer Reczek, Bureau of Bridge Design (271-1613 or Jennifer.E.Reczek@dot.nh.gov) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-3226 or Andrew.M.O'Sullivan@dot.nh.gov).

A payment of \$400.00 is included with this application in the form of a check written by the consultant on the project (VHB).

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.

AMO;
cc:
BOE Original
Town of Newington (4 copies via certified mail)
Town of Dover (4 copies via certified mail)
Karl Benedict, NHDES
Kevin Nyhan, BOE (via electronic notification)



SHORELAND PERMIT BY NOTIFICATION (PBN) NOTIFICATION FORM

Water Division/Land Resources Management
Shoreland Program
[Check the Status of your PBN](#)



RSA/Rule: RSA 483-B/Env-Wq 1400

Administrative Use Only	Administrative Use Only	<input type="checkbox"/> PBN Accepted, Expires:	
		<input type="checkbox"/> PBN Rejected	Reviewer's Initials:
		File No.:	Admin's Initials:
		Check No.:	Amount:

This form requests authorization to excavate, fill, or construct new structures within the protected shoreland, which is 250 feet landward of the reference line of public waters, as regulated under RSA 483-B. Refer to the cover sheet to determine your eligibility to use this form in lieu of the standard Shoreland Permit Application. **Please note:** Notification packages missing required components will be rejected and the fee will not be returned.

SECTION 1 - PROPERTY OWNER (RSA 483-B:5-b; Env-Wq 1406.17)			
LAST NAME, FIRST NAME, M.I.: New Hampshire Department of Transportation			
MAILING ADDRESS: 7 Hazen Drive, PO Box 483	TOWN/ CITY: Concord	STATE: NH	ZIP CODE: 03302
PHONE: 603-271-3401	EMAIL: jennifer.e.reczek@dot.nh.gov		
SECTION 2 - PROJECT LOCATION (RSA 483-B:5-b; Env-Wq 1406.17)			
ADDRESS: Spaulding Turnpike (NH Route 16)	TOWN/ CITY: Newington & Dover	STATE: NH	ZIP CODE: 03801
WATERBODY NAME: Little Bay	TAX MAP/ LOT: NHDOT Right-of-Way		
SECTION 3 - CONTRACTOR OR AGENT (Env-Wq 1406.17)			
LAST NAME, FIRST NAME, M.I.: Walker, Peter J.			
MAILING ADDRESS: 2 Bedford Farms Dr, Suite 200	TOWN/ CITY: Bedford	STATE: NH	ZIP CODE: 03110
PHONE: 603-391-3900	EMAIL: pwalker@vhb.com		
SECTION 4 - PROJECT DESCRIPTION (Env-Wq 1406.17)			
Provide a brief description of the proposed project including square footage of impacts and dimensions of new structures.			
The New Hampshire Department of Transportation proposes to remove and replace the superstructure of the General Sullivan Bridge (GSB) in Newington and Dover spanning Little Bay. NHDOT has submitted a NHDES Standard Dredge and Fill Wetlands Permit Application (File #2023-601). Proposed impacts beyond the 100-foot Tidal Buffer Zone and within the 250-foot Protected Shoreland include construction access and staging in Newington and Dover, in-kind pathway reconstruction in Newington, and installation of conduit for a future potable water line installation beneath the existing pathway in Newington.			
TOTAL SQUARE FEET OF IMPACT: 25,225 TOTAL SQUARE FEET OF NET CHANGE IN IMPERVIOUS AREA: 0			
Total impact area is determined by the sum of all areas disturbed by excavation, fill, and construction. Examples include, but are not limited to: constructing new driveways, constructing new structures, removing or replacing structure foundations, grading, and installing a new septic system or well.			

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

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www.des.nh.gov

SECTION 5 - PBN CRITERIA (RSA 483-B:5-b; Env-Wq 1406.05)		
Check one of the following project type criteria.		
<input type="checkbox"/> 1. This project impacts less than 1,500 square feet in total, with a net increase in impervious area, if any, of no more than 900 square feet. <i>PBN Impact Limit: 1,500 square feet/ Fee: \$400.</i>		
<input type="checkbox"/> 2. This project is proposed for the purpose of stormwater management improvements, erosion control, or environmental restoration or enhancement. <i>PBN Impact Limit: None/ Fee: \$200.</i>		
<input checked="" type="checkbox"/> 3. The project is for the maintenance, repair, and improvement of public utilities, public roads, and public access facilities. <i>PBN Impact Limit: None/ Fee: \$400.</i>		
<input type="checkbox"/> 4. The project consists of geotechnical borings, test wells, drinking water wells or is a site remediation project and meets the requirements of Env-Wq 1406.05. <i>PBN Impact Limit: None / Fee: \$400.</i>		
SECTION 6 - FEE (RSA 483-B:5-b; Env-Wq 1406.16)		
Consult Section 5 to determine fee. Make checks and money orders payable to "Treasurer - State of NH". Undated checks cannot be accepted. TOTAL FEE: \$400		
SECTION 7 - PHOTOS (RSA 483-B:5-b; Env-Wq 1406.16)		
<input checked="" type="checkbox"/> Dated photographs of each area proposed to be impacted are required for all projects.		
SECTION 8 - PLAN REQUIREMENTS (RSA 483-B:5-b; Env-Wq 1406.16)		
Check YES or NO to all statements, and review the applicable plan requirements. If your plans do not include the information that is required, your notification will be rejected.		
<input checked="" type="checkbox"/> YES	Required for all projects: A clear and detailed plan of work depicting, at a minimum, all impact areas, the reference line , and property lines. Plans that are not to scale must show all relevant dimensions and distances from the reference line and dimensions.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	This project proposes an increase in impervious (i.e. non-permeable) area. Plans must include the dimensions and locations of all existing and proposed impervious surfaces on the lot that are within 250 feet of the reference line. Decks are typically considered impervious.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	< 20%	This project proposes an increase in impervious area, and the total post-construction impervious area on the lot within 250 feet of the reference line will not exceed 20%.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20 – 30%	This project proposes an increase in impervious area such that the total impervious area of the lot within 250 feet of the reference line will be greater than 20% but less than 30%. Plans must include a stormwater management system that will infiltrate increased stormwater runoff from development per RSA 483-B:9, V(g)(2) and in accordance with Env-Wq 1500 .
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	> 30%	This project proposes an increase in impervious area such that the total impervious area on the lot within 250 feet of the reference line will be greater than 30%. Plans must include a stormwater management system designed and certified by a professional engineer to account for all new development, and plans must demonstrate how the vegetation point score is met per RSA 483-B:9, V(g)(1,3) .
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	This project proposes impacts within 50 feet of the reference line. Plans and photos must show each area of the waterfront buffer that will be impacted, including groundcover, and calculate the tree and sapling point scores in accordance with the Vegetation Management Fact Sheet . N/A - Addressed in NHDES Wetlands Permit File #2023-601	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	This project proposes impacts between 50 and 150 feet of the reference line. Plans must depict the 25% area of the woodland buffer to be designated and maintained as natural woodland. See the Vegetation Management Fact Sheet . Impacts between 50-100 feet have been addressed in NHDES Wetlands Permit File #2023-601	

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

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<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<p>This project proposes to install or expand an accessory structure, such as a patio or shed, within 50 feet of the reference line. All plans <i>must</i> demonstrate that the height, size, and setback limitations for accessory structures will be met. These limitations are described within the Accessory Structure Fact Sheet.</p> <p>The shoreland frontage on this lot is: <input type="text"/> linear feet. <input type="checkbox"/> N/A – There is no direct frontage on this lot.</p>
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<p>This project proposes a pervious (i.e. permeable) surface technology. Plans must include the location and type of the surface and a cross-section depicting the construction method, materials, and specifications as to how this surface will be maintained as a pervious technology. The notification must also include a maintenance plan describing how the surfaces will be maintained pervious.</p>

SECTION 9 - CONDITIONS (Env-Wq 1406.20; RSA 483-B:9, V, (d))

Initial each of the required conditions below.

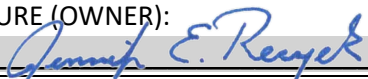

- JER 1.** Erosion and siltation control measures shall: be installed prior to the start of work; be maintained throughout the project; and remain in place until all disturbed surfaces are stabilized.
- JER 2.** Erosion and siltation controls shall be appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.
- JER 3.** No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env-Wq 1700.
- JER 4.** Any fill used shall be clean sand, gravel, rock, or other suitable material.
- JER 5.** For any project where mechanized equipment will be used, orange construction fence shall: be installed prior to the start of work at the limits of the temporary impact area as shown on the plans approved as part of a permit or accepted as part of the permit by notification; be maintained throughout the project; and remain in place until all mechanized equipment has been removed from the site.

SECTION 10 - CERTIFICATIONS (Env-Wq 1406.18)

Initial each of the required certifications below.

- JER 1.** The property owner shall sign the notification form below.
- JER 2.** The signature(s) shall constitute certification that: the information provided is true, complete, and not misleading to the knowledge and belief of the signer; the signer understands that any permit by notification obtained based on false, incomplete, or misleading information is not valid; the project as proposed complies with the [minimum standards](#) established in RSA 483-B:9, V and will be constructed in strict accordance with the proposal; the signer accepts the responsibility for understanding and maintaining compliance with RSA 483-B and these rules; the signer understands that an accepted shoreland permit by notification shall not exempt the work proposed from other state, local, or federal approvals; the signer understands that incomplete notifications shall be rejected and the notification fee shall not be returned; and the signer is subject to the applicable penalties in RSA 641, *Falsification In Official Matters*.
- JER 3.** The signature of the property owner certifies that the property owner has authorized the agent to act on the property owner’s behalf for purposes of the notification. (Not Applicable)

SECTION 11 - REQUIRED SIGNATURE (RSA 483-B:5-b; Env-Wq 1406.18)

SIGNATURE (OWNER): 	PRINT NAME LEGIBLY: NHDOT c/o Jennifer E. Reczek	DATE: June 20, 2023
SIGNATURE (AGENT, IF APPLICABLE): 	PRINT NAME LEGIBLY: Peter J. Walker	DATE: June 19, 2023

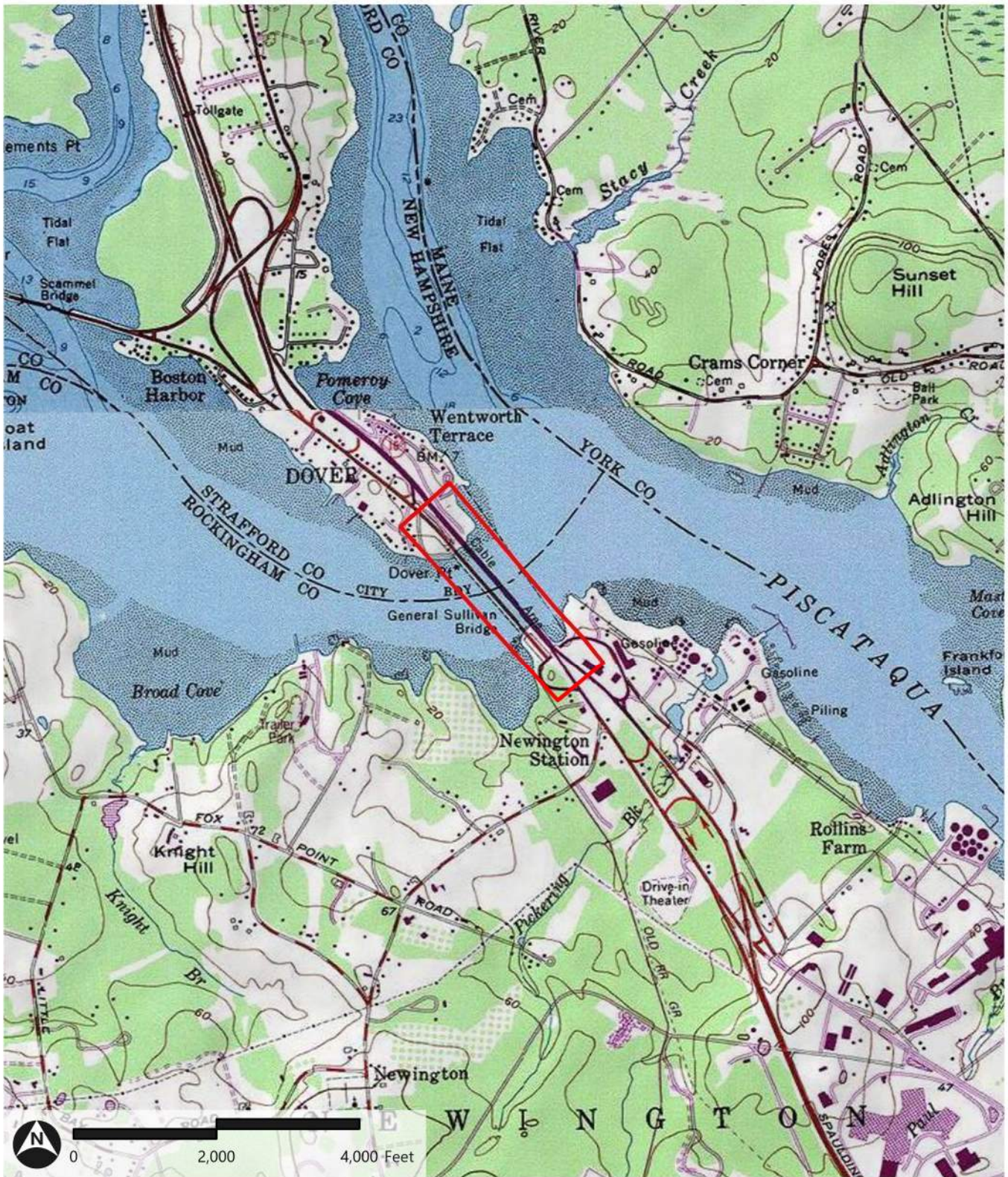
shoreland@des.nh.gov or (603) 271-2147

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

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Figure 1: USGS Overview Map

General Sullivan Bridge Project | Newington and Dover, NH



Path: \\vhb.com\gis\proj\Bedford\52381.03_GSB_Final_Design\Project\GSB_Figures\GSB_Figures.aprx (srao, 11/16/2022)

 Project Site

Source: USGS, VHB, ESRI

Representative Site Photographs
General Sullivan Bridge – Newington & Dover, NH



Photo 1: View east of proposed staging area within Hilton Park. This photo includes areas within the 150-foot natural woodland buffer (9/27/2022).



Photo 2: View of the gazebo within Hilton Park, showing areas of the 50-foot waterfront buffer and 150-foot natural woodland buffer (9/27/22).

Representative Site Photographs
General Sullivan Bridge – Newington & Dover, NH



Photo 3: View west in Hilton Park, showing areas within the 150-foot natural woodland buffer (9/27/22).



Photo 4: View east of General Sullivan Bridge from Hilton Park in Dover in the vicinity of one proposed temporary causeway, including the 50-foot waterfront buffer (9/27/2022).

Representative Site Photographs
General Sullivan Bridge – Newington & Dover, NH



Photo 5: View of the multi-use pathway in Newington with the southbound Little Bay Bridge seen to the right, depicting areas within the 150-foot natural woodland buffer (2/5/2023).



Photo 6: View from Shattuck Way of the beginning of the multi-use pathway leading to the GSB in Newington, showing the area within the 150-foot natural woodland buffer in the vicinity of the proposed water line conduit installation (Google Street View dated September 2019).

Representative Site Photographs
General Sullivan Bridge – Newington & Dover, NH



Photo 7: View of the beginning of the multi-use pathway leading to the GSB in Newington, showing the area within the 150-foot natural woodland buffer (2/5/2023).



Photo 8: View east of the multi-use pathway in Newington facing Shattuck Way and showing areas within both the 50-foot waterfront buffer and 150-foot natural woodland buffer (2/5/2023).

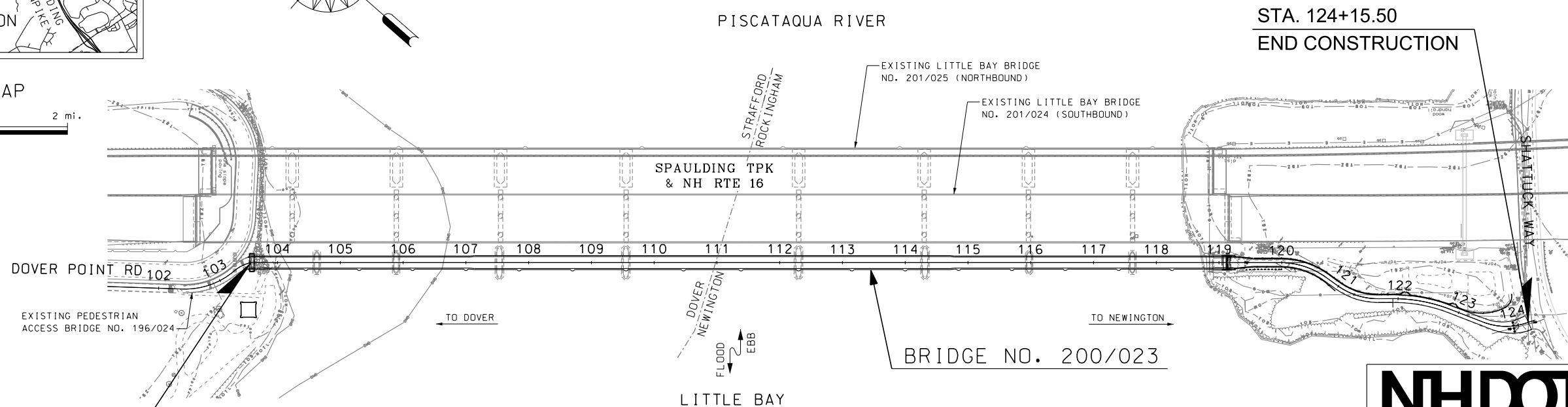
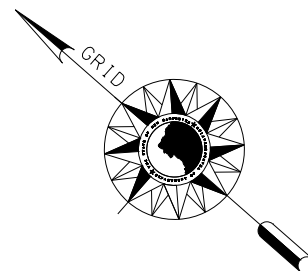
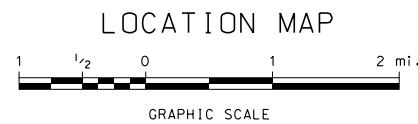
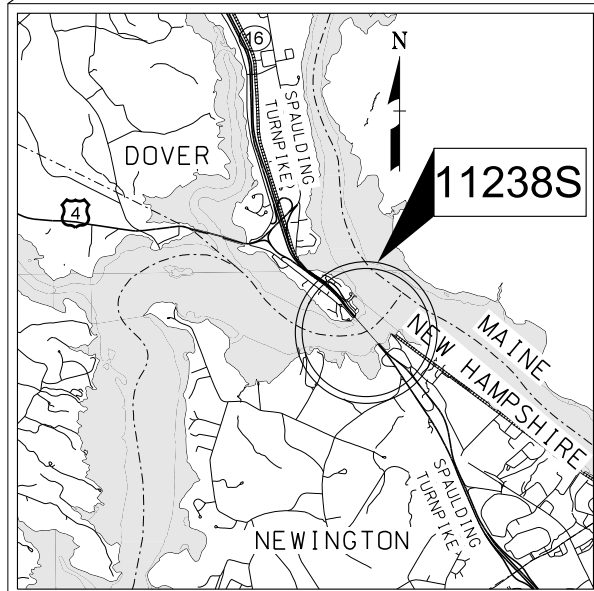
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS

NH PROJECT NO. 11238S
BRIDGE NO. 200/023
**GENERAL SULLIVAN BRIDGE OVER LITTLE BAY
MULTI-USE PATH**

TRAFFIC DESIGN DATA	
AVERAGE WEEKDAY NON-MOTORIZED TRAFFIC (NMT) 2016	120 NMT/DAY
AVERAGE WEEKEND NON-MOTORIZED TRAFFIC (NMT) 2016	155 NMT/DAY
PERCENT OF BICYCLISTS	UNKNOWN
DESIGN SPEED	18 MPH
LENGTH OF PROJECT	2060.5 FT

NOTES

1. NMT VOLUMES REFLECT PEAK SEASONAL COUNTS TAKEN IN JULY AND AUGUST 2016.
2. NMT VOLUMES REPRESENT THE AVERAGE OF BI-DIRECTIONAL TRAFFIC AT THE NORTH END OF THE BRIDGE.
3. NO FUTURE NMT VOLUME GROWTH IS ASSUMED BECAUSE NO NMT GENERATORS HAVE BEEN BUILT, OR ARE ANTICIPATED TO BE BUILT THROUGH THIS PROJECT.



STA. 103+55.00
BEGIN CONSTRUCTION

TOWN OF NEWINGTON & CITY OF DOVER
COUNTIES OF ROCKINGHAM & STRAFFORD

SCALE: 1" = 100'

NHDOT THE STATE OF
NEW HAMPSHIRE
DEPARTMENT OF
TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT DATE

APPROVED:

ASSISTANT COMMISSIONER AND CHIEF ENGINEER DATE

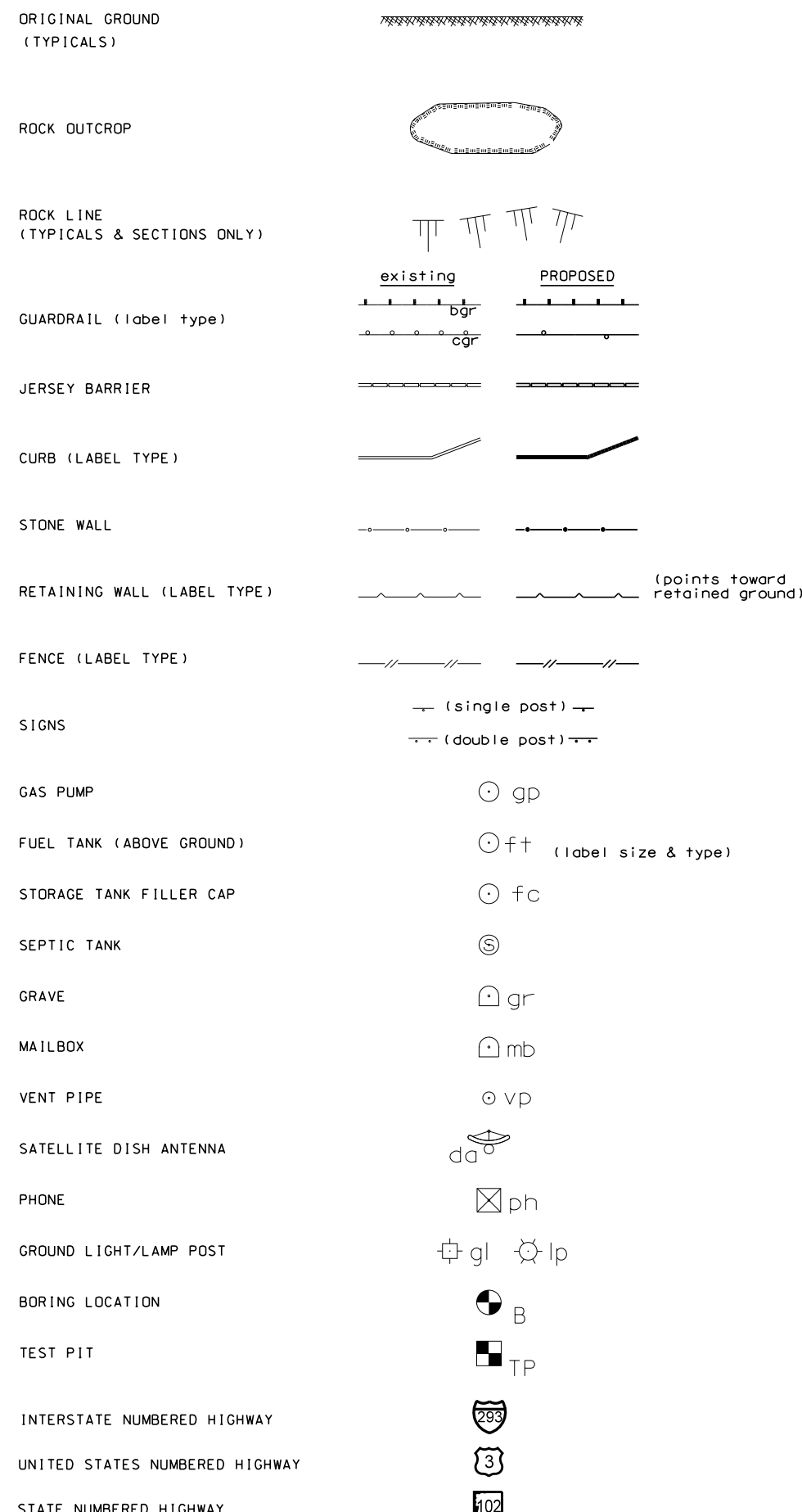
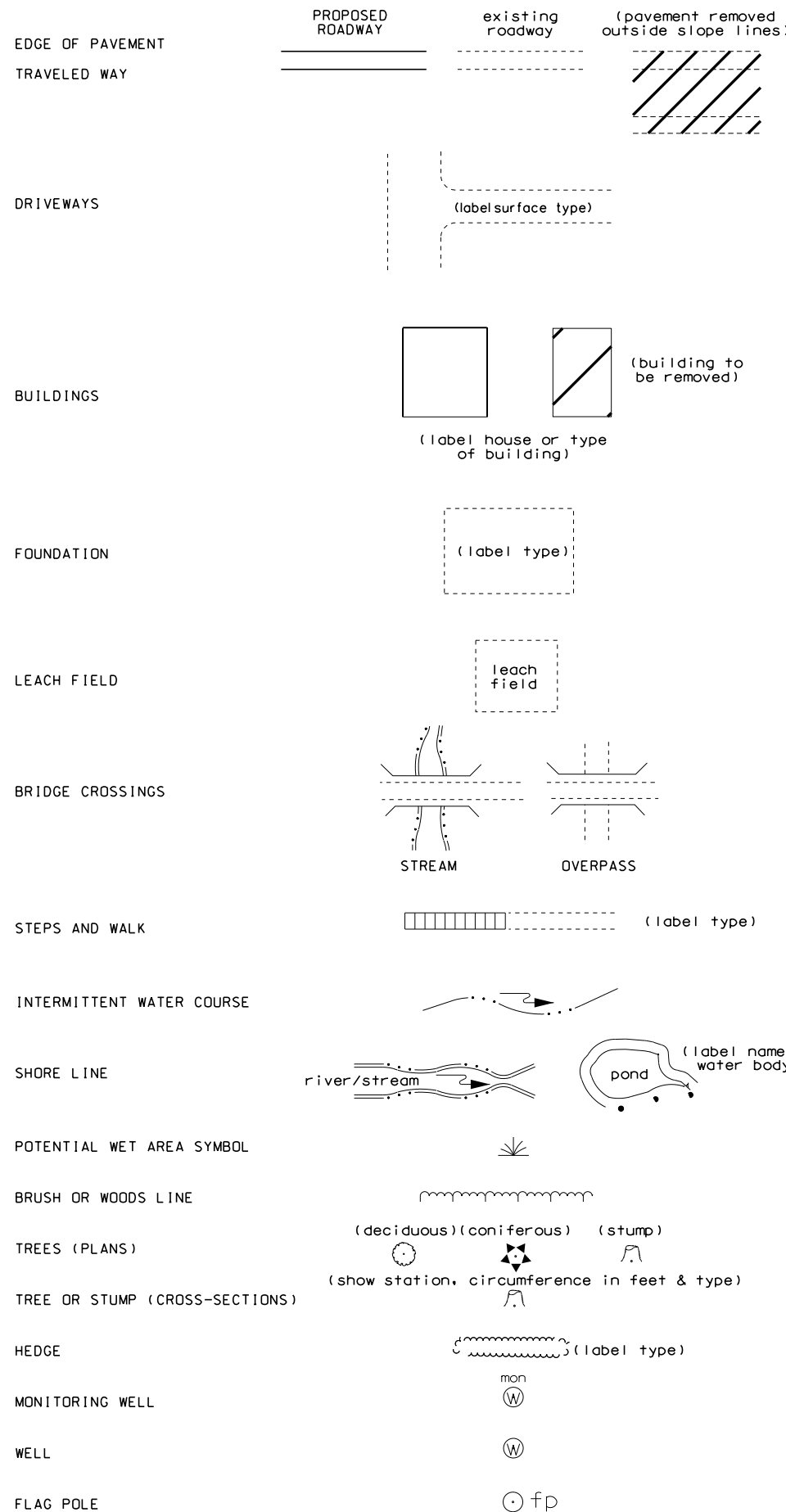
DRAWING NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11238S_COV		11238S	1	103

DRAWN BY BJM
CHECKED BY JOM
DATE 4/7/2023
DATE 4/7/2023

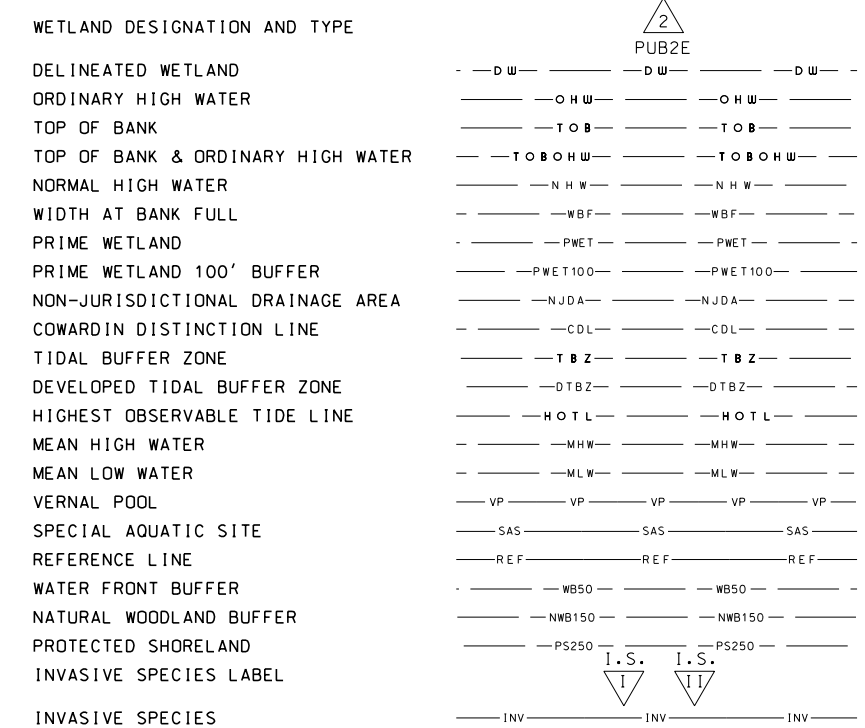
PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023



GENERAL



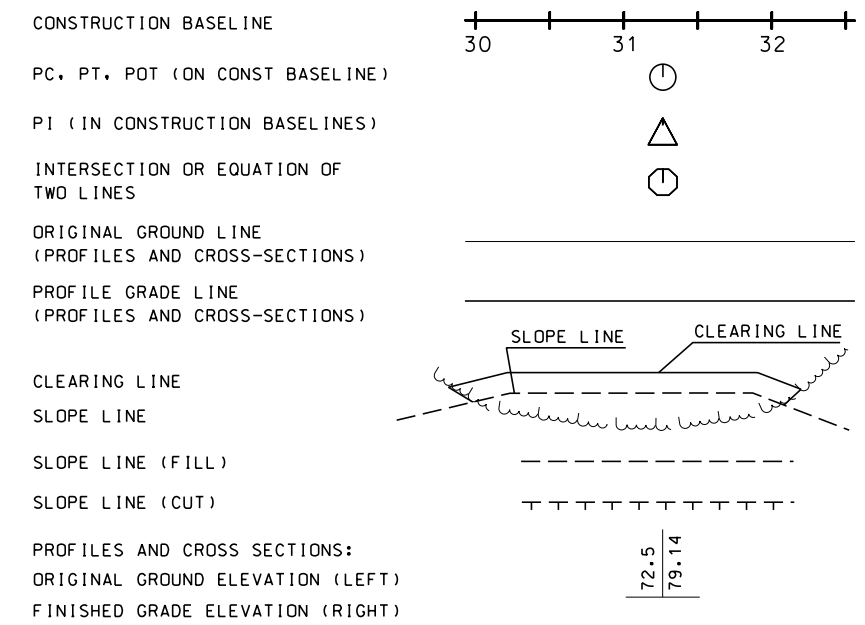
SHORELAND - WETLAND



FLOODPLAIN / FLOODWAY



ENGINEERING



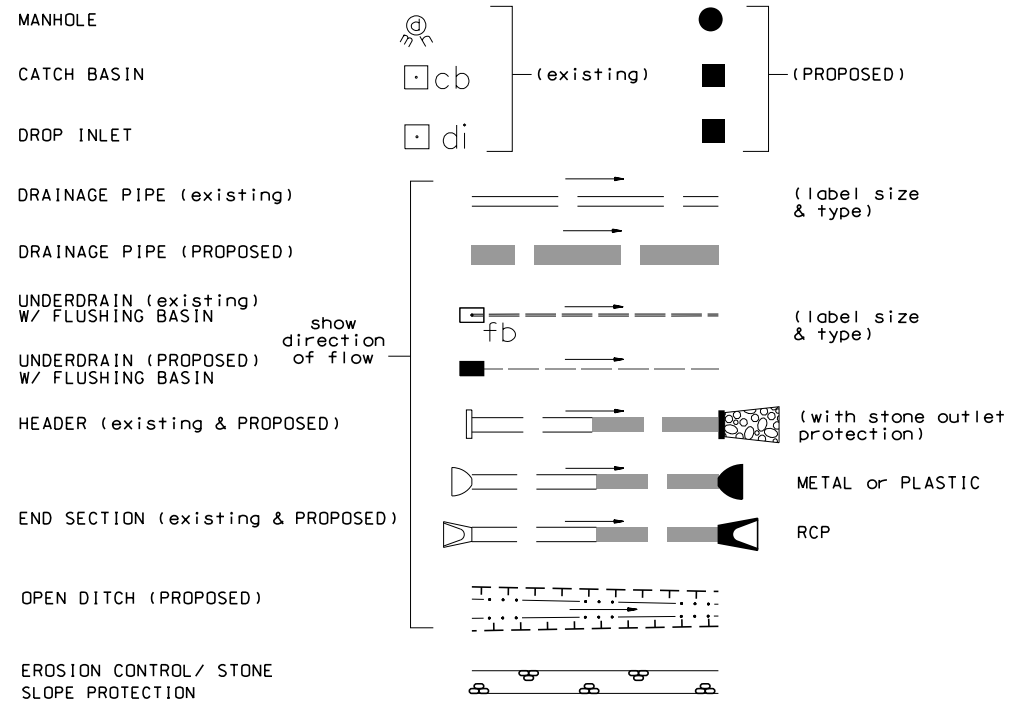
PS&E PLANS
 SUBJECT TO CHANGE
 DATE 4/7/2023

STATE OF NEW HAMPSHIRE
 Standards
 DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

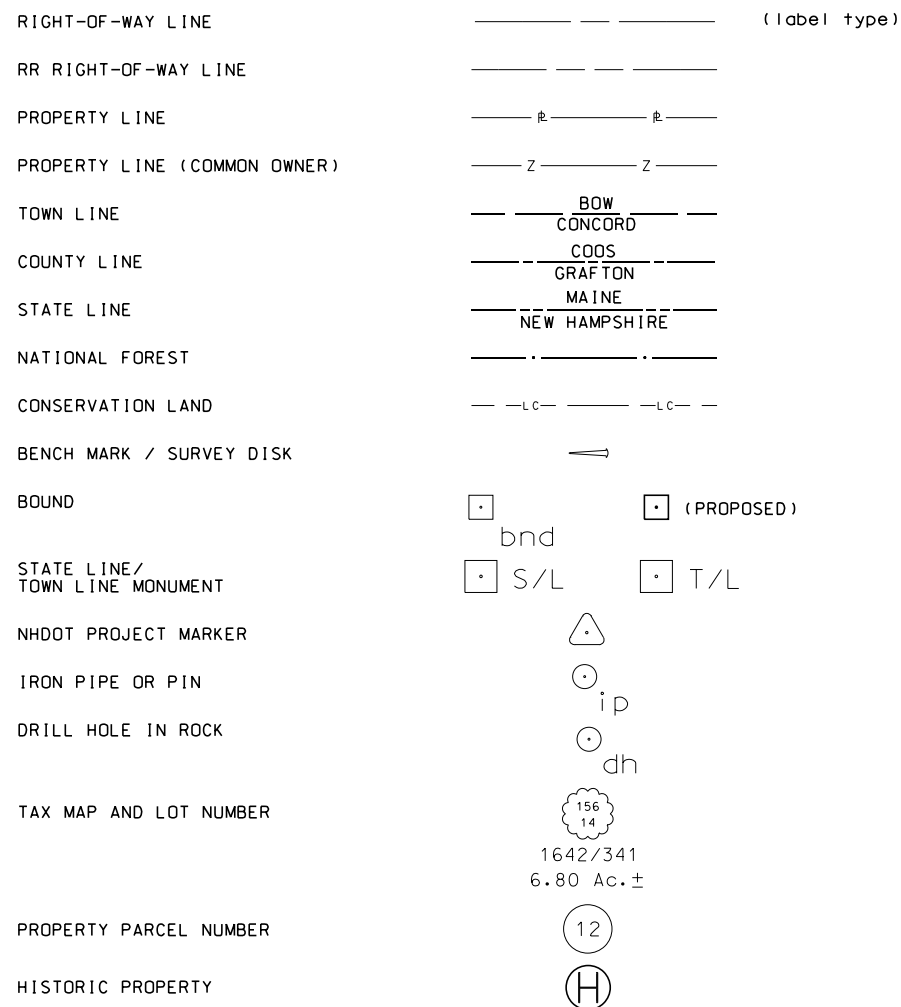
STANDARD SYMBOLS

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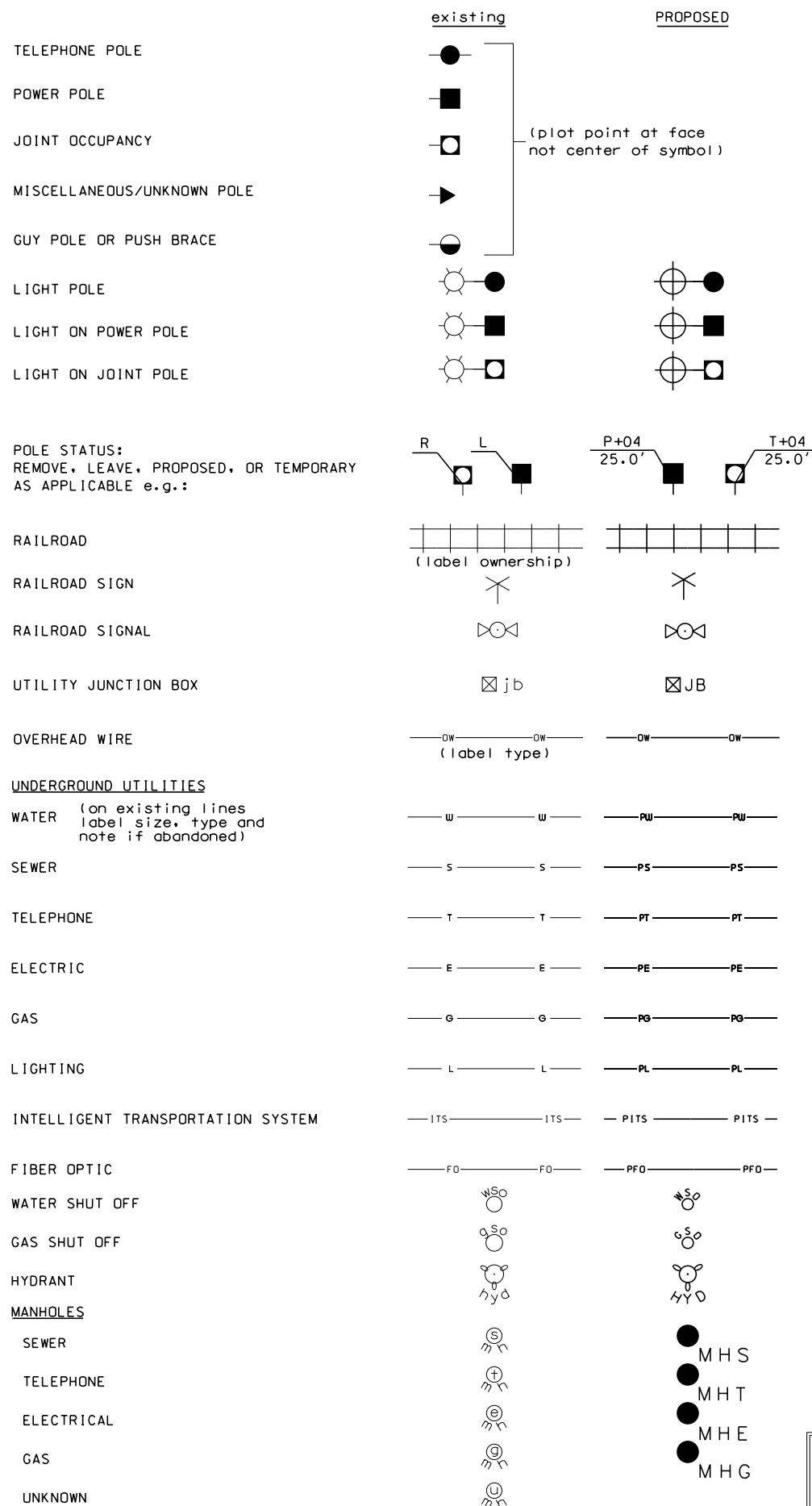
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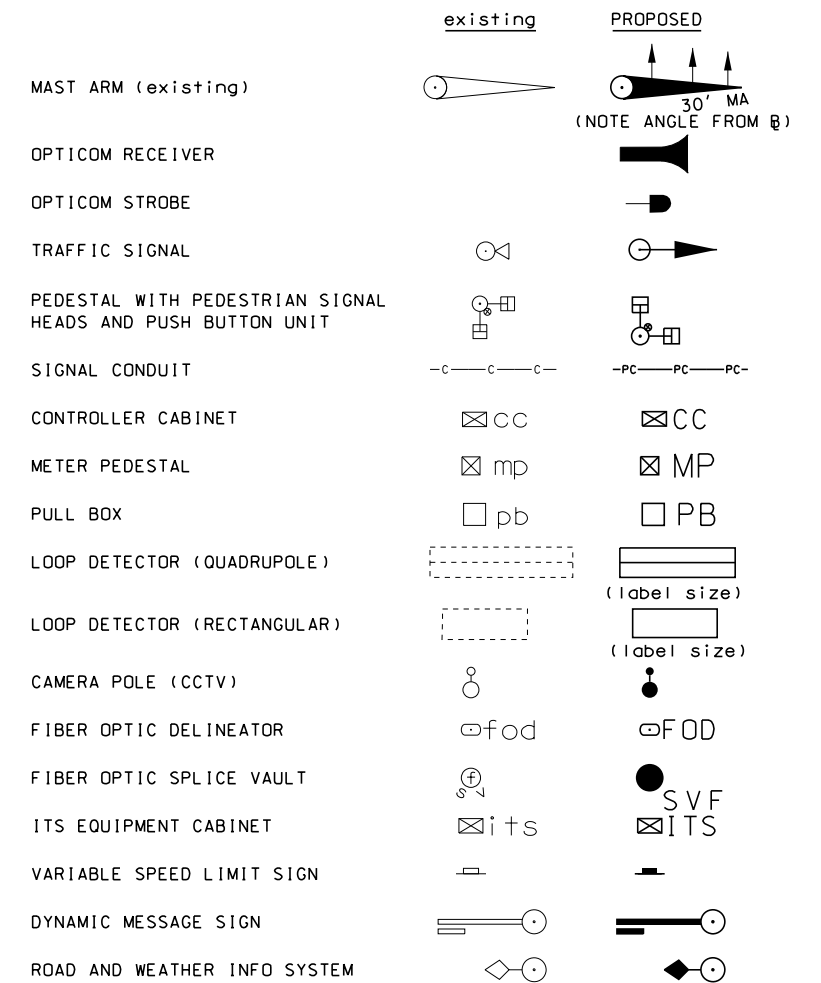
BOUNDARIES / RIGHT-OF-WAY



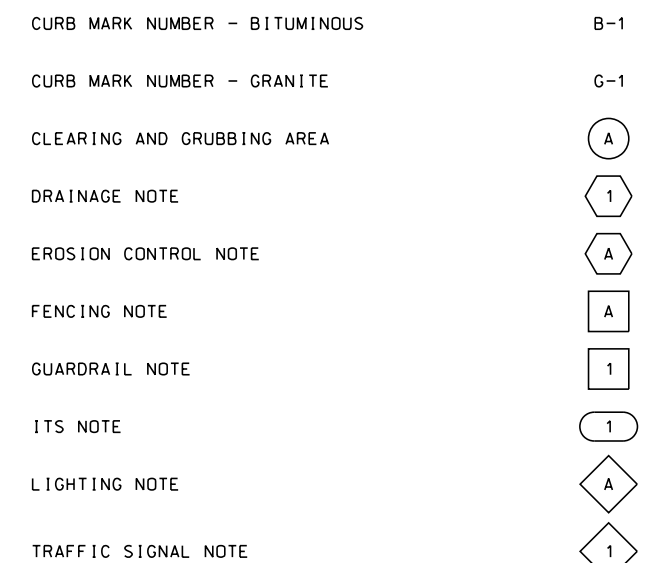
UTILITIES



TRAFFIC SIGNALS / ITS



CONSTRUCTION NOTES



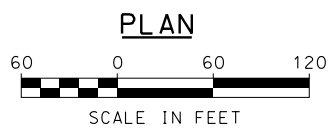
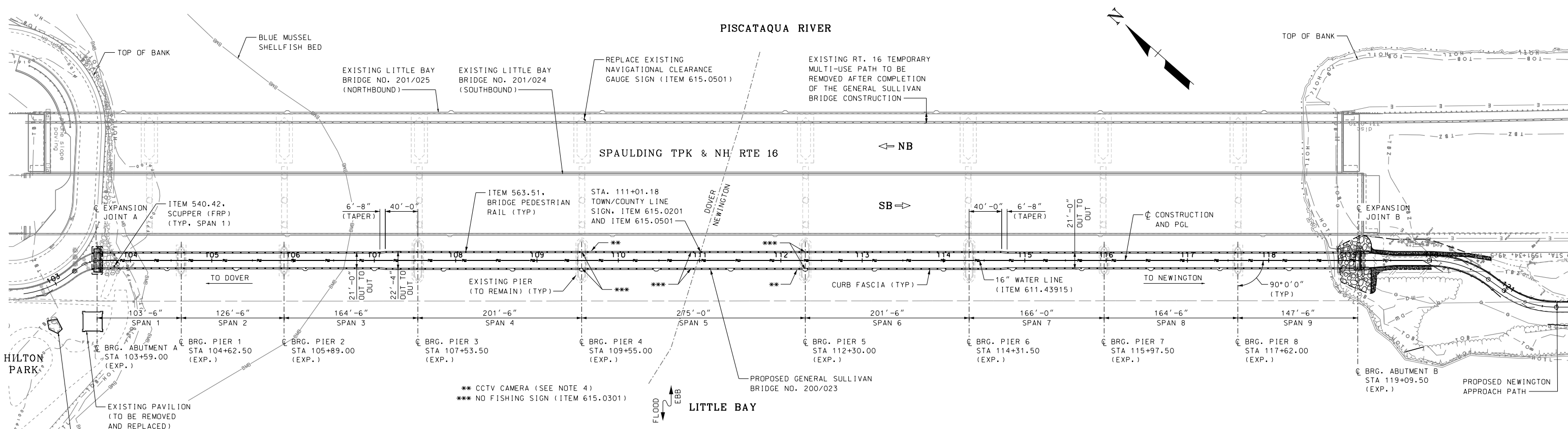
SHEET 2 OF 2

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023

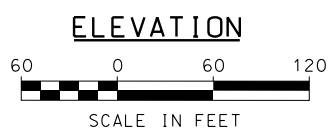
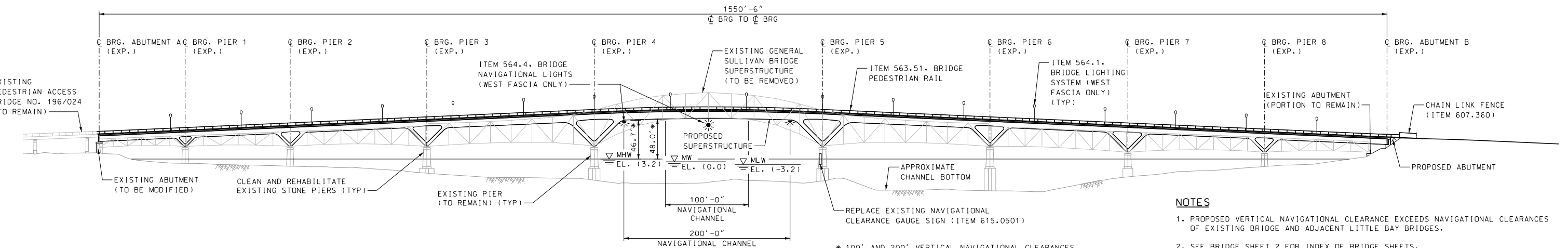
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	11238S_symb2	11238S	4	103

STATE OF NEW HAMPSHIRE
Standards
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS



BRIDGE SIGN LOCATIONS		
SIGN	QUANTITY	STATION
TOWN/COUNTY LINE	1	111+01.00
NO FISHING	2	109+55.00
NO FISHING	2	110+92.50
NO FISHING	2	112+30.00



HYDRAULIC DATA

MEAN LOW WATER (MLW) = -3.2 (NGVD29)
 MEAN TIDE LEVEL (MTL) = 0.0 (NGVD29)
 MEAN HIGH WATER (MHW) = +3.2 (NGVD29)
 **** 0100 ELEVATION = EL +9 (NGVD29)

DESIGN VELOCITY FOR FOUNDATIONS = 10 FPS

**** FLOOD ELEVATIONS ARE BASED ON VALUES FROM THE 2005 FEMA FLOOD INSURANCE STUDY FOR ROCKINGHAM COUNTY.

NOTES

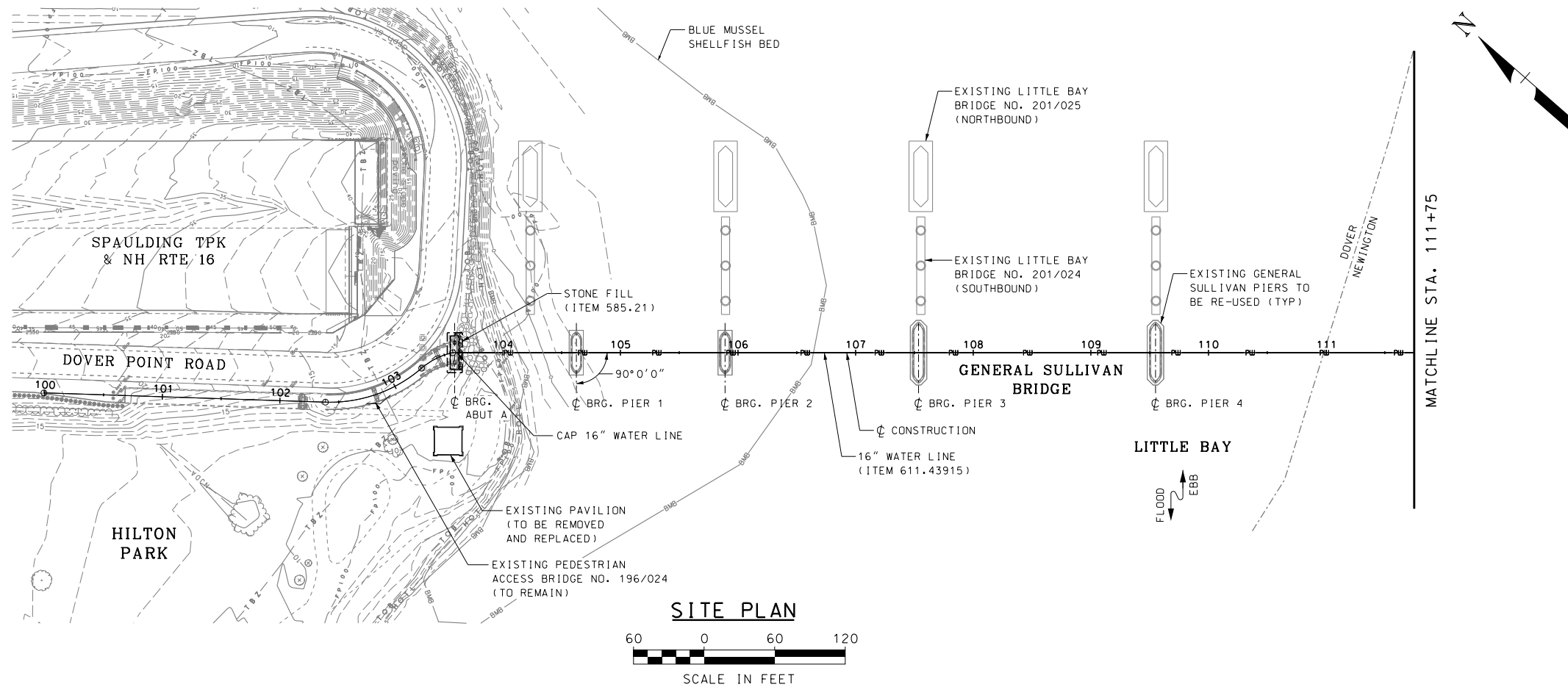
1. PROPOSED VERTICAL NAVIGATIONAL CLEARANCE EXCEEDS NAVIGATIONAL CLEARANCES OF EXISTING BRIDGE AND ADJACENT LITTLE BAY BRIDGES.
2. SEE BRIDGE SHEET 2 FOR INDEX OF BRIDGE SHEETS.
3. SEE SPECIAL USE PLANS FOR DETAILS AT NEWINGTON APPROACH PATH, HILTON PARK, RT. 16 TEMPORARY MULTI-USE PATH REMOVAL, AND SIGNAGE DETAILS.
4. SEE BRIDGE LIGHTING AND ITS DETAILS FOR CCTV DETAILS.
5. SEE WATER LINE UTILITY PLANS FOR WATER LINE UTILITY DETAILS.

PS&E PLANS
 SUBJECT TO CHANGE
 DATE 4/7/2023

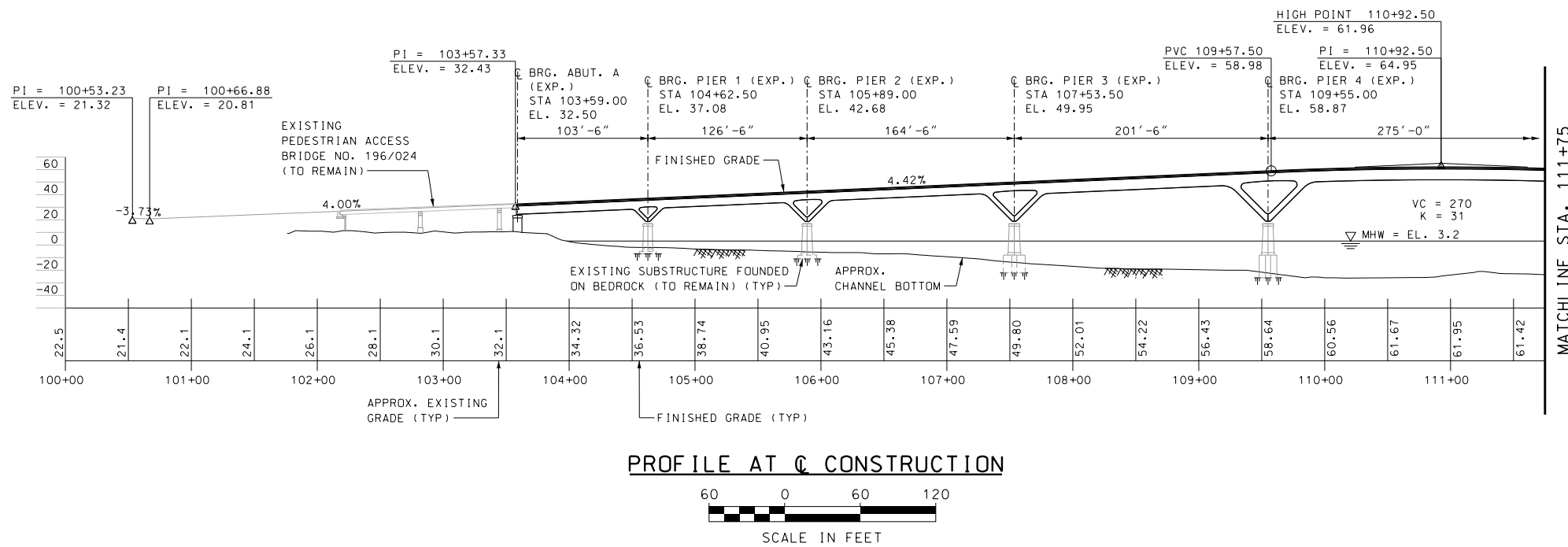


PLOT DATE	DRAWING NAME	SHEET SCALE
4/7/2023	11238S_ps.dgn	AS NOTED

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN NEWINGTON-DOVER	BRIDGE NO. 200/023	STATE PROJECT 11238S			
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY					
GENERAL PLAN AND ELEVATION					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					1 OF 74
DESIGNED	JGM	4/23	CHECKED	GSG	4/23
DRAWN	BJM	4/23	CHECKED	JGM	4/23
QUANTITIES					143-2-1
ISSUE DATE		FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS	
REV. DATE			8	103	



SITE PLAN



PROFILE AT @ CONSTRUCTION



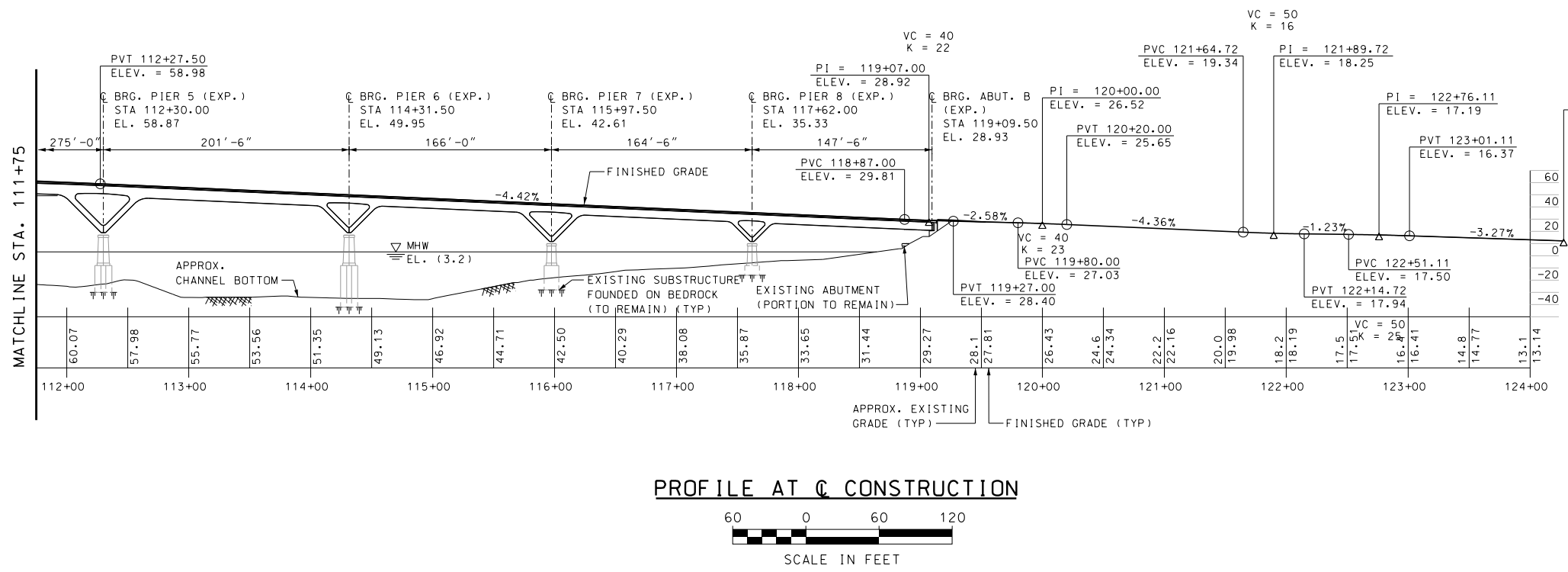
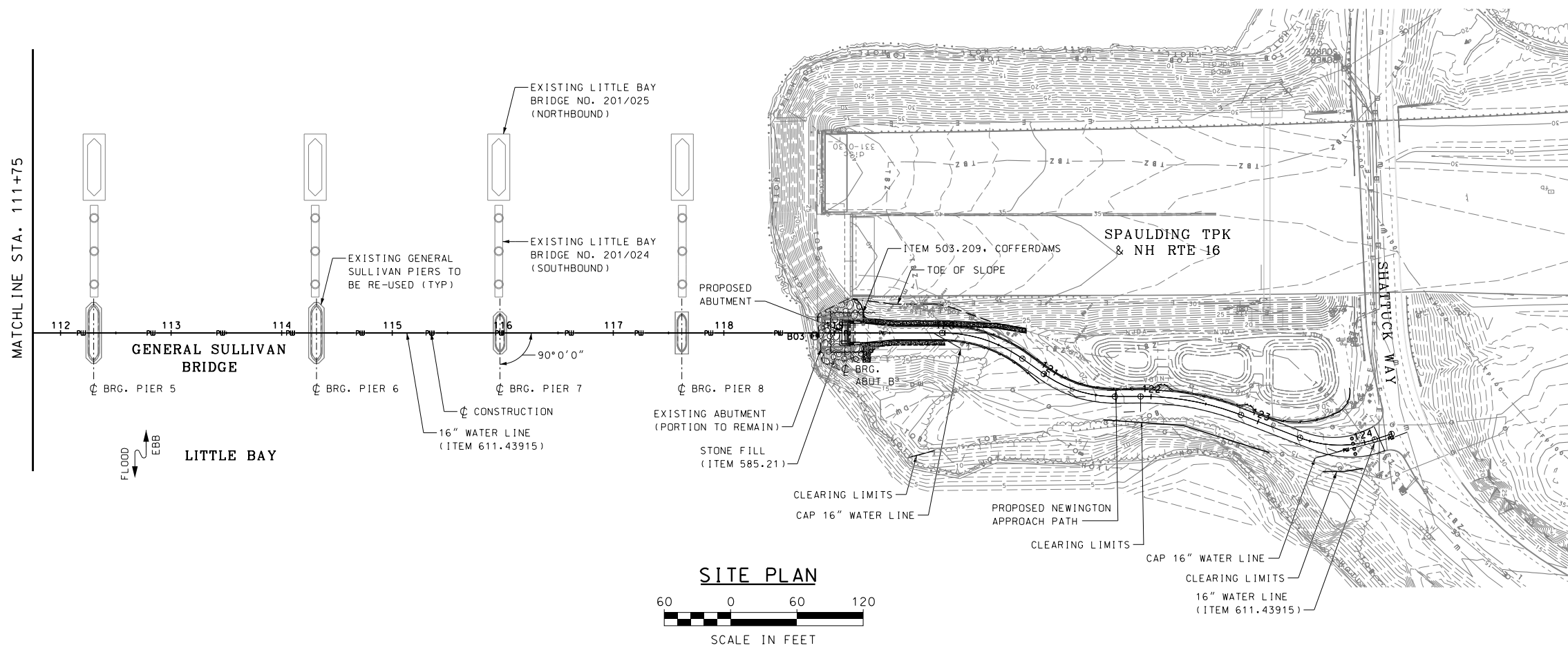
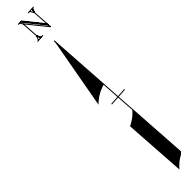
NOTE

1. TEMPORARY PIER COFFERDAMS (ITEMS 503.201 THRU 503.208) NOT SHOWN.

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023



STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN NEWINGTON-DOVER			BRIDGE NO. 200/023			STATE PROJECT 11238S			
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY									
SITE PLAN AND PROFILE (1 OF 2)								BRIDGE SHEET	
REVISIONS AFTER PROPOSAL		BY	DATE	CHECKED	GSG	DATE	5 OF 74		
		DESIGNED	TSP	4/23	CHECKED	4/23	FILE NUMBER		
		DRAWN	BJM	4/23	CHECKED	JGM	143-2-1		
		QUANTITIES		CHECKED		TOTAL SHEETS			
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.		12			
REV. DATE						103			
PLOT DATE	DRAWING NAME	SHEET SCALE							
4/7/2023	11238S_site1.dgn	AS NOTED							



- NOTES**
1. TEMPORARY PIER COFFERDAMS (ITEMS 503.201 THRU 503.208) NOT SHOWN.
 2. SEE WATER LINE UTILITY PLANS FOR WATER LINE UTILITY DETAILS.

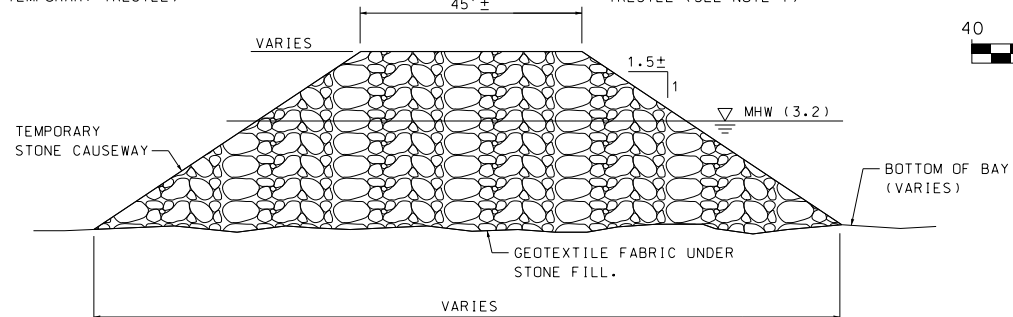
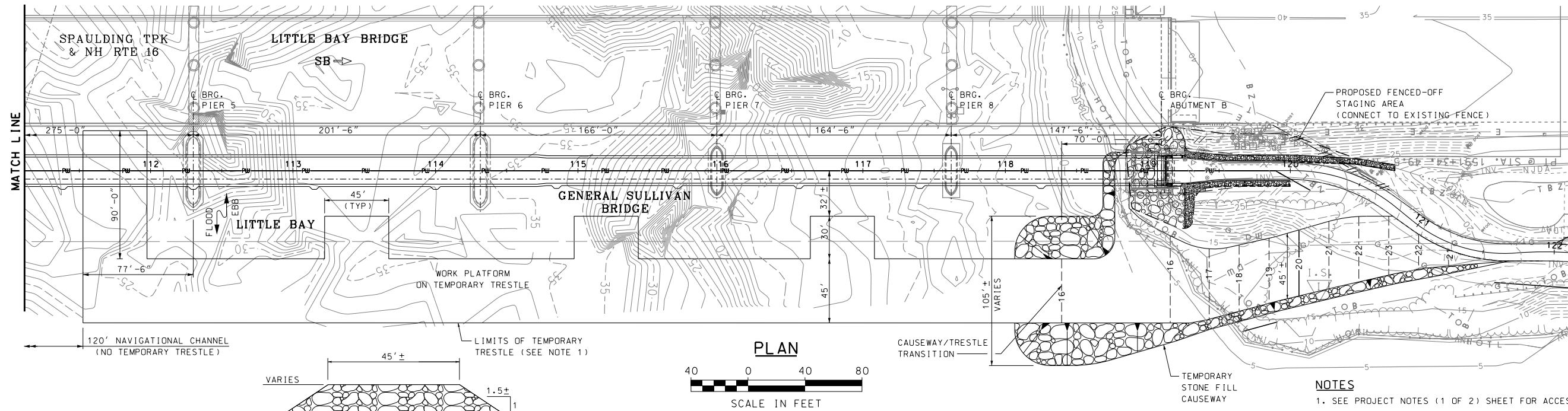
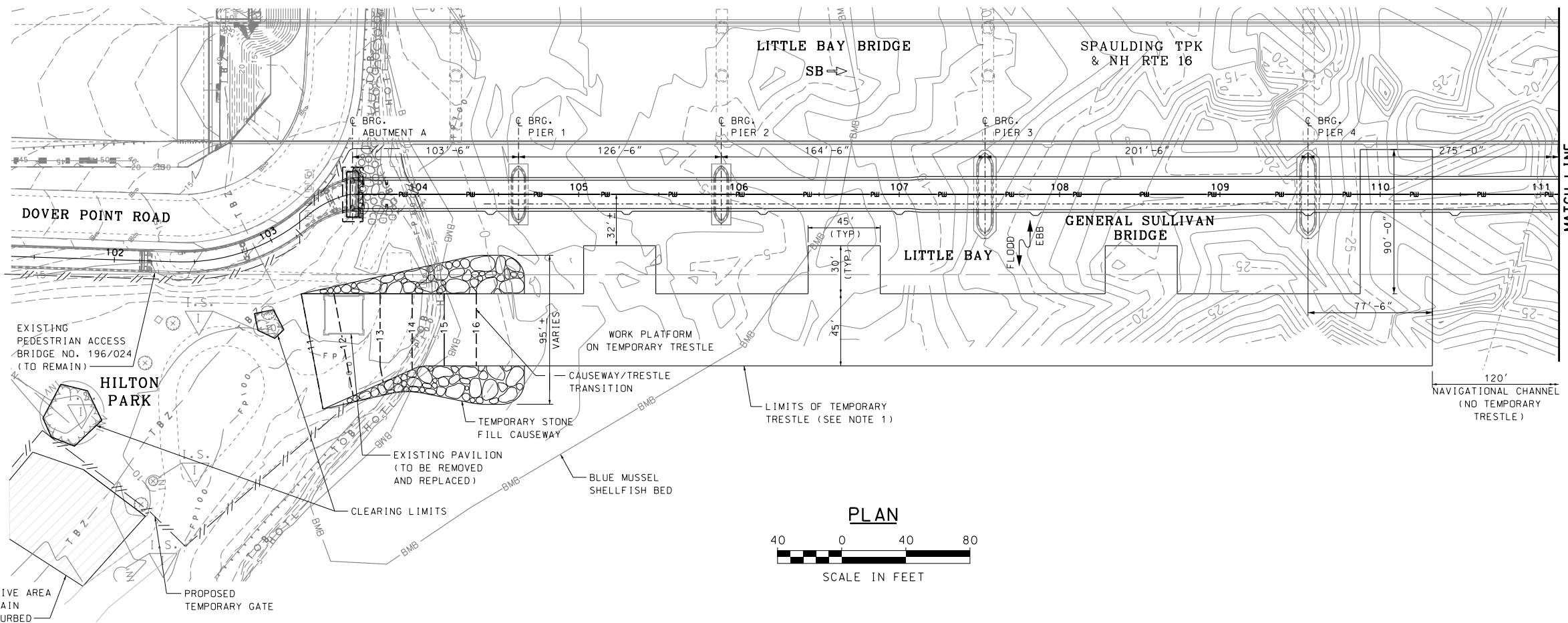
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DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN NEWINGTON-DOVER		BRIDGE NO. 200/023		STATE PROJECT 11238S	
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY					
SITE PLAN AND PROFILE (2 OF 2)					BRIDGE SHEET
REVISIONS AFTER PROPOSAL				BY	DATE
DESIGNED				TSP	4/23
DRAWN				BJM	4/23
QUANTITIES				CHECKED	GSG
ISSUE DATE				CHECKED	JGM
REV. DATE				CHECKED	4/23
FEDERAL PROJECT NO.			SHEET NO.		TOTAL SHEETS
			13		103

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023



PLOT DATE	DRAWING NAME	SHEET SCALE
4/7/2023	11238S_site2.dgn	AS NOTED

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SCHMATIC CAUSEWAY SECTION
NOT TO SCALE

- NOTES**
- SEE PROJECT NOTES (1 OF 2) SHEET FOR ACCESS FOR BRIDGE CONSTRUCTION NOTES.
 - SEE CONSTRUCTION ACCESS PLAN (2 OF 3) FOR HILTON PARK AND CONSTRUCTION ACCESS (3 OF 3) FOR NEWINGTON APPROACH.

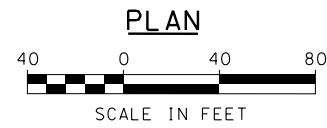
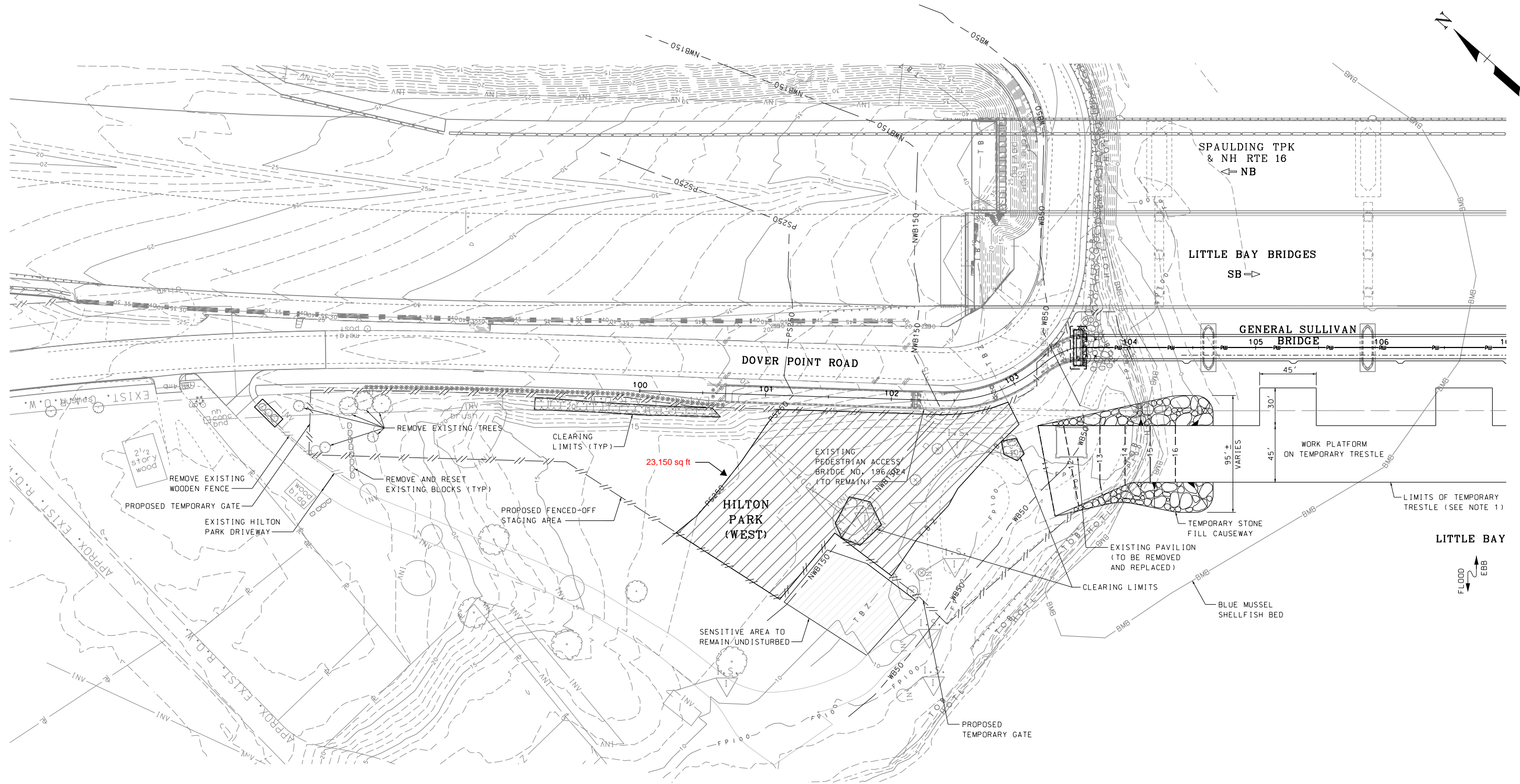
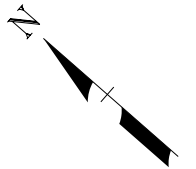
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TOWN NEWINGTON-DOVER		BRIDGE NO. 200/023		STATE PROJECT 11238S	
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CONSTRUCTION ACCESS PLAN (1 OF 3)					BRIDGE SHEET
					7 OF 74
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PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023

PLOT DATE	DRAWING NAME	SHEET SCALE
4/7/2023	11238S_access2.dgn	AS NOTED



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NOTE
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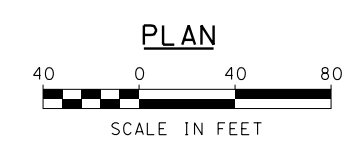
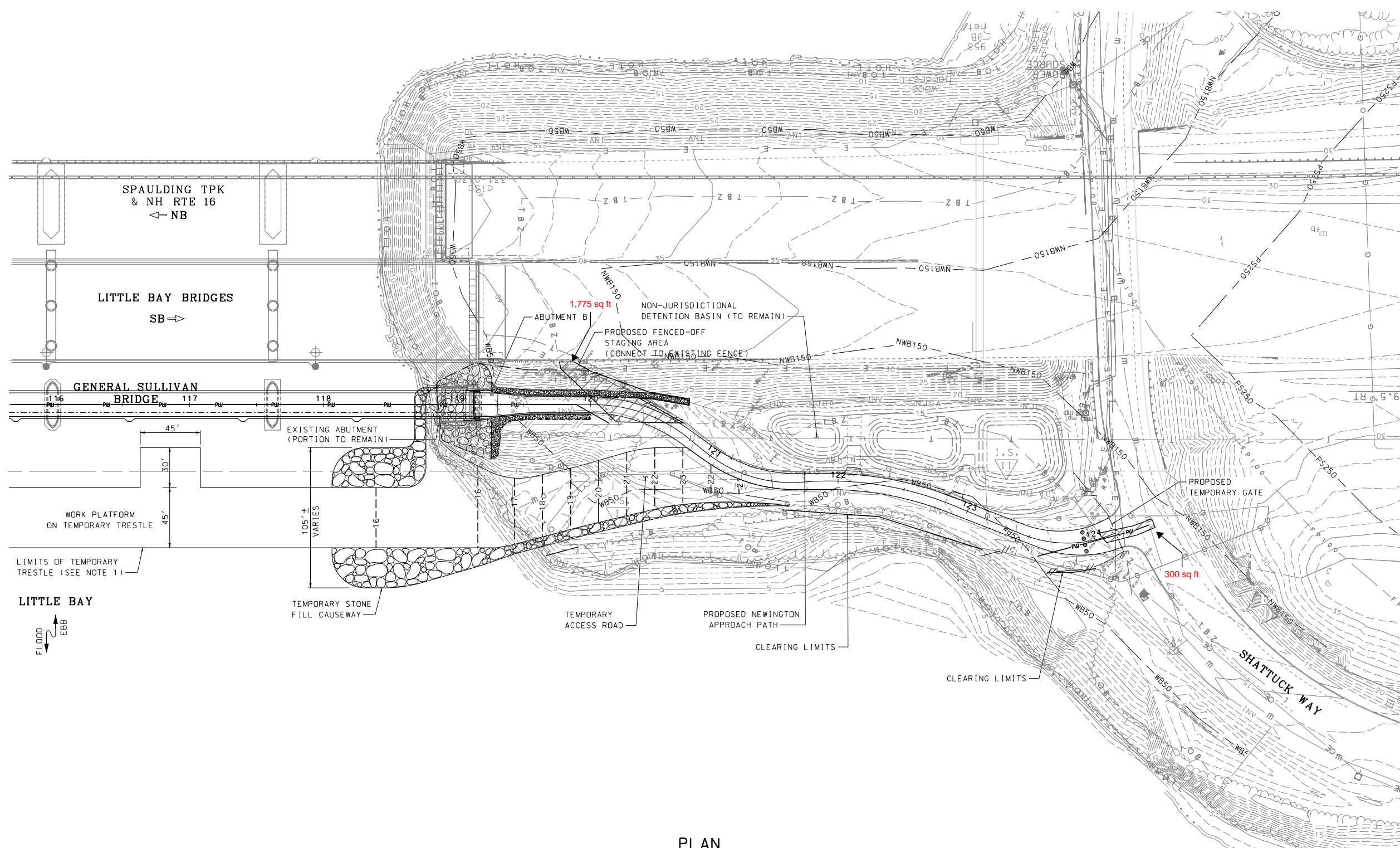
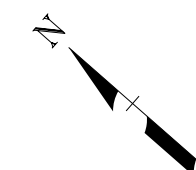
PS&E PLANS
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 DATE 6/6/2023



PLOT DATE	DRAWING NAME	SHEET SCALE
6/6/2023	11238S_access1.dgn	AS NOTED

STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN NEWINGTON-DOVER		BRIDGE NO. 200/023		STATE PROJECT 11238S	
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY					
CONSTRUCTION ACCESS PLAN (2 OF 3)					BRIDGE SHEET
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NOTE
 1. SEE PROJECT NOTES (1 OF 2) SHEET FOR ACCESS FOR BRIDGE CONSTRUCTION NOTES.

STATE OF NEW HAMPSHIRE											
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
TOWN NEWINGTON-DOVER				BRIDGE NO. 200/023				STATE PROJECT 11238S			
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY											
CONSTRUCTION ACCESS PLAN (3 OF 3)										BRIDGE SHEET	
										9 OF 75	
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PS&E PLANS
 SUBJECT TO CHANGE
 DATE 6/6/2023

PLOT DATE	DRAWING NAME	SHEET SCALE
6/6/2023	11238S_access3.dgn	AS NOTED

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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-WO 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 30th AND MAY 1st 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 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, 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 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
 - (C) AFTER NOVEMBER 30th 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-WO 1505.02 AND ENV-WO 1505.05.
 - (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WO 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30th.

GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS

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 1st THROUGH NOVEMBER 30th, 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-WO 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-WO 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-WO 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-WO 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-WO 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.

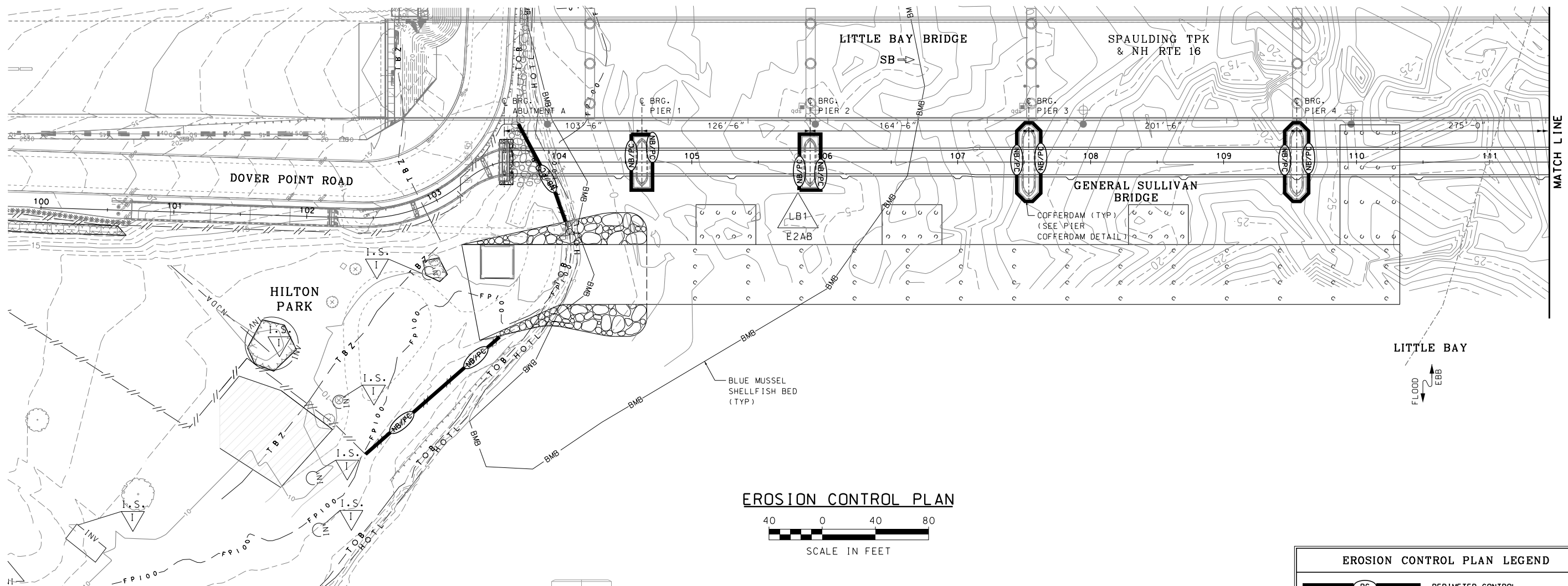
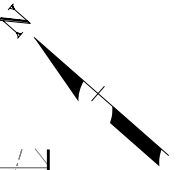
**TABLE 1
GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES**

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES ²				ROLLED EROSION CONTROL BLANKETS ³			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES ¹												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES	YES	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

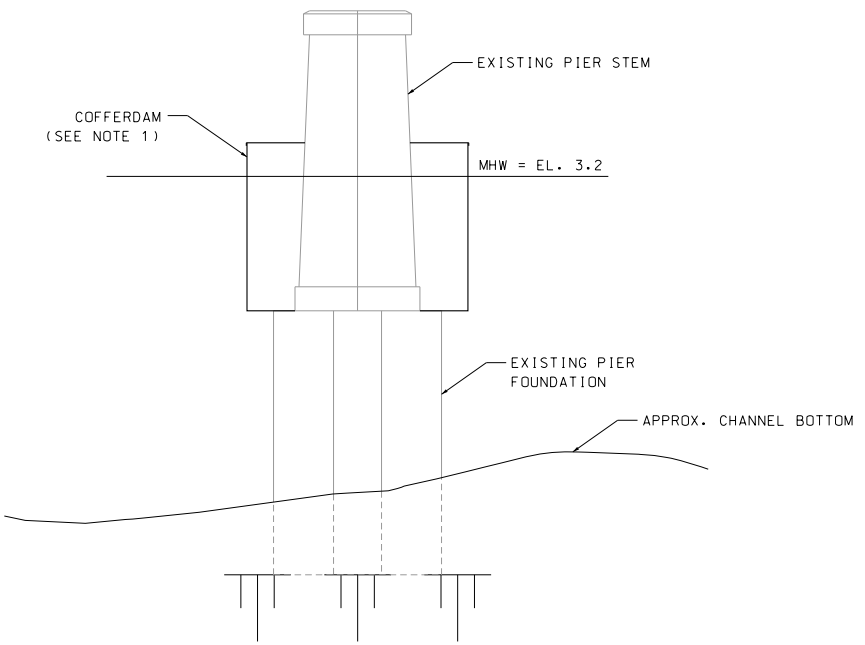
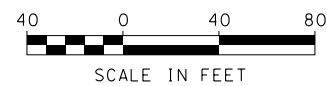
ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT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

STATE OF NEW HAMPSHIRE SPECIAL DETAILS				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
EROSION CONTROL LEGEND AND STRATEGY				
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	1238S_erosstrat	11238S	4	10



EROSION CONTROL PLAN



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

NOTE
1. PIERS WILL BE REHABILITATED DURING CONSTRUCTION AND WILL REQUIRE CONSTANT DEWATERING. A COFFERDAM WILL BE ANCHORED AND BRACED TO THE EXISTING PIERS.

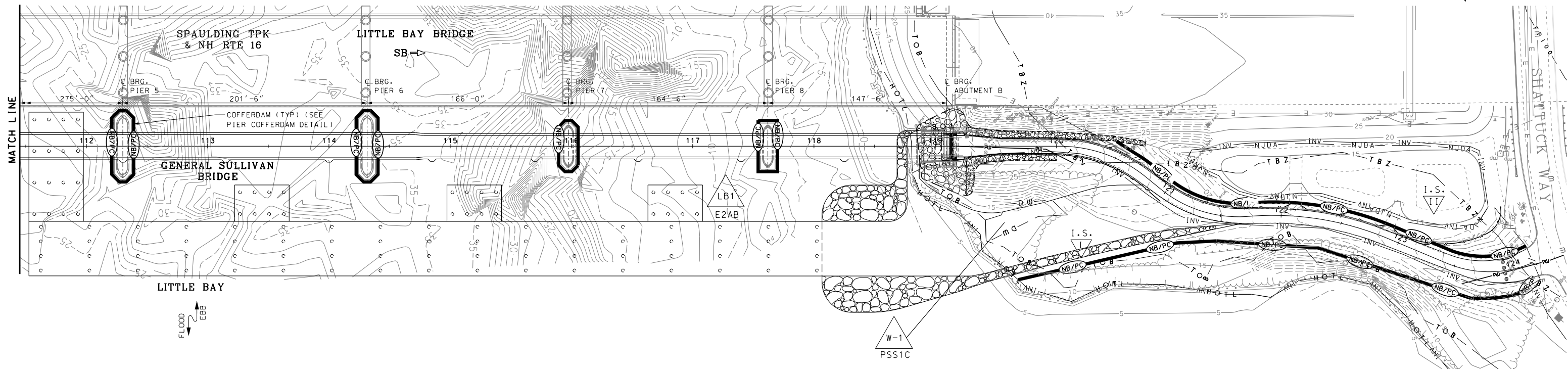
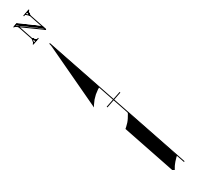
REVISED
PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 3/6/2023

PIER COFFERDAM DETAIL
NOT TO SCALE



STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN NEWINGTON-DOVER			BRIDGE NO. 200/023		STATE PROJECT 11238S				
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY									
EROSION CONTROL PLAN (1 OF 2)								BRIDGE SHEET	
REVISIONS AFTER PROPOSAL								9 OF 10	
		BY	DATE	CHECKED	BY	DATE	FILE NUMBER		
		DESIGNED	TSP 10/22	CHECKED	-	10/22			
		DRAWN	BJM 10/22	CHECKED	TSP	10/22			
		QUANTITIES		CHECKED					
PLOT DATE		DRAWING NAME		SHEET SCALE		FEDERAL PROJECT NO.		SHEET NO.	
3/6/2023		11238S_ero-permit.dgn		AS NOTED					
REV. DATE								TOTAL SHEETS	

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EROSION CONTROL PLAN

SCALE IN FEET

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

REVISED
PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 3/6/2023



STATE OF NEW HAMPSHIRE					
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN NEWINGTON-DOVER	BRIDGE NO. 200/023	STATE PROJECT 11238S			
LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY					
EROSION CONTROL PLAN (2 OF 2)					BRIDGE SHEET
REVISIONS AFTER PROPOSAL					10 OF 10
	DESIGNED	TSP	10/22	CHECKED	-
	DRAWN	BJM	10/22	CHECKED	TSP
	QUANTITIES			CHECKED	
ISSUE DATE		FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
REV. DATE					

PLOT DATE	DRAWING NAME	SHEET SCALE
3/6/2023	11238S_ero-permit2.dgn	AS NOTED

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REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DESCRIPTION

DESCRIPTION

DESCRIPTION

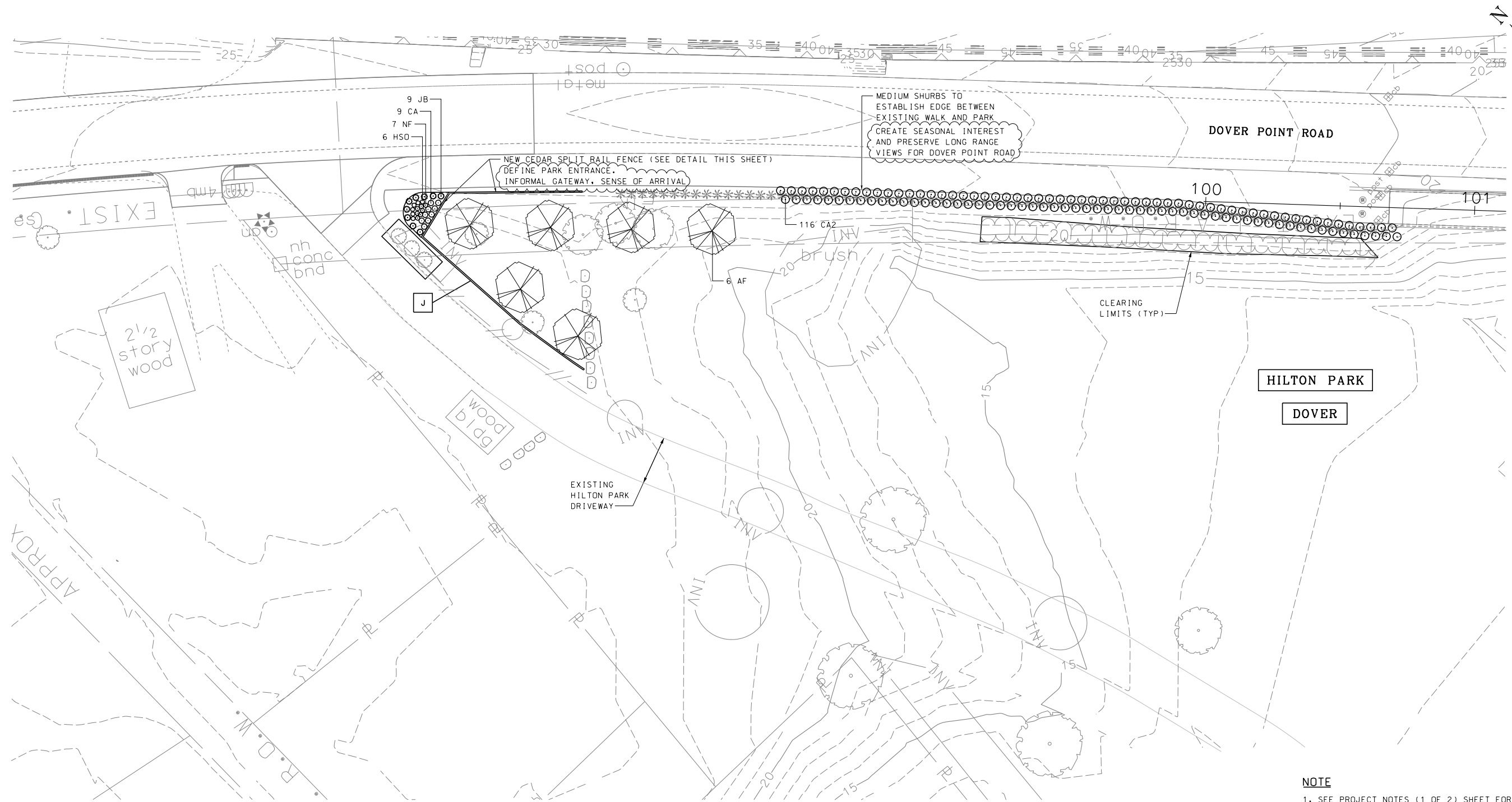
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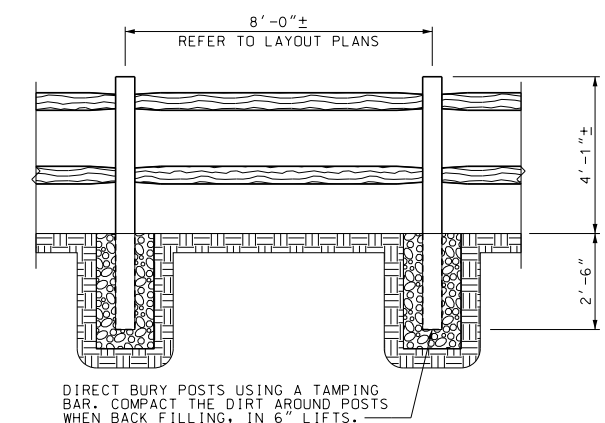
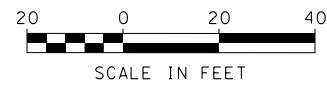
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PLAN



SPLIT RAIL FENCE
NOT TO SCALE

NOTE
1. SEE PROJECT NOTES (1 OF 2) SHEET FOR ACCESS FOR BRIDGE CONSTRUCTION NOTES.

- FENCE NOTES**
1. POSTS AND RAILS TO BE MADE OF WESTERN RED CEDAR.
 2. POST SPACING WILL VARY WITH LENGTH OF RAILS AND INSTALLATION PROCEDURE. REFER TO LAYOUT PLANS.
 3. RETAMP POSTS PLUMB AFTER THE GROUND SETTLES TO ENSURE FENCE REMAINS PLUMB AND UPRIGHT.

PLANT SCHEDULE				
DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR	5	Acer rubrum	Red Maple	2 1/2 - 3" CAL./B&B
AF	6	Acer x freemanii "Sienna"	Sienna Glen Maple	2 1/2 - 3" CAL.
AC	13	Amelanchier canadensis	Shadblow Serviceberry - multi-stem	8 - 10' HT.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CG	27	Cornus racemosa	Gray Dogwood	24 - 30" SPD.
CR2	55	Cornus sericea	Red Twig Dogwood	18 - 24" SPD
CA2	116	Cornus stolonifera "Arctic Fire"	Arctic Fire Dogwood	18 - 24" SPD
HV	31	Hamamelis virginiana	Common Witch Hazel	24 - 30" SPD.
JB	6	Juniperus horizontalis "Bar Harbor"	Bar Harbor Creeping Juniper	18 - 24" SPD
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA	9	Calamagrostis x acutiflora "Karl Foerster"	Karl Foerster Feather Reed Grass	2 GAL.
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
HSO	6	Hemerocallis x "Stella de Oro"	Stella de Oro Daylily	1 GAL.
NF	7	Nepeta x faassenii	Catmint	1 GAL., 24" o.c.

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023

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

LANDSCAPING DETAILS (1 OF 3)



DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
4/7/2023	52381.03	112385-landscape1.dgn	112385	87	103

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

DESCRIPTION

DESCRIPTION

DESCRIPTION

DESCRIPTION

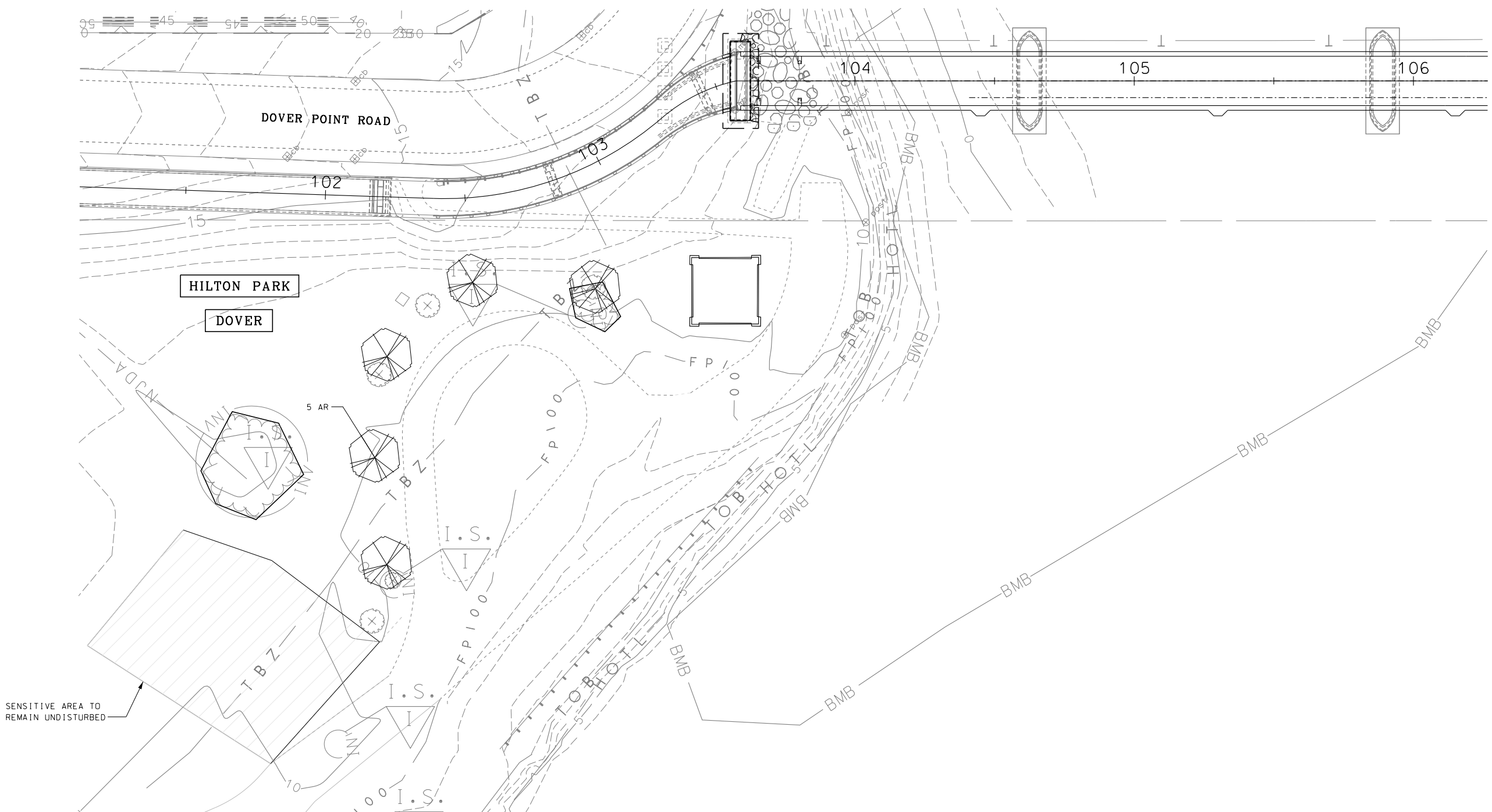
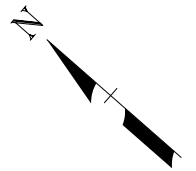
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PLAN



SCALE IN FEET

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023

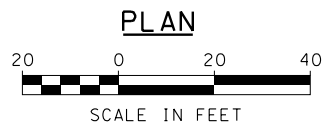
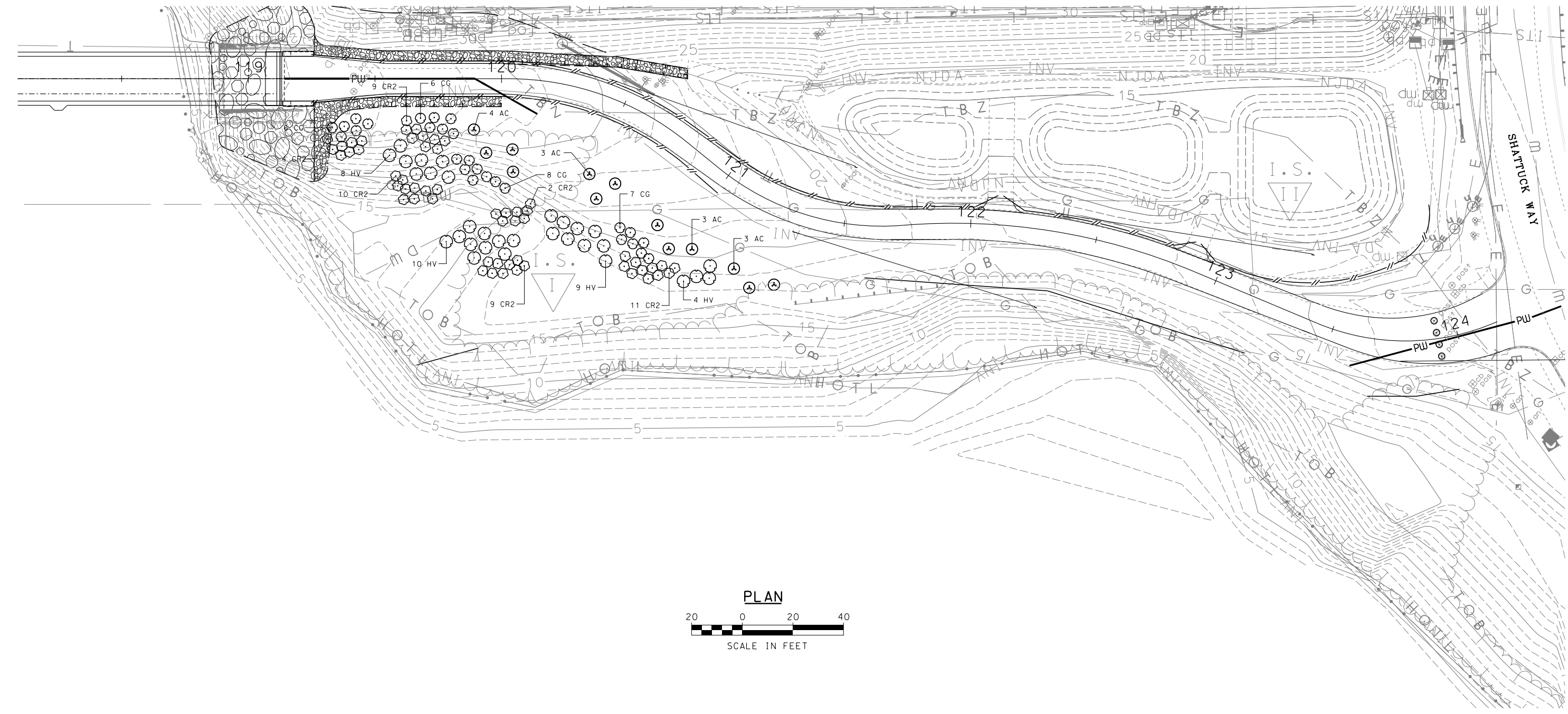


STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

LANDSCAPING DETAILS (2 OF 3)

DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
4/7/2023	52381.03	11238S-landscape2.dgn	11238S	88	103

SDR PROCESSED	T. GAGNON	DATE	4/2023
NEW DESIGN	M. WILLARD	DATE	4/2023
SHEET CHECKED	J. MACPHERSON	DATE	4/2023
AS BUILT DETAILS		DATE	



June 19, 2023

PS&E PLANS
SUBJECT TO CHANGE
DATE 4/7/2023

DATE PLOTTED	VHB PROJECT NO.	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
4/7/2023	52381.03	11238S-landscape3.dgn	11238S	89	103



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

LANDSCAPING DETAILS (3 OF 3)