Appendix J – US Coast Guard Coordination

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

November 12, 2019

James Rousseau
Bridge Management Specialist
First District Bridge Branch
United States Coast Guard
One South Street
New York, NY 10004-1466

RE: Bridge Project Initiation Request
Spaulding Turnpike / Little Bay Bridge: NHS-027-1(037), 11238S
Newington and Dover, New Hampshire

Dear Mr. Rousseau:

We are providing this letter and the attached information regarding the proposed rehabilitation or replacement of the General Sullivan Bridge (GSB) over the Little Bay in Newington and Dover, New Hampshire ("the Project"). On January 16, 2018, the U.S. Coast Guard accepted the invitation to become a cooperating agency under the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 *et seq.*) process for the Project. Having moved forward with preliminary planning, we are informing you of the selection of the Preferred Alternative for the Project and the ongoing development of a Draft Supplemental Environmental Impact Statement (DSEIS). This package is being submitted to satisfy the requirements of the Bridge Project Initiation Request as outlined in Section 2 of the Bridge Permit Application Guide (Commandant Publication P16591.3D), published by the U.S. Coast Guard in July 2016.

The Preferred Alternative has been determined to be Alternative 9: Superstructure Replacement – Girder Option, which involves the complete removal and replacement of the GSB superstructure, which spans a navigable water of the United States. Once Federal Highway Administration (FHWA) issues a Supplemental Record of Decision (SROD), it is anticipated that the New Hampshire Department of Transportation (NHDOT) will begin the application process for a U.S. Coast Guard permit. To facilitate early coordination, we are requesting that the U.S. Coast Guard provide any comments or concerns within 30 days of receipt of this letter.

A brief description of the proposed project, including information about constraints or flexibility with respect to the project

The GSB was built in 1934 and connects Newington and Dover, New Hampshire, over the Little Bay. Although originally designed to support two lanes of highway traffic over the mouth of the Little Bay, the bridge was closed to vehicular traffic in 1984, when the adjacent Little Bay Bridge (LBB), located east of the GSB, was completed. Now the GSB is closed even to pedestrian and bicycle traffic due to a recent inspection completed in September 2018, which found additional deterioration of a critical floor beam under the bridge deck. Under the terms of

the existing permit for the GSB and expanded LBB issued by the U.S. Coast Guard, the GSB would eventually need to be removed.[1]

The condition of the GSB has been declining over the last few decades. The superstructure has experienced substantial deterioration due to its age and location in a coastal environment. To address this issue, options for the rehabilitation or replacement of the bridge were previously reviewed in a 2007 Final Environmental Impact Statement (FEIS) and a 2008 ROD, which were produced by NHDOT and the FHWA under NEPA. In the 2008 ROD, NHDOT and FHWA committed to maintain pedestrian and bicycle connectivity between Dover and Newington and would accomplish that by rehabilitating the bridge.

Of the various reasonable alternatives being considered in the DSEIS, the Preferred Alternative is Alternative 9: Superstructure Replacement – Girder Option, which involves complete removal and replacement of the GSB superstructure. Under the Preferred Alternative, the superstructure would be replaced with a steel girder superstructure with a structural steel frame extending from the bottom of the girders to the top of the existing piers. This alternative follows the existing GSB alignment, thereby allowing the reuse of the existing stone masonry piers and approaches without requiring significant modifications. This alternative eliminates permanent impacts to intertidal and subtidal habitat due to reuse of the GSB piers, and maintains the current navigational patterns. Plans of the Preferred Alternative are attached.

A brief description of the purpose and need of the bridge project

Since the 2008 ROD, further inspections and studies of the GSB condition were completed. The information gathered by these investigations revealed that deterioration was occurring at a faster rate than initially estimated. Therefore, NHDOT and FHWA are proceeding to further evaluate rehabilitation and consider other reasonable alternatives; these alternatives and their environmental and cultural resource impacts will be presented in the DSEIS.

The revised purpose of the project element (GSB) that is the subject of the DSEIS is to provide recreational access and connectivity between Newington and Dover, across Little Bay, for non-motorized use, while accommodating emergency response and maintenance vehicles from Newington. The need for the Project is to continue providing access across Little Bay for pedestrians and non-motorized vehicles providing alternative community options and recreational opportunities.

Proposed schedule (if known), including timeframe for filing necessary Federal and State applications, construction start date, and planned in-service date, if approved

Construction of the Preferred Alternative is anticipated to take approximately 18 months. Currently, construction is funded for 2021. Construction would begin with a one- to two-month period of installing temporary causeways and trestles from the Dover and Newington shorelines. The GSB superstructure would be removed and replaced using these causeways, trestles, and watercrafts. Removal and replacement of the center spans will likely require temporary closure of the navigational channel; closure would be planned in close coordination with the U.S. Coast

[1] On November 30, 2006, Gary Kassof of the U.S. Coast Guard sent a letter to Marc G. Laurin, Senior Environmental Manager of NHDOT, regarding the Draft Environmental Impact Statement for the Newington-Dover, 11238 project. The U.S. Coast Guard advised NHDOT that the GSB should be removed as it no longer served a transportation purpose, and that a clear and reasonable rationale must be presented for retaining or rebuilding the structure. The letter also stipulated that the bridge permit application to be submitted must address the need to retain or rebuild the GSB and, if the old bridge is to be removed, should include complete removal of all parts not utilized in the new structure.

Guard. During the majority of construction, the main navigation channel (a 200-foot zone of passage under the center span of the GSB) would remain open.

Upon completion of the Project, the causeways and trestles would be removed, and the area restored to pre-construction conditions, which is anticipated to take approximately one to two months. The causeways and trestles are considered a temporary impact within the Little Bay and are the only in-water work that is proposed. Temporary causeways and trestles will not be used in the 200-foot navigational channel. We have attached a plan that depicts the construction phase impacts but note that these plans are for planning purposes only and may be modified during construction if required to allow for safe and efficient contractor access.

Federal agencies and non-federal agencies which must grant approvals, easements, or other actions for the Project are listed below in Table 1.

Table 1 Required Federal Permits, Approvals, or Certifications

Issuing Agency	Regulation/Jurisdiction	Name of Filing
FHWA	NEPA	Final Supplemental EIS; SROD
U.S. Army Corps of Engineers	Clean Water Act, Section 404; Federal Rivers and Harbors Act, Section 10	Individual Permit
NH Department of Environmental Services (NHDES)	Coastal Federal Consistency Program – Coastal Zone Management Act	Consistency Certification
NHDES	NH Revised Statutes Annotated 482-A, Wetlands Bureau	Wetlands Permit
NHDES	NH Revised Statutes Annotated 483-B, Shoreland Program	Shoreland Permit
Advisory Council on Historic Preservation	National Historic Preservation Act, Section 106	Section 106 Consultation
NH Division of Historical Resources	National Historic Preservation Act, Section 106	Memorandum of Agreement

Based on existing, relevant and reasonably available information, a description of the known existing major project site conditions, potential changes to the waterway and/or any other areas of concern.

In compliance with NEPA, the 2007 FEIS and in-progress DSEIS include in-depth analyses of the resources within the area that may be affected by the Project, referred to as the Study Area. The Study Area for the DSEIS is defined to include both the GSB and the LBBs, as well as an area approximately 800 feet north and 800 feet south of the bridge abutments in Dover and Newington. When completed, the DSEIS will be shared with the U.S. Coast Guard and other cooperating agencies.

The DSEIS will evaluate the Preferred Alternative's impacts to natural, social, and economic resources. The Preferred Alternative would result in an adverse effect to the GSB pursuant to Section 106 of the National Historic Preservation Act, due to the removal and replacement of the steel superstructure. However, under the No-Action Alternative, the most prevalent permanent impacts to the human environment would result in impacts to vehicular, bicycle and pedestrian traffic through a loss of alternative commuting options and recreational opportunities. Under the Preferred Alternative, temporary structures needed for construction are conceptual and will be decided by contractor means and methods during the construction phase. The placement of temporary structures would result in minor, temporary impacts to hydrodynamics, and wildlife and fisheries. The U.S. Fish and Wildlife is in concurrence with NHDOT that the Project would not have a substantial effect on Essential Fish Habitat outlined in the Essential Fish Habitat Worksheet (concurrence received May 17, 2019). Also, FHWA and NHDOT determined that the Project *may affect but is not likely to adversely affect* the Endangered Species Act-listed fish species under a programmatic agreement with the National Marine Fisheries Office, Greater Atlantic Regional Fisheries Office. The Greater Atlantic Regional Fisheries Office Protected Resources Division concurred with FHWA's determination that the Project complies with the Program on June 18, 2019.

The alternatives that were considered, impacts related to the construction of the proposed bridge, and recommendations of resource agencies for mitigating potential impacts were documented in both submissions.

Navigable waters

The Preferred Alternative would construct a steel girder superstructure rather than a truss structure, which would allow for an increase in the vertical clearance above the water surface. As shown in the Alternative 9 Elevation and Typical Sections (attached), the Preferred Alternative would benefit the 200-foot navigation channel through increasing the existing 34.7-foot vertical navigational clearance beneath the GSB. Under the "V-Frame" option, the vertical navigational clearance would increase by 9.6 feet, for a new total clearance of 44.3 feet. Similarly, the "Super Haunch" design option would benefit the 200-foot navigation channel through increasing the vertical navigational clearance beneath the GSB by 12.8 feet, for a new total clearance of 47.5 feet. The Project would not benefit the vertical navigational clearance of the 100-foot navigation channel because the restriction is the northbound LBB, which is lower than both the existing GSB and Preferred Alternative (note that the existing LBB clearance within the 100-foot navigation channel is 46.5 feet). Additionally, because the Preferred Alternative would not involve any modifications to the GSB piers, there would be no hydrodynamic effects. Please reference the Conceptual Design Renderings in the attachments for measurements and clearances.

FHWA and NHDOT respectfully request your evaluation of the attached materials. Please contact me at (603) 271-1615 or Keith.Cota@dot.nh.gov if you have any questions or would like to discuss in more detail the Project or project roles and responsibilities during the preparation of the DSEIS. Thank you for your continued coordination on this important project.

Sincerely,

Keith A. Cota, PE
Chief Project Manager

KAC/PJW/hb

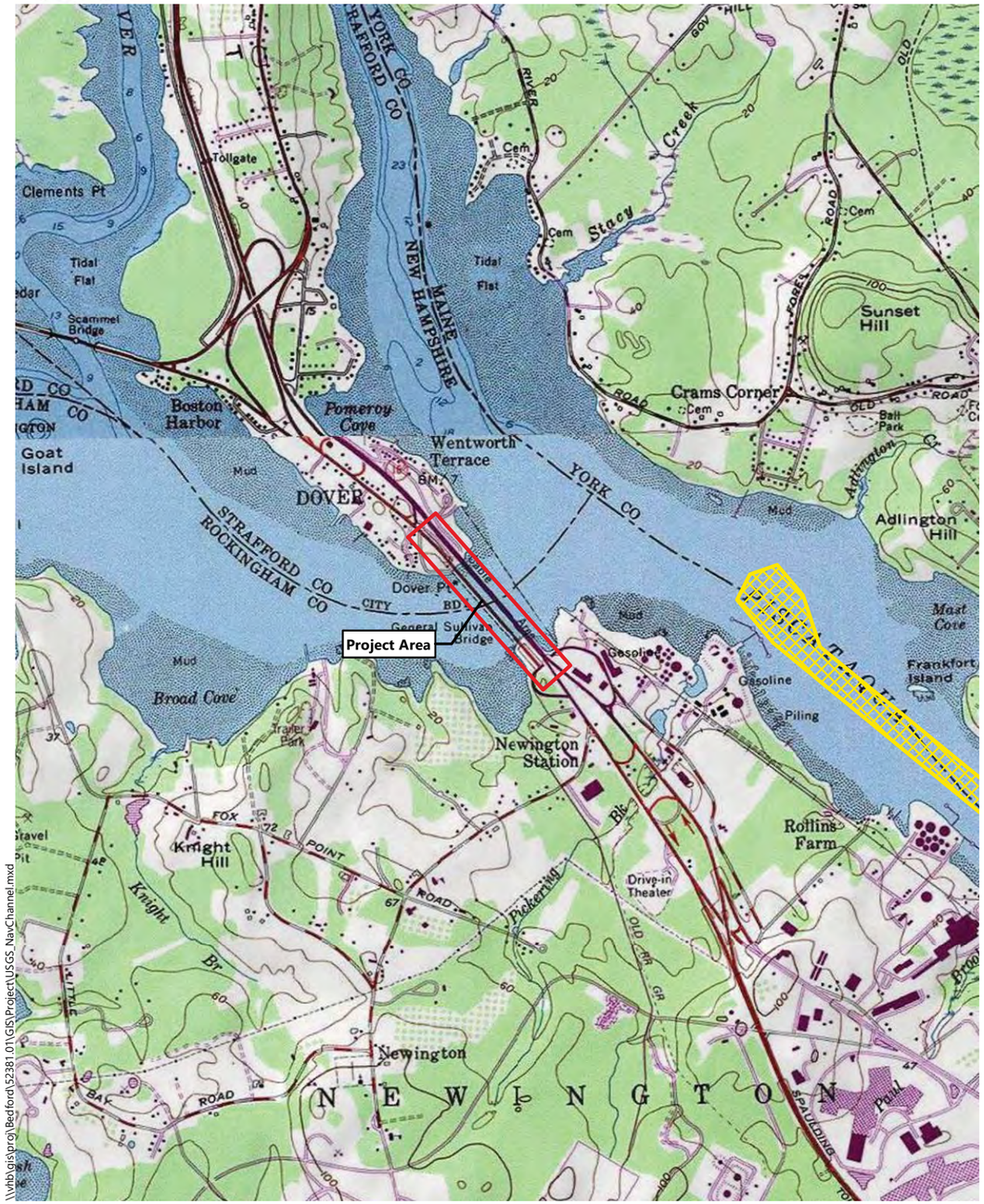
Attachments:
Figure 1 – USGS Location Map
Figure 2 – Conceptual Design Rendering – Alternative 9
Gen. Sullivan Bridge and Little Bay Bridge – Existing Conditions
Alternative 9 Elevation and Typical Sections
Alternative 9 Construction Impact Plan
USCG Cooperating Agency Acceptance Letter – January 16, 2018

cc: Marc Laurin, Bureau of Environment
Robert Juliano, Bureau of Bridge Design
Jamie Sikora, FHWA
P. Walker, VHB
G. Goodrich, VHB

S:/Highway Design/Newington/11238S/Letter/USCG_BridgeInitiationProject_Preferred_Alt_Coordination_111219

New Hampshire DOT Department of Transportation

vhb **FIGURE 1**



\\vhb\gis\proj\Bedford\523811.01\GIS\Project\USGS_NavChannel.mxd

0 1000 2000 4000 Feet

Newington-Dover 11238S | Newington & Dover, New Hampshire

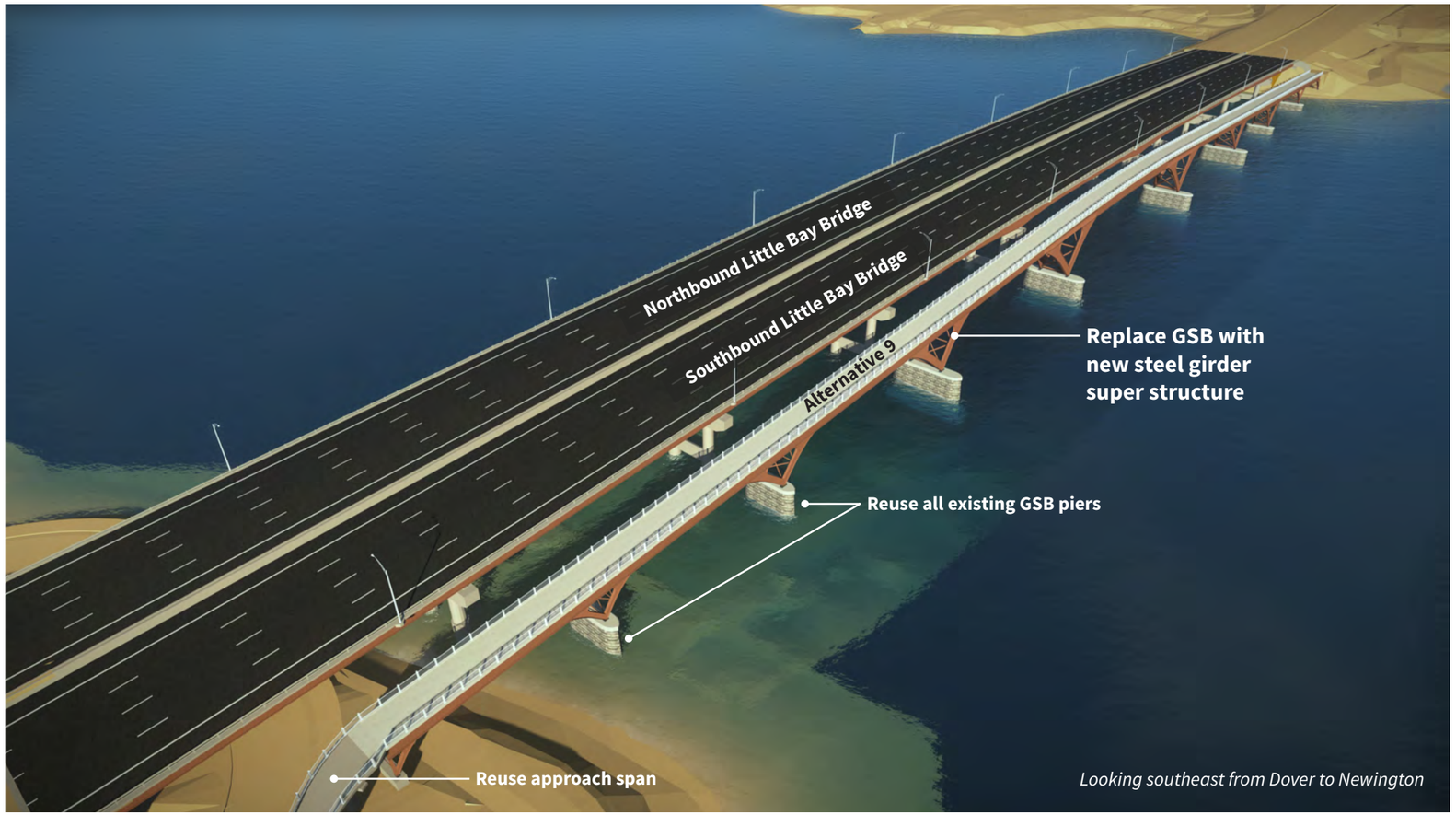
GSB Project Area

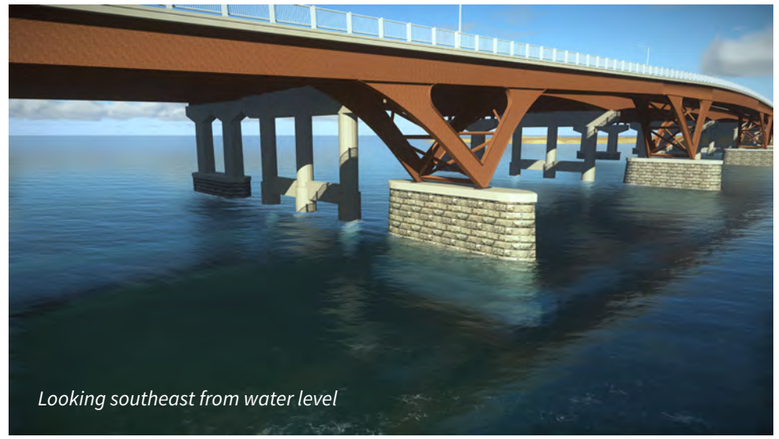
Approx. Limits of Federal Navigation Project

Note: USGS topographic source map does not reflect all current conditions.

General Sullivan Bridge Project Location

Source: VHB, NH GRANIT, USGS 7.5-minute Topographic Quadrangles Dover East and Portsmouth, dated 1983





"V-Frame" design option shown. "Super Haunch" similar.

Newington-Dover 11238S | Newington and Dover, NH

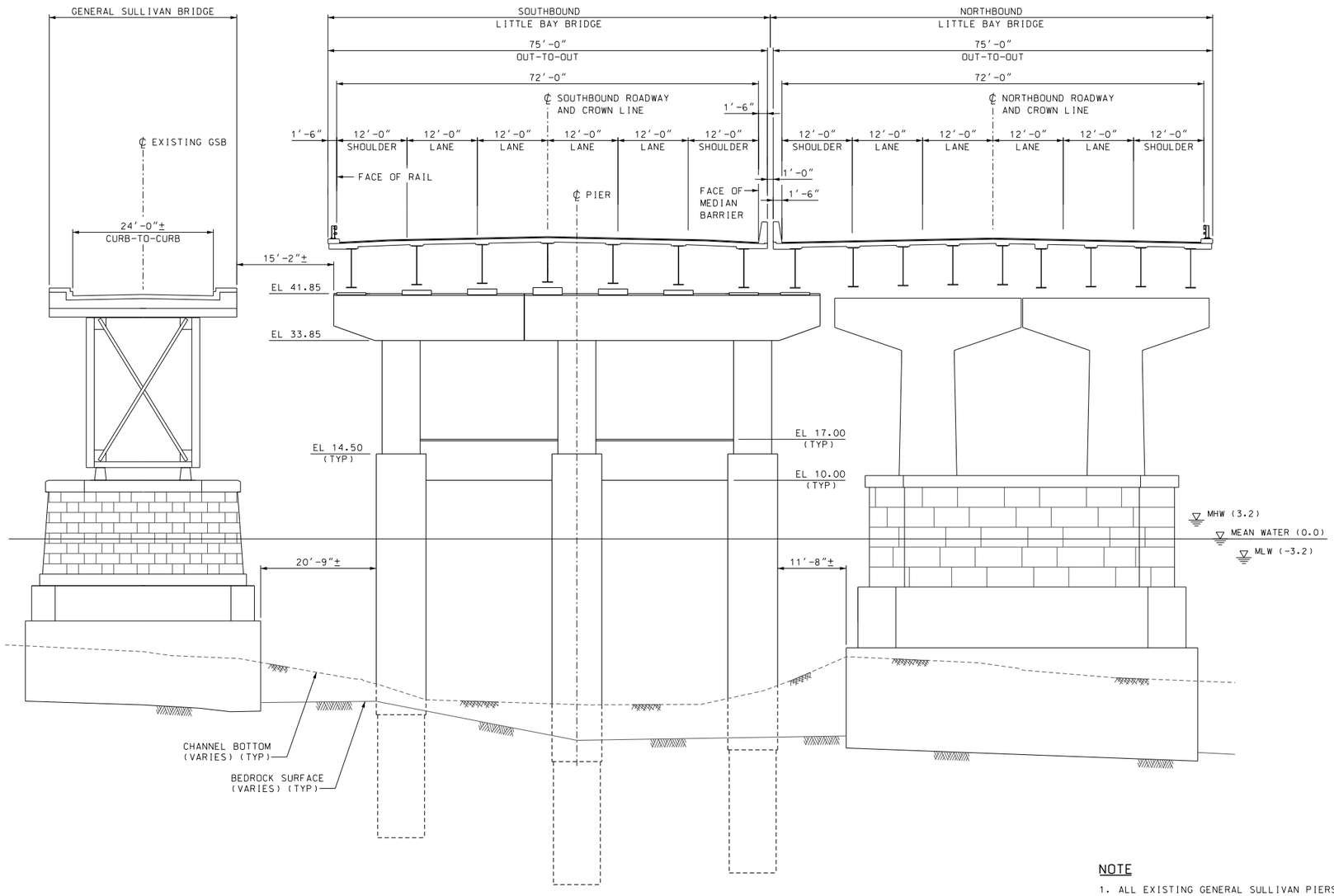
General Sullivan Bridge Supplemental EIS

U.S. Department of Transportation
Federal Highway Administration

New Hampshire DOT
Department of Transportation

Alternative 9: Superstructure Replacement—Girder Option (Preferred Alternative) Conceptual Design Renderings

EXISTING CONDITION



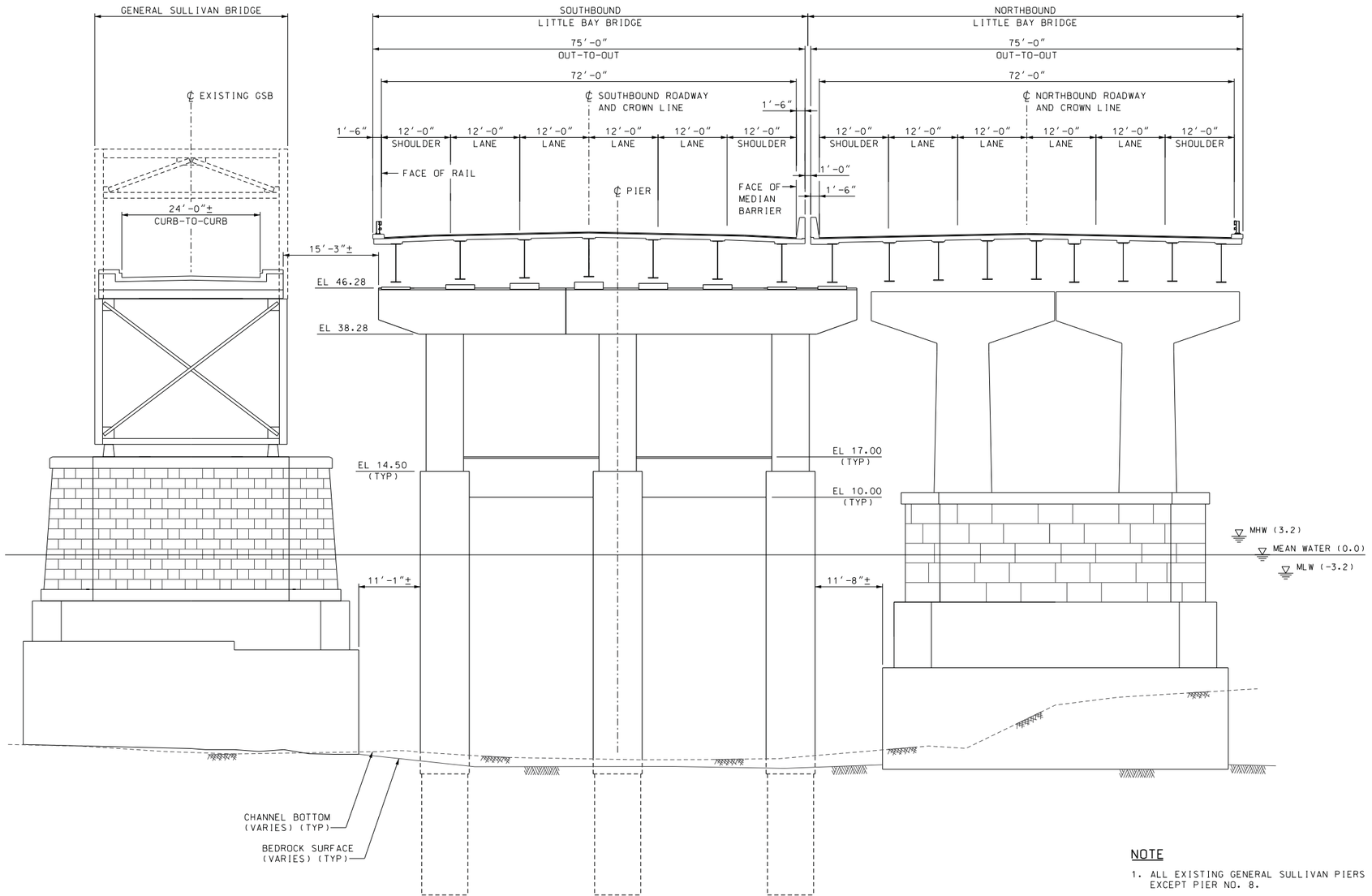
TYPICAL BRIDGE SECTION (PIERS 1, 2, 7 & 8) – EXISTING

SCALE: $\frac{3}{32}$″ = 1′-0″

NOTE

1. ALL EXISTING GENERAL SULLIVAN PIERS ARE IN-LINE WITH LBB BRIDGE PIERS EXCEPT PIER NO. 8.

EXISTING CONDITION



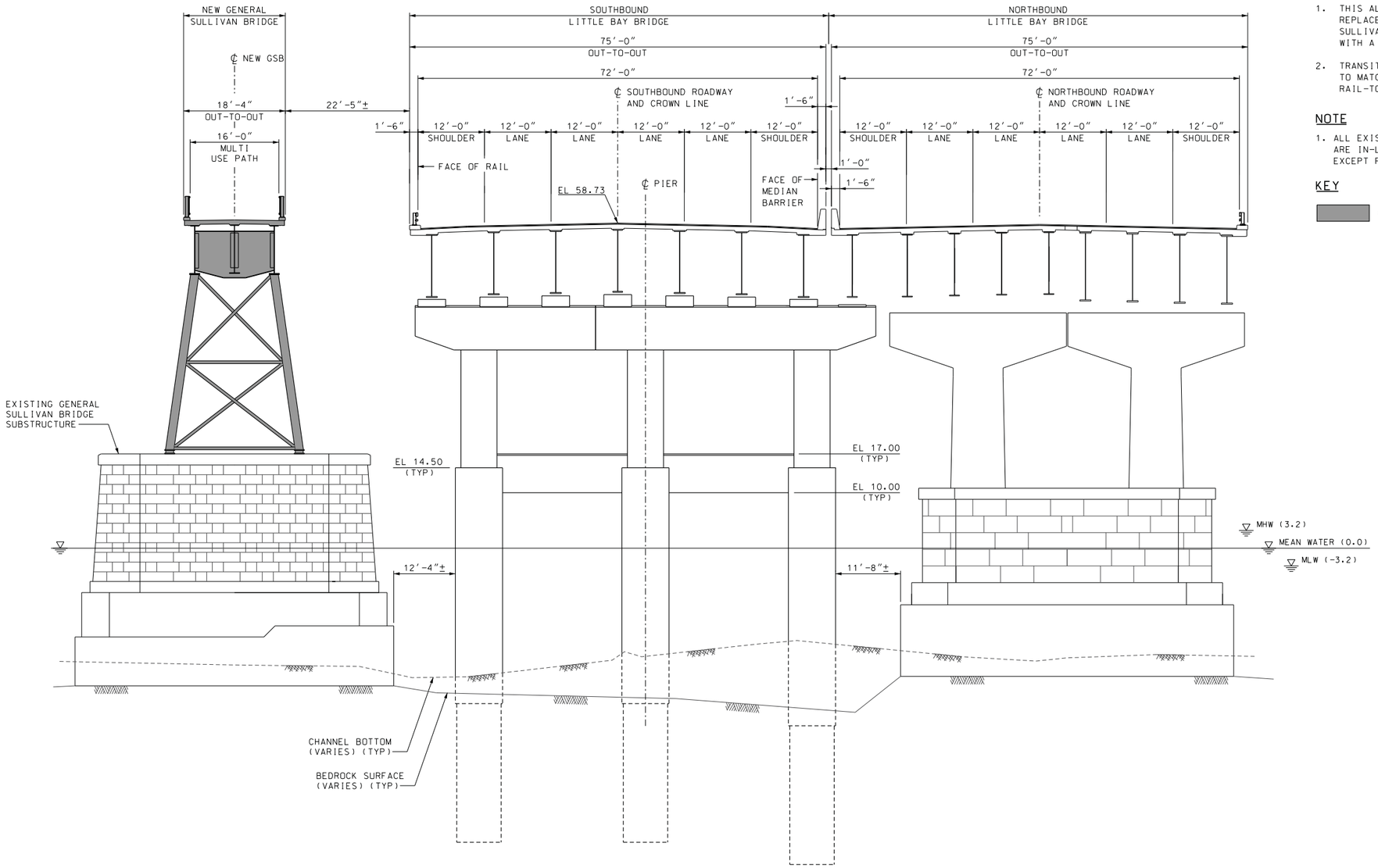
TYPICAL BRIDGE SECTION (PIERS 3, 4, 5, & 6) - EXISTING

SCALE: $\frac{3}{32}$″ = 1′-0″

NOTE

1. ALL EXISTING GENERAL SULLIVAN PIERS ARE IN-LINE WITH LBB BRIDGE PIERS EXCEPT PIER NO. 8.

ALTERNATIVE 9 - GENERAL SULLIVAN BRIDGE SUPERSTRUCTURE REPLACEMENT - GIRDER OPTION



ELEVATION
SCALE: $\frac{3}{32}$" = 1'-0"

TYPICAL BRIDGE SECTION (PIERS 4 & 5, OTHER PIERS SIMILAR) - ALTERNATIVE 9

SCALE: $\frac{3}{32}$" = 1'-0"

ALTERNATIVE 9 NOTES:

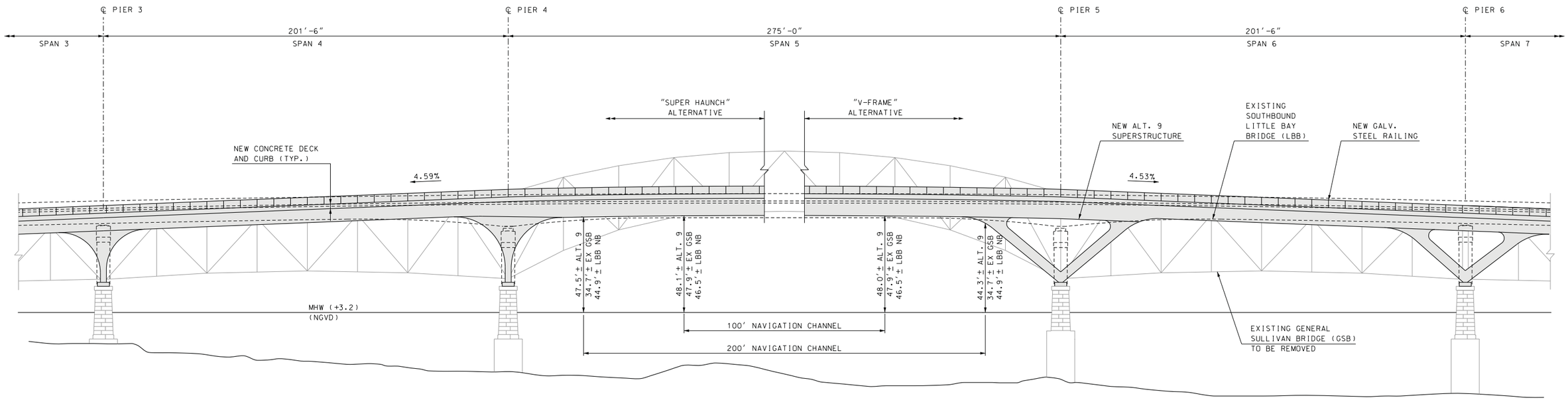
1. THIS ALTERNATIVE COMPLETELY REPLACES THE EXISTING GENERAL SULLIVAN BRIDGE SUPERSTRUCTURE WITH A GIRDER/FRAME SYSTEM.
2. TRANSITION THE NORTH END OF SPAN 1 TO MATCH THE NORTH APPROACH BRIDGE RAIL-TO-RAIL WIDTH OF 21'-0".

NOTE

1. ALL EXISTING GENERAL SULLIVAN PIERS ARE IN-LINE WITH LBB BRIDGE PIERS EXCEPT PIER NO. 8.

KEY

= NEW STRUCTURE

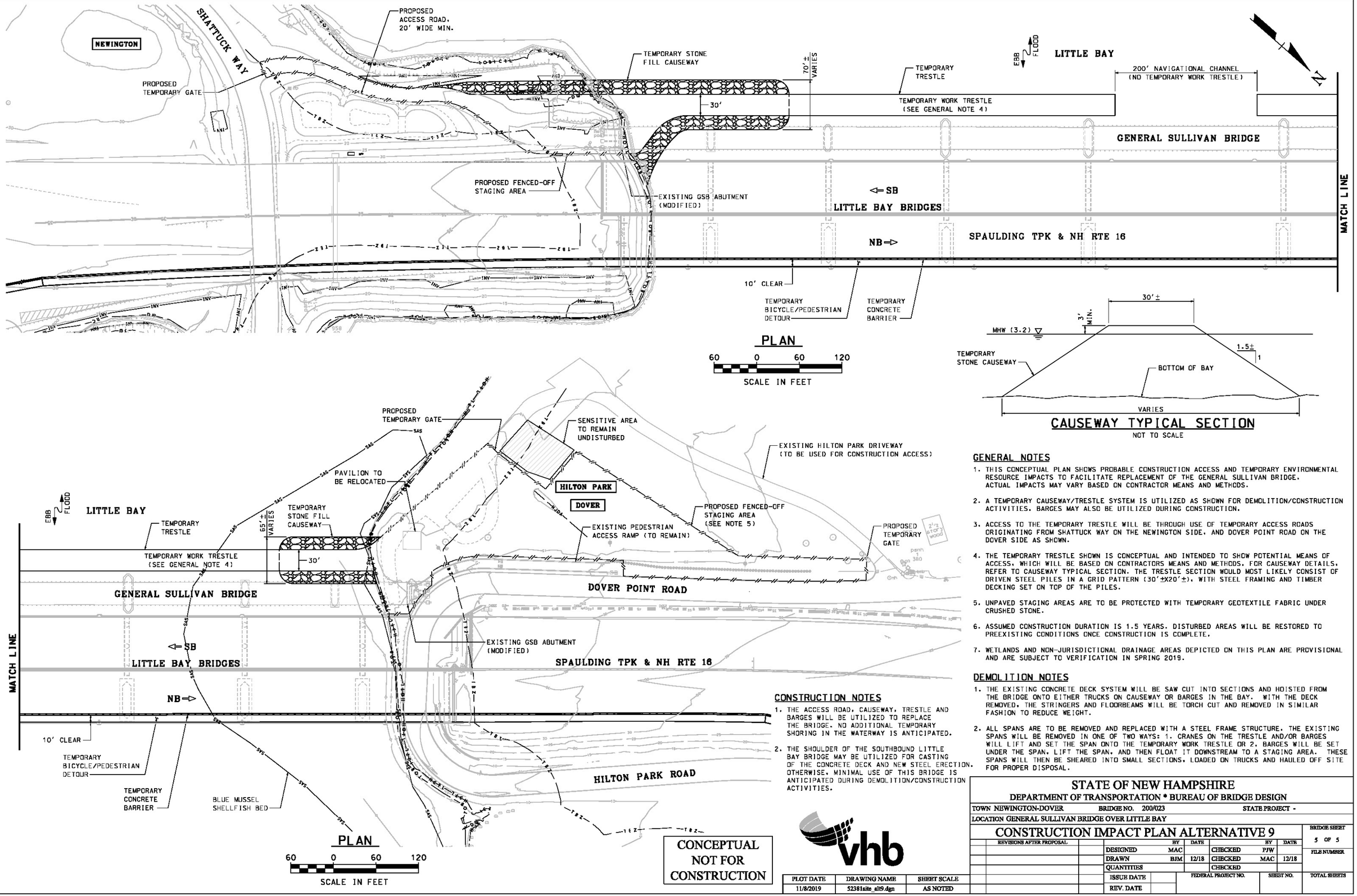


NAVIGATIONAL CLEARANCES
ELEVATION: ALTERNATIVE 9 – SPANS 4, 5, & 6

SUPERSTRUCTURE REPLACEMENT – GIRDER OPTION

NOTE:

1. VERTICAL NAVIGATIONAL CLEARANCE DIMENSIONS FOR THE NORTHBOUND LITTLE BAY BRIDGE CONTROL OVER THE SOUTHBOUND LITTLE BAY BRIDGE AND ARE DESCRIBED ON THIS SHEET ACCORDINGLY.



GENERAL NOTES

1. THIS CONCEPTUAL PLAN SHOWS PROBABLE CONSTRUCTION ACCESS AND TEMPORARY ENVIRONMENTAL RESOURCE IMPACTS TO FACILITATE REPLACEMENT OF THE GENERAL SULLIVAN BRIDGE. ACTUAL IMPACTS MAY VARY BASED ON CONTRACTOR MEANS AND METHODS.
2. A TEMPORARY CAUSEWAY/TRESTLE SYSTEM IS UTILIZED AS SHOWN FOR DEMOLITION/CONSTRUCTION ACTIVITIES. BARGES MAY ALSO BE UTILIZED DURING CONSTRUCTION.
3. ACCESS TO THE TEMPORARY TRESTLE WILL BE THROUGH USE OF TEMPORARY ACCESS ROADS ORIGINATING FROM SHATTUCK WAY ON THE NEWINGTON SIDE, AND DOVER POINT ROAD ON THE DOVER SIDE AS SHOWN.
4. THE TEMPORARY TRESTLE SHOWN IS CONCEPTUAL AND INTENDED TO SHOW POTENTIAL MEANS OF ACCESS, WHICH WILL BE BASED ON CONTRACTORS MEANS AND METHODS. FOR CAUSEWAY DETAILS, REFER TO CAUSEWAY TYPICAL SECTION. THE TRESTLE SECTION WOULD MOST LIKELY CONSIST OF DRIVEN STEEL PILES IN A GRID PATTERN (30'±X20'±), WITH STEEL FRAMING AND TIMBER DECKING SET ON TOP OF THE PILES.
5. UNPAVED STAGING AREAS ARE TO BE PROTECTED WITH TEMPORARY GEOTEXTILE FABRIC UNDER CRUSHED STONE.
6. ASSUMED CONSTRUCTION DURATION IS 1.5 YEARS. DISTURBED AREAS WILL BE RESTORED TO PREEXISTING CONDITIONS ONCE CONSTRUCTION IS COMPLETE.
7. WETLANDS AND NON-JURISDICTIONAL DRAINAGE AREAS DEPICTED ON THIS PLAN ARE PROVISIONAL AND ARE SUBJECT TO VERIFICATION IN SPRING 2019.

DEMOLITION NOTES

1. THE EXISTING CONCRETE DECK SYSTEM WILL BE SAW CUT INTO SECTIONS AND HOISTED FROM THE BRIDGE ONTO EITHER TRUCKS ON CAUSEWAY OR BARGES IN THE BAY. WITH THE DECK REMOVED, THE STRINGERS AND FLOORBEAMS WILL BE TORCH CUT AND REMOVED IN SIMILAR FASHION TO REDUCE WEIGHT.
2. ALL SPANS ARE TO BE REMOVED AND REPLACED WITH A STEEL FRAME STRUCTURE. THE EXISTING SPANS WILL BE REMOVED IN ONE OF TWO WAYS: 1. CRANES ON THE TRESTLE AND/OR BARGES WILL LIFT AND SET THE SPAN ONTO THE TEMPORARY WORK TRESTLE OR 2. BARGES WILL BE SET UNDER THE SPAN, LIFT THE SPAN, AND THEN FLOAT IT DOWNSTREAM TO A STAGING AREA. THESE SPANS WILL THEN BE SHEARED INTO SMALL SECTIONS, LOADED ON TRUCKS AND HAULED OFF SITE FOR PROPER DISPOSAL.

CONSTRUCTION NOTES

1. THE ACCESS ROAD, CAUSEWAY, TRESTLE AND BARGES WILL BE UTILIZED TO REPLACE THE BRIDGE. NO ADDITIONAL TEMPORARY SHORING IN THE WATERWAY IS ANTICIPATED.
2. THE SHOULDER OF THE SOUTHBOUND LITTLE BAY BRIDGE MAY BE UTILIZED FOR CASTING OF THE CONCRETE DECK AND NEW STEEL ERECTION. OTHERWISE, MINIMAL USE OF THIS BRIDGE IS ANTICIPATED DURING DEMOLITION/CONSTRUCTION ACTIVITIES.

CONCEPTUAL NOT FOR CONSTRUCTION

vhb

PLOT DATE	DRAWING NAME	SHEET SCALE
11/8/2019	52381site_al9.dgn	AS NOTED

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN NEWINGTON-DOVER BRIDGE NO. 200/023 STATE PROJECT -

LOCATION GENERAL SULLIVAN BRIDGE OVER LITTLE BAY

CONSTRUCTION IMPACT PLAN ALTERNATIVE 9

BRIDGE SHEET 5 OF 5

REVISIONS AFTER PROPOSAL	BY	DATE		BY	DATE
			DESIGNED	MAC	
			DRAWN	BJM	12/18
			QUANTITIES		
			ISSUE DATE		
			REV. DATE		

CHECKED	PJW	
CHECKED	MAC	12/18
CHECKED		

FEDERAL PROJECT NO. | SHEET NO. | TOTAL SHEETS | FILE NUMBER

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U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

One South Street
Battery Park Bldg
New York, N.Y. 10004-1466
Staff Symbol: dbp
Phone: (212) 514-4331
FAX: (212)514-4337

16591

January 16, 2018

Mr. Jamison S. Sikora
Environmental Program Manager
Federal Highway Administration
New Hampshire Division
57 Pleasant Street, Suite 2200
Concord, NH 03301

Dear Mr. Sikora,

This responds to your letter of December 21, 2017, concerning preparation of a Supplemental Environmental Impact Statement (SEIS) pursuant to the National Environmental Policy Act (NEPA) for the Spaulding Turnpike Improvements Project [Newington-Dover 11238/NHS-027-1(37)].

The U.S. Coast Guard agrees to be a cooperating agency under the terms related in your letter as well as the responsibilities as stated in Section VI of the Memorandum of Understanding between our respective agencies signed on 14 January 2014.

Mr. Jim Rousseau of this office is the designated project manager for this action and may be contacted at (617) 223-8619 or e-mail at: james.l.rousseau2@uscg.mil.

If there are any questions or concerns, please call me at the above number.

Sincerely,

C. J. Bisignano
Supervisory Bridge Management Specialist
U.S. Coast Guard
By direction

E-copy: U.S. Coast Guard Sector Northern New England – Waterways Management

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

Battery Park Bldg.
1 South Street
New York, NY 10004-1466
Staff Symbol: (dpb)
E-Mail:D01-SG-BridgesD1obr-NY@uscg.mil

16591
November 19, 2019

New Hampshire Department of Transportation
Attn: Mr. Keith A. Cota, P.E.
Chief Project Manager
John O. Morton Building
7 Hazen Drive
P.O. Box 483
Concord, NH 03302-0483

Dear Mr. Cota:

We received your bridge project initiation request dated November12, 2019 for the proposed Little Bay (mile 0.1) permit modification for the Spaulding Turnpike, US Rte. 4, N.H. 16 /Little Bay (General Sullivan) Bridge project.

The project initiation request meets all requirements found in the U.S. Coast Guard Bridge Permit Application Guide. You may submit draft bridge permit application materials as described in the Application Guide including more detailed information as the existing site conditions and limitations are investigated. This includes further submission of environmental documentation and alternative concepts are developed.

If you have any questions please contact Mr. Jim Rousseau at (617) 223-8619 or at James.L.Rousseau2 @uscg.mil.

Sincerely,

C.J. BISIGNANO
Supervisory Bridge Management Specialist
First Coast Guard District
By direction

E-Attachment: Bridge Permit Application Guide

E-copy: Sector Northern New England Waterways
Marc Laurin, NHDOT
Robert Juliano, Bureau of Bridge Design
Jamie Sikora, FHWA
P. Walker VHB
G. Goodrich VHB