

Supplemental Record of Decision
FHWA-NH-EIS-06-01-FS

Newington-Dover
NHS-027-1(37)
11238

General Sullivan Bridge, Spaulding Turnpike Improvements
Strafford and Rockingham Counties, New Hampshire

1 Decision

1.1 Summary

This Supplemental Record of Decision for the General Sullivan Bridge, Spaulding Turnpike Improvements Project (the "Project" or the "11238S Contract") supplements an existing Record of Decision (ROD) issued on October 24, 2008. The Selected Alternative would replace the historic General Sullivan Bridge (GSB), which spans a portion of Little Bay in the Town of Newington, Rockingham County, New Hampshire and the City of Dover, Strafford County, New Hampshire. The purpose of the Project is to provide recreational access and connectivity between Newington and Dover, across Little Bay, for pedestrian and non-motorized use.

After consideration of all reasonable alternatives, the Federal Highway Administration (FHWA) has selected *Alternative 9: Superstructure Replacement - Girder Option* for implementation, based on the information presented in the 2021 Draft Supplemental Environmental Impact Statement (DSEIS), the 2022 Final SEIS (FSEIS), and consideration of input received from the public and interested local, State, and Federal agencies. Under 23 USC 109(h), the FHWA has statutory responsibility to reach a project decision that is in the best overall public interest, considering the need for safe, fast, and efficient transportation and public services, while eliminating or minimizing adverse natural environmental and community effects.

This Supplemental Record of Decision (SROD) includes a description of the Selected Alternative, the basis for the decision of the Selected Alternative, a summary of compliance with Section 4(f) of the US Department of Transportation (USDOT) Act of 1966, and the final mitigation measures and environmental commitments that are to be incorporated into the Project.

Consistent with FHWA's NEPA regulations, the FHWA has elected to complete the NEPA environmental review process by issuing a combined FSEIS/SROD because the FSEIS does not make substantial changes to the proposed action that are related to environmental or safety concerns and, there are no significant new circumstances or information related to environmental concerns that bear on the proposed action or the impacts of the proposed action [23 CFR 771.124(a)(1)]. **Section 1.4, Requirements for Combined FSEIS/SROD** of the FSEIS discusses the factors used to evaluate and determine the practicality of issuing a combined FSEIS/SROD format.

1.2 Description of the Selected Alternative

Alternative 9 involves the complete removal and replacement of the GSB superstructure. Under Alternative 9, the GSB superstructure would be replaced with a steel girder system with a structural steel frame extending from the bottom of the girders to the top of the existing GSB piers. Two design options for the steel frame are under consideration – one in the form of a "V" longitudinally (the "V-Frame" option), and a second curved "Super Haunch" option. This alternative follows the existing GSB alignment, thereby allowing the reuse of the existing GSB stone masonry piers, which would be repointed, without requiring substantial modifications.

Alternative 9 would have an approximately 18.3-foot-wide deck (out-to-out), a 16-foot-wide multiuse path consisting of the desirable 12-foot-wide multiuse path with 2-foot-wide shoulders on each side. The 16-foot-wide multiuse path would comply with the ADA guidelines for accessibility and would have a steel pedestrian rail along both sides of the new bridge deck. The new path would be 22.5 feet from the adjacent Little Bay Bridge (LBB), approximately 7.4 feet further from the LBB than the existing GSB (at 15.1 feet). These characteristics contribute to the high performance of the design with respect to user safety, emergency access, and inspection safety. Alternative 9 would have an estimated initial capital cost of \$28.5 million and a life cycle cost of \$31.25 million.

A recently constructed 2010 approach span from Dover Point Road at the Dover end of the bridge would not require substantial modifications, as the alignment of the existing GSB would be maintained. The existing Newington abutment would be rehabilitated or removed in its entirety and replaced. The overall footprint should be smaller than the existing abutment due to the proposed reduced deck width. Alternative 9 would require temporary impacts for construction access. It would avoid the need to reconstruct the approach span from Dover Point Road which would minimize intertidal habitat impacts.

Figure 2.3-5 of the FSEIS depicts the conceptual design for Alternative 9, and more detailed plans are provided in Appendix B of the FSEIS.

Alternative 9 has several advantages over other alternatives, which led the project proponent and FHWA to identify this alternative as the Selected Alternative. **Section 2.3, Reasonable Alternatives** of the FSEIS describes Alternative 9. Engineering analysis determined that Alternative 9 would be reasonable and practical from a technical standpoint. It could be implemented using conventional construction techniques and materials, within a reasonable time frame, and without excessive impacts on the environment or to the transportation network. Alternative 9 would not change the northbound or southbound LBB, which would preserve the existing transportation capacity of the LBB.

2 Alternatives Considered and Basis of Decision

2.1 Description of Alternatives Considered

The evaluation of alternatives for the rehabilitation or replacement of the GSB considered five reasonable alternatives, as well as the No-Action Alternative.¹ The five reasonable alternatives include:

- › Alternative 1: Rehabilitation of the General Sullivan Bridge
- › Alternative 3: Partial Rehabilitation of the General Sullivan Bridge
- › Alternative 6: Southbound Little Bay Bridge - Widened Deck on Pier Extension
- › Alternative 7: Southbound Little Bay Bridge - Independent Deck on Pier Extension
- › Alternative 9: Superstructure Replacement - Girder Option

The FSEIS also includes an assessment of the No-Action Alternative to serve as a baseline by which to evaluate impacts of the five reasonable alternatives. Under the No-Action Alternative, non-motorized transportation across the Little Bay would be permanently eliminated.

Although a temporary detour (opened for public access in August 2019 due to the deteriorating condition of the GSB resulting in its closure to all traffic) has been constructed to provide temporary pedestrian and bicycle access across the Little Bay, it requires temporary use of one lane of the northbound Little Bay Bridge (LBB), which limits the transportation capacity of the highway for motorized vehicles. As documented in the 2007 FEIS and 2008 ROD, six-lane alternatives along the LBBs were determined to not fully support the 2007 project purpose and need. Therefore, eight-lane options were selected to achieve acceptable system-wide levels of service. For this reason, the temporary detour will need to be removed to allow the expanded LBB to accommodate vehicular traffic volumes as intended and designed in the 2008 ROD.

Section 2.3 of the FSEIS fully describes Alternatives 1, 3, 6 and 7, which are summarized as follows:

- › Alternative 1 is to rehabilitate the GSB's substructure and truss superstructure and replace the GSB bridge deck. The deck and floor system would be replaced with an 18.3-foot-wide deck (out-to-out), which matches the deck width of the recently constructed approach span on the Dover side. This deck would provide approximately 16 feet rail-to-rail to accommodate a multi-use path approximately 13.7 feet wide bounded by 1-foot-wide shoulders and pedestrian rails. There would be no changes to the LBB. The initial capital cost for this extensive rehabilitation work is estimated to be \$43 million. The total life cycle costs for this alternative, when considered over a 75-year design life, is estimated to be \$74 million.
- › Alternative 3 is to replace the GSB approach spans (spans 1, 2, 3, 7, 8, and 9), and rehabilitate the through-truss main spans (spans 4, 5, and 6). Under this alternative, the through-truss main spans would be rehabilitated and remain in place; the substructure would be retained. Like Alternatives 1 and 2, the GSB superstructure would have an approximately 18.3-foot-

wide deck (out-to-out). This deck would provide approximately 16 feet rail-to-rail to accommodate a multiuse path approximately 12 feet wide bounded by 2-foot-wide shoulders and pedestrian rails. There would be no changes to the LBB. Alternative 3 would have an estimated initial capital cost of \$42.25 million and a 75-year life cycle cost of \$61.75 million.

- › Alternative 6 is to widen the southbound LBB to accommodate a new multiuse path. This alternative requires constructing a pier extension, supported by the existing GSB piers, to carry the widened LBB superstructure. The southbound LBB bridge deck would be extended approximately 17.67 feet, including two new girder lines, which are supported by the pier extension. Under Alternative 6, the four travel lanes and shoulders would all remain the desirable 12-foot width. A 2-foot-wide concrete barrier would separate the roadway shoulders from a new multiuse path. The multiuse path would be 16 feet wide in total, consisting of the desirable 12-foot-wide multi-use path with 2-foot-wide shoulders on each side and a pedestrian rail. The new multi-use path would not be in the form of a truss, and therefore would not be visually consistent with the existing GSB. Under this alternative, the GSB superstructure would be demolished. The GSB Piers 2 through 8 would be left in place, but GSB Pier 1 would be removed and replaced with a new drilled shaft pier to support the reconfigured approach span. The cost of Alternative 6 is estimated to be \$28 million and the life cycle costs are estimated to be \$31.25 million.
- › Alternative 7 is to construct a new separate multiuse path with an approximately 18.3-foot-wide deck (out-to-out) adjacent to the LBB, but not connected to the LBB bridge deck. Similar to Alternative 6, a pier extension would be constructed from the LBB superstructure, which would be supported by the existing GSB piers. On the pier extension, a new multiuse path deck would be constructed, approximately 7.5 feet from the LBB. The LBB superstructure would not be modified. The multiuse path would be 16 feet wide, consisting of the desirable 12-foot-wide multiuse path with 2-foot-wide shoulders on each side, and a pedestrian rail. The new superstructure would not be in the form of a truss, and therefore would not be visually consistent with the existing GSB. Under this alternative, the GSB superstructure would be demolished. The GSB Piers 2 through 8 would be left in place, but GSB Pier 1 would be removed and replaced with a new drilled shaft pier to support the reconfigured approach span. Alternative 7 has an estimated initial capital cost of \$29.5 million and a life cycle cost of \$32.25 million.

2.2 Basis of Decision

The FHWA identified Alternative 9 as the Selected Alternative. As summarized below, Alternative 9 has several advantages over other alternatives. Alternative 9 minimizes and balances the natural and human environmental concerns while addressing the purpose and need of the project.

The **No-Action Alternative** does not meet the project purpose and need because non-motorized transportation across the Little Bay would be permanently eliminated. Without a connection across Little Bay, pedestrian and bicycle routes would be limited between Durham or

¹ The range of reasonable alternatives are not numbered consecutively due to the elimination of preliminary alternatives during the screening process. The numbering was retained for consistency with other materials developed for the Project.

Dover and Newington or Portsmouth. Non-motorized access from Newington to Dover would have a choice of an approximately 27-mile detour to the north, or an approximately 23.8-mile detour by following around Great Bay to the south. Alternatively, pedestrians and bicyclists would need to arrange for motorized transport across Little Bay by either private or public transportation, which would increase the traffic volume and usage on the LBB. In addition, the existing structural deficiencies of the GSB would remain unaddressed, causing safety concerns and potential long-term impacts to marine traffic. Under the terms of the existing permit for the GSB and expanded LBB issued by the United States Coast Guard (USCG), the GSB would eventually need to be removed as the bridge would no longer serve a transportation purpose.²

All **Action Alternatives** would address the structural deficiencies of the GSB and current lack of a permanent non-motorized connection across Little Bay. All Action Alternatives would improve public safety for pedestrians and bicyclists, marine traffic, maintenance crews, and emergency responders, and would support long-term economic benefits due to the enhancement of bicycle and pedestrian connectivity in the seacoast area. Residents in the immediate area, region, and state, as well as visitors or tourists, would benefit from the permanent establishment of pedestrian and bicyclist access between Dover and Newington.

Differences among the potential impacts of the Action Alternatives are primarily related to loss of the historic character of the GSB and short-term impacts associated with construction. The following discussion provides a summary of differences among the Action Alternatives and demonstrates that Alternative 9 has several advantages over other alternatives.

Regarding permanent impacts on historic structures, Alternatives 3, 6, 7, and 9 would result in a permanent loss of, or adverse effects to, the GSB. The removal of the GSB represents a loss of an important historic property in the region, which is intertwined with the history of the region itself. The replacement of the historic bridge would result in the physical loss of an early, nationally-significant example of its engineering design.

Alternative 1 would result in a direct, permanent impact to the GSB, but no adverse effect. Although Alternative 1 would preserve the historic GSB while the Selected Alternative would have an adverse effect, Alternative 1 was rejected due to its very high cost, extended construction duration, and limited design life relative to other action alternatives. Additionally, appropriate mitigation to resolve adverse effects have been established in a new Section 106 Memorandum of Agreement (MOA) (see **Appendix I**, pages 23-34), which was executed by FHWA, NHDHR, NHDOT and certain Concurring Parties.³

Aside from the loss of the GSB, much of the environmental impact of the project would be temporary and associated with the construction phase. For the most part, the construction impacts vary little among the alternatives. All Action Alternatives would require the temporary workspace, with a temporary causeway trestle for construction access. What differs among the Action Alternatives is the anticipated duration of construction, which ranges from 1.5 years to

3 years. Alternatives 6, 7 and 9 have the shortest construction duration times, with an estimated 1.5 years to construct. The anticipated construction related impacts include: noise, water quality, occupancy of land, visual impacts, hydrodynamics, marine traffic, and temporary impacts to air quality. Short-term impacts during construction would be offset through mitigation measures as well as the long-term benefits associated with the Project.

Under all Action Alternatives, approximately 1.6 acres total (0.5 acre of State land in Newington and 1.1 acres of State land in Dover) would be used for construction access, laydown, and staging. As mentioned above, the timeframe of the temporary occupancy corresponds with the construction timeframe, which varies among the Action Alternatives.

Regarding potential hydrodynamic impacts on tidal flows, Alternatives 6 and 7 would remove and replace the GSB's Pier 1, causing a permanent change within the Little Bay and Great Bay Estuary system. The permanent new pier may result in changes to the hydrodynamic conditions, for example, tidal maxima, currents, and wave patterns in the intertidal zone and other areas surrounding the new pier. Unlike Alternatives 6 and 7, Alternative 9 would not involve permanent changes to structures in the intertidal zone.

Alternatives 6, 7, and 9 would benefit marine traffic due to the improvements to navigational clearances of the 200-foot channel, as compared to the No-Action Alternative or Alternatives 1 and 3. The increase in the vertical clearance above the water surface would provide larger marine vessels with more maneuverability through the bridge crossing. Compared to Alternatives 6 and 7, Alternative 9 would involve fewer temporary impacts to marine traffic resulting from periodic temporary closure of the navigational channel during construction.

In addition to impacts to the GSB, permanent impacts to resources are anticipated to occur to marine resources and visual resources. Overall, Alternative 9 has fewer permanent impacts to resources than the other Action Alternatives.

The new bridge deck under Alternatives 1, 3, and 9 would be approximately 33 percent narrower than the existing GSB bridge deck, resulting in a reduction in future stormwater volumes discharged compared to existing conditions. Alternatives 6 and 7 would reduce stormwater runoff volumes from the bridge deck by approximately 23 percent.

Under all Action Alternatives, the causeway and trestle system in Dover would impact approximately 0.2 acre of the blue mussel bed. Alternatives 6 and 7 would require the removal of sediment from Little Bay to construct a new pier. These changes to marine habitat from Alternatives 6 and 7 have the potential to impact shellfish growth in the immediate area (i.e., blue mussel shellfish). In contrast, Alternatives 1, 3 and 9, do not propose permanent changes in Little Bay. Alternative 9 would avoid the need to reconstruct the approach span from Hilton Park, which would minimize intertidal habitat impacts.

² On November 30, 2006, Gary Kassof of the USCG sent a letter to Marc G. Laurin, NHDOT Senior Environmental Manager, regarding the Draft Environmental Impact Statement for the Newington-Dover, 11238 project. The USCG 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 for construction of the new LBB 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.

³ The Town of Newington, the City of Dover, and the Woodman Museum in Dover were invited to sign the MOA as Concurring Parties due to their potential roles in implementing the mitigation measures. As of November 16, 2021, the City of Dover and the Woodman Museum had signed the MOA, while the Town of Newington Board of Selectmen had declined to sign, agreeing to table the MOA discussion until more information is received about potential preservation grants (see **Appendix I** for the October 25, 2021 and November 1, 2021 Town of Newington Board of Selectmen meeting minutes).

Visual resources that define the project area include the GSB, LBBs, Hilton Park, Piscataqua River, Little Bay, marine vessels and marinas, as well as the coastal shorelines of Newington and Dover. Alternatives 1 and 3 would cause the least changes to the visual environment because the bridge would be rehabilitated. Alternatives 6, 7, and 9 would cause the most changes to the visual environment due to the addition of a new bridge design which would not be in the form of a truss. At the same time, removal of the exiting truss would open up views to the Piscataqua River, Little Bay, and Hilton Park, thereby benefiting pedestrians and bicyclists.

Overall, Alternative 9 performs well in comparison to the other alternatives when considering factors such as feasibility, cost, safety, and preservation of the transportation capacity of the LBB.

Alternative 9 would preserve the existing GSB piers without requiring significant modifications. Because the alignment of the existing GSB would be maintained, the approach span at the Dover end of the GSB would not require substantial modifications. This contrasts with Alternatives 6 and 7 where, due to changes in geometry and bridge type, the recently constructed 2010 GSB approach span on the Dover end of the bridge would need to be replaced, including removal of GSB Pier 1 and construction of a new pier in Little Bay to support a new approach span. Under Alternative 9, the existing Newington abutment would be rehabilitated or removed in its entirety and replaced, but the overall footprint should be smaller than the existing abutment due to the proposed reduced deck width.

Alternative 9 would have an estimated initial capital cost of \$28.5 million and a life cycle cost of \$31.25 million. In comparison to the other alternatives, Alternative 9 would cost slightly more than Alternative 6 but is otherwise the least expensive reasonable alternative.

Alternative 9 would have a 16-foot-wide multiuse path, would comply with the ADA guidelines for accessibility and would have a steel pedestrian rail along both sides of the new bridge deck. The new path would be 22.5 feet from the LBB, approximately 7.4 feet further from the LBB than the existing GSB (at 15.1 feet). These characteristics contribute to the high performance of the design with respect to user safety, emergency access, and inspection safety.

Under Alternative 9, there would be no changes to the northbound or southbound LBB which would preserve the existing transportation capacity of the LBB.

The beneficial impacts of Alternative 9 include increased active and passive recreational opportunities, improved safety, increased connectivity of parks and open space, beneficial impacts on persons with disabilities because the pedestrian bridge would meet current accessibility standards, and alternative commuting or transportation options.

2.3 Section 4(f) Resources

As documented in **Chapter 4** of the FSEIS, compliance with Section 4(f) of the USDOT Act of 1966 involved a Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges for the use of the GSB, which is eligible for listing in the National Register of Historic Places (National Register). A Section 4(f) determination is not required for Hilton Park, a recreational resource, because it meets the conditions of temporary occupancy, as defined in 23 CFR 774.13(d).

2.3.1 Cultural Resources

The Selected Alternative would involve the complete removal of the GSB superstructure but would retain all eight of the original piers of the GSB. While a portion of the substructure would be retained under the Selected Alternative, the removal of the GSB superstructure would result in a use pursuant to Section 4(f) and an adverse effect pursuant to Section 106. Documentation of this adverse effect is provided in a Section 106 Adverse Effect Memo (**Appendix I**), which is used for NHDOT-sponsored projects to document concurrence on effects by FHWA, NHDOT, and NHDHR. Through cultural resource agency coordination meetings and the Section 106 process, the FHWA, NHDOT, NHDHR, the City of Dover, the Town of Newington, and various Consulting and Interested Parties determined that the adverse effect to the GSB could be mitigated.

The Section 4(f) use of the GSB has been determined to meet the criteria for the Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges. Additionally, the alternatives analysis completed for the Programmatic Section 4(f) Evaluation assessed the following required list of three avoidance alternatives: do nothing; build on a new location without using the old bridge; and rehabilitation without affecting the historic integrity of the bridge. The findings of the analysis demonstrated that there are no feasible and prudent avoidance alternatives to the use of the GSB.

2.3.2 Recreational Resources

The Selected Alternative would involve temporary occupancy of a portion of the western side of Hilton Park. An area on the west side of the Turnpike would be fenced off during construction to provide workspace for the contractor. The temporary workspace would be about 1.1 acres and includes the area where there is an existing picnic pavilion. This pavilion would be replaced or relocated. Because there would be no permanent impacts to Hilton Park or its recreational purpose, the Section 4(f) Evaluation concluded that the temporary occupancy would not constitute a "use" of the park. The temporary effects to Hilton Park meet the conditions of temporary occupancy exemption from Section 4(f) as listed in 23 CFR 774.13(d).

2.3.3 Measures to Minimize Harm

The mitigation measures for the use of the GSB have been finalized and stipulated in the MOA executed on November 10, 2021 pursuant to Section 106 (**Appendix I**). These include the following:

- › Marketing the GSB for re-use in compliance with 23 USC Section 144;
- › Documentation of the GSB in accordance with the Historic American Engineering Record standards;
- › Promoting and providing access to the NHDOT Historic Bridge Inventory and the NHDOT Bridge Management Plan;
- › Development of an interpretive program including on-site interpretive panels and an installation at the Woodman Museum in Dover;
- › Supporting the future rehabilitation and reuse of the state-owned Newington Depot property on Bloody Point, including the assessment of the feasibility for the rehabilitation of the Newington Railroad Depot, and possible transfer of the building along with the state-owned land to the Town of Newington; and

- › Completion of a feasibility study of a future link between the Dover Community Trail and the new GSB, including development of interpretive signage to highlight the history of the Newington-Dover Branch Line.

2.3.4 Section 4(f) Coordination

Meetings have been held periodically throughout the development and planning process for the Project, with various Federal, state, and local agencies, as well as with the public. These meetings have occurred since 2003, related to the larger Newington-Dover, Spaulding Turnpike Transportation Improvements Project and more recently, as of 2015, specific to the current Project. There have been several opportunities for public input on Section 4(f) resources and impacts, including Public Meetings held on October 25, 2016, January 30, 2018, September 5, 2018, and at a Public Hearing on May 13, 2021. FHWA and NHDOT engagement with NHDHR, the City of Dover, the Town of Newington, and various Consulting and Interested Parties regarding historic resources has occurred through the Section 106 process, including NHDHR concurrence on the effect determinations and measures to minimize harm through the preparation of an MOA. **Section 4.7** of the FSEIS includes more information on Section 4(f) coordination and public participation.

2.3.5 Prudent and Feasible Avoidance Alternatives

The Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges (see **Chapter 4** of the FSEIS) demonstrates that there are no feasible and prudent alternatives that would avoid the use of the GSB, and that the Selected Alternative includes all planning to minimize harm to the GSB resulting from such use.

3 Measures to Minimize Harm/Environmental Commitments

Chapter 5, Project Commitments, of the FSEIS discusses final practicable mitigation measures and environmental commitments to be implemented for the Selected Alternative, including measures to minimize wetland impacts, minimize the visual impact of the project, mitigate or minimize adverse effects on cultural resources, and avoid impacts to fisheries. The identified mitigation measures are repeated below:

Wetlands and Surface Waters

- › NHDOT will submit a permit application to the NH Department of Environmental Services (NHDES) Wetlands Bureau for the wetland impacts resulting from the Selected Alternative.
- › NHDOT will apply for a US Army Corps of Engineers (Corps) permit for the wetland impacts resulting from the Selected Alternative.⁴
- › NHDOT will coordinate with state and federal resource agencies, and the communities of Newington and Dover to identify the project-specific compensatory mitigation required by the NHDES and the Corps rules for the GSB Project.

- › Applicable erosion and sediment control BMPs would be used throughout construction to protect wetlands and surface waters from sediment, erosion, pollution, and contaminants.
- › Unpaved staging areas are to be protected with temporary geotextile fabric under crushed stone.
- › Disturbed areas will be restored to as near pre-existing conditions as practicable once construction is complete. All disturbed and graded areas would be seeded and mulched as needed. Disturbed areas that have been seeded and mulched would be considered stable once 85-percent vegetative growth has been achieved.
- › Appropriate pollution preventative measures and BMPs as outlined within the *New Hampshire Stormwater Manual Vol. 3 – Erosion Control and Sediment Controls During Construction* (December 2008), available online at NHDES's website, shall be employed to assure that any detrimental impacts are minimized to the extent practicable.

Water Quality and Pollutant Loading

- › NHDOT will require contractors to address the provisions of USEPA's Construction General Permit (CGP), submit a Notice of Intent (NOI) to USEPA, and develop a combined Stormwater Pollution Prevention Plan (SWPPP) and marine sediment containment/protection measures, which will describe how the construction methods will minimize disturbance of marine sediments and contain the movement of sediment, as well as minimize any land-based erosion or discharge of stormwater during construction.
- › NHDOT will require contractors to receive NHDOT's approval of their SWPPP prior to initiation of construction activities.
- › NHDOT will require contractors to have a qualified environmental and erosion control monitor onsite to inspect, document and report on daily activities within the proposed project limits and construction staging areas.
- › Where dewatering activity may be needed, NHDOT will require contractors to provide a dewatering and erosion control plan that is consistent with NPDES Remedial Permit for Dewatering Activity in New Hampshire including contingency measures for extreme wet weather events.

Floodplains and Hydrodynamics

- › Upon completion of construction, the temporary stone causeways and trestles in the Little Bay shall be removed. Disturbed areas will be restored to as near pre-existing conditions as practicable once construction is complete.

Wildlife and Fisheries

- › Erosion and sediment control BMPs composed of wildlife friendly materials such as woven organic material would be used during the construction period, as recommended by the NHF&GD.
- › Tree and shrub clearing and ground disturbing impacts would be reduced to the extent practicable during design and construction to limit unnecessary impacts on wildlife habitat.

⁴ It is expected that the US Army Corps of Engineers will authorize the project via a NH Statewide Programmatic General Permit (*i.e.*, the removal and restoration will not require an individual permit).

- › Areas of disturbance along the shoreline of Little Bay would be stabilized and plantings installed as appropriate as part of site restoration.
- › The contractor would be required to inspect all construction BMPs on a daily basis to ensure that they are properly installed and maintained.
- › Standard BMPs will be required for in-water and shoreside construction to address potential fuel or oil spills from the construction equipment, and to mitigate the potential for suspension of sediments and consequent siltation.
- › The Project would comply with the *NMFS/FHWA Best Management Practices Manual for Transportation Activities in the Greater Atlantic Region* (April 2018).
- › Care will be taken to minimize impacts to shellfish beds, particularly those adjacent to Dover Point. If needed and determined practical, shellfish may be relocated outside of the temporary impact area associated with the temporary construction causeway.

Threatened and Endangered Species

- › If a threatened, endangered, or rare plant species is encountered during construction that was not documented prior to construction, construction activities in that area would temporarily cease until the plant has been relocated.
- › The existing bridge structure will be re-surveyed to identify any use by NLEB following the procedures in Appendix D of the *Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat* (revised February 5, 2018).
- › The following AMMs shall be followed to comply with the NLEB effect determination (refer to the USFWS concurrence letter in **Appendix H**).
 - Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.
 - Direct temporary lighting away from suitable habitat during the active season.
 - When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting).
 - Modify all phase/aspects of the project (*e.g.*, temporary work areas) to minimize tree removal.
 - Ensure tree removal is minimized to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field.
- › Wildlife friendly erosion control methods shall be implemented during construction such as woven organic material (like jute matting) for erosion control blankets. Welded plastic, biodegradable plastic, or threaded erosion control materials shall not be used as part of construction to reduce the risk of wildlife entanglement.
- › Since soil disturbance is anticipated to occur as part of the Project, the contractor(s) shall be required to develop and implement an appropriate Invasive Species Control and Management Plan which adheres to NHDOT's publication *Best Management Practices for the Control of Invasive and Noxious Plant Species* (2018) during construction to minimize the spread of invasive plant species within the area of ground disturbance. Only clean equipment that is free of plant material and debris shall be delivered to the Project site and utilized during construction. All machinery entering and leaving any area containing invasive

plants will be inspected for foreign plant matter (stems, flowers roots, etc.) and embedded soil. If foreign plant matter/soil is present, the operator shall remove the plant material and soil from the machine using acceptable methods.

Air Quality

- › The NHDOT will require the contractors involved with construction to include air pollution control devices on heavy diesel construction equipment, in accordance with applicable state and federal laws at the time of construction.
- › Construction mitigation measures will include wetting and stabilization to suppress dust generation, cleaning paved roadways, and scheduling construction to minimize the amount and duration of exposed earth.

Parks, Recreation, and Conservation Lands

- › Public access to Hilton Park, outside of the staging and construction work zone, shall be maintained. However, temporary restrictions on public access may be necessary during delivery of materials to the staging areas.
- › Unpaved areas within the fenced-off staging area of Hilton Park are to be protected with temporary geotextile fabric under crushed stone.
- › Disturbed areas of Hilton Park shall be restored to pre-existing conditions once construction is complete.
- › The replacement or relocation of the Hilton Park pavilion will be evaluated in coordination with the NHDOT Bureau of Turnpikes.
- › Potential periodic closures of the navigational channel during work on the GSB's center spans will be closely coordinated with the USCG, the NH Port Authority, the NH Marine Patrol, Pease Development Authority Division of Ports and Harbors, marine businesses and marine users to minimize impacts to marine traffic.

Cultural Resources

- › Measures to mitigate the adverse effects resulting from the Selected Alternative are stipulated in an executed Section 106 MOA (see **Appendix I**), and include the following:
 - Marketing the GSB for re-use in compliance with 23 USC Section 144;
 - Documentation of the GSB in accordance with the Historic American Engineering Record standards;
 - Promoting and providing access to the NHDOT Historic Bridge Inventory and the NHDOT Bridge Management Plan;
 - Development of an interpretive program including on-site interpretive panels and an installation at the Woodman Museum in Dover;
 - Supporting the future rehabilitation and reuse of the state-owned Newington Depot property on Bloody Point, including the assessment of the feasibility for the rehabilitation of the Newington Railroad Depot, and possible transfer of the building along with the state-owned land to the Town of Newington; and

- Completion of a feasibility study of a future link between the Dover Community Trail and the new/rehabilitated GSB, including development of interpretive signage to highlight the history of the Newington-Dover Branch Line.
- › The archeological remnants of the Enoch Pinkham brickyard located within Hilton Park shall be protected by temporary fencing and avoided from staging and construction activities during construction.

Contamination and Hazardous Materials

- › The OSHA Lead in Construction Standard (29 CFR 1926.62) must be invoked during any activities that disturb the lead paint on the GSB. Other hazardous materials such as heavy metals may be present in the coating which will also require management under the applicable OSHA Standards.
- › Arsenic impacted soils will be managed in accordance with a Project-specific Soil Management Plan (SMP).
- › Undocumented releases of OHM will be reported to NHDES as appropriate and remediated per applicable regulations.
- › Hazardous materials (asbestos, lead-based paint, PCBs, mercury, etc.) will be inventoried prior to any structural demolition or renovation work in accordance with Section 5.2 of the NHDOT *Standard Specifications for Road and Bridge Construction*. If these hazardous materials are found to be present in the structures, they would be properly abated by a licensed contractor in accordance with state and local regulations and shipped to a receiving facility licensed to handle the specific type of solid waste under the appropriate shipping documents such as manifests.
- › A SMP shall be developed in accordance with NHDOT specifications that would be based upon the results of subsurface investigations for the Project. A typical SMP outlines standards and procedures for the identification and disposal of contaminated materials that may be encountered during construction.
- › Tracking protocols for contaminated soils will be detailed from the point of excavation to designated testing areas and to the ultimate disposal site or within the project limits.
- › A Health and Safety Plan shall be developed by the Contractor which provides the minimum health and safety specifications that contractors must meet during construction including requirements for environmental monitoring, personnel protective equipment, site control and security, and training.
- › The NHDOT has determined that roadside Limited Reuse Soils (LRS) may be encountered in all topsoil within the limits of the existing right-of-way, regardless of its depth. Contractors will be advised that roadside LRS occurs within the limits of disturbance. In instances where topsoil is not present, soil from the top of ground to a depth of 6 inches is considered to be LRS. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence of potential contamination shall not require handling as impacted material.

- › The SMP will provide guidance for the identification, handling, storage, reuse, and disposal of LRS soils generated during construction activities.
- › In the event that PFAS-impacted groundwater is encountered during construction phases, dewatering activities shall be conducted in accordance with applicable NHDES rules and/or Groundwater Management Plans.
- › The Contractor will develop a Project Operations Plan, which shall specify the Contractor's means and methods for handling and managing LRS, and Contaminated Soil and Groundwater. This will include the implementation of the BMPs described in the SMP. Following approval of the Project Operations Plan, the Contractor shall be required to notify the NHDOT's Bureau of Environment at least two weeks prior to beginning excavation.

Visual

- › Disturbed areas in Dover and Newington used for construction staging would be restored to as near pre-existing conditions as practicable once construction is complete.
- › As needed, the visual character of the disturbed areas would be restored with replacement plantings. Replacement plantings should be native and indigenous to the area for visual consistency with the surrounding landscape and natural environment.

Construction

- › Mitigation measures would be implemented in accordance with applicable laws and regulations during construction. Examples of resource-specific, construction-related mitigation measures include but are not limited to siltation or erosion control barriers, spill prevention plans, and wetting soils during excavation.

Social and Economic Resources and Environmental Justice

- › Public involvement efforts will be undertaken to accommodate and encourage participation by traditionally underserved groups, to ensure program access and minimize the potential for disproportionate project impacts on protected groups.

Navigation

- › Potential periodic closures of the navigational channel during construction will be closely coordinated with the USCG, the NH Port Authority, the NH Marine Patrol, Pease Development Authority Division of Ports and Harbors, marine businesses and marine users to minimize impacts to marine traffic.
- › The plans for construction of the Project will be submitted to the USCG to address the reasonable needs of navigation and to procure the necessary USCG permit.⁵

Public Involvement

- › NHDOT will continue to engage and coordinate with the public and other stakeholders to ensure that public transportation needs and community goals are considered.

⁵ A USCG permit review would require a Coastal Zone Management Consistency Determination and may require a Water Quality Certificate.

4 Monitoring and Enforcement Program

NHDOT will carry out the environmental commitments for the Project and will work closely with permitting authorities, the City of Dover and Town of Newington, and maritime transportation entities. As the lead federal agency, FHWA has the responsibility of ensuring that the environmental commitments are implemented.

Each year following the execution of the Section 106 MOA, NHDOT will provide all signatories a summary report detailing work undertaken pursuant to the MOA terms until it expires, is terminated, or stipulations completed.

5 Public Comments

In accordance with NEPA, NHDOT and FHWA invited members of the public to provide comments on the 2021 DSEIS, and on May 13, 2021, NHDOT and FHWA held a Public Hearing to present the findings of the 2021 DSEIS. The virtual Hearing was conducted in accordance with NHDOT's NEPA Public Involvement Manual, approved January 4, 2021. At the Hearing, attendees were given the opportunity to provide oral comments, and written comments were accepted through June 7, 2021. Appendix M of the FSEIS includes all comments received at the Public Hearing and during the DSEIS comment period, and includes NHDOT and FHWA's responses.

6 Conclusion

FHWA was thoroughly involved in the development of the 2007 FEIS, 2021 DSEIS, and this 2022 FSEIS/SROD, and participated in the interagency meetings for this Project, as well as public informational meetings and the May 13, 2021 Public Hearing. FHWA evaluated and considered all feedback throughout this process. This SROD's Selected Alternative was the subject of NHDOT's May 13, 2021 Public Hearing and 2021 DSEIS, and will be the subject of required federal and state permit applications, approvals, or certifications.

**PATRICK A
BAUER** Digitally signed by PATRICK
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Date: 2022.02.17 15:34:22
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Federal Highway Administration
Patrick A. Bauer
New Hampshire Division Administrator

February 17, 2022

Date: