



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



51 HAM

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

Bureau of Bridge Design
October 20, 2021

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with the firm of HDR Engineering, Inc., Manchester, NH, Vendor #169983, for an amount not to exceed \$1,991,660.55 for final design and associated environmental services for the replacement of the existing Red List bridge carrying NH Route 1A over Hampton River in the Town of Hampton, effective upon Governor and Council approval, through June 30, 2024. 100% Federal Funds.

Funds to support this request are available in the following account in State FY 2022 and FY 2023, and are contingent upon the availability and continued appropriation of funds in FY 2024, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office, if needed and justified:

Table with 4 columns: Account Number, FY 2022, FY 2023, FY 2024. Row 1: 04-096-96-963515-3054 Consolidated Federal Aid. Row 2: 046-500464 Gen Consultants Non-Benefit. Values: \$900,000.00, \$900,000.00, \$191,660.55.

EXPLANATION

The Department requires professional engineering, environmental, and public involvement consulting services for the replacement of the bridge (NH DOT Br. No. 235/025) carrying NH Route 1A over Hampton River in the Town of Hampton and approach roadway work in the Towns of Seabrook and Hampton. This is a 13-span, 1,199-foot, steel girder bridge, built in 1949, which has a concrete deck and incorporates a single leaf bascule movable span to allow access for larger vessels into Hampton Harbor. This bridge is on the Department's Red List of structurally deficient bridges. This project is included in the State's 2021-2030 Ten-Year Transportation Improvement Plan (Seabrook-Hampton, X-A001(026), 15904) with an estimated construction cost of \$63 M.

On May 2, 2018, the Governor and Executive Council authorized the Part A Agreement (Item #36, copy attached) to prepare preliminary design, conduct public involvement, and perform associated environmental & cultural services to address this Red List bridge. The Department reserved the right to either negotiate a scope and fee for the Part B final design services or terminate the contract. Since the firm of HDR Engineering, Inc. has satisfactorily completed the Part A (preliminary design) services for this project, the Department proposes to continue with this firm to perform the Part B and final design.

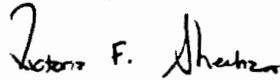
The Part B services include preparing final design, permit applications, contract plans, specifications, special provisions, estimates of quantities and costs, and construction services for the Seabrook-Hampton 15904 construction project, which involves replacement of the existing structure with a fixed, 7-span, steel girder bridge. The replacement structure is anticipated to accommodate 2-lanes of traffic (one lane in each direction) with sidewalk(s) and shoulders and be raised to provide navigational clearance for waterway users.

HDR Engineering, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$1,991,660.55. This is a reasonable fee and is commensurate with the complexity of the project and the scope of the engineering and technical services to be furnished. This project funding is 80% Federal Funds with 20% State match. Turnpike toll credit is being utilized for New Hampshire's match requirement, effectively using 100% Federal Funds.

This Agreement (Seabrook-Hampton Part B) has been approved by the Attorney General as to form and execution. The Department has verified that the necessary funds are available. Copies of the fully-executed Agreement are on file at the Secretary of State's Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

It is respectfully requested that authority be given to enter into an Agreement for consulting services as outlined above.

Sincerely,

A handwritten signature in black ink, appearing to read "Victoria F. Sheehan". The signature is written in a cursive style with a large initial "V".

Victoria F. Sheehan
Commissioner

Attachments

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- A. SPECIAL CONTRACT PROVISIONS FOR COVID-19
- B. **SCOPE OF SERVICES FOR PART B FINAL DESIGN** Prepared by HDR
Engineering, Inc. dated September 30, 2021

AGREEMENT EXECUTION ATTACHMENTS

- 1. CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS
CONTRACTS OR SUBCONTRACTS, ETC.
- 2. CONSULTANT DISCLOSURE STATEMENT FOR PREPARATION OF
ENVIRONMENTAL EVALUATIONS
- 3. CERTIFICATION OF CONSULTANT/SUBCONSULTANT
- 4. CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION
- 5. CERTIFICATION FOR FEDERAL-AID CONTRACTS EXCEEDING \$100,000 IN
FEDERAL FUNDS
- 6. SIGNATURE PAGE
- 7. CERTIFICATION OF GOOD STANDING
- 8. CERTIFICATION OF AUTHORITY / VOTE
- 9. CERTIFICATION OF INSURANCE

SEABROOK-HAMPTON
15904
X-A001(026)
(PART B)

**AGREEMENT
FOR PROFESSIONAL SERVICES**

PREAMBLE

THIS AGREEMENT made this 5th day of November in the year 2021 by and between the STATE OF NEW HAMPSHIRE, hereinafter referred to as the STATE, acting by and through its COMMISSIONER OF THE DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the COMMISSIONER, acting under Chapter 228 of the Revised Statutes Annotated, and HDR Engineering, Inc., with principal place of business at 1917 S 67th Street, in the City of Omaha, State of Nebraska, and a local branch office at 250 Commercial Street, in the City of Manchester, State of New Hampshire, hereinafter referred to as the CONSULTANT, witnesses that:

The Department of Transportation, State of New Hampshire, hereinafter referred to as the DEPARTMENT, proposes to replace the Red List bridge (Br. No. 235/025) carrying NH Route 1A over Hampton River in the Town of Hampton and to perform roadway work as required in the Towns of Seabrook and Hampton.

The DEPARTMENT requires professional engineering and environmental services for said project final design, environmental permit applications, contract plans, specifications, special provisions, and estimates of quantities and costs. These services are outlined in the CONSULTANT'S Scope of Services dated September 30, 2021 and Fee Proposal dated August 25, 2021 (Revised September 20, 2021). The Scope of Services is included in this AGREEMENT as Attachment B. The Fee Proposal is hereby adopted by reference and considered to be part of this AGREEMENT.

This AGREEMENT becomes effective upon approval by the Governor and Council.

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ARTICLE I - DESCRIPTION OF PROFESSIONAL SERVICES TO BE RENDERED

NOW THEREFORE, in consideration of the undertakings of the parties hereinafter set forth, the DEPARTMENT hereby engages the CONSULTANT, who agrees to render services to the DEPARTMENT which shall include, but not be restricted to, the following items, in accordance with conditions and terms hereinafter set forth:

A. LOCATION AND DESCRIPTION OF PROJECT

This project involves the replacement of the bridge (NH DOT Br. No. 235/025) carrying NH Route 1A over Hampton River in the Town of Hampton and approach roadway work in the Towns of Seabrook and Hampton. This is a 13-span, 1,199-foot, steel girder bridge, built in 1949, which has a concrete deck and incorporates a single leaf bascule movable span to allow access for larger vessels into Hampton Harbor. This project is in the STATE'S Bridge Rehabilitation/Replacement Program and is scheduled as to advertise in Fiscal Year 2023. The bridge been on the DEPARTMENT'S Red List of structurally deficient bridges since 1999 with a 2020 Bridge Priority Number of 1.

B. SCOPE OF WORK (GENERAL)

The purpose of this project is: 1) Part "A", to study and prepare preliminary engineering plans suitable for a Public Information Meeting(s), Design Public Hearing (if needed), and completion of NEPA documentation; and; 2) Part "B", to prepare final plans, specifications and estimates for the bridge and associated roadway improvements contract. Part "A" will be completed by Fall 2021. This contract is for Part "B" services.

The project is anticipated to replace the structure with a bridge that will accommodate a minimum of 2-lanes of traffic (one in each direction) with shoulders and sidewalk(s) and be able to carry legal loads.

Designs shall consider temporary and permanent erosion-control measures, traffic control measures, utility coordination, drainage, and treatments to minimize environmental impacts. Coordination may be required between the DEPARTMENT and the Towns of Hampton and Seabrook, NH. The CONSULTANT shall be prepared to support such efforts as required. Responsibilities of the CONSULTANT team shall include attendance at meetings when requested, preparation of minutes reflecting meeting commitments, and preparation of illustrative plans and exhibits for the meetings, as directed by the DEPARTMENT.

The DEPARTMENT and the CONSULTANT have progressed the project through the NEPA process in anticipation of a FONSI being issued by the end of 2021. The preliminary horizontal and vertical alignments previously developed and approved will be used as a basis for developing the final horizontal and vertical alignments in preparation of the final plans.

The following general tasks are included in Part "B":

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- 1.) Final design of the bridge structure, roadway elements, drainage facilities and other necessary design elements;
- 2.) Plans to support utility coordination;
- 3.) Development of a Traffic Control Plan that is acceptable and economical for travelers;
- 4.) Consideration of construction phasing, constructability and construction access;
- 5.) Preparation of permit applications and environmental mitigation measures;
- 6.) Assistance to the Department with public involvement support services, including attendance at meetings, preparation of minutes, and preparation of illustrative plans and exhibits for any meetings, as directed by the DEPARTMENT;
- 7.) Preparation of contract plans, specifications and estimates; and
- 8.) Construction phase services.

C. SCOPE OF WORK (SPECIFIC)

The CONSULTANT shall be responsible for developing engineered plans through an iterative process of design and review involving the DEPARTMENT, STATE, and Federal environmental resource agencies, regional planning commissions, the local community, and the public.

The CONSULTANT shall be responsible for the preparation of complete designs, including all plans, specifications for work not included in the current specifications of the DEPARTMENT, computations, estimates, and documents for required submissions to the DEPARTMENT, the Federal Highway Administration, and/or any other STATE or Federal agency, that may be required.

The engineering design shall take into consideration all factors affecting the cost of the construction, such as site-specific foundation considerations; earthwork quantities; erosion and sedimentation control; traffic control; water-quality-treatment issues; construction phasing and complexity; utilities affected; right-of-way needs; environmental issues and commitments; cost; construction materials; etc.

The CONSULTANT shall, when requested by the DEPARTMENT, render such assistance as required, including the preparation and explanation of sketches and plans for, or at, any meetings or conferences held by the DEPARTMENT. Meeting notes and conference memos shall be the responsibility of the CONSULTANT.

Designs shall conform to the current standards, specifications, policies and guidelines enumerated in the Federal Aid Policy Guide, Subchapter G, Part 625, or to 23 Code of Federal Regulations, Part 625 and the DEPARTMENT'S Design Manuals, and most current Standard Plans for Road Construction, except as approved.

All plotting, drafting, and calculations performed by the CONSULTANT shall be independently checked by members of the CONSULTANT'S staff other than those who performed the original work. The

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work of each stage submission (including quantity estimates) shall have been appropriately checked. The PS&E submission and final paper plans shall have had complete final and "three-way" checking.

The CONSULTANT shall verify all computations and design calculations. The CONSULTANT shall furnish one (1) permanent, legible copy and one electronic format (PDF) copy of the design calculations, suitably bound, and when directed, all study plans, work plans, alternate studies, and estimates indexed in accordance with DEPARTMENT procedures.

The CONSULTANT'S Licensed Professional Engineer stamp for the State of New Hampshire shall appear on the construction plans, reports, and any other documents that will be submitted to the DEPARTMENT. Stamps shall be those of the professional engineers who prepared them or under whose direct supervisory control they were prepared.

The work shall be as described in the CONSULTANT'S Scope of Services, Attachment B, and requires the development and refinement of engineering plans and technical documentation in accordance with the following criteria and involving the following work efforts:

1. Preliminary Engineering

Preliminary Engineering for Final Design shall consist of all efforts needed to design and prepare a complete set of contract documents for the construction of the project for construction of the roadway, structures, traffic control, construction phasing, drainage facilities (including Best Management Practices for permanent erosion- and sedimentation-control and water-quality features as feasible for the project location and topography), landscaping, and appurtenances, in accordance with the policy and procedures of the DEPARTMENT and the provisions of this AGREEMENT. This includes the Tasks under Preliminary Engineering include the following:

a. Existing Conditions Data Collection and Field Reviews

b. Topographic Survey and Base Plan Preparation

The development of base plans drafted by the CONSULTANT using updated ground survey, if applicable.

c. Right-of-Way

The CONSULTANT shall prepare plans showing all necessary easements and right-of-way needed to construct the project. Plans shall be in a format that can be recorded at the Registry of Deeds.

d. Traffic Data Collection and Analysis – Not included

e. Crash Data Collection and Analysis – Not included

f. Development of Engineering Criteria

The CONSULTANT shall follow appropriate engineering criteria based on the latest AASHTO Policy on Geometric Design of Highways and Streets, AASHTO LRFD Bridge Design Specifications, NHDOT Highway Design Manual, and NHDOT Bridge Design Manual, as

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amended. Engineering shall take into account the functional classification of the roadways being addressed; volumes of traffic; methods of construction; erosion control; traffic control; cost; right-of-way needs and impacts to private property; and environmental constraints and the need to avoid or minimize impacts to environmental resources.

g. Alternatives Development and Evaluation – Not included, completed under Part A.

h. Roadway Plans

The refinement of the alignment, grades, typical section, and intersections, as shown on the draft preliminary plans, the design of all permanent guide, warning and regulatory signs, including the quantity summary sheets, and the design and incorporation of all pavement marking layouts, item numbers, item descriptions, and quantities. All signing on the plans shall be closely coordinated with the location of guardrail installations, slopes, utility locations (including street lights, ITS and underground utilities), and drainage-system locations to avoid conflicts and to determine the type of support system required for installing the signs. The CONSULTANT will be responsible for identifying all conflicts and to make necessary adjustments to highway signing plans and locations.

i. Structural Design Calculations and Plans

The design shall include all supporting members for utilities that traverse any bridge structure, if required. The CONSULTANT shall perform a load-rating analysis for each bridge using the appropriate AASHTO Method, or as directed by the DEPARTMENT. The load-rating shall be submitted on the Department's Form 4 with all supporting documentation and calculations, and shall be stamped by a Licensed Professional Engineer stamp for the State of New Hampshire.

j. Traffic Control Plans and Construction Phasing

Design of Traffic Control plans, including traffic phasing and the development of the permanent construction sign and warning device package, including the quantity summary sheets, showing all temporary guide and regulatory signs, and permanent construction signing required for use with detours or construction staging. This shall include summary sheets for relocated signs for construction sequencing.

k. Drainage Design and Stormwater Treatment

Including Best Management Practices for permanent erosion- and sedimentation-control and water-quality features as feasible for the project location and topography.

l. Aesthetics and Landscaping Plan – A specific landscaping plan is not included in this contract. Planting information may be required for threatened and endangered plant species mitigation and for revegetation of the dune area.

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- m. Lighting – The CONSULTANT shall be responsible for incorporating the design and layout, if applicable, into the project documents and for recommending adjustments required to avoid conflicts.
- n. ITS Features – The CONSULTANT shall be responsible for incorporating the design, layout, details and estimates, if applicable, into the project documents and for recommending adjustments required to avoid conflicts.
- o. Constructability Reviews – The project will be reviewed for constructability with information being provided to support the design, permit applications, and public outreach.
- p. Cost Estimates
The Cost Estimates shall be prepared with each submission. Construction Engineering and environmental mitigation costs shall also be included. Estimates shall be submitted with a narrative explaining all major cost and/or quantity changes.
- q. Design Report and Narrative
The CONSULTANT shall prepare a brief narrative, to be submitted with each submission, explaining the design issues addressed in that submission, the design rationale, and documenting any major changes. The report shall include design criteria and controls, specific items and issues of interest, design calculations appropriate for the submission, drainage information (including back-up calculations, pollutant loading data, and a copy of the drainage software model), traffic analyses and a construction cost estimate. In addition, the report shall include anticipated or outstanding issues and the CONSULTANT’S recommendations.
- r. Project Team Meetings
Project team meetings will be held periodically over the course of Part B. These informal meetings will take place when needed to discuss project issues that may include resource constraints, impacts of alternatives, and cost issues. These meetings will involve CONSULTANT and DEPARTMENT staff, but may also include representatives of the City, local Planning Commission, state or federal agencies, or others as appropriate.

2. Public Participation

The CONSULTANT shall provide a public participation program involving public and private stakeholders and the general public in the decision-making process to aid in the determination of the proposed action and to provide updates throughout the design process. The CONSULTANT shall prepare presentation graphics, handouts and support displays for public participation and posting to the DEPARTMENT’S project webpage, be available to make presentations and draft meeting minutes. Specific types of meetings include:

- a. Public Advisory Committee Meetings

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- b. Public Officials Meetings
- c. Public Informational Meetings – Not included in this contract
- d. Stakeholder Meetings – Not included in this contract
- e. Public Hearing – Not included in this contract

3. **Environmental Documentation and Permitting**

The scope of the work involves Environmental Permitting; coordination, and meetings as described in CONSULTANT'S Scope of Services. The CONSULTANT'S plans shall include all commitments made in the environmental documents.

4. **Geotechnical**

The preparation of geotechnical recommendations and analysis are not anticipated as part of this contract. Recommendations and analysis prepared by others will be furnished for use in designing the foundations, retaining walls, fender system and other appurtenances.

5. **Utilities**

The utility coordination for this project will be performed by the DEPARTMENT. The CONSULTANT shall incorporate utility relocations, as designed by the individual utility owner, into the contract plans. Municipal utility relocations (e.g., sewer and/or water), as approved by the DEPARTMENT, shall be included, as necessary, into the contract plans, cross-sections, summary sheets, and estimate. Non-participating municipal utility relocation items shall be kept separate from the highway and/or bridge items in the estimates submitted. The DEPARTMENT will provide the unit item numbers and unit prices to be used for the utility relocations.

D. **MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION**

The DEPARTMENT will furnish the following data to the CONSULTANT:

1. **Electronic files** in US Customary units of the following information in accordance with the DEPARTMENT'S **CAD/D Procedures and Requirements** for incorporation into the plans by the CONSULTANT:
 - a. Any available electronic topographical mapping within the project area shall be provided along with any pertinent electronic supporting information (survey field notes, ASCII point file, SDR data files, etc.).
 - b. Any additional topographic surveys of adjacent parcels, mitigation sites, wetland boundaries, or other pertinent items deemed necessary by the project team will be undertaken and processed by the DEPARTMENT. Incorporation of this information into the topographic baseplan shall be the responsibility of the CONSULTANT.
 - c. Electronic drawings in MicroStation format of roadway typical cross-sections and other detail sheets shall be provided, when available from the DEPARTMENT'S CAD/D library, upon

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request by the CONSULTANT, in accordance with the current DEPARTMENT CAD/D Procedures and Requirements.

- d. Electronic drawings in MicroStation format of the existing utilities, if provided to the DEPARTMENT by the utility. The CONSULTANT shall be prepared to provide an electronic copy of the preliminary base plans to the DEPARTMENT for submission to and use by the utilities. The CONSULTANT shall be responsible for the incorporation of this utility information (either in paper or electronic format) into the plans, in accordance with the current DEPARTMENT CAD/D Procedures and Requirements.

2. Prints of the following information:

- a. Any information outlined in Article I.D.1.a thru d. above (electronic information) both existing and proposed, when available, for verification by the CONSULTANT.
- b. Any additional information not available electronically (e.g., utilities) for the CONSULTANT to incorporate into the plans in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.

3. Right-of-Way data: Any additional information collected or prepared by the DEPARTMENT that could supplement the Right-of-Way Boundary (e.g., existing right-of-way layout per record plans, property lines to a tax map level, parcel owners, title abstracting, etc.) will be provided by the DEPARTMENT in MicroStation format for incorporation into the plans by the CONSULTANT.

4. Plans of prior highway and bridge construction projects within the project limits, as available.

5. Latest structural inspection and underwater inspection of the bridge.

6. The location of all existing and proposed utilities through direct contact with the various utility companies.

7. Geotechnical investigations and recommendations, if available.

8. Electronic files of the Environmental resource data collected in previous studies, if applicable

9. Crash data and Safety Analysis within the study area, if applicable.

10. Ground survey, as needed, within the study area to supplement the digital surface model. The DEPARTMENT will process the raw survey data and incorporate into the digital surface model.

11. The DEPARTMENT's latest high-resolution color aerial photography (which is geo-referenced and ortho-rectified).

12. Conceptual design and layout of highway lighting (temporary and permanent) if deemed necessary.

13. Conceptual design and layout of ITS features, if deemed necessary.

E. WORK SCHEDULE AND PROGRESS REPORTS

The CONSULTANT shall begin performance of the services designated in the Contract promptly upon receipt from the DEPARTMENT of a Notice to Proceed and the material to be furnished as herein

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described. The CONSULTANT shall complete these services without delay unless unable to do so for causes not under the CONSULTANT's control.

The CONSULTANT's sequence of operation and performance of the work under the terms of this AGREEMENT shall be varied at the direction of the DEPARTMENT in order to give priority in critical areas so that schedules and other STATE commitments, either present or future, can be met.

The CONSULTANT shall report progress to the DEPARTMENT in conjunction with DEPARTMENT'S Standardized Invoicing process. Invoices shall be submitted for each month that there has been more than \$10,000 in cumulative billable work since the last invoice, and at least quarterly. For months with no progress or less than \$10,000 cumulative work since the last invoice, a status report briefly describing the reasons for little or no progress shall be submitted.

F. SUBMISSION OF REPORTS, PLANS, AND DOCUMENTS

The submissions shall be as necessary in accordance with Attachment B. Each submission shall be supplemented with such electronic copies of MicroStation drawings, illustrations, and descriptive matter as are necessary to facilitate a comprehensive understanding and review of proposed concepts and designs.

The CONSULTANT will be expected to support their design proposals and any issues resulting from review by the DEPARTMENT or in the public participation phase (including agency coordination), with alternative studies and reasonably itemized cost comparisons for alternate concepts.

The CONSULTANT, with each submission, shall submit a transmittal or memorandum describing the "design issues" addressed in that submission. In addition, the transmittal/memorandum shall include anticipated or outstanding issues and the CONSULTANT'S recommendations to resolve these issues. All issues shall be noted as to whether the CONSULTANT feels that the issue is within the scope of work described in Article I. Meetings between the CONSULTANT and the DEPARTMENT shall be held prior to submissions to discuss design issues and recommendations.

Electronic Transfer of Data: The DEPARTMENT requires the following to ensure compatibility with software used by the DEPARTMENT and to ensure the efficient and timely exchange of computer files between the DEPARTMENT and the CONSULTANT.

All files submitted must be fully compatible with the formats listed in this document without any conversion or editing by the DEPARTMENT. Any files requiring conversion and/or editing by the DEPARTMENT will not be accepted. All files shall be virus free. All files shall use the DEPARTMENT'S file naming convention.

Computer Aided Design/Drafting (CAD/D) files: All CAD/D files shall be in accordance with the Deliverable Requirements described in the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time this AGREEMENT was executed, or any later version. All plan drawings, including size of sheets, lettering, symbols, and scale of said drawings, shall conform to the requirements and standards

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of the DEPARTMENT. All files submitted must be fully compatible with the current version of MicroStation being used by the DEPARTMENT. (The DEPARTMENT'S CAD/D Procedures and Requirements document can be found on the CAD/D website by following the "Downloads" link at www.nh.gov/dot/cadd/.)

Word Processing, Spreadsheet, and Database Files: For each Phase, all relevant files shall be provided in a format fully compatible, as appropriate, with the following:

Word Processing: Microsoft Word 2010 or NHDOT compatible version
Spreadsheets: Microsoft Excel 2010 or NHDOT compatible version
Databases: Microsoft Access 2003 or NHDOT compatible version

These specifications will be updated as necessary to reflect changes in DEPARTMENT software such as adding new software or updating to new versions of existing software. In such instances, the CONSULTANT will be promptly notified.

Computer File Exchange Media: Electronic files shall be exchanged between the DEPARTMENT and the CONSULTANT using the following media as appropriate for Windows Operating Systems:

FTP: Files posted to the DEPARTMENT'S FTP site can be actual size or compressed. Contact the Project Manager for instructions for accessing the FTP site.

Compact Disc (CD): Files on CD(s) should be actual size, not compressed.

DVD: Files on DVD(s) should be actual size, not compressed.

Email: Files 20 MB or smaller may be transferred via Email. If compressed, the files should be self-extracting and encrypted based on content.

Copies: The CONSULTANT shall provide hard (paper) and electronic copies of the deliverables for each Phase of Work. For all deliverables, provide electronic copies in two electronic versions; an electronic version in the original electronic file format (i.e., MicroStation (*.dgn), Microsoft Word (*.docx), Microsoft Excel (*.xlsx), etc.) and an electronic version in Adobe Acrobat (*.pdf) file format.

Website Information:

- a. Website Content: All external NHDOT websites created for this project shall meet the ADA Section 508 requirements as stated in the NH DoIT Website Standards. Those standards are outlined in <https://www.nh.gov/doit/vendor/documents/nh-website-standards.pdf>.
- b. Website Documents: All documents posted to a website created for this project, or that are submitted to be posted to a NHDOT website, shall meet ADA Section 508 accessibility requirements. A checklist for document compliance is provided in <https://www.section508.gov/content/build/create-accessible-documents> (go to second link down under "Checklists").

Upon completion of the AGREEMENT, the CONSULTANT shall turn over all documentation.

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Bridge Design Submissions: The plan submissions for bridge structures shall follow, in general, the NHDOT Bridge Design Manual and the "Instructions for Consulting Engineers Concerning Routine Procedures on Bridge Design Projects" formats prepared by the DEPARTMENT.

Combined Bridge and Roadway Submissions:

1. **Preliminary Plans** – The submission shall include typical sections, plan views, profiles, and cross-sections and appropriate references on the plans relative to drainage design to assist with the review of the preliminary drainage/BMP design and the backup drainage calculations. The CONSULTANT shall submit the Traffic Control Plans showing temporary slopes, lane uses and widths, temporary easements, profiles, detour cross-sections and superelevations, etc. with backup calculations.
2. **Slope and Drain (Roadway Only)** – The submission shall include typical sections, plan views, profiles, and cross-sections with complete template plotted and appropriate references on the plans relative to drainage design to assist with the review of the final drainage/BMP design and the backup drainage calculations. The CONSULTANT shall submit the Traffic Control Plans showing temporary slopes, lane uses and widths, temporary traffic signals, temporary guardrail and barrier locations, temporary drainage, temporary easements, profiles, temporary drives, detour cross-sections and superelevations, etc. with backup calculations.
3. **Preliminary PS&E** – The submission shall include typical sections, plan views, profiles, guardrail locations, and cross-sections with complete template plotted and appropriate references on the plans relative to drainage design to assist with the review of the drainage design and the backup drainage calculations. The CONSULTANT shall submit the Traffic Control Plans in near-final form showing temporary slopes, lane uses and widths, overhead-sign structures, temporary traffic signals, temporary guardrail and barrier locations, temporary drainage, temporary easements, profiles, temporary drives, detour cross-sections and superelevations, etc. with backup calculations. All item summary boxes for drainage, clearing-and-grubbing, earthwork, surfacing and select materials, curbing, guardrail, sidewalks, traffic signs, construction signs and warning devices, pavement markings, conduit and pull boxes, landscaping and slope protection, bounds, fencing, delineation and witness markers, and other items that are nearly complete, shall be shown and note line-entries completed. An electronic copy of the spreadsheet shall be submitted for each estimate. Roadway items shall be kept separate from bridge items.
4. **PS&E** - Upon approval in writing by the DEPARTMENT of the Preliminary PS&E submission, the CONSULTANT shall proceed to prepare and submit to the DEPARTMENT for approval the PS&E submission. The estimate of quantities shall be completed and tabulated, and the reinforcing bar schedules shall be completed. Special Provisions shall be submitted in both electronic format

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(Microsoft Word-compatible) and hard copy for all items not in the Standard Specifications for Road and Bridge Construction of the STATE and for which a current special provision is not available.

5. Final Contract Plans - Upon approval of the foregoing in writing by the DEPARTMENT, the CONSULTANT shall make the final submission of contract plans, any final special provisions required, and a final PS&E estimate of costs. These final contract plans and documents shall reflect all comments resulting from the PS&E review. The CONSULTANT shall be prepared to incorporate all comments, furnish drafting services for omissions found, and generally assist the DEPARTMENT in finalizing the contract plans. If changes are requested by the DEPARTMENT to be made to the CONSULTANT'S plans, the CONSULTANT shall be prepared to update the corresponding electronic files and submit them to the DEPARTMENT. Final acceptance of the contract plans will be made in writing.

G. SCOPE OF WORK (CONSTRUCTION SUPPORT SERVICES)

If a contract for construction of the project, or part of it, is entered into within two years after completion by the CONSULTANT of the services outlined in Articles I, III and IV, the CONSULTANT shall, without additional compensation therefor, render services to the DEPARTMENT, including, but not restricted to, the following:

1. Construction

If and when required by the DEPARTMENT during the construction of the project, the CONSULTANT shall:

- a. At the CONSULTANT'S sole expense, correct and resolve errors and/or omissions within the contract plans and specifications found during construction.
- b. Render interpretations, as necessary, of the contract plans and specifications and submit recommendations for necessary modifications in either or both and, upon approval of recommendations by the DEPARTMENT, revise the contract plans and specifications to cover same and prepare other detailed drawings as may be needed to supplement the contract plans in order to permit the proper completion of the project. This work effort, if required, will be viewed as additional services, subject to an adjustment in the fee.

2. Shop Drawings

The CONSULTANT shall:

- a. Review, check and approve all working drawings prepared by others including the construction contractors or their subcontractors subject to the provisions of Section 105 as described in

ARTICLE I

CONSULTANT'S Scope of Services, Attachment B. Only that work designed by the DEPARTMENT will be excluded from this requirement.

H. DATE OF COMPLETION

In accordance with the Governor and Council Resolution authorizing this AGREEMENT, the date of completion for the Part B professional services rendered under this AGREEMENT is June 30, 2024.

ARTICLE II

ARTICLE II - COST PLUS FIXED FEE COMPENSATION OF CONSULTANT

A. GENERAL FEE

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, an amount equal to the sum of the following costs:

- 1) Actual salaries* approved by the DEPARTMENT paid to technical and other employees by the CONSULTANT, including salaries to principals, for the time such employees are directly utilized on work necessary to fulfill the terms of this AGREEMENT.

* In accordance with DEPARTMENT policy, the maximum direct-labor rate allowed for all positions under this AGREEMENT, including subconsultants, shall be \$60.00 per hour unless a waiver to the salary cap has been specifically approved for specialty services. A waived rate shall remain fixed at that rate for the life of the AGREEMENT unless a subsequent waiver is requested and approved.

An overtime premium of one and one half times the direct labor rate for non-exempt employees working beyond the standard 40 hours per workweek may be allowed for special circumstances when approved by the DEPARTMENT in writing in advance. The overhead portion of non-exempt employees' salary rates shall not be adjusted. Engineers are not eligible for overtime premium rates.

Direct salary costs are estimated at: \$469,358.51

- 2) Overhead costs applicable to the direct salary costs. The audited indirect cost rate, as submitted to and approved by the DEPARTMENT, will be applied to the direct salary costs. The CONSULTANT'S audited indirect cost rate for fiscal year ended December 31, 2019, which expires June 30, 2021, 162.58%, shall be used for invoicing for the life of the AGREEMENT.

Overhead costs are estimated at: \$707,839.57

- 3) A fixed fee for profit and non-reimbursed costs (10% of 1+2).

The fixed fee is: \$117,719.80

- 4) Reimbursement for direct expenses, including, but not limited to, subconsultants with a subcontract value of less than \$200,000, printing, reproductions and travel not included in normal overhead expenses. The

ARTICLE II

reimbursable costs for mileage and for per diem (lodging and meals) shall be that allowed by the CONSULTANT'S established policy but shall not exceed that allowed in the Federal Acquisition Regulations (Subpart 31.205-46) and in the Federal Travel Regulation. Mileage and per diem costs shall be subject to approval by the DEPARTMENT. Subconsultants with a subcontract value of less than \$200,000 shall be invoiced as direct expenses and do not require individual invoices, unless the subcontract is more than 25% of the contract total.

Direct expenses are estimated at: \$11,740.45

5) Reimbursement for actual cost of subconsultants is estimated as follows:

FHI Studio, formerly Fitzgerald and Halliday, Inc. \$649,198.14

Doucet Survey, Inc. \$35,804.08

AGREEMENT NOT-TO-EXCEED TOTAL \$1,991,660.55

The amount payable under categories 1), 2), 4), and 5) may be reallocated within the not-to-exceed total upon mutual agreement of the DEPARTMENT and the CONSULTANT. Reallocations shall be properly documented for Final Audit purposes, but do not require a formal amendment.

The total amount to be paid under this AGREEMENT shall not exceed \$1,991,660.55, the sum of the amounts shown in Article II, Section A (which amount is based on the CONSULTANT'S fee and manhour estimates of September 20, 2021, except by agreement of all parties made after supplemental negotiations and documented by a formal amendment to the AGREEMENT. Should circumstances beyond the control of the CONSULTANT require extension of the time of completion more than one (1) year, the general fee may be renegotiated and documented by a formal amendment to the AGREEMENT; however, the fixed fee (b) shall not change for reasons of work duration alone. The fixed fee (b) shall only change when there has been a significant increase or decrease in the scope of work outlined in this AGREEMENT.

B. LIMITATION OF COSTS

1. Costs incurred against this AGREEMENT shall not exceed the total amount specified in Article II, Section A unless otherwise authorized. The CONSULTANT shall give the DEPARTMENT a ninety (90)-day written notice when it appears that this limit will be exceeded.
2. It is expected that the total cost to the STATE shall be the not-to-exceed amount specified in Article II, Section A, and the CONSULTANT agrees to use best efforts to perform the work specified in the AGREEMENT and all obligations under this contract within this not-to-exceed amount.

ARTICLE II

3. The STATE shall not be obligated to reimburse the CONSULTANT for costs incurred in excess of the not-to-exceed amount specified in Article II, Section A.
4. Changes to the scope of work shall not be considered an authorization to the CONSULTANT to exceed the not-to-exceed amount specified in Article II, Section A.

C. PAYMENTS

Monthly payments on account of services rendered under this AGREEMENT may be made upon submission of invoices by the CONSULTANT to the DEPARTMENT. The CONSULTANT shall follow the DEPARTMENT'S Standardized Invoicing format. The fixed fee shall be invoiced during the billing period based upon the overall percent complete calculated within the approved progress report found in the DEPARTMENT'S Standardized Invoicing. Invoices shall be submitted for each month that there has been more than \$10,000 in cumulative billable work since the last invoice, and at least quarterly.

Actual salaries paid and the indirect cost rate shown in Article II, Section A, shall be used until such time as true costs of salary burden and overhead are fixed by Final Audit. At that time, payments shall be adjusted to agree with the indirect cost rates as determined by Final Audit for the period in which the work was performed, as approved by the DEPARTMENT.

D. ANNUAL INDIRECT COST RATE SUBMISSIONS

The CONSULTANT and all subconsultants with a subcontract value of \$200,000 or greater shall submit their audited indirect cost rate and related documents annually for the life of this AGREEMENT as follows:

To comply with the Federal Acquisition Requisitions (FAR), the CONSULTANT'S Indirect Cost Rate Audit must meet the following requirements:

- Be conducted by an independent Certified Public Accountant (CPA), a Federal government agency, or another state transportation agency.
- Be conducted in accordance with Generally Accepted Government Auditing Standards (GAGAS) issued by the U.S. Government Accountability Office (GAO) and with the cost principles and procedures set forth in Part 31 of the FAR.
- Follow the guidance of the most recent American Association of State Highway Transportation Officials Uniform Audit and Accounting Guide for Audits of Architectural and Engineering Consulting Firms (AASHTO Audit Guide).

In addition to the Indirect Cost Rate Audit, CONSULTANTS shall submit the following documentation:

- AASHTO Internal Control Questionnaire (ICQ) for Consulting Engineers form with the required attachments.

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- Certification of Final Indirect Costs as required pursuant to 23 CFR 172.11 and FHWA Order 4470.1A.
- Complete copy of the CONSULTANT'S annual audited financial statements.
- Analysis of reasonableness of executive compensation as outlined in the AASHTO Audit Guide.
- Cognizant letter, if available.
- A listing of all contracts, with dollar amounts, the CONSULTANT has currently with the DEPARTMENT as a prime consultant or subconsultant.

Annual indirect cost rate submissions are due within 6 months of the CONSULTANT'S fiscal year end and shall be submitted to the DEPARTMENT'S Internal Audit Office electronically to DOT-InternalAudit@dot.nh.gov or in writing.

E. RECORDS, REPORTS, AND FINAL AUDIT

The CONSULTANT shall maintain adequate cost records for all work performed under this AGREEMENT. All records and other evidence pertaining to cost incurred shall be made available at all reasonable times during the AGREEMENT period and for three (3) years from the date of final expenditure report for examination by the STATE, Federal Highway Administration, or other authorized representatives of the Federal Government, and copies thereof shall be furnished if requested. Applicable cost principles are contained in the Federal Acquisition Regulations (FAR) in Title 48 of the Code of Federal Regulations (Subpart 31.2 and Subpart 31.105).

The DEPARTMENT shall have the right, at the time of Final Audit, to review all items charged on this project. If, in the opinion of the DEPARTMENT, such payment is unreasonable, the CONSULTANT shall be required to justify such payment or payments before they will be approved as direct or indirect costs.

All costs as described in Article II Section A.1 through A.5 are to be determined by actual records kept during the term of the AGREEMENT, which are subject to Final Audit by the STATE and Federal Governments. The final payment, and all partial payments made, may be adjusted to conform to this Final Audit. In no case will any adjustments exceed the not-to-exceed amount specified in Article II, Section A. All Subconsultant costs may also be subject to Final Audit by the STATE and Federal Governments.

ARTICLE III

ARTICLE III - GENERAL PROVISIONS

A. HEARINGS, ETC.

The DEPARTMENT will make all arrangements for and hold all necessary hearings in connection with the project.

B. CONTRACT PROPOSALS

After the CONSULTANT has furnished to the DEPARTMENT contract drawings, special provisions, specifications, and estimate of quantities by items, the DEPARTMENT will prepare the documents for receipt of proposals from construction contractors and for execution of a construction contract or contracts.

ARTICLE IV

ARTICLE IV - STANDARD PROVISIONS

A. STANDARD SPECIFICATIONS

The CONSULTANT agrees to follow the provisions of the Design Manuals, Standard Specifications for Road and Bridge Construction, and Standard Plans for Road and Bridge Construction of the DEPARTMENT; A Policy on Geometric Design of Highways and Streets and LRFD Bridge Design Specifications of the American Association of State Highway and Transportation Officials (AASHTO), and amendments thereto, and/or other professional codes or standards applicable to the services to be performed under this AGREEMENT. When a publication (including interim publications) is specified, it refers to the most recent date of issue in effect at the time of execution of this AGREEMENT.

B. REVIEW BY STATE AND FHWA - CONFERENCES - INSPECTIONS

It is mutually agreed that all portions of the work covered by this AGREEMENT shall be subject to the inspection by duly-authorized representatives of the STATE and Federal Highway Administration, United States Department of Transportation, at such time or times as the STATE or Federal Highway Administration deems appropriate.

The location of the office where the work will be available for inspection by STATE and Federal Highway Administration representatives is 6 Bedford Farms Drive, Suite 111, Bedford, NH.

It is further mutually agreed that any party, including the duly-authorized representatives of the Federal Highway Administration, may request and obtain conferences, visits to the site, and inspection of the work at any reasonable time.

C. EXTENT OF CONTRACT

1. Contingent Nature of AGREEMENT

Notwithstanding anything in this AGREEMENT to the contrary, all obligations of the STATE, including, without limitation, the continuance of payments, are contingent upon the availability and continued appropriation of funds, and in no event shall the STATE be liable for any payments in excess of such available appropriated funds. In the event of a reduction or termination of those funds, the STATE shall have the right to terminate this AGREEMENT.

2. Termination

The DEPARTMENT shall have the right at any time, and for any cause, to terminate the work required of the CONSULTANT by this AGREEMENT by written notice of such termination provided to the CONSULTANT by the DEPARTMENT, and, in the event of such a termination of this AGREEMENT without fault on the part of the CONSULTANT, the CONSULTANT shall be entitled to compensation for all work theretofore satisfactorily performed, pursuant to this AGREEMENT, such compensation to be fixed, insofar as possible, based upon the work

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performed prior to termination. If no contract or contracts for construction of the project contemplated by this AGREEMENT is (are) entered into within two (2) years after satisfactory completion of the services outlined in Article I, all of the services contemplated by this AGREEMENT shall be deemed to have been completed.

It shall be a breach of this AGREEMENT if the CONSULTANT shall fail to render timely the services required under this AGREEMENT, in accordance with sound professional principles and practices, to the reasonable satisfaction of the DEPARTMENT, or shall be in such financial condition as to be unable to pay its just debts as they accrue, or shall make an assignment for the benefit of creditors, or shall be involved in any proceeding, voluntary or involuntary, resulting in the appointment of a receiver or trustee over its affairs, or shall become dissolved for any cause. In the event of the happening of any one or more of the foregoing contingencies, or upon the substantial breach of any other provisions of this AGREEMENT by the CONSULTANT, its officers, agents, employees, and subconsultants, the DEPARTMENT shall have the absolute right and option to terminate this AGREEMENT forthwith, and, in addition, may have and maintain any legal or equitable remedy against the CONSULTANT for its loss and damages resulting from such breach or breaches of this AGREEMENT; provided, however, that as to all plans, drawings, tracings, estimates, specifications, reports, proposals, sketches, diagrams, and calculations, together with all material and data theretofore furnished to the DEPARTMENT by the CONSULTANT, of a satisfactory nature in accordance with this AGREEMENT, which plans, drawings, tracings, etc., are of use to the DEPARTMENT, the CONSULTANT shall be entitled to a credit, based on the contract rate for the work so performed in a satisfactory manner and of use and benefit to the DEPARTMENT.

D. REVISIONS TO REPORTS, PLANS OR DOCUMENTS

The CONSULTANT shall perform such additional work as may be necessary to correct errors in the work required under the AGREEMENT caused by errors and omissions by the CONSULTANT without undue delays and without additional cost to the DEPARTMENT.

Furthermore, prior to final approval of plans, specifications, estimates, reports, or documents by the DEPARTMENT, the CONSULTANT shall make such revisions of them as directed by the DEPARTMENT, without additional compensation therefor, except as hereinafter provided:

1. If, after its written approval thereof, the DEPARTMENT shall require changes to the plans or documents that revise engineering or other factors specifically approved, thereby necessitating revisions of the contract plans or documents, or,
2. When applicable, if during the term of this AGREEMENT, a revision of the alignment is ordered by the DEPARTMENT to the extent that the revised alignment will lie completely or

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partially outside the limit of the survey data plotted by the CONSULTANT (this does not apply to those adjustments and refinements to the alignments anticipated under the scope of work), or,

3. If, after approval by the DEPARTMENT of the final contract plans or documents, the CONSULTANT shall be ordered in writing by the DEPARTMENT to make revisions, or to perform services other than those necessary to adapt said plans, reports, or documents to conditions observed during field inspections and encountered during construction; the CONSULTANT shall be entitled to compensation therefor in accordance with Article II, Section A, such compensation to be in addition to the fee specified in Article II, Section A, for its original work on the plans, reports or documents.

E. ADDITIONAL SERVICES

If, during the term of this AGREEMENT, additional professional services are required due to a revision in the limits of the project, or it becomes necessary to perform services not anticipated during negotiation, the DEPARTMENT may, in writing, order the CONSULTANT to perform such services, and the CONSULTANT shall be paid a fee in accordance with the provisions of Article II, Section A.

If, during the term of this AGREEMENT, additional professional services are performed by the CONSULTANT due to the fact that data furnished by the DEPARTMENT are not usable or applicable, the STATE will, upon written approval by the DEPARTMENT, reimburse the CONSULTANT for such additional design services in accordance with the provisions of Article II, Section A.

If additional services are performed by the CONSULTANT through its own acts, which are not usable or applicable to this project, the cost of such additional services shall not be reimbursable.

F. OWNERSHIP OF PLANS

All data, plans, drawings, tracings, estimates, specifications, proposals, sketches, diagrams, calculations, reports, or other documents collected, prepared, or undertaken either manually or electronically by the CONSULTANT under the provisions of this AGREEMENT, immediately shall become the property of the DEPARTMENT, and, when completed, shall bear the CONSULTANT'S endorsement. The CONSULTANT shall surrender to the DEPARTMENT, upon demand at any time, or submit to its inspection, any data, plan, drawing, tracing, estimate, specification, proposal, sketch, diagram, calculation, report, or document which shall have been collected, prepared, or undertaken by the CONSULTANT pursuant to this AGREEMENT, or shall have been hitherto furnished to the CONSULTANT by the DEPARTMENT. The CONSULTANT shall have the right, with the written approval of the DEPARTMENT, to use any of the data prepared by it and hitherto delivered to the DEPARTMENT at any later stage of the project contemplated by this AGREEMENT.

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G. SUBLETTING

The CONSULTANT shall not sublet, assign or transfer any part of the CONSULTANT'S services or obligations under this AGREEMENT without the prior approval and written consent of the DEPARTMENT.

All subcontracts shall be in writing and those exceeding \$10,000 shall contain all provisions of this AGREEMENT, including "Certification of CONSULTANT/Subconsultant". A copy of each subcontract shall be submitted for the DEPARTMENT'S files.

For subconsultants working on design, hazardous materials, geotechnical services, etc., the minimum limits of their professional liability (errors and omissions) insurance coverage shall be not less than \$2,000,000 in the aggregate, with a deductible of not more than \$75,000. For subconsultant contracts with less risk, e.g., wetland evaluations, materials inspection and testing, structural steel fabrication inspection, underwater bridge inspection, research, bridge deck condition surveys, land surveying, mapping, noise studies, air-quality studies, etc., the minimum limits of their professional liability (errors and omissions) insurance coverage shall be not less than \$1,500,000 in the aggregate, with a deductible of not more than \$50,000. For subconsultant contracts with no risk, e.g., archaeology, cultural resources, data gathering, traffic counting etc., professional liability insurance shall not be required. Subconsultants completing field exploration for geotechnical, hazardous materials/environmental, and subsurface exploration shall also have pollution liability insurance coverage not less than \$2,000,000 in the aggregate, with a deductible of not more than \$75,000. If coverage is claims made, the period to report claims shall extend for not less than three years from the date of substantial completion of the construction contract.

H. GENERAL COMPLIANCE WITH LAWS, ETC.

The CONSULTANT shall comply with all Federal, STATE, and local laws and ordinances applicable to any of the work involved in this AGREEMENT and shall conform to the requirements and standards of STATE, municipal, railroad, and utility agencies whose facilities and services may be affected by the construction of this project. The services shall be performed so as to cause minimum interruption to said facilities and services.

I. BROKERAGE

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the STATE shall have the right to annul this Contract without liability, or,

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at its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

J. CONTRACTUAL RELATIONS

1. Independent Contractor

The CONSULTANT agrees that its relation to the STATE is as an independent contractor and not as an agent or employee of the STATE.

2. Claims and Indemnification

a. Non-Professional Liability Indemnification

The CONSULTANT agrees to defend, indemnify and hold harmless the STATE and all of its officers, agents, and employees from and against any and all claims, liabilities, or suits arising from (or which may be claimed to arise from) any (i) acts or omissions of the CONSULTANT or its subconsultants in the performance of this AGREEMENT allegedly resulting in property damage or bodily injury, and/or, (ii) misconduct or wrongdoing of the CONSULTANT or its subconsultants in the performance of this AGREEMENT.

b. Professional Liability Indemnification

The CONSULTANT agrees to indemnify and hold harmless the STATE and all of its officers, agents, and employees from and against any and all claims, liabilities, or suits arising from (or which may be claimed to arise from) any negligent acts or omissions of the CONSULTANT or its subconsultants in the performance of professional services covered by this AGREEMENT.

c. These covenants shall survive the termination of the AGREEMENT. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the STATE, which immunity is hereby reserved by the STATE.

3. Insurance

a. Required Coverage

The CONSULTANT shall, at its sole expense, obtain and maintain in force the following insurance:

1. Commercial or comprehensive general liability insurance, including contractual coverage, for all claims of bodily injury, death, or property damage, in policy amounts of not less than \$250,000 per occurrence and \$2,000,000 in the aggregate (STATE to be named as an additional insured); and
2. Comprehensive automobile liability insurance covering all motor vehicles, including owned, hired, borrowed, and non-owned vehicles, for all claims of bodily injury, death,

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or property damage, in policy amounts of not less than \$500,000 combined single limit; and

3. Professional liability (errors and omissions) insurance coverage of not less than \$2,000,000 in the aggregate. If coverage is claims made, the period to report claims shall extend for not less than three years from the date of substantial completion of the construction contract. No retention (deductible) shall be more than \$75,000; and
4. workers' compensation and employer's liability insurance as required by law.

b. Proof of Insurance

The policies described in paragraph (a) of this section and Section G shall be in the standard form employed in the STATE, issued by underwriters licensed or approved by the Department of Insurance of the STATE. Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier than 30 days, or 10 days in cases of non-payment of premium, after written notice thereof has been received by the STATE. The CONSULTANT shall provide to the STATE a certificate of insurance evidencing the required coverages, retention (deductible), and cancellation clause prior to submittal of the AGREEMENT to Governor and Council for approval and shall have a continuing duty to provide new certificates of insurance as the policies are amended or renewed.

4. No Third-Party Rights

It is not intended by any of the provisions of the AGREEMENT to make the public, or any member thereof, a third-party beneficiary of the AGREEMENT, or to authorize anyone not a party to this AGREEMENT to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Contract. The duties, obligations, and responsibilities of the parties to this AGREEMENT with respect to third parties shall remain as imposed by law. No portion of this AGREEMENT shall be understood to be a waiver of the STATE'S sovereign immunity.

5. Construction of AGREEMENT

This AGREEMENT is executed in a number of counterparts, each of which is an original and constitutes the entire AGREEMENT between the parties. This AGREEMENT shall be construed according to the laws of the STATE.

K. AGREEMENT MODIFICATION

The assignment of the CONSULTANT, generally established by the scope of work in this AGREEMENT, shall not be modified in any way without prior approval of the Governor and Council.

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L. EXTENSION OF COMPLETION DATE(S)

If, during the course of the work, the CONSULTANT anticipates that one or more of the completion dates specified in this AGREEMENT cannot be met, it shall be the CONSULTANT'S responsibility to notify the DEPARTMENT in writing at least ninety (90) days prior to the completion date(s) in question. The CONSULTANT shall state the reasons that a completion date(s) cannot be met and request a revised date(s) for consideration by the DEPARTMENT.

M. TITLE VI (NONDISCRIMINATION OF FEDERALLY-ASSISTED PROGRAMS)

COMPLIANCE

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees and successors in interest agrees as follows:

- (1) **Compliance with Regulations:** The CONSULTANT shall comply with Title VI of the Civil Rights Act of 1964 regulations relative to nondiscrimination in federally-assisted programs of the DEPARTMENT, such regulations entitled Title 49 Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the REGULATIONS), and which are herein incorporated by reference and made a part of this AGREEMENT.
- (2) **Nondiscrimination:** The CONSULTANT, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, religion, age, sex, handicap, sexual orientation, or national origin in the selection and retention of subconsultants, including procurements of materials and leases of equipment specific to this project. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the REGULATIONS, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the REGULATIONS.
- (3) **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a subcontract, including procurements of materials or leases of equipment specific to the project, each potential subconsultant or supplier shall be notified by the CONSULTANT of the CONSULTANT'S obligations under this AGREEMENT and the REGULATIONS relative to nondiscrimination on the grounds of race, color, religion, age, sex, handicap, sexual orientation, or national origin.
- (4) **Information and Reports:** The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the DEPARTMENT or the Federal Highway Administration to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any

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information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the DEPARTMENT or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.

- (5) Sanctions for Noncompliance: In the event of the CONSULTANT'S noncompliance with nondiscrimination provisions of this AGREEMENT, the DEPARTMENT shall impose sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
- (a) withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies; and/or
 - (b) cancellation, termination, or suspension of the AGREEMENT, in whole or in part.
- (6) The CONSULTANT shall take such action with respect to any subcontract or procurement as the DEPARTMENT or the Federal Highway Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a subconsultant or supplier as a result of such direction, the CONSULTANT may request the DEPARTMENT to enter into such litigation to protect the interests of the STATE, and, in addition, the CONSULTANT may request the United States to enter into such litigation to protect the interests of the United States.
- (7) 23 CFR 710.405(b) and Executive Order 11246 entitled "Equal Employment Opportunity," as amended by Executive Order 11375 and as supplemented in Department of Labor REGULATIONS (41 CFR Part 60), shall be applicable to this AGREEMENT and any subagreements hereunder.
- (8) Incorporation of Provisions: The CONSULTANT shall include the provisions of paragraphs (1) through (7) in every subcontract, including procurements of materials and leases of equipment specific to the project, unless exempt by the REGULATIONS, or directives issued pursuant thereto.

In accordance with EXECUTIVE ORDER 11246, the DEPARTMENT has the authority and responsibility to notify the Office of Federal Contract Compliance Programs of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 CFR Part 60. The Office of Federal Contract Compliance Programs is solely responsible for determining compliance with Executive Order 11246 and 41 CFR Part 60 and the CONSULTANT should contact them regarding related compliance issues.

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N. DISADVANTAGED BUSINESS ENTERPRISE POLICY REQUIREMENTS

1. **Policy.** It is the policy of the United States Department of Transportation (USDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's), as defined in 49 Code of Federal Regulations (CFR) Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 apply to this AGREEMENT.
2. **Disadvantaged Business Enterprise (DBE) Obligation.** The STATE and its CONSULTANTS agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. In this regard, the STATE and its CONSULTANTS shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have the opportunity to compete for and perform work specified in the agreements. The STATE and its CONSULTANTS shall not discriminate on the basis of race, color, religion, age, sex, handicap, sexual orientation, or national origin in the award and performance of agreements financed in whole or in part with Federal funds.
3. **Sanctions for Non-Compliance.** The CONSULTANT is hereby advised that failure of the CONSULTANT, or any Subconsultant performing work under this AGREEMENT, to carry out the requirements set forth in paragraphs 1 and 2 above, shall constitute a breach of agreement and, after the notification of the United States Department of Transportation, may result in termination of this AGREEMENT by the STATE or such remedy as the STATE deems appropriate.

O. DOCUMENTATION

The CONSULTANT shall document the results of the work to the satisfaction of the DEPARTMENT and the Federal Highway Administration. This shall include preparation of progress reports, plans, specifications, and estimates and similar evidences of attainment of objectives called for in this AGREEMENT.

P. CLEAN AIR AND WATER ACTS

If the amount of the AGREEMENT or subcontract thereunder exceeds \$100,000, the CONSULTANT or subconsultant shall comply with applicable standards, orders, or requirements issued under Section 306 of the Federal Clean Air Act (43 U.S.C. 1857(h)), Section 508 of the Federal Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15), which prohibit the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities. The CONSULTANT or

ARTICLE IV

subconsultant shall report violations to the FHWA and to the U. S. Environmental Protection Agency Assistant Administrator for Enforcement (EN-329).



**15904 Seabrook-Hampton, NH Reconstruction of the Bridge over Hampton River
Part B - Final Design
Scope of Services and Fee Assumptions
New Hampshire Department of Transportation (NHDOT)**

The Part B scope of services consist of final design engineering and environmental services for replacement of the Neil R. Underwood Bridge (Bridge No. 235/025) that carries NH Route 1A over the Hampton River at the inlet to Hampton Harbor between the towns of Seabrook and Hampton. The replacement bridge consists of 1,300 feet long, seven span, structural steel, fixed bridge located along a 10,592 feet horizontal radius curve on normal crown located approximately 75 feet west of the existing bascule bridge. The bridge is intended to consist six piers and two abutments with the end spans measuring approximately 162 feet in length and the five central spans measuring approximately 195 feet in length. The bridge roadway typical section consist of two 11-foot travel lanes with eight-foot shoulders flanked by six-foot sidewalks on each side with four pedestrian bump-outs located at Piers 2 and 5. The fixed bridge will provide 150 foot navigational channel opening (inclusive of bridge fenders) and a vertical waterway clearance of 48 feet, which includes the 44 feet of required navigational clearance to accommodate the USACE Special Purpose (dredge) Vessel (S/PV) *Currituck*, plus four feet for predicted Sea Level Rise (SLR).

The two abutments will consist of concrete cantilever types with U-back concrete cantilever wings, all atop concrete footings anticipated to be supported by driven steel pile foundations. The six piers will consist of reinforced concrete column and hammerhead pier cap supported on deep foundations using drilled shafts. Mechanically Stabilized Earth (MSE) retaining walls will extend northward from the north abutment wingwalls to limit slope impacts. The approach roadway reconstruction will begin approximately 900 feet south of the new bridge and end approximately 800 feet north of the new bridge at a point approximately 200 feet northerly of the State Park Road.

GENERAL PROJECT ASSUMPTIONS

- This scope is based on bridge replacement and roadway approach reconstruction on an alignment offset to the west of the existing bridge as documented in the Type, Size & Location Report (dated March 26, 2020) and Environmental Assessment (dated March 22, 2021) for design-bid-build procurement.
- The project will be phased to allow for traffic to be maintained on the existing bridge during construction of the replacement bridge and will require two-phased roadway approach construction along each approach.
- Vertical underclearance within the 150' wide navigational channel will maintain a minimum of 48'. As noted in the Navigation Impact Report, this clearance includes the 44' underclearance requested by the USACE for their dredging vessel *Currituck*, plus an additional 4' allowance for predicted seal level rise.
- A fender and/or dolphin system will be designed to protect the piers adjacent to the navigational channel.
- The design portion included in this Part B will be completed in approximately 22 months following the Notice to Proceed.
- It is assumed that the following services will be provided by NHDOT:
 - Geotech Borings on land and in-water to support the Geotech engineering, including boring logs
 - Geotechnical Engineering including analysis with design recommendation for bridge foundations, retaining structures, loading of approach embankments, and infiltration analysis for water quality structures.
 - Vehicle, pedestrian, and bicycle counts for traffic control design
 - Right-of-Way Coordination
 - Utility Coordination
- Wave and scour analysis will be based on the Draft Hydraulic Report (dated November 6, 2020). Additional wave or scour analyses are not included in this scope of work.
- The project will be developed in U.S. Customary units.



- Bridge Design will be in accordance with the AASHTO LRFD Bridge Design Specifications (9th Edition 2020) and the portions of the NHDOT *Bridge Design Manual* Version 2.0 available as of the date of this scope of work.
- Any environmental mitigation not outlined under Part B services will be by others if needed
- All fees for environmental permits will be the responsibility of Department.

1 PROJECT MANAGEMENT AND MEETINGS

HDR Engineering, Inc. (HDR) will manage the project, its own resources, and all subconsultants under contract with HDR; referenced as the HDR Team in this scope of work. Management will include allocation of resources to meet agreed-upon schedules and milestones, design progress compared to budget expenditure, and coordination with NHDOT project team members. Management also includes time for HDR Team internal project coordination and meetings. HDR expects internal meetings to occur at least biweekly during active design phases.

1.1 Part B Initiation and Coordination with NHDOT

HDR will perform the following tasks as part of the Part B initiation and coordination with NHDOT:

- Project startup, team coordination meetings including meeting minutes, and prepare contract agreements
- Coordination with NHDOT for any unexpected additional activities beyond the approved project scope (if any)
- Preparation of up to three (3) Front Office Project Information Sheet (FOPIS) including Front office meeting attendance.

1.2 Coordination with Subconsultants

HDR will coordinate approved project scope with subconsultants and track progress compared to approved budgets. Subconsultants will be included in meetings, as required, during the design process.

1.3 Project Schedule Management

The HDR Team will perform the following tasks as part of Project Schedule Management:

- Prepare the initial project schedule for design and reviews
- Update the design schedule bi-monthly, or as needed.

1.4 Project Cost Management

The HDR Team will manage project scope and task costs for HDR and subconsultants and track costs compared to project progress and approved budgets.

1.5 Develop and Prepare Monthly Progress Reports and Invoices

HDR will develop and provide monthly invoicing and progress reports in accordance with the Department's procedures. Subconsultant invoices will be reviewed and approved for payment by HDR prior to inclusion in the HDR Team invoice.

1.6 Design Coordination Meetings

Several meetings will be required for design coordination during the Part B phase of the project. The following meetings are assumed under this task:

- One (1) kickoff meeting (5 HDR staff in attendance, 2 FHI staff in attendance)
- One (1) bridge site meeting; additional site meetings with various agencies are included under Task 3 (2 HDR staff in attendance, 1 FHI staff in attendance)



- Eighteen (18) Progress Meetings through NHDOTs Bureaus as follows, 2 HDR staff members are assumed unless otherwise stated:
 - 2 coordination meeting with Bureau of Right-of-Way for kickoff on ROW monumentation.
 - 1 joint coordination/ turnover meeting with Bureau of Highway Design and Bridge Design to reinstate Preliminary Design Phase (3 HDR staff in attendance).
 - 1 coordination/progress/turnover meeting with Bureau of Highway Design to begin the Slope & Drain/ 60% phase.
 - 2 coordination meeting with Bureau of Right-of-Way for development of ROW purchase plans.
 - 3 coordination meeting with Bureau of Materials and Research for coordination of Geotech recommendations and constructability review.
 - 3 coordination meeting with Utilities Section for relocations of utility (water, sewer and gas).
 - 1 joint coordination/progress/turnover meeting with Bureau of Highway Design and Bridge Design to begin the PPS&E phase (3 HDR staff in attendance).
 - 1 joint coordination/progress/turnover meeting with Bureau of Highway Design and Bridge Design to begin the Final Design phase (3 HDR staff in attendance).
 - 1 joint coordination meeting with Bureau of Environment to discuss permitting. (2 FHI staff in attendance)
 - 3 Front Office update meetings

Meetings for stakeholder and public outreach, such Natural Resource Agency Coordination Meetings, Cultural Resources Coordination Meetings, Technical Advisory Committee, Public Information Meetings, and direct meetings with regulatory agencies to advance permits, among others, are covered in subsequent tasks.

1.7 Project Management Plan and Quality Management Plan

HDR will develop a Project Management Plan, which will include key contacts, organizational chart, any safety requirements, and project schedule with a list of deliverables. HDR will also develop a Quality Management Plan outlining Quality Assurance/Quality Control procedures, including a schedule of QC reviews, identify required credentials for QC reviewers, and provide requirements for documentation of QC reviews.

1.8 Project Closeout

Coordinate closeout of the Part B phase of the project, including satisfactory delivery of electronic files, reports, plans, etc. HDR will provide NHDOT with electronic copies of the contract plans. The electronic submission will be in accordance with the "Deliverable Requirements" described in the NHDOT's CADD Procedures and Requirements.

2 PUBLIC ENGAGEMENT AND COMMUNICATION

2.1 Public Outreach and Communications Plan

The Public Outreach and Communications Plan as developed Part A – Preliminary Design will be updated for Part B services. The plan will update the stakeholders, key issues and existing communications networks, such as newspapers, newsletters, radio stations, and electronic communications tools. The plan will be updated to reflect activities occurring in the Part B phase.

Deliverables: Revised Public Outreach and Communications Plan



2.2 Public Advisory Committee (PAC) Meetings

A Project Advisory Committee as established for this project in the Part A phase will continue through Part B. This committee was comprised of NHDOT staff, as well as the following:

- Officials from the Towns of Hampton and Seabrook;
- A representative of the Hampton Beach Village District Commission;
- A representative from the Seabrook Beach Village District;
- A representative from the Rockingham Planning Commission;
- A representative from Hampton Area Chamber of Commerce;
- A representative from Coastal Economic Development Corporation;
- A representative from the Hampton Harbor State Pier/NH Port Authority;
- A representative from NH State Parks Division (Hampton Beach State Park);
- A representative from Seacoast Area Bicycle Riders (SABR);
- Representative from local boards and commissions such as the Hampton Historical Society and Town Conservation Commissions; and
- Members from other interested parties including area marinas, businesses and residents;

The HDR Team will verify with the current members of the PAC and update as needed. Any new members or added members, as identified and approved by NHDOT, will be added to the PAC.

The primary responsibility of the PAC during this phase of the project will be to disseminate final design information, provide review of public information meeting materials, review and comment on draft documents for integration of Section 106 commitments. The HDR Team will provide PAC members a reasonable opportunity to review materials in advance of a scheduled public informational meeting(s). All project information will be electronically communicated to PAC members.

It is expected that the PAC will meet up to three (3) times during this phase of the project, with attendance by four HDR Team members (HDR – 2 attendees (one roadway, one bridge); FHI – 2 attendees). The HDR Team will schedule, prepare for, attend and document the PAC meetings; tasks to include:

- Develop PAC meeting schedule (including date/time/location/agenda for each meeting), to correspond with key decision points in the project.
- Maintain a database of PAC members.
- Develop and coordinate meeting materials (i.e. reports, slides, illustrations, graphics, designs, and maps).
- Email PAC meeting notices and agenda to PAC members
- Facilitate each PAC meeting and prepare draft meeting minutes for review by PAC members and NHDOT and then finalize; once finalized, meeting minutes will be posted on the Project Website.

Deliverables: Agendas, meeting notices, meeting materials, and meeting minutes for three (3) PAC meetings.

2.3 Town Official and Public Information Meetings

The purpose of these meetings is to obtain input from the town's elected officials, town staff and general public regarding the final design development of this project. The Public Official Meetings (POM) will consist of three (3) POM meetings, one (1) POM in the town of Seabrook and two (2) POM meeting the town of Hampton. One (1) Public Information Meeting (PIM) will be held upon completion of PPS&E for overview of expected constructability and schedule. These meetings are expected to last up to three (3) hours each, with attendance at POM by three (3) HDR Team members (HDR – 2 attendees (one bridge, one roadway));



FHI – 1 attendees). and PIM by four HDR Team members (HDR – 2 attendees (one bridge, one roadway); FHI – 2 attendees).

The HDR Team will:

- Identify the date /time/location/agenda for each meeting); agenda to be approved by NHDOT.
- Develop handout material, including display graphics for NHDOT review and approval prior to publication.
- Conduct dry run of presentation with the NHDOT Project Manager before meeting and attend the NHDOT meeting.
- Prepare draft meeting minutes and summary of the comments received at meeting for review by the NHDOT Project Manager and then finalize; once finalized, meeting minutes and presentation will be posted on the Project Website.

No formal stenographer or audio recording will be required for this task.

Deliverables: Agendas, meeting notices, meeting materials, and meeting minutes for three (3) Public Official Meetings and one (1) Public Information Meetings.

2.4 Communications

- **Mailings/Contact List**

The HDR Team shall update the contact list of Interested Parties developed under Part A to include newly identified interested parties, elected officials, and affected residents/property owners.

The HDR Team will produce (1) postcards mailing that will provide notice of PIM to abutters, agencies and interested parties. Three hundred (300) postcards are assumed. The distribution of the postcard will be undertaken by NHDOT.

Deliverables: Postcard (1 mailings).

- **Media Relations**

The HDR Team will provide supportive materials to NHDOT communications staff to assist the Department with publicizing public informational meeting in newspapers, radio and/or TV stations that cover the Seabrook-Hampton area. HDR will provide a draft media advisory to the NHDOT Project Manager for the PIM (1) with pertinent information on the date, time, location and purpose of the public meeting and project status. Outreach to media outlets will occur within two weeks advance of PIM (1). NHDOT will be responsible for initiating all media contact.

- **Website**

The HDR Team will provide NHDOT relevant project information in electronically formatted files for the Department to post in the "Project Center" section "Project Specific Information" subsection of the NHDOT website - <http://www.nh.gov/dot/projects/index.htm>. Information provided may include project design graphics, notices of upcoming public meetings, meeting presentations, project reports and contact information on how to communicate with the project team. The HDR Team will also review project page and assist NHDOT for updating over the duration of the final design and construction of the project. In addition, the HDR Team will provide NHDOT approved information about the project for posting on the Town of Hampton and Seabrook websites.



- **Public Comments and Communication**

Miscellaneous communication activities will likely occur with members of the public, town officials and the PAC, especially during the periods leading up to and following the town official and public informational meeting and prior to construction initiation. Communications – such as reports of phone calls, letters, and emails – will be distributed to the project team.

3 ENVIRONMENTAL COORDINATION AND PERMITTING

The HDR Team will assist with the preparation of natural resource-based coordination requirements and/or environmental permit applications for this project as follows. The following assumptions are applicable to environmental permitting.

- An EPA ID Number for painting will not be required for this project.
- HDR assumes that no bridge redesign will be needed as part of the Vulnerability Assessment (VA) included in Section 3.2; this includes pier locations and superstructure height.
- HDR assumes that a specific landscaping construction drawing is not needed as part of plant mitigation. A plant impact plan is included in Section 8.3.
- HDR assumes that a specific invasive species drawing/plan is not needed as part of mitigation, a narrative will be included in permitting drawings. The Contractor will be required to follow NHDOT Special Provisions as supplemented by HDR.

3.1 Environmental Coordination Meetings and Agency Coordination

To the extent possible, meetings and coordination with the New Hampshire Department of Environmental Services (NHDES), the New Hampshire Department of Fish & Game (NHFG), the National Oceanic and Atmospheric Administration (NOAA), and other regulatory agencies such as the U.S. Army Corps of Engineers (USACE), US Coast Guard, US Fish and Wildlife Service (USFWS), and US Environmental Protection Agency (EPA) will be conducted through the NHDOT's Natural Resource Agency Coordination Meetings, held monthly at NHDOT offices. This venue allows for presentation of the project to all the regulatory agencies at the same meeting and provides an excellent platform for decision making. It is anticipated that the HDR Team will present the project at up to three (3) of the Natural Resource Agency Coordination meetings, including preparation of graphics and handouts, as follows:

Meeting No. 1 – present preliminary bridge design and potential project impacts, proposed BMPs, mitigation compliance and constructability overview.

Meeting No. 2 – present 60% design, preliminary quantification of natural resources permanent and temporary impacts, BMP design and overview of Section 106 compliance/mitigation.

Meeting No. 3 – present pre-permit submittal plans after approval of Slope and Drain plans for permanent and temporary impacts, stormwater pollution plan, construction schedule with limitation on in-water controls and preliminary quantification of New Hampshire Aquatic Resource Mitigation (ARM) In-lieu Fee (as required).

The HDR Team will prepare meeting minutes to document the topics of discussion, regulatory comments and issues, follow-up action items, and any agreements or resolutions discussed. A MS PowerPoint presentation will be prepared for each meeting by the HDR Team. It is assumed one "dry run" meeting will be held with NHDOT prior to each agency meeting to review the presentation and make edits; it is also assumed that four (4) members of the HDR Team (HDR – 2 attendees; FHI – 2 attendees) will attend each "dry run" meeting. It is assumed that four (4) members of the HDR Team (HDR – 2 attendees (one roadway, one bridge); FHI – 2 attendees) will attend each Natural Resource Agency Coordination meeting.

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In addition to the Natural Resource Agency Coordination Meetings, the HDR Team will attend the following additional meetings:

- One (1) site walk with State regulators. This will include preparation of graphics and handouts. It is assumed two (2) HDR Team members (HDR – 1 attendee; FHI – attendee) will attend the site walk.
- One (1) site walk specifically with USACE to represent the project. This will include preparation of graphics and handouts. It is assumed two (2) HDR Team members (HDR – 1 attendee; FHI – 1 attendee) will attend the site walk.
- One (1) site walk with the New Hampshire Natural Heritage Bureau (NHNHB) to identify potential listed plant mitigation locations. This will include preparation of graphics and handouts. It is assumed two (2) HDR Team members (HDR – 1 attendee; FHI – 1 attendee) will attend the site walk.
- Four (4) coordination meetings with the USACE at NHDOT for the preparation of the Section 408 approval, dredging approvals, and Section 404/10 Pre-Application Meeting. It is assumed that four (4) HDR Team members (HDR – 2 attendees; FHI – 2 attendees) will attend the meetings with USACE.
- Two (2) meetings with the USCG for the coordination of the Coast Guard Permit. These meetings will be attended by 2 HDR attendees.
- Four (4) meetings with NHDES for the preparation of the State permits. These meetings will be attended by four HDR Team Members (HDR – 2 attendees; FHI – 2 attendees).
- Six (6) additional meetings are assumed with USACE, NHDES and other stakeholders to identify mitigation measures. It is assumed three (3) meetings will be in person, and three (3) meetings will be via Zoom. These meetings will be attended by four HDR Team Members (HDR – 2 attendees; FHI – 2 attendees).
- Other meetings: There will also be an expectation for the HDR Team to coordinate with NHDOT and/or regulatory agencies to discuss project details and permitting above and beyond the Natural Resource Agency Coordination meetings, agency coordination meetings, and site walks identified above;
 - Six (6) conference calls are anticipated for this coordination. It is assumed that three (3) HDR Team members (HDR – 1 attendee; FHI – 2 attendees) will attend each of the conference calls.

Deliverables: Handouts, graphics PowerPoints presentations and meeting minutes.

3.2 New Hampshire DES Standard Dredge and Fill Wetlands Permit Application

Any alteration to submerged lands under tidal and freshwaters and its wetlands, both salt water and freshwater, require a NH Wetland Permit. The HDR Team will complete a Wetland Permit Application (including, but not limited to, forms NHDES-W-06-012, NHDES-W-06-013, NHDES-W-06-049, NHDES-W-06-050, NHDES-W-06-079) for the project. The application will include the required information, as outlined in Env-Wt 603.02 and Env-Wt 603.03 of the regulations. The scope for supporting plan development is outlined in Section 8.3.

A Vulnerability Assessment (VA), in accordance with Env-Wt-603.05 and the various information sources identified in the regulations, will be prepared by the HDR Team which will determine the time period over which the proposed project is designed to serve and identify the proposed project's relative risk tolerance to flooding and potential damage or loss likely to result from the flooding. The VA will focus on evaluation of the vulnerability of the bridge project. The VA will reference the projected sea-level rise from the STAP report (2014), and use the best available science and more recent available projected sea-level rise information that most closely matches the end of the project design life and the project's tolerance to risk or loss. It will use this information to identify areas that are currently located within the 100-year floodplain and subject to coastal flood risk and to identify areas within the proposed project limits subject to flooding from the selected sea-level rise projections. The VA will describe how the project will consider and address projected sea-level rise within the project design life, including in the design plans. Finally, the VA will identify where there are

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conflicts between the project's purpose and the vulnerability assessment results, if any. The HDR Team will attend one meeting with the NHDES (see Task 3.1 above) to evaluate design alternatives, engineering approaches, and use of the best available science and the STAP report (2014) that consider and address the projected sea-level rise.

The HDR Team will prepare a Coastal Functional Assessment (CFA) Report, in accordance with Env-Wt-603.04, to support the DES Wetland Permit. The HDR Team will use the USACE Highway Methodology Workbook (1993) and the USACE New England District Highway Methodology Workbook Supplement (1999) to complete the CFA. The CFA Report will characterize all wetlands within the project area and determine the differences in functions of each. The interaction between tidal wetlands and adjacent dune habitat will also be considered and evaluated. This information will be used to inform the design so that the project will avoid and minimize impacts to the highest and most valuable functions to the extent practicable and include on-site minimization measures and construction management practices to protect coastal resource areas.

The HDR team will prepare water depth support information in compliance with Env-Wt-603.08. Using current predicted NOAA tidal datum for Hampton Harbor and correlating to a minimum of three observed tide events (two plus tide events and one minus tide event) to document the range of tide for the following levels.

- Mean lower low water
- Mean low water
- Mean high water
- Mean tide level
- Mean higher high water
- Highest observable tide line
- Predicted sea-level rise (as developed through vulnerability assessment)

The supporting documentation will include the date, time of day and weather conditions when water depths were recorded for field information by licensed land surveyor. (See Survey Section 5.0)

The application will include all required forms, text, attachments, and graphics to prepare a complete application. It is assumed that a total of two rounds of comments/edits will be necessary to develop a final Wetland Permit application to the satisfaction of NHDOT. The NHDOT will be responsible for any permit application fees associated with filing the Wetland Permit Application. NHDOT will be responsible for the actual submission of the application to NHDES. It is assumed up to two (2) meetings with NHDES will be required as part of this effort and up to three (3) conference calls with NHDOT. The meeting will be attended by up to four (4) HDR Team members (HDR – 2 attendees; FHI – 2 attendees). These meetings and calls are covered under Section 3.1.

In addition to the meetings outlined in Section 3.1, it is assumed a NHDES public hearing will be required under this permit process, since the current tidal wetland impacts are greater than ½ acre. It is assumed minimal meeting preparation is required and that two (2) FHI staff members will attend the hearing.

It is assumed the HDR Team will provide one (1) response to NHDES's Request for More Information (RFMI). It is assumed there will be no appeal filed as part of the wetland permit process.

Deliverables: An electronic copy of the Draft Wetland Permit Application; one full size and one half-scale copy, and one electronic copy of the Final Wetland Permit Application. Preparation of responses to RFMI.

3.3 New Hampshire Shoreland Permit



Within the protected shoreland, new construction or construction that modifies the footprint of existing impervious surfaces, using mechanized equipment to either excavate, remove or form a cavity within the ground and filling any areas with rocks, soil, gravel or sand requires a shoreland impact permit. The proposed impacts are too great to qualify for a shoreland permit by notification. Therefore, the HDR Team will complete a NH Shoreland Permit Application (form NHDES-W-06-037) for the project. The application will include all required forms, text, and graphics to prepare a complete application. There will be only a summary discussion of the existing and proposed conditions and a discussion of construction activities and/or construction sequencing. It is assumed that a total of one (1) round of comments/edits will be necessary to develop a final Shoreland Permit application to the satisfaction of NHDOT.

The NHDOT will be responsible for any permit application fees associated with filing the Shoreland Permit Application. NHDOT will be responsible for the submission of the application to NHDES.

Deliverables: An electronic copy of the Draft Shoreland Permit Application; one (1) full size and one (1) half-scale copy, one (1) response to RFMI, and one (1) electronic copy of the Final Shoreland Permit Application.

3.4 NHDES Section 401 Water Quality Certificate

The HDR Team will complete an individual Section 401 WQC Application (form NHDES-W-07-003) including all required forms, text, attachments, and graphics in support of the US Army Corps of Engineers (USACE) Permit and the US Coast Guard (USCG) Bridge Permit. In accordance with 40 CFR 121.4, which requires Section 401 WQC applicants to request a pre-filing meeting with the certifying authority, the HDR Team will prepare a meeting request form as part of this task. It is assumed that a total of two rounds of comments/edits will be necessary to develop a final Individual Section 401 WQC request to the satisfaction of NHDOT. NHDOT will be responsible for the actual submission of the requests to NHDES. This will include preparation of graphics and handouts. It is assumed up to two (2) meetings with NHDES will be required as part of this effort and up to three (3) conference calls with NHDOT. The meeting will be attended by up to two (2) HDR Team members (HDR – 1 attendee; FHI - 1 attendee). These meetings and calls are covered under Section 3.1.

Deliverables: An electronic copy of the Draft Individual Section 401 WQC Request; one full size and one half-scale copy and one electronic copy each of the Final Individual Section 401 WQC Application. It is assumed water quality sampling will not be required.

3.5 New Hampshire Alteration of Terrain Regulation Compliance

New Hampshire Alteration of Terrain (AoT) regulations are self-enforced by NHDOT. These regulations protect New Hampshire wetlands, surface waters, drinking water supplies and groundwater by controlling soil erosion and managing terrain altering activities that generate stormwater runoff from developed areas. Therefore, the HDR Team will coordinate with NHDOT for the design of the project. The coordination will include AoT checklists and all required forms, text, attachments, and graphics to determine if the design is substantially equivalent to the AoT regulations.

Deliverables: An electronic copy of the AoT forms, text, attachments, and graphics to determine if the design is substantially equivalent to the AoT.

3.6 US Army Corps of Engineers Section 408 Request (modification of existing USACE Projects)

The USACE Section 408 process reviews proposed alterations to USACE maintained and operated properties, referred to as a "USACE Project". The navigable channel which the bridge spans is considered a USACE project, as it is an USACE-maintained channel.



The HDR Team will prepare written notice for submittal to NHDOT to initiate the Section 408 process to the USACE New England District Commander. Format requirements and procedures contained in the current USACE Engineer Circular and specific to the district will be required.

Upon response from the USACE, the HDR Team will provide a written response with initial project information for NHDOT submittal to the USACE, including:

- A complete description of the proposed bridge including preliminary drawings and a locus map.
- Information at a level of detail sufficient for the district to make a preliminary determination as to the location, purpose and need, anticipated construction schedule, and level of technical documentation needed to inform its evaluation.
- A written statement regarding whether the requester is also pursuing authorization pursuant to Sections 10/404/103 and, if so, the date or anticipated date of application/pre-construction notification submittal.
- Information regarding whether credit under Section 221 of the Flood Control Act of 1970, as amended, or other law or whether approval under Section 204(f) of WRDA 1986 is being or will be sought.
- A written statement regarding ownership of the bridge and ROW, and
- A written statement from the NHDOT endorsing the proposed alteration (assumed required).

The HDR Team will also provide additional documentation to the USACE. The HDR Team anticipates the following information will be provided:

- Written narrative of the project, physical characteristics of and potential impacts to the USACE maintained channel and a description of the proposed new dredging and channel dimensions.
- Final Bridge Plans.
- Hydraulic and scour analysis and a summary of these findings.
- NEPA Environmental Assessment and a summary of this document findings.
- Discussion of potential impacts to operations and maintenance. It is assumed that the operations and maintenance impacts will be limited to dredging and channel maintenance for purposes of the USACE.

The HDR Team will coordinate with the USACE throughout the review process. It is anticipated that the HDR Team will need to provide minor additional coordination and information throughout the nine-step Section 408 process. The HDR Team will be responsible for providing NHDOT with letters and applications for submission to the USACE. One meeting with USACE is assumed with four (4) HDR Team Members in attendance (HDR – 2 attendees; FHI – 2 attendees). This meeting is covered under Section 3.1.

The HDR Team assumes that since project funding is not being supplied on the municipal and state level that coordination is only required for Section 408 review with USACE as a federal agency. Municipal and state agencies do not need coordination with the Section 408 review and these agencies do not need acceptance of the modifications if required.

Deliverables: Two (2) letters providing written notice to USACE for Section 408 review, with attachments as listed. Application package including permit application, narrative, plans and other attachments. Electronic copies of letters, two (2) hard copies of the application package and one (1) electronic copy of the package will be provided.



3.7 US Army Corps of Engineers Section 404/Section 10 Individual Permit

The HDR Team will prepare a formal request letter for the NHDOT to submit to the USACE Regulatory Division requesting a permit requirement determination. It is assumed an Individual Section 404/10 permit will be required for this project since Preliminary Design estimates indicate over seven acres (7.3 acres) of impact to jurisdictional wetlands (permanent and temporary) and a permanent loss of a special aquatic site (SAS) – Blue Mussel bed. As part of this task, the HDR Team will re-delineate the Blue Mussel population on the north side of the bridge, a SAS. The HDR Team will prepare for and attend a pre-application meeting with the USACE Regulatory Division to discuss project details and determine permit application requirements. This meeting is covered under Task 3.1.

The application will include all required forms, text, and graphics to prepare a complete individual application. A total of one (1) round of comments/edits will be necessary to develop a final individual application to the satisfaction of NHDOT. NHDOT will be responsible for the actual submission of the individual application to the USACE. It is assumed there will be a public notice and public hearing required for this task. It is assumed wetland impacts will be mitigated under the New Hampshire Aquatic Resource Mitigation (ARM) Fund In-lieu Fee Program, and a USACE Mitigation Checklist will not be required for this project.

The HDR Team will prepare a separate package of environmental permit plans for attachment to the Individual Permit application. The plans will be in 8.5"x11" format, generally at 40-scale, and contain all necessary information requested by the USACE. Existing conditions, proposed conditions, mitigation, landscaping, elevation views, cross sections, and details will be included. It is assumed for the purposes of this scope, that up to 30 plans will be required for the permit application.

It is assumed a public hearing will be required under the Section 404/10 permit process (separate from the NHDES public hearing), since it would be an individual permit application and since the project may have a high level of public interest. It is assumed meeting prep will be minimal and that two (2) FHI staff will attend the hearing.

Deliverables: An electronic copy of the Draft Individual Permit application; one (1) hard copy and one (1) electronic copy of the Final Individual Permit application. Preparation of 8.5x11 Permit Plates for attachment to the Individual Application.

3.8 USACE EA-SOF Document Support

HDR Team will prepare an Environmental Assessment and Statement of Findings (EA-SOF) in support of the Individual Section 404 Process. The HDR Team will prepare a narrative to address the EA-SOF subsections/questions:

- Authority
- Project Description
- Alternatives Analysis
- Mitigation
- Public Involvement
- Existing Conditions and Impacts (all NEPA resources categories)
- Endangered and Threatened Species
- Essential Fish Habitat
- Historic Structures
- Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians
- Impact Analysis (secondary and cumulative, etc.)
- General Conformity Rule Analysis



- Special Conditions
- Compliance with other federal, state and local laws and regulations
- Determinations

The HDR Team will prepare summary narratives from materials prepared for the wetland permit applications, the EA, and professional judgment for items not previously addressed. It is assumed no new graphics will be prepared for the EA-SOF document.

Deliverables: An electronic copy of the Draft EA-SOF Document; an electronic copy of the Final EA-SOF Document

3.9 Coastal Zone Consistency

The HDR Team will prepare a Federal Coastal Zone Management Consistency Determination for the proposed project activities. The determination will include a cover letter, supporting analysis, and graphics for submission by NHDOT to the NHDES Coastal Program.

Deliverables: An electronic copy of the Draft and Final Federal Coastal Zone Management Determinations.

3.10 US Coast Guard Permit

The HDR Team will provide services for the completion and submission of the U.S. Coast Guard (USCG) bridge permit application and bridge lighting permit application. Already begun under Part A of this contract, efforts will be undertaken to complete the application process. Currently, a navigational report has been submitted to the USCG, and the USCG has agreed to a navigational envelope for the bridge. This scope assumes that the USCG will not reject the fixed bridge alternative described in Part A and that USFWS and NOAA National Marine Fisheries Service (NOAA-NMFS) coordination can be completed successfully, and that the permit application for a fixed bridge will be completed and submitted, including:

- Correspondence and coordination with the USCG
- Completion of the USCG permit
- Completion of permit narrative
- Completion of the permit plans, including the fender system and bridge lighting
- Inclusion of NEPA documentation
- Inclusion of hydraulic and hydrology analysis
- Fender system design criteria

Upon completion, the permit will be provided to NHDOT for review prior to submission to the USCG. Two (2) iterations of comment resolution (one for NHDOT, one for USCG) is assumed. NHDOT will be responsible for the actual submission of the application to USCG. Meetings related to the USCG Permit are covered under Task 3.1

Deliverables: Five (5) hard copies of the permit application will be provided.

3.11 Bridge and Pumphouse Inspection for NLEB

The HDR Team will conduct a field survey of the bridge structure and adjacent pumphouse for signs of the Northern Long-eared Bat (*Myotis septentrionalis*) (NLEB). The findings of the survey will be documented in a bridge/structure survey form in accordance with the FHWA programmatic consultation for NLEB.



Deliverables: Bridge/structure survey form for NLEB.

3.12 Mitigation Planning and Design

The HDR Team will support NHDOT in coordinating mitigation requirements for the project with USACE, NHDES and other stakeholders. The HDR Team will evaluate alternatives and mitigation concepts in support of these discussions. Six (6) meetings are anticipated. These meetings are covered under Task 3.1.

The HDR Team will provide support to the NHDOT during coordination with the USACE and NHDES regarding development and negotiation of fee requirements for the New Hampshire Aquatic Resource Mitigation (ARM) Fund In-lieu Fee Program to compensate for impacts to wetland resources. Coordination with NOAA will also be conducted to ensure any EFH conservation recommendations are also addressed in the fee development.

The HDR Team will prepare a compensatory mitigation package for impacts to state-listed plant species located on the site. The HDR Team will re-survey the listed plant species using a sub-meter GPS unit. The information will be transferred onto design plans to determine potential impacts to listed plant populations based on proposed conditions. The HDR Team will conduct a field meeting with NHNH staff to review the existing plant population areas and the proposed limits of disturbance, and to discuss mitigation options. This field meeting is covered under Task 3.1. The HDR Team will then prepare a mitigation concept plan, consisting of GIS graphics, showing the proposed strategy for mitigation of listed plant species. It is assumed mitigation will consist of relocation, through transplantation, of existing plant populations located within the areas of activity to designated "safe" areas outside the areas of activity. The HDR Team will present this mitigation concept plan to the Regulatory Agencies (see Task 3.1) for review and comment. Once the concept plan is approved, the HDR Team will prepare design drawings showing the proposed listed plant species mitigation work. The HDR Team will also prepare specifications to accompany the design drawings depicting the parameters to be followed by the contractor during construction.

The HDR Team will continue coordination with both the USFWS (for Piping Plover) and NOAA (for ESA species and EFH) to finalize potential conservation measures/recommendations and/or mitigation needs for the project. It is assumed coordination will include providing updated design details and impact calculations to both USFWS and NOAA, as well as design details for habitat restoration which are currently not designed.

Deliverables: An electronic copy of the draft mitigation concept plan; an electronic copy of the final mitigation concept plan. Preparation of a mitigation design plans and specifications.

3.13 Review Demolition Procedure and Best Management Practices for Proposed Design

The HDR Team will review the demolition phasing and procedure prepared by the HDR Team members for design and permit determination, as may be needed, to determine any proposed environmental impacts. We will advise the HDR Team members for design of any potential phasing of procedures which might minimize environmental impacts. We will also assist by reviewing any mitigation measure proposed for the project. This does not include design or siting of a mitigation site.

Deliverables: Design plan comments in digital format.

3.14 Sediment Sampling

The HDR Team will organize and coordinate services for sampling of sediment materials beneath and adjacent to the NH Route 1A Bridge structure in conjunction with the USACE Section 404/10 Individual



Permit application, which includes a new dredging area adjacent to the existing navigation channel. Through coordination with the NHDOT Bureau of Environment, NHDOT Bureau of Materials and Research, the USACE NED Regulatory Division, and NHDES, the HDR Team will identify sediment sampling requirements, parameters, and standards. Based on these coordination meetings, we will develop an acceptable sampling plan for the work, including the following:

- The required analyses and appropriate analytical methods.
- The required number, location, and depth(s) of samples to be taken.
- Approved sampling methodology and protocol, and
- Identification of applicable reference areas.

The HDR Team will identify the laboratory where analyses of the samples will be performed and will outline the QA/QC procedures to be followed during the sampling activities, for their transport, and while at the laboratory. We will also identify and oversee the vendor that will undertake the sampling, including supervision during field sampling activities. Prior to submittal of samples to the laboratory for analysis, we will confirm the sample QA/QC requirements including requisite sample volume for the intended analysis, number of blanks, replicates, appropriate sample preservation methodology, and other needs for analysis. The HDR Team will coordinate with regulatory agencies (U.S. Coast Guard, Homeland Security) to obtain permission/clearance for sampling beneath and adjacent to the bridge. We will provide subcontractor oversight of the field sampling of sediment materials within the project area to ensure the field sampling is conducted in accordance with the sampling plan and appropriate methodologies and protocols.

The HDR Team will prepare a Field Report documenting the following:

- Introduction: Identification of sediment sampling project area, sampling objectives, date(s) work was conducted and where.
- Methods: Field sediment sampling methods and protocols followed; analytical methods used including QA/QC procedures.
- Results: Including hard copies of laboratory reports with accompanying QA/QC data
- Discussion: Results Interpretation and comparison to reference areas and applicable state and federal standards.
- Conclusions: Implications associated with the concentrations of detected chemical constituents including constraints on handling for reuse, recycling, and disposal through development of supplemental contract specifications and special provisions, as may be needed.

Two meetings with USACE, NHDES and NHDOT are assumed. These meetings are covered under Task 3.1. One round of comments by NHDOT are also assumed on both the Sampling Plan and Field Report.

Deliverables: Draft and Final copies of the Sampling Plan; Draft and Final digital copies of the Field Report.

3.15 Section 6(f) Evaluation

Drawing upon the coordination undertaken in Part A, the HDR Team will prepare a Section 6(f) Evaluation for the project, due to the temporary and permanent impacts to the Hampton State Pier property. It is assumed the impact will be classified as a small conversion under Section 6(f). The Evaluation will discuss the regulatory framework, applicability of the determination, coordination with agencies that have jurisdiction, alternatives evaluated, appraisal of fair market value, and a discussion of long-term park viability after conversion. Two (2) rounds of comments from NHDOT and FHWA are assumed. It is assumed the appraisal will be undertaken by NHDOT. It is further assumed that the identification of an alternative site outside of the project area will be required to satisfy the conversion requirements. Three (3) coordination calls with NHDOT and NH Parks are assumed.



Under the Section 106 and Section 4(f) Evaluation, historic impact mitigation measures were established in the pending Memorandum of Agreement (MOA) between NHDOT, FHWA, New Hampshire Division of Historical Resources (NHDHR) and Advisory Council on Historic Preservation (ACHP). The HDR Team will assist with the preparation of cultural resource-based coordination requirements for this project as follows:

4.1 Bridge Marketing for Relocation

HDR will assist NHDOT in preparation of marketing material for sale of bascule bridge for possible relocation. This will consist of preparation of legal notice and support documentation.

4.2 Bridge Documentation

The HDR Team will take twenty (20) photos of key elements of the bridge to supplement the documentation provided in the Individual Inventory Form (prepared under Part A). It is assumed these photos will be taken from the bridge and the shoreline, and that photos from the water will not be required. It is further assumed that the photos will be taken with a standard Digital SLR camera and that professional equipment will not be required.

Deliverables: One electronic copy of the supplemental photos, and two hard copies of the supplemental photos and Individual Inventory Form for submission to the Hampton Public Library and Hampton Historical Society.

4.3 Phase 1B Archaeological Survey

The HDR Team will work with Hartgen (a Direct Expense to the project) to conduct a Phase 1B archeological investigation of the area of potential sensitivity at the north end of the project site. The Phase 1B will entail the mechanical excavation of an approximately 50-foot-long trench to test for deposits associated with two houses depicted on the 1916 Sanborn Fire Insurance map. Representative artifacts will be collected and inventoried. The results of this investigation will be documented in a Phase 1B report. One (1) site visit is assumed for this effort. Two (2) rounds of comments are assumed on the report.

The HDR Team assumes one (1) one-day site visit as part of this survey. If a discovery is made, additional recovery efforts are not included in this scope.

Deliverables: Draft and Final Report documenting survey findings, GIS data.

4.4 Interpretive Panels

The HDR Team will work with NHDOT, FHWA, NHDHR, and Consulting Parties to develop written materials and identify graphics for three (3) interpretive panels. The first panel will be devoted to the history and significance of the Neil R. Underwood Memorial Bridge, and its relation to other bascule bridges in the state. The second panel will focus on why the bridge was constructed, and the role it played in the history of the towns of Hampton and Seabrook, including the growth of tourism and the advent of the trolley. The third panel will describe how the bascule bridge functions and its mechanical components. The panels will include text, historic photographs of the bridge, and photographs of current conditions. It is assumed that these materials will be developed from drawings, photographs and historic documentation that has been collected under Part A, and that no additional research will be undertaken for this task. The HDR Team will coordinate with the Hampton Historical Society to determine if a weblink or QR code can be incorporated within the panels to link to the Hampton Historical Society's website for additional information. Two (2) rounds of reviews of the panel content are assumed.



The panels will be displayed on a kiosk within NHDOT right-of-way just south of State Park Road, near the existing Hampton Beach State Park sign and the sidewalk on the east side of Ocean Boulevard. The HDR Team will provide camera-ready artwork for the panels, developed based on kiosk panel standards provided by NHDOT. It is assumed the panels will be approximately 24"x36". NHDOT will be responsible for coordinating their manufacture. Installation of the panels will be completed as part of the construction contract.

Deliverables: Draft and final text, graphics, and layout for three (3) interpretive panels

4.5 Website on Moveable Bridges

The HDR Team will prepare a mock-up of the layout for a new tab for the Hampton Historical Society's website devoted to the Neil R. Underwood Bridge and other historic bascule bridges in New Hampshire. The mock-up will include photos and introductory text, with links to previously prepared documentation. The HDR Team will compile the documentation and submit it to NHDOT for their review and submission to the Hampton Historical Society. The Hampton Historical Society's webmaster will be responsible for creating the new tab within their website and maintaining the information.

4.6 Documentary Videos on NH Bascule Bridges

The HDR Team will prepare three (3), three-to-seven-minute videos on various aspects of bascule bridges. The first video will address the bascule bridge function and its mechanical components, focusing on three locations: the Neil R. Underwood Memorial Bridge, the NH 1B Bridge over Little Harbor, and the Alexander Scammell Bridge. The second video will place these three bridges into the context of the history of the Seacoast, including the watershed; early history; natural, economic, and social development; and maritime uses. The third video will focus exclusively on the Neil R. Underwood Memorial Bridge, its history and significance within the Towns of Hampton and Seabrook. The video content could include current and historical still images, video from the three bridge locations and surroundings, existing relevant (royalty free) video content, and/or short interviews. It is assumed that historic materials regarding the bridges will be drawn from drawings, photographs and historic documentation that has been collected under Part A, and that no additional historic research will be undertaken for this task. Limited additional research is assumed to expand on the Seacoast context, to identify up to six (6) interviewees, and to develop content on the bridges' mechanical functions. Two (2) site visits are assumed for this effort.

The HDR Team will prepare initial storyboards of the videos for review by NHDOT. Following NHDOT's review and comment on the storyboards, the HDR Team will prepare the three videos and submit them to NHDOT for their review and comment. The HDR Team will then make any final changes to the videos.

The HDR Team will organize a 90-minute formal public opening event to include a screening of the videos and a question-and-answer session. The question-and-answer session will be facilitated by Hartgen, Inc., a member of the HDR Team. The HDR Team will arrange for the location of the event, provide the audio and video equipment (if necessary), and coordinate with the NH Preservation Alliance to publicize the event. Three HDR Team members (Hartgen, Inc – 1 attendee (facilitation); FHI – 1 attendee (set-up/logistics) HDR – 1 attendee) would attend the event to serve the facilitator and set-up needs.

The HDR Team will support NHDOT in the distribution of the videos to interested media outlets and organizations, including Public Access Channel 22, NH PBS, the NH Chronicle, the Hampton Historical Society, and NHDHR. The HDR Team will also coordinate with NHDHR, New Hampshire Humanities, and the New Hampshire Preservation Alliance about posting the videos on their YouTube channels.



The HDR Team will develop a distribution plan and an information packet for interested organizations to reference and follow in order for them to host an independent screening event and/or promote the videos.

Deliverables: Three (3), three-to-seven-minute videos; logistical coordination for one public opening event; one video distribution plan and information packet

4.8 Cultural Resources Mitigation Coordinator

The HDR Team will provide one (1) staff member to serve as the Cultural Resources Mitigation Coordinator for the project. This individual will be responsible for coordinating with NHDOT, FHWA, and NHDHR to ensure that mitigation identified in the MOA for the project is successfully implemented. This will include organizing, preparing materials for, and attending four (4) Cultural Resources Coordination Meetings with FHWA, NHDOT, NHDHR and Consulting Parties to discuss mitigation measures.

The Mitigation Coordinator will be the primary point of contact for all parties leading and/or supporting the development and implementation of the mitigation measures stipulated in the MOA.

The Mitigation Coordinator will hold virtual monthly meetings with NHDOT Cultural Resources staff and the NHDOT Project Manager to ensure coordination, monitor MOA deadlines and milestones, and obtain NHDOT approvals, as required. In addition, the Mitigation Coordinator will coordinate the reviews of the mitigation materials, as specified in Section 4.0 of this scope.

The Mitigation Coordinator will develop responses for NHDOT review for to up to six (6) formal requests from Consulting Parties and/or NHDHR during final design.

It is assumed the above coordination will average approximately twenty (20) hours per month for a period of 22 months.

Deliverables: Draft and final minutes for four (4) Cultural Resources Coordination Meetings; draft and final responses to six (6) requests from Consulting Parties and/or NHDHR.

5 SURVEY

5.1 Survey Coordination

HDR team will coordinate with the Department for topographic ground survey to be incorporated into the design model. The HDR Team will perform post-processing conversion of electronic survey files to NHDOT-compliant MicroStation file format and to a vertical datum from NGVD29 to NAVD88 with the horizontal datum being maintained at NAD83/86. Any updated survey provided by the Department will be processed to these survey datums.

5.2 Channel Topographic Survey

HDR team will complete in-water topographic channel survey through a professional land surveyor to support eh substructure design and federal and state permitting (see Section 4). The survey will consist above low tide line and below low tide line.

5.3.1 Above Low Tide Line



Field survey will locate topographic features including structures, observable utilities, and 2-foot contours. In addition, this task includes the following.

- Vertical benchmarks will be set.
- Locate top of wall and bottom of wall points of the exterior corners of the existing abutments and wingwalls to use as tie points.
- Locate limits of existing riprap both above and below the water surface.
- Locate the edge of the blue mussel population (based on identification by others).
- Locate trees/saplings larger than 3" DBH

5.3.2 Below Low Tide Line

Bathymetric survey will be performed by CR Environmental, Inc. of East Falmouth, MA. Multibeam bathymetric data will be collected using a Teledyne Reson T20 multibeam echo sounder (MBES) operated at 300-kHz. This system simultaneously records high resolution bathymetric data and side scan sonar imagery. The system will be interfaced to precision motion and heading sensors. Navigation and tide corrections will be accomplished using RTK GPS interfaced to HYPACK hydrographic software. CR will install a failsafe tide gage. Safe navigation and complete near-shore coverage during the bathymetric survey requires timing of the effort around a period of Mean Higher High Water (MHHW). The minimum safe depth for navigation will be approximately 6 ft MHHW and should allow for ample overlap with topographic data collected in Task 5.1 above. In addition, this task includes the locating existing observable utilities on the bed of the channel and identification of the entire bedrock outcrop at the west edge of the Hampton Channel, near the intersection with the Seabrook Channel.

Deliverables: Computations with stamped Topographic Plan that will identify the location of the HOTL (based on a delineation by others) as well as the elevations for, MLW, MHW, MLLW & MHHW (based on a conversion from NAVD88 using NOAA's Vertical Datum Transformation v4.1.2 tool). One copy would be provided to the client in digital format.

6 GEOTECHNICAL

6.1 Coordination with NHDOT and Project Team

Proposed boring locations have been provided to NHDOT under Part A. This scope assumes NHDOT will perform the requested borings, and that no additional borings will be completed by the HDR Team. The HDR Team will coordinate with NHDOT geotechnical staff for the design of substructures, pavement, fender system, and retaining walls

6.2 Travel and Site Visit

As NHDOT will perform all borings, no site visits by HDR geotechnical staff are anticipated.

6.3 Laboratory Testing

As NHDOT will perform all borings, no geotechnical laboratory testing is anticipated under this contract.

6.4 Geotechnical Analysis and Evaluation



The NHDOT will be responsible for the Geotechnical services, including analysis and recommendations and geotechnical report, for the bridge foundation, embankments, pavement analysis, and retaining walls. Possible deep foundation types to be evaluated include drilled shafts, driven steel pipe piles, and driven steel H-piles.

The HDR Team will complete analyses necessary to support the design team to develop recommendations for:

- Lateral pile analyses for fender pile system

This scope assumes that soil information provided in the Geotechnical report produced by NHDOT will be utilized in the fender system pile analysis. This scope also assumes NHDOT will provide all field boring and testing results as part of the Geotechnical Report for the HDR Team to perform a pile analysis for the fender system. No separate geotechnical report deliverable will be provided for the fender system pile analysis.

The HDR Team will coordinate with NHDOT Geotechnical staff to develop designs of the bridge substructure. See Task 9 for scope associated with these efforts.

6.5 QA/QC

HDR will perform QA/QC on all calculations and analysis performed for the lateral pile analyses for the fender system.

6.6 Geotechnical Design Coordination

The HDR Team geotechnical staff will support the design team during development of contract drawings and specifications by discussing geotechnical design implications on the proposed construction and review of plans/specifications for appropriate incorporation of geotechnical recommendations provided by NHDOT.

7 HYDRAULIC ANALYSES

This task cover finalizing the draft Scour Analysis Report prepared under Part A Scope of Services including a summary of information on tides, storm surge, bathymetry and topography, wind, and waves, as well as the development of hydrodynamic model for characterization of currents at the bridge during storm surge conditions. The draft Hydraulic Model provided predictions for hydraulic loading and scour protection to be addressed in the final design phase. The tasks under this section consists of finalizing the draft Scour Analysis Report and incorporating the hydraulic modeling into the final design plans.

7.1 Coordination

This task covers conference calls, day-to-day communications, and overall coordination between NHDOT and HDR Team members for coastal engineering and structural design. Four (4) conference calls are assumed. It is assumed that three (3) members of the HDR Team will participate in each conference call.

7.2 Final Scour Analysis Report

The HDR Team provided a final Scour Analysis Report as initiated in Part A for NHDOT review and comment. This report summarized the results of analyses performed on the bridge, including scour analysis, hydrodynamic modeling and loading, as well as summaries of information used in the analysis.



7.3 Scour Analysis on Bridge

Results of the hydrodynamic modeling will be applied for riprap hydraulic stability calculations following guidance in the USACE Coastal Engineering Manual. Results will include a design riprap gradation and cross-section at the bridge abutments and proposed retaining walls

7.4 QA/QC

The HDR Team will perform QA/QC reviews of the draft and final Scour Analysis Reports in accordance with the Quality Management Plan.

Deliverable: A draft and final Scour Analysis Report will be electronically submitted to Department.

8 HIGHWAY DESIGN

General Highway Assumptions

- The project will be designed to the 6th Edition AASHTO "Green Book", 4th Edition AASHTO Roadside Design Guide, NHDOT Highway Design Manual Volumes 1 and 2, the 2009 Manual on Uniform Traffic Control Devices (MUTCD) and the 2016 NHDOT Standard Specifications for Road and Bridge Construction.
- Horizontal alignment and pavement layout are approved based on Part A submittals and only minor revisions are anticipated that do not impact bridge design or environmental commitments.
- The roadway design criteria and typical section will be based upon the project TSL Report, dated March 26, 2020.
- Additional survey required will be requested and completed prior to the completion of the Slope & Drain submission.
- Develop construction cost estimate using NHDOT data base.
- Design coordination meetings will be carried under Task 1.7

8.1 Preliminary Roadway and Traffic Design

The Preliminary Plan (30%) developed under Part A will be completed. The submission will incorporate the roadway layout of the recommended alternative in the TSL Report and documented as the selected alternative in the Environmental Assessment.

- The roadway design will support the Bridge Preliminary (30%) submittal. For this project the roadway design will be advanced to establish line & grade, road template, pavement layout, detour plan, conceptual surface drainage, side slopes, and an itemized estimate with incidental item contingencies in order to support the request for a Preliminary Bridge Submittal.
- Utility information will be incorporated on Plans and cross sections during preparation of drainage design on roadway plans supporting the Bridge Preliminary Submittal.
- Existing sign inventory and drainage structure condition analysis with recommendations for replacement, rehabilitation, or further study. The sign inventory will be provided to the Bureau of Traffic for the final sign design



- Feasibility of stormwater improvements will be discussed within the design Narrative. The project will need to adhere to MS4 requirements, and stormwater best management practices (BMP's) will be considered in the narrative.
- A pollutant loading analysis will be performed for phosphorus, suspended solids and nitrogen. Up to three stormwater best management practices (BMPs) will be considered for the site to treat water to levels required under MS4. The HDR Team will consult with NHDOT to determine the preferred BMP.
- Traffic Management Plan (TMP) for construction
- Preliminary Roadway Submission will be comprised of:
 - Roll plans: Existing Conditions, General Plan with Drainage Design, and Pavement Layout (1 sheet)
 - Roadway profile (1 sheet)
 - Preliminary Roadway Typical Section (1 sheet)
 - Cross Sections (10 sheets)
 - Preliminary Traffic Control Plans (5 sheets) – Assumes no regional detour or bridge closure, minimum 3 phases of construction and a preliminary advanced sign package efforts.
 - Written design narrative explaining major design, coordination, or permitting work that occurred during that phase, explaining the thought process behind the design decisions that have been made, outlining an issue that need resolution, any changes from previous submissions.
 - Estimate with contingencies.

NHDOT Review comments on Roadway/Traffic Preliminary submission will be addressed under Task 8.2

8.2 Slope & Drain Submission

The HDR Team will begin by addressing the NHDOT comments on the Preliminary Plan Submission. Thereafter, the Team will prepare the Slope & Drain Submission which will include the following major efforts:

- Revise and advance typical sections; General Plans; profiles; details & cross sections
- Prepare Front Sheet; Alignment, Pavement Layout, Marking, & Signing Sheets; and Detour Plan
- Finalize drainage and BMP design, prepare drainage calculations & report
- Revise quantities and prepare Opinion of Probable Construction Cost
- Review Construction Schedule and TCP sequencing;
- Prepare for and attend Traffic Control Committee (TCC) meeting; two HDR team members will attend the TCC meeting
- Coordinate Submission (including bridge design elements); prepare submittal documents & perform QC/QA review
- Updated Design Narrative

Anticipated Roadway Drawing Sheet List

The total number of estimated roadway and TCP sheets is forty (40) sheets, as follows:

<u>Title</u>	<u># of Sheets</u>
▪ Front Sheet	1
▪ Index / General Notes	1
▪ Standard Symbols	2



▪ Typical	
- NH 1A	1
▪ Summaries	
- Item	4
- Drainage	1
▪ Detail Sheets	6
▪ General Plans	3
▪ Profiles	
- NH 1A	3
▪ Intersection Grading Plan	1
▪ Drainage & Utility Plans	3
▪ Drainage Notes	1
▪ Curbing, Marking, Signing and Pavement Layout Plans	3
▪ Sign Text Layout	1
▪ TCP Sequencing	1
▪ TCP Details	1
▪ Cross Sections	
- NH 1A	10

Slope & Drain Assumptions

- Plans and profiles will be prepared at 50 scale and cross sections will be prepared at 10 scale.
- The Pre vs. Post hydrology study (2, 10, and 50 year) using HydroCAD™ will be completed for the Slope and Drain Submission. The impervious area along NH Route 1A will increase due to widening of the existing roadway and bridge footprint. The proposed bridge will include a new drainage collection and conveyance system to replace the existing scuppers in order to eliminate direct discharge into the harbor. Proposed catchment areas are bisected to the north and south by the roadway profile high point at approximately the center of the bridge. The drainage collection system will be carried through the abutment backwalls at both the south and north approaches and continue in a closed conduit system to new catch basins (with sumps) and discharge off each approach.
- The proposed drainage discharges described above will be routed through new treatment swales at each approach following Best Management Practices (BMPs) to achieve a level of sediment and nutrient removal before flowing through normal watercourses into the harbor.
- The flow of stormwater on the southern roadway approach (off-bridge) not adjacent to the proposed bridge will generally mimic existing conditions with sheet flow off the pavement onto embankments, where treatment of the stormwater runoff will be accommodated. Stormwater flow on the southern roadway approach (off-bridge) adjacent to the proposed bridge will be channeled in a curbed section to new catch basins (with sumps) south of the bridge. This area from the crest of the proposed bridge to the new drainage structures will be diverted to a proposed BMP located southeast of the bridge, in the area occupied by existing NH Route 1A.



- Stormwater flow on the northern roadway approach (off-bridge) will be channeled into a curbed section to new catch basins (with sumps) north of the bridge. This area from the crest of the proposed bridge to the new drainage structures will be diverted to a proposed BMP located to the northeast of the bridge.
- Based on a preliminary review of the existing drainage system at the state park entrance, the contributing areas to this system will be significantly reduced by the drainage structures thereby reducing current flows to the existing outfall to Hampton Harbor to the west. The current design assumes that the existing catch basin grates at the state park entrance will be adjusted to match the intended pavement overlay in this project approach area.
- If it is determined through future design phases that this existing system must be treated through a BMP, the system may be routed southerly to the proposed treatment swale however doing so will require a moderate increase in land impacts on the state park property due to the lower elevation required for the BMP bottom and will likely result in impact to the 8" water line located north of the proposed BMP location.
- A 10-year storm closed drainage system hydraulic analysis will be performed to determine HGL/EGL, pipe capacity, ditch line spread, and outfall velocity.
- A drainage report containing an explanation of existing and proposed conditions, calculation methodology, Hydraulic Soil Groups (HSG), pre vs. post hydrology analysis, pre and post subcatchment plans, hydraulic analysis, BMP design calculations, documentation of pre/post flows at outlets (peak flow mitigation); considerations on construction stormwater management, including temporary drainage and treatment location, and project conclusions will be prepared.
- While an AoT Permit is not needed due to an existing MOA with DES, the project must comply with the intent of AoT Administrative Rules (Env-Wq 1500). Protection of water quality will be made to the maximum extent practical. A memo should be prepared explaining our adherence to AoT and MS4 for the project records, and to be reviewed by NHDOT Bureau of Environment. Assumed submission of a draft, with two rounds of comments before a final memo is submitted.

8.3 Wetland & Shoreland Permit Plans

8.3.1 Wetland Impact Plans

Prepare wetlands impact for submittal with NH Department of Environmental Services' (NHDES) Standard Dredge and Fill Permit Application. Direct dredge or fill of mapped wetlands will be identified with each impact labeled. Permit plans will be based upon incorporation of any relevant comments received after review of the Slope & Drain, Utility and ROW submissions. Any impacts to environmental commitments or updates necessary will be identified.

The total number of estimated wetland plan sheets is thirty (30) sheets, as follows:

Title	# of Sheets
▪ Front Sheet	1
▪ Standard Symbols	2
▪ Erosion Control Strategies	2
▪ Wetlands Impact Plans	4
▪ Erosion Control Plans	4
▪ Plant Mitigation Plans	
○ Existing Conditions	3
○ Impact Sheets	3
○ Mitigation Plans	4



o Details	1
▪ Construction Staging Plans	6

8.3.2 Shoreland Plans

Prepare shoreland plans for submittal with the NH Shoreland Permit. This task includes coordination with the design team to determine temporary and permanent impacts within the protected Shoreland Area. Shoreland application submittals will include tree inventory data or the associated 50-foot grids.

The total number of estimated shoreland plan sheets is six (6) sheets, as follows:

Title	# of Sheets
▪ Front Sheet	1
▪ Standard Symbols	2
▪ Shoreland Impact Plan	3

Environmental Assumptions

Wetland and Shoreland Plans will be developed in accordance with the most recent Department's checklist. The design of erosion control strategies will be coordinated with the Bureau of Environment. The Wetland and Shoreland Preliminary Design will include coordination, design, determination of items and constructability. The Wetland Preliminary Submission will include a wetlands application, Attachment A (20 Questions), Appendix B, Impact Plans, EC Plans and additional information needed to convey the proposed improvements. The Shoreland Preliminary Submission will include the Shoreland Impact Plans. The Wetland and Shoreland Final submission will include revisions per the Department's comments.

See Section 3.0 Environmental Coordination and Permitting for additional information. Note that FHI hours for review of permit plans is included under individual permits in Section 3.0.

8.4 Utilities Submission

Upon receipt of the Department's comments on the Slope & Drain Submission, the HDR Team will revise the proposed design accordingly with respect to utilities; prepare a utility conflicts list; and prepare a Utility Plan Set for submission to the Department, in accordance with the latest checklist, for NHDOT's use in utility coordination.

Utility Assumptions

- It is anticipated that the existing water lines running underground and beneath the harbor to the west of the existing roadway and bridge will be relocated by others to a new or temporary location that does not interfere with construction as part of this project. All necessary permits will be obtained by others and the relocation will be completed prior to the start of construction of the new bridge. It is assumed the water lines will be supported on the new bridge. The relocation plans for the water lines will be provided by others for incorporation in the final contract plans.
- It is anticipated that the existing sewer line running underground and beneath the harbor to the west of the existing roadway and bridge will be relocated by others to a new or temporary location that does not interfere with construction as part of this project. All necessary permits will be obtained by others and the relocation will be completed prior to the start of construction of the new bridge. It is assumed the sewer line will be supported on the new bridge. The relocation plans for the sewer line will be provided by others for incorporation in the final contract plans.
- The existing gas line appears to separate into two lines near the north abutment of the existing bridge. One of these lines is located beneath the harbor to the west of the existing bridge and has been abandoned



in place. The other is mounted on the bridge and provides service to the operator house. It is anticipated the gas line beneath the harbor will be removed by others prior to the start of construction and will not interfere with construction activities. Any necessary permits will be obtained by others. It is anticipated that the existing gas line to and on the bridge will be relocated by others as necessary to a new or temporary location that does not interfere with construction as part of this project. All necessary permits will be obtained by others and any relocation will be completed prior to the start of construction of the new bridge. It is assumed that a gas line will be supported on the new bridge. The relocation plans for the gas line will be provided by others for incorporation in the final contract plans.

- Aerial utilities are not expected to impact construction activities. Any coordination will be completed by others. If relocations are required, the relocation plan will be provided by others and incorporated into the final contract plans.
- There is an abandoned water pump station located in the northwest quadrant of the existing bridge that must be removed to construct the new roadway alignment. This structure will need to be categorized for hazardous material prior to removal. At a minimum, asbestos abatement will be likely required and completed by others.
- The existing bascule span operator house has electric, lighting, telecommunications, and gas services that are supported on the existing structure. These services are fed from Hampton and must be maintained on the existing bridge while the bascule remains in service. This may require installation of temporary services and relocation of these utilities in the north approach of the bridge during construction of the new bridge substructures and temporary support of excavation. Similarly, the roadway lighting on the approaches and over the existing bridge will need to be kept in service while the bridge remains in operation. The construction of the new bridge structure is not expected to impact these utilities. The HDR Team will prepare a Utilities Submission and conflict list for NHDOT.
- Utility coordination will be performed by NHDOT. Relocation layout, as required, will be provided to the HDR Team by others and incorporated into the general plans.
- Highway lighting design will be requested from the Department and incorporated into the contract documents. Highway lighting is anticipated to be limited to installing street lighting on the approaches to the NH 1A bridge. Any separate maintenance agreements for lighting will be obtained by others.
- Bridge lighting, including lighting at the navigation channel, will be addressed as part of Section 9.0. Bridge lighting will include lighting at the navigation channel and will be coordinated by the Department with the USCG and USACE. See Sections 5.0 for additional information.
- Any utility to be located on the bridge will be designed by the utility owner and they will provide the design of the utility and structural loading for superstructure analysis. Based upon the utility design by others HDR will engineering the design support system/framing as needed.

Deliverables: Assume submission of a draft set of Utility Plans and one round of comments

8.5 ROW & Easement Plans

The existing Right-of-Way (ROW) provides room for all proposed construction activities on the south approach to the bridge and the construction of the bridge itself. The north approach to the bridge will be primarily within the NHDOT ROW but will likely involve impacts to the abutting land to the west (State Pier). Construction of the north approach will utilize retaining walls at the northwest quadrant to minimize impacts to the State Pier and its parking area. Design of the proposed BMP at the northeast quadrant will be done to minimize impacts to the State Park. As these two abutting parcels are under the control of various entities of the State of NH, it is anticipated that the required boundary transfers will be handled by NHDOT.

ROW plans (6 sheets) will be prepared for the purposes of negotiating these modifications and easements by NHDOT and for recording them at the Registry of Deeds.



ROW & Easement Assumptions

Based on the existing monumented Right-of-Way information, it appears that ROW takings of properties not under state control will not be required and only temporary construction easements will be needed. ROW Plans will be in a format that can be recorded at the Registry of Deeds.

Deliverables: Assume submission of a draft set of ROW Plans and one round of comments

8.6 Preliminary PS&E Submission

Upon receipt of the Department's Slope & Drain comments, the HDR Team will advance the design to the 80% stage. This submission will be a complete contract set with the exception of finalized summary sheets. Final Right of Way comments, and Utility relocations, if available, will also be incorporated. The Preliminary PS&E submission will include the following major efforts:

- Revisions and advancement of Front Sheet, General Plans, Profiles, Pavement, curbing and pavement marking Layout Plans, and Cross Sections
- Revisions to drainage design & report
- Permanent sign and pavement marking design
- Detail sheet creation
- Preparation of Quantity & Drainage Summary Sheets
- Revise quantities and prepare Opinion of Probable Construction Cost
- Updated Design Narrative
- Prepare draft POW & TCP documents
- Special Provision development
- Prepare of submittal documents & perform QC/QA review

Preliminary PS&E Assumptions

- Permanent roadway line-striping will be designed and detailed by The HDR Team for review and approval by NHDOT for incorporation into the plans at the PPS&E submittal.
- As the project will replace the existing bridge with a fixed span, permanent traffic signal design & construction will not be required to manage traffic for bridge openings.
- Permanent signage design will be limited to regulatory and warning ground mounted sign. No new guide signs on overhead structures are assumed or efforts included in this scope.
- Landscaping efforts will include topsoil, loam, humus, seeding, or other typical disturbance restoration type items where it replicates pre-disturbance conditions or is specifically needed for another reason. Plans should also include natural treatment for revegetating the dune area.
- Site design efforts, other than driveway matches, are not required.
- New guardrail and end treatments designs are included

8.7 PS&E Plan Submission

The HDR Team will address NHDOT comments on the Preliminary PS&E submission and prepare the PS&E plans.

8.8 Final Contract Plan Submission

The HDR Team will address NHDOT comments on the PS&E submission and prepare the final contract plans for advertising.



9 **BRIDGE DESIGN**

General Bridge Assumptions

- Final design is based on the bridge superstructure and substructure configuration, the alignment and profile, the traffic control plan, and the construction sequence detailed in the TS&L and the Preliminary Highway and Bridge Plans.
- Bridge design will be performed in accordance with the AASHTO LRFD Bridge Design Specifications Ninth Edition (2020) and portions of the *NHDOT Bridge Design Manual* Version 2.0 available as of the date of this scope of work.
- A Load Rating will be performed in accordance with the Load and Resistance Factor Rating (LRFR) Method. The stamped Bridge Form-4 and supporting calculations shall be submitted prior to Advertising.
- Design revisions are anticipated based on comments, but no major changes in structure type or roadway-geometry are anticipated.
- All bridge submissions shall be submitted in a single plan set with the associated roadway submission.

9.1 Preliminary Design Plan Submission

The preliminary structural design and analysis of the recommended alternative in the TSL Report, which was initiated under Part A, will be advanced to the Preliminary Plan (30%) level to include:

- Preliminary design of the bridge abutments and piers will be performed. It is assumed these piers will be comprised of reinforced concrete.
- Preliminary design of the superstructure.
- Preliminary design of fender system.

Preliminary bridge plans will be prepared, estimated as follows:

- General Plan & Elevation (1 sheet)
- Bridge Notes (3 sheets)
- Site Plan & Profile (1 sheet)
- Geotech Boring Logs
- Construction Access Plan & Channel Section (1 sheet)
- Construction Phasing (2 sheets)
- Abutment Plan & Elevation (2 sheets)
- Wingwall Elevations (1 sheet)
- Wingwall Details (1 sheet)
- MSE Wall Plan & Elevation (2 sheets)
- MSE Details (1 sheet)
- Pier Plan & Elevation (1 sheet)
- Typical Section (1 sheet)

A construction cost estimate with contingencies for the bridge items will be provided.

The HDR Team will submit an electronic copy of the Preliminary Design Plan Submission, to include plans and an estimate of bridge only items.

9.2 Preliminary PS&E Submission (80%)



HDR will address NHDOT comments on the preliminary design submission. Thereafter, HDR will advance the design and provide a preliminary plans, specifications and estimate (PPS&E) submission. This design phase will address the following bridge components:

- Superstructure
 - Superstructure design will be updated based on NHDOT comments on the Preliminary submission and general design progress.
 - Beam camber and bottom of slab elevations
 - Construction phasing details
 - Structural Steel details
 - Cross frame details
 - Live load deflection criteria will be based on the L/1000 limits in the NHDOT *Bridge Design Manual*. It is assumed that frequency-based vibration studies will not be required
 - Design for the superstructure shall include utility loads as provided by others. The loading analysis shall be based upon utility design loading provided by utility owner with HDR designing the support system and cross framing as needed.
- Bridge abutment masonry geometry will be finalized.
- Bridge pier masonry geometry will be finalized.
- Elastomeric bearings, if suitable, will be utilized at all substructures. Otherwise, disc bearings may be used.
- Elastomeric bearing design is based on AASHTO Method B.
- Final design of abutments and piers will be performed using updated geotechnical information developed by NHDOT during the final design phase.
- Final design of approach slabs.
- Seismic design will be a force-based approach in accordance with AASHTO LRFD Bridge Design Specifications Ninth edition, 2020.
- Final design of fender systems.
 - It is assumed that the fender system for this structure will be a simple system with piles/dolphins and wales. It is assumed that there will be no access walks on the fender system.
 - The fender system will be designed in accordance with the AASHTO Guide Specifications for Vessel Collision Design of Highway Bridges, 2nd Edition. It is assumed that the system will be designed for the AASHTO minimum barge.
- Bridge navigational lighting and navigational clearance signs.
- Mechanically Stabilized Earth retaining wall plans will be finalized.
- The fender system will be designed in accordance with the AASHTO Guide Specifications for Vessel Collision Design of Highway Bridges, 2nd Edition. It is assumed that the system will be designed for the AASHTO minimum barge.

The estimate of probable construction cost will be updated. This cost estimate will use average weighted bid prices where possible.

The preliminary design will be revised to reflect the following:

- Results of corrosion analysis. Details such as concrete cover may be modified.



- Incorporation or resolution of NHDOT comments

The HDR Team will submit an electronic copy of the PS&E Design Submission, to include plans, estimate, and a list of anticipated Special Provisions.

9.3 PS&E Submission (95%)

HDR will address NHDOT comments provided at the PPS&E submission. It is assumed that all comments on the PPS&E will be received in one (1) iteration.

The HDR Team anticipates producing ninety (90) drawings for the PS&E 95% Bridge submission, as follows:

- General Plan and Elevation
- Bridge Notes (3 sheets)
- Site Plan and Profile
- Survey Layout and Approach Section
- Construction Access Plan and Channel Section
- Construction Phasing Sheets (2 sheets)
- Boring Layout Plan and Boring Logs (25 sheets)
- Abutment A Footing Plan
- Abutment A Plan and Elevation
- Abutment A Reinforcement
- Abutment A Details
- Abutment B Footing Plan
- Abutment B Plan and Elevation
- Abutment B Reinforcement
- Abutment B Details
- Wingwall Elevations
- Wingwall Details
- Wingwall Reinforcing Details (2 sheets)
- MSE Wall Plan and Elevation (2 sheets)
- MSE Wall Details (2 sheets)
- Drilled Shaft Layout/Masonry
- Drilled Shaft Reinforcing
- Pier Pile Cap Plan and Elevation
- Pier Plan and Elevation
- Pier Reinforcing
- Pier Details
- Pier Fender Details (2 sheets)
- Bearing Details (2 sheets)
- Framing Plan (4 sheets)
- Girder Details (4 sheets)
- Typical Sections and Deck Slab Details
- Bottom of Slab Elevations
- Deck Plan and Sections (4 sheets)
- Bridge Drain Details & Closed Drainage System
- Precast Concrete Deck Panel Details
- Approach Slab Details
- Expansion Joint Details (3 sheets)
- Bridge and Approach Rail Layout
- Bridge Lighting Plan
- T4 Steel Bridge Rail
- T4 Steel Bridge Approach Rail
- Navigational Lighting Power Plan
- Navigational Lighting Power Details
- Navigational Lighting Details
- Navigational Clearance Sign Details
- Reinforcing Schedule (4 sheets)



It is assumed that specifications and standard Special Provisions will be provided by NHDOT. It is anticipated that special provisions will be required for fender system elements, requirements for corrosion protection and navigational lighting.

The HDR Team will submit an electronic copy of the PS&E (95%) Submission, to include plans and construction cost estimate.

9.4 Final Contract Plan Submission (Final Plans)

HDR will address NHDOT comments provided at the PS&E submission. It is assumed that all comments on the PS&E will be received in one (1) iteration.

The HDR Team will submit an electronic copy of the Final Submission (100% Plans. After comments on the Contract Plan submissions are received from NHDOT and implemented, one (1) full size set stamped by a professional engineer licensed in the State of New Hampshire will be provided. It is assumed that all comments will be received in one iteration.

The estimate of probable construction cost will be updated and finalized. This cost estimate will use average weighted bid prices where possible.

The HDR Team will perform a load rating of the bridge and prepare a NHDOT Form 4. The load rating will be performed using the Load Resistance & Factor Rating (LRFR) method.

10 CONSTRUCTION PHASE SERVICES

10.1 Construction Support Services

The HDR Team will provide the following services during construction phase:

- Answer Requests for Information (RFI's). It is anticipated that approximately 50 RFI's will be received.
- Review shop drawings and material submissions as required. It is anticipated that HDR will review shop drawings, and submissions required by special provisions. It is assumed that material information sheets and test results required by NHDOT standard specifications will be reviewed by NHDOT staff.
 - o Shop drawings are anticipated to include structural steel (including welded studs), steel pile, rebar, and any required couplers, MSE walls, precast concrete elements, drilled shafts, the fender system, bridge bearings, bridge joint system, and bridge railing.
- Review demolition and erection procedures, including staging and temporary access.
- Provide construction clarification and review nonconformance reports, if required.

It is assumed that NHDOT will provide the Contract Administrator during construction, and will provide daily reports, routine product submissions and pay requisitions. It is assumed that HDR will not provide document control, will not review closeout punch lists, and will not develop as-built drawings. It is assumed that HDR will not review change orders submitted by the contractor.

10.2 Construction Kickoff and Progress Meetings

The HDR Team will attend construction kickoff and progress meetings. It is assumed that two (2) HDR Team personnel will attend one (1) kickoff meeting and twelve (12) progress meetings at or adjacent to the bridge site. It is assumed that meeting minutes will be produced by others.

10.3 Field Site Visits



The HDR Team will travel to the bridge site for coordination with the contractor and the State Contract Administrator. It is assumed that two (2) HDR Team personnel will participate in six (6) site visits.

10.4 Final Right-of-Way Monumentation

The HDR team will install right-of-way monumentation upon completion of the construction work. The in-field monumentation will be completed by a licensed land surveyor and recorded on the final Right-of-Way plan for registry. The licensed land surveyor will register the plans in the County Registry of Deeds.

10.5 US Coast Guard Documentation

The HDR team prepare an as-built channel contour survey and documents the vertical clearance of the superstructure to comply with the US Coast Guard permit. The HDR Team will further prepare an as-built schematic of the channel lighting in the format required by the US Coast Guard.

ATTACHMENT A

Special Contract Provisions for COVID-19

The CONSULTANT acknowledges and agrees that this AGREEMENT was entered into following the coronavirus disease 2019 (COVID-19) outbreak. The CONSULTANT agrees that to the extent the COVID-19 outbreak, or any federal, state or local orders, regulations, rules, restrictions, or emergency declarations relating to COVID-19, disrupt, delay, or otherwise impact the Scope of Services to be performed by the CONSULTANT as set forth in Article I of this AGREEMENT, any such disruption, delay, or other impact was foreseeable at the time this AGREEMENT was entered into by the Parties and does not excuse the Contractor's performance under this AGREEMENT. The CONSULTANT agrees that any such impact, including any disruption to supply chains, workforce reductions, delays or interruptions in performance, or other effects on businesses, are not the fault of the STATE and the CONSULTANT may not seek damages against the STATE for any such impacts.

If the CONSULTANT experiences or anticipates any such COVID-19-related impacts to this AGREEMENT, the CONSULTANT shall immediately notify the DEPARTMENT'S Contract Manager. In the event of any COVID-19-related impact or anticipated impact to this AGREEMENT, the Contract Manager shall have the right to temporarily modify, substitute, or decrease the services, without the approval of the Governor and Executive Council, upon giving written notice to the CONSULTANT. The STATE'S right to modify includes, but is not limited to the right to modify service priorities, including how and when services are delivered, and expenditure requirements under this AGREEMENT so as to achieve compliance therewith, provided such modifications are within the Scope of Services and cost limitations of this AGREEMENT. By exercising any of the rights described within this subsection, the STATE does not waive any of its right under this AGREEMENT.

In the event that a modification by the STATE under this subsection would result in a permanent reduction of services that cannot be supplemented during the remaining term of this AGREEMENT with either replacement or substituted services of substantially similar value, the Parties shall submit a formal amendment to this AGREEMENT with a commensurate reduction in the price. This amendment will require the approval of the Governor and Executive Council. In order to facilitate reconciliation of services performed under this AGREEMENT, the CONSULTANT shall submit weekly reports detailing the following for any service not fully performed pursuant to the terms of the AGREEMENT:

- 1) The services required to be performed under the terms of this AGREEMENT as written;
- 2) The services actually performed;
- 3) Any replacement or substituted services performed with reference to the associated unperformed contracted services.

Attachment 1

**CERTIFICATION WITH REGARD TO THE PERFORMANCE OF
PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO
THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS**

The CONSULTANT X, proposed subconsultant _____, hereby certifies that it has X, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Order 11246 and that it has X, has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

HDR Engineering, Inc.

(Company)

By: Heather Ivester

Heather Ivester, Associate Vice President

(Title)

Date: 11/05/2021

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by consultants and proposed subconsultants only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime consultants and subconsultants who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such consultant submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Revised: June, 1980) **NOTE: TO BE COMPLETED BY CONSULTANT WHEN SIGNING AGREEMENT.**

Attachment 2

**CONSULTANT DISCLOSURE STATEMENT
FOR PREPARATION OF
ENVIRONMENTAL EVALUATIONS**

I hereby affirm that I have read and reviewed the Council on Environmental Quality (CEQ) regulation [40 CFR 1506.5(C)] and related guidance issued by CEQ and that pursuant thereto this firm has no financial or other interest in the outcome of this project.

I further hereby affirm that the information provided herein is true and correct and acknowledge that any knowingly false statement or false representation as to any material part contained herein may subject me to a fine and/or imprisonment, pursuant to pertinent provisions of the United States Code.

11/05/2021

(Date)

Heather J. Grant

(Signature)

Attachment 3

CERTIFICATION OF CONSULTANT/SUBCONSULTANT

I hereby certify that I am the Associate Vice President and duly-authorized representative of the firm of HDR Engineering, Inc. and that neither I nor the above firm I here represent has:

- (a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above CONSULTANT) to solicit or secure this Contract,
- (b) agreed, as an express or implied condition for obtaining this Contract, to employ or retain the services of any firm or person in connection with carrying out the Contract, or
- (c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above CONSULTANT) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the Contract:

I/WE do also, under penalty of perjury under the laws of the United States, certify that, except as noted below, the company or any person associated therewith in the capacity of (owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of Federal funds): (a) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency; (b) has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past three years; (c) does not have a proposed debarment pending; and (d) has not been indicted, convicted or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

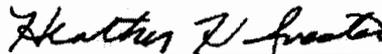
except as here expressly stated (if any):

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

I acknowledge that this certificate is to be furnished to the State Department of Transportation and the Federal Highway Administration, U. S. Department of Transportation, in connection with this Contract involving participation of Federal-aid highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

11/05/2021

(Date)



(Signature)

Attachment 4

CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION

I hereby certify that I am the Director of Project Development of the Department of Transportation of the State of New Hampshire, and the above consulting firm or its representatives has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Contract, to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay, or agree to pay, to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind:

except as here expressly stated (if any):

November 8, 2021

(Date)

A handwritten signature in black ink, appearing to be 'P. H. A.', written over a horizontal line.

(Signature)

Attachment 5

**CERTIFICATION FOR FEDERAL-AID CONTRACTS
EXCEEDING \$100,000 IN FEDERAL FUNDS**

The prospective participant certifies, by signing and submitting this agreement, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

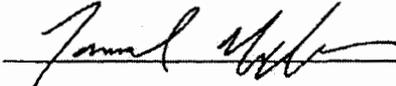
The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower-tier subcontracts which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Attachment 6

IN WITNESS WHEREOF the parties hereto have executed this AGREEMENT on the day and year first above written.

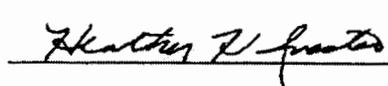
Consultant

WITNESS TO THE CONSULTANT

By: 
Daniel Murdzia, Project Manager

Dated: 11/05/2021

CONSULTANT

By: 
Heather Ivester, Associate Vice President
(TITLE)

Dated: 11/05/2021

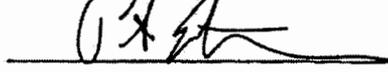
Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: 

Dated: November 8, 2021

THE STATE OF NEW HAMPSHIRE

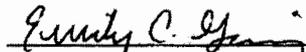
By: 
Director of Project Development
for DOT COMMISSIONER

Dated: November 8, 2021

Attorney General

This is to certify that the above AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: 12/3/2021

By: 
Assistant Attorney General

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on _____ approved this AGREEMENT.

Dated: _____

Attest:
By: _____
Secretary of State

Certificate of Authority # 1

(Corporation, Non-Profit Corporation)

Corporate Resolution

I, Elizabeth C. Buell, hereby certify that I am duly elected ^{Assistant} ~~Clerk/Secretary/Officer~~ of
(Name)
HDR Engineering, Inc.. I hereby certify the following is a true copy of a vote taken at
(Name of Corporation)

a meeting of the Board of Directors/shareholders, duly called and held on November 19, 20 20
by Consent and Agreement
~~at which a quorum of the Directors/shareholders were present and voting.~~

Heather Ivester, Associate
VOTED: That Vice President (may list more than one person) is
(Name and Title)

duly authorized to enter into contracts or agreements on behalf of

HDR Engineering, Inc. with the State of New Hampshire and any of
(Name of Corporation)

its agencies or departments and further is authorized to execute any documents
which may in his/her judgment be desirable or necessary to effect the purpose of
this vote.

I hereby certify that said vote has not been amended or repealed and remains in full force
and effect as of the date of the contract to which this certificate is attached. This authority
remains valid for thirty (30) days from the date of this Corporate Resolution. I further certify
that it is understood that the State of New Hampshire will rely on this certificate as evidence that
the person(s) listed above currently occupy the position(s) indicated and that they have full
authority to bind the corporation. To the extent that there are any limits on the authority of any
listed individual to bind the corporation in contracts with the State of New Hampshire, all such
limitations are expressly stated herein.

DATED: 11-05-21

ATTEST: Elizabeth C. Buell

(Name & Title)

Elizabeth C. Buell, Assistant Secretary



State of New Hampshire

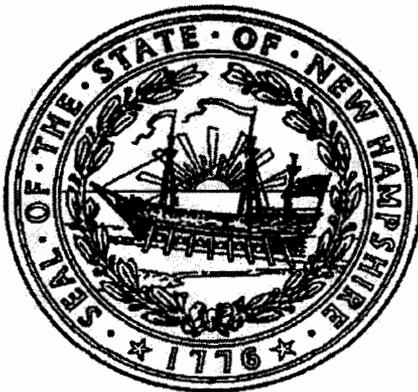
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that HDR ENGINEERING, INC. is a Nebraska Profit Corporation registered to transact business in New Hampshire on June 17, 1985. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 84977

Certificate Number: 0005360179



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 30th day of April A.D. 2021.

A handwritten signature in black ink, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State

AGENCY CUSTOMER ID: _____

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Willis Towers Watson Midwest, Inc.		NAMED INSURED HDR Engineering, Inc. 1917 South 67th Street Omaha, NE 68106	
POLICY NUMBER See Page 1		EFFECTIVE DATE: See Page 1	
CARRIER See Page 1	NAIC CODE See Page 1		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Project Description: Seabrook Hampton Part B 15904.

Additional Insured: State



CERTIFICATE OF LIABILITY INSURANCE

6/1/2022

DATE (MM/DD/YYYY)

10/28/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Lockton Companies 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000		CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:	
INSURED 1016040 HDR ENGINEERING, INC. 1917 SOUTH 67TH STREET OMAHA NE 68106		INSURER(S) AFFORDING COVERAGE NAIC # INSURER A : Lexington Insurance Company 19437 INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :	

COVERAGES * **CERTIFICATE NUMBER:** 17981912 **REVISION NUMBER:** XXXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX DAMAGE TO RENTED PREMISES (Ea occurrence) \$ XXXXXXXX MED EXP (Any one person) \$ XXXXXXXX PERSONAL & ADV INJURY \$ XXXXXXXX GENERAL AGGREGATE \$ XXXXXXXX PRODUCTS - COMPI/OP AGG \$ XXXXXXXX \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) \$ XXXXXXXX BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			NOT APPLICABLE			EACH OCCURRENCE \$ XXXXXXXX AGGREGATE \$ XXXXXXXX \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	NOT APPLICABLE			PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ XXXXXXXX E.L. DISEASE - EA EMPLOYEE \$ XXXXXXXX E.L. DISEASE - POLICY LIMIT \$ XXXXXXXX
A	ARCH & ENG PROFESSIONAL LIABILITY	N	N	061853691	6/1/2021	6/1/2022	PER CLAIM: \$2,000,000 AGGREGATE: \$2,000,000.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 SEABROOK HAMPTON PART B 15904. DEDUCTIBLE: \$75,000

CERTIFICATE HOLDER

17981912
 THE STATE OF NEW HAMPSHIRE
 DEPARTMENT OF TRANSPORTATION
 7 HAZEN DRIVE
 CONCORD NH 03301

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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Victoria F. Sheehan
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Assistant Commissioner

G+C #36
Date 5-2-18

Bureau of Bridge Design
March 26, 2018

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with the firm of HDR Engineering, Inc., Manchester, NH, Vendor #169983, for an amount not to exceed \$1,896,169.39, for preliminary design for the rehabilitation or replacement of the redlisted bridge (Br. No. 235/025) carrying NH Route 1A over Hampton River in the Town of Hampton, effective upon Governor and Council approval, through June 30, 2021. 100% Federal Funds.

Funds to support this request are available in the following account in State FY 2018 and FY 2019, and are contingent upon the availability and continued appropriation of funds in FY 2020 and FY 2021, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office, if needed and justified:

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
04-096-96-963515-3054 Consolidated Federal Aid				
046-500464 Gen Consultants Non-Benefit	\$100,000.00	\$800,000.00	\$600,000.00	\$396,169.39

EXPLANATION

The Department requires professional engineering, environmental, and public involvement consulting services for the rehabilitation or replacement of the bridge (NHDOT Br. No. 235/025) carrying NH Route 1A over Hampton River in the Town of Hampton and approach roadway work in the Towns of Seabrook and Hampton. This is a 13-span, 1,199-foot, steel girder bridge, built in 1949, which has a concrete deck and incorporates a single leaf bascule movable span to allow access for larger vessels into Hampton Harbor. The abutments and piers are to be rehabilitated or replaced as required. The rehabilitated/replacement structure is anticipated to accommodate 2-lanes of traffic (one lane in each direction) with sidewalk(s) and shoulders. This bridge is on the Department's Red List of structurally deficient bridges. The purpose of this agreement is to study and prepare preliminary engineering plans suitable for a Public Hearing and to develop a NEPA document. This project will require both Part "A" (Preliminary Design) and Part "B" (Final Design) services. This agreement is for Part "A" only. Upon completion of Part "A" services, and assuming a successful Public Hearing, the Department reserves the right to either negotiate a scope and fee for Part "B", or terminate the contract. This project is included in the State's Ten-Year Transportation Improvement Plan (Seabrook-Hampton, X-A001(026), 15904).

The consultant selection process employed by the Department for this qualifications-based contract is in accordance with RSAs 21-I:22, 21-I:22-c, 21-I:22-d, 228:4 and 228:5-a, and all applicable Federal laws and the Department's "Policies and Procedures for Consultant Contract Procurement, Management, and Administration" dated August 25, 2017. The Department's Consultant Selection Committee is a standing committee that meets regularly to administer the process and make determinations. The Committee is comprised of the Assistant Director of Project Development (Chair), the Chief Project Manager, the Administrators of the Bureaus of Highway Design, Bridge Design, Environment, and Materials and Research, and the Municipal Highways Engineer.

The consultant selection process for this qualifications-based contract was initiated by a solicitation for consultant services for Seabrook-Hampton 15904 Rehabilitation or Replacement of Br. No. 235/025 carrying NH Route 1A over Hampton Harbor (Preliminary Design Part "A"). The assignment was listed as a "Project Soliciting for

Interest” on the Department’s website on September 8, 2016 asking for letters of interest from qualified firms. From the list of firms that submitted letters of interest, the Committee prepared a long and then short list of Consultants on October 27, 2016 for consideration and approval by the Assistant Commissioner. Upon receipt of that approval, four shortlisted firms were notified on November 15, 2016 through a technical “Request for Proposal” (RFP). Committee members individually rated the firms on January 26, 2017 using a written ballot to score each firm on the basis of comprehension of the assignment, clarity of the proposal, capacity to perform in a timely manner, quality and experience of the project manager and the team, previous performance, and overall suitability for the assignment. (A compilation of the completed individual rating ballots and the ranking summary form is attached.) The individual rankings were then totaled to provide an overall ranking of the four firms, and the Committee’s ranking was submitted to the Assistant Commissioner for consideration and approval. Upon receipt of that approval, the short listed firms were notified of the results and the highest-ranking firm was asked to submit a fee proposal for negotiations.

The long list of nine consultant firms that were considered for this assignment, with the four short-listed firms shown in bold, is as follows:

<u>Consultant Firm</u>	<u>Office Location</u>
AECOM	Manchester, NH
CHA Consulting, Inc.	Keene, NH
Hardesty & Hanover	Bedford, NH
HDR Engineering, Inc.	Manchester, NH
Hoyle, Tanner and Associates, Inc.	Manchester, NH
Parsons Transportation Group, Inc.	Boston, MA
T.Y. Lin International	Falmouth, ME
Vanasse Hangen Brustlin, Inc.	Bedford, NH
WSP/Parsons Brinckerhoff, Inc.	Manchester, NH

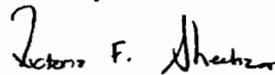
The firm of HDR Engineering, Inc. was recommended for this contract. This firm has an excellent reputation and has demonstrated their capability to perform the required services. Background information on this firm is attached.

HDR Engineering, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$1,896,169.39. This is a reasonable fee and is commensurate with the complexity of the project and the scope of the engineering and technical services to be furnished. This project funding is 80% Federal funds with 20% State match. Turnpike toll credit is being utilized for New Hampshire’s match requirement, effectively using 100% federal funds.

This Agreement has been approved by the Attorney General as to form and execution. The Department has verified that the necessary funds are available. Copies of the fully-executed Agreement are on file at the Secretary of State’s Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

It is respectfully requested that authority be given to enter into an Agreement for consulting services as outlined above.

Sincerely,



Victoria F. Sheehan
Commissioner

Attachments

PROJECT: Seabrook-Hampton 15904, X-A001(026) (Part A)

DESCRIPTION: This Federal Aid Project includes preliminary design, public involvement process, and associated environmental & cultural services for the rehabilitation or replacement of the existing bridge carrying NH Route 1A over Hampton Harbor in the Town of Hampton. Constructed in 1949, this thirteen span bridge has a total span of 1199 feet and a total width of 33.4 feet. The center span is a 65' long bascule. This bridge is on the Department's Red List of deficient structures and has a target advertising date in fiscal year 2023 in the current 10 year plan. The scope of work may include: Design a rehab or replacement of the existing bascule bridge. Replacement options should include a mid-level bascule or a high-level fixed structure; Coordinate with US Coast Guard to determine minimum vertical clearance for a fixed structure; Replace bridge rail and approach rail; Roadway design associated with the bridge rehab or replacement; Traffic control design; Public Involvement support services; Design mid-level bascule bridge if option is selected. The future structure is anticipated to accommodate a minimum of 2-lanes of traffic (one lane in each direction), with shoulders and a sidewalk. Environmental efforts are needed to prepare and complete all appropriate federal and state environmental documentation including cultural resource investigations and permitting, to satisfy NEPA, Section 106, and state requirements. The Consultant will also be required to assist the Department in the public outreach / public involvement process.

Services Required: BRDG, STRC, RDWY, ENV, HIST, PINV, TRAF

Hardesty & Hanover, LLC	4	4	1	3	2	4	1	19
HDR Engineering, Inc.	1	1	3	1	1	1	3	11
Hoyle Tanner & Associates, Inc.	2	2	2	2	3	2	2	15
Vanasse Hangen Brustlin, Inc.	3	3	4	4	4	3	4	25

EVALUATION OF TECHNICAL PROPOSALS

Rating Considerations	WEIGHT	Scoring of Firms			
		Hardesty & Hanover, LLC	HDR Engineering, Inc.	Hoyle Tanner & Associates, Inc.	Vanasse Hangen Brustlin, Inc.
Comprehension of the Assignment	20%	17	19	18	17
Clarity of the Proposal	20%	17	19	18	10
Capacity to Perform in a Timely Manner	20%	17	19	19	19
Quality & Experience of Project Manager/Team	20%	17	19	19	18
Previous Performance	10%	9	9	9	9
Overall Suitability for the Assignment*	10%	8	9	9	9
Total	100%	85	94	92	88

*Includes usage, quality and experience of subconsultants proposed and proven experience with Department.

Ranking of Firms: 1. HDR 3. VHB
2. HTH 4. HTH

Rating Considerations	WEIGHT	Scoring of Firms			
		Hardesty & Hanover, LLC	HDR Engineering, Inc.	Hoyle Tanner & Associates, Inc.	Vanasse Hangen Brustlin, Inc.
Comprehension of the Assignment	20%	19	19	19	19
Clarity of the Proposal	20%	17	19	19	17
Capacity to Perform in a Timely Manner	20%	18	19	18	18
Quality & Experience of Project Manager/Team	20%	18	19	18	18
Previous Performance	10%	8	10	9	9
Overall Suitability for the Assignment*	10%	8	9	8	8
Total	100%	88	95	91	89

*Includes usage, quality and experience of subconsultants proposed and proven experience with Department.

Ranking of Firms: 1. HDR Engineering, Inc. 3. Vanasse Hangen Brustlin, Inc.
2. Hoyle Tanner & Associates, Inc. 4. Hardesty & Hanover, LLC

