



Sam
51

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

Bureau of Highway Design
March 17, 2020

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 CHA Consulting, Inc., Keene, NH, Vendor #221991, for an amount not to exceed \$1,708,070.55, for Part B final design services to widen 1.3 miles of the F. E. Everett Turnpike in the Town of Bedford, effective upon Governor and Council approval through May 31, 2022. 100% Turnpike Funds.

Funds to support this request are available in the following account in State FY 2020 and State FY 2021, and funding is contingent upon the availability and continued appropriation of funds in State FY 2022, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office if needed and justified:

	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>
04-96-96-961017-7507 Central NH Turnpike			
046-500463 Eng Consultants Non-Benefits	\$137,000.00	\$1,522,000.00	\$49,070.55

EXPLANATION

The Department intends to widen approximately twelve (12) miles of the F. E. Everett Turnpike beginning north of Exit 8 (Somerset Pkwy) in the City of Nashua and continuing northerly through Interstate 293/NH Rte.101 interchange in the Town of Bedford. The F.E. Everett Turnpike is the principal arterial linking Manchester and Nashua and as such serves a vital role in the economy of this region and the state.

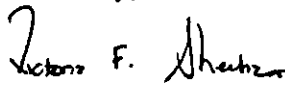
On March 9, 2016, the Governor and Council authorized the Part A preliminary design agreement with CHA Consulting, Inc. (Item #38, copy attached) for widening the above-mentioned approximately twelve (12) mile section of the F. E. Everett Turnpike. The Part A preliminary design phase selected a preferred alternative that is technically feasible, environmentally permissible, and economical; developed an approved Environmental Assessment; and brought the preferred alternative to a Special Committee Public Hearing for layout approval. In the Part A agreement, 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 CHA Consulting, Inc. satisfactorily completed the Part A services for this project, the Department proposes to continue with this firm to perform the Part B final design for the northernmost 1.3 miles in the Town of Bedford. In order to expedite the final design process, a separate final design agreement with the firm of McFarland-Johnson, Inc. for the southern and middle sections is currently being negotiated. This Part B final design agreement for engineering and environmental services includes final roadway design, environmental permitting, contract plans, specifications, special provisions, and estimates of quantities and costs to widen this section of the Turnpike from 2 lanes to 3 lanes.

CHA Consulting, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$1,708,070.55. 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 Agreement (Nashua-Merrimack-Bedford 13761 North, 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".

Victoria F. Sheehan
Commissioner

Attachments

TABLE OF CONTENTS

PREAMBLE

ARTICLE I - DESCRIPTION OF PROFESSIONAL SERVICES TO BE RENDERED	2
A. LOCATION AND DESCRIPTION OF PROJECT	2
B. SCOPE OF WORK (GENERAL)	3
C. SCOPE OF WORK (GEOTECHNICAL)	4
D. SCOPE OF WORK (ENVIRONMENTAL)	5
E. SCOPE OF WORK (FINAL DESIGN).....	14
F. SCOPE OF WORK (UTILITIES)	20
G. SCOPE OF WORK (PUBLIC PARTICIPATION).....	20
H. MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION	21
I. WORK SCHEDULE AND PROGRESS REPORTS	23
J. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS	23
1. ROADWAY DESIGN SUBMISSIONS	25
a. Slope and Drain Plans - Roadway	25
b. Wetlands Plans	26
c. Utility Plans	27
d. Preliminary PS&E - Roadway	27
e. PS&E - Roadway	28
2. DELIVERABLES	29
K. SCOPE OF WORK (CONSTRUCTION SUPPORT SERVICES)	31
L. DATE OF COMPLETION	33
ARTICLE II - COST PLUS FIXED FEE COMPENSATION OF CONSULTANT	34
A. GENERAL FEE.....	34
B. LIMITATION OF COSTS	35
C. PAYMENTS.....	36
D. ANNUAL INDIRECT COST RATE SUBMISSIONS	36
E. RECORDS, REPORTS, AND FINAL AUDIT	37
ARTICLE III - GENERAL PROVISIONS	38
A. HEARINGS, ETC.....	38
B. CONTRACT PROPOSALS	38
ARTICLE IV - STANDARD PROVISIONS.....	39
A. STANDARD SPECIFICATIONS	39
B. REVIEW BY STATE AND FHWA - CONFERENCES - INSPECTIONS	39
C. EXTENT OF CONTRACT	39
1. Contingent Nature of Agreement.....	39
2. Termination.....	39
D. REVISIONS TO REPORTS, PLANS OR DOCUMENTS.....	40
E. ADDITIONAL SERVICES.....	41
F. OWNERSHIP OF PLANS	41

G.	SUBLETTING.....	42
H.	GENERAL COMPLIANCE WITH LAWS, ETC.	42
I.	BROKERAGE.....	42
J.	CONTRACTUAL RELATIONS	43
	1. Independent Contractor.....	43
	2. Claims and Indemnification.....	43
	3. Insurance.....	43
	4. No Third-Party Rights.....	45
	5. Construction of Agreement.....	45
K.	AGREEMENT MODIFICATION	45
L.	EXTENSION OF COMPLETION DATE(S).....	45
M.	TITLE VI (NONDISCRIMINATION OF FEDERALLY-ASSISTED PROGRAMS) COMPLIANCE.....	45
N.	DISADVANTAGED BUSINESS ENTERPRISE POLICY AGREEMENT REQUIREMENTS.....	47
	1. Policy.....	47
	2. Disadvantaged Business Enterprise (DBE) Obligation.....	47
	3. Sanctions for Non-Compliance.....	47
O.	DOCUMENTATION	47
P.	CLEAN AIR AND WATER ACTS	47

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

AGREEMENT
FOR PROFESSIONAL SERVICES

PREAMBLE

THIS AGREEMENT made this 17th day of March in the year 2020 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 CHA Consulting, Inc., with principal place of business at 3 Winners Circle, in the City of Albany, State of New York, and New Hampshire branch office at 11 King Court, in the City of Keene, 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 widen approximately twelve (12) miles of the F. E. Everett Turnpike beginning north of Exit 8 (Somerset Pkwy) in the City of Nashua and continuing northerly through the Interstate 293/NH Rte. 101 interchange in the Town of Bedford. The preliminary design (Part A) contract was a single contract for the entire twelve (12) miles. The final design (Part B) is split into two contracts. This contract is for the northern 1.3-mile segment, beginning about 0.5 miles south of the US Route 3 overpass and proceeding northerly through the Interstate 293/NH Route 101 interchange. This 1.3-mile segment is in the Town of Bedford.

The DEPARTMENT intends to have prepared for said contract final design, contract plans, specifications, special provisions, and estimates of quantities and costs. These services are outlined in Article I of this AGREEMENT. The CONSULTANT'S Fee Proposal dated February 11, 2020, is hereby adopted by reference and considered to be part of this AGREEMENT.

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

ARTICLE I

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 widening the three remaining segments of the FE Everett Turnpike (FEET) between Nashua and Bedford to add one northbound and one southbound travel lane to improve traffic operations and safety. The three highway segments to be widened include:

- Segment 1: Exit 8 in Nashua to Exit 10 in Merrimack (about 1.7 miles)
- Segment 2: Exit 11 in Merrimack to the vicinity of the Bedford Toll Plaza south of Exit 13) (about 5.3 miles)
- Segment 3: Vicinity of the Bedford Toll Plaza (north of Exit 13) to the I-293/NH Route 101 diverge (about 1.3 miles)

The widening will also necessitate some adjustments to the interchange ramps at Exits 10, 11, and 12 and at I-293. This overall project also includes the replacement of the Wire Road and Baboosic Lake Road Overpass Bridges. The majority of this project will be for Segment 3 only, however some tasks, as identified below, are intended to cover the entire corridor (Segments 1-3).

Some of the existing highway features and conditions to be aware of include the following:

- No construction is anticipated on the US Route 3 Bridge or the NH Route 101/I-293 Bridges over the FEET. There may be a need to adjust or add overhead sign structures to these overpass bridges.
- The Limited Access Right-of-Way layout along the FEET will be maintained.
- Special considerations for the drainage design shall take into account the "Pre-and Post" flooding concerns in the area of Patten Brook which is within the floodplain. The design shall not exacerbate flooding problems, and may require designs which incorporate replacing loss of flood storage or a CLOMR/LOMR. These designs shall be required to meet permitting requirements further detailed in this scope of work such as those established by the US Army Corp of Engineers, the New Hampshire Water Division, and the New Hampshire Wetlands Bureau.
- Permanent Intelligent Transportation Systems (ITS) technologies will be designed for Segment 3 by the CONSULTANT. The CONSULTANT shall incorporate temporary ITS (Smart Work Zone Devices) into the plan set as provided and add the items and quantities provided by the DEPARTMENT into the appropriate summary tables.
- Developing traffic control plan sequencing recommendations for Segment 3 will be an important service provided by the CONSULTANT that will need to be in near final format as part of the

**AGREEMENT
FOR PROFESSIONAL SERVICES**

PREAMBLE

THIS AGREEMENT made this _____ day of _____ in the year 2020 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 CHA Consulting, Inc., with principal place of business at 3 Winners Circle, in the City of Albany, State of New York, and New Hampshire branch office at 11 King Court, in the City of Keene, State of New Hampshire, hereinafter referred to as the CONSULTANT, witnesss that:

The Department of Transportation, State of New Hampshire, hereinafter referred to as the DEPARTMENT, proposes to widen approximately twelve (12) miles of the F. E. Everett Turnpike beginning north of Exit 8 (Somerset Pkwy) in the City of Nashua and continuing northerly through the Interstate 293/NH Rte. 101 interchange in the Town of Bedford. The preliminary design (Part A) contract was a single contract for the entire twelve (12) miles. The final design (Part B) is split into two contracts. This contract is for the northern 1.3-mile segment, beginning about 0.5 miles south of the US Route 3 overpass and proceeding northerly through the Interstate 293/NH Route 101 interchange. This 1.3-mile segment is in the Town of Bedford.

The DEPARTMENT intends to have prepared for said contract final design, contract plans, specifications, special provisions, and estimates of quantities and costs. These services are outlined in Article I of this AGREEMENT. The CONSULTANT'S Fee Proposal dated February 11, 2020, is hereby adopted by reference and considered to be part of this AGREEMENT.

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

ARTICLE I

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 widening the three remaining segments of the FE Everett Turnpike (FEET) between Nashua and Bedford to add one northbound and one southbound travel lane to improve traffic operations and safety. The three highway segments to be widened include:

- Segment 1: Exit 8 in Nashua to Exit 10 in Merrimack (about 1.7 miles)
- Segment 2: Exit 11 in Merrimack to the vicinity of the Bedford Toll Plaza south of Exit 13) (about 5.3 miles)
- Segment 3: Vicinity of the Bedford Toll Plaza (north of Exit 13) to the I-293/NH Route 101 diverge (about 1.3 miles)

The widening will also necessitate some adjustments to the interchange ramps at Exits 10, 11, and 12 and at I-293. This overall project also includes the replacement of the Wire Road and Baboosic Lake Road Overpass Bridges. The majority of this project will be for Segment 3 only, however some tasks, as identified below, are intended to cover the entire corridor (Segments 1-3).

Some of the existing highway features and conditions to be aware of include the following:

- No construction is anticipated on the US Route 3 Bridge or the NH Route 101/I-293 Bridges over the FEET. There may be a need to adjust or add overhead sign structures to these overpass bridges.
- The Limited Access Right-of-Way layout along the FEET will be maintained.
- Special considerations for the drainage design shall take into account the "Pre-and Post" flooding concerns in the area of Patten Brook which is within the floodplain. The design shall not exacerbate flooding problems, and may require designs which incorporate replacing loss of flood storage or a CLOMR/LOMR. These designs shall be required to meet permitting requirements further detailed in this scope of work such as those established by the US Army Corp of Engineers, the New Hampshire Water Division, and the New Hampshire Wetlands Bureau.
- Permanent Intelligent Transportation Systems (ITS) technologies will be designed for Segment 3 by the CONSULTANT. The CONSULTANT shall incorporate temporary ITS (Smart Work Zone Devices) into the plan set as provided and add the items and quantities provided by the DEPARTMENT into the appropriate summary tables.
- Developing traffic control plan sequencing recommendations for Segment 3 will be an important service provided by the CONSULTANT that will need to be in near final format as part of the

ARTICLE I

Slope and Drain submission.

- The CONSULTANT will be responsible to provide wetlands permitting for Segment 3.
- The CONSULTANT will be responsible to perform traffic designs for Segment 3 including pavement markings, sign design, overhead sign design, overhead sign structure design, and the Construction signs and warning device package.
- The DEPARTMENT anticipates performing any needed geotechnical investigations and geotechnical services including the pavement structure design. These shall be incorporated by the CONSULTANT for Segment 3.
- The DEPARTMENT anticipates performing any needed utility coordination. The utility locations and relocations shall be incorporated into the Contract documents by the CONSULTANT for Segment 3.
- The CONSULTANT will be responsible to provide electronic plans for the DEPARTMENT'S creation of the Right-of-Way Plans. The Right-of-Way plans and acquisitions will be completed by the DEPARTMENT.
- In this AGREEMENT "Corridor" is intended to represent all three segments identified above. The term "Project" is intended to represent Segment 3.

The objective of the corridor project is to address capacity, address safety, and to complete the necessary environmental commitments within the project segments as identified below. The objective is also to comply with the Purpose and Need statement found in the completed Environmental Study.

B. SCOPE OF WORK (GENERAL)

The FEET is the principal arterial linking Manchester and Nashua, and as such, serves a vital role in the economy of this region and the state.

The goal of this project is to complete the final design through to contract plans and provide construction services, for the preferred alternative that is consistent with the previously completed Hearing Plan and Environmental Study.

The CONSULTANT will be required to complete some environmental documentation, as identified below, and will be required to apply for the environmental permits detailed in this scope of work for the Segment 3.

The design shall consider temporary and permanent erosion control measures and Best Management Practices (BMPs) consistent with current New Hampshire Department of Environmental Services (NHDES) guidelines, traffic control measures, drainage, treatments to minimize environmental impacts, highway signs, and traffic design (pavement markings and signs). The CONSULTANT shall incorporate into the design plans any DEPARTMENT provided materials and designs including lighting, landscaping, and utility relocations.

ARTICLE I

The project will also include some corridor wide project management support further detailed in this scope of work. This work will be for the entire 12-mile corridor.

The CONSULTANT is responsible for preparing all meeting minutes for which they are in attendance.

C. SCOPE OF WORK (GEOTECHNICAL)

The DEPARTMENT will provide the geotechnical investigations for the project.

The CONSULTANT shall provide plan updates and other information to facilitate development of the geotechnical reports to be generated by the DEPARTMENT.

The information provided by the CONSULTANT shall include:

1. GPS coordinates, and/or station and offset location information, for proposed exploration locations that are deemed necessary to complete the final design when requested by the DEPARTMENT. The DEPARTMENT will determine when and where explorations are needed. Explorations may be needed for roadway segments, overhead sign locations, detention basins, retaining walls, pipe jacking sites, rock removal sections, etc.
2. Delivery of 11"x17" sized plans with completed exploration locations plotted shall be provided for roadway segments and other locations upon request of the DEPARTMENT. Exploration symbols used shall be standard DEPARTMENT symbols for test borings, test pits, hand augers, and groundwater monitoring wells or as directed. The plans should be titled 'Subsurface Exploration Plan'. Each individual plan sheet should be numbered and include the total number of pages in the plan set along with match lines for consecutive plan sheets. Location information in GPS coordinates, or station and offset format, will be provided by the DEPARTMENT. The plan sheets should include property and ROW boundaries, elevation contours, the proposed improvements and alignment, and enough existing detail to readily identify the area.
3. The CONSULTANT shall take periodic measurements of newly installed and any previously installed groundwater monitoring wells. It is anticipated that 4 BMPs are required with 2 new monitoring wells installed at each. The groundwater elevations at each of these new wells will be taken four times during the duration of this contract where two readings will be taken during high ground water (spring) and two during low ground water (summer).
4. Provide paper and/or electronic copies of project plans and cross sections as needed to make geotechnical assessments and evaluations of design features.
5. Cross sections at intermediate stationing intervals (e.g. 25-foot) shall be developed by the CONSULTANT based on the DEPARTMENT provided rock lines supplied on hand drawn sections at 50-foot interval stationing. The CONSULTANT will be required to interpolate for all intermediate stationing.

ARTICLE I

D. SCOPE OF WORK (ENVIRONMENTAL)

The CONSULTANT shall be responsible for:

1. Data Collection:

Much of the resource identification was completed under the Environmental Study prepared for the Nashua-Merrimack-Bedford 13761 Corridor. The CONSULTANT shall review the Environmental Study with particular attention paid to the environmental commitments noted in the Environmental Study and update all resources required to meet the commitments within the Project Area (Segment 3) and ensure compliance with the Nashua-Merrimack-Bedford 13761 Environmental Study, such that the environmental permitting described below can be applied for. To secure the necessary environmental permits, additional effort may be needed for the listed resources below to identify additional impacts, potential measures to minimize or mitigate impacts, and proposed enhancements as a result of the final design of Segment 3. Resources to be identified and updated as needed include:

a. Water-Based Resources:

- 1) Groundwater: Data regarding aquifers, wellhead protection areas and public water supplies within, adjacent to, or downgradient of the Project Area will be updated based on appropriate sources such as the GRANIT GIS database, NHDES mapping, inventory data, municipal data or municipal mapping. If resource information has changed, the CONSULTANT will describe these resources in terms of their current and potential use and their relative proximity and potential hydrological connection to the project area.
- 2) Surface Waters: Data regarding existing surface waters and water quality will be reviewed and updated as necessary. The CONSULTANT will review the most recent approved State 303(d) list to identify if there are any changes in listed water quality impairments and TMDLs within the project area. If applicable, the CONSULTANT will compile existing TMDL implementation plans, watershed management plans and active water quality related permits including: EPA NPDES for Small Municipal Separate Storm Sewers (MS4); and for Construction activities (CGP). The Consultant will compile existing water quality data from NHDES' Environmental Monitoring Database to characterize existing conditions in the receiving water. The project is located within an MS4 regulated area and will be subject to MS4 redevelopment requirements for stormwater treatment. This shall include a pavement runoff area analysis (including enhanced plans showing the associated drainage areas) to determine the percent of the pavement treated prior to discharge and the volume (water quality volume) for the proposed condition and alternatives to determine the size and placement of structural BMPs. BMP placement and type will be compliant

ARTICLE I

with current AoT requirements and will take into consideration: soil conditions, depth to bedrock, groundwater tables, wellhead protection areas, drinking water protections, groundwater protections, and the proximity to the project's stormwater discharge points. It is not anticipated that field sampling of surface waters will be needed.

Although none of the streams are listed as impaired for chloride, the design will take into consideration MS4 General Permit Appendix H requirements for water bodies impaired for chloride. An assessment of existing operational BMPs will be conducted and compared to the Department's MS4 procedures for winter maintenance. The CONSULTANT shall write an MS4 Compliance Memo for the project which will reference the Salt Reduction Plan prepared by OTHERS.

- 3) Floodplains: Federal Emergency Management Agency (FEMA) floodplain and floodway information will be updated, if necessary, based on appropriate sources such as previously developed and approved floodplain impact calculations and any mitigation commitments developed as part of the Environmental Study and display this data on project mapping. The CONSULTANT will coordinate with the NH Floodplain Manager, ACOE, and FEMA regarding proposed impacts within the flood hazard areas. The CONSULTANT will identify if a Conditional Letter of Map Revision (CLOMR) through FEMA is necessary. Since the project may raise the Base Flood Elevation (BFE), a CLOMR may be needed to modify any incorrect floodplain/floodway mapping. For the purpose of this scope and estimate, it is assumed both CLOMR and LOMR applications are needed and will be completed under this agreement.
- 4) Wetlands: The CONSULTANT will update and delineate, as necessary due to the final design changes, additional wetlands and streams including ordinary high water and top of bank, and determine their functions and values within the project limits based on state and federal criteria and will collect field data sufficient to document the delineation, including photographs. Areas requiring delineation are assumed to include the infield areas within the NH Route 101/I-293 interchange; the land within the Right Of Way north of the interchange (to southern limits of the previously completed Manchester 14966 Project near Eastman Avenue); and the proposed drainage easement area on the upstream Patten Brook lot. If access to private property is required, landowners will be notified by the DEPARTMENT. The CONSULTANT will survey wetland flagging using a GPS unit with sub-meter accuracy. This delineation will include noting any unusual features such as invasive species, disturbed areas, or uncommon wetland types such as bogs or vernal pools. This information will be provided in plan format and in a report that is stamped by a

ARTICLE I

Certified Wetland Scientist(CWS) with a current NH certification, which includes the location of the features, classifications of wetlands present within the project area, descriptions of each wetland's hydrology, soils and vegetation, flagging number system of each delineated feature, photographs, functions and values (including the Wetlands Function-Value Evaluation Form from the Highway Methodology Workbook Supplement), Wetland Determination Data Plot Forms with paired upland and wetland data plots and the results of the stream crossing assessments. The CONSULTANT will identify potential wetland mitigation opportunities either within the project corridor or the surrounding area. This effort will need to be coordinated with the municipality. The CONSULTANT will contact the town planner and conservation commission in the affected community; land trusts or other conservation organizations in the general area; and resource agency staff to seek input on appropriate mitigation sites for the project. The CONSULTANT will review up to four potential mitigation sites in the field, and will visually estimate their suitability based on factors such as size, degree of disturbance, value of existing wetlands and habitats, and overall conservation value. Sites will be documented with photographs and brief narratives describing plant communities and other features. The CONSULTANT will discuss sites with the Department before meeting with resource agencies to present and discuss them. No formal mitigation design work is proposed.

- 5) Stream Crossings: The CONSULTANT will complete stream crossing assessment field data collection for one stream identified as Tier 3 (Patten Brook) in accordance with Env-Wt 900 and any applicable NHDOT field data collection forms. The stream assessments shall extend a minimum 100' upstream and downstream of the crossing. Data to be provided by the CONSULTANT shall include a longitudinal profile through the crossing with relative inlet and outlet invert elevations and upstream and downstream streambed elevations.
- b. Land-Based Resources:
 - 1) Public and Conserved Lands: One conservation land will be impacted in the Project, a parcel with a conservation easement in the vicinity of Patten Brook. It is assumed mitigation will involve monetary compensation and no alternative mitigation sites need to be investigated. The CONSULTANT will quantify the parcel impacts. The CONSULTANT will attend two meetings and conduct miscellaneous coordination with public or agency personnel regarding the impacts and mitigation. The DEPARTMENT will be responsible for determining the value of the impacted portion and implementing appropriate mitigation. It is assumed there will be no other impacts to publicly or privately

ARTICLE I

owned Conserved Lands.

- 2) Section 4(f) Resources: No Section 4(f) impacts or evaluations are assumed to be needed.
- 3) Section 6(f) Resources: No Section 6(f) resources are known to be present in the Segment 3, so no impacts or mitigation are required.

c. Wildlife:

- 1) Wildlife and Habitat: Wildlife resources have been identified and impacts assessed. No further effort is assumed at this time.
 - 2) Fisheries: The fisheries resources within the corridor have been identified and an Essential Fish Habitat Assessment was completed. No Essential Fish Habitat is present within Segment 3. If required, the CONSULTANT will provide project plans and descriptions to the DEPARTMENT for submittal to the US National Marine Fisheries Service (NMFS). The CONSULTANT shall assist the DEPARTMENT in consulting with the NMFS. This assistance includes the preparation/modification of any forms or visuals to be submitted to NMFS. All requests/submittals and direct coordination with the NMFS will be handled by the DEPARTMENT.
 - 3) Threatened and Endangered Species: Threatened and endangered species (including rare plants, mussels, snakes and turtles) information will be updated for Segment 3. A rare plant survey will be undertaken within Segment 3 by OTHERS. The CONSULTANT will determine if any identified populations would be impacted by the proposed work within the project. The CONSULTANT will incorporate provisions in plans and specifications to protect rare plants from construction to the degree possible. If impacts cannot be avoided, the CONSULTANT shall coordinate with the NH Heritage Bureau (NHNHB) regarding impacts and mitigation. It is assumed no mitigation design or plan, such as a plant relocation plan, will be necessary. The CONSULTANT will identify and confirm if a mussel survey is needed for Patten Brook; if this survey is needed it will be completed by OTHERS. It is also assumed that no additional studies are needed to determine the presence or absence of Indiana Bat and Northern Long-Eared Bat.
- d. Cultural Resources (Historic): Cultural resources have been identified within the project limits and the project has been found to have No Adverse Effect on historic resources. It is assumed the effect determination will not change, and no additional historic resource effort is required.
- e. Cultural Resources (Archaeology): The CONSULTANT will perform a review of the Environmental Study. Archeological services will likely be needed for one relocated BMP location, the infield areas within the NH Route 101/I-293 interchange, and for any other areas (up to one acre total) beyond those investigated for the Environmental Study. The

ARTICLE I

CONSULTANT will conduct a Phase IA Archaeological Sensitivity Assessment followed by a Phase IB Intensive Archaeological Investigation to determine if resources are present in the area of the relocated BMP 1036 on parcel M63 in Merrimack. In other areas, the CONSULTANT will undertake a combined Phase IA Archaeological Sensitivity Assessment and Phase IB Intensive Archaeological Investigation to determine if resources are present in areas of sensitivity that may be impacted by the project. For purposes of this scope, it is assumed the relocated BMP and most of the infield areas are sensitive and require Phase IB investigation. The CONSULTANT will produce a comprehensive report indicating the results of the investigations, identifying areas of sensitivity, and presenting recommendations, if needed, for Phase II Determination of Eligibility and Phase III Data Recovery. If archeological resources are identified, the CONSULTANT will assess the eligibility of the resource for the National Register. The need for additional archaeological investigations will be evaluated in consultation with the NH State Historic Preservation Officer and the lead Federal agency.

- f. Invasive Species: The CONSULTANT will update and delineate the location of the invasive species, in conjunction with other project field investigations, within the project limits. General locations and types will be identified within the project limits, and detailed mapping will be provided.
- g. Contaminated Properties: All contaminated properties and hazardous materials work will be performed by the DEPARTMENT through OTHERS. The CONSULTANT will cooperate and work with the DEPARTMENT and their consultant as necessary to provide electronic files and other design information including but not limited to quantities for dewatering, quantities for Limited Reuse Soils (LRS) (see below), quantities for excavations related to Per- and Polyfluoroalkyl Substances (PFAS) (see below) as may be necessary for the DEPARTMENT to complete investigations and provide hazardous materials services such as stockpile locations. The CONSULTANT shall incorporate the DEPARTMENT's design into the plans and quantities.
- h. Limited Reuse Soils (LRS)
The CONSULTANT shall determine the quantity of LRS to be generated during construction based on guidance provided by the DEPARTMENT, by phase if applicable, and determine the ability, due to quantities and any applicable construction phasing, to reuse the LRS within the project limits. The CONSULTANT shall determine and provide figures for potential temporary on-construction-site stockpile locations (assume two) for excavated LRS. This work will be performed in coordination with DEPARTMENT's environmental consultant.

ARTICLE I

i. Per- and Polyfluoroalkyl Substances (PFAS):

The project area is believed to contain Per- and Polyfluoroalkyl Substances (PFAS). The CONSULTANT shall work and coordinate with the DEPARTMENT's environmental consultant on quantifying (based on DEPARTMENT provided guidance), phasing and reuse of PFAS materials within the project corridor and shall incorporate this into the plan set. The CONSULTANT will be responsible to quantify groundwater quantities.

- j. Construction Impacts: The CONSULTANT shall review potential construction impacts on the natural, cultural, and socio-economic resources present within the project area, as described in the Environmental Study. The CONSULTANT will determine whether additional construction impacts are likely. The CONSULTANT will incorporate appropriate mitigation measures, within the limits of this Scope of Work, into final design plans. These may include diversions during construction; erosion and sediment control; air, noise, and dust pollution; and special measures that may be needed to protect water quality.

k. Visual Resources:

The CONSULTANT may be required to design mitigation related to visual impacts. This is assumed to take the form of landscaping measures within up to one acre of land. No structural measures, such as berms or walls, are assumed.

l. Environmental Commitments:

The CONSULTANT shall review all environmental commitments shown in Section 6 of the Environmental Study to determine whether they have been addressed in the Project.

2. Agency Coordination: The CONSULTANT will attend up to 6 of the DEPARTMENT's monthly Natural Resource Agency meetings, including coordinating and attending 1 field meeting with the agencies to review resource impacts. The CONSULTANT will also attend up to 2 of the DEPARTMENT's monthly Cultural Resource meetings with the NH Division of Historical Resources to discuss findings. The CONSULTANT will be responsible for supplying support graphics, making presentations and preparing meeting minutes.
3. Environmental Impacts of Proposed Alternative:
- The CONSULTANT will update impacts to wetlands, surface waters, floodplains and floodways within the Project at the final design submission. The CONSULTANT will describe how those changes affect proposed mitigation measures, but no additional mitigation or resource enhancement designs are proposed.
4. Conditional Letters of Map Revision (CLOMR): The CONSULTANT will prepare and submit any necessary CLOMR application for Patten Brook. The CONSULTANT will be responsible for all coordination with the municipalities, Floodplain Managers, Army Corps of Engineers (ACOE),

ARTICLE I

and FEMA including any and all fees (or waivers) for the application.

5. The CONSULTANT shall design the permanent erosion control and water quality features and complete any monitoring of the groundwater table during the design of the project. These features shall be designed in accordance with AoT (Wq-Env 1500) regulations, MS4, and utilize the NH Stormwater Manual as guidance. Temporary erosion control for the project shall be designed by OTHERS during construction of the project; however, erosion control plans shall be completed during final design of the project (see details below) such that quantities can be included into the Contract Plans. Permanent erosion and sedimentation control and water quality features shall be shown at the Slope and Drain plan submission with design backup calculations complete. The CONSULTANT shall furnish conceptual design calculations with Q2, Q10, Q25, Q50 flows and water quality volumes. Site locations, estimated areas and design elevations shall be proposed in detail sufficient enough to complete geotechnical investigations of each site. Any monitoring of the groundwater table prior to and during the design of the project shall be the responsibility of the CONSULTANT. Where additional monitoring wells are required, the DEPARTMENT will be responsible for drilling the wells. In addition, the CONSULTANT shall be responsible for:
 - a. Incorporating stormwater runoff treatment areas and detention basins and evaluating their environmental impacts (such as archaeological sensitivity, wetland impacts, hazardous materials (in coordination with the DEPARTMENT), etc.).
 - b. Infiltration measures for the drainage system shall be investigated and evaluated as to their feasibility and prudence. Such measures would allow stormwater to infiltrate back into the ground following treatment. If such measures are determined feasible and prudent, they should be considered for incorporation into the final design.
 - c. Final estimates of impacts to flood storage and final design of flood storage mitigation to compensate for flood storage impacts, including the incorporation of minimization methods to further reduce impacts. It is assumed that compensatory flood storage can be achieved within the project limits and will be achieved through modifications to the roadway embankment via steepened slopes or retaining walls.
 - d. Flood mapping revisions and the submission of a Conditional Letter of Map Revision (CLOMR) for Patten Brook will be completed if necessary.
 - e. Incorporation of water quality treatment measures (i.e., treatment basins and swales) into the overall project design according to the guidance provided in the latest version of NHDES Alteration of Terrain (AoT) regulations, and the NH Stormwater Manual. NHDES BMP worksheets shall be completed and submitted as part of the Drainage Report.
 - f. The development of erosion control plans substantially conforming to (NHDES) PART Env-

ARTICLE I

Wt 501.02 as described below.

6. Wetlands Permit/Dredge and Fill Application and plans: To assist with permitting of the Project, the CONSULTANT will review the preliminary plans with NHDOT and the resource agencies at Natural Resource Coordination Meetings (included above). The CONSULTANT will prepare, for Segment 3 only, permitting documents for filing with the NHDES Wetland Bureau including:
 - a. Current Application Form.
 - b. USGS Location Map, including the approximate boundaries and size of the contributing watershed of all stream crossings.
 - c. Written narrative that explains the project's purpose and need; how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable.
 - d. Narrative addressing the NHDES Rule Env-Wt313.03, Avoidance and Minimization.
 - e. Information required by Chapter 900 Stream Crossings
 - f. Mitigation coordination summary/ARM calculator sufficient to address Env-Wt Chapter 800.
 - g. Wetland Permitting Plans, including:
 - i. Existing Conditions Plan, showing the location and number of the individual wetland boundary flags and stamped by the certified wetland scientist responsible for the delineation.
 - ii. Proposed Condition Plans (i.e., General Plan).
 - iii. Impact Sheet, showing temporary and permanent impacts, in stream diversion/BMPs, existing and proposed contours at 2-foot intervals, location of 100-year floodplain, and all easements and right-of-way acquisition area outlines in relation to the project.
 - iv. Erosion and Sedimentation Control Plan Sheet including Strategies Sheets. Existing and proposed contours must be shown at 2-foot intervals.
 - v. The CONSULTANT shall be responsible for plans and computations for impacted areas. These plans shall provide all necessary data, area hatching (according to DEPARTMENT standards) and detail so that these plans can be forwarded to the respective regulatory agencies as appropriate attachments for the permit application. The CONSULTANT shall be responsible to complete the permit applications and provide all supporting documentation (e.g. photographs).
 - h. Army Corps Secondary Impacts Checklist and supplemental narrative.
 - i. NHB review and IPaC supporting documentation.
 - j. Threatened and Endangered Species Coordination.

ARTICLE I

- k. Cultural Resource Coordination.
- l. Construction Sequencing.
- m. Photos of all impact areas.
- n. Army Corps wetland delineation data sheets.
- o. Functional assessment of each wetland using the Army Corps Highway Methodology.
- p. Items from NHDOT Wetland Application Checklist, as required.

The CONSULTANT should assume the project may trigger mitigation requirements and will coordinate with NHDOT to find ways to reduce mitigation through project design and will participate in mitigation discussions with NHDES and federal agencies to determine appropriate mitigation for the project. Design of wetland creation/restoration mitigation sites, if needed, will be completed under a separate agreement.

The CONSULTANT should assume that the proposed Patten Brook stream crossing will not meet all NHDES design criteria and will require approval as an alternative design. The CONSULTANT will complete, in coordination with NHDOT, the Alternative Design Technical Report for the Patten Brook stream crossing. The technical report will include a detailed financial comparison of the costs of a structure that complies with all applicable design requirements, the proposed structure, and a structure that requires fewer waivers than the proposed structure, with a range of costs estimates for each; a detailed description of the physical limitations of the site; and a hydraulic analysis to show that the proposed stream crossing can accommodate the applicable design storm or that the crossing, together with the associated roadway and roadway embankment, can safely accommodate overtopping flows. The report must show that the proposed alternative meets the general design criteria and the tier-specific design criteria to the maximum extent practicable.

The CONSULTANT will submit a draft permit application package to NHDOT for review and will revise the package in response to comments prior to submitting a final package. The permit application fee will be paid by the DEPARTMENT. Up to 12 copies of the application will be provided to the Department for distribution.

The CONSULTANT will develop erosion control plans substantially conforming to (NHDES) PART Env-Wt 501.02 to include existing contours and finished grade contours at 1-foot intervals, and erosion control strategies for the completed project condition. The DEPARTMENT will submit the plans to NHDES, as part of the Wetland Permit application. The plans shall be prepared in "roll plan" and "cut sheet" format. The plan package shall also include an erosion control strategy legend (developed by the DEPARTMENT), drainage note sheets, traffic control phasing notes and a preliminary construction schedule. The CONSULTANT will design the perimeter erosion control

ARTICLE I

strategies. The information will also be included as a part of the project Proposal for the Contractors' use during the bidding period.

7. US Army Corps of Engineers Section 404 Permit:

It is anticipated that the project will qualify for the ACOE General Permit. All permitting requirements to request authorization under the NH General Permit will be addressed in the NHDES permit application.

8. Permitting Follow-Up Services

Follow-up and liaison efforts are sometimes required to respond to specific comments and concerns raised by regulatory agencies following permit application submittal. Work under this task will include:

- a. Attendance and presentation at up to two additional Natural Resource Agency Coordination Meetings organized by NHDOT;
- b. Preparation of responses to agency review comments; or
- c. Minor plan revisions/additions.

It is anticipated that these services will be minimal in nature as they are in response to Requests For More Information (RFMI) that were not clear in the original application.

F. SCOPE OF WORK (FINAL DESIGN)

The scope of work proposed by this AGREEMENT includes:

1. Data Collection:

The CONSULTANT shall collect any new and pertinent information that may be available within the Project limits. The CONSULTANT shall conduct a field review of the project area to identify key engineering controls, topographic features, natural and cultural constraints, and land uses that could have a bearing on the design.

2. Base Plan Preparation:

The CONSULTANT shall update the existing Nashua-Merrimack-Bedford 13761 Segment 3 base plans for the project as necessary based upon updated ground survey and photogrammetric mapping provided by the DEPARTMENT, and updated resources. The CONSULTANT shall field verify the project as a priority and submit a request for additional survey if necessary (assume 6).

The base plan shall be appropriately enhanced for display purposes at technical and public meetings and in documents prepared for the final design. Wetlands mapping, invasive species mapping, and mapping for other applicable environmental resources (including historic properties and districts, floodplains/floodways, contaminated properties, surface waters, areas sensitive to air quality and noise impacts), as well as right-of-way and utility information, shall be superimposed on the base plan by the CONSULTANT, as directed by the DEPARTMENT.

ARTICLE I

The CONSULTANT shall develop plans at the scale of 1" = 50', unless otherwise noted. Additionally, the CONSULTANT shall be prepared to produce intersection (ramp gore) grading plans for the Construction plans at a scale of 1" = 20' at five ramp gore locations. The CONSULTANT shall be responsible for the incorporation of environmental resource mapping, and utility information, etc.

3. The CONSULTANT will refine the alignment, grades and intersection layouts of the proposed roadway(s) as shown on the Public Hearing plans during final design. Some additional refinements to the FEET NB off ramp to Route 101 EB as well as the FEET SB on-ramp from Route 101 EB is anticipated to minimize slope and utility impacts, however the overall ramp reconstruction lengths are not anticipated to increase.
4. The preparation of designs including all plans, specifications for work not included in the current standard specifications of the DEPARTMENT, computations, estimates and documents for the required submissions to the DEPARTMENT, Federal Highway Administration, and/or any other STATE or Federal agency that may be required.
5. The design and preparation of contract plans for construction of the roadway, structures, traffic control plans, construction phasing plans, layout and design of overhead sign structures (conceptual design of foundations for purposes of developing quantities with final design based on shop drawings provided by the Contractor), drainage facilities (including best management practices for permanent and temporary erosion and sedimentation control, water quality features and stormwater detention), retaining walls (assumed four cast-in-place reinforced concrete with lengths as follows: Wall 1 – 250 LF located adjacent to the SB barrel just north of the Route 3 bridge; Walls 2 and 3 – 60 LF each located in and around the Patten Brook culvert extension; Wall 4 – 200 LF located near the powerlines at +/- Sta. 1372+00 and will be designed in accordance with the Department's Bridge Design Manual technical and submission requirements), landscaping plans (by OTHERS) as well as the abandonment of Bridge 185/134 located at approximately Sta. 1395+00 (the effort for which shall include determining an approximate location of the existing structure by the CONSULTANT through a visual field inspection as well as existing plans provided by the DEPARTMENT and developing quantities and a special provision to fill the structure with flowable fill) and appurtenances in accordance with the policy and procedures of the DEPARTMENT and the provisions of this AGREEMENT. The plans shall include all commitments contained in the Environmental Study within the project limits to the extent practicable as well as supplemental information developed specifically for this contract as part of the environmental documentation update.
6. Drainage Design: The project will include up to four new BMPs (assumed to be Wet Extended Detention Basins) as well as the design of up to eight Vegetated Treatment Swales. Design flow

ARTICLE I

volumes to existing constructed wetlands / BMPs will be maintained which may require modifications to the existing closed drainage system to redirect flows associated with the additional impervious areas. It is assumed that the existing closed drainage system is structurally sound and can remain in place / be used and supplemented / tied into for the proposed widening. For the purpose of this scope, the intent is to minimize the replacement of all drainage to that which needs to be replaced due to hydraulic capacity. The majority of the pipes are in good physical condition but will still need to be checked for capacity. The CONSULTANT will analyze the existing system to verify adequate pipe size / capacity for the proposed flows and recommend modifications as appropriate.

7. Hydraulic Studies and Final Hydraulic Report: The CONSULTANT will be responsible for the hydraulic report and analyses to support the design for Patten Brook. The report should be prepared in accordance with the NHDOT Bridge Design Manual (Section 2.7) with consideration for FEMA requirements, in case a LOMR/CLOMR is needed. The report will be based on extending the existing culvert to accommodate the proposed widening, including grading of the structure. This may include the development of HEC-RAS models to support the design. Survey data and field investigation of the hydraulic reach shall be performed by the CONSULTANT and will include stream cross sections at 50 foot intervals extending 500 feet upstream and downstream of the existing culvert. Any survey work completed will need to be through the CONSULTANT using a NH Licensed Land Surveyor.
8. Signs and Pavement Markings:
 - a. The CONSULTANT will be responsible for the design of all permanent guide, warning and regulatory signs into the contract plans including the quantity summary sheet, and quantity estimates.
 - b. The CONSULTANT will be responsible for the design and layout of all permanent and temporary overhead signs.
 - c. The CONSULTANT shall provide a sign inventory including photographs showing location of all existing signs along the project.
 - d. The CONSULTANT shall be responsible for the replacement design of the overhead sign structure and foundation for the existing sign at approximately Sta. 1361+25 as well as the signs mounted on the I-293 eastbound bridge. The quantity and location of structures will be as required by the Manual of Uniform Traffic Control Devices (MUTCD 2009 Edition). Any sign that exceeds 15 years of age at the time of project construction completion will need to be updated to meet the 2009 edition of the MUTCD.
 - e. The CONSULTANT shall be responsible for the development of the permanent construction sign and warning device package. This shall include summary sheets for permanent and

ARTICLE I

relocated signs for construction sequencing as well as Smart Work Zone Devices (designed by the DEPARTMENT). These signs and locations, including identifying the location of overhead sign structures, shall be shown on the Traffic Control Plans.

- f. The CONSULTANT shall be responsible for the design and incorporation of all pavement marking layouts, item numbers, item descriptions, and quantities for inclusion into the contract and appropriate summary tables.
- g. All signing on the plans shall be closely coordinated with the location of guardrail installations, slopes, utility locations (including street lights and underground utilities) and drainage system locations to avoid conflicts and to determine which support system will be required to install the signs. The CONSULTANT will be responsible to identify all conflicts and to make necessary adjustments to highway signing.
9. The CONSULTANT shall incorporate utility relocations, lighting design, and highway landscaping, as designed by OTHERS and the review of constructability and traffic control for the contract plans.
10. Construction cost estimates for each major submission (Slope & Drain, PPS&E, and PS&E) shall be submitted with a narrative explaining all major cost changes.
11. ITS: ITS design, quantities, summaries and engineer's estimate shall be designed by the CONSULTANT. Utility verification for ITS will be performed by the CONSULTANT. ITS Specifications shall be completed by the DEPARTMENT and the CONSULTANT shall incorporate them into the final design plans as appropriate. The proposed ITS design will include one camera (CCTV) at MM 19.1 and one motor vehicle detection system (MVDS) mounted on the same pole as indicated on the FEET ITS Master Plan.
 - a. Preliminary Design: As part of the Slope and Drain submission, the CONSULTANT will layout the proposed CCTV site and prepare plans of the site location (1" – 20 ft"). The plans will include equipment layout and geotechnical boring request, power and communication designs, the preparation of quantity calculations and cost estimate. Additional tasks included with this submission include the following:
 - 1) Aerial Survey for CCTV Sight Line: The CONSULTANT will conduct an aerial video survey of the intended CCTV location from approximately the location of the proposed CCTV pole. This video survey will consist of an approximately three minutes of video showing the sight lines for the proposed CCTV at the elevation of the proposed pole. The sight lines will include the FEET, segments of the I-293 ramps at the interchange as well as any views available along US Route 3.
 - 2) Power and Communications Design/Coordination: The CONSULTANT will locate a proposed power source and coordinate with the utility company to verify the feasibility of

ARTICLE I

a power drop. It is envisioned that communications will be via microwave or cell modem from the pole to the FEET wireless backhaul. ITS conduit will be shown in plan view and the cross sections.

- b. Final design and subsequent submissions will coincide with the overall project design submissions. The location will also require environmental coordination. The CONSULTANT shall submit all of the proper FAA and FCC applications and notifications during the design process, so that the Construction does not get delayed.
- 12. Presentation Plans: The CONSULTANT shall prepare presentation (colored) base plans at each formal submission as defined below. This is in addition to the informational meetings.
- 13. Technical Reports: The CONSULTANT shall prepare technical reports, as necessary, throughout the duration of the project to document and summarize relevant technical data, this includes, but is not limited to Engineering Reports, Design Reports, Hydraulic Reports. The intent is to document critical design decisions with technical reports and support materials to support the design.
- 14. Engineering Report: The CONSULTANT shall update the Formal Engineering Report at each submission to document the existing conditions within the project, and to summarize the design decisions and engineering details of the proposed action. Any rejected alternatives should also be documented to explain the justification for their rejection. This shall be finalized and submitted prior to the PS&E submission.
- 15. Design Exceptions: Design exceptions are not anticipated for this project.
- 16. Over the Shoulder Meetings: It is expected that over the course of the project Over the Shoulder Meetings will be held at least twice per submission (assume Ten) through the duration of the design. These are informal meetings that will take place to discuss a variety of project issues including resource constraints, schedule, design issues, cost issues and comment lists. These meetings would include the CONSULTANT and the DEPARTMENT.
- 17. Project Team Meetings: It is expected that over the course of the project Team Meetings will be held at least once per month through the duration of the design. It is anticipated that 18 meetings will be conducted throughout the duration of the project. These are informal meetings that will take place to discuss a variety of project issues including resource constraints, schedule, design issues, cost issues and impacts of alternatives. These meetings will include the CONSULTANT, the DEPARTMENT, and the Department's consultants, but could also include staff from the Municipalities, Planning Commissions, other State or Federal agencies, or others as appropriate. The CONSULTANT shall be responsible for all meeting minutes.

ARTICLE I

18. Traffic Management Plan (TMP). The project requires a corridor wide Traffic Management Plan, this effort is described under the Slope and Drain submittal below.

The engineering design shall take into consideration factors affecting the cost of the construction, such as foundation problems, earthwork quantities, erosion and sedimentation control, water quality treatment issues, construction phasing and complexity, utilities affected, environmental, construction materials, etc. During all phases of design, the CONSULTANT shall make a continuous effort to identify and minimize impacts on existing and proposed utilities, environmental resources, and private property.

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.

The CONSULTANT shall submit for review, as requested, progress prints (black line) showing grades, cross sections, special details and general design. Paper prints shall be submitted upon request for soils studies, right-of-way use, evaluation of utility impacts, evaluation of hazardous materials, and other purposes.

All horizontal alignment notes, including traverse line notes furnished by the DEPARTMENT, shall be computed by the CONSULTANT to include coordinates.

Data from survey notes shall be transcribed and plotted on base plans, profiles and cross sections as required, if not furnished by the DEPARTMENT as described below.

Right-of-way alignments will be furnished by the DEPARTMENT.

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 Manual, and Standard Plans for Road Construction (2010) or as updated on the Department's website, except as approved.

Multiple visits to the site shall be made during the design to visually observe and detect changed field conditions and, if required, additional surveys will be performed by the DEPARTMENT upon request. The DEPARTMENT will process additional survey requests to the extent necessary to ensure continuity between new and current detail model files. The CONSULTANT will be given these files and shall be responsible for the incorporation of these files into the current detail base plans and digital terrain models (DTM). The incorporation of additional survey information shall include all drafting, labeling, detailing and field checking of the detail of all survey requests. Additional surveys may be required throughout the design process, and the CONSULTANT shall modify the design, as necessary, based upon the updated survey information. It is anticipated that up to six additional survey requests may be submitted throughout the duration of this project.

The CONSULTANT shall examine which elements of design, such as horizontal and vertical alignments, typical sections, traffic control, earthwork utilization, drainage pipes and structures, as well as soils suitability,

ARTICLE I

might affect aerial and underground utilities. Any conflict between design elements and utilities shall be identified and brought to the attention of the DEPARTMENT. A special effort shall be made by the CONSULTANT to modify drainage features in order to avoid conflicts with underground utilities, as may be required, during all subsequent design phases.

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 work of each stage submission (including quantity estimates) shall have been appropriately checked. The PS&E submission shall have had complete final and "three-way" checks performed by the CONSULTANT.

The CONSULTANT shall verify all computations and design calculations. The CONSULTANT shall furnish two permanent, legible, copies 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 and reports prepared by the CONSULTANT 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.

F. SCOPE OF WORK (UTILITIES)

The utility coordination for this project will be performed by the DEPARTMENT. The CONSULTANT shall incorporate existing utility locations and utility relocations, as designed by the individual utility owner, into the contract plans. Municipal utility relocations are not anticipated. The DEPARTMENT will provide the unit item numbers and unit prices to be used for the utility relocations.

G. SCOPE OF WORK (PUBLIC PARTICIPATION)

The CONSULTANT shall support the public participation process that enhances the DEPARTMENT'S "Public Involvement Process for New Hampshire Transportation Improvement Projects". The CONSULTANT shall prepare presentation graphics, handouts and support displays, and be available to make presentations and draft meeting minutes. Specific tasks include:

1. **Public Meetings:** It is anticipated that up to three Public Meetings will be held to involve the public and other interested parties (including any Section 106 Consulting Parties) in the project development process. These Public Meetings will focus on the proposed action, project status updates, schedule, construction phasing and impacts. The CONSULTANT will prepare any needed informational handouts and presentation materials, will assist with presentations as needed, and will document the proceedings.
2. **Technical Meetings:** The CONSULTANT shall attend Technical Meetings involving the DEPARTMENT, ACOE, Town/City staff, and RPC, as well as Resource Agency Meetings (as described above) involving the DEPARTMENT, ACOE and the STATE and Federal environmental

ARTICLE I

regulatory agencies. The CONSULTANT shall be responsible for supplying support graphics, making presentations and drafting meeting minutes. It is anticipated that up to two meetings will be needed.

3. Newsletter: A Project Newsletter will be prepared and distributed to stakeholders, project abutters, resource agencies and others as determined necessary by OTHERS. The CONSULTANT shall prepare content for two editions of the newsletter yearly (total of four). This is provided in an electronic format to the DEPARTMENT and the newsletter is created by OTHERS. The DEPARTMENT will distribute the Project Newsletters.
4. Website: The project website (www.EverettTurnpikeWidening.com) will be maintained by OTHERS for dissemination of project information, such as meeting minutes, reports and schedules. The CONSULTANT shall provide the content needed to provide regular updates to the webpage as appropriate to include factsheets, newsletters, plans, meeting minutes, etc. It is anticipated that updates to the website will be done on a quarterly basis during design and a monthly basis during construction.

H. 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. All existing survey and baseline data, field notes, and note reductions in the format outlined in the DEPARTMENT CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT. An electronic ground model shall be provided, if available, along with all existing information that can be used to create a model (ASCII point file, SDR data files, etc.).
 - b. Electronic preliminary horizontal and vertical alignments for the project limits as envisioned. This data will be in MicroStation / InRoads format and coordinate (x, y, z) data (ASCII) format, in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT.
 - c. Any additional surveys of adjacent parcels, mitigation sites, wetland boundaries, or other pertinent items deemed necessary and processed by the DEPARTMENT. Incorporation of this information into the ground terrain model and plans shall be the responsibility of the CONSULTANT.
 - d. 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 request by the CONSULTANT, in accordance with the DEPARTMENT CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT.

ARTICLE I

- e. Electronic drawings in MicroStation format of the existing underground utilities, if provided to the DEPARTMENT by the utility. The CONSULTANT shall be prepared to provide an electronic copy of preliminary base plans to the DEPARTMENT for use by the utilities. The CONSULTANT shall be responsible for the incorporation of this information (either in paper or electronic format) into the plans, in accordance with the DEPARTMENT CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT.
 - f. Any available 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.). The DEPARTMENT will also gather any supplemental topographical survey data that is determined to be necessary as the project proceeds, and will process this data for use. Incorporation of this supplemental information into the digital terrain model and base plan shall be the responsibility of the CONSULTANT.
2. Prints of the following information:
 - a. Any information outlined in Article I.H.1.a. through f. above (electronic information) both existing and proposed, when available, for verification by the CONSULTANT.
 - b. Any additional information (e.g., utilities, etc., not available electronically) for the CONSULTANT to incorporate into the plans in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.
 3. Right-of-way data. The DEPARTMENT will provide an electronic Right of Way Plan of record as prepared by OTHERS for the project. This will include legacy alignments, existing right-of-way layout, property lines, parcel owners, and any other applicable abstracting information 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. The CONSULTANT shall be responsible for incorporation of the pertinent data.
 5. Typical roadway cross-section data.
 6. Geotechnical investigations and recommendations, if available.
 7. Crash data (as needed).
 8. Necessary traffic counts and crash data, as collected by the DEPARTMENT.
 9. 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.
 10. Mapping from aerial photography supplemented by ground survey by the DEPARTMENT within the study area. The ground model will be delivered in MicroStation / InRoads according to the NHDOT CAD/D Procedures and Requirements.
 11. The DEPARTMENT's latest high-resolution color aerial photography (which is geo-referenced

ARTICLE I

and ortho-rectified).

12. The location of all existing utilities through direct contact with the various utility companies. Following the determination by the CONSULTANT of all unavoidable conflicts between existing utilities and the proposed construction, the DEPARTMENT will coordinate the necessary relocation of the conflicting utilities. The CONSULTANT shall be prepared to furnish CAD/D files in the DEPARTMENT format in effect at the time of execution of this AGREEMENT to the DEPARTMENT for use in assisting with the Utility design.
13. Conceptual design and layout of highway lighting (temporary and permanent) if deemed necessary. The CONSULTANT shall be responsible for incorporating the design and layout into the project documents and for recommending adjustments required to avoid conflicts.

I. 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 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 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.

J. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS

During the prosecution of this AGREEMENT, the CONSULTANT shall prepare and submit to the DEPARTMENT separate submissions as described hereinafter. All work submitted by the CONSULTANT to the DEPARTMENT shall be in US Customary units.

The CONSULTANT, with each submission, shall submit an updated Engineering Report (specific to Segment 3) and a Design Report with a design narrative describing the "design issues" addressed in that submission. The report shall include reference materials used (including the version), design criteria and controls, specific items and issues of interest, design calculations (e.g. superelevation, guardrail, etc.), drainage information (including back-up calculations, MS4 compliance, and a copy of the drainage software model), and an updated construction cost estimate. In addition, the report shall include anticipated or outstanding issues and the CONSULTANT'S recommendations. All issues shall be noted as to whether

ARTICLE I

the CONSULTANT feels that the issue is within the scope of work described in Article I. Meetings between the CONSULTANT and the DEPARTMENT (identified as "Over the Shoulder" Meetings above) shall be held prior to submissions to discuss design issues and recommendations as well as for comment resolutions after the submission is reviewed by the Department.

The CONSULTANT shall supplement each submission with such paper and electronic copies of MicroStation drawings, illustrations and descriptive matter as are necessary to facilitate a comprehensive understanding and review of proposed concepts.

All plan drawings, including size of sheets, lettering, symbols and scale of said drawings, shall conform to the requirements and standards of the DEPARTMENT. Any and all CAD/D-related work completed during the course of this project shall be performed in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT. In addition, the CONSULTANT'S final submission shall include hard copy of plans, etc. as well as electronic CAD/D or GIS files in accordance with the current DEPARTMENT CAD/D Procedures and Requirements. The CAD/D files shall consist of the base plans with enhancements in MicroStation format, using DEPARTMENT naming conventions, line styles and character styles. The CONSULTANT shall also furnish a coordinate summary of all survey control points with a corresponding plot of controls and alignments (including all curve data) superimposed over the detail plan.

In addition to the final reproducible plans being furnished as noted herein, the CONSULTANT shall provide electronic file copies of all highway project plan sheets with real State plane coordinates, including, but not limited to, final quantity sheets, typicals and detail sheets, general plans and profiles, and, cross sections. In addition to these plan sheets, an electronic file of the entire project's final design shall be submitted in an "uncut" format showing all design features in a real State plane coordinate system, unrotated. These final electronic files shall be indexed with file name, description of the contents of the file and project sheet number as applicable. All files shall be submitted in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements. Any plans (e.g. quantity summary sheets) produced from a spreadsheet (e.g. Excel, or equivalent) shall be submitted in ASCII file or format suitable for incorporation into Microsoft Office or the current DEPARTMENT software. The final Special Provisions(s) and other documents, as requested, shall be submitted in both electronic format (Microsoft Word-compatible) and hard copy. The CONSULTANT shall also be prepared to submit separate electronic files of all alignments, bound locations and other project features, as requested, in a format acceptable to the DEPARTMENT, throughout the design contract, in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements. The CONSULTANT shall also provide a hard copy of all proposed alignments (50-foot minimum station interval and curve control points) with associated State plane coordinates (x, y, z).

ARTICLE I

1. Roadway Design Submissions:

The plan submissions for roadway design shall follow the procedures outlined below. Quantity estimates, calculations, summary sheets, design calculations, narratives and special provisions for design elements not performed by the CONSULTANT shall be provided by OTHERS to the CONSULTANT in the appropriate format, likely PDF, for inclusion in the respective submission noted below:

a. Slope and Drain Plans – Roadway:

It is anticipated that early informal submittals of some design elements during the initial part of this phase will be needed to ensure the design controls and the design are progressing or to assess design decisions before too much progress is made. It is anticipated this early coordination will be an iterative process.

The submission shall consist of up to five sets of roll or cut sheet plans (paper prints) showing slope lines, drainage system details and drainage features, and draft proposed right-of-way lines, including drainage, slope and/or construction easements. The submission shall also include 2 bound copies of the design report. The Slope and Drain Plans shall include typical sections, plan views (roll plans as a minimum), profiles, guardrail locations, and cross-sections with complete template plotted, existing utilities, and appropriate references on the plans relative to drainage design (inverts, pipe type / size) to assist with the review of the drainage design and the backup drainage calculations. All temporary drainage features shall have backup calculations submitted with each submission. The submission shall be supplemented with a list of utility conflicts that could not be avoided during the design. Complete BMP designs for permanent erosion and sedimentation control features and water-quality appurtenances shall be shown accompanied by backup calculations. The BMPs shall be designed in accordance with the (NHDES) CHAPTER Env-Wq 1500 ALTERATION OF TERRAIN (AoT) requirements, MS4 requirements, as well as the guidance in the New Hampshire Stormwater Manual. The backup calculations shall also include a narrative, mapping and computations addressing pre-construction and post-construction (and post-development, if applicable) drainage conditions and applicable drainage control features. Two bound copies of the drainage-computation and narrative book(s) (including temporary drainage) shall be submitted with all backup drainage calculations illustrated and referenced to each drainage appurtenance shown based on the drainage design.

At this time, a field inspection shall be held with the DEPARTMENT and indicated design changes or corrections made and incorporated into the plans for the Preliminary PS&E submission. Any indicated revisions to fit actual field conditions, including any horizontal and vertical alignment revisions found necessary during this field inspection and any resulting

ARTICLE I

corrections to the right-of-way requirements, shall be made by the CONSULTANT.

Also with the Slope and Drain submission, the CONSULTANT shall submit the Traffic Control Plans in near-final form (roll plans, as a minimum) showing temporary slopes, lane uses and widths, overhead sign structures, temporary guardrail and barrier locations, temporary drainage, temporary easements, profiles (at the ramp locations), diversion cross-sections and superelevations, etc. with backup calculations. Temporary alignments for construction are only anticipated at the ramp connections. It is assumed that the FEET reconstruction can be accomplished under two major TCP construction phases with a third phase being required to complete final striping and paving. It is anticipated that some interim, partial TCP phases will be needed to complete the on and off ramps. It is further assumed that the abandonment of Bridge 185/134 can be accomplished under these same major TCP phasing. Critical sections will be developed for each TCP phase, however, it is not the intent to detail the TCP phasing on all roadway cross sections. The CONSULTANT shall indicate all traffic assignments at interchanges and intersections together with the turning motions on the plans based on traffic information provided by the DEPARTMENT. Construction phasing shall be shown with narratives for each phase. The CONSULTANT shall also submit a conceptual construction schedule (in MS Project), showing the phased construction and utility relocation time frames (provided by the DEPARTMENT), for review and comment by the DEPARTMENT.

The CONSULTANT shall submit a Traffic Management Plan (TMP) for the Corridor and plans for the construction phasing, traffic control, temporary drainage and water-quality commitments for the Project. The CONSULTANT will work with the Department to develop the document for the corridor and make necessary adjustments as the design progresses. This could also include collecting, analyzing and summarizing data used in monitoring TMP activities. Efforts will include preparing summary documents, developing/updating current data collection spreadsheets, analyzing data (crash data, etc.). The intent is to provide a template that includes all three segments with detailed information provided for Segment 3 only.

At this submission, a revised itemized construction estimate shall be prepared and submitted by the CONSULTANT (2 bound copies) based on the best information and design features shown in this submission relative to the anticipated construction including any diversions or temporary widenings.

b. Wetland Plans:

Following incorporation of the DEPARTMENT'S comments on the Slope and Drain Submission, the CONSULTANT shall submit Wetland Impact plans (in cut sheet format) showing permanent and temporary impacts for inclusion with the wetland permit applications.

ARTICLE I

These areas shall be hatched or colored according to the DEPARTMENT'S standards. Accompanying these plans, the CONSULTANT shall provide a tabulated impact summary showing wetland identification numbers, areas of fill or dredged volumes in the temporary and permanent conditions for the final build-out for this project.

c. Utility Plans:

Following review of the Slope and Drain submission, the CONSULTANT shall incorporate DEPARTMENT comments into the design layout and assemble the plans into a cut sheet format. The CONSULTANT shall then furnish up to five sets of cut sheet plans (paper prints) of front sheet, plans, profiles, and up to five sets of cross-sections and a list of revised utility conflicts for use by the Design Services Section. The CONSULTANT shall also submit separate electronic files of this information, in a format acceptable to the DEPARTMENT, in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements. This submission plan set is intended to facilitate the identification of the scope of work required by various utilities to comply with the planned construction. The plans are intended to reflect the near-final design of drainage systems with all appurtenances, erosion and sedimentation-control features, other structures, right-of-way lines (proposed permanent and temporary, and existing), curbing, pavement layout, slope limits, guardrail, final template plotted on cross-sections, diversions and diversion cross-sections, traffic control issues with construction phasing, underdrain, clearing and grubbing limits, fencing requirements, lighting and ITS conduit. Also, the plans shall reflect all existing detail, existing drainage and existing utilities. The intent is to have incorporated all comments from the preliminary right-of-way (ROW) plan development (ROW plans by OTHERS) and the Slope and Drain submission along with design work that has progressed. All final design notes may not be necessary, but the scope of construction shall be evident to the reviewing utilities. Updated design narratives and engineering report are not necessary with this submission. Copies of this plan set will be forwarded to the Design Services Section for review. Comments will be returned to the CONSULTANT to finalize the plans prior to the formal submission for relocations. The plans shall show the status of the design prior to preparation of the Preliminary PS&E submission.

d. Preliminary PS&E – Roadway:

The Preliminary PS&E submission shall consist of three to five sets of plans (paper prints) of preliminary contract drawings, draft special provisions for items for which current specifications are not available from the DEPARTMENT, and a Preliminary PS&E estimate of quantities and costs. The plans shall include title sheet, typical sections, all plan sheets (of all plan sets), profile sheets, curb and pavement marking layout plans, ITS infrastructure, complete

ARTICLE I

traffic control plans (with a conceptual construction schedule) including one set of roll plans, cross-section sheets and necessary detail sheets. Also, seeding and grading plans shall be included. Landscaping, if required, will be designed by OTHERS and incorporated into the Plan set by the CONSULTANT. Quantity Summary sheets shall be submitted. All item summary boxes for drainage, clearing and grubbing, earthwork, surfacing and select materials, curbing, guardrail, traffic signs, construction signs and warning devices, pavement markings, conduit and pull boxes, ITS components, 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. Rounding and totals are not required. Item summary boxes of expected work, not listed above, shall be included and shown without line-entries completed. In developing the plans to the Preliminary PS&E stage, the DEPARTMENT will require an estimate of the quantities, expected unit costs, and total costs prepared in the form and manner prescribed by the DEPARTMENT for the Preliminary PS&E submission. An electronic copy of the spreadsheet shall be submitted (for each estimate and submission). Roadway items shall be kept separate from bridge items. Two bound copies of the quantity calculations shall be furnished with the estimate. The plans shall reflect all comments from the Slope and Drain submission and issues that appear during final design. The plans shall incorporate proposed utility relocations or improvements. Two bound copies of the Design Report and two bound copies of the drainage computations book (as revised based on Slope and Drain comments) including MS4 compliance, as well as temporary drainage computations.

e. PS&E – Roadway:

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, which shall consist of three complete sets of paper prints of construction plans including one set of roll plans (for all plan sets including the traffic control plans), two bound copies of the revised quantities book, Engineering Report, proof of an “Apples and Oranges” check and a PS&E estimate. In addition, 2 bound copies of the design report, and 2 updated copies of the drainage report. Special Provisions shall be submitted in electronic format (Microsoft Word-compatible) 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 (assume four). This submission shall include any final edits necessary to make this a complete and final submission ready for contract plans and bidding.

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

ARTICLE I

omissions found and generally assist the DEPARTMENT in finalizing the contract plans. If changes are requested to be made to the CONSULTANT'S plans by the DEPARTMENT, the CONSULTANT shall be prepared to update the corresponding electronic files and submit them to the DEPARTMENT. The final contract plans submitted shall include up to three sets of paper prints. Also, all CONSULTANT backup documents shall be resubmitted, as necessary, to reflect the final PS&E and final contract plan conditions.

The final contract plans shall include:

- 1) Front sheet.
- 2) Symbols sheets.
- 3) Typical sections of improvement.
- 4) Summary-of-quantities sheets.
- 5) Plan and profile sheets.
- 6) Detail sheets and/or special sheets required.
- 7) Cross-section sheets.

Each of the plan sheets shall be labeled with its corresponding electronic file name.

2. Deliverables:

- a. 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.

- b. 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 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/.)

- c. Approved action deliverables: The CONSULTANT'S final submission shall include hard copies of plans, as well as electronic CAD/D files. The CAD/D files shall consist of the base plans with enhancements in MicroStation format, using DEPARTMENT naming conventions,

ARTICLE I

line styles and character styles. The CAD/D files shall also contain a proposed 3D top line model, complete out to the slope limits.

- d. 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.

- e. 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.
- E-mail: Files 10 MB or smaller may be transferred via e-mail. If compressed, the files should be self-extracting and encrypted based on content.

- f. 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.

- g. Website Information and Documents:

- Website Content: All external DEPARTMENT 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>.
- Website Documents: All documents posted to a website created for this project, or that are submitted to be posted to a DEPARTMENT 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").

ARTICLE I

h. Electronic Deliverables: Upon completion of the AGREEMENT, the CONSULTANT shall turn over all documentation used in the development of the Design and Plans, as applicable; for example, if Shoreland Plans were not needed, these files are not required. The following list is a guide to what electronic information is expected to be returned from the design Consultants to NHDOT for final storage. Note that it is not intended to be an all-inclusive (complete) listing of contract deliverables, as there may be contract specific information/documents associated with specialty work, unusual circumstances, or new technology, etc., that is not listed below. The intent is that all electronic documents developed for and associated with a particular project be submitted to the Department as part of the final deliverables.

- 1) CAD/D File Information: See the Department's CAD/D Procedures and Requirements documentation for more (detailed) information relative to this element. CAD/D file data (both reference files and cut-sheets for Highway and Bridge).
- 2) Project Journal File: See the Department's CAD/D Procedures and Requirements documentation for more (detailed) information relative to this element.
 - a) Care shall be taken to prepare a complete Project Journal File outlining all files and descriptions used on the project. In addition to the cut-sheet definitions, all cut sheet models need to be included so the sheets can be re-produced.
 - b) Plotting needs to be included to provide any necessary guidance on how the sheets are to be plotted at the correct scale. Include any pen-tables used in the project.
 - c) Complete index of all 3D model surfaces provided and what they are used for.
 - d) Index of all alignments used on the project (with appropriate string names) and descriptions.

K. 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 therefore, 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, due to the CONSULTANT'S own negligence, within the contract plans and specifications found during

ARTICLE I

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 and catalog cuts (including bridge mounted and overhead sign structures and ITS devices) prepared by OTHERS including the construction contractors or their subcontractors subject to the provisions of Section 105 for the purpose of checking for conformance with the information given and the design concept expressed in the Contract documents. Only that work designed by the DEPARTMENT will be excluded from this requirement.
 - b. Design and prepare drawings for the substructure elements required for ITS devices and overhead sign structures. The Contractor shall submit fabrication plans and design parameters for overhead sign structures, which, in combination with soils information obtained by the DEPARTMENT, shall be used by the CONSULTANT to develop the designs and drawings for substructure elements including quantities.
3. Letter of Map Revision (LOMR): The CONSULTANT will prepare and submit any necessary LOMR applications. The CONSULTANT shall be responsible to provide as-built survey by a NH Licensed Land Surveyor (LLS) to complete this application. The CONSULTANT will utilize the survey to refine the hydraulic model completed as part of the CLOMR to develop the forms and information needed to complete the LOMR. The CONSULTANT will coordinate with the Town of Bedford and FEMA to complete the application materials, including three meetings. It is assumed that notification of property owners is not required as it also assumed that the Base Flood Elevation will not be altered by the work. The CONSULTANT will be responsible for all coordination with the municipalities and FEMA including any and all fees (or waivers) for the applications.
4. ITS: The CONSULTANT will provide on-site oversight of Contractor-conducted testing of ITS equipment and review of Contractor-submitted test results and documentation.

ARTICLE I

L. DATE OF COMPLETION

In accordance with the Governor and Council Resolution authorizing this AGREEMENT, the date of completion for the professional services rendered under this AGREEMENT is **May 31, 2022**. Completion of construction support services shall be in accordance with Article I-K - Construction Support Services.

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: \$418,656.32

- 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, 2018, which expires June 30, 2020, 139.11%, shall be used for invoicing for the life of the AGREEMENT.

Overhead costs are estimated at: \$582,392.81

- 3) A fixed fee amount based on the estimated risk to be borne by the CONSULTANT [maximum 10.00% of Labor Costs (including overhead costs)] for profit and non-reimbursed costs.

The fixed fee is: \$100,104.91

ARTICLE II

- 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 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: \$29,000.00

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

McFarland-Johnson, Inc. \$482,247.41

Independent Archaeological Consulting, LLC \$76,575.22

Huntley Survey and Design, PLLC \$19,093.88

AGREEMENT NOT-TO-EXCEED TOTAL \$1,708,070.55

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 \$1,708,070.55, the sum of the amounts shown in Article II, Section A (which amount is based on the CONSULTANT'S fee and manhour estimates of February 11, 2020), 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.

ARTICLE II

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.
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).

ARTICLE II

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.
- 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.

F. 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.

(Not applicable to this AGREEMENT.)

B. CONTRACT PROPOSALS

After the CONSULTANT has furnished to the DEPARTMENT contract drawings, special provisions, specifications, and estimate of quantities and unit cost 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 11 King Court, Keene, 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

ARTICLE IV

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

ARTICLE IV

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.

ARTICLE IV

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". 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. A copy of each subcontract shall be submitted for the DEPARTMENT'S files.

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,

ARTICLE IV

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,

ARTICLE IV

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.

ARTICLE IV

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

ARTICLE IV

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.

ARTICLE IV

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).

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.

CHA Consulting, Inc.
(Company)

By: _____

General Counsel & Exec VP
(Title)

Date: March 17, 2020

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.

March 17, 2020

(Date)

A handwritten signature in black ink, appearing to read "Whitaker", written over a horizontal line.

(Signature)

Attachment 3

CERTIFICATION OF CONSULTANT/SUBCONSULTANT

I hereby certify that I am the General Counsel and Executive Vice President and duly-authorized representative of the firm of CHA Consulting, 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 ineligibility 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.

March 17, 2020

(Date)



(Signature)

Attachment 4

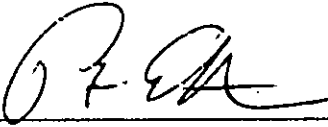
CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION

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):

March 23, 2020
(Date)


(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: 

NIKKI C. Dame

Dated: March 17, 2020

CONSULTANT

By: 

General Counsel & Exec. VP
(TITLE)

Dated: March 17, 2020

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: 

Dated: March 23, 2020

THE STATE OF NEW HAMPSHIRE

By: 

Director of Project Development

for DOT COMMISSIONER

Dated: March 23, 2020

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: 4/2/20

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

Corporate Resolution

I, Michael A. Platt, hereby certify that I am duly elected Secretary of CHA Consulting, Inc. I hereby certify that the following is a true copy of a vote taken at a meeting of the Board of Directors duly called and held on February 11, 2020, at which a quorum of the Directors were present and voting.

VOTED: That the following individuals are duly authorized to enter into contracts or agreements on behalf of CHA Consulting, Inc. with the State of New Hampshire and any of 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:

<u>Authorized Signatories</u>	<u>Title</u>
James B. Stephenson	President
Marble Hensley	Executive Vice President
Dom M. Bernardo	Chief Financial Officer and Executive Vice President
Michael A. Platt	General Counsel and Executive Vice President

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 individuals to bind the corporation in contracts with the State of New Hampshire, all such limitations are expressly stated herein.

Dated: March 17, 2020


Michael A. Platt
Secretary

State of New Hampshire

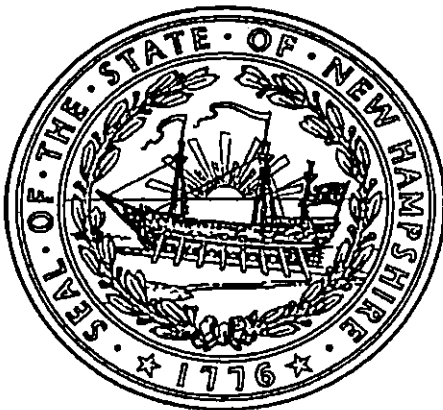
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that CHA CONSULTING, INC. is a New York Profit Corporation registered to transact business in New Hampshire on June 09, 2011. 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: 651702

Certificate Number: 0004850494



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 20th day of March A.D. 2020.

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

William M. Gardner
Secretary of State

Business Information

Business Details

Business Name: CHA CONSULTING, INC.	Business ID: 651702
Business Type: Foreign Profit Corporation	Business Status: Good Standing
Business Creation Date: 06/09/2011	Name in State of Incorporation: CHA CONSULTING, INC.
Date of Formation in Jurisdiction: 06/09/2011	
Principal Office Address: 575 Broadway, Albany, NY, 12207, USA	Mailing Address: 575 Broadway, Albany, NY, 12207, USA
Citizenship / State of Incorporation: Foreign/New York	
	Last Annual Report Year: 2019
	Next Report Year: 2020
Duration: Perpetual	
Business Email: cpyle@chacompanies.com	Phone #: 518-453-4500
Notification Email: CPYLE@CHACOMPANIES.COM	Fiscal Year End Date: NONE

Principal Purpose

S.No	NAICS Code	NAICS Subcode
1	OTHER / Engage in any lawful act or activity for which corporations may be organized under New Hampshire law.	

Page 1 of 1, records 1 to 1 of 1



CHAHOLDING

CMURPHY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/23/2020

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 Ames & Gough 859 Willard Street Suite 320 Quincy, MA 02169	CONTACT NAME:	
	PHONE (A/C, No, Ext): (617) 328-6555	FAX (A/C, No): (617) 328-6888
INSURED CHA Consulting, Inc. 575 Broadway Albany, NY 12207	E-MAIL ADDRESS: boston@amesgough.com	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Continental Casualty Company (CNA) A, XV	
	INSURER B: LM Insurance Corporation	
	INSURER C: Continental Insurance Company A(XV)	
	INSURER D: The First Liberty Insurance Corporation	
INSURER E: New Hampshire Insurance Company		
INSURER F:		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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	ADOL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:	X		6014087067	8/1/2019	8/1/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			AS5-Z11-260446-019	8/1/2019	8/1/2020	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			6014087053	8/1/2019	8/1/2020	EACH OCCURRENCE \$ 15,000,000 AGGREGATE \$ 15,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WC6-Z11-260446-029	8/1/2019	8/1/2020	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Professional Liab			002910563	8/1/2019	8/1/2020	Per Claim \$ 6,000,000
E				002910563	8/1/2019	8/1/2020	Aggregate \$ 10,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
If AI box is checked, GL Endorsement Form #CNA75079XX, Auto AI #CA20481013 to the extent provided therein applies and all coverages are in accordance with the policy terms and conditions.

RE: Contract No. 13761, Final Design for Widening of 12 Miles of F.E. Everett Turnpike
The State of New Hampshire shall be included as additional insured with respects to General Liability where required by written contract. A 30 Day Notice of Cancellation is provided in accordance with the policy terms and conditions.
Professional Liability Retention/Deductible is: \$75,000.00

CERTIFICATE HOLDER

CANCELLATION

New Hampshire Department of Transportation
Attn: Wendy A. Johnson
John O. Morton Building, 7 Hazen Drive
Concord, NH 03302

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



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



38

VICTORIA F. SHEEHAN
COMMISSIONER

WILLIAM CASS, P.E.
ASSISTANT COMMISSIONER

Bureau of Highway Design
February 1, 2016

Her Excellency, Governor Margaret Wood Hassan
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 CHA Consulting, Inc., Keene, NH, Vendor #175302, for an amount not to exceed \$2,114,730.22 for preliminary design engineering services to widen approximately twelve miles of the F. E. Everett Turnpike from Nashua to Bedford, effective upon Governor and Council approval, through March 31, 2019. 100% Turnpike Funds.

Funds to support this request are available in the following account in State FY 2016 and FY 2017 and are anticipated to be available in State FY2018 and 2019 based upon the availability and continued appropriation of funds in the future operating budget, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office, if needed and justified:

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY2019</u>
04-96-96-961017-7507 Central NH Turnpike				
046-500463 Eng Consultants Non-Benefits	\$282,000.00	\$846,000.00	\$846,000.00	\$140,730.22

EXPLANATION

The Department requires professional engineering, environmental, and public outreach consultant services to widen approximately twelve (12) miles of the F. E. Everett Turnpike beginning north of Exit 8 (Somerset Pkwy) in the City of Nashua and continuing northerly through Interstate 293/NH Rte.101 interchange in the Town of Bedford. The F.E. Everett Turnpike is the principal arterial linking Manchester and Nashua and as such serves a vital role in the economy of this region and the state. The goals of the Part A preliminary design phase of this project are to select a preferred alternative that is technically feasible, environmentally permissible, and economical; develop an approved Environmental Assessment; and bring the preferred alternative to a Special Committee Public Hearing for layout approval. Assuming a successful Public Hearing, the Department reserves the right to either negotiate a fee for the Part B final design services or terminate the contract. This project is currently included in the State's Ten-Year Transportation Improvement Plan (Nashua-Bedford 13761).

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 and 21-I:22-d, all applicable Federal laws and the Department's "Consultant Selection and Service Agreement Procedures" dated December 1999. 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 a Nashua-Merrimack-Bedford 13761 F.E. Everett Turnpike widening preliminary design contract. The assignment was listed as a "Possible Action Project" on the Department's website on March 17, 2014 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 May 8, 2014 for consideration and approval by the Assistant Commissioner. Upon receipt of that approval, three shortlisted firms were notified on June 2, 2014 through a

technical "Request for Proposal" (RFP). Committee members individually rated the firms on August 14, 2014 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 three 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 five consultant firms that were considered for this assignment, with the three short-listed firms shown in bold, is as follows:

Consultant Firm

AECOM
The Louis Berger Group, Inc.
CHA Consulting, Inc.
CLD Consulting Engineers
Fay, Spofford & Thorndike, LLC

Office Location

Manchester, NH
Manchester, NH
Keene, NH
Manchester, NH
Bedford, NH

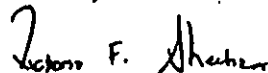
The firm of CHA Consulting, Inc. was recommended for this contract. This firm has an excellent reputation and has demonstrated their capability to perform the required services in previous similar contracts with the Department. Background information on this firm is attached.

CHA Consulting, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$2,114,730.22.

This Agreement (Nashua-Bedford 13761) 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



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



VICTORIA F. SHREHAN
COMMISSIONER

WILLIAM CASS, P.E.
ASSISTANT COMMISSIONER

Bureau of Highway Design
February 1, 2016

Her Excellency, Governor Margaret Wood Hassan
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 CHA Consulting, Inc., Keene, NH, Vendor #175302, for an amount not to exceed \$2,114,730.22 for preliminary design engineering services to widen approximately twelve miles of the F. E. Everett Turnpike from Nashua to Bedford, effective upon Governor and Council approval, through March 31, 2019. 100% Turnpike Funds.

Funds to support this request are available in the following account in State FY 2016 and FY 2017 and are anticipated to be available in State FY2018 and 2019 based upon the availability and continued appropriation of funds in the future operating budget, with the ability to adjust encumbrances between State Fiscal Years through the Budget Office, if needed and justified:

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY2018</u>	<u>FY2019</u>
04-96-96-961017-7507 Central NH Turnpike				
046-500463 Eng Consultants Non-Benefits	\$282,000.00	\$846,000.00	\$846,000.00	\$140,730.22

EXPLANATION

The Department requires professional engineering, environmental, and public outreach consultant services to widen approximately twelve (12) miles of the F. E. Everett Turnpike beginning north of Exit 8 (Somerset Pkwy) in the City of Nashua and continuing northerly through Interstate 293/NH Rte.101 interchange in the Town of Bedford. The F.E. Everett Turnpike is the principal arterial linking Manchester and Nashua and as such serves a vital role in the economy of this region and the state. The goals of the Part A preliminary design phase of this project are to select a preferred alternative that is technically feasible, environmentally permissible, and economical; develop an approved Environmental Assessment; and bring the preferred alternative to a Special Committee Public Hearing for layout approval. Assuming a successful Public Hearing, the Department reserves the right to either negotiate a fee for the Part B final design services or terminate the contract. This project is currently included in the State's Ten-Year Transportation Improvement Plan (Nashua-Bedford 13761).

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 and 21-I:22-d, all applicable Federal laws and the Department's "Consultant Selection and Service Agreement Procedures" dated December 1999. 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 a Nashua-Merrimack-Bedford 13761 F.E. Everett Turnpike widening preliminary design contract. The assignment was listed as a "Possible Action Project" on the Department's website on March 17, 2014 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 May 8, 2014 for consideration and approval by the Assistant Commissioner. Upon receipt of that approval, three shortlisted firms were notified on June 2, 2014 through a

technical "Request for Proposal" (RFP). Committee members individually rated the firms on August 14, 2014 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 three 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 five consultant firms that were considered for this assignment, with the three short-listed firms shown in bold, is as follows:

Consultant Firm

AECOM
The Louis Berger Group, Inc.
CHA Consulting, Inc.
CLD Consulting Engineers
Fay, Spofford & Thorndike, LLC

Office Location

Manchester, NH
Manchester, NH
Keene, NH
Manchester, NH
Bedford, NH

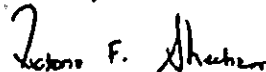
The firm of CHA Consulting, Inc. was recommended for this contract. This firm has an excellent reputation and has demonstrated their capability to perform the required services in previous similar contracts with the Department. Background information on this firm is attached.

CHA Consulting, Inc. has agreed to furnish the professional engineering services for an amount not to exceed \$2,114,730.22.

This Agreement (Nashua-Bedford 13761) 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