

Government of the District of Columbia

Department of Transportation



d. Office of Contracting and Procurement

DISTRICT ARCHITECT AND ENGINEER (“A/E”) SCHEDULE TASK ORDER (“TO”) SOLICITATION

Date: April 12, 2019

Category of Services: Category C – Bridge Design

Title: Request for Qualifications (“RFQ”) for the Preliminary and Final Design of New York Ave Bridge over Anacostia River NE

Solicitation No.: OCPTO190001

1. INTRODUCTION AND BACKGROUND

The District Department of Transportation (DDOT) is selecting a consultant engineering design firm for design of rehabilitation of the New York Ave. Bridge (Bridge number 0076), NE, over the Anacostia River. Bridge 0076 consist of two prestressed concrete beam approach spans, over each cellular abutments, four continuous steel multi-girders spans and floorbeams system that are supported by two reinforced concrete abutments and three reinforced concrete piers. The bridge was originally constructed in 1953 and was rehabilitated in 1983. The entire length of the bridge including the approach spans measures 537.7’, and the length of four continuous spans steel girders measure 414.2’. The bridge superstructure is 96.5’ wide out-to-out, and the bridge substructures have an average skew of approximately 41°.

2. TASK ORDER COMPETITION

The District is soliciting qualifications from five (5) firms awarded an A/E schedule containing Category C – Bridge Design including the provisions of the A/E contract. Firm-Fixed-Priced Task Order (TO) awards are anticipated. The five firms are:

- Gannett Fleming Engineering & Architects
- HDR Engineering
- Dewberry
- Louis Berger DC LLC and
- T.Y. Lin

3. ATTACHMENTS INCORPORATED BY REFERENCE

- Consultant's respective IDIQ Contract terms and clauses
- The manual and guides listed below:
 - All District of Columbia, Department of Transportation ("DDOT") and Federal Highway Administration ("FHWA") requirements and regulations apply. All design work will comply with current design practices and code requirements of the District of Columbia, Department of Transportation ("DDOT"), Federal Highway Administration ("FHWA") and as well as the latest edition of the following (at the time of the contract award):
 - 1. DDOT Design and Engineering Manual, 2019
 - 2. DDOT Guideline for Bridge Load Rating Analysis and Reporting, 2010
 - 3. DDOT Standard Specifications for Highways and Structures (The "Gold Book"), 2013
 - 4. DDOE Stormwater Management Guidebook, 2013
 - 5. DDOE Standards and Specifications for Soil Erosion and Sediment control, 2003.
 - 6. D.C. Temporary Traffic Control Manual – Guidelines and Standards – 2006 Edition
 - 7. DDOT Green Infrastructure Standards, 2014
 - 8. D.C. Temporary Traffic Control Manual – Guidelines and Standards – 2006 Edition
 - 9. Applicable requirements of Federal Highway Administration (FHWA), including but not limited to FHWA Roadway Lighting Handbook
 - 10. AASHTO, A Policy on Geometric Design of Highways and Streets (The "Green Book"), 7th Edition
 - 11. AASHTO Standard Specifications for Highway Bridges (17th Edition)
 - 12. AASHTO, Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals, 6th Edition with 2015 Interim Revisions
 - 13. AASHTO, Bridge Security Guidelines, 1st Edition
 - 14. AASHTO, Bridge Aesthetics Sourcebook, 1st Edition
 - 15. AASHTO, Guide Specifications for Seismic Isolation Design, 4th Edition
 - 16. AASHTO, Manual for Bridge Element Inspection, 1st Edition with 2015 Interim Revisions
 - 17. AASHTO, The Manual for Bridge Evaluation, 3rd Edition with latest Interim Revisions
 - 18. AASHTO, Guide Specifications for Bridge Temporary Works, 2nd Edition with latest Interim Revisions
 - 19. AASHTO, Construction Handbook for Bridge Temporary Works, 2nd Edition with latest Interim Revisions
 - 20. AASHTO LRFD Bridge Design Specifications, 8th edition (2017)
 - 21. AASHTO Guide Spec. for LRFD Seismic Bridge Design, 2nd edition, with latest Interim revisions

- 22. National Bridge Inspection Standards (NBIS),
- 23. FHWA-NHI Bridge Inspector's Reference Manual,
- 24. AASHTO Manual for Condition Evaluation of Bridges,
- 25. DDOT Bridge Inspection Manual

4. TASK ORDER SPECIAL PROVISIONS

1.1. OPTION TO EXTEND THE TERM OF THE CONTRACT

1.1.1. The District may extend the term of this contract for a period of one (1) 12-month option period, or successive fractions thereof, by written notice to the Contractor before the expiration of the contract; provided that the District will give the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the District to an extension. The exercise of this option is subject to the availability of funds at the time of the exercise of this option. The Contractor may waive the 30-day preliminary notice requirement by providing a written waiver to the Contracting Officer prior to expiration of the contract.

1.1.2. If the District exercises this option, then the extended contract shall be deemed to include this option provision.

1.1.3. The total duration of this contract, including the exercise of any options under this clause, shall not exceed 24 months.

1.1.4. DDOT will review the required deliverables at each design milestone as outlined in section 6 ("Scope of Work") to determine if an option exercise is in the best interest of the District.

5. DISADVANTAGED BUSINESS ENTERPRISE GOAL

An 8% DBE subcontracting goal for firms certified as DBE's in accordance with Title 49, Subtitle A, Part 26 of the CFR has been established for this federally-assisted contract. The contract will be subject to all applicable Federal regulations including Title VI of the Civil Rights Acts of 1964. If Offeror does not meet the DBE goal, then Offeror will be required to demonstrate good faith efforts in accordance with Title 49, Subtitle A, Part 26 of the CFR.

6. SCOPE OF WORK ("SOW")

The SOW is phased to accommodate delays in clearing the major design milestones. The 65% and 100% Final Design will be executed as a single Option Period. Once the consultant clears the design milestone for the base period of performance, the District will consider exercising the Option Period for the subsequent design milestones.

The consultant shall achieve the following design milestones in accordance with the attachments incorporated in 3.0 of the TO RFQ and the phases identified in 6.2 of this RFQ. This design

SOW will be divided into two phases of performance. Phase 1; consist of evaluating/confirming DDOT's inspection report findings, reviewing existing documents including as-built plans, perform material testing/deck evaluation as per DDOT DEM and preparation of 30% design (TS&L) package. Phase 2 shall consist of completing the design, from 30% to final design and preparation of the PS&E package. DDOT will decide at the end of Phase 1 if it wants to proceed to phase 2.

The SOW tasks subsequently listed may apply to one or both of the phases. Requirements for the milestones and acceptance of design documents shall be in accordance with Section 6.2 of the TO RFQ.

Project Name: Preliminary Design of New York Ave Bridge over Anacostia River NE

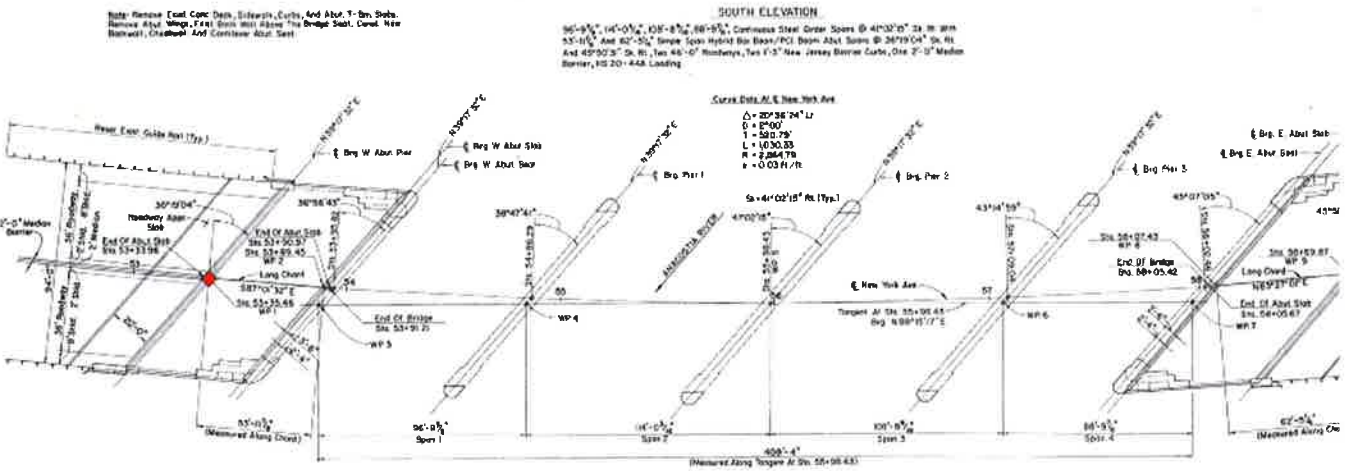
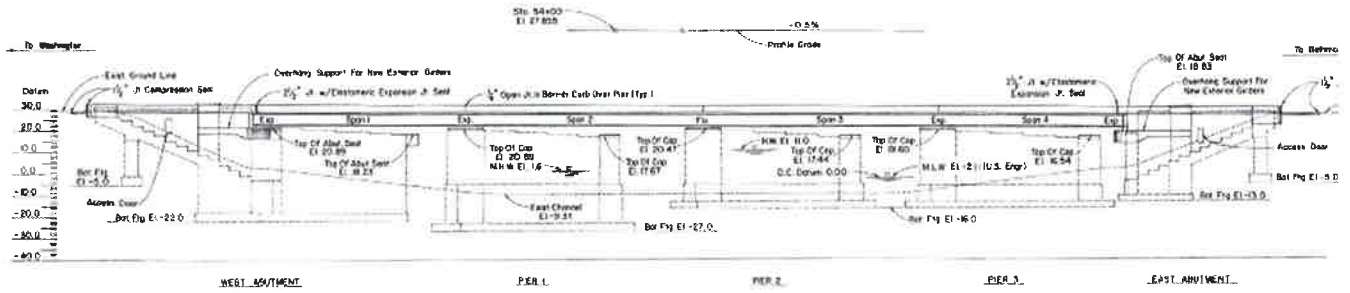
Project Limits: The initial project limits are confined between Station 48 + 32.5± and Station 65 + 64±, which roughly accounts to the Northeast Stateline of the District of Columbia with the State of Maryland, and the Fort Lincoln Drive, NE exit ramp. The project limits will be determined for each alternative in TS&L report. The structural deficiencies of the existing structures may be addressed with bridge rehabilitation or with the replacement of the superstructure and/or substructure or combination of both. The reconstructed structure would in general keep the existing geometry. Design alternatives will be developed with the intent to minimize the impact of construction to the traveling public and navigational traffic, and making sure that the rehabilitated structure is consistent with the aesthetic standards and other context sensitivity elements required by this major corridor between District of Columbia and Maryland, and other stakeholders.

Project Location Map



BRIDGE NO.: 0076 HIGHWAY: New York Avenue
 OVER: Anacostia River

Out-to-Out Deck Width =
 Clear Roadway Width =
 Total Structure Length =
 Minimum Vertical Undercle:



Begin
 Latitude: 38° 55' 05.02"
 Longitude: 76° 56' 36.16"

End
 Latitude: 38° 55' 05.16"
 Longitude: 76° 56' 29.33"

6.1 General Project Description

The key project goals are to:

1. Verify and confirm findings from pervious NBI reports and underwater inspection report
2. Investigate the root cause(s) for the observed deficiencies above and below water level
3. Address all observed deficiencies
4. Preserve the structure's good condition
5. Extend the service life of the structure for an additional 40 years at a minimum
6. Ensure the safety of public and workers during construction
7. Improve the safety features of the existing structure
8. Preserve the aesthetic harmony with the adjacent bridge

9. Utilize Accelerated Bridge Construction techniques as applicable
10. Comprehensive disciplinary approach to the project, including but not limited to the following:
 - a. Structures
 - b. Civil
 - c. Geotechnical
 - d. Drainage
 - e. Lighting
 - f. Environmental compliance
 - g. Traffic Management Plan (TMP)
 - h. Future maintenance
 - i. Cost estimation
 - j. Utilities coordination
 - k. Community outreach
 - l. Stakeholder identification and coordination
 - m. Dynamic risk assessment

The list of goals is intended for both phase 1 and 2 of the project.

6.2 Performance Phases

Phase 1 30% Preliminary Design and Environmental Documentation

Base Period of Performance (“POP”): 12 months from Award

The Scope of Work for Phase 1 includes Level 3 Categorical Exclusion (CATEX 3) NEPA documentation and preliminary engineering design (30 percent design).

It is important to note that written environmental approvals for CATEX-3 by DDOT Environmental Program shall be obtained prior to advancing design beyond the preliminary design.

Phase 2: 65% Intermediate Design and 100% Final Design to include (PS&E) and bid documents

Option Period 1 PoP: 12 months from Option Exercise

Upon receipt of environmental approvals and acceptance of preliminary design by DDOT, the consultant shall advance the project to final design. The scope of work for Phase 2 will include intermediate design (65%) and final design submission including final construction plans, specifications and cost estimates (PS&E), and final bid documents. Other scope of work for Phase 2 will include public involvement, agency / stakeholder coordination, supplemental survey or geotechnical work.

All project deliverables required for each phase throughout the project life shall be prepared per *DDOT Design and Engineering Manual (2019)*.

6.3 Project Management

The consultant shall provide effective design project management to final delivery of the project. Project management shall be per *DDOT Design and Engineering Manual: Chapter 3-Project Management (2017)*. The consultant shall provide a performance schedule containing the significant milestones required for successful performance. The schedule shall represent the consultant's good faith estimate for the allocation of the Period of Performance ("PoP") and expenditures across the significant activities required for successful performance.

This item includes overall project management that is not directly associated with other specific items, including but not limited to:

1. Project initiation
2. Project control
3. Schedule including project milestones and dates at which these milestones will be met in accordance with DDOT requirements for this project
4. Staffing
5. Overall project review
6. Internal and external coordination
7. Maintaining issue logs and the associated risks
8. Maintaining list of points of contacts
9. Submitting monthly invoicing using DDOT template
10. Submittal coordination
11. Project close-out
12. Timely invoicing and meeting DBE requirements if any

6.4 Meetings

This item includes the meetings required to ensure proper information sharing and coordination among all parties involved:

1. Weekly project meeting with DDOT
2. Weekly project meeting/conference calls with subconsultants
3. Meeting with utility companies
4. Meetings with reviewing agencies including DCRA PDRM & Environmental Agencies
5. Meeting with other stakeholders
6. Prepare meeting agendas
7. Prepare and distribute meeting minutes within 72 hours
8. Project schedule
9. Meeting agendas
10. Meeting minutes
11. Reviews comments and resolution matrix
12. List of contacts
13. Outstanding issue log and risk matrix
14. Agreements

15. Environmental clearance documents
16. Presentations, boards, brochures and renderings used for public outreach
17. Monthly progress reports

6.5 QA/QC Plan

Upon NTP from DDOT, the consultant shall prepare and submit a quality management plan (QMP) and other related quality procedures for review and approval by DDOT. The approved QMP will govern the quality program and meet the requirements as noted in the latest DDOT Design and Engineering Manual. QA/QC staff need to be identified in QMP.

Deliverables

The deliverables for this item are:

- A. Quality Management Plan (QMP)

6.6 Document Management

The consultant shall initiate and maintain a project SharePoint site in coordination with DDOT to ensure conformance with the DDOT's current project library structure (access will be provided to DDOT SharePoint site for document management). Depending on the project role and responsibility, access will be awarded to internal and external members with different levels of authority and only after DDOT's approval. All project related communications, submittals and other relevant documents will be stored in the project SharePoint site.

Consultant shall initiate and maintain project website for public information and commenting. The project SharePoint site will also be accessible thru this website with pre-approved login credentials.

The scope of these services will be continuous over the life of the contract.

6.7 Site Information

The consultant shall collect and review all the available site information at in the vicinity of the project site. Such efforts will require coordination with all stakeholders affected by this project. Additionally, in coordination with DDOT, Consultant shall investigate the current and future projects and developments that can directly or indirectly affect this project.

6.8 Structural Inspection

Consultant shall perform a detailed 100% hands-on inspection of Bridge 0076, including superstructure, substructure, which includes the underwater inspection of the bridge. Additionally, the inspection team shall inspect the ancillary structures adjacent to bridge 0076. This portion of the scope of services shall be completed before alternative concept design.

6.9 100% Hands-on Inspection

The consultant shall provide in-depth (hands-on) bridge inspection for Bridge No. 0076 and any associated structure adjacent to the bridge. The purpose of this inspection is to assess the existing condition and scope of the proposed rehabilitation and/or reconstruction.

An in-depth (hands-on) visual inspection to assess the scope of the proposed bridge rehabilitation will be performed. The inspection teams shall include NBIS certified Team Leaders. All inspections shall be performed in accordance with the National Bridge Inspection Standards (NBIS), FHWA-NHI Bridge Inspector's Reference Manual, AASHTO Manual for Condition Evaluation of Bridges, and DDOT Bridge Inspection Manual of Procedures. During the inspection, field notes, measurements and photographs of found defects will be obtained. The Consultant inspection personnel shall be responsible for gaining access to bridge elements with adequate equipment and safe methods including traffic control measures and permits.

6.10 Approach Roadways and Bridge Deck

The Consultant shall visually inspect the roadways and shoulders for settlement or misalignment, drainage, erosion, potholes, or other deficiencies that could lead to loss of vehicle control. The approach guide rails shall be inspected for collision damage, deterioration, and compliance with DDOT Standards. The deck shall be visually inspected for defects. Bridge railings, expansion dams, drains, and scuppers shall be inspected for damage, deterioration, and functionality. The bridge site shall be observed to determine if the required signs, such as horizontal and vertical clearances, hazard clearance markers and warning signs are properly installed, legible and in good condition. The inspection of the approach roadway, bridge expansion joints and top surface of deck shall require traffic lane closure and maintenance of traffic.

An in-depth concrete and corrosion assessment along all spans shall be performed, including the concrete girders. The in-depth testing will include scanning using ground penetrating radar (GPR), corrosion potential measurements, and concrete sampling for laboratory testing. The objective of this in-depth sampling is to identify deterioration of the reinforcement and concrete that can't be identified through visual and sounding techniques.

6.11 Underwater inspection

The consultant shall follow the Level III Underwater inspection guidelines, and additionally the following shall be considered:

- A. The Consultant shall perform a thorough visual and tactile inspection of those piers and abutments more than 1' below the waterline of each structure of the bridge. The Consultant shall identify the substructure and foundation deficiencies, and the need for any in-depth inspections that may be required as a result of suspected deficiencies that cannot be identified by visual/tactile inspection.

Structure elements shall be well cleaned of any marine growth or other material obstructing detailed inspection to facilitate the inspection. Piles shall be cleaned in bands approximately one foot wide at the waterline, mud line and midheight. Piers

and abutments shall have one foot square areas cleaned at the nose, sides and tail at the waterline, mud line and mid-height.

- B. The inspection of substructure and foundation elements shall extend from the waterline to the mud line and include, but not be limited to the following:
 - 1. Concrete Pile and/or solid Piers: Check all concrete for erosion, wear, abrasion, scaling, spalling, exposure and deterioration of any exposed reinforcing steel, and all cracking.
 - 2. The Engineer in charge of the inspections shall supply a Daily Diving Report to the Project Manager via email or other format as approved by the Project Manager. This report should include a brief summary of which substructure units were inspected that day.

- C. The inspection shall include depth soundings around each pier, along the fascia, and at 100' and 200' intervals upstream and downstream. Soundings shall be obtained using a continuous reading strip chart fathometer unless water conditions preclude use of a boat, in which case sounding poles or lead lines may be utilized.

The channel bottom, particularly around piers and abutments, shall be probed and the presence, size and condition of any riprap shall be noted.

- D. Digital color photography shall be utilized to document underwater conditions. A "clear water" box shall be available on site for use if needed to secure photographs.
- E. Underwater sonar imaging and 3-D laser scanning techniques shall be applied.
- F. Any abutment or pier which has a water depth less than one foot will be inspected and an inspection report will be completed to document the condition of the substructure units.
- G. Scour Inspection is required to accurately record the present condition of the bridge and stream, to identify conditions that are indicative of potential problems with scour and stream stability for current design, future review and evaluations.
- H. The consultant shall be responsible for coordinating this task with all agencies who have interests in these kinds of tasks including SHPO Archeologists. The consultant shall be responsible for acquiring all required permits to perform the inspection work.

6.11 Inspection Report

The report shall include a description of the condition of the bridge elements inspected and the adjacent channel bottom. Recommendations for repairs or further investigations shall be included as appropriate.

The report shall include plots of the channel bottom elevations and original color photographs of any deterioration or critical condition, clearly labeled with the Structure No., Unit No., Date, and description of the photo contents. Copies of the report shall be submitted, signed and stamped by the registered professional engineer responsible for the inspection. All materials shall be submitted in an electronic format as specified by the project manager.

6.12 Surveys and Utility Map

The scope of work includes vertical and horizontal topographic survey and mapping, survey of the existing conditions per DDOT Design and Engineering Manual (150' west and east of the bridge if needed). The consultant shall perform cadastral surveying to show the boundaries. TS&L will identify project limit for each alternative.

A. Aerial Topographic Survey

New aerial photography will be obtained utilizing low-level aerial flight with a photo scale of 1" = 60' and expected accuracy of elevations on hard surfaces of +/- 0.05', a horizontal accuracy of +/- 0.25', and will meet aerial mapping standards for 1" = 10 scale mapping.

Aerial mapping will include topographic and planimetric features visible to the mapping compiler including bridge deck, bridge expansion joints, roadway features including high/low points, barriers, railings, light poles, sign structures, curbing, traffic striping, drainage/grate inlets, utility manholes/features, and one (1) foot contours. A Digital Terrain Model (DTM) will be provided as part of the deliverable for the aerial mapping survey. Survey drawing will be prepared in MicroStation format and DDOT CAD standards. The Consultant shall set and survey aerial targeting points at +/- 400-foot intervals along both sides of the roadway corridor in support of compilation of aerial mapping data.

B. Supplemental Field-Run Topographic Survey

The Consultant shall perform supplemental field-run topographic survey for areas of the aerial mapping that are obscured, under bridges, or other as directed by the design team. The supplemental topographic survey shall be merged with the aerial survey.

C. Supplemental Bridge Survey

The Consultant shall perform supplemental structural bridge survey utilizing conventional survey methods. The Consultant shall meet with the DDOT team prior to beginning field survey effort to define specific structural features to be surveyed and expected deliverables.

D. Right-of-Way and Property Base Map

Street right of way lines should be shown on the topographic survey drawing, and they will also be shown on the cadastral right of way survey as required by the RFQ on Page 14 under: f. Surveys (6) [prepare right-of-way plan sheets] and Deliverables [Cadastral Survey in MicroStation]. Incidentally this is to be in MicroStation not converted to MicroStation format from another program.

All necessary field work shall be performed to locate right of way corners and monuments of record.

Street right-of-way will represent the legal location of the line as determined through a resolution of data from searches at the Office of the Surveyor, the Office of the Recorder of Deeds, DDOT information sources and field work. Lot numbers and squares will be shown on the drawing. Ownership information will be added for government owned or large corporate parcels.

E. Project Survey Control

The Consultant shall establish horizontal and vertical control along the project corridor. The Consultant shall provide a survey control report showing basis of establishment of horizontal and vertical datums with final coordinates and elevations.

6.13 Maintenance of Traffic

The Consultant's surveyor shall use MOT plans approved by DDOT for lane closures and maintenance of vehicular traffic during survey efforts, prior to start of survey work. River MOT will be developed for all the design work as well.

6.14 Utilities

- a. Consultants' Surveyor shall provide Quality Level A Subsurface Utility Exploration for all utilities including invert elevation for manholes (if any), inlet structures, sewer pipes (inflow & outflow)
- b. Consultant's Surveyor shall compile all data obtained from records & field survey on the survey maps.

The scope includes but not limited to:

- utility mapping at level A
- utility coordination,
- utility relocation design and coordination,
- utility condition assessment,
- communication of utility data to concerned parties,
- utility relocation cost estimates,
- implementation of utility accommodation policies
- utility design

6.15 Coordination

Consultant's Surveyor shall provide coordination with applicable stakeholders

- a. Surveyor shall coordinate and obtaining required permits and satisfy access requirements. The permits shall include, but not limited to Public Space & Occupancy Permits.
- b. All required, and necessary, safety training and/or background checks must be done and shall be provided to DDOT by Consultant.

6.16 On the Bridge

Apart from the existing features mentioned above, the survey shall include the concrete approach slabs of the bridge and point elevations @ begin & end of approach slabs, expansion joints. Also, the height, type & shape of barriers/railings, and any additional fixtures on the bridge.

6.17 Under the Bridge

The survey shall include, but is not limited to, the ROW of roadway/highway, and riverbed. This survey shall include all horizontal locations of existing features within the ROW and approximately 50 feet on each side of the bridge. This shall include location and dimensions of all piers and abutments of the Bridge, and adjacent structures, such as the bicycle trail structure on the eastern abutment.

Also, included in the survey are the vertical clearances from the top of all elements below the bridge to the edge of the underside of the box girders of the bridge on both sides (North & South side of the bridge).

6.18 Underwater below the bridge

The Consultant shall use Underwater sonar imaging and 3-D laser scanning techniques to document the current conditions and flow patterns of the river.

6.19 The Deliverables & Schedule

The Consultant shall submit the following:

- a. Maps of the entire survey of the Bridge & approach roadway of the existing conditions of the survey area
- b. Maps of under the bridge of the existing conditions for the 50 ft limits. Project limits must be identified for selected alternatives.
- c. A map of the elevations for the 200ft of the roadway or area under the bridge on both sides of the bridge (North & South).
- d. Maps of the entire survey of the underwater structures, including adjacent structures, and riverbed. Show the line of high water level and low water level; also please show a line for the lowest point of the steel girder bottom flange (lower chord) and a line for the 100 year flood (what is the distance) on the existing and proposed bridge elevations and where the bottom flange is/will be in relation to the 100 year flood.
- e. The electronic files of all the deliverables. The maps shall be in DDOT Workspace Micro-station format and DDOT Standards & Manuals, including 3D Break lines/3D Poly Lines, Feature lines, representing face of curbs, edge of pavement, edges of sidewalk, etc. Actual3D point data (spot elevations) & DTM surface.
- f. All drawings shall be in Microstation V8i SS3 and Geopack. The survey data shall be collected to be compatible with the aforementioned software.

6.20 Geotechnical and Subsurface Investigation

The scope of this work includes the review of the site geology and existing information, permits for borings, borings and a geotechnical report. A boring location plan needs to be submitted for approval. The geotechnical engineering analysis and report shall include the following:

- An evaluation of subsurface conditions within the area of the existing bridge foundations
- Recommendations regarding the feasibility of supporting the new construction on the existing foundations including predicted future settlement
- Recommendations for rehabilitation of the existing foundations will be provided, as applicable. Including impact of rehab for each alternative.
- Recommendations for new foundations. Geotechnical recommendations shall include allowable bearing pressure, allowable settlement, and allowable pile resistances (axial and lateral), as well as required safety factors for overturning and sliding.
- All subsurface investigations should include contaminated soil and archeology investigation in coordination with SHPO and other interested agencies

6.21 Material Testing and Corrosion Evaluation

The scope of this work shall be performed in two (2) phases as outlined below:

1. Scope of work on the existing abutments and two piers
 - a. Electrical continuity verification
 - b. Corrosion potential survey
 - c. Evaluation of stray currents from rapid transit line
 - d. Collection of concrete cores
 - e. Chloride concentration testing
 - f. Compressive strength testing
 - g. Petrography evaluation Carbonation depth testing of removed cores
 - h. Electrical resistivity testing of removed cores
 - i. Cover depth survey
 - j. Development of repair recommendations
 - k. Repair option analysis
 - l. Life cycle cost analysis

2. Recommendations
 - a. Assessment of the superstructure and recommendations
 - b. Design of substructure repair
 - c. Substructure rehabilitation details
 - d. Substructure rehabilitation specifications
 - e. Substructure rehabilitation bid documents

Phase 1 of the scope of these services will be completed by the end of the 30% Design of the project, and phase 2 will be completed by the end of the 65% Design completion of the project.

6.22 NEPA

In coordination with DDOT Environmental Program staff, the Consultant shall evaluate whether the developed alternatives require NEPA study or they can be categorized as CatEx. In coordination with DDOT Environmental Program staff, the Consultant shall evaluate the environmental processes required for the scope of this project. Final recommendations shall be submitted to DDOT as part of the TS&L submittal at the end of the project 30% design completion. The project will not be able to proceed beyond 30% unless all environmental and Right of Way documentation, along with all DDOT departments' approvals have been cleared. The team will use and complete all the necessary environmental forms and confirm assess any impacts of the project on environmental resources.

The scope is developed assuming that the consultant shall prepare an Environmental Assessment (EA), and Finding of No Significant Impact (FONSI) in accordance with the National Environmental Preservation Act (NEPA). In the event that it is determined that a Categorical Exclusion is adequate, the scope can be reduced accordingly. The EA will comply with the requirements of the related environmental laws and regulations including Section 106 of the National Historic Preservation Act, Section 4(f) of the US DOT Act and the tasks mentioned in this document. The EA will be per CEQ and 23 CFR and all relevant FHWA policies. The FONSI will meet the requirements of FHWA and any other applicable entities (if appropriate). The Section 106 evaluation will be prepared as per 36 CFR 800 and all the relevant data and analysis will be prepared as per the National Historic Preservation Act and procedures described in 36 CFR 800. The Section 4(f) evaluation will be prepared as per US DOT regulations. The tasks will follow DDOT, FHWA, AASHTO, and any other Federal, State and Local administration policies, procedures, guidelines, and standards.

The EA will include the following sections, but not limited to:

- Purpose and Need Statement
- Project Alternatives and Cost Estimating
- Affected Environment
- Environmental Consequences
- Section 4(f) and Section 106 Evaluation
- Public Involvement and Interagency Coordination

Structures Tasks

6.23 Analysis of the Existing Structure

The Consultant shall perform an analysis of the existing structure in order to evaluate its capacity as per AASHTO LRFD Bridge Design Specifications and The Manual for Bridge Evaluation and to assess the capacity of the existing superstructure, substructure as well foundations. The analytical models for the simulation of the existing bridge will be created using information from the existing bridge plans, the bi-annual inspection reports, underwater bridge inspection report and the hands-on inspection and site visits by the Consultant.

Design checks as per AASHTO LRFD corresponding to loads and load combinations expected to govern the design will also be carried out. Demand to capacity ratios for key superstructure and substructure components will be calculated. The results of the analysis of the existing bridge will be presented in TS&L report to support the feasibility analysis of the proposed alternatives for this bridge project.

In addition, the TS&L report shall include recommendations for immediate and/or long-term rehabilitation of the damaged or deteriorated elements which are deemed salvageable.

6.24 Bridge Design Concepts

The scope of this task includes development and evaluation of feasible alternatives for the rehabilitation of New York Ave. Bridge given all the constraints associated with the project site. Four (4) alternatives shall be developed and evaluated as part of TS&L report. The alternatives shall be evaluated based on an evaluation matrix. Life cost analysis shall be done for each option and evaluation matrix will be provided for evaluation.

Design concepts above will be based on:

- Accelerated bridge construction
- Phased construction to prevent long-term closure of Route 50
- Context sensitivity elements

Four (4) alternatives shall be developed and be presented as conceptual drawings. all the information including evaluation matrix will be attached as appendices. The level of completion of the bridge design concepts will be about 30% as described in the Design and Engineering Manual.

6.25 Deliverables

The deliverables are per DDOT Bridge Design Manual (please refer to Section 2. Governing Standards of this document), including:

1. Engineering computations
2. Geotech report
3. PE report
4. TS&L report and 30% plan for selected alternative
5. Technical memo
6. Special Provisions
7. Construction/preliminary plans
 - a. Bridge Plan and Elevation (existing and proposed)
 - b. Bridge deck
 - c. Approach slabs (new/rehabilitated)
 - d. Existing and proposed typical sections
 - e. Foundation layout
 - f. Abutments (new/rehabilitated)
 - g. Retaining walls (improvements)
 - h. Piers (new/rehabilitated)
 - i. Framing plan
 - j. Superstructure details
 - k. Construction stages with acceleration methods
 - l. Bridge joints
 - m. Bridge railings details
 - n. Bridge drainage details
 - o. Bridge repairs (as needed)

- p. - General Note
- q. - Existing survey Plan
- r. - ROW Plans
- s. - Geometric Layout and Control Points
- t. -General Roadway and Bridge Plan
- u. - Roadway and Bridge Paving Plan
- v. - Existing Condition Plans Including Signage, Marking & Geometries
- w. - Selected Design Alternative with Final Geometries
- x. - Roadway Profiles- Centerline and Top of Curbs
- y. - Soil Boring logs

Civil Tasks

6.26 Roadway & Sidewalk Geometry

The consultant shall model and analyze the existing horizontal and vertical geometry of the bridge and its approaches. Based on the findings, consultant shall develop alternatives to enhance multimodal transportation as well as improved safety within the project limits. Consultant shall:

1. Assess improved sight distance over the bridge;
2. Revise lane reconfiguration and pavement marking if needed
3. Prepare a pavement marking and signage plan.
4. Any potential for the existing bridge to support a horizontal expansion given its existing condition, determination of the maximum width that the existing bridge would support.

6.27 Utilities

The consultant shall coordinate with all dry utility representatives and shall notify them and DDOT of any project impacts to their facilities. Design will ensure all required relocations are designed and potential conflicts are addressed and included in the plans.

6.28 Maintenance of Traffic

The consultant shall prepare maintenance of traffic alternatives consistent with the sequence of construction to safely guide vehicular traffic through the construction zone. A detour plan shall be prepared for potential short-term closures of the ramp which shall be coordinated with DDOT and stakeholders in the area in advance. Traffic impact for each alternative shall be evaluated and will be added to evaluation matrix.

6.29 Drainage Study and Improvements

The consultant shall perform a drainage analysis within the project limits to ensure that DDOT spread requirements are satisfied. The design team shall also evaluate the impact of bridge

drainage to the network including connection points, and shall coordinate the work with DC Water.

6.30 Deliverables

The deliverables are per DDOT Bridge Design Manual and Design Engineering Manual (please refer to Section 2. Governing Standards of this document), including but not limited to:

1. Road plan and profile plans (existing and proposed)
2. Pavement Marking and Signage (existing and proposed)
3. Maintenance of Traffic, Detour, and Sequence of Construction plans
4. Utility relocation plans
5. Conduit plan and profiles
6. Street Lighting plans
7. Landscape plans if needed
8. Roadway paving plans
9. Details
10. Erosion and Sediment Control plans
11. Drainage plans and computations
12. Sight distance profiles
13. - Existing Utility Plan
14. - Proposed Utility Plan
15. - Proposed storm sewer plans and profiles
16. - Stormwater management plan

6.30 Traffic Analysis

Consultant shall prepare supporting traffic analyses for the reconstruction of the Bridge based on the following subtasks:

6.31 Data Collection

The consultant shall obtain from DDOT and or MD SHA all available traffic count data in the vicinity of the Bridge, including traffic data on New York Ave Bridge, in order to develop a complete picture of conditions in and near the study area. Consultant shall organize this data for use in the analysis and study documents.

The traffic counts shall include motor vehicles (three classes: cars, medium trucks, heavy trucks). Counts will be performed on a typical weekday (Tuesday, Wednesday, or Thursday) covering a period of three hours in the morning peak and three hours in the afternoon peak. Following the data collection, counts shall be tabulated and checked. Counters shall also make general observations with respect to traffic flow, signal phasing and timing, and safety.

6.32 Traffic Forecasts

The Design Team will obtain the MWCOG regional travel demand model and will coordinate with DDOT and MWCOG as necessary to review assumptions, methodologies, and documentation used in forecasting traffic for the project.

6.33 Existing Conditions Analysis

The consultant shall perform level of service analysis for the bridge.

6.34 Design Year Conditions Analysis and future forecast analysis

The consultant shall perform design year condition analysis and future forecast analysis for the bridge.

6.35 Analysis of Operations for Maintenance of Traffic

The consultant shall perform traffic operations analyses using the Synchro software for maintenance of traffic during the construction of the new bridge and will conduct future forecast analysis.

Deliverables

1. Traffic counts
2. Travel demand model output (raw model output and processed forecast volumes)
3. Technical memorandum.
4. Input into Maintenance of Traffic documentation
5. Technical memorandum summarizing all traffic analysis tasks

6.36 Right of Way Investigation/Verification

The consultant shall perform ROW investigation and will identify/obtain all required permits (if any) from other jurisdictions/agencies in order to complete the design phase.

The consultant shall also identify all the permits required for construction phase and shall start the process and coordinate the work. The consultant shall coordinate and obtaining required permits and satisfy access requirements. The permits shall include, but not limited to Public Space & Occupancy Permits, and Maryland SHA required permits

7. PERIOD OF PERFORMANCE:

Phase 1 Base period 12 months from the date of award- Phase 1-30% Design)
Option Period 12 months from the date of exercise of options Phase 2: 65%
Intermediate Design and 100% Final Design to include (PS&E) and bid documents

8. INSTRUCTIONS TO OFFERORS

8.1 Qualifications Due Date and Receipt

8.1.1 Submissions, in whole, shall not exceed 75 pages using 8.5"x11" paper

8.1.1.1 SF 330, Section F, shall not exceed 7 projects.

8.1.1.2 SF 330, Section H, shall not exceed 20 pages.

8.1.2 Qualifications are due on or before 5:00 PM on Tuesday April 30, 2019.

8.2 Organization and Content

8.2.1 Offerors shall submit qualifications on the Standard Form 330 to include all parts and sections via email to ddot.aeschedule@dc.gov. Inclusion of other materials by reference will not be considered.

8.2.2 Section H of the SF 330 shall provide information regarding the following topics. The information should demonstrate an understanding of the requirement or expound upon the experience and qualifications presented in the context of the requested information. The answers provided will be evaluated as a part of the qualifications in accordance with the evaluation criteria in Section 9 of this TO RFQ.

8.2.3 Describe your understanding of the project's complexities, and your experience and qualifications in overcoming the type of complexities identified.

8.2.4 Identify three important issues that represent significant potential risks to successful performance and describe your experience and qualifications in overcoming the type of issues and risks identified.

8.2.5 Provide qualifications and experience regarding implementing best practices and strategies for Bridge and hydraulics design, including:

8.2.6 Avoidance and mitigation of impacts to the environment, NPS and other private property;

8.2.7 Public Outreach and communication between stakeholders;

8.2.8 Experience utilizing QA/QC processes and their ability to ensure contract compliance;
and

8.2.9 Identification, management and mitigation of project risks.

8.2.10 Provide relevant information regarding Factor 4 - Past Performance. Offerors should note that Factor 4 relates to the administration of the experience with regards to cost control, quality of work, and compliance with performance schedules.

9. EVALUATION OF QUALIFICATIONS

Your submission is an opportunity to present your firm's qualifications to perform the work. It is important that your qualifications highlight your firm's capabilities as it relates to the SOW and the evaluation criteria. The evaluation factors and their relative importance for this requirement are as follows:

1. Professional qualifications necessary for satisfactory performance of required services; (20 Points)
2. Specialized experience and technical competence in the type of work required; (40 Points)
3. Capacity to accomplish the work in the required time; (20 Points) and
4. Past performance on contracts with Government agencies and private industry in terms of cost control, quality of work, and compliance with performance schedules. (20 Points)

Offerors are advised to pay close attention to the evaluation criteria, and ensure they address all aspects in their qualifications. The District will evaluate qualifications in accordance with this solicitation, and only consider information received in accordance with this solicitation.

The District will conduct interviews with selected firms following receipt and evaluation of all firm qualifications. The interview location will be 55 M Street S.E., Washington, DC 20003. The date, time, and specific room will be determined after the issuance of this RFQ and transmitted to all offerors. Interviews will be evaluated in accordance with the below evaluation criteria.

5. During the oral interviews, the offeror's demonstration of their understanding of the work to include potential risks to performance, quality, and costs and associated mitigation measures, and the quality of their plan to ensure successful project delivery. (25 Points)

Total Possible Points: 125

10. DELIVERABLES

Due to the dynamic nature of design requirements, the District utilizes the District of Columbia Department of Transportation - Design and Engineering Manual, 2019 in determining the deliverables required under this TO. The consultant shall comply with the deliverable requirements for the tasks required as outlined in this TO RFQ.

11. CONTRACTING OFFICER'S REPRESENTATIVE (CA)

Name: Aidin Sarabi

Title: Civil Engineer
Agency: District Department of Transportation
Address: 55 M Street, SE Washington, DC 20003
Telephone: 202-671-4576

If you have any questions regarding the solicitation or requirement, please contact the undersigned at jeralyn.johnson@dc.gov.

Sincerely,



Jeralyn Johnson
Contracting Officer - DDOT

CC: CA