

**CONSTRUCTION PROJECT MANAGEMENT SERVICES
for 11TH STREET BRIDGE (PHASE II)**

Solicitation No.: DCKA-2012-Q-0088

SCOPE OF WORK

1. The District Department of Transportation (DDOT) is inviting proposals for Project construction Management. The Consultant shall provide inclusive of project controls, reporting, scoping, technical and management staff support, permitting, review of preliminary and final engineering design plans, shop drawings, cost estimates, and perform audit and assurance in support of the design and construction of Phase II (including continuation of Phase I) of the 11th Street Bridge Project, which is part of the Anacostia Waterfront Initiative (AWI).
2. DDOT began construction of 11th Street Bridge Project in December 2009 to replace the two existing bridges with three new bridges and improve the related interchanges. When completed (all phases) in 2015, the \$450-million the project will:
 - Improve mobility by providing separate freeway and local traffic connections to both directions of DC 295, the Southeast-Southwest Freeway and local streets on both sides of the Anacostia River,
 - Provide a shared path for pedestrians and bicycles, as well as rails to allow future streetcar connections,
 - Replace the existing functionally deficient and structurally obsolete bridges,
 - Provide an additional alternate evacuation route from our Nation's Capital, and
 - Include new trail connections, improved drainage and other environmental investments.

Projected to serve almost 180,000 vehicles per day by 2030, the existing bridges lack connections to allow travel directly from southbound DC 295/Anacostia Freeway to the Southeast-Southwest Freeway or from the Southeast-Southwest Freeway to northbound DC 295. The two new freeway bridges will provide these connections. The third bridge will carry local traffic between city streets on both sides of the river and provide additional connections to both directions of DC 295.

The project is the largest ever constructed by DDOT and is the first river bridge replacement in the District in more than 40 years.

3. DEFINITIONS AND ACRONYMS

Acronyms:

- FHWA/USDOT- Federal Highway Administration of the United States Department of Transportation
- NEPA- National Environmental Policy Act
- AASHTO- American Association of State Highway Transportation Officials
- ITS- Intelligent Transportation Systems

- DDOT- District Department of Transportation
- AWI- Anacostia Waterfront Initiative
- MOT- Maintenance of Traffic Definitions:

4. Record of Decision (ROD)- A document prepared by the Division office of the Federal Highway Administration that presents the basis for selecting and approving a specific transportation proposal that has been evaluated through various environmental and engineering studies. Typically, the ROD identifies the alternative selected in the Final Environmental Impact Statement (FEIS), the alternatives considered, measures to minimize harm, monitoring or enforcement programs, and an itemized list of commitments and mitigation measures.

5. **BACKGROUND**

5.1 DDOT has conducted a number of transportation studies, environmental studies and preliminary engineering studies. Interim improvements throughout the AWI area have been implemented and incorporated in other transportation efforts to achieve a waterfront revitalization that stretches across 1800 acres of park land and two wards of the District.

5.2 DDOT increases its capacity of implementing these major projects by procuring various types of contractor services to manage design and design/build contracts and as well for construction of major DDOT projects including this 11th Street Bridge's completion phase design and construction Project. The Initial component of this project is due for completion at the end of the current year.

6. **REQUIREMENTS**

6.1 The prospective Consultant/Contractor shall be responsible for the Management and Quality Assurance of the design and construction for the completion phase of the project which includes intersection and interchange facilities on west side of the Anacostia River. In doing the Construction Management, the contractor shall, but not limited to, perform the following tasks:

6.2 **Prepare correspondence** pertaining to the project for the review and signature of the Chief Engineer and the Contracting Officer or their designees. Such correspondence will include responses to all correspondence received from the Contractor, necessary notifications and advisements to the Contractor, transmittal letters, submittals, findings of fact, meeting minutes, proposed change orders, time extensions, responses to claims, intergovernmental memoranda, memoranda to the file and any other written communication requested by the Project Manager or the Engineer. Preparation of correspondence will include the composing of drafts for review by the DDOT Project Manager, revising as directed by the DDOT Project Manager, typing of its final form, distribution and filing. Correspondence shall be prepared within the time schedule established by the Engineer.

6.3 **Job Site Records** - Maintain and secure at the job site on a current basis all contract records including: contract documents, addendums, general correspondence, Contractor's insurance policies, change orders, time extensions, claims, test requests, test results, material certifications, shop drawings, submittals, catalog cuts, transmittal letters, FHWA inspection reports, minutes of meetings, progress schedule file, reading file, utilities file, pile records, quality assurance records, Non Conformance Reports, Architect of the Capitol file, National Park Service file, DC Water

file, Railroad file, value engineering, traffic maintenance, Notice to Proceed, memoranda, Contracting Officer's correspondence file, obstruction notices, construction progress reports, findings of fact, design consultant's correspondence, subcontractors and suppliers, quantity computations, partial payment records, samples, railroad agreements, diaries, inspector's reports, daily personnel and equipment records, accident reports, certifications, progress photographs, and any other related documents deemed necessary by the Project Manager. Logs of all records shall be maintained. These files shall be open to District and FHWA representatives at all times. Prior to final payment to the Consultant, such records, drawings, and samples shall be delivered to the Engineer.

7. Meetings

- A. Conduct preconstruction meeting attended by all stakeholders and act as liaison in subsequent meetings with their representatives and the Contractor at a location identified by the Engineer.
- B. Arrange and conduct other conferences and meetings/public meetings as may be needed.
- C. Schedule and conduct Project meetings as necessary to be attended by the Contractor, representatives of the District and/or other interested parties to discuss such matters as procedures, progress, problems, scheduling, equal employment opportunity and pertinent issues.
- D. Prepare detailed minutes of all meetings and distribute copies to all parties.

7.1 Contract Scheduling - Receive, review, evaluate for conformance to the contract requirements and recommend acceptance or rejection of the Contractor's Critical Path Method (CPM) schedule and resource analysis and subsequent up-dates. Complete the review/evaluation of the Contractor's CPM schedule within twenty-one (21) calendar days from receipt of the Contractor's submission. Utilize all available resources to effect completion of the Contract by the calculated completion date. Provide regular review of the Contractor's activities for conformance to the approved schedule. Provide timely written notice to the Engineer when the Contractor is not in compliance with the approved schedule. Provide all justification and/or documentation necessary for payment of incentive or disincentive charges as provided in the Contract. Program the Contractor's approved CPM into the computer or receive the Contractor's data files and monitor the schedule using computerized software acceptable to the Engineer. Record and analyze delays caused by the Contractor or the District, or others.

7.2 Design Review Services – Receive and review construction plans and design documents provided by the Design-Build Contractor with respect to existing DDOT standards and current Engineering practice and provide comments and when appropriate provide recommendations for acceptance of the plans by DDOT. Consultant may use sub-consultants in performing review tasks as long as sub-consultant possesses such expertise. Design review capability will include, but not limited to geotechnics, horizontal and vertical controls and alignments, traffic engineering, roadway design, structural design, streetlight and signals, stormwater management, construction material, etc. Consultant will compile comments, suggestions, etc. by other review agencies and stakeholders, such as the Federal Highway Administration and utility companies. Compiled comments will be presented to the Engineer with recommendations to the Department in writing. Additional calculations, if necessary to support the findings, will be included in the submittal.

7.3 Shop and Working Drawings - The Consultant shall review all shop and working drawings and other pertinent submittals provided by the Contractor to support construction services for the various components of the project. Review of shop drawings and material certifications shall be done for compliance with approved plans and specifications

8. Assurance of Material Quality

- A.** Review for contract conformance all laboratory test reports and certifications concerning materials required under the Contract. Verify that all materials meet the approved design requirements, unless such requirements are expressly waived by the District. Document all waivers of material requirements along with the reasons for such waivers. Document actions concerning materials rejected because of non-conformance to the contract requirements.
- B.** Obtain and submit materials and samples for testing to the DDOT QA/QC Division as specified in the Contract. Such materials and samples shall be identified with material or product name, intended use, source, date of submission, person submitting, and Project name and number. These materials and/or products shall include: job mix formulas, mix designs and composition materials for bituminous mixtures, Portland-Cement-Concrete, masonry concrete, tack coat, prime coat, base course, embankment fill, structural backfill, steel reinforcement, water-stop, curing compounds, sealers, welded wire fabric, brick, post tensioning wire, strands, bars, tendon grout mix, neoprene bearings, anchor bolts, paint and any other material requiring testing by the QA/QC Division.
- C.** Notify the QA/QC Division of planned Portland cement concrete and asphaltic concrete placement one day in advance of such planned work. Shall closely monitor the testing procedures performed by a third party inspector and randomly perform testing of concrete at the job-site for verification.
- D.** Issue Non-Conforming Report (NCR) for non-conforming materials, testing procedures and workmanship to the design-build contractor and follow up ratification measures.

8.1 Contractor's Resources - Monitor the adequacy of the Contractor's progress, schedule, personnel and equipment and the availability of necessary materials and supplies for conformance to the contract requirements. If the Consultant determines the Contractor's resources, operations or procedures may lead to a delay and/or the lack of compliance with District or Federal requirements, notify the DDOT Project Manager in writing of determination and provide recommendations to prevent the delay.

8.2 Inspections - Inspect the work of the Contractor on the project as it is being performed until final completion and acceptance of the Project by the District to determine the permanent materials furnished and work performed are in accordance with all approved plans and design documents and the approved shop and working drawings. Document receipt of certifications for materials as required prior to incorporating said materials into the project. Take such actions as may be necessary to mitigate the potential incorporation of materials into the work that have not been approved and/or certified. Prepare and issue written NCR to the Contractor when the work or permanent material fails to conform to the approved plans and design documents. In the event interpretation by the Engineer of the meaning and intent of the contract documents becomes necessary during construction, provide to the Engineer all information and data relative to the interpretation. Make recommendations when requested by the Engineer.

Monitor the activities of the Contractor for compliance with all District and federal laws, ordinances, regulations, requirements, precautions, orders and decrees.

8.3 Correction of Discrepancies and Deficiencies - Notify the Project Manager, in writing, of any and all discrepancies and deficiencies found in the construction work. Make recommendations for correction and assist the Project Engineer in assessing the Contractor's compliance with DDOT's requests for correction. In the event the Contractor fails or refuses to correct such discrepancies or deficiencies, report the same to the project manager. There is no authorization to change the Contractor's scope of work nor does Consultant assume responsibility for Contractor's performance.

8.4 Surveys - Check base line points and benchmarks when directed by the project manager. Report all discrepancies in the established base lines and benchmarks to the Project Manager and recommend solutions. Provide other surveying services as may be requested by the Engineer.

After the Contractor has established his controls and detailed layouts, assess and monitor such controls and layout for conformance with the contract requirements. Depending upon the Contract details, such assessment shall include all abutments, piers, walls, footings, pile locations, sewers, water lines, superstructures, anchor bolt locations, bents, curbs, gutters, roadways or any other construction feature requiring layout. Such assessment shall be performed prior to construction and in a manner such that there will be no delay to the Contractor. Report all discrepancies found to the Project Engineer and resolve the same with the Contractor.

8.5 Contractor's Payments - Review contractor's monthly payment request for accuracy and notify the Project Manager of any inconsistencies. Recommend amount of monthly progress payments to the Project Manager. Recommend to the Engineer the amount of the final payment to be made to the Contractor. Prepare all computations and payment requests using DDOT standard forms and formats. Keep orderly and separate back-up documentation of all quantities for payment measured in place.

8.6 Progress Reports and Records - Keep accurate and detailed written records of the Project during all stages of construction; submit monthly written progress reports to the Project manager, including, but not limited to, information concerning the work of the Contractor, the percentage of completion, and the number and amount of change orders. Maintain a detailed daily diary of events occurring on the job site or connected with the Project. The diary shall be open to the Engineer at all times and shall be turned over to him at the completion of construction. The information recorded in the diary shall include descriptions of work progress, specific problems encountered, corrective actions taken, material deliveries, weather conditions, labor disputes, and other pertinent project information. Prepare and maintain daily inspector reports of all job-site activities, and accurate daily equipment and personnel records complying with DOT requirements.

8.7 Change Orders - Make written recommendations, including detailed justification and cost estimates, to the Engineer for such changes in the construction contract. Analyze requests for changes submitted by the Contractor for merit and make recommendations to the Engineer. Receive directives to prepare change orders from DDOT's Project Managers. Upon approval of the Engineer, prepare all change order documents including justification, specifications, time extensions, engineer's estimate, correspondence and backup documentation in accordance with DDOT procedures. Provide comprehensive inspection and records of change order work to be paid for by change order, the price of which is to be based on the cost of the Contractor's

labor, equipment and materials used in the work. Where requested by the Engineer, negotiate final change order price with Contractor and make recommendations, complete with substantiation, to the Engineer.

- 8.9 Value Engineering Change Proposals (VECPs)** - Evaluate the monetary value of the Contractor's VECPs and recommend to the Engineer acceptance or rejection complete with substantiation for such recommendation.
- 9. Claims** - Maintain documentation of all contractual liability claims, as applicable. In the event any claim is made or any action brought, arising under or in any way relating to the construction contract, shall prepare all correspondence for the signature of the Engineer and Contracting Officer, including preparation of written reports with supporting information, Contracting Officer's decisions, and findings of fact necessary to resolve disputes. Participate in all related hearings including Department of Administrative Services, and Contract Appeals Board hearings and court hearings.

Receive, investigate and answer all complaints and inquiries from property owners, citizens and officials using the appropriate channel of communication. Refer complaints to the Contractor and maintain a log showing the disposition of each complaint. Refer unresolved complaints, with recommendations, to the Project Manager.

Contractors, subcontractors, and equipment and material suppliers on the PROJECT, or their sureties, shall maintain no direct action against Consultant, Consultant's officers, employees, affiliated corporations, and subcontractors for any claim arising out of, in connection with, or resulting from the engineering services performed. Engineer will be the only beneficiary of any undertaking by Consultant.

- 10. Construction Estimate Revisions** - Revise and refine the construction estimate as construction proceeds and as required incorporating approved changes to the Project as they occur. The Consultant shall advise the Engineer in writing, with detailed breakdown and estimates, whenever construction costs are expected to exceed the estimated costs.
- 11. As-Built Drawings and Specifications** - As directed by the Engineer, maintain at the job site a current, marked set of as-built drawings and specifications. Identify known deviations, changes, change orders, as-constructed depths, and other modifications as annotated by the construction contractor. Upon completion of construction, provide the Engineer with a set of marked as-built drawings and specifications.
- 12. Final Inspection** - Convene and conduct the final inspection. Prepare the punch list resulting from the final inspection. Send the Engineer and the Contractor a copy of the punch list. Verify that all items on the punch list are completed by the Contractor in accordance with the Contract documents. Provide the Engineer with a signed letter, documenting that the Project was constructed in substantial conformance with the contract documents, except for those changes outlined in the letter.
- 13. Final Reports** - Prepare all final reports required by DDOT including the final payment voucher, material certification and analysis of overrun and under run of cost. Analyze and report on the Contractor's time of completion and prepare any justifiable time extension or recommend assessment of liquidated damages and incentive or disincentive charges as appropriate. Provide to the District all project records in accordance with District standards and requirements. Return to the District any original calculations, survey notes, engineering or other data provided by the District. Provide certifications thereon of all original as-built plans,

calculations, maps, engineering data, final estimates and any other engineering data produced by the Consultant. Documents prepared by the Consultant and its subcontractors in pursuance of the terms of the project execution shall be delivered to and become the property of the District.

14. **Maintenance of Records** - Maintain all books, documents, papers, accounting records and other evidence pertaining to the cost incurred during the performance of the work under this project, including all work performed during the preparation of proposals. Said Materials shall be made available at the project office at all reasonable times during the period of the contract and for three years from the date of final payment for inspection and/or audit by authorized representatives of the District and federal governments. Copies of this material shall be furnished upon request.
15. The Consultant shall assist the District and the design/build contractor with coordination with utility companies and government agencies as necessary.
16. The Consultant shall assist DDOT in developing and acquiring memoranda of understanding or memoranda of agreement with local and/or federal government agencies.
17. The Consultant field personnel shall be co-located with District personnel in a field office in the vicinity of the project site. The contractor shall provide typical office furnishings, equipment and supplies for its staff located in the field office.
18. The Consultant shall provide project specific financial planning and analysis.
19. **Key Required Positions:** The consultant shall provide the following key personnel. However, consultant may suggest personnel for additional disciplines as deemed necessary to cover the scope of work. All key positions shall require demonstrated prior experience in a successful design/build Construction Management undertaking.
 - 19.1 **Project Manager:** shall have proven skills in program leadership and the technical ability to lead and manage the development of complex highway and bridge projects with associated infrastructures. The project manager will partner with DDOT to deliver the 11th Street Project on time and on budget while meeting DDOT goals and objectives. The project manager will be responsible for working with DDOT to develop strategic approaches for project implementation, assist with establishing project priorities, identifying opportunities within the project to further DDOT's overall transportation vision. The project manager provides overall management for the entire 11th Street design-build team.
 - 19.2 **Deputy Project Manager:** shall be knowledgeable of design build contracts and DDOT's contracts administration and will support the project manager, deliver the overall project on time and on budget while meeting DDOT goals and objectives. The deputy project manager is responsible for the day to day activities across the project while supporting overall strategic initiative. The deputy project manager will be responsible for providing budget and cost control support, project public outreach (preparing materials for meetings, etc), Review existing manuals and project committees and guideline structure, etc.
 - 19.3 **Contract Manager:** shall be fully knowledgeable in design build contracts and DDOT's contracts administration. The contract manager will be responsible for tracking of the details within the Contract including the gathering of data, the documentation of decisions, and ensuring internal Contract compliance among the project management team. Activities include documenting changes to the contract such as Value Engineering, Change Orders, and

managing the steps outlined in the Contract for successful implementation of the contract. The responsibility of managing the contact will stay with the DDOT and Consultant's Project Managers.

- 19.4 Design Manager:** oversees design auditing staff. The design manager will be the key contact between the Contractor's design staff and 11th Street design build team and will be the first level of conflict resolution on design related issues. The design manager leads all task force meetings, screens comments from auditing team, issues comments on design deliverables, and determines when the issues are resolved. The design manager will periodically audit design documents jointly with specialty experts and issues noncompliance reports as warranted. The design manger also recommends documents for DDOT approval, including conditions as applicable, evaluates and processes lane closure requests.
- 19.5 Highway/Roadway Engineer:** shall be responsible for reviewing/auditing plans in accordance with FHWA approved Quality Management Plan including auditing compliance with design standards. He/she will be responsible for staying up to date on roadway, utility mitigation and relocations, and maintenance of traffic related design issues and progress. Attend task force meetings, review proposed concepts and exceptions to DDOT standards, and perform full audits of design documents as warranted. Responsible for coordinating with subject-matter experts including the distributing of plans, gathering comments, and work with the Contractor to implement/address those comments.
- 19.6 Traffic Engineer:** shall have proven skills in analysis and implementation of system wide and corridor wide traffic plans; system wide and corridor wide ITS and regional way finding.
- 19.7 Structural Engineer:** will be responsible for auditing plans, erection sequencing, and construction feasibility, for structures and retaining walls. The structural engineer will be the first level of conflict resolution on structural design related issues and will be the key contact between the Contractor's structural design staff and the 11th Street design build team.
- 19.8 Construction Manager:** shall have demonstrated experience in construction auditing of complex urban highway, bridge, transit, and river crossing projects. Responsibilities include; track non-compliances and oversees their resolution, oversees construction auditing staff; Writes DDOT's Project Quality Management Plan for FHWA review and manages the implementation of the Plan and reviews invoices to ensure payments align with work performed.
- 19.9 Project Control/QA Manager:** will provide oversight and management of scope, schedule and budget. Controls services will include scheduling, estimating and cost management, constructability reviews, and change order process management. The project controls scope will also include oversight and administration of web-based project management portal that will deliver enhanced collaboration and accessibility of project and project information. Prepares project controls manual and update as needed to incorporate changes in processes or procedures such as the implementation of the web project management system.
- 19.10 Civic Engagement Manager:** will provide civic engagement and conflict resolution services in support of the 11th Street endeavor. Will provide DDOT with overall civic engagement guidance on how to engage and inform residents, businesses, Advisory Neighborhood Commissions, and civic associations on implementation of the 11th Street Project.