

April 22, 2016

SUBJECT: REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR GEORGE WASHINGTON BRIDGE REPLACEMENT AND UPGRADE OF INTELLIGENT TRANSPORTATION SYSTEM SIGNS AND FIELD DEVICES (RFP# 45566)

Dear Sir or Madam:

The Port Authority of New York and New Jersey (“the Authority”) is seeking Proposals in response to this Request for Proposals (RFP) for a Consultant to perform expert professional services for George Washington Bridge Replacement and Upgrade of Intelligent Transportation System Signs and Field Devices. The services of the selected consultant shall consist of design development, final design, contract document preparation (“Stage III”), and post award (“Stage IV”) design support services as provided in Attachment A to the Authority’s standard agreement, included herewith. You should carefully review this Agreement as it is the form of agreement that the Authority intends that you sign in the event of acceptance of your Proposal and forms the basis for the submission of Proposals.

I. PROPOSER REQUIREMENTS:

The Authority will consider only those firms able to demonstrate that they meet the following qualification requirements:

- A. At least ten (10) years of experience, immediately prior to submission of Proposals hereunder in the performance of final design, preparation of contract documents, construction cost estimates, and design support services during construction for Intelligent Transportation Systems (ITS) installations.
- B. Successful completion of at least two (2) ITS projects of similar scope and complexity as the services contemplated herein. The projects shall have had minimum values of \$5 million each and been completed within the past ten (10) years.
- C. Project Manager(s) shall have a minimum of ten (10) years professional experience performing design and preparing contract documents. The Project Manager(s) shall have professional experience on at least two (2) projects of similar scope and complexity.
- D. Lead Engineer(s) shall have a minimum of ten (10) years professional experience performing design and preparing contract documents. The Lead Engineer(s) shall have professional experience on at least two (2) projects of similar scope and complexity, be proficient in the use of computer-based office applications, have familiarity with AutoCAD, Visio, and associated engineering design standards.
- E. Lead Engineer(s) must be licensed to practice engineering in both the States of New York and New Jersey.

A determination that a Proposer meets the forgoing requirement(s) is no assurance that the Proposer will be selected for performance of the subject services. Firms that do not meet these requirements shall not be considered.

II. SECURITY REQUIREMENTS:

The Authority will provide the following documents to proposers interested in responding to this RFP upon request:

Appendix I: George Washington Bridge Communications Desk Floor Plan

Appendix II: George Washington Bridge Replacement of Intelligent Transportation System Stage II

Appendix III: Standards and Guidelines for Port Authority Technology

In order to receive this information, Proposers must submit the following:

- A. A Letter of Intent to propose on this RFP, signed by a principal of the firm on firm letterhead.
- B. A completed Attachment C, Company Profile. PLEASE NOTE: The information will be emailed in encrypted, password protected file only to the contact provided by the firm in #10 on Attachment C.
- C. A notarized affirmation signed by a principal of the firm that contains the following certification:
 1. the information provided will be kept in confidence;
 2. the information provided will be used only for the purpose of obtaining pricing information required to submit a proposal; and
 3. the information provided will be destroyed in the event of notification that the firm was not awarded this Contract.

Please send a PDF attachment of the above requested information to Gustavo Orduz at gorduz@panynj.gov and mail a hard copy with original signatures to the following address:

The Port Authority of NY & NJ
Attention: Gustavo Orduz
Procurement Department
4 World Trade Center
150 Greenwich Street, 21st Floor
New York, NY 10007

The Available Documents will be emailed to Proposers which have submitted the Letter of Intent and required documentation as set forth above within two (2) business days of receipt of E-mailed Request. Submission of any information requested in this Section, "SECURITY REQUIREMENTS" is separate and apart from that also requested elsewhere in this RFP document. If the information is also required under any section of the RFP, including, but not limited to, Proposal Submittal Requirements and Proposer Prerequisites, the information must also be submitted with the firm's proposal. Submission of such information in response to this Section will not constitute submission of the information for purposes of the RFP.

III. PROPOSAL FORMAT REQUIREMENTS:

To respond to this RFP, the Proposer shall submit a concise Proposal complying with the following requirements:

- A. To be acceptable, the Proposal shall be no more than 50 pages-single-sided or 25 pages-double-sided, using 12-point or greater font size. The page limit pertains only to Letters E, F, and G in Section IV below. Each resume shall be two-page maximum, single-sided, using 12-point or greater font size. The Proposal pages shall be numbered and bound, with “Your Firm Name,” and **RFP Number 45566** clearly indicated on the cover.
- B. Separate each section of the Proposal with a tab divider that is labeled in accordance with the letter of the requirements specified below in Section IV.
- C. All proposals must be delivered in sealed envelopes and/or packages. Address the Proposal to: The Port Authority of New York and New Jersey, 4 World Trade Center, 21st Floor, New York, NY 10007, Attention: RFP Custodian. You are requested to submit one (1) reproducible original and six (6) copies, along with seven (7) compact disc or USB flash drive copies, of your Proposal for review. In case of conflict, the reproducible original of the Proposal shall take precedence over material on the compact disc or USB flash drive.

If your proposal is to be hand-delivered, note that only individuals with proper identification (e.g. photo identification) will be permitted access to the Authority’s offices. Individuals without proper identification shall be turned away and their packages not accepted.

There is extensive security at the World Trade Center Site. You must present a valid government-issued photo ID to enter 4 WTC. Individuals without packages or carrying small packages, envelopes or boxes that can be conveyed by hand or on a hand truck may enter through the lobby. All packages, envelopes and boxes may be subject to additional security screening. There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited. Express carrier deliveries by commercial vehicles will only be made via vendors approved by Silverstein Properties, the WTC Property Manager, through the Vehicle Security Center (VSC). Please note that use of the U.S. Mail does not guarantee delivery to Authority offices by the above listed due date for submittals. Proposers using the U.S. Mail are advised to allow sufficient delivery time to ensure timely receipt of their proposals. Presently, UPS is the only delivery vendor with approved recurring delivery times. UPS makes deliveries to 4 WTC around 9:30 a.m. each day. Please plan your submission accordingly. As additional express carriers may be approved by Silverstein Properties and scheduled for recurring delivery times with the VSC, this information may be updated. Under certain circumstances, a solicitation may allow for a commercial vehicle to be approved to make a delivery in accordance with the VSC procedures. If applicable, the specific solicitation document will include that information. The Port Authority assumes no responsibility for delays, including, but not limited to, delays caused by any delivery services, building access procedures, or security requirements.

- D. In each submission to the Authority, including any return address label, information on the compact disc or USB flash drive, and information on the reproducible original and copies of the Proposal, the Proposer shall use its **FULL LEGAL NAME WITHOUT ABBREVIATIONS**. Failure to comply with this requirement may lead to delays in contract award and contract payments, which shall be the responsibility of the Proposer.

- E. Your Proposal should be forwarded in sufficient time so that the Authority receives it **no later than 2:00 p.m. on May 13, 2016**. The outermost cover of your submittal must be labeled to include the RFP Number and title as indicated in the “Subject” above. The Authority assumes no responsibility for delays caused by any delivery services.

IV. SUBMISSION REQUIREMENTS:

To respond to this RFP, provide the following information:

A. TRANSMITTAL LETTER

Submit the transmittal letter, on letterhead, signed by an authorized representative, demonstrating compliance with each of the aforementioned “Proposer Requirements”. Your transmittal letter shall also include, but not be limited to, the following:

- 1) Include a statement indicating whether the Consultant is proposing as a single entity, or as a joint venture.

If a joint venture submits a proposal, all participants in the joint venture shall be bound jointly and severally and each participant shall execute the proposal. If a single entity proposer cannot demonstrate that it meets all of the referenced qualifications, then the single entity proposer may, with others, form a joint venture and request that the joint venture be deemed to be the Proposer (i.e. members of the joint venture may meet the qualification requirement collectively).

- 2) If a joint venture submits a proposal, all participants in the joint venture shall be bound jointly and severally and each participant shall execute the proposal. If a single entity proposer cannot demonstrate that it meets all of the referenced qualifications, then the single entity proposer may, with others, form a joint venture and request that the joint venture be deemed to be the Proposer (i.e. members of the joint venture may meet the qualifications requirements collectively).

- 3) If the Proposer is a joint venture, the joint venture’s Proposal shall contain an executed teaming agreement or, alternatively, if the entities making up the joint venture proposer have not executed a teaming agreement, the joint venture’s proposal shall contain a summary of key terms of the anticipated agreement. If the joint venture proposer is a consortium, partnership or any other form of a joint venture, or an association that is not a legal entity, the proposal shall include a letter signed by each member indicating a willingness to accept joint and several liability until the point at which a corporation, limited liability company or other form of legal entity is formed for the purposes of undertaking the Agreement.

B. AGREEMENT ON TERMS OF DISCUSSION

In accordance with Authority policy, you are required to include in the front of your Proposal, a copy of Attachment B (Agreement on Terms of Discussion) signed by an officer of your company.

C. COMPANY PROFILE

Complete a copy of Attachment C (Company Profile).

D. STAFF QUALIFICATIONS AND EXPERIENCE

List the names, titles and provide resumes of personnel (including subconsultants, if any) who will be assigned to perform the required services.

E. FIRM QUALIFICATIONS AND EXPERIENCE

Provide your firm's qualifications and experience in providing the services contemplated herein. For each project identified, indicate:

1. Description of services provided by your firm;
2. Start and end dates of services performed;
3. Contract value (total value of services performed by you);
4. Indicate whether said projects were completed on schedule and within budget;
5. Hiring entity and contact person (name, title, phone number, email address).

F. TECHNICAL APPROACH

A detailed description of the proposed technical approach to be taken for the performance of the required services for each task in Attachment A, and a schedule for completion of said tasks. Factors addressed in your technical approach shall include, but are not limited to, your proposed methodology and strategy for performing the services in Attachment A as well as any specific software or other technology you may employ in the performance.

Prepare a staffing analysis for performance of each task in Attachment A, using the Excel spreadsheet in the following link: [Attachment D \(Staffing and Cost Analysis Sheet\)](#) Attachment D (Staffing and Cost Analysis Sheet). Include names, titles, multipliers(if applicable), actual hourly pay rates and billing rates (for principals and partners) of staff to be assigned to the performance of each task, and the total number of hours to be spent by each of them in the performance of each task, including out-of-pocket (direct) expenses, if any. Provide the a breakdown of said multipliers, indicating all of its components (e.g., vacation, holiday, sick pay, workers' compensation, office rent, insurance, profit). Please note that allowable out-of-pocket expenses shall not include daily commutation or housing costs or any relocation costs that may be incurred by proposed staff in performance of the contemplated services. Include the estimated total hours and cost per task and sub-task, and grand total cost in sum.

If proposing the use of subconsultant(s), include the terms and conditions for their compensation (including their multiplier and/or billing rates as appropriate), their Minority/Women-owned Business Enterprise (M/WBE) status and the technical qualifications of their key personnel to be assigned to the subject project.

G. MANAGEMENT APPROACH

A detailed description of the proposed management approach for performance of the required services. Factors addressed in your management approach shall include, but are not limited to: your proposed organizational structure for delivery of the contemplated services; your proposed approach to ensuring the quality and timeliness of the required work products; and your proposed approach to keeping the client apprised of the project status. If the various completion dates contained in Attachment A cannot

be adhered to, you may submit revised dates. However, the fact that you were not able to adhere to the original dates and the extent of the revised dates will be included among the factors that the Authority will consider in evaluating Proposals.

Your attention is directed to Paragraph 22 of the Agreement in which the Authority has stated the MBE/WBE goals for participation in this project. Submit details on how you intend to meet these goals. A listing of certified MBE/WBE firms will be provided upon request.

The Consultant shall include its MBE/WBE Participation Plan with its Proposals, to be reviewed and approved by the Authority's Office of Business Diversity and Civil Rights (OBDCR).

The MBE/WBE Plan submitted by the Consultant to the Authority shall contain, at a minimum, the following:

- Identification of MBE/WBEs: Provide the names and addresses of all MBE/WBEs included in the Plan. If none are identified, describe the process for selecting participant firms in order to achieve the good faith goals under this Contract.
- Level of Participation: Indicate the percentage of MBE/WBE participation expected to be achieved with the arrangement described in the Plan.
- Scope of Work: Describe the specific scope of work the MBE/WBEs will perform.

All MBE/WBE subconsultants listed on the MBE/WBE Participation Plan must be certified by the Authority in order for the Consultant to receive credit toward the MBE/WBE goals set forth in this Agreement. Please go to <http://www.panynj.gov/business-opportunities/supplier-diversity.html> to search for MBE/WBEs by a particular commodity or service. The Authority makes no representation as to the financial responsibility of these firms or their ability to perform work under this Agreement.

Subsequent to Agreement award, all changes to the MBE/WBE Participation Plan must be submitted via a modified MBE/WBE Participation Plan to the Manager for review and approval by OBDCR. For submittal of modifications to the MBE/WBE Plan, Consultants are directed to use form PA3760D. The Consultant shall not make changes to its approved MBE/WBE Participation Plan or substitute MBE/WBE subconsultants or suppliers for those named in their approved plan without the Manager's prior written approval. Unauthorized changes or substitutions, including performing the work designated for a subconsultant with the Consultant's own forces, shall be a violation of this section. Progress toward attainment of MBE/WBE participation goals set forth herein will be monitored throughout the duration of the Agreement.

The Consultant shall also submit to the Project Manager, along with invoices, the Statement of Subcontractor Payments in the form of the MBE/WBE Participation Report, which may be downloaded at <http://www.panynj.gov/business-opportunities/become-vendor.html>. The Statement must include the name and business address of each MBE/WBE subconsultant and supplier actually involved in the Agreement, a description of the work performed and/or product or service supplied by each such subcontractor or supplier, the date and amount of each expenditure, and such

other information that may assist the Project Manager in determining the Consultant's compliance with the foregoing provisions.

MBE/WBE Conditions of Participation

MBE/WBE participation will be counted toward meeting the MBE/WBE agreement goal, subject to all of the following conditions:

1. **Commercially Useful Function:** An MBE/WBE is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of work on a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved in accordance with normal industry practice. Regardless of whether an arrangement between the Consultant and the MBE/WBE represent standard industry practice, if the arrangement erodes the ownership, control or independence of the MBE/WBE or in any other way does not meet the commercially useful function requirement, that firm shall not be included in determining whether the MBE/WBE goal is met and shall not be included in MBE/WBE reports. If this occurs with respect to a firm identified as a MBE/WBE, the Consultant shall receive no credit toward the MBE/WBE goal and may be required to backfill the participation. An MBE/WBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction or contract through which funds are passed in order to obtain the appearance of MBE/WBE participation. An MBE/WBE may rebut a determination by the Authority that the MBE/WBE is not performing a commercially useful function to the Authority.

2. **Work Force:** The MBE/WBE must employ a work force (including administrative and clerical staff) separate and apart from that employed by the Contractor, other Subcontractors on the contract, or their Affiliates. This does not preclude the employment by the MBE/WBE of an individual that has been previously employed by another firm involved in the Contract, provided that the individual was independently recruited by the MBE/WBE in accordance with customary industry practice. The routine transfer of work crews from another employer to the MBE/WBE shall not be allowed.

3. **Supervision:** All Work performed by the MBE/WBE must be controlled and supervised by the MBE/WBE without duplication of supervisory personnel from the Consultant, other subconsultants on the agreement, or their Affiliates. This does not preclude routine communication between the supervisory personnel of the MBE/WBE and other supervisors necessary to coordinate the Work.

Counting MBE/WBE Participation

The value of the Work performed by an MBE/WBE, with its own equipment, with its own forces, and under its own supervision will be counted toward the goal, provided the utilization is a commercially useful function. An MBE/WBE prime contractor shall still provide opportunities for participation by other MBE/WBEs. Work performed by MBE/WBEs will be counted as set forth below. If the Authority determines that some or all of the MBE/WBEs work does not constitute a commercially useful function, only the portion of the work considered to be a commercially useful function will be credited toward the goal.

1. Subconsultants: One hundred percent (100%) of the value of the Work to be performed by an MBE/WBE subconsultant will be counted toward the MBE/WBE goal. The value of such Work includes the cost of materials and supplies purchased by the MBE/WBE, except the cost of supplies or equipment leased from the Consultant, other subconsultants or their affiliates will not be counted. When a MBE/WBE subcontracts part of the work of its contract to another firm, the value of the subconsultant work may be counted toward MBE/WBE goals only if the MBE/WBE subconsultant is itself a MBE/WBE. Work that a MBE/WBE subconsultants to a non-MBE/WBE firm does not count toward MBE/WBE goals.

2. Material Suppliers: Sixty percent (60%) of the expenditure to a MBE/WBE material supplier will be counted toward the MBE/WBE goal. Packagers, brokers, manufacturer's representatives, or other persons who arrange or expedite transactions are not material suppliers within the meaning of this paragraph.

3. Broker's/Manufacturer's Representatives: One hundred percent (100%) of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees for transportation charges for the delivery of materials or supplies provided by an MBE/WBE broker/manufacturer's representative will be counted toward the MBE/WBE goal, provided they are determined by the Authority to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves will not be counted.

4. Services: One hundred percent (100%) of fees or commissions charged by an MBE/WBE for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the Work will be counted toward the MBE/WBE goal, provided the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

5. Joint Venture: Joint ventures between MBE/WBEs and non-MBE/WBEs may be counted toward the MBE/WBE goal in proportion to the total dollar value of the Agreement equal to the distinct, clearly defined portion of the work of the contract that the MBE/WBE performs with its own forces. Contact OBDCR at (201) 395-3958 for more information about requirements for such joint ventures.

H. A complete list of your firm's affiliates, if any.

I. If the Proposer or any employee, agent or subconsultant of the Proposer may have, or may give the appearance of a possible conflict of interest, the Proposer shall include in its Proposal a statement indicating the nature of the conflict. The Authority reserves the right to disqualify the Proposer if, in its sole discretion, any interest disclosed from any source could create, or give the appearance of, a conflict of interest. The Authority's determination regarding any question(s) of conflict of interest shall be final.

J. The Proposer is expected to agree with the form of Agreement and all of its terms and conditions. The Proposer should therefore not make any changes in the Agreement nor restate any of its provisions in your Proposal or supporting material. However, if the Proposer has any specific exceptions, such exceptions should be set forth in a separate letter included with its response to this RFP. The Authority is under no obligation to

entertain or accept any such specific exceptions. Failure to raise issues at the time of Proposal submission shall preclude the raising of such issues at a later time.

V. SELECTION PROCESS:

The review, rating and ranking of Proposals shall first be based upon the technical qualifications as indicated below. The qualifications-based selection shall take into consideration the following technical qualifications, listed in order of importance, and subsequently cost, as appropriate:

- A. Qualifications and experience of the proposed staff, including subconsultants, performing services hereunder;
- B. Qualifications and experience of the firm, including the quality of similar services provided to others, and the demonstrated ability to complete the services in accordance with the project schedule;
- C. Technical approach to performance of the contemplated services; and
- D. Management approach for the performance of the contemplated services.

After consideration of these factors the Authority may enter into negotiations with the firm (or firms) deemed best qualified in terms of the foregoing factors to perform the required services.

VI. ORAL PRESENTATIONS:

After review of all Proposals, an oral presentation to the selection committee and others, as appropriate, may be requested. It should be noted that firms selected to make presentations may be given short advance notice. Presentations will be limited to 60 minutes, and should include material contained in your Proposal. The presentation will be followed by an approximately 30-minute question and answer session. Proposer's staff providing the presentation shall be led by the proposed Project Manager, who may be supported by no more than six (6) other senior staff members proposed to work on this project. Notification of presentation scheduling is made by email. Please provide the name, telephone number, and email address of the person who should be contacted for presentation scheduling as well as an alternate in the event that person is unavailable.

VII. ADDITIONAL INFORMATION:

Proposers are advised that additional vendor information, including, but not limited to forms, documents and other related information, may be found on the Authority website at <http://www.panynj.gov>.

If your firm is selected for performance of the subject services, the agreement you will be asked to sign, at that time, will include clauses entitled "Certification of No Investigation (Criminal Or Civil Anti-Trust), Indictment, Conviction, Debarment, Suspension, Disqualification and Disclosure Of Other Information" And "Non-Collusive Proposing And Code Of Ethics Certification; Certification Of No Solicitation Based On Commission, Percentage, Brokerage, Contingent Or Other Fees." By submitting a Proposal the Consultant shall be deemed to have made the certifications contained therein unless said Consultant submits a statement with his Proposal explaining why any such certification(s) cannot be

made. Such a submission shall be submitted in a separate envelope along with your Proposal, clearly marked "CERTIFICATION STATEMENT."

It is Authority policy that its contractors and vendors comply with the legal requirements of the States of New York and New Jersey. Your attention is therefore called to New York State's requirements that certain contractors, affiliates, subcontractors and subcontractors' affiliates register with the New York State Department of Taxation and Finance for the purpose of collection and remittance of sales and use taxes. Similarly, New Jersey requires business organizations to obtain appropriate Business Registration Certificates from the Division of Revenue of the State's Department of the Treasury.

Following selection of a Consultant, the Authority will forward two (2) copies of the Agreement and Attachment A thereto to the selected firm(s) who shall sign and return both copies. The return of one copy executed by the Authority will effectuate the Agreement.

Should you have any questions, please contact Gustavo Orduz, Solicitation Manager, by email at gorduz@panynj.gov. All such correspondence must have your name, title, company, mailing address, telephone number and state "**RFP 45566**" in the subject line. The Authority must receive all questions no later than 2:00 P.M., seven (7) calendar days before the RFP due date. No employee of the Authority is authorized to interpret the provisions of this RFP or accompanying documents or give additional information as to their requirements. If interpretation or additional information is required, it will be communicated by written addendum issued by the undersigned, and such writing shall form a part of this RFP, or the accompanying documents, as appropriate. Addenda to the RFP, if any, will be posted at <http://www.panynj.gov/business-opportunities/bid-proposal-advertisements.html?tabnum=6>. You should therefore monitor the advertisement on said website, as appropriate, to ensure you are aware of changes, if any.

Proposal preparation costs are not reimbursable by the Authority, and the Authority shall have no obligation to a firm except under a duly authorized agreement executed by the Authority.

No rights accrue to any Proposer except under a duly authorized agreement for performance of the specified services.

The Authority reserves the right, in its sole and absolute discretion, to reject all Proposals, to undertake discussions and modifications with one or more Consultants, to waive defects in Proposals, and to proceed with that Proposal or modified Proposal, if any, which in its judgment will, under all the circumstances, best serve the public interest.

Sincerely,

David Gutiérrez, CPPO
Assistant Director
Procurement Department

Attachments

ATTACHMENT A
PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR
GEORGE WASHINGTON BRIDGE
REPLACEMENT AND UPGRADE OF INTELLIGENT TRANSPORTATION SYSTEM
SIGNS AND FIELD DEVICES

I. BACKGROUND

For background with respect to The Port Authority of New York and New Jersey (the “Authority”) see www.panynj.gov. Additionally, the most recent electronic version of the Authority’s Annual Report is available at <http://corpinfo.panynj.gov/pages/annual-reports/>

The Authority installed an Intelligent Transportation System (ITS) at the George Washington Bridge (GWB) in 1997. The existing ITS monitors and provides information to motorists on the approach and departure roadways, allowing the Authority to improve traffic flow across the bridge. The system detects incidents and provides recommended response plans to mitigate congestion. Motorists are advised of estimated travel times and are provided guidance via variable message signs (VMS), advisories to the TRANSCOM regional network (for distribution through 511 NY, 511 NJ, and other outlets), and updated through the Port Authority Alerts system.

The Authority is seeking to hire a Professional Engineering firm with extensive expertise in the following areas:

- A. Design of VMS;
- B. Vehicle detection and travel time (TRANSMIT) systems;
- C. Weigh-in-motion (WIM) and road weather information systems (RWIS); and
- D. Communications networks.

The Consultant shall be responsible for the Stage III final design and Stage IV design services for post-award construction support of the subject project.

II. SCOPE OF WORK

The services of the Consultant shall generally consist of modernizing the ITS equipment at the GWB by replacing it with new ITS devices, thus reducing the frequency of equipment service and cost of maintenance as well as providing improved traffic control and flow across the bridge. The lead project discipline will be Traffic Engineering. The Consultant shall provide Lead Engineer/Architect (LE/A) services as established by the Authority’s project delivery guidelines (Refer to Section V, “Information and Materials Provided by the Authority”) throughout the final design and construction phases of the project. The LE/A shall coordinate and oversee all aspects of the Stage III design. The LE/A will be located at the Consultant’s offices, but will coordinate with Authority staff at 4 WTC, 150 Greenwich Street, NY, NY 10007 offices on a weekly basis.

The services of the Consultant shall include but not be limited to:

- A. The design of:

- a. VMS and associated support structures.
 - b. Variable speed limit signs (VSLS).
 - c. Vehicle detection system (VDS) sites.
 - d. TRANSMIT system sites.
 - e. Lane-use control signal (LUCS) and blank-out sign (BOS) replacements.
 - f. RWIS stations.
 - g. WIM site.
 - h. Fiber-optic communications and wireless communications-based field device interconnections.
 - i. Associated structural and power systems.
- B. Design of the GWB Communications Desk (see Appendix I: GWB Communications Desk Floor Plan) modifications based on the Port Authority’s “Concept of Operations” that the Authority will provide to the Consultant.
- C. Temporary traffic control for construction support.
- D. Obtaining all necessary external agency design approvals and permits for construction.

The Consultant shall prepare final design drawings, technical specifications, and cost estimates to furnish and install an Intelligent Transportation System (ITS), including system software, communications and integration. The ITS design shall include field device deployment, their integration to perform surveillance, control, and information dissemination functions, and allow monitoring and control of field devices from a central location.

The system will be integrated with the Agency-wide Advanced Transportation Management System (ATMS) software that is currently being acquired. The integrated ITS shall adopt an open system architecture to allow integration with the Authority’s enterprise network infrastructure and services in accordance with its ITS Strategic Plan and enterprise approach to technology deployment. The system shall have the capability to be monitored and controlled from the GWB Communications Desk. The Consultant shall design Communications Desk modifications based on the Concept of Operations that the Authority will provide to the Consultant.

The design shall be based upon preliminary designs provided by the Authority (see Appendix II: George Washington Bridge Replacement of Intelligent Transportation System Stage II 100% Drawings) and the approved design criteria (see Task E), as appropriate. Follow the requirements in the Traffic, Electrical/Electronics, Civil, Structural, Environmental, Mechanical, and Geotechnical Engineering, and Architecture sections. Communications and networking design shall comply with the *Standards and Guidelines for Port Authority Technology* (see Appendix III). Adhere to the Authority’s Design and CAD Standards.

The Consultant shall provide the Authority a list of standard specifications, and provide any non-standard specifications in Microsoft Word format.

The Authority will perform audits of the Consultant’s design documents for each milestone review submittal and provide comments within twenty (20) calendar days of submission.

The Consultant shall be responsible for managing all involved disciplines, except as otherwise noted herein. The Consultant shall coordinate all services hereunder with other GWB contracts, as required by the Authority.

III. DESCRIPTION OF CONSULTANT'S TASKS

Task to be performed by the Consultant shall include but not be limited to:

TASK A – DOCUMENT REVIEW AND INVESTIGATION

1. Review all relevant documents and information provided by the Authority. The Consultant shall estimate forty (40) hours of staff time for performance of Task A. Files are located at 4 WTC, 150 Greenwich Street, NY, NY 10007.
2. Data not available shall be collected during Task D- Field Inspection and Verification.
3. Estimate an additional twenty-four (24) staff hours for review of any additional documents other than those listed in Section V.

TASK B – DESIGN MEETINGS AND PRESENTATIONS

1. Attend a project kick-off meeting, twice-per-month progress meetings, and presentations, as required by the Authority. Submit meeting agenda at least one (1) day in advance. Estimate a total of twenty-six (26) meetings, at twelve (12) staff hours per meeting (inclusive of meeting minutes preparation).
2. Record, and distribute for Authority review and comments, draft minutes within three (3) business days of each meeting. Minutes shall identify items requiring follow-up action, responsible party, and due date. Incorporate Authority comments and follow up action items, as appropriate, and resubmit minutes as final within five (5) business days of receipt of Authority comments.
3. Prepare presentation material for meetings, as required for up to twenty (20) attendees.
4. Meetings shall take place within the Authority facilities or offices, or at the Consultant's offices as determined by the Authority.
5. Provide renderings, models, and animations required for Authority presentations. Estimate eighty (80) staff hours for performance of this work.
6. Post-award meetings shall be included under Task M.

TASK C – DESIGN SCHEDULE

Submit a draft schedule/Work Breakdown Structure (WBS) for Authority review within thirty (30) calendar days of receiving the Notice to Proceed (NTP). The project schedule shall be prepared using Primavera P6 or industry software compatible with P6, and be updated and submitted monthly thereafter via a live P6 file and PDF version (see Schedule of Submissions, Section IV, below). Said schedule shall be submitted as a draft, and upon incorporation of Authority comments by the Consultant, submitted as final within three (3) days of receipt of said comments. The draft schedule(s) shall include or provide for, but not be limited to:

1. Meetings/presentations.
2. Project milestones and interdependencies.

3. Tasks/sub-tasks and other activities (e.g., permits).
4. Review and incorporation of Authority comments, and submission of a final monthly schedule by the Consultant.
5. All activities required to complete each task and the staff assigned to components of each task.

The schedule shall provide for completion of the Consultant's services, through Task K below, within twelve and a half (12½) months from NTP. The duration of Task L through M shall not exceed thirty-eight (38) months.

TASK D – FIELD INSPECTION AND VERIFICATION

Stage/coordinate all field surveys, inspections, and site visits with Authority staff, as required, at least three (3) weeks in advance.

1. Prepare Maintenance of Traffic (MOT) drawings for field inspections, (and for all stages of the project through construction). Submit MOT drawings related to the Consultant's field services, to the Authority for approval, prior to scheduling fieldwork. The Consultant shall be responsible for coordinating with the Authority for all lane closures required for the field inspections services, and for obtaining required external agency permits and implementing the lane closures.
2. Prior to performing any field inspections, meet with Authority staff to review Authority data relevant to the inspection.
3. Conduct detailed site surveys and field inspections, including measurements as necessary, of all areas required by the ITS design and as affected by the project to verify the location and conditions of existing systems relevant to the project. Include in the survey a review of all associated equipment, supporting structures, and their current field conditions. Conduct all necessary research and evaluations with respect to current locations and identifiable future locations of these systems. for Port Authority use, as directed by the Authority.
4. Determine the location and extent of each deficiency of these systems, including the potential impact to the Contractor's services and Facility operations, and erection of temporary and permanent structures.
5. Work with the Authority to verify the ITS subsystems and identify any systems that will require interruption of service for removal/upgrade/replacement.
6. Provide all equipment including rigging, temporary structures, scaffolds and ladders as required to inspect structures.
7. Upon completion of field inspection services, submit a draft report documenting your findings. Provide to the Authority a matrix sheet with all existing ITS assets, including type of asset, location, system and equipment identification number. Incorporate Authority comments and resubmit the report as final.

TASK E – DESIGN CRITERIA SUMMARY

1. Prepare and submit a detailed summary of all criteria used in performance of the required design services. The Consultant's design shall comply with all codes, ordinances, statutes, rules, regulations and laws, as well as the Authority's Engineering Design

Guidelines and Sustainable Design Guidelines, which can be accessed at the following links: [Sustainable Buildings Guidelines](#); [Sustainable Infrastructure Guidelines](#); [Design Guidelines Introduction](#), [Architecture](#), [Civil](#), [Electrical](#), [Environmental](#), [Geotechnical](#), [Mechanical](#), [Structural](#), and [Traffic](#).

2. The structural design criteria shall, at a minimum, conform to the latest editions of the following reference manuals:
 - a. American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications.
 - b. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.
 - c. New York State Department of Transportation (NYSDOT) LRFD Bridge Design Specifications.
 - d. NYSDOT Standard Design Specifications for Structural Supports for Overhead Sign Structures
 - e. New Jersey Department of Transportation (NJDOT) Bridge and Structures Design Manual.

TASK F – ENVIRONMENTAL PERMITS AND REQUIREMENTS

1. Identify environmental requirements for construction which shall include but not be limited to noise restrictions, soil erosion, storm water management, permitting associated with the foundation alternatives and abatement of lead based paint and/ or asbestos materials.
2. Submit a list of all permits required from other agencies, including but not limited to NYC Parks Department, NYCDEP, NYSDOT, NYCDOT, NJDOT, NJTA and Palisades Interstate Park Commission. In addition, include permits for obtaining right-of-entry for road and lane closures, detours, temporary traffic signal installation, and other traffic control and pattern modifications.
3. Prepare all the permit applications (including required materials and drawings), as required, and submit to the Authority. The Authority will review, approve and submit the permit application to the appropriate agency. If revisions are required, the Consultant shall resubmit the revised application for review and approval by the Authority.

TASK G – VALUE ENGINEERING

Assemble a multi-disciplinary Value Engineering (VE) team and conduct a VE workshop led by a Certified Value Specialist (CVS) of the Society of American Value Engineers. The workshop shall be of sufficient length to obtain adequate information but shall not exceed five days. The Authority will approve its actual duration. Deliverables shall include a listing of value study proposals resulting from the VE workshop, and a final VE report containing all approved cost proposals.

TASK H – FINAL DESIGN AND CONTRACT DOCUMENTS

Prior to the performance of this task, submit a specific Quality Control/ Quality Assurance Program for the professional services to be performed in connection with the final design and the preparation of Contract Drawings and Specifications specified herein. At completion of

the Contract Documents (signed mylars), submit a letter to the Chief Engineer signed by the firm's principal certifying that the Consultant has performed the Quality Control/ Quality Assurance Program as defined by the Consultant at the start of work.

The Consultant shall be responsible for producing contract drawings that comply with the following standards:

1. [E/A Design Division CAD Standard \(January 2015\)](#)
2. [Engineering Department Manual – APPENDIX D CONTRACTS UNIT REVIEW STANDARDS 2013](#)

(Refer to Section V – Information and Materials Provided by the Authority for web addresses). The engineering drawings shall be prepared in both AutoCAD DWG and Design Web Format (DWF).

The Consultant's design services shall include development of an architectural rendering showing the proposed layout of the new Communications Desk. Prepare a comprehensive set of all disciplines drawings and specifications as required to design a fit-out of the Communications Desk space to support functional objectives of the Communications Desk.

The Authority has prepared a [PA – Standard Technical Specifications Index](#) (Refer to Section V – Information and Materials Provided by the Authority for web address), which must be used to the maximum extent and may not be altered or revised in any way by the Consultant. Since these Standard Technical Specifications may contain materials and related procedures, which are not appropriate to the specific Contract being proposed, the contract drawings must clearly define the materials and scope of work.

1. Contract Drawings

Based upon approval by the Authority of the Consultant's work products developed in performance of the forgoing tasks, prepare a final design and Contract Drawings for work to be performed by a Contractor which shall include, but not be limited to, the appropriate work items contained in the preceding tasks and the following:

a. General:

- 1) Title sheet, general site plans and elevations, areas of work, areas for Contractor's use, index of drawings, project construction staging and transportation management plans (see Task I) and general notes for the scope of work.
- 2) Include all the net cost notes and sole source notes for the entire set of Contract Drawings, indicating each sole source product and service. See Appendix II: George Washington Bridge Replacement of Intelligent Transportation System Stage II 100% Drawings) for preliminary list of sole source items.

b. Traffic Engineering:

- 1) Prepare contract drawings for all permanent roadway signs and supports, pavement markings, and ITS devices for the equipment shown on the Stage II drawings. The Authority will provide the conceptual sign message, size, type, and location for the permanent roadway guide signs, and conceptual pavement marking layouts in addition to electronic files (Gerber, CAD and JPEG versions) of logos and symbols used on all highway guide signs. The design shall include any static signs (assume an average of 150 square feet) located above the VMS as well as any existing static signs on structures impacted by VMS removals.

Indicate the layout and location of the ITS equipment, up to and including the control cabinet, on the Traffic ITS drawings. The power and communications to the control cabinets shall be shown on the Electrical and Electronics drawings.

- 2) Determine the conditions that warrant installation of a traffic barrier and the dimensional characteristics of the installations, based on AASHTO's Roadside Design Guide. Design slopes to avoid the need for a traffic barrier whenever possible.
 - 3) The MOT drawings shall show the appropriate temporary traffic control devices for maintaining access for all vehicles, pedestrians, bicycles, and construction operations. This may include temporary signs, pavement markings, traffic signals, barriers, impact attenuators, and ADA compliant pedestrian access.
 - 4) Evaluate sign type and size for each VMS location. Develop a message library for the VMS subsystem to include twenty-four (24) messages per sign location. Include a data interface with TRANSCOM for travel time messages to be posted on the VMS as a default, with the times updated automatically by the system.
 - 5) Review and design locations of the VDS sensors and access points based on manufacturer's recommendations for installation. For sensors on the bridge spans, verify if sensors can be mounted under the bridge deck, instead of in the deck's pavement. Obtain verification from the manufacturer that the sensors for the upper level will not receive false readings from vehicles on the lower level.
 - 6) Design non-invasive pavement temperature sensors at or near the locations of road weather pavement sensors shown on the Stage II drawings. These sensors shall replace the sensors indicated on the Stage II drawings and shall be placed at locations where minimal or no roadway closures would be needed to maintain the equipment.
- c. Electrical/Electronics Engineering:
- 1) Electrical, Communications and Electronics equipment shall be located to avoid interference with structural work, and to provide necessary clearances for roadways.
 - 2) Prepare contract drawings and specifications including plan, one-line diagrams, system design, conduit/cable schedules, sections, elevations, block, and/or riser diagrams.
 - 3) Identify electrical power sources and loads that will be affected by an interruption of power.
 - 4) Identify electrical power sources associated with ITS equipment.
 - 5) Verify the integrity of electrical power to circuits associated with ITS equipment.
 - 6) Provide staging requirements for replacement of electrical and electronics equipment (including power and communication) as required.
 - 7) Review all available documents included or referenced herein to ensure a complete understanding of the Electrical and Electronics Scope of Work, including Stage II recommendations targeting the electrical and communications network evolution to accommodate the new ITS devices.

- 8) Identify the proposed hardwired ITS devices within the immediate vicinity of the existing GWB Campus Network via an active functioning node. The GWB Campus Network is a fiber-based, 10GigE network organized in a ring configuration to improve resiliency and reliability. Furthermore, determine the hardware functionality at these active nodes needed to attach ITS devices to the GWB Campus Network.
 - 9) Identify the proposed hardwired ITS devices within the immediate vicinity of the existing GWB Campus Network via a spare node. These nodes have no functioning active equipment. Determine the hardware functionality at these inactive nodes needed to attach ITS devices to the GWB Campus Network.
 - 10) Identify the remote ITS devices requiring connection to the GWB Campus Network utilizing a wireless commercial carrier approved by the Authority. Determine the hardware functionality needed at the device location to wirelessly attach ITS devices to the GWB Campus Network via the wireless commercial carrier.
 - 11) Prepare a detailed fiber optic and copper communications connectivity plan showing both the new and existing communications fiber backbone.
- d. Civil Engineering:
- 1) Generate a basemap for use in the contract drawings. The basemap will be a combination of an existing basemap and recent survey of the areas of work provided by the Authority.
 - 2) Perform all work to support obtaining all permits needed for utility connection/relocation.
 - 3) Coordinate all utility design with NJDOT, utility companies and other agencies if required.
 - 4) Prepare contract drawings for all site work elements including utilities, utility relocation, pavement restoration, site features and all related construction details and specifications for the at-grade areas of work as required.
 - 5) All mapping, horizontal and vertical alignments shall be prepared in the following datum:
 - a) Horizontal Control: Coordinates shall be referenced to the North American Datum of 1983, (NAD83) and the New York State Plane Coordinate System, East Zone (NYSPCS East).
 - b) Vertical Control: Elevations shall be referenced to the North American Vertical Datum of 1988 (NAVD88).
- e. Structural Engineering:
- 1) Structural Drawings: Develop Structural Notes that cover applicable codes and reference standards as required for the work to be performed. Notes shall cover materials, workmanship, removal criteria, loadings, design criteria, and special inspection items.
 - 2) Develop structural contract drawings, details and specifications for the construction and modification of all structures included in this project. This

includes overhead and cantilever sign, light pole, bridge mounted, retaining wall mounted and ground mounted structures. Details shall be supplied or referenced from existing drawings. New details shall utilize standard details from governing agencies wherever possible.

- 3) Foundation type, layout and work drawings shall be coordinated with the Geotechnical criteria and information to be provided by the Authority to the Consultant. Demolition drawings shall be provided detailing the extent of removals. Existing utilities, which will be impacted, shall be coordinated with the owner and facility and denoted on the plans.
- 4) Provide Temporary Construction Drawings that are coordinated with Construction Staging and MOT drawings and provide locations, details, design loads and performance criteria for temporary supports, and temporary work platforms required to maintain traffic and perform work as required.
- 5) Structural notes shall specify that the Contractor shall be responsible for the design, construction, daily maintenance and removal of all temporary structures.

f. Environmental Engineering:

- 1) Prepare specifications and contract drawings for abatement of lead based paint, and removal and disposal of asbestos containing materials and soil erosion
- 2) Prepare a drawing and supporting calculations showing the drainage area map.
- 3) Assess air quality and noise impacts to support Environmental Justice compliance.

g. Mechanical Engineering:

- 1) Prepare supporting calculations showing the cooling and ventilation requirements of the existing communications and electronics equipment rooms at the GWB.
- 2) Prepare Contract Drawings, technical specifications and construction cost estimates for the construction and modification of the heating, ventilation and air conditioning (HVAC) systems for the proposed Communications Desk and IT Equipment Closet and the integration into the existing building management system (BMS). Provide temporary cooling and ventilation requirements as needed during construction.

h. Architecture:

- 1) Field-verify Communications Desk at the GWB Administration Building, including location of workstations, all millwork, lighting, wall/partitions, ceilings, raised floors, cabinets and viewing window/glazing components.
- 2) Prepare Background Drawings for all affected areas in GWB Administration Building to be distributed among all involved disciplines.
- 3) Prepare Contract Drawings, including but not limited to, plans, sections, elevations, details and finishes; conforming to the Authority Architectural Design Guidelines. Design shall be based on the "GWB Communications Desk Concept of Operations" that the Authority will provide. Coordinate design work for all involved disciplines to include the following:

- Demolition and removals of adjacent offices including suspended ceiling system.
 - Ceiling finishes, door hardware and access control.
 - Removal and replacement of raised flooring.
 - New anti-static carpet tiles.
 - New control room consoles including chairs.
 - New furniture/cabinets for printers and files.
 - Potential addition and/or replacement of acoustical wall panels.
 - New bullet-resistant glass wall between Communications Desk and corridor with patron communication device.
 - Lighting system to be upgraded with recessed indirect Light Emitting Diode (LED) dimmable lighting with an effective uniform distribution.
 - New intergraded video display wall system.
 - Upgrades to electrical systems to be made as needed to serve proposed improvements.
 - Modification of the existing mechanical ductwork to conform to the proposed improvements.
 - Modification of the existing fire protection piping system to conform to proposed improvements.
- 4) For Palisades Interstate Parkway (PIP) Toll Plaza rooftop, provide details for all roof penetrations, and equipment removals.
- i. Geotechnical Engineering:
- 1) Design foundations based upon Geotechnical design criteria to be provided by the Authority to the Consultant.
2. Design Calculations and Diagrams
- Submit complete design computations and design diagrams/ sketches, including but not limited to, overhead and cantilever sign, light pole, bridge-mounted, retaining wall-mounted and ground-mounted structure loadings.
- a. Calculations shall clearly distinguish between new and existing construction. Documents from which existing dimensions and existing member properties were obtained shall be referenced in the calculations.
- b. Design calculations for design review/audit shall be submitted as part of the 100% Authority Agency-wide review submittal.
- c. All technical software employed by the Consultant for analysis, design, or submission as a computer output/deliverable, used for assistance in making any of the project/technical decisions and/or demonstrating compliance with any applicable codes, regulations, specifications, and standards, including those provisions specifically requested by the Authority, shall have been validated by the Consultant and subconsultants (as appropriate) to ensure that the output results are acceptable, correct, and consistent with the input parameters and assumptions and that the software is suitable and sufficient for the specific types of work encountered. This requirement for the validation of technical software applies to all commercial off-the-shelf or in-house developed software (e.g., Excel spreadsheets and MathCAD worksheets).

- d. Submit with calculations indexed and clearly identified input and output sheets including design constants, equations used, and all references.
 - e. All engineering calculation sheets shall be numbered, dated, and indexed, and shall include the names of their originator(s) and checker(s). The index sheets shall define the total number of sheets submitted, and shall bear the seal and signature of an engineer holding Professional Engineer's licenses in the States of New York and New Jersey, who is familiar with and responsible for the design.
- 3) Technical Specifications and other requirements.
- a. Comply with the Authority's [Contract Unit Review Standards](#) and [Standard Technical Specifications Index](#) (Refer to Section V – Engineering Available Documents for web addresses).
 - b. If the Consultant is required to provide a technical specification not made available by the Authority (custom specifications), the following shall apply: Any technical specifications prepared by the Consultant shall be in the same format as the Authority standard technical specifications and the Consultant shall make any changes therein requested by the Authority throughout its various reviews.
 - c. Develop a detailed test plan for each ITS subsystem and wireless communications system, including factory, field, control center acceptance, and 30-day operational tests. Provide a comprehensive list of all functional requirements for each function to be tested, and the sequence of testing, and include within the specifications. The sequence of testing shall identify prior tests, training, or other submittals that are required to begin the subsequent tests.
 - d. Determine the requirements for Operations and Maintenance manuals for each ITS subsystem. Develop a Specification Section to include the requirements for the Operations and the Maintenance manuals.
 - e. Develop maintenance scope of work and the requirements sections of a Maintenance Contract for the equipment included in this Scope of Work.
- 4) Sole Source Documentation
- a. Provide Sole Source criteria and scope in contract documents based on information provided by the Authority.
 - b. Provide Sole Source documentation for any equipment or services deemed necessary to be procured on a sole source basis. Sole source documents shall include vendor's formal quotation and letter signed by an officer based on Final Contract Documents clearly identifying the scope of sole source procurement. Also, provide draft sole source authorization memoranda for each sole source product and service.
- 5) Other than hard copies of specifications prepared by the Consultant that are to be submitted to the Authority as noted herein, submit computer compact disk (CD) in ASCII format copies of said specifications. The CD shall contain the specifications in Microsoft Word format (latest version) and be labeled with the contract title and the contents of the disk (i.e., Technical Specifications).

TASK I – CONSTRUCTION STAGING AND TRANSPORTATION MANAGEMENT PLAN

1. Prepare a Construction Staging Plan, developing and evaluating up to three (3) schemes for staging complex demolition and construction work.
2. Prepare a Construction Staging Plan, developing and evaluating up to three (3) schemes for staging the modifications to the GWB Communications Desk. The GWB Communications Desk operates on a 24/7 schedule and staging plans must ensure minimal interruption of facility operations.
3. Prepare a draft report and drawings documenting the recommended construction-staging plan that identifies lane closure requirements for construction activities as well as any required sequencing of work activities. In addition to the construction staging drawings, the report shall include but not be limited to traffic analyses of all impacted roadways/intersections in all stages of construction.

Traffic analyses are required for non-standard closures or standard closures with extended or non-standard closure hours. Analysis of all roadways/ intersections in all stages of construction shall be performed to evaluate traffic impacts due to construction, and validate that the impacts will be within acceptable levels, as determined by the Authority.

- a. Analyses shall include the determination of queues and delays of roadway segments due to construction, and also the determination of the Levels of Service (LOS, as defined by the Transportation Research Board's *Highway Capacity Manual – HCM 2010*) for the baseline (pre-construction) condition and all construction scenarios.
- b. Traffic analyses shall be performed using industry-standard methods and tools that satisfy the HCM 2010 concepts and methodologies. For complex staging and/or traffic analyses, the Consultant shall develop traffic simulation models to determine traffic impacts.
 - 1) Traffic data used to perform analyses shall be less than three (3) years old. Limited traffic data is available from the Authority, and may also be available from other Agencies having jurisdiction of adjacent roadways. The Consultant shall contact these agencies to determine the availability of suitable data for the analyses. The data may or may not be sufficient to perform the work. Assume additional data collection will be required for:
 - i. Automatic Traffic Recorder (ATR) counts at 30 locations,
 - ii. Intersection Turning Movement/ Classification (TMC) counts at 10 locations, and
 - iii. Field observations to aid in model calibration and/or analyses.
 - 2) Analyses (including simulation models) shall be sufficient in extent to capture both immediate and upstream impacts of the proposed construction and any detours.
 - 3) The Authority has traffic simulation models, which may be adopted for use in this task. Available models include the GWB NY/ NJ combined model for base (2014) conditions. This model is being built using Aimsun traffic simulation software. The model is anticipated to be available for all analysis periods by or

before October 2016. Update and modify this model as needed to perform the requested analyses.

4. Develop a Transportation Management Plan (TMP) that summarizes the project, impacts of construction to local and regional roadway networks adjacent to the GWB, and mitigation strategies to minimize those impacts. Incorporate data and analyses from other tasks as outlined in this scope and existing data provided by the Authority. Submit a TMP Report that conforms to the *PANYNJ Transportation Management Plan Guidelines* to be provided to the Consultant. Summarize all findings in narrative, graphic and tabular formats, including appropriate citations to data sources and other references based on the following outline:
 - a. Executive Summary
 - b. Project Description and Scope:
 - 1) Project purpose and description.
 - 2) Graphics of study area and affected roadways.
 - 3) Existing conditions summary.
 - 4) Project staging alternatives.
 - 5) Summary of the environmental impacts, if any, based on data provided by the Authority.
 - 6) A list of major regional projects, schedules and their projected impacts.
 - c. Impacts and Mitigation
 - 1) A discussion of coordination and schedule impacts that may occur for this project in the context of the Authority's program of projects. A list of projects will be provided by the Authority after award.
 - 2) A discussion and evaluation of construction staging impacts and suggested mitigation measures.
 - d. Implementation
 - 1) A communications plan that includes a list of agency contacts, steering committee contacts, daily task force contacts, and agency contact information for regionally significant projects as developed in 2) Project Description and Scope.
 - 2) An outreach plan specifying how outreach is to be used to facilitate and communicate the project to agency and public stakeholders including an outreach committee matrix with a listing of contacts and responsibilities.
 - 3) An incident management plan specifying incident management protocols, flow chart, specific and consistent messaging for ITS devices, and locations.
 - 4) Development of a monitoring and reporting program to monitor, analyze and summarize traffic conditions and operations before and during construction, and evaluate the effectiveness of implemented mitigation measures.
 - 5) The engineering drawings shall be prepared in both AutoCAD DWG and Design Web Format (DWF).

5. Estimate a total of eight (8) meetings at twelve (12) staff hours for this task.

TASK J – CONSTRUCTION COST ESTIMATE

Prepare a detailed construction cost estimate based upon Task H - Final Design and Contract Documents and in accordance with the Authority's [Estimating Procedures](#) (Refer to Section V – Information and Materials Provided by the Authority for web address). Cost estimates shall include but not be limited to separate costs for labor, equipment, and materials, detailed construction costs for temporary structures including roadways, supports, deck plating, work platforms as well as temporary and permanent modifications or relocation of existing conditions, structures, and utilities. In addition, the cost estimate shall reflect conditions and precautions, winter suspensions, mobilization, shop drawings, hours of work and security requirements in addition to recent trends of price escalation.

TASK K – CONSTRUCTION SCHEDULE

Provide an estimate of the time required to complete construction, incorporating staging and permits as well as estimated delivery times for all long lead-time items. The construction schedule shall be prepared using Primavera P6 or industry software compatible with P6.

TASK L – BID PERIOD DUTIES

1. Prepare responses to questions asked by bidders during the bid period.
2. Prepare and submit, at least one (1) month before the contract is bid, an outline list of required Contractor's submittals, including but not limited to, working drawings, catalog cuts, samples, certificates, and test reports.
3. Prepare Contract addenda including Contract Drawing revisions and engineering calculations, as necessary or as requested by the Chief Engineer, for approval and issuance by the Authority. Furnish originals for final printing.
4. Conform Technical Specifications and Contract Drawings to addenda, as appropriate, when directed by the Chief Engineer after award of the Contract.
5. Upon request, assist Authority staff in with the following:
 - a. Preparing Information for Bidders, Form of Contract, Division 1 of the Specifications and the Analysis of Bid and Contract Progress Schedule.
 - b. Reviewing with, and transmitting comments from, various Authority Departments to the Consultant for incorporation into the Contract Documents.
 - c. Reviewing addenda with and obtaining approval from various Authority Departments.

TASK M – POST AWARD DUTIES

1. Submit a Quality Control/Quality Assurance Program for the professional services to be performed in connection with the performance of your Post Award Duties specified hereunder.
2. Review and approve or disapprove all working drawings, catalog cuts and samples for conformance with the Specifications and Contract Drawings within five (5) working days after receipt of said articles from the Contractor, for those articles for which you are Engineer-of-Record. Indicate any corrections and additions as required. Advise the

Authority thereof giving the reasons for your decisions. Make all required distributions through final approval. Ten (10) copies of each working drawing are required.

3. Prepare responses to Contractor’s questions (Requests for Information - RFIs).
4. Assume thirty (30) months for duration of construction.
5. Upon completion of construction, modify the Contract Drawings to "Drawings of Record" conditions and certify the same. The Contractor shall furnish "as-built" information that is to be used to create the Drawings of Record. Verify the accuracy of the "as-built" information.
6. Evaluate alternative construction details and materials, as requested by the Authority.
7. Make post-award contract changes with detailed estimates and conduct site inspections as required for the changes.
8. Maintain clear, dated records of all pertinent documents including but not limited to transmittals, submittals, and responses, RFI and responses, twice-per-month meeting minutes, shop drawing mark-ups; designs, calculations or drawings prepared during the construction phase. These documents shall be forwarded to the Authority in bound form for official files.

Compensation for the evaluations and changes referred to in Tasks K and L above shall be computed in accordance with the paragraphs of the Agreement relating to compensation and shall not be charged against the estimated cost, provided that none of these items result from non-compensable work.

IV. SCHEDULE OF SUBMISSIONS

Submit the work identified in Section III Task C above for review by the Chief Engineer within the number of calendar days stipulated below (Completion Date in Elapsed Time) after formal receipt of one copy of the Agreement executed by the Authority.

Deliverable List		Submission Requirements	Due Date <u>(calendar days after NTP)</u>
B. STAGE III – FINAL DESIGN			
1	Submit Project Schedule, including WBS	15 paper copies 1 electronic (pdf) copy Live P6 file	30 days; once monthly after first submission)
2	Submit Design Criteria Summary	1 electronic (pdf) copy	30 days
3	Submit Quality Control Plan	1 electronic (pdf) copy	30 days
4	Field Inspection Report	15 paper copies 1 electronic (pdf) copy	90 days
5	Value Engineering Report	15 paper copies 1 electronic (pdf) copy	100 days

6	50% complete contract documents, including specifications list, c-specs, construction estimate, staging plan and TMP	15 - 11 x 17 paper copies 2 – full size paper copies 1 electronic copy (DWF/DWG) (Authority CADD Audit)	150 days
7	Authority provides comments on 50% complete Contract Documents and performs CAD Audit		170 days
8	100% complete Contract Documents for Authority Agency-wide Review including specifications list, c-specs, construction cost estimate, staging plan and TMP, and Quality Control/Quality Assurance Documentation	15 – 11 x 17 paper copies 2 – full size paper copies 1 electronic copy (DWF) 1 electronic copy (pdf)	300 days
9	Authority performs Authority-Wide Review and provides comments		320 days
10	Incorporate comments		330 days
11	Contract Drawings for pre-Mylar review	15 paper copies 1 electronic copy (DWF) 1 electronic copy (pdf)	330 days
12	Incorporate pre-Mylar Review comments		350 days
13	Signed Mylars, final specifications list, c-specs, construction cost estimate	1 electronic copy (DWF/DWG)	360 days
C. STAGE IV – CONSTRUCTION			
1	Submit Quality Control Plan	1 electronic (pdf) copy	360 days*
2	Drawings of Record – Signed Mylars	1 electronic copy (DWF/DWG)	1,550 days*
*Estimated Completion Date in Elapsed Time will depend on Award date of Agreement.			

V. INFORMATION AND MATERIALS PROVIDED BY THE AUTHORITY

The Authority will make available for the Consultant’s information documents listed below. These documents specified below under “A” were not prepared for the purpose of providing information for the Consultant under the present work but they were prepared for other purposes, and do not form a part of this Agreement. The Authority makes no representation or guarantee as to, and shall not be responsible for, their accuracy, completeness or pertinence, and, in addition, shall not be responsible for the conclusions to be drawn there from. The documents will be provided to the selected Consultant for informational purposes only as they are in the possession of the Authority, whether or not such information may be accurate, complete or pertinent, or of any value to the Consultant. The documents specified under “B” below were prepared for the subject work or are applicable thereto, and form a part of this Agreement.

Said documents are as follows:

A. CONTRACT DOCUMENTS NOT PREPARED FOR THE SUBJECT WORK

<u>CONTRACT NO.</u>	<u>CONTRACT TITLE</u>
GWB-244.085	Design and Implementation of an Intelligent Transportation System
GWB 244.150	Replacement of PIP Helix
GWB-480	Facility Communication System Replacement
GWB-244.242A	Replacement of Variable Message Signs
GWB-244.241	Travel Time System Upgrade
GWB-308B	Communication Center and Lobby Renovation

B. DOCUMENTS APPLICABLE TO THE SUBJECT WORK

Engineering Available Documents

1. PA – Estimating Procedures

<http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-estimating-guidelines.pdf>

2. PA – Central Survey Group (CSG) CAD Standard

<http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-csg-cad-standard.pdf>

3. PA – Engineering/Architectural Design (EAD) CAD Standard

<http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-ead-cad-standard.pdf>

4. PA – Project Delivery – Roles and Responsibilities

<http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-revised-roles-responsibilities.pdf>

5. PA – Standard Technical Specifications Index

<http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-standard-specifications-index.pdf>

6. PA – Contracts Unit Review Standards

<http://www.panynj.gov/business-opportunities/pdf/contracts-unit-review-standards.pdf>

7. PA – Sustainable Building Guidelines

http://www.panynj.gov/business-opportunities/pdf/PANYNJ_sustainable_building_guidelines.pdf

8. PA – Sustainable Infrastructure Guidelines

http://www.panynj.gov/business-opportunities/pdf/PANYNJ_sust_infra_guidelines.pdf

9. PA – Design Guidelines Introduction

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/design-guidelines-introduction.pdf>

a. Architecture

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/architecture.pdf>

b. Civil

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/civil.pdf>

c. Electrical

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/electrical.pdf>

d. Environmental

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/environmental.pdf>

e. Geotechnical

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/geotechnical.pdf>

f. Mechanical

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/mechanical.pdf>

g. Structural

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/structural.pdf>

h. Traffic

<http://www.panynj.gov/business-opportunities/pdf/discipline-guidelines/traffic.pdf>

Engineering Reference Documents (to be provided to the Consultant)

10. George Washington Bridge Replacement of Intelligent Transportation System Stage II Report.
11. PANYNJ Transportation Management Plan Guidelines
12. Existing subsurface information and SL drawings within the vicinity of the proposed foundation locations.
13. Bearing capacity and lateral resistance for design of foundation to support the pole or tower structures
14. Geotechnical notes and sketches for inclusion on Civil and/ or Structural drawings.
15. Existing topographic and utility surveys.

16. GWB Communications Desk Concept of Operations

VI. CONDITIONS AND PRECAUTIONS

The Consultant shall comply with the following conditions and precautions in the performance of services hereunder, except as otherwise directed by the Chief Engineer.

A. General

1. The Consultant shall notify Authority Police when entering and exiting the site, and obtain identification placards for all vehicles on site and badges for all site personnel.
2. GWB operations shall have priority over all of the Consultant's operations and/or construction activities.
3. Provide site specific Health and Safety Plan for Consultant staff engaged in fieldwork.

B. Work Areas

1. All activities in tenant areas must be coordinated with the tenants through the designated representative for the Authority facility operations.
2. The Consultant shall immediately inform the Authority of any unsafe condition discovered at any time during the course of this work.

C. Work Hours

Perform work on the site between the hours of 8:00 AM to 4:00 PM, Monday through Friday, each day, unless otherwise directed by the Authority. Do not perform work at Authority Facilities on legal holidays of either the State of New York or the State of New Jersey unless approved by the Engineer.

VII. COMMERCIAL GENERAL LIABILITY INSURANCE AND WORKERS' COMPENSATION INSURANCE PROCURED BY CONSULTANT

A. Commercial Liability Insurance:

1. The Consultant shall take out and maintain at his own expense Commercial General Liability Insurance including but not limited to Premises-Operations, Completed Operations and Independent Contractors' coverages in limits of not less than \$5,000,000 combined single limit per occurrence for Bodily Injury Liability and Property Damage Liability. And if vehicles are to be used to carry out the performance of this Agreement, then the Consultant shall also take out, maintain and pay the premiums on Automobile Liability Insurance covering all owned, non-owned and hired autos in not less than \$5,000,000 combined single limit per accident for bodily injury and property damage. Any/all activities performed airside must, at all times, be performed while under security escort as approved in advance, and in writing by the Project Manager. If at any time, the Consultant is unescorted in the performance of any field services airside, or if so directed by the Authority, the Commercial General Liability Insurance and Automobile Liability Insurance must contain limits of not less than \$25,000,000 combined single limit per occurrence, as provided in item 2) (a) below. In addition, the liability policies (other than Professional Liability) shall include the Authority and its related entities as additional insureds and shall have an endorsement provision that the policy may not be canceled, terminated or modified without thirty (30) days written advance notice to the Project

Manager. Moreover, the Commercial General Liability policy shall not contain any provisions (other than a Professional Liability exclusion, if any) for exclusions from liability other than provisions or exclusions from liability forming part of the most up to date ISO form or its equivalent unendorsed Commercial General Liability Policy. The liability policy(ies) and certificate of insurance shall contain separation of insured condition (cross-liability) and severability of interests provisions so that coverage will respond as if separate policies were in force for each insured. Furthermore, the Consultant's insurance shall be primary with respect to the above additional insureds. Any insurance or self-insurance maintained by the above additional insureds shall not contribute to any loss or claim.

Further, the certificate of insurance and the liability policy(ies) shall be specifically endorsed that *"The insurance carrier(s) shall not, without obtaining the express advance written permission from the General Counsel of the Port Authority, raise any defense involving in any way the jurisdiction of the tribunal over the person of the Port Authority, the immunity of the Port Authority, its Commissioners, officers, agents or employees, the governmental nature of the Port Authority, or the provisions of any statutes respecting suits against the Port Authority."*

2. Additional Coverages: The Consultant shall have the policy endorsed when required by the Chief Engineer for specific services hereunder and include the additional premium cost thereof as an out-of-pocket expense:

a) If the services of the Consultant, as directed by the Authority, require the performance of services airside, the Commercial General Liability and Automobile Liability coverage limits stipulated in subparagraph 1, above, shall be increased to an amount not less than \$25,000,000 per occurrence as provided herein.

b) Coverage for work within 50 feet of railroad.

B. Workers' Compensation Insurance:

1. The Consultant shall take out and maintain Workers' Compensation Insurance in accordance with the requirements of law and Employer's Liability Insurance with limits of not less than \$1,000,000 each accident.

2. Additional Coverages: The Consultant shall have the policy endorsed when required by the Engineer for specific services hereunder and include the additional premium cost thereof as an out-of-pocket expense:

Amendments to Coverage B, Federal Employers' Liability Act in limits of not less than \$1,000,000 per occurrence.

C. Professional Liability Insurance:

The Consultant shall take out and maintain Professional Liability Insurance in limits of not less than \$5 million each occurrence, covering negligent acts, errors, mistakes, and omissions arising out of the work or services performed by Consultant, or any person employed by Consultant. All endorsements and exclusions shall be evidenced on the certificate of insurance. The coverage shall be written on an occurrence form or may be written on a claims-made basis with a minimum of a three-year reporting/discovery period.

D. Compliance:

Prior to commencement of work at the site, the Consultant shall deliver a certificate from its insurer evidencing policies of the above insurance stating the title of this Agreement, the P. A. Agreement number, compliance with notice of cancellation provisions, and containing a separate express statement of compliance with each of the requirements above set forth to the Project Manager.

1. Upon request of the General Manager, Risk Management/Treasury, the Consultant shall furnish to the Authority a certified copy of each policy itself, including the provisions establishing premiums.
2. Renewal certificates of insurance or policies shall be delivered via e-mail to the Authority's Project Manager at least fifteen (15) days prior to the expiration date of each expiring policy. The General Manager, Risk Management must approve the renewal certificate(s) of insurance before work can resume. If at any time any of the certificates or policies shall become unsatisfactory to the Authority, the Consultant shall promptly obtain a new and satisfactory certificate and policy.
3. If at any time the above liability insurance should be canceled, terminated, or modified so that the insurance is not in effect as above required, then, if the General Manager shall so direct, the Consultant shall suspend performance of the Agreement at the premises. If the Agreement is so suspended, no extension of time shall be due on account thereof. If the Agreement is not suspended (whether or not because of omission of the General Manager to order suspension), then the Authority may, at its option, obtain insurance affording coverage equal to the above required, the cost of such insurance to be payable by the Consultant to the Authority.
4. The requirements for insurance procured by the Consultant shall not in any way be construed as a limitation on the nature or extent of the contractual obligations assumed by the Consultant under this Agreement. The insurance requirements are not a representation by the Authority as to the adequacy of the insurance to protect the Consultant against the obligations imposed on them by law or by this or any other Agreement.

P.A. Agreement #415--*****

DATE

FIRM

ADDRESS

CITY, ST ZIP

Attention: CONTACT, TITLE

**SUBJECT: PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR
GEORGE WASHINGTON BRIDGE REPLACEMENT AND UPGRADE
OF INTELLIGENT TRANSPORTATION SYSTEM SIGNS AND FIELD
DEVICES**

Dear CONTACT:

1. The Port Authority of New York and New Jersey (hereinafter, the "Authority") hereby offers to retain FIRM NAME (hereinafter, "the Consultant" or "you") to provide expert professional services as more fully set forth in Attachment A, which is attached hereto and made a part hereof.

2. This Agreement shall be signed by you and the Authority's Chief Procurement Officer. As used herein "Chief Engineer" shall mean the Chief Engineer, or the Deputy Chief Engineer of the Authority, acting either personally or through their duly authorized representatives acting within the scope of the particular authority vested in them unless specifically stated to mean acting personally.

For the purpose of administering this Agreement, the Chief Engineer has designated DAR NAME, TITLE, to act as his duly authorized representative. The Project Manager for this project is NAME, at (***) ***_****, or e-mail address ***@panynj.gov.

3. Your services shall be performed as expeditiously as possible and at the time or times required by the Chief Engineer. Time is of the essence in the performance of all your services under this Agreement.

4. In order to effectuate the policy of the Authority, the services provided by the Consultant shall comply with all provisions of federal, state, municipal, local and departmental laws, ordinances, rules, regulations, and orders which would affect or control said services as if the services were being performed for a private corporation, unless the Authority standard is more stringent, in which case the Authority standard shall be followed, or unless the Consultant shall receive a written notification to the contrary signed by the Chief Engineer personally, in which case the requirements of said notification shall apply.

5. The Consultant shall meet and consult with Authority staff as requested by the Chief Engineer in connection with the services to be performed herein. Any Contract Drawings and Technical Specifications and other items to be submitted or prepared by the Consultant hereunder shall be subject to the review of the Chief Engineer. The Chief Engineer may disapprove if, in his sole opinion said items are not in accordance with the requirements of this Agreement, sound engineering principles, or accepted professional standards, or are impractical, uneconomical, or unsuited in any way for the purpose for which the contemplated construction, or services is intended. If any of the said items or any portion thereof are so disapproved, the Consultant shall forthwith revise them until they meet the approval of the Chief Engineer, but the Consultant shall not be compensated under any provision of this Agreement for performance of such revisions. No approval or disapproval or omission to approve or disapprove, however, shall relieve the Consultant of its responsibility under this Agreement to furnish the requested services in accordance with an agreed upon schedule, a complete, practical, economical design and Contract Drawings and Technical Specifications, and corrections and changes therein which are best suited for the contemplated construction, or services, are done in accordance with sound engineering principles and are signed and sealed by a licensed Professional Engineer.

6. When services to be performed by the Consultant include the preparation of contract documents, or the performance of post award services, the Consultant shall submit its specific Quality Control/Assurance Program to the Chief Engineer prior to the performance of said services. Upon completion of specific services requested hereunder, the Consultant shall submit a letter to the Chief Engineer certifying the Consultant's conformance with the aforementioned Quality Control/Assurance Program.

7. When the services to be performed by the Consultant include the preparation of computer aided design and drafting (CADD) documents, said documents must be prepared using the latest available revision of Autodesk's "AUTOCAD" software or as directed by the Engineer prior to the performance of specific services. All drawings shall be prepared in strict conformance to the Port Authority CAD Standards. All submissions of CAD drawings shall be submitted to the Authority on compact discs, USB drives, uploaded to the Project Website, or as otherwise required in DWG and DWF format in accordance with the Port Authority CAD Standards.

8. You shall not continue to render services under this Agreement after the point at which the total amount to be paid to you hereunder including reimbursable expenses reaches the amount of \$*** unless you are specifically authorized in writing to so continue by the Chief Engineer. If no such authorization is issued, this Agreement shall be terminated without further obligation by either of the parties as to services not yet performed, but you shall be compensated as hereinafter provided for services already completed. It is understood, however, that this limitation shall not be construed to entitle you to the above amount as a minimum compensation.

9. As full compensation for all your services and obligations in connection with this Agreement, the Authority will pay you the total of the amounts computed under subparagraphs A, B, C and D below, subject to the limits on compensation and the provisions set forth in paragraph 8 above. Subject to the terms and conditions below, travel time is not reimbursable under subparagraphs A, B, and C hereunder.

A. The Consultant will be compensated at an amount equal to *.* times the actual salaries paid by you to professional and technical personnel (but not partners or principals) for time actually spent by them in the performance of services hereunder, plus an amount equal to the number of hours actually spent by partners and principals in the performance of services hereunder times the billing rate (no multiplier applied) described below but in each case excluding premium payments for overtime work or night work or for performing hazardous duty. Attached hereto is a schedule of actual salaries and titles of architects, engineers, technical staff, or other permanent professional and technical personnel employed by you, as well as rates customarily billed for partners and principals on projects such as this. Said staffing analysis shall clearly indicate any of your employees, proposed by you to perform the requested services that are former Authority employees. For compensation purposes under this Agreement, no said salary or amount shall exceed the salary or amount received by said personnel or rate customarily billed for a partner or principal as of the effective date of this Agreement unless the Chief Engineer has been notified in advance, in writing, of the increased salary, rate or amount and approves the increase.

The Consultant shall verify that its employees, or subconsultants, working under this Agreement are legally present and authorized to work in the United States, as per the federally required I-9 Program. Furthermore, upon request of the Authority, the Consultant shall furnish, or provide access to the Authority, federal Form I-9 (Employment Eligibility Verification) for each individual hired by the Consultant, performing services hereunder. This includes citizens and noncitizens.

The Authority reserves the right of approval of all personnel, amounts, billing rates and salaries of said personnel performing services under this Agreement. When requesting salary or billing rate adjustments for one or more of its personnel, the Consultant shall submit his/her name, title, current direct hourly rate or billing rate, proposed new direct hourly salary or billing rate, resulting percentage increase, effective date, and reason for the requested change setting forth in detail any increased costs to the Consultant of providing the services under this Agreement which has given rise to the request for increased salary. For adjustments submitted after the effective date of this Agreement it is the intention of the Authority to grant an increase if the Consultant demonstrates compliance with all of the following conditions: that increases in salary, or partner's or principal's billing rate or amount are in a) accordance with the program of periodic merit and cost of living increases normally administered by it, b) are warranted by increased costs of providing services under this Agreement, c) are based upon increases in salaries and billing rates which are generally applicable to all of Consultant's clients, and d) are in accordance with the Authority's salary rate increase policy for the current year for Authority employees possessing comparable skills and experience. If during any calendar year, Authority limits are not available to the Consultant in a timely fashion, increases falling within such limits may be approved retroactively, as appropriate. The amount of increase in salary or billing rate, if any, to be applicable under this Agreement will therefore in all cases be finally determined by the Chief Engineer or their designee, in their sole and absolute discretion.

Notwithstanding the above, the multiplier set forth in the first line of this subparagraph shall be applied only in the case of personnel other than partners or principals who are permanent employees.

B. Premium payments for overtime work or night work or for performing hazardous duty, actually paid to professional and technical employees, but not partners, principals for time actually spent by them in the performance of services hereunder when such overtime or other premium payments have been demonstrated to be in accordance with the Consultant's normal business practice and have been authorized in advance by the Chief Engineer in writing. The Project Manager for the Authority shall have the right to authorize and approve premium payments up to a total amount of one thousand dollars (\$1,000) per occasion. Payments above said total amount shall be subject to the prior written authorization of the Chief Engineer. Such premium payments to supervisory employees, who do not receive such payments in the Consultant's normal business practice shall not be given under this Agreement.

C. Amounts actually paid to subconsultants hereunder who have been retained after the written approval by the Chief Engineer of the subconsultant and the compensation to be paid the subconsultant. The Consultant shall submit a copy of the terms and conditions of the subconsultant's compensation (including multiplier, if applicable), as well as an estimate of the number of hours required by the subconsultant to perform his services, as part of any request for approval of the subconsultant.

D. Out-of-pocket expenses, approved in advance by the Chief Engineer, necessarily and reasonably incurred and actually paid by you in the performance of your services hereunder. Out-of-pocket expenses are expenses that are unique to the performance of your services under this Agreement and generally contemplate the purchase of outside ancillary services, except that for the purpose of this Agreement, out-of-pocket expenses do include amounts for long distance telephone calls; rentals of equipment; travel and local transportation; and meals and lodging on overnight trips.

Notwithstanding the above the Authority will pay an amount approved in advance by the Chief Engineer and computed as follows for the reproduction of submittal drawings, specifications and reports:

1) If the Consultant uses its own facilities to reproduce such documents, an amount computed in accordance with the billing rates the Consultant customarily charges for reproduction of such documents on agreements such as this, or

2) If the Consultant uses an outside vendor for the reproduction of such documents, the actual, necessary and reasonable amounts for the reproduction of such documents.

The Authority will not pay for expenses that are usually and customarily included as part of the Consultant's overhead. For the purposes of this Agreement out-of-pocket expenses do not include amounts for typing, utilization of computer systems, computer aided design and drafting (CADD), cameras, recording or measuring devices, flashlights and other small, portable equipment, safety supplies, phones, telephone calls, electronic messaging including Fax, Telex and telegrams, or expendable office supplies. Unless otherwise indicated, required insurance is not a reimbursable expense.

When the Consultant uses its personal vehicle to provide services within the Port District, the Consultant will be reimbursed for travel expenses beyond normal commuting costs at a rate not higher than the Annual Federal Mileage Reimbursement Rate (as determined by the United

States General Services Administration (GSA) – <http://www.gsa.gov/portal/content/100715>) per mile traveled by auto.

When the Consultant is asked to provide services outside the Port District, the actual cost of transportation as well as the cost for hotel accommodations and meals will be reimbursable hereunder when approved in advance in writing by the Chief Engineer. The cost for all meals and lodging on approved overnight trips are limited to the amounts established by the GSA for that locality.

GSA Domestic Rates: <http://www.gsa.gov/portal/category/21287>

You shall obtain the Chief Engineer's written approval prior to making expenditures for out-of-pocket expenses in excess of one-thousand dollars (\$1,000) per specific expenditure and for all overnight trips, which are reimbursable expenditures as set forth above. You shall substantiate all billings for out-of-pocket expenses in excess of twenty-five dollars (\$25) with receipted bills and provide said receipts with the appropriate billing.

E. As used herein:

"Port District" is an area comprised of about 1,500 square miles in the States of New York and New Jersey, centering about New York Harbor. The Port District includes the Cities of New York and Yonkers in New York State, and the cities of Newark, Jersey City, Bayonne, Hoboken and Elizabeth in the State of New Jersey, and over 200 other municipalities, including all or part of seventeen counties, in the two States.

"Salaries paid to employees" or words of similar import means salaries and amounts actually paid (excluding payments or factors for holidays, vacations, sick time, bonuses, profit participations and other similar payments) to architects, engineers, designers, drafters or other professional and technical employees of the Consultant, for time actually spent directly in the performance of technical services hereunder and recorded on daily time records which have been approved by the employee's immediate supervisor, excluding the time of any employee of the Consultant to the extent that the time of such employee of the Consultant is devoted to typing/word processing, stenographic, clerical or administrative functions. Such functions shall be deemed to be included in the rates referred to in subparagraph A above.

10. You shall keep, and shall cause any subconsultants under this Agreement to keep, daily records of the time spent in the performance of services hereunder by all persons whose salaries or amounts paid thereto will be the basis for compensation under this Agreement as well as records of the amounts of such salaries and amounts actually paid for the performance of such services and records and receipts of reimbursable expenditures hereunder, and, notwithstanding any other provisions of this Agreement, failure to do so shall be a conclusive waiver of any right to compensation for such services or expenses as are otherwise compensable hereunder. The Authority will have the right to audit all such records.

The Authority will have the right to inspect your records, and those of your subconsultants, pertaining to any compensation to be paid hereunder, such records to be maintained by you and your subconsultants for a period of one year after completion of services to be performed under this Agreement.

11. On or about the fifteenth (15th) day of each month, you shall render a bill for services performed and reimbursable out-of-pocket expenses incurred in the prior month, accompanied by such records and receipts as required, to the Project Manager. Each invoice shall bear your taxpayer number and the purchase order number provided by the Chief Engineer. Upon receipt of the foregoing, the Chief Engineer will estimate and certify to the Authority the approximate amount of compensation earned by you up to that time. As an aid to you the Authority will, within fifteen (15) days after receipt of such certification by the Chief Engineer, advance to you by check the sum certified minus all prior payments to you for your account.

12. The Authority may at any time for cause terminate this Agreement as to any services not yet rendered, and may terminate this Agreement in whole or in part without cause upon three (3) days notice to you. You shall have no right of termination as to any services under this Agreement without just cause. Termination by either party shall be by certified letter addressed to the other at its address hereinbefore set forth. Should this Agreement be terminated in whole or in part by either party as above provided, you shall receive no compensation for any services not yet performed, but if termination is without fault on your part, the Authority will pay you as the full compensation to which you shall be entitled in connection with this Agreement the amounts computed as above set forth for services completed to the satisfaction of the Chief Engineer through the date of termination, minus all prior payments to you.

13. You shall not issue or permit to be issued any press release, advertisement, or literature of any kind, which refers to the Authority or the services performed in connection with this Agreement, unless you first obtain the written approval of the Chief Engineer. Such approval may be withheld, if for any reason the Chief Engineer believes that the publication of such information would be harmful to the public interest or is in any way undesirable.

14. Under no circumstances shall you or your subconsultants communicate in any way with any contractor, department, board, agency, commission or other organization or any person whether governmental or private in connection with the services to be performed hereunder except upon prior written approval and instructions of the Chief Engineer, provided, however that data from manufacturers and suppliers of material shall be obtained by you when you find such data necessary unless otherwise instructed by the Chief Engineer.

15. Any services performed for the benefit of the Authority at any time by you or on your behalf, even though in addition to those described herein, even if expressly and duly authorized by the Authority, shall be deemed to be rendered under and subject to this Agreement (unless referable to another express written, duly executed agreement by the same parties), whether such additional services are performed prior to, during or subsequent to the services described herein, and no rights or obligations shall arise out of such additional services.

16. No certificate, payment (final or otherwise), acceptance of any work nor any other act or omission of the Authority or the Chief Engineer shall operate to release you from any obligations under or upon this Agreement, or to estop the Authority from showing at any time that such certificate, payment, acceptance, act or omission was incorrect or to preclude the Authority from

recovering any money paid in excess of that lawfully due, whether under mistake of law or fact or to prevent the recovery of any damages sustained by the Authority.

17. Mylars of the contract drawings, originals of technical specifications, estimates, reports, records, data, charts, documents, renderings, computations, computer tapes or disks, and other papers of any type whatsoever, whether in the form of writing, figures or delineations, which are prepared or compiled in connection with this Agreement, shall become the property of the Authority, and the Authority will have the right to use or permit the use of them and of any ideas or methods represented by them for any purpose and at any time without compensation other than that specifically provided herein. The Consultant hereby warrants and represents that the Authority will have at all times the ownership and rights provided for in the immediately preceding sentence free and clear of all claims of third persons whether presently existing or arising in the future and whether presently known to either of the parties to this Agreement or not. This Agreement shall not be construed, however, to require the Consultant to obtain for the Consultant and the Authority the right to use any idea, design, method, material, equipment or other matter which is the subject of a valid patent, unless owned by the Consultant, or subconsultant, or an employee of either. Whether or not your Proposal is accepted by the Authority, it is agreed that all information of any nature whatsoever which is in any way connected with the services performed in connection with this Agreement, regardless of the form of which it has been or may be given by you or on your behalf, whether prior or subsequent to the execution of this Agreement, to the Authority, its Commissioners, officers, agents or employees, is not given in confidence and may be used or disclosed by or on behalf of the Authority without liability of any kind, except as may arise under valid existing or pending patents, if any.

18. If research or development is furnished in connection with the performance of this Agreement and if in the course of such research or development patentable subject matter is produced by the Consultant, his officers, agents, employees, or subconsultants, the Authority will have, without cost or expense to it, an irrevocable, non-exclusive royalty-free license to make, have made, and use, either itself or by anyone on its behalf, such subject matter in connection with any activity now or hereafter engaged in or permitted by the Authority. Promptly upon request by the Authority, the Consultant shall furnish or obtain from the appropriate person a form of license satisfactory to the Authority, but it is expressly understood and agreed that, as between the Authority and the Consultant the license herein provided for shall nevertheless arise for the benefit of the Authority immediately upon the production of said subject matter, and shall not await formal exemplification in a written license agreement as provided for above. Such license agreement may be transferred by the Authority to its successors, immediate or otherwise, in the operation or ownership of any real or personal property now or hereafter owned or operated by the Authority but such license shall not be otherwise transferable.

19. Notwithstanding anything to the contrary herein, the work product of the Consultant, its officers, agents, employees, or sub-consultants which is produced in accordance with the Agreement, whether it consists of computer programming or documentation thereof, including source code, and on any media whatsoever, shall be deemed to belong exclusively to the Authority, and the Authority will have the exclusive right to obtain and to hold in its own name

any and all copyrights, patents, trade secrets, or other proprietary rights and protection as may be produced as part of this work product, including the right to extensions or renewals, where appropriate. The work product shall not be destroyed or released to anyone outside of the Engineering Department without express written authorization of the Chief Engineer. The Authority will have the exclusive right to use or permit the use of them and any ideas or methods represented by them for any purpose and at any time without other compensation than that specifically provided for herein. You agree to contract with your employees for the benefit of the Authority to insure that the Authority has such rights and to give to the Authority or any party designated by the Authority all assistance reasonably required to perfect the rights herein above stated. You shall indemnify and hold harmless the Authority against any claims of proprietary rights infringement arising out of such use of your work product.

20. You shall promptly and fully inform the Chief Engineer in writing of any intellectual property disputes, as well as patents or patent disputes, whether existing or potential, of which you have knowledge, relating to any idea, design, method, material, equipment or other matter related to the subject matter of this Agreement or coming to your attention in connection with this Agreement.

21. This Agreement being based upon your special qualifications for the services herein contemplated, any assignment, subletting or other transfer of this Agreement or any part hereof or of any moneys due or to become due hereunder without the express consent in writing of the Authority shall be void and of no effect as to the Authority, provided, however, that you may sublet services to subconsultants with the express consent in writing of the Chief Engineer. All persons to whom you sublet services, however, shall be deemed to be your agents and no subletting or approval thereof shall be deemed to release you from your obligations under this Agreement or to impose any obligation on the Authority to such subconsultant or give the subconsultant any rights against the Authority.

22. The Authority has a long-standing practice of encouraging Minority Business Enterprises (MBEs) and Women Business Enterprises (WBEs) to seek business opportunities with it, either directly or as subconsultants or subcontractors. "Minority-owned business" or "MBE" means a business entity which is at least fifty-one percent (51%) owned by one (1) or more members of one or more minority groups, or, in the case of a publicly held corporation, at least fifty-one percent (51%) of the stock of which is owned by one (1) or more members of one (1) or more minority groups; and whose management and daily business operations are controlled by one (1) or more such individuals who are citizens or permanent resident aliens. "Women-owned business" or "WBE" means a business which is at least fifty-one percent (51%) owned by one or more women; or, in the case of a publicly held corporation, fifty-one percent (51%) of the stock of which is owned by one (1) or more women: and whose management and daily business operations are controlled by one (1) or more women who are citizens or permanent resident aliens.

"Minority group" means any of the following racial or ethnic groups:

A. Black persons having origins in any of the Black African racial groups not of Hispanic origin;

B. Hispanic persons of Puerto Rican, Mexican, Dominican, Cuban, Central or South American culture or origin, regardless of race;

C. Asian and Pacific Islander persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands;

D. American Indian or Alaskan Native persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.

The Authority has set a goal of twelve percent (12%) participation by qualified and certified MBEs and five percent (5%) to qualified and certified WBEs on technical service projects.

To be "certified" a firm must be certified by the Authority's Office of Business Diversity and Civil Rights.

In order to facilitate the meeting of this goal, the Consultant shall use every good-faith effort to utilize subconsultants who are certified MBEs or WBEs to the maximum extent feasible.

The Authority has a list of certified MBE/WBE service firms which is available to you at <http://www.panynj.gov/business-opportunities/supplier-diversity.html>. The Consultant will be required to submit to the Authority's Office of Business Diversity and Civil Rights for certification the names of MBE/WBE firms it proposes to use who are not on the list of certified MBE/WBE firms.

23. NOTIFICATION OF SECURITY REQUIREMENTS

The Authority has the responsibility of ensuring safe, reliable and secure transportation facilities, systems, and projects to maintain the well-being and economic competitiveness of the region. Therefore, the Authority reserves the right to deny access to certain documents, and to sensitive security sites and facilities (including rental spaces) to any person that declines to abide by Authority security procedures and protocols, and to any person with a criminal record with respect to certain crimes or who may otherwise poses a threat to the construction site or facility security. The Authority reserves the right to impose multiple layers of security requirements on the Consultant, its staff and subconsultants and their staffs depending upon the level of security required, and to make any amendments with respect to such requirements as determined by the Authority.

These security requirements may include but are not limited to the following:

- Execution of Non-Disclosure and Confidentiality Agreements and Acknowledgments

At the direction of the Authority, you shall have your employees, subconsultants and their employees execute Authority approved non-disclosure agreements.

- Consultant/Subconsultant identity checks and background screening

The Consultant may be required to have its staff, and any subconsultant's staff, visitors or others over whom the Consultant/subconsultant has control, authorize the Authority or its designee to perform background checks, and a personal identity verification check. Such authorization shall be in a form acceptable to the Authority. The Consultant and subconsultant may also be required to use an organization designated by the Authority to perform the background checks.

The Authority's designated background screening provider may require inspection of not less than two forms of valid/current government issued identification (at least one having an official photograph) to verify staff's name and residence; screening federal, state, and/or local criminal justice agency information databases and files; screening of any terrorist identification files; access identification to include some form of biometric security methodology such as fingerprint, facial or iris scanning.

As of January 29, 2007, the Secure Worker Access Consortium (S.W.A.C.) is the only Authority approved provider to be used to conduct background screening and personal identity verification, except as otherwise required by federal law and/or regulation (such as the Transportation Worker Identification Credential for personnel performing in secure areas at Maritime facilities). Information about S.W.A.C., instructions, corporate enrollment, online applications, and location of processing centers is located at <http://www.secureworker.com>, or S.W.A.C. can be contacted directly at (877) 522-7922 for more information and the latest pricing. If approved by the Project Manager, the cost for said background checks for staff that pass and are granted a credential shall be reimbursable to the Consultant (and its subconsultants) as an out-of-pocket expense as provided herein. Staff that are rejected for a credential for any reason are not reimbursable.

- Issuance of Photo Identification Credential

No person shall be permitted on or about the non-public areas of the Authority's construction sites or facilities (including rental spaces) without a facility-specific photo identification credential approved by the Authority. If the Authority requires facility-specific identification credentials for the Consultant and the subconsultant's staff, the Authority will supply such identification at no cost to the Consultant or its subconsultants. Such facility-specific identification credential shall remain the property of the Authority and shall be returned to the Authority at the completion or upon request prior to completion of the individual's assignment at the specific facility. It is the responsibility of the Consultant to immediately report to the Authority the loss of any staff member's or subconsultant's individual facility-specific identification credential. The Consultant will be billed for the cost of the replacement identification credential. Staff shall display Identification badges in a conspicuous and clearly visible manner, when entering, working at, or leaving an Authority construction site or facility.

Staff may be required to produce not less than two forms of valid/current government issued identification having an official photograph and an original, non-laminated social security card for identify and SSN verification.

- Designated Secure Areas

Services under the Agreement may be required in designated secure areas, as the same may be designated by the Authority ("Secure Areas"). The Authority will require the observance of

certain security procedures with respect to Secure Areas, which may include the escort to, at, and/or from said high security areas by security personnel. All personnel that require access to designated Secure Areas who are not under escort by an authorized individual will be required to undergo background screening and personal identity verification.

Forty-eight (48) hours prior to the proposed performance of any work in a Secure Area, the Consultant shall notify the Project Manager. The Consultant shall conform to the procedures as may be established by the Project Manager from time to time and at any time for access to Secure Areas and the escorting of personnel hereunder. Prior to the start of work, the Consultant shall request a description from the Project Manager of the Secure Areas, which will be in effect on the commencement date. The description of Secure Areas may be changed from time to time and at any time by the Project Manager during the term of the Agreement.

- Access control, inspection, and monitoring by security guards

The Authority may provide for Authority construction sites or facilities (including rental spaces) access control, inspection and monitoring by Port Authority Police or Authority retained consultant security guards. However, this provision shall not relieve the Consultant of its responsibility to secure its equipment and work and that of its subconsultant's and service suppliers at the Authority construction sites or facilities (including rental spaces). In addition, the Consultant, subconsultant or service provider is not permitted to take photographs, digital images, electronic copying and/or electronic transmission or video recordings or to make sketches on any other medium at the Authority construction sites or facilities (including rental spaces), except when necessary to perform the Work under this Agreement, without prior written permission from the Authority. Upon request, any photograph, digital images, video recording or sketches made of the Authority construction sites or facilities shall be submitted to the Authority to determine compliance with this paragraph, which submission shall be conclusive and binding on the submitting entity.

- Compliance with the Port Authority Information Security Handbook

The Agreement may require access to Port Authority information considered Protected Information ("PI") as defined in the Port Authority Information Security Handbook ("Handbook"), dated October, 2008, corrected as of November 14, 2013, and as may be further amended. The Handbook and its requirements are hereby incorporated into this agreement and will govern the possession, distribution and use of PI if at any point during the lifecycle of the project or solicitation it becomes necessary for the Consultant to have access to PI. Protecting sensitive information requires the application of uniform safeguarding measures to prevent unauthorized disclosure and to control any authorized disclosure of this information within the Port Authority or when released by the Port Authority to outside entities. The Handbook can be obtained upon request or at: <http://www.panynj.gov/business-opportunities/pdf/Corporate-Information-Security-Handbook.pdf>.

- Audits for Compliance with Security Requirements

The Authority may conduct random or scheduled examinations of business practices under this section and the Handbook in order to assess the extent of compliance with security requirements, PI procedures, protocols and practices, which may include, but which are not necessarily limited to, verification of background check status, confirmation of completion of specified training, and/or a site visit to view material storage locations and protocols.

24. The Consultant assumes the following distinct and several risks to the extent arising from the negligent or willful intentional acts or omissions of the Consultant or its subconsultants in the performance of services hereunder:

A. The risk of loss or damage to Authority property arising out of or in connection with the performance of services hereunder;

B. The risk or loss or damage to any property of the Consultant or its subconsultants arising out of or in connection with the performance of services hereunder;

C. The risk of claims, arising out of or in connection with the performance of services hereunder, whether made against the Consultant or its subconsultants or the Authority, for loss or damage to any property of the Consultant's agents, employees, subcontractors, subconsultants, materialmen or others performing services hereunder;

D. The risk of claims, just or unjust, by third persons made against the Consultant or its subconsultants or the Authority on account of injuries (including wrongful death), loss or damage of any kind whatsoever arising in connection with the performance of services hereunder including claims against the Consultant or its subconsultants or the Authority for the payment of workers' compensation, whether such claims are made and whether such injuries, damage and loss are sustained at any time both before and after the completion of services hereunder.

The Consultant shall indemnify the Authority against all claims described in subparagraphs A through D above and for all expense incurred by it in the defense, settlement or satisfaction thereof, including expenses of attorneys. If so directed, the Consultant shall defend against any claim described in subparagraphs B, C and D above, in which event the Consultant shall not without obtaining express advance permission from the General Counsel of the Authority raise any defense involving in any way jurisdiction of the tribunal, immunity of the Authority, governmental nature of the Authority or the provisions of any statutes respecting suits against the Authority, such defense to be at the Consultant's cost.

The provisions of this clause shall also be for the benefit of the Commissioners, officers, agents and employees of the Authority, so that they shall have all the rights which they would have under this clause if they were named at each place above at which the Authority is named, including a direct right of action against the Consultant to enforce the foregoing indemnity, except, however, that the Authority may at any time in its sole discretion and without liability on its part cancel the benefit conferred on any of them by this clause, whether or not the occasion for invoking such benefit has already arisen at the time of such cancellation.

Neither the completion of services hereunder nor the making of payment (final or otherwise) shall release the Consultant from his obligations under this clause. Moreover, neither the

enumeration in this clause or the enumeration elsewhere in this Agreement of particular risks assumed by the Consultant or of particular claims for which he is responsible shall be deemed (a) to limit the effect of the provisions of this clause or of any other clause of this Agreement relating to such risks or claims, (b) to imply that he assumes or is responsible for risks or claims only of the type enumerated in this clause or in any other clause of this Agreement, or (c) to limit the risks which he would assume or the claims for which he would be responsible in the absence of such enumerations.

No third party rights are created by the Agreement, except to the extent that the Agreement specifically provides otherwise by use of the words "benefit" or "direct right of action".

Inasmuch as the Authority has agreed to indemnify the Cities of New York and Newark against claims of the types described in subparagraph D above made against said cities, the Consultant's obligation under subparagraph D above shall include claims by said cities against the Authority for such indemnification.

25. CERTIFICATION OF NO INVESTIGATION (CRIMINAL OR CIVIL ANTI-TRUST), INDICTMENT, CONVICTION, DEBARMENT, SUSPENSION, DISQUALIFICATION AND DISCLOSURE OF OTHER INFORMATION

By proposing on this Agreement, each Consultant and each person signing on behalf of any Consultant certifies, and in the case of a joint proposal each party thereto certifies as to its own organization, that the Consultant and each parent and/or affiliate of the Consultant has not:

- A. been indicted or convicted in any jurisdiction;
- B. been suspended, debarred, found not responsible or otherwise disqualified from entering into any agreement with any governmental agency or been denied a government agreement for failure to meet standards related to the integrity of the Consultant;
- C. had an agreement terminated by any governmental agency for breach of agreement or for any cause based in whole or in part on an indictment or conviction;
- D. ever used a name, trade name or abbreviated name, or an Employer Identification Number different from those inserted in the Proposal;
- E. had any business or professional license suspended or revoked or, within the five years prior to proposal opening, had any sanction imposed in excess of \$50,000 as a result of any judicial or administrative proceeding with respect to any license held or with respect to any violation of a federal, state or local environmental law, rule or regulation;
- F. had any sanction imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, proposal rigging, embezzlement, misrepresentation or anti-trust regardless of the dollar amount of the sanctions or the date of their imposition; and
- G. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or a civil anti-trust investigation by any federal, state or local prosecuting or investigative agency including an inspector general of a governmental agency or public authority.

26. NON-COLLUSIVE PROPOSING, AND CODE OF ETHICS CERTIFICATION, CERTIFICATION OF NO SOLICITATION BASED ON COMMISSION, PERCENTAGE, BROKERAGE, CONTINGENT OR OTHER FEES

By proposing on this Agreement, each Consultant and each person signing on behalf of any Consultant certifies, and in the case of a joint proposal, each party thereto certifies as to its own organization, that:

A. the prices in its proposal have been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other Consultant or with any competitor;

B. the prices quoted in its proposal have not been and will not be knowingly disclosed directly or indirectly by the Consultant prior to the official opening of such proposal to any other Consultant or to any competitor;

C. no attempt has been made and none will be made by the Consultant to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition;

D. this organization has not made any offers or agreements or taken any other action with respect to any Authority employee or former employee or immediate family member of either which would constitute a breach of ethical standards under the Code of Ethics dated March 11, 2014, or as may be revised, (a copy of which is available upon request to the Authority) nor does this organization have any knowledge of any act on the part of an Authority employee or former Authority employee relating either directly or indirectly to this organization which constitutes a breach of the ethical standards set forth in said Code;

E. no person or selling agency other than a bona fide employee or bona fide established commercial or selling agency maintained by the Consultant for the purpose of securing business, has been employed or retained by the Consultant to solicit or secure this Agreement on the understanding that a commission, percentage, brokerage, contingent, or other fee would be paid to such person or selling agency;

F. the Consultant has not offered, promised or given, demanded or accepted, any undue advantage, directly or indirectly, to or from a public official or employee, political candidate, party or party official, or any private sector employee (including a person who directs or works for a private sector enterprise in any capacity), in order to obtain, retain, or direct business or to secure any other improper advantage in connection with this Agreement; and

G. no person or organization has been retained, employed or designated on behalf of the Consultant to impact any Authority determination with respect to (i) the solicitation, evaluation or award of this Agreement; or (ii) the preparation of specifications or request for submissions in connection with this Agreement.

The certifications in this Section and the Section entitled "Certification of No Investigation (Criminal or Civil Anti-trust), Indictment, Conviction, Debarment Suspension, Disqualification and Disclosure of Other Information" shall be deemed to be made by the Consultant as follows:

* if the Consultant is a corporation, such certification shall be deemed to have been made not only with respect to the Consultant itself, but also with respect to each parent, affiliate, director, and officer of the Consultant, as well as, to the best of the certifier's knowledge and belief, each stockholder of the Consultant with an ownership interest in excess of 10%;

* if the Consultant is a partnership, such certification shall be deemed to have been made not only with respect to the Consultant itself, but also with respect to each partner.

Moreover, the certifications in this Section and the Section entitled "Certification of No Investigation (Criminal or Civil Anti-trust), Indictment, Conviction, Debarment Suspension, Disqualification and Disclosure of Other Information", if made by a corporate Consultant, shall be deemed to have been authorized by the Board of Directors of the Consultant, and such authorization shall be deemed to include the signing and submission of the proposal and the inclusion therein of such certification as the act and deed of the corporation.

In any case where the Consultant cannot make the certifications in this Section and the Section entitled "Certification of No Investigation (Criminal or Civil Anti-trust), Indictment, Conviction, Debarment Suspension, Disqualification and Disclosure of Other Information", the Consultant shall so state and shall furnish with the signed proposal a signed statement, which sets forth in detail the reasons therefor. If the Consultant is uncertain as to whether it can make the foregoing certifications, it shall so indicate in a signed statement furnished with its proposal, setting forth in such statement the reasons for its uncertainty. With respect to the foregoing certification in paragraph "26G.", if the Consultant cannot make the certification, it shall provide, in writing, with the signed proposal: (i) a list of the name(s), address(es), telephone number(s), and place(s) of principal employment of each such individual or organization; and (ii) a statement as to whether such individual or organization has a "financial interest" in this Agreement, as described in the Procurement Disclosure policy of the Authority (a copy of which is available upon request to the Chief Procurement Officer of the Authority). Such disclosure is to be updated, as necessary, up to the time of award of this Agreement. As a result of such disclosure, the Authority shall take appropriate action up to and including a finding of non-responsibility.

Failure to make the required disclosures shall lead to administrative actions up to and including a finding of non-responsibility.

Notwithstanding that the Consultant may be able to make the certifications in this Section and the Section entitled "Certification of No Investigation (Criminal or Civil Anti-trust), Indictment, Conviction, Debarment Suspension, Disqualification and Disclosure of Other Information" at the time the proposal is submitted, the Consultant shall immediately notify the Authority in writing during the period of irrevocability of proposals on this Agreement or any extension of such period, or during the term of this Agreement, of any change of circumstances which might under this clause make it unable to make the foregoing certifications or require disclosure. The foregoing certifications or signed statement shall be deemed to have been made by the Consultant with full knowledge that they would become a part of the records of the Authority and that the Authority will rely on their truth and accuracy in awarding this Agreement. In the event that the Authority should determine at any time prior or subsequent to the award of this Agreement that the Consultant has falsely certified as to any material item in the foregoing certifications or has willfully or fraudulently furnished a signed statement which is false in any

material respect, or has not fully and accurately represented any circumstance with respect to any item in the foregoing certifications required to be disclosed, the Authority may determine that the Consultant is not a responsible Consultant with respect to its proposal on the Agreement or with respect to future proposals on Authority agreements and may exercise such other remedies as are provided to it by the Agreement with respect to these matters. In addition, Consultants are advised that knowingly providing a false certification or statement pursuant hereto may be the basis for prosecution for offering a false instrument for filing (see, e.g. New York Penal Law, Section 175.30 et seq.). Consultants are also advised that the inability to make such certification will not in and of itself disqualify a Consultant, and that in each instance the Authority will evaluate the reasons therefor provided by the Consultant.

Under certain circumstances, the Consultant may be required as a condition of this Agreement award to enter into a Monitoring Agreement under which it will be required to take certain specified actions, including compensating an independent Monitor to be selected by the Authority. Said Monitor shall be charged with, among other things, auditing the actions of the Consultant to determine whether its business practices and relationships indicate a level of integrity sufficient to permit it to continue business with the Authority

27. CONSULTANT ELIGIBILITY FOR AWARD OF AGREEMENTS - DETERMINATION BY AN AGENCY OF THE STATE OF NEW YORK OR NEW JERSEY CONCERNING ELIGIBILITY TO RECEIVE PUBLIC AGREEMENTS

Consultants are advised that the Authority has adopted a policy to the effect that in awarding its agreements it will honor any determination by an agency of the State of New York or New Jersey that a Consultant is not eligible to propose on or be awarded public agreements because the Consultant has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing rate of wage legislation.

The policy permits a Consultant whose ineligibility has been so determined by an agency of the State of New York or New Jersey to submit a proposal on an Authority agreement and then to establish that it is eligible to be awarded an agreement on which it has proposed because (i) the state agency determination relied upon does not apply to the Consultant, or (ii) the state agency determination relied upon was made without affording the Consultant the notice and hearing to which the Consultant was entitled by the requirements of due process of law, or (iii) the state agency determination was clearly erroneous or (iv) the state agency determination relied upon was not based on a finding of conduct demonstrating a lack of integrity or violation of a prevailing rate of wage law.

The full text of the resolution adopting the policy may be found in the Minutes of the Authority's Board of Commissioners meeting of September 9, 1993.

28. CONSULTANT RESPONSIBILITY, SUSPENSION OF WORK AND TERMINATION

During the term of this Agreement, the Consultant shall remain responsible. The Consultant agrees, if requested by the Authority, to present evidence of its continuing legal authority to do business in the States of New Jersey or New York, integrity, experience, ability, prior performance, and organizational and financial capacity.

The Authority, in its sole discretion, reserves the right to suspend any or all activities under this Agreement, at any time, when it discovers information that calls into question the responsibility of the Consultant. In the event of such suspension, the Consultant will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Consultant shall comply with the terms of the suspension order. Agreement activity may resume at such time as the Authority issues a written notice authorizing a resumption of performance under the Agreement.

Upon written notice to the Consultant, and an opportunity to be heard with appropriate Authority officials or staff, the Agreement may be terminated by the Authority at the Consultant's expense where the Consultant is determined by the Authority to be non-responsible. In such event, the Authority or its designee may complete the contractual requirements in any manner he or she may deem advisable and may pursue available legal or equitable remedies for breach, including recovery of costs from Consultant associated with such termination.

29. NO GIFTS, GRATUITIES, OFFERS OF EMPLOYMENT, ETC.

At all times, the Consultant shall not offer, give or agree to give anything of value either to an Authority employee, agent, job shopper, consultant, construction manager or other person or firm representing the Authority, or to a member of the immediate family (i.e., a spouse, child, parent, brother or sister) of any of the foregoing, in connection with the performance by such employee, agent, job shopper, consultant, construction manager or other person or firm representing the Authority of duties involving transactions with the Consultant on behalf of the Authority, whether or not such duties are related to this Agreement or to any other Authority agreement or matter. Any such conduct shall be deemed a material breach of this Agreement.

As used herein "anything of value" shall include but not be limited to any (a) favors, such as meals, entertainment, transportation (other than that contemplated by the Agreement or any other Authority agreement), etc. which might tend to obligate the Authority employee to the Consultant, and (b) gift, gratuity, money, goods, equipment, services, lodging, discounts not available to the general public, offers or promises of employment, loans or the cancellation thereof, preferential treatment or business opportunity. Such term shall not include compensation contemplated by this Agreement or any other Authority agreement. Where used herein, the term "Port Authority" or "Authority" shall be deemed to include all subsidiaries of the Authority.

The Consultant shall ensure that no gratuities of any kind or nature whatsoever shall be solicited or accepted by it or by its personnel for any reason whatsoever from the passengers, tenants, customers or other persons using the Facility and shall so instruct its personnel.

In the event that the Consultant becomes aware of the occurrence of any conduct that is prohibited by this section entitled "No Gifts, Gratuities, Offers of Employment, Etc.", it shall report such occurrence to the Authority's Office of Inspector General within three (3) business days of obtaining such knowledge. (See "<http://www.panynj.gov/inspector-general>" for information about reporting information to the Office of Inspector General). Failing to report such conduct shall be grounds for a finding of non-responsibility.

In addition, during the term of this Agreement, the Consultant shall not make an offer of employment or use confidential information in a manner proscribed by the Code of Ethics and Financial Disclosure dated March 11, 2014, or as may be revised (a copy of which is available upon request to the Office of the Secretary of the Authority). Without the express written approval of the Director, you shall keep confidential, and shall require your employees, your subconsultants, and your subconsultant's employees to keep confidential a) all information disclosed by the Authority or its consultants to you or b) developed by you or your subconsultants in the performance of services hereunder. Disclosure of any such information shall constitute a material breach of the Agreement.

The Consultant shall include the provisions of this clause in each subagreement entered into under this Agreement.

30. CONFLICT OF INTEREST

During the term of this Agreement, the Consultant shall not participate in any way in the preparation, negotiation or award of any agreement (other than an agreement for its own services to the Authority) to which it is contemplated the Authority may become a party, or participate in any way in the review or resolution of a claim in connection with such an agreement if the Consultant has a substantial financial interest in the Consultant or potential Consultant of the Authority or if the Consultant has an arrangement for future employment or for any other business relationship with said Consultant or potential Consultant, nor shall the Consultant at any time take any other action which might be viewed as or give the appearance of conflict of interest on its part. If the possibility of such an arrangement for future employment or for another business arrangement has been or is the subject of a previous or current discussion, or if the Consultant has reason to believe such an arrangement may be the subject of future discussion, or if the Consultant has any financial interest, substantial or not, in a Consultant or potential Consultant of the Authority, and the Consultant's participation in the preparation, negotiation or award of any agreement with such a Consultant or the review or resolution of a claim in connection with such an agreement is contemplated or if the Consultant has reason to believe that any other situation exists which might be viewed as or give the appearance of a conflict of interest, the Consultant shall immediately inform the Authority in writing of such situation giving the full details thereof. Unless the Consultant receives the specific written approval of the Authority, the Consultant shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. The Authority may require the Consultant to submit a mitigation plan addressing and mitigating any disclosed or undisclosed conflict, which is subject to the approval of the Authority and shall become a requirement, as though fully set forth in this Agreement. In the event the Authority shall determine that the performance by the Consultant of a portion of its services under this Agreement is precluded by the provisions of this numbered paragraph, or a portion of the Consultant's said services is determined by the Authority to be no longer appropriate because of such preclusion, then the Authority shall have full authority on behalf of both parties to order that such portion of the Consultant's services not be performed by the Consultant, reserving the right, however, to have the services performed by others and any lump sum compensation payable hereunder which is applicable to the deleted work shall be equitably adjusted by the parties. The Consultant's execution of this document

shall constitute a representation by the Consultant that at the time of such execution the Consultant knows of no circumstances, present or anticipated, which come within the provisions of this paragraph or which might otherwise be viewed as or give the appearance of a conflict of interest on the Consultant's part. The Consultant acknowledges that the Authority may preclude it from involvement in certain disposition/privatization initiatives or transactions that result from the findings of its evaluations hereunder or from participation in any agreements, which result, directly or indirectly, from the services provided by the Consultant hereunder. The Authority's determination regarding any questions of conflict of interest shall be final.

31. DEFINITIONS

As used in sections 25 to 30 above, the following terms shall mean:

Affiliate - Two or more firms are affiliates if a parent owns more than fifty percent of the voting stock of each of the firms, or a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the firms, or if the firms have a common proprietor or general partner.

Agency or Governmental Agency - Any federal, state, city or other local agency, including departments, offices, public authorities and corporations, boards of education and higher education, public development corporations, local development corporations and others.

Investigation - Any inquiries made by any federal, state or local criminal prosecuting and/or law enforcement agency and any inquiries concerning civil anti-trust investigations made by any federal, state or local governmental agency. Except for inquiries concerning civil anti-trust investigations, the term does not include inquiries made by any civil government agency concerning compliance with any regulation, the nature of which does not carry criminal penalties, nor does it include any background investigations for employment, or federal, state, and local inquiries into tax returns.

Officer - Any individual who serves as chief executive officer, chief financial officer, or chief operating officer of the Consultant by whatever titles known.

Parent - An individual, partnership, joint venture or corporation which owns more than 50% of the voting stock of the Consultant.

32. The entire agreement between the parties is contained herein and no change in or modification, termination or discharge of this Agreement in any form whatsoever shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith, or his duly authorized representative, provided, however, that termination in the manner hereinbefore expressly provided shall be effective as so provided.

33. No Commissioner, officer, agent or employee of the Authority shall be charged personally by you with any liability or held liable to you under any term or provision of this Agreement, or because of its execution or attempted execution or because of any breach hereof.

34. Nothing in this Agreement is intended to constitute the creation of an agency relationship between the Authority and the Consultant or any other right for the Consultant to act as the

representative of the Authority for any purpose whatsoever except as may be specifically provided in this Agreement. It is hereby specifically acknowledged and understood that the Consultant, in performing its services hereunder, is and shall be at all times an independent contractor and the officers, agents and employees of the Consultant shall not be or be deemed to be agents, servants, or employees or "special employees" of the Port Authority.

35. If the foregoing meets with your approval, please indicate your acceptance by signing the original and the additional enclosed copy in the lower left-hand corner and returning them to the Authority.

Sincerely,

THE PORT AUTHORITY OF
NEW YORK AND NEW JERSEY

Lillian D. Valenti
Chief Procurement Officer

Date _____

ACCEPTED:

FIRM NAME

By: _____

Title: _____

Date: _____

INSTRUCTIONS

If the selected Consultant firm is not located in the States of New York or New Jersey, change the number of the last Paragraph of this Agreement from "35" to "36" and insert a new Paragraph "35" as follows:

35. This Agreement shall be governed by and construed in accordance with the Laws of the State of New York without regard to conflict of laws principles.

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL SERVICES FOR GEORGE WASHINGTON BRIDGE REPLACEMENT AND UPGRADE OF INTELLIGENT TRANSPORTATION SYSTEM SIGNS AND FIELD DEVICES (RFP# 45566)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification(s), ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent.

Any information (including information contained in any proposal, vendor qualification(s), ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) provided in connection with this procurement is subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners, which may be found on the Port Authority website at: <http://www.panynj.gov/corporate-information/pdf/foi-code.pdf>. The foregoing applies to any information, whether or not given at the invitation of the Authority.

(Company)

(Signature)

(Print Name)

(Title)

(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY.
DO NOT RETYPE.

ATTACHMENT C
COMPANY PROFILE

**REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT
PROFESSIONAL SERVICES FOR GEORGE WASHINGTON BRIDGE
REPLACEMENT AND UPGRADE OF INTELLIGENT
TRANSPORTATION SYSTEM SIGNS AND FIELD DEVICES (RFP# 45566)**

1. Company Name (print or type):

2. Business Address (to receive mail for this RFP):

3. Business Telephone Number: _____

4. Business Fax Number: _____

5. Firm website: _____

6. Federal Employer Identification Number (EIN): _____

7. Date (MM/DD/YYYY) Firm was Established: ____/____/____

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

9. Officer or Principal of Firm and Title:

10. Name, telephone number, and email address of contact for questions:

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? Yes No

If yes, please attach a copy of your **Port Authority** certification as a part of this profile.

If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – <http://www.panynj.gov/business-opportunities/supplier-diversity.html>, to receive information and apply for certification.