

July 8, 2015

SUBJECT: REQUEST FOR PROPOSALS FOR THE PERFORMANCE OF EXPERT PROFESSIONAL CONCEPTUAL DESIGN AND RELATED ENVIRONMENTAL AND TRAFFIC ENGINEERING SERVICES FOR THE LINCOLN TUNNEL HELIX REPLACEMENT (RFP# 43062)

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 conceptual Design and related Environmental and Traffic Engineering Services for the Lincoln Tunnel Helix Replacement Project. The scope of the tasks to be performed by you are set forth in Attachment A to the Authority's Standard Agreement (the "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. Have satisfactorily completed at least one contract of similar size, type, scope, and complexity as the subject project within the past five (5) years.
- B. Have satisfactorily prepared at least one Environmental Assessment document in accordance with New Jersey Executive Order 215 (EO 215) and/or National Environmental Policy Act (NEPA) requirements within the last five (5) years.
- C. Has principal(s) that are Professional Engineer(s) licensed to practice in the State of New Jersey.

A determination that a Proposer meets the forgoing requirements is no assurance that the Proposer will be selected for performance of the subject services. Firms that do not meet one or more of these requirements shall not be further considered.

II. 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 forty (40) pages single-sided or twenty (20) pages double-sided, using 12 point or greater font size, not including resumes. This limit does not apply to Section III, items: A, B, C, F, I, J and K below, nor to section and/or tab dividers. Each resume shall be 2-pages maximum, single-sided or 1-page double-sided, using 12 point or greater font size. Product brochures and other sales literature will not be accepted as substitutes for written responses to this RFP. The Proposal pages shall be numbered and bound, with "Your Firm Name" and **RFP Number 43062** clearly indicated on the cover.

B. Each section of the Proposal shall be separated with a tab divider that is labeled in accordance with the letter of the requirements specified below in Section III.

C. **PLEASE NOTE THE FOLLOWING-**

All proposals must be delivered in sealed envelopes and/or packages. Proposal submissions will be received at:

The Port Authority of NY & NJ
Attention: Proposal Custodian
Procurement Department
150 Greenwich Street, 21st Floor
New York, NY 10007

At this address, proposals **will only be accepted via the United States Postal Service, UPS or hand delivery.**

Clearly mark the solicitation number on the outermost package.

PLEASE READ THE FOLLOWING DELIVERY REQUIREMENTS CAREFULLY. Bidders assume all responsibility for delays or problems in delivery.

- D. 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.
- E. There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited.
- F. 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). 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.
- G. As additional express carriers may be approved by Silverstein Properties and scheduled for recurring delivery times with the VSC, this information may be updated.
- H. 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.
- I. 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.
- J. In each submission to the Authority, including any return address label, information on the compact disc 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.
- K. Provide the address of your firm to which any written correspondence should be sent.
- L. Your Proposals should be forwarded in sufficient time so that the Authority receives them **no** later than 2:00 p.m. on **July 30, 2015**. The cover of your submittal must include

the RFP Number (as stated above) and the RFP title. The Authority assumes no responsibility for delays caused by any delivery services.

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

III. SUBMISSION REQUIREMENTS:

To respond to this RFP, provide the following information:

- A. in the front of your Proposal, a copy of Attachment B (Agreement on Terms of Discussion), signed by an officer of your company;
- B. a completed copy of Attachment C (Company Profile);
- C. 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) A statement indicating whether the Consultant is proposing as a single entity, or as a joint venture.

All the qualification information required for a single entity shall be submitted for each participant in a joint venture. If proposing as a common law joint venture, all participants in the joint venture shall be bound jointly and severally, and each participant shall execute the Proposal. If a joint venture is deemed qualified to receive an invitation to deliver a formal presentation of how it proposes to provide the services outlined herein, the joint venture shall be composed of the same participants as were in the joint venture when it submitted the Proposal. No substitution of participants will be allowed without the advance express prior written permission of the Authority.

- 2) Submit a copy of any written agreement or understanding which exists between each party to the joint venture as part of the Proposal. If no written agreement or understanding exists, the Lead Proposer shall be identified and the joint venture shall include in its Proposal a written statement explaining how the joint venture will fulfill the requirements of the Agreement. Such explanation shall fully discuss and identify the responsibility of each party to the joint venture for performing the Work, and for providing the required insurance coverages.

- D. Qualifications and Experience of Staff

In this section, detail the experience of key individuals (including subconsultants, if any) who will be responsible for the successful completion of the contemplated services. Prepare an organization chart for this project that identifies the key individuals, their titles, their firm and office address, their function, task responsibility and reporting relationships. Attach a detailed resume for each key individual that includes his or her educational background, chronological history of employment, relevant licenses and certifications. The resumes should clearly identify the years of experience in the field related to the tasks for which the individual will be responsible, as well as his or her

specific role if any, in performance of the project(s) identified in response to Section I, above.

For the Project Manager, identify similar projects that the individual has managed in the past five (5) years. If the Project Manager is currently managing other work, clearly state how he or she intends to work on this project and include the percentage of time to be dedicated to this project as well as to any others during the term of the contemplated agreement.

E. Specific relevant experience of your firm.

This shall include, but not be limited to, a list of entities for which similar services have been performed. List any project experience where the FHWA was the lead federal agency, as well as any experience with the New Jersey Department of Transportation's Capital Delivery Process. Submit a list of the projects, and a contact as required, for the Authority to confirm said information.

F. Manpower Analysis

Complete [Attachment D \(Staffing Analysis Sheet\)](#) for performance of Tasks outlined in Attachment A.

The staffing analysis shall identify the names, titles, multipliers, 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. 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.

The "multiplier" referred to in the first line of subparagraph 9.A of the accompanying Agreement shall be accompanied by a breakdown of said multiplier, indicating all of its components (e.g.: vacation, holiday, sick pay, worker's compensation, office rent, insurance, profit) for all work performed at the Consultant's office.

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. Technical Approach

A detailed description of the proposed technical approach to be taken for performance of the required services for each task in Attachment A, and a schedule for completion of said tasks, including milestones associated with each task. Factors addressed in your technical approach shall include, but not be limited to, a draft Project Management Plan (including an organization chart identifying the project team associated with each task), 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 of these services.

H. Management Approach

A detailed description of the proposed management approach to be taken for performance of the required services for each task identified in Attachment A. Factors

addressed in your management approach shall include, but not be limited to: your proposed organizational structure to be responsive to the Authority's needs; your proposed approach and schedule for keeping the Authority apprised of the project status; and your proposed approach to ensuring the quality and timeliness of the work product to be produced. However, should you be unable to adhere to the original dates and the extent of the revised dates, this inability will be included among the factors that the Authority will evaluate in analyzing Proposals. The Authority reserves all rights referred to in the last paragraph hereunder.

Your attention is directed to Paragraph 22 of the Agreement in which the Authority has stated the M/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.

- I. A complete list of your firm's affiliates, if any.
- J. If the Proposer or any employee, agent or subcontractor 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.

If a Proposer, including any employee, agent, affiliated firm, or subcontractor of a Proposer, may have a possible conflict of interest or may give the appearance of a possible conflict of interest, the Proposer shall notify the Port Authority in writing as soon as the Proposer becomes aware of the possible conflict. The Port Authority reserves the right to disqualify a Proposer in its entirety if any interest disclosed from any source could create a conflict of interest or give the appearance of a conflict of interest. The Port Authority's determination regarding any questions of conflict of interest will be final.

The following entities and individuals are prohibited from submitting a Proposal and from participating in any capacity on a Proposer's team in respect of the Project:

- (i) any consultant firm that has been contracted by the Port Authority preparation of this RFP, including, but not limited to: Malcolm Pirnie, Arcadis.
- (ii) any entity that is a parent, affiliate, or subsidiary of any of the foregoing entities described in Section J(i) above, or that is in Control, or is Controlled by or is under common Control with any of these entities;
- (iii) any entity that will be involved in reviews by the Port Authority's Quality Assurance Division/Material Engineering Unit and the Resident Engineer's Office; and
- (iv) any individual who is or was an employee of the Port Authority and was involved in the development of this RFP or any other documents relating to the procurement of the Project, the evaluation criteria or the technical criteria for the Project.

K. 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 shall be set forth in a separate letter included with your response to this RFP. The Authority is under no obligation to entertain or accept any such specific exceptions. Failure to raise such issues at the time of Proposal submission shall preclude the raising of such issues at a later time.

IV. SELECTION PROCESS:

The review, rating and ranking of Proposals will be based first 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 staff, including sub-consultants, performing services hereunder;
- B. Qualifications and experience of the firm;
- C. Manpower Analysis;
- D. Technical Approach for the performance of the contemplated services; and
- E. 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 forgoing factors to perform the required services.

V. ORAL PRESENTATIONS:

After review of all Proposal submissions, the Authority may require an oral presentation to the selection committee and others, as appropriate. It should be noted that firms selected to make presentations may be given short advance notice. Presentations will be limited to 30 minutes, and shall include the 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 four (4) other senior staff members proposed to work on this project. Notification of presentation scheduling will be made by email. Please provide the name 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.

VI. 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/DoingBusinessWith/contractors/html/other_info.html. Also, Proposers are encouraged to periodically access the Authority website at http://www.panynj.gov/DoingBusinessWith/contractors/html/current.php#prof_ad for RFP updates and addenda.

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 proposer shall be deemed to have made the certifications contained therein unless the proposer submit a statement with the 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 copies of the Agreement to the selected firm, which must sign and return both copies. The return to you of one copy executed by the Authority will effectuate the Agreement.

Should you have any questions, or to request access to information and/or materials referenced in Section V of Attachment A, that are not available on the Authority’s website, please contact Jessica L. Smith, Principal Contract Specialist, by email at JLSMITH@panynj.gov. All such emails must have “**RFP 43062**” in the subject line. The Authority must receive all questions no later than 4:00 P.M., seven (7) calendar days before the RFP due date. Neither Ms. Smith nor any other employee of the Authority is authorized to interpret the provisions of this RFP or accompanying documents or to 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.

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 Proposers, to waive defects in Proposals, and to proceed with that Proposal or modified Proposal, if any, which in the Authority’s judgment, will, under all the circumstances, best serve the public interest.

Sincerely,

David Gutiérrez, CPPO
Manager, Construction Procurement
Procurement Department

Attachments

ATTACHMENT A

PERFORMANCE OF EXPERT PROFESSIONAL CONCEPTUAL DESIGN AND RELATED ENVIRONMENTAL AND TRAFFIC ENGINEERING SERVICES FOR THE LINCOLN TUNNEL HELIX REPLACEMENT

I. BACKGROUND

The Port Authority of New York and New Jersey (the “Authority”) is a municipal corporate instrumentality and political subdivision of the States of New York and New Jersey, created and existing by virtue of the Compact of April 30, 1921, made by and between the two States, and thereafter consented to by the Congress of the United States. It is charged with providing transportation, terminal and other facilities of trade and commerce within the Port District. The Port District comprises of an area of about 1,500 square miles in both States, 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. The Authority manages and/or operates all of the region’s major commercial airports (Newark Liberty International, John F. Kennedy International, Teterboro, LaGuardia and Stewart International Airports), marine terminals in both New Jersey and New York (Ports Newark and Elizabeth, Howland Hook and Brooklyn Piers); and its interstate tunnels and bridges (the Lincoln Tunnel and Holland Tunnels; the George Washington, Bayonne, and Goethals Bridges; and the Outerbridge Crossing), which are vital “Gateways to the Nation.”

The Port Authority Trans-Hudson Corporation (PATH) is a wholly owned subsidiary of the Authority. PATH is a heavy rail rapid transit system, operating 24 hours per day, seven days per week, and serves as a critical link in the New York – New Jersey transportation network. The New York – New Jersey Metropolitan region as the most mass transit-dependent region in the United States. PATH also serves as a catalyst for regional economic development due to the location of its thirteen stations and terminals within the high-density urban commercial and residential cores of Newark, Jersey City, Hoboken and Manhattan.

The Lincoln Tunnel (LT) crosses the Hudson River between Midtown Manhattan and Weehawken, New Jersey. The LT Helix (Helix) provides a connection between the LT portal in Weehawken and Route 495. Route 495 runs west from the Helix and connects to the New Jersey Turnpike, Routes 1 & 9 and Route 3.

The Helix, which was constructed with six (6) lanes in 1937 and widened to seven (7) lanes in 1957, is approaching the end of its useful life and is functionally obsolete. From a traffic perspective, the Helix has a number of geometric deficiencies, including inadequate lane widths, lack of shoulders, tight radius curves with low design speeds, and poor stopping sight distances. The Helix replacement construction will address these deficiencies.

A program is underway to address pavement repairs and structural rehabilitation & repaving.

In 2012 a feasibility level engineering study was conducted which developed various conceptual alternatives for the replacement of the Helix. Six (6) alternatives, identified as Schemes A through F were considered for the Feasibility Study. The alternatives included single and double level elevated roadways, a single level elevated roadway following a new

alignment, two tunnel concepts, and one hybrid concept. The Feasibility Study also considered possible improvements to Route 495's Pleasant Avenue on-ramp, which included ramp expansion, structural modifications to New Jersey Department of Transportation (NJDOT) bridges (Hudson Avenue and Palisades Avenue bridges) and storm water management criteria. Details of the schemes are provided in the LT Helix Replacement Feasibility Study Executive Summary (dated November 30, 2012), as referenced in Section V. A, below.

At this time, an agreement with a Consultant for the development and implementation of a public and stakeholder outreach program is being sought. The outreach program would engage local officials, external stakeholders and Agencies, as well as the public, in order to collaborate and agree on the best option for replacement of the Helix.

II. SCOPE OF WORK

The services of the Consultant shall generally consist of but are not limited to (1) determining and developing any required documents necessary to obtain approvals from all stakeholders (where stakeholders include NJDOT, MPOs, local municipalities and other state and federal agencies as identified by the Authority), to (2) performing traffic and stormwater management studies and to (3) preparing a state and federal compliant Environmental Assessment (EA). The Consultant shall determine and outline the approval processes and requirements.

Services shall be phased such that Tasks and/or Subtasks which support the outreach to the public and external stakeholders are to be progressed as early action items. The outreach shall include a series of collaborative sessions to be held to explain the need for the helix replacement, to solicit input and discuss merits of alternative concepts (those already considered and other alternatives to be developed as part of the work), and ultimately to select a preferred alternative. Refer to Task G for additional requirements.

For proposal purposes assume eight (8) alternatives will be presented at the initial public outreach meetings, including the six (6) alternatives developed as part of the 2012 Feasibility Study, a replace in-kind alternative, and another alternative yet to be defined.

Note for this RFP and subsequent proposal that the terms "Scheme(s)" and "Alternative(s)" are and shall be used interchangeably.

Tasks and/or subtasks (e.g., Tasks R and S) which evaluate or further develop the selected or preferred alternative shall follow in a timely manner as early action items.

Other tasks and/or subtasks (e.g., Tasks B, E, and M) may be done concurrently.

The Consultant shall develop a detailed project schedule identifying the tasks and/or subtasks as early action, selected alternative or concurrent effort. Refer to Task E. for Project Schedule requirements.

The Consultant shall also perform work in support of efforts that include, but are not limited to:

- A. Review and develop understanding of all technical aspects of each scheme developed as part of the previously prepared Pre-Stage I Feasibility Study report (e.g., design criteria, assumptions, pros/cons, unresolved issues, etc.).

- B. Develop additional alternatives to a conceptual engineering level as defined herein and commensurate with the level of completeness provided by the previously prepared Pre-Stage I Feasibility Study report.
- C. Define and implement an early action public outreach program to fully engage the public and external stakeholders. The program shall explain the need to replace the Helix and shall ultimately lead to the selection of a preferred alternative.
- D. Conduct traffic studies in the project area.
- E. Finalize survey information of adjacent, potentially impacted properties.
- F. Identify the impacts to adjacent properties.
- G. Confirm current conditions of adjacent properties and determine future and planned construction impacts on those properties.
- H. Determine stormwater management scenarios, including discharge points, permitting/approval requirements and design implications.
- I. Prepare EA document in accordance with appropriate state and federal environmental review processes.
- J. Support consultation and coordination as appropriate with transit operators and transportation oversight agencies
- K. Identify all required permits and supporting documents.
- L. Complete a cost-benefit analysis
- M. Fulfill requirements of all other stakeholder agencies.
- N. Provide all required submittals in electronic format in accordance with Authority standards.
- O. Provide a clear and succinct schedule of submittals from the Notice to Proceed.

Though services contemplated hereunder will be performed by the Consultant under this Agreement (with the Authority), the project is subject to NJDOT, State, and local municipality review and approval, and to incorporation into the approved metropolitan regional transportation plans for the project area.

The Consultant shall prepare an Environmental Assessment (EA) document as required to meet state and federal agency environmental review requirements and processes.

Note that the Authority is exempt from Executive Order 215 but shall voluntarily perform an Environmental Assessment, utilizing consultant services as defined herein. There is currently no Federal action requiring compliance with NEPA and there is no lead Agency identified, but the Authority will proceed with preparing an Environmental Assessment document, utilizing consultant services as defined herein, that can be used in the NEPA process should it be required at a future date. The Authority intends, through this project, to engage and obtain buy-in from stakeholders regardless of the preceding conditions.

III. DESCRIPTION OF CONSULTANT'S TASKS

All submissions prepared by the Consultant hereunder may, as approved by the Authority, be transmitted to, and result in Consultant meetings with, the NJDOT, New Jersey Department of Environmental Protection (NJDEP), and others as required in performance of the requested tasks detailed below. Tasks to be performed by the Consultant shall include, but are not limited to:

TASK A. DOCUMENT REVIEW

Review the available documents, as listed in Section V below, and meet with Authority staff and others as required to discuss findings and to review Authority data relevant to the project prior to performance of field services. Gather and review information from other entities that own property that abuts the project sites(s) as determined by the Consultant and as approved in advance by the Authority.

TASK B. MEETINGS

1. Meet with Authority staff, and others as required in the performance of the services contemplated hereunder. Attend a project kick-off meeting to finalize the scope of work and develop a "roadmap" for conducting the project. Identify and address informational needs that will be required to conduct these Studies.
2. Attend Progress Meetings as required. (Estimate two (2) monthly meetings, each four (4) hours in duration, at 4 World Trade Center [150 Greenwich Street], New York, New York office of the Authority or at other Authority facilities as required for the term of the Agreement.)
3. Prepare meeting minutes of all Progress Meetings (See Task E below). Submit to all parties in attendance for review; revise and submit as Final.
4. Review your detailed plans for completing the following tasks with the Authority's Engineering staff. Coordinate with LT facility staff and police for proper identification and procedures to be followed for fieldwork.

TASK C. FIELD SERVICES

1. Field Verification
 - a. Verify field conditions including but not limited to taking all appropriate field measurements.
 - b. Conduct a field inspection of the proposed sites and surrounding area as appropriate.
 - c. Furnish equipment and materials for field services.
 - d. Submit copies of completed field findings on inspection reporting forms (which will be developed by the Consultant and approved by the Authority).
2. Street and Transportation Inventory
 - a. The Consultant shall conduct field visits to determine street and sidewalk geometry and dimensions, lane uses and lane use restrictions, parking restrictions, traffic control devices (signs, signals, etc.), and typical driver and pedestrian behaviors (especially during peak hours). This information shall be used to calibrate, update, and verify the existing Authority VISSIM and Synchro simulation models.

- b. Obtain traffic signal timing data from local agencies in coordination with the Authority for all applicable intersections. The Authority will work with the selected Consultant to allow necessary access to all LT facilities, and will provide any necessary aerial photographs or plans. The Consultant shall take photographs during the field visit and thoroughly document their locations and circumstances. The Consultant shall work with the Authority to obtain permission for these photographs. The selected Consultant shall adhere to Authority security requirements while performing this task.
- c. Bus and any other transit routes and stops shall be obtained from publicly available data. Any additional data needed shall be obtained in coordination with the Port Authority and the appropriate bus carriers, such as NJ Transit.
- d. Vehicle headways shall be collected along the study corridor at six (6) locations in the eastbound direction and six (6) locations in the westbound direction during the AM (6 AM to 10 AM), PM (4 PM to 7 PM), and Early Evening (7 PM to 10 PM) periods, and shall include locations along NJ Route 495.
- e. Develop a list of up to one hundred (100) Automatic Traffic Recorder (ATRs) locations in the study corridor, including on all major roadways, approaches, and ramps to and from the LT in New Jersey. Submit this list to the Authority for approval. ATR counts shall be taken for a continuous (2) two week period. Existing construction, other projects or seasonal events that may affect data collection shall be identified.
- f. Develop a list of up to one hundred (100) Manual Vehicle Classification Counts (VCCs) locations in the study corridor including on all major roadways, approaches, and ramps to and from the Lincoln Tunnel in New Jersey. Submit this list to the Authority for approval. The VCCs shall be conducted on a typical weekday during the AM (6 AM to 10 AM), PM (4 PM to 7 PM) and Early Evening (7 PM to 10 PM) periods. The survey classifications shall include but are not limited to:
 - 1) Passenger Cars;
 - 2) Single Unit Trucks;
 - 3) Multiple Unit Trucks;
 - 4) Mini, Coach, Articulated, Double Deck Buses; and,
 - 5) Other vehicle types.
- g. Develop a list of up to twenty (20) signalized intersections at which Turning Movement Counts (TMC) shall be conducted. The TMC shall be conducted on a typical weekday during the AM (6 AM to 10 AM), PM (4 PM to 7 PM), and Early Evening (7 PM to 10 PM) periods. TMC shall also be conducted in accordance with the traffic survey vehicle classifications listed above.
- h. Develop a list of up to ten (10) intersections where detailed Vehicle Queue Length Measurements shall be conducted for all approaches during the AM (6 AM to 10 AM), PM (4 PM to 7 PM) and Early Evening (7 PM to 10 PM) periods.
- i. Conduct Pedestrian Counts at up to ten (10) intersections, to be determined in consultation with the Authority. Pedestrian counts shall be conducted during the

weekday AM (6 AM to 10 AM), PM (4 PM to 7 PM) and Early Evening (7 PM to 10 PM) periods.

- j. Collect Travel Time Surveys along the length of the study corridor. Conduct up to ten (10) runs for each inbound and outbound direction during the AM (6 AM to 10 AM), PM (4 PM to 7 PM) and Early Evening (7 PM to 10 PM) periods.

3. Boundary and Existing Condition Surveys

Perform a boundary survey of missing areas that have been identified in Task A and of new construction that has been performed since the original survey was conducted. The Consultant shall finalize survey information of adjacent potentially impacted properties and identify those impacts. Confirm current conditions of these properties.

Perform this task in accordance with Authority Surveying Standards. Surveys on NJDOT property may be subject to NJDOT survey standards. Determine survey requirements and provide information in the proposal.

TASK D. REVISE AND/OR SUPPLEMENT AVAILABLE DOCUMENTS

1. Based upon the work performed in the forgoing tasks, revise or supplement the following documents as required to reflect current and future conditions:
 - a. Boundary Survey CAD files
 - b. Stormwater Management Memorandum, dated April 12, 2013. The original report shall not be modified.
2. Submit and present an updated draft of the above documents to the Authority. Incorporate Authority comments as directed.
3. As approved by the Authority, meet with the NJDOT, and others, to finalize said documents.

TASK E. PROJECT SCHEDULE AND MONTHLY PROGRESS REPORTS

1. Prepare a Microsoft Project 2007-based Critical Path Method Project Schedule that extends from the date of award of this Agreement to the completion of the proposed work activities. The schedule shall include:
 - a. Start and completion dates for each task,
 - b. Anticipated final approval dates (from each regulatory agency) as appropriate, and
 - c. Staffing and time allocation for each task, including names and titles.
2. Prepare and submit a Monthly Progress Report (MPR) to the Authority including, but not limited to, task status, deliverables, issues and concerns, accomplishments, actions required, hours of work expected for each task, total hours worked, percentage complete per task and a cumulative estimate of expenditures through the end of the reporting month, including accruals. The MPR shall be updated as appropriate and submitted on the 15th of each month. Prior to submission of the first Monthly Progress Report, prepare and submit a template of the MPR to the Authority for review. Incorporate comments as required, and submit the revised format to the Authority.

3. Develop recommended website content for the project that will be reviewed and placed on the Authority's website by Authority staff.
4. For proposal purposes assume an overall project duration of twenty-four (24) months after receipt of a copy of the Agreement executed by the Authority.

TASK F. APPROVAL CRITERIA SUMMARY

Prepare a summary of all criteria to be used in the preparation of all required documents. Said criteria shall include but not be limited to all applicable codes and standards as well as:

1. Applicable implementing regulations (e.g., NJDOT, and all other applicable federal, state and local environmental laws and requirements);
2. Federal, state, regional, and local government programs, plans, policies, initiatives, and all applicable public laws and regulations, including federal grant and innovative-financing program. Reference applicable programs, plans, policies, initiatives, laws and regulations in the appropriate deliverables;
3. Identification of all federal, state, and local permits, licenses, supporting documents, and other approvals that must be obtained to implement the project.
4. Identification of any required environmental assessments, alternatives analysis, and/or air quality studies/analyses/surveys/reports to obtain stakeholder approval.
5. Preparation and submission of draft regulatory consultation documents and/or Memorandum of Agreements as appropriate, including supporting documents, to the Authority for approval and execution by the respective regulatory agencies as warranted.

TASK G. PUBLIC OUTREACH AND STAKEHOLDER PARTICIPATION

Consultant's Services shall be phased such that Tasks and/or Subtasks which support this task (Task G) are progressed as early action items. The outreach, which is also considered an early action item, shall include a series of collaborative sessions to be held to explain the need for the replacement helix, to solicit input from the public and stakeholders and to discuss the merits of alternative concepts (those already considered and other alternatives to be developed as part of the Scope of Work) and, ultimately, to select a preferred alternative and any reasonable alternative(s), as may be appropriate, to progress through an Environmental Assessment. Coordinate this task (Task G) with Stakeholder Agencies and the work of Task H.

For proposal purposes assume eight (8) alternatives will be presented at the initial public outreach meetings, including the six (6) alternatives developed as part of the 2012 Feasibility Study, a replace in-kind alternative, along with another alternative yet to be defined.

The Consultant's services shall include, but shall not be limited, to the following:

1. Provide support for community outreach throughout the duration of overall LT Helix Replacement Project that informs, educates and directly engages all those with an interest in the project, including a demographic analysis to determine if the affected population(s) require implementation of a "language assistance plan," with provision of language services appropriate for Limited English Proficiency (LEP) Outreach. If a "language assistance plan" is determined by the Consultant to be required, the Consultant shall then prepare and submit to the Authority a draft technical memorandum outlining the

“language assistance plan”. The Consultant shall incorporate Authority comments as directed and shall resubmit the draft as final.

2. For all Public Outreach Meetings:
 - a. Provide a court stenographer for all public meetings. Assume six (6) public meetings. Provide primary language and other foreign language translators consistent with determination of LEP outreach requirements for the project;
 - b. Prepare draft public hearing minutes and submit to the Authority for review. Incorporate Authority comments as required and resubmit as Final.
3. Support outreach efforts by scheduling stakeholders meetings and public information sessions; preparing material, handouts, periodic updates, managing mailings, maintaining a database of interested parties, handling RSVP and follow up for meetings. Prepare external content for quarterly reports for Authority use if deemed necessary.
4. Prepare and submit a draft technical memorandum outlining the proposed Public Participation Program (PPP). Incorporate Authority comments as directed and resubmit the draft as Final.
5. Prepare and maintain a database of all interested persons and organizations participating in the public outreach process. The database shall include all stakeholders, and shall be updated as appropriate.
6. Submit draft monthly summaries of public participation efforts and outcomes. Incorporate Authority comments as directed and resubmit drafts as Final.

TASK H. INTERAGENCY MEETINGS

1. Establish and coordinate the activities of the following as needed:
2. An Inter-Agency Technical Advisory Committee (TAC), including the Authority, NJDOT, NJ Transit, the North Jersey Transportation Planning Authority and other federal, state and local agencies as required.
3. Prepare presentation materials, evaluate comments and recommend courses of action as appropriate. Prepare a draft for review by TAC, incorporate comments as directed. Submit final minutes of all inter agency meetings.
4. As approved in advance by the Authority, provide access to data compiled hereunder, and used in developing the EA document, including, but not limited to, field reports, subcontractor reports, and interviews with concerned private and public parties, whether or not such information may be contained in draft or final documents.
5. Notify participating agencies of any scheduled meetings and their purpose and provide an opportunity for others to attend said meetings if requested by said agencies.
6. Prepare a summary of all matters discussed in any meetings and communications among the Consultant, stakeholders, and other agencies and include the summary in each monthly report submitted by the Consultant to the Authority.

TASK I. IDENTIFY ENVIRONMENTAL CRITERIA

Determine the methodologies and impact thresholds to be applied for assessing the effects of the project on the natural environment, including:

1. Identifying draft environmental criteria for use in Tasks J and K below, and for use by the design team.
2. Obtaining input on the environmental criteria as needed, from the appropriate federal, state and local governmental agencies and revising the environmental criteria as required.
3. Preparing and submit a draft Technical Memorandum identifying and describing the evaluation criteria. Incorporate Authority comments as required and submit as Final.

TASK J. EXISTING CONDITIONS/AFFECTED ENVIRONMENT

In accordance with NJ Executive Order 215 and the National Environmental Policy Act (NEPA) reporting requirements, comprehensively and succinctly describe the social economic and environmental setting for the area potentially affected by the alternatives in the Existing Conditions/Affected Environment section of the EA. This description shall be of sufficient scope to include all potential effects of the alternatives, including their direct, indirect and cumulative effects, with data and analyses commensurate with the importance of the impact. This section shall include but not be limited to the following:

1. Any financing actions, actions by the communities or citizen organizations pertinent to the proposed action, and any other unique factors associated with the project that do not properly belong in another section of the NEPA document;
2. A location map, vicinity map and layout plan;
3. Any contemplated future actions, including facility installations and procedures which have not been provided in the Existing Conditions/Affected Environment alternatives section should be described to show their relationship to the overall LT Helix Replacement Project and indicate the intentions of the involved federal, state and local agencies regarding their environmental evaluations;
4. Other planned and developed activities in the affected areas (e.g., highways and other transportation projects, housing development and relocation, etc.) that are interrelated to the overall LT Helix Replacement Project and/or would produce cumulative impacts.

The description of the affected environment is required as per NJ Executive Order 215 and NEPA. A draft list of potential impact areas to be considered is as follows:

- Regional environment
- Water quality
- Coastal Zone Management and Waterfront Revitalization Policies
- Waterway Navigation
- Wildlife and Waterfowl Refuges
- Essential Fish Habitat
- Resource contamination/hazardous waste
- Solid Waste Management
- Endangered and threatened species
- Tidal and Freshwater Wetlands
- Visual Resources/Aesthetics
- Cultural resources (including archeological and historical resources)
- Native American Graveyard Protection

- Parkland and public recreation areas
- Primary and Unique Farmland
- Topography, geology and soils
- Flooding, floodplains and hydrology
- Transportation network
- Energy
- Construction
- Access and Circulation
- Air quality
- Human health
- Socioeconomic
- Economic
- Land Use/Zoning/Community Facilities
- Residential or Business Displacement
- Noise and Vibration
- Infrastructure
- Environmental Justice.
- Shading Created by Structure
- Wild, Scenic and Recreational Rivers

These potential impact areas shall be ranked in order of level of significance, most critical to least. Prepare and submit a draft “Existing Conditions/Affected Environment” Section for incorporation into the EA. Incorporate Authority comments as required, and resubmit as Final.

TASK K. ENVIRONMENTAL CONSEQUENCES

Demonstrate specific methodologies and assumptions to be employed to analyze impacts related to traffic and transportation, access and circulation, air quality (Introduction, overview of non-attainment, Clean Air Act Compliance, Regulatory Conditions, Air Pollutants for Analysis, Existing Air Quality, Air Quality Modeling Analysis by Alternative, Short-term Construction Impacts, Long-term Impacts, Potential Mitigation Measures, Summary of Findings), noise and vibration (Introduction, Methodology, Factors affecting Traffic Noise Levels, Monitored Noise Levels, Noise Modeling Analysis by Alternative, Short-term Construction Impacts, Long-term Impacts, Potential Mitigation Measures, Summary of Findings), cultural resources, and economic considerations for the overall LT Helix Replacement Project.

1. Describe the potentially beneficial and adverse social, economic and environmental effects of each alternative in the Environmental Consequences section of the EA. The information should have sufficient scientific and analytical basis to evaluate comparative merits of the alternatives.
2. Identify and discuss the NEPA-related impacts of each of the alternatives. For each alternative include any adverse environmental effects and the relationship between short-term uses of the environment and maintenance and enhancement of long-term productivity. Incorporate into the discussion:
 - a. Direct, indirect, and cumulative impacts and their significance.

- b. Natural or depletable resource requirements and conservation potential of each alternative.
 - c. Urban, historic, and cultural resources and design of the built environment, including reuse and conservation potential of each of the alternatives.
 - d. Potential conflicts between each alternative and the objectives of federal, regional, state, and local land use plans, policies, and controls.
 - e. The setting established in the “Existing Conditions Section” is to be maintained and modified by the description of the environmental impacts of implementation of each alternative. The description shall include both beneficial and adverse impacts resulting from implementation of each alternative.
3. Identify potential mitigation measures for all relevant adverse direct, indirect, and cumulative impacts of each alternative, including avoidance, minimization, and then mitigation/compensation.
 4. Once all the potential environmental impacts of implementing the alternatives have been identified and quantified to the extent practical, develop mitigation measure(s) necessary to minimize the impact to the extent reasonable and practicable. Mitigation measure(s) must be identified and assessed for each adverse environmental impact identified. This effort shall include but not be limited to the following:
 - a) A clear, concise description of each mitigation measure.
 - b) A thorough explanation of the manner in which each measure would be anticipated to mitigate the appropriate environmental impact.
 - c) A quantification, to the extent practical, of the degree to which each measure would mitigate the appropriate impacts.
 - d) A preliminary estimate of the cost to implement each measure.
 - e) An assessment of the overall feasibility of implementing each measure, time associated with the mitigation measure, and a recommendation of the optimal mitigation measure, for those environmental impacts for which more than one feasible mitigation measure has been identified.
 5. Prepare a draft “Environmental Consequences” document for incorporation into the EA. Incorporate comments and resubmit as Final. For estimating purposes, assume the same number of copies as indicated in the Project Management Plan section.

TASK L. PREPARE ENVIRONMENTAL ASSESSMENT AND RELATED DOCUMENTS

The Environmental Assessment (EA) must be prepared in accordance with applicable law(s) for review by the Authority. The Consultant must analyze all comments received by the Authority, recommend a course of action, and prepare suitable narratives to address the comments.

1. Develop comparative methodology and prepare and present the Draft EA, the environmental impacts of the proposal (proposed action), and the reasonable alternatives in comparative form, including 40 CFR Section 1502.14.

2. Compile the results of tasks and prepare Draft EA.
3. Include an Executive Summary in the Draft EA.
4. Include a list of preparers and qualifications; a list of agencies, organizations and persons to whom copies of the statement are to be sent; an index and all appendices.
5. Draft necessary NEPA supporting documents, i.e. that which is necessary to obtain a Finding of No Significant Impact (FONSI) (e.g. Section 4(f), Section 106 compliance, etc.). If the project does require a 4(f) evaluation and is Programmatic, it shall be combined by the Consultant with the EA for distribution. If the 4(f) is an Individual, the Consultant shall require a draft, circulated separately for Authority approval and would then be combined with the EA for distribution.

TASK M. NJ STATE HISTORIC PRESERVATION OFFICE REQUIREMENTS

Provide documents as necessary to fulfill NJ State Historic Preservation Office (SHPO) requirements associated with the LT Helix Replacement Project. Identify and include any additional effort required (i.e. field investigations, document review, etc.) to meet regulatory requirements.

TASK N. METROPOLITAN TRANSPORTATION PLANNING SUPPORT

Prepare support material for submittal to Metropolitan Planning Organizations (MPOs) as may be required, including information about evaluation of project alternatives and documentation to incorporate the project into federally mandated MPO transportation plans, air-quality conformity, and congestion management analyses.

TASK O. TRAFFIC SIMULATION MODELS

Use most current version of the New York Best Practices Model (NYBPM) and update the existing VISSIM traffic simulation model. Conduct analyses for the regional and local/facility network to analyze and assess impacts and diversions in the existing and future 2040 conditions (assuming the replace in-kind or other build alternative is implemented). The traffic simulation models will be used to support future public outreach efforts and used in coordination with other stakeholders. For the selected alternative each construction stage will be modeled to inform the discussion.

The study corridor includes roadways and approaches to the LT, including NJ Route 495 and local streets in Weehawken and Union City. Ramp merge and diverge points along NJ Route 495 are also included in the study corridor.

1. Model Development Strategy Session

Discuss the process for updating the NYBPM and VISSIM simulation models with Authority. Include updating the baseline project schedule, determining calibration goals, and establishing Measures of Effectiveness (MOEs) that the model must satisfy. These MOEs may include but are not limited to density, average speed, levels of service for multilane roadways, travel times, vehicular delays, queue lengths, intersection delays by movements, and intersection queue lengths by movement (50%, 95% and maximum). Summarize the capability of the NYBPM and the procedure that allows static assignment of the NYBPM's internally generated 15-minute/30-minute trip tables over a user

specified time window to the regional highway network as a step in preparing and exporting data for use in other microscopic or mesoscopic models. Develop a Synchro model to simulate existing and future 2040 conditions (assuming the replace in-kind or other build alternative is implemented) for the local street network and for use in signal timing optimization in the build condition.

2. Existing Origin Destination Tables and Traffic Volume Flow Maps

The traffic data provided by the Authority and collected in Task C.2 and Section V, Turning Movement Counts, Vehicle Classification Counts, Automatic Traffic Recorder data, Turning Movement Data, and Pedestrian Count data shall be used to establish the existing 24-hour baseline traffic volumes for intersections, ramps, and highways on schematic flow maps. Develop Origin Destination tables and volume flow maps for each hour of the 24-hour period. Origin Destination tables and volume flow maps shall be submitted to the Authority for approval..

3. The following shall apply for Existing Condition Traffic Simulation, Future No-Build Condition Traffic Simulations, Future Build Condition Traffic Simulations:

Conditions during the typical weekday AM (6 AM to 10 AM), PM (4 PM to 7 PM) and Early Evening (7 PM to 10 PM) AM (4 hours), PM (3 hours, and Early Evening (3 hours) shall be modeled using VISSIM software and shall include 3-D visualization of traffic conditions, as well as network environment (buildings, signage, and landscape) for a total of three (3) time periods, based on the data collected in Tasks C.2 and Section V. In addition, 15-minute trip tables shall be provided to be used as a temporal resolution for simulations. Volumes shall be refined such that they may be input into the VISSIM model, and shall be divided into vehicle classifications as appropriate. The vehicle classifications itemized in Task C.2 are preferred but not required. The model assignment and simulation shall include two (2) types of routing:

- a. Dynamic routing for assignment of all traffic (except transit modes fixed route)
- b. Static routing for simulating local fixed route transit activities.

The Dynamic Model shall include:

- a. Origin Destination (O-D) matrices developed from the existing peak period volumes.
- b. Development of Route Guidance sub-routines using COM to direct traffic via the least congested route.
- c. Allowing traffic to choose the most optimum route based on congestion.

The dynamic assignment shall achieve a convergence assignment so that all possible routes can be evaluated.

The Static Model used to simulate transit activities shall include:

All transit type vehicles such as courtesy vans, charter buses, and public buses serving the Express Bus Lane (XBL) and PABT facilities shall be simulated with their predetermined headways.

Develop hourly O-D tables and volume flow maps for a 24-hour period for the study area roadways and intersections during the existing conditions. Conditions shall be modeled during a typical weekday using VISSIM software for a total of three (3) time periods.

Develop VISSIM models for study area conditions, tabulate data and summarize results, prepare and submit Technical Reports and Memoranda summarizing the findings for the mainline roadways, study area intersections, Lincoln Tunnel approaches, ramp access roadways, and ramp merge/diverge areas as well as analyze and develop a comprehensive report on the study area.

4. Future Replace In-Kind Build O-D Tables and Traffic Volume Flow Maps (assuming the replace in-kind build alternative is implemented).

The traffic data provided by the Authority and collected in the Task C.2 and Section V shall be used to establish the future 2040 baseline peak hour traffic volumes for intersections, ramps, and highways on schematic flow maps. Develop O-D tables and volume flow maps for each hour of a 24-hour period based on the NYBPM future growth. O-D tables and volume flow maps shall be submitted to the Authority for approval.

5. Future Build Origin Destination Tables and Traffic Volume Flow Maps (assuming the selected alternative, other than the rebuild in-kind, is implemented).

The traffic data provided by the Authority and collected in the previous Task C.2 shall be used to establish future 2040 build baseline traffic volumes for intersections, ramps, and highways on schematic flow maps. The Consultant shall develop Origin Destination tables and volume flow maps for each hour of a 24-hour period based on the NYBPM future growth. Origin Destination tables and volume flow maps shall be submitted to the Authority for approval.

6. Traffic Studies & Traffic Simulation Models Draft and Final Report Preparation

All of the Technical Reports and Technical Memoranda submitted for the first seven tasks shall be combined into a single draft report at the conclusion of the project. The draft report shall be submitted to the Authority for review and comment; the final report shall address all comments noted by the Authority.

The Consultant's final report shall include, but not be limited to, the following elements, in both electronic and paper form:

- All Authority comments during review of the Draft Report shall be addressed;
- Meeting minutes shall be organized by meeting date and included in the Appendix;
- Summary of calibration parameters and assumptions for each Simulation Model;
- Detailed explanation of the methods of analysis used;
- Summary of data inputs and results of the simulation models;
- The photographs submitted in Task C.2 shall be included in the Appendix as a CD.
- A report discussing a comparison between estimated traffic conditions obtained from the calibrated model and baseline traffic data.

All the tables and graphs shall be compiled into an organized set of Microsoft Excel spreadsheet files. Appropriate section and title divider pages shall be included, a continuous set of page numbers shall be applied to the entire document, and a

comprehensive table of contents shall be prepared referencing each table or graph title and page number.

7. Traffic Studies & Traffic Simulation Models Project Deliverables

The deliverables for Tasks O.1 to O.6 are described below. Each Technical Report or Memorandum shall first be submitted in draft form for review by the Authority prior to the submittal of the final deliverables. Six (6) draft and final copies shall be submitted for Deliverables 1-7. Ten (10) draft and ten (10) final copies shall be submitted for Deliverable 8. Electronic copies of all deliverables shall also be provided to the Authority.

- *Deliverable 1* – The Consultant shall submit a Technical Memorandum summarizing what data has been collected from which sources and what data must be gathered in Task C.2 and Section V prior to developing the traffic simulation models.
- *Deliverable 2* –Photographs from the Physical Conditions Inventory shall be appropriately edited, formatted, and labeled for submittal to the Authority in electronic format. Data collected in Transit Data Collection, Vehicle Headway, Turning Movement Counts, Queue Measurements, Pedestrian Counts, Supplemental Overnight Turning Movement Counts, and Travel Time Surveys shall be included in a Technical Report that details the data gathering processes and results. The Technical Report shall detail the potential impacts of all existing projects identified that may have affected data collection.
- *Deliverable 3* – The Consultant shall submit a Technical Memorandum that details the process and results of the Task O.1 meetings with the Authority, including the actual Methods of Effectiveness (MOEs) determined during the meeting.
- *Deliverable 4* – The results generated by the existing conditions traffic simulation models and analysis shall be detailed in a Technical Report to be submitted to the Authority, along with the process of model update. The calibration process and calibration results shall also be included in the Technical Report. In addition, the Consultant shall submit all NYBPM, VISSIM and Synchro simulation electronic files on a CD.
- *Deliverable 5* – The results generated by the future no-build conditions traffic simulation models and analysis shall be detailed in a Technical Report to be submitted to the Authority, along with the process of model update. The calibration process and calibration results shall also be included in the Technical Report. In addition, the Consultant shall submit all NYBPM, VISSIM and Synchro simulation electronic files on a CD.
- *Deliverable 6* – The results generated by the future build conditions traffic simulation models and analysis shall be detailed in a Technical Report to be submitted to the Authority, along with the process of model update. The calibration process and calibration results shall also be included in the Technical Report. In addition, the consultant shall submit all NYBPM, VISSIM and Synchro simulation electronic files on a CD.
- *Deliverable 7* – All model results shall be documented in a single Technical Memorandum.

- *Deliverable 8* – The Technical Reports and Memoranda described above in Deliverables 1 to 7 shall be integrated into a single Draft Report. The Final Report shall include but not limited to the following elements:
 - a. All Authority comments during the review of the Draft Report shall be addressed.
 - b. Meeting minutes shall be organized by meeting date and included in the Appendix.
 - c. Summary of calibration parameters and assumptions for each Simulation Model.
 - d. Detailed explanation of the methods of analysis used.
 - e. Summary of data inputs and results of the Simulation Model.
 - f. A report discussing a comparison between estimated traffic conditions obtained from the calibrated model and baseline traffic data.
 - g. QA/QC Plan(s) shall be included in the Appendix, if not as part of the body of the report.
 - h. The photographs submitted in Task C.2 shall be included in the Appendix as a CD.
- *Deliverable 9* – The Monthly Progress Report shall list the status of each of Deliverables 1-8 and shall detail all work performed and spending on each task in the preceding month.

All analyses, studies, reports, data, etc. provided and produced in support of this effort will become the property of the Authority and are not to be reproduced or utilized in any way by the Consultant for any purpose without the prior written consent of the Authority.

TASK P: TRAFFIC ANALYSES AND STUDIES

1. Evaluate alternatives for impacts to traffic and Express Bus Lane (XBL) operations. Adjust alignment as required. Functional traffic plans shall be developed for alternatives that include: lane utilization, direction of travel, pavement markings, regulatory traffic controls, XBL lane closures, XBL lane transitions, XBL operations, XBL transition through the toll plaza, etc. for conditions both with the XBL during the AM and without the XBL during the PM.
2. Conduct a capacity analysis for the study corridor using multilane highway criteria set forth in the Highway Capacity Manual. Evaluate the corridor on a segment-by-segment basis separately for eastbound and westbound travel directions. Evaluate the maximum service flow rate for the weekday AM and PM peak periods to account for conditions with and without the XBL. Evaluate the XBL separately due to the unique characteristics of this contraflow lane.
3. Evaluate the potential capacity limitations of the LT toll plaza and tunnel travel lanes to assess the true capacity of the study corridor.
4. Participate in consultations among the Port Authority, NJDOT, NJT, and other bus transit operators to review these findings relative to anticipated bus operations and requirements on the study corridor.

5. Prepare a Scope Summary Memorandum (SSM) for submission to NJDOT and Municipals. The SSM shall include the purpose and need for the project, project schedule, project location, considered alternatives, anticipated area of influence, cost estimate and screening criteria to eliminate alternatives. Include in the SSM relevant initial traffic, safety and operational analysis.
6. Once comments are received from NJDOT and Municipals and incorporated, prepare the respective documents as final (Purpose & Need, Alternative Actions & Screening and Traffic Analyses), which will then form basis for the NJDOT Notice of Intent.

TASK Q. STORMWATER MANAGEMENT REQUIREMENTS

1. Review documents provided by the Authority and evaluate stormwater flow from these previous studies.
2. Based on the flow determined in Task Q.1, determine if the local municipality system is capable of handling and can accept the additional estimated flow.
3. Develop additional scenarios if it is determined in Task Q.2 that the local system cannot accept the additional flow. Submit a summary of any additional permit or regulatory requirements associated with the proposed scenarios.

TASK R. ADDITIONAL STAKEHOLDER APPROVAL

Under this task, identify and provide any additional supporting documents, studies, analyses, and/or reports not identified in the Tasks above as required to obtain stakeholder approval.

TASK S. COST BENEFIT ANALYSIS OF THE SELECTED ALTERNATIVE

Under this task, the Consultant shall perform a cost-benefit analysis (CBA) of the selected Helix alternative.

The Helix project is expected to provide new benefits in the form of improved reliability and increased safety. The prime rationale for the project, however, is the maintenance of a critical link in the region's transportation system. A primary benefit, then, is the avoided costs to the agency and the public of *not* replacing the link in a timely fashion.

This cost-benefit analysis shall compare the costs and benefits of proceeding with the selected alternative (the "Build" case) against a base case of not replacing the link in a timely fashion (the "No Build" case). Under that scenario, replacement of the Helix would be deferred a number of years and maintained in its present configuration with periodic repairs and rehabilitation, to provide an acceptable level of service until eventual replacement. The length of time to be considered for the deferral will be determined by the Authority.

A key sub-task of this CBA will be the development of conceptual costs for the No Build condition. The Authority will provide the Consultant with a history of past maintenance and repair costs on the Helix, costs for rehabilitation work that is currently under way, and engineering assessments of the Helix's condition. The Authority will also provide the Consultant with a timetable giving the nature and extent of the repairs to be utilized for the No Build scenario. The timetable will extend from the present date to the end of the deferral

period. The Consultant shall develop a schedule of conceptual costs for maintaining the Helix in its existing configuration for the period given in the timetable.

The Consultant shall also develop a schedule of conceptual costs for maintaining the replacement Helix after the construction period.

All costs used in the analysis will be on a Total Project Cost basis, including any relevant soft costs.

1. The CBA shall, at a minimum, consider the following costs and benefits occurring during and after construction, to the extent that they differ between the Build and No Build cases. Where the Authority is not providing estimates, these costs and benefits shall be estimated at a conceptual level:

- All life cycle costs;
 - Disruption of travel due to construction or repairs and rehabilitation. The analysis of travel time impacts during construction and capital renewal may be conducted at a conceptual level using a simple spreadsheet queuing model;
 - Reliability (e.g., from faster clearing of lanes after incidents);
 - Improved safety;
 - Vehicle operating costs;
 - Air pollution emissions;
 - Carbon emissions.
- a) Meet with the Authority to agree on the parameters of the CBA, including the definition of the No Build condition.
 - b) For the No Build condition, deliver a draft schedule of conceptual costs for maintaining the existing roadway for the period given in the timetable.
 - c) Deliver a draft analysis of benefits, including backup spreadsheets
 - d) Deliver a final analysis, including backup spreadsheets, and present results of the CBA.

Changes in carbon emissions need not be monetized but must be presented alongside the benefit-cost metrics.

2. The CBA shall be carried out from the perspective of both the region and the nation, if these perspectives differ. The Consultant shall also prepare an analysis considering only financial costs and benefits for the Port Authority. Benefits and costs shall be evaluated over an analysis period to be agreed upon by the Consultant and the Authority. The Authority will provide its CBA Framework to the Consultant. The framework specifies a discount rate and monetary values for some benefits and costs that the Consultant shall use in the analysis. Where the framework does not specify an analytical approach, the Consultant shall recommend an approach for review by the Authority's Planning and Regional Development Department. The CBA does not need to account for wider economic benefits to the region, although consideration of such analysis is not precluded.

3. The Consultant shall prepare this CBA consistent with Federal guidelines for competitive grant programs such as the USDOT TIGER program. To the extent that those guidelines differ from the Authority's guidelines, as in the specification of geographic scope or discount rate, the Federal guidelines will govern.
4. The Consultant shall conduct risk analysis to establish confidence intervals for the inputs to the CBA, and the Consultant shall present CBA metrics such as Net Present Value and Benefit-Cost Ratio along with confidence intervals or probability distributions.

The risk analysis shall also consider the benefits of reduced risk of catastrophic failure due to seismic events. The Authority will provide conceptual estimates of the travel time impact of a catastrophic failure.

5. The Consultant shall deliver a report that includes a detailed explanation of economic, engineering, and transportation parameters and assumptions used in the analysis; a detailed explanation of the methods and analysis used; quantitative and qualitative costs and benefits of the options; cost benefit metrics evaluated (Net Present Value, Internal Rate of Return, Cost-Benefit Ratio, etc.) along with sensitivity and risk analysis; and appropriate appendices containing raw data variables and describing methodologies employed. The Consultant shall also deliver any spreadsheets used to perform the cost-benefit calculations and sensitivity analysis. The Authority shall have the right to use and alter this spreadsheet to update the analysis in the future. Draft and final versions of these spreadsheets shall be delivered with the draft and final reports, respectively.

TASK T. SCHEME DEVELOPMENT PACKAGE (SDP)

Develop and evaluate the following replacement schemes; prepare associated functional drawings and order-of-magnitude construction cost estimates.

Scheme G – Replace in-kind, single level roadway structure utilizing the existing geometry of the existing Helix (i.e., vertical and horizontal alignments, width of structure, width of roadway).

Scheme H - Yet-to-be-defined elevated roadway structure (possibly a variation of Schemes A, B, or C previously considered).

The SDP effort shall include, but not be limited to, the following:

1. Functional layout drawings to include, but not be limited; to, the following:
 - a. Horizontal and vertical alignments;
 - b. Elevations and sections as necessary to depict geometry, typical construction, and temporary construction, and to demonstrate staging;
 - c. Identification of impacted properties (those beyond Authority's right of way). Identify parcels requiring permanent or temporary land acquisition and those requiring permanent subsurface easement agreements. Additionally, identify limits of temporary surface and permanent subsurface easements;
 - d. Clearances and structure elevations or limits (i.e. maximum/minimum);

e. Staging plans, including closures, detours and temporary structures.

The information shall be overlaid on the topographic survey plan background drawing(s) or on aerial images. Vertical alignments and elevations shall be prepared in AutoCAD drawing format in accordance with Authority's CAD Standard (See Section V, below).

2. Concept(s) for at grade roadway areas, including proposed pavement, retaining walls coordinated with Structural discipline, etc.
3. Conceptual designs for bridge structures, including typical deck, superstructure and substructure.
4. Concept(s) for at-grade roadway area retaining walls, coordinated with Traffic/Civil disciplines.
5. Evaluation and recommendation of typical foundation type(s), anticipated configuration and minimum clearance requirements for construction (coordinate with Authority as required).
6. Evaluation of existing column foundation capacities as necessary.
7. Foundation options and capacities.
8. Identify necessary environmental permits. Determine necessity for an Environmental Impact Statement (EIS).
9. Determine requirements for plumbing and fire protection.
10. Review of Electronics recommendations included in the 2012 Feasibility Study report. Consult with the Authority on which recommendations to consider in the construction cost estimates (see Item 11 below).
11. Prepare a Construction Cost Estimates and Construction Schedules for the schemes identified above. The construction cost estimates shall include a 40% contingency and shall be in accordance with the Authority's estimating guidelines and procedures, included herewith and made a part hereof (See Section V, below). Provide an estimate of delivery time for all long lead-time items. Present the Construction Schedule in bar chart form, using days, weeks or months as appropriate for the unit of time. Costs for property acquisition or easements shall not be included in the estimates.
12. Update the construction cost estimates prepared under the Pre-Stage I Feasibility Study, which includes (6) replacement schemes and the Pleasant Avenue Route 495 entrance ramp improvements.
13. Prepare and submit a SDP report:
 - a. Report shall be prepared with the final version of information developed for this task (Task T). The report format shall generally be consistent with that of the 2012 Pre-Stage I Feasibility Study Report. The SDP report shall include, but not be limited to, the following sections: Executive Summary, Introduction, Foundation Design Recommendations, Existing Traffic Information (*if changes have occurred since*

2012), Design Criteria Summary, Stormwater Management, Structural Concept, Alignment and Profile, Civil Issues, Traffic, Construction Staging and Phasing, Constructability, Permanent Structures, Temporary Structures, Mechanical/Electrical, Right of Way Acquisitions and Easements, Conceptual Cost Estimates, Construction Schedules and Comparison of Schemes.

- b. Submit a progress and a 100% pre-final SDP report for Authority review.
- c. Prepare and conduct a Microsoft PowerPoint presentation of the 100% complete SDP to Authority staff at least one month prior to start of public outreach sessions.
- d. Incorporate Authority comments and present the final SDP to Authority staff.

IV. AUTHORITY DOCUMENTATION SOFTWARE REQUIREMENTS

Documents shall be developed using hardware and software consistent with industry standards and approved by the Authority. The systems presently accepted are:

- Microsoft Excel 2007: budgeting, cost monitoring, tables and charts
- Microsoft Word 2007: word processing
- Microsoft Power Point: graphics and presentations
- Microsoft Project 2007: design schedules

V. INFORMATION AND MATERIALS PROVIDED BY THE AUTHORITY

The Authority will make available for the Consultant's information certain documents specified below. The documents specified under "A" below were not prepared for the purpose of providing information for the Consultant upon 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 any conclusions drawn therefrom. They are made available to the Consultant merely for the purpose of providing such information as is 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 and form a part of this Agreement.

All documents in the possession of the Authority will be available to the Consultant for review at the Authority's offices via appointment during regular business hours. The Authority will make available for the Consultant's information the documents specified below. The Authority makes no representation or guarantee as to, and will not be responsible for, their accuracy, completeness or pertinence and, in addition, will not be responsible for any conclusions drawn therefrom. They are made available to the Consultant merely for the purpose of providing such information as is in the possession of the Authority, whether or not such information may be accurate, complete or pertinent, or of any value to the Consultant. All documents in the possession of the Authority will be available to the Consultant for review at the Authority's offices at either 4 World Trade Center [150 Greenwich Street], New York, New York 10007 or 2 Montgomery Street, Jersey City, New Jersey, Monday through Friday, 9:00am to 3:00pm.

A. Available Documents Include:

1. Survey Base Map showing site features, topography, and title info.
2. LT Helix Replacement Feasibility Study Executive Summary, dated November 30, 2012
3. As-Built plans for existing roadways in the project area
4. Stormwater Management Memorandum, dated April 12, 2013
5. Existing Traffic Studies conducted by the Authority in the project area
6. The Authority will make available for the Consultant to review traffic studies and data that pertain to the Lincoln Tunnel, as well as traffic data available from other applicable sources. The last full comprehensive Lincoln Tunnel data collection program was conducted in 2011. Said data include but are not limited to the following: Turning movement counts; Vehicle classification counts; Automatic Traffic Recorder (ATR) data; and Pedestrian counts.
7. The Authority has developed VISSIM simulation models for the AM and PM peak periods for the existing Lincoln Tunnel corridor. Existing VISSIM models will be provided to the selected Consultant firm for review. The Consultant shall update the models based on the new requirements specified in this RFP, the 2011 count data, or other documents, as required. The Authority also has developed Synchro models for the AM and PM peak periods of the existing Lincoln Tunnel approaches and local access roadways in New Jersey. The Synchro models will be provided to the selected Consultant firm for review. The Consultant shall update the models based on the new requirements specified in this RFP, the 2011 count data, or as required

B. The documents specified below are available as Reference Documents for the subject work and form a part of this Agreement.

1. PANYNJ Sustainable Infrastructure Guidelines (dated 2011)
http://www.panynj.gov/business-opportunities/pdf/PANYNJ_sust_infra_guidelines.pdf
2. Authority Engineering Architectural Design Division CAD Standards (Current Version) <http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-csg-cad-standard.pdf>
3. PANYNJ Estimating Guidelines (dated 2009) <http://www.panynj.gov/business-opportunities/pdf/engineering-consultants-estimating-guidelines.pdf>
4. Authority Engineering Architectural Design Division Report Templates
5. Authority Engineering Architectural Design Data Collection and Drafting Standards
6. Other information, material, and/or documentation related to the Project will be made available to the Consultant as needed and as appropriate to assist the Consultant with the performance of requested services.

VI. CONDITIONS AND PRECAUTIONS

1. General

The Consultant shall immediately inform the Authority of any unsafe condition discovered at any time during the course of this work. Vehicular traffic on the LT Helix and associated roadways shall always have priority over any and all of the Consultant's operations.

2. Work Areas

The Consultant shall limit his work operations to the areas necessary for the performance of such work and shall not interfere with the operation of the LT Helix without first obtaining specific approval from the Authority.

During all periods of time when the Consultant is not performing operations at the work site, he shall store all equipment being used for the inspection in areas designated by the Authority and the Consultant shall provide all security required for such equipment.

The Consultant shall not permit any objects or pieces of equipment to lie unattended on sidewalks, roadways or structures at any time.

3. Work Hours

The Consultant shall perform work at the site between the hours of 8:00 A.M. and 4:00 P.M., Monday through Friday, unless otherwise directed by the Authority. Work hours detailed in Task C.2 still apply.

In any case, no work shall be performed at the site on a legal holiday of either the State of New York or the State of New Jersey.

For site access, the Consultant shall be provided a name and telephone number of an Authority contact to arrange for any site visits and to obtain facility IDs for all personnel to access the project site. To obtain facility IDs, all personnel must first obtain a Membership ID from the Secure Worker Access Consortium (SWAC).

VII. LIABILITY INSURANCE AND WORKERS' COMPENSATION INSURANCE

1. Commercial Liability Insurance:

a. 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 directed to perform services airside in absence of an approved escort, the Commercial General Liability Insurance and Automobile Liability Insurance provided by the Consultant 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 "Port Authority of New York and New Jersey and its related entities as additional insured and shall contain an endorsement that the

policy may not be canceled, terminated or modified without thirty (30) days written advance notice to the Project Manager as noted below. 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.

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 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.”*

- b. 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:
 - i. Endorsement to eliminate any exclusions applying to the explosion, collapse, and underground property damage (XCU) hazards.
 - ii. Endorsement to eliminate any exclusions on account of ownership, maintenance, operation, use, loading or unloading of watercraft.
 - iii. Coverage for work within 50 feet of railroad.

2. Workers' Compensation Insurance:

- a. 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. A waiver of subrogation in favor of the Authority and its related entities, as allowed by law, shall be included.
- b. 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:
 - i. United States Longshoremen's and Harbor Workers' Compensation Act Endorsement.
 - ii. Coverage B Endorsement - Maritime (Masters or Members of the Crew of Vessels), in limits of not less than \$1,000,000 per occurrence.
 - iii. Amendments to Coverage B, Federal Employers' Liability Act in limits of not less than \$1,000,000 per occurrence.

3. Professional Liability Insurance:

Not less than \$5 million each occurrence, covering 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 basis or may be written on a claims made basis with a minimum of a three-year reporting/discovery period.

4. 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 and containing a separate express statement of compliance with each of the requirements above set forth, via e-mail, to the Project Manager.

- a. Renewal certificates of insurance or policies shall be delivered to the Facility Contract Administrator, Port Authority 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 on the facility. If at any time any of the certificates or policies shall become unsatisfactory to the Port Authority, the Consultant shall promptly obtain a new and satisfactory certificate and policy.
 - b. 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 Project 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 Project 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.
 - c. 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.
 - d. 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.
5. The Authority may at any time during the term of this Agreement change or modify the limits and coverages of insurance. Should the modification or change result in an additional premium, the General Manager, Risk Management for the Authority may consider such cost as an out-of-pocket expense.

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

DATE

FIRM

ADDRESS

CITY, ST ZIP

Attention: CONTACT, TITLE

**SUBJECT: PERFORMANCE OF EXPERT PROFESSIONAL CONCEPTUAL
DESIGN AND RELATED ENVIRONMENTAL AND TRAFFIC
ENGINEERING SERVICES FOR THE LINCOLN TUNNEL HELIX
REPLACEMENT**

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 his responsibility under this Agreement to furnish 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. An amount equal to the premium payments for overtime work or night work or for performing hazardous duty, actually paid to partners, principals, project/program management or other professional and technical employees 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. An amount equal to the 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 expenses do not include amounts 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 his personal vehicle to provide services within the Port District the Consultant shall 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 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 in 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 (12%) percent participation by qualified and certified MBEs and 5 percent 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.

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 April 11, 1996 (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 April 11, 1996 (a copy of which is available upon request to the Office of the Secretary of the Authority). Without the express written approval of the Chief Engineer, 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 Chief Engineer in writing of such situation giving the full details thereof. Unless the Consultant receives the specific written approval of the Chief Engineer, the Consultant shall not take the contemplated action which might be viewed as or give the appearance of a conflict of interest. The Chief Procurement Officer 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 Chief Procurement Officer and shall become a requirement, as though fully set forth in this Agreement. In the event the Chief Engineer 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 Chief Engineer to be no longer appropriate because of such preclusion, then the Chief Engineer 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 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 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.

FIRM

- PAGE 20 -

DATE

34. 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
Procurement Department

Date _____

ACCEPTED:

FIRM NAME

By: _____

Print Name: _____

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 "34" to "35" and insert a new Paragraph "34" as follows:

34. 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

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, 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. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority revised Freedom of Information Policy adopted by the Port Authority's Board of Commissioners on October 22, 2014, or as may be amended, which may be found on the Port Authority website at: http://www.panynj.gov/corporate-information/pdf/board_minutes_102214.pdf, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Policy, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

(Company)

(Signature)

(Title)

(Date)

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

ATTACHMENT C
COMPANY PROFILE

**PERFORMANCE OF EXPERT PROFESSIONAL CONCEPTUAL DESIGN
AND RELATED ENVIRONMENTAL AND TRAFFIC ENGINEERING SERVICES
FOR THE LINCOLN TUNNEL HELIX REPLACEMENT
(RFP# 43062)**

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.