

**Contract # PSC-13-2935  
Development of Master Plan and  
Conceptual Design of Upper Level  
Approaches and Belt Parkway  
Connector Ramps at the  
Verrazano-Narrows Bridge  
RFP**

**TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY**

Agreement dated as of the 27<sup>th</sup> day of December, 2013  
by and between TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY, with  
offices at 2 Broadway, New York, New York, 10004, a public benefit corporation  
organized and existing under the laws of the State of New York, and hereinafter  
referred to as the "Authority" and Parsons Brinckerhoff/WSP, a Joint Venture  
having an office at One Penn Plaza, New York, NY 10119 and being hereinafter  
referred to as the "Consultant".

**WITNESSETH:**

WHEREAS, the Consultant has offered to perform services in connection  
with the project generally described as Contract PSC-13-2935 and

WHEREAS, the Authority is willing to contract for the performance of such  
services upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual covenants and  
agreements herein contained, the parties hereto agree as follows:

**ARTICLE I - SCOPE OF SERVICES**

The Consultant agrees to perform or have performed for the benefit of the  
Authority all of the services (hereinafter referred to as the "Services") set forth and  
described in the attachment hereto entitled "Technical Requirements". Only those  
services shall be so performed and the Consultant shall not make any modification  
thereto except pursuant to Supplemental Agreement by the Authority.

**ARTICLE II - PAYMENT FOR SERVICES**

The Authority agrees to compensate the Consultant for the performance of  
the Services in accordance with the provisions of Appendix A to this Agreement.  
Compensation is deemed to include reimbursement where appropriate, as therein  
provided.

**ARTICLE III - GENERAL**

A. The Consultant agrees that it will at all times employ, maintain and  
assign to the performance of the Services a sufficient number of competent and  
qualified professionals and other personnel to meet the progress schedule to which  
reference is hereinafter made.

B. The parties shall at all times cooperate with each other and coordinate  
their respective work efforts to most efficiently progress the performance of the  
Services.

C. The Consultant shall avoid infringement of any copyright or patent rights in the performance of the Services.

D. All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if sent by Registered or Certified Mail, return receipt requested, or delivered personally, in either case addressed as follows:

- (1) To the Authority in duplicate to the following addresses:

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY  
2 Broadway, 22<sup>nd</sup> Floor  
New York, NY 10004

Attention: Chief Engineer, Engineering and Construction

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY  
2 Broadway, 24<sup>th</sup> floor  
New York, N.Y. 10004

Attention: Gavin Masterson, Chief Procurement Officer

- (2) To the Consultant:

Parsons Brinckerhoff Inc./WSP, JV  
One Penn Plaza  
New York, NY 10119

Attention: Neil Lucey, Principal

Either party may at any time designate a different address by giving notice as provided above to the other party. Such notices shall be deemed given upon actual receipt by the addressee.

E. If any provision of this Agreement or any application thereof shall be invalid or unenforceable, the remainder of the Agreement and any other application of such provision shall not be affected thereby.

#### ARTICLE IV - MANNER OF PERFORMANCE

A. The Consultant is engaged in an independent business and agrees to perform the Services in the manner of and as an independent contractor and not as the agent or employee of the Authority. The Consultant shall engage, at its sole expense, all engineers, architects, cost estimators, experts and consultants, but their assignment to perform Services under this Contract shall be subject to the limitations of Article V and Article VI below. The Consultant shall be responsible for the performance of the work of all architects, engineers, cost estimators, experts

SECTION III  
TECHNICAL REQUIREMENTS

**SECTION III**  
**PART A**  
**TECHNICAL REQUIREMENTS**  
**TS-1 SCOPE OF SERVICES**

**1.0 INTRODUCTION AND PROJECT OBJECTIVES**

**A. Introduction**

The Verrazano Narrows Bridge (VNB) is a suspension bridge between the boroughs of Brooklyn and Staten Island in New York City. The bridge is a link in the Interstate system (I-278) which connects the Staten Island Expressway with the Brooklyn-Queens Expressway, and the East and West bound Belt Parkway. Construction of the Bridge started in 1959, with the upper level open to traffic in 1964 and the lower level in 1969.

The Verrazano Narrows Bridge's Upper Level Approach decks in Staten Island and Brooklyn were constructed under Contract NB-12, and opened to traffic in 1964. The Staten Island Upper Level approaches link the Verrazano Narrows Bridge to the toll plaza, and the Staten Island Expressway. There are no on or off ramps connected to the Staten Island approaches. The Upper Level Approaches in Brooklyn connect the Brooklyn Queens Expressway (BQE) with the Verrazano Narrows Bridge. The approaches also connect with the on and off ramps of the Belt Parkway and 92 street approach ramps.

The Belt Parkway Ramps of the Verrazano-Narrows Bridge were also constructed under Contract NB-12, and opened to traffic in 1964. Initially, the ramps connected only to the Upper Level of the bridge since the construction of the Lower Level was not completed until 1969 under Contracts NB-201 and NB-202. Currently, these ramps connect the eastbound and westbound Belt Parkway to the Verrazano-Narrows Bridge and allow inbound and outbound access to both the Upper and Lower Levels. (See attachment A-1)

The Brooklyn structures of the VNB are positioned on or over US Army property. This property was eased to the Authority in the 1960's under DA 30-075-ENG-11893, titled Department of the Army Easement for Road, Street, and Bridge Construction over Fort Hamilton, Brooklyn, N.Y. and Fort Wadsworth, Staten Island, N.Y.

In addition, John J. Carty Park, owned and operated by the NYC Parks Department is located below and adjacent to the Belt Parkway Ramps. The park features a senior citizens center, parking lot, tennis, bocchi, and basketball courts.

The area of the Belt Parkway where the ramps connect to the Parkway is jointly maintained by the NYC Parks Department and the NYC DOT.

The Authority has invested over \$900 million since 1989 in Capital improvements to the Verrazano Narrows Bridge (See attached Capital Projects-A-2). The Authority is committed to

continue improving traffic flow as well as rehabilitate structures in order to maintain the facility in a state of good repair.

In order to continue this effort in the most cost effective manor the Authority developed a Master Plan for the Facility (See attachment A-6).

As part of the Master Plan, in the last 10 years the facility has completed several construction projects including the Brooklyn on-grade approach roadways, the replacement of the Staten Island and Brooklyn Lower Levels approaches, viaduct decks, Lily Pond Ave overpass, and the Lower Level anchorage decks.

The existing Master Plan includes several projects which are currently in the construction phase:

VN-03 the improvement to the toll plaza is scheduled to be completed in 2015. See attached rendering (see attachment A-3)

VN-80B, the Replacement of the Upper Level Roadway Deck was awarded last year, and it is anticipated that the construction will be completed in 2017.( See attachment A-4)

VN-80C/VN-35, New HOV Ramp and Misc. Repairs and Painting. The construction project is scheduled to be awarded in November of 2013, and it is anticipated to be completed in March 2017 (See attachment A-5)

Since the development of the original Master Plan, the VNB has/will undergo several geometrical changes, i.e. the additional of the 7<sup>th</sup> lane on the Upper Level, and the new Bus HOV ramp. The geometrical changes directly affect some of the future planed construction projects, i.e.:

VN-84: The Widening and Rehabilitation of the Belt Parkway Ramps

VN-80: Lower Level Main Span Deck Replacement

VN-17B : Upper Level Approach Span Deck Replacement

It is the Authority's intent to review a number of existing studies, as well as new studies, to determine which projects can move forward, which projects are obsolete, and the optimum sequencing of the projects, in order to develop a new Master Plan for the Facility.

## **B. Project Objectives**

The Triborough Bridge and Tunnel Authority (the "TBTA" or "Authority") is seeking the services of a qualified consulting Engineering firm (the "Consultant") to develop a Master Plan and conceptual design drawings for both the Upper Level approaches as well as for the reconstruction of the Belt Parkway, connector ramps and right hand exit ramp (or best alternative). The Consultant may also be tasked with developing conceptual designs for projects that have been recommended and approved by the Authority from the Master Plan. The Authority may also elect to amend the contract at its sole discretion to include the full design of any or all of the approved

conceptual designs, as well an EIS, or Environmental Assessment (EA) if deemed necessary. The above work will be staged and bid in up to four phases as follows:

**Phase I:**

**A. Master Plan**

The goal of the Master Plan will be to optimize the design, reconstruction, maintenance and implementation of the various projects in order to reconstruct the Upper Level approaches and Belt Parkway and connector ramps while maintaining traffic. The Master Plan shall be an integrated series of projects which shall present in graphic, narrative, and tabular form the existing composition of the structures and the plan for their orderly and comprehensive long-range development, over a period of 20 years. The approved Master Plan will be used as a preliminary planning tool for the TBTA in preparing contract drawings and plans for the individual projects and planning their sequencing and timing.

Development of the Master Plan will include the investigation, compilation, optimization, and recommended course of action of the following projects:

**PROJECT 1.**

**Bike Lane:** The original bicycle study, commissioned by the New York City Department of City Planning in 1995 to design and build a bicycle path across the VNB. The original study focused on the VNB's main span, and little investigative work was performed for the approaches and ramps. The Consultant will be required to study, and develop alternatives, costs, and recommendations, which shall take into consideration the current as well as future geometry of the facility, security, safety, operations, maintenance, wind effects of any new structures on the bridge's decks, and seismic events. The study shall include the approaches and ramps. The study shall take into consideration projected bicycle demand on the VNB till year 2035.

The study shall also consider the feasibility of installing a Debris and/or Public Safety Barrier. The Barrier should be low maintenance, withstand seismic events, climbing resistant, meet the Historical Preservation requirements, not hinder bridge maintenance or inspections, nor negatively impact the bridge's wind dynamics.

**PROJECT 2**

**Denyse Wharf Ramp-** The Consultant shall investigate the feasibility of constructing an off ramp from the Belt Parkway Ramp (eastbound) to Denyse Wharf. Denyse Wharf is a pier off the shore, below the Verrazano Narrows Bridge Brooklyn side span. The New York City Department of Education (DOE) is considering building a science lab at Denyse Wharf on a Floating Barge. The Consultant shall review the DOE's Feasibility study, and provide costs, alternatives, and recommendations for accessing the floating barge. The Consultant's report and recommendations shall take into consideration, at minimum, the latest FEMA flood maps, costs, benefits, alternatives (public transportation), and Environmental and Historical preservation factors.

Task 5      Final (100%) Design and Bid Package

Task 6      Pre-Award Requirements

Task 8      Permitting

The Consultant may submit costs for the below Phase IV task upon request from the Engineer once the Final Designs are substantially complete. These costs will be negotiated and an amendment issued at a later date. **The work on Phase III may be initiated only after the issuance of a negotiated amendment to the Contract.**

#### **PHASE IV**

The following Task is included in Phase IV

The following Tasks are for the all Full Designs approved under Phase III:

Task 7      Support Services During Construction

### **7.0 STAFFING**

The Consultant's project staff shall demonstrate successful prior experience in Master Planing and design and construction of major bridges structures with an emphasis on deck replacement, substructure rehabilitation, roadway approaches, as well as related disciplines such as structural, surveying, hazardous waste remediation, civil including maintenance of traffic and traffic simulations, electrical design, and the completion of any necessary environmental documentation necessary to acquire all necessary environmental permits. The Consultant shall also demonstrate successful prior experience in the preparation of Net Present Worth Analysis and preparation of Business Cases justifying construction expenditure. The Consultant's Project Manager shall be a licensed Professional Engineer with New York State with a minimum of twenty (20) years of professional experience in similar work. The lead Project Engineer for each discipline shall be a licensed Professional Engineer with New York State with at least fifteen (15) years experience in similar or related work.

The technical proposal shall include a breakdown of individual hours per task for each member of the project staff and constructability review team. Provide an organization chart depicting levels of responsibility and reporting relationships for the entire staff.

### **8.0 AVAILABLE DOCUMENTATION**



The Consultant shall have access (in accordance with the Authority's Security Procedures) to the Authority's CAD files, microfilm file and reproduction equipment in the library for his use and reproduction of existing plans required for the development of Contract Documents. The drawings in the Authority's CAD and microfilm file are being made available without any guarantee on the part of the Authority as to drawings' accuracy or completeness. These drawings are made available in good faith, but they are not intended as a substitute for the Consultant's personal investigations, interpretations or judgment. Consultant shall field verify all information used in preparation of the construction documents. It is therefore expressly understood that the Consultant shall make no claim of any kind against the Authority based on the contents of these plans, studies or drawings.

"Also, all ECP's referenced to through-out the RFP, Authority Requirements for Consultant Quality Management and Safety, can be obtained from the Engineering and Construction Department, Quality Assurance Division, located at 2 Broadway, 21<sup>st</sup> Floor, phone numbers (646) 252-7169 and (646) 252-7658. Any other referenced documents, including Biennial Inspection Reports are also available for review and can be obtained from the Engineering Information Center located at 2 Broadway, 22<sup>nd</sup> Floor, New York, NY 10004. The Engineering Information Center is open from 8:00 AM to 3:30 PM, Monday to Friday. Appointments can be made by filling the "Visitor Appointment Request Form", which can be found on the internet at: <http://www.mta.info/bandt/html/forms.html>. Or by calling (646) 252-7807 or (646) 252-7853."

All drawings, reports, etc. loaned to the Consultant shall be signed out by the Consultant and all reference material, if borrowed to reproduce, shall be returned within 72 hours by the Consultant.

It shall be the responsibility of the Consultant to protect from damage materials loaned to the Consultant. The Consultant shall replace any damaged documents at his own cost by legible duplicate acceptable to the Engineer.

Consultant shall utilize existing documents to the greatest extent possible to minimize package development cost.

The following is a list of selected documents, which may contain relevant information:

- a) VN-84: Feasibility Study to widen the Belt Parkway Ramps at the Verrazano Narrows Bridge. The study was performed by Weidlinger Associates Inc., in 2002.
- b) VN-80B: Upper Level Deck replacement ( construction 2012-2017)
- c) VN-80C: New HOV Ramp at the VNB ( construction scheduled 2013-2016)
- d) 2012 Biennial Inspections-Haks and Sells
- e) VN-17A-Lower Level Approaches Design-seismic
- f) GFM-419A Task 27 Scoping study for project VN-17U Rehabilitation of the UL approaches-2007 Edward and Kelcey
- g) VN-36 Seismic Study

- h) VN-86: URS study to Widen EB Gowanus ( 2013).
- i) GES-191- Belt Parkway study ( 2012-Jacobs/Sam Schwartz)
- j) NB-12: Brooklyn Approaches. The design was completed in 1961.
- k) NB-201 Brooklyn Approach, Steel work Stage 2 Construction.  
Construction was completed in 1968
- l) NB-202 Main Span and Brooklyn Approach Stage 2 construction.  
Construction was completed in 1968.
- m) Various Traffic count reports performed by/under contracts VN-84, VN-03, NYS DOT, and the Authority's Operations Department
- n) Verrazano-Narrows Bridge Pedestrian and Bike Path- Amman Whitney - 1997.

## **9.0 SCHEDULE**

### **A. Submittal Schedule for Design Packages for proposal purposes**

The Consultant shall progress and complete the performance of the services required for each task in the same order set forth below. (Time allowed for Engineer's review is included in the duration, and is approximate.)

The Consultant may propose an alternate schedule, provided that sufficient review time for the Engineer is allowed, and that alternate schedule is less than or equal in duration than is noted below in the schedule. In addition, depending upon the findings during the design brief stage, and deteriorating deck conditions, the schedule may be adjusted as directed by the Engineer.

| <b>Task No.</b> | <b>Description</b>   | <b>Duration (Weeks)</b> | <b>Duration (Weeks from Notice to Proceed)</b> |
|-----------------|--|-------------------------|--|
| <b>1</b>        | <b>Administrative Procedure</b>                                    | <b>On-going</b>         |  |
| <b>2</b>        | <b>Review of Relevant Reports, Investigations and Design Brief</b> | <b>25</b>               | <b>25</b>                                      |
|                 | <b>Authority Review</b>  | <b>4</b>                | <b>29</b>                                      |
|                 | <b>2A: Master Plan</b>   | <b>30</b>               | <b>59</b>                                      |
|                 | <b>Authority Review</b>  | <b>8</b>                | <b>67</b>                                      |
|                 | <b>2B: Conceptual Designs</b>                                      | <b>31</b>               | <b>98</b>                                      |
|                 | <b>Authority Review</b>  | <b>6</b>                | <b>104</b>                                     |

Based on the above time frame, the total design duration (Tasks 1, 2A and 2B) is 104 weeks from the date of the Notice of Award. All other tasks, and associated times frames, will be negotiated at a later date.