CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT

PARALLEL THIMBLE SHOAL TUNNEL
REQUEST FOR REVISED PROPOSALS
#PTST-15-2

TO: AWVC Tunnel Builders  
    BTM JV  
    Dragacos USA
FROM: Chesapeake Bay Bridge and Tunnel District
SUBJECT: Request for Revised Technical Proposals #PTST-15-2
DATE: July 1, 2016

Effective this date is Addendum #6 to the subject Request for Proposals (“RFP”). This addendum will serve to advise all shortlisted Offerors of the following changes to the subject RFP documents in accordance with related correspondence to the shortlisted Offerors on May 27, 2016, as well as provide a formal request for Revised Technical Proposals (“RTP”) and Revised Price Proposals (“RPP”).

1) Project procurement will be proceed in accordance with the following updated schedule:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Request for Revised Technical Proposals</td>
<td>July 1, 2016</td>
</tr>
<tr>
<td>Revised Technical Proposal Due Date 10:00 a.m. EST</td>
<td>July 12, 2016</td>
</tr>
<tr>
<td>Revised Price Proposal Due Date 10:00 a.m. EST</td>
<td>July 15, 2016</td>
</tr>
<tr>
<td>Commission Award</td>
<td>July 27, 2016</td>
</tr>
<tr>
<td>Anticipated Limited Notice to Proceed (LNTP)</td>
<td>August 31, 2016</td>
</tr>
<tr>
<td>Anticipated Final Close</td>
<td>November 2016</td>
</tr>
<tr>
<td>Anticipated Notice to Proceed #1 (NTP1)</td>
<td>January 2017</td>
</tr>
</tbody>
</table>

2) The following outlines the submittal requirements for Offerors to ensure their RTP is technically acceptable to the District. The RTP shall include the elements set forth below.

a) The Offeror is to provide a Letter of Submittal on the Offeror’s letterhead with the RTP that includes the following:
   i) Introductory paragraph.
   ii) Identify any changes that have been made to the Offeror’s organizational structure or Key Personnel since District receipt of the Offeror’s Final Technical Proposal (“FTP”). If no changes have been made, indicate as such.
   iii) Certify that the Offeror’s RTP is fully compliant with the Technical Requirements (Part 2) set forth in the RFP documents as amended by all prior addenda including this Addendum 6 issued July 1, 2016.
   iv) Acknowledgement of receipt and compliance with each addendum to this RFP.
   v) Certify the truth and correctness of the contents of the RTP.
vi) Be signed by an authorized representative of the Offeror’s organization, with all signatures being original and signed in ink.

b) As an attachment to the Letter of Submittal included with the RTP, the Offeror shall include a summary listing and description, with section and page references to the Technical Proposal, of any changes, revisions, additions and/or deletions made to the Technical Proposal. The summary of changes and change pages submitted with the RTP will be used by the District Evaluation Team to easily identify proposal revisions, additions and/or deletions as compared with the FTP previously submitted by the Offeror.

At a minimum the following shall be included:

i) Summary listing each section of the proposal. Herein the Offeror shall provide a summary of the changes, revisions, additions and/or deletions included in the proposal as well as a brief summary of what additional changes to be made that were not yet addressed in the RTP. If no changes have been made, indicate as such.

ii) An updated Index of Drawings indicating:
   1) Revised Drawings that are included in the RTP to depict the Offeror’s understanding of the revisions to scope;
   2) Drawings that are impacted by the revised scope, but will not be updated until detailed design commences;
   3) Drawings that have no changes;
   4) Drawings that are no longer applicable and intentionally omitted; and
   5) New drawings.

c) The RTP shall be developed to a level sufficient to allow the District to obtain a clear understanding of the Offeror’s intent, and provide a basis of design developed in sufficient detail to permit the Offeror to submit a lump-sum Revised Price Proposal. At a minimum, the following changed pages shall be included to convey the Offeror’s understanding of and approach to complying with the Technical Requirements for all major elements of the Project:

i) Plan view of the project including location of proposed utilities and dimensions of roadway lane and shoulder widths, and the crossovers on the portal islands. Drawings must also include calculated minimum intersection sight distances exiting Portal Island No. 1 southbound.

ii) Plan view of each portal island with dimensions of loop road, any critical “pinch” points on the island, location of proposed parking spots, and pedestrian amenities for access to and from the rehabilitated fishing pier meeting ADA and Technical
Requirements. AutoTurn movements of the BUS-40 design vehicle around the island loop road for each island shall be highlighted as well.

iii) Vertical profile of Route 13 depicting superelevation diagrams and vertical curve data including at a minimum the stopping sight distance, K value, and length of vertical curve.

iv) Building floor plans for the new Ventilation Buildings

v) Section view of each new ventilation building at the shaft depicting means of access to the tunnel level for emergency egress as well as for maintenance access.

vi) Plan and Section views of island/tunnel showing the berm limits and limits of island protection

vii) Revised Level 2 and Level 5 Schedules in accordance with the RFP

3) RTP SUBMITTAL REQUIREMENTS, DUE DATE, AND TIME
Each Offeror shall format its RTP in Adobe PDF format, to print legibly on an 8.5” x 11” size paper with the exception of drawings. Drawings shall be formatted in PDF format to print to exact scale on 11” x 17” paper. The PDF shall be organized for ease of on-screen reading and for ease of printing by assembling the document in the correct order of the RTP so that there is no assembly or interpretation required by the District. The Offeror shall transmit their full RTP in electronic PDF format via email or other file transfer method to the District no later than 10:00 AM on July 12, 2016. The email shall be directed to Mr. Michael T. Crist, PE at mcrist@cbbt.com and Mr. Kevin Abt, PE at kabt@cbbt.com. No pricing information shall be included in the RTP submittal.

The District has a limit of 10 MB transfer capability. If files are larger than 10 MB, the offeror is responsible for providing a file transfer method (FTP, Dropbox, etc.) Offerors are strongly encouraged to submit a test submittal to ensure the successful ability to transmit the anticipated size of files to the District by the deadline. Alternatively, the electronic files can be submitted via USB or CD-ROM in lieu of the electronic transfer method of delivery.

4) RPP SUBMITTAL REQUIREMENTS, DUE DATE, AND TIME
Each Offeror shall transmit their full RPP using the attached form in electronic PDF format via email to the District no later than 10:00 AM on July 15, 2016. The email shall be directed to Mr. Michael T. Crist, PE at mcrist@cbbt.com and Mr. Kevin Abt, PE at kabt@cbbt.com.

The Offeror’s RPP shall include the total cost to construct the project including the rehabilitation of the Fishing Pier and associated costs to accommodate public activities on the island such as the cost to provide: utility connections to the new pier (electric, water,
communications); protective elements such as fencing and guardrail along the outer edge of the island; ADA-compliant, public vehicle parking and pedestrian access to the pier; striping of the eastern side of the island for public parking etc.

The District is also requesting a price for demolition of the fishing pier. This price will not be included in the evaluation of the lowest price proposal. The demolition of the fishing pier shall include the cost of the demolition as well as all associated work, such as removal and disposal of the Fishing Pier including all substructure elements cut off at the mud line; removal and disposal of utilities servicing the existing Fishing Pier, and inclusion of security elements such as fencing, gates and security features similar to those specified in the Technical Requirements for Portal Island No. 2. ADA accommodations and other public considerations for the Fishing Pier, including striping of the eastern side of the island would no longer be required.

5) **PROPOSAL BOND**

The Offeror shall ensure that their proposal bond submitted on April 29, 2016 remains valid through August 31, 2016. Otherwise, the Offeror shall provide a new proposal bond that meets the requirements of the Instruction to Offerors.

**ADDENDA TO THE TECHNICAL REQUIREMENTS**

This Addendum No. 6 makes the following changes to the RFP Documents, as modified in Addendum No. 1 through Addendum No. 5.

1) Change 6th line of text on cover sheet of Part 2 Technical Requirements Section 1 to read: “DESIGN AND CONSTRUCTION REQUIREMENTS”

2) Replace paragraph 1.2.1.B.3 in its entirety with the following:

3. Governmental and Third Party Approvals and Coordination
   i. Initiating fire and life safety meetings and coordination;
   ii. Initiating permitting, supplemental survey, and geotechnical exploration;
   iii. Preparing navigation plans and initiating coordination activities with relevant third parties;
   iv. Preparing environmental permits; and
   v. Coordinating with third party utilities such as Eastern Shore Broadband and Dominion Virginia Power.

3) Replace paragraph 1.3.2.B in its entirety with the following:
2. As the design progresses, the Design-Builder is responsible to work with the District to coordinate with the Federal Highway Administration (FHWA) to determine the content of the NEPA re-evaluation, which is dependent on the design changes and the potential impacts to the environment. If the Design-Builder becomes aware of new information or identifies previously unknown impacts that may have a bearing on environmental impacts, or the Design-Builder proposes changes to the Project Scope and/or footprint or any other circumstance that differ from the EA and FONSI that may require additional reevaluation of the project by the FHWA, the Design-Builder shall immediately initiate consultation with the District regarding the need to reevaluate the applicable NEPA documentation, prepare a new NEPA document or initiate additional coordination with applicable regulatory or advisory agencies. This includes but is not limited to the Section 106 process for cultural resources. The District shall serve as the main point of contact with FHWA. The District shall be responsible for reevaluating the NEPA documentation and coordinating any new NEPA documents with FHWA. The Design-Builder shall prepare all required analyses and provide this information to the District who will coordinate with the FHWA, as appropriate. In all cases, the cost and schedule implications of any changes to the NEPA documentation, reevaluations, or additional coordination with applicable regulatory or advisory agencies shall be the responsibility of the Design-Builder. The Design-Builder shall provide the District with all engineering and technical information necessary to support any NEPA reevaluation at the time the change or new information is presented to the District. The reevaluation process is complete once the FHWA confirms in writing that the existing NEPA document remains valid or a new NEPA document is finalized.

4) Replace paragraph 1.3.18.B in its entirety with the following:

B. The Magnon-Stein Fishery Conservation and Management Act and subsequent amendments under the Sustainable Fisheries Act of 1996 require the consultation with the National Marine Fisheries Service (NMFS) on actions proposed or taken, that have the potential to produce an adverse effect on Essential Fish Habitat (EFH). The proposed project area is located within an area that is mapped by NMFS as supporting EFH. Therefore, an EFH Assessment will likely be required as part of the permitting process and will include a benthic survey. The District will provide information from a benthic survey conducted during the Summer of 2016. The scope of work for the survey was developed in cooperation with the relevant Agencies. The Design-Builder may use the results of the survey in the development of the Joint Permit Application. As part of the Joint Permit Application, the Design-Builder shall include a discussion of the recolonization potential of the benthic community.

5) Replace Section 1.4.10.3.1.A in its entirety with the following:
A. The Design-Builder shall allow for access to both Portal Islands and maintain a continuous loop roadway during construction operations for District maintenance and operations personnel and vehicles and for emergency vehicles. Both Portal Islands shall be closed to public access during construction. The loop roadway can be interrupted with advance approval of the District for durations shorter than 24 hours.

6) Replace Section 1.4.19.9.1.A in its entirety with the following:

A. The design parameters to be used as the minimum design vessels for impact and scour scenarios are those listed in Table 1.4-8a and Table 1.4-8b below. Design vessel(s) to be considered in the zone between the navigation channel and the portal islands shall be determined by the Design-Builder based on the study specified in 1.4.19.1.A.3.

<table>
<thead>
<tr>
<th>Table 1.4-8a Minimum Design Vessel Parameters within Navigation Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Length Overall (LOA)</td>
</tr>
<tr>
<td>Bulk carrier capacity (long tons)</td>
</tr>
<tr>
<td>Beam</td>
</tr>
<tr>
<td>Draft (laden)</td>
</tr>
<tr>
<td>Minimum Speed over ground</td>
</tr>
</tbody>
</table>

Table 1.4-8b Minimum Design Vessel Parameters at Outer Slope of Portal Islands

<table>
<thead>
<tr>
<th><strong>Parameter</strong></th>
<th><strong>Along Outer Slope of Portal Islands (excluding tunnel protection)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Length Overall (LOA)</td>
<td>600 feet</td>
</tr>
<tr>
<td>Bulk carrier capacity (long tons)</td>
<td>40,000 DWT</td>
</tr>
<tr>
<td>Beam</td>
<td>95 feet</td>
</tr>
<tr>
<td>Draft (laden)</td>
<td>30 feet</td>
</tr>
<tr>
<td>Minimum Speed over ground</td>
<td>9.4 knot</td>
</tr>
</tbody>
</table>

1 Design Vessel to be determined by the Design-Builder per Technical Requirement Section 1.4.19. Minimum values are represented in this table unless otherwise approved by the District.
7) Replace Section 1.4.19.9.2 in its entirety with the following:

**1.4.19.9.2 Ship Grounding**

A. The Design-Builder shall design for the potential of ship grounding. Based on preliminary assessment Ocean Engineering Report provided for reference in the RFP RID, the following minimum design parameters are suggested:

1. A furrow depth from 10 to 16.5 feet, depending on the angle, from a head-on collision into the armored slope occurring during MHHW (present day), with an impact angle measured from a direction perpendicular to the armor stone; and

2. A collision above the tunnel protective layer with furrow depth of 1.6 feet.

8) Replace Section 1.4.19.9.3 in its entirety with the following:

**1.4.19.9.3 Prop Wash**

A. The Design-Builder shall design for the potential of damage due to prop wash. Stone shall be sized according to Permanent International Association of Navigation Congresses (PIANC) guidelines. Alternatively, USACE recommendations may be employed.

9) Due to the increase of grade within the tunnel, the Design Builder must confirm safety of exiting vehicles from the portal islands, and confirm adequate intersection sight distance. Therefore, replace Table 1.6-1 in its entirety with the following:
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Route 13 (Trestle)</th>
<th>Route 13 (Tunnel and Open Approach)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Classification</td>
<td>Rural Principal Arterial (GS-1)</td>
<td></td>
</tr>
<tr>
<td>Geometric Design Standard</td>
<td>GS-1</td>
<td></td>
</tr>
<tr>
<td>Design Speed (MPH)^4</td>
<td>60</td>
<td>NA</td>
</tr>
<tr>
<td>Portal Island Crossover Design Speed (MPH)</td>
<td>30</td>
<td>NA</td>
</tr>
<tr>
<td>ADT – Current (2012)</td>
<td>9,615</td>
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<tr>
<td>ADT – Projected (2038)</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>Minimum Radius Required</td>
<td>1,204-ft</td>
<td></td>
</tr>
<tr>
<td>Minimum Stopping Sight Distance</td>
<td>570-ft</td>
<td></td>
</tr>
<tr>
<td>Minimum Intersection Sight Distance for entry/exit on islands^4</td>
<td>610-ft</td>
<td></td>
</tr>
<tr>
<td>Number of Lanes</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lane Width (Min.)^2</td>
<td>12-ft</td>
<td></td>
</tr>
<tr>
<td>Cross Slope (Min.)</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Superelevation (Max.)</td>
<td>TC-5.11 R (8% Max)</td>
<td></td>
</tr>
<tr>
<td>Maximum Grade^5</td>
<td>6.00%</td>
<td></td>
</tr>
<tr>
<td>Minimum Grade</td>
<td>0.50%</td>
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</tr>
<tr>
<td>Vertical Alignment - K Crest (Min.)</td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>Vertical Alignment - K Sag (Min.)</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td>Right Shoulder^2</td>
<td>Paved = 9-ft</td>
<td>Paved = 2-ft</td>
</tr>
<tr>
<td></td>
<td>Total = 9-ft</td>
<td>Total = 2-ft</td>
</tr>
<tr>
<td>Left Shoulder^2</td>
<td>Paved = 3-ft</td>
<td>Paved = 2-ft</td>
</tr>
<tr>
<td></td>
<td>Total = 3-ft</td>
<td>Total = 2-ft</td>
</tr>
<tr>
<td>Sidewalk (Min)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Shoulder Slope (Max.)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Slope (Max.)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vertical Clearance (Min.)^3 (To any obstruction)</td>
<td>15-ft</td>
<td></td>
</tr>
<tr>
<td>Design Vehicle</td>
<td>WB-67</td>
<td></td>
</tr>
</tbody>
</table>

Note 1: This criterion is to be used for all lanes and shoulders outside of the tunnel and open approach with the exception of the circulatory travel lanes on Portal Islands No. 1 and No. 2. This includes Route 13 and all auxiliary lanes for Route 13 exiting and entering traffic movements.

Note 2: All roadways with the exception of the circulatory travel lanes on Portal Islands No. 1 and No. 2 must strictly adhere to the minimum lane width and shoulder widths in this Table, with one exception as noted in Section 1.7.3 for shoulder use on Trestle ASB. Minimum travel lane widths must accommodate traffic conditions that allow for sufficient buses and combinations trucks to govern design.

Note 3: The clearance envelope for the Parallel Thimble Shoal Tunnel project is identical for either the immersed tube or the bored tunnel solution. Within the tunnel, the clearance envelope is fifteen feet plus an additional six inches (15'-6") vertically to any obstruction, and the horizontal envelope is comprised of two parts, twenty-eight feet (12'+12'+2'+2') for the roadway, and an
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additional one foot and five inches covering the space above each of the jersey barriers beside the shoulders, giving a grand total of thirty feet and ten inches (30'-10").

Note 4: A 60-mph design speed is to be maintained along US 13 for this project with the exception of the portal islands. FHWA approved a reduction in design speed entering and exiting movements at Portal Islands Nos. 1 and 2 to 55 mph on February 11, 2016.

Note 5: FHWA approved the use of a maximum 6% grade at the tunnel on June 27, 2016.

Note 6: The Design-Builder shall comply with VDOT Road and Bridge Standards, Volume II, Section 800 Transition Curves for all superelevated roadways.

10) Insert Section 1.6.4.F as follows:

A. Northbound egress and southbound access to Portal Island No. 1 is not required. Similarly, southbound egress and northbound access to Portal Island No. 2 is not required. Left turn movements from and to US 13 shall not be permitted.

11) Replace Section 1.7.4.E in its entirety with the following:

E. The Design-Builder shall prepare a Signing Roll Plan (“Roll Plan”) and present the plan in accordance with Attachment 2.B, Design Reviews to these Technical Requirements. The Roll Plan shall include proposed sign locations and messages for all guide signs, toll signing, typical regulatory and warning sign applications, proposed locations for relocating existing signs, and proposed locations for new structures. The Roll Plan shall also display signing, both existing (to remain) and proposed, for all mainline and island roadways. The signing plan shall include, at a minimum, the same number of signs identified in the signing plan sheets included in the Reference Drawings.

12) Insert Section 1.7.4.K with the following:

K. FHWA approved the use of a maximum 6% grade at the tunnel on June 27, 2016 contingent on a requirement to provide signing to mitigate the steep slope. The Design-Builder’s signing plan shall include the use of W7-1a signs to alert trucks to a 6% grade and R4-5 sign to instruct trucks to use the southbound right lane to allow faster moving vehicles to bypass trucks ascending the 6% grade.

13) Replace Section 1.8.3.1 in its entirety with the following:

A. Once approved for closure to the public per Section 1.2. The Design-Builder shall remove any existing structure and utilities on the island that will not remain in use as part of this Project, to include but not limited to the existing sewer line mounted along the eastern side of the southbound trestle ASB and the water and sewer lines buried within Portal Island No. 1 as described in Section 1.8.3.5, the existing restaurant and gift shop, existing lift station, and the abandoned treatment plant located south of the restaurant, or
as otherwise directed by the District. The Design-Builder demolition activities shall include:

1. The Design-Builder shall develop and submit for approval, demolition documents that clearly outline the aspects of the demolition. Demolition shall include environmental testing in accordance with active environmental regulations. Demolition shall also include any electrical conduits, wiring and lighting on the west face of the perimeter splash wall panels adjacent to the restaurant and gift shop.

2. The District will provide a list of any salvage items. These items shall be removed and delivered to the Maintenance Yard at the North Toll Plaza.

3. The restaurant, gift shop, and fishing pier shall remain open to the public until October 1, 2017. Prior to this date, the Design-Builder will have limited access to the facility to perform assessments and surveys. Documentation shall be provided for the existing site conditions including the underground structures, utilities, and conduits.

4. Damage resulting from demolition activities to facilities on Portal Island No. 1 that are to remain following demolition shall be repaired to the satisfaction of the District at no cost to the District.

B. All existing and expanded areas of Portal Island Nos. 1 and 2 shall be paved per pavement design requirements included in Section 1.4.9. Existing pavement on Portal Island No. 2 shall also be milled and overlaid with asphalt per pavement design requirements included in Section 1.4.9.

C. A loop road (striped) shall be designed to provide circulation around the Portal Islands and access to all the facilities and parking spaces. The loop roadways shall be delineated with pavement markings to indicate roadway travel paths different from the rest of the paved surfaces on the Portal Islands. Roadway alignment and designated widths for pavement marking purposes shall be designed in accordance with references indicated in Section 1.8.2 – Standards and References.

D. The Design-Builder must provide satisfactory surface area on the expanded islands for the loop roads.

14) Replace paragraph 1.8.3.2.A through 1.8.3.2.D in its entirety with the following:

A. Parking shall be provided for maintenance personnel only at the ventilation building. Ten parking spaces for maintenance vehicles shall be located in the vicinity of both the new and existing ventilation buildings.

B. NOT USED
C. Parking area must be sized for handicapped parking on the east side of Portal Island No. 1 to satisfy the Americans with Disabilities Act (ADA) Access Components requirements to include, but not limited to, applicable signing, marking, and curb cut ramps. Pavement markings for the parking area on the east side of Portal Island No. 1 shall be applied to match the existing parking layout.

D. Fire truck access through parking areas shall be provided.

15) Delete Section 1.8.3.3.B in its entirety.

16) Replace Section 1.8.3.4A through 1.8.3.4.C in its entirety with the following:
   A. All publicly accessible facilities will be compliant with the Americans with Disabilities Act (ADA). Public facilities to be constructed in this Project include the Fishing Pier.
   B. The island must be sized to accommodate future ADA-compliant walkways from the handicapped parking spaces to the Fishing Pier. All concrete sidewalks shall be a minimum of four (4)-inches thick and five (5)-feet wide, and be designed and constructed according to Section 1.8.2 – Standards and References.
   C. Additional information on the fishing pier can be found in Section 1.10 Structures and Bridges

17) Replace Section 1.8.3.5.A through Section 1.8.3.5.C in its entirety with the following:
   A. A twenty (20) foot wide utility corridor from the existing Portal Island No. 1 ventilation building to the new ventilation building shall be provided by the Design-Builder to provide water, communications and electrical lines to the new ventilation building. An existing underground water tank is currently located on the northeast corner of Portal Island No. 1. The Design-Builder shall verify whether an additional water tank is needed for fire protection, and storage volume in compliance with Section 1.15.6 requirements, and to feed the proposed buildings. Water lines shall be installed a minimum of four (4) feet below existing grade. Water lines shall also be designed per Section 1.15.6 – Tunnel Fire Protection Systems.
   B. Existing facilities impacted by proposed roadway, tunnel or site improvements, including but not limited to the existing sanitary sewer lift station, existing septic tanks, existing leaching tanks, all associated piping and electric which are located south of the existing restaurant, as well as all utilities that are no longer needed to support the proposed facilities shall be removed per the VDOT Road and Bridge Specifications by utility type.
The Design-Builder shall not remove or damage the septic tank or leaching tank on the north end of Portal Island No. 1 or the south end of Portal Island No. 2.

C. The existing water line will remain with the only relocation required at any points of conflict with the new tunnel. The existing water line must be re-connected to the water tank(s) on Portal Island No. 1 at substantial completion.

18) Replace Section 1.8.3.5.E through Section 1.8.3.5.G in its entirety with the following:

E. NOT USED

F. NOT USED

G. The Design-Builder shall fully flush, remove and discard the existing sewer lines along the eastern side of southbound Trestle ASB and Portal Island No. 1, including the following details:

1. NOT USED

2. Remove and properly dispose of the sewer line piping, expansion joints, insulation, protective jacketing, heat tracing, pipe rollers, pipe clamps, connections, elbows, valves, etc. from the tie in point at Abutment ASB1, following along the east side of Trestle ASB and the portion of the system that runs in front of Abutment ASB204 and parallels the return wall on the west side of Abutment ASB204 to the point where it penetrates the island perimeter wall.

3. Completely remove all components of the existing lift station at the restaurant and restore the portal island surface to finished grade.

4. At the discretion of the Design-Builder, the galvanized support brackets for the sewer lines may be left in place and used to support the cable tray for the new electrical feeder line. The Design-Builder must submit verification that the existing brackets will support the cable trays and electrical components intended to be used. Any galvanized brackets that are damaged during water line removal, shall not be re-used. This includes brackets where the galvanized coating is damaged or bare metal is exposed. Any existing brackets not re-used by the Design-Builder shall be removed and properly disposed of.

5. NOT USED

6. The sewer line shall be removed within the limits of Portal Island No. 1, from the island perimeter wall to the point where it is connected to the lift station near the existing Restaurant and Gift Shop, and following removal, shall be properly disposed
of. The hole remaining in the concrete retaining wall following removal of the sewer line shall be capped off with a Type 316 Stainless Steel plate on the fill face of the wall. The plate shall be a minimum of ¼" thick and shall be anchored to the fill face of the wall with a minimum of 4 anchors. The hole remaining in the concrete wall shall be filled with dry pack grout.

7. The Design-Builder shall remove the existing water lines that run to the Restaurant. These shall be removed back to the water vault that is located near the northwest corner of the existing ventilation building.

19) Replace Section 1.8.3.5.H and 1.8.3.5.I in its entirety with the following:

H. The Design-Builder shall provide telecommunications infrastructure to connect the new and existing Ventilation buildings on Portal Island No. 1 and Portal Island No.2, which shall require the Design-Builder to:

1. Furnish and install two (2) handholes. Each handhole shall be 4-feet wide by 4-feet long by 4-feet deep. Each handhole shall be precast concrete with cast iron engraved cover. The handholes and cover shall be rated for H20 roadway load rating.

2. Locate one handhold (HH-T1) 5-feet from the new ventilation building. Locate the second handhole (HH-T2) 5-feet from the existing ventilation building.

3. Install four (4) 4-inch PVC ducts encased in concrete between handholes HH-T1 and HH-T2.

4. Install four (4) 4-inch PVC ducts encased in concrete between the handhole (HH-T1) adjacent to the new ventilation building to within the new ventilation building. Extend the two (2) 4-inch ducts as rigid metal conduit (RMC) from the point of entry into the new ventilation building to the Telecommunication Room (on the 2nd floor) within the existing ventilation building.

5. Install four (4) 4-inch PVC ducts encased in concrete between the handhole (HH-E2) adjacent to the existing ventilation building to within the existing ventilation building.

I. NOT USED

20) Delete Section 1.8.3.5.J in its entirety.

21) Replace Section 1.8.3.7 in its entirety with the following:

A. Portal Island access shall comply with Appendix F, Section 4 of the VDOT Road Design Manual – Low Volume Commercial Entrance.
B. The Design-Builder shall utilize the following criteria in Table 1.8-2 for Portal Island paved areas. This section should be utilized for Island areas beyond the entry and exit ramps defined in Section 1.8.3.7.A.

C. The vehicular crossover on Portal Islands No. 1 and 2 between the northbound and southbound roadways must be provided and with removable barriers as specified in the Technical Requirements Section 1.10.5.3.3.K.

D. Access for maintenance vehicles on the islands must be maintained at all times during construction. Vehicular access to the west side of the islands can be limited during pre-approved periods during construction not to exceed 24 hours in duration.

Table 1.8-2: Portal Island No. 1 & No. 2 Loop Roadway and Paved Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Loop Roadways</th>
<th>Island No. 1 and 2 Paved Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Speed (MPH)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Minimum Turning Radius</td>
<td>45 ft</td>
<td>N/A</td>
</tr>
<tr>
<td>Number of Lanes</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>Lane Width (Min.)</td>
<td>12-ft</td>
<td>N/A</td>
</tr>
<tr>
<td>Cross Slope (Min.)</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Minimum Grade</td>
<td>0.50%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Vertical Alignment - K Crest</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Vertical Alignment - K Sag</td>
<td>10</td>
<td>N/A</td>
</tr>
<tr>
<td>Design Vehicle</td>
<td>BUS-40</td>
<td>BUS-40</td>
</tr>
</tbody>
</table>

Note 1: Vehicular movements must be accommodated on one-way travel lanes, turning maneuvers will require a wider lane width for the design vehicle at the entrance and exit locations. Minimum design vehicle (BUS-40) must be accommodated for fire access.

22) Replace Section 1.8.7.A in its entirety with the following:

A. Landscaping shall be limited to rock and low-growing grasses in the following areas:

   1. The five (5) foot space between existing or new island asphalt and the open approach section walls on Portal Island Nos. 1 and 2.

23) Replace line 1.9.1.A.10 with “New / Rehabilitated Fishing Pier”

24) Replace Section 1.10.1.A and Section 1.10.1.B in its entirety with the following:
A. This Section 1.10 provides the requirements for any trestle modifications or widenings or trestle extensions, fishing pier, and island perimeter splash wall replacement. The requirements apply to new structures and modifications to existing structures.

B. The following Supplemental Specifications apply to this Section 1.10:
   1. SS11001 Safety and Acceptance Inspections;
   2. SS11002 Load Ratings;
   3. SS11003 Precast and Precast Prestressed Concrete Units;
   4. SS11005 Cylinder Piles;
   5. SS11006 Pile Loading Test;
   6. SS11007 Trestle Extension and Trestle Widening Materials;
   7. SS11009 Demolition of Existing Trestle Railing and Curb;
   8. SS11010 Fishing Pier Materials;
   9. SS11011 Demolition of Existing Fishing Pier;
   10. SS11013 Island Perimeter Splash Wall Replacement Materials; and
   11. SS11014 Demolition of Existing Splash Wall Panels.

25) Replace Title of Section 1.10.5 with “Trestle Extensions and Trestle Modifications or Widenings”

26) Replace Section 1.10.5.3.2.A in its entirety with the following:

   A. Typical roadway width shall be thirty-six (36) feet comprised of two (2), twelve (12) foot lanes, a three (3) foot inside shoulder and a nine (9) foot outside shoulder.

27) Replace Section 1.10.5.3.2.C in its entirety with the following:

   C. The deck of existing Trestle ASB north of the Span ASB193 and the deck of existing Trestle BSB south of Span BSB12 have a ¼-inch per foot constant cross slope from the west curb downward towards the east curb. See Section 1.6 for additional information. Changes in cross slope, superelevation or transitions made to the existing structures shall also require replacement of the concrete curb and the railing with new components meeting the Project Technical Requirements. The top of the finished curbs shall be a minimum of 9.75-in. above the top of the roadway.
28) Insert Section 1.10.5.3.2.G with the following:

G. Modifications to the existing trestle is permitted with the following clarifications:

1. Final trestle cross section must meet the Technical Requirements and appropriate codes and guidelines, including allowable materials, cross slopes, lane and shoulder widths, curb and railing treatments, etc.

2. District approval of modifications to the trestle is contingent upon the Design-Builder documenting and analyzing the existing condition of the bridge superstructure and substructure and analyze prior to beginning construction to confirm that the existing bridge elements can withstand the modifications with no impact on its remaining service life.

3. Any modification (including widening, modifying cross slope, etc.) to a steel superstructure unit requires the complete demolition, disposal and replacement of the span’s superstructure with a unit that meets these Technical Requirements.

4. The Design-Builder must study the impacts on scour for any modifications to the trestle requiring additional piling in accordance with Section 1.10.5.3.3.F.

29) Replace Section 1.10.5.3.3.D.1 in its entirety with the following:

5. New bridge railings shall be provided where existing bridge railings are removed.

30) Replace Section 1.10.5.3.3.F through Section 1.10.5.3.3.N in its entirety with the following:

F. Scour Protection

1. The Design-Builder shall conduct a study of the bay bottom in the vicinity of new piles to determine the extent of scouring and if scour protection is warranted. The District shall approve study and the Design-Builder’s Scour Protection Plan. Where warranted, the scour protection shall be designed and placed around new piles as determined in Section 1.4.11 Scour Protection.

G. Roadway Lighting

1. The Design-Builder shall design, detail, furnish and install roadway lighting on select extended trestle bent caps for the Trestle Extensions or trestle widenings along Trestles ASB and BSB similar to the existing trestle configurations. Refer to Sections 1.9 Lighting and 1.16 Electric Power and Distribution for additional details.

H. Cable Trays

1. The Design-Builder shall provide a cable tray system along the Trestle Extensions or existing Trestles ASB and BSB from the start of the trestle work to Portal Island Nos. 1 and 2 for routing of existing and new electrical and communication utilities. Refer
to Sections 1.8 Civil Site Design, 1.9 Lighting, 1.16 Electric Power and Distribution and 1.17 SCADA EPCS and ITS for additional details.

2. The Design-Builder shall provide a cable tray system along the east side of existing Trestle ASB, from Abutment ASB1 to Abutment ASB205, for routing a new electrical feeder that runs from the South Toll Plaza to Portal Island No. 1. Whether using the existing brackets from the existing sewer line or installing new brackets, the Design-Builder shall use the top arm of the brackets to install this cable tray system. Refer to Section 1.16 Electric Power and Distribution for additional details.

I. NOT USED

J. Erosion Protection at New Trestle Abutment Locations
   1. The Design-Builder shall design and provide a corrosion-resistant cut-off wall behind the new trestle abutments to eliminate the passage of island fill past the piles supporting the new abutments and into or through the new slope protection in front of the new abutments. The cut-off wall shall also extend for a distance of ten (10) feet on each side of each abutment behind the adjacent splash walls.

   2. In designing the cut-off wall and in determining the subsequent loadings on the abutment and abutment piles, the Design-Builder shall assume that there is no fill or island slope protection in front of the abutment piles down to Elevation -12 feet.

   3. The design of the cutoff wall and detail drawings shall be in accordance with Section 1.10.2 and shall be submitted to the District for approval.

K. Removable Traffic Barrier System at Existing Southbound Trestle Spans
   1. After completion and at the opening of the trestle extension spans, the Design-Builder shall provide a removable barrier system starting along the east edge of the wye-areas of Trestle ASB and BSB and shall extend to the new eastern barrier of the new Trestle extensions.

   2. After completion of the new trestle extension spans, the Design-Builder shall provide a removable barrier system across the width of the existing crossover trestle spans at Abutments ACO25 and BCO1.

   3. These removable barrier systems shall also have a minimum 100-year Service Life.

   4. The removable barrier systems shall have reflective barrier delineators and reflective barrier vertical panels. Barrier delineators are to be spaced in accordance with Section 702 of the VDOT Road and Bridge Specifications and the barrier vertical panels are to be spaced in accordance with the Virginia Work Area Protection Manual. Reflective surfaces are to be facing oncoming traffic.
5. These removable barrier systems shall be approved to a minimum TL-4 Rating, including transitions to the new and existing barriers/railings per NCHRP Report 350 or per AASHTO MASH and shall be from the VDOT-Approved Product List. Planned incorporation of impact attenuator devices, crash cushions or other devices shall be detailed and shown, with manufacturer reference material provided as reference. Any exposed steel components shall be Type 316/316L Stainless Steel. Any steel anchors embedded in the deck surface shall be Type 316/316L Stainless Steel and shall be flush with the surrounding deck concrete when the barrier system is removed. Stainless steel grade anti-seize lubricant shall be used in bolting or anchoring these barrier systems.

6. These systems shall be easily removed in pieces with a forklift or front-end loader in the event that an emergency requires the closure of the new trestle extension spans or the new tunnel and the original crossover spans need to be utilized to access the original Thimble Shoal Tunnel.

7. Refer to Section 1.6 Roadway Design for details of impact attenuators at the gore areas in Spans ASB193 and BSB12.

L. Existing Trestle Mounted Utilities

1. All existing trestle mounted utilities shall remain in service uninterrupted, except as specifically stated in Section 1.8, 1.9, 1.10, 1.16 and 1.17. These utilities generally include, but are not limited to electrical and communication utilities (SCADA, ITS, phone, etc.) on the west side of Trestles A'NB and ANB, nav-aid lights on the east side of Trestle ANB, roadway lighting on the east and west sides of Trestles A'NB and ANB, a water line on the east face of Trestle ASB and a heat-traced sewer line on the east face of Trestle ASB (to be removed prior to end of Project) and electrical and communication utilities (SCADA, ITS, phone, etc.) on the west side of Trestle ASB. The Design-Builder shall be responsible for any temporary relocation, temporary support and replacement of these utilities after submitting a Temporary Relocation Plan to the District for review and acceptance.

M. Modifying Cross Slope of Existing Trestle Spans

1. For modifying the cross slope of existing structures in spans with a cast-in-place deck and no overlay, all modifications shall be in accordance with Section 412 of the VDOT Road and Bridge Specifications.

2. For modifying the cross slope of existing structures in spans comprised of modular units and an asphaltic concrete wearing surface, the Design-Builder shall completely remove the existing wearing surface and reset the cross slope or superelevation with a new asphaltic concrete overlay. The Design-Builder shall submit a plan to the District for approval of materials and methods for installing the new overlay. See Section 1.10.5.3.2.C for additional information.
3. Modifying the existing superstructure girders or modular units shall be in accordance with Section 412 of the VDOT Road and Bridge Specifications.

31) Replace Section 1.10.6.1.1.B in its entirety with the following:

B. Not Used

32) Replace Section 1.10.6.1.1.G and Section 1.10.6.1.1.H in its entirety with the following:

G. The Fishing Pier shall have an approach slab on the expanded portal island surface with a support lug on the back side of the new abutment back wall to support the approach slab and keep the top of the slab even with the top of the splash wall. If reusing the existing splash wall panels, a new lug shall be incorporated onto the back of the existing splash wall panels.

H. This work shall also consist of demolition, removal and disposal of the existing Fishing Pier superstructure and Abutment No. 1, including any utilities currently on or attached to the existing superstructure.

33) Replace Section 1.10.6.3.2.A in its entirety with the following:

A. The dimensions of the new Fishing Pier superstructure shall be identical to the dimensions of the Fishing Pier being removed.

34) Insert a new Section 1.10.6.3.3.K with the following:

A. Existing Substructure Units

1. The concrete substructure components of the existing Fishing Pier shall be inspected and analyzed and a Report submitted to the District for review and acceptance certifying them as having adequate capacity for current design criteria and loadings, including any anticipated loadings from new components. These shall be prepared by a Professional Engineer licensed by the Commonwealth of Virginia. The following information shall be taken into consideration:

   i. Excerpts from a 2014 Underwater Inspection Report for this structure will be provided;
   ii. No further information on the existing Fishing Pier is available other than what has been included in Section 6.2.2 of the GBR, Appendix E of the GBR and RID Attachment 3a that was provided as part of the Revision 2 Updates;
   iii. The General Notes of the existing Fishing Pier drawings state a maximum design load of 175 tons for each pile. Pile driving records for this structure were unable to be located and the pile tips are estimated as noted in Section 6.2.2 of the GBR.
2. The Design-Builder shall submit a repair plan for all deficient substructure components of the Fishing Pier to the District for review and approval.

35) Replace Section 1.10.7 in its entirety with the following:

   1.10.7 NOT USED

36) Replace Section 1.10.8.1.A.2 in its entirety with the following:

   3. Two splash wall panels have utilities running through them and provisions will need to be made for temporary support / maintenance and restoration of these utilities to enable splash wall panel removal and replacement.

37) Insert Section 1.10.8.3.2.C with the following:

   C. The top of the finished Splash Wall Panel No. 298 shall be set at Elevation +28.0. Top of splash wall elevations for replacement Panel Nos. 291 thru 297 shall match a straight line slope between Elev. +28.0 and the top of existing Splash Wall Panel No. 290.

38) Replace Section 1.10.8.3.3.E in its entirety with the following:

   1. A chain link fence with posts and a top rail is mounted to the top of the splash wall panels around the perimeter of Portal Island No. 1. The Design-Builder shall remove and dispose of the fence fabric, posts and top rail along the splash wall sections to be replaced. Prior to demolition, the Design-Builder shall erect a temporary barricade to keep pedestrians out of the work area and keep the workers safe from passing vehicles. Following splash wall panel replacement at all locations at a particular island and following completion of island expansion, the Design-Builder shall remove and dispose of the remaining portions of the fence and install a new fence around the perimeter of Portal Island No. 1. See Section 1.8 Civil Site Design for additional details on fence demolition and fence installation and disposal.

39) Replace Section 1.10.8.3.3.H in its entirety with the following:

   1. Electrical and communication utilities and drainage pipes pass through some of the splash wall panels scheduled for replacement. Provisions shall be provided for these utilities and pipes, with any necessary loadings accounted for in the splash wall design.

   2. See SS11014 Demolition of Existing Splash Wall Panels for additional requirements.

   3. The Design-Builder shall provide five-inch (5") PVC pipe sleeves through Splash Wall Panel No. 297 to accommodate two (2) spare 4" diameter electrical conduits and two (2) spare 4" diameter communication conduits. The sleeves shall be large
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enough to accept the spare conduits. The sleeves shall extend 6” beyond the face of the splash wall each side and be sealed with PVC caps.

40) Replace Table 1.10-1 in its entirety with the following:

**Table 1.10-1:**

<table>
<thead>
<tr>
<th>Portal Island No. 1</th>
<th>Portal Island No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>159</td>
<td>1 152 164 286</td>
</tr>
<tr>
<td>160</td>
<td>2 153 165 287</td>
</tr>
<tr>
<td>161</td>
<td>3 154 276 288</td>
</tr>
<tr>
<td>162</td>
<td>4 155 277 289</td>
</tr>
<tr>
<td>291</td>
<td>5 156 278 290</td>
</tr>
<tr>
<td>292</td>
<td>6 157 279 291</td>
</tr>
<tr>
<td>293</td>
<td>7 158 280 292</td>
</tr>
<tr>
<td>294</td>
<td>8 159 281 293</td>
</tr>
<tr>
<td>295</td>
<td>9 160 282 294</td>
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<tr>
<td>296</td>
<td>10 161 283 295</td>
</tr>
<tr>
<td>297</td>
<td>150 162 284</td>
</tr>
<tr>
<td>298</td>
<td>151 163 285</td>
</tr>
</tbody>
</table>

41) Replace Table 1.15-2 in its entirety with the following:
Table 1.15-2:

<table>
<thead>
<tr>
<th>Space Description</th>
<th>Heating</th>
<th>Ventilation</th>
<th>Air Conditioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Rooms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Rooms</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Electrical Equipment Rooms</td>
<td>X</td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Fire Pump Room</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Generator Room</td>
<td>X</td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Lobby/Corridor</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mechanical Equipment</td>
<td>X</td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Switchgear Room</td>
<td>X</td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td>Existing Rooms3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Room</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Equipment Room</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Office</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Break Room</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Kitchen</td>
<td>X</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>Bathroom</td>
<td>X</td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>Toilet Room</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Notes:
1. Quantity of air changes shall be determined based upon the Virginia USBC requirements and occupancy either by personnel or equipment within the space.
2. Ventilation or air conditioning as required to maintain a maximum temperature of 104 °F within the space.
3. For the HVAC requirements for the Existing rooms, refer to Section 1.17.4.
4. Base the HVAC requirements on a room occupancy of four (4) people with equipment heat loads equal to the heat loads of the renovated existing Control Room on Portal Island No. 1.

42) Replace the first paragraph of Section 1.16.5.F.3 with the following:

3. Provide new cable tray with support system (if not using the existing sewer bracket) along the entire east side of southbound Trestle A for feeder SB20. The Designer-Builder is responsible to determine if any or all of the existing sewer brackets can be reused to support new cable tray and feeder.

43) Replace Section 1.20.4.3.A.6 in its entirety with the following:

6. NOT USED

44) Replace Section 1.20.4.4.C in its entirety with the following:

C. The upper level interior walls of the Ventilation Building shall be constructed of reinforced concrete block that extend up to the underside of the roof deck. The interior
block walls for the majority of the building shall be painted with epoxy paint. The Design-Builder shall design and construct the ventilation buildings in accordance with the Room Program and Finishes Matrix at the end of Section 1.20.

45) Delete Section 1.20.5 and 1.20.6 in its entirety.

46) Modify the Room Program and Finishes Matrix to delete information related to the Toilet Room in the new ventilation building on Portal Island No. 1 that is no longer required.

47) Insert Section 2.9.2.O with the following:

O. Subject to approval of the District and constrained by Section 2.9.2.M, the Design-Builder shall be permitted to implement a detour movement to close the southbound trestle or northbound trestle for extended periods of time. The Design-Builder shall install highly visible, opposing traffic lane dividers for the length of the detour throughout the duration of the trestle closure to separate contra-flow traffic, in compliance with the applicable Virginia Work Area Protection Manual and other applicable codes. Barrels and/or cones will not be permitted. The flexible lane divider shall be predominantly orange and shall not be less than 36 inches high and two (2) inches wide facing road users. These delineators shall be made of a material that can be struck without causing damage to the impacting vehicle. These flexible lane separators shall be retroreflectORIZED and shall be in compliance with Section 247 of the VDOT Road and Bridge Specifications. RetroreflectORIZATION of flexible delineators that have a height of less than 42 inches shall be provided by two 3-inch wide white bands placed a maximum of 2 inches from the top with a maximum of 6 inches between the bands. The Design-Builder shall maintain a spare stock of delineators in the event any are damaged and need replacement during the traffic detour, and shall also be responsible for removing the delineators at the end of the detour.

48) Replace paragraph SS1411.A in its entirety with the following:

A. This Section covers stone materials, suppliers, submittals for District acceptance or information, and quality control tasks as they relate to production of stone for the tunnel, Portal Island and scour protection for the Project.

49) Replace paragraph SS1411.3.1.A in its entirety with the following:

A. All stone shall be of a quality to ensure permanence of the structure in the climate in which it is to be used. Stones shall be hard, angular to subangular and of such quality that they shall not deteriorate on exposure to water or weathering during the design life of the structure. The stone shall be dense and free from porous structure. The stone shall
be igneous and/or metamorphic, durable, sound, and free of features which may tend to increase deterioration from natural causes or breakage during handling, transportation, placement, wave action and/or from chemical action by water or air. These features may include, but are not limited to fractures, seams, vugs, shale partings, bedding, stylolites, planes of separation, weathering, and argillaceous material. Inclusions of any dirt, sand, clay, shale, chert, oil and oil-stained stones and rock fines and bituminous or any organic or other deleterious material shall not be permitted. All stone shall be highly resistant to weathering and disintegration under freeze/thaw and wetting/drying conditions.

50) Replace Table 1411-1 in its entirety with the following Table:

### Table 1411-1: Criteria for Stone Quality

<table>
<thead>
<tr>
<th>Test</th>
<th>Test Method</th>
<th>Acceptance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity&lt;sup&gt;2/3&lt;/sup&gt;</td>
<td>ASTM D 6473</td>
<td>2.5 to 3.0</td>
</tr>
<tr>
<td>Absorption&lt;sup&gt;2&lt;/sup&gt;</td>
<td>ASTM D 6473</td>
<td>&lt;3 percent</td>
</tr>
<tr>
<td>Los Angeles Abrasion&lt;sup&gt;2&lt;/sup&gt;</td>
<td>ASTM C 535</td>
<td>&lt; 20 percent loss after 500 revolutions</td>
</tr>
<tr>
<td>Freeze-Thaw&lt;sup&gt;1/2&lt;/sup&gt;</td>
<td>ASTM D 5312</td>
<td>&lt;2 percent loss after 35 cycles</td>
</tr>
<tr>
<td>Wetting-Drying&lt;sup&gt;1/2&lt;/sup&gt;</td>
<td>ASTM D 5313</td>
<td>&lt;2 percent loss after 80 cycles</td>
</tr>
<tr>
<td>Petrographic Examination&lt;sup&gt;2&lt;/sup&gt;</td>
<td>ASTM C 295</td>
<td>No deleterious materials allowed</td>
</tr>
<tr>
<td>Field Examination&lt;sup&gt;2&lt;/sup&gt;</td>
<td>ASTM D 4992</td>
<td>No deleterious materials allowed</td>
</tr>
<tr>
<td>Sodium Sulphate Soundness Or Magnesium Sulphate Soundness</td>
<td>ASTM D 5240</td>
<td>&lt; 5 percent loss after 5 cycles</td>
</tr>
</tbody>
</table>

1/ Design-Builder shall ensure that the selected laboratory is District accepted for the required capacity/equipment to allow for testing of large sample sizes. The minimum testing slab size dimension shall be 13 inches X 15 inches X 2.5 inches for designation ASTM 5312 and ASTM 5313, and shall be cut perpendicular to the bedding planes within the stone.

2/ See SS1411.3.2 for applicability of the tests.

3/ Stone having specific gravity outside the range of 2.5 to 3.0 are not acceptable.

51) Replace SS1411.3.2 in its entirety with the following:
SS1411.3.2  Stone Sampling and Laboratory Testing

A. The Design-Builder shall perform the testing specified in Table 1411-2. At a minimum, the required testing shall be performed once for each stone type listed and once for each quarry sourced.

B. The Design-Builder shall submit copies of test results as indicated in Table 1411-2 for at least sixty (60) calendar days in advance of shipment of stone to the Work site, and no later than the time of inspection of the demonstration stockpile(s) by the District.

Table 1411-2: Sample Testing Frequency

<table>
<thead>
<tr>
<th>Stone Type</th>
<th>Sample Size</th>
<th>Frequency</th>
<th>Stone Quality Testing</th>
<th>Visual Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armor Stone</td>
<td>One stone</td>
<td>5,000 tons</td>
<td>All tests listed in Table 1411-1</td>
<td>Per paragraph SS 1411.1.2.C</td>
</tr>
<tr>
<td>VDOT Dry RipRap Class I, II, III and AI</td>
<td>20 Stones</td>
<td>5,000 tons</td>
<td>All tests listed in Table 1411-1</td>
<td>Per paragraph SS 1411.1.2.C</td>
</tr>
<tr>
<td>Filter and Bedding Stone</td>
<td>2,000 lbs.</td>
<td>5,000 tons</td>
<td>ASTM D 6473, ASTM C 535 and ASTM D 5240</td>
<td>5,000 tons</td>
</tr>
</tbody>
</table>

C. Gradation tests shall be performed for stone used for slope protection, tunnel protection and scour protection. One gradation test at the quarry is required for each 20,000 tons of stone, with a minimum of one test for each rock class per quarry. Each armor stone or dry riprap stone used in gradation testing shall be marked, tracked and documented in accordance with the procedures submitted and approved in the SMC Plan. Gradation test reports for armor stone shall include the three axis dimensions for aspect ratio measurement and the basis of individual stone weight calculations.
D. Filter and bedding stone shall be well-graded. At least one gradation test shall be performed on each 2,500 tons to be delivered to the project site for each specified gradation in accordance with ASTM C136/C136M.

E. The stone quality testing frequency may be increased at the direction of the District if geological changes in the stone material are observed.

52) Replace paragraph SS1411.4.3.A in its entirety with the following:

A. During the Comprehensive Agreement, both prior to and after materials are delivered to the job site/storage site, visual inspections and measurements of the stone materials may be performed by the District. If the District, during the inspections at either the quarry or the Project site, finds that the stone quality, gradation or weights of stone being furnished are not as specified or are questionable, the Design-Builder shall be required to perform re-sampling and retesting. The final acceptability of the stone at the site shall depend on meeting the requirements for visual inspection and service records, as stated in the specifications. Any material rejected shall be removed or disposed off-site as specified at no additional expense to the District.

53) Replace title of SS11008 to “SS11008 Trestle Extension and Trestle Modification or Widenings Materials”

54) Replace paragraph SS11008.2.iv in its entirety with the following:

iv. Overlays on the concrete deck shall conform to the requirements of Section 412.03(b) 217 and 404 of the 2007 VDOT Road and Bridge Specifications. The deck surface shall receive a Class 6, Bridge Deck Finish per Section 404 of the VDOT Road and Bridge Specifications.

55) Replace SS11009 in its entirety with the following:

SS11009 Demolition of Existing Trestle Railing and Curb

A. Aluminum Three Tube Railing Removal, Transport and Unloading

1. This work shall consist of the removal of lengths of the existing sections of bridge railing of Trestles ASB and BSB, including posts, insulation pads and shims and the transport and unloading to a designated location in the District’s Maintenance Yard at the North Toll Plaza. All other railing components shall be discarded. The length of railing removed shall be determined by the Design-Builder based on the construction
of the new trestle extensions, tie-in to existing railings and any traffic control devices required to protect the open ends of the curbs/railings/barriers at the newly created gore areas.

2. These sections shall not be removed until temporary barriers are set in place in front of the curb along the shoulder to keep vehicular traffic on the trestles.

B. Concrete Curb Removal

1. This work shall consist of the removal and disposal of designated lengths of the existing reinforced concrete curbs of Trestles ASB and BSB, including reinforcing steel at some locations. Where not anticipated for re-use, vertical reinforcing steel stirrups that extended from the curb into the existing concrete bridge deck shall be cut off at least one (1) inch below the surface of the adjacent bridge deck. The length of curb removed shall be determined by the Design-Build based on the construction of the new trestle extensions, tie-in to existing railings and any traffic control devices required to protect the open ends of the curbs/railings/barriers at the newly created gore areas. The concrete curb shall be removed in such a manner that the remaining structure is not damaged. Any such damages, as determined by the District, shall be repaired by the Design-Build at no additional cost to the District.

2. These curbs shall not be removed until temporary barriers are set in place in front of the curbs along the shoulder to keep vehicular traffic on the trestles.

3. Following curb removal, at locations where curbs will not be replaced, the Design-Build shall saw cut and remove/mill the existing concrete deck surface underneath the curb area to a depth of approximately one (1) inch, but not so deep that the top layer of reinforcing is exposed. The Design-Build shall submit a plan to the Engineer of Record for approval, detailing the means and methods to accomplish the work specified in this Section. Following milling and cleaning, the Design-Build shall clean the exposed areas of the vertical reinforcing steel stirrups and coat with an anti-corrosion coating and bonding agent followed by application of bonding agent to all milled surfaces. Following curing of this material, the Design-Build shall fill the milled area with a suitable cementitious repair product and shall finish the repaired surface similar to the existing surrounding concrete deck surface including a smooth transition to these surfaces in accordance with Sections 412 and 243 of the VDOT Road and Bridge Specifications. The repair area shall receive a Class 6, Bridge Deck Finish.

C. Not Used

56) Replace paragraph SS11011.C in its entirety with the following:
C. Substructure

1. The existing Fishing Pier abutment shall be removed and disposed of. All reinforcing that extends into the existing perimeter splash wall panel can be cut flush with the face of the splash wall panel to which it is attached.

2. The remainder of the Fishing Pier substructure shall also be removed and properly disposed of if not planned for re-use.

3. If not re-used, the piles for the existing Fishing Pier shall be pulled or cut-off no higher than flush with either the existing bay bottom or existing scour protection and then properly disposed of. If piles driven as part of the new Fishing Pier cause additional scouring of the bay bottom such that additional portions of the existing piles are then exposed, those newly exposed portions shall also then be cut-off flush with the bay bottom and properly disposed of.

4. Any portion of piles below bay bottom along the proposed tunnel alignment may be left in place unless they affect the installation or performance of the new tunnel, in which case they shall be removed to an elevation which shall cause no impact.

57) Replace SS11012 in its entirety with the following:

SS11012   NOT USED

58) Replace paragraph SS11014.A.2 in its entirety with the following:
2. Splash Wall Panel No. 280, across from the east face of the ventilation building on Portal Island No. 2, has a twelve (12) inch portal pump discharge pipe passing through it. Splash Wall Panel No. 298, at the south end of Portal Island No. 1, has multiple conduits carrying electrical and communication utilities passing through it as represented in the below sketch.

59) Insert paragraph SS11013.G with the following:

G. Conduit Pipe Sleeves

1. The existing conduits carrying electrical and communication utilities up to and through Splash Wall Panel No. 298 are 4-inch PVC conduits. The pipe sleeves to be installed in Splash Wall Panel Nos. 298 and 297 shall accept these 4-inch conduits, shall form a watertight seal and shall be corrosion resistant. Any intended deviations shall be submitted to the District for approval. The pipe sleeves for the future conduits shall also be of this same size and material.
60) Insert paragraph SS11014.A.5 in its entirety with the following:

5. For the electrical and communication utilities passing through Splash Wall Panel No. 298 on Portal Island No. 1, the Design-Builder shall at a minimum:

i. Provide a detailed coordination plan to provide temporary support for the existing power and communication conduits that will prevent damage to cable insulation and protect conduits during replacement of the splash wall panels. Any damage to conduit and conductors or communication lines shall be immediately repaired to new condition at no cost to the District.

ii. Maintain the same conduit spacing as the existing system.

iii. Provide and install new Type 316SS conduit supports utilizing Type 316SS anchors to attach the supports to the face of the new abutment to support the nine (9) existing electrical and communications conduits, as well as two (2) future electrical conduits and two (2) future communications conduits.

iv. Check the power cabling and communication lines and shall reposition any lines that appear taut at existing manhole and communication handholes for conduits that pass through Splash Wall Panel No. 298.

v. The Design-Builder shall coordinate any outage with the District a minimum of two (2) weeks before disconnecting power

All other RFP documents previously provided remain in effect. Offerors are required to formally acknowledge the receipt of this and all other addenda in their revised proposals or the proposal will be considered incomplete.

Sincerely,

[Signature]

Michael T. Crist, PE
Deputy Director of Infrastructure
ATTACHMENT 3
PRICE PROPOSAL FORM

RFP #PTST-15-2
Offeror: ________________________________

Offeror shall specify the pricing information for the items below. All items shall be Lump Sum (LS) and shown in whole numbers. The combined total amount for General Mobilization/Demobilization and Construction Mobilization / Demobilization shall not exceed three percent (3%) of the total proposed price. The price of Alternative Technical Concepts approved by the District, if any, shall be included in the cost breakdown items listed below.

Price Proposal Cost Breakdown Summary:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>PPTA Audit Reimbursement</td>
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<tr>
<td>LNTP General Mobilization</td>
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</tr>
<tr>
<td>LNTP Project Development Activities</td>
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</tr>
<tr>
<td>Design Services for Duration of LNTP</td>
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<tr>
<td>Remaining Design Services</td>
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<tr>
<td>NTP1 Mobilization</td>
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<tr>
<td>NTP2 Mobilization / Demobilization</td>
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</tr>
<tr>
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<tr>
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<tr>
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<tr>
<td>Fishing Pier Rehabilitation</td>
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</tr>
</tbody>
</table>

CONTINUED ON NEXT PAGE
Contractually-Required Insurance and Bond Premiums $__________

Other Work $__________

Proposal Price; this is the figure that will be considered by the District Evaluation Team during the assessment process, and represents the value of the Comprehensive Agreement to be awarded to the successful Offeror. Specify the Total LS price in both numbers and words, this price shall be equal to the sum of the items listed above.

Lump Sum (LS):  ____________________________________________________________

_________________________________________ ($ ____________________________)

After award of the Comprehensive Agreement, should the District resolve to demolish the fishing pier in lieu of its rehabilitation, the following figure reflecting a) the additional costs to demolish the pier and construct island security amenities and b) the reduction of costs for the rehabilitation of the fishing pier and construction of public access amenities, will be added/subtracted (circle one) to the Comprehensive Agreement value, and shall be binding:

($ ____________________________)

Payment of invoices that include insurance and bond premium costs shall be contingent on the Design-Builder demonstrating satisfactory evidence of payment of equivalent insurance and bond premiums.

_________________________                      ____________________
Signature of Authorized Representative             Date