ADDENDUM NO. 7

TO PROSPECTIVE BIDDERS ON CONTRACT GWB-244.112 – GEORGE WASHINGTON BRIDGE – REHABILITATION OF STRUCTURAL STEEL, REMOVAL OF LEAD BASED PAINT AND REPAINITNG THE UNDERSIDE OF LOWER LEVEL

The following changes are hereby made in the Contract Documents for the subject Contract.

This communication should be physically annexed to back cover of the book and initialed by each bidder before submitting his bid.

In case any bidder fails to conform to these instructions, his Bid will nevertheless be construed as though this communication had been so physically annexed and initialed.

CHANGES IN THE REFERENCE DOCUMENTS

Reference document entitled "HAZARDOUS MATERIAL INVESTIGATIVE REPORT GEORGE WASHINGTON BRIDGE REHABILITATION OF STRUCTURAL STEEL, REMOVAL OF LEAD BASED PAINT AND REPAINITNG THE LOWER LEVEL" by EnTech Engineering P.C., dated May 2019 (367 pages), make the following changes:

Page 4  Delete this page in its entirety and substitute therefor new page 4, marked Addendum No. 7, which is attached hereto and made a part hereof.

Page 8  Delete this page in its entirety and substitute therefor new page 8, marked Addendum No. 7, which is attached hereto and made a part hereof.

Page 35 Delete this page in its entirety and substitute therefor new page 35, marked Addendum No. 7, which is attached hereto and made a part hereof.
CHANGES IN THE CONTRACT BOOKLET

Page 251  Delete this page in its entirety and substitute therefor new page 251
which is attached hereto and made a part hereof.

REVISED CONTRACT DRAWINGS

S262, S318, S401, S402, S403, S404, S416, S501, S505, S527, S528, S529, S530, S532, S533,
S542, S551 and N101 on CD. Copies of these drawings are forwarded herein. Destroy the
drawings of these numbers now in your possession and substitute therefor the revised drawings.

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

James Starace, P.E.
Chief Engineer/Director

INITIALLED BY THE BIDDER:
Lead:
Paint chip samples were analyzed by the Flame AAS (SW 846 3051A/7000B) method, for which the reporting limit is 0.010% by weight.

- Round 1: A total of seventy (70) paint chip samples were collected from New Jersey Back Span, Center Span and New York Back Span. Sixty-eight (68) paint chip samples were reported to contain detectable levels of lead.
- Round 2: No samples were analyzed for lead content.
- Round 3: A total of eight (8) samples were collected from the New York Anchorage. All eight (8) samples were reported to contain detectable levels of lead.

Based on these results and findings, EnTech concludes that the future reconstruction of the observed and accessible components of the George Washington Bridge will require the performance of pre-construction handling or abatement for Lead Containing Materials.

PCB:
Samples were analyzed by EPA method 3540C/8082A and were reported by the concentration of PCB in mg/Kg or ppm by weight. US EPA regulations implementing the Toxic Substances Control Act (TSCA), defines PCB contaminated materials as materials containing PCBs above 50 parts per million (ppm) as specified in 40 CFR 761.3.

- Round 1: A total of seventy-four (74) samples were collected and analyzed for PCB. None of the samples detected PCB’s above 50 ppm.
- Round 2: No samples were analyzed for PCB content.
- Round 3: A total of four (4) samples were collected and analyzed for PCB. None of the samples detected PCB’s above 50 ppm.

Based on the laboratory results, the analyzed materials are not considered PCB contaminated material. Some items suspect to contain PCBs were inaccessible to the survey team, this includes lighting ballasts and capacitors inside electrical equipment. If these materials are to be disturbed during construction efforts, the materials shall be treated as PCB containing, unless otherwise can be confirmed through testing and sampling.

EnTech inspected and sampled materials which were observable and accessible to the survey team. Any new suspect materials identified during construction must be assumed ACM, LBP, and/or PCB containing material. Table E.1 below lists the summary of samples that tested positive for asbestos and lead as well as materials that may contain PCB.

<table>
<thead>
<tr>
<th>Span #</th>
<th>Element/Location</th>
<th>Round</th>
<th>Comments</th>
<th>Photo Log #</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 W</td>
<td>White/Light Gray Paint on Stringer Support</td>
<td>1</td>
<td>Identified LBP: 2 W-0319-L4</td>
<td>4</td>
</tr>
<tr>
<td>2 ½W</td>
<td>Light Gray Paint on Lower Floor Beam</td>
<td>1</td>
<td>Identified LBP: 2 ½W-0319-L1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Dark Gray Paint on Middle of Floor Beam</td>
<td>1</td>
<td>Identified LBP: 2 ½W-0319-L2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Light Gray Paint on Traveler Beam</td>
<td>1</td>
<td>Identified LBP: 2 ½W-0319-L3</td>
<td>3</td>
</tr>
<tr>
<td>3 ½W</td>
<td>White Paint on Stringer Supports</td>
<td>3</td>
<td>Identified ACM: P4-3 ½W-031119-A38</td>
<td>78</td>
</tr>
<tr>
<td>6 W</td>
<td>Light Gray Paint on Lower/Upper Area of Floor Beam</td>
<td>1</td>
<td>Identified LBP: 6W-0320-L10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Dark Gray Paint on Middle of Floor Beam</td>
<td>1</td>
<td>Identified LBP: 6W-0320-L11</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>White/Light Gray Paint on Stringer Support</td>
<td>1</td>
<td>Identified LBP: 6W-0320-L12</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Light Gray Paint on Traveler Beam</td>
<td>1</td>
<td>Identified ACM: 6W-0320-A34, 6W-0320-A35, 6W-0320-A36</td>
<td>13</td>
</tr>
</tbody>
</table>

Hazardous Materials Investigation Report, George Washington Bridge Rehabilitation of Structural Steel, Removal of Lead Based Paint and Repainting the Underside of Lower Level

Addendum No. 7

May 2019
2. Survey

The survey included the sampling of materials suspected to be ACM, LBP, and materials containing PCB in sufficient quantities in order to characterize the extent of required abatement activities. Materials identified were characterized according to their color, size, texture, and general appearance. Materials that appeared identical were grouped together as being homogenous.

The EPA’s Asbestos Hazard Emergency Response Act (AHERA) defines the number of samples to collect for each homogenous material depending on its classification. For surfacing materials, the EPA regulation 40 CFR763.86 and EPA technical guidance document 560-5-85-030a recommends collecting nine (9) samples from each homogeneous area. The minimum recommended number of samples to be collected from each homogeneous area over 5,000 square feet is seven (7) samples. According to the EPA regulation 40 CFR763.83 a homogeneous area means, “an area of surfacing material, thermal system insulation material, or miscellaneous material that is uniform in color and texture.”

In addition, one (1) bulk sample was collected from each suspect LBP and one (1) bulk sample was collected from each suspect PCB containing material. The summary of the sampling events are listed below:

- Round 1: Inspected and sampled materials from a total of fifteen (15) floorbeams within the New Jersey Back Spans, Center Spans and New York Back Spans for asbestos, lead and PCB analysis.
- Round 2: For investigative purposes, the paints that tested positive for asbestos (over 1% asbestos) during the first round sampling event were sampled again after thoroughly cleaning the paint surface of visible dust.
- Round 3: Based on the first round and second round sampling results, asbestos was detected from multiple paint systems throughout the underside of the lower level of the GWB. According to the EPA technical guidance document 560-5-85-030a if any sample has more than 1% asbestos, then assume that the entire sampling area contains asbestos or collect additional samples to determine more precisely the extent of the ACM. Therefore, additional samples were collected to delineate the extent of the ACM on the bridge elements. For the third round sampling event, the homogenous areas were identified based on the color and texture of the paints observed and subdivided by areas that had previously been tested for asbestos during the round 1 and round 2 sampling events. In addition, one duplicate sample was collected from each paint system in each sub area. Additional asbestos, lead, and PCB samples were collected from the New York Anchorage.

EnTech inspected and sampled materials which were observable and accessible to the survey team. See Figure 3 for the approximate location of sample collection.

2.1 Record Keeping

EnTech documented the samples on Chain of Custody forms using unique sample ID numbers. Sample identification consisted of the floor beam number (see Table 2.1 for sample identification); the date (month, day); and the letter “A”, “L”, or “P” for asbestos, lead, or PCB, respectively; and the sample number (ex. 2E-0323-A61). For the third round sampling event, wiped surface samples and duplicate
5. Conclusions and Recommendations

EnTech has completed a Hazardous Materials Investigation for the Underside of the Lower Level of the George Washington Bridge. In this effort, areas of contamination were identified and determined, methods for handling and disposing of waste have been considered, and the necessary safety precautions were reviewed. EnTech inspected and sampled materials which were observable and accessible to the survey team.

5.1 Conclusions

Asbestos:
A total of five-hundred seventy-one (571) samples (not including the duplicate samples) were collected and analyzed for asbestos. Based on the laboratory results, fifty-one (51) of the samples were found to have a concentration above the regulatory standard of 1% asbestos. The results from three rounds of sampling events show asbestos containing materials are present at the bridge. See Figure 4 and Table 5.1 for the location of ACM by Floorbeam.

5.1: Asbestos Containing Material (Paint) Location Table

<table>
<thead>
<tr>
<th>ACM (Paint) System Number</th>
<th>ACM (Paint) Description</th>
<th>Location of ACM (Paint) by Floorbeam</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Light Gray Paint at the top and bottom of floorbeams</td>
<td>9E</td>
</tr>
<tr>
<td>P3</td>
<td>Light gray paint on traveler beam</td>
<td>34W, 34 ½W and 36E</td>
</tr>
<tr>
<td>P4</td>
<td>White paint at stringer supports</td>
<td>3 ½W, 6W, 18 ½W, 31W, 32W, 33W, 34W, 36E, and 4E</td>
</tr>
<tr>
<td>P5</td>
<td>Light gray paint on outside panels of floorbeams</td>
<td>6W, 33W, 34W, 36E, 9E, and 6E</td>
</tr>
</tbody>
</table>

Lead:
Based on the laboratory results, seventy-six (76) of seventy-eight (78) collected samples were found to contain detectable lead concentrations of above the laboratory reporting limit (0.010% lead by weight). OSHA’s Lead in Construction Standard (29 CFR 1926.62) shall be followed when materials which contain any amount of lead is to be disturbed. Based on the abovementioned findings, EnTech concludes that future reconstruction of the George Washington Bridge will require the performance of pre-construction handling or abatement for all the paint systems.

PCB:
No PCB contaminated materials (PCB concentration above 50 ppm) were identified through sample collection during the investigation.
b. **Temporary conduits.** Protect the temporary conduits containing the medium voltage and fiber optic cables against damage from construction operations for removal and disposal of the existing temporary work platform and installation of the new median upgrade components.

c. **Anchorage Utilities.** Three 3" diameter metal conduits in front of stringers S5 through S11 at the east end of Span 9 running along the Anchorage wall.

E. Utilities for Work of this Section

a. **Drainage.** Drainage is not available at the "Work Site". Provide a closed piping or hose system and filter through 5.0 micron filters, drum collect and dispose of as stipulated in "Water Disposal Procedures" herein. In the event of asbestos contamination of temporary materials, clean and decontaminate by wet cleaning and/or HEPA vacuuming in the "Work Area" or dispose of as ACM waste.

F. Utilities and Services in Work Area to be Shut Down and to Remain in Service

Utilities to Remain In Service:

- Existing utilities from the existing cable dehumidification system
- Three 3" diameter metal conduits in front of stringers S5 through S11 at the east end of Span 9 running along the Anchorage wall.
- Center median utilities

G. "Work Site Security/Fire Watch"

Provide Security/Fire Watch inside containment areas if containment is erected and unattended.

H. "Work Area" Procedures

The contractor shall comply with the applicable provisions of Specification 020950 – Containment, Worker and Environmental Protection, the project specific NYSDOL Variance, and all other applicable worker health and safety regulations.

a. **Work Platform.** A temporary work platform will be installed under the lower level of the GWB for the full length of the structure. The bottom of the temporary platform will extend a maximum of 3 feet, 9 inches below the bottom of the existing floor beams.