STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
NYSDOT PATROON ISLAND BRIDGE

CLARIFICATIONS IN RESPONSE TO QUESTIONS FROM PROSPECTIVE BIDDERS
JANUARY 30, 2013

**Question 1**

**Question:** On drawing ST7-34 (758) bridge 7 pier 3 (cap beam) is indicated as lift item 585.01 & on ST7-38(762) the South abutment lift item is indicated as item 585.02. On drawingST8-37 (841) bridge 8 pier 4 (cap beam) is indicated as lift item 585.01 & on ST8-833(837) the South abutment lift item is indicated as item 585.02. Looking at bridges 4 & 6 for the same lift conditions, abutments are 585.01 & cap beams are 585.02 it looks like these items are reversed for bridge 7 & 8. Please clarify which is correct as there is a big difference for an abutment type lift vs. a cap beam type lift.

**Response:** The table below summarizes the intended usage for each of the structural lifting items. Select existing framing plans for Bridge No. 7 and Bridge No. 8 are not consistent with this methodology. **These plans will be corrected by Amendment 4.**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description</th>
<th>Intended Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>585.01</td>
<td>Structural Lifting Operations – Type A</td>
<td>Interchange Bridge Abutments</td>
</tr>
<tr>
<td>585.02</td>
<td>Structural Lifting Operations – Type B</td>
<td>Interchange Bridge Piers with Steel Capbeams</td>
</tr>
<tr>
<td>585.03</td>
<td>Structural Lifting Operations – Type C</td>
<td>Interchange Bridge Piers with Concrete Capbeams</td>
</tr>
<tr>
<td>585.04</td>
<td>Structural Lifting Operations – Type D</td>
<td>Bridge No. 5, Bridge YA &amp; Bridge BF Existing MR Bearings</td>
</tr>
<tr>
<td>585.05</td>
<td>Structural Lifting Operations – Type E</td>
<td>Bridge No. 5, Bridge YA &amp; Bridge BF Existing Rocker Bearings</td>
</tr>
<tr>
<td>585.06</td>
<td>Structural Lifting Operations – Type F</td>
<td>Bridge No. 5 Existing Main Truss Bearings (Piers 4 &amp; 5)</td>
</tr>
<tr>
<td>585.07</td>
<td>Structural Lifting Operations – Type G</td>
<td>Bridge No.7 Pier 1 at Existing Shoring Tower</td>
</tr>
<tr>
<td>585.08</td>
<td>Structural Lifting Operations – Type H</td>
<td>Bridge No. 5, Bridge YA &amp; Bridge BF Floorbeam Bearing Block Repairs</td>
</tr>
</tbody>
</table>

**Question 2**

**Question:** On drawing ST7-32 (756) bridge 7 pier 1 existing temp support w/ACROW is indicated as lift item 585.07 & on ST7-33(757) pier 1 the opposite side of pier is indicated as item 585.03. Since both sides are support by existing ACROW would not they both be under bid item 585.07 and not be split into 2 bid items?
Response: All structural lifting for Bridge No. 7 pier 1 should be covered under item 585.07. Please see the response to Question #1.

Question 3

Question: On Drawing ST-2, Sheet 319, under "Superstructure Notes, it says the there is 578,600 square feet of steel to be painted. Is this the total painting work on all of the bridges in this contract, including the interchange bridge?

Response: The 578,600 square feet of structural steel painting provided in note 20 on drawing ST-2 (sheet 319) is the estimated area of steel painting for Bridge No. 5, Bridge YA and Bridge BF only. Note 20 will be revised by Amendment 4 as detailed below to also include the estimated area of steel painting for the Interchange bridges.

20. THE STRUCTURAL STEEL FOR ALL BRIDGES SHALL BE COMPLETELY PAINTED. FINISH COAT COLOR SHALL BE SAGE GREEN. THE COLOR SHALL CONFORM TO MUNSELL COLOR NOTATION 7.5 GY 5/4. VIEWING SHALL BE DONE UNDER NORTH STANDARD DAYLIGHT. THE SQUARE FOOTAGE OF PAINTED STRUCTURAL STEEL FOR EACH BRIDGE IS SUMMARIZED IN THE TABLE BELOW.

<table>
<thead>
<tr>
<th>BIN</th>
<th>BRIDGE NAME OR NUMBER</th>
<th>PAINTED STRUCTURAL STEEL AREA (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1092431</td>
<td>BRIDGE NO. 4</td>
<td>66,000</td>
</tr>
<tr>
<td>1092432</td>
<td>BRIDGE NO. 4</td>
<td></td>
</tr>
<tr>
<td>1092839</td>
<td>BRIDGE NO. 5</td>
<td>555,700</td>
</tr>
<tr>
<td>109283A</td>
<td>BRIDGE YA</td>
<td>11,500</td>
</tr>
<tr>
<td>109283B</td>
<td>BRIDGE BF</td>
<td>11,500</td>
</tr>
<tr>
<td>1092421</td>
<td>BRIDGE NO. 6</td>
<td>17,600</td>
</tr>
<tr>
<td>1092422</td>
<td>BRIDGE NO. 7</td>
<td>57,700</td>
</tr>
<tr>
<td>1092441</td>
<td>BRIDGE NO. 8</td>
<td>43,100</td>
</tr>
</tbody>
</table>

Question 4

Question: Regarding the ACROW panels as described on page 542. These are stated as 800k per tower depending on conditions. After talking with ACROW, they stated that this
was only obtainable under absolute perfect conditions and in most construction conditions only about 1/2 of this loading is realistic. They also stated that the NYSDOT owned materials only included the panel sections and none of the hardware or accessories needed to assemble and make these panels usable is not available and would have to be purchased or rented. Please confirm that these conditions from ACROW is what the contractor would expect from the NYSDOT owned ACROW materials stated in the specifications.

Response: Any questions in regard to the capacity of the ACROW products should be directed to ACROW. Please note that the referenced special note states that the contractor is responsible for all calculations associated with the use of the State owned shoring towers. The referenced special note also states that a limited quantity of associated hardware and tower shoes are available and that the contractor shall assume that these items will need to be acquired by the contractor.

**Question 5**

**Question:** Drawings TCP 3 to TCP 5 list 7 lane closure tables - Which Lane Closure table(s) would apply to the **Driver First Closure** for ”West Bound Bridge 5 and East Bound Bridge 5”?

**Response:** Table 2 is used for the Drivers First Closures on both Westbound and Eastbound Bridge 5. Single lane closures are also allowed on Bridge 5 (using closure Table 1) and are not subject to the Drivers First Closure table.

**Question 6**

**Question:** Drawings TCP 3 to TCP 5 list 7 lane closure tables - Which Lane Closure table(s) would apply to the **Driver First Closure** “Part 1 – I-90 Westbound (Bridge 4)” and “Part 2 I-90 East Bound (Bridge 4)”?

**Response:** Depending on the nature of the operation, work on “Part 1- I-90 Westbound (Bridge 4)”, and “Part 2 I-90 Eastbound (Bridge 4)” can be done using the lane closures shown in Tables 1, 2, and in Table 4.

1. If the planned work on Bridge 4 is not subject to the restrictions related to working over live traffic, then the work can be done using lane closures shown in either Table 1 or Table 2. Work on Eastbound Bridge 4 could be done concurrently with work on Bridges 5, 8, and BF, all using the same closure instance using Table 2. Work on Westbound Bridge 4 could be done
concurrently with work on Bridges 5, 6, and YA, all using the same closure instance using Table 2.

2. If the planned work on Bridge 4 is subject to restrictions related to working over live traffic, then lane closure Table 4 applies.

3. Single lane closures are allowed on Bridge 4 using closure Table 1, which are not subject to the Drivers First Closure Table.

**Question 7**

**Question:** Please provide a Driver’s First Closure Assessment sample calculation breakdown, if the Contractor uses the “TLTWO operation EB Closure” for PIB from Friday 8pm through the subsequent Monday 5:30am.

<table>
<thead>
<tr>
<th>Drivers First Closure Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Closure Type</strong></td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Two-lane, Two-way operation WB Closure (Bridge 5) (EB deck open) (Exit 7 on and R1 &amp; R4 closed)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

The two sentences in the single asterisk note at the base of the table seem to contradict each other. The “Drivers First Closure Table” defines **Weekend Days = Saturday and Sunday.** Referring to specific closure type shown in the table above, is Saturday ONLY = 11.40, or is “Saturday and Sunday” combined = 11.40 or 22.80, or should 1.90 be added to Saturday and/or Sunday, respectively? Furthermore, the “Drivers First Closure Table” defines **Weekend Nights = Friday, Saturday and Sunday.** Referring to specific closure type shown in the table above, should 1.90 be applied to Friday night, Saturday night and Sunday night, thus equaling 1.90 x 3 nights = 5.7, or is “Friday, Saturday and Sunday” combined = 1.90?
Response: The sample calculation for “TLTWO operation EB Closure” for PIB from Friday 8pm through the subsequent Monday 5:30am is shown below:

<table>
<thead>
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<td><strong>Closure Type</strong></td>
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</table>

Each weekend day is an independent closure period; therefore, Saturday “Day” and Sunday “Day” periods are each 11.4 points. If both “Day” periods are used, then it would be a combined total of 22.8 for just the “Day” periods. Each overnight period needs to be accounted for separately at 1.9 points per night; therefore, utilizing all three “Weekend Nights” adds 5.7 points (1.9 x 3). For the sample weekend period of Friday 8pm through Monday 5:30am, the total Drivers First point assessment would be 28.5 points. This component approach to the overall weekend is to encourage removal of lane closures as soon as practical rather than encouraging potentially inefficient usage of the TLTWO for entire weekend periods.

**Question 8**

**Question:** Please stipulate how inaccessible areas (i.e. top of floor beams on PIB) for painting should be addressed.

**Response:** Per note 53.F for the Interchange bridges and 54.F for the Patroon Island Bridge and the associated Ramp bridges on drawing ST-3 (sheet 320), clean the existing structural steel surfaces against which concrete will be placed in accordance with Specification section 580-3.04.

**Question 9**

**Question:** Please provide the sheeting toe elevations (per NYSDOT Spec section 552.1.03) at each substructure location. In addition, the section modulus listed in the contract
drawings is slightly larger than typical PZC-18 (or equal) sheets and is significant cost to go to a higher section modulus. Please clarify the department’s position.

Response: The requested elevations are typically provided on NYSDOT projects specifying interim sheeting. However, the design of any excavation support on this project will be highly dependent on the selected approach to the structural lifting for pier replacement. Therefore, it was decided to provide only general information on the sheeting for the purpose of bidding and leave the excavation support design up to the contractor to ensure proper coordination with the contractor’s selected approach to the structural lifting.

The section modulus provide on drawing ST-17 (sheet 330A5) is based on conservative assumptions. The contractor may also consider a laid back slope in some locations or braced excavations given the limited excavation width.

**Question 10**

**Question:** Please clarify exact location(s) of the existing Bridge No. 5 deck (14,112 sq. ft.) containing shear connectors.

**Response:** The record plans indicate that shear studs are present only on the floorbeams in span 3 of Bridge No. 5.

**Question 11**

**Question:** The Asbestos Removal Pay Item is non-existent. Please provide.

**Response:** The plans do not show the disturbance of asbestos containing materials, therefore, the project does not contain asbestos removal items.

**Question 12**

**Question:** Plans do not specify type and location of anodes. Please provide.

**Response:** Please see the TYPICAL CONCRETE REPAIR DETAIL on drawing ST-4 (sheet 321). The galvanic anodes shall be used in all concrete repairs specified for the existing concrete substructure elements to remain.
Question 13

Question: Is the leveling nut hardware for the precast panels required to be stainless steel?

Response: In accordance with Section 5.5.3 of the PCCM, all cast-in elements shall be stainless steel or galvanized.

Question 14

Question: Where are there any contract requirements requiring the Contractor to borne any costs of QC/Q inspection and testing services? If not, how does the Owner envision substantiating the rapid-set concrete minimum 3-hour design strength in order to open closures on time? (i.e. will there be a concrete cylinder compression test machine on-site?)

Response: Please see the Field Placed Concrete for Panels and Barriers - Project Strength Determination section of the special specification for Items 557.11030101 INTEGRAL PRECAST CONCRETE BARRIER and 557.43000001 LIGHTWEIGHT, HIGH-PERFORMANCE PRECAST SUPERSTRUCTURE SLABS on page 636 of the Proposal Book. A portion of this section of the special specification is provided below:

“Provide an ACI Certified Concrete Field Testing Technician, Grade I, or higher, to cast all cylinders. Unless otherwise noted in the contract documents, use an agency accredited by the AASHTO Accreditation Program (AAP) in the field of construction materials testing of portland cement concrete to perform compressive strength testing. Cast and test in the presence of the Engineer, or the Engineer’s representative. The Engineer, or the Engineer’s representative, will complete the Concrete Cylinder Report as cylinders are cast and tested.”

The cylinder compressive strengths of the field placed concrete for slabs and barrier are the responsibility of the contractor and could be performed with an accredited machine in a field lab building (item 637.01), an accredited mobile lab, or cylinders transported to a permanent accredited lab.

Question 15

Question: Please confirm whether or not multiple shifts and/or single irregular work shift(s) are mandated for this project, with respect to the references below.

a. Proposal, page 1 states, “THIS JOB CONTAINS SPECIAL PROVISIONS FOR NIGHTTIME WORK.”

b. NYSDOT wage rate schedules stipulate premium hourly rates for all employees who work a single irregular shift.
Response: The contract does not mandate any work shifts. The scheduling of work shifts is entirely at the discretion of the contractor and the contractor shall bid accordingly.

Question 16

Question: I had a question regarding the Patroon Island general notes. On sheet 1 of 2, note 20, of the general notes, it states, "The structural steel for all bridges shall be completely painted. Finish color shall be sage green. The color shall conform to Munsell color notation 7.5 gy 5/4. Viewing shall be done under north standard daylight. There are 578,600 square feet of painted structural steel on this bridge." I was wondering if the 578,600 square feet is for the Patroon Island structure or does that square footage also include the steel on 787 interchange bridges?

Response: Please see the response to Question #3.

Question 17

Question: Can you help me with some specs on the galvanic anodes specified for use on this project? I understand there is around 1200 anodes but there is no mention of the zinc content and what the spacing requirement is. Are we looking at the 60 gm Galvashield XP or the 100gm XP2 and we have a 165 gm XP4?

Response: Please see the TYPICAL CONCRETE REPAIR DETAIL on drawing ST-4 (sheet 321) for the spacing requirements for the galvanic anodes. Please see the specification for Item 582.99000016 EMBEDMENT OF GALVANIC ANODES IN CONCRETE on pages 654 and 655 of the Proposal Book for the material requirements for the anodes. Galvashield XP by Vector Corrosion Technologies is an approved product for this item.

Question 18

Question: Amendment 1, Note 8 (page 9/444); the bullet associated with sheet number 35 and Sta. EB 300+75 does not seem to correlate with any of the stationing on sheet number 35. Please clarify.

Response: The referenced note was inserted into Amendment 1 in error. This revision was made to drawing TCP-50 (sheet 89A1). Please ignore note 8 on page 9 of Amendment 1. These will be corrected by Amendment 4.
Question 19

Question: Will the contractor be required to have an engineer model the structural members of the bridges to determine the forces acting on the members that require replacement in order to properly restrain the adjacent-surrounding members?

Response: The contractor shall be responsible for the stability of the existing bridges throughout all phases of the steel repairs. Please note that the Bridge No. 5 record plans provide existing loads in each truss members. Please see the response to question 22 for details on where to find the record plans. Please also note that the Bridge No. 5 steel repair details have been revised in Amendment 4 to facilitate repair of the connections under full dead and live load.

Question 20

Question: Drawing No. ST5-5 (322A1), Existing Wingwall Barrier Detail, has a note referencing Remove Frame and Grate, cost to be included in Item 609.07200010. Item 609.07200010 does not exist on the schedule of pay items. Please clarify.

Response: There is a typo on drawing ST-5 (sheet 322A1) and the correct item for the removal of the existing frame and grate in the wingwall is item 604.07200010. These will be corrected by Amendment 4.

Question 21

Question: Under Special Spec 557.11030101/557.43000001, the last note in Table 1 – Field Placed Concrete Mix Requirements stipulates to “Provide a durable, crack free final product.” Please provide crack limitation and frequency.

Response: The same standard for cracks in the precast panels that require repair as detailed in the special specification for item 557.43000001 shall apply to the field placed rapid hardening material. Any crack that is greater than 1\(\frac{1}{2}\) inch in depth and 0.002 inches in width shall be considered a structural defect and shall be repaired in accordance with section 6.4.3 of the PCCM.

Question 22

Question: We would like to know if original Patroon Island Bridge design drawings are available, preferably on CD or if not for review? This would include all locations where structural lifts are being performed.
Response: All available record plans are available on the NYSDOT Patroon Island Bridge Project website under Supplemental Information. Please see contracts FIC 66-17 and FICM 64-24

Question 23

Question: There is a note on Drawing ST5-128 (sheet 510A1) that states the following:
“For plate girder repairs, magnetic particle test the entire area of weld removal. This test shall be performed by a qualified technician in accordance with Section 18 of the New York State Steel Construction Manual (SCM) and witnessed by a representative of NYSDOT. Any crack or crack-like indications in the base metal shall be immediately reported to the D.C.E.S. and the work stopped at that location until an evaluation is made.”

Who is responsible for paying for the mag-particle testing mentioned in the above note that appears on multiple drawings related to the steel repairs?

Response: The contractor shall be responsible for providing the qualified testing technician to test weld repairs and removals in accordance with the contract documents. The cost for testing of weld repairs and removals shall be included in the applicable steel items. Please note that the testing requirements have been revised by Amendment 4.

Question 24

Question: Mag particle inspection is called out on some removal areas and not called out on others. Is mag particle inspection specifically called out only when required? Is mag particle inspection required on the bearing removal areas on Bridge 5, Ramps YA and BF and the steel cap beams on bridges 7 and 8?

Response: In general, magnetic particle testing is only specified for weld repairs and removals made in tension zones or if the member is fracture critical. There are instances where weld removals associated with the bearing block repairs on Bridge No. 5, Bridge YA and Bridge BF are performed in compression zones and magnetic particle testing is not required or specified. Please note that the testing requirements have been revised by Amendment 4.

Question 25
Question: New steel is required to be fabricated and supplied with the primer and intermediate coats of paint shop applied. After the steel is installed and the repairs are complete, are touch up primer and intermediate coats of paint to be field applied to bare areas such as bolts, welds and exposed areas of faying surfaces even though these areas are painted later under pay item 573.XXXX?

Response: Please see STEEL REPAIRS INTERIM PAINTING NOTE 68, as revised by Amendment 1, on drawing ST-3 (sheet 320). All steel repairs shall receive a prime coat and intermediate coat after completion of steel work to serve as an interim coat until total coating replacement under item 573.0100XX. Include the cost for the interim prime coat and intermediate coat under the associated steel repair item.