



Franklin Road Bridge Replacement over NS Railway

ITB# 17-02-04

QUESTIONS AND ANSWERS

SEPTEMBER 23, 2016

Question 1: Reference Plan Sheet CB-027 PYLON DETAILS. Is the Pylon base concrete or is it a cast-in-place core with precast panels? If the later, could you provide a section detail?

Answer: The pylon base is intended to consist of a cast in place core with precast cladding. This configuration is depicted conceptually in Section B-B of drawing sheet 27. The exact dimensions and reinforcing for the core will be determined by the Contractor, based on the proposed cladding details.

Question 2: VDOT will allow the use of a wall drain tile in lieu of the porous stone backfill behind the abutments and retaining walls. Will the City allow the drain tile substitution?

Answer: Geocomposite wall drains may be substituted for porous backfill behind abutments and retaining walls. Geocomposite wall drains shall conform to the requirements in Section 245.03(f) of the VDOT Road and Bridge Specifications and shall be selected from the VDOT Approved List. Installation shall be in accordance with the manufacturer's recommendations as approved by the City. The cost of geocomposite wall drains shall be included with the price bid for Concrete, Class A3.

Question 3: A quick search for PCI Category A installer/erectors shows none in Virginia. The closest companies are 1-2 states away. Since there are only 4 precast pylons, will the City consider allowing the prime contractor to set the precast units instead?

Answer: Installation of precast elements may be completed by the Contractor or the precast fabricator. Proposed installation methods and responsibilities shall be included with the precast submittals to the City for approval and may be reviewed at the pre-installation meeting for precast elements.

Question 4: On plan sheet CR-102 there is a VDOT 18" storm drain system shown to be retained that appears to flow directly towards Pier #4. The plan sheet does not clearly identify the outfall of the system or it's interaction with Pier #4. For the purposes of bidding, how will repairs / modifications to this system be handled if it is determined that the system needs to be relocated for the purposes of constructing the new Pier #4 and it's foundations?

Answer: Although the field survey did not confirm the alignment of this pipe, a review of the VDOT plan archives suggests that it was installed in 1972 as a part

of the Route 220 interchange construction, that is several feet away from the pier, and that it outfalls to the older drainage system running parallel to the bridge. Invert elevation data in the project survey, compared to proposed pier elevations suggest that the pipe is approximately at the elevation of the new pier footing. Modifications to the drainage system adjacent to Pier 4 are not included in the scope of the project and will be negotiated as a change order if required.

Question 5: The partial framing plans shown on plan sheet CB-041 appear to indicate either cross frame connector plates or transverse intermediate stiffeners on the outside of the exterior girders at the cross frame locations. The notes CB-042 states that cross frame connector plates shall be placed in pairs even when a cross frame is not present at the interior girders only. Are the plates shown on the outside of the exterior girders other than bearing stiffeners required?

Answer: The note on sheet CB-042 correctly expresses the design intent. Web stiffeners and cross frame connection plates should not be installed on the exterior face of exterior girders.

Question 6: In order to install the drilled shafts at pier 4, we will need to either close the 220 off ramp or access the work from tracks A-1 and 1. Is VDOT aware of this? Are there any date or time restrictions regarding the necessary ramp closures? Also, we will need to remove the guardrail in order to access the work area. Will placement of concrete barrier service at the edge line be permissible?

Answer: The need for closure of the Route 220 NB off ramp was considered during plan development and reviewed with VDOT, including the conceptual configuration shown in Section A-A of drawing CB-028 which considered the possible use of barrier along the ramp. As noted on CR-011, a Maintenance of Traffic Plan shall be submitted and approved prior to any temporary closure or restriction of the Route 220 NB off ramp. This plan will be reviewed by the City and VDOT, who will work with the contractor to minimize impacts (i.e. avoid festivals or major holidays). Placement of The Contractor will also be required to apply for a Land Use Permit for any proposed activities on VDOT right-of-way.

Question 7: Can you advise if Norfolk Southern RR will require all employees working on-site to be e-railsafe certified? Exhibit C NSRR special provisions #12 A, states Contractor is not required to complete NSRR worker protection training, but does not specifically address e-rail safe.

Answer: The e-railsafe training certification will not be required.

Question 8: Drilled Shaft Special Provision Paragraph VIII requires the contractor to overream the shaft if concrete placement is not completed within 24 hours if slurry is used. Due to the time required to drill a 10' rock socket on each shaft it will be difficult to meet this specification requirement. We are requesting that this timeline be increased to 48 hours as that is a more realistic timeframe to complete a drilled shaft.

Answer: This proposed construction sequence will be acceptable and should be explicitly identified in the Drilled Shaft Installation Plan.

Question 9: Plan sheet number CB-036 shows a 48" OD permanent casing in the top 20' of the shaft. The portion of shaft drilled below this casing would need to be less than 48" diameter for tooling to fit inside the casing. Please confirm that the portion of shaft

below the casing and to top of rock will be acceptable at 42" diameter or same diameter as the rock socket.

Answer: This proposed configuration will be acceptable and should be explicitly identified in the Drilled Shaft Installation Plan.

Question 10: The bid quantity for Drilled Shaft Rock Socket (42" Dia.) is listed as 144 LF. Based on the elevation table and notes on Plan Sheet CB-036, the rock sockets are 10 feet in length which would make the total quantity 120 LF. Please revise the quantity to 120 LF.

Answer: The plan elevations are estimated based on boring log information. The bid quantities were estimated based on the assumption that drilled shaft construction will encounter rock material 2 feet above the approved top of rock socket (i.e. due to irregular or sloping rock surface).

Question 11: Please clarify the number and location(s) of test piles. Will the City of Roanoke perform the Dynamic Pile Testing (no specification is provided)?

Answer: The first production pile installed at each substructure unit will be considered the test pile. Non-production test pile installation will not be required. The Special Provision for Wave Equation Analysis reference to dynamic testing and load testing should be understood to mean such test that may be voluntarily performed by the contractor in support of a refined wave equation analysis submittal.

Question 12: The abutment stem walls at both Abutment A and B fall into the typical VDOT Mass Concrete special provision, which is not given for this project. Does the VDOT Special Provision for Mass Concrete apply for this project?

Answer: The Special Provision for Mass Concrete is not included in the project requirements.