OHIO TURNPIKE AND
INFRASTRUCTURE COMMISSION

ADDENDUM NO. 4
ISSUED: MAY 12, 2023

PROJECT NO. 43-23-04

BRIDGE REPLACEMENT OHIO TURNPIKE OVER TINKERS CREEK M.P. 185.6 SUMMIT & PORTAGE COUNTIES, OHIO

ISSUED APRIL 13, 2023

OPENING DATE: 2:00 P.M. (EASTERN TIME) MAY ~~11~~ ~~18~~ 25, 2023

ATTENTION OF BIDDERS IS DIRECTED TO:

ANSWERS TO QUESTIONS RECEIVED THROUGH 5:00 P.M. ON MAY 11, 2023

MODIFICATIONS TO THE CONTRACT DOCUMENTS

Plan Sheets 6,7,10,50,51,54,63,76,77,82,83,84,85 of 119

-AND-

Bid Schedule of Items and Estimated Quantities Worksheet
Reference Nos.: 5A, 15, 16, 17, 19, 26, 39A, 80, 94, 99, 103, 120A, 125, 135, 136, and 149

-AND-

Special Provisions: SP 103 and Page SP-127

EXTENSION OF THE BID OPENING TO 2:00 PM ON MAY 25, 2023

Issued by the Ohio Turnpike and Infrastructure Commission through Aimee W. Lane, Esq., Director of Contracts Administration.

Aimee W. Lane

Aimee W. Lane, Esq.,
Director of Contracts Administration

May 12, 2023
Date

ANSWERS TO QUESTIONS RECEIVED THROUGH 5:00 P.M. ON MAY 11, 2023:

Q#5 The basis of the bid with regard to the ground improvements is listed as DMM. The effectiveness of DMM is reduced in organic soils such as those present on this project. With regard to the Controlled Modulus Column and Geotextile Restrained Stone Pier methods mentioned, can they be considered equivalent alternates with regard to the bid process, or must DMM remain the base-bid?

A#5 Alternate ground improvements will not be considered equivalent alternatives for the basis of the bid. Item 530 Special, Structures, Ground Improvement, DEEP MIXING METHOD (DMM) - is provided in the plans and shall be the basis of bid to accomplish this work.

Q#8 Please consider allowing other methods of soil stabilization in lieu of just the soil mixing currently in the proposal. Allowing other methods will let the Commission receive all the cost saving at bid time in lieu of the 50% saving from a VECP proposal.

A#8 Item 530 Special, Structures, Ground Improvement, DEEP MIXING METHOD (DMM) - is provided in the plans and shall be the basis of the bid to accomplish this work. The awarded contractor may bring forward an alternate ground improvement method after the base bid has been awarded. Any alternates are subject to review and approval by the OTIC.

Q#9 There are existing deck slabs underneath the current structure. These will conflict with new pier piling and footers. What is the Turnpike's intent for these deck slabs? Spot removal for pier conflicts, or full removal of all slabs underneath bridge?

A#9 Existing deck slabs underneath the current structure may be spot removed as required to perform the work.

Q#10 How does the Turnpike expect the contractor to enter and exit the work zones while complying with traffic standards? The MOT drawings do not provide proper access length to decel/accel in and out of the workzone on the leading end of the phase 2 (East end) and phase 3 (West end).

A#10 The MOT was designed in accordance with ODOT Standard Construction Drawing MT-95.71. If the contractor would like additional space, an alternative Maintenance of Traffic scheme can be submitted for approval by the successful contractor as part of the MOT shop drawings. Any alternative traffic control proposed will be required to meet OTIC and ODOT standards referenced. Please note that the work areas shown include resurfacing limits which can be used for acceleration/deceleration.

Q#11 What reference item is the Concrete Level Spreader on page 72 to be paid under?

A#11 Reference Item D12. Refer to plan sheets 55/119 and 61/119.

Q#12 The specifications call out a soil mixing test section shown on the plans, however, we cannot find the locations in the drawings. Can the test section for the Item 530 Special be clarified?

A#12 Test locations shall be performed within the areas of deep soil mixing (DMM) identified in the plans. Proposed location within the DMM zone shall be submitted as part of the Field Validation Program Plan to be approved by the Engineer.

Q#13 What is the scope of work for Item #117, 530 Special – Instrumentation?

A#13 Contractor shall refer to Item 530 Specification, including the FHWA Deep Mixing Manual for Embankment and Foundation Support. The field validation, measurements, and operational monitoring for control of all major parameters during placement are to be paid for under Item 530 Special – Instrumentation.

Q#14 The requirements for soil mixing say that the spoils need to be processed offsite. The spoil product will be composed of water, soils, cement, and other admixtures. The spoils typically setup overnight but will have decant water on the surface. Is the spoil material for Item 530 – Special allowed to dry onsite or are they to be hauled offsite wet?

A#14 Spoils can be dried onsite or taken offsite; provided no spoils are placed in non-permitted wetland areas.

Q#15 Item 503 Sheet Pile is shown on the right and left sides of the ground improvements zone. This item appears to be contractor selected. There is no sheet piling shown at the face of the abutment or at the phase line. If there is a high groundwater gradient through the tinker's creek area it is possible that the effluent will move through the very soft soils to the during phase 2. Is a below grade barrier needed at the face of abutment and phase line?

A#15 The intent of the sheet piling is for effluent control, hence multiple materials may be used and limited reveal heights and loads are anticipated. Migration of effluent between phases is not a concern; the issue is preventing migration beyond the permitted limits of the project.

Q#16 After the DMM is complete the new ground improvements will eventually affect the pH of the groundwater near the embankments. Is the sheet pile to remain or can it be removed?

A#16 The sheet pile may be removed, and no monitoring is required after the DMM curing period.

Q#17 Without doing laboratory testing prior to the bid, it's unclear how the cement dosage will affect the pH of the water during soil mixing. What is the existing pH of the groundwater?

A#17 *Current on-site testing is not available; however, the Tinkers Creek Watershed Partners tested the area in 2021. TC001 and TC002 are the closest from the tested sites to the vicinity of the bridge. The testing indicated a pH of 7.9-8.1. (See https://www.tinkerscreek.org/wp-content/uploads/2021/11/Water-Quality-Report_2021.pdf). OTIC cannot confirm the results of the TCWP tests. Information is for reference only.*

Q#18 For Item 530 – Special – is a shear wall required at the face of abutment? The typical spacing shown on sheet 77 only shows the right and left MSE face.

A#18 The closer spaced DMM shear wall is required on the sides for global stability of the MSE embankment. A transverse shear wall at the abutment is not required, as the abutment piles provide the support needed.

Q#19 In Specification Item-530 – Structures, Ground Improvements it says that DMM shall be the basis of bid, however it was mentioned in the prebid meeting that OTIC is open to other alternates. Please confirm that DMM is to be the cost included in the bid.

A#19 See Answer #8.

Q#20 Please clarify Plan Notes 1 and 8 on sheet 10/119 and the Quantities shown under the ITEM 615 - Roads for Maintaining Traffic note on plan sheet 7/119. Of the Items and Quantities Listed in the Roads for Maintaining Traffic note on plan sheet 7/119; What is included in the Lump Sum Bid for ITEM SP 614, Maintaining Traffic (per Note 1 on sheet 10/119)?; What is included in the Lump Sum Bid for Item 615 - Roads for Maintaining Traffic (per Note 8 on sheet 10/119)?; and What is included in Items Separately Itemized (per Note 8 on sheet 10/119, REF. NOS. 8, 15, 29, 60, 61, 62, 66, 67, 68, 69, 149)?

A#20 None of the quantities listed under ITEM 615 – ROADS FOR MAINTAINING TRAFFIC on sheet 7/119 are included in ITEM SP 614 – MAINTAINING TRAFFIC. Notes 1 and 3 on sheet 10/119 will be revised to reference ITEM 615 - ROADS FOR MAINTAINING TRAFFIC. ITEM 615 – ROADS FOR MAINTAINING TRAFFIC includes, but is not limited to, quantities listed under the ITEM 615 – ROADS FOR MAINTAINING TRAFFIC note on sheet 7/119, and work listed in the notes on sheet 10/119. Ref. Nos 8, 15, 29, 60, 61, 62, 66, 67, 68, 69 do not include quantities listed under ITEM 615 – ROADS FOR MAINTAINING TRAFFIC. These quantities represent work not associated with Maintenance of Traffic. These quantities are to be paid for separately as shown on sheet 50/119. Ref. No. 149 will be removed (see Response to Question 26).

Q#21 Plan Note 1 on sheet 10/119 states "The Contractor shall remove the existing surface course of asphalt within the limits of the temporary pavement in order to provide the minimum 1 1/2" pavement thickness. Cost of Removal, Tack Coat, and Placement of Variable Depth Temporary Pavement to be included in the Lump Sum bid for Item SP 614, Maintaining Traffic." Please confirm that this note is referring to the work shown on the MEDIAN TEMPORARY PAVEMENT AND DRAINAGE SECTION - PHASE 1. Are the quantities for this work included in the quantities shown on plan sheet 7 under the ITEM 615 - Roads For Maintaining Traffic Note?

A#21 This work is referring to MEDIAN TEMPORARY PAVEMENT AND DRAINAGE SECTION - PHASE 1 typical section on sheet 10/119. The For Information Only quantity for ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH) under ITEM 615 – ROADS FOR MAINTAINING TRAFFIC on sheet 7/119 will be revised to 8,434 SQ. YD. to include planing required to place temporary pavement in Phase 1 and planing required to restore the median in Phase 4. Note 1 on sheet 10/119 will be revised to reference ITEM 615 - ROADS FOR MAINTAINING TRAFFIC.

Q#22 Please revise the quantity shown on the Roads For Maintaining Traffic table on Plan sheet 7 for Item 254 Pavement Planing, Asphalt Concrete (Variable Depth) from 3,797 SQ. YD. to 4,282 SQ.YD. Per the Maintenance of Traffic Plan Sheets, The Median Resurfacing Limits are from 704+00 to 710+82 and from 7+00 to 13+70. We calculate 682 FT + 670 FT = 1,352 FT. 1,352 FT x 14.25' x 2 Sides / 9 = 4,281.33 SY.

A#22 See Response to Question 21. The For Information Only quantity for ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH) under ITEM 615 – ROADS FOR MAINTAINING TRAFFIC on plan sheet 7/119 will be revised to 8,434 SQ. YD.

Q#23 Plan sheet 7/119 provides a list of "Quantities RELATED TO Item 615 - Roads for Maintaining Traffic". Included in this table is Item SP 404 Asphalt Concrete Surface Course, Using Crushed Slag, PG 76-22(FR) - 545 CU. YD. and Item SP 407 Non-Tracking Tack Coat - 792 GAL. Are the quantities provided in the table for these items intended to cover the Phase 1 AND Phase 4 work shown on the MOT Typical Sections plan sheet 10?

A#23 Yes, both items have been quantified to be used for Phases 1 and 4 as shown on the typical sections on sheet 10/119. The For Information Only quantity for ITEM SP 404 – ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG 76-22 (FR) will be revised to 516 CU. YD. and ITEM 407 – NON-TRACKING TACK COAT will be revised to 762 GAL on the note on plan sheet 7/119.

Q#24 Plan sheet 7/119 provides a list of "Quantities RELATED TO Item 615 - Roads for Maintaining Traffic". Included in this table is Item SP-302 - Asphalt Concrete Base, PG 64-22 - 11 CY. Per the MOT Typical Sections on sheet 10/119 this quantity will not cover the required pavement restoration shown for Phase 1 & Phase 4. We Calculate Phase 1 = 64' x 3' x 13.5" = 8 CY and Phase 4 = 1,415.66' x 5' x 13.5" = 295 CY for a Total of 305 CY.

A#24 The For Information Only quantity for ITEM SP 302 – ASPHALT CONCRETE BASED, PG 64-22 will be revised to 306 CU. YD. on sheet 7/119.

Q#25 Plan sheet 7/119 provides a list of "Quantities RELATED TO Item 615 - Roads for Maintaining Traffic". Included in this table is Item 254 - Pavement Planing, Asphalt Concrete (Variable Depth) - 3,797 SY. Please confirm that Per the MOT Typical Sections and Plan Note 1 on sheet 10/119, The Pavement Planing that is required in Phase 1 is incidental to Item SP 614, Maintaining Traffic and the Pavement Planing that is required in Phase 4 is incidental to Item 615 - Roads For Maintaining Traffic.

A#25 See Responses to Questions 20 and 21. Planing for both Phase 1 and Phase 4 is incidental to ITEM 615 – ROADS FOR MAINTAINING TRAFFIC. The For Information Only quantity for ITEM 254 – PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH) under ITEM 615 – ROADS FOR MAINTAINING TRAFFIC on sheet 7/119 will be revised to 8,434 SQ. YD.

Q#26 Plan sheet 7/119 provides a list of "Quantities RELATED TO Item 615 - Roads for Maintaining Traffic". Included in this table is Item 622 - Concrete Barrier, Type B-50, As Per Plan - 1,102 FOOT. Please confirm that payment for the 1,102 Feet of Concrete Barrier, Type B-50, As Per Plan will be paid under Bid REF NO. 149 and is not to be included in the cost for Item 615 - Roads for Maintaining Traffic. Also, please add a bid item in the Maintenance of Traffic Section for Item 202 - Concrete Barrier Removed - 1,102 FOOT.

A#26 The quantity provided for ITEM 622 – CONCRETE BARRIER, TYPE B-50, AS PER PLAN is a For Information Only quantity related to ITEM 615 – ROADS FOR MAINTAINING TRAFFIC. Payment for this work is included in ITEM 615 – ROADS FOR MAINTAINING TRAFFIC. Bid Ref No. 149 will be removed from sheet 51/119. ITEM 202 – CONCRETE BARRIER REMOVED will be included in ITEM 615 – ROADS FOR MAINTAINING TRAFFIC and will not be paid for separately.

Q#27 Plan sheet 7/119 provides a list of "Quantities RELATED TO Item 615 - Roads for Maintaining Traffic". Included in this table is Item SPECIAL - Sonic Nap Alert Pattern - 0.27 MILE. The MOT Typical Sections on plan sheet 10 show Sonic Nap Alert Pattern on the Eastbound and Westbound inside shoulders. Please revise the quantity shown on sheet 7 to 0.54 MILE.

A#27 The quantity for ITEM SPECIAL – SONIC NAP ALERT PATTERN will be revised to 0.54 MILE on plan sheet 7/119, General Summary, and the Estimated Quantities Worksheet.

Q#28 Plan Note 2 on Sheet 10/119 states that the existing Median Barrier Foundation may remain during construction and be replaced during the Phase 4 crossover restoration. Please confirm that the [sic] if the contractor opts to leave the median barrier foundation in place until Phase 4, the Pavement for Maintaining Traffic, Type A can be non-performed.

A#28 If the median barrier foundation is to remain during construction, ITEM 615 – PAVEMENT FOR MAINTAINING TRAFFIC, TYPE A can be non-performed; however, if the foundation is to remain, additional ITEM SP 404 – ASPHALT CONCRETE SURFACE COURSE, USING CRUSHED SLAG, PG 76-22 (FR) will need to be placed on top of the foundation.

Q#29 Note 6 on plan sheet 10/119 says the 15" Type B Conduit Placed in Phase 1 is to Remain. Why would the 15" Conduit remain? Is the intent to have the 15" Type B Conduit Filled & Plugged in Phase 4?

A#29 The 15" conduit will be removed in Phase 4 along with the slotted drain, and they will be replaced by permanent pavement as noted on sheet 40/119. Note 6 will be removed from sheet 10/119. Note 8 on sheet 10/119 will be revised to remove reference to filling and plugging conduit.

Q#30 The limited access to the project provides a very difficult and costly challenge. At minimum, construction limits should be 50' off of the edge of parapet parallel with the structure and the full depth pavement limits should be lengthened to allow access ramps down into the bottom of the project as well as along the slope to be able to access the bottom during and after the structure is constructed. These access ramps need to be sufficient enough to allow the proper equipment and material deliveries access to the project. Large Drill rigs (450,000 lbs), Cranes

(250+ ton RT and 80 ton crawlers) are needed for substructure construction and beam erection for this project as well as delivery of beams, concrete and pile to the site. Excavation of excess material to offsite locations will also be needed and sufficient access is necessary for this to take place. The current construction limits is insufficient and do not allow for the necessary access. Can the construction limits be extended?

A#30 The construction limits have been extended to the maximum (limits of Ex. LA-R/W or non-permitted wetlands) for compliance with the NWP. Matting is allowed in the permitted wetlands, but not in the un-permitted wetlands. Any additional expansion into non-permitted wetlands would negate the current environmental permit, require an individual versus nationwide permit, delay the project, and add substantial wetland mitigation costs.

Q#31 With the limited construction access and traffic configuration, the erection of the concrete beams presents a great challenge to the project. Can The Turnpike provide their thoughts on how given the access restrictions that this was going to be done with calculations?

A#31 Addendum 3 included the crane setups for beam placement that was discussed during the Pre-Bid meeting. Two smaller cranes with a setup for each span to set all the beams on the pier caps, then a second round of setups to slide the beams into place with the cranes outside the final beam footprint was presented. The end spans could be set from behind the abutments. The actual work will be determined by the contractor as part of means and methods.

Q#32 Please provide an allowance for dewatering.

A#32 Dewatering is included in Item 503: Cofferdams and Excavation Bracing, Ref. No. 81. Refer to C&MS 503.01B and 503.03. Note that dewatering is not required for DMM installation as an in-situ improvement, provided the creek does not exceed banks or flood.

Q#33 Vertical wall excavation of peat is not possible and laying the excavation back in phase 2 area will expose existing substructure. Have stability calculations been performed on the existing structure to allow exposing the substructure with live loads?

A#33 There should not be a significant vertical cut in the peat. All of the ground improvement is performed from near the existing surface elevation in each phase. Stability was evaluated on the existing structure, and since the existing peat is offering almost no capacity or resistance, its presence is not contributing to the existing structure. The intent again, is we are not significantly excavating the peat, just the ground improvement in place.

Q#34 The plans and geotech report do not list the anticipated settlement(ft) for the DMM option; only for the undercut option. What is the anticipated settlement after the estimated 30-day wait period for Item 203 Special – Settlement Platforms?

A#34 There is no significant settlement when ground improvements are used for stabilization, and DMM is by a proprietary Specialty Company. The DMM supplier will provide final design and related information based on performance criteria. The only significant settlement time anticipated is consolidation for the new MSE wall.

Q#35 On Sheet 77 the typical detail for the minimum center to center spacing for the shear walls appears to be 4.5 feet, which is not typical to the specification. The detail provided in the CTL Geotech report on page 10 appears to be more applicable to the project. Can OTIC confirm that the minimum shear wall spacing is per the specifications at 7.5 FT?

A#35 The spacing of the DMM for the shear wall is 7.5 feet in longitudinal directions and are overlapped in the transverse direction. Reference can be made to the Geotechnical Report for spacings.

Q#36 The general summary on plan sheet 50/119 has ref. no. 19 excavation of subgrade 68 sq yd. The note on plan sheet 11/119 includes excavation of subgrade 68 cu. yd. The excavation of subgrade be square yards or cubic yards.

A#36 ITEM 204 – EXCAVATION OF SUBGRADE has a unit of CU. YD. The unit of Ref. No. 19 on plan sheet 50/119 and the Estimated Quantities Worksheet have been revised to be CU. YD.

Q#37 Best Management Practices note 8 on 5/119 says "…trees removed from temporary impact areas to facilitate construction shall be replaced with appropriate tree species native to Ohio." Please provide a list of appropriate trees and sizes.

A#37 The ODNR list of tree species native to Ohio has been provided as part of this addendum. The new trees provided shall be 1”-3” caliper.

Q#38 Best Management Practices note 8 on 5/119 says "…trees removed from temporary impact areas to facilitate construction shall be replaced with appropriate tree species native to Ohio." Please add a bid item for replacement trees.

A#38 The following item will be added: 661E40080 EACH DECIDUOUS TREE, 2" CALIPER (NATIVE SPECIES), with an assumed quantity of 20 Each. Ref. No. 39A was added to the General Summary on plan sheet 50/119 and the Estimated Quantities Worksheet.

Q#39 The Wildlife Protection note on 5/119 refers to an avoidance and minimization plan. Where can this plan be found?

A#39 The Avoidance and Minimization plan was included as part of Addendum No. 3, Pre-Bid documents.

Q#40 What are the limits of Guardrail Delineation per the note on 6/119?

A#40 Delineators shall be installed on all permanent guardrails located within 5 feet of the edge of the adjacent travel lane. The Guardrail Delineation note on sheet 6/119 will be revised to indicate this.

Q#41 Is use of SWPPPTrack software required for this project?

A#41 The use of SWPPPTrack software is not required for this project.

Q#42 Plan sheet 57/119 calls out "Remove existing right-of-way fence and provide new fence at proposed abutment". The bid documents refer to SP 607 for Fence. SP 607 lists Type I Fence, Type II Fence and Temporary Fence. Which type of fence is to replace the right-of-way fence?

A#42 ITEM SP 607 – TYPE II FENCE, ALL ALUMINUM (4'-0" CHAIN LINK WITH SPECIALS) should be used. The item name on sheet 54/119 and Ref. No. 26 on sheet 50/119 will be revised. Estimated Quantities Worksheet Ref. No. 26 has also been revised.

Q#43 Is the concrete level spreader on 72/119 to be reinforced? If so, please provide a bar list.

A#43 The concrete level spreader is not reinforced.

Q#44 What are the requirements for ref. 94 Item No. 511 "Class QC2 Concrete With QC/QA, For Preplacement Testing"?

A#44 Ref. No. 94 Item Description and quantity has been removed from General Summary Sheet 51/119 and the Estimated Quantities Worksheet.

Q#45 Will ref. 108 Item No. 519 "Special - Patching Concrete Bridge Deck" be done according to standard 519 specifications or will PN 512 or a similar specification be added?

A#45 Ref. No. 108, Item 519, is to be used as a contingency quantity for patching the existing deck as needed to carry traffic during MOT operations and will follow the 519 specifications.

Q#46 Are the pier diaphragms shown on plan sheet 102/119 and 103/119 part of the 2,953 cubic yards of bridge deck?

A#46 Yes, pier diaphragm concrete is included with Ref. No. 93.

Q#47 The Ground Improvements note on plan sheet 77/119 calls for predrilling through the mixed zone prior to placing the pile and placing low strength mortar after driving. It appears all abutment piles are in the mixed zone. Is predrilling and low strength mortar required for all abutment piles?

A#47 The piling can be placed between the 3' diameter mixed columns, and if placed in the space between then no predrilling or LSM is required. If placing the pile on top of a DMM column, then this is required. The mixed zone referenced in this note refers to just the DMM column and not the whole area.

Q#48 The Plan note for Item 203 Embankment, As Per Plan (sheet 76/119) states to place and compact embankment material in 6" lifts for the construction of the approach embankment.

Isn't all the approach embankment MSE Wall Select Granular Fill (plan sheets 80-83)?

A#48 Quantity is included for areas requiring embankment fill following pier foundation construction. This will be revised to be included with Item 203, Embankment, and the as per plan item will be removed from quantities and notes.

Q#49 Where is the 631 CY of Embankment As Per Plan shown on the drawings?

A#49 See Answer #48.

Q#50 Plan sheet 76/119 lists 8 locations for Settlement Platforms. Please revise the Quantity for Ref. No. 80 from 6 EACH to 8 EACH

A#50 Ref. No. 80 has been revised in the General Summary sheet 51/119 and the Estimated Quantities Worksheet.

Q#51 Please revise plan note 2.B on page 56 via addendum, as discussed in the prebid meeting.

A#51 The Plan Note 2.B on plan sheet 56/119 shall read "MATTING IS REQUIRED TO BE PLACED IN THE WETLAND AREAS WHERE WORK WILL OCCUR." Timber matting is not required.

Q#52 The proposed haul road presented during the prebid indicates 10.5' width from edge of deck to construction limits. Scaling the plans provided indicates a choke point during phase 3, span 6, of 9.5' clear distance from edge of deck and 11'-3" from outside edge of pier 5 to construction limits. The bottom of the outside bridge beam at pier 1 is ~ 6' high off existing ground. The haul road will be raised from existing ground after matting. Once overhangs are installed on the bridge beams, all access will be cutoff underneath the deck. The proposed haul road will need removed prior to installation of overhangs as equipment will be unable to access underneath due to width constraints after final deck has been poured. How does the Turnpike anticipate accessing the worksite to install deck rebar, concrete, strip, and install weatherproofing?

A#52 The construction limits were placed to maintain impacts within the permitted impact amounts. Provided the contractor maintains impacts equal to or less than the permitted amounts in both forested and non-forested wetlands, adjustments may be possible to allow for more or less room on either side or near the abutments. Refer to the permit for allowable wetland impact amounts, which are the critical criteria.

Excavation under the bridge can be performed, including of the haul road after other components are complete, provided impacts stay within the permitted amounts. This is not anticipated to be an issue with rebar placement which can be done from the top. Stripping of forms seems to be the critical item in the list provided.

Q#53 The proposed haul road is through insufficient wetlands and will require additional sacrificial pile to maintain the traffic that is required (concrete trucks, beam trucks, cranes, etc.). Additional and existing piling will remain in these wetland areas after project completion. The existing bridge piling is to remain below grade, therefore we are assuming new sacrificial piling can remain. Will piling be allowed to remain at project completion?

A#53 Yes, piling would be allowed to remain, it would need to be cut off 1' below final grades.

Q#54 Temporary matting for the proposed haul road will be installed next to the fiber optics line on the north side of the bridge. Loading on matting during construction will induce lateral forces on the fiber optics line. Do your calculations show the fiber optics line be able to resist the lateral loading from equipment and loaded trucks running on the haul road?

A#54 The amount of load will depend on the type and size of matting, which is part of the contractors' means and methods.

Q#55 There are very little subcontractors interested in the DMM scope. The qualifications required by the specification appear to be tailored to the large geotechnical contractors who frankly are uninterested due to the projects size and phasing. The specifications require one individual to have 130,000 CY volume experience. Can this quantity requirement be reduced?

A#55 This can be reduced; the requirements come from the FHWA Guide Specification as a recommendation but are not strict requirements. The Commission will accept reduced experience of 5 projects and 50,000 CY with this addendum.

Q#56 The acidic content of the decaying peat will affect the hydration of the cement. Given the amount of silt, a greater amount of binder is required to coat the fines. Given the high-water content, the binding slurry will need to be concentrated to reduce the total water content and W/C ratio. Did the designer complete a trial batch to prove that the design strengths of 125psi are even possible in this organic material?

A#56 Trial batching was not within the scope of work for design. Studies are available which supplement the FHWA Guide Document which indicate that W/C ratios less than 5 should produce design strengths in this range, including in high organic content soils. An example is the following, refer to section 5.3, and in particular Figure 5.18 on pdf 127/151. (https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=7272&context=etd).

If a particular supplier wishes to use a lower design strength, this would be allowable with adjustment to the size and/or spacing of the DMM columns. This proprietary design would be required to be submitted for approval with shop drawings and other procedures in accordance with the specification and plans.

Q#57 Will the DMM element spacing be allowed to be field modified to avoid the existing pile foundations?

A#57 Yes, this can be modified within design parameters.

Q#58 An extensive pre-bid schedule was performed, and the contractor does not have enough time to build the project. The minimal access provided is forcing the contractor to work out of traditional sequence and inefficient. This project is not buildable in the timeframes provided. Please consider adding a full year to the project schedule.

A#58 SP 103, CONSTRUCTION PHASING AND TIME OF COMPLETION, has been revised and included with this addendum.

Q#59 SP 117 indicates that the fiber optic line attached to the existing bridge is live and to be removed and maintained / protected for the project duration. Plan notes on sheet 76 indicate the line is abandoned and to be removed. Please confirm that the plan notes are correct.

A#59 The plan notes are correct. Per Verizon, there is no live cable on the bridge.

Q#60 Plan pages 82 and 83 indicate a 1:1 slope for access into the soil mixing and MSE abutment work. A more gradual slope will be required for equipment to access the abutments. Please add quantity to the Select Granular Backfill item to account for needed access.

A#60 Plan Sheets 82/119 and 83/119 have been revised. Ref. No. 125 quantity has been increased on the General Summary sheet 51/119 and the Estimated Quantities Worksheet. All applicable sheets are included with this addendum.

Q#61 Plan sheets 78 and 79 currently show 12' lanes for maintaining eastbound and westbound lanes during phases 2 and 3. Please allow these 12 foot lanes to be reduced to 11 foot lanes.

A#61 Alternate MOT plans using 11-foot lanes may be acceptable and will be reviewed and approved as part of the contractor MOT plans, if an alternate MOT scheme is desired by the contractor.

Q#62 The parapet drainage details on 77/129 require 4 inch by 21 inch openings at the bottom of the proposed parapet not more than 30 feet on center. The parpaet details on 112/199 show R603 and R604 reinforcing bars protruding from the deck into the parapet at 6 inches on center and R501 or R502 horizontal bars about 2 inches above the joint between proposed deck and proposed parapet. Is the intent to have reinforcing steel (both vertical and horizontal bars) passing through the drainage opening?

A#62 Yes, reinforcing will extend through the opening and be exposed during MOT operations. Prior to plugging drainage holes, debris and any remaining oils shall be cleared.

Q#63 Is the SBR-1-13 parapet on the approach slabs part of Ref. 95 Item SP 511B Class S Concrete, Barriers and Parapets, Using Type 1 Cement, As Per Plan?

A#63 Yes, SBR-1-13 approach slab parapet is included with Ref. No. 95.

Q#64 Are the MS502, MS504 and MS505 bars shown on 84/119 to be 12 inches on center?

A#64 Spacing will be 6" on center. Labels on plan sheet 84/119 have been revised.

Q#65 During the pre-bid meeting, the designer showed cranes setting the pre-cast beams. What make and model were these cranes? Where are the ground improvements to support the cranes and haul roads to be included? Should a separate line item be added to account for these additional costs?

A#65 Linkbelt RTC-8090, RTC 80130, and RTC 80160 cranes were reviewed and used for the exhibits, however the exact equipment used is part of the contractor's means and methods.

Q#66 The suggested erection procedure shown during the prebid meeting would require crane outriggers setting outside of construction limits. Is the contractor allowed to drive piling outside of construction limits to support erection?

A#66 The construction limits were placed to maintain impacts within the permitted impact amounts. Provided the contractor maintains impacts less than or equal to the permitted amounts in both forested and non-forested wetlands, localized expansion may be possible. The limits could be reduced elsewhere to allow for this type of small impact area to be added. The critical element is maintaining wetland impacts below the permitted amounts.

Q#67 The second sentence in paragraph (f) on page SP 127 references B.1.(h) above. There is no B.1.(h) located above and paragraph (h) does not appear to pertain to this sentence. Please clarify.

A#67 Page SP 127 has been revised and included with this addendum.

Q#68 Please review and update the dates and hours for the zone person note on plan sheet 7.

A#68 Item SP 614ZP has been updated on plan sheet 7/ 119. The General Summary on sheet 51/119 and the Estimated Quantities Worksheet has been updated as well and are included with this addendum.

Q#69 The Portions of Structure Removed note on 76/119 calls for all pier piles to be removed to 1 foot below existing ground except at pier 3 where the piles are to be removed to elevation 999.14. Will existing piles at pier 1 and piers 19 through 24 be allowed to remain in the Ground Improvements area and the Select Granular Fill for MSE walls?

A#69 Yes, existing piles in ground improvement areas may remain in place, provided they do not cause any conflict.

Q#70 Plan Sheet 83 shows the bottom of the MSE Wall Leveling Pad elevation at the forward abutment = 1002.8.
View A-A of Plan Sheet 85 shows the bottom of the MSE Wall Leveling Pad elevation at the forward abutment = 1001.5.
Please clarify.

A#70 The elevation should be 1002.80; plan sheet 85/119 has been revised and included with this addendum.

Q#71 Details A & B on plan sheet 82 show 6" CONCRETE SLOPE PROTECTION between the abutment footer and the MSE Wall coping.
Please add a bid item for this work.

A#71 Ref. No. 120A has been added to the General Summary on plan sheet 51/119 and the Estimated Quantities Worksheet included with this addendum.

Q#72 There is a good chance that a large crane located at the abutments will be needed to set the pre-cast beams. What capacity does the MSE wall design have? We need to know the maximum ground pressure that the MSE wall design can handle without failing.

A#72 The MSE wall design is a proprietary system; and exact capacity will be determined by the supplier in accordance with supplemental specification 840. The use of higher strength geogrid and/or smaller lift layers could be incorporated to increase the bearing strength of the system. Contractor is encouraged to coordinate with their MSE wall supplier on design and capacity of the system. Refer to 840.03 and 840.04. Crane mats could also be used to spread the load.

Q#73 The allowable geometry parameters seem to suggest that upright rotary mixing is the prescriptive means and methods. Can the "Column Diameter, D" in Table 1 be reworded to "Element Width, W" to possibly allow for other techniques and methods that make a square element rather than a round column?

A#73 Yes, though the design as reproduced in the plans was for round elements, if contractor would like to submit an alternate arrangement or sizing, contractor will need to have an alternate design submitted as noted in the Item 530 Special Specification.

Q#74 Please review the quantity for Ref. 99 Semi-Integral Abutment Joint Seal. It appears the quantity should be about 300 feet instead of 1,269 feet.

A#74 *Quantities for Ref. No. 99 and Ref. No. 103 have been revised on General Summary plan sheet 51/119 and the Estimated Quantities Worksheet and are included with this addendum.*

Q#75 The Patching Concrete Bridge Deck note on 77/119 says this is a contingency item. Lane closures will be required if this work is performed but the . How will the lane closures be paid?

A#75 Lane closures for this work will be incidental to Item 519 Special – Patching Concrete Bridge Deck. The plan note on plan sheet 77/119 has been revised to include Lane Closure MOT incidental to this item.

END OF ADDENDUM NO. 4