



ROANOKE COUNTY

Purchasing Division

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September 7, 2023

ADDENDUM NO. 3 TO ALL OFFERRORS:

Reference – IFB 2024-007

Description: 2024-007 - WEST ROANOKE RIVER GREENWAY, PHASE I

Issue Date: August 1, 2023

Proposal Due: September 12, 2023

This Addendum # 3 Contains the below information:

1) Questions and Responses

Note: A signed acknowledgment (*Signature Page is at the bottom of the Document*) of this addendum must be received at the location indicated on the original solicitation either prior to the proposal due date or attached to your proposal. Signature on this addendum does not substitute for your signature on the original proposal/bid document. The original proposal/bid document must be signed.

Questions and Responses

1) Notes regarding the MSE retaining wall on Sheet S-5 and the profile shown on Sheet S-7 conflict greatly with the cross sections shown on Sheets C-16-C-20.

Answer: Cross sections shown in the civil plan sheets are based on trail centerline elevations with a generic retaining wall structure which ties to existing grade. The profiles shown in the structural plans additionally account for the anticipated width of the gabion structures, stepped top of wall, and assumed foundation conditions. The retaining structure design should be based on the structural plan profiles with any major, specific variations between the edge of trail line and the civil centerline profiles brought to the attention of the Owner immediately.

2) The Roanoke River in this area of Salem consists of rock outcrops of a highly variable nature and boulders anywhere from golf ball size to six feet (or more) in diameter with the vast majority in the 1'-3' diameter size. Structural sheet S-7 indicates gabion baskets will be as much as 8' below the water elevation.

Answer: We agree that the excavations along the river in this area will produce bearing and foundation conditions that will be highly variable. In fact, we expect the bottom of the excavations to vary from what is shown on the plans. There were no geotechnical subsurface borings taken in this area of the project during the design phase because the

area is inaccessible for that type of equipment without considerable clearing, excavation, etc. We did perform test pits in some of the areas to help gauge the subsurface conditions during the design phase. The layout of the MSE Retaining Structure on the plans is meant to be a general guideline for construction and is based upon assumptions regarding bearing conditions and bedrock depths. As stated in the Pre-Bid Meeting, the cost of the MSE Retaining Structure shall include the design of this retaining structure by a PE licensed in the Commonwealth of Virginia (Engineer of Record). We fully expect that the submitted design will have the flexibility to address different foundation conditions, i.e. rock outcroppings, mud seams, etc.; hence the experience requirements for the wall designer in the Special Provisions. In addition, we expect that field engineering by the Engineer of Record for the MSE Retaining Structure will be required as varying conditions are encountered during construction. Furthermore, the water elevation shown on the plans is based on the surveyed edge of water on the day(s) of the survey. The bottom of gabion basket facing shown on Sheet S-7 takes into account assumptions made during the design phase but also considers scour depth, which shall be a major consideration of the submitted wall design.

- 3) The cofferdam required to permit exaction and dewatering for concrete placement in the dry to this depth is simply cost and time prohibitive.

Answer: Concrete placement for sub-footings in this area may require a tremie concrete placement technique if the area cannot be adequately dewatered. In addition, as stated in the Pre-Bid Meeting, we expect that the MSE Retaining Structure will be constructed progressively by utilizing previously constructed working areas as platforms for the subsequent work.

- 4) Note on sheet S-5 states “In the event that competent bedrock is not reasonably accessible, a concrete sub-foothing may be installed as directed by the engineer”.

Answer: Please be aware that “the engineer” in this note refers to the Engineer of Record for the MSE Retaining Structure who is sub-contracted by the Contractor, with no objection from the Owner

- 5) For bidding and construction purposes can we refer back to the cross sections shown by Hurt and Profitt and construct the gabion wall two feet below existing grade and allow for a sub-foothing if rock is not encountered.

Answer: No. The main reason that the plans require that the MSE Retaining Structure bear on bedrock or a sub-foothing that extends to bedrock is for scour depth considerations. The alluvium and cobbles in the area are highly erodible. As stated above, scour should be a major consideration of the design. In addition, the gabion basket portion of the MSE Retaining Structure is simply a facing for the retained earth structure and the facing, backfill, geogrid reinforcing (or other anchoring methods), etc. act as one unit to retain the trail construction and reinforce this area.

- 6) We highly doubt sheet piling can be driven through the river cobbles and absent a sheet pile cutoff wall, it will be impossible to dewater to the depths shown on sheet S-7.

Answer: It will likely be extremely difficult to completely dewater the excavation for the MSE Retaining Structure in some locations. If sub-footing concrete placement is required in specific areas, this may require a tremie concrete placement technique as mentioned above.

- 7) Alternately, in lieu of constructing the gabion wall with geogrid, can we construct as a gravity wall and therefore offer better protection from effect of flood events?

Answer: Due to site constraints and to limit the amount of excavation into the existing bank, we do not anticipate that a gravity wall will be a feasible alternative for the design. The distance required for the heel of such a wall is not available without additional excavation into the bank which is not permitted or advisable. See response below.

- 8) Could our gabion wall design include placing Class II riprap along the face of the gabion wall and, to the greatest extent possible, performing additional excavation into the bank such that we design the bottom of the gabion sub-footing to be above OHW?

Answer: No. Additional excavation into the bank is not permitted or advisable. The provisions outlined on the plans for benching the bank and the potential installation of grouted anchors or approved equal in the event that adequate clearance for the geogrid reinforcing should be incorporated into the design and should not be deviated from.

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*****SIGNATURE PAGE *****

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Thank you,



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2024-007 - WEST ROANOKE RIVER GREENWAY, PHASE I

Addendum # 3 Signature Page

Sign Name:

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Name of Firm:

Date: