

**NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS**  
**Bridge Package 17 - Contract ID 4462250 - Union County**

**FINAL RFP - ROUND 1**

Date Received: 1/19/2024

|              |          |            |                                      |  |            | SCDOT       |   |
|--------------|----------|------------|--------------------------------------|--|------------|-------------|---|
| Question No. | Category | Section    | Page / Doc No.                       | Question/Comment   | Discipline | Response    | Explanation   |
| 1            | Attach_A | Exhibit 4e | Page 3<br>Section 2.2.1.4            | Section 2.2.1.4 of the RFP states all bridges shall be designed so that backwater for the 1% AEP flood in one (1) foot or less when compared to the unrestricted or natural conditions and shall not create more backwater than the existing bridge. Per the provided reports in the Project Information Package this appears to be the case for all bridges. However, after further review of SC 114 over Sandy Run Creek model, the data provided does not depict the channel as required by FEMA. Cross Sections 3058 and 2968 only have a manning's n of 0.15 across the cross section and does not vary in the channel. In addition, cross section 2922 manning's n transitions do not match the bank stations. If these revisions are made, the backwater for a 180' bridge is 1.34' which no longer meets the requirements on the RFP and would require a longer bridge then provided in the Attachment B – Supplemental Project Design Criteria, Package 17 Bridge Info. Will SCDOT provide an updated minimum bridge length that meets the requirements of the RFP? | Hydrology  | Revision    | Updates will be made to memo and model for SC 114. Minimum bridge length has not changed. New files will be uploaded in PIP.  |
| 2            | Attach_B | Hydraulics | Hydro; 3.-<br>Package 17_Bridge Info | On SC 114, the top of bank locations provided in the Attachment B – Supplemental Project Design Criteria, Package 17 Surveys, vary significantly from the top of bank locations provided in the Project Information Package, Hydro Memos and Models for SC 114 over Sandy Run Creek. When using the survey, and addressing other discrepancies, the backwater increases to approximately 1.9' for the preliminary 180' model. Which top of bank locations should be considered when developing the models?   | Hydrology  | Revision    | Surveyed elevations are typically used but the EOR should determine the final elevations used in the model. Memo and Model updates have been made and are provided in the PIP.  |
| 3            | Attach_A | Exhibit_4a | Pages 1-4                            | On the SC 72 at Cox Creek site, there are some significant slip lanes and divided roadway associated with the entrance to the old Carlise plant site. Part of that entrance includes the tie in of S-113 (Woodyard Rd) as it enters near the guard house. There is no design guidance on the plant entrance and side road connection in the RFP. Are there any restrictions or design commitments associated with this area?   | Roadway    | No_Revision | S-113 is well outside of the project limits & environmental study boundary area. The intention is to match the existing entrance geometrics. Any changes to the entrance will have to be approved by SCDOT & impacts should be minimized. |



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| 4 | Attach_A | Exhibit_4a      | Page 1 /<br>Section<br>2.2      | On the SC 49 over Tyger River site, the Sag K-Value used in the SCDOT Conceptual Plans does not meet the Design Speed set in the RFP. When the profile is adjusted with the appropriate K-Values, the grade is raised an additional 5-7 feet above the 10+ feet that is it already coming up. The additional grade difference causes the new abutment toe of fill to exceed the limits of the existing toe of fill violating the RFP. Would SCDOT consider lowering the DS to 55 mph at this location to minimize impacts to right of way and environmental concerns, or would the minimum bridge length need to be longer to get the abutment toes outside of existing? | Roadway   | Revision    | Yes. Design speed for SC 49 over Tyger River will be lowered to 55 mph. |
| 5 | Attach_A | Exhibit 4d_Pt 2 | Page 7<br>Section<br>2.6        | On the SC 49 over Tyger River site, will S-44-33 (Meadow Woods Rd) be required to stay open during construction?   | Traffic   | No_Revision | Yes based on current criteria.  |
| 6 | Attach_A | Agreement       | Page 38<br>Section<br>VII.A.1.i | Will the Meansville Riley water line be allowed to be attached to the new bridge?  | Utilities | No_Revision | No.   |

