South Carolina Department of Transportation

NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS

Carolina Crossroads Phase 1 - Colonial Life Blvd. at I-126 Interchange - Project ID P039718 - Richland and Lexington Counties

FINAL RFP - ROUND 1

Date Received: 9/30/2020 Non-Confidential Meeting Date:10/14/2020

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1	Attach B	Environmental	page 13,14,24; "Approved_CCR_Re-evaluation.pdf"	The location of the proposed Access Road, as shown in the August 2020 Re-Evaluation will directly impact the surveyed limits of the historic Saluda Canal and will violate the 25' buffer required in the Environmental Commitments for the Project. Will the relocated Access Road be permitted to violate the 25' buffer requirement over the 700' area from 5412+50 to 5419+50? If not, is it permitted to utilize portions of the existing access road where not in conflict with the proposed bridge and adjacent to the canal?	Environmental	No Revision	Permanent structures within the 25' buffer may be allowed. An effect determination for the Canal would need to be made when the final design is determined and coordination would need to occur with SHPO to receive concurrence on the determination. This action would be documented in a NEPA re-evaluation. The access road may utilize portions of the existing road provided the design meets the requirements of the RFP.
2	Info Package	Environmental	CCR_404-Permit-Dwg.zip	Please provide drawing plan sheets in DGN format, in addition to the reference files provided in CCR_404-Permit-Dwg.zip	Environmental	Revision	DGN format of the sheets will be provided in an addendum.
3	Info Package	Geotechnical	1	The provided borings along the ramp bridge (126RC) do not provide sufficient coverage for preliminary design and proposal cost development. The borings provided are at a spacing of approximately 1,000 feet. Will SCDOT provide additional borings to the Teams along 126RC at a 0' offset for stations 5424+50, 5415+00, 5412+00, 5409+00, 5405+00, 5402+00, and 5399+00.	Geotechnical	Revision	SCDOT will obtain two additional borings between B-60 and B-61. Rocks breaks will also be performed on B-60 and B-61. We anticipate providing this information by the end of November.
4	Info Package	Geotechnical	1	Pavement cores for the I-126 median shoulders were not performed. Will SCDOT provide representative pavement cores for the inside shoulders of I-126 Eastbound & Westbound.	Geotechnical	No Revision	No cores will be provided for the median.
5	Info Package	Geotechnical		Please provide 100% of all deliverables resulting from the entire scope of services from the Geotechnical firms previously under contract with SCDOT to ensure all proposer have the same data, including but not limited to all field exploration, lab testing data, and any other engineering memorandum and recommendations	Geotechnical	Revision	We will provide the SPT Energy Calibration Information, GPR including coring information used for GPR calibration, and additional data files for the project.
6	Attach A	Exhibit 4e	238 of 467	In section 2.2 the RFP states that the piers for the new bridge over the Saluda River "shall not be placed within 10 feet of the existing pier line extended off the I-26 bridge." Should the 10 feet be measured from the face of the existing column or edge of interior bent cap?	Hydrology	Revision	Adding that this will be measurement will be from face to face.

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7	Info Package	Hydraulics		It appears that tC flow lengths for sheet flow in the Stormwater Report - Appendix E exceeds the maximum length of 100' that is typically used for tC calculations. The referenced manual "Small Watershed Hydrology" within the SCDOT Hydraulic Requirements currently states that sheet flow should be limited to 100', as any flow beyond 100' will typically transition into shallow concentrated flow. Will sheet flow lengths over 100' be permitted for the hydrologic analysis	Hydrology	No Revision	The report is provided for information only and it is up to the team to verify the calculations. 100 feet is the correct maximum length.
8	Info Package	Survey		We understand no additional survey will be provided per the first round of non-confidential questions / responses, however, we are unable to locate the full survey of the existing drainage system (roadway pipes and storm drains other than crossline pipes). It appears anything smaller than 24" is not reflected in the survey provided. Does SCDOT intend to provide this information?	Hydrology	Revision	A 3-d dgn file of pipes surveyed is provided.
9	Info Package	Survey		Will survey of the Saluda River bottom be provided for HEC-RAS Modeling to increase the accuracy of new and updated sections required?	Hydrology	No Revision	All survey information has been provided.
10	Attach A	Exhibit 4b	page 6	Will SCDHEC or SCDOT require a closed drainage system and/or permanent stormwater treatment structure on any bridges?	Environmental	No Revision	SCDOT will not require a closed drainage system and/or permanent Stormwater treatment structure on any bridge. Neither the DHEC 401 water quality certification nor USACE 404 permit conditions prohibit scuppers or require a closed drainage system. Team must comply with all federal and state permitting requirements, including future NPDES construction general permits.
11	Attach B	Hydraulics	CCR Video Inspection Summary	EP-4802 states there is a 60” pipe. The survey and historical drawings state 36”. Given that the recommendation is replacement, please clarify the pipe size.	Hydrology	Revision	Pipe size is 36"
12	Attach B	Hydraulics	CCR Video Inspection Summary	There are 6 other pipes stating “inspection pending”. What is the status of these inspections and if they are not received prior to bid, what is the contractor responsible for in his final bid?	Hydrology	No Revision	Inspections are underway. A revision with be forthcoming in an Addendum.
13	Info Package		Exhibit 4e, Page 1 and 2	The RFP states "Replace all 15-inch pipes with minimum 18-inch pipes at all locations where design warrants retaining 15-inch pipes." What are the limits of the replacement of 15" pipe for Phase 1? Does this include sections that are in Phase 3 that potentially connect to Phase 1 drainage?	Hydrology	No_Revision	If a system includes 15" pipes then all pipes within that system will require upsizing.

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14	Info Package	Survey	General	After reviewing the provided information for the project, it does not appear that the median drainage information is included in the MicroStation files. Will SCDOT provide the median drainage information including pipes, sizes, inverts, and tops?	Other	No Revision	SCDOT did not obtain surveys of the median drainage systems.
15				The scoring is heavily weighted to innovation and added value. Time is set at 1074 days and has significant LD's of $16,000/day. Even staying within the ROW and permitted areas shown on plans, it would be optimistic to have an NOI to start construction in 9 months. Additionally, there are multiply required "tie in" points to accommodate Carolina Crossroads Phase 3. If an innovative design goes outside proposed ROW, requires an IMR or has additional environmental impacts, a significant delay would occur obtaining this ROW, IMR, and environmental permits, leaving little time for actual construction. Would DOT reconsider its weighted criteria, by reducing Innovation and Added Value and/or by adding Completion Time as a scoreable criteria?	Other	No Revision	The criteria will remain the same as stated in the Request for Proposals.
16	Attach B	Survey		Please confirm the survey provided includes all recent pavement operations performed and is reflective of existing conditions today.	Other	No Revision	Lidar surveys were performed within the limits of this project after the I-126 and I-26 overlay performed in 2018.
17	Attach A	Exhibit 3		What is the disposition of the existing I-26 WB ramp / median barrier to Bush River Road / I-126EB from just south of the Saluda River to north of the CSXT? Is this to be removed or retained?	Other	No Revision	All median barriers shall be acceptable in regards to roadside safety.
18				Please provide any other investigations performed on the existing mainline / outside shoulders including FWD, GPR and any other non-destructive testing to evaluate the thickness, strength or material parameters.	Pavement	Revision	GPR information has been added to the Project information package.
19	Attach B	Pavement		Please provide the pavement cores for the mainline and inside (median) shoulders.	Pavement	Revision	The GPR data has been provided in the Project Information Package.
20	Attach A	Exhibit 3	Page 6	Please verify if we are to Mill and Overlay on I-126 Eastbound from Sta. 4+50 to Temp Tie, and I-126 Eastbound from Sta. 68+80 to Sta. 75+00?	Pavement	Revision	Clarification will be provided in Exhibit 3 to cover the mill and overlay requirements.

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21	Attach A	Exhibit 4c	Page 3&5 Section 2.2 and 2.4.2	Section 2.2 says "If the final elevation is built up, and a new surface course of HMA is to be placed, mill and remove OGFC at a minimum." while section 2.4.2 states to "retain existing pavement, allowable milling 1 inch" and "Perform Cross-slope correction or buildup as necessary." When looking at the cross slope correction from the early 2000's, OGFC was placed on superpave. Is it the intent of the RFP to remove this OGFC and to allow milling into the superpave when performing any buildup?	Pavement	Revision	In section 2.2 "If the final elevation is built up, and a new surface course of HMA is to be placed, mill and remove OGFC at a minimum." will be removed. OGFC was placed on I-26 east of the Saluda River during the early 2000's paving project. In 2018 OGFC was not placed on I-126 and I-26 west of the Saluda River
22	Attach A	Agreement	41	On other projects, we've observed that CSX required State DOTs to purchase permanent easements for structures spanning the railroad right-of-way and infrastructure/fill slopes in the railroad right-of-way. Will the DB Team be responsible for the preparation of right-of-way plats on SCDOT's behalf and/or any costs associated with the easements?	Railroad	No Revision	Contractor to provide ROW plans to SCDOT to acquire ROW from CSX. SCDOT will prepare the plats using Contractor's plans and secure the easement with CSX. See Article VIII.
23	Info Package	Railroad	1	Based on the green outline shown on the CSX ValMap 04144, there appears to be some CSX surplus property. Will the Team and/or SCDOT have to purchase this property or is there any other type of payment for crossing the surplus property?	Railroad	No Revision	Per the ROW plans provided in Attachment B there does not appear to be surplus property.
24				What is the daily train traffic activities on the CSX line paralleling I-126?	Railroad	No Revision	This information can be found on the Federal Rail Administration (FRA) website.
25				Provide the "Site 6 – New I-126 Bridge at CSX Railroad Milepost C-3.62 (main track); Richland Co." that was originally referenced	Railroad	No Revision	"Site 6" was the original RR crossing near the Colonial interchange as shown in the MSA. Refer to Exhibit 6 for information regarding crossing this rail line.
26	Attach A	Exhibit 6	page 3	Can the Project Right of Way Plans provided in Attachment B be considered approved right of way plans given property acquisition is on-going by the SCDOT? If so, is the 18 month hold off period for contractor access to the Railroad property underway currently?	Railroad	Revision	Since the CSX Railroad parcel is not numbered SCDOT needs ROW plans from the Contractor showing any acquisition needed. CONTRACTOR shall not access the Railroad property until 18 months after SCDOT approves right of way plans.
27	Attach A	Exhibit 6	Page 1	Please provide the SCDOT railroad project information package from CSX as stated in the original RFP.	Railroad	No Revision	Refer to Addendum 1 in Exhibit 6 for RR information pertaining to this phase.
28				Please provide the full updated set of RW plans based on EIS Re-Eval?	Right of Way	No Revision	The "Project Right of Way Plans" in Attachment B and the "P027662 Plans" show the ROW being acquired for this project. ROW was not revised as part of the re-evaluation. Figures (5.1-5.6) in the re-evaluation did not capture the change made for the historic saluda canal.

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29	Attach B	Environmental	pg 26-31 "approved_ccr_re-evaluation.pdf"	Please provide the DGN files that comprise the "Updated Right of Way" shown in Figure 5.1 - Figure 5.6. It appears to be different than P027662 ROW LINE 2020_06_30.dgn provided in the Project Information Package	Right of Way	No Revision	Figures 5.1-5.6 in the re-evaluation were not updated to show the right of way change made to avoid the historic saluda canal. The "Project Right of Way Plans" in Attachment B and the "P027662 Plans" and Roadway CAD files in the project information package provided on the website show the ROW being acquired for this project.
30	Attach A	Exhibit 3	3	Please confirm the scope of reconstruction of the acceleration lane from I-20. No details were provided in the DGN files. Does the Team need to overlay the through lanes adjacent to the acceleration lane, does the acceleration lane need to be lengthened, etc.?	Roadway	Revision	Acceleration lane from I-20 EB to I-26 EB should be designed and constructed per Exhibit 3 - Scope of Work. The design of the acceleration lane should be determined based on the design speeds provided for I-26 mainline and the on-ramp. Overlay will be required on I-26 EB from station 350+00 to 365+00.
31	Attach A	Exhibit 3	6	The DB Team has noted that the median barrier is intended to be replaced along I-126 where the Ultimate design footprint is to be constructed based on Exhibit 4a Section 2.12 Roadside Barriers. Can SCDOT please confirm the stationing where the median barrier should be replaced along I-126 similar to I-26 since the Ultimate Design stationing along I-126WB and I-126EB is different?	Roadway	Revision	Median barrier along I-126 should be replaced between stations 21+50 and 68+80.
32	Attach A	Exhibit 4a	Section 3.2	For the Colonial Life to I-26 EB Ramp and I-126 to I-26 EB Merge - is there a required minimum distance between the existing bridge (to remain for Phase 1) and the merge?	Roadway	No Revision	No mimimum distance required between the existing bridge (to remain for Phase 1) and the merge. All site distances should be provided for the merging traffic based on design speeds.
33	Attach A	Exhibit 3	2	RFP states that the exit from I-26WB should be 2 lanes with 12’ inside and outside shoulders. However, the concept plans for the exiting ramp only show a 10’ inside shoulder over the river. Is it a requirement to update the inside shoulder to 12 feet for this ramp bridge?	Roadway	Revision	The scope of work will be revised to require the exit from I-26WB to I-20/126EB to have 2 lanes with 10' inside shoulders and 12' outside shoulders.
34	Attach A	Exhibit 4a	155 of 467	The horizontal alignment of I-26 Ramp C from station 5409+58 to 5416+45 does not have the minimum 20 feet between the proposed edge of bridge deck and the outer-most SCDOT right of way line. Will an exception be granted for this area?	Roadway	Revision	The requirement of 20' offset has been revised in addendum 1 and addendum 2. See Exhibit 4a.
35	RFP	4	155 of 467	Develop Horizontal curves and super-elevation in compliance with the SCDOT Roadway Design Manual and the SCDOT Drawings. RDM states, " When a compound curve is used on a highway mainline, the radius of the flatter circular arc (R2); i.e., R1 <= 1.5 R2." The compound curves for Ramp C (provided by concept) from I-26 WB to I-126 EB/Colonial life will exceed this ratio, is this acceptable?	Roadway	No Revision	Horizontal curves should be developed using RDM. RDM states "These design guidelines for compound curves are developed on the premise that travel is in the direction of the sharper curvature." Because this location transitions from a sharper curve to a flatter curve, the guidance indicated in question is not applicable.

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36	Attach B	Roadway		Please provide the vertical (profile) information for the Modified Selected Alternative for the Phase 3.	Roadway	Revision	Requested vertical (profile) information for the Modified Selected Alternative for Phase 3 will be provided in the PIP.
37	Attach A	Exhibit 3	Page 2	The project includes all work necessary to complete the design and construction of a minimum 4,800’ ramp from I-26 Eastbound to access US 378. The design provided in the Project Information Package depicts ramp (begin stationing of 3428+79.25) to the intersection of US 378 at a length of ~4,450. Does the team need to lengthen this ramp? If additional ROW is necessary to contain this lengthening, will this be on the team to acquire?	Roadway	No Revision	The 4800' of ramp should be measured from the US 378 edge of travel way. The files within the PIP do not begin from the US 378 edge of travel way.
38	Attach A	Exhibit 4a	Page 3	RFP States "Interstate 126 • Shoulder (outside) 10 ft. paved/2 ft. earth or 12 ft. paved with concrete barrier unless wider width required for stopping sight distance. • Shoulder (inside) 10 ft. minimum unless wider width required for stopping sight distance. Pave entire inside shoulder." Other sections in the RFP of interest include Exhibit 3 Page 2-3 as: "Work includes all effort necessary to complete the design and construction of a grade separated interchange that provides access to and from Colonial Life Blvd. from Eastbound and Westbound I-126 and Westbound I-26. The exit design and construction from I-26 Westbound shall account for three mainline lanes on I-26 with 12’ inside and outside shoulders. The exiting width shall account for 2 lanes exiting with 12’ inside and outside shoulders. The truck traffic on I-26 exceeds 250 directional design hour volume (DDHV), therefore, 12’ paved shoulders shall be provided on the inside and outside unless stopping sight distance requires more." The I-126 typical section in the Project Information Package shows 10 ft. inside and outside shoulders. The design shown in Project Information Package (BD_Phase_1_Overview_06_30_2020.pdf and BD_Phase_1_Overview_06_30_2020.pdf) both show a 12 ft. inside and outside shoulder on I-126. Please clarify if the I-126 inside and outside shoulders are	Roadway	No Revision	For freeway mainline sections, 12' outside shoulders (10' paved and 2' earth) and 10' inside shoulders are required for I-126. PIP typical sections are for information only and will not be revised. Please use guidance in RFP.
39	Attach B	Roadway		What constitutes the RFP concept? The Interim Lane Configuration files and other design information is in the Project Information Package which is non-binding and for information only. Please clarify the intended design in Attachment B.	Roadway	No Revision	The PIP is for information only and a guide to show how the scope of work/MSA table was written. Finalize the design using appropriate engineering judgement and criteria within RFP and Attachment B.

40	Info Package	Roadway		Is the concept depicted in the Interim Lane Configuration diagram located in the Project Information Package in compliance with the RFP? i.e. if we bid the concept, would we be in compliance with the RFP?	Roadway	No Revision	The PIP is for information only and a guide to show how the scope of work/MSA table was written. Finalize the design using appropriate engineering judgement and criteria within RFP and Attachment B.
41	Attach A	Exhibit 3		What is the disposition of the existing Bush River Road ramp to I-26EB? Is this to be removed or retained?	Roadway	Revision	Exhibit 3 will be revised to indicate that ramps to and from I-26 EB will be closed and pavement removed.
42	Attach A	Exhibit 3	5	Are I-26 EB and I-26 WB to be milled and overlaid from southern end of Saluda River Bridge to the interim tie-ins?	Roadway	No_Revision	Exhibit 3 Scope of Work paragraph 15 states to design and construct the project to tie to existing at the Begin and End Limits of Construction. Yes, the intent is to mill and overlay from the southern end of the Saluda River Bridge to the interim tie-ins since the southern end of the Saluda River Bridge is the station shown as the Limit of Construction for both directions.
43	Attach A	Exhibit 4a	pg 6 section 2.8	To develop horizontal stopping sight distance on the MSA alignment of Ramp I-26 Ramp C in accordance with the SCDOT RDM, the shoulder required is ~18' on the bridge, is this acceptable?	Roadway	No Revision	Yes, design should accommodate stopping sight distance based on horizontal and vertical alignments.
44	Attach A	Exhibit 4a	page 10	Section 2.14 Please provide the Design Exception for I-126 shoulder widths.	Roadway	No Revision	Approved design exception is included in Attachment B.
45	Attach A	Exhibit 3	Page 7/8	Should the MSA tie point for the Ramp from Colonial Life Blvd. to I-26 Eastbound (COLSPURA) and the Ramp from I-126 Westbound to I-26 Eastbound (126RDB) be at the same location? One is listed as 126RDB Sta. 3017+26.80 and the other is listed as 126RDB Sta. 6018+50. These do not appear to be in the same location.	Roadway	No_Revision	Exhibit 3 Scope of Work paragraph 16 provides the Proposer flexibility if their design would not tie to the stations in the table. Per the Instructions to Proposers-Technical Proposal section 3.d any changes to the MSA tie points that are currently shown in the table in Exhibit 3 are to be provided.
46	Attach A	Exhibit 4b	Section 2.1.21	In addition to straddle bent columns, does the foundation load need to be increased by 20% for drilled shafts that support single column hammerhead piers?	Structures	No Revision	No. GDM Section 9.5.2 contains a requirement to reduce drilled shaft resistance by 20 percent for single column hammerhead piers.

47	Attach A	Exhibit 6	Section 2.1	Please confirm the minimum offset for vertical elements (bridge pier, retaining walls, etc.) from the existing railroad is 25 ft (providing opening of 50 ft centered on the existing railroad centerline) as described in this section.	Structures	No Revision	Addendum 1 revised this language in Exhibit 6 to say the design shall accommodate two future tracks, one either side of the existing track with 15-foot between track centers. Bridge piers and abutments shall meet BDM and CSXT requirements for horizontal clearance and bent protection as well as the 25-foot clearance requirement for straddle bents in the RFP. For adjacent retaining walls not-supporting overhead bridges, requirements were added to 4b article 2.2.4 to provide 18 feet minimum horizontal clearance to an existing or future track. Walls in between 18 feet and 25 feet horizontally from an existing or future track shall meet the CSXT requirements for heavy construction.
48	Attach A	Exhibit 6	Section 2.1	Can the Department clarify the requirements for spanning the railroad right-of-way? It appears that Exhibit 4b, Section 2.1.24 (25 ft. from future track for straddle bent) and Exhibit 6, Section 2.1 (50 ft. of horizontal clearance to accomodate future tracks, service rds., etc.) conflict regarding the requirements to span the railroad right-of-way. Does that horizontal clear width requirement apply to retaining walls and/or any other type of obstruction?	Structures	No Revision	Addendum 1 revised this language in Exhibit 6 to say the design shall accommodate two future tracks, one either side of the existing track with 15-foot between track centers. Bridge piers and abutments shall meet BDM and CSXT requirements for horizontal clearance and bent protection as well as the 25-foot clearance requirement for straddle bents in the RFP. For adjacent retaining walls not-supporting overhead bridges, requirements were added to 4b article 2.2.4 to provide 18 feet minimum horizontal clearance to an existing or future track. Walls in between 18 feet and 25 feet horizontally from an existing or future track shall meet the CSXT requirements for heavy construction.
49	Attach A	Exhibit 6	Section 2.1	The RFP indicates that vertical clearance for any roadway/ramp over the railroad should be set assuming any existing sag vertical curves on the railroad would be removed in the future. Can SCDOT clarify on what is meant by removing the railroad sag curve - remove it entirely, adjust to meet the design speed for the railroad, etc.?	Structures	Revision	The RFP will be revised to require up to 6 inches of additional vertical clearance be provided to account for future track sag removal by CSXT.
50	RFP	4		The final paragraph states “deck drains shall not be allowed to discharge directly into surface waters…”. Does this statement imply that a closed drainage system will be required over the Saluda River? The existing bridges over the Saluda River have scuppers that directly discharge runoff into the river currently.	Structures	No Revision	Addendum 1 revised the final paragraph in Bridge Drainage article 2.1.18 to delete "surface waters" and state "Scupper placement over Waters of the U.S. shall be coordinated with permitting requirements."

51	Attach A	Exhibit 4a	Page 12	Please confirm if any structural rehabilitation work is anticipated/required on the existing Bush River Road Bridge over I-26/I-126 during the removal of the raised median island per the RFP Exhibit 4a Roadway Design Criteria, 3.5 Bush River Road, which states “Reconfigure lanes between existing ramp terminals which will be closed as part of this project to have a flush median between the directions of travel. Reconfigure intersections as necessary based on removal of ramp movements to include, but not limited to, pavement markings, signing, and traffic signals.”	Structures	No Revision	No structural rehab work is required for the Bush River Road Bridge.
52	Info Package	Structures		What are the requirements for the width / laneage on the Colonial Life Bridge over I-126? It is drawn in the exhibits / DGNs in the Project Information Package to accommodate a 5-lane section. Much of the bridge is currently striped out and only utilizing 3-lanes.	Structures	No Revision	Provide 3 through lanes (1 southbound, 2 northbound). Provide median and shoulders as required by Exhibit 4a. The bridge width is only required to match the roadway requirements.
53	Attach A	Exhibit 4b	page 2	2.1.7 Is it required to remove and dispose the existing bridge on the I-26 WB ramp to Bush River Road / I-126EB over I-126?	Structures	No Revision	No. It is not a part of the Phase 1 scope of work.
54	RFP	3	10	The RFP states that only two of the 15 ATCs may be different interchange types. Would a change in ramp alignment or gore points on a ramp be considered an interchange ATC or can this be submitted in addition to two interchange type ATCs?	Traffic	No Revision	Ramp realignment ATCs that do not affect traffic flow per an IMR would not be considered Interchange Type ATCs. If the ramp realignment changes the number of access points or changes interchange type (diamond vs DDI vs parclo, etc) then the ramp alignment change would be considered an Interchange Type ATC.
55	Attach A	Exhibit 4d, Pt 2	General	Will SCDOT allow a less than standard vertical clearance for existing overhead signs retained in Phase 1 that will be replaced in Phase 3? If so, what is the minimum clearance acceptable for this type of sign?	Traffic	Revision	If the theoretical sign in question is on an existing structure, the Interim Condition shall not decrease the existing clearance value. This requirement will be clarified in Addendum 3.
56	Attach B	Pavement	CCR Pvmt Design Traffic	Can a clarification be provided on how the 22% trucks for all interstate routes was determined (Attachment B – Supplemental Project Design Criteria, Phase I Pavement Design Traffic)? This seems high for both I-26 and I-126 within the Phase I area, especially I-126 which terminates into downtown Columbia. A review of the TransModeler analysis file indicates the higher of the AM or PM peak hour truck percentage along I-126 is 2% and along I-126 is 7% within the Phase I improvements area. Assuming the daily percentage is double the peak hour percentage, this would still be well below the 22% trucks indicated in the pavement design file.	Traffic	No Revision	22% shall be used for all interstate pavement designs and "percent trucks" shown in transmodeler shall be used for traffic analyses

57	Attach B	Environmental	Page 22, "Approved_CCR_Re-evaluation.pdf"	Does the modification to the I-126 WB exits to Colonial Life Blvd and I-26 EB require an update to the IMR?	Traffic	Revision	Proposer will not need to update the IMR per the modifications of the re-evaluation. Revision to clarify the re-eval vs the IMR revision requirement.
58	Attach B	Utilities	Doc 1, pg11, Section 3.11	Section 3.11 of the CoC Design Standards, Aug. 27, 2020 requires a minimum of 100-feet of separation from the 30-inch Saluda River Pump Station Force Main for any construction activity or vibratory influence. Can this required minimum separation be reduced by any amount if a suitable method can be demonstrated to protect the force main from adjacent construction activity and vibratory influence?	Utilities	No Revision	No, the required minimum is 100'. Reducing the 100' would be considered a reduction in RFP Criteria.
59	Attach B	Utilities	Doc 1, pg11, Section 3.11	If the Design Build Contractor can demonstrate that the construction activities are equal to or below the vibration the Saluda River Pump Station Force Main currently experiences due to rail operations, can this information be used to determine the minimum offset for construction activity and vibratory influence?	Utilities	No Revision	No, the required minimum is 100'.
60	Attach B	Utilities	Doc 1, pg11, Section 3.11	Can the Saluda River Pump Station pumping and storage data be made available? A range with dry and wet weather conditions should allow for determination of by-pass requirements.	Utilities	No Revision	The City does not guarantee the ability to store at any certain period of time and will not be held liable if storage cannot be performed due to weather, operational, maintenance, or other issues. Storage activities will only be allowed when the City determines that the pump station is experiencing dry weather conditions and rain is not forecasted, and operational conditions allow for safely storing wastewater flow. Should the City be able to provide storage at the Saluda River Pump Station, the storage event will not be allowed to exceed 36 hours. Prior to the end of 36 hours the force main must be reconnected, tested, and approved for putting back into service and handling flow. The contractor shall provide the City a plan for review for connecting the new 30-inch force main and the major construction and contingency activities required during the storage and connection event.

61	Attach B	Utilities	Doc 1, pg11, Section 3.11	The RFP states, “At a minimum the City requires…100-feet of construction activity (Design Build Contractor would still need to assess the impact….).” If the City increases the offset to >100’, will the DBC be allowed to recover the cost for additional work required to meet the increase? Is the 100’ offset also the limit of the DBC’s responsibility for assessing the impacts of construction? If not, what is the limit of impact assessment required?	Utilities	No Revision	SCDOT would be responsible for construction costs and schedule impacts should the 100' be deemed inadequate. No, that is not the limit for assesing the impacts of construciton. See section Exhibit 5, Setion 107.
62				Provide the Preliminary Engineering Agreement between Dominion Energy SC and SCDOT as referenced in Section 4 of Exhibit 7.	Utilities	No Revision	SCDOT will only provide the final relocation plans from Dominion Energy Power Transmission when received. The date defined in the RFP for the relocation is still accurate to our knowledge. See Addendum 1 - Project information package for preliminary plan from Dominion Energy Power Transmission.
63				Provide survey information for the height of the powerlines crossing I-126 near Colonial Life Blvd. @ I-126	Utilities	No Revision	See Addendum 1 for preliminary relocation plan from Dominion Energy Power Transmission and Attachment B for Transmission_3D_STV.dgn. Final plans will be provided in an addendum when received from Dominion Energy Power Transmission.
64				If an Approved ATC concept requires relocation of utilities with prior right who will be responsible for the cost SCDOT or contractor?	Utilities	No Revision	Referencing Addendum 1, if within Project Right of Way limits as defined in Article VIII, SCDOT will be responsible. If outside of Project Right of Way limits, this would fall under Contractor-Designated ROW and/or Additional ROW provisions and the contractor will be responsible.
65	Attach A	Agreement	Exh. 7 pg 3	Sect 3.1 The Utility Work shall be designed by a designer approved by COC and licensed and qualified to perform the Utility Work. CONTRACTOR shall either select the designer to design the Utility Work from COC’s list of preferred designers, or will apply to become qualified by COC in order to self-perform in accordance with the procedures for becoming a COC approved designer included in Attachment B. The SSJV design build team wishes to become a COC approved designer. Please verify if the SSJV design build team is allowed to contact the City of Columbia directly to initiate this process.	Utilities	No Revision	Proposers can pursue pre-qualification with the City during procurement because this is not considered prohibited communication.
66	Attach A	Exhibit 6	Exhibit 7; pg 4	Section 3.1.1 states “All work performed by CONTRACTOR shall be performed within SCDOT Rights-of-Way, or within COC’s existing easements, as coordinated with and approved by SCDOT.” Who will be responsible for acquisition fees and purchase cost of additional easements outside of proposed right of way due to modification of the selected alternative under an ATC or for maintenance/access required by the utility.	Utilities	No Revision	The intent is for all in-contract utilities to be relocated with SCDOT ROW or City of Columbia existing easements. The City will not secure additional ROW. See Addendum 1 for additional information regarding costs for utilities located inside Proposed Project Right of Way Limits.

67	Info Package	Utilities		Please provide the "Appendix D: Utility Conflict and Recommended Relocation Plans (U-Sheets)" in the Preliminary Utility Coordination Report in dgn (Microstation) format.	Utilities	Revision	Base mapping dgn files will be provided without recommendations in the Project Information Package. The DBT is responsible for providing recommendations based on their design.
68	Attach A	Exhibit 3	page 3	Will directional boring be allowed under the Saluda Canal for the relocation of the City of Columbia 30-in PCCP sanitary sewer force main along Tracts 444 and 442 from I-26 Ramp C approximate station 5406+50 left to I-26 Ramp C Station 5423+50 right?	Utilities	No Revision	All in-contract utilities shall be relocated within Project Right of Way or secured easements. This request is considered a deviation in criteria and would need to be submitted as an ATC.
69	Attach A	Exhibit 3	page 3	Will the City of Columbia allow for the relocation of the 30" force main under the proposed Access Road? Who will be responsible for the maintenance of this Access Road post construction?	Utilities	No Revision	The City has no objection to the new 30-inch force main being located under the access road as long as there is adequate bedding and backfill and the depth of the pipeline is reasonable for access for maintenance as described in the Utility Relocation Design Criteria.

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South Carolina Department of Transportation

NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS

Carolina Crossroads Phase 1 - Colonial Life Blvd. at I-126 Interchange - Project ID P039718 - Richland and Lexington Counties

FINAL RFP - ROUND 2

Date Received: 10/28/2020 Non-Confidential Meeting Date: 11/12/2020

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1				Cultural Resources (Appendix M) and PI materials (Appendix O) pdf file will not open even after repeated downloads….get a "corrupt" error. Please provide new files for download.	Environmental	Revision	New files will be uploaded.
2	Attach B	Structures	R3 Noise Barrier Wall Design Criteria	Please confirm that we are only concerned with potential noise barriers X, W, V (all of the subset), U, Y and Z – none of which are feasible and reasonable based on the FEIS and detailed analysis provided.	Environmental	No_Revision	Confirmed.
3	Attach A	Exhibit 3	Page 3	Will the relocation of the sewer force main be allowed to violate the 25' buffer required from the surveyed limits of the historic Saluda Canal. If not, will the SCDOT or the City of Columbia acquire additional r/w for relocation of the force main?	Environmental	No_Revision	Permanent structures within the 25' buffer may be allowed. An effect determination for the Canal would need to be made when the final design is determined and coordination would need to occur with SHPO to receive concurrence on the determination. This action would be documented in a NEPA re-evaluation. The access road may utilize portions of the existing road provided the design meets the requirements of the RFP.
4	RFP	4	3	Standard Specifications Section 711.4.5.2 1. states "Do not pre-drill for piling, except where specifically noted in the Plans or approved in writing by the BCE. When pre-drilled holes are allowed, drive the piling by the hammer to its final position and to the required ultimate bearing." Since pre-drilling requires BCE approval, can SCDOT confirm during this proposal stage that pre-drilling is allowed to aid advancement of driven piles into or through weathered rock or otherwise very dense material?	Geotechnical	No_Revision	Predrilling will generally be allowed were necessary to advance the piles. However, note that predrilling is intended for penetrating dense layers and the piles are then driven a sufficient distance to the final bearing elevation. Where piles must be drilled to the final bearing elevation, these would be considered drilled piles and are design and constructed in a different manner, per Section 712 of the Standard Specs.
5	RFP	4	5	Exhibit 4e bottom of page 5; for the new bridge over the Saluda River once bridge is in the gore area and beyond the north end bent of the existing bridge do new piers need to be at the same skew as the existing bridge if other criteria for hydraulic modeling are satisfied?	Hydrology	Revision	Interior bents for 126 Ramp C on the north side of the river beyond the existing bridge ends do not have to be placed at the same skew as the existing upstream I-26 bridge.
6	Attach A	Exhibit 4	Page 3	The "SCDOT Requirements for Hydraulic Design Studies 2009" only mentions taking storage into account in hydrology calculations for a bridge or bridge sized culvert which has "a significantly large pond or lake, has a culvert(s) with significant storage volume upstream, or is very flat…" (p.15 of 78). For the EC-4901 (not a bridge or bridge sized culvert) drainage basin, can we take into account the retention of the Colonial Life wet pond upstream, or do we design for the entire drainage area with no retention from the pond? It is anticipated that the proposed drainage structure(s) will be significantly different in size depending on which approach is taken. Please specify the hydrologic method to be used.	Hydrology	No_Revision	No, follow the normal design process per the SCDOT Hydraulic Design Studies Manual.

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7	Attach A	Exhibit 4c	Pages 4, 5, 8	Can Rehabilitation Pavement Designs (section 2.4 and section 2.7) be utilized on portions of existing ramps being retained? (126RDB, COLRD, 378RPA)?	Pavement	Revision	Yes for 126RDB with the exception of shoulders in transition areas tying new alignment to the exisiting location. A revision will be provided clarifying to reconstruct these areas. A rehabilitation of Non-Interestate Routes design has now been included for US 378. After the Gore this design can be utilized on existing portions of US 378 Ramp. Use the rehabilitation design provided for Colonial Life Blvd (S-40-29-63), COLRD. There will be a revision added for clarification to use a reconstruction design for existing shoulders in transition areas tying new alignment to existing location to reduce the risk of these areas unknown structure.
8	Attach A	Exhibit 4c	43926	Item 2.4 states "Perform Cross-slope correction or buildup as necessary. Milling for cross slope correction shall not exceed 1 inch. Surface Type E for cross-slope correction is limited to 1.5 inches in thickness." Can HMA Surface Course Type A (variable Layer – Minimum 200 PSY) be used for buildup where more than 1.5 inches is required for cross slope correction? In particular where the crown point is being adjusted to the ultimate design.	Pavement	Revision	We will provide a clarification in section 2.4 of exhibit 4C that states, " For cross slope correction greater than 1.5 inches use Intermediate B."
9	Attach A	Exhibit 4c	Page 4-5	Item 2.4 states "Perform Cross-slope correction or buildup as necessary. Milling for cross slope correction shall not exceed 1 inch. Surface Type E for cross-slope correction is limited to 1.5 inches in thickness." Can HMA Surface Course Type B without polymer be used for buildup where more than 1.5 inches is required for cross slope correction? In particular where the crown point is being adjusted to the ultimate design.	Pavement	Revision	We will provide a clarification in section 2.4 of exhibit 4C that states, " For cross slope correction greater than 1.5 inches use Intermediate B."
10	Attach A	Exhibit 4c	Page 2-3	Section 2.1 states that: "Pavement design ATC's may be submitted for consideration. However, no reduction in structure shall be allowed." Is the intent that no reduction in Structural Number shall be allowed relative to the RFP-provided pavement sections? Section 2.1 also requires "HMA pavement designs considered for ATC must indicate perpetual design theory or demonstrate equivalent bottom up fatigue life, mechanistically, as compared to the options included in the RFP." Are ATC HMA designs required to meet both the Structural Number requirement and the equivalent mechanistic performance, or only the latter?	Pavement	No_Revision	HMA pavement designs considered for ATC must indicate perpetual design theory or demonstrate equivalent bottom up fatigue life, mechanistically as compared to the options included in the RFP. It needs to be demonstrated that the bottom up fatigue cracking life is greater than or equal to the options being provided. Each submitted ATC design has to stand on its own merit and evaluated against the options provided. There may be a way to provide a lower structural number while providing a design that has a higher fatigue life. However, taking one of the options provided and reducing its structure with documentation to show that that the structure is also perpetual would not be considered greater than what is being provided in the RFP options. (example: option requires 2000 psy and team shows 1950 provides perpetual design) This is not greater or equal for the Department. ATC designs are also evaluated for constructability concerns and other risk items that may need to be addressed prior to approval.
11	Attach A	Exhibit 4c	Pages 4, 5, 8	Can the US 378 exit ramp from I-26EB be milled and resurfaced utilizing pavement design in Exhibit 4c, section 2.4.1 or is it the intent to reconstruct this ramp?	Pavement	Revision	A rehabilitation of Non-Interestate Routes design has now been included for US 378. After the Gore this design can be utilized on existing portions of US 378 Ramp.
12	Attach A	Exhibit 3	Page 6	Please verify if we are to Mill and Overlay on I-126 Eastbound from Sta. 4+50 to Temp Tie, and I- 126 Eastbound from Sta. 68+80 to Sta. 75+00?	Pavement	Revision	Station 4+50 to Temp Tie can use the rehabilitation design provided for Colonial Life Blvd (S-40-29-63). 68+80 to 75+00 can use the rehab design for I-126. There will be a revision added for clarification to use a reconstruction design for existing shoulders in transition areas tying new alignment to existing location to reduce the risk of these areas unknown structure.
13	Attach A	Exhibit 3	Page 10	For the Mill and Overlay I-126 from 350+00 to 365+00, is the required pavement design to be utilized what is shown in Exhibit 4c, Page 4/5, Section 2.4.1 including cross slope correction?	Pavement	Revision	Yes with the exception of shoulders in transition areas tying new alignment to the exisiting location. A revision will be provided clarifying to reconstruct these areas.
14	RFP	8		Currently the milestone schedule has the cost proposal due on March 8 (Monday). Please consider revising the due date for the cost proposal to March 9 (Tuesday) allowing the teams the additional day to finalize their cost proposal.	PM	No_Revision	The date will remain the same as shown in the Milestone Schedule.

15	RFP	4	7	Exhibit 4a; Article 2.11 : Confirm 17 foot vertical clearance over shared use path.	PM	No_Revision	17' is confirmed. Reference FEIS, Appendix P, Page 2, Item I.1.b and item III.2 of the FHWA South Carolina Division Determination of Section 4(f) De Minimus Use form
16	RFP	6	459 of 492	Section 2.1 of Exhibit 6 of the RFP states "MSE walls will not be permitted in the [railroad] right of way", implying that MSE walls can be used as long as they are placed outside of the RR right of way. However, page 28 of the CSX Public Projects Manual dated August 2020 and referenced in Section 2.4 of Exhibit 6 of the RFP states "MSE walls are prohibited on or adjacent to CSX property." Section 2.4 of Exhibit 6 of the RFP also states that all design and construction activities within 50 feet of the nearest RR centerline shall comply with all terms and conditions identified in the RR's Public Projects Manual. Does this mean that MSE walls cannot be used within 50 feet of the nearest existing track or 'future' track? Either way, the RFP concept provided shows two locations where the 50' buffer is violated: (1) at the end of the I-26 to I-126 ramp bridge and (2) Ramp COLRB1 I-126 EB to Colonial Life Blvd from beginning of wall (approx. Sta. 17+00 of I-126) to approx. Sta. 25+00 of I-126 (approx. 800' of wall) if the 50' buffer is measured from the centerline of the adjacent future track or to approx. Sta. 23+00 of I-126 (approx. 600' of wall) if the 50' buffer is measured from the centerline of existing track. Please clarify where MSE walls are allowed with respect to the RR right of way. If the 50' offset criteria is held, can the shoulder on Ramp COLRB1 Be reduced from 10' or can the Track be relocated?	Railroad	No_Revision	The height of the wall and proximity to RR ROW or to the nearest track are typically what CSX reviews to determine if the wall has the potential to foul the track. The MSA is for information only and the discussion of adjacent MSE walls was not in place during the development of the MSA. The offset from the tracks to the face of any wall would need to be addressed through discussions with CSX with plans provided by the Design Build Team.
17	RFP	6		Exhibit 6; Has CSXT requested fencing on the bridge with the limits of the railroad right of way?	Railroad	No_Revision	SCDOT and CSXT requires fencing over railroad right of way.
18	Attach B	Right-of-Way	ROW Plans & ROW Certificate with hold offs	Displacements have been indicated on Tracts 392 and 399. The proposed R/W is indicated very near the existing structures on these tracts. Is SCDOT to acquire the entire property and will these structures be demolished?	Right-of-Way	Revision	SCDOT will demolish the structures on tracts 392 and 399. The Moving Items, Removal and Disposal, Fencing and UST document in attachment B will be revised in Addendum 3. See this document for the responsibilities of demolition and other items.
19	Attach B	Right-of-Way	ROW Plans & ROW Certificate with hold offs	A displacement is indicated on Tract 388 and it looks like the proposed ROW is over the existing structure. Is SCDOT to acquire the entire property and will this structure be demolished?	Right-of-Way	Revision	SCDOT will demolish the structure on tract 388. The Moving Items, Removal and Disposal, Fencing and UST document in attachment B will be revised in a future Addendum. See this document for the responsibilities of Contractor.
20	Attach B	Right-of-Way	ROW Plans & ROW Certificate with hold offs	A displacement is indicated on Tract 383. We are assuming this is for the billboard sign. Will the billboard be relocated anywhere within the project limits?	Right-of-Way	Revision	Correct, the displacement is the billboard. The billboard will be relocated by others on site to an approved location clear of the Project Right of Way. The Moving Items, Removal and Disposal, Fencing and UST document in attachment B will be revised in a future Addendum. See this document for the responsibilities of Contractor.
21	Attach B	Right-of-Way	ROW Plans & ROW Certificate with hold offs	A displacement is indicated on Tract 383. We are assuming this is for the billboard sign. Will the billboard be relocated anywhere within the project limits?	Right-of-Way	Revision	Correct, the displacement is the billboard. The billboard will be relocated by others on site to an approved location clear of the Project Right of Way. The Moving Items, Removal and Disposal, Fencing and UST document in attachment B will be revised in a future Addendum. See this document for the responsibilities of Contractor.
22	Attach A	Exhibit 3		Per RFP Exhibit 3 Scope of Work (I-26 Eastbound and Westbound) provides MSA tie points and Mill and Overlay construction limits (I-26 Eastbound Station 461+50 to 470+00 and I 26 Westbound Station 466+00 to 4670+00) beyond the MSA tie point. Within this range of mill and overlay, there is an existing vertical crest curve that has a Design Speed of 55 mph per the Existing Plans File no. 32.571). Is it allowed to vertically match the crest curve design speed of 55 MPH for the mill and overlay rather than meeting the minimum 60 mph Design Speed defined in Exhibit 4a – Roadway Design Criteria Section 2.1?	Roadway	Revision	Yes. The intent between the stations indicated is to allow mill and overlay. I-26 Westbound Construction of Ultimate Design Footprint Begin Station and MSA Tie Point Begin Station will be revised from 466+00 to 461+50.

23	Attach A	Exhibit 3		On I-26 between the Saluda River and US-378, provided RFP plans show grades greater than 4% max. as defined in the RFP Exhibit 4a – Roadway Design Criteria Section 2.4. Per RDM Fig. 17.3-C (Alignment Criteria For Freeways), Footnote 5 states "Grades 1 percent steeper may be provided in constrained urban areas or where necessary in mountainous terrain". I-26 within this stretch is highly constrained by frontage roads that provide access to an urban setting of housing and roadside development/businesses for both sides of the interstate. Considering these factors, verify max. grade can be exceeded for this stretch of I-26 within 1% (i.e. less than 5%) to match the existing surveyed conditions and conditions of the approved RFP plans to avoid further impact to the constrained urban area surrounding the interstate?	Roadway	Revision	Per RDM Figure 17.3-C Footnotes, grades 1 percent steeper may be provided in constrained urban areas. Consider this project to have urban constraints and grades up to 5% are acceptable. Exhibit 4a will be revised to clarify.
24	Attach A	Exhibit 3		RFP Exhibit 3 Scope of Work defines the end MSA tie point for I-26 WB at Sta. 466+00. Providing the proposed full width typical section for I-26 WB to Sta. 466+00 pushes the interstate widening into the existing US-378 entrance ramp and does not tie in with the existing ramp. Additional improvements (including milling pavement and new pavement markings) will be necessary to tie to the existing ramp. Is this the departments intent?If SCDOT changes the MSA tie point to station 461+50, the additional work could be eliminated. I-26 would match existing widths and be milled and overlayed back to Station 470+00. This will also match the proposed profile (ending at Sta. 461+50) provided in the RFP plans.	Roadway	Revision	I-26 Westbound Construction of Ultimate Design Footprint Begin Station and MSA Tie Point Begin Station will be revised from 466+00 to 461+50.
25				In the provided RFP plans/design, the gore between I-26 Ramp C and I-26 Ramp C-A, violates 5% Cross Slope Rollover of the two lanes per SCDOT RDM, Chapter 10.4.1.6. The I-26 Ramp C-1 curve requires a 7.6% cross slope for a DS of 40 mph for an 8% emax. The adjacent travel lane for I-26 Ramp C-A will be at 2%, so algebraic difference is 5.6%. Is this SCDOT allowing a variation to the 5% rollover criteria? If not the design will require additional bridge, which in turn will cause additional RW needed for Bridge Maintenance, impacts to wetlands, and impacts to the Saluda Canal.	Roadway	No_Revision	The 5% rollover between lanes should not be exceeded as this would present a safety issue for vehicles, especially trucks. This conflict only occurs for a very short distance, from approximately 38' after the PC on Ramp C to the gore point. Recommend designers use flexibility in RDM Section 5.3.4.2.1.
26	Attach_A	Exhibit_3	2	Attachment A lists a required length of 4,800-foot for the ramp from I-26 Eastbound to US 378. Measuring from the beginning of the ramp alignment to the EOT of US 378, the length of the ramp is still approximately 200 foot short. Can the extra 200-foot length be considered the 4th lane along I-26 or does the ramp alignment need to shift? Any shift in the ramp gore would increase environmental impacts.	Roadway	Revision	Exhibit 3 will be revised to clarify the intent along the ramp from I-26 Eastbound to US 378 to provide a parallel deceleration lane and minimum 3,978 ft shared through/exit lane as shown in the MSA.
27	Attach_A	Exhibit_4a	3	Do the shoulder requirements for I-26 apply to the reconstructed acceleration lane from I-20 EB to I-26EB?	Roadway	Revision	Existing shoulder widths for this temporary condition are allowable in this area of I-26 EB. Section 3.5 of Exhibit 4a will be revised to clarify. Provide an acceleration lane for traffic entering I-26 EB that meets the speed differential outlined in the RFP.
28	Attach_A	Exhibit_4a	4	In Section 2.3, Attachment A references using grade adjusted SSD values along interstates, collector distributors, and ramps where the downgrades are 3 percent or greater. The RDM also recommends using decision sight distance as locations such as gore areas. Is that a requirement for this project as well?	Roadway	No_Revision	Yes. Decision sight distance is very important criteria for all ramp designs for the Carolina Crossroads project, to include gore areas. Design shall be based on guidance found in RFP and RDM.
29	Attach_A	Exhibit_4a	5	Attachment A provides a maximum grade for Interstate 26 and Interstate 126 of 4%. In two locations, there are existing grades within the project limits along I-26 and I-126 that are greater than 4%. Is the intention of the Department to fix these areas to match the maximum grade of 4% or can the existing steeper grades be maintained to minimize extra asphalt buildup?	Roadway	Revision	Per RDM Figure 17.3-C Footnotes, grades 1 percent steeper may be provided in constrained urban areas. Consider this project to have urban constraints and grades up to 5% are acceptable. Exhibit 4a will be revised to clarify.

30	Attach_A	Exhibit_4a	5	In Section 2.4, the team is directed to utilize the RDM for vertical curves grades and clearances. Based on the RDM, the cross slope difference across the gore from the physical nose to gore nose is 7%. The proposed I-126 WB exit ramp to Colonial Life Blvd is on top of the existing gore, but the existing ramp climbs much faster and includes a retaining wall within the space past the physical gore nose. Is it acceptable for the propsoed design to have a retaining wall past the physical gore nose as included in the provided plans or does the gore need to be adjusted to try to match the RDM? Fixing the gore at this location would most likely require raising the grade of I-126 significantly.	Roadway	No_Revision	PIP plans are for information only. All gores should meet RDM requirements. Retaining walls may be constructed beyond the gore nose as long as they are protected with proper end treatments. The gore area shall be designed such that the retaining wall and impact attenuator do not encroach into the shoulder area of I-126 or the ramp.
31	Attach_A	Exhibit_4b	1	Attachment A states that the new bridges should provide bridge roadway widths that are equal to or greater than the approach roadway width. Based on Exhibit 4A, Colonial Life Blvd is considered a curb and gutter facility with a 2-foot gutter and 6-foot shelf. The Roadway Design Manual states in Chapter 7 that all bridges along an urban curb and gutter facility shall match the roadway hinge point and carry a sidewalk across the bridge. Is the intention to carry curb and gutter across the bridge with sidewalk for both bridges along Colonial Life Blvd. or should Colonial Life Blvd. carry paved shoulders through the interchange past the bridge over Arrowwood?	Roadway	No_Revision	SCDOT wants a shoulder section across the bridges. Sidewalk stops at Colonial Life. Blvd. West and pedestrian accomodations do not proceed south into interchange area. Bridge shoulders should match or exceed the approach roadway width.
32	Attach A	Exhibit 3	Page 11	The existing I-26 Westbound Exit ramp to Bush River Road / I-126 EB from north of the Saluda River to CSXT will not have traffic after Phase 1 is constructed. Can the pavement, bridges, and barrier adjacent to I-26WB be removed and disposed of or will those items need to remain in place?	Roadway	No_Revision	The area in question will be located behind a concrete barrier wall to be installed as part of this project. The pavement and bridges behind the barrier wall do not have to be removed as part of this project. Additional pavement areas may be removed if necessary to facilitate the Proposed Work. See the pavement removal and disposal exhibit in Attachment B for specific areas of pavement removal for exit 108
33	Attach A	Exhibit 4b		Regarding concrete median barriers, the RFP states "Expansion joints in slip formed barriers are only required at the interface with other structures such as Zone of Intrusion barriers or foundations for lights or signs." The RFP also specifies the use of SCDOT Standard Drawings for Condition A. The Standard Drawings specify a maximum distance between expansion joints of 100'. Which is correct?	Structures	No_Revision	The RFP is correct. 100' maximum distance between expansion joints may be exceeded for continuous, slip-formed Condition A median barrier.
34				Can SCDOT provide existing plans for the 4 box culverts within the project limits?	Structures	No_Revision	The teams are responsible for doing their own research in SCDOT Plans Online to determine which existing roadway plan sets they need. SCDOT has identified the following existing plan sets that contain box culvert details that may be relevant to this project: File #'s 40.444/32.386, 40.467/32.398, 40.847.2, 3240.378, & 40.242A. This list may not be all-inclusive, however.
35	RFP	4	10	Exhibit 4b Article 2.2.24; Is the single column bent protection criteria per BDM 22.2.3.5 required for straddle bents?	Structures	No_Revision	There are two options for bent protection in BDM 22.2.3.5: crashwalls or heavy construction. Addendum 1 provided clarification that heavy construction is required for straddle bent columns in lieu of crash walls. Heavy construction is defined in BMD 22.2.3.5, item 4, and requires a minimum cross-section area of concrete column.

36	RFP	3	page 8	The RFP says that changes in interchange type or access shouldn't require an update or revision to the System IMR. Can SCDOT provide a more definitive answer on the requirements of an IMR update? The outcome has cost and schedule impacts.	Traffic	No_Revision	This question will be answered in confidential one-on-one meetings and/or in responses to ATCs as a result of each teams proposed designs.
37	Attach_A	Exhibit_3	page 3	The scope of work states to reconstruct the acceleration lane from I-20 EB to I-26 EB. This scope of work was added in the Final RFP. The ITS scope of work provided a figure "ITS Fiber Location Graphic" that detailed the preferred location of the relocated ITS fiber on I-126; however, there wasn't an update to the ITS Fiber Location Graphic in the area of the additional roadway scope for the aceleration lane from I-20 EB to I-26 EB. Can SCDOT provide clarification on the ITS requirements in the vicinity of the aceleration lane?	Traffic	No_Revision	Relocation of the ITS line in the area of the acceleration lane is not within the scope of this project. The existing ITS cable may be located adjacent to the paved shoulder as an interim condition.
38	Attach_A	Exhibit 4d, Pt 5	page 6	The traffic design criteria notes that the contractor shall provide any necessary Signal Warrant Analyses justifying the removal or installation of signals in the Preliminary Roadway Submittal Package. Can SCDOT clarify why a warrant analysis is required to justify the installation of traffic signals if the installation is a requirement in the scope of work? Will SCDOT waive the requirement for the installation of new signals if the peak hour warrant isn't met?	Traffic	Revision	The intersections listed in the signal exhibit that require signalization will not require signal warrant analyses. If the team changes the design with an ATC there may be some intersections added, deleted, or modified that may require a signal warrant analysis.
39	Attach_B	Traffic	Conceptual Signing Plan	For new sign panels being erected on existing sign structures being retained, is there an overall area (SF) or wind load tolerance that has to be maintained when changing the sign panels to a different size from what's shown in the conceptual signing plan?	Traffic	Revision	The RFP will be revised to state, “Any sign structures and/or foundations which are retained shall be verified by the Contractor to be structurally adequate or replaced if proposed signs are larger than those shown in the conceptual signing plan.”
40	Attach_B	Traffic	Conceptual Signing Plan	Is there a limit to the amount that a sign height can increase when replacing existing sign panels with new panels?	Traffic	Revision	The RFP will be revised to state, “Any sign structures and/or foundations which are retained shall be verified by the Contractor to be structurally adequate or replaced if proposed signs are larger than those shown in the conceptual signing plan.”
41	Attach A	Exhibit 4d, Pt 5	Page 2	RFP requires all traffic signals on Bush River Road to be connected with conduit/fiber-optic cable. Does SCDOT prefer conduit secured to the bridge over I-126 or directional drill under I-126?	Traffic	Revision	Bush River Road will be removed from requirement and is currently connected by aerial-mounted fiber and will be left as-is.
42	Attach A	Exhibit 4d, Pt 5	Page 1	Does SCDOT desire the proposed 120-count fiber-optic cable along I-126 to be interconnected with the signal communications fiber at the southern end of Colonial Life Boulevard?	Traffic	Revision	The SCDOT portion of the ITS scope only includes conduit installation along I-126. The signals exhibit will be revised to require a run of conduit and fiber between the nearest traffic signal on Colonial Life Blvd and the new ITS conduit. The intent of the conduit run would be to trench in conduit where feasible and utilize the conduits in bridge railing for bridge crossings. SCDOT will make the final fiber connection between the Colonial traffic signals and the ITS fiber at a later date.
43	Attach A	Exhibit 4c	Page 4	In Exhibit 4c – Pavement Design Criteria, section 2.4 Page 4 the following statements are made:• 2.4.1 bullet 1: Mill 3 inches and replace with 200 psy Intermediate Type B in the same operation. Do not allow traffic on the milled surface.• 2.4.2 bullet 1: Retain existing pavement, allowable milling 1 inch. Do not allow traffic on the milled surface.However, in Exhibit 4d – Traffic Design Criteria Part 2, the following occur:• section 2.1 page 3-4 indicates advance warning signs are required when vehicles and motorcycles will travel on milled or surface planed pavement surfaces • Section 2.1 page 3-4 indicates elevation differences allowed between milled/planed areas and adjacent travel lanes open to traffic• Section 2.1 page 4 indicates restriction length for milling and surface planing operations• Section 2.6 page 10 indicates the length of roadway with a milled surface open to traffic. Is it allowable to run traffic on a milled surface without placing a layer of asphalt back on the milled surface?	Traffic	Revision	Revision will be made to Exhibit 4d - Part 2 to clarify that traffic is not allowed to run on milled surfaces on interstate pavements.
44	Attach A		Exh. 7 Sect. 3.1 Page 2	Based upon Exhibit 7 Section 3.1 of the RFP, The 30” force main shall be relocated from I-26 Ramp C Station 5406+50L to I-26 Ramp C Station 5423+50R. Based upon this statement and the alignment of I-26 Ramp C as shown in the MSA, the existing 30”inch force main is within the required 100’ separation distance from construction activity between approximately 5423+50R and 5425+00R and would require relocation. The RFP states that all in-contract utilities will be relocated within project R/W or secured easements. No proposed R/W is shown in this area. Will SCDOT obtain additional R/W or will the City obtain additional easements to accommodate this required relocation?	Utilities	No_Revision	The City of Columbia has an easement in this area. Prior rights documentation from the City of Columbia is provided for tract 442 and 443. The 30" SSFM should be relocated into SCDOT Project Right of Way or City of Columbia Easements when construction is within 100' of the existing SSFM.

45	Attach A		Exh. 7 Sect. 3.1 Page 2	Based upon Exhibit 7 Section 3.1 of the RFP, the 30" force main shall be relocated from I-26 Ramp C Station 5406+50L to I-26 Ramp C Station 5423+50R. Based upon this statement and the alignment of I-26 Ramp C as shown in the MSA, the exiting 30"inch force main is within the required 100' separation distance from construction activity between approximately 5405+25L and 5406+50L and would require relocation (see attached exhibit). Furthermore, if the relocation point is shifted to be outside 100' foot separation (i.e. approximately 5405+00L) it will then be within 100' feet of the future I-126 Ramp D-B and would require additional relocations during future phases of the project. Please advise as to an acceptable tie-in point which would meet the City 100' separation requirements?	Utilities	No_Revision	The minimum station range for relocation is 5406+50 to 5423+50. In addition, relocate the 30" SSFM when it is within 100' of your construction activity. The minimum station range for relocation is 5406+50 to 5423+50 and was set to limit the need for phase 3 to relocate the SSFM within the limits of this project.
46	Attach A	Exhibit 3	Page 3	It appears that the City of Columbia existing 30" force main is not in conflict with the proposed I-26 Ramp C until STA. 5415+00. Does this force main require relocation from STA 5406+50 to STA 5415+00?	Utilities	No_Revision	Yes. Station 5406+50 was set to limit the need for the next phase of Carolina Crossroads to relocate the SSFM within the limits of this project.
47	Attach B	Utilities		A 3D Cadd file of the transmission lines over I-126 is provided in Attachment B (Transmission 3D_STV). How was the 3D file compiled (via as-builts, scanned, etc.)? Does the file take into account the maximum sag of the transmission lines?	Utilities	No_Revision	The transmission lines were scanned and do not account for the maximum sag.

South Carolina Department of Transportation

NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS

Carolina Crossroads Phase 1 - Colonial Life Blvd. at I-126 Interchange - Project ID P039718 - Richland and Lexington Counties

FINAL RFP - ROUND 3

Date Received: 12/14/2020

Non-Confidential Meeting Date: TBD

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1	Attach_A	Exhibit 5	Page 76, H.1 Inspection	Please confirm that the Resident Construction Engineer is the IQF Manager?	Construction	No_Revision	The Resident Construction Engineer is the IQF Manager for the functions defined in the table on Exhibit 5 Page 4.
2	Attach_A	Exhibit 5	Page 76, H.1 Inspection	Please confirm that the "Department's ITS staff" are SCDOT/OVF employees?	Construction	No_Revision	The Department's ITS Staff are SCDOT/OVF employees. The context of the Engineer is an owner decision that is not related to sampling and testing.
3	Attach_A	Exhibit 5	Page 76, H.2 Inspection	Please confirm "ENGINEER" is a SCDOT/OVF Engineer?	Construction	Revision	The term engineer will be added to the Exhibit 5, Page 4 table. Matters typically involving the Engineer will be an Owner decision made by SCDOT/OVF Engineer.
4	Attach_B	Construction	1	Page 13, Section 3.3.1 of the Quality Assurance Program references "Technicians performing specialized inspections on Intelligent Transportation Systems (ITS), lighting, or signals must have both International Municipal Signal Association (IMSA) Traffic Signals Technician Level II and IMSA Fiber Optic Technician Level II certifications" In addition to the hold points provided in Appendix A of the QAP, please provide the anticipated ITS inspection services for the IQF team?	Construction	No_Revision	The IQF team is expected to provide the same level of Quality Assurance to this work as it would any other work on the project. Verifying the work has been installed in conformance with the approved plans.
5	Attach_B	Construction	1	Page 14, Section 3.4.1 of the Quality Assurance Program references the SCDOT's SC-M-400. Please verify the following: 1) The IQF team's scope during asphalt placement will be limited to services performed in the field and include services outlined in Table 2 of the SC-M-400, the hold points in Appendix A of the QAP, developing random numbers for core/density testing and properly transporting asphalt field cores to the asphalt laboratory. 2) The OVF or SCDOT's representatives will provide all laboratory services related to asphalt.	Construction	No_Revision	Asphalt Mixture Quality Accpetance is being performed per SC-M-400 as indicated in the Quality Assurance Program for Carolina Crossroads. The contractor is responsible for all asphalt plant production requirements as outlined in SCM-400. The IQF is responsible for all roadway/field requirements as outlined in SCM-400. SCDOT will provide all laboratory services except those required to be performed by the contractor as part of asphalt production.
6	RFP	Scope of Work	NA	There has been no mention of the existing building that houses bathrooms for the Saluda River Walk (located at approximately Station 5406+00 of I26RC just left of the proposed bridge). Is this structure to be retained?	DM	Revision	See revised Moving items Removal and Disposal Fencing and UST Quantities in Attachment B. This structure is to be moved to the river side of the bridge.
7	Attach_A	Exhibit_4b	Page 6, Section 2.1.18	The RFP and previous guidance provided by SCDOT state the contractor is required to comply with all federal and state permits, including future NPDES general permits. SCDOT is currently in negotiations with SCDHEC concerning reissuance of their general construction permit. Has SCDOT made any commitments to SCDHEC concerning closed systems on bridges that are considered scenic bodies of water and/or trout management locations in the new permit that may influence this project?	Environmental	No_Revision	This specific concern is not being addressed in the new CGP or MS4 DOT permits.

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8	Attach_A	Exhibit_4b	Page 6, Section 2.1.18	SCDHEC Regulation 61-68 Water Classifications and Standards requires water quality standards must be met for stormwater discharge into designated TPGT waters. SCDOT's current NPDES Permit No. SCS040001 specifies that a project Stormwater Management Plan must identify "measures to specifically protect all sensitive waters…" and "these measures shall effectively protect ….TPGT waters." Currently, the RFP does not require closed drainage systems over the Saluda River. Can SCDOT confirm the use of scuppers over the Saluda River complies with current MS4 permitting requirements?	Environmental	No_Revision	Scuppers are allowed on the bridge over the Saluda River.
9	Attach_A	Exhibit_4b	Page 6, Section 2.1.18	If the DB Team does not need a closed drainage system per the RFP and guidance provided by SCDOT, will the DB Team be compensated if they are required to include a closed drainage system to comply with future federal and state permit conditions?	Construction	No_Revision	Additional scope would be addressed per the contract.
10	Attach_A	Exhibit_3		At approximately Station 30+00 of I-126, there is an existing 5'x5' box culvert. In the RFP design at this location, a new ramp (I-126 Ramp DB) is being constructed. Per the provided profile and cross section, the proposed vertical profile elevation of this ramp cuts into the 5'X5' box culvert by approximately 5'. This existing culvert will not be able to be retained with the RFP design and will need to be lowered. The lowest point on this profile is also at the invert elevation of the existing box culvert under the railroad which the roadway culvert outfalls. This will require the entire system including Tributary 47 to be lowered and regraded all the way to the existing Box Culvert under the railroad (which will also need to be replaced), and continue grading past the existing railroad all the way to the Saluda River, which will increase the environment permitted area. It will also include new ROW to be acquired. Is this SCDOT's intent?	Hydrology	No_Revision	The intent is not to lower the tributary nor replace the culvert under the RR.
11				What drainage criteria will be required for the maintenance road south of existing railroad running adjacent to 126?	Hydrology	No_Revision	Secondary road criteria
12				The results shown the culvert summary table provided for EC-2901 from Appendix J of the Stormwater Management Design Report show the HW/D is 1.09 for the 10x10 box culvert indicating it is sized adequately. This HW/D value matches the values provided in the proposed HY-8 file but the culvert is modeled as a 13'x13' box culvert in this file. Please confirm we should assume EC-2901 is a 10'x10' box culvert and our analysis should reflect that.	Hydrology	No_Revision	EC-2901 is a 10'x10' box. There may have been other design information included in the report that was considered for proposed development but inadvertantly was not deleted.
13				The provided survey indicates that EC-5101 is approximately a 385LF 8'x6' box culvert that is on a relatively straight alignment through its entire length. The provided video inspection summary from section 5.1 of the provided stormwater management design report indicates that EC-5101 is an 8'x6'/5'x5' box culvert that is approximately 483LF containing multiple changes in alignment throughout the culvert. Should we run our analysis with the provided surveyed information or the provided information from the video inspection?	Hydrology	No_Revision	The survey information is provided for information only and it is the DB teams responsibility to analyze the system based on existing conditions. The video pipe inspection is the latest information.

14	PIP	Structures		The conceptual bridge layout provided shows the end bent on the north end of the proposed bridge over the Saluda River terminating near the floodway boundary. Projected fill slopes from the abutment will tie down well within the floodway. If changes to the floodway width and floodway elevation are contained within SCDOT R/W would a CLOMR be required? A CLOMR could potentially result in an additional 6-9 months of permitting/coordinating with FEMA and Richland County.	Hydrology	No_Revision	Refer to the Hydraulic Design Requirements Section 1.1.2. SCDOT considers a project to be a "No Impact" if there is no change in the 100-year profile or the floodway profile, rounded to the nearest 0.1 foot, or floodway width, rounded to the nearest 1.0 foot, for any cross section *outside the Department's right of way* . If there is a change, greater than rounded to the nearest 0.1 foot, in the 100-year or floodway profile or a change in floodway width, greater than rounded to the nearest 1 foot *outside the Department's right of way,* a Conditional Letter of Map Revision (CLOMR) must be prepared using all the appropriate forms
15	Attach_A	Exhibit 4e	Page 1, Section 2.1	EC-2601 The existing culvert under Morninghill Drive is an 84" RC Pipe (see attached diagram). Upstream and downstream of this pipe is a double line of 6'x6' RC Box Culvert. The downstream section travels towards and under I-26 at approximately 2,500 L.F west of Phase 1. Based on the design discharge, 1,200 cfs, the pipe system is undersized. The inlet of the upstream section of this system is directly below an existing 45' bridge at Latonea Drive. The upstream section, double 6'x6' box culvert, is located under an existing building and parking lots, all of which are outside SCDOT Right of Way. Replacement of the system would require replacing the culvert upstream, under the building and parking lots, replacing the pipe under Morninghill Drive and the system downstream. The system downstream could conflict with the drainage in Phase 3 since we do not know the final design for that phase. Since the amount of flow to Morninghill Drive is restricted by the amount of flow at the inlet of the existing box culvert (approx. 900 cfs), we would prefer to analyze and design the pipe under Morninghill Drive and the downstream system based on the restricted flow allowed by the existing box. Will SCDOT confirm that the Team should use the limiting flow from the existing box culvert (approx. 900 cfs)?	Hydrology	No_Revision	The DB team can use the upstream double box culvert for calculating the design flow for the replacement culvert under Morninghill Drive, adjusted for any additional water added from the design of this project.
16	Attach_B	Pavement	1	The traffic data provided for pavement indicates 22% Trucks for Interstate Routes. Is this for permanent or temporary pavement designs? The IMR's use 12% for I-126 and 9% for I-26. A 22% truck rate is high for temporary pavement design that is only one to two years out and results in an unreasonably thick temporary pavement structure compared to other interstate design-build projects such as the I-85 widening projects. Will the Department consider specifying a lower truck percentage for temporary pavement design?	Pavement	No_Revision	No. Traffic loading data is from our road data services and we will not provide lower truck percentage for temporary pavement design.
17	PIP	Survey		Can top of rail survey shots be provided on either side of the proposed railroad crossing?	Railroad	No_Revision	All survey information has been provided. No additional ground surveys will be performed by SCDOT.

18	RFP	Exhibit 4a Section 2.4	5	RFP states "For stopping sight distance, use grade adjusted SSD values along interstates, collector distributors, and ramps where the downgrades are 3 percent or greater except as noted otherwise herein." Previous RFPs have not required adjusted SSD on ramps, is it the SCDOT's intent to require this for this project or for all ramps?	Roadway	Revision	RFP will be revised to exclude this statement. Design shall be in compliance with RDM.
19	Attach A	Exhibit 4a	12	Section 3.5 first sentence states "Reconfigure lanes between existing ramp terminals which will be closed as part of this project to have a flush median between the directions of travel." Third paragraph states "A minimum 4 foot wide raised concrete median shall be provided on S-40-31 between the existing I-26 EB and I-26 WB ramp intersections." Which statement has precedence? Should the median be flush or raised?	Roadway	No_Revision	The existing concrete island may be retained if lane arrangement allows. The remaining median width shall be striped with a double yellow line.
20	Attach_A	Exhibit_4a	12	Roadway Design Criteria, page 12; states, “Eradicate the existing pavement markings and provide new pavement marking to accommodate two lanes on S-40-31 (Bush River Road).” Our understanding is that the Department wants to reduce Bush River Rd from a 4-lane section to a 2-lane section, which would create a loss in roadway capacity. Is the Design Build Team responsible for documenting the capacity impacts in a memo to SCDOT or with FHWA? What turn lane storage development does the Department anticipate? Our understanding is that the through lane on Bush River Rd would drop as a turn lane.	Roadway	Revision	Exhibit 4a section 3.5 will be revised to provide 2 lanes in each direction on Bush River Road.
21	Attach_A	Exhibit_4a	12	Roadway Design Criteria, page 12; states, “Eradicate the existing pavement markings and provide new pavement marking to accommodate two lanes on S-40-31 (Bush River Road).” Providing a 2-lane section on Bush River Rd would create the need for revisions to the traffic signals at Bush River Rd & Morninghill Dr, Bush River Road & I-26 EB Off-Ramp/Driveway, and Bush River Rd & Zimalcrest Dr. Will these signal modifications be temporary or permanent? What is the Department’s ultimate plan for Bush River Rd, as part of Phase 3?	Roadway	Revision	Exhibit 4a section 3.5 will be revised to provide 2 lanes in each direction on Bush River Road. Phase 3 will replace the overpass.
22	Attach_A	Exhibit_3		Is the demo and removal of the I-26 WB Ramp (Exit 108A) to Bush River Road bridge over I-126 included in Phase 1 Scope of Work.	Structures	No_Revision	No
23	PIP	Roadway		The profile provided with the RFP for the Ramp C bridge shows a low point on the bridge at approx. Sta. 5406+50 (roughly the mid-point of the bridge). Section 12.6.2.2 of the BDM states "the low point of a sag should not be located on the bridge or the approach slab." Also, Section 18.2.1 of the BDM states "Placing a low point on a bridge or approach slab will require approval from the State Bridge Design Engineer and will only be allowed if no feasible alternative exists." Will SCDOT allow a low point to be placed on the Ramp C bridge for this project?	Structures	Revision	Yes. A low point will be allowed on the Ramp C bridge only. Criteria will be added to assume the low-point-inlet is 100% clogged when determining the number of flanking inlets to provide.

24	RFP	Exhibit 4b, Section 2.2.4	13 of 16	Exhibit 4b, Section 2.2.4 states "For fill walls, locate wall and/or proposed new right-of-way line to provide a minimum horizontal distance of 1.2 times the wall height between the fill face of the wall and the right-of-way line." The fill wall supporting the bridge abutment in the concept layout adjacent to the railroad at the end of Bridge 35 does not appear to satisfy this criteria and would result in the bridge needing to be lengthened. Is there an exception to this criteria for fill walls supporting bridge abutments if the wall supporting the abutment is set outside the ROW and 25' min. horizontal clearance from any future track is satisfied? Is the 1.2 times wall height an SCDOT or CSX mandated criteria?	Structures	Revision	This is SCDOT criteria. An exception to this 1.2-times-the-height criteria will be made on this project for walls in close proximity to CSX railroad right-of-way. See the revision in section 2.2.4 in Exhibit 4b for fill walls in close proximity to CSX railroad right-of-way.
25	Attach A	Exhibit 4a	Page 14 (194)	RFP Section 2.3.1 Concrete Median Barrier states “Construct concrete median barrier according to SCDOT standard drawings. Design 56” minimum height Test Level 5 median barrier with exception that if there is an elevation difference between the two sides, the higher side can be 46” minimum or Test Level 4.“This section goes on to state “Condition A – Concrete Median Barrier with grade separations of 18 inches or less: Use details from the SCDOT Standard Drawings.”SCDOT Standard Drawing 805-805-01 for 56” Concrete Median Barrier has an allowable grade difference of 18”. The higher side being 38” (56” – 18” = 38"). This violates the 46” requirement above.Is it permissible to construct 56" Standard Concrete Median Barrier with 38" on the high side?	Structures	Revision	Yes it is permissible to use 38" on the high side of Condition A Median Barrier (less than 18" grade separation). The 46" height requirement applies for grade separations greater than 18". This will be clarified in the RFP.
26	Attach A	Exhibit 4d, Pt 5	Page 2	Are steel strain poles required at the following traffic signals that will have fairly significant modifications/upgrades (but are not "new" signals")?Bush River Road at I-26 EB Off-ramp/drivewayBush River Road at Morninghill Drive	Traffic	Revision	No, if design requires new permanent signals at these locations they would need to be steel strain poles.
27	Attach A	Exhibit 5	Page 72	Section (55) A. states: "Any existing DMS's will be removed and returned to the SCDOT per the specification" Is the contractor required to put back the DMS equipment and/or install new DMS equipment?	Traffic	No_Revision	No, See Exhibit 4d Part 6. The CONTRACTOR is not responsible for the maintenance or construction of permanent SCDOT ITS element other than the fiber optic cable and the additional conduit including all appurtenances for SCDOA and SCDOT.
28	Attach A	Exhibit 5	Page 73	(56) Division 600: ITS Elements Installation: A.4. Is SCDOT furnishing the actual CCTV camera housing?	Traffic	No_Revision	See Exhibit 4d Part 6. The CONTRACTOR is not responsible for the maintenance or construction of permanent SCDOT ITS element other than the fiber optic line for SCDOA and SCDOT.
29	Attach B	Utilities		Please confirm that SCDOT is relocating the following fiber/conduit prior to project start: 1. Fiber on the west side of I-26 between I-126 interchange and US 378 interchange. 2. Fiber on the east side of I-26 north of the Saluda River leading to the ITS hub at I-26/I-126 interchange. 3. Fiber leading from CCTV 11 to the house on Parcel 392 on Lawand Dr that will be demolished. 4. Fiber leading from CCTV 11 north along I-126.	Traffic	Revision	Addendum to clarify ITS requirements. 1: Confirmed, SCDOT will be responsible for relocating prior to start of construction. 2: Addendum will clarify sever limits. 3: Confirmed, this fiber optic cable run has been disconnected. 4: Addendum will clarify sever limits.

30	Attach_A	Exhibit 4d_Pt 4	5	Page 5; states, “Any sign structures and/or foundations which are retained shall be verified by the Contractor to be structurally adequate or replaced if proposed signs are larger than those shown in the conceptual signing plan.” Is the Department’s intent to replace this overhead structure for OH-15A_I-126 since the concept signing plan increases the area of that sign? Can the Department provide as-builts for this sign since the RFP requires the Design-Build team to verify the structural adequacy of the overhead structure?	Traffic	Revision	It is not our intent to replace the structure. The dimension shown on the top of Sign OH-15A_I-126 (14.5 x16) is incorrect. The existing sign is 11.5x14 and the conceptual signing plan will be revised in Attachment B. As-builts will not be provided for the this sign.
31	Attach_A	Exhibit 4d_Pt 4	5	Page 5; states, “Any sign structures and/or foundations which are retained shall be verified by the Contractor to be structurally adequate or replaced if proposed signs are larger than those shown in the conceptual signing plan.” Do the required glare screens on overhead sign structures count towards the increase in surface area?	Traffic	No_Revision	In general, if existing structures for Phase I are to be retained, the existing signs are to be replaced with the same size signs as the ones that are currently on the structures so the existing glare screens should be retained. The exceptions are OH’s 3, 4 and 5_I-26 where the sign sizes increase slightly. In those cases, the existing glare screens can be retained as would be the case in general. Most of the retained structures with the exception of some of the signs on eastern end of I-126 will be replaced under Phase 3. In any case, the size of the glare screens should not increase.
32	Attach_B	Traffic	1	Below the list of existing signalized intersections, it states "Adjustments to signal location and timing and/or removal of existing ramp signals, will be required after closure of the I-26 ramps to/from I-26." Is the intention for these adjustments to be completed by the DB Team for a permanent coordinated signal system or are additional changes anticipated here to be completed by SCDOT	Traffic	Revision	The intent is for the DB Team to provide a permanent coordinated signal system at the end of the project. See Exhibit 4d part 5, Section 2.5 for coordinated system requirements.
33	Attach_B	Traffic	10	The bottom dimension for the overhead sign (OH-15A_I-126) shown in the signing concept seems to be incorrect. The dimension suggests the sign width is 11.5’ wide. MUTCD requirements for an exit only panel are 16’ wide. This increases the area of the existing sign panel. Can SCDOT confirm the dimension of this sign? If this sign size is increased, can the existing structure be retained or will it need to be replaced?	Traffic	Revision	See the response to line 38 above. The intended size of the new sign is 11.5x14. See revised conceptual sign plan in Attachment B. Of note, SCDOT routinely uses signs with EXIT ONLY panels that are less than 16ft. in width. This is typically necessary to properly orient lane assignment arrows when signs are used in combinations over adjacent lanes as is the case for OH-15.
34	Attachment B	Utilities - CoC Design Standards	21-22	The design criteria states "A buried water or sewer facility may be located under a bridge or elevated roadway structure if it crosses perpendicular to the structure and if it has a minimum of 25-feet vertical clearance…" and "If the required clearance cannot be provided the buried crossing shall be installed in a steel casing per the City’s Standard specifications." Does this apply to existing facilities and/or to relocated facilities? This requirement is not met with the RFP profile crossing over Arrowwood Rd, the U-Sheets indicate no work to be done in the area, and utilities to remain in place. Is it intended to encase the existing crossings?	Utilities	No_Revision	Applies to all new installations. However, Contractor is to determine if mitigation is required for existing utilities per the SCDOT Utilities Accommodations Manual or the specific utilities' requirements.
35	Attachment B	Utilities - CoC Design Standards	11 of 22	The design criteria states "The contractor shall provide the City a vibration monitoring plan for review and approval." Please provide additional detail and scope for expectation of the City's requirement.	Utilities	No_Revision	The City has agreed to use SCDOT's vibration requirements. See Exhibit 5, Section 107: Monitoring of Construction related earthborne vibrations for requirements.

36	Attachment B	Utilities - CoC Standard Specifications	Sec 3.03	Please clarify if the existing 30" force main is to be flowable filled or removed from the right-of-way.	Utilities	Revision	Existing 30" force main shall be removed from the SCDOT right-of-way when the line is within 10' of a bridge foundation or retaining wall. In other abandoned locations the 30" force main may be removed or filled with flowable fill.
37	Attach B	Utilities		Gravity sewer manhole invert and rim elevations were not shown in the survey data provided in Attachment B and the Project Information Package (PIP). Please provide any elevation data for the gravity sewer manholes, specifically for the gravity sewer lines to be relocated as part of the Colonial Life Pump Station Relocation as shown in the Colonial Life Pump Station Preliminary Engineering Report provided in the PIP.	Utilities	No_Revision	See Preliminary Utility Report PDF pages 70-74 shows sewer manhole information.
38	Attach A		Page 2-3	Based upon Exhibit 7 Section 3.1 of the RFP, The 30" force main shall be relocated from I-26 Ramp C Station 5406+50LT to I-26 Ramp C Station 5423+50RT. The SUE data provided in Attachment B indicates that the sewer force main is within the railroad right of way at the tie-in location at 5406+50LT. However, the City of Columbia 30" Force Main As-Let Plan provided in the Project Information Package indicates the existing force main is 5' outside the railroad right of way at this location and does not enter the railroad right of way at any point across this area. Please advise if we are to assume the existing sewer force main is inside or outside of the railroad right of way.	Utilities	Revision	SCDOT is obtaining SUE level A data from the City and will provide in an Addendum.
39	Attach A		Exh. 7 Sect. 3.3	Is the intent that the DB Team prepare the fiber optic utility relocation design plans on behalf of Segra or will Segra provide this relocation design to the DB Team for incorporation into the in-contract construction relocations.	Utilities	No_Revision	Design is the responsibility of the Contractor.
40				Please confirm SCDOT will purchase the 15' permanent utility easement and the 35' temporary construction easement required to construct the 30" force main sewer on Tracts 441 and 442.	Utilities	Revision	SCDOT will only purchase a temporary construction easement from tract 442. No additional right of way will be secured by SCDOT from tract 441. Project ROW plans will be revised in Attachment B showing temporary right of way.
41				There appears to be a significant discrepancy in vertical information (up to 12 feet) provided by SCDOT and the actual Dominion overhead transmission line elevation. Please confirm the accuracy of the overhead transmission line elevations provided by SCDOT.	Utilities	Revision	The transmission 3D STV file has been moved from Attachment B to the PIP. Vertical elevations for transmission lines vary based on load and temperature.
42	Attach A	Exhibit 4b	Exhibit 4b, Section 2.2.4	The RFP states "For fill walls, locate wall and/or proposed new right-of-way line to provide a minimum horizontal distance of 1.2 times the wall height between the fill face of the wall and the right-of-way line." Would SCDOT consider modifying this requirement to a 15'-20' maintenance strip between the R/W and wall instead?	Structures	Revision	An exception to this 1.2-times-the-height criteria will be made on this project for walls in close proximity to CSX railroad right-of-way. See the revision in section 2.2.4 in Exhibit 4b for fill walls in close proximity to CSX railroad right-of-way.
43	RFP	4	Sect. 4.1 Part 4 Page 20 of 48	Will it be acceptable and meet RFP requirements if the MOT roll plot scale is larger than the 1"=200' scale (i.e. 1"=100')?	DM	Revision	We will make a Revision change to 1" to 200" maximum.

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South Carolina Department of Transportation

NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS

Carolina Crossroads Phase 1 - Colonial Life Blvd. at I-126 Interchange - Project ID P039718 - Richland and Lexington Counties

Final RFP - Round 4

Date Received: 2/1/2021

Non-Confidential Meeting Date: 2/16/2021

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1	Attach_A	Agreement	56	To meet the design standards set forth in the RFP there may be additional stream/wetland impacts that are not captured in the Section 404/401 Permit authorization obtained by SCDOT. If additional impacts are required to meet design standards required to meet the RFP, and are not the result of a proposed ATC, who will be responsible for securing any additional stream/wetland mitigation credits to offset those impacts if they exceed the threshold set in the 404/401 Permit?	Environmental	No_Revision	SCDOT shall be responsible for securing mitigation if impacts warrant. Per Exhibit 8 Section 4.5, overall impacts are anticipated to decrease.
2	Attach_B	Environmental		The approved Section 404/401 permit authorization obtained by SCDOT depicts clearing impacts between Sta. 5395 to Sta. 5414+50 on Sheet 40, 41, and 43 of 78. However, the clearing impacts are not depicted or quantified below the new permanent structure where it is anticipated additional clearing and grubbing work may occur in wetlands. If impacts to these wetlands are required to meet SCDOT standards as stated in the RFP, but were not captured in the original permit, who is responsible for securing any additional wetland mitigation credits to offset those impacts?	Environmental	No_Revision	Cutting vegetation would not require additional mitigation. Grubbing activities necessary for bent installation that result in impacts should be documented along with mitigation changes in the permit modification submittal per Ehibit 8 Section 4.
3				Requesting clarification on the analysis of the existing 84" RCP under Morninghill. Based upon the configuration of the storm drain system it is assumed by our team that the pipe would be required to meet the 0.94d/D requirement for free surface flow within the pipe. Headwater requirements would not be applicable to this pipe since the culvert entrance is located approximately 420' upstream and consists of a different inlet configuration.	Hydrology	No_Revision	The 84" pipe should be replaced with an appropriately sized culvert. The crossing should be sized to show that there is no increase in headwaters at the upstream culvert entrance.
4				If an existing culvert along the access road is undersized would it require upsizing to meet secondary road requirements? It appears that almost all of these culverts are undersized and would need to be substantially upsized to meet the secondary road requirements.	Hydrology	No_Revision	The culverts should be sized to meet secondary road requirements while also not creating an upstream impact on the railroad or roadway culvert crossings.

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5	Attach_A	Exhibit 4e	1	In the past year, SCDOT has published and provided training on SC Unit Hydrograph Methodology. The new methodology is the most up to date method to perform this hydrologic analysis. This method analyzes the watershed in more detail allowing a larger range of land uses which more accurately determins the Peak Rate Factor (PRF) for the watershed, thus lowering the design storm peak discharge. The old method will require a new pipe system with substantial large pipes under I-126, and the Railroad in the Colonial Life Interchange area. In addition, more right-of-way will be needed for the outlet rip rap and outfall ditch. The existing 5'x5' box culvert under I-126 will be abandoned due to the lack of capacity and the culvert under the Rail Road will require a supplemental pipe. If the revised methodology is acceptable, the existing box culvert under I-126 with a supplemental pipe will be sufficient, and a supplemental pipe under the Railroad is not needed. Is it acceptable to use the new published method since training was provided to consultants and it is the best method for this hydrologic situation?	Hydrology	Revision	New methodology will be referenced in Exhibit 4e and added to Attachment B for use on the project.
6	Attach_A	Exhibit_3	page 3	From a drainage standpoint, does the work associated with realigning the access road on Tract 442 require that the 25yr storm event be conveyed with 1' of freeboard to the bottom of the proposed roadway sub grade?	Hydrology	No_Revision	The culverts should be sized to meet secondary road requirements while also not creating an upstream impact on the railroad or roadway culvert crossings.
7	Attach_B	ROW	Moving Items No. 6	The restroom facility at the Saluda Riverwalk trailhead is to be moved to the riverside of I-26 Ramp C. Where is it to be located - within the SCDOT right of way or outside of the right of way? If inside, is it to be placed outside of control of access fencing? If outside SCDOT right of way, on which parcel and where on the parcel?	Other	Revision	Moving Item sheet in Attachment B will be updated to say it is to be moved to within SCDOT right of way. It is to be located outside any c/a fence constructed.
8	Attach_B	ROW	Moving Items No. 6	Regarding the restroom facility at the Saluda Riverwalk trailhead that is to be moved. Can SCDOT provide plans of the structure to determine the means required for relocation?	Other	Revision	Plans provided by Richland County will be provided in the Project Information Package.
9	Attach_B	ROW	Moving Items No. 6	Regarding the restroom facility at the Saluda Riverwalk trailhead that is to be moved. What finished floor elevation is required for the relocated facility?	Other	No_Revision	Elevations are to be established by the Contractor.
10	Attach_B	ROW	Moving Items No. 6	Regarding the restroom facility at the Saluda Riverwalk trailhead that is to be moved. What are the elevation requirements for the compositing facility?	Other	No_Revision	Elevations are to be established by the Contractor.

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11	Attach_A	Exhibit_3	10	Chart states that for EB I-20 to EB I-26 ramp, that I-26 through lanes shall be milled and overlayed. Please confirm that the I-26 Pavement Design shown in the pavement design scope of work shall be used and if cross slope correction of through lanes is necessary given that phase 3 will reconfigure this area. Also confirm if inside shoulders and outside shoulders outside the limits of widening should be milled and overlayed including cross slope correction as those are not specifically listed in the notes of the chart but are covered in the pavement design requirements for I-26.	Pavement	Revision	4c will be revised to include a new design for the I-20EB to I26 EB ramp and acceleration lane. The new design will be the same as the options provided in section 2.3 of exhibit 4c with the exception that Surface B can be used in the final lift instead of SMA. The intent is not to included cross slope correction during this phase and any necessary correction will be completed in phase 3. Cross Slope verification will be required on newly constructed lanes. Prior to placing the final permanent pavement markings, All areas on I-26 EB from 350+00 to 365+00 not requiring pavement reconstruction or rehabilitation but requiring revised temporary or permanent pavement markings shall be milled 2-inches and resurfaced utilizing 200 psy of surface type b. This mill and fill requirement also applies to any pavement in this section that relocates a surface pavement joint to a location other than at the lane lines or center of the lane. Avoid placing the final construction joints in wheel paths during temporary alignments and interim conditions.
12	Attach_A	Exhibit_4c	Page 5 Section 2.5.1	We have evaluated the inside shoulders of I-26 and I-126 and determined that the shoulder pavement thicknesses are equal or greater than that of the travel lanes except at some locations along I-26 EB. The shoulder thickness along I-26 EB were found to be 11 inches compared to 16 to 18 inches in the adjacent travel lanes. If we utilize the 4 foot wide I-26 EB shoulder for a temporary traffic shift, will these shoulders need to be strengthened or reconstructed?	Pavement	No_Revision	Yes, the rfp defines that the temporary pavement is pavement outside of the existing travel lanes and states that the shoulders are not adequate enough to carry traffic and that it is required to reconstruct or provide additional structure for the entire shoulder width for use as temporary pavement.
13	Attach_B	Pavement	3,4	Requirements for I-26 & I-126 state perform cross slope corrections "as necessary". For areas designated as mill and overlay only, is there specific criteria that would require cross slope correction? Is the Department's intent to replace the median barrier in the mill & overlay designated areas?	Pavement	No_Revision	Yes, Exhibit 5 (7) Section 105 Cross Slope Verification requires verification of cross slopes along all interstate mainline lanes. No, it is not the Department's intent to replace the barrier wall in these sections.
14	RFP	3	15	Will the Department please consider increasing the stipend to $525,000 to cover additional costs for the pursuit schedule time extension?	PM	No_Revision	No
15	Attach_A	Exhibit 6	pg 1-2	Section 2.3 / 2.6 Should the 50' buffer to any railroad property be limited to the area of the ramp 26RC railroad crossing? There are other areas of work on the Phase 1 project that are within 50' of the railroad property.	Railroad	No_Revision	No, the conditions outlined in 2.3 shall be met before commencing work within 50' of the RR's right of way.

16	Exhibit 6	Section 2.3		Exhibit 6- Railroad Information 2.3 Compliance with Requirements, second paragraph's last sentence (as amended by RFP Rev 5) states "…complies with the timeframe in Section 2.7 and". There is no Section 2.7. Please confirm this means Section 2.6.	Railroad	Revision	Confirmed, this should refer to the 18 months stated in 2.6.
17	Exhibit 6	Section 2.6		Exhibit 6- Railroad Information 2.6 Right of Way, last sentence (as amended by RFP Rev 4 and 5) states, "Contractor shall not access Railroad property for construction until 18 months after SCDOT approves right of way plans." Please confirm this section reference the SCDOT approved RW plans dated 10-2-2019.	Railroad	No_Revision	Even though some parcels were released for right of way acquisition beginning on 10-2-2019 no right of way acquisition has been designated on CSX Property (i.e. no tract number assigned and no "New R/W" area has been shown across property). It is the Contractor's responsibility to submit r/w plans for the area needed for construction and maintenance of the bridge crossing CSX property per exhibit 4z. SCDOT will process the r/w revision and acquire the r/w from CSX. The date SCDOT approves this r/w acquisition (Issued for ROW Acquisition) is the date that starts the 18 month clock. SCDOT needs plans from the Contractor since we only will acquire area for the exact crossing and cannot acquire an area over a long distance along the rail line.
18				Has SCDOT entered into any agreement(s) with CSX on this project? If so, would the SCDOT please provide it (them)?	Railroad	No_Revision	No construction agreement has been reached yet with CSX. SCDOT is in process of negotiating this agreement with CSX. The information provided in Article VII of the Agreement and in Exhibit 6 is based on discussions with CSX.
19	Attach_A	Exhibit 6	1	CSX Public Projects Manual states temporary reduction in clearances during construction are subject to review and approval by CSX. Has SCDOT been able to obtain temporary construction clear zone parameters from CSX?	Railroad	No_Revision	No, these are typically handled during the design review phase based on plan review comments received by CSX.
20	Attach_A	Exhibit 6	page 2	Section 2.3 Paragraph 2, should this reference Section 2.6 instead of 2.7?	Railroad	Revision	Yes

21				The below two questions are follow up to non-confidential question #3 dealing with the access to railroad right of way. Is the 18 months a fixed time, or if Contractor can reach an agreement with CSX to allow earlier access, will the earlier access be allowed? Will SCDOT allow Contractor to submit multiple ROW plans, with an early submittal only being for the areas where work is either on or within 50 feet of CSX property such as 30" sanitary force main, drainage bores, ramp walls, and bridge work?	Railroad	No_Revision	If CSX gives access for construction outside of there ROW it would be allowed. The time provisions in Article VII of the Agreement become effective if access cannot be allowed after the 18 month window. SCDOT will allow the project to be segmented but it would need to be complete package in accordance with 4z.
22				Should property owners deny access or not be amenable to accepting reasonable compensation, will SCDOT allow Contractor to use right of eminent domain to gain temporary easement across private property to gain access from Candi Lane for the construction of Bridge #35? If this access cannot be obtained, then a railroad crossing would be required which would delay the project.	Right of Way	No_Revision	SCDOT is seeking Temporary Right of Way on tract 441. Revised ROW plans will be provided in Attachment B. Property not covered in the ROW plans in Attachment B will need to be procured in accordance with Article 8.
23	Attach_A	Exhibit_4a	pg 4-5	Addendum 5 removed paragraph regarding the use of grade adjusted SSD Section 2.4 on Page 5, should this also be removed from Section 2.3 on page 4?	Roadway	No_Revision	Section 2.3 on page 4 will not be revised. The requirement will remian in regards to horizontal alignment.
24	Attach_B	Roadway	Proj. ROW plans	Attachment B Project 1.Right of Way Plans.pdf , PDF Page 21, 22 show NEW 100' R/W along Ramp 126RDB (Parcels 521 / 522). In the Project Information Package 6. Plans 20201207.pdf, PDF Page 14, 15 show NEW 70' R/W along Ramp 126RDB (Parcels 521 / 522). Which governs and could SCDOT provide the latest DGN files depicting the intended R/W to be purchased including the associated Parcel / R/W text?	Roadway	Revision	Attachment B will be updated to show the changes in Right of way.
25	Attach_A	Exhibit_4b	2	What is the controlling horizontal offset between the edge of a proposed bridge footing and the CL of Future Track? Section 22.2.3.2 of SCDOT's Bridge Design Manual limits this distance to 15.0ft. However the RFP, in Section 2.1.6 of Exhibit 4b, directs us to the CSXT Public Projects Manual for horizontal clearance requirements along railroad tracks. By adding this language to the RFP, is it the Department's intent to allow for the 11'-0" spacing as permitted by CSXT?	Structures	No_Revision	Yes, CSXT requirements may govern over BDM-recommended offset to edge of proposed footing.
26	Exhibit 4d	Section 1		Per Exhibit 4d Section 1 can SCDOT provide Plans for three existing signals that must be re-sequenced- I-26 EB at Bush River Road, I-26WB at Bush River Road, Morning Hill at Bush River Rd.	Traffic	Revision	SCDOT will provide existing signal plans to all signals mentioned in Exhibit 4d Part 5 Section 2.5.
27	Attach_A	Exhibit 4d_Pt 5	2	Is the Flashing Yellow Arrow Head requirement limited to the 2 new signals at Colonial Life Blvd @ I-126 WB Ramp and Colonial Life Blvd @ I-126 EB Ramp? Do the Bush River Rd traffic signals, listed in the Traffic Design scope of work on page 1, need to be upgraded to Flashing Yellow Arrow Heads?	Traffic	No_Revision	If FYA heads are existing, then they shall be retained. If the signal cabinet, a pole, or a head is replaced, then the signal shall incorporate FYA heads.

28	Attach_A	Exhibit 4d_Pt 5	2	Are diagonal span wire configurations allowed?	Traffic	No_Revision	The box configuration is standard practice in accordance with our signal design guidelines. If site conditions do not allow for the box configuration, diagonal will be considered.
29	Attach_A	Exhibit 4d_Pt 5	2	Are mast arm configurations allowed?	Traffic	No_Revision	Mast Arms are nonstandard SCDOT equipment that are only justified in certain circumstances. See section 4.1.5 of the Traffic Signal Design Guidelines 2021 for further details.
30	PIP	DESC Encroachment Permit		Since the DESC Transmission relocation falls within the 100' zone and the prospective team will be under contract at that point, who is responsible for this relocation or is it even needed?	Utilities	No_Revision	DESC Transmission relocation was coordinated between Dominion Energy SC and City of Columbia, therefore SCDOT was not involved in the technical details of the relocation. The transmission line relocation is scheduled to be completed by November 2021, only requiring the winning contractor to coordinate as needed based on their design.
31	Attachment B	SEGRA		Please confirm design and construction contractors for SEGRA. Contractors provided seem approved for construction only.	Utilities	Revision	A revised list will be provided in Attachment B.
32	PIP	Utility Report - City of West Columbia		If City of West Columbia facilities are ultimately in conflict, will this work be performed in-contract and be addressed as a change order? Or, does this need to be accounted for in our bid? How will this be addressed with no current MOA in place?	Utilities	No_Revision	The City of West Columbia is not considered an "In-Contract by Contractor Utility" so they would be treated like all other utilities if impacted. In addition to exhibit 7 section 2.0 see Article VII.D for details on how it will be paid if impacted.
33	Attach_B	Utilities	1	In section 3.11 it states that the force main must be relocated anywhere construction activity is within 100-feet of the existing force main. In the provided Phase 1 Utility Report the Preliminary Utility Relocation plans show relocating the force main within 100-feet of the existing force main (Sheet U57). If the Team is not allowed to have construction within 100-feet of the existing force main, does the proposed sewer need to be relocated outside of 100-feet and additional right of way acquired? If the Team is required to acquire the right of way, will the cost of the right of way be born by SCDOT?	Utilities	No_Revision	No, the new relocated sewerline does not need the 100' buffer. See Article VII.D for details on how it will be paid if impacted.

34	Attach_B	Utilities	1	In section 3.11 it states that the force main must be relocated anywhere construction activity is within 100-feet of the existing force main. In the provided Phase 1 Utility Report the Preliminary Utility Relocation plans show construction within 100-feet. On Sheet U58, structure and roadway construction is shown withing the 100-feet after the ramp has crossed the railroad. There is also construction within the 100-feet where the proposed fiber is installed just outside the railroad right of way. The location of the fiber is required to be located in this spot based on the RFP. The fiber construction is within the 100-feet on sheets U58 and U60. Roadway construction is within 100-feet of the existing sewer at the end of construction on sheet U60. In all of the above cases, construction is within 100-feet but on the opposite of the railroad right of way. Can the RFP or the City revise the requirement to indicate no construction within 100-feet and on the same side of the railroad? It does not seem reasonable that construction on the opposite side of the railroad (which could have more vibration than the construction) would require the Team to acquire additional right of way and relocate additional sewer.	Utilities	No_Revision	SCDOT has agreed to relocate or replace the sewer line anywhere construction activities occur within 100' of the existing sewer line at SCDOT's cost.
35				Is SCDOT moving forward with purchasing the additional permanent utility easement and temporary construction easement needed to install the 30" sanitary sewer main on Tract 442 and Tract 441? What is the date of availability for these two Tracts?	Utilities	Revision	Yes. SCDOT is going to secure Temporary R/W from both tracts 441 and 442. Temporary ROW will be secured to cover the sanitary sewer line near tract 442 and access road for the length of Tract 441. The date of availability will be provided in the Right of Way Certificate with Construction Holdoffs in Attachment B.

South Carolina Department of Transportation

NON-CONFIDENTIAL DESIGN-BUILD QUESTIONS

Carolina Crossroads Phase 1 - Colonial Life Blvd. at I-126 Interchange - Project ID P039718 - Richland and Lexington Counties

Final RFP - Round 4 Additional Questions

						SCDOT	
Question No.	Category	Section	Page / Doc No.	Question/Comment	Discipline	Response	Explanation
1	Attach_A	Exhibit 4e	3	In this section it indicates that all cross-line pipes to be retained should be inspected. Typically cross-line pipes would indicate a pipe that crosses completely under the roadway (eastbound lanes and westbound lanes for an interstate) and is open ended on both sides. Is it a requirement to only inspect the pipes described above or should the Team inspect all pipes to be retained including the top line drainage to be retained located in the median and/or outleting to the outside?	Hydrology	Revision	All pipes and culverts retained shall be inspected. See Attachment B for culverts already inpsected. Exhibit 4e will be revised.
2				CSX manual states that culverts require a maximum HW/D ratio of 1.0 for the 100-yr storm. Most of the culverts along the railroad appear to be undersized and do not meet this criteria and will require supplemental pipes. These supplemental pipes will require riprap to be placed outside the SCDOT right of way. Will the contractor be responsible for obtaining drainage easements for the construction of the supplemental pipes and associated outlet protection?	Hydrology	No_Revision	Article VIII - Right of way will be revised. Any right of way that CSX requires for construction and maintenance of the project will be the responsibility of SCDOT. All other right of way that is not in the Project Right of Way plans in Attachment B would be considered Contractor Designated Right of Way or Additional Right of Way per Article VIII.
3				Follow up to Question #5: Can SCDOT provide the appropriate PRF to be utilized for the watershed draining to the existing 5'x5' RCBC at Sta 30+00? Upstream land uses appear to consist mostly of commercial, business, medium residential, with minor areas of woods and open space. Applying this updated methodology with these land uses, appears unlikely that peak discharge rates would be decreased to eliminate the need to construct supplemental pipes. Due to this crossing being analyzed different than the conventional 24-hour storm event using SCS methodology, can the SCDOT provide appropriate variables to properly analyze this crossing?	Hydrology	No_Revision	No, the engineer of record will be responsible for the analysis using their knowledge and experience.
4	RFP	4	17-18	The RFP sections 4.1.1.a "overall construction schedule" and 4.1.1.f "Contract Time" seem to indicate the same or very similar time periods and infomation needed for such. Please clarify the difference or if these are the same. How will the Department differentiate these two section's responses in the evaluations?	Other	Revision	Item 4.1.1.f will be removed from the RFP.

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5	Attach_A	Exhibit_3	10	The RFP states that for areas with overlay, cross slope correction of through lanes should be performed. There are some areas that Phase 3 will overlap with Phase 1 and we would like to confirm that cross slope correction is not required besides just the area on I-26 discussed at the NCQ forum previously. The other areas are -126TMP- Sta. 8+20 to 15+00 EB, -126TMP- Sta. 12+20 to 13+20 WB, -26- Sta. 400+80 to 405+00 WB, and -26- Sta. 400+80 to 412+00 EB.	Pavement	No_Revision	Unless specifically excluded, cross slope verification will be required on interstate mainlines with overlay. The previous area on I-26 is the only area being excluded, which will be reflected in the revised RFP.
6	Attach_B	Utilities	1	In section 3.11 it states that the force main must be relocated anywhere construction activity is within 100-feet of the existing force main. Is the construction of the new force main considered construction and required to be outside of 100-feet?	Utilities	Revision	It will need to be relocated prior to bridge foundation construction. No, the new ductile iron pipe will not need to be constructed 100' from the existing PCCP. Addendum 6 will provide minimum offset criteria to the existing utilities in City of Columbia criteria.
7	Attach_B	Utilities	1	Based on discussion at the Q/A forum the construction of the new force main within 100-feet is not considered construction and the risk is on the contractor to build within 100-feet of the existing force main. There are other items that would cause less vibration and would be less impactful to construct that the contractor would like to take the same risk and construct within 100-feet. The Team would still follow the required monitoring plan and would ensure no impacts to the existing force main. Are there other items that are allowed to be constructed within 100-feet?	Utilities	Revision	The criteria will be revised in Addendum 6. Per Exhibit 3 the 30" SRFM shall be relocated from station 5406+50 to 5423+50. Outside of this area of relocation, the Contractor shall monitor the existing SRFM in accordance with City of Columbia criterian in Attachement B and Exhibit 5 Section 107- Monitoring of Construction Related Earthborn Vibrations. City of Columbia criteria in Attachment B and Exhibit 5 Section 107 will also be revised in Addendum 6.
8	Attach_B	Utilities	1	In section 3.11 it states that the force main must be relocated anywhere construction activity is within 100-feet of the existing force main. In the provided Phase 1 Utility Report the Preliminary Utility Relocation plans show construction within 100-feet. See attached diagram for highlighted items. While the Team realizes you would need to be within 100-feet at the tie-in, the attached diagram shows several areas that currently run parallel within the 100-feet buffer. Also highlighted is some areas where construction is within 100-feet and the existing force main is not being relocated.	Utilities	Revision	The criteria will be revised in Addendum 6.
9	Attach_B	Utilities	3	Will SEGRA allow the use of SouthPointe Engineering, ACP, TELICS, Evolution US, or Byers Engineering? See attached for email from SEGRA concerning engineers they have used in the past.	Utilities	Revision	Yes and the list will be revised in Attachment B.

South Carolina
Department of Transportation

10	RFP			Based on the discussions during the open forum meeting regarding railroad and right of way time restrictions, will SCDOT consider providing additional time for completion of the project.	Construction	Revision	Yes, the time needed for completion of the project will be changed from 1074 to 1234 calendar days. Railroad hold off will be changed rom 18 to 15 months.

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