PROJECT: I-440, Davidson County

DB CONTRACT No.: DB1701 DATE: April 26, 2018

| Question<br>Number | RFP Book No. and Section ID | Question   | Reserved for Agency Response  |
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| 7.1                | Drainage Analysis           | From our analysis there are several more pipes that are to be replaced in addition to the pipes that are proposed in the RFP concept plans.  We have seen a significant increase in the quantity for number of inlets and the total length of pipes from the concept plans. The increase is due to several factors such as:  requirement to meet hydraulic capacity,  determination if an existing pipe can be salvaged or needed to be replaced (from field reconnaissance and review of SUE videos),  construction feasibility,  proposing flanking inlets at sag locations with connecting pipes to sag inlet and  correcting the plans for type of catch basins  Is it the Department's intent to provide revised RFP concept plans and if so, will the plans address these items? | No changes will be made to the drainage concept shown in the RFP plans. It is the Design-Builder's responsibility to prepare the final drainage design for the project. The concept drainage design shown in the RFP plans is for information only. |

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| 7.2                | Environmental Document      | The environmental document indicates          | Yes. The certified mailing was completed. No    |
|                    |                             | that according to TDOT's noise policy, new    | changes to the noise barrier design or location |
|                    |                             | questionnaires were to be sent to             | were required.                                  |
|                    |                             | benefited residents and property owners at    |   |
|                    |                             | NAA 13 (Linmar Avenue) via certified mail,    |   |
|                    |                             | and that the questionnaire responses will     |   |
|                    |                             | be the decision for the barrier location. Has |   |
|                    |                             | this occurred? Is input from the              |   |
|                    |                             | questionnaire included in the Noise Barrier   |   |
|                    |                             | Memo dated December 26, 2017?                 |   |

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| 7.3                              | ITS Roll Plots              | These questions are in regards to the relocation of the median fiber optic line called for in Requirement 5.2.b.   | Mid-span splices are not allowed. Splices shall be performed at the Type E pull box. Completed fusion splices shall have no more than 0.10dB optical loss as measured in |
|                                  |                             | Section 4.3.3 of SP 725 indicates that cable breaks and reel end splices are permitted only as shown in the Plans.   | accordance with Section 4.2.4.2 in the SP.   |
|                                  |                             | What is the expectation of the Department regarding mid-span splices?  |  |
|                                  |                             | Is there an expectation for maximum allowable splice loss between reel end splice or a link loss budget for this project?  |  |
|                                  |                             | Must the relocated fiber line be spliced at the nearest upstream and downstream reel end/butt splice or will a mid-span splice be allowed if the splice loss introduced is within the link loss budget?                          |  |
|                                  |                             | If mid-span splices are not allowed, please provide the location of the nearest upstream and downstream reel end/full butt splice in order to estimate the length of fiber optic cable required for the median fiber relocation. |  |

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| 7.4                |                             | What can the Design Builder expect regarding the involvement of NES for approval of plans, material submittals, and inspection of the proposed lighting infrastructure?  Specifically, will approval from NES, or Nashville Metro (in addition to TDOT) of RFC plans be required to begin work on the ITS and lighting infrastructure. | Approval from NES (in addition to TDOT) will be required for lighting to begin work, but not on ITS. ITS work will only require approval from TDOT ITS. |

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| 7.5                | Addendum 3, Contract Book 3,<br>Section 4.d | Section 15.4.1 of the TDOT Traffic Design Manual includes the following:  "Components of illuminance design include the average maintained horizontal illumination (Eh), or quantity of light, and the uniformity ratio (Eh/Emin), or quality of light, maximum veiling luminance (Lv), and veiling luminance ratio (Lv to Lave)."  Addendum 3 of the RFP included in section 4.d stated the following:  The illuminance method shall be used (Values of Average Maintained Minimum, Average/Min, and Max/Min shall be in accordance with Chapter 15 of the TDOT Traffic Design Manual). Photometrics for the whole project shall be generated, submitted, and concurred by Traffic Operations Division before starting a complete detailed design of the project. | , , , , ,  |
| 7.6                | Underpass Lighting                          | Does Requirement 4.c for underpass lighting apply to the Leland overpass and Craig Street overpass? The underdeck lighting for these two structures would light local streets not I-440.   | Yes, underpass lighting is required at Leland Lane and Craig Avenue. |

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| 7.7                              | Book 1, Section D.4.c, E.1.a, and O.2 | RFP Contract Book 1 states in various places that ROW Acquisition sheets shall be submitted in Adobe.pdf format on CD with the electronic copy of the Technical Proposal. | ROW Acquisition sheets will be required due to Railroad Easement acquisition being required for this project, even if the Design-Builder does not anticipate any ROW Acquisition. |
|                                  |                                       | Please clarify if anything needs to be included on the CD with the electronic copy of the Technical Proposal if the DB does not anticipate any ROW Acquisition.           |   |
| 7.8                              | SP108B and Book 1 B.3                 | SP108B states that punchlist items are not included in the calendar day count; while Book 1 states that punchlist items are included in the calendar days.                | Book 1 will be revised to eliminate the conflict in a forthcoming addendum.   |
|                                  |                                       | Although Special Provisions are not specifically listed in the Order of Precedence, they are attached to Book 2 so it is assumed they are higher in order than Book 1.    |   |
|                                  |                                       | Please verify SP108B's language stating that punchlist items are not included in the calendar day count govern over the conflicting language in Book 1.                   |   |

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| 7.9                | BOOK 3 SECTION 2.2.C-2.2.E  | The RFP states that the outside shoulders shall be "12' (includes 2.5' from proposed valley gutter)."  | For the station ranges listed in the question, the concrete valley gutter is not proposed on the shoulder. In these locations a standard 12-foot shoulder (10-foot stabilized) is to be used. |
|                    |                             | In the Department provided typical sections, plan sheets, and CADD Files, for the station ranges below and others, the outside shoulder width varies from 8' to 10' with valley gutter. Currently, this does not meet minimum shoulder widths required per the RFP. Please clarify if we are to follow the RFP or the widths shown on the costing plans. | Annotated/highlighted proposed layout sheets have been provided in the reference material section of the project website.   |
|                    |                             | Sta. 1053+08 to Sta. 1071+25 EB/WB<br>Sta. 1133+26 to Sta. 1141+45 EB<br>Sta. 1218+30 to Sta. 1236+15 EB<br>Sta. 1248+10 to Sta. 1257+93 WB  |   |

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| 7.10               | BOOK 3 SECTION 2.2.AA BOOK 3 SECTION 2.2.C-2.2.E | RFP Addendum 3 Book 3 Section 2.2.aa provided 8 total locations where HSSD issues resulted in wider inside shoulders to be provided.  Book 3 Section 2.2.c, 2.2.d, and 2.2.e requires 12' outside shoulders throughout the project limits. The total width of roadway required per the RFP results in major field issues including, the full removal and replacement/relocation of noise walls, Cross-line (overpass) structures needing to be replaced to accommodate wider roadway envelopes and widening of mainline structures that are not shown to be widened on the costing plans.  Station Ranges:  1258+54 through 1299+95 (WB) – Physical constraints not allowing 12' shoulder 1309+35 through 1316+04 (WB) - Physical constraints not allowing 12' shoulder 1349+05 through End Project - Physical constraints not allowing 12' shoulder | For the station ranges listed in the question, annotated/highlighted proposed layout sheets have been provided in the reference material section of the project website. These proposed layout sheets delineate the appropriate shoulder widths for these locations. |

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| 7.11                             | BOOK 3, SECTION 4- LIGHTING<br>SCOPE OF WORK    | Will TDOT provide the existing Electrical Service point locations?   | It is the responsibility of the Design Builder to coordinate with the appropriate utility owner to establish electrical service point connections.  |
| 7.12                             | BOOK 3, SECTION 2.5 – GUARDRAIL<br>AND BARRIERS |  | The preliminary plans are provided for information only. It is the Design Builder responsibility to determine the need, the final location, and the final design of all necessary roadside safety hardware/equipment.  In regard to hazards already protected by concrete barriers (Sta. 1025+00 and Sta. 1032+00 and Sta. 1098+25 and Sta. 1100+95), it is the Design Builder's responsibility to determine if existing concrete barriers along I-440 can meet current standards and be reused in the proposed design. Additional guardrail is not required where existing barrier walls provides adequate protection. |
| 7.13                             | BOOK 3, ADDENDUM 3 SECTION 4.f                  | Addendum 3 Section 4.f states "High mast lighting will not be allowed under this contract to prevent excessive light pollution in residential areas. All existing high mast poles located at the I-65 and I-40 interchanges shall remain in place": and Section 4.g states "Design-Builder shall use LED luminaires for entire project including ramps. Design-Builder shall only use LED fixtures approved by Nashville Metro. (see reference material)." Are the existing high mast lights to converted to LED luminaires? |   |

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| 7.14               | Addendum #3, RFP Contract Book 3, Section 4.b | Section 4.d of Addendum #3 states:  "All existing light standards located along entire length of I-440 (STA. 13003+89.38, MM 0.2 to STA. 1351+80.09, MM 7.0) shall be removed. This includes lights on surface streets and at interchanges and overpasses that are brown in color and on the I-440 circuit. New lighting standards and luminaires shall be designed to assure that I-440 has adequate lighting to meet TDOT Standards."  Regarding "lights on surface streets and at interchanges and overpasses," will TDOT provide the limits for this scope, or is the DB to assume that these limits would not extend further than the construction limits shown in the Preliminary Plans?  Is it the Department's intent to also remove and replace the following:  Light pole foundations  Wiring and conduit  Pull Boxes  Control Centers  Pricing related to this scope could vary significantly between DB teams without further clarification from the Department regarding scope. Please clarify. | The Design Builder will be responsible for replacing surface street lights that are brown in color and on the I-440 circuit only. Other surface street lights that are not on the I-440 circuit are to remain in place.  It is the Design Builder's responsibility to determine if existing elements of the existing lighting system along I-440 can meet current standards and be reused in the proposed lighting design. |

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| 7.15                             | Reference Material, Geotechnical<br>Project Memorandum (4-24-17) and<br>Rock Removal Estimate (3-27-18) | Jpon review of the Department's Geotechnical Project Memorandum and Rock Removal Estimate, most of the required scope is clear, for the exception of the work on the masonry wall areas. What is the Department's intent | The masonry wall repairs will consist of replacing or repairing any loose stones and/or mortar/grout to create a solid and safe face and replace any missing backfill. This does not exclude the possibility of isolated loose or missing stones on other masonry walls that aren't specified in the report. |
|                                  |   | regarding repair of the masonry walls shown within the report?  Please provide additional detail on the requested work associated with the masonry walls.  |  |
| 7.16                             | Preliminary Plans   | The preliminary plans show full-depth patch locations on various existing concrete ramps. Reviewing the condition of these ramps, it appears likely that more areas could require repair before the end of the project.  | Any additional ramp repairs shall be included in the Lump Sum items bid. No unit price pay item will be added to the contract.   |
|                                  |   | Would the Department consider adding a unit price pay item similar to the deck repairs or noise walls to cover additional required patching areas?   |  |