

**RFP QUESTIONS AND ANSWERS**  
**I-495 NORTHERN SECTION SHOULDER USE**  
**VDOT PROJECT 0495-029-123**

February 27, 2014

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- 1) Does the Design-Builder need to complete the Rule 940 Checklist?  
**The Design-Builder is responsible for completing the Rule 940 Checklist in conjunction with VDOT.**
  
  - 2) Per the specifications for the Shoulder Lane Monitoring System, the CCTVs are to be mounted on 50' poles. The plans suggest that some installations are to be mounted on the sign structures. Please confirm that mounting on sign structures is allowable and provide specifications for mounting.  
**Mounting of fixed CCTV cameras for shoulder lane monitoring is allowed on sign structures. The minimum mounting height of fixed CCTV cameras for shoulder lane monitoring is 30 feet per Part 2, Section 2.3.2.5. If a sign structure is selected for the mounting of a fixed CCTV camera for shoulder lane monitoring it shall be designed in accordance with Part 2, Section 2.3.2 of the RFP.**
  
  - 3) The CCTV Video Equipment and CCTV General Requirements specification identifies analog and digital cameras. Which type is to be used for each application?  
**Analog or Digital cameras are acceptable as long as they are compliant with the Design-Builder's final design. The proposed design of the system and equipment must be compatible with VDOT's TOC central control software.**
  
  - 4) The CCTV Video Equipment and CCTV General Requirements specifications, Section 1.03(g) identify CCTV poles at 40', 45', 60' and 80'. The ITS Support Structures specification identifies only 50' and 80' poles to be used. What pole heights are to be used for this project and where are the differing heights, if any, to be used?  
**CCTV camera poles shall be 50 foot and 80 foot only per Part 2, Section 2.3.2 of the RFP. The Design Builder may use 50 foot or 80 foot poles as required to achieve video coverage in accordance with Part 2, Section 2.10.1 of the RFP. When 80' pole is used, the lowering device is required. The critical requirement for the height of the pole is the CCTV viewing coverage.**
  
  - 5) There are 9 Lane Control Signal (LCS) shown on the RFP plans, The Technical Requirements specify 500 foot minimum spacing. The controlled lane is approximately 6,900 LF long which equates to 14 or 15 lane control signals. Please clarify which is correct. If the Technical Requirements are correct the plans only represent 50% of the work required. IE barrier removal and replacement, foundations, power and fiber optic leads, LCSs, etc.  
**Per the RFP, two LCS shall be visible at all times with minimum 500-foot spacing. The 500-ft spacing is the minimum and can be exceeded as long as two LCS are visible at all times. The Design-Builder shall be responsible for verifying the visibility of the LCS to meet this requirement. RFP Part 2, Section 2.10.3 will be modified in Addendum #1 for clarification.**
  
  - 6) Please provide existing communications infrastructure plans for the area south of Station 140+00.  
**The communication plans/network diagrams are classified as Critical Infrastructure Information (CII) and Sensitive Security Information (SSI) and may only be provided on as needed basis to Design Builder. Offerors desiring to obtain copies of the communication plans/network diagrams must complete a CII/SSI Non-Disclosure Agreement Form (Attachment 11.8.8) as prescribed in Part 1, Section 11.8.8 of the RFP.**

- 7) TL-5 bridge pier protection is required at Old Dominion Drive, Georgetown Pike and Live Oak Drive. The plans appear to show this requirement on one side of the bridge pier only. The existing pier protection appears to be a monolithic barrier approximately 6-8 feet wide. Please clarify what is actually required in these locations. Are we removing and replacing the entire existing pier protection on both sides of the freeway?  
**TL-5 pier protection is required on NBL side of bridge piers only. The Offerer is responsible for developing details for modifying the existing barrier to incorporate TL-5 barriers specified for the NBL side. Existing barriers are NOT monolithic with the bridge piers. Rather, they appear to be monolithic with the barriers on the SBL side of the piers. In lieu of modifying existing barriers at bridge piers, the Offerer may choose to completely remove existing barriers located around bridge pier and replace them with TL-5 barriers on the NBL side of piers (as required by RFP) and MB-7 median barriers on the SBL side of piers.**
- 8) RFP plan sheet 2A(1) states glare shields will be replaced where impacted or damaged. Please clarify if this is correct. If not, please provide the station limits that glare shields will be removed and replaced.  
**All glare shields are to be replaced. The note has been revised accordingly in the RFP Conceptual Plans and RFP Part 2, Section 2.8.3, which will be included in Addendum #1.**
- 9) The RFP plans 4 and 5 show modifying the existing median barrier at stations 124-130 and 132-139 plus or minus. The typical sections show barrier modifications from 115-211 which could be interpreted as transitions for new sign structures only. Please provide the station limits where the barrier modifications will be required as shown on plan sheet 2A(1) details 1, 2 and 3.  
**The existing Median Barrier shall be modified in the following conditions:**  
**a) All substandard locations**  
**b) Areas that needs modifications due to cross slope correction.**  
**c) At locations of new sign structure installation, new Median Barrier with proper transition shall be required.**
- 10) Please clarify if the full depth patch / joint repair detail shown on plan sheet 2A(1) is partial depth (asphalt paving only) as shown or full depth (including the concrete paving).  
**The joint repair will be to the full depth including the full PCC depth. The detail on sheet 2A(1) of the RFP Conceptual Plans will be revised for clarification in Addendum #1.**
- 11) Please confirm no sound walls are required for this project.  
**It was determined from the Final Design Noise Analysis that no mitigation measures are required for the Project. A copy of the Final Design Noise Analysis Report dated December 2013 is included in the RFP Information Package. Any changes in the scope or footprint of the established basic Project concept, proposed by the Design-Builder and acceptable to VDOT, may require a reevaluation of the Final Design Noise Analysis consisting of but not limited to additional traffic noise modeling to be performed by the Design-Builder at their cost. Please also refer RFP Part 2, Section 2.4.8**
- 12) The technical requirements 2.8.2 states substandard guardrail will be removed and replaced on this project. Please provide the information required to determine where this will be required.  
**There are four runs of existing guardrail within the project limits. From Station 120+00 to 125+50, the existing guardrail will be replaced as a result of the widening for the full shoulder width. From Station 157+47 to 158+80, Station 162+89 to 164+50 and Station 180+50 to 182+78, the Design- Builder will be responsible for evaluation of the existing guardrail to determine the amount of replacement that will be required.**
- 13) The technical requirements sections 2.1 Sample Equipment and 2.13 Support Equipment list additional ITS equipment to be provided to VDOT. Are these list duplicated or do we supply all of this equipment?

**The Design-Builder shall provide sample equipment as necessary for VDOT to use with software integration per Part 2, Section 2.10 and shall provide support (spare) equipment as indicated in Part 2, Section 2.13. Sample equipment may be used as support equipment.**

- 14) The technical requirements (page 43 of 85) states a movable barrier system will be required. We are assuming one movable barrier is required. Please clarify how many movable barriers are required and identify their locations.  
**One moveable barrier system will be located based on coordination with VDOT during final design. The movable barrier system is further defined in the Special Provision for Movable Barrier, included in the RFP Information Package.**
- 15) The RFP plans 3 thru 10 show the amount of joint repair required for the project. How will any additional joint repair be paid if the D-B exceeds the amount shown on the plans?  
**For the purpose of Price Proposal development, the Offeror can assume the length of the joint repair is as indicated on the RFP Conceptual Plans. Any additional amount of joint repair will be paid by work order.**
- 16) Technical Requirement page 56 of 85 states fiber optic hubs are available for the D-B to connect to throughout the project. Please provide the stations and offsets of these hub locations.  
**There is no Field Hub located within the project limit.**  
  
**Please see question 6 for information regarding communication plans/ network diagrams.**
- 17) Technical Requirement page 46 of 85 states multiple fiber optic crossings of I-495 will not permitted. How many crossings are allowed?  
**Multiple crossings will be permitted. The Design-Builder's final design shall minimize the number of crossings. RFP Part 2, Section 2.9.1 will be modified in Addendum #1.**
- 18) Page 48 of 85 states junction boxes and manholes will not be permitted in the shoulder travel lane, but that traffic bearing manholes may be installed in the area adjacent to the travel lane shoulder. Will the contractor be allowed to install fiber optic/power conduits using a trenching method in between the edge line and the median barrier in the left shoulder area?  
**Fiber optic and power conduits runs should be installed in accordance with the RFP, VDOT Standards and IIM-LD-230.1. Trenching will be permitted between the edge line and the median barrier based on the final approval of plans by VDOT.**
- 19) Will trenching be allowed to install power and fiber on the right shoulder?  
**Fiber optic and power conduits runs should be installed in accordance with the RFP, VDOT Standards and IIM-LD-230.1.**
- 20) Technical Requirement page 33 requires crack sealing the existing paving after the 4" milling is performed. The linear feet of crack sealing and crack width are undeterminable at this point. Would you please consider a contingent quantity to perform this work to be adjusted when the correct amount can be determined after the milling is performed?  
**Crack Sealing quantities can be estimated based upon sealing the reflective cracking evident on the surface of the existing pavement. No contingent quantity/ quantity adjustment will be allowed.**
- 21) A Utility Meeting was not held for project and time for utility coordination with owners is abbreviated. Can VDOT confirm the statement made at the Pre-Proposal Meeting that they are not aware of any utility conflicts other than those relating to VDOT and ITS systems?  
**VDOT has shared all known information related to utilities in the RFP and RFP information package. It is the Design-Builder responsibility to coordinate all utility relocations including determining the extent of utility conflicts.**

- 22) RFP Part 1, Section 4.2.7: Please confirm that maintenance of traffic plans are not required as part of the submittal for RFP Conceptual Plans.  
**Maintenance of traffic plans are not required as part of the Letter of Submittal.**
- 23) RFP Part 1, Section 6.2: Please confirm that there is no maximum page limit for the overall Proposal.  
**There is no overall proposal page limit. Refer to Part 1, Section 4 for the contents required for each proposal submittal and RFP Part 1, Section 6.2 for page limits for specific forms.**  
**Addendum #1 will include a revision to RFP Part 1, Section 6.2.2 and Section 6.2.4 with regards to the timing of the submittal of the Key Personnel Resume forms.**
- 24) RFP Part 2, Section 2.1.3: RFP Part 2, Attachment provides a summary of the required exceptions and their associated mitigation measure; Note 2 of that attachment refers to the individual Design Exceptions for details. Can full copies of the Design Exceptions be provided?  
**Design Exceptions will be provided to the successful Offeror upon final approval from FHWA.**
- 25) RFP Part 2, Section 2.2: The title sheet of the RFP Plans provided in the information package shows that all curves are to be "...super elevated, transitioned and widened in accordance with VDOT St'd TC 5.11R..." The criteria listed in Attachment 2.2 does not include VDOT St'd TC 5.11R. What is VDOT's intent regarding reconstruction of the I-495 super elevation for the northbound lanes?  
**Superelevation and transitions shall follow TC 5.11 R.**
- 26) RFP Part 2, Section 2.21.5 Plan Submittals (Page 80 of 85): How many hard copies of paper plans are required for the submittals listed?  
**Paper submittals shall be in accordance with the quantities specified in Part 2, section 2.21.5.**
- 27) Design Exception Table, DE Number 2, Inside Shoulder SB at Sign Structures: high retro-reflectivity tape and high contrast delineators are to be added due to the "blisters" for sign structures. What are the minimum limits for this treatment?  
**The limits of the retro-reflectivity tape and high contract delineators are the limits of the "blister".**
- 28) The typical sections specify a minimum of 4" milling will be required. It appears the asphalt depth may be less than that in several borings. Do we mill a minimum of 4" or to the top of the underlying concrete base (whichever comes first)?  
**The milling shall be 4" or to the top of the concrete base if less than 4" of asphalt exists.**
- 29) Can we install the full depth asphalt joint repair prior to the 4" milling in order to expedite the project?  
**Yes, the full depth asphalt joint repair can be completed prior to the 4" milling operation**
- 30) The typical sections call for a minimum of 4" of milling which exceeds the 2" maximum drop off. This is further complicated by the joint repair and crack sealing which must precede repaving. Can we mill the entire width of the beltway 4" prior to joint repair and cracking sealing work?  
**Sequence of construction and maintenance of traffic is the responsibility of the Design-Builder. If the Design-Builder chooses to mill across all 4 lanes, surface drainage must be maintained as well as smooth transitions. Temporary striping and maintenance of the milled surface will also be the responsibility of the design builder. This is an acceptable option to the above conditions.**
- 31) If we can't mill the entire width of the beltway 4" as mentioned above, can we mill the entire width of the beltway 2" and then mill each lane individually until the that particular lane is repaved to minus 2"?  
**Sequence of construction and maintenance of traffic is the responsibility of the Design-Builder. If the Design-Builder chooses to mill across all 4 lanes, surface drainage must be maintained as well as smooth transitions. Temporary striping and maintenance of the milled surface will also be the responsibility of the design builder. This is an acceptable option to the above conditions.**

32) VDOT normally requires the contractor to repave milled areas within 14 days. What will be the maximum time limit milled areas can remain open to traffic considering the other work involved prior to repaving?

**The maximum time limit milled areas can remain open to traffic is 14 days as defined in the Special Provision on Cold Planning Asphalt Concrete Operations to be included in the Addendum #1.**

33) Temporary median barrier protection will be required to construct the new concrete barrier and ITS work in between the inner and outer loops. Will the contractor be required to use temporary medians barriers continuously in both directions for the length of the project or will the contractor be allowed to protect the immediate work area only with temporary concrete barriers while utilizing drums for the remaining shoulder closure in the non-work areas?

**The use of temporary concrete barrier versus drums shall follow VDOT's Work Area Protection Manual and other applicable VDOT standards and policies. Maintenance of Traffic plans shall be approved by VDOT prior to installation.**

34) Technical Requirements page 50 of 85 states the shoulder monitoring fixed cameras shall be sufficient to allow for shoulder lane incident detection method selected by VDOT NRO. Page 53 states the SLMS system shall be based on advanced analytics that incorporate field of view pixel comparison technologies. Is this the method selected by VDOT NRO as referred on page 50?

**The method of shoulder lane monitoring selected by VDOT NRO is described in RFP Part 2, Section 2.10.6 (i.e. advanced video analytics).**

35) The title sheet of the RFP Plans provided in the information package shows that all curves are to be "...super elevated, transitioned and widened in accordance with VDOT St'd TC 5.11R..." Looking at the provided terrain model 105130.tin, there will be considerable wedge and level to meet this requirement. The high side pavement elevation will rise about 7 inches of each 1% of super correction.

**Build up has been included in the project. VDOT will allow "barn roofing" of the cross slope in tangent sections per AASHTO criteria to minimize the median side elevation rise.**

- a. We do not see a wedge and level mix specified; is this left up to the Design Builder to decide?  
**The buildup is shown on the typical section in the RFP Conceptual Plans as BM-25.0D (item 3).**
- b. Can the Barrier Modification Detail on Sheet 2A(1) of the RFP Plans be used as shown with an increase in the median pavement edge of greater than 7 inches?  
**The barrier modification detail shown in the RFP Conceptual Plans can be used. Note that the barrier height is measured from the final finished grade of the pavement.**
- c. RFP Part 2 Section 2.6.2 (Page 34 of 85) states "...embankment fill slopes shall not be steeper than 2H: 1V." Where the outside pavement edge is raised greater than 7 inches, this will result in a sliver fill chasing the slope all the way to the bottom. Is this VDOT's intent?  
**Sliver fills are not anticipated based on the preliminary design layout.**
- d. Where required wedge and level is greater than 4 inches on existing travel lanes, can the 4 inches of milling be reduced? Can more than 4 inches be milled?

**4" of milling is a minimum requirement unless the concrete base is less than 4" in which case it is the concrete.**

- 36) We cannot find survey information in the reference information for anything outside the existing pavement. Because of the possibility of super elevation correction raising the outside shoulder elevation, plus the widening shown on RFP Concept Plan Sheets 4 through 8 and the 2:1 maximum side slope, there is likely going to be earthwork well beyond the limits shown in the Concept Plans. There is no way for bidders to know the extent of required earthwork, nor possible utility, environmental, sound wall and property impacts. Because of the snow currently piled up off the shoulder, bidders will not likely have an opportunity to obtain their own survey. Is there any information VDOT can provide bidders to help determine the extent of earthwork required off the outside shoulders?

**Earthwork outside the shoulder limits is limited since the majority of the project is constrained by retaining/noise walls. The locations where earthwork may be required are generally at the interchanges where grading should be limited.**

- 37) RFP Part 2 Section 2.6.1 (page 33 of 85) The Minimum Pavement Sections lists 2.5 inches of BM-25.0D+0.4 on the existing travel lanes. Is it acceptable to VDOT to have traffic run on this HMA mix for a long period of time? On sheets 2A(3) and (4) of the RPF plans, in Inset A, should bubble note 7 be a 9? In Inset B should bubble note 6 be an 8, and should bubble note 5 be a 6?

**For this project, there is no limit on the length of time that traffic may be permitted on the BM-25.0D+0.4 (HMHB, PG 70-22) provided a Material Transfer Vehicle (MTV) is used for placement to minimize segregation. The design-builder will be responsible for patching any potholes that develop and maintaining acceptable skid resistance for the duration that the BM-25.0D+0.4 is exposed to traffic. Insets A and B on sheets 2A(3) and 2A(4) have been updated and will be included in the RFP Conceptual Plans in Addendum #1.**

- 38) On sheets 2A(1) through (4) of the RPF plans, in the Full Depth Patch/Joint Repair details, Bubble notes 1 and 8 appear to be pointing to the same layer, but the legend lists 1 as 1.5 inches thick and 8 as 4" thick minimum; what is the thickness of the top layer of this patch? Bubble note 3 is listed as Variable Depth; is the Design Builder to determine the thickness of this layer?

**The final surface thickness is 1.5". The thickness of the BM-25.0D in the joint repair is the remaining thickness of the existing asphalt above the existing concrete plus the thickness of the existing concrete. The detail has been revised and will be included in the RFP Conceptual Plan in Addendum #1.**

- 39) The Geotechnical Data Report (GDR) provided test boring logs with natural moisture contents. However, GDR does not include VTM-1 Proctor and VTM-8 CBR laboratory test results in order to estimate the limits of unsuitable materials. Are there any VTM-1 Proctor and VTM-8 CBR laboratory test results for use in estimating the limits of unsuitable soils? If not, what values for optimum moisture content and CBR values should be used to estimate the limits of unsuitable material and methodology for correcting the unsuitable soils?

**No VTM-1 or VTM-8 tests were performed specifically for this project. Per RFP Part 2 Section 2.6, the Design-Builder is required to perform a geotechnical investigation in accordance with Chapter 3 of the Materials Division's Manual of Instructions. Unsuitable materials and methods of treatment are defined in RFP Part 2 Section 2.6.3.**

- 40) In Section 8.2 of the GDR, the required minimum CBR value is indicated to be 5. Is the laboratory or design CBR value?

**This is the laboratory CBR value.**

- 41) Has this project been “Grandfathered” to use the Performance Based Technology Method (rather than the Runoff Reduction Method) for analysis of Storm water Management?

**This project will use performance based method as stipulated in RFP Part 2, Section 2.7.3.**

- 42) Is it the responsibility of the DB Team to upgrade the existing storm drain systems and outfalls that do not comply with current VDOT requirements into compliance with current VDOT requirements where there is no change (increase) to the flow?

**As noted in RFP Part 2 Section 2.7.1, if after award the Design-Builder determines that the serviceability and functionality of the existing pipes and culverts requires rehabilitation or replacement of some or all of the structures, then it shall be done only with VDOT’s approval under work order.**

- 43) We understand the Design Builder is responsible to locate existing utilities. We also see the RFP Concept Plans show several existing utilities crossing the project area (presumably plotted from records.) How extensive was VDOT effort to show existing utilities on the Concept Plans? Were all utility companies contacted? Did any not respond? Did any respond that they had no facilities in the project area?

**See response to question 21.**

- 44) RFP Part 2 Section 2.18 (page 73 of 85) states “The Design-Builder shall verify the prior rights of each utility’s facilities if claimed by a Utility owner. If there is a dispute over prior rights with a utility, the Design-Builder shall be responsible for resolving the dispute. “Since VDOT and not the Design Builder has legal authority over the right-of-way and over the utility companies’ occupation of the right-of-way, what services will VDOT provide to help resolve prior rights claims?

**VDOT will confirm any active utility permits within our Right of Way.**

- 45) It appears the existing roadway may need to be raised approximately 7” in some areas to meet the required super elevation requirements. This may present a potential vertical clearance problem with one or more of the existing sign structures. There does not appear to be sufficient information in the documents to determine this prior to bid. Would this be considered a change to the contract if this fact is discovered during the design phase after the award of the contract?

**For the purpose of price proposal, assume no sign structures will have to be replaced due to substandard vertical clearance.**

- 46) There is a proposed shoulder pull off shown on RFP plan sheet 4. That same area has an existing sound wall that was recently installed by the Hot Lanes contractor. Was the design of the sound wall alignment and the design of the emergency shoulder pull off coordinated where no sound wall modifications will be required by this contract?

**The right shoulder area on sheet 4 is not an emergency pull off area, it is an area where the full shoulder width can possibly be provided without impacting the new soundwall.**

- 47) That same area appears to require fill in order to construct the emergency shoulder pull off. There are no elevations or cross sections in this area. If required, will the D-B be allowed to place fills against the sound wall as necessary to construct this area without modifying the sound wall or building retaining walls to accommodate same?

**Shoulder width shall be maximized at this location to the extent possible without impact to the existing retaining/sound walls.**

- 48) RFP plan sheet 3 and 10 show the limits of paving required for the project. The paving limits end at the same location as the shoulder improvements. Existing traffic lanes will have to be shifted laterally

in order to provide temporary concrete barrier protection for the work area. This will require pavement marking eradication, temporary striping and potentially milling and overlaying of the transition areas which is not reflected in the current RFP plans. Will this be required in these areas?

**Maintenance of Traffic Plans shall be submitted by the Design-Builder for VDOT review and approval as noted in the RFP Part 2, Section 2.15.1. All transition requirements will be the responsibility of the Design-Builder.**

- 49) Due to the volume of work required, the delayed notice to proceed, the December 31<sup>st</sup> interim completion and potential weather impacts on surface asphalt paving, would VDOT consider a 2 step notice to proceed process? One notice to proceed for the design/submittal process and another notice to proceed for the construction work.  
**VDOT will issue only one Notice to Proceed after Contract Execution in accordance with RFP Part 1, Section 8.4.2. All required work shall be scheduled by the Design-Builder in order to meet the contract completion dates.**
- 50) Will the answers to the RFI questions be binding and incorporated in the contract?  
**The answers to the RFP questions serve as guidance and interpretation of the RFP requirements and are not incorporated into the contract. The contract is composed of the Contract Documents including any Addendums to the RFP.**
- 51) The schedule for this project is not achievable without changes to the normal Design Build procedures. Reference Part 2, Section 2.7.2, Page 38 of 85 (bottom of the page) – this section deals with Permits for ESC, SWM Plan and SWPPP. The Contractor is required to allow up to 90 days for release to start work, from the VDOT PM, after submission of our plan. The project cannot be completed on time if this requirement must be met. Will VDOT authorize work to begin on the full depth shoulder reconstruction at NTP, based on the RFP plans? If not, normal design submissions and approvals will take up approximately 2 months of the schedule. The asphalt surface must be in place by early October due to nighttime temperatures dropping below 50 Degrees, this does not give enough time with the lane closure restrictions. Sign structures take a minimum of 6 months to obtain delivery after the supplier has the foundation boring results in hand, if we do not start work until NTP, we cannot meet the substantial completion milestone. Will VDOT authorize design and field investigation work to begin at Intent to Award to gain time on the schedule?  
**Taking the aggressive schedule into consideration, VDOT will work with Design-Builder to expedite the submittal reviews to the extent possible. The Design-Builder shall schedule all required work in order to meet the contract completion dates.**
- 52) Referencing the aggressive schedule, paving window and scope which requires geotechnical borings, design, approval, shop drawings and fabrication of sign/ITS components that can easily span six months, will VDOT commit to expediting submittal reviews in order to achieve substantial completion by December 31<sup>st</sup>, 2014? If so, please specify review cycle time.  
**Taking the aggressive schedule into consideration, VDOT will work with Design Builder to expedite the submittal reviews to the extent possible. The Design-Builder shall schedule all required work in order to meet the contract completion dates.**
- 53) Referencing RFP Plan sheets 2A(1 thru 4) – Detail note “8” states “Mill and Overlay Existing Pavement Minimum Depth of 4”. Please confirm the 4” dimension is both for the mill and overlay. Further, is the intent of the milling to take off 4” only or to mill down to the existing concrete pavement?  
**Unless otherwise noted in the RFP Conceptual Plans, the intent is for 4” of mill and overlay to be provided. Additional buildup may be required to adjust cross slopes in some locations.**
- 54) Referencing the “Full Depth Patch/Joint Repair” detail on plan sheets 2A(1 thru 4), the detail depicts saw-cut depths to top of PCC only and material replacement on top of the PCC only. Is it VDOT’s intent to saw cut and remove the PCC section also and replace with new material? If so, please revise detail to clearly reflect this and identify what type of material replaces the PCC section. What is the intent if we encounter unsuitable subbase and/or subgrade?

**See response to question 10.**

- 55) The RFP documents determine the quantity of Joint Repair, if the quantity overruns will we be provided a work order to perform the extra work?

**See response to question 15.**

- 56) What will be the procedure if deteriorated concrete is encountered when we expose the joints required to be sealed only?

**VDOT Materials will evaluate any additional repairs required beyond sealing in those areas on a case by case basis at that point in time.**

- 57) Referencing RFP, Section 2.4.2, please confirm the 60 day "burn-in" period for all ITS related devices is post-substantial completion.

**The 60 day "burn-in" period for ITS devices may be post Interim Milestone and must be successfully completed no later than Final Completion date.**

- 58) Referencing RFP, Section 4.4, Notice of Intent to Award is on a Friday, please confirm it is VDOT's intent to receive Post Notice of Intent to Award Submittals within 3 calendar days as opposed to 3 business days.

**The submittal is due 3 calendar days after Notice of Intent to Award.**

- 59) Referencing RFP, Section 2.6.1 which states "the existing outside shoulder shall be demolished to within 2 feet of the existing outside jersey barrier (adjacent to existing sound barrier or retaining walls)" seems to be in conflict with the details on plan sheets 2A(1 thru 4) which show a proposed underdrain at the face of the barrier which in turn would require removal of the pavement section to the face of the barrier or wall. Please clarify the intent.

**The statement refers to the station range on sheet 2A(3) in front of the newly constructed sound wall and barrier where existing underdrain exists.**

- 60) The asphalt overlay of existing pavement will involve varying thicknesses in order to shift the roadway crown. Should there be an asphalt mix for Intermediate IM-19.0A included in the Contract to accommodate overlays in the area of 1.5" to 2.5"; utilizing BM-25.0 in overlay areas of less than 2.5" could be problematic?

**The BM-25.0 buildup would be included in the 2.5" minimum BM-25.0 layer, so there should always be at least a 2.5" layer of BM-25.0.**

- 61) In the first paragraph on page 33 of 85 (Section 2.6.1 of Part 2), the direction is given "After milling, all cracks shall be cleaned of all debris and sealed with a Type B crack sealant in accordance with the Special Provision Sealing Cracks in Asphalt Concrete or Hydraulic Cement Concrete Pavements, dated November 25, 2013." Is the intent of this provision to clean and reseal all transverse and longitudinal joints over the entire area of the mill and overlay? How much time has been allocated to the schedule for this work? If the entire network of joints is to be cleaned and resealed and assuming we are to maintain traffic as per other sections of the RFP, that work will take many nights and greatly impact a schedule already stretched to the point of failure.

**Yes, the intent is to clean and reseal all cracks prior to the build up/ overlay. Construction operations and time allocation will be Design-Builder's responsibility to meet the schedule requirements of the project.**

- 62) Notation no. 1 on the Typical Sheets (pages 2A(1) thru 2A(4)) refers to "Surface – 1.5" Stone Matrix Asphalt, SMA-9.5E (PG76-22)". This mix designation is mixing two separate types of Superpave Asphalt mixes. Is the intent of the Contract to use either Stone Matrix Asphalt SMA-9.5 (PG76-22) or Superpave Asphalt SM-9.5E? Please clarify.

**Note 1 has been corrected to 1.5" Stone Matrix Asphalt, SMA-9.5 (PG 76-22)" in the RFP Conceptual Plans and will be included as part of Addendum #1.**

- 63) Please clarify that the confirmation of existing elevations and comparison to the specified 4" mill and overlay be included in the Issues to be explored and adjusted during the Scope Validation Period.  
**Quantities for milling and overlay shall be estimated based on the preliminary survey data provided in the RFP Information Package. The Design-Builder will have the opportunity to verify the accuracy of the survey during the Scope Validation Period.**
- 64) If there are differences in the depths of the existing asphalt overlays from the specified 4" (assuming we are to mill to top of existing concrete), will an adjustment be made to the Contract to account for additional milling and paving required to accomplish the work required?  
**There is no requirement to mill to the top of existing concrete unless the concrete is less than or equal to 4". See also response to question 63.**
- 65) What is the typical section of the existing left shoulder of the NB I-495?  
**The current left shoulder is full depth pavement.**
- 66) There is a discrepancy for the superelevation required for curve C4. The alignment data sheet (IE(3)) requires a superelevation cross slope of 7.95%. The typical sections on sheet 2A(4) show a cross slope of 1.5% to 2.0 %. The existing cross sections show an average cross slope of 6%. Please clarify. Are we to match existing or increase the cross slope?  
**The curve is to be designed in accordance with TC-5.11R as indicated on the title sheet and sheet 1E(3). The typical sections shown in the RFP Conceptual Plans indicate typical cross slopes in tangent sections only and are not intended to provide superelevation information. The superelevation and transitions are to be designed by the Design-Build Team.**
- 67) Rumble strips are not detailed on the RFP plans or mentioned in the proposal. The existing shoulders do not have them. Are rumble strips to be required?  
**Rumble strips are not required.**
- 68) The typical section on Plan sheet 2A(1) for stations 115+77.64 to station 123+27.00 shows a proposed concrete barrier on the right side. We assume that this is a drafting error. Please clarify and confirm if your intent is to replace existing concrete barrier with a new concrete barrier between these stations.  
**The existing concrete barrier at this location is not to be replaced. The typical section was revised in the RFP Conceptual Plan to show this barrier as existing. This will be included as part of Addendum #1.**
- 69) Other than fiber conduits, the plans don't show any relocation of utilities such as water, sewer, gas, telephone, fiber, cable, and electric. Please confirm that there aren't any of these utilities within the project limits that will require relocation and/or coordination with the respective utility companies?  
**See response to question 21.**
- 70) In section 2.5 of Part 1, reference is made to the fact that the survey that was performed to generate the Design plans is not represented to be complete for this project. It also makes reference to obtaining right-of-way and land use permits. However, at the pre-bid meeting it was clearly indicated that there will not be any right-of-way acquisition under this contract if the scope of services are followed as shown on the plans. Other than designating the VDOT traffic management utilities and the drainage facilities, please clarify what additional survey services still are required to address the scope of services as shown on the plans.  
**Per RFP Part 2, Section 2.5, the Design-Builder is responsible for evaluating the survey provided and determining the amount of additional survey necessary to supplement the preliminary survey for the Design-Builder's design purposes.**
- 71) Will all of the electronic analysis files for drainage area and discharge computations, spread calculations, and analysis worksheets for the drainage analysis be provided to the successful Design-Build Team?

**The department has shared the preliminary drainage report in the RFP information package. It will be Design-Builder's responsibility to do final hydraulic design.**

- 72) Under Section 2.6.2, Geotechnical Requirements, reference is made to design of retaining walls and sound barrier walls. At the pre-bid meeting, it was indicated that none of these services are required if the scope of services is followed as shown on the conceptual design plans. Please clarify and confirm that such design services are not required.

**Under the current concept shown in the RFP Conceptual Plans, no proposed retaining walls or sound walls are anticipated. If the concept is changed and retaining walls or noise walls are required as a result of the Design-Builder's unique design, they will be the responsibility of the Design-Build team.**

- 73) Section 2.8.2 Guardrail/Barrier of Part 1 indicates that existing substandard guard rail within the project limits must be upgraded by the Design-Builder to meet current standards. However, none of these locations are identified on the conceptual design plans. Please clarify and identify what is required.

**See response to question 12.**

- 74) Under section 2.8.3 Concrete Median Barriers/Median Barrier Modification, it is indicated that the Design-builder is responsible for design of crash worthy barrier sections if the junction boxes in those sections are not operational. Does VDOT have any current field records or as-built plans that can be made available to us now to identify whether these junction boxes and appurtenances are live and in service?

**VDOT may or may not have the As Built records depending on when the structure was installed. The successful offeror shall work with VDOT to identify operational and non operational junction boxes and other appurtenances.**

- 75) Also, under section 2.8.3, it indicates that sections of barrier modifications exhibiting cracks larger in size than 0.012 inches shall be removed and replaced (minimum length of barrier modification to be removed and replaced shall be 5 feet). Does VDOT have any field record of those locations that shall be replaced that can be made available to us now?

**The language applies to the newly modified Median Barrier.**

- 76) Section 2.9.5 ITS Communications and Power Upgrades, it is indicated that all existing ITS devices within the project limits that currently operate using wireless communications and any power other than hardwired electrical service shall be upgraded by the Design-Builder. However, the Conceptual design plans don't designate those devices. Does VDOT have record of these specific devices that will require to be upgraded that can be made available to us now?

**The RFP Conceptual Plans do indicate devices where communication and power upgrades are anticipated (see Plan Sheet No. 12(6) as an example). It is the Design-Builder's responsibility to review all RFP documents.**

- 77) Section 2.10.5 Vehicle detection, states that the Design-Builder shall upgrade all existing MVDs that are not compatible with VDOT's central system software and meets the requirements of the RFP. Does VDOT know which MVDs don't meet the VDOT's central system software and can you provide us the location of these devices?

**The current functionality of existing detection is based on solar power and none have fiber communication settings. It will be Design Builder's responsibility to determine which MVDs require upgrading to meet the RFP requirement of hardwire power and communication link.**

- 78) Under section 2.12 Inspection, Integration, and Testing of Intelligent Transportation System, please clarify the following statement "any system failure of Design-Build supplied equipment or discovery of deficiency that causes a system failure shall be cause to halt and repeat the Acceptance Test in its entirety for another full 60-day period after correction of problem." Please clarify how this applies to the separate ITS devices provided under this project.

**Critical systems such as shoulder monitoring and lane control consist of a collection of separate ITS devices and malfunction on one (i.e. fixed CCTV or LCS) will break the 60 consecutive days cycle of full functional system and require repeating the test.**

79) With reference to the existing ITS duct bank; can we break into the existing 20 conduit duct and break out a conduit to a new junction box at each device or do we need to run conduit from each device to the nearest existing junction box or manhole of the existing duct bank.

**Breaking into the existing duct will not be permitted. The Design-Builder may acquire access at the nearest existing junction box or manhole, subject to VDOT review and approval of the Design Builder communication plans and network diagrams.**

80) Can we use the undesignated spare fibers in the 12 & 24 count taps on the north side?

**Use of spare/unassigned fiber will be permitted, subject to VDOT review and approval of Design Builder communication plans and network diagrams.**

81) What is the configuration, number of spare conduits and existing fiber available for use in the existing hot lanes power and fiber duct bank from the beginning of the project at Lewinsville Rd to @ station 145 where it connects to project 931?

**Please see the response to question 6 regarding accessing the communication plans/ network diagrams.**

82) Will we need to run a 96 count fiber between Old Dominion Drive & Georgetown Pike or will we be permitted to use spare fiber ( if any) in the Hot Lane system west of MM 43.9.

**After review and approval of the Design-Builder proposed communication plans and network diagrams, VDOT will allocate fibers for use in this Project per RFP Part 2, Section 2.11.3.**

83) Special provisions for CCTV Video Equipment in paragraph 7(g) indicates that standard CCTV poles are 40, 45, 60 & 80 feet with the 60 & 80 foot poles provided with lowering devices. However, the special provision for ITS Support Structures lists only 50 & 80 foot poles ( 50 was not a standard pole in the afore mentioned document, please clarify what size poles are permitted or preferred).

**CCTV Cameras for general visual monitoring shall be installed in 50 foot or 80 foot pole per Part 2, Section 2.3.2.4 of the RFP. When 80' pole is used, the lowering device is required. The critical requirement for the height of the pole is the CCTV viewing coverage. See also, the response to question 4.**

84) Part 2, Section 2.3.2.7, page 21 of 85, specifies that existing sign structures can be reused provided they meet all current standards, have a minimum 6 bolt pattern, and have the required vertical clearance. Existing sign structures not meeting this criteria will not be reused and will be replaced. The RFP drawings show that the existing sign structures at SB 125+25, SB 134+75, and NB 200+50 must be modified to accept video camera installation. The RFP drawings also show the existing sign structure at NB 149+25 must be modified to accept a new sign, an LCS and video cameras. Will VDOT make the shop drawings for these 4 sign structures available prior to bid, so that we may evaluate these sign structures for conformability to the technical specifications?

**VDOT may or may not have the specified shop drawing records depending on when the structure was installed. If the Bidders wish to review the shop drawing prior to the price proposal submission, they may contact Mr. Mohamedsharif Munshi ((703) 259-1214) of the Northern Virginia District Structure and Bridge Division for any available shop drawings. Bidders will be responsible for the coordination efforts in obtaining the drawings on a timely basis. It will be Design-Builder's responsibility to verify the information shown on the drawings.**

85) In the Pavement section, [Sheet 2A(1), Inset "A"], the 2.5" layer (Layer #2) is identified as BM-25.0. Can IM 19.0 be used instead for such a thin lift?

**No. The pavement section defined in the RFP Part 2 and the RFP Conceptual Plans should be used.**

- 86) Please identify the location of the "movable barrier".  
**The moveable barrier system will be located based on coordination with VDOT during final design.**
- 87) Will the project be required to meet the interim storm water management regulations, or will it be grandfathered/excepted?  
**See response to question 41.**
- 88) Can personnel experience of the design staff be used for the lead designer work history form?  
**The work history included on the Lead Designer Work History Form must represent the Work History of the lead design firm.**
- 89) Are there any restrictions for which projects can be used on the lead designer work history form?  
**The requirements for the work history to be included in the Lead Designer Work History Form is defined in RFP Part 1, Section 4.2.6.**
- 90) The RFP documents contain existing ITS plans for the portion of the project north of Georgetown Pike. Those plans show duct banks with spare conduits. Technical requirements page 46 of 85 states the D-B shall install or use existing conduit. Please specify which conduits are available for use on this contract.  
**Please see the response to question 6 regarding accessing the communication plans/ network diagrams.**
- 91) The contract requires the D-B to bring the existing pavement super elevations up to current standards. The technical requirements also state that the D-B will submit a new load rating and modify bridge joints at Scotts Run if required. Based on our calculation the new super elevation at Scotts Run will add about 7" of new asphalt to that bridge deck at the base line. The typical section page 2A(2) limits the mill and overlay of Scotts Run Bridge to 2" maximum. Please clarify if the 2" mill and overlay as shown on the typical sections is correct and if the above mentioned cross section supersedes the technical requirements.  
**The 2" mill and overlay is correct on the bridge, but the buildup to shift the crown point on the bridge is not included in the mill and overlay.**
- 92) It appears that in order to bring the project up to current super elevation standards will require an additional 2 feet of elevation increase at curve C2 and an additional 2.5 of elevation increase at curve C4. Please clarify if this magnitude of change is what you envisioned for this contract.  
**Under the current concept, it is anticipated that there will be elevation increases based on the TC-5.11R superelevation requirements. The Design-Build Team should minimize the increase in elevation where possible.**
- 93) We are concerned we may exceed the original median barrier footing design capacity in the event 2 to 2.5 feet of elevation change is required and the median barrier is modified in accordance with the details shown on RFP Plan 2A(1). Will the D-B be paid for the additional costs to remove and replace the median barrier and footing in the event the current proposed median barrier modifications are not viable?  
**It is the Design-Builder's responsibility to estimate the amount for barrier replacement and/or barrier modification and include in their Proposal Price .**
- 94) Section 2.3.1A Structure Load Rating states that a new load rating may be required for the Bridge on NBL I-495 over Scotts Run. Since there is a possibility of substantial super elevation adjustments at that bridge that will adversely impact the load rating, please confirm the course of action VDOT would take should the load rating identify upgrades other than joint replacement and load restriction signs being placed at the approaches.  
**For purpose of Price proposal, assume no additional work other than that already included in the RFP would be required due to change in load rating. The Design Builder will be responsible to check the Bridge Load rating after all the adjustments are made.**

**In general, if the HL93 Rating Factor for an existing bridge (i.e. existing / unmodified conditions) is greater than or equal to 1.0 at the inventory level, then the HL93 inventory rating factor for the modified bridge shall be greater than or equal to 1.0. If the HL93 Rating Factor for the bridge (under existing conditions) is less than 1.0 at the inventory level, then the HL93 inventory rating factor for the modified bridge shall be greater than or equal to the inventory rating factor for the unmodified (existing) bridge.**

**Please note that the Load Factor Method was used for the load rating of the existing bridge. As required by current version of IIM-S&B-86, the LRFR method will be required for the load rating of the modified bridge (the VIRTIS .XML file for the bridge is available and will be provided to the successful bidder)**