Call 02 ITS Installation on I-10 from Harrison/ Jackson County Line to Alabama State Line, known as Federal Aid Project No. HSIP-0010-01(150) / 106964301 in Jackson County.

Q1. Is it the intent for the trench line for the main trunk line to be placed on the back side of the ROW or to be placed along the existing tree line? If the trench line is placed on the back side of the ROW, this will increase the quantity of clearing and grubbing.

A1. It will be placed along the existing tree line.

Q2. Will a TCPQ-1, Estimated Quantities for Traffic Control Signing, be provided for this project pre-letting? That would be most helpful in determining inventories needed.

A2. No, but sheet 19 of the plans can be referenced for similar information.

Q3. Per NTB 5799 the project completion is 10/28/2016. Per 907-656.03.2.7 the burn in period for the DMS signs will be 6 months. The burn in period is included in the contract time. This will only allow 5 months for material approval and installation. Is this correct?

A3. See the upcoming addendum to the project, the completion date will be revised and the burn in period will be revised to 3 months. The burn in period is included in the time for completion of the project.

Q4. **1)** Would MDOT consider a conduit expansion joint at every bridge expansion joint then placement of any extra needed conduit expansion joints per the conduit manufacturers recommendations vs every bridge expansion joint and no more than 125' spacing between any conduit expansion joint as the plans state? This could result in a significant savings on the conduit per footage price and still be installed per manufacturers recommendations. **2)** Does the electrical conduit need to be red or grey or can it be orange like the rest of the communication conduit? The reason for this question is that in 2 or more conduit banks it is not specified how many conduits shall be electrical and how many shall be communication on the prints. This does not allow us to figure how much of each pipe is needed. Please clarify. **3)** Does the materials supporting the aerial conduit runs need to be stainless steel or hot dipped galvanized? This includes the bolts, conduit straps, and the pull boxes. **4)** How many days is the overall project system burn in period? What happens if there is an issue during burn in? Does burn-in start over from the very beginning or at the point the issue occured? **5)** Is this a daytime or nighttime project for lane closures? Especially on the bridges. We need 24 hour access due to the time frame. **6)** Will plowing conduit be allowed? **7)** NTB-5796 p.53 What wireless systems are at the Sunplex Tower and on the 609 & I-10 interchange? **8)** NTB-5796 p.53 What MDOT existing equipment is being installed at the Lyman Tower and the Maple Street Tower? What is the anticipated completed installation date for the existing equipment at the Lyman Tower and Maple Street Tower?

A4. **1)** The Contractor should bid to place conduit expansion joints at the bridge expansion joints and follow the recommended spacing in-between. **2)** Underground electrical conduit can be the Orange HDPE. Aerial must be fiberglass or rigid steel. **3)** Uni-strut connections can be either stainless or galvanized. Also, the aerial mounted junction boxes are to be aluminum. **4)** The burn in period will be 90 days. As per the specifications, the burn-in will start over if the system experiences 2 "system failures" and the project engineer determines what constitutes a system failure (907-656.03.2.7) **5)** Plan Sheet 26 lists lane restriction times; however, it is incorrect on the plan sheets, the correct restrictions are from 7:00 P.M. – 5:00

A.M. **6)** Plowing of conduit will be allowed. **7)** There are no existing wireless systems at Sunplex or 609/I10. The contractor must submit for approval a wireless system at these locations to connect the Jackson County project data to the existing MDOT wireless network providing primary and secondary redundancy. **8)** MDOT will install the hardware on the Maple Street Water Towers and the Lyman Water Towers to interface with this project. We anticipate using 11 Ghz Aviat radios on the Maple street /Lyman tower to be in place by the end of 2015.

Q5. Is it the intent for the trench line for the main trunk line to be placed on the back side of the ROW or to be placed along the existing tree line? If the trench line is placed on the back side of the ROW, this will increase the quantity of clearing and grubbing.

A5. It will be placed along the existing tree line.

Q6. **1)** What size AT&T Metro E leased line does MDOT expect the Contractor to install from the Gulf Region TMC network into the Communications Hut @ the MDOT Ocean Springs Office? **2)** What existing ITS device types & quantities within the project limits does MDOT expect the Contractor to interface to the existing ATMS? **3)** Is the Contractor responsible for providing additional servers @ the Gulf Coast TMC for ATMS, RDS, BDS, and/or TACTICS? **4)** Is the Contractor expected to interface project ITS devices & communication lines to Gulf Coast TMC in the old Lyman Project Office building or the new Gulf Regional building? If the new Gulf Regional TMC building, when will the Contractor be given access to the building? **5)** What is the existing Video Wall controller @ Site#1 - Gulf Coast TMC, and @ Site#3 - MDOT Statewide TMC? **6)** Is the Contractor responsible for integrating the video streams, from cameras provided by the Contractor, to an existing WOWZA Media Server @ the Gulf Coast TMC? **7)** Is a new Bluetooth Device Server required at Site#1 - Gulf Coast TMC? If not, is the Contractor responsible for interfacing the Contractor provided DBS to a Bluetooth Device Server at Site#3 - MDOT Statewide TMC or Site#2 - Hattiesburg TMC? **8)** Does MDOT expect the Rest Area Video Kiosk to be wall mounted or pedestal? Does MDOT expect all 3 kiosk to be the same type - wall mounted or pedestal? **9)** Does MDOT expect the Rest Area Video Kiosk to be interactive with a touch screen display?

A6. **1)** The contractor should provide an adequately sized leased line for the project. We anticipate a service equivalent to a 50 mbps circuit. **2)** All existing ITS devices in the project limits have already been configured. The contractor should plan to configure all existing signal controllers into the current signal software. **3)** New centrally located servers are required for RWIS, HAR and BDS. We expect the contractor to configure RDS, Signals and ATMS to existing servers with any software upgrades as necessary. NO new servers are required for RDS, Signals, ATMS. **4)** The contractor should plan to configure to the new gulf coast TMC. **5)** We do expect the Gulf Coast TMC will have an Activue controller but that project is still in construction and could be subject to change. The Statewide center will NOT require video wall configuration. **6)** We will NOT require the contractor to configure to Wowza **7)** The BDS server will be centrally located in the statewide TMC **8)** The contractor will work with MDOT to determine the best mounting system for the Kiosks based on the installation site. We would prefer them to be wall mounted if possible. **9)** We will NOT use touch screen monitors.

Q7. Who will be responsible for staking the locations of camera poles, DMS, HAR, HAR beacons, etc.?

A7. MDOT will provide the staking.

Q8. Will there be any restrictions on closing a lane for bridge work?

A8. See QandA #4

Q9. Is the contract time going to be revised?

A9. See the upcoming Addendum to the project.

Q10. The Contract time on this project is set as a calendar day project with the completion date just short of a year from the notice to proceed as stated in NTB5799. The burn-in period for the project as detailed in NTB5545 states that the burn-in period for all electrical systems is 6 months and is part of the contract time. Between the materials submittal approvals, materials procurement, installation, testing, and burn-in period, there does not appear to be enough time. Would MDOT consider a longer contract time or shorter burn-in period?

A10. See the upcoming addendum to the project.

Q11. On the aerial conduit expansion assembly drawing, plan sheet 3075, note 4 requires an expansion joint in the conduit run a maximum of 125 feet spacing and at all existing bridge joints. According to the conduit manufacturers recommendations, conduit expansion joint located at the bridge joints is all that is necessary. Would MDOT consider reducing the amount of conduit expansion joints to match the number of bridge expansion joints?

A11. See QandA #4

Q12. Pay item 907-666-F001 calls for (21) Ground Mounted Transformer Enclosures. No information is given in the Special Provisions (Page #370) for the Ground Mounted Transformer Enclosure. Please provide a detail and spec for this item.

A12. The transformer section does refer back to the disconnect in Section 907-666.02.1.2 which has a spec for a NEMA 3R type enclosure. Then in paragraph 907-666.02.2.2 about the transformer it says "The transformer shall be installed inside the enclosure." Section 907-666.02.1.3 says the ground mounted transformer is also to meet the requirements of Section 907-666.01.3 which states – "The pedestal shall be of NEMA Type 3R rainproof construction and shall be UL Listed as "Enclosed Industrial Control Equipment" (UL 508A). External construction shall comply with UL50 requirements and shall be of G90 galvanized steel with light green #14672 Federal Specification 595 polyurethane industrial grade powder paint. Hinges shall be stainless steel and of the continuous piano hinge type. The pedestal mounting bolts shall not be externally accessible. The pedestal shall be able to be embedded in concrete or use anchor bolts for mounting on concrete base. Either pedestal mounting base or anchor bolt kit is required for installation.

Q13 Would MDOT consider extending the contract time or reducing the 6 month burn-in period which is included in the contract time by the NTB?

A13. See the addendum to the project.

Q14 New centrally located servers are required for RWIS, HAR and BDS. Question: Will these centrally located servers be located in the Gulf Coast TMC and how many total HAR servers & software are required? Is a HAR Server also needed for the Statewide TMC in Jackson? Can the Gulf Coast TMC HAR Server be integrated to the ATMS Server in Jackson without a second HAR Server & Software? The Special Provision 907.655.2 section 907.655.04 (Page 269) refers to HAR Servers at both the Regional TMC and the Statewide TMC. However, Notice to Bidders #5797 - TMC Modifications (Page 58) refers to only one HAR Server to be configured to into the existing ATMS modules for HAR.

A14.MDOT does require HAR, BDS and RWIS servers for this project. We expect them to be located in the Gulf Coast TMC and connect to the Jackson servers.

Q15.We will NOT use touch screen monitors. Does MDOT expect kiosk patrons to be able to select video screens or video from traffic cameras along their route? Does MDOT expect the kiosk to allow for any input from patrons? If the MDOT ITS Manager rejects the Kiosk System Description submittal that the Contractor includes in the overall Project Bid Response, Is the Contractor's Bid Response then considered non-responsive? If the Kiosk System Description submittal is not approved by the MDOT ITS Manager when is the Contractor notified of non-approval & will the Contractor be allowed to resubmit the Kiosk submittal? How does rejection of a Contractor's Kiosk Submittal affect the Contractor's overall bid response selection?

A15. MDOT will not require a touch screen monitor or any input from the user. It will be an informational kiosk that provides information provided by MDOT.

Q16. Special Provision 907-661-2, section 907.661.02.1 - item 1) g: Is MDOT requiring an On Street Video Equipment - IP PTZ (907-650) camera for remote monitoring of each of the Kiosk? If so, are these cameras paid for under the 907-661-2 pay-item as part of the Kiosk System?

A16. Yes. SP 907-661-2.1.1.g requires a PTZ camera meeting the requirements of 907-650 to be included in the 907-661-2 pay item.

Q17. Is it possible to receive the CADD/DGN files the project?

A17. No

Q18. Working Number GN-1 sheet 4 note #28 states that all above ground conduit shall be Type 1 rigid metal. Per question 4 item #1 of the Q&A it is allowing the use of fiberglass for above ground conduit. Is this correct?

A18. Underground electrical conduit can be the Orange HDPE. Aerial must be fiberglass or rigid steel.

Q19. NTB 5797 Traffic Management Center (TMC) Modifications raises several critical questions concerning the current capabilities of the existing video wall systems at Site 2 Hattiesburg Regional TMC and Site 3 MDOT Statewide TMC in Jackson, MS. 1. Does the current video wall system at the Hattiesburg Regional TMC have sufficient available capacity to service the new video streams provided under this project [HSIP-0010-

01(150)/106964301]? 2. 1. Does the current video wall system at the MDOT Statewide TMC have sufficient available capacity to service the new video streams provided under this project [HSIP-0010-01(150)/106964301]?

A19. Video capacity of the TMC's will not be an issue with digital video. Bandwidth may be an issue at the Lyman TMC, but that is beyond the scope of this project.

Q20. In one of your previous answers fiberglass conduit was mentioned for aerial bridge attachment. Can you confirm that fiberglass conduit is allowable for aerial bridge attachment? I do not see fiberglass conduit mentioned at all in the proposal document. 2) Underground electrical conduit can be the Orange HDPE. Aerial must be fiberglass or rigid steel.

A20. Fiberglass conduit should be in the quantities. See also QandA #18.

Q21. We have not seen a response on the extension of time for this project. Based on of our calculations we would have to include approximately $900,000 to $1,000,000 in liquidated damages if the time frame in not extended by at least 470 calendar days. We need to get a response on this in order to know how to bid this project.

A21. See the addendum to the project.

Q22. Pay item 619-D3001 "Remove and Reset Signs, All Sizes" calls for a quantity of 2,000 each, is this the correct quantity?

A22. See the addendum to the project.

Q23. Sheet ITS-29 and ITS-37 each show two fog ahead signs for a total of four. The summary of quantities only shows two on ITS-37. Please advise.

A23. Each location requires a set of “Fog Ahead” signs.

Q24. I'm the Valmont Poles rep for Ms. and have asked Valmont to quote. They came back and said you don't call out a design criteria for wind speed. A camera pole uses different criteria than just AASHTO 2001 140MPH. Would you please advise what to use?

A24. SP 907-639.02.1.2 paragraph 6 lists the Design criteria. In addition to AASHTO 2001 at 140 mph, the deflection should be no more than 1 inch from center due to a 30 mph wind for the 50 foot poles.

Q25. NTB 5797 Traffic Management Center (TMC) Modifications raises several critical questions. **1.** The NTB indicates under Site 1 Gulf Coast TMC at MDOT Lyman Project Office section that "The contractor shall update the licenses and license keys for the existing MDOT ATMS software to include all ITS devices..." The 'existing ATMS' software does not actually exist in a currently installed state at the Gulf Coast TMC. Will it be installed under a separate project prior to this projects completion, or does MDOT require the contractor to supply, install, and configuration of a separate instance of the ATMS software under this project [HSIP-0010-01(150)/106964301]? **1a.** If the ATMS software will be provided under a separate unrelated project, will it have sufficient licenses and license keys for the ITS equipment provided under this project [HSIP-0010-01(150)/106964301]? **2.** The NTB indicates under Site 1 Gulf Coast TMC at MDOT Lyman Project Office Video System

section that "The contractor shall provide, install, and integrate any needed video system equipment or video wall streaming servers for the camera streams provided by the contractor and displaying them as video windows on the existing video wall... The 'existing video wall' system does not actually exist in a currently installed or functional state at the Gulf Coast TMC. Will it be installed under a separate project prior to this projects completion, or does MDOT require the contractor to supply, install, and configure a video wall system under this project [HSIP-0010-01(150)/106964301]? **2a.** If the video wall system will be provided under a separate unrelated project, will it have sufficient capabilities, licenses, and license keys for the cameras provided under this project [HSIP-0010-01(150)/106964301]? **2b.** If the video wall system will be provided under a separate unrelated project, has it been tested with the myriad different types of cameras currently deployed by MDOT and functional with the current ATMS system? **2c.** If the video wall system will be provided under a separate unrelated project, what manufacturer and model numbers of equipment will be deployed?

A25. 1) Yes the ATMS software will be installed under separate contract.

1a) Yes, sufficient licenses will be available for this project.

2) Yes, the video wall will be installed under separate contract.

2a) Yes, the video wall will have sufficient licenses for this project.

2b) Yes, the video wall will be compatible with the current ATMS system

2c) The video wall submittals have not been approved to date.

Q26. **1.** What are the dimensions for the Communications Hut Vault? **2.** Are the any permit requirements with the rail road for the conduit installation on the overpass on I-10 over the rail road? **3.** What is the status of the addendum for the calendar days and burn-in time change?

A26. **1.** The vault shall be sized and installed as detailed in these specifications and NTBs with the inside dimensions to be the same as the inside dimensions of a Type 5 pull box, at a minimum. **2.** No, it is anticipated that all work is to be done from the Interstate.
3. See the addendum for this project.