STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
Construction division
SUITE 700, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TN 37243
(615) 741-2848

JOHN C. SCHROER
COMMISSIONER

BILL HASLAM
GOVERNOR

May 25, 2018

ADDENDUM #6

Re: I-440, Widening from I-40 to I-24
Davidson County
Contract No. DB1701

To Whom It May Concern:

This addendum revises the RFP Contract Book 1, Book 2, Book 3, and SP108B. Attached are the revised sheets.

You must acknowledge this addendum by completing the "Addendum Letter Acknowledgement form C and the Technical Proposal Signature Page (Form TPSP) within your Technical Proposal. It is the bidder's responsibility to notify all affected manufacturers, suppliers and subcontractors of this change.

Sincerely,

Lia Obaid

Assistant Director of Construction
Construction Division

DESIGN-BUILD
RFP CONTRACT BOOK 1
INSTRUCTIONS TO
DESIGN-BUILDERS (ITDB)

TENNESSEE DEPARTMENT OF TRANSPORTATION

I-440, Widening from I-40 to I-24,
Project includes removing and replacing existing pavement

Davidson County- TENNESSEE

CONTRACT NUMBER: DB1701

January 12, 2018

Addendum #1 March 13, 2018
Addendum #3 April 3, 2018
Addendum #4 April 9, 2018
Addendum #5 April 25, 2018
Addendum #6 May 25, 2018

on any submittals pertaining to an Addendum after the deadline established in the Addendum.

Deadline for Submittal of Alternate Technical Concepts (Dependent on Completion the NEPA Document)	***On or before April 13, 2018 4:00 p.m., CT.***
Deadline for Response to Alternate Technical Concepts,	***May 4, 2018 4:00 p.m., CT.***
Deadline for Submittal of Question Requests, and Requests for QPL Determination	~~***May 4, 2018***~~ ***June 8, 2018 4:00 p.m., CT.***
Anticipated Deadline for Issuance of Last Addendum	~~***May 11, 2018***~~ ***June 15, 2008 4:00 p.m., CT.***
Technical Proposal and Price Proposal Due Date and Time	~~***May 18, 2018***~~ ***July 13, 2018 4:00 p.m., CT.***
Public Price Proposal Opening	~~***June 8, 2018***~~ ***July 27, 2018 9:00a.m., CT.***
Anticipated Award of Design-Build contract, or rejection of all proposal	***On or before*** ~~***June 22, 2018***~~ ***August 3, 2018***
Anticipated Issuance of Initial Notice to Proceed	~~***July 1, 2018***~~ ***August 17, 2018***

The Department will not consider any late Proposals. Proposals received after the Proposal Due Date will be returned to the unopened. The Department will not consider any Proposal modifications submitted after the Proposal Due Date. Nor will the Department acknowledge Proposal withdrawals submitted after the Proposal Due Date. Any such attempted withdrawal will be ineffective.

If the Design-Builder does not submit a Proposal by the Due Date and the Department chooses to issue a new, revised, or modified RFP, the Proposal will be considered non-responsive to the requirements set forth herein. As a result, the Design-Builder will not be eligible to respond to any additional RFP requests from the Department on this project.

6. CONTRACT DOCUMENTS

- Contract Book 1 (ITDB - Instructions to Design-Builders);
- Contract Book 2 (Design-Build Contract);
- Contract Book 3 (Project Specific Information);
- Design-Build Standard Guidance and Addendum;
- The Department Standard Specifications;

d. THE DEPARTMENT RESPONSE

The Department will review each ATC and will respond to on Form ATC as shown in **Contract Book 3 (Project Specific Information)** with one of the following determinations:

1) The ATC is approved.
2) The ATC is not approved.
3) The ATC is not approved in its present form, but may be approved upon satisfaction, in the Department's sole discretion, of certain identified conditions that shall be met or certain clarifications or modifications that shall be made (conditionally approved).
4) The submittal does not qualify as an ATC but may be included in the Proposal without an ATC (i.e., the concept complies with the baseline requirements of the RFP Documents).
5) The submittal does not qualify as an ATC & may not be included in the Proposal; or
6) The ATC is deemed to take advantage of an error or omission in the RFP, in which case the ATC will not be considered, and the RFP will be revised to correct the error or omission.

e. ATC INCLUSION IN TECHNICAL PROPOSAL.

The Design-Builder may incorporate one or more approved ATCs as part of its Technical and Price Proposals. If the Department responded to an ATC by stating that it would be approved if certain conditions were met, those conditions must be stipulated and met in the Technical Proposal. If the ATC is used in the submittal, the approved Form ATC shall be included in the Technical Proposal.

In addition to outlining each implemented ATC, and providing assurances to meet all attached conditions, the shall also include a copy of the ATC approval letter with approved form from the Department in the Technical Proposal within the Appendix and these will not count towards the page limit maximum; however the ATC must be discussed within the Technical Proposal Response Category for scoring.

Approval of an ATC in no way implies that the ATC will receive a favorable review from the Design-Build Review Committee. The Technical Proposals will be evaluated in regards to the evaluation criteria found in this **Contract Book 1 (ITDB - Instructions to Design-Builders)**, regardless of whether or not ATCs are included.

The Price Proposal shall reflect all incorporated ATCs. Except for incorporating approved ATCs, the Technical Proposal may not otherwise contain exceptions to, or deviations from, the requirements of the RFP.

3. SELECTION PROCEDURE

The Department will utilize a ***Meets Technical Criteria (A+B+C)*** selection process in this procurement to award a Contract to the responsible Design-Builder that

demonstrates it meets the technical criteria and can deliver the best combination of price, ~~and~~ time and ~~weekend closures~~segmented interstate closure (A+B+C) in the design and construction of the Project.

Price Proposals will be calculated in accordance with the following method:

Total Contract (A+B+C) = A+ (B x TIME) + (C x ~~WEEKEND CLOSURES~~ SEGMENTED INTERSTATE CLOSURE)

Where, A = Contract Amount

B = the number of Calendar Days (from the Initial Notice to Proceed) indicated by the time needed to complete the Project in their Price Proposal and will become the contract completion time to be shown in the contract book.

~~C =the number of Weekend Closures needed for I-440 through lanes, I-65 through lanes and four left turning fly-over ramps in the vicinity of I-440 and I-65 interchange (as specified in SP108B) to complete the Project within the time needed.~~

C =the number of Calendar Days needed to complete the work as specified in RFP Book 3 for all portions of the segmented interstate closure of I-440 (from I-40 to I-65 and from I-65 to I-24).

TIME VALUE = Value associated with time of completion on this Project.

~~WEEKEND CLOSURE VALUE = Value associated with a weekend closure.~~

SEGMENTED INTERSTATE CLOSURE VALUE = Value associated with full roadway closure for all segmented interstate closures of this Project.

B: Calendar Days

Amount of one Calendar Day is $100,000 as ~~calculated~~ stated in Special Provision 108B.

~~C: Weekend Closure Value (to use in Price Proposal)~~

~~$1,000,000 per weekend~~

C: Segmented Interstate Closure Calendar Days (to use in Price Proposal)

Amount of one Segmented Interstate Closure Calendar Day is $250,000 per day.

Please see SP108B Segmented Interstate Closure Completion Date for Liquidated Damages Amounts

It is intended that all construction be completed by the earliest feasible date to minimize public inconvenience and enhance public safety. Should the total number of calendar days that the Design-Builder placed in the Proposal under the "B" portion of the Proposal to be deemed excessive, then the Proposal will be rejected. To this end the Design-Builder shall pursue the work rigorously utilizing the necessary work week, work hours and/or work shift schedules to expedite the work. The total Contract (A+B+C) cost will be used by the Department to determine the Apparent Design-

Builder, but reimbursement to the Design-Builder shall be based solely on the Proposal Price total "A" and any incentive or disincentive payment made in accordance with the Contract.

IMPORTANT: The number of Calendar Days "B" and the number of ~~Weekend Closures~~ Segmented Interstate Closure Calendar Days "C" is to be placed in the Price Proposal. Failure to enter a value for "B" and "C" will make the Proposal irregular and be cause for rejection.

Calendar days will be charged in accordance with the Contract and time charges will begin on the date shown on the initial NTP letter. Time charges will continue until work is complete~~, including punch list items,~~ on the Project ~~by the Department~~ in accordance with the Contract.

No time adjustments will be allowed for:

- Adverse weather conditions;
- The time required to Review and Approve Shop Drawings;
- The time required to review VECPs;
- The time to process Change Orders or plan revisions requiring additional Review and Approval;
- The time to complete work not on the CPM Schedule;
- Any delays typically encountered during a Project regardless of the source.

Time adjustments may be considered for:

- The time for plan revisions requiring additional Review and Approval if the Design-Builder was unable to work on the controlling item of work without revised plans or shop drawings;
- The time for ordering and delivery of materials for Extra Work directed by the Department that affects the CPM Schedule;
- Delays encountered due to a catastrophic event, beyond the control of the Design-Builder, that the Department determines adversely affected the progress of work.

~~"C" – Only value can be scored for reducing the amount of weekend closures needed for the I-440 through lanes, I-65 through lanes and four left turning fly-over ramps in the vicinity of I-440 and I-65 interchange as specified in SP108B. The specified weekend closures for other ramps for repairs of Murphy Rd, West End Ave, Hillsboro Pike, Nolensville Pike and I-440/I-65 right turning ramps are not applicable for calculation above.~~

The Department reserves the right to reject any or all Proposals, to waive technicalities, or to advertise for new Proposals, if, in the judgment of the Department, the best interests of the public will be promoted thereby. In putting together their Proposals, the Design-Builder should keep in mind and address the Project goals stated herein.

3) Identify innovative approaches to minimize any impacts to the right-of-way. Describe any temporary impacts and associated minimization approaches.

b. SCHEDULE MANAGEMENT

1) CPM Time Schedule (to be submitted in color) meeting the requirements established in the Contract, and consistent with the Department's Project Sections, and Pay Items identified. See Section A.7 and A.8 of this **Contract Book 1 (ITDB - Instruction to Design-Builders)**.
2) Describe or outline the assumptions upon which the CPM Schedule was based, risks, constraints, contingencies, sequence of work, the controlling operation or operations, intermediate completion dates, milestones, project phasing, anticipated work schedule and estimated resources that impacted the schedule.
   a) The CPM Schedule shall indicate how the Design-Builder intends to:
      - Divide the Project into work segments to enable optimum construction performance and explain the planned sequence of work, the critical path, proposed phasing of the Project, and any other scheduling assumptions made by the Design-Builder.
      - Plans and procedures to insure timely deliveries of materials to achieve the Project schedule.
      - Categories of work that anticipates will be performed by Design-Builder's own direct labor force, those categories that will be performed by Subcontractors, those categories that will be performed by project specific teams, and those categories that will be performed by existing teaming arrangements.
      - An explanation of Design-Builder's methodology for updating it.
   b) The Design-Builder may adjust the list to more accurately reflect planned sequences and methods, although the level of detail shall be similar to that reflected in the list of required Pay Items in the Schedule of Items.
3) Submit a description of Pay Item Breakdowns including the physical features and activities included in the Pay Item, and all work included in the Pay Item Totals as reflected on the Schedule of Items.

   For example, but not limited to:

   <u>105-01.20 Design-Build Construction Stakes, Lines & Grades</u>
   - Field Survey
   - ITS
   - Construction Staking

   <u>105-01.55 Design-Build Design Services</u>

   <u>(All Design Activities shall be included in this item.)</u>
   - Definitive Design and Reviews
   - Readiness-for-Construction Plans and Reviews, Specification and quantity estimates
   - Working Drawings

604-50.50 Design-Build Minor Structures (Other)

- Removal of Existing Buildings and Improvements
- Box Culvert
- Retaining Walls
- Endwalls
- Wingwalls
- Temporary structures
- Noise Walls

610-10.50 Design-Build Drainage

- Catch Basins
- Storm Drainage System
- Side drain
- Under drain

712-01-75 Design-Build Maintenance of Traffic

- Work Zone Safety Plan
- Barrier Rail
- Changeable Message Sign
- Traffic Control
- Project photography and videography

714-40.75 Design-Build Utilities and Railroad

- Coordination
- Relocation
- Lighting
- ITS

713-15.25 Design-Build Signing

- Footings
- Installation
- Removal and Disposal

716-99.50 Design-Build Striping/Pavement Markings

- Material
- Raised Pavement Markers
- Snowplowable Raised Pavement Markers

717-99.95 Design-Build Mobilization

4) Issues Resolution Plan

c. PROJECT MANAGEMENT

1) Describe the administrative and operational structure that would be used to perform the proposed work, including:
   - Describe how design personnel will interface with the construction personnel.

- Describe how the design will affect the right-of-way costs.
- Identify types of any retaining walls and /or noise walls if applicable.

d. The Technical Proposal shall include half-size plan sheets depicting those elements required by the RFP.
e. Describe any traffic control requirements that will be used for each construction phase.
f. Describe how traffic will be maintained as appropriate and describe understanding of any time restrictions noted in the RFP.
g. Describe the safety considerations specific to the Project.
h. Discuss overall approach to safety.
i. Describe any proposed improvements that will be made prior to or during construction that will enhance the safety of the work force and/or traveling public both during and after the construction of the Project.
~~i.~~j. Provide detailed Traffic Analysis and Mitigation Report as described in RFP Form Response Category IV: Technical Solution.

E. PROPOSALS

1. MINIMUM CONTRACT REQUIREMENTS

The RFP Contract Documents constitute the minimum Contract requirements established by the Department. Please refer to the **Contract Book 2 (Design-Build Contract)** for the order of precedence established in the Contract. Therefore, those portions of the Proposal that meet or exceed minimum Contract requirements established by the Department, as determined by the Department in its sole discretion, will themselves become minimum Contract requirements upon Contract execution.

The award of the Contract does not in any way imply that the Department will modify, relax, or relieve the Contract Documents in favor of the details of the Technical Proposal submitted by the Design-Builder.

a. TOTAL PROPOSAL SUBMITTAL

The Proposal consists of the Technical Proposal, the Price Proposal, and all required Contract Documents. The Technical Proposal shall be delivered in a sealed container within the mailing package clearly identified, labeled, and addressed as follows:

- **Recipient (the Department) set out in the Contract and "Proposal - Procurement Sensitive"**
- **Return address: Design-Builder's name, contact person's name, mailing address;**
- **Date of submittal;**
- **Contents labeled as "Interstate 440, Widening from I-40 to I-24"; and "Design-Build Project (DB1701)" and "Design-Build Technical Proposal".**

2. PROPOSAL OPENING

a. TECHNICAL PROPOSALS

The Department Alternative Contracting C.E. Manager 2 and the Design-Build Review Committee will open the Technical Proposal Package from each Design-Builder. They will determine responsiveness and the Pass/Fail rating for RC I to RC IV. Responsive and Passing Technical Proposals that meet all minimum criteria will be opened at the Proposal Due Date and time set out in this **Contract Book 1 (ITBD - Instruction to Design-Builders)** Section A.5, page 7. All technical proposals deemed non-responsive or failing to meet the minimum criteria will be notified prior to the public opening of the price proposals.

b. PRICE PROPOSALS; PUBLIC OPENING

Upon concluding its evaluation and scoring of the Technical Proposals, the Department will conduct a public opening of the Price Proposals for each responsive bid at the following location:

505 Deaderick Street, J.K. Polk Bldg.

Suite 700, Nashville, TN 37243, 7th floor Large Conference Room.

on the date and time set out in above in Section A.5, page 7.

Totals read at the opening of the Price Proposals are not guaranteed to be correct and no final award of the Contract will be made until Proposals have been checked and re-checked.

On all projects which are financed in whole or in part by funds received through Federal agencies and other third parties, the awarding of Contracts by the Department will be subject to approval or concurrence by the party or parties through which funds are received. The Department reserves the right to reject any Proposal which is not acceptable to any such third party set out above, although such bid proposal would otherwise qualify as the best Proposal in accordance with the Contract. It shall be the responsibility of the Department to determine which projects are so financed in part by third parties, such information being available upon request from the Department.

3. PROPOSAL STIPEND

A stipulated fee of ~~$150,000~~**$180,000** will be awarded to each eligible Design-Builder on the short-list that provides a responsive bid, but unsuccessful, Proposal. If a contract award is not made, all Design-Builder's on the short-list that submits a responsive Proposal shall receive the stipulated fee. If the Department chooses to continue the process by revising, modifying, or issuing a new RFP, or issuing a Best and Final Offer, the stipend will only be paid to each eligible responding to the additional request and/or requirement. The Department Alternative Contracting C.E. Manager 2 will be notified of the opportunity to request to invoice for the stipulated fee from each eligible Design-

RESPONSE CATEGORY IV: TECHNICAL SOLUTION

1. Design-Builder Name:

2. Name of Project: I-440, Davidson County (DB1701)

3. Conceptual Plans, Drawings:
   - ☐ Plan View of design concepts with key elements noted included.
   - ☐ Preliminary horizontal and vertical alignments of all roadway elements included.
   - ☐ Typical Sections included.

4. Identify drainage modifications and designs to be implemented.

5. Identify the appropriate design criteria for each feature if not provided.

6. Identify all bridge types to be constructed, including any special design features or construction techniques needed.

7. Identify any deviations or proposed design exceptions, from the established design criteria that will be utilized. Explain why the deviation is necessary. Describe any geotechnical investigations to be performed by the Design-Builder.

8. Describe how any utility conflicts will be addressed and any special utility design considerations. Describe how the design and construction methods minimize TDOT's utility relocation costs. If none, state none.

9. Describe how the design will affect TDOT right-of-way costs. If none, state none.

10. Identify types of any retaining walls and /or noise walls if applicable. If none, state none.

11. Identify any aspects of the design or construction elements that are considered innovative. Include a description of alternatives that were considered, whether implemented or not. Attach a copy of any approved ATCs used in this Technical Proposal. If none, state none.

RESPONSE CATEGORY IV: TECHNICAL SOLUTION

12. Describe any traffic control requirements that will be used for each construction phase. Describe how traffic will be maintained as appropriate and describe understanding of any time restrictions noted in the RFP. Specifically describe how business and residential access will be maintained, if applicable. Describe any required road closures and duration thereof.

13. Describe the safety considerations specific to the Project. Discuss overall approach to safety. Describe any proposed improvements that will be made prior to or during construction that will enhance the safety of the work force and/or traveling public both during and after the construction of the Project.

14. Provide detailed Traffic Analysis and Mitigation Report as described below:

- **Traffic Impact Assessment**

  For each segment listed below, the Design-Builder is required to calculate the AM and PM peak hour operational performance of the segments shown in Traffic Analysis Segments List (provided on project website). An AM and PM peak hour operational performance shall be performed for each unique typical section (number of travel lanes) within the segment. The AM and PM peak hour operational performance shall utilize the highest traffic volume present in each segment. For limited access segments, operational performance will be determined based on the volume to capacity ratio. The capacity for each segment shall be calculated using Highway Capacity Manual (6th Edition). For arterial segments, the operational performance shall be calculated based on the Generalized Service Volume Tables (provided on project website).

  The existing and detour results shall be presented by segment in tabular format for AM and PM peak hours for each of the closure scenarios.

- **Proposed Detour Routes and Schematics**

  Design-Builder shall utilize the results of the traffic impacts assessment to identify the best suited detour routes to handle diverted traffic from the segmented closures. Detour routes shall only consist of facilities that are part of the State or Federal highway system. Detour routes can vary between segments. Design-Builder shall provide detour route schematics for each of the segmented closures. The detour route schematics shall identify the most suitable detour routes, ramp closure detours, and begin and end closure. Detour route schematics shall also denote signs and barricades in accordance with the latest edition of the Manual of Uniform Traffic Control Devices

  Design-Builder shall also provide wide-area detour schematic designating I-840 as southern detour and Briley Parkway/SR 155 as northern detour to inform I-24, I-40 and I-65 traffic to use these northern and southern detour routes. Detour route schematics shall also denote signs in accordance with the latest edition of the Manual of Uniform Traffic Control Devices.

- **Deliverable**

  The Design-Builder shall supplement the Transportation Management Plan identified in Contract Book 3 Section 12.1.c with the results of the Traffic Impact Analysis and Detour Route schematics.

- **Data Provided by TDOT**

  TDOT will provide each team with the following baseline information:

  - Mainline and System Ramp AM and PM peak hour volumes
  - Hourly volume data for ramps and select mainline locations
  - Summarized Origin-Destination Data for I-440

DESIGN-BUILD
RFP CONTRACT BOOK 2
CONTRACT

TENNESSEE DEPARTMENT OF TRANSPORTATION

Interstate 440, Widening from I-40 to I-24,
Project includes removing and replacing existing pavement

Davidson County- TENNESSEE

CONTRACT NUMBER: DB1071

January 12, 2018

Addendum #1 March 13, 2018

Addendum #3 April 3, 2018

Addendum #6 May 25, 2018

5. SUBSTITUTION OF KEY PERSONNEL AND/OR DESIGN PROFESSIONALS

The Parties agree that each Key Personnel, Design Professional and Subcontractor is unique, and that the Department has relied upon their qualifications in selecting the Design-Builder to perform the Contract. Therefore, the Design-Builder shall not replace any Key Personnel or Design Professional during the term of the Contract. Notwithstanding the foregoing, in those limited circumstances in which the Department elects to consider substitutions, the process shall be governed by the provisions of **Design-Build Standard Guidance**. In the event the Department approves a substitution request, the Department retains the right to strictly enforce this Section C.5 in the event of future requests for substitution. No individual substitution approval or pattern of substitution approvals shall constitute a waiver of this requirement. Should the Department, in its sole discretion, elect to authorize a substitution, such authorization shall not relieve the Design-Builder of its sole responsibility under the Contract to complete all work and deliver the Project in accordance with all Contract requirements.

D. DATE OF COMMENCEMENT AND COMPLETION OF SERVICES

1. TIME FOR PERFORMANCE

The Contract shall take effect on the Effective Date and shall be performed by the Parties according to its terms, unless earlier terminated, until Final Acceptance by the Department in accordance with **Design-Build Standard Guidance.**

2. COMMENCEMENT OF SERVICES

The Design-Builder is authorized to commence the work within the Contract for post award submittals pursuant to **Design-Build Standard Guidance**. The Design-Builder shall not perform any services beyond post award submittal until the issuance of first Notice to Proceed (NTP) and for each subsequent phase requiring a Review and Approval NTP.

3. COMPLETION DATES

The Design-Builder shall complete all work to be done under the Contract, except for plant/vegetation establishment, by / / and not later than **August 31, 2021.** The segmented interstate closure for all segments shall only be allowed from January 7, 2019 until November 9, 2019 and shall consist of no more than ___ days.

The Design-Builder shall specify the number of calendar days for completion of the project and the number of calendar days for segmented interstate closures within their price proposal. The number of calendar days specified by the Design-Builder in their price proposal will be placed in the Contract above prior to execution of this Design-Build contract.

STATE OF TENNESSEE

REVISED 3/13/2018

REVISED 4/3/2018

REVISED 5/25/2018

(January 12, 2018)
Interstate 440
Davidson County
Contract #: DB1701

SPECIAL PROVISION

REGARDING

PROJECT COMPLETION AND LIQUIDATED DAMAGES

The project shall be completed in its entirety as set forth in RFP Book 2 Section D.3.

Daytime lane closures on I-440 shall not be allowed at any time, unless otherwise specified herein or as directed by the Engineer.

The segmented interstate closures shall be implemented as described in Contract Book 3 Section 12.1.m. The Design-Builder shall open Segment 1, as described in RFP Book 3 Section 12.1.m, no later than May 10, 2019, in which, if the opening date is not met, liquidated damages shall apply.

At least two lanes in each direction shall be maintained on I-440 nightly between 9:00 P.M. and 5:00 A.M as described in Contract Book 3 Section 12.1.d-.f. On all other interstates, only a single lane closure in each direction will be allowed nightly between 9:00 P.M. and 5:00 A.M.

Temporary I-440 travel lane and ramp lane closures shall be allowed nightly between 9:00 P.M. and 5:00 A.M. For each hour, or portion thereof, in which the temporary lane closure is not completed and open to traffic, the sum of **$7,500** per hour per lane shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

Temporary lane closures on local streets shall only be allowed nightly between 9:00 p.m. and 5:00 a.m. For each hour, or portion thereof, in which the temporary lane closure is not completed and open to traffic, the sum of **$2,300** per hour per lane shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

In addition to temporary lane closures, the Design-Builder will be allowed up to two (2) full weekend closures of I-65, including the I-440 at I-65 interchange ramps as specified in RFP Book 3. A weekend is defined as between Friday at 9:00 P.M. to Monday at 5:00 A.M. outside of the holidays, major events, and segmented interstate closures discussed in RFP Book 3.

For each hour, or portion thereof, in which the I-65 full weekend closure is not completed and open to traffic, the sum of **$7,500** per hour per lane shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

Rolling roadblocks are permitted during blasting operations, the erection/construction of overhead signs and setting of bridge beams. These roadblocks shall be conducted by law enforcement agencies specified in Special Provision in RFP Book 2. Rolling roadblocks will not be allowed along I-65.

Blasting within the project limits shall not occur on a Sunday. Blasting shall be permitted between 9:00 A.M. and 2:00 P.M. If necessary for the public's protection from blasting, the Design-Builder may close traffic lanes in the vicinity of blasting site up to 15 minutes in any one-hour period. For each **15 minute** period, or portion thereof, in excess of the allotted 15 minute period that any traffic lane remains closed, the sum of **$3,750** per lane shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

The table below summarizes the liquidated damages referenced above.

Route Name/Type	Temporary Lane Closures Liquidated Damages	Full Weekend Closure Liquidated Damages	Rolling Roadblock Liquidated Damages	Full Closure Segment 1 I-440 May 10, 2019
I-440	$7,500 per hour per lane	N/A	$3,750 per 15 min. per lane	$7,500 per hour per lane
I-65 Including Weekend Closure	$7,500 per hour per lane	$7,500 per hour per lane	N/A	N/A
Interchange Ramps	$7,500 per hour per lane	$7,500 per hour per lane	N/A	7,500 per hour per lane
Local Streets including State Routes	$2,300 per hour per lane	N/A	N/A	$2,300 per hour per lane

Noise Barriers

The Design-Builder shall complete construction of any new noise barrier within 90 days of the start of demolition of an existing noise barrier wall or cutting of trees whichever occurs first, unless prior approval is received by the Department. Failure to complete construction within the allowed 90 calendar days will result in liquidated damages of **$1,000** per day until noise barrier construction is complete. Noise barrier construction and/or repairs shall only be conducted during daytime hours not earlier than 8:00 A.M. and no later than 7:00 P.M. For each hour, or portion thereof, in which the noise barrier construction and/or repairs continue (outside the daytime hours allotted), the sum of **$500** per hour per noise barrier shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

Potholes

The Design-Builder shall mitigate potholes greater than or equal to 1 square foot and 1.25 inches deep or an equivalent volume of size, shape and location that presents a hazard to the traveling public within 24 hours of discovery or notification. Failure to complete pothole mitigation within the 24-hour period will result in the sum of **$1,000** per occurrence per day (or portion thereof) until pothole mitigation is complete. These deductions are not penalties but are liquidated damages.

The following sections summarize the liquidated damages associated with ITS field device and supporting infrastructure downtime.

Fiber Network

The contractor shall ensure continuous operation of the fiber optic lines affected by construction activities. Temporary disconnect of communication shall not exceed forty-eight hours. Failure to restore communication within the allowed forty-eight hours will result in liquidated damages of **$500** per hour until communication is restored.

Dynamic Message Signs (DMS)

The contractor shall ensure continuous operation of the dynamic message signs (DMS) affected by construction activities. Temporary loss of DMS operation during construction activities shall not exceed thirty calendar days. Failure to restore full operation within the allowed thirty calendar days will result in liquidated damages of **$500** per day/per DMS until full operation of the DMS is restored. Full operation is defined as the DMS being installed, integrated with TMC software, and accessible/controllable by TMC personnel. If necessary, multiple DMS may be down at the same time.

Critical CCTV Cameras

CCTV cameras #29, #53, #56, and #70 located near or within project limits are considered critical CCTV cameras due to being in high incident areas. The contractor shall ensure continuous operation of the critical CCTV cameras affected by construction activities. Temporary loss of critical CCTV camera operation during construction activities shall not exceed forty-eight hours. Failure to restore full operation within the allowed forty-eight hours will result in liquidated damages of **$500** per hour/per CCTV camera until full operation of the camera is restored. Full operation is defined as the CCTV camera being installed, integrated with TMC software, and accessible/controllable by TMC personnel. If necessary, multiple CCTV cameras may be down at the same time.

Non-Critical CCTV Cameras

All CCTV cameras not defined as critical are considered non-critical CCTV cameras. The contractor shall ensure continuous operation of the non-critical CCTV cameras affected by construction activities. Temporary loss of non-critical CCTV camera operation during construction activities shall not exceed fourteen calendar days. Failure to restore full operation within the allowed fourteen calendar days will result in liquidated damages of **$500** per day/per CCTV camera until full operation of the camera is restored. Full operation is defined as the CCTV camera being installed, integrated with TMC software, and accessible/controllable by TMC personnel. If necessary, multiple CCTV cameras may be down at the same time.

Radar Detection System (RDS)

The contractor shall ensure continuous operation of the radar detection systems (RDS) affected by construction activities. Temporary loss of RDS operation during construction activities shall not exceed fourteen calendar days. Failure to restore full operation within the allowed fourteen calendar days will result in liquidated damages of **$500** per day/per RDS until full operation of the RDS is restored. Full operation is defined as the RDS being installed, integrated with TMC software, and accessible/controllable by TMC personnel. If necessary, multiple RDS may be down at the same time.

The table below summarizes the liquidated ITS related damages referenced above.

ITS Device Type	Allowable Down Time	Liquidated Damages
Fiber	48-Hours	$500 per hour
DMS	30 Calendar Days	$500 per day per DMS
Critical CCTV	48-Hours	$500 per hour per CCTV
Non-Critical CCTV	14 Calendar Days	$500 per day per CCTV
RDS	14 Calendar Days	$500 per day per RDS

Segmented Interstate Closure Completion Date

Failure to complete the segmented interstate closure on or before the number of calendar days set forth in RFP Book 2 Section D.3, shall apply for the project. For each calendar day after the Design-Builders segmented closure completion date, that all work specified in the Contract RFP Book 3 – Section 12.1.m is not complete, a sum of money equal to **$400,000** per Calendar Day shall be deducted from monies due to the Design-Builder, not as a penalty, but as agreed compensation for damages resulting from the Design-Builder's delay in completion of construction operations on the Department and road users.

Project Completion Date

Failure to complete the project on or before the Design-Builders established number of Calendar Days set forth in RFP Book 2 Section D.3, shall apply for the project. For each calendar day after this established date, that all work specified in the contract; except for vegetation establishment and punch list items; is not complete, a sum of money equal to **$100,000** per Calendar Day shall be deducted from monies due to the Design-Builder, not as a penalty, but as agreed compensation for damages resulting from the Design-Builder's delay in completion of construction operations on the Department and road users.

Where provisions of this Special Provision conflict with Subsection 108.09 of the Standard Specifications, as amended, this Special Provision prevails. Additionally, Contract Book 3 Traffic Control 12.1 contains additional information regarding mandatory closure concurrence and advance notice.

DESIGN-BUILD
RFP CONTRACT BOOK 3
PROJECT SPECIFIC INFORMATION

TENNESSEE DEPARTMENT OF TRANSPORTATION

Interstate 440, Widening from I-40 to I-24,
Project includes removing and replacing existing pavement

Davidson County- TENNESSEE

CONTRACT NUMBER: DB1701

January 12, 2018
Addendum #1 March 13, 2018
Addendum #2 March 15, 2018
Addendum #3 April 3, 2018
Addendum # 6 May 25, 2018

with the latest version of the TDOT Survey Manual, as posted on the Department's website.

For Project Nos. 2 and 3:

Final ROW plans will be furnished by the Department. The Department has secured NEPA approval and the necessary ROW and water quality permits to construct the proposed improvements as outlined in the ROW plans (including traffic signal details).

2.2 Roadway Scope of Work

Req. No	Requirement text
2.2.a	**For Project No. 1:** The proposed roadway shall be designed and constructed to meet a 60-mph design speed for a rolling urban freeway and shall be designed to adhere to the latest editions of all appropriate TDOT Roadway Standard Drawings, TDOT Design Guidelines and Instructional Bulletins, TDOT Drainage Manual, TDOT Traffic Design Manual, TDOT Design CADD Standards, AASHTO *Policy on Geometric Design of Highways and Streets*, and *Manual on Uniform Traffic Control Devices*. Microstation and Geopak shall be used in the preparation of CADD and design files. Deviations from horizontal (greater than 1.0 foot) and vertical alignment (any change) as shown on preliminary plans will require an Alternative Technical Concept (ATC) with Department ~~approval~~concurrence. Any vertical alignment deviations: • shall not create low points near existing overhead bridges and shall meet the clearance requirements set forth in this section. • shall not require modifications to noise analysis and/or noise barrier heights. Between STA 1161+85.29 to STA 1170+90.06 deviations to proposed vertical alignment are not allowed due to an existing bridge foundation and an approved design exception.
2.2.b	**For Project Nos. 1, 2 and 3:** The proposed interchange ramps shall be designed and constructed to match existing design speeds and shall be designed to adhere to the latest editions of all appropriate TDOT Roadway Standard Drawings, TDOT Design Guidelines and Instructional Bulletins, TDOT Drainage Manual, TDOT Traffic Design Manual, TDOT Design CADD Standards, and the Department accepted AASHTO *Policy on Geometric Design of Highways and Streets*, and *Manual on Uniform Traffic Control Devices (MUTCD)*. Microstation and Geopak shall be used in the preparation of CADD and design files.
2.2.c	**For Project No. 1:** I-440 from approximately STA. 13003+89.38 (approximately MM 0.2) to STA. 1018+41.68 (approximately MM 0.6) will not be widened. The existing travel surface including shoulders will be removed and replaced. Travel lanes shall be 12' wide and designed per Department standards. Concrete ditch paving (6-inch) will be installed between the proposed 51-inch concrete median barrier (located along the westbound inside edge of shoulder) and proposed 32-inch concrete median barrier (located along the eastbound inside edge of shoulder). The concrete ditch paving (6-inch), between the two barrier walls, shall be constructed to form a ditch to provide adequate slope and capacity to convey the design storm flow. Design-Builder shall submit a ditch

	design and a joint plan for the proposed median ditch to the Department for concurrence. The inside shoulders will slope toward the median unless in superelevation. Inside shoulders shall be 10' minimum and full depth pavement installed for the full shoulder width. The outside 12' wide shoulders (includes 2.5' from proposed valley gutter) shall receive shoulder depth pavement. A 4.5' wide valley gutter shall be incorporated into the outside edge of shoulder and constructed per detail drawing as supplied in the preliminary plans. Additional guidance regarding minimum inside shoulder widths is provided in 2.2.aa.
2.2.d	**For Project No. 1:** I-440 from approximately STA. 1020+74.23 (approximately MM 0.6) to STA. 1305+00.00 (approximately MM 6.2) will be widened to the inside to provide one additional travel lane and full depth shoulder. The existing travel surface including shoulders will be removed and replaced. Inside shoulders shall be 11' minimum and full depth pavement installed for the full shoulder width. The proposed inside shoulders and proposed travel lane will slope toward the median unless in superelevation. The outside 12' wide shoulders (includes 2.5' from proposed valley gutter) shall receive shoulder depth pavement. A 4.5' wide valley gutter shall be incorporated into the outside edge of shoulder and constructed per detail drawing supplied in the preliminary plans. Additional guidance regarding minimum inside shoulder widths is provided in section 2.2.aa.
2.2.e	**For Project No. 1:** I-440 Westbound from approximately STA. 1305+00.00 (approximately MM 6.2) to STA. 1351+80.09 (approximately MM 7.0) will not be widened. The existing westbound travel surface including shoulders will be removed and replaced. Travel lanes shall be 12' wide and designed per Department standards. Concrete ditch paving (6-inch) will be installed between the proposed 51-inch concrete median barrier (located along the westbound inside edge of shoulder) and proposed 32-inch concrete median barrier (located along the eastbound inside edge of shoulder). The concrete ditch paving (6-inch), between the two barrier walls, shall be constructed to form a ditch to provide adequate slope and capacity to convey the design storm flow. Design-Builder shall submit a ditch design and a joint plan for the proposed median ditch to the Department for concurrence. The inside shoulders will slope toward the median unless in superelevation. The inside shoulders shall be 10' minimum and full depth pavement installed for the full shoulder width. The outside 12' wide shoulders (includes 2.5' from proposed valley gutter) shall receive shoulder depth pavement. A 4.5' wide valley gutter shall be incorporated into the outside edge of shoulder and constructed per detail drawing supplied in the preliminary plans. Additional guidance regarding minimum inside shoulder widths is provided in section 2.2.aa.
2.2.f	**For Project No. 1:** I-440 Eastbound from approximately STA. 1305+00.00 (approximately MM 6.2) to STA. 1351+80.09 (approximately MM 7.0) shall remain in place and travel lanes shall be maintained. The existing 32-inch median barrier located in this segment (along the inside edge of shoulder) shall be retained and incorporated into the proposed design reference section 2.2.e.
2.2.g	**For Project No. 1:** The following design exceptions have been approved by the Department and are included on the Project Website. 1. For the curve located at STA 1112+05.26 to STA 1114+87.47 west of Hillsboro Pike - Stopping sight distance equal to 55-mph instead of 60-mph. 2. For the curve located STA 1161+85.29 to STA 1170+90.06 near Belmont Boulevard - Stopping sight distance equal to 55-mph instead of 60-mph. 3. For the curve located STA 1161+85.29 to STA 1170+90.06 near Belmont Boulevard - Superelevation equal 6% LT instead of 7.8% LT.

	4. For the curve located STA 1125+92.25 to STA 1170+90.06 west of Hillsboro Pike - Stopping sight distance equal to 55-mph instead of 60-mph. 5. For the entire project length along I-440 - Inside shoulder widths less than 12'. 6. No additional design exceptions shall be considered by the Department.
2.2.h	**For Project No. 1:** Existing bridge footing elevation data has been collected for this Project by the Department. The data has been provided on the Project Website. The Design-Builder shall verify the data before utilizing it in the design of the project.
2.2.i	**For Project No. 1:** Existing vertical clearances between the existing roadway (entire roadway width including the full shoulder width) and all existing overhead structures along I-440 shall maintain a minimum 16' vertical clearance (or existing pre-construction clearance if less than 16') during the construction phase of the project. This requirement shall include all temporary roadway surfaces used during construction. All proposed vertical clearances between the proposed roadway (entire roadway width including the full shoulder width) and all retained existing overhead structures shall be a minimum of 16'. The minimum vertical clearance for the I-440 bridges to be widened (Lealand Lane, Craig Avenue, and I-65 (including ramps) is 16'-6". The Design-Builder shall submit plans as outlined in the TDOT Design Guidelines to the TDOT Structures Division for Grade Approval.
2.2.j	**For Project No. 1:** The Design-Builder will be responsible for the design and construction of all proposed overhead structures within the Project limits. The Design-Builder shall ensure minimum vertical clearance as defined in the TDOT Design Guidelines is provided. The Design-Builder shall submit plans as outlined in the TDOT Design Guidelines to the TDOT Structures Division for Grade Approval.
2.2.k	**For Project No 1:** To facilitate and expedite securing a R/R agreement for structures crossing a railroad, the Design-Builder shall provide all necessary and pertinent information as outlined in the TDOT Design Guidelines to the State Railroad Coordinator in the preliminary design phase.
2.2.l	**For Project No. 1:** The Design-Builder shall be responsible for preparation of final signed and sealed construction plans used to construct the proposed improvements. They shall be prepared in accordance with TDOT's Design Guidelines and the previous design standards referenced in this section. If the Design-Builder deems that additional ROW is needed outside of the secured ROW, they will be responsible for the additional environmental technical studies needed for re-evaluation of the NEPA document, ROW appraisals and acquisitions, utilities coordination/relocation and any permits.
2.2.m	**For Project Nos. 2 and 3:** The Design-Builder shall be responsible for preparation of final signed and sealed construction plans in accordance with TDOT's Design Guidelines and to construct the proposed improvements. If the Design-Builder wishes to change the horizontal or vertical alignment or deems that additional ROW is needed outside of the secured ROW, they will be responsible for the additional environmental technical studies needed for re-evaluation of the NEPA document, ROW appraisals and acquisitions, utilities coordination/relocation and any permits.
2.2.n	**For Project Nos. 2 and 3:** The Design-Builder ~~will~~ shall be responsible for the design and construction of all structures within the Project limits. The Design-Builder shall ensure minimum vertical clearance as defined in the TDOT Design Guidelines is provided.
2.2.o	**For Project Nos. 1, 2 and 3:** The ramp construction and closures shall be phased in accordance with Special Provision 108B. Access to all side roads shall be maintained

	during construction. Except during the Segmented Interstate Closure.
2.2.p	**For Project Nos. 2 and 3:** The Design-Builder shall be required to construct the proposed traffic signal systems (including but not limited to cabinet, controller, traffic signal heads, wiring, detection equipment, conduit and pull boxes, traffic signal poles and associated traffic signal timing and all other materials and methods specified in the signal plans to provide a fully functional and operational traffic signal) as detailed and specified in the traffic signal plans located as an Appendix A in this **Contract Book 3 (Project Specific Information)**.
2.2.q	**For Project Nos. 1, 2 and 3:** The Pavement Design Report for this Project has been developed by the Department. Proposed asphalt and concrete pavements on Project Nos. 1, 2, and 3 will be constructed utilizing the pavement designs provided in this report. The Pavement Design Report and minimum criteria for pavement related Alternative Technical Concepts are located as an Appendix A in this **Contract Book 3 (Project Specific Information)**.
2.2.r	**For Project Nos. 1, 2 and 3:** The Design-Builder shall identify the need for any special roadway design details (i.e. any special drainage structures, rock embankment, rock plating, special guardrail, retaining walls, concrete barrier designs, etc.) and shall provide special design drawings.
2.2.s	**For Project Nos. 1, 2 and 3:** All Design Documents and Design Reviews shall be provided by the Design-Builder and performed in accordance with the Design Review schedule established in the Critical Path Method (CPM) Schedule, and in accordance with contract requirements.
2.2.t	**For Project Nos. 1, 2 and 3:** The Design-Builder shall ensure that all applicable "General and Special Notes" found in Section VI of the current edition of the State of Tennessee Department of Transportation Design Division Roadway Design Guidelines are adhered to during construction.
2.2.u	**For Project Nos. 1, 2 and 3:** Roadway component geometric configurations shall be designed to provide adequate drainage and prevent hydroplaning. Cross slopes shall be in accordance with the requirements of the roadway section.
2.2.v	**For Project Nos. 1, 2 and 3:** Design-Builder shall not dispose of any material within interchanges (Murphy Rd., West End Avenue, Hillsboro Pike/21st Avenue, I-65, and Nolensville Road) and their infield areas located within the Project. All four quadrants (northwest, southwest, northeast and southeast) of the intersection of Granny White Pike and Gale Lane on the north side of I-440 shall not be used for any construction purpose. Excess material used within the project limits shall meet the requirements specified in the most current version of the Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction. The Design-Builder shall obtain pre-concurrence (after NTP) from the Department before disposing of any excess material within the right-of-way. The placing of any excess material shall not impact any existing trees on the project. Any material wasted off-site shall be done in accordance with TDOT's - Procedures for Providing Offsite Waste and Borrow on Construction Projects (2017).
2.2.w	**For Project Nos. 1, 2 and 3:** Borrow and waste disposal areas shall be located in non-wetland areas and above the 100-year, Federal Emergency Management Agency floodplain. Borrow and waste disposal areas shall not affect any Waters of the State/U.S. Unless these areas are specifically covered by an ARAP, 404, or NPDES permit, obtained

3.2 Location Specific Scope of Work

3.2.1 EB & WB Bridges Over Charlotte Avenue

Req. No	Requirement text
3.2.1.a	Perform deck repairs (as referenced per TDOT Deck survey and verified by Design-Builder). Overage of repair quantity (beyond the quantities in the deck survey) shall be paid (with prior ~~approval~~concurrence) as defined in RFP Book 3 Chapter 13.5.
3.2.1.b	Replace concrete pavement at bridge ends (reference TDOT Standard Drawing STD-1-5).
3.2.1.c	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.1.d	Texture coat top and traffic face of parapets. The color shall be white, AMS STD-595 color No. 37886.
3.2.1.e	Perform repairs to spalled, delaminated, or cracked concrete areas on parapets (reference TDOT Bridge Inspection Report and verified by Design-Builder).

3.2.2 EB & WB Bridges Over CSX Railroad (near Charlotte Avenue)

Req. No	Requirement text
3.2.2.a	Perform deck repairs (reference TDOT Deck survey and verified by Design-Builder). Overage of repair quantity (beyond the quantities in the deck survey) shall be paid (with prior concurrence~~approval~~) as defined in RFP Book 3 Chapter 13.5.
3.2.2.b	Replace concrete pavement at bridge ends (reference TDOT Standard Drawing STD-1-5).
3.2.2.c	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.2.d	Add a Department and CSX approved fence to parapets per Department and CSX requirements.
3.2.2.e	Texture coat top and traffic face of existing parapets. The color shall be white, AMS STD-595 color No. 37886.
3.2.2.f	Design and construction activities shall be in accordance with the Special Provision 105C Protection of Railroad Property, Railroad Flagging and Insurance requirements as included in **Contract Book 2 (Design-Build Contract)**.

3.2.3 EB & WB Bridges Over Lealand Lane

Req. No	Requirement text
3.2.3.a	Widen bridges to match proposed approach roadways resulting in a single bridge.
3.2.3.b	Match superelevation of approach roadway on widened portion of bridge.
3.2.3.c	Maintain a minimum 4 ½" concrete deck.
3.2.3.d	Maintain a 16-foot, 6-inch minimum vertical clearance.
3.2.3.e	Place a 51-inch concrete median barrier (reference TDOT Standard Drawing STD-1-3SS).

3.2.3.f	Perform deck repairs on existing bridges (reference TDOT Deck survey and verified by Design-Builder). Overage of repair quantity (outside the existing project scope) shall be paid (with prior concurrence~~approval~~) as defined in RFP Book 3 Chapter 13.5.
3.2.3.g	Replace existing (and add to widened portion of bridges) concrete pavement at bridge ends (reference TDOT Standard Drawings STD-1-5).
3.2.3.h	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.3.i	Texture coat median barrier and top and traffic face of parapets. The color shall be white, AMS STD-595 color No. 37886.
3.2.3.j	Perform repairs to spalled, delaminated, or cracked concrete areas on beams and substructures (reference TDOT Bridge Inspection Report and verified by Design-Builder).
3.2.3.k	Replace existing Noise Barriers on parapets in conformance with Noise Wall Inspection Report and Preliminary Plans as included on the Project Website and with the Special Provision 718NB Absorptive Barriers.

3.2.4 EB & WB Bridges Over Craig Avenue

Req. No	Requirement text
3.2.4.a	Widen bridges to match proposed approach roadways resulting in a single bridge.
3.2.4.b	Match superelevation of approach roadway on widened portion of bridge.
3.2.4.c	Maintain a minimum 8” concrete deck.
3.2.4.d	Maintain a 16-foot, 6-inch minimum vertical clearance.
3.2.4.e	Place a 51-inch concrete median barrier (reference TDOT Standard Drawing STD-1-3SS).
3.2.4.f	Perform deck repairs on existing bridges (reference TDOT Deck survey and verified by Design-Builder). Overage of repair quantity (beyond the quantities in the deck survey) shall be paid (with prior concurrence~~approval~~) as defined in RFP Book 3 Chapter 13.5.
3.2.4.g	Replace existing (and add to widened portion of bridges) concrete pavement at bridge ends (reference TDOT Standard Drawings STD-1-5).
3.2.4.h	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.4.i	Texture coat median barrier and top and traffic face of parapets. The color shall be white, AMS STD-595 color No. 37886.
3.2.4.j	Perform repairs to spalled, delaminated, or cracked concrete areas on substructures (reference TDOT Bridge Inspection Report and verified by Design-Builder)).

3.2.5 Bridges Over I-65 and Railroad (EB & WB)

Req. No	Requirement text
3.2.5.a	Widen bridges to match proposed approach roadways (with 10'-0" inside shoulders) utilizing structural steel elements.
3.2.5.b	Maintain a 16-foot, 6-inch minimum vertical clearance.
3.2.5.c	Place concrete parapets on widened portions of the bridges (reference TDOT Standard Drawing STD-1-1SS) and texture coat. The top and traffic face of parapets color shall be white, AMS STD-595 color No. 37886, and the outside face of the parapets color shall be mountain gray, AMS STD-595 color No. 36440.
3.2.5.d	Replace existing (and add to widened portion of bridges) concrete pavement at bridge ends (reference TDOT Standard Drawings STD-1-5).
3.2.5.e	Extend in kind or replace modular expansion joints at abutments.
3.2.5.f	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.5.g	Design and construction activities shall be in accordance with the Special Provision 105C Protection of Railroad Property, Railroad Flagging and Insurance requirements as included in **RFP Book 2 (Design-Build Contract)**.

3.2.6 Bridge over Bransford Avenue

Req. No	Requirement text
3.2.6.a	Perform deck repairs (reference TDOT Deck survey and verified by Design-Builder). Overage of repair quantity (beyond the quantities in the deck survey) shall be paid (with prior concurrence~~approval~~) as defined in RFP Book 3 Chapter ~~13.7~~13.5
3.2.6.b	Replace concrete pavement at bridge ends (reference TDOT Standard Drawings STD-1-5).
3.2.6.c	Apply a thin epoxy overlay to bridge deck and concrete pavement at bridge ends.
3.2.6.d	Remove existing grass median and replace with a 51-inch concrete median barrier (reference TDOT Standard Drawing STD-1-3SS).
3.2.6.e	Texture coat median barrier and top and traffic face of parapets. The color shall be white, AMS STD-595 color No. 37886.
3.2.6.f	Perform repairs to spalled, delaminated, or cracked concrete areas on parapets and substructures (reference TDOT Bridge Inspection Report and verified by Design-Builder).

3.2.7 WB Bridge over Glenrose Avenue and CSX Railroad

Req. No	Requirement text
3.2.7.a	Replace concrete pavement at bridge ends (reference TDOT Standard Drawings STD-1-5).
3.2.7.b	Add a Department and CSX approved fence to parapets per Department and CSX requirements.

	to prevent ground disturbance. Any damage to vegetated areas outside the limits of construction shall be repaired at the Design-Builder's expense. These areas are to be returned to their pre-construction state as directed and concurred with by the Department.
3.3.m	The Design-Builder shall notify the Department and all adjoining properties and stakeholders thirty (30) days prior to proposed noise barrier wall clearing, demolition or construction. Noise barrier construction shall only be conducted during daytime hours not earlier than 8:00 A.M. and no later than 7:00 P.M.
3.3.n	If a proposed noise barrier wall cannot be constructed prior to demolishing an existing noise barrier wall, the Design-Builder shall begin construction of new noise barrier walls within thirty (30) days of the start of demolition of an existing sound barrier wall or cutting of trees whichever occurs first, unless otherwise ~~approved~~ concurred with by the Department. The Design-Builder shall complete construction of any new sound barrier wall intended to replace an existing sound barrier wall which was acting as a screen for adjacent properties within 90 days from the start of demolition of the existing sound barrier wall or cutting of trees whichever occurs first, unless otherwise ~~approved~~ concurred with by the Department. Once work commences on an individual noise barrier wall, the Design-Builder shall continue construction operations until the wall is complete, unless otherwise ~~approved~~ concurred with by the Department. Design-Builder shall provide temporary 6' high chain link fencing for access control during noise barrier replacement.
3.3.o	All proposed noise barrier walls shall be absorptive.

3.4 Noise Barrier Walls (Repairs)

Req. No	Requirement text
3.4.a	The Design-Builder shall repair the existing noise walls on the I-440 corridor in accordance with the Noise Walls Inspection Report and Preliminary Plans as included on the Project Website and with the Special Provision 718NB Absorptive Barriers as included in **Contract Book 2 (Design-Build Contract)**. The Design-Builder shall be required to perform a design level investigation and report to validate and augment the wall repair information included in this RFP. The report shall be submitted within the proposal. The Department will utilize the design level investigation reports to determine final wall repair areas. These final wall repair areas will be distributed to the Design-Builders for bidding purposes. The Design-Builder shall submit their investigative report not later than 3-12-2018 to the Department. The final wall areas will be distributed to the Design-Builders no later than 3-31-2018.
3.4.b	The wall repairs modifications shall comply with the Department's specifications and shall be aesthetically uniform in accordance with the existing noise walls. Noise barrier repairs shall only be conducted during daytime hours not earlier than 8:00 A.M. and no later than 7:00 P.M.
3.4.c	Upon completion of the Project, the Design-Builder shall provide TDOT Structures Division a final revised set of plans for all walls. The plans shall be delivered on CD (each sheet an individual PDF file).
3.4.d	Only the minimum amount of vegetation necessary for the repair of the walls may be removed as directed by the Department. Where possible, stumps and roots are to remain

	to prevent ground disturbance. Any damaged to vegetated areas outside the limits of construction shall be repaired at the Design-Builder's expense. These areas are to be returned to their pre-construction state as directed and concurred with by the Department.
Existing non-panel type noise barrier walls	
3.4.e	- For repair and/or replacement of acoustical concrete masonry units (ACMU's) provide SOUNDBLOX Type RSR (or ~~approved~~ concurred equal); having a split-rib face with two slot type apertures flaring inward and comprising two factory-installed fibrous fillers with laminated metal septum. - ACMUs shall be used to replace existing damaged or missing ACMUs as shown on the I-440 Noise Wall Inspection Report and Preliminary Plans. - All ACMUs shall meet ASTM C90, Standard Specification for Load-Bearing Concrete Masonry Units. Weight classifications: Normal Weight (125 pounds per cubic foot [lb/cu ft] or more). - ACMUs shall be 8-inch x 8-inch x 16-inch" nominal dimensions. - ACMUs shall be Type RSR Split Rib; with each face comprising eight (8) vertical split-faced rib segments and two apertures opening into two (2) individual cavities. Units shall have solid formed tops. - ACMUs shall be kept dry until placement. Job site cutting shall be performed with power tools to provide straight and true edges. Units shall be laid in a bond pattern to match existing; with slots exposed to the roadway; and with the open ends of the cavities facing downward. Units shall be seated in a full horizontal bed and tuckpointing shall be placed covering the full thickness of the ACMU face shells. - ACMUs shall be colored to match adjacent portions of the walls that are to remain. - Exposed reinforcing steel shall be cleaned and free of corrosion and other materials deleterious to bond.

3.5 Miscellaneous

Req. No	Requirement text
3.5.a	The Design-Builder shall be responsible for the design and construction of all remaining structures necessary to complete the Project.
3.5.b	The Design-Builder shall be responsible for the removal and disposal of all deficient structures, or portions thereof.
3.5.c	Upon completion of the Project, the Design-Builder shall provide TDOT Structures Division a final revised set of plans for all structures (bridges, walls, etc.). The plans shall be delivered on CD (each sheet an individual PDF file).

4. LIGHTING SCOPE OF WORK

Req. No	Requirement text
4.a	The Design-Builder shall prepare lighting designs/plans in accordance with TDOT Standard Specifications for Road and Bridge Construction, TDOT Standard Drawings, TDOT Standard Traffic Operations Drawings, TDOT Traffic Design Manual, Chapter

	15, and the latest edition to the National Electric Code, National Fire Protection Association (NFPA) 70.
4.b	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 replace any existing lighting to assure that I-440 has adequate lighting to meet TDOT standards. All wiring, conduits, pull boxes, poles, luminaires, cabinets and any other necessary items/components needed to provide a full functional lighting system shall be new items.
4.c	Design-Builder shall use offset lighting for entire length of I-440 (STA. 13003+89.38, MM 0.2 to STA. 1351+80.09, MM 7.0). Where ROW or the roadway layout limits the use of offset lighting, other pole configurations may be utilized with prior concurrence of the TDOT Traffic Operations Division.
4.d	Design-Builder shall use AGI32 software for the photometric analysis. When submitting the photometric layout plans, the accompanying AGI32 software files shall be submitted at the same time.
4.e	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 ~~approved~~ concurred with by Traffic Operations Division before starting a complete detailed design of the project.
4.f	The Design-Builder shall submit lighting photometrics for proposed roadway lighting sections (including underpass lighting) to the Department for concurrence prior to ordering materials or beginning construction/installation.
4.g	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.
4.h	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)
4.i	If the Design-Builder elects to remove the lighting system prior to construction, temporary lighting will be required at all locations where existing lighting is taken out of service. All temporary lighting shall be provided in accordance with TDOT standards.
4.j	The Design-Builder shall not allow light pollution/light hindrance into residential areas during construction.
4.k	All wiring shall be concealed underground in 2-inch schedule 40 PVC rigid conduit.
4.l	The ground wire shall be run inside conduit within structures, shall be colored green and have THW insulation.
4.m	Existing foundations shall be removed a minimum of six inches below grade.
4.n	Light standards shall be round tapered poles. Length shall be determined by required mounting height.

4.o	All proposed roadway light standards shall be designed in accordance with the requirements of the latest edition of the Standard Specifications For Structural Support For Highway Signs, Luminaires and Traffic Signals published by the American Association of State Highway and Transportation Officials.
4.p	All proposed roadway light standards shall be mounted on bases with an access door. Transformer bases shall meet AASHTO specifications and have FHWA approval. Standards shall aluminum with transformer bases.
4.q	Bracket arms (if used) shall be round tapered truss type with strap mounting and lengths as scheduled. Bracket arm upsweep shall be the same for all light standards of the same type.
4.r	See Lighting Roll Plot as provided on the Project Website for guidance in regard to proposed lighting facilities. The Lighting Roll Plot is provided for information only. The Design-Builder is responsible for the final lighting design.

5. ITS SCOPE OF WORK

5.1 General

Req. No	Requirement text
5.1.a	The Design-Builder shall be responsible for verification of existing conditions, including research of all existing TDOT Intelligent Transportation System (ITS) records/plans and all other ITS related information. The Design-Builder shall conduct the field survey and provide a complete list of all ITS field devices tracked by the Department, that includes, but not limited to make, model, and serial number, within the Project limits and beyond if those ITS field devices are to be taken out of service, altered or upgraded by the Design-Builder. The list shall be provided within sixty (60) calendar days of NTP. The Engineer shall provide a complete list of all assets being tracked by the Department and what information is needed for each ITS field device type. The Design-Builder shall submit the list to the Engineer for review and concurrence.
5.1.b	The Design-Builder shall prepare ITS design/plans and install ITS related equipment/structures (as detailed in RFP Book 3 Chapter 5) in accordance with the TDOT Standard Drawings, TDOT Standard Traffic Operations Drawings, TDOT Standard Specifications, TDOT Traffic Design Manual, TDOT ITS Project Development Guidelines and TDOT Special Provision 725 (see attached in **RFP Book 2 (Design-Build Contract**).
5.1.c	The Design-Builder shall submit all ITS designs/plans (ITS devices, support equipment, and support structures) to the TDOT Design Division, TDOT Traffic Operations Division, and TDOT Structures Division for concurrence prior to ordering materials or beginning construction/installation. Permitting for utility work shall follow the same process as outlined in Section 9.
5.1.d	In addition to the requirements set forth in Section 17.2.6 of Special Provision 725, as-built project plans shall also be submitted in PDF format.
5.1.e	The Design-Builder shall ensure that no loss of communications between existing ITS field devices and the Transportation Management Center will occur during construction. The widening of I-440 may cause the decommissioning of portions of the

5.2 Fiber line

Req. No	Requirement text
5.2.a	All fiber conduit shall be designed to minimize conflicts or damage by other roadway items such as drainage structures, foundations, signing, lighting, guardrail, retaining walls, and landscaping.
5.2.b	The Design-Builder shall design and install the relocated fiber line (Fiber Optic Cable - 72F Trunk Line) and splice it into the existing fiber line. All work related to the relocated fiber line shall be complete prior to the start of any roadway construction in the area of the relocated fiber line. The design plans shall consist of +/- 2.2 miles of fiber optic line relocated from the existing raised grass median as shown on the ITS Roll Plot as provided on the Project Website.
5.2.c	The proposed location of the relocated fiber line shall be reviewed and receive concurrence from the Traffic Operation Division prior to ordering materials or beginning relocation.
5.2.d	The ITS system redundancy shall be tested with TDOT TMC IT prior to fiber relocation.

5.3 CCTV

Req. No	Requirement text
5.3.a	All existing CCTV cameras within the project limits shall be removed and replaced with proposed CCTV cameras meeting the requirements of Special Provision 725.
5.3.b	All CCTV camera poles located in the median shall be removed. All proposed CCTV camera poles shall be located outside of clear zone unless guardrail or barrier is present. Proposed CCTV camera poles shall not be placed in the median.

5.4 Dynamic Message System (DMS)

Req. No	Requirement text
5.4.a	All existing DMS support structures shall be removed and replaced with proposed DMS support structures meeting the requirements of Special Provision 725.
5.4.b	All existing DMS signs and supporting equipment shall be retained and reused in the final design.

5.5 Radar Detection System (RDS)

Req. No	Requirement text
5.5.a	All RDS detection devices shall be removed and replaced with proposed RDS detection devices meeting the requirements of Special Provision 725.
5.5.b	All RDS support structures shall be removed and replaced with proposed RDS support structures meeting the requirements of Special Provision 725. If an existing light standard is utilized as a RDS support structure, the Design-Builder shall not remove the light standard.

5.5.c	When appropriate and possible, co-locate RDS detection devices with CCTV cameras or with DMS to reduce the number of support structures to be replaced. The Design-Builder shall ensure desired detection accuracy irrespective of the installation type.
5.5.d	The proposed RDS system design should maximize the use of RDS installations that detect traffic in both directions of travel. All new RDS support structures shall be located outside of clear zone unless guardrail or barrier is present.

6. GEOTECHNICAL SCOPE OF WORK

Req. No	Requirement text
6.a	The Design-Builder shall be required to perform a design level geotechnical investigation to validate and augment the geotechnical information included in this RFP. A Preliminary Geotechnical Report for this Project was completed by the Department's Geotechnical Engineering Section. The Design-Builder shall verify the Preliminary Geotechnical Report before utilizing it in the design of the project. For guidance in determining the requirements of the geotechnical exploration please refer to the current TDOT Geotechnical Manual located on the Geotechnical Engineering Sections webpage on the Department's website. (https://www.tn.gov/GeotechnicalOperations) It shall be the Design-Builder's responsibility to determine the amount and level of the geotechnical investigations to cover geological risks associated with this Project. The Design-Builder is allowed to perform a design level geotechnical investigation during the RFP procurement phase. Any required lane, shoulder and/or ramp closures must be ~~approved~~ concurred with a minimum of seven (7) days in advance by the Department.
6.b	The Design-Builder shall notify the Department and all adjoining properties and stakeholders thirty (30) days prior to commencing any activity on private property. Property owner's names and addresses shall be obtained using the latest records available from the county Tax Assessor's office. To promote good relationships, a diligent effort shall be made to contact each property owner or tenant prior to entering the property. However, personal contact is preferable in order to explain that entry is required, the purpose of the activity, the activities involved and to determine facts pertinent to the activity.
6.c	The Design-Builder shall collect appropriate field data and samples for geotechnical evaluation of embankments, subgrade, soil and rock cuts, culverts, bridge and retaining wall structures, storm water management structures and ponds, minor structures, including drainage pipes, and any other earth supported structures or elements of highway design and construction relevant to the Project. Refer to Section 2: Geotechnical Projects with Roadway Design Components of the current TDOT Geotechnical Manual.
6.d	Prior to any geotechnical design submittal, as outlined in the TDOT Geotechnical Engineering Manual, the foundation design recommendation reports shall be sealed and signed by a Professional Engineer registered in the State of Tennessee who has completed a minimum of three geotechnical design projects of scope and complexity similar to that anticipated for this Project using the LRFD method and in accordance with the latest edition of the AASHTO LRFD Bridge Design Specifications.

	delivered to the regional office.
7.k	In addition to the standard photos of the subject property and exterior photos of the acquired improvements, the Design-Builder shall provide a typical interior photo of acquired/ affected structures having substantial contributory value (i.e. residences, commercial structures, large barns, etc.) Legible digital images are acceptable.
7.l	The Design-Builder shall update the appraisal report(s) on any tract(s) involved in condemnation covered under Work Orders issued hereunder to "date of possession" when requested to do so by the Department. Appraisal updates shall be completed within sixty (60) days after the request is made in writing by the Department. All such updates shall be in compliance with standards set forth above except that the standards in force as of the date of employment to conduct the updated appraisal service shall apply. The "update" appraisal request may require the Design-Builder to consider and include minor plan revisions and changes in market conditions.
7.m	Upon request by the Department, the Design-Builder shall testify in any judicial or arbitration proceeding involving the determination of the value of the property, in support of the opinion of value of any and all of the property included in his/her appraisal report. Further, the Design-Builder agrees to attend, as requested by the Department, any pre-trial conferences, meetings, depositions, etc. related to such proceedings. The Design-Builder shall be compensated for these litigation-related services in accordance with the Expert Valuation Witness Rates in effect at the time the service is rendered. The Expert Valuation Witness Rate Schedule may be adjusted periodically.
7.n	The Design-Builder shall execute disclaimers of any past, present or contemplated future personal interest in any of the properties included in the proposed agreement, as required by the Department, or if applicable, FHWA.
7.o	The Design-Builder shall maintain throughout the term of this Contract Errors and Omissions insurance in the amount of not less than one million dollars ($1,000,000.00), and proof of which shall be made available to the State upon demand.
7.p	The Design-Builder shall provide appraisal reviews complying with technical review guidelines found in the Department's Guidelines for Appraisers, the Uniform Act, and (USPAP), and the Department's ROW Procedures Manual and make a recommendation of just compensation. Design-Builder's ROW staff that performs acquisition and relocation/ property management services shall be from the Department's pre-qualified consultant list for acquisition and relocation assistance and related services and the Design-Builder shall include a Department's pre-qualified Fee Appraiser from Department's prequalified appraiser list. The review appraiser shall be ~~approved~~ concurred with by the Department and shall also be on the Department's prequalified fee appraiser list. The Department shall have final ~~approval~~ concurrence of all the Design-Builder ROW staff.
Acquisition, Relocation Assistance, and Property Management	
7.q	The Design-Builder shall acquire property in accordance with all Federal and State laws and regulations, including but not limited to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (the "Uniform Act") the Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally-Assisted Programs and (Part 24 of title 49 CFR). The acquisition of property shall follow the guidelines as established by the Department's ROW Procedures Manual. The Design-Builder shall execute a certification in its proposal that it has received the Department's

	ROW Procedures Manual and will comply with the procedures.
7.r	The Department has an Appeals Advisory Board to hear any Relocation Assistance appeals.
7.s	The Department agrees to assist with any out of state relocation by persons displaced within the rights of way by arranging with such other state(s) for verification of the relocation assistance claim.
7.t	The Design-Builder shall establish an acquisition/relocation office at a location that is accessible to the property owners and displacees on or near the project. The purpose of maintaining this office is to ensure effective and responsive service to meet the property owners' and displacees' needs. The office must be operational by the time acquisitions begin. The Design-Builder shall supply relocation and negotiation personnel with substantial experience in highway ROW acquisition, or similar work, in numbers sufficient to accomplish the required work in a timely manner. Design-Builder's ROW staff that performs acquisition and relocation/property management services shall be from the Department's pre-qualified consultant list for acquisition and relocation assistance and related services. All relocation and negotiation personnel are to be ~~approved~~ concurred with by the Department for each project hereunder. After the Department has ~~approved~~ concurred with the personnel for a project, changes may only be made with the written ~~approval~~ concurrence of the Department. This office shall be staffed by persons knowledgeable of the Uniform Act and the Department's ROW Procedures Manual. This office shall be open during normal business hours and after hours by appointment.
7.u	The Design-Builder shall submit procedures for handling ROW acquisitions and relocations to the Department for concurrence prior to commencing ROW activities. This represents a hold point in the Design-Builder's Baseline Schedule. These procedures are to show the Design- Builder's methods, including the appropriate steps and workflow required for certified title reports, appraisals, appraisal review, negotiations, acquisition, relocations and parcel closings and all related activities. These procedures shall include the Department's review and concurrence of just compensation, administrative settlements, relocation benefits and claims.
7.v	A Department's Representative will be available to make timely decisions concerning establishing review and concurrence of just compensation, concurrence of administrative settlements, concurrence of relocation benefits and claims, on behalf of the Department. The Department's Representative is committed to issuing decisions on ~~approval~~ concurrence requests within sixty (60) days. The commitment is based on the plan providing a reasonable and orderly workflow and the work being provided to the Department's Representative as completed.
7.w	The Design-Builder shall maintain accurate parcel files and, at the termination of the work on the project, turn over to the Department all relocation and negotiation files, appraisal and appraisal review files, and any other pertinent acquisition files, records or reports. All files shall be documented in accordance with the applicable State and Federal requirements. During the work on the project, the Design-Builder shall make all such files available, upon demand, for inspection by the Department and/or by the FHWA, when applicable.
7.x	The Design-Builder shall submit a project specific Acquisition and Relocation Plan for TDOT concurrence. The plan shall identify a prioritized schedule of ROW activities including but not limited to appraisal, appraisal review, the specific parcels to be acquired

8.j	The Department will be the ~~approving~~ concurring authority for all utility agreements and concurrence of plans.
8.k	The Department shall make the necessary arrangements with the utility owners on compensable utilities and the Design-Builder shall make the necessary arrangements with the utility owners for all non-compensable utilities including new installations required for the Project, adjustments, relocations or removals where the Design-Builder and utility company determine that such work is essential for highway safety and performance of the required construction.
8.l	The Design-Builder shall accommodate utility adjustments, reconstruction, new installation and routine maintenance work by others that may be underway or take place during the progress of the contract.
8.m	In the event of a utility conflict, the Design-Builder shall request that the utility company submit relocation plans (plans to be provided by the Design-Builder to Utility Owners) that shows existing utilities and proposed utility relocations.
8.n	The Design-Builder shall be responsible for determining the cost responsibility (compensable or non-compensable utilities) for the utility relocations. The Department will be responsible for non-betterment (compensable utilities) utility relocation cost when the utility company has prior rights-of-way or compensable interest. The utility company shall be responsible for the relocation costs if they cannot furnish evidence of prior rights-of-way or compensable interest (non-compensable utilities) in their facilities. The Design-Builder shall be responsible for all costs associated with utility relocations due to haul roads and/or any other temporary conditions resulting from the Design-Builder's methods of operation or sequence of work.
8.o	If the Design-Builder elects to make arrangements with a utility company to incorporate a new utility installation or relocation as part of the highway construction, the utility work done by the Design-Builder and the associated costs for the work shall be negotiated and agreed upon between the Design-Builder and the utility company.
8.p	If the Design-Builder is requested, in writing, by an entity to relocate, upgrade or incorporate new water and sewer facilities as part of the highway construction, designs shall be coordinated with the utility owner, and the Department. The associated design and construction costs shall be negotiated and agreed upon between the Design-Builder and the utility company. Permitting for utility work shall follow the same process as outlined in Section 9.
8.q	The Department Utility Office must execute ~~approved~~ concurred agreements on Design-Build highway projects. The Utility Relocation Agreements (Cost Agreement) and encroachment agreements are available from the Department.
8.r	No additional compensation or time shall be granted for any delays, inconveniences, or damage sustained by the Design-Builder or its Subcontractors due to interference from utilities or the operation of relocating utilities.
8.s	The Design-Builder shall make all reasonable efforts to design the Project to avoid conflicts with utilities, and minimize impacts where conflicts cannot be avoided.

	resubmitting NEPA documentation and may procure consultant services that are independent from Developer to complete the documentation necessary to obtain Environmental Approvals.
9.3.d	The Design-Builder shall not propose any work outside of the original study area identified in the approved NEPA document.
9.3.e	Should any changes to the design of the project occur, the Design-Builder will provide the Environmental Division with a notification and copy of the revised plans.

10. LANDSCAPING SCOPE OF WORK

Req. No	Requirement text
10.a	The Design-Builder shall be responsible for the design and construction of landscaping of seven interchanges (I-40, West End Ave, Murphy Avenue, Hillsboro Pike, I-65, Nolensville Pike and I-24) in accordance with the landscaping plans as provided. The Design-Builder shall prepare landscaping plans in accordance with TDOT Landscape Design Guidelines and submit actual Planting List with species and variety for concurrence by the Department.
10.b	The Design-Builders materials shall comply with the following: - Shade/Canopy trees – 3-inch minimum caliper; - Flowering trees – 2.5-inch minimum caliper; - Evergreen trees – 10-foot minimum height; - Shrubs 30 – 36-inch height and spread; and - Ornamental Grasses/Groundcovers – 1-gallon minimum container plant.
10.c	The Design-Builder shall apply 3-inch thick shredded hardwood mulch in the entire continuous (canopy drip area of the trees), created within the mixed tree grouping, to minimize the lawn areas. The actual mulched area to be concurred with by the Engineer.
10.d	The Design-Builder shall identify all subsurface utilities prior to work. The Design-Builder is responsible for the protection of all utilities (e.g., power company, gas, natural gas, telephone, water & sewer, cable, etc.).
10.e	The Design-Builder shall take all precautionary measures necessary to protect existing elements, bridge structures, guardrails etc., which are to remain in place, from damage.
10.f	The Design-Builder is responsible to remove all old stumps, trees, shrubs and grasses and demolished material from the project site and dispose of it in legal manner.
10.g	The Design-Builder is responsible for notifying the Engineer of any discrepancy of new planting beds with existing drainage swales and drainage operation.
10.h	The Design-Builder shall provide prior to landscaping activities a maintenance plan in accordance with TDOT Landscape Design Guidelines for concurrence by the Department. The Design-Builder is responsible for the maintenance of all interchanges in accordance with the ~~approved~~ concurred maintenance plan until one year after final completion of the I-440.

	public while still providing acceptable construction performance. - Brief description of the laydown, recycling, staging, disposal and maintenance locations to be used during construction. - Description of how the ROW and adjacent roads and properties will be maintained and protected, including the intended measures to be used to mitigate and minimize noise, vibration, light, dust, erosion/run-off and local road damage.
12.1.d	Temporary I-440 travel lane closures shall be allowed nightly between 9:00 p.m. and 5:00 a.m. The Design-Builder shall provide two 12' travel lanes in each direction with a 2' shoulder on either side of the travel way during construction. The shoulder width, for temporary traffic control, shall be measured from the edge of the travel way to the top face of the temporary portable barrier rail. This temporary traffic control layout shall apply to the entire project unless otherwise specified in sections 12.1.e and 12.1.f of the RFP document.
12.1.e	Temporary I-440 travel lane closures shall be allowed nightly between 9:00 p.m. and 5:00 a.m. The Design-Builder shall provide two 11' travel lanes in each direction with a 2' shoulder on either side of the travel way during construction. The shoulder width, for temporary traffic control, shall be measured from the edge of travel way to the top face of the temporary portable barrier rail. This temporary traffic control layout shall apply to the following station ranges: - STA 1036+00 (approx.) to STA 1081+00 (approx.) - STA 1109+00 (approx..) to STA 1155+00 (approx.) - STA 1215+00 (approx.) to STA 1234+00 (approx.) - STA 1250+00 (approx..) to STA 1266+00 (approx.)
12.1.f	Temporary I-440 travel lane closures shall be allowed nightly between 9:00 p.m. and 5:00 a.m. The Design-Builder shall provide two 12' travel lanes in each direction with a 4' shoulder on either side of the travel way during construction. The shoulder width, for temporary traffic control, shall be measured from the edge of travel way to the top face of the temporary portable barrier rail. This temporary traffic control layout shall apply to the following station ranges: - STA 1234+00 (approx.) to STA 1250+00 (approx.)
Temporary Lane/Road closure	
12.1.g	All temporary lane closures ~~and complete closures~~ on I-440, I-65 and local streets must be approved seven (7) days in advance. For full closures on I-440, I-65 and ramps, request for ~~concurrence~~ approval must be sent to the Department ~~seven (7)~~twenty-one (21) calendar days in advance of the proposed closure. For local street closures, request for ~~concurrence~~ approval must be sent to the Department ~~and Metropolitan Nashville and others per RFP Book 3 section 12.1.e.~~at least twenty-one (21) days in advance. Request for complete closures shall also include proposed detour routes and detour signing details. Local streets (non-State Routes) will not be allowed as detour routes for I-440 and I-65 traffic.
12.1.h	No less than ~~seven (7)~~twenty-one (21) calendar days prior to the closure of the road, the Design-Builder shall notify the Department ~~following individuals or agencies completely~~ describing the affected roads and the approximate duration of the construction assisting with notification to the following parties~~: these parties include~~, but are not limited to: i) local law enforcement office, ii) local fire department, iii)

	ambulance service, iv) U.S. Postal Service, v) local road superintendent, vi) railroad company (if applicable), vi) Metropolitan Nashville and Davidson Country's Parks and Recreation Department (if applicable) and vii) local school superintendent.
12.1.i	There will be periods when the Design-Builder will not be allowed to have any type of closures due to holidays as specified in subsection 104.04 of the Standard Specification and major events listed below. Major events and known periods when lanes cannot be closed include but not limited to: - CMA Fest, Tennessee Titans Home Games, Rock n Roll Nashville Marathon, Vanderbilt Homecoming, TSU Homecoming. - ~~No ramp closures at the 21st Ave/Hillsboro Road Interchange or lane closures in the same area (approx. Brightwood to Woodlawn) on the I-440 from Thanksgiving until New Years.~~ - No closures or work on local roads that would impede the Rock n Roll Nashville Marathon route or motoring public before, during, and after the race event. These restrictions do not apply during the segmented interstate closure of I-440.
12.1.j	Weekend closures of I-65 through lanes and four left turning fly-over ramps (I-65 southbound to I-440 eastbound, I-65 northbound to I-440 westbound, I-440 westbound to I-65 southbound and I-440 eastbound to I-65 northbound) at the I-440 and I-65 interchange and State Route 6 will be allowed. Up to ~~four(4)~~two (2) non-holiday/non-major event weekend closures for removal and installation of the I-440 bridge components over I-65 and ramp repairs will be allowed. Limits of I-440, I-65 and ramp closures shall be installed in a manner to not disrupt right turning ramps between I-65 and I-440 as well as between I-440 and I-65. During this full weekend closure, no other temporary lane closures or full ramp closures will be allowed on the project. Weekend closures, including detour routes, shall be submitted to the Department a minimum of ~~fourteen (14)~~twenty-one (21) days prior to closure.
12.1.k	~~Weekend closures of other ramps for the repairs of the Murphy Rd, West End Ave, Hillsboro Pike, Nolensville Pike, I-440/I-24 and I-440/I-65 right turning ramps will be allowed. The Design-Builder will be allowed to close ramps at multiple interchanges on the same weekend however~~ ~~a. no individual ramp can be closed for more than two (2) total weekends~~ ~~b. and ramps on adjacent interchanges along the same travel direction of I-440 cannot be closed on the same weekend~~ ~~c. and ramps on I-440/I-24 and I-440/I-65 along the same travel direction of I-440 cannot be closed on the same weekend.~~ ~~Weekend closures, including detour routes, shall be submitted to the Department a minimum of fourteen (14) days prior to closure~~.
12.1.l	The Design-Builder shall notify the Department and the local governmental agency responsible for traffic control maintenance at least ~~one day~~seven (7) days in advance of the cold planing activity at signalized intersections where detector loops are on the pavement. The maintaining agency will then be responsible for disconnecting the loop detectors and making any necessary timing adjustments in the signal controller prior to the construction.
12.1.m	**Segmented Interstate Closure:** The Department will allow the segmented interstate closure of all travel lanes on I-440.

	Segment #1 being I-440 (both directions) from the eastern half of the I-65 interchange to the eastern project limits at I-24; and Segment #2 representing I-440 (both directions) between I-40 at the western project limits to the western half of the I-65 interchange as shown in Exhibit 1. Segment #1 shall be closed first while providing access to I-65 north and south from west side of I-440. Once Segment #1 is complete as defined below, closure of Segment #2 shall be allowed while providing access to I-65 north and south from east side of I-440. Design-Builder shall maintain one 11' wide paved emergency vehicle access lane along the closed I-440 segments. Design-Builder shall open Segment # 1 to all travel lanes minus the surface course on or before May 10, 2019. Segment # 2 shall not begin until all travel lanes of Segment #1 are open to traffic. All segmented interstate closures shall be completed on or before November 9, 2019. At a minimum the following items shall be completed for the individual segments by these specified dates: - All travel lanes including auxiliary lanes and inside shoulders in each direction of travel along I-440 from near STA. 13003+89.38 (approximately MM 0.2) to STA. 1351+80.09 (approximately MM 7.0) as shown in the preliminary plan shall be complete and open to travel. All lanes shall be paved to the finished grade minus the final asphalt surface layer. - All system and route interchange ramp work shall be completed. - All bridge work shall be completed (Excluding the I-65 bridge). - All concrete median barrier and guardrail work completed. - All drainage work located along the inside shoulder or under the travel and auxiliary lanes of I-440. - Roadway lighting installation - Interstate sign installation - ITS devices installation All remaining work can continue and be completed after the November 9, 2019 completion date for the segmented interstate closure. Striping for the I-65 bridge needs to allow for 3-11' lanes with two (2) - 2'shoulders in each direction and a maximum 40 mph speed posting. No daytime temporary lane closures shall be allowed along Segment #1 or #2 after the November 9, 2019 completion date for the segmented interstate closure. Nighttime temporary lane closures while maintaining minimum 2-travel lanes in each direction, are allowed for the following items: - Final asphalt paving - Final roadway striping - I-65 bridge construction

12.2 Temporary Marking, Detours, Lane Shifts and Median Cross-overs

Req. No	Requirement text
12.2.a	Temporary marking shall adhere to guidance outlined in Section IV of current edition

	of the Department's Design Division Roadway Design Guidelines for pavement markings. The minimum temporary pavement marking width shall be 8-inches. All temporary pavement markings shall be at a minimum painted.
12.2.b	Temporary pavement line markings on intermediate layers of pavement shall be reflective tape or reflectorized paint installed to permanent standards at the end of each day work. Short, unmarked sections shall not be allowed.
12.2.c	The temporary pavement marking on detours, lane shifts and median cross-overs shall be installed and maintained to the same standards as for permanent markings on the main roadway. These markings shall be in place prior to allowing traffic onto the pavement.
12.2.d	All access, service and frontage roads shall be constructed with a minimum of one (1) course of base material before traffic is interrupted on existing roads.
12.2.e	Before opening detours, lane shifts and/or median cross-overs to traffic, the transitional markings on the existing roadway must be in place. All existing markings in the area of these transitional markings shall be obliterated and all existing raised pavement markers shall be removed to eliminate conflicting markings.
12.2.f	All temporary lane shifts and median crossovers shall be paved, striped, signed and the vertical panels are to be in place before it is opened to traffic.
12.2.g	Contrast striping shall be used for temporary striping on concrete pavement located along I-440 and ramps. Contrast striping is covered under SP716DB. (See Reference Materials)

12.3 Temporary Signage

Req. No	Requirement text
12.3.a	All temporary signage shall be in accordance with TDOT Standard Specifications for Road and Bridge Construction, TDOT Standard Drawings, TDOT Standard Traffic Operations Drawings, TDOT Traffic Design Manual, TDOT Design Guidelines, TDOT Work Zone Safety and Mobility Manual, and the latest edition of the Manual of Uniform Traffic Control Devices.
Changeable Message Signs	
12.3.b	A minimum of 20 Changeable Message Signs shall be used in addition to advance warnings signs to notify the motoring public. The locations of these Changeable Message signs shall be reviewed by the Department. Overage of Changeable Message Signs (beyond the minimum 20) shall be paid (with prior ~~approval~~concurrence) as defined in RFP Book 3 Chapter 13.7
Emergency signage	
12.3.c	All existing "emergency reference markers" and "hospital signs" shall be maintained within full view of the motoring public throughout all phases of construction.
Tourist Oriented Directional Signs (TODS)	
12.3.d	All existing "Tourist Oriented Directional Signs" shall be maintained within full view of the monitoring public throughout all phases of construction.

Detour and construction signage	
12.3.e	All detour and construction signing shall be in strict accordance with the current edition of the MUTCD.

12.4 Construction Work Zone

Req. No	Requirement text
12.4.a	Traffic control devices shall not be displayed or erected unless related conditions are present necessitating warning.
Pavement Edge Drop-off Traffic Control	
12.4.b	**A.** Differences in elevation between adjacent traffic lanes or between the traffic lane and shoulder where the traffic lane is being used by traffic, that is caused by base, paving or resurfacing, shall be handled as follows: 1. Differences in elevation between adjacent roadway elements greater than 0.75 inch and not exceeding 1.5 inches: a. Warning signs, uneven lanes (W8-ll) and/or shoulder drop-off with plaque (W8-17 and W8-17P), shall be placed in advance of and throughout the exposed area. Maximum spacing between signs shall be 2,000 feet with a minimum of two (2) signs per exposed area. Where uneven pavement is encountered, signs shall be placed on each side of the roadway. b. Differences in elevation between adjacent traffic lanes being utilized by traffic caused by added pavement shall be eliminated within three workdays. c. Differences in elevation between adjacent traffic lanes being utilized by traffic caused by cold planing shall be eliminated within three workdays. d. When the difference in elevation is between the traffic lane being utilized by traffic and shoulder the difference in elevation shall be eliminated within seven workdays after the condition is created. 2. Differences in elevation between adjacent roadway elements greater than 2 inches and not exceeding 6 inches: (Traffic is not to be allowed to traverse this difference in elevation): a. Separation shall be accomplished by drums, barricades or other ~~approved~~ concurred with devices in accordance with the following: 1) Where posted speeds are 50 mph or greater, spacing of the protective devices shall not exceed 100 feet. 2) Where posted speeds are less than 50 mph, the maximum spacing of the protective devices in feet shall not exceed twice the posted speed in miles per hour or 50 feet, whichever spacing is greater. b. If the difference in elevation is eliminated or decreased to 2 inches or less by the end of each workday, cones may be used during daylight hours in lieu of drums, barricades or other concurred with~~approved~~ protective devices mentioned in paragraph a., provided warning signs are erected. Warning signs (uneven lanes and/or shoulder drop-off) shall be placed in advance of and throughout the exposed area. Maximum spacing between signs shall be 2,000 feet with a minimum of two (2) signs per exposed area. Where uneven

pavement is encountered, signs shall be placed on each side of the roadway.

c. When the difference in elevation is between the through traffic lane and the shoulder and the elevation difference is less than 3.5 inches, the Design-Builder may use warning signs and/or protective devices as applicable and concurred with by the Department. See paragraph a. regarding use of drums, barricades or other concurred with~~approved~~ protective devices. Warning signs (uneven lanes and/or shoulder drop-off) will be placed in advance of and throughout the exposed area. Maximum spacing between signs shall be 2,000 feet with a minimum of two (2) signs per exposed area. Where uneven pavement is encountered, signs shall be placed on each side of the roadway.

In these situations, the Design-Builder shall limit his operations to one work zone not exceeding 2 miles in length unless otherwise noted on the plans or concurred with by the Department. Once the Design-Builder begins work in a work zone, a continuous operation shall be maintained until the difference in elevation is eliminated. Simultaneous work on separate roadways of divided highways will be considered independently in regard to restriction of work zone activity.

3. Differences in elevation between adjacent roadway elements greater than 6 inches but not exceeding 18 inches;

a. The Design-Builder shall accomplish separation by drums, barricades or other concurred with~~approved~~ devices in accordance with the following:
   1) Where posted speeds are 50 mph or greater, spacing of the protective devices shall not exceed 100 feet.
   2) Where posted speeds are less than 50 mph, the maximum spacing of the protective devices in feet shall not exceed twice the posted speed in miles per hour or 50 feet, whichever spacing is greater.

In order to use this method, the Design-Builder must reduce the difference in elevation to 6 inches or less by the end of the workday that the condition is created.

b. The Design-Builder shall provide drums, barricades or other concurred with~~approved~~ separation devices as specified in paragraph a, and construct a stone wedge with a 4:1 slope, or flatter, to eliminate the vertical offset if the lower elevation is at or below subgrade at the end of each day.
c. The Design-Builder shall provide drums, barricades or other concurred with ~~approved~~ separation devices as specified in paragraph 3a above and if the lower elevation is base stone or asphalt pavement, placement of subsequent layers of pavement must begin the next work day and progress continuously until the difference in elevation is eliminated or reduced to six inches or less.
d. The Design-Builder shall provide separation by portable barrier rail.

For preceding conditions a, b, and c, the Design-Builder shall use the shoulder drop-off warning sign with plaque (w8-17 and w8-17p). It shall be placed in advance of and throughout the exposed area. Maximum spacing between the signs shall be 2,000 feet with a minimum of two (2) signs per exposed area. In these situations, the Design-Builder shall limit his operations to one work zone not exceeding 1 mile in length unless otherwise noted on the plans or concurred with by the Department. Once the Design-Builder begins work in a work zone, a continuous operation shall

be maintained until the difference is eliminated. Simultaneous work on separate roadways of divided highways will be considered independently in regard to restriction of work zone activity.

4. For differences in elevation between adjacent roadway elements greater than 18 inches, separation will be provided by use of portable barrier rail.

In this situation the Design-Builder shall limit his operations to one work zone not exceeding 1 mile in length unless otherwise noted on the plans or concurred with by the Department. Once the Design-Builder begins work in a work zone, a continuous operation shall be maintained until the difference in elevation is eliminated. Simultaneous work on separate roadways of divided highways will be considered independently in regard to restriction of work zone activity.

12.4.c **B.** If the difference in elevation is within 30 feet of the nearest traffic lane being used by traffic caused by grading, excavation for utilities, drainage structures, undercutting, etc., differing situations shall be handled as follows:

1. If the difference in elevation is within 8 feet of the nearest traffic lane with difference in elevation greater than 3/4 inch and not exceeding 2 inches:

a. Warning signs (uneven lanes and/or shoulder drop-off) shall be placed in advance of and throughout the exposed area. Maximum spacing between signs shall be 2,000 feet with a minimum of two (2) signs per exposed area. Where uneven pavement is encountered, signs shall be placed on each side of the roadway.

2. If the difference in elevation is within 8 feet of the nearest traffic lane with difference in elevation greater than 2 inches and not exceeding 6 inches:

a. Separation shall be accomplished by drums, barricades or other concurred with ~~approved~~ devices in accordance with the following:
   1) Where posted speeds are 50 mph or greater, spacing of the protective devices shall not exceed 100 feet.
   2) Where posted speeds are less than 50 mph, the maximum spacing of the protective devices in feet shall not exceed twice the posted speed in miles per hour or 50 feet, whichever spacing is greater.

3. If the difference in elevation is within 8 feet of the nearest traffic lane with difference in elevation greater than 6 inches:

a. Separation shall be accomplished by drums, barricades or other concurred with~~approved~~ devices in accordance with the following:
   1) Where posted speeds are 50 mph or greater, spacing of the protective devices shall not exceed 100 feet.
   2) Where posted speeds are less than 50 mph, the maximum spacing of the protective devices in feet shall not exceed twice the posted speed in miles per hour or 50 feet, whichever spacing is greater.

b. Eliminate vertical offset by constructing a stone wedge or grading to a 4:1 slope, or flatter, or use portable barrier rail.

	The Design-Builder shall schedule the work so as to minimize the time traffic is exposed to an elevation difference. Once the Design-Builder begins an activity that creates an elevation difference within 8 feet of a traffic lane, the activity shall be pursued as a continuous operation until the elevation difference is eliminated.
12.4.d	**C.** If the difference in elevation is farther than 8 feet from the nearest traffic lane but not more than 30 feet from the nearest traffic lane: a. Separation shall be accomplished by drums, barricades or other concurred with ~~approved~~ devices in accordance with the following: 1) Where posted speeds are 50 mph or greater, spacing of the protective devices shall not exceed 100 feet. 2) Where posted speeds are less than 50 mph, the maximum spacing of the protective devices in feet shall not exceed twice the posted speed in miles per hour or 50 feet, whichever spacing is greater. b. Eliminate vertical offset by constructing a stone wedge or grading to a 4:1 slope, or flatter, or use portable barrier rail. The Design-Builder shall schedule the work so as to minimize the time traffic is exposed to an elevation difference. Once the Design-Builder begins an activity that creates an elevation difference, the activity shall be pursued as a continuous operation until the elevation difference is eliminated.

13. OTHER SCOPE OF WORK

The other scope of work are additional to the latest version of the Department's **Standard Specifications** and the **DB Standard Guidance**. All work shall be completed in accordance with the most current version of the Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction, unless specifically stated herein.

13.1 Construction Engineering and Inspection

To manage the contract, the Department has chosen to work with the method of Construction Engineering and Inspection (CEI). In relation to the Project, the Design-Builder is required to have a fully operational quality management system in place. The quality management system of the Design-Builder will serve as the basis for the contract management method used by the Department for this Project.

The Design-Builder shall provide a Project Management Plan (PMP) and Subsidiary Quality Plans for the control of the Project, in accordance with the quality management system and the Department's Requirements thereof. An important part of these plans is setting up the design management, construction management, project management and quality management elements by the Design-Builder. This means among others that the Design-Builder shall be able to prove on the basis of his records that contract compliancy is maintained throughout all the phases of the Project.

The Department will perform a combination of Audits, Reviews, Inspections etc. to assess whether the Design-Builder~~'~~'s integrated project management is functioning properly and determine whether its records and information are reliable and up to date.

	- A description of the demolition / construction techniques that shall be used to minimize possible hindrances; - A description of the equipment and machinery to be used during demolition / construction to minimize nuisance and hindrances as much as possible; and - A description of additional physical measures to minimize nuisance and hindrances. The Design-Builder shall meet noise, vibration, nuisance and other environmental limits imposed by local authorities.
13.3.g	The Design-Builder shall incorporate the following nighttime construction practices into the Project: - Noise sensitive residential areas are based on the provided noise analysis and are defined as Noise Analysis Area (NAA) 11, 13, 23 and 37. - New noise barriers (once constructed) may allow nighttime work in a previously designated noise sensitive residential area. - Limit ~~certain construction activities including~~ noise barrier construction~~, concrete pavement removal and rock excavation activities~~ in these noise sensitive residential areas to day-time hours only and prior to segmented interstate closure. - Prohibit slamming/banging of tailgate in these noise sensitive areas during nighttime. - Require use of ambient sensitive back-up ("Smart") alarms in these noise sensitive residential areas to day-time hours.

13.4 Critical Path Method (CPM) Schedule

Req. No	Requirement text
13.4.a	The Design-Builder shall perform schedule management in accordance with the Standard Specifications for Road and Bridge Construction.
Failure to complete on time	
13.4.b	The purpose is to complete the Project within the time limitations set forth in **Contract Book 2 (Design-Build Contract)** and Special Provision 108B.
	Reference DB Standard Guidance : §2.8

- PIN125325.00 – Environmental Commitments – 1.9.2018	.pdf
- Waste & Borrow Manual 2017 (New 3-27-18)	.pdf
Existing Plans (Updated 3-27-18)	
- Acklen Park ov I-440 (19I04400005)	.pdf
- Belmont Blvd ov I-440 (19I04400023)	.pdf
- Brightwood Ave ov I-440 (19I04400021)	.pdf
- CSX RR near Nolensville Rd ov I-440 (19I04400047)	.pdf
- Foster Ave ov I-440 (19I04400051)	.pdf
- Granny White Pike ov I-440 (19I044000251)	.pdf
- Hillsboro Pk ov I-440 (19I04400019)	.pdf
- I-440 I-65 Stack Bridges Gen Notes and Est Quantities	.pdf
- I-440 I-65 Stack Bridges Repair Plans	.pdf
- I-440 ov Bransford Ave (19I04400041)	.pdf
- I-440 ov Charlotte Ave (19I04400001 & 19I04400002)	.pdf
- I-440 ov Craig Ave (19I04400029 & 19I04400030)	.pdf
- I-440 ov CSX RR (19I04400003 & 19I04400004)	.pdf
- I-440 ov Glenrose and CSX RR (19I04400054)	.pdf
- I-440 ov I65 and RR incl. repairs (19I00650113 & 19I00650114)	.pdf
- I-440 ov Lealand Lane (19I04400027 & 19I04400028)	.pdf
- Lyle Ave ov I-440 (19I04400055)	.pdf
- Murphy Rd ov I-440 (19I04400007)	.pdf
- Nolensville Pk ov I-440 (19I04400039)	.pdf
- Pedestrian Bridge (19I04400049)	.pdf
- Ramp F ov Ramp D and I-440 (19I04400011)	.pdf
- Richardson-Marlborough ov I-440 (19I04400013)	.pdf
- Sharondale ov I-440 (19I04400015)	.pdf
- Shop Drawings – Bridge #166 – I-440 over I-65 (New 3-27-18)	.pdf
- Shop Drawings – Bridge #167~~6~~ – I-440 over I-65 (New 3-27-18)	.pdf
- West End ov I-440 (19I04400009)	.pdf
- Winford Ave ov I-440 (19I04400043)	.pdf
- Woodlawn Dr ov I-440 (19I04400017)	.pdf
Existing Roadway Plans (New 2-6-18)	
- 080000-00	.pdf

- 19I04400030MAR16_ov_Craig_Ave	.pdf
- 19I04400041MAR16_ov_Bransford_Ave	.pdf
- 19I04400054MAR16 ov Glenrose Ave CSX LL	.pdf
- I-440 Concrete Ramps (New 2-12-18)	.pdf
ITS Information (New 2-12-18)	
- CNF-075 Pub Sheet 1	.pdf
- CNF-075 Pub Sheet 2	.pdf
- CNF-075 Pub Sheet 3	.pdf
- CNF-075 Pub Sheet 4	.pdf
- CNF-075 Pub Sheet 5	.pdf
- CNF-075 Pub Sheet 6	.pdf
- CNF-075 Pub Sheet 7	.pdf
- CNF-075 Pub Sheet 8	.pdf
- CNF-075 Pub Sheet 9	.pdf
- CNF-075 Pub Sheet 10	.pdf
- CNF-075 Pub Sheet 11	.pdf
- CNF-075 Pub Sheet 12	.pdf
- CNF-075 Pub Sheet 13	.pdf
- CNF-075 Pub Sheet 14	.pdf
- CNF-075 Pub Sheet 15	.pdf
- CNF-075 Pub Sheet 16	.pdf
- CNF-075 Pub Sheet 17	.pdf
- I-440 ITS Devices	.xlsx
Lighting Specifications (New 4-6-18)	
- MGLED 6 4K AS W H V G P7	.pdf
- Street Lighting Guidelines 4	.pdf
- W4GLED 20C 1000 40K T3M MVOLT SPD P7 GYSDP	.pdf
Noise Walls	
- I-440 Noise Wall Inspection Report	.pdf
- PIN 125325.00 I-440 Memo Re Noise Barriers 12-26-17	.pdf
- I-440 TNM Runs (New 4-24-18)	.zip
- PIN 125325.00 I-440 Memo Re Noise Barriers 12-26-17	.pdf
Planned Maintenance (New 3-27-18)	

- I-440 Planned Maintenance (New 3-27-18)	.pdf
Preliminary Design ~~(Updated 3-5-18)~~ (Updated 5-25-18)	
- 125325-00-DesignExceptionsApproved_Locations1&2	.pdf
- generic bridge repair details	.pdf
- I-440 Bridges to Widen	.pdf
- I-440 ITS Roll Plots	.pdf
- I-440 Landscaping Schematic Plans	.pdf
- I-440 Lighting Roll Plots (Revised 4/2/2018)	.pdf
- I-440 Preliminary Plans ~~(Revised 4/2//2018)~~ (Revised 5-25-18)	.pdf
- I-440 ShldrColorSheets (New 4-24-18)	.pdf
- I-440 Signing and Marking Roll Plots	.pdf
- I-440 Utility List (New 2-12-2018)	.pdf
Railroad	
- For Publication_CSXPublicProjectManual_Julay2017_7.31	.pdf
Ramp Safety Projects	
- 119734-00-ROW	.pdf, .zip
- 119735-00-ROW	.pdf, .zip
Traffic Count Data (New 2-25-18)	
- I-65S.B.@ArmoryDrExitRamp2021 DHV	.pdf
- I-65S.B.@ArmoryDrExitRamp2041 DHV	.pdf
- I-65S.B.@WedgewoodRamps2021 DHV	.pdf
- I-65S.B.@WedgewoodRamps2041 DHV	.pdf
- I-440 2021DHV	.pdf
- I-440 2041 DHV	.pdf
Traffic Impact Assessment (New 5-25-18)	
- 2018 FDOT Generalized Service Volume Tables	.pdf
- Closure Exhibit 1	.pdf
- I-440 Volume Diagrams	.pdf
- Summarized Origin-Destination Data for I-440	.pdf
- Traffic Analysis Segments List	.pdf
DVI440_DGN_Files (Revised 4-2-18)	.zip
- Project Sheet Files, Project Design Files	.dgn