



**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

April 3, 2018

ADDENDUM #3

**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 1,2, and 3. Also, this addendum revises SP108B, SP725 – ITS, SP718NB, and adds SP716DB – Contrast Striping. 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,

A handwritten signature in blue ink that reads "Lia Baird".

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

Schedule that can be loaded or imported by the Department using the Department's scheduling software with no modifications, preparation or adjustments.

The CPM Schedule shall show the order in which the Design-Builder proposes to carry on the work, the time frame which it will start the major items of work and the critical features of such work (including procurement of materials, plant, and equipment), and the contemplated time frames for completing the same. For the purposes of developing the CPM Schedule, the Design-Builder shall use ten (10) business days for the Review and Approvals performed by the Department. The CPM Schedule shall include, at a minimum, the following items:

- Controlling items of work, major work and activities to be performed;
- Seasonal weather limitations;
- Land disturbance restrictions;
- Phase duration or milestone events, as applicable;
- Specified contract completion time (defined above) from Price Proposal.

The purpose of this scheduling requirement is to ensure adequate planning and execution of the work and to evaluate the progress of the work. The CPM Schedule proposed shall meet or exceed minimum Contract requirements, as determined by the Department in its sole discretion, where all Design-Builder risks are mitigated with schedule logic. The Design-Builder is and shall remain solely responsible for the scheduling, planning, and execution of the work in order to meet the Project Milestones, the Intermediate Contract Times, and the Contract Completion Date(s).

Within ten (10) business days after award of the Contract, the Design-Builder shall assign a percentage of the Pay Item Cost to each activity in the proposed CPM that reflects an accurate percentage value to each activity based on estimated costs plus associated profit and overhead. The profit and overhead assigned by the to the individual activities starting shall be equal to or less than the mark-up applied to the work when establishing the Contract Lump Sum Price. The schedule shall be in a suitable scale to indicate graphically the total percentage of work scheduled to be completed at any time.

Review and Comment by the Department shall not be construed to imply approval of any particular method or sequence of construction or to relieve the Design-Builder of providing sufficient materials, equipment, and labor to guarantee completion of the Project in accordance with all Contract requirements. The Department Review and Comment shall not be construed to modify or amend the Contract, Interim Completion Dates, or the Contract Completion Date. The updated CPM Schedule may be utilized to facilitate the Department's Quality Assurance (QA) activities.

If at any time the design of the project potentially affects the approved FHWA NEPA document, the Design-Builder shall cease work and contact the Department Alternative Contracting Office.

The Department acceptance of any schedule does not relieve the Design-Builder of responsibility for the accuracy or feasibility of the schedule, does not modify the

demonstrates it meets the technical criteria and can deliver the best combination of price and time and weekend closures (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)

- 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.
 - 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.

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

WEEKEND CLOSURE VALUE = Value associated with a weekend closure.

B: Calendar Days

Amount of one Calendar Day is ~~\$15,000~~\$100,000 as calculated in Special Provision 108B.

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

\$1,000,000 per weekend

Number	Amount
One (1) Weekend closure	\$ 1,000,000
Two (2) Weekend closures	\$ 2,000,000
Three (3) Weekend closures	\$ 3,000,000
Four (4) Weekend closures	\$ 4,000,000

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.

of the RFP. Prior to making such determination, the Department may offer a Design-Builder the opportunity to provide supplemental information or clarify its Proposal. Each responsive Technical Proposal shall be evaluated based on the criteria provided herein. After evaluation of the Technical Proposal, the Department, as required by Department Rule 1680-5-4, Procedures for the Selection and Award of Design-Build Contract, will publically open and read the Total Contract Amount (A+B+C). Although the selection will be made on the bid proposal that qualifies as the lowest and best adjusted bid, the cost of the Contract will be the amount received as the Proposal Price “A” and will be placed in **Contract Book 2 (Design-Build Contract)** upon award.

D. TECHNICAL RESPONSE CATEGORIES AND SCORING

Proposal responses for Response Categories I through IV will be evaluated using the rating guidelines set out in this **Contract Book 1 (ITDB - Instruction to Design-Builders)**.

EVALUATION FACTORS	POINTS
RESPONSE CATEGORY I	PASS/FAIL
RESPONSE CATEGORY II	PASS/FAIL
RESPONSE CATEGORY III	PASS/FAIL
RESPONSE CATEGORY IV	PASS/FAIL
TOTAL	

During the evaluation period, each Technical Proposal will be reviewed by the Department Design-Build Review Committee (DBRC) individually.

1. RESPONSE CATEGORY I

The submittals required under Response Category I as stated in this **Contract Book 1 (ITBD - Instruction to Design-Builders)** will be evaluated as a matter of responsibility on a pass/fail basis.

a. FORMS

- 1) All required contract forms filled out. All Response Category forms and any forms specified within a Response Category shall be placed within the appropriate response category below. If any Response Category item requires additional sheets, the form shall indicate at the bottom of the item, see additional sheets. Additional forms can be used, but are not necessary if only one item requires additional sheets.
- 2) All other forms are to be placed within this Response Category.

b. OTHER

- 1) City and state where assigned staff will be located, particularly the location(s) of design staff.
- 2) List of DBEs Contacted (Include identification of the type of work considered.).

**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

APPENDIX B
SPECIAL PROVISIONS

TITLE	SP#
EMPLOYING AND CONTRACTING WITH ILLEGAL IMMIGRANTS	102I
SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION	102LC
SPECIAL PROVISIONS RELATIVE TO PROTECTION OF RAILROAD PROPERTY RAILROAD FLAGGING AND INSURANCE REQUIREMENTS	105C
BUY AMERICAN REQUIREMENTS	106A
AIR QUALITY FOR MOWING	107AQ
WATER QUALITY AND STORM WATER PERMITS	107FP
PROJECT COMPLETION AND LIQUIDATED DAMAGES	108B
PAYMENT ADJUSTMENT FOR FUEL	109A
PRICE ADJUSTMENT FOR BITUMINOUS MATERIAL	109B
MOWING PAYMENT ADJUSTMENT FOR FUEL	109MA
SCALING AND TRIMMING	203E
BITUMINOUS PLANT MIX ROADWAY DENSITY	407DEN
INTELLEAGENT COMPACTION (IC) FOR HOT MIX ASPHALT (HMA)	407IC
ASPHALT PAVEMENT SAFETY EDGE	407SE
SECTION 411-ASPHALT CONCRETE SURFACE (HOT MIX)	411B
FULL DEPTH AND PARTIAL DEPTH CONCRETE PAVEMENT REPAIR	502A
FULL DEPTH AND PARTIAL DEPTH CONCRETE PAVEMENT REPAIR (HIGH EARLY STRENGTH)	502C
SECTION 602 – STEEL STRUCTURES (INSPECTION COST ONLY)	602
HIGHWAY SIGNS, LUMINAIRES & TRAFFIC SIGNALS	700SIG
ROCKFALL BARRIER SYSTEM	707H
TRAFFIC CONTROL SUPERVISOR	712B
CONTRACTOR PROVIDED UNIFORMED POLICE OFFICER	712PO-DB
TRAFFIC QUEUE PROTECTION	712PTQ
<u>CONTRAST PAVEMENT MARKINGS</u>	<u>716DB</u>
SOUND-ABSORBING NOISE BARRIERS	718NB
REMOVAL AND DISPOSAL OF LITTER	719A
ITS SPECIAL PROVISION	725

STATE OF TENNESSEE

REVISED 3/13/2018

REVISED 4/3/2018

(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 on or before August 31, 2021.

At least one lane in each direction shall be maintained on I-440 nightly between 8:00 P.M. and 5:00 A.M. On all other interstates, only a single lane closure in each direction will be allowed nightly between 8:00 P.M. and 5:00 A.M. During daytime hours between 5:00 A.M. and 8:00 P.M. the Design-Builder shall maintain at least two or more lanes in each direction on I-440.

Temporary Interstate 440 travel lane and ramp lane closures shall be allowed nightly between 8:00 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 8:00 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 four (4) full weekend closures of I-65, including the I-440 at I-65 interchange ramps, as specified in RFP Book 3, and Up to two (2) weekend closures will be allowed on other I-440 interchange ramps as specified in RFP Book 3. A weekend is defined as between Friday at 8:00 P.M. to Monday at 5:00 A.M. outside of the holidays and major events 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 ~~**\$10,000**~~ **\$7,500** per hour per lane shall be deducted from the monies due the Design-Builder, not as a penalty, but as liquidated damages.

For each additional full weekend closure in which the I-65 and I-440 at I-65 interchange ramps exceeds the number submitted by the Design-Builder in its Proposal, the sum of **\$1,000,000** per weekend closure shall be deducted from the monies due the Design-Builder, not as penalty, but as liquidated damages.

After the allowable weekend closures have been utilized on the other I-440 interchange ramps, the Design-Builder shall be required to complete the remaining work using lane closures as defined above. For each hour, or portion thereof, in which the full ramp lane 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
I-440	\$7,500 per hour per lane	N/A	\$3,750 per 15 min. per lane
I-65	\$7,500 per hour per lane	\$10,000 \$7,500 per hour per lane	N/A
Interchange Ramps	\$7,500 per hour per lane	\$7,500 per hour per lane	N/A
Local Streets including State Routes <u>Weekend Full Closure of I-65</u>	\$2,300 per hour per lane	N/A \$1,000,000 per weekend	N/A

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

Calendar Days

The ~~liquidates~~liquidated damage deductions specified in Subsection 108.09 of the Standard Specifications, as amended, for failure to complete the project on or before ~~August 31, 2021, the completion date set forth in RFP Book 2 Section D.3,~~ shall apply for the project. For each calendar day after ~~August 31, 2021 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. The liquidated damage amount is calculated based on Department related traffic control and maintenance costs, detour costs, and daily road user costs, as applicable.

The Design-Builder waives any defense as to the validity of any disincentives stages in the Contract, the Specifications, or this Special Provisions, and assessed by the Department against the Design-Builder on the grounds that such disincentives are void as penalties or are not reasonably related to actual damages.

Where provisions of this Special Provision conflict with Subsection 108.09 of the Standard Specifications, as amended, this Special Provision prevails.

SP716DB

SP716DB

STATE

OF

TENNESSEE

Project Specific for
DB1701 Interstate 440
Widening from I-40 to I-24

SPECIAL PROVISION 716DB

REGARDING

CONTRAST PAVEMENT MARKINGS

Description:

This specification covers the requirements for placement of a Contrast Pavement Marking system on portland cement concrete pavements and bridge decks.

Material:

Provide black, white and yellow Thermoplastic Pavement Marking Material meeting the requirements of subsection 919.02, Spray Thermoplastic Pavement Marking Material, of the TDOT Standard Specifications. All material shall be matching systems from the same supplier.

As an Alternate to spray thermoplastic marking material, provide a product from the TDOT Qualified Products List (QPL)

List 1: SECTION B PREFORMED PLASTIC PAVEMENT MARKINGS TAPE

Preformed Tape

List 1: SECTION B PREFORMED PLASTIC PAVEMENT MARKINGS

Preformed Thermoplastic

Provide a manufacturer's certification to the engineer for each lot furnished certifying that the materials supplied conform to all requirements specified. The certification shall include, or have attached, results of all required tests and the requirements it represents.

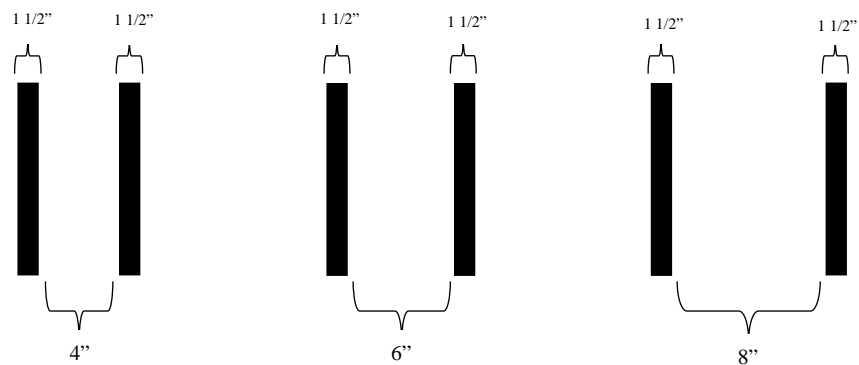
Construction Requirements:

Apply the contrast pavement markings in accordance with section 716.03 and 919.02 of the TDOT Standard Specifications, with the following changes.

- Ensure the pavement temperature is a minimum of 40°F and rising before beginning application and suspend operations if the temperature of the pavement falls below 40°F.
- Apply the black thermoplastic material at a rate of 40 mils followed by either the white or yellow thermoplastic material at a rate of 60 mils for a total thickness of 100 mils.
- If an Alternate product is selected, apply in accordance with section 716.06 of the TDOT Specifications and the manufactures recommendations.

Basis of Payment:

The Department will measure Contrast Pavement Marking Traffic stripe and markings, complete in place.



Contrast striping, 4-inch with 1-1/2 inch black border

Contrast striping, 6-inch with 1-1/2 inch black border

Contrast striping, 8-inch with 1-1/2 inch black border

Payment will be for the work under this provision shall be included in other items.

STATE OF TENNESSEE

Contract No. DB1701

Davidson County

Regarding Sound-Absorbing Noise Barriers**1.0 General**

1. The sound-absorbing noise barrier system shall be of post and panel design with the sound-absorbing side facing the highway.
2. The sound-absorbing noise barrier system shall meet or exceed requirements for sound absorption, freeze/thaw, and sound transmission loss, as specified below.
3. The system shall include a reinforced concrete component, and the panels shall be cast such that the sound-absorbing material is integral with the reinforced concrete component. No adhesives or mechanical fasteners may be used to attach the sound-absorbing material to the structural concrete.
4. The sound-absorbing material shall be durable under all weather conditions and shall resist rotting; mold and mildew build-up; rusting; warping; bird, rodent or insect nesting or infestation; and delamination, crumbling or spalling.
5. Adequate drainage shall be provided at the base of the panel.
6. The contractor shall obtain concrete and sound-absorbing products from a single manufacturer.

2.0 Sound Absorption Test Requirements

1. The Noise Reduction Coefficient (NRC) of the proposed sound-absorbing noise barrier panels shall equal or exceed 0.70 when tested per current ATSM C423 requirements, mounting type A (sample laid directly against the test surface).
2. Testing shall be completed prior to beginning the production run as specified below. The test panel sample shall:
 - a. be produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. be taken from the same panels or lot of panels that is the source of the samples used in the Freeze/Thaw Test; and,
 - c. have the same thicknesses of sound-absorbing material and the same pattern, texture, and stain as the actual panels to be used in this project.
3. The contractor shall provide the TDOT Structures Division with the name of the certified testing laboratory and the scheduled date of testing prior to conduct of the Sound Absorption Test and shall provide TDOT with all Sound Absorption Test results within seven days of receipt of the test results from the laboratory.

4. If the sample fails the Sound Absorption Test, the contractor, at his own expense, shall have the option of testing new samples from that source, or selecting another material or another noise barrier supplier that then passes the test. The failure to pass the Sound Absorption Test shall not constitute cause for an excusable project time extension.
5. TDOT will accept previously conducted Sound Absorption Test results in lieu of the testing described above as long as the following requirements are met:
 - a. The tested panels were produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. The panels have the same thicknesses of sound-absorbing material and the same pattern, texture, and stain as the actual panels to be used in this project;
 - c. The process by which the project panels will be produced is the same as that used to produce the tested panels;
 - d. The tests were completed within two years prior to the date the project is advertised for bid; and,
 - e. The manufacturer provides a notarized letter explicitly stating that the conditions in 5(a), 5(b), 5(c), and 5(d) have been met.
6. The contractor shall provide full documentation of the Sound Absorption Test results to TDOT for review and approval.

3.0 Freeze/Thaw Test Requirements

1. The Freeze/Thaw Test shall be performed prior to the production run in accordance with the test procedure in the current version of ASTM C 666 using Method A or Method B (for 300 cycles) at a certified testing laboratory. Weight loss shall not exceed 7% and no physical distress (no cracking or breaking) shall be allowed. The test panel samples shall:
 - a. be produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. be taken from the same panels or batch of panels that is the source of the samples used in the Sound Absorption Test; and,
 - c. have the same thickness of sound-absorbing material and concrete, and the same pattern, texture and surface coating as the actual panels to be used in this project.
2. The contractor shall provide the TDOT Structures Division with the name of the certified testing laboratory and the scheduled date of testing prior to conduct of the Freeze/Thaw Test and shall provide TDOT with all Freeze/Thaw Test results within seven days of receipt of the test results from the laboratory.
3. If the sample fails the Freeze/Thaw Test, the contractor, at his own expense, shall have the option of testing new samples from that source, or selecting another material or another noise barrier supplier that then passes the test. Failure to pass the

Freeze/Thaw Test shall not constitute cause for an excusable project time extension.

4. TDOT will accept previously conducted Freeze/Thaw Test results in lieu of the testing described above as long as the following requirements are met:
 - a. The panels were produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. The panels have the same thickness of sound-absorbing material and concrete, and the same pattern, texture and surface coating as the actual panels to be used in this project;
 - c. The process by which the project panels will be produced is the same as that used to produce the tested panels;
 - d. The tests were completed within two years prior to the date the project is advertised for bid; and,
 - e. The manufacturer provides a notarized letter explicitly stating that the conditions in 4(a), 4(b), 4(c), and 4(d) have been met.
5. The contractor shall provide full documentation of the Freeze/Thaw Test results to TDOT for review and approval.

4.0 Sound Transmission Loss Requirements

1. The contractor shall submit test results by current ASTM E90 requirements for the expected thickness (or smaller thickness) of the proposed concrete and /or concrete plus sound-absorbing panels. These results may be from representative tests completed within five years prior to the date the project is advertised for bid. The transmission loss in each tested 1/3-octave band shall be at least 20 dB.

5.0 Sound-Absorbing Material Fire Rating Requirement

1. The sound-absorbing material shall exhibit a Flame Spread Index of 25 or less (Class A) when tested according to current ASTM E84 requirements.

6.0 Noise Barrier System Surface Finish

1. Concrete formliners shall be used to achieve the specified pattern and texture on both the sound-absorbing side of the barrier and the community side of the barrier. Methods that involve rolling of any kind to achieve the specified pattern and texture will not be permitted.
2. The formliner used on the sound-absorbing side of the noise barrier that will face the highway shall have an appearance aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
3. The formliner used on the community side of the noise barrier shall have an appearance aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
4. All posts shall be cut flush with the panel tops.

5. The formliners for both the community side and the highway side of the noise barrier shall be approved by TDOT Environment Division, Cultural Resources Section (615-741-5373), TDOT Structures Division (615-741-3351), and TDOT Region 3 Construction (615-350-4300) prior to the manufacture of the demonstration panel for product acceptance as specified below.

7.0 Noise Barrier System Surface Treatment

1. The sound-absorbing side of the barrier shall be stained using a weather-resistant water based acrylic stain approved by the manufacturer of the sound-absorbing material. The color shall be aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
2. The sides of the noise barrier posts on the sound-absorbing side of the noise barrier shall be texture coated aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
3. The community side of the noise barrier and the sides of the barrier posts on the community side of the noise barrier shall be texture coated aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
4. The colors for both the community side and the highway side of the noise barrier shall be approved by TDOT Environment Division, Cultural Resources Section (615-741-5373), TDOT Structures Division (615-741-3351), and TDOT Region 3 Construction (615-350-4300) prior to the manufacture of the demonstration panel for product acceptance as specified below.
5. Surface preparation, application rate and application procedure shall be as specified by the stain manufacturer. Surfaces must be clean and free of any contaminants that could prevent good adhesion. Stain shall not be applied when the air temperature is below 45 degrees F or above 90 degrees F, or when the surface is damp, or when weather conditions such as rain, fog or dew would not permit full drying of material.
6. Staining and texture coating shall result in panels and posts that appear uniform in color. The contractor shall obtain approval from the TDOT Environment Division, Cultural Resources Section at 615-741-5373 that the noise barrier surfaces are uniform in color before ceasing staining or texture coating operations.
7. The stain and texture coat applications shall be performed either at the production site or the construction site, but shall not be applied until after the material is cured. The contractor shall be responsible for any damage to the finish that occurs during shipping and installation. The contractor shall reapply stain and texture coat as needed after installation to correct any problems, in accordance with requirements of the stain manufacturer and the sound-absorbing material manufacturer, and to the satisfaction of the State inspector and the TDOT Environmental Division to ensure color uniformity.

8.0 Demonstration Panel for Product Acceptance

1. The contractor shall cast a sample barrier panel with the approved formliner and color. If the sample meets the requirements of this provision, TDOT will approve the panel and this panel shall serve as a standard for acceptance of subsequent noise barrier panels. If accepted, the demonstration panel can be incorporated into the completed project.
2. The demonstration panel shall be delivered to the project site. The delivery location

should be approved in advance by Environment Division, Cultural Resources Section at 615-741-5373 and TDOT Region 3 Construction at 615-350-4300.

9.0 Panel Transportation and Installation

1. Written procedures to protect the posts and panels and sound-absorbing material from damage during all phases of transportation and installation shall be incorporated into shop drawing notes. The installer shall consult with manufacturer and/or licensee to determine the proper procedures.
2. The manufacturer and trucking company shall insure that all panels are protected during all aspects of truck loading/unloading and transport to the project installation location. Straps or other devices used to hold the panels in place on the truck shall not make contact with the sound-absorbing material at any time.
3. Panels having deficiencies such as delamination, crumbling, cracking, crazing, scaling, spalling, efflorescence or segregation, or panels having mottling of stain or finish shall be rejected. Prior to installation, the contractor shall inspect delivered product for any defects.
4. Field patching of damage to the sound-absorbing material surface that occurs during installation shall not be permitted unless the contractor can successfully demonstrate such patching in the precast yard by a method approved by the manufacturer of the sound-absorbing material. Any field patching must be accomplished with the same sound-absorbing material as is on the precast panel and must result in a finish that is consistent with the undamaged sound-absorbing material finish.
5. Installation shall be done such that the horizontal joints between panels shall line up from one bay of panels to the next.
6. Panels that exhibit deficiencies or damage after installation shall be replaced or repaired by the contractor at the discretion of TDOT and to the satisfaction of TDOT at the expense of the contractor.
7. After installation, the contractor shall remove dirt from panels with water.

10.0 List of Possible Suppliers

1. The following are known suppliers of sound-absorbing noise barriers for the contractor's information only. There may be products from other suppliers that will meet the requirements of the plans and this specification.

Armtec (formerly Durisol)

Mr. Michael Pruden
Southeast Territory Manager
8668 Navarre Parkway
Suite 263
Navarre, FL 32566
850-396-0085, Fax: 850-665-0143
Michael.pruden@armtec.com

Concrete Precast Systems

Mr. Stephen McCowin

Contract No. DB1701
Davidson County

4215 Lafayette Center Dr., Suite 1
Chantilly, VA 20151
(703) 222-9700
(703) 222-6998 Fax
www.cpsprecast.com

Concrete Solutions, Inc.

Mr. Boone Bucher
Ms. Wendi Bucher
3300 Bee Cave Road, Suite 650
Austin, TX 78746
(512) 327-8481
(512) 327-5111 Fax
csi@soundsorb.com

Faddis Concrete Products, Inc.

Mr. Gary Figallo
441 Fairway Road
Ridgewood, NJ 07450
(201) 888-1553
(201) 612-8831 Fax
gary.figallo@noisebarrier.com

Nashville
I-440
DESIGN-BUILD
CONSTRUCTION
Federal Project No.
State Project No. 19014-1169-04
PIN 125325.00

SPECIAL PROVISION (SP) 725

01/16/2018
Revised 4/3/2018

Prepared For:

Tennessee Department of Transportation



Prepared by:
TDOT Traffic Operations Division
ITS Section

and warranty start and end date. The final documentation shall also include a troubleshooting matrix which can be utilized by the system operators to determine the most appropriate action for various problems that may occur in the system.

1.8.6 Review Process

1. The Engineer will review and return submittals to the Design-Builder within **10 business days** of receipt.
2. If additional information is requested or if a re-submittal is required, the Design-Builder is required to re-submit within **10 business days** of receipt of the Engineer's comments.
3. The Engineer will review and return the re-submittals to the Design-Builder within **10 business days** of receipt.
4. Any additional re-submittals must also meet this **10 business days** timeline.
5. The Design-Builder shall maintain a file of approved submittals, shop drawings, and operating data for reference purposes and shall provide an electronic copy of that file to the Engineer upon completion of construction.

1.9 System Documentation

The Design-Builder shall maintain a formal procedure to document the configuration of the as-built system as described in Section 17 of this SP. That program will include maintenance of record drawings and other documentation of the actual location and arrangement of all hardware installed on the project. In addition, the program will include maintenance of records of the system integration procedures. Provisions will be made to accommodate changes to the system both during and after construction.

1.10 Liquidated Damages

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

Fiber Network

The Design-Builder 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 Design-Builder 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,

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

	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.
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.
2.2.e	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.
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. <ul style="list-style-type: none"> 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'.

	and to provide plans for re-evaluation of the NEPA document. No additional time will be allotted to the Project schedule for the Department’s preparation of the NEPA document re-evaluation and FHWA approval.
2.2.y	For Project Nos. 1, 2 and 3: All proposed roadway slopes shall be sodded.
2.2.z	For Project Nos. 1, 2 and 3: Upon completion of the Project, the Design-Builder shall provide the Alternative Contracting Office a transmittal letter, an electronic copy (CAD and signed PDF’s) of the As-Built drawings, and final foundation type, including footing elevations and lengths of individual piles, prior to final payment of funds to the Design-Builder. The Professional Engineer in charge of the development of the Project plans shall place his seal, including signature and date, on the right side of the title sheet. All plans sheets shall contain the seal, including signature and date, of the Professional Engineer in charge of its development. The As-Built Plans and the Design-Builder Specifications following construction completion shall incorporate any changes to the Readiness-for-Construction Design Review Plans and Specifications, changes made during construction as well as all utility locations within ROW. As indicated in the Design-Build Standard Guidance: https://www.tn.gov/DB Standard Guidance
2.2.aa	<p>For Project No. 1: The following locations along I-440 shall have the following minimum inside shoulder widths (measured from the median barrier centerline to the inside edge of pavement) for the purpose of meeting the required stopping sight distance (SSD):</p> <p>STA 1128+00 to STA 1129+20 (WB) – inside shoulder width transition 11’ to 13’</p> <p>STA 1129+20 to STA 1134+80 (WB) – inside shoulder width 13’</p> <p>STA 1134+80 to STA 1136+00 (WB) – inside shoulder width transition 13’ to 11’</p> <p>STA 1041+83.72 to STA 1044+38.72 (EB) – inside shoulder width transition 11’ to 15.25’</p> <p>STA 1044+38.72 to STA 1054+54.67 (EB) – inside shoulder width 15.25’</p> <p>STA 1054+54.67 to STA 1056+79.67 (EB) – inside shoulder width transition 15.25’ to 11’</p> <p>STA 1105+95 to STA 1110+00 (EB) – inside shoulder width transition 11’ to 17.75’</p> <p>STA 1110+00 to STA 1116+00 (EB) – inside shoulder width 17.75’</p> <p>STA 1116+00 to STA 1120+05 (EB) – inside shoulder width transition 17.75’ to 11’</p> <p>STA 1154+60 to STA 1163+99.98 (EB) – inside shoulder width transition 11’ to 27.66’</p> <p>STA 1163+99.98 to STA 1165+00 (EB) – inside shoulder width transition 27.66’ to 26.16’</p> <p>STA 1165+00 to STA 1170+00 (EB) – inside shoulder width 26.16’</p> <p>STA 1170+00 to STA 1179+10 (EB) – inside shoulder width transition 26.16’ to 11’</p> <p>STA 1268+40.11 to STA 1271+10.11 (WB) – inside shoulder width transition 11’ to 15.50’</p> <p>STA 1271+10.11 to STA 1272+00 (WB) – inside shoulder width 15.50’</p> <p>STA 1272+00 to STA 1276+00 (WB) – inside shoulder width transition 15.50’ to 16.50’</p> <p>STA 1276+00 to STA 1279+00 (WB) – inside shoulder width 16.50’</p> <p>STA 1279+00 to STA 1280+00.45 (WB) – inside shoulder width transition 16.50’ to 15.50’</p> <p>STA 1280+00.45 to STA 1284+20.73 (WB) – inside shoulder width 15.50’</p> <p>STA 1284+20.73 to STA 1286+90.73 (WB) – inside shoulder width transition 15.50’ to 11’</p> <p>STA 1248+00 to STA 1249+28.72 (WB) – inside shoulder width transition 11’ to 12’</p>

	<p>STA 1249+28.72 to STA 1257+00 (WB) – inside shoulder width 12’</p> <p>STA 1257+00 to STA 1258+00 (WB) – inside shoulder width transition 12’ to 11’</p> <p>The shoulder widths listed above are shown in the I-440 Revised Preliminary Plans.</p> <p>For segments of I-440 with inside shoulder widths greater than 13.25’(measured from the median barrier centerline to the inside edge of pavement), the Design-Builder shall use transverse shoulder markings on the inside shoulders in these areas (TDOT Standard Drawing T-M-3 (most current version)).</p> <p>If the Design-Builder deviates from the proposed I-440 alignment (either vertically and/or horizontally) shown in the I-440 preliminary plans in any of the locations listed in this section, the Design-Builders shall provide the Department updated SSD calculations to verify the required SSD is achieved at that location. If necessary, the Design Builder shall adjust any ramp alignments due to changes in inside shoulder.</p>
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2.3 Ramps

Req. No	Requirement text
2.3.a	Remove and repair concrete ramp pavement at locations shown in I-440 Concrete Ramps Repair Report located as an Appendix A in this Contract Book 3 (Project Specific Information) . Concrete pavement repairs shall 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, AASHTO <i>Policy on Geometric Design of Highways and Streets</i> , and <i>Manual on Uniform Traffic Control Devices</i> .
2.3.b	Ramp repair and replacement work shall be performed in a manner as to require no concrete joints in the ramp travel lane.
2.3.c	All existing ramp striping and marking (in their entirety) shall be removed and replaced with new contrast striping and marking.
2.3.d	Asphalt ramp paving shall continue from the I-440 termini of the ramp until a full inside shoulder is developed on the ramp, a full outside shoulder is developed on I-440 and a minimum separation of 4’ is achieved between the two shoulders. After this point, concrete ramp paving shall be used. The approximate locations of asphalt ramp paving to concrete ramp paving transitions are shown in the revised preliminary plans (for information only).
<i>Paving/Resurfacing (Applicable for Ramp Safety Projects)</i>	
2.3.e	For non-curb sections of roadway, the Design-Builder shall attach a device to the screed of the paver such that material is confined at the end gate and extrudes the asphalt material in such a way that results in a consolidated wedge-shape pavement edge of approximately 25 to 30 degrees as it leaves the paver (measured from a line parallel to the pavement surface.) The device shall meet the requirements that are currently set forth in Special Provision 407SE.
2.3.f	Traffic will be allowed to temporarily drive on the milled surface of the roadway under the following conditions only: <ul style="list-style-type: none"> - The milled surface is fine textured. The fine texture shall be obtained by a milling machine utilizing a milling head with teeth spacing of 3/8" or less operating at less than 80 feet per minute.

	<ul style="list-style-type: none"> - The surface shall be swept and cleaned of all loose materials. - The difference in elevation between the milled surface and the adjacent lane shall not exceed 1 1/2 inches. - The milled surface shall be paved within 72 hours. - Rain or inclement weather is not expected or forecasted within 48 hours after milling. - All applicable signing is installed in accordance with the current edition MUTCD. Signing shall include motorcycle warning signs (TN-64) placed in advance of any milled areas. - If raveling or deterioration of the milled surface is occurring while traffic is driving on the milled surface, then this practice will not be allowed and paving shall be completed immediately after milling. - Only one lane in each direction shall have a milled surface at one time.
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2.4 Marking

Req. No	Requirement text
2.4.a	The Design-Builder shall prepare pavement marking plans for the Department’s concurrence. The design and installation of permanent pavement markings shall be in strict accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), TDOT Design Guidelines, TDOT Standard Drawings, TDOT Standard Traffic Operations Drawings, TDOT Traffic Design Manual, and the current edition of the TDOT Standard Specifications.
2.4.b	Permanent pavement line markings shall be thermoplastic installed to permanent standards at the end of each day’s work. Short unmarked sections shall not be allowed. The Design-Builder shall have the option of using reflectorized paint installed to permanent standards at the end of each day’s work and then installing the permanent markings after the paving operation is completed.
2.4.c	Contrast striping shall be used for all permanent striping on concrete pavement/structures along I-440. Contrast striping is covered under SP716DB. (See Reference Materials)
2.4.d	See Signage and Marking Roll Plot as provided on the Project Website for guidance.

2.5 Guardrail and Barriers

Req. No	Requirement text
2.5.a	<p>All guardrails and impact attenuators along I-440 and I-440 ramps shall be removed and replaced. The Design-Builder shall only remove sections of existing guardrail as specified in the Design-Builder plans and existing guardrail in other locations shall not be removed to rework shoulders or flatten slopes until the Department concurs in the necessity of removal due to construction requirements and appropriate warning devices are installed. The proposed guardrail, including any anchor system, shall be installed quickly to minimize traffic exposure to any hazard. Guardrail shall be removed and replaced in accordance with the current editions of Department Standard Drawings and Department Standard Specifications, as amended, Section 909. Guardrail is to be complete in place before the mainline roadway is opened to traffic.</p> <p>All permanent and temporary safety appurtenances (sign supports, guardrail, barrier rail, impact attenuators, etc.) shall meet current Department standards and shall have all</p>

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) 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 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 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 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)).

	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) in the raised grass median along I-440 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 existing lighting located on the outer edges of pavement shall remain in place unless shown otherwise on Lighting Roll Plots.
4.c	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.d	The illuminance method shall be used (Values of Average Maintained Minimum, Average/Min, and Max/Min shall be in accordance with Chapter 15 of the TDOT Traffic Design Manual). Photometrics for the whole project shall be generated, submitted, and concurred by Traffic Operations Division before starting a complete detailed design of the project.
4.e	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.f	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.g	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.h	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.i	The Design-Builder shall not allow light pollution/light hindrance into residential areas during construction.
4.j	All wiring shall be concealed underground in 2-inch schedule 40 PVC rigid conduit.
4.k	The ground wire shall be run inside conduit within structures, shall be colored green and have THW insulation.
4.l	Existing foundations shall be removed a minimum of six inches below grade.
4.m	Light standards shall be round tapered poles. Length shall be determined by required mounting height.
4.n	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.o	The Design-Builder shall coordinate with TDOT Traffic Operations and Nashville Electric Service to determine the proposed lighting fixture type (i.e. mast arm, offset,

	etc.) to be used on the project and any specific design parameters.
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 existing ITS system within the project limits. The Design-Builder will be responsible for any temporary communications that may be necessary to provide continual communications to all non-decommissioned ITS field devices within the project limits.

6.e	The Design-Builder shall be responsible for obtaining the borings for all abutments, bents, piers, retaining wall foundation locations, and noise wall foundation locations where subsurface information is not sufficient or is warranted by variability in the geology. All borings shall be deep enough to show a complete soil and rock profile to the depth of the foundation-supporting layer. Refer to Section 1: Geotechnical Projects with Structural Components of the current TDOT Geotechnical Manual.
6.f	The prequalified geotechnical firm shall also determine if additional subsurface information, other than that required and noted elsewhere in the Contract Documents, is required based upon the final roadway and structure designs. If a determination is made that additional subsurface information is required; the Design-Builder shall perform all additional subsurface investigation and laboratory testing in accordance with the current TDOT Geotechnical Manual.
6.g	The Design-Builder shall provide geotechnical report, design and construction summaries that contain pertinent subsurface investigations, test, and engineering evaluations.
6.h	The Design-Builder shall provide field quality control for all bridge foundations, retaining foundations and noise wall foundations including verifying subsurface conditions for drilled piers and bearing for shallow foundations.
Rock Fall Mitigation	
6.i	Rock Scaling The Design-Builder shall mitigate, by means of scaling and trimming, the potential rockfall areas outlined in the supplied TDOT Geotechnical Engineering Section memorandum “125325-00-GeoProjMemo-2017-04-24-GES1912416” dated April 24, 2017 and “Rock Removal Estimate” dated March 28, 2018. The work shall be in accordance with Special Provision 203E, regarding Scaling and Trimming.
6.j	Rock fence repair and/or replacement The Design-Builder shall repair and/or replace the two rockfall fences outlined in the supplied TDOT Geotechnical Engineering Section memorandum “125325-00-GeoProjMemo-2017-04-24-GES1912416” dated April 24, 2017. The work shall be in accordance with TDOT Special Provision 707H, regarding rockfall barrier systems. The rockfall fence system shall be approved as shown in the TDOT Qualified Products List, “QPL 41 Rockfall Mitigation”.

7. RIGHT-OF-WAY SCOPE OF WORK

Req. No	Requirement text
Railroad ROW	
7.a	The Department shall be responsible for the following Railroad easements required for the construction of the Project. These easements will be acquired for the EB and WB bridges over CSX railroad (near Charlotte Avenue). Permanent easement: 1,609 square feet Air rights: 34,192 square feet

	<p>Temporary construction easement: 35,989 square feet</p> <p>Any easements required to construct the Project for the EB and WB bridges over CSX railroad (near Charlotte Avenue) shall be in the name of the Department. If the design builder requires additional area for construction purposes on this bridge it will be the Design Builders responsibility to acquire the additional easements following the Uniform Act and the TDOT ROW Manual. The Design Builder must also utilize pre-qualified appraisers/review appraisers and acquisition firms from the Department’s pre-qualified list. TDOT can’t move forward with the acquisition of the easements until the Design Builder provides final bridge plans. The Design-Builder shall be responsible for submitting all required documents through the Department to obtain the required railroad agreements. The railroad has agreed to accept the required documents for individual crossings. The railroad is requesting no coordination during the procurement phase.</p> <p>Any easement required to construct the Project shall be in the name of the Department. If needed the Design-Builder shall provide information as directed by the Engineer.</p> <p>Work on the bridges over the CSX railroad (near I-65 and near Glenrose Avenue) cannot commence until the Department has executed railroad agreements. The process of acquiring the railroad agreements cannot begin until the Design Builder provides the Department final bridge plans. It will take up to 15 months to execute these agreements; however this is an estimate and acquiring these agreements may take longer.</p>
<p>ROW</p>	
<p>7.b</p>	<p>The Design Builder shall ensure that all proposed work is completed within existing right-of-way limits utilizing any measures necessary. If the Design Builder deems that ROW and/or easement acquisitions are unavoidable, the Design Builder will be responsible for all ROW and easement activities including but not limited to appraisals, appraisal reviews, and acquisitions.</p>
<p>7.c</p>	<p>The Design-Builder, acting as an agent on behalf of the Department, shall provide ROW acquisition services for the Project. ROW acquisition services shall include certified title reports, appraisal, appraisal review, negotiations, relocation assistance services, property management services, parcel closings and all related activities. All appraiser/s, appraisal reviewer/s and acquisition/relocation firms shall be selected from the Department’s ROW Office's pre-qualified list.</p> <p>The Department will retain authority for approving just compensation, relocation benefits and claims administrative settlements, court settlements and court awards.</p> <p>The Department must issue a NTP with ROW Acquisition to the Design-Builder prior to any offers being made to acquire the property. This represents a hold point in the Design-Builder's Baseline Schedule.</p> <p>The Department must also issue a NTP with Construction to the Design-Builder once the property has been acquired prior to commencing construction on the property. This also represents a hold point in the Design-Builder's Baseline Schedule.</p> <p>The Department will be responsible for the actual purchase price paid to a landowner for ROW, including fee simple, or any and all easements, and for any relocation assistance payments.</p> <p>The Department will be responsible for actual payments to property owners and certain expenses related to the acquisitions and associated legal costs as well as any additional</p>

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.
<i>Changeable Message Signs</i>	
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) as defined in RFP Book 3 Chapter 13.7
<i>Emergency signage</i>	
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.
<i>Tourist Oriented Directional Signs (TODS)</i>	
12.3.d	All existing “Tourist Oriented Directional Signs” shall be maintained within full view of the monitoring public throughout all phases of construction.
<i>Detour and construction signage</i>	
12.3.e	All detour and construction signing shall be in strict accordance with the current edition of the MUTCD.

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.
13.4.c	<p>If the Design-Builder fails to complete the Project within the time limitations set forth in the Contract, then the Department will suffer substantial losses and damages. The Contract therefore provides that a deduction shall be made from monies due the Design-Builder, not as a penalty, but as Liquidated Damages, if such completion is delayed.</p> <p>The liquidated damage for non-compliance is \$15,000 per Calendar Day*. This is also the Time Value used for calculation of selection and for failure to complete the work on time. It shall be calculated as followed:</p> <p>If the Project is NOT completed in time “B”, then the following amount will be deducted from the monies due the Design-Builder as:</p> <p style="text-align: center;">(Actual Time Charged – B) x \$15,000/Calendar Day</p> <p>Any liquidates damages shall be addressed, not as a penalty, and computes as they occur with a separate item number subtracting from monies due the Design-Builder.</p> <p><i>* Calendar Day amounts are applicable when the Contract Time is expressed on the Calendar Day or fixed date basis.</i></p>
	<i>Reference DB Standard Guidance : §2.8</i>

13.5 Payment

Req. No	Requirement text																									
13.5.a	<p><i>Payment for select quantity overruns</i></p> <p>The following table is provided to cover select quantities that are outside the areas identified in the report scope. Additional repair areas/quantities shall be pre-approved (in a written order) by the Department prior to commencing work or no payment will be received, see Design Build Standard Guidance section 2.11.2 for additional details. No payment will be provided for repairs required due to work being performed by the Design-Builder.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">ITEM</th> <th style="text-align: center;">TYPE</th> <th style="text-align: center;">UNIT</th> <th style="text-align: center;">UNIT PRICE</th> <th style="text-align: center;">QUANTITY</th> </tr> </thead> <tbody> <tr> <td>Uniformed Police Officer</td> <td>As specified by Special Provision.</td> <td>HOUR</td> <td>\$50</td> <td>Hours exceeding 2,500</td> </tr> <tr> <td>Temporary Traffic Control</td> <td>Changeable Message Sign Unit</td> <td>EACH</td> <td>\$6,500</td> <td>Signs exceeding 20</td> </tr> <tr> <td>Noise Wall Repair</td> <td>Spot repairs at various location throughout the project</td> <td>SF</td> <td>\$70</td> <td>Repair area exceeding 12,600 SF</td> </tr> <tr> <td>Bridge Repairs</td> <td>Bridge Deck Repairs (Partial Depth of Slab)</td> <td>SY</td> <td>\$200</td> <td>Areas outside the Bridge Deck Survey</td> </tr> </tbody> </table>	ITEM	TYPE	UNIT	UNIT PRICE	QUANTITY	Uniformed Police Officer	As specified by Special Provision.	HOUR	\$50	Hours exceeding 2,500	Temporary Traffic Control	Changeable Message Sign Unit	EACH	\$6,500	Signs exceeding 20	Noise Wall Repair	Spot repairs at various location throughout the project	SF	\$70	Repair area exceeding 12,600 SF	Bridge Repairs	Bridge Deck Repairs (Partial Depth of Slab)	SY	\$200	Areas outside the Bridge Deck Survey
ITEM	TYPE	UNIT	UNIT PRICE	QUANTITY																						
Uniformed Police Officer	As specified by Special Provision.	HOUR	\$50	Hours exceeding 2,500																						
Temporary Traffic Control	Changeable Message Sign Unit	EACH	\$6,500	Signs exceeding 20																						
Noise Wall Repair	Spot repairs at various location throughout the project	SF	\$70	Repair area exceeding 12,600 SF																						
Bridge Repairs	Bridge Deck Repairs (Partial Depth of Slab)	SY	\$200	Areas outside the Bridge Deck Survey																						

APPENDIX B – REFERENCE INFORMATION

All documents have been published on the Department’s website:

<https://www.tn.gov/I-440>

DOCUMENT	FILE	DATE
Asbestos Containing Material (ACM) surveys bridges	.pdf	-
- 19I04400003_Nov2017_AsbestosSurveyReport	.pdf	
- 19I04400011_Nov2017_AsbestosSurveyReport	.pdf	
- 19I04400027_Sept2017_AsbestosSurveyReport_revised	.pdf	
- 19I04400029_Sept2017_AsbestosSurveyReport	.pdf	
- 19I04400054_Nov2017_AsbestosSurveyReport	.pdf	
Bridges - Deck Surveys		
- Bransford EBL Deck Survey (19I04400041)	.pdf	08/14/2017
- Bransford WBL Deck Survey (19I04400041)	.pdf	08/14/2017
- Charlotte Ave EBL Deck Survey (19I04400001)	.pdf	06/30/2017
- Charlotte Ave WBL Deck Survey (19I04400002)	.pdf	06/30/2017
- Craig Ave EBL Deck Survey (19I04400029)	.pdf	08/11/2017
- Craig Ave WBL Deck Survey (19I04400030)	.pdf	08/11/2017
- CSX RR EBL Bridge Deck Survey (19I04400003)	.pdf	-
- CSX RR WBL Bridge Deck Survey (19I04400004)	.pdf	-
- I-440 Deck Survey Summary	.pdf	-
- Lealand Lane EBL Deck Survey (19I04400027)	.pdf	08/11/2017
- Lealand Lane WBL Deck Survey (19I04400028)	.pdf	08/11/2017
Drainage SUE (Updated 3-5-18)		
- Preliminary Drainage SUE Data (Photo’s and Video’s)		
- 10-27-17 Video Reports	.pdf	
- Station-Offset List – Referenced to Survey CL (New 3-5-18)	.xlsx	
Environmental (Updated 3-27-18)		
- Davidson, 125325.00, I-440 Reeval (QA,Reeval,TechAppendices)	.pdf	

- PIN125325.00 – Environmental Commitments – 1.9.2018	.pdf	
- Waste & Borrow Manual 2017 (New 3-27-18)	.pdf	
Bridges over I-440— 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 Bridge Repair Plans I	.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 #166 – 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	-

- 083773-00	.pdf	-
- 113898-01	.pdf	-
- FR1900061	.pdf	-
- FR1900076	.pdf	-
- FR1901152	.pdf	-
- FR1901153	.pdf	-
- FR1901154	.pdf	-
- FR1901155	.pdf	-
- FR1901156	.pdf	-
- FR1901157	.pdf	-
- FR1901158	.pdf	-
- FR1901159	.pdf	-
DB Geotechnical Reports (Updated 3-27-18)		
- 125325.00-Amd-Soils&GeoRpt-GES1912416	.pdf	10/09/2017
- 125325-00-GeoProjMemo-2017-04-24-GES1912416 (Rock Cut/Masonry Wall Assessment)	.pdf	04/24/2017
- 125325.00-MainlineSoilsGeoRpt-GES1912416 (including boring location summary table)	.pdf	09/21/2017
- 125325-00-PrelFondRptBr-GES1912416 (bridge over I-65)	.pdf	-
- I-440 Preliminary Bridge footing depth table	.pdf	-
- Rock Removal Estimate (New 3-27-18)	.pdf	
Greenway Project		
- 440 Greenway Phase 1 - Layout Only	.pdf	05/04/2016
- 440 Greenway Phase 2 090717 - Prelim Plans	.pdf	09/06/2017
I-440 Bridge over I-65 Inspection Reports (New 3-6-18)		
- 19I00650113FEB18	.pdf	
- 19I00650114FEB18	.pdf	
Bridges— Inspection Reports (Updated 2-12-18)		
- 19I04400001FEB16 ov Charlotte Ave RL Inspection Report (19I04400001)	.pdf	Feb-2016
- 19I04400002FEB16 ov Charlotte Ave LL Inspection Report (19I04400002)	.pdf	Feb-2016
- 19I04400003FEB16 ov CSX RR RL Inspection Report (19I04400003)	.pdf	Feb-2016
- 19I04400004FEB16 ov CSX RR LL Inspection Report (19I04400004)	.pdf	Feb-2016
- 19I04400027MAR16_ov_Lealand_Ln Lane RL Inspection Report (19I04400027)	.pdf	Mar-2016

- 19I04400028MAR16_ov_Lealand_Ln Lane LL Inspection Report (19I04400028)	.pdf	Mar 2016
- 19I04400029MAR16_ov_Craig_Ave RL Inspection Report (19I04400029)	.pdf	Mar 2016
- 19I04400030MAR16_ov_Craig_Ave LL Inspection Report (19I04400030)	.pdf	Mar 2016
- 19I04400041MAR16_ov_Bransford_Ave Inspection Report (19I04400041)	.pdf	Mar 2016
- 19I04400054MAR16 ov Glenrose Ave CSX LL Inspection Report (19I04400054)	.pdf	Mar 2016
- 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	
Noise Walls (Updated 4-3-18)		
- I-440 Noise Wall Summary (New 4-3-18)	.pdf	
- I-440 Noise Wall Inspection Report	.pdf	-
- PIN 125325.00 I-440 Memo Re Noise Barriers 12-26-17	.pdf	12/26/20017
Planned Maintenance (New 3-27-18)		
- I-440 Planned Maintenance (New 3-27-18)	.pdf	

Preliminary Design (Updated 3-5-18)		
- 125325-00-DesignExceptionsApproved_Locations1&2	.pdf	
- generic bridge repair details	.pdf	
- Preliminary Plans I-440 Bridges to Widen	.pdf	1/12/2018
- I-440 ITS Roll Plots	.pdf	1/12/2018
- I-440 Landscaping Schematic Plans	.pdf	1/12/2018
- I-440 Lighting Roll Plots (Revised 4-2-2018)	.pdf	3/5/2018
- I-440 Preliminary Plans I-440 From I-40 to I-24 (Revised 4-2-2018)	.pdf	1/12/2018
- I-440 Signing and Marking Roll Plots	.pdf	1/12/2018
- I-440 Utility List (New 2-12-2018)	.pdf	
- Preliminary Plans I-440 Landscaping sheets	.pdf	1/12/2018
- Preliminary Drainage SUE Data (Photo's and Video's)		
Railroad		
- For Publication_CSXPublicProjectManual_July2017_7.31	.pdf	
CSX Public Project Information / Manual (https://www.csx.com/index.cfm/library/files/about-us/property/public-project-manual/)	.pdf	Most current off website
Ramp Safety Projects		
- 119734-00-ROW (I-440 Interchange at Hillsboro Road (21st Ave) - Exit 3, Westbound ramp)	.pdf, .zip	12/04/2017
- 119735-00-ROW (I-440 Interchange at Murphy Rd - Exit 1, Eastbound Ramp)	.pdf, .zip	12/04/2017
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	
DVI440_DGN_Files (Revised 4-2-18)		
- Project Sheet Files, Project Design Files	.dgn	
- 440_R-S_Field & Office Checklist	.pdf	
- 440_Wiser_Office_Field_Checklist	.pdf	
- dv440-07_65BridgeEB	.tin	

- dv440-07_65BridgeWB	.tin	
- DV440-07_DTM	.tin	
- I440DrainageFinal – No SUE Data	.gdf	
- job32d	.gpk	
- job32j	.gpk	
Existing Culvert Analysis (New 2-15-18)	.zip	
- Contours1	.dgn	
- Contours2	.dgn	
- Contours3_trimmed	.dgn	
- I-440 Existing Culverts (HY-8v7.5)	.hy8	
TDOTAerial2013 (New 2-12-18)	.zip	
- Files for the TDOT Aerial Image		
Approved Design Exceptions		
—125325-00-DesignExceptionsApproved_Locations1&2	.pdf	12/27/2017
NEPA documentation		
—Davidson, 125325.00, I-440 Reeval (QA,Reeval,TechAppendices)	.pdf	1/09/2018
Project Commitments	.pdf	01/10/2018