STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

June 5, 2017

Addendum No. 1

Contract No.:	C 203965
TIP No.:	I-0911A
County:	Davie and Forsyth
Project Description:	I-40 from west of NC 801 in Davie County to east of SR 1101 (Harper Road) in Forsyth County

RE: Addendum No. 1 to Final RFP

July 18, 2017 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated May 4, 2017 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 1 for your information. Please note that all revisions have been highlighted in gray and are as follows:

The first, second and third pages of the *Table of Contents* have been revised. Please void the first, second and third pages in your proposal and staple the revised first, second and third pages thereto.

Page No. 4 of the *Submittal of Quantities, Fuel Base Index Price and Opt-Out Option* Project Special Provision has been revised. Please void Page No. 4 in your proposal and staple the revised Page No. 4 thereto.

Page No. 47 of the *Price Adjustments for Asphalt Binder* Project Special Provision has been revised. Please void Page No. 47 in your proposal and staple the revised Page No. 47 thereto.

Page Nos. 186, 187, 188 and 189 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 186, 187, 188 and 189 in your proposal and staple the revised Page Nos. 186, 187, 188 and 189 thereto.

Page Nos. 195, 196, 197 and 198 of the *Pavement Management Scope of Work* have been revised. Please void Page Nos. 195, 196, 197 and 198 in your proposal and staple the revised Page Nos. 195, 196, 197 and 198 thereto.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND
DEVELOPMENT UNIT
1591 MAIL SERVICE CENTER
RALEIGH, NC 27699-1591

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Location:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

Page Nos. 199, 200, 201 and 203 of the *Structures Scope of Work* have been revised. Please void Page Nos. 199, 200, 201 and 203 in your proposal and staple the revised Page Nos. 199, 200, 201 and 203 thereto.

Page No. 206 of the *Hydraulics Scope of Work* has been revised. Please void Page No. 206 in your proposal and staple the revised Page No. 206 thereto.

Page Nos. 220 and 222 of the *Geotechnical Engineering Scope of Work* have been revised. Please void Page Nos. 220 and 222 in your proposal and staple the revised Page Nos. 220 and 222 thereto.

Page Nos. 231 and 235 of the *Transportation Management Scope of Work* have been revised. Please void Page Nos. 231 and 235 in your proposal and staple the revised Page Nos. 231 and 235 thereto.

Page No. 273 of the *Lighting Scope of Work* has been revised. Please void Page No. 273 in your proposal and staple the revised Page No. 273 thereto.

Page No. 295 of the *Right of Way Scope of Work* has been revised. Please void Page No. 295 in your proposal and staple the revised Page No. 295 thereto.

Page No. 304 of the *Public Information Scope of Work* has been revised. Please void Page No. 304 in your proposal and staple the revised Page No. 304 thereto.

Page No. 394 of the *Division One of Standard Specifications* has been revised. Please void Page No. 394 in your proposal and staple the revised Page No. 394 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 707-6900.

Sincerely,

DocuSigned by:
Ron Davenport
E81B6038A47A442...

R. E. Davenport, Jr., PE
State Contract Officer

RED/mcw

cc: Bobby Lewis, PE
Pat Ivey, PE
Teresa Bruton, PE
Zak Hamidi, PE
Tim McFadden
File

TABLE OF CONTENTS

COVER SHEET

PROPOSAL SHEETS

PROJECT SPECIAL PROVISIONS *PAGE NO.*

intermediate contract time is not substantially complete, the Engineer will notify the Design-Build Team in writing of the work that is not substantially complete. The entire project or the work required by an intermediate contract time will not be considered substantially complete until all of the recommendations made at the time of the inspection have been satisfactorily completed.

SUBMITTAL OF QUANTITIES, FUEL BASE INDEX PRICE AND OPT-OUT OPTION

1/23/14 DB1 G43

(A) **Submittal of Quantities**

Submit quantities on the *Fuel Usage Factor Chart and Estimate of Quantities* sheet, located in the back of this RFP, following the Itemized Proposal Sheet.

The Design-Build Team shall prepare an Estimate of Quantities that they anticipate incorporating into the completed project and upon which the Price Proposal was based. The quantity breakdown shall include all items of work that appear in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet. Only those items of work which are specifically noted in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet will be subject to fuel price adjustments.

Submittal The submittal shall be signed and dated by an officer of the Design-Build Team. The information shall be copied and submitted in a separate sealed package with the outer wrapping clearly marked "Fuel Price Adjustment" and shall be delivered at the same time and location as the Technical and Price Proposal. The original shall be submitted in the Price Proposal.

Trade Secret Information submitted on the *Fuel Usage Factor Chart and Estimate of Quantities* sheet will be considered "Trade Secret" in accordance with the requirements of G.S. 66-152(3) until such time as the Price Proposal is opened.

(B) **Base Index Price**

The Design-Build Team's Estimate of Quantities will be used on the various partial payment estimates to determine fuel price adjustments. The Design-Build Team shall submit a payment request for quantities of work completed based on the work completed for that estimate period. The quantities requested for partial payment shall be reflective of the work actually accomplished for the specified period. The Design-Build Team shall certify that the quantities are reasonable for the specified period. The base index price for DIESEL #2 FUEL is $1.6823 per gallon.

(C) **Opt Out of Fuel Price Adjustment**

If the Design-Build Team elects not to pursue reimbursement for Fuel Price Adjustments, a quantity of zero shall be entered for all quantities in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet and the declination box shall be checked. Failure to

The base price index for asphalt binder for plant mix is $**391.50** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on June 1, 2017.

PRICE ADJUSTMENTS - ASPHALT CONCRETE PLANT MIX

(9-1-11) (Rev. 3-13-13) DB6 R26

Revise the 2012 *Standard Specifications for Roads and Structures* as follows:

Page 6-18, Article 609-11 and Page 6-35, Article 610-14

Add the following paragraph before the first paragraph:

The "Asphalt Price" used to calculate any price adjustments set forth in this section shall be $40.00 per theoretical ton. This price shall apply for all mix types.

FIELD OFFICE

(6-1-07) (Rev. 6-22-15) DB 08-01

Description

This work consists of furnishing, erecting, equipping, and maintaining a field office for the exclusive use of Department Engineers and Inspectors at a location on the project approved by the Engineer. Provide a field office that complies with the current A.D.A. Design and Accessibility Standards, the National Electric Code, local, state, and federal regulations, and the following:

Procedures

The field office and equipment shall remain the property of the Design-Build Team upon completion of the contract. The field office must be separated from buildings and trailers used by the Design-Build Team and shall be erected and functional as an initial operation. Failure to have the field office functional when work first begins on the project will result in withholding payment of the Design-Build Team's monthly progress estimate. The field office must be operational throughout the duration of the project and be removed upon completion and final acceptance of the project.

Provide a field office that is weatherproof, tightly floored and roofed, constructed with an air space above the ceiling for ventilation, supported above the ground, has a width of at least ten feet, and the floor-to-ceiling height that is at least 7 feet 6 inches. Provide inside walls and a ceiling that are constructed of plywood, fiber board, gypsum board, or other suitable materials. Have the exterior walls, ceiling, and floor insulated.

Provide a field office with a minimum floor space of 500 square feet and that is equipped with the following:

ROADWAY SCOPE OF WORK (6-2-17)

Project Details

- From west of the I-40 / NC 801 Interchange in Davie County to the existing six-lane section east of the I-40 / SR 1101 (Harper Road) Interchange in Forsyth County, the Design-Build Team shall design and construct a six-lane divided facility on the -L- Line (I-40). Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct the -L- Line, including all ramps and loops, providing the same or better access, widening, improvements and traffic measures of effectiveness, in the Department's sole discretion, included in the I-0911A Design Public Hearing Map provided by the Department. The -L- Line, including all ramps and loops, construction limits shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards. The I-40 six-lane facility shall be designed and constructed to meet a 70 mph design speed for a rolling freeway designed to interstate standards. The Design-Build Team shall provide all other design criteria in the Technical Proposal.

- Along the -L- Line, the Design-Build Team shall design and construct minimum 14-foot outside shoulders (twelve-foot useable shoulder width plus two feet), 12-foot of which shall be full depth paved shoulders, including all acceleration, deceleration and auxiliary lanes, and ramps / loops to the back of the gore (12-foot width).

- Beginning a minimum of 400 feet west of Station 10+00 -L-, as shown on the I-0911A Design Public Hearing Map, the Design-Build Team shall design and construct a 1200-foot transition from the existing mainline 60-foot median to a 26-foot median. Within the aforementioned transition, the Design-Build Team shall install two lines of guardrail.

- Excluding the transitions required to tie to the existing median width, the Design-Build Team shall design and construct a 26-foot full depth paved median along the -L- Line. The Design-Build Team shall design and construct Type "T" double-faced concrete median barrier on the aforementioned full depth median pavement.

- The Design-Build Team shall terminate the outside I-40 westbound lane (taper terminus) a minimum of 400 feet west of Station 10+00 -L-, as shown on the I-0911A Design Public Hearing Map.

- The Design-Build Team shall design and construct I-40 to allow for the future construction of a 12-foot travel lane in each direction of I-40 without the need for a future design exception. In addition, the Design-Build Team's design and construction shall allow the aforementioned future construction to occur 1) without the future construction limits encroaching closer to any historical boundary (as shown in the updated I-0911A Final Survey file provided by the Department) beyond that shown on the I-0911A Design Public Hearing Map provided by the Department, 2) without further impacts to other protected landmarks or topographic features beyond that shown on the I-0911A Design Public Hearing Map provided by the Department, and 3) without revisions to the -L- Line alignment.

- The Design-Build Team shall design and construct one-lane ramps that provide a minimum 16-foot lane width; and two-lane ramps that provide minimum 12-foot lanes. Unless noted otherwise elsewhere in this RFP, all ramps shall have 14-foot outside shoulders, four-foot of which shall be full depth paved shoulders and 12-foot inside shoulders, four-foot of which shall be full depth paved shoulders.

- From the NC 801 terminus to the back of gore (12-foot width), the Design-Build Team shall design and construct Ramp D with a minimum of two 12-foot lanes. The Design-Build Team shall terminate both ramp lanes in accordance with the 2011 AASHTO *A Policy on Geometric Design of Highways and Streets*.

- The Design-Build Team shall design and construct loops that adhere to Table 3-29, *Design Widths of Pavements for Turning Roadways,* shown in AASHTO's *A Policy on Geometric Design of Highways and Streets* (2011) - Case II / Condition C for one-lane loops; Case III / Condition C for two-lane loops. All loops shall have 12-foot outside shoulders, four-foot of which shall be full depth paved shoulders. All loops shall have 2'-6" curb and gutter along the inside edge of pavement, with a 14-foot berm. The minimum loop design shall be 30-mph with a minimum 230-foot radius.

- At the NC 801 and Harper Road interchanges, the Design-Build Team shall upgrade the entire length of **ALL** ramps and loops to adhere to the 2011 AASHTO *A Policy on Geometric Design of Highways and Streets.*

- Excluding transitions required to tie to existing and steeper cross slopes (0.025 maximum) required to eliminate hydroplaning, the I-40 normal crown cross slope shall be 0.02. The I-40 crown point shall be located such that the inside lane in each direction of travel slopes towards the median and the remaining lanes slope towards the outside. Prior to the beginning of the I-40 full typical section width, the Design-Build Team shall transition the existing mainline (-L- Line) pavement structure and crown point to tie to existing.

- I-40 is a full control of access facility. The Design-Build Team shall bring to the Design-Build Unit’s attention any deviations from the proposed control of access shown on the I-0911A Design Public Hearing Map provided by the Department. The proposed right of way and / or control of access limits may deviate in proximity to cultural, historic, or otherwise protected landmarks, including cemeteries, to eliminate / minimize impacts. Prior to negotiating right of way, easement and / or control of access with property owners, the Design-Build Team shall delineate the proposed acquisitions on the Right of Way Plans developed by the Design-Build Team for the Department's review and acceptance.

- Throughout the construction limits, excluding areas that consist solely of pavement marking obliterations / revisions, the Design-Build Team shall remove and dispose of all existing control of access fence, and install new woven wire control of access fence. Prior to installation, the Design-Build Team shall coordinate with, and obtain approval from, the NCDOT for the control of access fence placement.

- Based on the Department's preliminary design, an Interchange Access Report (IAR) is not required for I-0911A. If the Design-Build Team revises the roadway design such that an I-0911A IAR is required, the Design-Build Team shall analyze the interchange(s) and complete an I-0911A IAR for NCDOT and FHWA review and approval. The Department will not honor any requests for additional contract time or compensation for any effort required to complete the aforementioned activities, including but not limited to additional design effort, additional construction effort, FHWA coordination / approvals, and / or environmental agency coordination / approvals.

- Except as required elsewhere in this RFP and / or to eliminate a design exception, the Design-Build Team shall not further impact any cultural, historical (as shown in the updated I-0911A Final Survey file provided by the Department) or otherwise protected landmark or topographic feature beyond that shown on the Design Public Meeting Map provided by the Department. Unless approved otherwise by the Department in writing, the Design-Build Team shall not acquire right of way, easements or control of access from the aforementioned features unless shown on the Design Public Meeting Map provided by the Department.

- The Design-Build Team shall provide milled rumble strips along the mainline outside and median paved shoulders, including ramp and loop terminals, and acceleration, deceleration and auxiliary lanes, in accordance with the January 2012 *Roadway Standard Drawings*.

- For all bridges over roadways, the Design-Build Team shall submit vertical and horizontal clearance design calculations at all critical points. The Design-Build Team shall submit post construction survey points for the aforementioned critical points that verify construction adheres to the vertical and horizontal clearances accepted by NCDOT. The Design-Build Team shall be responsible for all costs associated with correcting vertical and horizontal clearances resulting from any construction variation from the design accepted by NCDOT.

- Throughout construction areas that consist solely of pavement marking obliterations / revisions, including but not limited to obliterations / revisions to the existing arrows / text for the I-40 westbound lane drop east of Harper Road, the Design-Build Team shall provide a uniform overlay or design and construct a resurfacing grade. Excluding construction areas that consist solely of pavement marking obliterations / revisions that are uniformly overlaid and haul roads, the Design-Build Team shall design and construct resurfacing grades for all roadways impacted by construction. All uniform overlays and resurfacing grades shall 1) completely cover the entire pavement surface (travel lanes and paved shoulders) and 2) be extended on a one-way roadway, as required, to provide the same limits for the opposing direction of travel on a divided facility. All resurfacing grades shall adhere to the design criteria and standards, provide all required pavement wedging and adhere to the minimum requirements noted below. For purposes of determining the required resurfacing limits only, the term "construction" below will not apply to construction areas that consist solely of pavement marking obliterations / revisions. (Reference the Pavement Management Scope of Work found elsewhere in this RFP)

  - The Design-Build Team shall resurface all lanes and shoulders of an undivided facility throughout the limits of proposed widening and construction.

- ** NOTE ** Deleted bullet on one-way roadways of a divided facility.

- Unless noted otherwise elsewhere in this RFP, for both divided and undivided facilities, the Design-Build Team shall resurface all lanes and shoulders within the outermost construction limits of all proposed widening and construction, including any gaps along the facility where construction activities are not required.

- ** NOTE ** Deleted bullet on pavement marking obliterations / revisions.

- Excluding the changes required herein, the Design-Build Team shall inform the Design-Build Unit, in writing, of all proposed design revisions, including but not limited to the following:

  - The Design-Build Team shall note in the Technical Proposal any proposed deviations to the preliminary design shown on the I-0911A Design Public Hearing Map provided by the Department. The Design-Build Team shall be responsible for all activities, as deemed necessary by the Department or the FHWA, resulting from changes to the NCDOT preliminary design, including but not limited to, public involvement, NEPA re-evaluation and / or coordination with other stakeholders. The Department shall not honor any requests for additional contract time or compensation for completion of the required activities resulting from changes to the NCDOT preliminary design.

  - After the contract has been Awarded, the Design-Build Team shall inform the Design-Build Unit, in writing, of all proposed changes to the design shown in the Technical Proposal.

  - After the Department has reviewed and accepted the Design-Build Team's design submittals, the Design-Build Team shall inform the Design-Build Unit, in writing, of any changes to previously reviewed submittals.

  The proposed design revisions noted above shall be subject to the Department's review and acceptance.

- The Department prefers not to have design exceptions. Excluding locations where bridge piers, concrete barrier, or overhead sign assemblies reduce the median shoulder width to less than 12 feet, design exceptions will not be allowed for the -L- Line, including all ramps and loops. If the Design-Build Team anticipates any design exceptions, they shall be clearly noted in the Technical Proposal. Prior to requesting / incorporating a design exception into the Final Plans, the Design-Build Team must obtain prior conceptual approval from the Design-Build Unit and the FHWA. If conceptual approval is obtained, the Design-Build Team shall be responsible for the development and approval of all design exceptions.

- For all parcels, the Design-Build Team shall locate and install concrete right of way markers that delineate all proposed right of way within the project limits. The Design-Build Team

PAVEMENT MANAGEMENT SCOPE OF WORK (6-2-17)

Mainline Asphalt Overlay and Asphalt Widening

Except as allowed otherwise below, the Design-Build Team shall remove and dispose of / recycle the existing mainline median paved shoulders and the existing mainline outside paved shoulders. The pavement design for the mainline widening, mainline median paved shoulders, and mainline outside paved shoulders shall consist of one of the following alternates:

Alternate 1	**Alternate 2**	**Alternate 3**
3.0" S9.5C	3.0" S9.5C	3.0" S9.5C
3.0" I19.0C	3.0" I19.0C	4.0" I19.0C
6.5" B25.0C	3.0" B25.0C	8.0" CTABC
Subgrade Stabilization	8.0" ABC	Subgrade Stabilization
	Subgrade Stabilization	

The pavement alternate chosen shall be used for the entire length of the project. The Design-Build Team shall specify the pavement alternate that will be used in the Technical Proposal.

The existing mainline paved shoulders with an asphalt thickness greater than 15.0", and with no drainage sand, may be retained for use as shoulder. The existing mainline paved shoulders shall not be retained for use as a permanent travel lane.

In accordance with the requirements noted below, the mainline subgrade stabilization, including all ramps and loops, shall consist of chemical stabilization or Class IV stabilization, unless noted otherwise elsewhere in this RFP. The Design-Build Team shall specify the proposed mainline subgrade stabilization, or combination, with approximate limits of each type clearly noted in the Technical Proposal. However, only one subgrade stabilization alternate shall be used across the full width of pavement widening, in a given direction, and shall be used for a minimum 1000-foot length. At a given station location, the Design-Build Team will be allowed to use different subgrade stabilization alternates for the median widening and outside widening.

- Chemical stabilization shall be to a minimum depth of 8 inches for lime and 7 inches for cement. The type of subgrade stabilization and the amount of stabilizing agent shall be determined in accordance with the *Cement and Lime Stabilization of Sub-grade Soils* Project Special Provision found elsewhere in this RFP.

- Class IV stabilization shall be in accordance with the *Class IV Subgrade Stabilization in Lieu of Chemical Stabilization* Standard Special Provision found elsewhere in this RFP.

The Design-Build Team shall remove and dispose of / recycle the existing mainline asphalt overlay from the underlying concrete pavement. As directed by the Engineer, the Design-Build Team shall repair the underlying mainline concrete pavement prior to resurfacing the concrete pavement. (Reference the Roadway Scope of Work found elsewhere in this RFP) In accordance with the *Patching Concrete Pavement Spalls* Project Special Provision and the *Sealing Existing Pavement Cracks – Polymer Patch* Standard Special Provision found elsewhere in the RFP, these

repairs shall consist of sealing existing pavement cracks and patching concrete pavement spalls. In accordance with Subarticle 104-8(A) of the 2012 *Standard Specifications for Roads and Structures*, all repairs to the underlying mainline concrete pavement will be paid for as extra work at the unit prices noted below:

- All sealing of concrete pavement cracks will be paid for at the unit price of $2.25 per pound. All work tasks required to seal the concrete pavement cracks, including but not limited to traffic control and portable lighting, shall be incidental to the unit cost noted above.

- All patching of concrete pavement spalls will be paid for at the unit price of $100.00 per square foot. All work tasks required to patch concrete pavement spalls, including but not limited to traffic control and portable lighting, shall be incidental to the unit cost noted above.

Once the repairs to the existing mainline underlying concrete pavement have been approved by the Engineer, the Design-Build Team shall resurface the existing mainline travel lanes with the following (Reference the Roadway Scope of Work found elsewhere in this RFP):

Minimum 3.0” S9.5C
Minimum 3.0” I19.0C

If the required minimum vertical clearance cannot be obtained at the Harper Road (-Y1-) Bridge with the aforementioned six-inch mainline overlay, the Design-Build Team shall remove and dispose of the existing mainline pavement structure. At these locations, the Design-Build Team shall design and construct one of the mainline widening and shoulder pavement design alternates noted above across all travel lanes and paved shoulders, in one direction of travel, for a minimum 200-foot length. (Reference the Structures Scope of Work found elsewhere in this RFP)

Other pavement designs for this project shall be as listed in the table below:

Line	Surface	Intermediate	ABC	Stab.
-YRPA-, -YRPB-, -YRPC- and -YRPD-	3.0” S9.5B	3.0” I19.0B	8.0”	Yes
-YLPB-	3.0” S9.5B	4.0” I19.0B	8.0”	Yes
-Y1RPA-, -Y1RPB-, -Y1RPC- and -Y1RPD-	3.0” S9.5B	2.5” I19.0B	8.0”	Yes
** NOTE ** Deleted detour pavement design				
* Pedestrian Bridge Approaches	1.5”S9.5B	-----	6”	No

* The materials used in the construction of the Pedestrian Bridge Approaches shall adhere to the *Greenways and Multi-Use Paths* Project Special Provision found elsewhere in this RFP.

In accordance with the Roadway Scope of Work found elsewhere in this RFP, the Design-Build Team shall resurface the existing mainline and ramp / loop pavement with a minimum pavement depth that equals the full thickness of the surface course as provided above.

Throughout construction areas that consist solely of pavement marking obliterations / revisions, the Design-Build Team shall uniformly overlay the existing mainline and ramp / loop pavement with 1.5" S9.5C and 1.5" S9.5B, respectively.

For the ramps, loops and detours noted in the table above, the Design-Build Team may substitute an asphalt base course layer for the ABC layer. If such an alternative is proposed, the Design-Build Team shall use an asphalt base course mix type that matches the intermediate course mix specified for the roadway. The additional thickness of the asphalt base course, used as a substitute for the ABC layer, shall be equal to half of the proposed ABC thickness specified for the roadway. The Design-Build Team shall maintain the same pavement design throughout the ramp, loop and detour construction limits. In the Technical Proposal, the Design-Build Team shall specify the base option chosen (ABC or. asphalt) for all ramps, loops and detours. The Design-Build Team may substitute an asphalt base course layer for an ABC layer, as described above, for tie-ins and narrow widening. For narrow ramp widening, the Design-Build Team may substitute 4.0" of additional asphalt base course for the subgrade stabilization.

On all ramps and loops, the adjacent through lane pavement design shall extend to the back of the gore (12-foot width).

Longitudinal joints of all surface course layers shall not be located in the final traffic pattern wheel path. If applicable, the Design-Build Team shall indicate in the Technical Proposal where all underlying longitudinal joints will be located and demonstrate how the underlying longitudinal joint location will minimize reflective cracking.

Unless noted otherwise elsewhere in this RFP, the minimum widened width shall be six feet. The minimum widened width may be reduced to four feet only if the Design-Build Team demonstrates that their equipment properly compacts narrow widening and obtains prior Department approval. Tapers that tie proposed pavement to existing pavement are excluded from the narrow widening requirements noted above.

Unless noted otherwise elsewhere in this RFP, in areas where the existing paved shoulders are proposed to be incorporated into a permanent travel lane, the Design-Build Team shall be responsible for evaluating the existing paved shoulder regarding its suitability for carrying the projected traffic volumes. In the event that the existing paved shoulder is found to be inadequate, the Design-Build Team shall be responsible for upgrading the existing paved shoulder to an acceptable level or replacing the existing paved shoulder. The Design-Build Team shall submit their evaluation and proposed use of existing paved shoulders to the Transportation Program Management Director for review and acceptance or rejection.

The Design-Build Team shall be responsible for the design of all temporary pavements, including but not limited to pavement for temporary breakdown areas, and for evaluation of existing shoulders and roadways regarding their suitability for carrying traffic during

construction, if necessary. In the event that the existing shoulders and / or roadways are found to be inadequate for the proposed temporary traffic volumes and duration, the Design-Build Team shall be responsible for upgrading the pavement to an acceptable level. Prior to placing traffic on existing shoulders, the Design-Build Team shall remove the existing rumble strips. Temporary pavements shall be designed in accordance with the most recent version of the North Carolina DOT *Pavement Design Procedure*. Temporary pavement designs and associated calculations shall be submitted for review and comment using the contract submittal process prior to incorporation. The expected duration for traffic on temporary pavement must be included as part of the submittal.

The rate of application and the maximum and minimum thickness per application and layer shall be in accordance with the NCDOT Roadway Design Manual.

When a resurfacing grade ties to an existing curb, bridge and / or pavement, the Design-Build Team shall perform incidental milling such that the new pavement ties flush with the existing feature(s). When tying to the aforementioned feature(s), the Design-Build Team shall not reduce the minimum required surface layer pavement thickness noted above. At existing pavement ties, the Design-Build Team shall perform incidental milling for a minimum distance of 25 feet at bridges and six feet at curb sections. The Design-Build Team shall not perform incidental milling more than 72 hours prior to placement of the asphalt surface layer.

Excluding the high side of superelevated sections, the Design-Build Team shall design and construct continuous median and outside shoulder drains and outlets for the mainline. Where installed on the outside shoulder, outlets shall be provided approximately every 300 feet. Where installed on the median shoulder, outlet locations shall not exceed 500 feet, and all outlets shall be located at drainage structures. Shoulder drains shall be placed so that the bottom of the shoulder drain is at or below 1) the bottom of the proposed pavement structure, including subgrade stabilization, and 2) the bottom of the aggregate base course under the existing concrete pavement, whichever is lower. The shoulder drain design and outlet locations shall be submitted to the Design-Build Unit for review and acceptance.

Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall pave from 1) the edge of all paved shoulders to the face of all single face barrier / guardrail, excluding median locations that the NCDOT Roadway Standard Drawings do not require paving to the face of guardrail 2) from the edge of all paved shoulders to the edge of all expressway / shoulder berm gutter and 3) from the edge of all paved shoulders to the face of proposed retaining walls / noise walls located on the outside shoulder with 6” of ABC (or 4” B25.0B or B25.0C), a split seal and at least two lifts of surface course. If a split seal is not used, the ABC pavement design shall require prime coat at the normal application rate. In these areas, the Design-Build Team’s installation of ABC or black base shall be consistent with the pavement type for the specific roadway. As an alternative to the above pavement design for paving the shoulders to the face of the aforementioned features, the Design-Build Team may use the adjacent travel lane pavement design.

STRUCTURES SCOPE OF WORK (6-2-17)

Project Details

The Design-Build Team shall be responsible for all structures necessary to complete the project, including but not limited to, the following:

- Bridge on I-40 over the Yadkin River
- Pedestrian bridge over I-40 (-L-)
- All reinforced concrete box culverts / reinforced concrete box culvert extensions required by the Design-Build Team's design
- All retaining walls required by the Design-Build Team's design
- All sound barrier walls required by the Design-Build Team's design (Reference the Roadway Scope of Work found elsewhere in this RFP)

The Design-Build Team shall design and construct the bridge on I-40 over the Yadkin River with the following minimum vertical and horizontal requirements:

- On the west side of the Yadkin River, the bridge low cord shall not be lower than 1) elevation 703.0, 2) two feet above the 100-year flood elevation or 3) 16'-6" above all existing land and road features, whichever is higher.
- Over the Yadkin River and on the east side of the Yadkin River, the bridge low cord shall not be lower than 1) elevation 703.0 or 2) two feet above the 100-year flood elevation, whichever is higher.
- The proposed spill through slopes, including rip rap protection, shall not be closer to the Yadkin River than the existing spill through slopes.

The minimum width for the bridge on I-40 over the Yadkin River shall be the width required for the roadway typical section, without the need for a design exception, or the width required for the Design-Build Team's traffic control phasing, whichever is greater. (Reference the Roadway and Transportation Management Scopes of Work found elsewhere in this RFP)

The minimum vertical clearance for the NC 801 (-Y-) and Harper Road (-Y1-) bridges over I-40 shall be 17'-0", including all lanes and shoulders.

All bridges shall meet approved roadway typical sections and grades. Bridge geometry (width, length, skew, span arrangement, etc.) shall be in accordance with the accepted Structure Recommendations and / or Hydraulic Bridge Survey Reports prepared by the Design-Build Team.

The Design-Build Team shall design and construct approach slabs that adhere to the requirements noted below:

- All approach slabs shall be designed and constructed to adhere to the Department's current approach slab length requirements.
- High early strength concrete shall not be used for any approach slab.
- During temporary traffic configurations only, a temporary asphalt approach slab may be utilized for widened bridges.

All bridge barrier rail for roadway structures shall adhere to Standard Drawing CBR1. Roadway Type "T" double-faced concrete median barrier shall be designed and constructed on the I-40 bridge over the Yadkin River.

All new roadway bridge structures shall be designed and constructed to achieve a minimum design service life of 75 years.

The number of expansion joints for each structure shall be kept to a minimum. Structures shall be integral if the criteria listed in the NCDOT *Structures Management Unit Manual* is met. When required by the criteria in Section 6.2.3.2 of the NCDOT *Structures Management Unit Manual*, the Design-Build Team shall use expansion joints on all roadways.

The minimum horizontal setbacks from the closest edge of travel lane to face of barrier in front of walls shall be 14'-0" for bridges over interstates, freeways, and arterials. Bridges over waterways shall be designed and constructed with spill through slopes with rip rap protection. End bents and end slopes at each end of a bridge shall have the same appearance.

A live load rating chart for proposed girders shall be included with the bridge plans; and shall state design assumptions and methodology used in the load rating calculations. The load rating shall be in accordance with the NCDOT *Structures Management Unit Manual*, including Policy Memos, and the latest edition of the AASHTO's *Manual for Bridge Evaluation*.

** NOTE ** Relocated pedestrian bridge requirements

The Design-Build Team shall obtain Structure Numbers from NCDOT for all new bridges. For proposed bridges, the Design-Build Team shall include Structure Numbers on the applicable design layout sheets, all plans, and all correspondence with NCDOT pertaining to bridge work.

The Design-Build Team shall design and construct corrosion protection measures and minimum concrete cover that satisfies the requirements of the NCDOT *Structures Management Unit Manual*.

With the exception of the pedestrian bridge, Mechanically Stabilized Earth (MSE) walls shall not be allowed for any structural bridge foundations and shall not be subjected to vertical loads.

All proposed wall surfaces, including MSE walls, retaining walls and sound barrier walls, shall have equivalent surface treatment. (Reference the *Architectural Concrete Surface Treatment* Project Special Provision found elsewhere in this RFP)

Excluding sound barrier walls, the Design-Build Team shall design and construct all walls, including but not limited to MSE walls and retaining walls, to allow for the future construction of one additional 12'-0" lane in each direction of I-40 without the need for reconstruction, including but not limited to the wall height.

The Design-Build Team shall design and construct bridges to have a minimum of 1'-6" overburden (cover) on tops of bridge substructure footings.

Unless noted otherwise elsewhere in this RFP, the following will not be allowed on the project:

- Cored slab, box beam, fracture critical, deck girder and cast-in-place deck slab bridges
- Precast barrier rails
- Empirical method for deck design
- Precast reinforced concrete box culverts, including but not limited to extensions
- Metal plate arch culverts
- Monotube or cantilever DMS (if required on project) support structures
- Bridge attachments (e.g. ITS conduit, waterlines) in the overhang of bridge structures
- Casting of conduit in the bridge deck or barrier rail for roadway bridges
- Bridge piers adjacent to a roadway shoulder, excluding interior median piers
- Modular expansion joints
- Attachment of sign structures to bridges

Pedestrian Bridge

The pedestrian bridge over I-40 shall be designed and constructed in accordance with the AASHTO *LRFD Guide Specifications for the Design of Pedestrian Bridges*. The Design-Build Team shall provide a conceptual design and rendering for the pedestrian bridge in the Technical Proposal.

The pedestrian bridge shall be a weathering steel arch truss design. The pedestrian bridge shall have a minimum 12'-0" clear width and a concrete deck. The appearance of the pedestrian bridge shall be approved by the Engineer, in coordination with the Town of Bermuda Run. Protective vinyl coated fencing shall be included for the protection of traffic below the bridge. The pedestrian bridge shall not be designed or constructed with median bents. The pedestrian bridge shall be designed and constructed for a maintenance vehicle load. Mechanically Stabilized Earth (MSE) wall abutments will be allowed for the pedestrian bridge. If used, abutment panels shall have surface treatment equivalent to the sound barrier wall surface treatment. (Reference the *Architectural Concrete Surface Treatment* Project Special Provisions found elsewhere in this RFP). The Design-Build Team will not be required to design or construct approach slabs or bridge approach fills for the pedestrian bridge. The horizontal clearance provided beneath the pedestrian bridge shall allow for all currently proposed lanes, a 26'-0" median, 14'-0" outside shoulders and future construction of one additional 12'-0" lane in each direction of I-40 without the need for a future design exception. The pedestrian bridge shall have a minimum 17'-6" vertical clearance over the entire interstate (travel lanes, future travel lanes, median, and outside shoulders), including but not limited to the proposed and future mainline construction. The Design-Build Team shall provide 8'-0" wide asphalt pathways approaching the pedestrian bridge. These approaches shall begin at the right of way on each side of the bridge. (Reference the Pavement Management Scope of Work found elsewhere in the RFP)

To accommodate lighting on the pedestrian bridge, the Design-Build Team shall design and construct two 1.5" conduits in all pedestrian bridge decks. (Reference the Lighting Scope of Work found elsewhere in this RFP)

All sound barrier walls and retaining walls shall be separate structural elements.

All ground mounted sound barrier walls shall be detailed in accordance with Structure Standard Drawings SBW1 and SBW2, and concrete piles shall be used. (Reference the *Sound Barrier Wall* and *Architectural Concrete Surface Treatment* Project Special Provisions, and the Roadway Scope of Work found elsewhere in this RFP)

General

The Design-Build Team's primary design firm shall be on the Highway Design Branch list of firms qualified for structure design and maintain an office in North Carolina.

Excepted as allowed otherwise elsewhere in this RFP, designs shall be in accordance with the latest edition of the *AASHTO LRFD Bridge Design Specifications* (with exceptions noted in the NCDOT *Structure Design Manual*), NCDOT *LRFD Driven Pile Foundation Design Policy*, NCDOT *Structures Management Unit Manual* (including Policy Memos) and NCDOT *Bridge Policy Manual.*

Use of Florida Department of Transportation Prestressed Florida I-Beams (FIB), the Prestressed Concrete Committee for Economic Fabrication (PCEF) prestressed concrete girders, and Modified Bulb Tee girders will be allowed. However, the structural details associated with the aforementioned items, including but not limited to mild reinforcing and reinforcing cover, shall be subject to Department review and acceptance post-award.

Unless noted otherwise in this RFP, all construction and materials shall be in accordance with 2012 NCDOT *Standard Specifications for Roads and Structures*, NCDOT *Structures Management Unit Project Special Provisions* and NCDOT *Structures Management Unit Standard Drawings*.

Alternate designs, details or construction practices (such as those employed by other states, but not standard practice in NC) are subject to Department review and approval, and will be evaluated on a case by case basis.

increases in discharge due to the proposed project and take appropriate action to ensure that any increases are appropriately mitigated.

Drainage Structures

Throughout this RFP, the term *drainage structures* shall include box culverts, cross pipes and storm drainage systems.

- The Design-Build Team shall replace all existing corrugated metal pipes within the project construction limits.

- The Design-Build Team shall develop discharges for all drainage structures based upon the future build-out land use projections. The Design-Build Team shall not include the effects of storage when computing discharges for hydraulic design and analysis for areas less than 50% impervious and / or areas without storm drainage systems. For drainage areas where impervious surfaces are greater than 50% and / or areas with storm drainage systems, routing will be allowed. EPA SWMM, USACE HMS, Win TR-20, HydroCADD or equivalent are acceptable programs for routing. A storm drainage duration of 24 hours shall be used in developing the hydrograph.

- Revise the *Guidelines for Drainage Studies and Hydraulic Design as follows:*

  Appendix C - NCDOT Hydrologic Charts, Procedure for <u>Urban</u> Watershed

  If DA>100 acres; C200.3 is not applicable

- Revise the *Guidelines for Drainage Studies and Hydraulic Design as follows:*

  Section 15.6 Temporary Encroachment in Regulatory Floodway

  Section 15.6 is not applicable on this project. The Design Build Team shall assume all liability for any flood damages resulting from the temporary encroachment.

- For all existing and proposed box culverts and pipes (including all extensions), a minimum 1.5-foot freeboard shall be required below the shoulder point during the design storm. The Design-Build Team shall not steepen slopes, reduce easements and / or reduce right of way solely to obtain the aforementioned freeboard requirement.

- Excluding the existing 30” RCP and existing 42” RCP located at approximately Station 38+52 -L- and Station 99+52 -L-, respectively, a maximum 1.2 Hw/D shall be required for all existing and proposed box culverts and pipes (including all extensions) during the design year.

- All existing and proposed storm drainage systems shall maintain a hydraulic grade line that is a minimum of 0.5 feet below the inlet rim elevation or top of junction box; and shall adhere to all other requirements as identified in Chapter 10 of the *Guidelines for Drainage Studies and Hydraulic Design*.

Design and construct bridge approach embankments such that no more than ½-inch of settlement shall occur after the waiting period or monitoring ends or embankment fill is constructed to subgrade elevation. Soil improvement techniques to mitigate long term settlement problems or to transfer the embankment load to a deeper bearing stratum are allowed. Soil improvement techniques shall follow the current industry standard practices and the guidelines of *Ground Improvement Methods FHWA publication NHI-04-001* or *Geosynthetic Design and Construction Guidelines FHWA-HI-95-038.*

Embankment settlement monitoring shall be required when a waiting period of more than one month is recommended in the foundation design recommendation reports developed by the Design-Build Team. When embankment monitoring is required, construct the embankment and approach fill to the proposed roadway grade prior to monitoring. In the absence of embankment settlement monitoring, monitor approach fill settlement after the construction of the approach fill and prior to construction of the approach slab when the approach fill height exceeds 25% of total fill height. Approach fill height shall be defined as the difference between proposed grade and bottom of cap elevations. Use an appropriate method to monitor settlement across the length of the embankment (from toe to toe) such as settlement gauges, surveyed stakes on finished subgrade or other methods but submit documentation describing the method and procedures to the NCDOT Geotechnical Engineering Unit, via the Design-Build Unit, for review and acceptance prior to construction of the embankment.

Mitigate all unsuitable soils to the extent that is required to improve the stability of the proposed embankment or subgrade. Use any suitable material to backfill undercut areas except when employing shallow undercut in accordance with Section 505 of the NCDOT 2012 *Standard Specifications for Roads and Structures* which requires the use of Select Material, Class IV. For undercut backfilling in water, use Select Material, Class III.

If the top half of a new embankment, including but not limited to a widened embankment section, that is at least ten feet high and 200 feet long is constructed with material that has more than 50%, by weight, passing the No. 200 sieve, the Design-Build Team shall add a high strength geotextile to the pavement structure design in accordance with the *Geotextile for Pavement Stabilization* Project Special Provision found elsewhere in this RFP. The aforementioned “top half” and ten-foot height shall be measured below the pavement structure and vertically from the toe of the embankment to the top of the outer edge of pavement, respectively.

C. Permanent Retaining Wall Structures

Retaining walls or abutment walls will not be allowed at any location where more than five feet of scour is calculated at the wall.

Drainage over the top of retaining walls shall not be allowed. Sags in the top of walls shall not be permissible. Direct runoff above and below walls away from walls, if possible, or collect runoff at the walls and transmit it away. Curb and gutter or cast-in-place single faced barrier with paving up to the wall shall be required when runoff can not be directed away from the back or front of the wall. In accordance with the NCDOT Roadway Design Manual – Section 6-7A, Figure 3, the Design-Build Team shall design and construct a paved concrete ditch, with a minimum twelve-inch depth, at the top of all retaining walls; and a four-foot bench between the wall and fill / cut slopes steeper than 6:1.

Precast or cast-in-place coping shall be required for walls without a cast-in-place face with the exception of when a barrier is integrated into the top of the wall. Extend coping or cast-in-place face a minimum of twelve inches above where the finished or existing grade intersects the back of the wall. A fence shall be required on top of the facing, coping or barrier or immediately behind the wall, if there is no slope behind the wall.

When allowed elsewhere in this RFP, shallow foundations for bridges that derive bearing resistance within the backfill above and behind retaining walls may be employed. When allowed, design the subject retaining wall to resist all additional loadings from the shallow foundations.

Unless noted otherwise elsewhere in this RFP, deep foundations shall be used for end bents when abutment retaining walls are employed. When using abutment retaining walls, design and construct the end bent and the wall independent of each other. When using abutment retaining walls, the end bent deep foundation shall be designed and constructed with one of the following: (1) a single row of plumb piles with brace piles battered toward the wall, (2) a single row of plumb piles with MSE reinforcement connected to the back of the cap, (3) integral abutment with a single row of plumb piles and no reinforcement connected to the back of the cap in accordance with FHWA GEC 11 pages 6-8 through 6-10, or (4) drilled piers. Regardless of foundation type, the abutment wall shall be designed to satisfactorily resist the additional pressure resulting from lateral foundation displacement. Wing walls independent of abutment retaining walls shall be required unless accepted otherwise by the NCDOT. All deep foundations for end bents with abutment retaining walls shall extend a minimum of 10 feet below the retaining wall foundation or leveling pad. For drilled-in piles behind such retaining walls, the penetration can be reduced to 5 feet below the bottom of the wall provided the Design-Build Team analyzes and determines that the vertical piles are “fixed” in natural ground such that the decrease in pile embedment shall not significantly increase the top deflection under lateral loading. The calculations and supporting documentation for this analysis shall be submitted to the NCDOT for review and acceptance prior to construction.

- As determined by the Engineer, the Design-Build Team shall provide all improvements required to accommodate detoured traffic prior to utilizing detour routes.

- Offsite detours that have non-signalized at-grade railroad crossings shall not be allowed.

- Submit detour routes and all associated sign designs for review and acceptance prior to incorporation.

- All proposed road closures, detour routes, durations and justifications shall be incorporated into the Technical Proposal. (All proposed road closures, detour routes, durations and justifications incorporated into the Technical Proposal shall require Department approval.)

- Unless approved otherwise by the controlling government entity, in writing, use only state maintained roads for offsite detour routes.

On all roadways within the project limits, the Design-Build Team shall provide safe access for wide-loads and oversized permitted vehicles through the work zone. Safe access shall entail, but not be limited to, a sufficient pavement structure (Reference the Pavement Management Scope of Work found elsewhere in this RFP), providing the required vertical clearance on overhead structures and providing the minimum horizontal clear widths as follows:

Roadway	**Minimum Clear Width**
I-40, including all ramps and loops	20 feet
All other roadways	18 feet

The Design-Build Team shall coordinate with the Division Operations Engineer and Division Traffic Engineer to manage traffic operations within the work zone and other roadways within the network that may be affected by the work zone activities. Coordination shall include, but not be limited to, providing notification of planned lane or road closures, traffic detours, public information, traffic management, access management, incidents, etc.

The Design-Build Team shall utilize Changeable Message Signs (CMS) as follows:

- For traffic control purposes during construction, the Design-Build Team shall provide and operate a minimum of one CMS per direction on I-40 that provides general information about the construction activities within the project limits. This CMS shall be in addition to any other CMSs required by the NCDOT Roadway Standard Drawings.

- In addition to the requirement above, and expressly for the purpose of managing incidents on I-40 during construction, the Design-Build Team shall provide and operate a minimum of two additional (2) CMSs per direction to display alternate

traffic queue extend to the advance warning signs, the Design-Build Team shall relocate the warning signs in advance of the traffic queue.

Road Name	Day	Time Restrictions
I-40 eastbound, including all ramps and loops	Monday through Sunday	5.00 a.m. until 12:00 a.m. (midnight)
I-40 westbound, including all ramps and loops	Monday through Sunday	7:00 a.m. until 12:00 a.m. (midnight)
BB&T Soccer Park access road	Monday through Sunday	6:00 a.m. until 12:00 a.m. (midnight)

For the operations noted below, the maximum road closure duration shall not exceed **thirty (30) minutes** without an approved offsite detour. The Design-Build Team shall reopen the travel lanes to traffic until any resulting traffic queue is depleted. With an approved offsite detour, the roadways listed may be closed from 12:00 a.m. (Midnight) to 6:00 a.m. for the operations listed below.

- Pedestrian bridge demolition
- Girder, overhang, and falsework installation and / or removal
- Installation of overhead sign assemblies and / or work on existing overhead sign assemblies over travel lanes

Proposed road closures for any road within the project limits shall be approved by the Engineer, in writing, prior to incorporation in the Transportation Management Plans.

Liquidated Damages for Intermediate Contract Time #2 for the above road closure time restrictions for I-40, including all ramps and loops, are $5,000.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #3 for the above road closure time restrictions for the BB&T Soccer Park access road are $1,000.00 per 15-minute period or any portion thereof.

3. Intermediate Contract Times #4 - #12 for Ramp Reconstruction

For the length of the project, a maximum of four road closures for each ramp / loop, with an approved offsite detour, will be permitted for the construction of each ramp / loop tie-in for the maximum durations listed below. The Design-Build Team shall not concurrently close more than one ramp / loop at the same interchange.

LIGHTING SCOPE OF WORK (6-2-17)

** NOTE ** Throughout this Scope of Work, references to the lighting design / plans provided by the Department only refers to the roadway lighting. The Design-Build Team shall be responsible for all lighting designs / plans for the pedestrian bridge.

The Design-Build Team shall provide and install roadway lighting equipment and materials, in accordance with the Final Lighting Plans provided by the Department, Division 14 of the 2012 NCDOT *Standard Specifications for Roads and Structures* and the *Roadway Standard Drawings*, except as amended below. Prior to the Technical Proposal submittal date, the NCDOT will provide the Preliminary Lighting Plans. The Department will finalize the lighting design based upon the Design-Build Team's Release for Construction (RFC) Roadway Plans.

The Design-Build Team shall include all costs required to construct the roadway lighting shown in the aforementioned Preliminary Lighting Plans provided by the Department in their lump sum price bid for the entire project. The Department shall only compensate the Design-Build Team for additional lighting construction costs that result from design revisions incorporated at the Department's discretion and / or that result from errors or omissions in the Department's Preliminary Lighting Plans. The Design-Build Team shall be solely responsible for all additional lighting construction costs that result from design revisions incorporated at the Design-Build Team's discretion and / or construction methods.

After the RFC Roadway Plans have been accepted by the Design-Build Unit, the Design-Build Team shall submit MicroStation files of the RFC Roadway Plans for the Department to complete the lighting design. The Design-Build Team shall allow the Department ten days after this submittal to update and finalize the lighting design.

The Design-Build Team shall allow ten days for Department review of each submittal for all materials including poles and foundation designs. An additional ten days shall be required for pole submittals from vendors that do not commonly do business with the Department.

Reference the Traffic Management Scope of Work found elsewhere in this RFP for time restrictions and lane closure requirements.

Reference the *Lighting* Project Special Provision found elsewhere in this RFP for additional requirements.

PEDESTRIAN BRIDGE LIGHTING

The Design-Build Team shall design, provide, install and connect circuitry for lighting on the pedestrian bridge at Bermuda Run. The pedestrian lighting shall be recessed LED fixtures installed within the concrete deck along both sides of the pedestrian bridge. All conduit shall be embedded PVC Schedule 40 and integral to the structure. The Design-Build Team shall provide conduit expansion fittings at all bridge expansion joints. The lighting shall have a dusk-till-dawn operation that runs from a control system panel designed, provided, connected and installed by the Design-Build Team. The lighting design shall provide light levels recommended by IESNA RP 8 for Pedestrian Walkways.

selected appraiser shall have the necessary expertise and experience in appraising the above type properties.

- The NCDOT, or its agent, will provide appraisal reviews complying with the Department's *Uniform Appraisal Standards and General Legal Principles for Highway Right of Way Acquisitions*. The reviewer will ensure that the appraisal meets the Department's guidelines and requirements, conforms to acceptable appraisal standards and techniques, does not include any non-compensable items or exclude any compensable items and that the value conclusions are reasonable and based on facts presented in the appraisal. The reviewer has the authority to approve, adjust, request additional data or corrections, or not to recommend and request another appraisal. Within ten business days from the date of receipt, all appraisals and / or appraisal corrections will be reviewed by NCDOT Review Appraisers or Review Appraisers under contract to the corresponding NCDOT Area Appraisal Office. The NCDOT will sign as approving any and all appraisals to be used in acquisitions.

- The NCDOT will provide relocation reviews and approvals for all Replacement Housing Payment calculations and all Rent Supplement Payment calculations prior to the Design-Build Team making any offers to the displacees. Within five business days of the receipt of the Replacement Housing Payment or Rent Supplement Payment calculation documentation, which shall include all documentation required for an Evaluation Package, the Department will approve the calculation, and the signed FRM15-D will be returned to the Design-Build Team, or a request for an updated calculation or documentation will be presented to the Design-Build Team for further handling. At this time, the Relocation Coordinator in the NCDOT Right of Way Unit is the approving authority for the aforementioned calculations.

- The Design-Build Team shall coordinate with the Health Department to determine if septic systems can be relocated / modified to remain operational. The Department will only be responsible for the Health Department fees associated with these determinations. The Design-Build Team shall determine the relocation / modification design and construction costs required for the septic systems to remain operational and include these costs in the property right of way appraisals. (Reference the Utilities Coordination Scope of Work found elsewhere in this RFP)

- All Claims for Payment involving relocation benefits must be submitted to the NCDOT Relocation Coordinator in the Right of Way Unit for approval and processing.

- At the conclusion of the right of way acquisition process, the Design-Build Team shall provide a right of way certification to the Division Right of Way Agent.

- The Design-Build Team shall prepare Right of Way Transmittal Summaries and / or Narrative Appraisals for all right of way, control of access and easement acquisitions. Claim Reports will not be allowed for any acquisition.

- In accordance with Chapter 133 of the *General Statutes of North Carolina*, Section 133-40, the Council of State must approve acquisition of property with contaminated

PUBLIC INFORMATION SCOPE OF WORK (6-2-17)

The NCDOT will take the lead role on this project and be responsible for a portion of the public information efforts, through the Department's Communications Office and Public Involvement Group. Unless noted otherwise elsewhere in this RFP, the NCDOT responsibilities include:

- Organizing public meetings, including venue selection, reservation and fee
- Providing media announcements
- Excluding colored maps, developing and producing informational print materials for all meetings and workshops
- Soliciting and administering advertisements, as deemed necessary
- Mailings to the identified target audiences, including postage
- If necessary, developing and producing informational print materials for Limited English Proficiency (LEP) outreach

The Design-Build Team shall coordinate with the Department to promote public awareness for this project. The amount of public involvement required for this project shall be directly based on the Design-Build Team's Transportation Management Plans and construction details. The Design-Build Team's responsibilities shall include, but are not limited to, the following:

- Providing information requested by the Department to develop and produce informational printed materials for all meetings and workshops
- Providing details surrounding the impacts to the public
- Providing advance notice to the Department of upcoming project impacts
- Assisting the Department in the development of the target audience list
- At a minimum, the Design-Build Team shall attend and speak at a Community Workshop and at a Local Government Officials Meeting during development of the preliminary design. The Design-Build Team shall attend and speak at other public meetings / workshops as required herein. The Design-Build Team shall develop and provide colored maps for presentation at all public meetings / workshops.
- Hand delivery of time sensitive informational materials

The Design-Build Team shall hold an initial project coordination meeting with NCDOT at least six weeks prior to start of construction to discuss project impacts to the public. This information will be used by the Department to create a Public Information Plan.

To ensure that project information can be distributed to the public using standard methods, including but not limited to notices to newspapers, media outlets, and the project website, the Design-Build Team shall inform the Department at least twenty-one (21) calendar days in advance of any construction activity that will have significant impact on the public. These activities shall include, but are not limited to, the start of construction, major traffic shifts, road closures, ramp closures, detours, night work and project completion.

The Department will develop, with the assistance of the Design-Build Team, the specific list of target audiences for this project. The following groups are identified as typical target audiences to receive informational materials:

Technical Proposal, the Price Proposal, the printed contract form and attachments, contract bonds, plans and associated special provisions prepared by the Design-Build Team, standard specifications and supplemental specifications standard special provisions and project special provisions contained in the Request for Proposals or as developed by the Design-Build Team and accepted by the Department, and all executed supplemental agreements. The contract shall constitute one instrument.

DATE OF AVAILABILITY

That date set forth in the Request for Proposals, by which it is anticipated that the Contract will be executed and sufficient design efforts or work sites within the project limits will be available for the Design-Build Team to begin his controlling operations or design.

DESIGN-BUILD

A form of contracting in which the successful proposer undertakes responsibility for both the design and construction of a project.

DESIGN-BUILD TEAM

An individual, partnership, joint venture, corporation or other legal entity that furnishes the necessary design and construction services, whether by itself or through subcontracts.

DESIGN-BUILD PROPOSAL

A proposal to contract consisting of a separately sealed Technical Proposal and a separately sealed Price Proposal submitted in response to a Request for Proposals on a Design-Build project.

PLANS

The project plans, Standard Drawings, working drawings and supplemental drawings, or reproductions thereof, accepted by the Engineer, which show the location, character, dimensions and details of the work to be performed. Unless otherwise noted within the Request for Proposals, the term "plans" refers to plans as developed by the Design-Build Team and accepted by the Department.

(A) Standard Drawings:

Drawings approved for repetitive use, showing details to be used where appropriate. All Standard Drawings approved by the Department plus subsequent revisions and additions. Standard Drawings are available for purchase from:

Ronald Davenport, Jr., PE
State Contract Officer
1591 Mail Service Center
Raleigh, NC 27699-1591

(B) Preliminary Plans:

Department-furnished drawings distributed in concert with a Request for Proposals, or as developed by the Design-Build Team.