



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

November 26, 2014

Addendum No. 2

Contract No.: C 203575
TIP No.: U-3301
County: Buncombe
Project Description: NC 63 (Leicester Highway) from SR 1516 (Gilbert Road) to SR 1004 (Newfound Road)

RE: Addendum No. 2 to Final RFP

February 17, 2015 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated September 18, 2014 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 2 for your information. Please note that all revisions have been highlighted in gray and are as follows:

On the COVER SHEET, change the date for the Technical and Price Proposal submission to **January 27, 2015** and change the date for the Price Proposal Opening to **February 17, 2015**. Please mark through the dates shown on the September 18, 2014 (Labeled) RFP and insert the new dates. These corrections must be done in ink and initialed and dated by your Team's primary contractor (reference the attached example). The corrected Final RFP, must be used to submit the Price Proposal for return to this office.

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

Page Nos. 3, 40 and 41 of the *Project Special Provisions* have been revised. Please void Page Nos. 3, 40 and 41 in your proposal and staple the revised Page Nos. 3, 40 and 41 thereto.

Page Nos. 63, 64 and 67 of the *General* section have been revised. Please void Page Nos. 63, 64 and 67 in your proposal and staple the revised Page Nos. 63, 64 and 67 thereto.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT UNIT
1591 MAIL SERVICE CENTER
RALEIGH NC 27699-1591

TELEPHONE: 919-707-6900
FAX: 919-250-4119

WEBSITE:
WWW.NCDOT.GOV

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC

Page Nos. 78, 79, 80, 82, 83, 84 and 85 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 78, 79, 80, 82, 83, 84 and 85 in your proposal and staple the revised Page Nos. 78, 79, 80, 82, 83, 84 and 85 thereto.

Page No. 101 of the *Hydraulics Scope of Work* has been revised. Please void Page No. 101 in your proposal and staple the revised Page No. 101 thereto.

Page Nos. 114 and 115 of the *Transportation Management Scope of Work* have been revised. Please void Page Nos. 114 and 115 in your proposal and staple the revised Page Nos. 114 and 115 thereto.

Page Nos. 156, 160 and 161 of the *Utilities Coordination Scope of Work* have been revised. Please void Page Nos. 156, 160 and 161 in your proposal and staple the revised Page Nos. 156, 160 and 161 thereto.

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

Sincerely,



R.A. Garris, PE
Contract Officer

RAG/mcw

cc: J. J. Swain, Jr., PE
Rodger Rochelle, PE
Teresa Bruton, PE
Tim McFadden
File

EXAMPLE

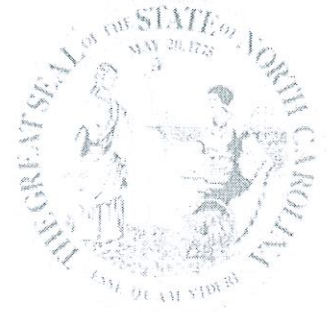
-- STATE OF NORTH CAROLINA--
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

FINAL REQUEST FOR PROPOSALS

DESIGN-BUILD PROJECT

TIP U-3301

September 18, 2014



VOID FOR BIDDING

DATE AND TIME OF TECHNICAL AND PRICE PROPOSAL SUBMISSION: ~~November 20, 2014~~ ^{January 27, 2015} BY 4:00 PM ABC 11/26/14

DATE AND TIME OF PRICE PROPOSAL OPENING: ~~December 16, 2014~~ AT 2:00 PM

CONTRACT ID: C 203575

WBS ELEMENT NO. 34909.2.FR2

FEDERAL-AID NO. STP-63(1)

COUNTY: Buncombe

ROUTE NO. NC 63

MILES: 4.3

LOCATION: NC 63 (Leicester Highway) from SR 1516 (Gilbert Road) to SR 1004 (Newfound Road)

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK
CONTAINED IN THE REQUEST FOR PROPOSALS

NOTICE:

ALL PROPOSERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE PROPOSER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. PROPOSERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE PROPOSER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING, REGARDLESS OF FUNDING SOURCES.

5% BID BOND OR BID DEPOSIT REQUIRED

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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 will be subject to fuel price adjustments. Fuel price adjustments shall not apply to changes in these quantities resulting from a Supplemental Agreement.

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 \$ **2.6380** 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* and the declination box shall be checked. Failure to complete this form will mean that the Design-Build Team is declining the Fuel Price Adjustments for this project.

(D) **Change Option**

The proposer will not be permitted to change the option after the Price Proposal and the copy of the *Fuel Usage Factor Chart and Estimate of Quantities* sheet are submitted.

(E) **Failure to Submit**

Failure to submit the *completed Fuel Usage Factor Chart and Estimate of Quantities* sheet separately and in the Price Proposal will result in the Technical and Price Proposal

devices flush with concrete surfaces as directed. Fill holes in a neat and workmanlike manner with an approved non-metallic non-shrink grout, concrete or plug.

DRAINAGE PIPE

(9-1-11)

DB3 R36

Description

Where shown in the plans developed by the Design-Build Team, the Contractor shall use Reinforced Concrete Pipe, Corrugated Aluminum Alloy Pipe, Aluminized Corrugated Steel Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC Pipe) in accordance with the following requirements:

All pipe types are subject to the maximum and minimum fill height requirements as found on Roadway Standard Drawing 300.01 - Sheet 3 of 3. The appropriate Reinforced Concrete Pipe class and the appropriate gage thickness for Corrugated Aluminum Alloy Pipe and Aluminized Corrugated Steel Pipe shall be selected based on fill height.

Site specific conditions may limit a particular material beyond what is identified in this Special Provision. These conditions include, but are not limited to, abrasion, environmental, soil resistivity and pH, high ground water and special loading conditions. The Design-Build Team shall determine if additional restrictions are necessary.

Slope drains shall be Corrugated Aluminum Alloy Pipe, Aluminized Corrugated Steel Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC Pipe).

Transverse median drains, storm drainage system pipes, and open-ended cross drains shall be Reinforced Concrete Pipe unless the pipe slope is greater than 10%, in which case the pipe shall be either Corrugated Aluminum Alloy Pipe or Aluminized Corrugated Steel Pipe.

PRICE ADJUSTMENTS FOR ASPHALT BINDER

(9-1-11)

DB6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the 2012 *Standard Specifications for Roads and Structures*.

When it is determined that the monthly selling price of asphalt binder on the first business day of the calendar month during which the last day of the partial payment period occurs varies either upward or downward from the Base Price Index, the partial payment for that period will be adjusted. The partial payment will be adjusted by adding the difference (+ or -) of the base price index subtracted from the monthly selling price multiplied by the total theoretical quantity of asphalt binder authorized for use in the plant mix placed during the partial payment period involved.

The base price index for asphalt binder for plant mix is \$608.46 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on November 1, 2014.

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 per theoretical ton. This price shall apply for all mix types.

FIELD OFFICE

(6-1-07)

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 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 10 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, masonite, 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:

submitted in accordance with the *Design-Build Submittal Guidelines*, which by reference are incorporated and made a part of this contract. All submittals shall be made simultaneously to the Transportation Program Management Director and the Resident Engineer. The Department will not accept subsequent submittals until prior submittal reviews have been completed for that item. The Design-Build Team shall inform the Transportation Program Management Director in writing of any proposed changes to the NCDOT preliminary designs, Technical Proposal and / or previously reviewed submittals and obtain approval prior to incorporation. The Design-Build Team shall prioritize submittals in the event that multiple submittals are made based on the current schedule. All submittals shall include pertinent Special Provisions. No work shall be performed prior to Department review and acceptance of the design submittals.

OVERVIEW

The Design-Build Project U-3301 will widen approximately 4.3 miles of NC 63 to a three-lane facility that transitions to a four-lane divided facility in Buncombe County. The three-lane curb and gutter facility shall extend from Jones Road (SR 1380) to east of Gray Fox Drive. The four-lane divided shoulder facility shall consist of a typical median width of 23 feet and extend from east of Gray Fox Drive to Newfound Road (SR 1004).

Project services shall include, but are not limited to:

- **Design Services** – completion of construction plans, including Record Drawings
- **Construction Services** – necessary to build and ensure workmanship of the designed facility
- **Permit Preparation / Application** - development of all documents for required permits
- **Right of Way** – acquisition of right of way necessary to construct project

The U-3301 Categorical Exclusion was approved on August 8, 2014.

Construction Engineering Inspection will be provided by the NCDOT Division personnel or will be performed under a separate contract.

GENERAL SCOPE

The scope of work for this project includes design, construction and management of the project. The design work includes all aspects to widen approximately 4.3 miles of NC 63 to a three-lane curb and gutter facility that transitions to a four-lane divided shoulder facility. The designs shall meet all appropriate latest versions of *AASHTO Policy on Geometric Design of Highways and Streets*, *AASHTO LRFD Bridge Design Specifications*, *Manual of Uniform Traffic Control Devices*, and all NCDOT design policies that are current as of the Technical and Price Proposal submission date or the Best and Final Offer submission date.

Construction shall include, but not be limited to, all necessary clearing, grading, roadway, drainage, structures, utility coordination and relocation, and erosion and sediment control work items for the proposed widened facility. Construction engineering and management shall be the responsibility of the Design-Build Team. Construction shall comply with 2012 NCDOT *Standard Specifications for Roads and Structures* and any special provisions.

Areas of work required for this project shall include, but are not limited to the following items:

- Roadway Design
- Structure Design
- Hydraulic Design
- Permit Application
- Foundation Design for Structures and Roadway
- Erosion and Sediment Control Design and Implementation
- R/W Utilities, Conflicts and / or Construction
- Utility Construction
- Traffic Management Plan Design and Implementation
- Pavement Marking Design
- Sign Design
- Traffic Signal Design
- Construction
- Project Management
- Design and Construction Management
- Construction Surveying
- Location and Surveys
- Right of Way Acquisition
- Public Information

All designs shall be in Microstation format using Geopak software (current version used by the Department).

DESIGN AND CONSTRUCTION PERFORMED BY DESIGN-BUILD TEAM

The design work consists of the preparation of all construction documents to resurface NC 63 (Leicester Highway) from Gilbert Road (SR 1615) to Jones Road (SR 1380) and to widen NC 63 (Leicester Highway) from Jones Road (SR 1380) to Newfound Road (SR 1004), as outlined in the Scope of Work section of this RFP. The Design-Build Team shall prepare final designs, construction drawings and special provisions.

The Design-Build Team shall acknowledge that project documents furnished by the Department are preliminary and provided solely to assist the Design-Build Team in the development of the project design. The Design-Build Team shall be fully and totally responsible for the accuracy and completeness of all work performed under this contract and shall save the State harmless and shall be fully liable for any additional costs and all claims against the State which may arise due to errors, omissions and negligence of the Design-Build Team in performing the work required by this contract.

There shall be no assignment, subletting or transfer of the interest of the Design-Build Team in any of the work covered by the Contract without the written consent of the State, except that the Design-Build Team may, with prior written notification of such action to the State, sublet property searches and related services without further approval of the State.

The Design-Build Team shall certify all plans, specifications, estimates and engineering data furnished by the Team.

Failure to comply with the terms stated above in this section shall be grounds for termination of this contract and / or not being considered for selection of work on future contracts for a period of one year.

SUBMITTAL OF TECHNICAL AND PRICE PROPOSALS

Technical and / or Price Proposals that do not adhere to all the requirements noted below may be considered non-responsive and may result in the Department not considering the Design-Build Team for award of the contract or reading their Price Proposal publicly.

GENERAL

Technical and Price Proposals will be accepted until **4:00 p.m. Local Time on Tuesday, January 27, 2015**, at the office of the State Contract Officer:

Mr. Randy A. Garris, PE
Contract Standards and Development
1020 Birch Ridge Drive
Century Center Complex - Building B
Raleigh, NC 27610

No Proposals will be accepted after the time specified.

Proposals shall be submitted in two separate, sealed parcels containing the Technical Proposal in one and the Price Proposal in the other parcel.

TECHNICAL PROPOSAL

Technical Proposals shall be submitted in a sealed package. The outer wrapping shall clearly indicate the following information:

Technical Proposal
Submitted By: (Design-Build Team's Name)
Design-Build Team Address
Contract Number C 203575
TIP Number U-3301
Buncombe County
NC 63 from SR 1615 (Gilbert Road) to SR 1004 (Newfound Road)

If delivered by mail, the sealed envelope shall be placed in another sealed envelope and the outer envelope addressed to the Contract Officer as stated in the Request for Proposals. The outer envelope shall also bear the statement "Technical Proposal for the Design-Build of State Highway Contract No. C 203575".

ROADWAY SCOPE OF WORK (11-24-14)

Throughout this Request for Proposals, references to the Preliminary Roadway Plans shall denote the U-3301 Design Public Meeting Map provided by the Department.

Project Details

- The Design-Build Team shall design and construct a three-lane curb and gutter facility from Jones Road (SR 1380) to just east of Gray Fox Drive and a four-lane divided facility from just east of Gray Fox Drive to Newfound Road. Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct the -L- Line providing the same or better access, widening, improvements and level of service included in the U-3301 Design Public Meeting Map provided by the Department. The limits of -L- Line construction shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards. The mainline three-lane section shall be designed and constructed to meet a minimum 50-mph design speed for a Rolling Major Urban Collector. The mainline four-lane section shall be designed and constructed to meet a 55-mph design speed for a Rolling Urban Principal Arterial. The Design-Build Team shall provide all other design criteria, based on the 2040 traffic volumes in the October 23, 2014 *Project Level Traffic Forecast Report* provided by the Department, in the Technical Proposal.
- Throughout the three-lane curb and gutter section along the -L- Line, the Design-Build Team shall design and construct 14-foot outside lanes and a 12-foot center lane with minimum ten-foot berms (14-foot with guardrail).
- Throughout the four-lane shoulder section along the -L- Line, the Design-Build Team shall design and construct 12-foot lanes and minimum ten-foot outside shoulders (eight-foot usable shoulder plus two feet), five-foot of which shall be full depth paved shoulders. The -L- Line median width shall vary throughout the four-lane divided section as widening for left turn lanes dictates, otherwise the minimum typical median width shall be 23 feet.
- The minimum width of all grass covered islands shall be eight feet, measured face to face from 2'-9" mountable concrete curb and gutter. All grass covered islands shall be constructed with topsoil, Zorsia grass, and appropriate cross slope and median drain with pipe to prevent groundwater and surface water infiltration into the subgrade and / or pavement structure. Prior to construction of the grass covered islands and / or median drain with pipe, the Design-Build Team shall submit to the Transportation Program Management Director, for review and acceptance, the proposed number of drains, drain locations within the typical section, topsoil specifications and construction details. Within all proposed grass covered island limits, the Design-Build Team shall completely remove and dispose of the existing pavement structure.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct -Y- Lines and cul-de-sacs providing the same or better access, widening, improvements and level of service included in the U-3301 Design Public Meeting Map provided by the Department. The limits of -Y- Line construction shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards.

- Excluding steeper cross slopes (0.025 maximum) required to minimize the potential for hydroplaning, the -L- Line cross slope shall be 0.02.
- Throughout the four-lane divided section, the grade point and crown point shall be located at the centerline alignment. (A bifurcated grade shall not be allowed.)
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct at-grade intersections with the lane configurations noted in the **October 30, 2014 Congestion Management 2040 Traffic Capacity Analysis Report** provided by the Department. At all intersections impacted by the Design-Build Team's design and / or construction, excluding resurfacing, the Design-Build Team shall design and construct turn lanes that adhere to the greater of the following:
 - All turn lane lengths shall adhere to the NCDOT minimum turn lane lengths as defined in the NCDOT Roadway Design Manual (Reference Section 9-1, Figure 4).
 - All lengths for the turn lanes required by the Congestion Management Report provided by the Department shall adhere to the NCDOT Recommended Treatment for Turn Lanes. These lengths shall be determined by adding the storage length defined in the aforementioned Congestion Management Report; the minimum deceleration length, as defined in the NCDOT Roadway Design Manual (Reference Section 9-1, Figure F-4A); and the approach / departure taper.
 - Right turn lanes / tapers shall be provided in accordance with the NCDOT Right Turn Lane Warrants, as defined in the Roadway Design Manual (Reference Section 9-1, Figure F-4C).
- Roundabouts will not be allowed.
- ****Note** Deleted duplicate at-grade intersection requirement bullet**
- The Design-Build Team will not be required to construct the proposed retaining walls located at approximately Station 78+00 -L-, LT and Station 140+00 -L-, LT.
- For all intersection design modifications, the Design-Build Team shall provide a traffic analysis that adheres to the January 1, 2012 Congestion Management Capacity Analysis Guidelines for the Department's review and acceptance.
- At all intersections with restricted movements impacted by the Design-Build Team's design and / or construction methods, excluding resurfacing, the Design-Build Team shall provide 5" keyed-in concrete monolithic channelization islands.
- The Design-Build Team shall not impact any cemetery located within the project limits. The Design-Build Team shall not acquire right of way or easements from any cemetery property.

- The Design-Build Team shall not further impact any cultural, historical or otherwise protected landmark or topographic feature beyond that shown on the Design Public Meeting Map provided by the Department. The Design-Build Team shall not acquire right of way or easements from the aforementioned features unless shown on the Design Public Meeting Map provided by the Department. The Department will design and plant the landscaping required along the mainline in proximity to the historic property boundaries.
- Excluding haul roads, the Design-Build Team shall design and construct resurfacing grades for all roadways impacted by construction. All resurfacing grades shall adhere to the design criteria and standards, provide all required pavement wedging (Reference the Pavement Management Scope of Work found elsewhere in this RFP) and adhere to the minimum requirements noted below:
 - The Design-Build Team shall resurface all lanes and shoulders of an undivided facility throughout the limits of proposed widening and construction.
 - The Design-Build Team shall resurface each one-way roadway of a divided facility throughout the limits of the one-way roadway widening and construction, allowing varying resurfacing limits for the opposing directions of travel.
 - 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.
 - The Design-Build Team shall resurface all existing facilities to the limits of pavement marking obliterations / revisions.
- The Design-Build Team shall provide turn-arounds on all roads that are dead-ended.
- The Design-Build Team shall design and construct a 30-foot wide paved turnout that provides the Betty A. Snelson property access to NC 63 across from Old Leicester Road (SR 1002).
- The Design-Build Team shall inform the Transportation Program Management Director, in writing, of any proposed changes to the NCDOT preliminary design, previously reviewed submittals or the Design-Build Team's Technical Proposal and obtain approval prior to incorporation. The Design-Build Team shall note in the Technical Proposal any proposed deviations to the preliminary design shown on the U-3301 Design Public Meeting Map provided by the Department. The Design-Build Team shall be responsible for any 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.
- Design exceptions will not be allowed for the -L- Line. NCDOT prefers not to have design exceptions for the -Y- Lines. 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

- Normal grading operations shall occur, including but not limited to, removal of the existing embankments supporting all removed roadway sections
- Unless noted otherwise elsewhere in this RFP, all guardrail placement shall be in accordance with the January 2012 NCDOT *Roadway Standard Drawings* and / or approved details in lieu of standards. Throughout the three-lane curb and gutter section along the mainline, the Design-Build Team shall install all guardrail twelve feet from the curb face. Throughout all guardrail limits, the Design-Build Team shall plant *Zorsia* grass from the edge of pavement to the shoulder point. Along all 3:1 fill slopes, constructed at fill heights that are equal to or greater than 12 feet, the Design-Build Team shall install guardrail. Along all fill slopes steeper than 3:1, constructed at fill heights that are equal to or greater than six feet, the Design-Build Team shall install guardrail. The guardrail design shall be submitted for review with the Preliminary Plans submittal.
- The total outside shoulder width for all facilities with defined usable shoulders shall equal the usable shoulder plus two feet or the shoulder width defined herein plus two feet, whichever is greater.
- The Design-Build Team shall be responsible for the evaluation of the algebraic difference in rates of cross slope (roll-over) between existing shoulders and roadways and the associated suitability for carrying traffic during construction, if necessary. In the event that the roll-over is found to be unacceptable for the proposed temporary traffic patterns, the Design-Build Team shall be responsible for providing cross slopes that meet design standards and eliminate roll-over concerns.
- The Design-Build Team shall develop Structure Recommendations that adhere to the format noted in the March 25, 2003 and September 1, 2004 memos from Mr. Jay Bennett, PE, previous State Roadway Design Engineer. Unless noted otherwise elsewhere in this RFP, the design speed for all roadways shall be the greater of the minimum design speed for the facility type or the anticipated / actual posted speed limit plus five-mph. If a speed limit is not physically posted on an existing facility, General Statutes mandate the speed limit as 55-mph, resulting in a 60-mph design speed.
- The Design-Build Team will be allowed to adhere to the curb and gutter clear zones for utility placement noted in the February 25, 2011 memo from Mr. Art McMillan, PE, previous State Highway Design Engineer.
- Within the vehicle recovery area, the Design-Build Team shall design and construct single face concrete barrier in front of all retaining walls and all elements acting as a retaining wall located on the outside shoulder. The aforementioned concrete barrier shall be located beyond the typical section shoulder point, requiring the Design-Build Team to widen the outside shoulder beyond the typical section width.
- At all -L- Line / -Y- Line intersection radius points, the minimum -Y- Line lane width shall be 15 feet.

- At the intersections noted below, a school bus design vehicle shall be required for all turning movements:
 - NC 63 / Mayland Road (SR 1468) intersection
 - NC 63 / Old NC 63 (SR 1802)
 - NC 63 / Gray Fox Road
 - NC 63 / Sherry Lane
 - NC 63 / Snelson Drive
 - NC 63 / Blue Ridge Acres Drive (SR 1446)
 - NC 63 / Creek Road (SR 1303)
 - NC 63 / Shirley Drive (SR 1305)
 - NC 63 / Dix Creek Road (SR 1309)

At all other intersections impacted by the Design-Build Team's design and / or construction methods, excluding resurfacing, the WB-62 design vehicle shall be required for all turning movements.

- In lieu of the U-Turn bulb-outs shown on the Design Public Meeting Map provided by the Department, at a minimum, the Design-Build Team shall design and construct U-Turn bulb-outs, for the design vehicles noted below, at the approximate locations noted below. The Design-Build Team shall shift the U-Turn bulb-out locations, as required, to avoid jurisdictional features.
 - The U-Turn bulb-outs at the locations noted below shall accommodate a WB-67 turning movement:
 - NC 63 eastbound and westbound in proximity to Leicester Postal Investors Group Property (Leicester Post Office at approximately Station 114+75 -L-)
 - NC 63 westbound at approximately Station 123+50 -L-
 - NC 63 eastbound at Old Leicester Road (SR 1002)
 - NC 63 westbound at Gouges Branch Road (SR 1377)
 - NC 63 eastbound at approximately Station 167+00 -L-
 - NC 63 westbound at approximately Station 174+00 -L-
 - NC 63 westbound at Shirley Drive (SR 1305)
 - NC 63 eastbound and westbound at approximately Station. 226 +50 -L-
 - The U-Turn bulb-outs at the locations noted below shall accommodate an SU-30 turning movement:
 - NC 63 eastbound at the Newfoundland Baptist Church main entrance
 - NC 63 eastbound at Ramsey Road (SR 1302)
 - NC 63 westbound at Brookshire Road (SR 1292)

The Design-Build Team shall design and construct all median U-Turn bulb-outs in accordance with the February 5, 2009 memo from Mr. Jay Bennett, PE, previous State Roadway Design Engineer. The Design-Build Team shall design and construct all directional

crossovers and median U-Turn bulb-outs to prevent counterflow and unsafe movements, including but not limited to elongated keyed-in monolithic channelization islands on the -L-Line and -Y- Lines. All mainline exclusive left turn lanes adjacent to the aforementioned elongated islands shall be 14 feet wide.

- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct all lane drops from the outside travel way.
- A sag vertical curve low point will not be allowed on any proposed bridge or approach slab.
- Excluding grades required to tie to existing, the minimum longitudinal grade shall be 0.30%.
- The Design-Build Team shall design and construct all driveways that adhere to the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and the minimum requirements noted below. Excluding the maximum grade requirement, if the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and the requirements noted below have conflicting design parameters, the proposed design shall adhere to the aforementioned Policy.
 - The Design-Build Team shall provide horizontal and vertical alignments for all driveways that require 100 feet or longer to tie to existing.
 - The maximum driveway grade shall not exceed the existing driveway grade plus 5%.
 - For shoulder sections, the minimum driveway turnout for residential and commercial properties shall be 16'-0" and 24'-0", respectively, or the existing width, whichever is greater.
 - For curb and gutter sections, the minimum driveway turnout for residential and commercial properties shall be 20'-0" and 28'-0", respectively, or the existing width, whichever is greater.
- The Design-Build Team shall contact Mr. Gary W. Thompson, North Carolina Geodetic Survey Director, prior to disturbing any geodetic monument.
- The Design-Build Team shall identify the need for any special roadway design details (i.e. any special drainage structures, rock embankment, rock plating, special guardrail, retaining walls, concrete barrier designs, etc.) and shall provide special design drawings. The Contract Standards and Development Unit may have special details available that can be provided to the Design-Build Team upon request.
- A 4:1 back slope shall extend from the back of all expressway gutter to the clear zone limit. Beyond that, a 2:1 back slope will be acceptable. The expressway gutter shall be located adjacent to the full-width outside shoulder.
- At all locations with paved shoulders that extend beyond the typical width (i.e. to the face of single face barrier and guardrail, edge of expressway / shoulder berm gutter, etc.), the

- Design-Build Team shall taper the wider paved shoulder width to the typical paved shoulder width using an 8:1 taper. (Reference the Pavement Management Scope of Work found elsewhere in this RFP)
- **Shoulder berm gutter shall not be installed in cut sections.**
- Cut and fill slope transitions shall not exceed one increment (i.e. 2:1 to 3:1) per 50 feet.
- The Design-Build Team shall design and construct horizontal and vertical curves at all Points of Intersections (PIs) on the horizontal and vertical alignments, respectively.

NCDOT Information Supplied

- The NCDOT will provide copies of the Categorical Exclusion (CE) and the latest list of environmental commitments, municipal agreements and all pertinent approvals and correspondence. Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall adhere to all commitments stated in the environmental documents
- The NCDOT will provide electronic surveys to the Design-Build Team. Any supplemental surveys, including but not limited to additional topography, existing and proposed roadway, structure sites, underground and overhead utilities, existing and proposed drainage, wetland delineation, right of way, parcel names, and deed research and descriptions shall be the responsibility of the Design-Build Team to acquire and process. The Design-Build Team shall modify / incorporate boundary information used for the determination and valuation of property solely under the direct supervision of a Professional Land Surveyor registered in North Carolina. Known existing utilities have been located and will be included with the survey data. The Design-Build Team shall be responsible for confirming the location of the utilities and the type / size of facilities. All supplemental Subsurface Utility Engineering (SUE) work shall be the responsibility of the Design-Build Team.
- The NCDOT will provide the U-3301 Design Public Meeting Map developed by the Department. The Design-Build Team is cautioned that the preliminary designs shown on this Map are provided solely to assist the Design-Build Team in the development of the project design. The Design-Build Team shall be fully and totally responsible for the accuracy and completeness of the project design, including, but not limited to, the use of the NCDOT's design, the use of portions of the NCDOT's design or modifications to the NCDOT's design.
- The NCDOT will provide the U-3301 electronic design files.
- The NCDOT will provide final pavement designs for U-3301. The Design-Build Team shall be responsible for all temporary pavement designs. (Reference the Pavement Management Scope of Work found elsewhere in this RFP)
- The NCDOT will provide a Geotechnical Subsurface Investigation for U-3301. The Design-Build Team shall be responsible for any additional geotechnical information, all geotechnical recommendations, as well as supplemental structural and roadway investigations. (Reference the Geotechnical Engineering Scope of Work found elsewhere in this RFP)

HYDRAULICS SCOPE OF WORK (11-25-14)**Project Details**

- The Design-Build Team shall employ a private engineering firm to perform hydraulic design for all work required under this contract. The private engineering firm must be prequalified for hydraulic design work under the Department's normal prequalification procedures prior to the Technical Proposal submittal date.
- The Design-Build Team shall hold a pre-design meeting with the Transportation Program Management Director and Hydraulic Review Engineer upon acceptance of the Preliminary Roadway Plans developed by the Design-Build Team.
- The Design-Build Team shall design all storm drainage systems using Geopak Drainage.
- The *Bicycle Safe Steel Grate and Frame Special Detail* provided by the Department and the NCDOT Roadway Standard Drawing No. 840.29 are considered bicycle-safe drainage grates. In accordance with the January 1994 North Carolina Bicycle Facilities Planning and Design Guidelines, the Design-Build Team shall install bicycle-safe drainage grates at the locations noted below:
 - Throughout the mainline three-lane section
 - Within the paved shoulder of the mainline four-lane section
- At a minimum, and in accordance with the requirements noted above, the Design-Build Team shall install traffic bearing drop inlets with steel frames and flat steel grates at the following locations:
 - Within a temporary and / or permanent lane
 - Within four feet of a temporary and / or permanent lane
- Excluding 1) driveway pipes that do not carry a stream, 2) driveway pipes that do not require extension, and 3) locations where a pipe grade dictates metal pipe, the Design-Build Team shall 1) replace all metal pipes within the project limits with reinforced concrete pipe and 2) install reinforced concrete pipe. All other pipes shall adhere to the NCDOT *Pipe Material Selection Guide*.
- Throughout the project limits, the Design-Build Team shall analyze all existing box culverts and pipes within the existing / proposed right of way for hydraulic and structural deficiencies. Based on these analyses, the following shall be adhered to:
 - The Design-Build Team shall provide the appropriate hydraulic mitigation for all hydraulically deficient box culverts and / or pipes; and for all hydraulically and structurally deficient box culverts and / or pipes, including but not limited to replacement. The Design-Build Team shall identify all hydraulically deficient box culverts and / or pipes and their proposed hydraulic mitigation in the Technical Proposal.

For the operations noted below, the maximum road closure duration shall not exceed 15 minutes on NC 63 without an approved offsite detour. With an approved offsite detour, NC 63 shall only be closed from 12:00 a.m. (Midnight) to 6:00 a.m. for the operations noted below.

- Traffic shifts to complete tie-in work and placement of pavement markings and markers
- Bridge demolition
- Girder, installation and / or removal
- Installation / removal of temporary shoring
- Installation / removal of temporary traffic barrier systems
- **Blasting operations**

Prior to incorporation in the Transportation Management Plans, the Design-Build Team shall obtain written approval from the Engineer for all road closures.

Liquidated Damages for Intermediate Contract Time #3 for the above road closure time restrictions for NC 63 are \$1,000.00 per 15-minute period or any portion thereof.

B. Hauling Restrictions

The Design-Build Team shall adhere to the hauling restrictions noted in the NCDOT 2012 *Standard Specifications for Roads and Structures*.

The Design-Build Team shall conduct all hauling operations as follows:

- The Design-Build Team shall not conduct any hauling operations against the flow of traffic of an open travelway unless an approved temporary traffic barrier or guardrail separates the traffic from the hauling operation.
- The Design-Build Team shall not haul during the holiday and special events time restrictions listed in Intermediate Contract Time #1 and #2, unless the hauling operation occurs completely behind temporary traffic barrier or guardrail and does not impact traffic operations.
- All entrances and exits for hauling to and from the work zone shall conform to the 2012 Roadway Standard Drawings. All hauling entrances, exits and crossings shall be shown on the Transportation Management Plan.
- Haul vehicles shall not enter and / or exit an open travel lane at speeds more than 10 mph below the posted speed limit.
- Hauling operations that perpendicularly cross a roadway shall require Transportation Management Plans and are subject to the time restrictions, and

- holiday and special event time restrictions in Intermediate Contract Time # 1, #2 and #3.
- Multi-vehicle hauling shall not be allowed ingress or egress from any open travel lane during the following time restrictions. The following hauling time restrictions apply only where egress and / or ingress occur between the work area and any travel lane of the roads noted below. Hauling operations that are conducted entirely behind a temporary traffic barrier or guardrail are allowed at all times and excluded from the following time restrictions:

For Multi-Vehicle Hauling

Road Name	Day and Time Restrictions
NC 63	Monday through Friday 6:00 a.m. to 8:15 a.m. and 2:30 p.m. to 6:00 p.m. - School Days 4:00 p.m. to 6:00 p.m. - Non-School Days Sunday 7:00 a.m. to 1:00 p.m.
Leicester Elementary School Entrance (-Y2-)	Monday through Friday - School Days 6:00 a.m. to 8:15 a.m. and 2:30 p.m. to 6:00 p.m.

C. Lane and Shoulder Closure Requirements

The Design-Build Team shall not install more than two simultaneous lane closures. The Design-Build Team shall provide a minimum of two (2) miles between lane closures, measured from the trailing flagger of the first flagging operation to the first flagger of the second flagging operation.

The Design-Build Team shall remove lane closure devices from the lane when work is not being performed behind the lane closure or when a lane closure is no longer needed.

When barrier is placed on the roadway shoulder, the Design-Build Team shall install shoulder closure signs and devices using NCDOT 2012 Roadway Standard Drawing No. 1101.04 in advance of the barrier.

When personnel and / or equipment are working within 15 feet of an open travel lane, the Design-Build Team shall close the nearest open shoulder using NCDOT 2012 Roadway Standard Drawing No. 1101.04, unless the work area is protected by an approved temporary traffic barrier or guardrail.

When personnel and / or equipment are working on the shoulder adjacent to an undivided facility and within 5 feet of an open travel lane, the Design-Build Team shall close the

UTILITIES COORDINATION SCOPE OF WORK 11-25-14)

The Design-Build Team shall obtain the services of a Private Engineering Firm (PEF) knowledgeable in the NCDOT Utility Coordination Process involved with utility relocation / installation and highway construction. The Design-Build Team shall be responsible for coordinating all utility relocations, removals, and / or adjustments where the Design-Build Team and Utility Company, with concurrence from the Department, determine that such work is essential for highway safety and performance of the required highway construction. Coordination shall be for all utilities whether or not they are specifically identified in this scope of work and shall include any necessary utility agreements when applicable. NCDOT will be the approving authority for all utility agreements and approval of plans.

Excluding the underground telephone fiber optic vault noted below, the Design-Build Team shall relocate / coordinate the relocation of all underground facilities that become beneath the pavement structure as a result of the project, in accordance with the requirements herein.

The underground telephone fiber optic vault on the Bellsouth Telco, Inc. property (Station 50+00 -L-, RT) may remain in place provided it is not in conflict with the Design-Build Team’s mainline vertical alignment.

Cost Responsibility

The Design-Build Team shall be responsible for all costs associated with relocating water and sewer facilities as described in the Water and Sewer section of this scope of work.

The NCDOT will be responsible for all other non-betterment utility relocation cost when the utility company has prior rights of way / compensable interest. The utility company shall be responsible for the relocation costs if they can not furnish evidence of prior rights of way or a compensable interest in their facilities. The Design-Build Team shall be responsible for verifying / determining the cost responsibility (prior rights and compensable interest) for the utility relocations. The Design-Build Team shall be responsible for all costs associated with utility relocations due to haul roads and / or any other temporary conditions resulting from the Design-Build Team’s methods of operation or sequence of work.

Project Details

The Design-Build Team shall be responsible for verifying the utility locations, type of facilities, and identifying the utility owners in order to coordinate the relocation of any utilities, known and unknown, in conflict with the project. The following utilities are known to be located within the project construction limits:

Utility Owner	Utility Type	Cost Responsibility
Duke Energy Distribution and Transmission	Power	NCDOT
PSNC	Gas Line	Utility Owner
AT&T (Bellsouth)	Telecommunications	NCDOT
City of Asheville	Water	Utility Owner
Charter Cable	Cablevision	Utility Owner

- A. Unless noted otherwise elsewhere in this RFP, no attachments shall be allowed to cored-slab bridges.
- B. Unless noted otherwise elsewhere in this RFP, no attachments shall be allowed to curved bridges.

Attachments to structures, if allowed, shall meet the following criteria:

- A. No attachments shall be allowed below the bottom of the beams and / or girders.
- B. Drilling of, or attachments to, beams and / or girders shall not be allowed. Attachments shall only be allowed to the bottom of the bridge deck.
- C. For water and sewer force mains, only restrained joint ductile iron pipe shall be allowed.
- D. A minimum of 18” of clearance to beams and / or girders shall be maintained if possible.

Documentation of adverse conditions or cost estimates of all feasible alternatives shall be submitted to the NCDOT State Utility Agent, via the Transportation Program Management Director, when seeking approval of a structure attachment. Cost estimates shall consider all costs involved with each alternative and impacts to the utility and the highway project as a whole.

General

The Design-Build Team shall not commence work at points where the highway construction operations are adjacent to utility facilities, until making arrangements with the utility company to protect against damage that might result in expense, loss, disruption of service or other undue inconvenience to the public or utility owner. The Design-Build Team shall be responsible for damage to the existing or relocated utilities resulting from the Team's operations. In the event of interruption of any utilities by the project construction, the Design-Build Team shall promptly notify the proper authority (Utility Company) and cooperate with the authority in the prompt restoration of service.

The Design-Build Team shall accommodate utility adjustments, reconstruction, new installation and routine maintenance work that may be underway or take place during the progress of the contract.

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 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 Right of Way Scope of Work found elsewhere in this RFP)

Private septic drain lines, including but not limited to existing lines, will not be allowed under NC 63.

If total property acquisition is unavoidable due to encroachment into wells and / or septic systems, then the Design-Build Team shall investigate and determine if extending water and / or sewer lines to the affected property is cost effective. If the Department concurs with the determination that a utility extension is cost effective, the costs associated with the utility construction will be paid for as extra work in accordance with Article 104-8(A) of the 2012 *Standard Specifications for Roads and Structures*.

The Design-Build Team shall make arrangements to relocate water, sewer, or gas line facilities in which the entities are covered under General Statute 136-27.1 or 136-27.2 and / or occupy a compensable interest. Unless noted otherwise elsewhere in this RFP, the non-betterment costs associated with this work shall be borne by the Design-Build Team.

The Design-Build Team shall be required to use the guidelines as set forth in the following:

- A. NCDOT *Utility Manual - Policies & Procedures for Accommodating Utilities on Highway Rights of Way* and the NCDOT *Utilities Policy Manual*. If the two aforementioned manuals contradict each other, the *Utilities Policy Manual* shall govern. Reference the website noted below for the current version of the NCDOT utility manuals and additional information on the transition to the new utility manuals that shall be adhered to:

<https://connect.ncdot.gov/municipalities/Utilities/Pages/UtilitiesManuals.aspx>

- B. *Federal Aid Policy Guide* - Subchapter G, Part 645, Subparts A & B
- C. *Federal Highway Administration's Program Guide, Utility Adjustments & Accommodations on Federal Aid Highway Projects*
- D. *NCDOT Construction Manual* Section 105-8
- E. *NCDOT Right of Way Manual* - Chapter 16 Utility Relocations
- F. *NCDENR Public Water Supply* - Rules governing public water supply
- G. *NCDENR Division of Water Quality* - Title 15A - Environment and Natural Resources

Agreements

If a utility company can provide evidence of prior rights of way or a compensable interest in their facilities, the Design-Build Team shall coordinate the non-betterment utility relocation cost with the utility company and develop the Utility Relocation Agreement and / or Encroachment Agreement.

The NCDOT State Utility Agent must execute approved agreements on Design-Build highway projects. The Utility Relocation Agreements (Cost Agreement) and Encroachment Agreements are available from the NCDOT Utility Coordination Unit. Reference Pages 59 and 60 of the NCDOT *Utility Manual on Policies & Procedures for Accommodating Utilities on Highway Rights of Way* for the different types of Encroachment Agreements available for use.