



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

April 10, 2006

**Addendum No. 2**

RE: Contract ID: C201279  
TIP Number: R-4463B  
Craven County  
Project Description: NC 43 Connector from US 70 to NC 43 / NC 55

**May 18, 2006 Letting**

To Whom It May Concern:

Reference is made to the Final Request for Proposal recently furnished to you on the above project. The following revisions have been made to the Request for Proposal:

The Table of Contents has been revised. Please void the existing Table of Contents in your proposal and staple the revised Table of Contents thereto.

Page 1 in the *PROJECT SPECIAL PROVISIONS* has been revised. Please void Page 1 in your proposal and staple the revised Page 1 thereto.

Page 30 in the *PROJECT SPECIAL PROVISIONS* has been revised. Please void Page 30 in your proposal and staple the revised Page 30 thereto.

Pages 43 and 43A in the *General* (Green Sheets) have been revised. Please void Page 43 in your proposal and staple revised Page 43 thereto. Please staple added Page 43A into your proposal.

Page 45 in the *ROADWAY SCOPE OF WORK* has been revised. Please void Page 45 in your proposal and staple the revised Page 45 thereto.

Page 80 in the *RIGHT OF WAY SCOPE OF WORK* has been revised. Please void Page 80 in your proposal and staple revised Page 80 thereto.

Page 92 in the *SIGNING SCOPE OF WORK* has been revised. Please void Page 92 in your proposal and staple the revised Page 92 thereto.

Pages 94 and 95 in the *SIGNALS SCOPE OF WORK* have been revised. Please void Pages 94 and 95 in your proposal and staple the revised Pages 94 and 95 thereto.

Sincerely,

R.A. Garris, P.E.  
Contract Officer

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PROJECT SERVICES UNIT  
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Mr. Steve Varnedoe, PE  
Ms. Deborah Barbour, PE  
Mr. Victor Barbour, PE (w/)  
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- Mr. Greg Brew, PE - Roadway (w/)  
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Dr. K.J. Kim, PE - Geotechnical (w/)  
Mr. Lonnie Brooks - Structures (w/)  
Ms. Elizabeth Lusk - Environmental Permits (w/)  
Ms. Michelle Long, PE - Public Information (w/)  
Mr. Neal Strickland - Right-of-Way (w/)  
Mr. Greg Smith, PE - Geo-Environmental (w/)  
Mr. Barney Blackburn, PE - Erosion & Sed. Cont. (w/)  
Mr. Murray Howell - Utility Coordination (w/)  
Mr. Stephen Worthy - Utility Coordination (w/)  
Mr. Tim Williams, PE - Signals (w/)  
Mr. Neil Avery - Signal Communications (w/)  
Mr. David Hinnant - Railroad Coordination (w/)  
Mr. Mitch Hendee, PE - Traffic Control (w/)  
Mr. Tim McFadden - Signing (w/)  
Ms. Anne Gamber, PE - Hydraulics (w/)  
Ms. Virginia Mabry (w/)  
Mr. John Wadsworth, PE (w/)  
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Mr. John Williamson  
Mr. Neil Lassiter, PE  
Mr. Jay Bennett, PE  
Mr. Stuart Bourne, PE  
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Mr. Don Lee  
Mr. Calvin Leggett, PE  
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Mr. Greg Perfetti, PE  
Mr. Ellis Powell, PE  
Dr. Greg Thorpe, Ph.D.  
Mr. Njoroge Wainaina, PE

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**\*\*\* PROJECT SPECIAL PROVISIONS \*\*\***

**CONTRACT TIME AND LIQUIDATED DAMAGES** (Projects with Permits, DBT Acquiring)

The date of availability for this contract is **June 26, 2006**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between the DOT, Regulatory Agencies, and the Design-Build Team is held, and the permits acquired, as stipulated in the Environmental Permits Scope of Work contained elsewhere in this proposal. The Design-Build Team shall consider this factor in determining the proposed completion date for this project.

The completion date for this contract is defined as the date proposed in the Technical Proposal by the proposer who is awarded the project. The completion date thus proposed shall not be later than **December 1, 2009**. The Department has included 30 additional calendar days to the maximum allowed contract time for anticipated delays to the Contractor’s controlling operations for Department testing of sinkholes. No extensions of contract time or claims for additional compensation will be allowed for these delays which total less than 30 total calendar days.

**The actual completion date proposed by the Design-Build Team is** *(to be filled in by NCDOT after award)*.

When observation periods are required by the special provisions, they are not a part of the work to be completed by the completion date and/or intermediate contract times. Should an observation period extend beyond the final completion date, the acceptable completion of the observation period shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Four Thousand Dollars (\$4,000.00)** per calendar day. As an exception to this amount, where the contract has been determined to be substantially complete as defined in Section 105-18 contained elsewhere in this proposal, the liquidated damages will be reduced to **One Thousand Dollars (\$1,000.00)** per calendar day.

Where the Design-Build Team who is awarded the contract has proposed a completion date for the contract as required above, but also has proposed an earlier date for substantial completion, then both of these proposed dates will become contract requirements.

Liquidated damages of **Four Thousand Dollars (\$4,000.00)** per calendar day will be applicable to the early date for substantial completion proposed by the bidder. Liquidated damages of **One Thousand Dollars (\$1,000.00)** per calendar day will be applicable to the final completion date proposed by the bidder where the Design-Build Team has proposed an earlier date for substantial completion.

DB1 G04

**OTHER LIQUIDATED DAMAGES AND INCENTIVES** (7/13/04)

**Refer to the Traffic Control Scope of Work for more information on the following time restrictions and liquidated damages:**

Liquidated Damages for lane narrowing, lane closure, holiday and special event time restrictions for US 70 are \$1,500.00 per hour for this Intermediate Contract Time.

Liquidated Damages for lane narrowing, lane closure, holiday and special event time restrictions for NC 43 and NC 55 are \$500.00 per hour for this Intermediate Contract Time.

Liquidated Damages for the road closure time restrictions on US 70 are \$500.00 per 15 minute period or any portion thereof for this Intermediate Contract Time.

**\*\*\* PROJECT SPECIAL PROVISIONS \*\*\*****BUILDING AND APPURTENANCE REMOVAL/DEMOLITION** (4-10-06)

Remove or demolish all buildings and appurtenances, unless otherwise noted in the GeoEnvironmental Scope of Work, within the right-of-way limits proposed by the Design-Build Team and agreed upon by the Department, in accordance with Sections 210 and 215 of the *Standard Specifications* and the following:

- Prior to removal or demolition of any building, comply with the notification requirements of *Title 40 Code of Federal Regulations*, Part 61, Subpart M, which are applicable to asbestos. Give notification to the North Carolina Department of Health and Human Services, Division of Public Health Epidemiology Branch and/or the appropriate county agency when the county performs enforcement of the Federal Regulation. Submit a copy of the notification to the Engineer prior to the any building removal or demolition.
- Prior to removal or demolition of any vacant building within the proposed right of way the Design-Build Team will notify the Department when structures within the right of way are vacant (the property owner has moved) and available for inspection. The Design-Build Team shall allow the Department 90 days from the date of notification to conduct asbestos assessments and perform any required removal and disposal of asbestos in the structure. The Design-Build Team will cooperate with the Department's asbestos removal contractor in accordance with Article 105-7.
- It will be the responsibility of the Department to perform all asbestos assessments for buildings and appurtenances located within the right-of-way limits proposed by the Design-Build Team. The cost of all asbestos assessments, removal and disposal required shall be borne by the Department. When a building has had or will have asbestos removed and the Design-Build Team elects to remove the building such that it becomes a public area, the Design-Build Team is responsible for any additional costs incurred including final air monitoring.

**EMBANKMENT MONITORING** (1-20-06)**SETTLEMENT GAUGES:**

Settlement plates consisting of wood or metal shall be placed on a level surface near natural ground as shown in the plans. Extend a 2½" (63.5 mm) ø metal pipe by adding pipe sections at threaded couplings as the embankment is progressed. Make sure that the top of the extension section is no less than 1 ft. (0.3 m) above the embankment surface and no higher than 6 ft (1.8 m). Compact fill around the gauge pipes and plates to the same density as the surrounding material. Make the exposed length of pipe conspicuous to avoid chance of damage.

Conduct operations in such a manner that the gauges are not damaged. Restore or replace any settlement gauge pipe damaged or destroyed due to fault of negligence on the part of the Design-Build Team at no additional cost. No additional payment will be made for compaction of fill around and over the settlement gauges or for interference with the Design-Build Team's

**Opening of Price Proposals**

Prior to opening of price proposals, the Contract Officer will provide to each team their technical score in a sealed envelope. The sealed envelope will contain that team's score only.

At the time and date specified the Contract Officer will open the price proposals and calculate the percentage difference between the price proposals submitted and the Engineer's Estimate.

Should all of the price proposals be within an acceptable range or below the Engineer's Estimate the Contract Officer will proceed to calculate the quality credit and publicly read the price proposal, technical score, and adjusted price as outlined in the selection procedure above.

Should any one or more of the price proposals be within an acceptable range or below the Engineer's Estimate and the remaining price proposals exceed an acceptable range of the Engineer's Estimate the Contract Officer will go to a separate location to calculate the quality credit and determine if the team with the lowest adjusted price is within an acceptable range of the Engineer's Estimate. Should the price proposal of the team with the lowest adjusted price be within an acceptable range of the Engineer's Estimate or below the Engineer's Estimate the Contract Officer will proceed to publicly read the price proposals, technical scores, and adjusted prices. Should the price proposal of the team with the lowest adjusted price exceed an acceptable range of the Engineer's Estimate the Contract Officer will publicly read the price proposals only and the Department will then determine whether to proceed to request a Best and Final Offer (BAFO) as outlined below.

Should all price proposals submitted exceed an acceptable range of the Engineer's Estimate the Contract Officer will publicly read the price proposal only. The Department will then determine whether to proceed to request a Best and Final Offer (BAFO) as outlined below.

Provided the Department elects to proceed to request a Best and Final Offer (BAFO), at the date and time specified the Contract Officer will open the Best and Final Offer price proposals and proceed to publicly read all price proposals, technical scores and adjusted prices.

**Best and Final Offer**

In the event initial price proposals exceed an acceptable range of the Engineer's Estimate or if the Department feels it is necessary for any reason the Department may choose to make amendments to the details of the RFP and request a Best and Final Offer from all of the previously shortlisted teams. Alternately, the Department may choose to redistribute to the shortlisted firms another RFP for the project with no amendments to the RFP scope.

After receipt of the redistributed RFP, the Design-Build Team has the option of changing their Technical Proposal details. If the Design-Build Team changes any component of the Technical Proposal, the TRC will review those amended components of the Technical Proposal and reevaluate the scores accordingly. The Design-Build Team shall highlight the changes to bring them to the Department's attention. A revised total score will be calculated, if appropriate, based on these amendments to the Technical Proposal.

Additional oral interviews will not be held. The Design-Build Teams will submit both a revised Price Proposal and a revised Technical Proposal (if applicable) at the time, place, and date specified in the redistributed RFP. A revised Quality Value (if required) and Adjusted Price will be determined elsewhere in the RFP. This will constitute the Design-Build Team's Best and Final Offer. Award of the project may be made to the team with the lowest adjusted price on this Best and Final Offer for the project.

**Stipend**

A stipulated fee of **\$45,000** will be awarded to each Design-Build Team on the short-list who provides a responsive, but unsuccessful, proposal. If a contract award is not made, all short-listed Design-Build Teams that submit a responsive proposal shall receive the stipulated fee. The stipulated fee shall be paid to eligible Design-Build Teams within ninety days after the award of the contract or the decision not to award. Once award is made, or decision is made not to award, unsuccessful Design-Build Teams will be notified of the opportunity to apply for the stipulated fee. If the Design-Build Team accepts the stipulated fee, the Department reserves the right to use any ideas or information contained in the proposals in connection with any contract awarded for the project, or in connection with any subsequent procurement, with no obligation to pay additional compensation to the unsuccessful Design-Build Teams. Unsuccessful Design-Build Teams may elect to refuse payment of the stipulated fee and retain any rights to its proposal and the ideas and information contained therein.



of this ramp need not accommodate future loop acceleration lane/taper design requirements. Design-Build Team shall design, construct and sign the intersections of the eastbound off-ramp from US 70 to the NC 43 Connector and the westbound on-ramp from NC 43 to US 70 terminals to provide free flow movements from the ramps to the NC 43 Connector. The free flow movements shall be designed to meet a 25-mph design speed. The design shall allow for the future operation of the interchange as shown on the Public Hearing Map with minimal reconstruction.

- The Design-Build Team shall design and construct -Y- Lines, ramps and cul-de-sacs, providing access, widening and improvements as indicated on the Public Hearing Map unless indicated otherwise. The limits of -Y-Line construction shall be of sufficient length to tie to existing based upon current guidelines and standards.
- The Design-Build Team shall taper the eastern side of NC 43/55 intersection from 6-lanes at the intersection with the NC 43 Connector to 5-lanes. The NC 43/55 shall remain 5 lanes to the end of the roadway construction limits.
- To accommodate future auxiliary lanes the Design-Build Team shall design and construct a full lane and shoulder width throughout the entire limits of the Eastbound off ramp and Westbound on ramp adjacent to US 70 including all tapers which will be painted.
- The Design-Build Team shall design and construct the NC 43 and NC 55 widening in a manner that minimizes encroachment onto properties. If total acquisition is unavoidable, due to encroachment into wells and/ or septic lines, see Utilities Scope of Work. The Design-Build Team shall discuss minimization efforts in the Technical Proposal.
- Channelization will be required at signalized intersections, directional crossovers and ramp junctions.
- All ramps shall have a lane width of 14 feet with 10-foot shoulders on the left side of traffic, 4-foot of which is full depth paved, and 12-foot wide shoulders on the right side of traffic, 4-foot of which is full depth paved. In areas along the ramp where guardrail is required along the right side of traffic, provide a shoulder width of 15 feet. Spiral curves are required for ramp alignments that tie to the mainline near the gore area. The use of spiral curves at other locations along the ramp alignment is optional. NCDOT prefers angular exit ramp design and parallel entrance ramp design.
- Loops shall have a lane width of 16 feet. Loops shall use curb and gutter along the inside of the loop in conjunction with a berm width of 10 feet. Design efforts should be made to eliminate guardrail along the loop, however, if guardrail should be required along the inside of a loop, provide a berm width of 14 feet and set the guardrail 12 feet from the face of curb and gutter. Provide a shoulder width of 10 feet (13 feet with guardrail) on the outside or left side of traffic, 4 feet of which is full depth paved.
- Along the -L- Line, the Design-Build Team shall design and construct 10-foot outside shoulders (13-foot with guardrail), four-foot of which shall be full depth paved shoulders and six-foot median shoulders, two-foot of which shall be full depth paved shoulders.
- Revisions that lower the vertical alignment from the preliminary design on NC 55 at the intersection with the proposed NC 43 Connector will be allowed provided the Design

**RIGHT OF WAY SCOPE OF WORK** (4/10/06)

The Design-Build Team, shall employ qualified, competent personnel who are currently **approved by the NCDOT Right of Way Branch**, herein after referred to as the Department, to provide all services necessary to perform all appraisals, appraisal reviews, negotiations and relocation services required for completion of the project in accordance with *G.S. 136-28.1* of the *General Statutes of North Carolina*, as amended, and in accordance with the requirements set forth in the *Uniform Appraisal Standards and General Legal Principles for Highway Right of Way*, the *North Carolina Department of Transportation's Right of Way Manual*, the *North Carolina Department of Transportation's Rules and Regulations for the Use of Right of Way Consultants*, the *Code of Federal Regulations*, and *Chapter 133 of the General Statutes of North Carolina from Section 133-5 through 133-18*, hereby incorporated by reference, including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. For a list of firms currently approved, please contact Mr. Neal Strickland, in the NCDOT Right-of-Way Branch, at 919-733-7932, extension 317. The Design-Build Team shall perform the services as set forth herein and furnish and deliver to the Department reports, accompanied by all documents necessary for the settlement of claims and the recordation of deeds, or necessary for condemnation proceedings covering said properties. The Design-Build Team, acting as an agent of the State of North Carolina, shall provide right of way acquisition services for TIP Number R-4463B in Craven County.

- **All right of way and easement acquisitions required by the proposed design and / or construction shall be the Design-Build Team's responsibility.**
- **All right of way and easement acquisitions required to accommodate the future NC 43 Connector / US 70 interchange eastbound on-ramp shall be the Design-Build Team's responsibility.**
- **All right of way and easement acquisitions required to accommodate a future signal at the NC 43 Connector / -Y8- intersections shall be the Design-Build Team's responsibility.**
- **The Design-Build Team shall make every effort to purchase the right of way for contaminated areas as early as possible (see GeoEnvironmental Scope of work).**

**The acquisition process shall be as follows:**

- With respect to the payments, costs and fees associated with the acquisition of right of way in this contract, the Department shall be responsible for only direct payments to property owners for negotiated settlements, recording fees, any relocation benefits, and deposits and fees involved in the filing of condemnation of any claims. The Department will assume responsibility for all costs associated with the litigation of condemned claims, including testimony by the appraiser(s). The Department will also assume responsibility for all costs of asbestos assessments and removal of asbestos from structures within the proposed right of way. The Design-Build Team will allow the Department 90 days after the structures are vacant to perform required assessment and removal work (See the *Building and Appurtenance Removal/Demolition Project Special Provision*). The Design-Build Team shall be responsible for all other acquisition related payments, costs and fees.
- A Department representative will be available to provide technical guidance on right of way acquisition procedures and to make timely decisions on approving relocation benefits and approving administrative adjustment settlements on behalf of the Department over and above the authority granted to the Department Right of Way Consultant Project Managers.

**SIGNING SCOPE OF WORK** (4/10/06)

**General:** The Design-Build Team shall prepare Signing Plans in accordance with the latest edition of the *2003 Manual on Uniform Traffic Control Devices (MUTCD)*, the *2004 NC Supplement to the MUTCD*, *NCDOT Standard Specifications for Roads and Structures* (January 2002), the NCDOT Roadway Standard Drawings (January 2002) for the design and development of signing plans, the latest Standard Specifications for *Structural Supports for Highway Signs, Luminaires, and Traffic Signals* published by AASHTO, and the contract requirements for signing plan design, preparation and construction. All electrical installations and coordination are the Design-Build Team's responsibility and must meet NEC, State, and local codes. All electrical / electronics equipment and devices must be UL approved and listed.

**Signing Plan Requirements:** The Design-Build Team shall select a Private Engineering Firm (PEF) that has experience in designing and sealing Signing Plans for NCDOT on projects comparable to this project. The Technical Proposal shall list projects developed by the PEF, including description and similarity, to the subject project. The Design-Build Team shall include preliminary signing design for this project in their Technical Proposal.

The development of the Signing Plans shall adhere to the "Design-Build Submittal Guidelines" and the "Guidelines for Preparation of Signing Plans for Design-Build Projects", which by reference are incorporated herein and made a part of the contract. These documents are available on the Design-Build website.

**Signs Furnished by Design-Build Team:** The signs shall be furnished by the Design-Build Team according to the specifications provided by the Department.

**Signing Project Limits:** The Design-Build Team shall be responsible for the design, fabrication and installation of all Type A, B, D, E and F signs along the mainline, -Y- Lines, service roads, ramps and cul-de-sacs; including but not limited to, the advance guide signs on US 70 and NC 43 / 55 for the NC 43 Connector interchange.

The Design-Build Team shall route NC 43 onto the Connector and terminate NC 43 at the US 70 interchange. The Design-Build Team shall confirm the routing of NC 43 onto the connector with the Division and Regional Traffic Engineer. The Design-Build Team shall not be responsible for any future signing or overhead sign structures for R-2301A.

The anticipated posted speed limit on the new facility is 55 mph. The Design-Build Team shall coordinate the posted speed limit for this facility with the Regional Traffic Engineer.

**Sign Design:** The Design-Build Team shall be responsible for all sign designs and installations required for the mainline, as well as all -Y- Lines, service roads, ramps and cul-de-sacs. The Design-Build Team shall be responsible for the removal of existing NC 43 directional f-assemblies on Neuse Boulevard, Glenburnie Road, interchange of US 70 and Glenburnie Road, including the ramps, and the intersection of US 17 and Glenburnie Road. The Design-Build Team shall be responsible for removing NC 43 route shields from any advance guide signs on US 70 for Glenburnie Road. The Design-Build Team shall coordinate the removal of NC 43 f-assemblies with the Division Traffic Engineer. **The Design-Build Team shall design and install added lane signing for the US 70 off ramps onto and on the NC 43 Connector (See Roadway Scope of Work).** The Design-Build Team shall be responsible for all Type A, B, and D sign designs and installations for ground mounted and overhead signs. The Design-Build Team shall be responsible for erecting existing Type A, B, or D signs on new supports. If existing Type A, B, or D signs are not in good

**SIGNALS SCOPE OF WORK** (4/10/06)**I. TRAFFIC SIGNALS**

The Design-Build Team shall prepare plans for the traffic signal installations and install the required traffic signals. This work shall include, but not be limited to, the preparation of Traffic Signal Plans, Electrical and Programming Details, Utility Make-Ready Plans, Communication Cable & Conduit Routing Plans and Project Special Provisions. These plans shall be prepared in accordance with the "Design-Build Submittal Guidelines" and the "Guidelines for Preparation of Traffic Signal & Intelligent Transportation System Plans on Design-Build Projects", which by reference are incorporated herein and made a part of the contract. These documents are available on the Design-Build website.

This work consists of revising two (2) existing traffic signals, installing one (1) new traffic signal and connecting the two Final traffic signals (02-0876 and 02-0498) into a new Closed Loop Signal System along NC 43 / NC 55. The signal locations are listed below:

<b>Signal Inventory Number</b>	<b>Intersection Description</b>	<b>Existing or Proposed</b>	<b>General Comments</b>
<b>02-0876</b>	NC 55 / NC 43 at NC 43 Connector	Proposed	Install a NEW traffic signal at this new intersection using 2070L equipment, LED Signal heads and Metal Poles with <b>straight</b> mast arms. Incorporate this signal into a new Closed Loop Signal System along NC 55 / NC 43 which includes Signal number 02-0498. <b>Fire preemption is not required.</b>
<b>02-0532</b>	NC 43 / NC 55 at NC 55	Existing (to be removed)	Revise the existing traffic signal during construction to accommodate the traffic control staging. The existing signal has <b>Fire preemption</b> phasing. The traffic signal must be fully operational as long as the signal is needed for traffic operations, including <b>Fire preemption</b> . Once the traffic signal is no longer needed, remove the traffic signal from operation, return the signal cabinet, controller, detector units and signal heads to the Division Traffic office, and dispose of all other signal material.
<b>02-0498</b>	NC 43 / NC 55 at SR 1304 (Bosch Blvd.)	Existing	Revise the existing traffic signal during construction to accommodate the traffic control staging. Upgrade the traffic signal using 2070L equipment, LED Signal heads and Metal poles with <b>straight</b> mast arms. Incorporate the Signal into a new Closed Loop Signal System along NC 43 / NC 55 which includes Signal number 02-0876.

The Design-Build Team shall coordinate and implement the signal designs at the appropriate time as directed by the Engineer. The Design-Build Team shall maintain, monitor, and adjust the traffic signal as needed throughout the project. The Design-Build Team shall also be responsible for the design and implementation of any **temporary signal designs** needed to maintain traffic during construction. The Design-Build Team may use wood poles and spanwire as signal supports for any temporary signal designs. The Design-Build Team shall maintain full actuation of the traffic signals on this project during the life of the project.

If lane drop/use situations occur during construction or post construction, then lane drop/use signs may be installed on wood poles and spanwire. Refer to the SIGNING Scope of Work for guidelines.

Traffic signal designs shall incorporate the use of 2070L equipment including base adapters and **metal poles with straight mast arms** as the signal supports.

The Design-Build Team shall be responsible for providing the safest and most economical design for the public. The Design-Build Team shall be responsible for ensuring that all plans and designs conform to the current design standards of the Intelligent Transportation Systems & Signals Unit. All plans and associated design material and specifications must be reviewed and approved by NCDOT before installation.

## II. COMMUNICATIONS CABLE AND CONDUIT ROUTING PLANS

### Overview

The proposed realignment of NC 43 / NC 55 shall require the interconnection of two isolated traffic signals (refer to Section I for information regarding the existing traffic signals).

Once the final cabinet location for each intersection is established, the Design-Build Team shall be required to interconnect the cabinets into a Closed Loop Signal System using fiber optic cable.

### Utility Make-Ready Plans

In conjunction with the development of the Communications Cable and Conduit Routing Plans and Traffic Signal Plans, the Design-Build Team shall also develop a set of **Utility Make-Ready Plans**

### Communications Cable & Conduit Routing Plans, and Project Special Provisions

Prior to construction, the Design-Build Team shall provide a detailed set of Communications Cable & Conduit Routing Plans, and Project Special Provisions for the Department's review and approval. No construction related to the installation of the communications system shall begin until NCDOT has approved the Final Plans and Project Special Provisions.

The Communications Cable & Conduit Routing Plans, and Project Special Provisions shall consist of three major items listed below:

- Communications Cable & Conduit Routing Plans using a minimum of 12 fiber cable (with Cable Termination Plans)
- Project Special Provisions
- Catalog Cut Sheets