



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

February 7, 2013

Addendum No. 2

Contract No.: C203239
WBS No.: 17BP.4.R.56
County: Wayne and Wilson
Project Descriptions: Express Design-Build Bridge Replacements
RE: Addendum No. 2 to Final RFP

February 19, 2013 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated January 18, 2013 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:

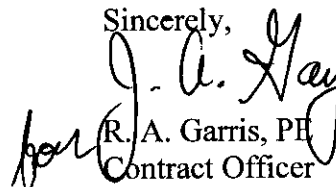
The first page of the *Table of Contents* has been revised. Please void the first page in your proposal and staple the revised first page thereto.

Page Nos. 4 and 6 of the *Project Special Provisions* have been revised. Please void Page Nos. 4 and 6 in your proposal and staple the revised Page Nos. 4 and 6 thereto.

Page Nos. 42 and 43 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 42 and 43 in your proposal and staple the revised Page Nos. 42 and 43 thereto.

Page Nos. 44, 46, and 47 of the *Structures Scope of Work* have been revised. Please void Page Nos. 44, 46, and 47 in your proposal and staple the revised Page Nos. 44, 46, and 47 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/kbc
Cc:

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-3
1020 BIRCH RIDGE DRIVE
RALEIGH NC

TABLE OF CONTENTS

COVER SHEET

PROPOSAL SHEETS

PROJECT SPECIAL PROVISIONS PAGE NO.

Contract Time and Liquidated Damages1
 Intermediate Contract Time Number 1 – 8 and Liquidated Damages1
 Measurement and Payment2
 Alternate Lump Sum Bid6
 Mobilization7
 Sequence and Schedule Restrictions.....7
 Submittal of Quantities, Fuel Base Index Price and Opt-Out Option.....8
 Execution of Bid, Non-Collusion Affidavit, Debarment Certification,
 and Gift Ban Certification.....9
 Submission of Price Proposal9
 Confidential Questions.....10
 Value Analysis10
 Schedule of Estimated Completion Progress11
 Minority and Women Business Enterprises12
 Subsurface Information.....25
 Twelve Month Guarantee26
 Outsourcing Outside the USA.26
 Clearing and Grubbing.....27
 Erosion & Sediment Control / Storm Water Certification.....27
 Procedure for Monitoring Borrow Pit Discharge.....32
 Pipe Installation34
 Drainage Pipe34
 Price Adjustments for Asphalt Binder35
 Price Adjustments - Asphalt Concrete Plant Mix35

GENERAL36

SCOPES OF WORK

Roadway41
 Structures44
 Hydraulics48
 Geotechnical Engineering.....50
 Pavement Management.....57
 Traffic Engineering58
 Environmental Permits.....62
 Erosion and Sedimentation Control66

of way acquisition services and mobilization. Work will include all preconstruction activities including, but not limited to, design, permitting, utility coordination services and other preconstruction services, regardless of the final design. Work will also include all other construction required by the contract including, but not limited to, erosion and sediment control, earthwork, drainage, temporary and/or permanent structures as necessary, pavement, signing, foundations and foundation conditioning material, headwalls, sills, removal of the existing structure, and guardrail. Work will also include all surveying and geotechnical investigative work as may be required by the contract. Work will also include any additional materials and labor needed to provide up to a 1'-6" increase in the existing roadway grade to accommodate all contract requirements for these culvert sites, including FEMA compliance, as applicable.

This pay item shall be applicable to either the Reinforced Concrete Box Culvert option or the Corrugated Aluminum Alloy Box Culvert option as specified in the Structures Scope of Work.

Payment will be made under:

Pay Item	Pay Unit
Design and Construction of Culvert # _____	Lump Sum

Right of Way Acquisition (EA): *Right of Way Acquisition* services will be paid for per each parcel from which a utility easement and/or right of way is required. Work will include all labor and services necessary to acquire the easements/right of way as required by the Right of Way Scope of Work.

Adjustments to Quantities and Payment

The Itemized Proposal Sheet provides the quantity of linear feet of *Bridge Length*, *Foundation Length* and the quantity of *Interior Bent Caps* to be bid for each bridge site. By submitting this Price Proposal, the Design-Build Team acknowledges that these quantities are intended for bidding purposes and may or may not be the final design quantities. Unless otherwise noted in the Structures Scope of Work, in the event that the final design quantities for *Bridge Length*, *Foundation Length*, and *Interior Bent Caps* differ from those presented in the Itemized Proposal Sheet, adjustment will be made to the partial payments made to Design-Build Team per the applicable contract unit prices.

The Itemized Proposal Sheet provides the quantity of parcels from which utility easement or right of way will be required across all bridge sites. By submitting this Price Proposal, the Design-Build Team acknowledges that this quantity is intended for bidding purposes and may or may not be the final quantity. In the event that the final quantity of impacted parcels differs from that shown in the Itemized Proposal Sheet, adjustment will be made to the partial payments made to the Design-Build Team per the unit price bid per Each for *Right of Way Acquisition*.

All contract pay items for this contract are considered minor contract items.

No adjustments to the pay quantities will be made until such time that all pertinent design submittals are approved and all permits and FEMA compliance for a given structure site have been obtained.

compensation for the lump sum item *Design and Construction* will be provided for additional bridge width.

If during the course of the design, the Design-Build Team determines that the existing roadway grade must be raised by more than 1'-6" to accommodate other contract requirements, including FEMA compliance, then the provisions of Article 104-7 of the Standard Specifications will apply to the work items covered by the *Design and Construction* line item to the extent needed beyond the 1'-6" grade change already accommodated in the lump sum price bid for *Design and Construction*.

If during the course of the design, the Design-Build Team can demonstrate to the Department's satisfaction that the culvert type/size specified in the Structures Scope of Work is inadequate to meet the hydraulic or FEMA requirements, then the provisions of Article 104-7 of the Standard Specifications will apply. This paragraph does not apply if a Design-Build Team elects to propose a Corrugated Aluminum Alloy Box Culvert in lieu of a Reinforced Concrete Box Culvert as permitted in the Structures Scope of Work.

ALTERNATE LUMP SUM BID

The Design-Build Team may provide an alternate lump sum bid for any or all of the bridges listed below:

- Bridge No. 950014
- Bridge No. 970028
- Bridge No. 970055
- Bridge No. 970093

If the Design-Build Team elects to submit an alternate lump sum bid for one or more of the above bridges, the Design-Build Team shall be solely responsible for all costs, including but not limited to, overruns, additional design, and any additional right-of way, additional utility relocation, or additional mitigation costs that would not otherwise have been attributable to the bridge description specified in the Structures Scope of Work. The Design-Build Team also must forego any additional compensation that would have otherwise been afforded under the "Value Analysis" and "Measurement and Payment" Project Special Provisions. In addition, providing an alternate lump sum bid does not relieve the Design-Build Team of any contract requirements including permitting agency requirements, hydraulic design requirements, and FEMA compliance requirements. The bridge design shall not rely upon any design exceptions except to the extent that may be specifically permitted in the Roadway Scope of Work.

With the exception of *Right-of-Way Acquisition* services, which will still be paid on a unit basis, the lump sum bid entered on the Itemized Proposal Sheet will be full compensation for all work necessary at the applicable bridge site, including all pay items outlined in the Measurement and Payment" Project Special Provision. In the event that the design, upon which the alternate lump sum bid, is not ultimately accepted by the Department, the Design-Build Team will be required to design and construct a bridge that does satisfy the Department that all contract and permit conditions (including FEMA) can and will be met, which may include the design and construction of the bridge specified in the Structures Scope of Work for that site. Culverts will not be acceptable in lieu of bridges. Cored Slab or box beam bridges in lieu of specified girder bridges will not be acceptable.

- Outside the guardrail limits on the subregional tier, for all approaches with paved shoulders, the Design-Build Team shall provide a minimum of 2'-0" of graded shoulder from the edge of the pavement to the shoulder point. For culvert approaches with no paved shoulder, the minimum offset from the proposed edge of the travel lane to the face of guardrail shall be four feet.
- The length of overlay, wedging, and new pavement at each bridge site shall extend a minimum 150 feet from each end of the proposed structures (fill face).
- The length of overlay, wedging, and new pavement at each culvert site shall extend a minimum 100 feet from the centerline of the proposed structure.
- The grade may be adjusted slightly as needed by the Design-Build Team to assist in the attainment of FEMA compliance or to assist in minimizing hydraulic spread (Reference the Hydraulic Scope of Work)
- The Design-Build Team may use asymmetric widening where appropriate to minimize impacts to utilities and/or natural systems.
- Unless noted otherwise herein, all guardrail shall be designed and placed in accordance with the January 2012 NCDOT *Standard Drawings* and / or approved details in lieu of standards. For sub regional bridges, the length of guardrail installed shall be based on the length provided in the NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* dated February 2008.
- At all culvert sites except Bridge No. 950131, the length of guardrail, as measured from all culvert wingwalls, shall adhere to the NCDOT *Sub Regional Tier Guidelines* dated February 2008 guardrail requirements specified for bridge ends. At the aforementioned sites, the guardrail shall extend continuously across the culvert. At Bridge No. 950131, the proposed guardrail shall adhere to the requirements noted above or shall be to a length not less than the existing guardrail length, whichever is longer.
- Bridge approach slabs are required at all bridge ends. The minimum bridge approach slab length shall be 12 feet for the sub regional tier sites and the length specified in the Structures Management Unit Manual for regional tier sites.
- The Department has met on-site with the agencies or obtained their comments at all bridge sites in this RFP. Any variations in the Design-Build Team's proposed design and / or construction methods that nullifies the decisions reached between the Department and the environmental agencies, and / or require additional coordination with the environmental agencies shall be the sole responsibility of the Design-Build Team. The Department will not allow any contract time extensions or additional compensation associated with any coordination or approval process resulting from design and / or construction modifications.
- A crest vertical curve high point is permitted on a bridge or approach slab provided the Design-Build Team can demonstrate that (1) the design directs water off the travel lanes in an effective manner and (2) providing a tangent grade on the structure would create significant additional roadway approach work. In no case shall a sag vertical curve low point be located on any bridge or approach slab. A sag vertical low point shall not be located on any culvert between the end walls.
- Reductions in design speeds in order to retain existing horizontal and vertical alignments will be allowed per the NCDOT *Sub Regional Tier Guidelines* dated February 2008; and

further reductions will require a design exception. Other design exceptions will only be considered if the proposed criterion meets or exceeds existing conditions.

- Existing driveway access shall be maintained and relocated as necessary to accommodate the design.
- The Design-Build Team shall furnish and install concrete monuments for all proposed right of way.
- The Design-Build Team shall contact Mr. Gary W. Thompson, North Carolina Geodetic Survey Chief, prior to disturbing any geodetic monuments.

General

- Unless otherwise noted herein, the design shall be in accordance with the, NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* dated February 2008, as applicable, 2011 AASHTO *A Policy on Geometric Design of Highways and Streets, Roadway Design Policy and Procedure Manual, Roadway Design Guidelines for Design-Build Projects*, 2012 NCDOT *Standard Specifications for Roads and Structures*, and the 2002 AASHTO *Roadside Design Guide, 3rd Edition* and 2006 *Chapter 6 Update* and January 2012 NCDOT *Roadway Standard Drawings*.
- Once all changes have been incorporated into the “Released for Construction” roadway plan set for each site, the Design-Build Team shall provide a PDF of the sealed plans to the Director of the Transportation Program Management Unit.

NCDOT Information Supplied

- An electronic copy of NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* dated February 2008 will be provided.
- The NCDOT will provide electronic surveys and wetland delineation files to the Design-Build Team for each bridge site. Any additional supplemental surveys, including but not limited to additional topography, existing and proposed roadway, structure sites, underground and overhead utilities, existing and proposed drainage, and wetland delineation shall be the responsibility of the Design-Build Team to acquire and process.
- The Design-Build Team shall be responsible for confirming the location of the utilities and the type / size of facilities. All SUE work shall be the responsibility of the Design-Build Team. Reference the Utilities Coordination Scope of Work found elsewhere in this RFP.
- The NCDOT will provide final pavement designs for each bridge and culvert site.
- The NCDOT will provide field scoping meeting worksheets for each bridge site, for information only.

STRUCTURES SCOPE OF WORK**Project Details:**

The Design-Build Team will be responsible for all structures necessary to complete the project in accordance with the table provided herein. Reference the Project Special Provision entitled "Measurement and Payment" for a description of pay items and resolution of differences between the quantities and data provided herein and the final design prepared by the Design-Build Team and approved by the Department.

All bridge lengths stated herein are based on an assumed end bent cap of 4'-0".

Bridge No. 970055 shall be a prestressed concrete girder with cast-in-place deck with a minimum of four girders per span. Bridge Nos. 950014, 970028, and 970093 shall be cored slab bridges. Bridge No. 970028 shall have a cast-in-place concrete overlay.

Bridge No. 970028 shall provide a benched area under the bridge on the north side for a future greenway trail. The existing vertical clearance from natural ground to the low chord on the existing bridge shall be maintained on the north side to accommodate the future greenway trail.

Except at Bridge No. 970028, provide 42" Concrete Barrier Rail per Structures Management Manual. Precast barriers will not be allowed. At Bridge No. 970028, provide a bicycle safe rail (Std. BMR3 and Std. BMR4).

All interior bent steel piles shall be galvanized in accordance with the Structures Management Unit Manual.

No precast concrete box culverts will be allowed.

Culvert Alternates

A bridge cannot be substituted for any culvert listed in the table below.

The Reinforced Concrete Box Culverts identified in the table below may be substituted with Corrugated Aluminum Alloy Box Culvert with Aluminum Headwalls at the Design-Build Team's option and risk. Bottomless Corrugated Aluminum Alloy Box Culvert will not be permitted.

If the Design-Build Team elects to bid a Corrugated Aluminum Alloy Box Culvert, the Design-Build Team shall be solely responsible for all costs, including but not limited to, overruns, additional design, change in culvert size, and any additional right-of way, utility relocation, or mitigation costs that would not otherwise have been attributable to the RCBC option. In addition, bidding a Corrugated Aluminum Alloy Box Culvert does not relieve the Design-Build Team of any contract requirements including permitting agency requirements, hydraulic design requirements, and FEMA compliance requirements. In the event that the Corrugated Aluminum Alloy Box Culvert design is not ultimately accepted by the Department, the Design-Build Team

Structure Number	Site Description	Structure Type and Size (opening)
950131	SR 1130 over Yellow Marsh Swamp	2 – 12' x 8' Reinforced Concrete Box Culvert
970081	SR 1302 over Millstone Creek	3 – 12' x 9' Reinforced Concrete Box Culvert
970094	SR 1400 over Town Creek	3 – 12' x 8' Reinforced Concrete Box Culvert
970136	SR 1542 over Trib. of Toisnot Swamp	25'-2" x 6'-2" Corrugated Aluminum Alloy Box Culvert with Aluminum Headwalls

will be required to design and construct a culvert that does satisfy the Department that all contract and permit conditions (including FEMA) can and will be met, which may include the design and construction of the RCBC option specified herein.

Note that the bridge lengths in the table above are from fill face to fill face and therefore may require adjustment to the length on any cored slab or box beam standard that the Design-Build Team may wish to use. In lieu of adjusting these beam lengths, and at no additional cost to the Department, the Design-Build Team may elect to use the cored slab or box beam 5 foot increment standards and lengthen the fill face to fill face dimension as needed. Regardless of the method chosen, the Design-Build Team shall ensure that the model used for FEMA compliance includes the correct span lengths and end points (end of beam).

Bridge Removal:

The Design-Build team is responsible for the removal and disposal of all existing bridges, piles, abutments and existing bridge substructure remnants per NCDOT's *Best Management Practices for Construction and Maintenance Activities*.

The Design-Build Team may reuse the existing guardrail for Bridge Nos. 970028 and 970055 provided it is not damaged during removal.

The Design-Build Team shall salvage the crutch bent and crutch piles for Bridge No. 970093. Contact Mr. Randy Davis, Bridge Maintenance Engineer at 252-296-3552 during normal business hours at least two weeks prior to removal to coordinate a specific day and time for the Contractor to load and transport the salvaged materials to the Wilson County Bridge Maintenance Yard. The Department will unload the salvage materials upon delivery.

For existing bridges that have paint systems containing red lead paint, the Design-Build Team is responsible for handling, removing, shipping, and disposing of these materials in accordance with the 2012 NCDOT Standard Specifications for Roads and Structures. The existing bridges shall be removed in accordance with Subarticle 402-2(A) and (B) of the 2012 Standard Specifications for Roads and Structures. Red lead paint, if present on the stockpiled items, need not be removed by the Design-Build Team.

At Bridge No. 970028, the Design-Build Team shall remove the existing slope protection to an elevation matching the proposed bottom of end bent cap.

At Bridge No. 970055, the Design-Build Team shall leave the old wall in the SW quadrant in place.

General:

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

Design shall be in accordance with the latest edition of AASHTO *LRFD Bridge Design Specifications* (with exceptions noted in the NCDOT *Structures Management Unit Manual*), NCDOT *Structures Management Unit Manual* (including policy memos), NCDOT *Bridge Policy Manual* and, as applicable, NCDOT *Sub Regional Tier Design Guidelines for Bridge Projects* dated February 2008.

If the NCDOT's Standard Bridge Plans are used, then the Design-Build Team shall analyze and seal the plans.

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 *AASHTO's Manual for Bridge Evaluation*. If Standard Bridge Plans and the corresponding rating sheets are not used, the Design-Build Team shall submit an initial live load rating chart concurrently with the Preliminary Bridge Survey Report submittal.

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 will be evaluated on a case by case basis.

Once all changes have been incorporated into the "Released for Construction" structure plans for each site, the Design-Build Team shall provide a PDF of the sealed plans to the Director of the Transportation Program Management Unit.

NCDOT Information Supplied

- The NCDOT will provide Standard Bridge Plans.