



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

July 3, 2012

Addendum No. 1

Contract No.: C 203046
Project: 17BP.1.R.50
Counties: Dare and Hyde
Project Description: Seven (7) Bridge and Five (5) Culvert Replacements in Division 1Set B

RE: Addendum No. 1 to Final RFP

July 17, 2012 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated June 13, 2012 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 1 for your information. Please note that all revisions have been highlighted in gray and are as follows:

Page Nos. 7, 37, and 42 of the *Project Special Provisions* has been revised. Please void Page Nos. 7, 37, and 42 in your proposal and staple the revised Page Nos. 7, 37, and 42 thereto.

Page No. 49 of the *Roadway Scope of Work* has been revised. Please void Page No. 49 in your proposal and staple the revised Page No. 49 thereto.

Page Nos. 53 and 54 of the *Structures Scope of Work* has been revised. Please void Page Nos. 53 and 54 in your proposal and staple the revised Page Nos. 53 and 54 thereto.

Page No. 57 of the *Hydraulics Scope of Work* has been revised. Please void Page No. 57 in your proposal and staple the revised Page No. 57 thereto.

Page Nos. 68 and 70 of the *Traffic Engineering Scope of Work* has been revised. Please void Page Nos. 68 and 70 in your proposal and staple the revised Page Nos. 68 and 70 thereto.

Page No. 82 of the *Right of way Scope of Work* has been revised. Please void Page No. 82 in your proposal and staple the revised Page No. 82 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.ORG

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "R.A. Garris", with a long horizontal flourish extending to the right.

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

RAG/nst

Attachments

cc: Mr. Victor Barbour, PE
Mr. Rodger Rochelle, PE
Ms. Virginia Mabry

Mr. Jerry Jennings, PE
Ms. Teresa Bruton, PE

SEQUENCE AND SCHEDULE RESTRICTIONS

The Design-Build Team shall replace Culvert Nos. 470002, 470016 and 470018 concurrently.

Culvert Nos. 470003 and 470017 shall be constructed concurrently, but shall not be constructed concurrently with Culvert Nos. 470002, 470016, and 470018.

Various moratoria apply to this project. Reference Environmental Permits Scope of Work.

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

(06-08-11)

DB1 G43

(A) Submittal of Quantities

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

The Design-Build Team shall prepare an Estimate of Quantities that they anticipate incorporating into the completed project and upon which the Price Proposal was based. The quantity breakdown shall include all items of work that appear in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet. Only those items of work which are specifically noted in the Fuel Usage Factor Chart will be subject to fuel price adjustments. The quantity estimate submitted in the Price Proposal shall be the final total quantity limit for which fuel price adjustments will be made for each item, regardless of supplemental agreements. The Department will review the Estimate of Quantities to ensure its reasonableness. Agreement of quantities will be a prerequisite prior to execution of the contract.

(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 \$ 2.9064 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.

Transverse median drains and open-ended cross drains shall be Reinforced Concrete Pipe, Corrugated Aluminum Alloy Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC Pipe).

Storm drain system pipes shall be Reinforced Concrete Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC 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 \$ 614.33.00 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on July 1, 2012.

PRICE ADJUSTMENTS - ASPHALT CONCRETE PLANT MIX

(9-1-11)

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 \$35 per theoretical ton. This price shall apply for all mix types.

TEMPORARY PORTABLE TRAFFIC SIGNAL SYSTEM

Furnish, install, place in operation, repair, maintain, relocate, and remove temporary portable traffic signal system. Comply with the provisions of Section 1700 of the 2012 *Standard Specifications for Roads and Structures*.

Materials

Provide a complete temporary portable traffic signal system. Design the system for operation both with and without an external power source. Furnish two signal control trailer with two

Furnish the Engineer with the name, office telephone number, cellular (mobile) telephone number, and pager number of the supervisory employee who will be responsible for maintenance and repair of equipment during all hours.

In the event that the signal becomes inoperative, be prepared at all times to revert to a flagging operation or suspend all construction activities requiring the use of the temporary stationary traffic signal system until the signal is restored to proper operation.

Place signal in flash mode when haul road is not in operation. All inappropriate signs shall also be removed, covered, folded or turned so that they are not readable by oncoming traffic.

REMOVAL AND REINSTALLATION OF BENCHES AND SIGNS

The existing Lake Mattamuskeet Wildlife Refuge benches and signs at Culvert Nos. 470002, 470003, 470016, 470017, and 470018 shall be removed, disassembled and stockpiled or delivered to Mattamuskeet National Wildlife Refuge Office for stockpile by the Design-Build Team. The Lake Mattamuskeet Wildlife Refuge Office address for delivery is as follows:

Mattamuskeet National Wildlife Refuge
85 Mattamuskeet Road
Swan Quarter, NC 27885

Upon completion of construction, the Design-Build shall reinstall all benches and signs at each of the culvert sites **as directed by the Mattamuskeet Refuge Manager**. The Design-Build Team shall notify Mattamuskeet Refuge Manager, Mr. Jerry Fringeli at (252) 926-4021 one week prior to delivery and pickup of the materials.

Hyde	470016	NC 94	580	55	11	none
Hyde	470017	NC 94	580	55	11	none
Hyde	470018	NC 94	580	55	11	none
Hyde	470025	SR 1305	510	50	10	none

- At a minimum, the Design-Build Team shall construct full depth pavement for all new pavement or widened pavement. In no case shall the existing pavement width be narrowed.
- The length of overlay and / or wedging at each bridge site shall extend a minimum 100 feet from each end of the proposed structure.
- The length of overlay and / or wedging at each culvert site shall extend a minimum 100 feet from the centerline of the proposed structure.
- For bridges with paved shoulders, the Design-Build Team shall pave to the face of guardrail to the end of the guardrail and then provide an 8:1 taper back to the edge of pavement.
- The grade may be adjusted as needed by the Design-Build Team to assist in the attainment of FEMA compliance. (Reference the Hydraulic Scope of Work)
- The Design-Build Team may use asymmetrical widening about the existing bridge and roadway centerline where appropriate to minimize impacts to utilities and / or natural systems.
- All guardrail shall be placed in accordance with the January 2012 NCDOT *Standard Drawings* and / or approved details in lieu of standards. At Bridge Nos. 470005 and 470025, 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 Bridge Nos. 270003, 270010, 270013, 270015, and 270016 the length of guardrail installed shall match existing within the project limits.
- All culvert sites shall be designed in order to eliminate the need for guardrail and have 6:1 or flatter fill slopes. These culverts are being lengthened at the request of the Mattamuskeet National Wildlife Refuge. Reference Structures Scope of Work.
- Bridge approach slabs are required at all bridge ends. The minimum bridge approach slab shall be 12 feet; however, the bridge approach slab and pavement intersection shall be constructed perpendicular to the roadway centerline regardless of the bridge skew. The reinforced bridge approach fill shall extend to fully support the approach slab for bridges on US 264.
- The Department has met on-site with the agencies or obtained their comments at all bridge and culvert 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

Bridge Number	Site Description	Out-Out Width (ft.)	Length (ft.)	Bent Placement Limitations	# of Spans	End Bent #1 Foundation Length (& est. tip elev.)	End Bent #2 Foundation Length (& est. tip elev.)	Interior Bent Foundation Length (& est. tip elev.)	Foundation Type
270003	US 264 over Deep Creek	33	150	Not in Center	3	71 (429)	71 (429)	76 (424)	Concrete Piles for interior bents and end bents, Vertical face at end bents
270010	US 264 over Pains Bay Canal	33	80	1 @ Water's edge only	2	71 (430)	73 (427)	77(423)	Concrete Piles for interior bents and end bents, Vertical face at east end bent
270013	US 264 over Stumpy Point Bay	33	125	1 only	2	62 (438)	62 (438)	67 (433)	Concrete Piles for interior bents and end bents, Vertical face at end bents
270015	US 264 over Stumpy Point Bay	33	70	Not Applicable	1	66 (434)	56 (445)	Not Applicable	Concrete Piles and Vertical face at end bents
270016	US 264 over Canal	33	75	1 @ Water's edge only toward south end	2	69 (431)	68 (430)	74 (425)	Concrete Piles for interior bents and end bents, Vertical face at north end bent
470005	SR 1302 over Canal Upstream from Rutman Creek	30	125	1 in Island area	2	61 (439)	61 (439)	66 (434)	Concrete Piles for interior bents, Steel Piles for end bents, Vertical face at end bents
470025	SR 1305 over Burrus Canal	27	80	1 Not in Center	2	61 (440)	59 (442)	65 (436)	Concrete Piles for interior bents, Steel Piles for end bents, Vertical face at end bents

Composite piles may be used in lieu of concrete piles (Reference Geotechnical Engineering Scope of Work). In regards to the above table, At water's edge refers to a position roughly five feet from top of bank or vegetation line, unless otherwise noted. The bridge lengths above are based on site investigations, taking into account the appropriate set back, or variation thereto, as measured from the top of bank (Reference Hydraulic Scope of Work). In addition, the estimated tip elevations are based on an examination of the borings and taking into account roughly 10 feet of scour depth and are shown for informational purposes. The estimated tip elevations are not necessarily true elevations but may instead relate to an assumed benchmark noted on the boring logs; benchmarks were not always accessible at the time of borings. Foundation length was determined by comparing the existing grade and bridge seat elevations with the estimated pile tip elevations, taking into account any adjustment needed to the assumed benchmark, as appropriate.

Culvert Number	Site Description	Culvert Type	Culvert Size (Opening)
470002	NC 94 over Lake Mattamuskeet	Reinforced Concrete Box Culvert	5@ 5' x 6'
470003	NC 94 over Lake Mattamuskeet	Reinforced Concrete Box Culvert	2@ 5' x 8' and 1@ 10' x 8' and 1@ 5' x 8'
470016	NC 94 over Lake Mattamuskeet	Reinforced Concrete Box Culvert	5@ 5' x 6'
470017	NC 94 over Lake Mattamuskeet	Reinforced Concrete Box Culvert	5@ 5' x 6'
470018	NC 94 over Lake Mattamuskeet	Reinforced Concrete Box Culvert	5@ 5' x 6'

In regards to the table above, the culverts shall be replaced at the same existing location and along the existing skew but shall be lengthened to reduce the need for extended wing walls to enclose the channel. The Design-Build Team shall design and construct the culvert length at each site so as to accommodate roadway side slopes without the need for guardrail. This culvert length is estimated to be approximately 65 feet and is provided for information only.

At each culvert, provide wing walls of sufficient length and skew to extend to the points where the existing shoreline meets the existing wing walls. Provide concrete aprons between the wing walls beginning at each end of the culvert floor slab and extending the full length of the wing walls. In locations where wing walls extend asymmetrically, the apron shall run from end of wing wall to end of wing wall. At a minimum, the depth of the concrete aprons shall match that of the culvert floor slab. Provide toe walls at the end of each concrete apron. Toe walls shall be constructed of 8-inch minimum thickness concrete or marine grade sheet piles. Concrete toe walls shall be a minimum of five feet in depth. Sheet piles shall be driven to a depth necessary to stabilize the apron and shall be embedded in the concrete apron to a depth necessary to negate pull out. Install Class II Rip Rap two feet in depth, beginning at the toe wall and extending to a point one hundred feet from the culvert headwall for a width equal to the outside edge of the wing walls. The outermost edge of rip rap shall parallel the culvert headwall.

All culverts, culvert/pipe headwalls and wing walls shall be cast-in-place concrete.

HYDRAULICS DESIGN SCOPE OF WORK (07-03-2012)

The Design-Build Team shall be required to do the following:

- Employ a prequalified private engineering firm to perform hydraulic design for all work required under this contract.
- Attend a Hydraulic pre-design meeting prior to the first hydraulic submittal.
- Design the Storm Drainage using Geopak Drainage.
- Provide a *Stormwater Management Plan* using the most current NCDOT Best Management Practices where applicable.
- Any impacts to the streams will require written 401 Water Quality Certification approval from NCDWQ.
- Provide Bridge Survey Reports and Culvert Survey Reports as required by NCDOT Hydraulic Guidelines stated below.
- Design and construct all structures to ensure adherence to FEMA floodplain regulations.
- Prepare the associated Permit Drawings as described in the Environmental Permits Scope of Work. All work resulting from the hydraulics and Permit Drawing reviews shall be the responsibility of the Design-Build Team.
- Design all Stormwater Controls based upon the most current NCDOT *Stormwater Best Management Practices Toolbox*.
- The 10-foot setbacks were waived for Bridge Nos. 270003, 270013, 270015, 270016, 470005, 470025.
- The 10-foot setback was waived for the East end of Bridge No. 270010.
- Vertical slots shall be provided in the end of culvert walls similar to existing to assist the Mattamuskeet National Wildlife Refuge to control water levels and flow at each site.
- Provide rip rap that ties-in to the adjacent existing rip rap along shoreline wherever disturbed by construction activities, at culvert sites.
- No piles battered transverse to the cap will be allowed on interior bents. The two end piles may be battered parallel to the cap.
- Use bridge drop inlets with pipes. Concrete flumes shall be used only if there is inadequate depth for a drop inlet.

In addition to the above allowances, along US 264 the Design-Build Team shall be allowed five road closures per bridge site for a maximum duration of 10 hours per road closure. The Design-Build Team shall notify the Engineer 7 days prior to a road closure. The Design-Build Team shall provide and utilize one Changeable Message Sign per direction to notify the travelling public of any road closure beginning 7 days prior to closure. In no case will the Department allow road closures on US 264 to occur during the times listed below.

Monday to Sunday 5:00 a.m. to 7:00 p.m.

Liquidated Damages for Intermediate Contract Time #10 for road closure for certain construction operations at Structure Nos. 270003, 270010, 270013, 270015, 270016, 470002, 470003, 470016, 470017, and 470018 are \$100 per 15 minute period or any portion thereof.

E. LANE AND SHOULDER CLOSURE REQUIREMENTS

On all roads, the Design-Build Team shall not install more than one lane closure in any one direction.

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 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 *January 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 nearest open travel lane using NCDOT *January 2012 Roadway Standard Drawing* No. 1101.02, 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 a divided facility and within 10 feet of an open travel lane, the Design-Build Team shall close the nearest open travel lane using NCDOT *January 2012 Roadway Standard Drawing* No. 1101.02, unless the work area is protected by an approved temporary traffic barrier or guardrail.

When personnel and / or equipment are working within a lane of travel of an undivided or divided facility, the Design-Build Team shall close the lane using the appropriate roadway standard drawing from the NCDOT *January 2012 Roadway Standard Drawings*. The Design-Build Team shall conduct the work so that all personnel and / or equipment remain within the closed travel lane.

G. TRAFFIC CONTROL DEVICES

The Design-Build Team shall use traffic control devices that conform to all NCDOT requirements and are listed on the Approved Products List. The Approved Products List is shown on NCDOT's Work Zone Traffic Control website at <http://www.ncdot.org/doh/preconstruct/wztc/>. The use of any devices that are not shown on the Approved Product List shall require written approval from the Transportation Management Director.

Place Type III barricades, with "ROAD CLOSED" sign R11-2 attached, of sufficient length to close entire roadway. Stagger or overlap barricades to allow for ingress or egress.

For the duration of construction at Culvert Sites 470002, 470003, 470016, 470017, and 470018, the Design-Build Team shall ensure proper signage is in place to caution roadway, bicycle, and pedestrian traffic not to enter construction areas. The Design-Build Team shall submit details of this signage for approval by the Engineer.

H. TEMPORARY TRAFFIC SIGNALS

The Design-Build Team shall also be responsible for the design and implementation of either temporary portable or stationary signal system needed to maintain traffic during construction at Structure Nos. 270003, 270010, 270013, 270015, 270016, 470002, 470003, 470016, 470017, and 470018 to provide safe operations for the motoring public. Reference the Project Special Provisions for Temporary Portable Traffic Signal System and Temporary Stationary Traffic Signal.

The Design-Build Team shall notify the Engineer in writing a minimum of one month before a temporary traffic signal installation is required.

II. PERMANENT SIGNING

The Design-Build Team shall replace any existing signs damaged by construction operations. The signs shall be furnished and installed by the Design-Build Team according to NCDOT's specifications.

III. FINAL PAVEMENT MARKING PLANS**General**

Prepare Final Pavement Marking Plans in accordance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)* and the *NCDOT January 2012 Roadway Standard Drawings*.

RIGHT OF WAY SCOPE OF WORK (07-03-2012)

It is expected that the Design-Build Team, to the greatest extent practicable, perform construction activities within existing DOT right of way or maintenance limits as applicable. If additional right of way or easements are required, the Design-Build Team shall follow the procedures contained in this scope of work. The Design-Build Team shall be responsible for all right of way staking, supplying iron pins and caps and setting of pins..

No permanent right of way impacts will be allowed within the Alligator River National Wildlife Refuge. The Design-Build Team shall make every effort to maintain all temporary utility relocation and construction work within the existing NCDOT right of way. In the event that the Design-Build Team is unable to do so, the Alligator River National Refuge will allow a minor temporary encroachment during construction of these bridges under a Letter of Authorization. The Refuge defines a minor temporary encroachment to be 10-15 feet beyond NCDOT Right of Way for the purpose of temporary construction work. The DBT shall be responsible for any Special Use Permit or additional coordination that may be needed if any utility move exceeds the 10-15 foot encroachment.

The Design-Build Team will not be required to acquire the additional needed permanent easement or right of way from the Lake Mattamuskeet National Refuge to accommodate the additional culvert and wing length. The Department will assist the Design-Build Team in the acquisition of any Special Use Permit that may be required at these sites.

No additional contract time will allowed for project designs that require the acquisition of additional ROW or easements.

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 appraisal, appraisal review, negotiation and relocation services required for all right of way and easements, including but not limited to permanent utility easements, necessary 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, the Design-Build Team should contact Mr. Neal Strickland, in the NCDOT Right of Way Branch, at 919-707-7464. 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 on behalf of the State of North Carolina shall provide right of way acquisition services for all bridge and culvert replacement sites.