



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 30, 2008

Addendum No. 4

RE: Contract ID: C201918
TIP Number: R-2606B
County: Randolph
Project Description: US 311 Bypass from north of Spencer Road (SR 1929) to US 220

July 25, 2008 Letting

To Whom It May Concern:

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

Pages 66 – 67 of the PAVEMENT MANAGEMENT SCOPE OF WORK have been revised. Please void pages 66 - 67 in your proposal and staple the revised pages 66 - 67 thereto.

Pages 72 and 74 of the RAILROAD COORDINATION SCOPE OF WORK have been revised. Please void pages 72 and 74 in your proposal and staple the revised pages 72 and 74 thereto.

Sincerely,

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

cc: Mr. Steve Varnedoe, PE
Mr. Jon Nance, PE
Ms. Deborah Barbour, PE
Mr. Victor Barbour, PE
Mr. Art McMillan, PE (w/)
Mr. Clarence Coleman, PE (w/3)
Mr. Phillip Harris, PE
Mr. Ed Lewis
Mr. Ron Hancock, PE (w/)

Ms. Anne Gamber, PE – Hydraulics (w/)
Dr. John Pilipchuk, LG, PE – Geotechnical (w/)
Dr. Clark Morrison, PE - Pavement Design (w/)
Mr. Barney Blackburn, PE - Erosion & Sed. Cont. (w/2)
Ms. Jackie Armstrong, PE – Roadway (w/)
Mr. Roger Worthington, PE – Utility Construction (w/)
Mr. David Boyd - Utility Coordination (w/)
Mr. Lonnie Brooks, PE - Structures / Railroad (w/)
Mr. Cyrus Parker, PE - Geo-Environmental (w/)

C 201918 (R-2606B)
Randolph County
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Mr. David Harris, PE	Mr. Tim McFadden – Signing (w/)
Mr. Jay Twisdale, PE (w/)	Ms. Tammy Stewart - Public Information (w/)
Mr. Ron Davenport, PE (w/)	Mr. Neal Strickland - Right-of-Way (w/)
Mr. Tim Johnson, PE (w/)	Ms. Elizabeth Lusk - Environmental Permits (w/)
Ms. John Olinger, PE (w/3)	Ms. Leilani Paugh - On-Site Mitigation (w/)
Mr. Robert Stone II, PE (w/)	Mr. Doug Taylor, PE (w/)
Mr. Jeff Loflin, PE (w/)	Mr. Ted Walls, PE – Roadway (w/)
Mr. Alfred Grandy (w/)	Mr. Calvin Leggett, PE
Mr. Eric Midkiff, PE (w/)	Mr. Doug Allison
Mr. Joseph Ishak, PE (w/)	Dr. Judith Corley-Lay, PE
Ms. Vickie Davis, PE (w/)	Mr. Njoroge Wainaina, PE
Mr. Mike Stanley, PE	Mr. Dave Henderson, PE
Mr. Michael Penney, PE (w/)	Mr. Ron King, PE
Mr. Ayman Alqudwah, PE (w/)	Mr. Greg Perfetti, PE
Ms. BenJetta L. Johnson, PE (w/)	Mr. Don Lee
Ms. Teresa Bruton, PE (w/4)	Ms. Pamela L. Alexander, PE
Ms. Marsha Sample (w/)	Mr. Greg Thorpe, PE
Mr. Allen Raynor, PE (w/)	Mr. Stuart Bourne, PE
Mr. Rodger Rochelle, PE (w/)	Mr. Tony Wyatt, PE (w/)
Mr. Ellis Powell, PE (w/)	Mr. Wayne Johnson, PE (w/)
Mr. Jay Bennett, PE (w/)	Mr. Robert Memory, PE (w/)
Mr. Dan Holderman, PE (w/)	Ms. Betty Rawls, (w/)
Ms. Jennifer Brandenburg, PE (w/)	File
Mr. Fred Adams, (w/)	
TRC Members (w/)	

PAVEMENT MANAGEMENT SCOPE OF WORK (6-26-08)

The pavement design for the mainline new location areas shall consist of one of the following alternates:

Alternate 1

3.0" S9.5C
2.5" I19.0C
3.5" B25.0C
8.0" ABC
Subgrade Stabilization

Alternate 2

3.0" S9.5C
4.0" I19.0C
5.5" B25.0C
Subgrade Stabilization

Subgrade stabilization shall be to a depth of 8 inches for lime and 7 inches for cement. The type of subgrade stabilization and amount of stabilizing agent shall be determined in accordance with the Cement and Lime Stabilization of Subgrade Soils Project Special Provision found elsewhere in this Request for Proposals.

The Design-Build Team shall maintain the same pavement design for the mainline new location areas as identified above. The Design-Build Team shall specify the pavement alternate to be used in the Technical Proposal. The adjacent through lane pavement design shall extend to the back of the gore (12-foot width) at all ramps and loops. In the eastern quadrant of the US 220 interchange, the mainline pavement design shall extend to the back of the gore (12-foot width) at all ramps and Loop D. In the northern and southern quadrants of the US 220 interchange, the -Y12- (US 220) auxiliary lane pavement design shall extend between the back of the gores (12-foot width) of all proposed ramps and Loop D and all existing ramps at the adjacent US 311 and Pineview Road interchanges.

The Design-Build Team shall be responsible for paving graded sections of the mainline and Cedar Square Road interchange included in the R-2606A Final Plans provided by the Department. The Design Build Team shall be responsible for paving the US 311 eastbound travel lanes from the eastern paving terminus (approximately Station 97+00 -L-) to Station 132+00 -L-, as defined by the R-2606A Final Plans provided by the Department. The Design-Build Team shall be responsible for paving the US 311 westbound travel lanes from the eastern paving terminus (approximately Station 115+00 -L-) to Station 132+00 -L-, as defined by the R-2606A Final Plans provided by the Department. The Design-Build Team shall be responsible for paving the entire Ramp A and Ramp D alignments of the Cedar Square Road interchange as defined by the R-2606A Final Plans provided by the Department. The Design-Build Team shall pave the mainline limits noted above with the same pavement design alternate chosen for the R-2606B Project. The Design-Build Team shall pave the Cedar Square Road interchange ramps with the pavement design noted below.

Other pavement designs for this project are listed in the table below:

LINE	Surface	Intermediate	Base	* ABC
-Y3- (SR 1931)	3.0" SF9.5A	-	-	10.0"
-Y5- (SR 1944)	2.5" SF9.5A	2.5" I19.0B	-	8.0"
-Y6- (SR 1936)	2.5" SF9.5A	2.5" I19.0B	-	8.0"
-Y7- (US 311)	3.0" S9.5B	3.0" I19.0B	-	10.0"
-Y8- (SR 1518)	2.5" SF9.5A	2.5" I19.0B	-	8.0"
-Y10- (SR 1511)	3.0" SF9.5A	-	-	10.0"
-Y11- (SR 1941)	3.0" S9.5B	-	-	10.0"
-Y12- (US 220) Auxiliary Lanes**	3.0" S9.5C	4.0" I19.0C	10.0" B25.0C	
-Y6- Detour	2.5" SF9.5A	-	-	8.0"
-Y8- Detour	2.5" SF9.5A	-	-	8.0"
All Service Roads	2.5" SF9.5A	-	-	8.0"
Cedar Square Road – Ramp A	3.0" S9.5B	3.0" I19.0B		8.0"
Cedar Square Road – Ramp D	3.0" S9.5B	3.0" I19.0B		8.0"
Existing US 311 - Ramp B & Ramp C	3.0" S9.5C	3.0" I19.0C	-	8.0"
Existing US 311 - Loop B & Loop C	3.0" S9.5C	4.0" I19.0C	-	8.0"
US 220 - Ramp C & Ramp BD	3.0" S9.5C	3.0" I19.0C	4.5" B25.0C	10.0"
US 220 - Loop D & Ramp B	3.0" S9.5C	4.0" I19.0C	-	10.0"

* For the –Y- Lines noted in the table above, the Design Build Team may substitute an asphalt base course layer for the ABC layer. If such an alternative is proposed, the Design-Build Team shall use an asphalt base course mix type that matches the intermediate course mix type for the specific roadway. If no intermediate course is specified, the Design-Build Team shall use B25.0B base course. The thickness of the asphalt base course used for a specific roadway shall be equal to half the proposed ABC thickness noted in the table above. Prime coat shall be required whenever a surface course is placed directly on ABC.

** The Design-Build Team is not required to reflect the –Y12- (US 220) auxiliary lanes pavement design revision in the Technical Proposal. The Design-Build Team shall reflect the –Y12- (US 220) auxiliary lanes pavement design revision in the Price Proposal.

The Design-Build Team shall resurface the existing Y- Lines pavement with a minimum pavement depth that equals the full thickness of surface course as provided in the table above (Reference Roadway Scope of Work).

In areas where the existing paved shoulder is proposed to be incorporated into a permanent travel lane, the Design-Build Team shall be responsible for evaluating the existing paved shoulder regarding its suitability for carrying the projected traffic volumes. In the event that the existing paved shoulder is found inadequate, the Design-Build Team shall be responsible for upgrading the existing paved shoulder to an acceptable level or replacing the existing paved shoulder. The Design-Build Team shall submit their evaluation and proposed use of existing paved shoulders to the State Alternative Delivery Engineer for review and acceptance or rejection.

The Design-Build Team shall pave from the edge of the proposed paved shoulder to the face of sound barrier walls located on the outside shoulder in fill sections and all guardrail with 6" of ABC (or 4" B25.0B or B25.0C), a split seal and at least one lift of surface course. If a split seal is not used, the ABC pavement design shall require prime coat at the normal application rate. In these areas, the Design-Build Team's installation of ABC or black base shall be consistent with

RAILROAD COORDINATION SCOPE OF WORK (6-30-08)

Unless a distinction is made, it is the Department's intention that whenever this scope of work references "Railroad" this would be the Norfolk Southern Corporation.

The Design-Build Team shall be responsible for coordinating all Railroad design and construction details on Railroad right of way. Coordination shall include any necessary agreements required by the NCDOT and / or Railroad. The Design-Build Team shall be responsible for all Railroad costs associated with this project to include, but not be limited to, crossing surfaces, track materials, insurance, flagging and right of way acquisition.

If track work is required, the Design-Build Team shall be responsible for all construction required below the subballast. Unless noted otherwise, the Design-Build Team shall subcontract the construction of all remaining items as directed by the Railroad, including but not limited to construction from the subballast up, with a Norfolk Southern approved Railroad Contractor. Norfolk Southern will construct the throw-overs between the existing alignment and all proposed temporary and / or permanent track alignments. The Design-Build Team shall be responsible for track work design plans and all costs associated with track work, including but not limited to labor and material provided by the Railroad.

Preparation for Construction within the Existing Railroad Right of Way

I. The Design-Build Team shall be required to use the following guidelines and any other guidelines as required by the Railroad.

- (A) *AREMA Manual for Railroad Engineering*
- (B) *Norfolk Southern Guidelines for Design of Grade Separation Structures (Shoring)*
- (C) *Federal Aid Policy Guide 23 CFR 140I*
- (D) *Federal Aid Policy Guide 23 CFR 646*
- (E) *NCDOT Construction Manual Section 105-8*
- (F) *NCDOT Standard Specifications for Roads and Structures Section 107-9 (Excluding Paragraph 2)*
- (G) *North Carolina Administrative Code Section T19A: 02B, 0153 through 0159*
- (H) *Norfolk Southern Corporation Special Provisions for Protection of Railway Interest*

II. The Design-Build Team shall be responsible for verifying the number of trains per day and maximum speed allowed.

III. The Design-Build Team shall contact Mr. George Meade, Property Manager, Norfolk Southern Real Estate to verify the existing highway / railroad rights of way. The Team shall also coordinate required plan / design changes, required Railroad encroachments and the acquisition of required temporary / permanent right of way and easements from the Railroad with Mr. Meade. Mr. Meade's contact information is as follows:

110 Franklin Road, SE
 Roanoke, Virginia 24042
george.meade@nscorp.com.
 Office (540) 981-4619, Mobile (540) 981-4226

Arrangements for Protection and Adjustments to Existing and Proposed Railroad Crossing Surface and Roadbeds:

I. The Design-Build Team shall make the necessary arrangements with the Railroad for the installation of new grade crossing surfaces, (permanent and temporary construction

The Department will review the agreement prior to submittal to the Railroad. The Department will execute and distribute the Agreement within 14 calendar days of receipt. The agreement shall include necessary Force Account items such as preliminary engineering, construction engineering, flagging, signal and communication lines and other work performed by the Railroad, as necessary. The Department will be responsible for payment of the Railroad Force Account work; however, the Design-Build Team shall reimburse the Department for these costs including any Force Account estimate overruns. This reimbursement shall be incidental to the lump sum price bid for the project. Upon request, the Department will provide copies of the railroad's invoices to the Design-Build Team for review. The Design-Build Team shall have ten (10) days to provide written comments to the State Alternative Delivery Engineer, after which the Department will pay the invoice. The Design-Build Team shall be responsible for maintaining records to verify the invoice items.

The preliminary plan submittal to the Railroad shall include bridge plans, the Railroad's "Overhead Grade Separation Data Sheet," as applicable, appropriate roadway plan sheets showing impacts to the Railroad's right of way, erosion control plans, and drainage calculations for any drainage on or across the Railroad's right of way. A minimum of five (5) half-size sets of preliminary plans and data shall be submitted to the Norfolk Southern Corporation through the NCDOT Alternative Delivery Engineer. If the Railroad requires RFC's and / or Final Plans, then five (5) half-size sets shall be submitted to the State Alternative Delivery Engineer for forwarding to the Railroad. If any re-submittals of plans or any additional information is required, five (5) half-size sets shall be submitted to the State Alternative Delivery Engineer for forwarding to the Railroad. Working Drawings affecting the Railroad's operations and / or right of way shall follow the submittal process as outlined in the 2006 *Standard Specifications for Roads and Structures* or Special Provisions.