

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, J. SECRETARY

March 29, 2010

Addendum No. 2

RE:

Contract Number:

C 202383

TIP Number:

I-2304AC

County:

Rowan / Davidson

Project Description:

I-85 from North of SR 2120 (Long Ferry Road) to North of NC 150

April 22, 2010 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals (with Addendum No. 1, dated March 22, 2010) 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:

All three pages of the Table of Contents have been revised. Please void these three pages in your RFP and staple the revised three pages of the Table of Contents thereto.

On page 7, *Execution of Signature Sheets and Debarment Certification* has been revised. Please void Page No. 7 in your proposal and staple the revised Page No. 7 thereto.

On page 9, *Schedule of Estimated Completion Progress* has been revised. Please void Page No. 9 in your proposal and staple the revised Page No. 9 thereto.

On page 87, the *ROADWAY SCOPE OF WORK* has been revised. Please void Page No. 87 in your proposal and staple the revised Page No. 87 thereto.

On page 101, the STRUCTURES SCOPE OF WORK has been revised. Please void Page No. 101 in your proposal and staple the revised Page No. 101 thereto.

On page 113, the *TRAFFIC MANAGEMENT SCOPE OF WORK* has been revised. Please void Page No. 113 in your proposal and staple the revised Page No. 113 thereto.

On page 158, the *ENVIRONMENTAL SCOPE OF WORK* has been revised. Please void Page No. 158 in your proposal and staple the revised Page No. 158 thereto.

MAILING ADDRESS: NC DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROGRAM MANAGEMENT 1595 MAIL SERVICE CENTER RALEIGH NC 27699-1595 TELEPHONE: 919-250-4234 FAX: 919-212-5711

WEBSITE:

WWW.NCDOT.GOV

LOCATION: CENTURY CENTER COMPLEX ENTRANCE B-1 1020 BIRCH RIDGE DRIVE RALEIGH NC I-2304AC Addendum No. 2 March 29, 2010 Page 2 of 2

On page 346 *Division One* – A change to *Article 103-4* has been added. Please void Page No. 346 in your proposal and staple the revised Page No. 346 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 250-4124.

Sincerely,

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

Lall C. adn

RAG/NMH

cc: Mr. Jon Nance, PE

Ms. Deborah Barbour, PE

Mr. Victor Barbour, PE (w/)

Mr. Art McMillan, PE (w/)

Mr. Randy Garris, PE (w/)

Mr. Ron Hancock, PE (w/)

Mr. Brad Hibbs (w/3)

Mr. Phillip Harris, PE

Mr. Ed Lewis

Mr. David Harris, PE

Mr. Ron Davenport, PE (w/)

Mr. Lamar Sylvester, PE

Mr. Keith Raulston, PE (w2)

Mr. David Black, PE

Mr. Van Argabright, PE

Mr. J. P. Couch, PE

Mr. Kent Boyer

Mr. Eric Midkiff, PE

Ms. Vickie Embry, PE

Mr. Roger Worthington, PE

Ms. Marsha Sample (w/)

Mr. Wayne Johnson, PE (w/3)

Mr. Doumit Ishak

Mr. Marshall Clawson, PE

Ms. Teresa Bruton, PE (w/4)

TRC Members (w/)

File (w/)

Ms. Jackie Armstrong, PE (Roadway)

Ms. Anne Gamber PE (Hydraulics)

Dr. K. J. Kim, PE (Geotechnical)

Dr. Clark Morrison, PE (Pavement)

Mr. Barney Blackburn, PE (Erosion & Sed. Cont.)

Ms. Jennifer Portanova, PE (Traffic Management)

Mr. Lee Johnson (Utility Coordination)

Mr. Lonnie Brooks, PE (Structures)

Ms. Tammy Stewart (Public Information)

Mr. Tim McFadden (Signing)

Mr. Jay Stancil (Lighting)

Mr. Neal Strickland (Right of Way)

Mr. Matthew Simmons, PE (Railroad Coordination)

Mr. Chris Howard (Pavement Markings)

Ms. Elizabeth Lusk (Environmental Permit)

Ms. Meredith McDiarmid, PE (Incident Management)

Mr. Rodger Rochelle, PE (Transportation Prog. Mgmt.)

Mr. Pat Ivey, PE (Division 9)

TABLE OF CONTENTS

COVER SHEET

PROPOSAL SHEETS

PROJECT SPECIAL PROVISIONS (GREEN SHEETS)	PAGE NO.
Contract Time and Liquidated Damages	1
Other Liquidated Damages	
Progress Schedule	
Payout Schedule	
Mobilization	
Substantial Completion	
Submittal of Quantities, Fuel Base Index Price and Opt-Out Option	
Partnering	
Execution of Signature Sheets and Debarment Certification	7
Submission of Design-Build Proposal	
Confidential Questions	
Value Analysis	
Schedule of Estimated Completion Progress	
Revisions to FHWA 1273 Concerning Personal Information on Payroll Submis	
Disadvantaged Business Enterprise	
Certification for Federal-Aid Contracts	
Required Contract Provisions for ARRA	
Contractor's License Requirements	
U. S. Department of Transportation Hotline	
Subsurface Information	
Cooperation Between Contractors	
Bid Documentation	
Twelve Month Guarantee	
Outsourcing Outside the U.S.A.	27
Clearing and Grubbing	
Burning Restrictions	
SHPO Documentation for Borrow / Waste Sites	27
Erosion & Sediment Control / Storm Water Certification	28
Procedure for Monitoring Borrow Pit Discharge	33
Reinforced Concrete Pipe Design	35
Culvert Pipe	37
Drainage Pipe	38
Pipe Installation and Pipe Culverts	39
Cement and Lime Stabilization of Sub-Grade Soils	
Price Adjustments for Asphalt Binder	49
Price Adjustments - Asphalt Concrete Plant Mix	50
Field Office	
Automated Machine Guidance	52

Table o	of Contents
---------	-------------

Overhead Sign Supports	54
Overhead Sign Foundations	61
Safety Fence	70
GENERAL (GREEN SHEETS)	71
SCOPES OF WORK (GREEN SHEETS)	
Roadway	
Pavement Management	
Structures	
Geotechnical Engineering	
Hydraulics	
Traffic Management	
Incident Management	
Signing	
Pavement Markings	
Railroad Coordination	
Utilities Coordination	
Right of Way	
Erosion and Sedimentation Control	
Lighting	
Environmental	
Public Information	159
PERMITS (WHITE SHEETS)	161
STANDARD SPECIAL PROVISIONS (YELLOW SHEETS)	
Liability Insurance	255
Plant and Pest Quarantines.	
Contractor Claim Submittal Form	
Gifts from Vendors and Contractors	257
Embankments	
Shallow Undercut.	
Flowable Fill	258
Reinforced Bridge Approach Fill	
Fine Grading Subgrade, Shoulders and Ditches	
Aggregate Base Course	262
Preparation of Subgrade and Base	
Aggregate for Soil – Cement Base	
Asphalt Pavements – Superpave	263
Asphalt Paver – Fixed and Mobil String Line	277
Asphalt Binder Content of Asphalt Plant Mixes	277
Final Surface Testing – Asphalt Pavements	
Tying Proposed Concrete Pavement to Existing Concrete Paveme	nt281

Table of Contents

Concrete Pavements and Shoulders	282
Guardrail Anchor Units, Type M-350	291
Guardrail Anchor Units, Type 350	
Impact Attenuators Units, Type 350	
Fence	
Preformed Scour Hole with Level Spread Apron	295
Street Signs and Markers and Route Markers	
Steel U-Channel Posts	
Shipping Signs	297
Galvanized High Strength Bolts, Nuts and Washers	297
Aggregate Production	298
Concrete Brick and Block Production	
Portland Cement Concrete (Alkali-Silica Reaction)	298
Glass Beads	299
Engineering Fabrics Table 1056-1	299
Qualification of Welds and Procedures	299
Paint Sampling and Testing	300
Portable Concrete Barrier	300
Temporary Shoring	300
Changeable Message Signs	308
Pavement Marking Lines	308
Excavation, Trenching, Pipe Laying & Backfilling for Utilities	308
On-the-Job Training	308
Availability of Funds – Termination of Contracts	312
NCDOT General Seed Specification for Seed Quality	313
Errata	316
Award of Contract	320
Minority and Female Employment Requirements	321
Required Contract Provisions Federal-Aid Construction Contracts	
General Decision Wages	334
Division One	

PROPOSAL FORMS - ITEMIZED SHEET, ETC.

Itemized Proposal Sheet (WHITE SHEET)

Fuel Usage Factor Chart and Estimate of Quantities (WHITE SHEET)

Listing of DBE Subcontractors (YELLOW SHEET)

Execution of Bid, Noncollusion Affidavit, Debarment Certification and

Gift Ban Certification (YELLOW SHEETS)

Signature Sheet (YELLOW SHEETS)

Rowan & Davidson Counties

the Construction Unit will make arrangements to determine attendees at the workshop, agenda of the workshop, duration, and location. Persons required to be in attendance will be the NCDOT Resident Engineer, the NCDOT Division Construction Engineer, and key project personnel; the Design-Build Team's senior management personnel, the Design-Build Team's on-site project manager, and key project supervisory personnel for both the Design-Build Team and principal subcontractors and suppliers. The project design engineers, FHWA, and key local government personnel will also be invited to attend as necessary.

Follow-up workshops may be held periodically throughout the duration of the contract as agreed by the Design-Build Team and the North Carolina Department of Transportation. In the event that additional workshops are held, compensation for the Department's share of the follow-up partnering workshops will be by Supplemental Agreement.

The establishment of the partnering charter on a project will not change the legal relationship to the contract nor relieve either party from any of the terms of the contract.

EXECUTION OF SIGNATURE SHEETS AND DEBARMENT CERTIFICATION

DB1 G52

The Proposer's attention is directed to the various sheets in the Request for Proposals which are to be signed by the Proposer. A list of these sheets is shown below. The signature sheets are located behind the Itemized Proposal Sheet in this Request for Proposal. The NCDOT bid bond form is available on-line at:

http://www.ncdot.org/doh/preconstruct/altern/design build/DesignbuildBidBond.pdf

or by contacting the Records and Documents office at 919-250-4124.

- 1. Applicable Signature Sheets: 1, 2, 3, 4, 5, or 6 (Bid)
- Bid Bond dated the day of Technical and Price Proposal submission 2.

The Proposer shall certify to the best of his knowledge all subcontractors, material suppliers and vendors utilized herein current status concerning suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency, in accordance with the "Debarment Certification" located behind the Execution of Bid Non-Collusion Affidavit, Debarment Certification and Gift Ban Certification signature sheets in this RFP. Execution of the bid signature sheets in conjunction with any applicable statements concerning exceptions, when such statements have been made on the "Debarment Certification", constitutes the Proposer's certification of "status" under penalty of perjury under the laws of the United States.

SUBMISSION OF DESIGN-BUILD PROPOSAL

04/03/07

DB1 G55A

The Proposer's attention is directed that each Proposer's Design-Build Proposal shall comply with the following requirements in order for that Design-Build Proposal to be responsive and considered for award.

C202383 (I-2304 AC) **Project Special Provisions** Rowan & Davidson Counties

magnitude as to warrant a special meeting. Minor questions will not be acknowledged or answered.

After evaluation, the Contract Officer will respond to the question in writing to the Design-Build Team only. Other teams will not be notified of the question or answer.

If the Design-Build Team includes work based on the confidential questions and answers, the work shall be included and discussed in the Technical Proposal. The Technical Proposal will be evaluated in accordance with existing policies.

VALUE ANALYSIS

DB2 R12

Value Engineering Construction Proposals (VECP), as identified in Article 104-12 of 2006 Standard Specifications for Roads and Structures will be accepted. Only proposals, which alter the requirements of the RFP issued by the Department, will be considered as Value Engineering Construction Proposals.

SCHEDULE OF ESTIMATED COMPLETION PROGRESS

(07-15-08) DB1 G58

The Design-Build Team's attention is directed to the Standard Special Provision entitled "Availability of Funds - Termination of Contracts" included elsewhere in this RFP. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

Fiscal Year	<u>Progress (Dollar Value)</u>
2010 (07/01/09 – 06/30/10)	4% of Total Amount Bid
2011 (07/01/10 – 06/30/11)	44% of Total Amount Bid
2012 (07/01/11 – 06/30/12)	32% of Total Amount Bid
2013 (07/01/12 – 06/30/13)	19% of Total Amount Bid
2014 (07/01/13 – 06/30/14)	1% of Total Amount Bid

The Design-Build Team shall also furnish its own progress schedule in accordance with Project Special Provision entitled "Progress Schedule" (found elsewhere in this RFP). Any acceleration of the progress as shown by the Design-Build Team's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

REVISION TO FHWA-1273 CONCERNING PERSONAL INFORMATION ON **PAYROLL SUBMISSIONS:**

DB1G59

Revise the Standard Special Provision FHWA-1273 Required Contract Provisions Federal-Aid Construction Contracts as follows:

Section V, Paragraph 2b is replaced with the following:

- The Design-Build Team shall design and construct one-lane loops that adhere to Exhibit 3-51, Design Widths of Pavements for Turning Roadways, shown in AASHTO's A Policy on Geometric Design of Highways and Streets (2004) - Case II / Condition C. All loops shall have 12-foot outside shoulders, four-foot of which shall be full depth paved shoulders and 2'-6" curb and gutter along the inside edge of pavement, with a 14-foot berm. The minimum loop design speed shall be 30-mph with a minimum 230-foot radius.
- As shown on the I-2511CB Final Plans and I-2304AA Right of Way Plans, the Design-Build Team shall complete the design and construction of -SR2-. The Design-Build Team shall be responsible for the removal and disposal of all sections of existing –SR2–, including but not limited to pavement structure and drainage features, not incorporated into the final alignment and all associated grading.
- Continuously between the NC 150 Loops -A- and -C-, the Design-Build Team shall design and construct a five-lane section. The NC 150 structure width over I-85 shall be in accordance with the July 1, 2004 Revised Structure Recommendations provided by the Department. Within these limits, the outside lanes shall serve as right turn lanes for the aforementioned loops.
- With the exception of Old Trading Ford Road (SR 1285) and the Clark Road bridge over I-85, the Design-Build Team shall remove the Clark Road interchange within the entire limits of the entrance and exit ramps, including the section of Clark Road (SR 1295) between Old Trading Ford Road (SR 1285) and Salisbury Road (SR 1147). As a minimum, the Design-Build Team shall remove and dispose of the existing pavement structure and subgrade, and reconstruct the I-85 shoulders. At each end of the Clark Road bridge, the Design-Build Team shall install barrier across the bridge. Within the interchange, the Design-Build Team shall provide necessary drainage features and seeding and mulching in accordance with the NCDOT Standards and Specifications. Prior to closing / removing the Clark Road interchange, the Design-Build Team shall complete the -SRD- and -Y7- construction, as shown on the I-2304AA Right of Way Plans. The Clark Road interchange ramps shall be closed to traffic prior to opening the new NC 150 interchange ramps to traffic.
- To accommodate Lexcom's aerial relocation, the Design-Build Team shall rough grade between Station 22+00 -Y1- and Station 50+00 -Y1-, LT.
- The Design-Build Team shall relocate an ITS junction box and relocate / replace two MVDs located at approximately Station 813+00 -L-. The Design-Build Team shall replace and reconnect the existing 96-count single mode fiberoptic communication cable and power source required to operate the relocated / replaced MVDs. The Design-Build Team shall relocate and modify one splice enclosure and add one new splice enclosure at approximately Station 800+00 -L-. Prior to removing any equipment proposed to be reused, perform a pretest on the equipment in the presence of the Engineer to verify its functionality. If new MVDs are installed, provide MVDs identical or compatible to the manufacturer and model number as those units being replaced. The Design-Build Team shall also install: MVD poles; a four 1-1/4" multi-duct conduit system; Number 14 AWG, THWN, stranded, copper tracer wire; cable identification markers and delineator markers. The Department will test and conduct a 30-day observation period for MVDs. The Design-Build Team shall provide plans and specifications for review. (Reference the Utility Coordination Scope of Work found elsewhere in this RFP).

Install a four 1-1/4" inside diameter multi-duct conduit system contained in rigid galvanized steel or reinforced fiberglass outer shell to the I-85 southbound Yadkin River Bridge. Install conduit on hangers with expansion couplings attached to the bridge. Include pull lines in each conduit. Use smooth sweeping elbows suitable for pulling fiberoptic communications cable. Terminate the conduit in oversized heavy-duty junction boxes [minimum dimensions of 30" (L) x 15" (W) x 24" (D)] near each end of the I-85 southbound structure.

Any required bridge attachments (e.g. ITS conduit, water lines) will not be allowed in the overhang of grade separations. Casting of conduit in the bridge deck or railing will not be allowed.

Sound barrier walls shall be in accordance with Standards SBW1 and SBW2 and the Sound Barrier Wall Project Special Provision located on the Structure Design Unit web site or alternate details and special provisions approved by the NCDOT Structure Design Unit, Geotechnical Engineering Unit and Human Environment Unit.

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 shall be evaluated on a case by case basis. The Design-Build Team may use non-standard pre-stressed concrete girder shapes provided they have been previously used in North Carolina or other states; and they are detailed with a concrete cover consistent with that used on the North Carolina standard shapes.

- 10. The Design-Build Team shall not place I-85 traffic on an offsite detour except as noted in the Incident Management Scope of Work. Offsite detours shall only be allowed for US 29-70E and NC 150 (including access to I-85). During an approved offsite detour, Intermediate Contract Time #1 and Intermediate Contract Time #2 do not apply to the detoured route. Prior to incorporation, all offsite detour routes shall receive Department written approval and adhere to the following requirements:
 - All detour routes shall be investigated, including but not limited to, analyzing traffic capacity, investigating impacts to emergency services and schools and investigating pavement structural adequacy
 - The Design-Build Team shall determine and provide improvements required to accommodate detoured traffic prior to utilizing detour routes
 - Offsite detours that have non-signalized at-grade railroad crossings shall not be allowed
 - The Design-Build Team shall include all proposed offsite detours in the Technical Proposal and provide justification for using such detours along with duration. Possible detour warrants could include, but are not limited to, road closures due to substandard horizontal or vertical clearance limits, grade changes at tie-in locations and oversize and / or overweight limits.
 - Submit the detour route and all associated sign designs for review and acceptance prior to incorporation.
- 11. The Design-Build Team shall provide safe access for wide-loads and oversized permitted vehicles through the work zone on all roadways within the project limits. Safe access shall entail, but is not limited to, a sufficient pavement structure and required vertical clearance and minimum clear widths as follows:

Roadway	Minimum Clear Width
I-85	20 feet
All other roadways	18 feet

- 12. In addition to the Incident Management Scope of Work requirements defined elsewhere in this RFP, the Design-Build Team shall utilize Changeable Message Signs (CMS) as follows:
 - For traffic control purposes during construction, the Design-Build Team shall provide and operate a minimum of one CMS per direction on I-85 that provides general construction activity information about the construction activities within the project limits. These CMSs shall be in addition to any other CMSs required by the Roadway Standard Drawings.
 - In addition to the above requirements and expressly for the purpose of managing incidents on I-85 during construction, the Design-Build Team shall provide and operate a minimum of two additional (2) CMSs per direction to display alternate route information ahead of the detour points on I-85. The positioning of these incident management CMSs will be as directed by the Engineer. These CMSs shall be in addition to any other devises provided by the Department and operated

The design of the wetland mitigation area shall consist of undercut excavation down to the alluvium soil layer as shown in the Subsurface Investigation Report. If the alluvium soil layer is encountered at an elevation above the adjacent existing wetland, excavation shall continue until the elevation matches the existing wetland elevation. If the alluvium soil layer is encountered below the adjacent existing wetland elevation, silty loam, sandy loam or muck shall be used to backfill these areas to match the existing wetland elevation. All excavated areas shall be ripped according to the provision provided below prior to placement of any backfill material. All areas shall be planted at 680 trees per acre with appropriate size and species as identified in the Restoration Plan for Swamp Hardwoods Wetlands, dated July 12, 2004. The Design-Build Team shall provide a design of the wetland mitigation area to PDEA-NEU and the Transportation Program Management Director for NCDOT review and approval. PDEA-NEU shall be contacted to provide construction oversight to ensure that the wetland mitigation area is constructed appropriately. The construction shall be conducted in strict compliance with all permit conditions. The post-construction monitoring proposed in the permit application will be NCDOT's responsibility. The Design-Build Team shall be responsible for maintaining the wetland mitigation area until the project is complete and accepted by the Department. No other warranty besides the Twelve Month Guarantee applies to this task.

Upon completion of grading, the areas to be planted with wetland reforestation shall be ripped with a "v" ripper tillage tool to a minimum depth of 15 inches. Each sequential swath of the equipment shall be consistent in spacing and shall have a maximum of 20 inches) between ripper (shank) rows.

The "V" ripper tillage tool shall have a minimum of three (3) shanks spaced a maximum of 20 inches apart and have shanks of sufficient length capable of providing a minimum depth of 15 inches. The tractor used to perform this work shall be of sufficient size and horsepower capable of pulling this implement to the minimum specifications stated above.

Unanticipated Discovery

If the Design-Build Team discovers any previously unknown historic or archeological remains while accomplishing the authorized work, he shall immediately notify NCDOT Staff Archaeologist and/or NCDOT Project Development Engineer, as listed below, who will initiate the required State/Federal coordination. All questions regarding these sites should be addressed to Mr. Matthew Wilkerson, NCDOT Archaeology (919) 431-1609, or Mr. Linwood Stone, NCDOT Project Development (919) 733-7844, ext. 206.

statement, to advertise for new proposals, or to proceed to do the work otherwise, if in the judgment of the Board, the best interests of the State will be promoted thereby.

Page 1-26, Subarticle 103-2(A), add items (7) and (8) as follows:

(7) Discrepancy in the "Total Amount Bid" and the addition of the "Amount Bid" for each line Item

In the case of the Total Amount Bid does not equal the summation of each Amount Bid for the line items, the summation of each Amount Bid for the line items shall be deemed to be the correct total for the entire project.

Omitted Total Amount Bid -Amount Bid Completed

If the Total Amount Bid is not completed and the Amount Bid for all line items is completed the Total Amount Bid shall be the summation of the Amount Bid for all line items.

Page 1-28, Subarticle 103-4(A), replace the fourth sentence with the following:

The notice of award, if the award be made, will be issued within 75 days after the submittal of bids, except that with the consent of the lowest responsible bidder the decision to award the contract to such bidder may be delayed for as long a time as may be agreed upon by the Department and such bidder.

Page 1-29, delete Article 103-6 and replace with the following:

103-6 RETURN OF BID BOND OR BID DEPOSIT

Checks that have been furnished as a bid deposit will be retained until after the contract bonds have been furnished by the successful proposer, at which time Department of Transportation warrants in the equivalent amount of checks that were furnished as a bid deposit will be issued.

Paper bid bonds will be retained by the Department until the contract bonds are furnished by the successful proposer, after which all such bid bonds will be destroyed unless the individual bid bond form contains a note requesting that it be returned to the proposer or the Surety.

Page 1-30, delete Article 103-9 and replace with the following:

FAILURE TO FURNISH CONTRACT BONDS 103-9

The successful proposer's failure to file acceptable bonds within 14 calendar days after the notice of award is received by him shall be just cause for the forfeiture of the bid bond or bid deposit and rescinding the award of the contract. Award may then be made to the responsible proposer with the next lowest adjusted price or the work may be readvertised and constructed under contract or otherwise, as the Board of Transportation may decide.

SECTION 104 SCOPE OF WORK

Page 1-30, delete Article 104-1 and replace with the following:

104-1 INTENT OF CONTRACT

The intent of the contract is to prescribe the work or improvements that the Design-Build Team undertakes to perform, in full compliance with the contract. In case the method or character of any part of the work is not covered by the contract, this section shall apply.