Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

October 27, 2016

Addendum No. 2

Contract No.:	C203918
WBS No.:	17BP.11.R.118
Counties:	Avery and Watauga Counties
Project Description:	Five (5) Express Design-Build Bridge Replacement Projects in Division 11 Set A
RE:	Addendum No. 2 to Final RFP

November 15, 2016 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated September 20, 2016 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 *Cover Sheet* has been revised. Please void the *Cover Sheet* in your proposal and replace it with the revised *Cover Sheet*.

Page Nos. 1 through 3, 5, 6, 8, 11, 27, 28 and 34 of the *Project Special Provisions* have been revised. Please void Page Nos. 1 through 3, 5, 6, 8, 11, 27, 28 and 34 in your proposal and replace it with the revised Page Nos. 1 through 3, 5, 6, 8, 11, 27, 28 and 34.

Page No. 46 of the *General* Section has been revised. Please void Page No. 46 in your proposal and replace it with the revised Page No. 46.

Page No. 49 of the *Roadway Scope of Work* has been revised. Please void Page No. 49 in your proposal and replace it with the revised Page No. 49.

Page Nos. 52 and 53 of the *Structures Scope of Work* have been revised. Please void Page Nos. 52 and 53 in your proposal and replace it with the revised Page Nos. 52 and 53.

Page No. 68 of the *Traffic Engineering Scope of Work* has been revised. Please void Page No. 68 in your proposal and replace it with the revised Page No. 68.

The *Itemized Proposal Sheet* has been revised. Please void the *Itemized Proposal Sheet* in your proposal and replace it with the revised *Itemized Proposal Sheet*.

Your Price Proposal shall be submitted electronically. Instructions for submitting your Price Proposal are shown below:

- Please delete the EBS file you previously downloaded for the October 18, 2016 letting and download the new EBS file listed for the November 15, 2016 letting. Bid Express will not accept your bid unless the new EBS file associated with the November 15, 2016 letting is used.
- Fuel Usage Factor Chart and Estimate of Quantities Sheet is listed under the Miscellaneous folder in the EBS File. Please fill out the required information and ensure that the appropriate box is selected regarding pursuit of reimbursement for Fuel Price Adjustment.
- Enter DBE/MBE/WBE information under the DBE/MBE/WBE folder and assign your participation amount to the Mobilization line item.
- DBE/MBE/WBE is based on Total Construction cost (including Right of Way Acquisition Services), not the total of your bid as shown in the Schedule of Items folder or as calculated by Expedite in the DBE List folder. The Total Construction Cost (including Right of Way Acquisition Services) is entered in the box on the Miscellaneous Data folder. When you complete your bid, the DBE List folder may not turn green. If it doesn't an error will be received during submission. This is expected and will not affect the electronic submission of your bid. NCDOT will base your DBE/MBE/WBE percentage from the amount shown in the Miscellaneous Data folder.
- The EBS files are located on the NCDOT website under Central Letting. Please note the .EBS file will become available approximately four weeks prior to Price Proposal Submission.
- There will not be Award Limits for Express Design Build projects.
- Bidding shall follow the *2012 NCDOT Standard Specifications for Roads and Structures* (*Standard Specifications*) with exceptions as identified in the Request for Proposals.
- If you encounter problems regarding electronic bidding, please contact Ms. Jaci Kincaid at 919-707-6920.

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

Sincerely,

R.A. Garris, PE
State Contract Officer

RAG/cwh

cc: Mr. Rodger Rochelle, PE
Mr. Michael Pettyjohn, PE
File
Ms. Virginia Mabry
Ms. Teresa Bruton, PE

-- STATE OF NORTH CAROLINA--
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

FINAL REQUEST FOR PROPOSALS

DESIGN-BUILD PROJECT

Project 17BP.11.R.118

October 27, 2016

VOID FOR BIDDING

DATE AND TIME OF PRICE PROPOSAL OPENING: **November 15, 2016 AT 2:00 PM**

CONTRACT ID: C203918

WBS ELEMENT NO. 17BP.11.R.118

COUNTIES: Avery and Watauga Counties

ROUTE NO. Various

MILES: 0.344 miles

LOCATION: Replacement of One Bridge in Avery County and Four Bridges in Watauga County

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

NOTICE:

ALL PROPOSERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE PROPOSER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS $30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. PROPOSERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE PROPOSER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING, REGARDLESS OF FUNDING SOURCES.

_____

5% BID BOND OR BID DEPOSIT REQUIRED

_____

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

CONTRACT TIME AND LIQUIDATED DAMAGES
07/12/07 DB1 G04A

The date of availability for this contract is January 3, 2017, except that the Design-Build Team shall not begin ground disturbing activities, including utility relocations (this does not include permitted investigative borings covered under a Nationwide Permit No. 6) until a meeting is held between the NCDOT, the regulatory agencies and the Design-Build Team.

The Design-Build Team shall not begin ground disturbing activities at any given site, until the applicable permits have been acquired for that site, as stipulated in the Environmental Permits Scope of Work contained elsewhere in this Request for Proposals (RFP).

The completion date for this contract is May 1, 2020.

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 **One Thousand Dollars ($1000.00)** per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 – 6 AND LIQUIDATED DAMAGES
(3-22-07) DB G07

Intermediate Contract Times #1 through #4 are for the completion of all work per bridge site, including but not limited to the construction of all bridge, approach roadway and approach slab components, without the need for subsequent lane closures. Liquidated Damages for Intermediate Contract Times #1 through #4 are listed in the Table below.

ICT Number	County	Structure No.	Route	Intermediate Contract Time (calendar days)	Liquidated Damages (per calendar day)
1	Avery	050056	SR 1321	210	$600
2	Watauga	940022	SR 1209	150	$600
3	Watauga	940083	SR 1340	165	$600
4	Watauga	940153	SR 1508	210	$600

Intermediate Contract Time #5 is for the completion of all work at Bridge No. 940136, including but not limited to the construction of all bridge, approach roadway and approach slab components, without the need for subsequent lane closures with the exception of the final surface course and final pavement marking. The Design-Build Team shall place traffic in its final two lane, two way pattern by the end of Intermediate Contract Time #5. Final surface course and final markings shall be completed by May 31st of the following year. The completion date for Intermediate Contract Time #6 is forty-five (45) consecutive calendar days after beginning the final surface course or by May 31st of the following year, whichever is earlier. Liquidated Damages for Intermediate Contract Time #5 and #6 are listed in the Table below.

ICT Number	County	Structure No.	Route	Intermediate Contract Time (calendar days)	Liquidated Damages (per calendar day)
5	Watauga	940136	SR 1533	225	$1,000
6	Watauga	940136	SR 1533	45	$1,000

The date of availability for Intermediate Contract Times #1 through #5 shall be defined in writing by the Design-Build Team to the Engineer a minimum of 30 days prior to beginning construction. The date of availability for Intermediate Contract Times #1 through #5 shall in no case occur before the receipt of all permits for each given bridge site required by the Environmental Permits Scope of Work. The date of availability for Intermediate Contract Time # 6 shall be defined in writing by the Design-Build Team to the Engineer a minimum of 30 days prior to beginning of final surface course and pavement marking work.

OTHER LIQUIDATED DAMAGES

Reference the Traffic Engineering Scope of Work for more information regarding the following ICT and associated liquidated damages:

Liquidated Damages for Intermediate Contract Time # 7 for Road Closure Restrictions for Bridge Nos. 050056, 940022, 940083, 940136 and 940153 are $100 per 15 minute period or any portion thereof.

MEASUREMENT AND PAYMENT

Reference is made to the following pay items listed per bridge site on the Itemized Proposal Sheet:

Bridge Length (LF): *Bridge Length* will be measured from fill face to fill face and paid in units of linear feet as measured along the centerline of the bridge of actual bridge length constructed. Work will include all materials, labor, and equipment to construct the superstructure portion of the bridge as taken from the bottom of the superstructure to the top of the bridge rail, excluding asphalt wearing surface. This work does not include bearing devices, anchors bolts or other such connection.

Payment will be made under:

Pay Item	**Pay Unit**
Bridge Length Structure _____	Linear Feet

Foundation Length (LF): *Foundation Length* will be measured from the elevation at the top of the piles to the average pile tip elevation actually installed at a given end bent or interior bent and will be paid for in units of linear feet. The final foundation pay length end bent will be determined by dividing the total pile lengths measured as defined above by the total number of piles per end bent. Work will include all materials, labor, and equipment to install and construct the foundations, including pile auguring as necessary, regardless of the number of piles per bent, including that portion of the piles that extend into the end bent.

Payment will be made under:

Pay Item	**Pay Unit**
Average Foundation Length at End Bent #1 Structure _____	Linear Feet
Average Foundation Length at End Bent #2 Structure _____	Linear Feet

End Bents (Each): *End Bents* will be measured and paid for by each. Work will include all material, labor, and equipment to construct each end bent, including the necessary bearing devices, anchors bolts or other such connection, and wing walls.

Payment will be made under:

Pay Item	**Pay Unit**
End Bents Structure _____	Each

Design and Construction for Bridges (LS): *Design and Construction for Bridges* will be paid for as lump sum. No measurement will be made. Work will include all material, labor and equipment to complete all of the work required by the contract at all sites specified as bridges in this RFP, excluding those specific contract unit price items listed above. Work will include all preconstruction activities including, but not limited to, design, permitting, asbestos assessment of existing bridge, utility coordination services and other preconstruction services, regardless of the final design, bridge length, foundation length, or number of interior bents. Work will also include all other construction required by the contract including, but not limited to, erosion and sediment control, earthwork, drainage, pavement, signing, bridge approach fills, wing wall extensions, approach slabs, turf bench for future greenway, temporary shoring, removal of existing structure and guardrail. Work will also include all surveying and geotechnical investigative work as may be required by the contract.

Except Bridge Nos. 940022 and 940136, work will also include any additional materials and labor needed to provide up to a 1'-6" increase in the existing roadway grade to satisfy all contract requirements, including FEMA compliance, as applicable.

For Bridge Nos. 940022 and 940136, work will also include all additional materials and labor to provide the required grade to satisfy all contract requirements, including FEMA compliance, as applicable.

Payment will be made under:

Pay Item	**Pay Unit**
Design and Construction of Bridges	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.

Pay Item	**Pay Unit**
Right of Way Acquisition	Each

Adjustments to Quantities and Payment

The Itemized Proposal Sheet provides the quantity of linear feet of *Bridge Length and Foundation Length* 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 and Foundation Length* 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

Article 104-7 of the Standard Specifications will apply. In such case, the unit contract price bid per Each for *End Bents* will be prorated based on the difference in length of cap needed for the bridge width stated herein and the final design bridge width. If the Design-Build Team demonstrates to the Department's satisfaction that the extra bridge width requires an additional pile, then the payment quantity for Foundation Length will be prorated based on the number of piles needed for the bridge width stated herein and that for final design bridge width. The payment quantity for Linear Feet of *Bridge Length* will be prorated by multiplying the payment quantity provided in the Itemized Proposal Sheet by the ratio of the final design bridge width divided by the bridge width specified herein. No additional compensation for the lump sum item *Design and Construction of Bridges* will be provided for additional bridge width.

Excluding Bridge Nos. 940022 and 940136, 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 of Bridges* line item to the extent needed beyond the 1'-6" grade change already accommodated in the lump sum price bid for *Design and Construction of Bridges.*

DESIGN AND CONSTRUCTION ITEMIZATION

(3-21-15) EDB

Reference is made to the Measurement and Payment Project Special Provision and the pay item for *Design and Construction of Bridges* contained therein. Within 30 days after award of the contract, the Design-Build Team shall submit to the Engineer, an itemization of the anticipated costs associated with the work items contained in the amount bid for *Design and Construction of Bridges*. The itemization shall, at a minimum, break out the costs for design, other preconstruction services, the summation of all typical roadway pay items and a breakdown of all typical bridge pay items.

MOBILIZATION

(9-1-11) DB1 G15A (Rev.)

Revise the 2012 *Standard Specifications for Roads and Structures* as follows:

Page 8-1, Subarticle 800-2, MEASUREMENT AND PAYMENT

Delete this subarticle in its entirety and replace with the following:

800-2 MEASUREMENT AND PAYMENT

Five percent of the "Total Amount of Bid for Entire Project" will be allowed to be included as the lump sum amount for Mobilization. Partial payments for Mobilization will be made beginning with the first partial pay estimate paid on the contract. The initial payment will be made at the rate of 40 percent of the lump sum amount calculated for Mobilization. The remaining 60 percent will be paid in three equal payments with the partial pay estimate following start of construction for each of the first three bridge sites.

SEQUENCE AND SCHEDULE RESTRICTIONS

Bridge No. 940153 shall be constructed first in the contract to the extent possible considering third party constraints.

At Bridge No. 940136, no work will be allowed on Sundays and during funerals due to the proximity of Faithbridge United Methodist Church.

The Design-Build Team shall not perform in-water work or land disturbance within a 25-foot wide buffer zone between January 1 and April 15 at Bridge Nos. 050056 and 940022 and between October 15 and April 15 at Bridge Nos. 940083 and 940136. Reference Environmental Permits Scope of Work.

Bridge No. 940083 is located adjacent to the Elk Knob State Park. The Design-Build Team shall provide the Right-of-Way Plans for this bridge site early for coordination. Any temporary construction easements will require a special right of way agreement with the State Property Office which is anticipated to take nine months to acquire. The Department will be responsible for any coordination including appraisal and agreements regarding Elk Knob State Park.

The Design-Build Team shall provide the Right-of-Way Plans for Bridge No. 940022 early to allow archaeologists access to the surrounding properties to complete archaeological surveys.

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

(1/23/14) EDB EDB1 G43

(A) Submittal of Quantities

Submit quantities on the *Fuel Usage Factor Chart and Estimate of Quantities* sheet that is located in the electronic bidding file.

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. Fuel price adjustments will not apply to changes in these quantities resulting from a supplemental agreement.

(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 **$1.5601** per gallon.

Value Engineering Proposals, as specified in Article 104-12 of the 2012 *Standard Specifications for Roads and Structures*, and as modified in the Standard Special Provision entitled "Value Engineering Proposals" will be accepted. Only proposals, which alter the requirements of the RFP issued by the Department, will be considered as Value Engineering Proposals.

To minimize re-design efforts and costs, the Design-Build Team is encouraged to submit Preliminary Value Engineering Proposals that provide an estimate of cost or time savings, span layout, span lengths, foundation types, or other such general information and how they differ from that specified in this RFP. Therefore, full design packages for the proposed structure and that for the structure specified in this RFP are not required, but enough detail should be provided to clearly show the cost of both options (excluding design cost).

The $10,000 threshold for consideration of a Value Engineering Proposal, as specified in Article 104-12 applies; however, this threshold will be satisfied if a Value Engineering Proposal similarly affects multiple bridges, resulting in a cumulative savings of more than $10,000 across those multiple bridges.

Value Engineering Proposals will not be required or allowed for the sole purposes of reducing the depth of foundations or to shorten the bridge length unless a change to the foundation type (drilled piers versus piles) or a change to the superstructure type is proposed and accepted. Instead, such reduction in foundation depth or bridge length will result in an adjustment in partial payments to the Design-Build Team in accordance with the Project Special Provision entitled "Measurement and Payment." However, as an incentive to the Design-Build Team to provide an economical structural design, the Design-Build Team will be paid a lump sum of 15% of the total partial payment adjustment attributable to the reduced pay item quantities for Foundation Depth and/or Bridge Length, as applicable. Said lump sum payment will be made upon approval of all design submittals, and receipt of all permits and FEMA compliance for a given bridge site. The 15% incentive will not apply to a bridge if the total partial payment adjustments noted above for that bridge are less than $5,000.00.

SCHEDULE OF ESTIMATED COMPLETION PROGRESS

(9-1-11) (Rev. 3/19/14) 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:

2017 (07/01/16 – 06/30/17)	8% of Total Amount Bid
2018 (07/01/17 – 06/30/18)	34% of Total Amount Bid
2019 (07/01/18 – 06/30/19)	32% of Total Amount Bid
2020 (07/01/19 – 06/30/20)	26% of Total Amount Bid

The Design-Build Team shall also furnish its own progress schedule in accordance with Article 108-2 of the 2012 *Standard Specifications for Roads and Structures*. 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.

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where MBEs and WBEs quoted on the project. This sheet is submitted with good faith effort packages.

http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls

MBE and WBE Goal

The following goals for participation by Minority Business Enterprises and Women Business Enterprises are established for this contract:

(A) Minority Business Enterprises **2.0 %**

(1) *If the MBE goal is more than zero*, the Design-Build Team shall exercise all necessary and reasonable steps to ensure that MBEs participate in at least the percent of the contract as set forth above as the MBE goal.

(2) *If the MBE goal is zero*, the Design-Build Team shall make an effort to recruit and use MBEs during the *performance* of the contract. Any MBE participation obtained shall be reported to the Department.

(B) Women Business Enterprises **5.0 %**

(1) *If the WBE goal is more than zero*, the Design-Build Team shall exercise all necessary and reasonable steps to ensure that WBEs participate in at least the percent of the contract as set forth above as the WBE goal.

(2) *If the WBE goal is zero*, the Design-Build Team shall make an effort to recruit and use WBEs during the performance of the contract. Any WBE participation obtained shall be reported to the Department.

This goal is to be met through utilization of highway construction contractors and/or right-of-way acquisition firms. Utilization of MBE/WBE firms performing design, other preconstruction services, or Construction Engineering and Inspection are not included in this goal.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as MBE and WBE certified shall be used to meet the MBE and WBE goals respectively. The Directory can be found at the following link:

https://partner.ncdot.gov/VendorDirectory/default.html

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

Roles and Responsibilities

(A) *Certified Erosion and Sediment Control / Stormwater Supervisor* - The Certified Supervisor shall be Level II and responsible for ensuring the erosion and sediment control / stormwater plan is adequately implemented and maintained on the project and for conducting the quality control program. The Certified Supervisor shall be on the project within 24 hours notice from initial exposure of an erodible surface to the project's final acceptance. The Certified Supervisor shall perform the following duties:

(1) Manage Operations - Coordinate and schedule the work of subcontractors so that erosion and sediment control/stormwater measures are fully executed for each operation and in a timely manner over the duration of the contract.

(a) Oversee the work of subcontractors so that appropriate erosion and sediment control/stormwater preventive measures are conformed to at each stage of the work.
(b) Prepare the required National Pollutant Discharge Elimination System (NPDES) Inspection Record and submit to the Engineer.
(c) Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection and other related issues.
(d) Implement the erosion and sediment control / stormwater site plans requested.
(e) Provide any needed erosion and sediment control / stormwater practices for the Design-Build Team's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.
(f) Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Design-Build Team in jurisdictional areas.
(g) Conduct all erosion and sediment control / stormwater work in a timely and workmanlike manner.
(h) Fully perform and install erosion and sediment control / stormwater work prior to any suspension of the work.
(i) Coordinate with Department, Federal, State and Local Regulatory agencies on resolution of erosion and sediment control / stormwater issues due to the Design-Build Team's operations.
(j) Ensure that proper cleanup occurs from vehicle tracking on paved surfaces and / or any location where sediment leaves the Right-of-Way.
(k) Have available a set of erosion and sediment control/stormwater plans that are initialed and include the installation date of Best Management Practices. These practices shall include temporary and permanent groundcover and be properly updated to reflect necessary plan and field changes for use and review by Department personnel as well as regulatory agencies.

(2) Requirements set forth under the NPDES Permit – The Department's NPDES Stormwater permit (NCS000250) outlines certain objectives and management

measures pertaining to construction activities. The permit references *NCG010000, General Permit to Discharge Stormwater* under the NPDES, and states that the Department shall incorporate the applicable requirements into its delegated Erosion and Sediment Control Program for construction activities disturbing one or more acres of land. The Department further incorporates these requirements on all contracted bridge and culvert work at jurisdictional waters, regardless of size. Some of the requirements are, but are not limited to:

(a) Control project site waste to prevent contamination of surface or ground waters of the state, i.e. from equipment operations/maintenance construction materials, concrete washout, chemicals, litter, fuels, lubricants, coolants, hydraulic fluids, any other petroleum products, and sanitary waste.

(b) Inspect erosion and sediment control / stormwater devices and stormwater discharge outfalls at least once every 7 calendar days, and within 24 hours after a rainfall event of 0.5 inch, or greater, that occurs within a 24-hour period. At the discretion of Division of Water Resources personnel, additional monitoring may be required if the receiving stream is 303(d) listed for turbidity and the project has had documented problems managing turbidity.

(c) Maintain an onsite rain gauge or use the Department's Multi-Sensor Precipitation Estimate website to maintain a daily record of rainfall amounts and dates.

(d) Maintain erosion and sediment control / stormwater inspection records for review by Department and Regulatory personnel upon request.

(e) Implement approved reclamation plans on all borrow pits, waste sites and staging areas.

(f) Maintain a log of turbidity test results as outlined in the Department's Procedure for Monitoring Borrow Pit Discharge.

(g) Provide secondary containment for bulk storage of liquid materials.

(h) Provide training for employees concerning general erosion and sediment control / stormwater awareness, the Department's NPDES Stormwater Permit NCS000250 requirements, and the applicable requirements of the *General Permit, NCG010000*.

(i) Report violations of the NPDES permit to the Engineer immediately who will notify the Division of Water Quality Regional Office within 24 hours of becoming aware of the violation.

(3) Quality Control Program - Maintain a quality control program to control erosion, prevent sedimentation and follow provisions/conditions of permits. The quality control program shall:

(a) Follow permit requirements related to the Design-Build Team and subcontractors' construction activities.

(b) Ensure that all operators and / or subcontractor(s) on site have the proper erosion and sediment control / stormwater certification.

DRAINAGE PIPE

DB3 R36

(9-1-11)

Description

Where shown in the plans developed by the Design-Build Team, the Contractor shall use Reinforced Concrete Pipe, Corrugated Aluminum Alloy Pipe, Aluminized Corrugated Steel Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC Pipe) in accordance with the following requirements:

All pipe types are subject to the maximum and minimum fill height requirements as found on Roadway Standard Drawing 300.01 - Sheet 3 of 3. The appropriate Reinforced Concrete Pipe class and the appropriate gage thickness for Corrugated Aluminum Alloy Pipe and Aluminized Corrugated Steel Pipe shall be selected based on fill height.

Site specific conditions may limit a particular material beyond what is identified in this Special Provision. These conditions include, but are not limited to, abrasion, environmental, soil resistivity and pH, high ground water and special loading conditions. The Design-Build Team shall determine if additional restrictions are necessary.

Slope drains shall be Corrugated Aluminum Alloy Pipe, Aluminized Corrugated Steel Pipe, Corrugated Polyethylene Pipe (HDPE Pipe) or Polyvinyl-Chloride Pipe (PVC Pipe).

Transverse median drains and open-ended cross drains shall be Reinforced Concrete Pipe, Corrugated Aluminum Alloy Pipe, Aluminized Corrugated Steel 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 **$325.71** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **October 1, 2016**.

Drafting the contract
Defining the contract scope of the contract
Design-Build Team selection
Negotiation of the contract cost (including calculating manhours or fees); and
Contract administration

An exception to these terms may be granted when recommended by the Secretary and approved by the Board of Transportation.

Failure to comply with the terms stated above in this section shall be grounds for termination of this contract and/or not being considered for selection of work on future contracts for a period of one year.

SUBMITTAL OF PRICE PROPOSALS

Price Proposals shall be submitted electronically in accordance with Article 102-8(B) in the Standard Specifications for Roads and Structures. No Price Proposals will be received after 2:00 p.m. Local Time on November 15, 2016.

A Bid Bond or Bid Deposit in the amount of 5% of the Total Amount Bid will be required. The Bidder shall submit an electronic Bid Bond with each electronic bid submittal unless he elects to furnish a Bid Deposit to the address shown below:

Mr. Randy A. Garris, P.E.
Contract Standards and Development
1020 Birch Ridge Drive
Century Center Complex- Building B
Raleigh, NC 27610

Opening of Price Proposals

At the time and date specified, the State Contract Officer will open and read the Price Proposals and calculate the percentage difference between the Price Proposals submitted and the Engineer's Estimate.

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 short-listed teams. Alternately, the Department may choose to redistribute to the short-listed Design-Build Teams another RFP for the project with no amendments to the RFP.

The Design-Build Teams shall submit a revised Price Proposal at the time and date specified in the Best and Final RFP. This will constitute the Design-Build Team's Best and Final Offer. Award of the project may then be made to the Design-Build Team with the lowest apparent Price Proposal in response to the Best and Final RFP.

pavement of US 321. The Design-Build Team shall provide a 2'-6" curb and gutter and 5 foot sidewalk on the west side of Bridge No. 940136 from the tie of the relocated driveway immediately north of the bridge to the driveway tie immediately south of the bridge. The Design-Build Team shall provide a greenway crossing on the north side of the creek underneath SR 1533 with an 8-foot vertical clearance and a 12-foot wide turf bench underneath the bridge.

- The Design-Build Team shall at all bridges pave to the face of guardrail for its full length and taper at an 8:1 ratio to the proposed edge of pavement.

- 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.

- The vertical alignment may be adjusted 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 shall adhere to the specific staging requirements below:
    - Bridge No. 940136 to the west side (upstream)
    - Bridge No. 940153 to the north side (downstream)

- At Bridge No. 940022, the Design-Build Team shall construct to the west side on new alignment and avoid impacts to Bethel School property.

- At Bridge No. 940083, the Design-Build Team shall replace in place utilizing an onsite detour to the south side (upstream) and shall avoid any permanent right of way or permanent easement on the State Park property. Additionally, the Design-Build Team shall provide special dark bronze anodized coating for all bridge rail components and guardrail.

- Unless noted otherwise elsewhere in the RFP, all guardrail should be designed and placed in accordance with the January 2012 NCDOT *Standard Drawings* and/or approved details in lieu of standards. For subregional 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 Bridge No. 940153, the Design-Build Team shall pave adjacent Y-line, SR 1570, to the furthest radii.

- Unless noted otherwise elsewhere in the RFP, 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.

- 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.

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 depth of 4 feet except for Bridge No. 940153 and the south end of Bridge No. 940136 due to vertical abutments.

All bridges shall be cored slab or box beam with a bituminous concrete overlay riding surface. Superstructure depths may vary per span if necessary.

At Bridge 050056, the superstructure may be placed on a grade up to 6 percent provided the following is submitted to the Structure Management Unit and approved; a detail demonstrating how the Design-Build Team will ensure the correct fit-up during construction and how the Design-Build Team will mitigate the sliding, longitudinal and transverse, of the cored slab units over time.

Design-Build Team shall provide a 42-inch Vertical Concrete Barrier Rail at Bridge No. 050056 and 940153. Bridge No. 940136 shall include NCDOT standard 2-bar metal rails on both sides with 5'-6" sidewalk on the west side. At Bridge No. 940022, the Design-Build Team shall provide the NCDOT standard 2-bar metal rail on both sides. At Bridge No. 940083, the Design-Build Team shall provide special dark bronze anodized coating for all bridge rail components on both sides. Precast Barriers will not be allowed.

Note that the bridge lengths in the table below are from fill face to fill face and therefore may require adjustment to the length on any cored slab 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 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).

At both ends of Bridge No. 940153 and only at the south end of Bridge No. 940136, the Design-Build Team shall construct a vertical face using either (1) a cast-in-place abutment: (2) a deep end bent cap supported on piles; or (3) a standard end bent cap supported on piles with sheet piles in front of the end bent. These three options are collectively referred to as "Vertical Face" in the table contained herein. The vertical wall or sheeting shall be of sufficient depth to accommodate abutment scour. The Design-Build Team shall extend the wingwalls (retaining walls) at Bridge No. 940153 as necessary to provide stabilization.

Structure Number	Site Description	Out-Out Width (ft)	Fill Face to Fill Face Length (ft)	Bent Placement Limitations	# of Spans	End Bent #1 Foundation Length (& est tip elev)	End Bent #2 Foundation Length (& est tip elev)	Foundation Type
050056	SR 1321 over Curtis Creek	27	25	None in water	1	12 (88)	12 (94)	Steel Piles @ end bents
940022	SR 1209 over Beaver Dam Creek	30	70	None in water	1	12 (88)	13 (86)	Steel Piles @ end bents
940083	SR 1340 over North Fork New River	30	30	None in water	1	16 (85)	22 (78)	Steel Piles @ end bents
940136	SR 1533 over Middle Fork South Fork New River	36	90	None in water	1	17 (79)	16 (80)	Steel Piles @ end bent on Northern End Vertical Face on Southern End
940153	SR 1508 over Elk Creek	30	70	None in Water	1	13 (88)	12 (89)	Vertical Face

NOTES:

Steel pile foundation type assumes 90 tons factored resistance.

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.

5. Except for bridges on new alignment, the Design-Build Team will be allowed five additional days of lane closure per bridge site to complete punch list items identified by the Engineer. The Design-Build Team shall notify the Engineer 15 days prior to installation of a lane closure and submit details for approval by the Engineer.

6. Except for bridges on new alignment, as approved by the Engineer, lane closures will be allowed for geotechnical borings and the relocation of utilities prior to the road closure at each bridge site.

D. PROJECT OPERATION REQUIREMENTS

The following are Time Restrictions and notes that shall be included with the Traffic Control Plans General Notes:

Intermediate Contract Time # 7 for Road Closure Restrictions for Bridge Nos. 050056, 940022, 940083, 940136 and 940153.

The Design-Build Team shall maintain the existing traffic pattern for all roadways, except at **Bridge Nos. 050056, 940022, 940083, 940136 and 940153** where road closure for certain construction operations is permitted subject to the road closure restrictions listed below. When a road closure is used, the Design-Build Team shall reopen the travel lanes by the end of the road closure duration to allow the traffic queue to deplete before re-closing the roadway.

The Design-Build Team may close SR 1321, SR 1209, SR 1340, SR 1533 and SR 1508 for traffic shifts, placement of pavement markings, tie-in work, and removal of the existing structure. The closure duration shall not exceed 30 minutes (60 minutes for Bridge removal). In no case will the Department allow the above routes to be closed for any reason during the times listed below.

Monday to Saturday	12:01 a.m. to 9:00 a.m.
	2:30 p.m. to 12:00 a.m.
Sunday	12:01 a.m. to 12:00 p.m.

Liquidated Damages for Intermediate Contract Time # 7 for road closure for certain construction operations at Bridge Nos. 050056, 940022, 940083, 940136 and 940153 are $100 per 15 minute period or any portion thereof.

E. LANE AND SHOULDER CLOSURE REQUIREMENTS

On all roads under staged construction or onsite detour, 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.

County : Avery, Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0016	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM AVE FOUNDATION LENGTH AT END BENT #2 STRUCTURE #940083	22 LF		
0017	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM AVE FOUNDATION LENGTH AT END BENT #2 STRUCTURE #940136	16 LF		
0018	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM AVE FOUNDATION LENGTH AT END BENT #2 STRUCTURE #940153	12 LF		
0019	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM BRIDGE LENGTH STRUCTURE #050056	25 LF		
0020	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM BRIDGE LENGTH STRUCTURE #940022	70 LF		
0021	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM BRIDGE LENGTH STRUCTURE #940083	30 LF		
0022	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM BRIDGE LENGTH STRUCTURE #940136	90 LF		
0023	0000930000-E	SP	GENERIC MISCELLANEOUS ITEM BRIDGE LENGTH STRUCTURE #940153	70 LF		