



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

February 7, 2018

To: Prospective Bidders

From: Lloyd G. Royall, Jr.
Division Contracts Engineer

DocuSigned by:
Lloyd G. Royall, Jr
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Contract ID#: DC00203

WBS Element: 17BP.3.R.48

- **Subject: Addendum #1**

Replace Bridge No. 134 over Gibson Branch in Onslow County.

The Subject contract proposal contains the following addendum:

- 1- Update the following line items quantities:
Line Item 6 – Undercut Excavation – 700 CY
Line Item 8 – Geotextile for Soil Stabilization – 1480 SY
Line Item 9 – Type 5 Geotextile for Embankment Stabilization – 800 SY
- 2- Replace the original posted plan set with the revised plan set due to the following changes:
Revisions to Plan Sheets 1, 1A, 2A-2, and 3B-1
Added Plan Sheets 2G-1 and 3G-1
- 3- Add the following special provision:
Geotextile for Embankment Stabilization, pages GT – 1.1 thru GT – 1.3
- 4- The Structure Subsurface Investigation has been posted to the website.

*****An Addendum has been added to the Bid Express.**

LGR/jwm

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GEOTEXTILE FOR EMBANKMENT STABILIZATION**(SPECIAL)****DESCRIPTION:**

This work consists of furnishing and installing synthetic geotextile for stabilizing embankment in accordance with this provision and as directed by the Engineer. The work shall include maintaining the geotextile in the required configuration until completion and acceptance of overlying work items. The geotextile shall be placed at the locations shown in the plans or as directed by the Engineer.

MATERIAL:

The geotextile for embankment stabilization shall be made of high-tenacity polyester in the machine direction with a plain or straight-warp weave pattern and polyester or polypropylene in the cross machine direction or approved equal. The geotextile shall be composed of strong rot-proof synthetic fibers formed into a geotextile of the woven type. The geotextile shall be free of any treatment or coating which might significantly alter its physical properties after installation.

The geotextile shall contain stabilizers and/or inhibitors to make the filaments resistant to deterioration resulting from ultraviolet or heat exposure. The geotextile shall be a pervious sheet of synthetic fibers oriented into a stable network so that the fibers retain their relative positions with respect to each other. The edges of the geotextile shall be finished to prevent the outer yarn from pulling away from the geotextile. The geotextile shall be free of defects or flaws which significantly affect its physical and/or filtering properties. No seams are permitted perpendicular to machine direction (MD). Lamination of geotextile sheets to produce the physical requirements of a geotextile layer will not be accepted.

During all periods of shipment and storage, the geotextile shall be wrapped in a heavy duty protective covering to protect the geotextile from direct sunlight ultraviolet rays, mud, dust, dirt, and debris. The geotextile shall not be exposed to temperatures greater than 140°F (60°C). After the protective wrapping has been removed, the geotextile shall not be left uncovered under any circumstances for longer than one (1) week.

The geotextile shall meet the following physical requirements:

All values represent minimum average roll values (MARV) as defined by ASTM D4439 for geotextile properties (any roll in a lot (a single day's production) should meet or exceed the minimum values in this table). Machine direction (MD) and cross-direction (CD) are as defined by ASTM D4439.

Provide Type 1 Certified Mill Test Report in accordance with Article 106-3 of the *Standard Specifications* with minimum average roll values (MARV) as defined by ASTM D4439 for geotextile properties. For testing geotextiles, a lot is defined as a single day's production. The Engineer reserves the right to inspect or test the geotextiles at any time. If requested by the Engineer, provide a sample of the geotextile for testing.

Use woven polyester or polypropylene geotextiles with properties meeting the following requirements.

Property	ASTM Test Method	Requirement (MARV)
Wide Width Tensile Strength @ 5% Strain (MD)	D4595	3,600 lbf/ft
Wide Width Tensile Strength @ Ultimate (MD)	D4595	10,000 lbf/ft
Apparent Opening Size ¹	D4751	N/A
Ultraviolet Stability (retained strength) ²	D4355	50%
¹ Per AASHTO M92		
² After 250 hours of exposure		

CONSTRUCTION METHODS:

The geotextile for embankment stabilization shall be placed at locations shown in the plans or as directed by the Engineer. The locations should be cleared and free of obstructions, debris and pockets. Stumps shall be cut smooth at the ground elevation with the root system left intact. At the time of installation, the geotextile shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation, or storage.

The geotextile for embankment stabilization shall be placed with the machine directions as shown on the plans or as directed by the engineer. Geotextile shall be laid smooth and free from tension, stress fold, wrinkles or creases without any joint, seam, or overlapping in the machine (roll) direction. All joints in the cross machine direction must be overlapped a minimum of 18 inches. All geotextile which is damaged as a result of installation shall be replaced or repaired at the discretion of the Engineer with no additional cost to the Department. Compaction equipment must be operated such that it will not damage the geotextile.

Any geotextile which is left uncovered for longer than one week after placement shall be replaced at no additional cost to the Department.

METHOD OF MEASUREMENT:

The quantity of geotextile to be paid for will be the number of square yards of "Geotextile for Embankment Stabilization" measured along the surface of the ground, which has been placed and accepted by the engineer. No separate measurement for payment will be made of any overlapping geotextile.

BASIS OF PAYMENT:

The quantity of geotextile, measured as provided above, will be paid for at the contract unit price per square yard for "Geotextile for Embankment Stabilization". Such price and payment will be full compensation for furnishing, transporting, placing, testing, and all incidentals necessary to complete the work as described in this provision and the plans.

Pay Item

Geotextile for Embankment Stabilization

Pay Unit

SY



DocuSigned by:

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1/23/2018

County : Onslow

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0030000000-N	SP	TYPE II MODIFIED APPROACH FILL, STATION ***** -L- sta 17+58.00	Lump Sum	L.S.	
0004	0043000000-N	226	GRADING	Lump Sum	L.S.	
0005	0050000000-E	226	SUPPLEMENTARY CLEARING & GRUB- BING	1 ACR		
0006	0057000000-E	226	UNDERCUT EXCAVATION	700 CY		
0007	0195000000-E	265	SELECT GRANULAR MATERIAL	1,500 CY		
0008	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZA- TION	1,480 SY		
0009	0241000000-E	SP	GENERIC GRADING ITEM Type 5 Geotextile for Embankme nt Stabilization	800 SY		
0010	0318000000-E	300	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES	10 TON		
0011	0320000000-E	300	FOUNDATION CONDITIONING GEO- TEXTILE	10 SY		
0012	0343000000-E	310	15" SIDE DRAIN PIPE	36 LF		
0013	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	20 LF		
0014	1330000000-E	607	INCIDENTAL MILLING	115 SY		
0015	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	515 TON		
0016	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	720 TON		
0017	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	75 TON		
0018	2022000000-E	815	SUBDRAIN EXCAVATION	112 CY		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0019	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	500 SY		
0020	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	84 CY		
0021	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	500 LF		
0022	2070000000-N	815	SUBDRAIN PIPE OUTLET	1 EA		
0023	2077000000-E	815	6" OUTLET PIPE	6 LF		
0024	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	1 EA		
0025	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	1 EA		
0026	2556000000-E	846	SHOULDER BERM GUTTER	15 LF		
0027	3030000000-E	862	STEEL BEAM GUARDRAIL	37.5 LF		
0028	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	5 EA		
0029	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE III	4 EA		
0030	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	4 EA		
0031	3380000000-E	862	TEMPORARY STEEL BEAM GUARDRAIL	50 LF		
0032	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** Greu TL-2	4 EA		
0033	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** Type III	4 EA		
0034	3649000000-E	876	RIP RAP, CLASS B	19 TON		
0035	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	248 SY		
0036	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	316 SF		
0037	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	128 SF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0038	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	36	SF	
0039	4430000000-N	1130	DRUMS	20	EA	
0040	4435000000-N	1135	CONES	21	EA	
0041	4445000000-E	1145	BARRICADES (TYPE III)	48	LF	
0042	4455000000-N	1150	FLAGGER	60	DAY	
0043	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM Temporary Portable Signals	1	EA	
0044	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	82	EA	
0045	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	48	LF	
0046	4840000000-N	1205	PAINT PAVEMENT MARKING CHARACTER	8,780	EA	
0047	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	650	LF	
0048	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24")	24	LF	
0049	6000000000-E	1605	TEMPORARY SILT FENCE	1,860	LF	
0050	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	70	TON	
0051	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	125	TON	
0052	6012000000-E	1610	SEDIMENT CONTROL STONE	40	TON	
0053	6015000000-E	1615	TEMPORARY MULCHING	0.5	ACR	
0054	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	100	LB	
0055	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	0.5	TON	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0056	6024000000-E	1622	TEMPORARY SLOPE DRAINS	200 LF		
0057	6030000000-E	1630	SILT EXCAVATION	100 CY		
0058	6036000000-E	1631	MATTING FOR EROSION CONTROL	1,670 SY		
0059	6037000000-E	SP	COIR FIBER MAT	100 SY		
0060	6042000000-E	1632	1/4" HARDWARE CLOTH	30 LF		
0061	6048000000-E	SP	FLOATING TURBIDITY CURTAIN	105 SY		
0062	6071012000-E	SP	COIR FIBER WATTLE	220 LF		
0063	6071014000-E	SP	COIR FIBER WATTLE BARRIER	120 LF		
0064	6071020000-E	SP	POLYACRYLAMIDE (PAM)	45 LB		
0065	6084000000-E	1660	SEEDING & MULCHING	0.5 ACR		
0066	6087000000-E	1660	MOWING	0.5 ACR		
0067	6090000000-E	1661	SEED FOR REPAIR SEEDING	50 LB		
0068	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25 TON		
0069	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	50 LB		
0070	6108000000-E	1665	FERTILIZER TOPDRESSING	0.25 TON		
0071	6114500000-N	1667	SPECIALIZED HAND MOWING	10 MHR		
0072	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	19 EA		
0073	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	2 EA		
0074	8007000000-N	400	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP STRUCTURE AT STA ***** -L- sta 17+58.00	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0075	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** -L- sta 17+58.00	Lump Sum	L.S.	
0076	8112730000-N	450	PDA TESTING	2 EA		
0077	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVA- TION AT STATION ***** -L- sta 17+58.00	Lump Sum	L.S.	
0078	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	39.1 CY		
0079	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** -L- sta 17+58.00	Lump Sum	L.S.	
0080	8217000000-E	425	REINFORCING STEEL (BRIDGE) REINFORCE STEEL BRIDGE	6,366 LB		
0081	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES HP 12x53 Steel Piles	7 EA		
0082	8328400000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** GALVANIZED STEEL PILES HP 14x73 Galvanized Steel Pile s	8 EA		
0083	8364000000-E	450	HP12X53 STEEL PILES	630 LF		
0084	8384200000-E	450	HP14X73 GALVANIZED STEEL PILES	440 LF		
0085	8393000000-N	450	PILE REDRIVES	22 EA		
0086	8505000000-E	460	VERTICAL CONCRETE BARRIER RAIL	160.5 LF		
0087	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	235 TON		
0088	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	255 SY		
0089	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0090	8762000000-E	430	3'-0" X 1'-9" PRESTRESSED CONC CORED SLABS	880 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0091	8860000000-N	SP	GENERIC STRUCTURE ITEM Asbestos Assesment	Lump Sum	L.S.	

1015/Feb07/Q31764.6/D419439076000/E91

Total Amount Of Bid For Entire Project :