Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

ADDENDUM NO. 1

February 22, 2016

Contract No.:	DK00181
WBS Elements:	17BP.11.R.61, 17BP.11.R.63, 17BP.11.R.67, 17BP.11.R.68, 17BP.11.R.76, 17BP.11.R.82, 17BP.11.R.85
Counties:	Alleghany, Ashe, Surry, Watauga
Description:	Replace Seven (7) Bridges with Aluminum Box Culverts Grading, Drainage, Paving, and Culverts

February 25, 2016 Bid Opening

To Whom It May Concern:

Reference is made to the Contract Proposal recently furnished to you on the above-mentioned project. The following revisions have been made to the Contract Proposal:

Page 7, INTERMEDIATE CONTRACT TIME NUMBER 3 AND LIQUIDATED DAMAGES, has been revised. This revision changed the time to thirty (30) days. Please void **Page 7** in your proposal and staple the **Revised Page 7** thereto.

Page 53-A, MOMENT SLAB, has been added. This revision has added a special provision as required for Pay Item #24. Please insert **Page 53-A** in your proposal between **Pages 53 and 54**.

Pages 96-101, PROJECT SPECIAL PROVISIONS – STRUCTURE AND ALUMINUM BOX CULVERT AT STATION XX+XX.XX –L-, has been added. This revision has added the special provision as required for Pay Items #99-106. This special provision was inadvertently omitted from the original contract proposal. Please insert **Pages 96-101** in your proposal between **Pages 95 and 102**.

Pages 121-123, *CONTRACT BID FORMS,* have been revised. This revision added Pay Item #5, Undercut Excavation and Pay Item #24, Moment Slab. Line Item Numbers were revised to accommodate the inclusion of the new pay items but did not change any other quantities. Please void **Pages 121-123** in your proposal and staple the **Revised Pages 121-123** thereto.

The Acknowledgement of Receipt for this Addendum shall be signed by an authorized agent of the company and returned with the bid proposal. Bid Proposals submitted without this Addendum shall be considered irregular and will not be considered for award.

If you have any questions regarding this matter, please feel free to contact me at 336-903-9138.

Sincerely,

Joe L. Laws, PE
Division Project Manager

cc: M. A. Pettyjohn, PE, Division Engineer
Jami C. Guynn, Division Bridge Project Manager

Acknowledgement of Receipt

_____
Company Name

_____ _____
Signature Date

CONTRACT TIME AND LIQUIDATED DAMAGES

The date of availability for this contract is **April 18, 2016**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between the DOT, Regulatory Agencies, and the Contractor is held as stipulated in the permits contained elsewhere in this proposal. This delay in availability has been considered in determining the contract time for this project.

The completion date for this contract is **September 29, 2017**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Five Hundred Dollars ($500.00)** per calendar day. These liquidated damages will not be cumulative with any liquidated damages which may become chargeable under Intermediate Contract Time Number 1.

INTERMEDIATE CONTRACT TIME NUMBER 3 AND LIQUIDATED DAMAGES

Except for that work required under the Project Special Provisions entitled *Planting, Reforestation* and/or *Permanent Vegetation Establishment*, included elsewhere in this proposal, the Contractor will be required to complete all work included in this contract and shall place and maintain traffic on same.

The Contractor shall have each site completed and open to traffic within thirty (30) days. Except on sites #040263 and #040264, the road closure is limited to seven (7) days. The Contractor is responsible for maintaining Emergency Access at all sites at all times.

The completion date for this intermediate contract time is June 30, 2017.

The liquidated damages for this intermediate contract time are **Five Hundred Dollars ($500.00)** per calendar day.

Upon apparent completion of all the work required to be completed by this intermediate date, a final inspection will be held in accordance with Article 105-17 and upon acceptance, the Department will assume responsibility for the maintenance of all work except *Planting, Reforestation* and/or *Permanent Vegetation Establishment.* The Contractor will be responsible for and shall make corrections of all damages to the completed roadway caused by his planting operations, whether occurring prior to or after placing traffic through the project.

CONSTRUCTION MORATORIUM

No in-water work or land disturbance within the 25 ft wide buffer zone will be allowed from **October 15** through **April 15** of any year.

MOMENT SLAB

1.0 GENERAL

Provide moment slabs as shown on plans in accordance with the contract and accepted submittals.

2.0 MATERIALS

Refer to Division 10 of the *Standard Specifications*:

Item	Section
Portland Cement Concrete	1000
Reinforcing Steel	1070

Use Class AA Concrete for moment slabs in accordance with Article 1000-4 of the *Standard Specifications*. Use epoxy coated reinforcing steel for concrete barrier rails in accordance with Article 1070-8 of the *Standard Specifications*.

3.0 CONSTRUCTION METHODS

Construct moment slabs in accordance with the plans and accepted submittals. Construct cast-in-place reinforced concrete moment slabs in accordance with Section 420 of the *Standard Specifications*. Do not remove forms until concrete achieves a minimum compressive strength of 2400 psi.

4.0 MEASUREMENT AND PAYMENT

Moment Slab will be measured and paid for in linear feet. Moment slabs will be measured as shown on the plans. The contract unit price *Moment Slab* will be full compensation for providing moment slabs, including the 1" threaded rods, geogrid fabric, and other incidentals as necessary to construct the moment slabs in accordance with the contract.

Payment will be made under:

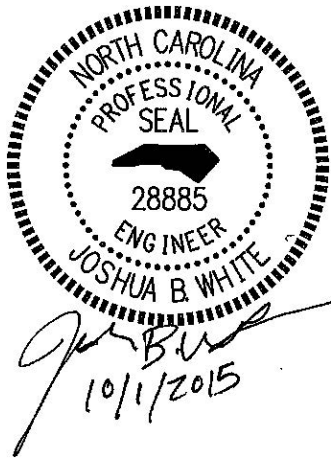
Pay Item	Pay Unit
Moment Slab	Linear Foot

Project Special Provisions

Structure

Design Engineer: Joshua B. White, PLS, PE

Seal:



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ALUMINUM BOX CULVERT AT STATION XX+XX.XX -L-

SPECIAL

1.0 GENERAL

This Special Provision covers the design, manufacture, fabrication and installation of Aluminum Box Culvert with Headwalls and Wings for the conveyance of storm water.

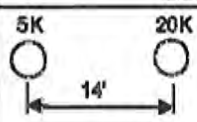
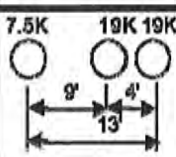
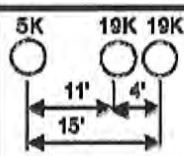
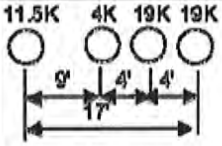
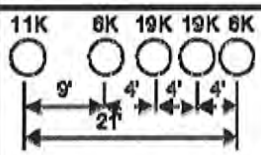
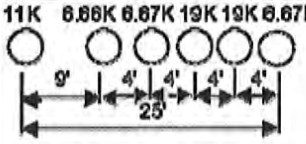
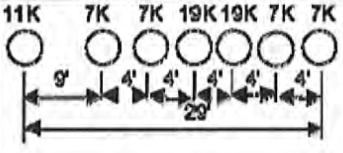
Provide an Aluminum Box Culvert of the size and dimensions shown on the plans requirements of Section 1032 and any other applicable sections of the Standard Specifications. Design Aluminum Box Culvert in accordance with the current edition of the AASHTO LRFD Bridge Design Specifications. Design Fill shall be as shown on the plans. Rate all sizes of aluminum box culverts in accordance with the current edition of the AASHTO Manual for Bridge Evaluation. Ensure the culvert rates for the AASHTO design loads and North Carolina's legal loads (see Section 2.0 for North Carolina's legal loads). Detail the aluminum culvert with headwalls and wings.

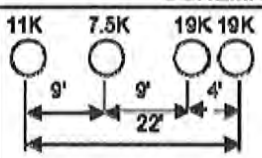
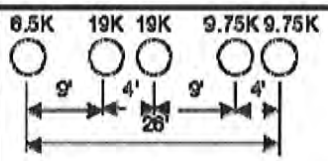
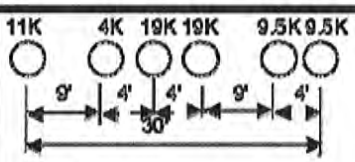
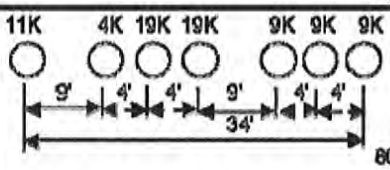
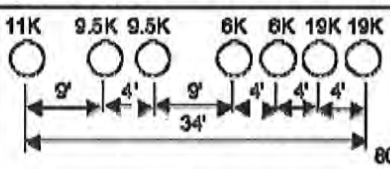
The design and rating of the Aluminum Box Culverts is the responsibility of the Contractor and is subject to review, comments and approval. Submit two sets of detailed shop drawing plans and rating sheets for review. Include all details in the shop drawing plans, including the size and spacing of the required components necessary to build the aluminum box culvert. Include wing wall, barrel, and headwall connection details in the shop drawing plans. Design calculations and shop drawing plans shall include back fill material requirements and installation instructions. Have a North Carolina Registered Professional Engineer check and seal the plans, rating sheets and design calculations. After the plans, rating sheets and design calculations are reviewed and, if necessary, the corrections made, submit one set of plans and rating sheets on 22" x 34" sheets to become part of the contract plans.

A pre-installation meeting is required. Representatives from the Contractor, the Aluminum Box Culvert manufacturer, and the Department should attend this meeting. The Aluminum Box Culvert manufacturer's representative shall be on site during installation.

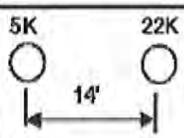
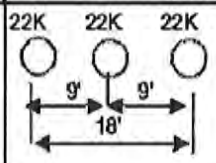
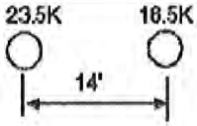
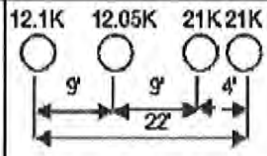
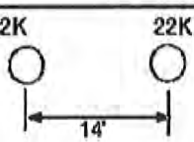
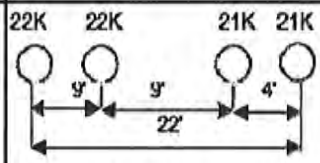
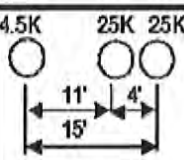
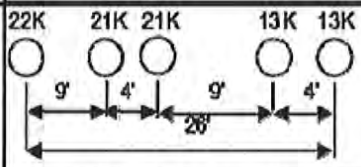
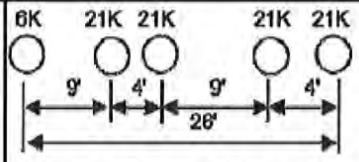
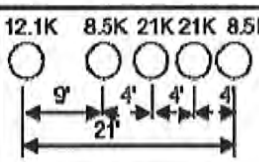
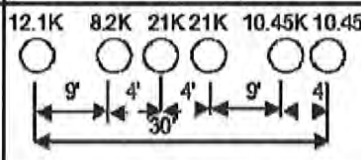
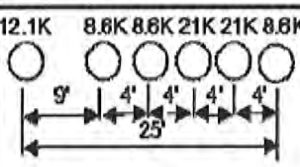
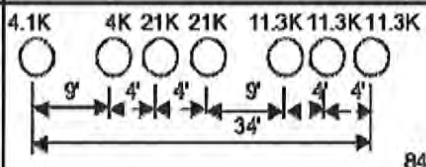
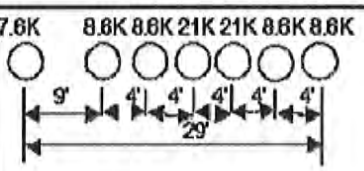
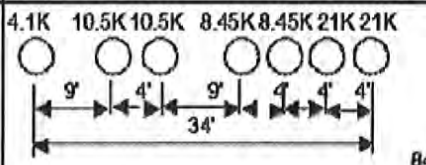
2.0 North Carolina's Legal Loads

Apply the following legal loads to all structures carrying interstate traffic:

SINGLE VEHICLE(SV)		
REF. #	SCHEMATIC	
SH		25K 12.5 TON
S3A		45.5K 22.75 TON
S3C		43K 21.5 TON
S4A		53.5K 26.75 TON
S5A		61K 30.5 TON
S6A		69K 34.5 TON
S7A		80K 40 TON
S7B		77K 38.5 TON

TRUCK TRACTOR SEMI-TRAILER(TTST)		
REF. #	SCHEMATIC	
T4A		56.5K 28.25 TON
T5B		64K 32 TON
T6A		72K 36 TON
T7A		80K 40 TON
T7B		80K 40 TON

Apply the following legal loads to all structures carrying non-interstate traffic:

SINGLE VEHICLE (SV)			TRUCK TRACTOR SEMI-TRAILER (TTST)		
REF. #	SCHEMATIC		REF. #	SCHEMATIC	
SNSH		27K 13.5 TON	TNAGRIT3		66K 33 Ton
SNGARBS2		40K 20 TON	TNT4A		66.15K 33.075 TON
SNAGRIS2		44K 22 Ton	TNAGRIT4		86K 43 TON
SNCOTTS3		54.5K 27.25 TON	TNAGT5A		90K 45 TON
SNAGGRS4		69.85K 34.925 TON	TNAGT5B		90K 45 TON
SNS5A		71.1K 35.55 TON	TNT6A		83.2K 41.6 TON
SNS6A		79.9K 39.95 TON	TNT7A		84K 42 TON
SNS7B		84K 42 TON	TNT7B		84K 42 TON

3.0 MATERIAL

The aluminum box culvert shall consist of plates, ribs, and appurtenant items as shown on the plans and shall conform to the requirements of ASTM B864 and AASHTO M219. Plate thickness, rib spacing, end treatment, and foundation shall be indicated on the sealed and approved shop drawing plans.

Bolts and nuts shall conform to the requirements of ASTM A307 or ASTM A449 and shall be galvanized in accordance with ASTM AI 53. or as detailed on sealed and approved shop drawing plans.

4.0 ASSEMBLY

The box culvert shall be assembled in accordance with the shop drawings provided by the manufacturer and assembled by a manufacturer certified assembly crew under the supervision of a manufacturer representative. Bolts shall be tightened using an applied torque of between 100 and 150 foot pounds or as detailed on sealed and approved shop drawing plans.

5.0 INSTALLATION

The box culvert shall be installed in accordance with the plans and specification, the manufacture's recommendations, and the AASHTO Standard Specification for Highway Bridges, Section 26 (Division II).

6.0 ALUMINUM STRUCTURAL PLATE HEADWALLS

A) All aluminum structural plate for headwalls shall consist of plates and appurtenant items shown on the plans and shall conform to the requirements of AASHTO M219 (and ASTM B746) specification and have an external annular corrugation of 9" x 2-1/2" with the plate thickness corresponding to the plan drawings. Structural plate headwall plates are to be manufactured with 5052 Aluminum Alloy and be fully welded inside and out to the aluminum structure by a certified welder.

B) The corrugated plates shall be bolt hole punched and pre-assembled at the plant with bolts and nuts conforming to the requirements of ASTM A307 or ASTM A449 and shall be galvanized in accordance with ASTM A153.

C) All aluminum wale beams, wale nuts, and aluminum headwall cap shall be prefabricated and assembled per the plans on the aluminum headwall at the plant.

D) All dead man anchor assemblies for the aluminum structural plate headwalls shall consist of 3/4" diameter galvanized steel tieback rods and aluminum structural plate DMA plates with sizes of plates and length of rods according to the plans and specifications.

E) Drawings calculations and load ratings for aluminum culvert will be required to be sealed by North Carolina professional engineer.

7.0 MEASUREMENT AND PAYMENT

The work covered by this special provision consists of furnishing all labor, equipment, materials, and a manufacture representative on site, to install the aluminum box culvert and headwalls as indicated on the plans and the Standard Specifications.

Design of the aluminum box culvert shall be the responsibility of the Contractor and shall comply with the latest AASHTO design specifications and requirements. The Contractor shall submit to the Engineer two sets of detailed plans and design calculations and shall be checked and sealed by a North Carolina Registered Professional Engineer.

All work covered by this section will be paid for at the contract lump sum prices for "Aluminum Box Culvert @ Sta. XX+XX.XX -L-, Lump Sum."

Payment will be made under:

Pay Item	**Pay Unit**
Aluminum Box Culvert @ Sta. XX+XX.XX -L-	Lump Sum

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BID FORM

WBS Element: 17BP.11.R.61, 17BP.11.R.63, 17BP.11R.67, etc. Contract Number: DK00181
DESCRIPTION: Replace Multiple Bridges in Alleghany, Ashe, Surry, Watauga Counties PAGE 1 OF 3

LINE	ITEM NUMBER	SECT.	DESCRIPTION	QUANT.	UNIT	UNIT BID	AMOUNT BID
1	0000100000-N	800	MOBILIZATION	1	LS		
2	0000400000-N	801	CONSTRUCTION SURVEYING	1	LS		
3	0043000000-N	SP	GRADING	1	LS		
4	0050000000-E	226	SUPPLEMENTARY CLEARING & GRUBBING	1	AC		
5	0057000000-E	226	UNDERCUT EXCAVATION	50	CY		
6	0134000000-E	240	DRAINAGE DITCH EXCAVATION	375	CY		
7	0223000000-E	275	ROCK PLATING	35	SY		
8	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	50	TON		
9	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	100	SY		
10	0335200000-E	305	15" DRAINAGE PIPE	48	LF		
11	0448300000-E	310	18” RC PIPE CULVERT, CLASS IV	44	LF		
12	0448400000-E	310	24” RC PIPE CULVERT, CLASS IV	64	LF		
13	0995000000-E	340	PIPE REMOVAL	86	LF		
14	1121000000-E	520	AGGREGATE BASE COURSE	225	TON		
15	1220000000-E	545	INCIDENTAL STONE BASE	405	TON		
16	1308000000-E	607	MILLING ASPHALT PAVEMENT, 0 TO 3”	1,850	SY		
17	1330000000-E	607	INCIDENTAL MILLING	110	SY		
18	1489000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0B	630	TON		
19	1525000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	970	TON		
20	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	110	TON		
21	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	30	TON		
22	2199000000-E	SP	SANDBAG HEADWALLS	155	SF		
23	2275000000-E	SP	FLOWABLE FILL	3	CY		
24	2752000000-E	SP	MOMENT SLAB	69	LF		
25	3000000000-N	SP	IMPACT ATTENUATOR UNIT, TYPE 350	1	EA		
26	3030000000-E	862	STEEL BM GUARDRAIL	575	LF		
27	3045000000-E	862	STEEL BM GUARDRAIL, SHOP CURVED	87.5	LF		
28	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	25	EA		
29	3165000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE 350 TL-2	2	EA		
30	3195000000-N	862	GUARDRAIL ANCHOR UNITS, AT-1	6	EA		
31	3270000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE 350	9	EA		
32	3380000000-E	862	TEMP STEEL BM GUARDRAIL	256.25	LF		
33	3382000000-E	862	TEMP STEEL BM GUARDRAIL, SHOP CURVED	18.75	LF		
34	3387000000-N	SP	TEMP GUARDRAIL ANCHOR UNITS, TYPE 350 TL-2	11	EA		
35	3389000000-N	862	TEMP GUARDRAIL ANCHOR UNITS, TYPE AT-1	1	EA		
36	3569000000-E	867	BARB WIRE FENCE RESET	145	LF		
37	3574000000-E	867	SPLIT RAIL FENCE	215	LF		
38	3628000000-E	876	RIP RAP, CLASS I	95	TON		
39	3635000000-E	876	RIP RAP, CLASS II	1,115	TON		

****CONTINUED ON PAGE 2****

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BID FORM

WBS Element: 17BP.11.R.61, 17BP.11.R.63, 17BP.11R.67, etc. Contract Number: DK00181
DESCRIPTION: Replace Multiple Bridges in Alleghany, Ashe, Surry, Watauga Counties PAGE 2 OF 3

LINE	ITEM NUMBER	SECT.	DESCRIPTION	QUANT.	UNIT	UNIT BID	AMOUNT BID
40	3649000000-E	876	RIP RAP, CLASS B	26	TON		
41	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	1,504	SY		
42	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	2,806	SF		
43	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	384	SF		
44	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	558	SF		
45	4430000000-N	1130	DRUMS	357	EA		
46	4445000000-E	1145	BARRICADES (TYPE III)	728	LF		
47	4450000000-N	1150	FLAGGER	1,280	HR		
48	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4”)	21,540	LF		
49	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24”)	40	LF		
50	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4”)	575	LF		
51	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24”)	40	LF		
52	4957000000-N	1264	OBJECT MARKERS (TYPE 3)	28	EA		
53	4960000000-N	SP	TEMP PORTABLE TRAFFIC SIGNAL SYSTEM	4	EA		
54	6000000000-E	1605	TEMPORARY SILT FENCE	5,080	LF		
55	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	430	TON		
56	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	565	TON		
57	6012000000-E	1610	SEDIMENT CONTROL STONE	450	TON		
58	6015000000-E	1615	TEMPORARY MULCHING	4	ACR		
59	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	700	LB		
60	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	3.5	TON		
61	6024000000-E	1622	TEMPORARY SLOPE DRAINS	1,400	LF		
62	6029000000-E	SP	SAFETY FENCE	2,400	LF		
63	6030000000-E	1630	SILT EXCAVATION	690	CY		
64	6036000000-E	1631	MATTING FOR EROSION CONTROL	3,500	SY		
65	6037000000-E	SP	COIR FIBER MAT	955	SY		
66	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	355	SY		
67	6042000000-E	1632	1/4" HARDWARE CLOTH	440	LF		
68	6045000000-E	SP	42” TEMPORARY PIPE	84	LF		
69	6070000000-N	1639	SPECIAL STILLING BASINS	10	EA		
70	6071010000-E	SP	COIR FIBER WATTLE	45	LF		
71	6071020000-E	SP	POLYACRYLAMIDE (PAM)	105	LB		
72	6084000000-E	1660	SEEDING & MULCHING	14	ACR		
73	6087000000-E	1660	MOWING	3.5	ACR		
74	6090000000-E	1661	SEED FOR REPAIR SEEDING	350	LB		
75	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	1.75	TON		
76	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	350	LB		
77	6108000000-E	1665	FERTILIZER TOPDRESSING	3	TON		
78	6111000000-E	SP	IMPERVIOUS DIKE	310	LF		

****CONTINUED ON PAGE 3****

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
BID FORM

WBS Element: 17BP.11.R.61, 17BP.11.R.63, 17BP.11R.67, etc. Contract Number: DK00181
DESCRIPTION: Replace Multiple Bridges in Alleghany, Ashe, Surry, Watauga Counties

LINE	ITEM NUMBER	SECT.	DESCRIPTION	QUANT.	UNIT	UNIT BID	AMOUNT BID
79	6114500000-N	1667	SPECIALIZED HAND MOWING	70	MHR		
80	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	14	EA		
81	6123000000-E	1670	REFORESTATION	0.6	AC		
82	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+18 –L-	1	LS		
83	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+26 –L-	1	LS		
84	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+01 –L-	1	LS		
85	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+10 –L-	1	LS		
86	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+06 –L-	1	LS		
87	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+25 –L-	1	LS		
88	8021000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STA. 13+09 –L-	1	LS		
89	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+18-L-	1	LS		
90	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+26-L-	1	LS		
91	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+01-L-	1	LS		
92	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+10-L-	1	LS		
93	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+06-L-	1	LS		
94	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+25-L-	1	LS		
95	8123000000-N	414	CULVERT EXCAVATION AT STA. 13+09-L-	1	LS		
96	8133000000-E	414	FOUNDATION CONDITION MATERIAL, BOX CULVERT	596	TON		
97	8196000000-E	420	CLASS A CONCRETE (CULVERT)	26.8	CY		
98	8245000000-E	425	REINFORCING STEEL (CULVERT)	1,438	LB		
99	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+18 –L-	1	LS		
100	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+26 –L-	1	LS		
101	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+01 –L-	1	LS		
102	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+10 –L-	1	LS		
103	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+06 –L-	1	LS		
104	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+25 –L-	1	LS		
106	8804000000-N	SP	ALUMINUM BOX CULVERT AT STA. 13+09 –L-	1	LS		

***TOTAL BID FOR PROJECT*:_____**

THIS SECTION TO BE COMPLETED BY NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

This bid has been reviewed in accordance with Article 103-1 of the Standard Specifications for Roads and Structures 2012.

Reviewed by*_____ _____*(date)