



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

November 03, 2021

Addendum No. 1

RE: Contract # C204355

WBS # 37512.3.3

STATE FUNDED

Watauga County (R-2566BA)

BRIDGE OVER WATAUGA RIVER AND LEFT TURN LANE AT SR-1112
(BROADSTONE RD) ON NC-105 WITHIN R-2566B LIMITS

November 16, 2021 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Roadway plans.

Sheet No.	Revision
3B-1	Note added Lump Sum Grading note removed

Please void the above listed Sheet in your plans and staple the revised Sheet thereto.

The following revisions have been made to the Cross Section plans.

Sheet No.	Revision
X-1A	Note added Lump Sum Grading note removed

Please void the above listed Sheet in your plans and staple the revised Sheet thereto.

The following revisions have been made to the Signal plans.

Sheet No.	Revision
Sig 7.0 and Sig 7.1	Revised to add metal pole case numbers for three strain poles

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 11-03-2021"

Please void the above listed Page in your proposal and staple the revised Page thereto.

On the item sheets the following pay item revisions have been made:

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
0004-0043000000-N-226	GRADING	LUMP SUM	DELETED
0005-0050000000-E-226	SUPPLEMENTARY CLEARING & GRUBBING	1 ACR	DELETED
0006-0057000000-E-226	UNDERCUT EXCAVATION	450 CY	DELETED
0200-0001000000-E-200	CLEARING AND GRUBBING	NEW ITEM	LUMP SUM
0201-0008000000-E-200	SUPPLEMENTARY CLEARING & GRUBBING	NEW ITEM	1 ACR
0202-0022000000-E-225	UNCLASSIFIED EXCAVATION	NEW ITEM	156,000 CY
0203-0036000000-E-225	UNDERCUT EXCAVATION	NEW ITEM	450 CY
0204-0156000000-E-250	REMOVAL OF EXISTING ASPHALT PAVEMENT	NEW ITEM	2,400 SY
0205-1011000000-N-500	FINE GRADING	NEW ITEM	LUMP SUM
0206-1231000000-E-560	SHOULDER BORROW	NEW ITEM	550 CY

The Contractor's bid must include these pay item revisions.

The electronic bidding file has been updated to reflect these revisions. Please download the Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

F81B6038A47A442...
Ronald E. Davenport, Jr., PE
State Contract Officer

RED/jjr
Attachments

cc: Mr. Lamar Sylvester, PE Mr. Forrest Dungan, PE
Mr. Michael A. Pettyjohn, PE Ms. Jaci Kincaid
Mr. Boyd Tharrington, PE Ms. Lori Strickland
Mr. Jon Weathersbee, PE Ms. Penny Higgins
Mr. Ken Kennedy, PE Mr. Mike Gwyn
Project File (2) Mr. Kyle Kempf

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

PROPOSAL

INCLUDES ADDENDUM No.1 DATED 11-03-2021

DATE AND TIME OF BID OPENING: **NOVEMBER 16, 2021 AT 2:00 PM**

CONTRACT ID C204355
WBS 37512.3.3

FEDERAL-AID NO. STATE FUNDED

COUNTY WATAUGA

T.I.P. NO. R-2566BA

MILES 0.429

ROUTE NO. NC 105

LOCATION BRIDGE OVER WATAUGA RIVER AND LEFT TURN LANE AT SR-1112
(BROADSTONE RD) ON NC-105 WITHIN R-2566B LIMITS.

TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURE.

NOTICE:

ALL BIDDERS 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 BIDDER 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. BIDDERS 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. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

County : Watauga

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	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (164+30.00 -L-)	Lump Sum	L.S.	
0007	0098000000-E	220	PRE-SPLITTING OF ROCK	11,800 SY		
0008	0134000000-E	240	DRAINAGE DITCH EXCAVATION	196 CY		
0009	0195000000-E	265	SELECT GRANULAR MATERIAL	400 CY		
0010	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZA- TION	1,300 SY		
0011	0199000000-E	SP	TEMPORARY SHORING	1,800 SF		
0012	0241000000-E	SP	GENERIC GRADING ITEM TYPE 2 WIRE MESH	400 SY		
0013	0255000000-E	SP	GENERIC GRADING ITEM HAULING & DISPOSAL OF PETRO- LEUM CONTAMINATED SOIL	50 TON		
0014	0257000000-E	SP	GENERIC GRADING ITEM ANCHOR FOR WIRE MESH	600 LF		
0015	0318000000-E	300	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES	130 TON		
0016	0320000000-E	300	FOUNDATION CONDITIONING GEO- TEXTILE	410 SY		
0017	0343000000-E	310	15" SIDE DRAIN PIPE	52 LF		
0018	0344000000-E	310	18" SIDE DRAIN PIPE	148 LF		
0019	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	392 LF		
0020	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	224 LF		
0021	0594000000-E	310	24" CS PIPE CULVERTS, 0.064" THICK	64 LF		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0022	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (24", 0.064")	3 EA		
0023	0926000000-E	SP	**** CS STRUCTURAL PLATE PIPE, ** GAUGE (60", 12)	152 LF		
0024	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (60", 0.875")	88 LF		
0025	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (60", 0.875")	88 LF		
0026	0995000000-E	340	PIPE REMOVAL	98 LF		
0027	0996000000-N	350	PIPE CLEAN OUT	1 EA		
0028	1099500000-E	505	SHALLOW UNDERCUT	100 CY		
0029	1099700000-E	505	CLASS IV SUBGRADE STABILIZA- TION	200 TON		
0030	1121000000-E	520	AGGREGATE BASE COURSE	294 TON		
0031	1220000000-E	545	INCIDENTAL STONE BASE	100 TON		
0032	1297000000-E	607	MILLING ASPHALT PAVEMENT, ***** DEPTH (1-1/2")	1,650 SY		
0033	1330000000-E	607	INCIDENTAL MILLING	550 SY		
0034	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	3,750 TON		
0035	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0C	2,690 TON		
0036	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	2,265 TON		
0037	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	450 TON		
0038	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	50 TON		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0039	2022000000-E	815	SUBDRAIN EXCAVATION	68 CY		
0040	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	200 SY		
0041	2033000000-E	815	SUBDRAIN FINE AGGREGATE	17 CY		
0042	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	34 CY		
0043	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	300 LF		
0044	2070000000-N	815	SUBDRAIN PIPE OUTLET	2 EA		
0045	2077000000-E	815	6" OUTLET PIPE	12 LF		
0046	2220000000-E	838	REINFORCED ENDWALLS	13.4 CY		
0047	2275000000-E	SP	FLOWABLE FILL	87 CY		
0048	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	15 EA		
0049	2297000000-E	840	MASONRY DRAINAGE STRUCTURES	38 CY		
0050	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	8.6 LF		
0051	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	4 EA		
0052	2366000000-N	840	FRAME WITH TWO GRATES, STD 840.24	8 EA		
0053	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	2 EA		
0054	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	2 EA		
0055	2538000000-E	846	***.*** CONCRETE CURB & GUTTER (2'-9")	770 LF		
0056	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	920 LF		
0057	2556000000-E	846	SHOULDER BERM GUTTER	330 LF		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0058	2619000000-E	850	4" CONCRETE PAVED DITCH	115 SY		
0059	2724000000-E	857	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	190 LF		
0060	3030000000-E	862	STEEL BEAM GUARDRAIL	1,225 LF		
0061	3045000000-E	862	STEEL BEAM GUARDRAIL, SHOP CURVED	137.5 LF		
0062	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	10 EA		
0063	3180000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE ***** (III SHOP CURVED)	1 EA		
0064	3195000000-N	862	GUARDRAIL END UNITS, TYPE AT-1	2 EA		
0065	3210000000-N	862	GUARDRAIL END UNITS, TYPE CAT-1	1 EA		
0066	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE III	3 EA		
0067	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	2 EA		
0068	3317000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE B-77	2 EA		
0069	3360000000-E	863	REMOVE EXISTING GUARDRAIL	1,034 LF		
0070	3380000000-E	862	TEMPORARY STEEL BEAM GUARDRAIL	87.5 LF		
0071	3382000000-E	862	TEMPORARY STEEL BEAM GUARDRAIL (SHOP CURVED)	56.25 LF		
0072	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (B-77)	1 EA		
0073	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (III MODIFIED)	1 EA		
0074	3387000000-N	SP	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (W-BEAM)	1 EA		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0075	3389150000-N	SP	TEMPORARY GUARDRAIL END UNITS, TYPE ***** (TL-2)	1 EA		
0076	3436000000-N	862	GENERIC GUARDRAIL ITEM TEMPORARY GUARDRAIL END UNITS, TYPE AT-1	2 EA		
0077	3628000000-E	876	RIP RAP, CLASS I	191 TON		
0078	3635000000-E	876	RIP RAP, CLASS II	116 TON		
0079	3649000000-E	876	RIP RAP, CLASS B	85 TON		
0080	3651000000-E	SP	BOULDERS	119 TON		
0081	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	2,181 SY		
0082	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	302 LF		
0083	4096000000-N	904	SIGN ERECTION, TYPE D	4 EA		
0084	4102000000-N	904	SIGN ERECTION, TYPE E	9 EA		
0085	4108000000-N	904	SIGN ERECTION, TYPE F	2 EA		
0086	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U- CHANNEL	16 EA		
0087	4158000000-N	907	DISPOSAL OF SIGN SYSTEM, WOOD	1 EA		
0088	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	120 SF		
0089	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	760 SF		
0090	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	280 SF		
0091	4415000000-N	1115	FLASHING ARROW BOARD	2 EA		
0092	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	3 EA		
0093	4422000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN (SHORT TERM)	60 DAY		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0094	4430000000-N	1130	DRUMS	80	EA	
0095	4445000000-E	1145	BARRICADES (TYPE III)	128	LF	
0096	4455000000-N	1150	FLAGGER	810	DAY	
0097	4465000000-N	1160	TEMPORARY CRASH CUSHIONS	3	EA	
0098	4470000000-N	1160	REMOVE & RESET TEMPORARY CRASH CUSHION	5	EA	
0099	4480000000-N	1165	TMA	2	EA	
0100	4485000000-E	1170	PORTABLE CONCRETE BARRIER	680	LF	
0101	4490000000-E	1170	PORTABLE CONCRETE BARRIER (ANCHORED)	1,380	LF	
0102	4505000000-E	1170	REMOVE & RESET PORTABLE CONCRETE BARRIER (ANCHORED)	1,630	LF	
0103	4510000000-N	1190	LAW ENFORCEMENT	1,800	HR	
0104	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	390	EA	
0105	4700000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)	650	LF	
0106	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	27	EA	
0107	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	106,000	LF	
0108	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	320	LF	
0109	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	20	EA	
0110	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	26,500	LF	
0111	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24")	100	LF	

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0112	4875000000-N	1205	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	10 EA		
0113	4890000000-E	SP	GENERIC PAVEMENT MARKING ITEM POLYUREA PAVEMENT MARKING LINES, (4", 20MILS) (STANDARD GLASS BEADS)	21,440 LF		
0114	4891000000-E	1205	GENERIC PAVEMENT MARKING ITEM THERMOPLASTIC PAVEMENT MARKING LINES (24", 90MILS)	130 LF		
0115	4895000000-N	SP	GENERIC PAVEMENT MARKING ITEM NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	50 EA		
0116	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	100 EA		
0117	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0118	6000000000-E	1605	TEMPORARY SILT FENCE	9,915 LF		
0119	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	385 TON		
0120	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	2,190 TON		
0121	6012000000-E	1610	SEDIMENT CONTROL STONE	1,255 TON		
0122	6015000000-E	1615	TEMPORARY MULCHING	11 ACR		
0123	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	600 LB		
0124	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	3 TON		
0125	6024000000-E	1622	TEMPORARY SLOPE DRAINS	200 LF		
0126	6029000000-E	SP	SAFETY FENCE	3,040 LF		
0127	6030000000-E	1630	SILT EXCAVATION	2,630 CY		
0128	6036000000-E	1631	MATTING FOR EROSION CONTROL	10,220 SY		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0129	6037000000-E	SP	COIR FIBER MAT	100 SY		
0130	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	265 SY		
0131	6042000000-E	1632	1/4" HARDWARE CLOTH	805 LF		
0132	6070000000-N	1639	SPECIAL STILLING BASINS	12 EA		
0133	6071020000-E	SP	POLYACRYLAMIDE (PAM)	275 LB		
0134	6071030000-E	1640	COIR FIBER BAFFLE	495 LF		
0135	6084000000-E	1660	SEEDING & MULCHING	18 ACR		
0136	6087000000-E	1660	MOWING	15 ACR		
0137	6090000000-E	1661	SEED FOR REPAIR SEEDING	150 LB		
0138	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.75 TON		
0139	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	425 LB		
0140	6108000000-E	1665	FERTILIZER TOPDRESSING	12.5 TON		
0141	6111000000-E	SP	IMPERVIOUS DIKE	260 LF		
0142	6114500000-N	1667	SPECIALIZED HAND MOWING	10 MHR		
0143	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	75 EA		
0144	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	4 EA		
0145	6123000000-E	1670	REFORESTATION	2 ACR		
0146	6138000000-E	SP	GENERIC EROSION CONTROL ITEM ASTM C-33 FINE AGGREGATE	36 CY		
0147	6138000000-E	SP	GENERIC EROSION CONTROL ITEM SHREDDED HARDWOOD MULCH	9 CY		
0148	7060000000-E	1705	SIGNAL CABLE	2,200 LF		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0149	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	18 EA		
0150	7144000000-E	1705	VEHICLE SIGNAL HEAD (12", 5 SECTION)	7 EA		
0151	7264000000-E	1710	MESSENGER CABLE (3/8")	850 LF		
0152	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	11 EA		
0153	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	1 EA		
0154	7360000000-N	1720	WOOD POLE	4 EA		
0155	7372000000-N	1721	GUY ASSEMBLY	10 EA		
0156	7420000000-E	1722	2" RISER WITH WEATHERHEAD	3 EA		
0157	7456000000-E	1726	LEAD-IN CABLE (*****) (14-2)	2,250 LF		
0158	7481000000-N	SP	SITE SURVEY	5 EA		
0159	7481200000-N	SP	LUMINAIRE ARM FOR VIDEO SYSTEM	5 EA		
0160	7481240000-N	SP	CAMERA WITHOUT INTERNAL LOOP EMULATOR PROCESSING UNIT	3 EA		
0161	7481260000-N	SP	EXTERNAL LOOP EMULATOR PROCESSING UNIT	1 EA		
0162	7481280000-N	SP	RELOCATE CAMERA SENSOR UNIT	8 EA		
0163	7576000000-N	SP	METAL STRAIN SIGNAL POLE	3 EA		
0164	7613000000-N	SP	SOIL TEST	3 EA		
0165	7614100000-E	SP	DRILLED PIER FOUNDATION	18 CY		
0166	7636000000-N	1745	SIGN FOR SIGNALS	5 EA		
0167	7684000000-N	1750	SIGNAL CABINET FOUNDATION	1 EA		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0168	7744000000-N	1751	DETECTOR CARD (TYPE 170)	5 EA		
0169	7756000000-N	1751	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)	1 EA		
0170	7901000000-N	1753	CABINET BASE EXTENDER	1 EA		
0200	0001000000-E	200	CLEARING & GRUBBING .. ACRE(S)	Lump Sum	L.S.	
0201	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUBBING	1 ACR		
0202	0022000000-E	225	UNCLASSIFIED EXCAVATION	156,000 CY		
0203	0036000000-E	225	UNDERCUT EXCAVATION	450 CY		
0204	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	2,400 SY		
0205	1011000000-N	500	FINE GRADING	Lump Sum	L.S.	
0206	1231000000-E	560	SHOULDER BORROW	550 CY		
WALL ITEMS						
0171	8802014000-E	SP	SOLDIER PILE RETAINING WALLS	1,955 SF		
0172	8847000000-E	SP	GENERIC RETAINING WALL ITEM ARCHITECTURAL SURFACE TREATMENT	1,955 SF		
STRUCTURE ITEMS						
0173	8017000000-N	SP	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMP ACCESS AT STA ***** (164+30.00 -L-)	Lump Sum	L.S.	

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0174	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (164+30.00 -L-)	Lump Sum	L.S.	
0175	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0176	8096000000-E	450	PILE EXCAVATION IN SOIL	78 LF		
0177	8097000000-E	450	PILE EXCAVATION NOT IN SOIL	25 LF		
0178	8105500000-E	411	***.*** DIA DRILLED PIERS IN SOIL (5'-0")	66 LF		
0179	8105600000-E	411	***.*** DIA DRILLED PIERS NOT IN SOIL (5'-0")	86 LF		
0180	8111000000-E	411	PERMANENT STEEL CASING FOR ***.*** DIA DRILLED PIER (5'-0")	48 LF		
0181	8115000000-N	411	CSL TESTING	1 EA		
0182	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVA- TION AT STATION ***** (164+30.00 -L-)	Lump Sum	L.S.	
0183	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	26,366 SF		
0184	8161000000-E	420	GROOVING BRIDGE FLOORS	29,350 SF		
0185	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	452.5 CY		
0186	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (164+30.00 -L-)	Lump Sum	L.S.	
0187	8217000000-E	425	REINFORCING STEEL (BRIDGE)	80,869 LB		
0188	8238000000-E	425	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	9,651 LB		
0189	8280000000-E	440	APPROX LBS STRUCTURAL STEEL	1,437,000 LS		

County : Watauga

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0190	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 14 X 73)	28 EA		
0191	8384000000-E	450	HP14X73 STEEL PILES	815 LF		
0192	8475000000-E	460	TWO BAR METAL RAIL	518.99 LF		
0193	8517000000-E	460	1'-***X ***** CONCRETE PARA- PET (1'-2" X 2'-6")	551.16 LF		
0194	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	625 TON		
0195	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	690 SY		
0196	8654000000-N	SP	DISC BEARINGS	Lump Sum	L.S.	
0197	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0198	8860000000-N	SP	GENERIC STRUCTURE ITEM BRIDGE DECK DE-ICING SYSTEM	Lump Sum	L.S.	
0199	8860000000-N	SP	GENERIC STRUCTURE ITEM STRIP SEAL EXPANSION JOINTS	Lump Sum	L.S.	
			Total Amount Of Bid For Entire Project :			

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
(IN CUBIC YARDS)

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- LT. 151+99.34	-L- LT. 162+74.00	72,363	343	0	72,020
-L- LT. 162+74.00	-L- LT. 163+32.97	6	3	0	3
-Y5- 19+00.00	-Y5REV- 21+95.89	453	321	0	132
-L- LT. 165+89.00	-L- LT. 174+64.36	1,009	153	0	856
SUBTOTALS:		73,831	820	0	73,011
-L- RT. 151+99.39	-L- LT. 162+62.38	540	296	0	244
-L- RT. 165+44.72	-L- RT. 166+40.00	2,624	35	0	2,589
-Y4- 10+00.00	-Y4- 12+82.76	24,495	0	0	24,495
-L- RT. 166+40.00	-L- RT. 174+64.36	47,145	634	0	46,511
SUBTOTALS:		74,804	965	0	73,839
TOTALS:		148,635	1,785	0	146,850
LOSS DUE TO CLEARING AND GRUBBING		-70	0	0	-70
PROJECT TOTALS:		148,565	1,785	0	146,780
GRAND TOTALS:		148,565	1,785	0	146,780
SAY:		156,000			

DDE = 196 CY
SHALLOW UNDERCUT = 100 CY
CONTINGENCY UNDERCUT = 450 CY
PAVEMENT STRUCTURE VOL. = 5,459
SHOULDER BORROW = 550 CY

TEMPORARY SHORING SUMMARY

SURVEY LINE	STATION	STATION	LOCATION L/R/V/CL	AVERAGE HEIGHT	MAXIMUM HEIGHT	SF
-L-	162+59 9.5' RT.	163+55 5.4' RT.	CL	9.9 FT.	14.0 FT.	950.40
-L-	165+33 5.5' RT.	165+91 5.5' RT.	CL	7.1 FT.	12.2 FT.	411.80
-L-	162+57 11.5' RT.	162+87 11.5' RT.	RT	7.0 FT.	11.9 FT.	210.00
-L-	165+60 11.5' RT.	165+92 11.5' RT.	CL	6.9 FT.	12.2 FT.	220.80
TOTAL:						1,793.00
SAY:						1,800.00

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L- RT	159+46.92	162+37.00	290.08
-L- RT	165+70.00	165+95.00	25.00
TOTAL:			315.08
SAY:			330.00

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION L/R/V/CL	YD'
-L-	152+00	152+92	LT	13.35
-L-	153+68	156+97	CL	108.44
-L-	152+00	160+25	RT	887.99
-L-	160+87	162+10	CL	89.93
-L-	163+00	165+83	CL	212.89
-L-	165+81	166+05	CL	37.66
-L-	165+16	174+63	LT	1074.86
-L-	174+20	174+63	RT	5.31
TOTAL:				2,320.75
SAY:				2,400.00

1'-6" CURB & GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L- MED. LT.	153+69	154+46	77
-L- MED. LT.	153+69	162+11	842
TOTAL:			919
SAY:			920

2'-9" CURB & GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
-L- MED. RT.	154+46	154+71	25
-L- MED. LT./RT.	154+71	162+05	734
-L- MED. RT.	162+05	162+09	4
TOTAL:			763
SAY:			770

Note: "Quantities are approximate only. The Resident Engineer will re-cross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid."

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

TEMPORARY GUARDRAIL SUMMARY

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

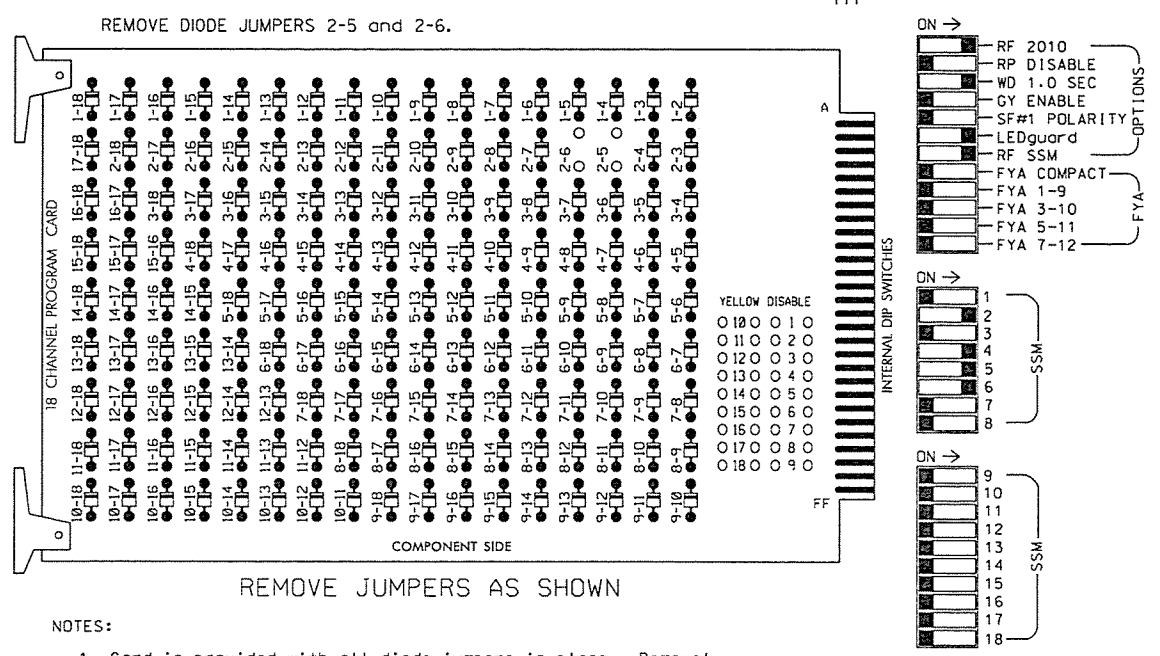
SEE SHEET 2C-4 FOR TEMPORARY ANCHOR UNIT, TYPE W-BEAM
SEE SHEET 2C-5 FOR TEMPORARY GUARDRAIL ANCHOR UNIT, TYPE B-77
SEE SHEET 2C-6 FOR TEMPORARY ANCHOR UNIT, TYPE III MODIFIED FOR POST AND BEAM RAIL

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS							IMPACT ATTENUATOR TYPE 350	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	TEMP. TYPE III MOD.	TEMP. AT-1	TEMP. TL-2	TEMP. TYPE B-77	TEMP. TYPE W-BEAM	CAT-1	VI MOD						BIC	AT-1
-L-	165+75.86	166+26.01	LT.	31.44'	32.48'																							SEE TMP. PHASE 1, STEP 3 FOR LOCATION
-L-	166+48.13	166+67.19	LT.		31.41'																							SEE TMP. PHASE 1, STEP 3 FOR LOCATION REMOVE TEMP. OR AS NEEDED. (APPROX. 82.17'), AND REPLACE WITH SHOP CURVED GR
-Y4- / -L-	10+18.42	166+67.19	LT./RT.	117.82'																								SEE TMP. PHASE 1, STEP 2 FOR LOCATION.
-L-	163+23.18		RT.																									SEE TMP. PHASE 1, STEP 2 FOR LOCATION.
TOTAL:				149.26'	63.89'																							
			1 TEMP. TYPE III & 18.75'	-18.75'																								
			2 TEMP. AT-1 & 6.25'	-12.50'																								
			1 TEMP. TL-2 & 25.00'	-25.00'																								
			1 TEMP. TYPE B-77 & 22.875'	-22.875'																								
GRAND TOTAL:				82.635'	51.39'																							
SAY:				87.50'	56.25'																							

10.02.00 (02) R-2566BA - Rdwy. const. 03 - summary.dgn

EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



NOTES:

- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
- Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
- Ensure that Red Enable is active at all times during normal operation.
- Connect serial cable from conflict monitor to comm. port 1 of 2070 controller. Ensure conflict monitor communicates with 2070.

■ = DENOTES POSITION OF SWITCH

NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
- Enable Simultaneous Gap-Out for all Phases.
- Program phases 2 and 6 for Variable Initial and Gap Reduction.
- Program phases 2 and 6 for Startup In Green.
- Program phases 2 and 6 for Yellow Flash.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	62	NU	42	51	61,62	63	NU	NU	NU	NU	NU	NU	NU
RED		128			101					134								
YELLOW		129			102					135								
GREEN		130			103					136								
RED ARROW										131								
YELLOW ARROW						102	132	132										
GREEN ARROW						103	133	133										

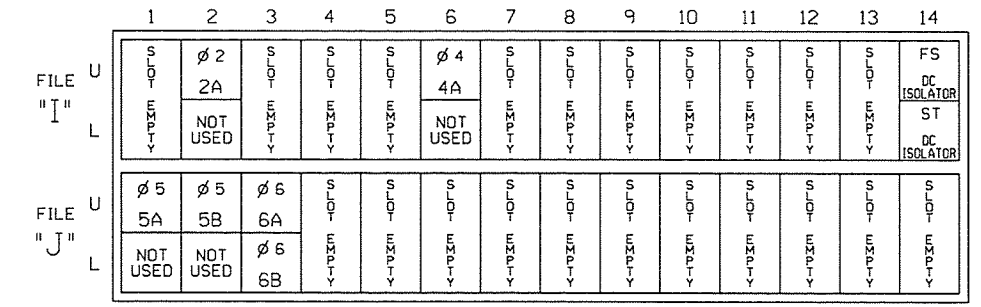
NU = Not Used

EQUIPMENT INFORMATION

CONTROLLER.....2070
 CABINET.....332 W/ AUX
 SOFTWARE.....ECONOLITE OASIS
 CABINET MOUNT.....BASE
 OUTPUT FILE POSITIONS...18 WITH AUX. OUTPUT FILE
 LOAD SWITCHES USED.....S2,S5,S7,S8
 PHASES USED.....2,4,5,6
 OVERLAP 'A'.....NOT USED
 OVERLAP 'B'.....NOT USED
 OVERLAP 'C'.....NOT USED
 OVERLAP 'D'.....NOT USED

INPUT FILE POSITION LAYOUT

(front view)



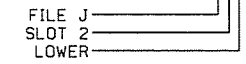
EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
 ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
4A	TB4-9,10	I6U	41	3	4	4	Y	Y			3
5A	TB3-1,2	J1U	55	17	5	5	Y	Y			
5B	TB3-5,6	J2U	40	2	6	5	Y	Y			15
6A	TB3-9,10	J3U	64	26	36	6	Y	Y			
6B	TB3-11,12	J3L	77	39	46	6	Y	Y			

INPUT FILE POSITION LEGEND: J2L



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 11-1054
 DESIGNED: October 2021
 SEALED: 10-28-21
 REVISED: N/A

THIS ELECTRICAL DETAIL SUPERSEDES THE DETAIL SEALED ON 5/30/2019.

Electrical Detail - Final Design

Electrical and Programming Details For:

Prepared in the Offices of:

North Carolina Professional Engineers

Division 11 Watauga County Boone

NC 105 at SR 1112 (Camp Broadstone Rd.)

PLAN DATE: October 2021 REVIEWED BY:

PREPARED BY: James Peterson REVIEWED BY:

REVISIONS

INIT. DATE

Disciplined by: Ryan W. Hough 10/28/2021

SIG. INVENTORY NO. 11-1054

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