



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J.R. "JOEY" HOPKINS  
SECRETARY

December 7, 2023

**Addendum No. 1**

RE: Contract # C204823

WBS # 50230.3.1

STATE FUNDED

**Haywood County (U-5839)**

US-276 (RUSS AVE) FROM US-23/74 TO US-23 BUS (MAIN ST) IN WAYNESVILLE.

**December 19, 2023 Letting**

To Whom It May Concern:

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

The following revision has been made to the Roadway Plans.

Sheet No.	Revision
7	Retaining Wall note revised.

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

The following revisions have been made to the Structures (Wall) Plans.

Sheet No.	Revision
W-9	Retaining Wall No. 1 was revised from Non-Standard Segmental Gravity Wall to a Precast Gravity Wall.
W-11	Estimated Soil Nail Wall Quantity table updated. Soil Nail Proof Test revised to 10.

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

The following revisions have been made to the proposal.

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
CONTRACT STANDARDS AND DEVELOPMENT  
1591 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1591

Telephone: (919) 707-6900  
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Location:  
1020 BIRCH RIDGE DR.  
RALEIGH, NC 27610

Website: [www.ncdot.gov](http://www.ncdot.gov)

<b>Page No.</b>	<b>Revision</b>
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 12-07-2023".

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

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

<b><u>Item</u></b>	<b><u>Description</u></b>	<b><u>Old Quantity</u></b>	<b><u>New Quantity</u></b>
0285-8802030000-E 454	SEGMENTAL GRAVITY RETAINING WALLS	4,046 SF	2,203 SF
0317-8802031000-E 455	PRECAST GRAVITY RETAINING WALLS	NEW ITEM	1,843 SF

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/cms  
 Attachments

cc: Mr. Boyd Tharrington, PE  
 Ms. Wanda H. Payne, PE  
 Mr. Ken Kennedy, PE  
 Mr. Malcolm Bell  
 Project File (2)

Mr. Forrest Dungan, PE  
 Ms. Jaci Kincaid  
 Mr. Jon Weathersbee, PE

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

PROPOSAL

**INCLUDES ADDENDUM No. 1 DATED 12-07-2023**

DATE AND TIME OF BID OPENING: **Dec 19, 2023 AT 02:00 PM**

CONTRACT ID C204823  
WBS 50230.3.1

FEDERAL-AID NO. STATE FUNDED  
COUNTY HAYWOOD  
T.I.P NO. U-5839  
MILES 1.193  
ROUTE NO. US-276  
LOCATION US-276 (RUSS AVE) FROM US-23/74 TO US-23 BUS (MAIN ST) IN WAYNESVILLE.

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**

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County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
<b>ROADWAY ITEMS</b>						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0000700000-N	SP	FIELD OFFICE	Lump Sum	L.S.	
0004	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUBBING	1 ACR		
0005	0015000000-N	205	SEALING ABANDONED WELLS	2 EA		
0006	0036000000-E	225	UNDERCUT EXCAVATION	850 CY		
0007	0043000000-N	226	GRADING	Lump Sum	L.S.	
0008	0195000000-E	265	SELECT GRANULAR MATERIAL	200 CY		
0009	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	600 SY		
0010	0199000000-E	SP	TEMPORARY SHORING	2,824 SF		
0011	0223000000-E	275	ROCK PLATING	2,750 SY		
0012	0248000000-N	SP	GENERIC GRADING ITEM TYPE 1 BRIDGE APPROACH FILL, STATION 24+64.13 -L-	Lump Sum	L.S.	
0013	0248000000-N	SP	GENERIC GRADING ITEM TYPE 1 BRIDGE APPROACH FILL, STATION 31+45.00 -L-	Lump Sum	L.S.	
0014	0255000000-E	SP	GENERIC GRADING ITEM HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	50 TON		
0015	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	1,587 TON		
0016	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	8,789 SY		
0017	0343000000-E	310	15" SIDE DRAIN PIPE	352 LF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0018	0345000000-E	310	24" SIDE DRAIN PIPE	28 LF		
0019	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	4,485 LF		
0020	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	1,128 LF		
0021	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	1,832 LF		
0022	0448500000-E	310	30" RC PIPE CULVERTS, CLASS IV	48 LF		
0023	0448600000-E	310	36" RC PIPE CULVERTS, CLASS IV	224 LF		
0024	0995000000-E	340	PIPE REMOVAL	1,764 LF		
0025	1004500000-E	505	GENERIC GRADING ITEM GEOTEXTILE FOR SUBGRADE STABILIZATION	1,250 SY		
0026	1099500000-E	505	SHALLOW UNDERCUT	350 CY		
0027	1099700000-E	505	CLASS IV SUBGRADE STABILIZATION	700 TON		
0028	1121000000-E	520	AGGREGATE BASE COURSE	1,250 TON		
0029	1220000000-E	545	INCIDENTAL STONE BASE	1,000 TON		
0030	1275000000-E	600	PRIME COAT	1,250 GAL		
0031	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (1-1/2")	8,000 SY		
0032	1330000000-E	607	INCIDENTAL MILLING	11,000 SY		
0033	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	8,700 TON		
0034	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	8,500 TON		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0035	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	11,000 TON		
0036	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	1,515 TON		
0037	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	1,700 TON		
0038	2022000000-E	815	SUBDRAIN EXCAVATION	79.7 CY		
0039	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	356 SY		
0040	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	59.8 CY		
0041	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	350 LF		
0042	2070000000-N	815	SUBDRAIN PIPE OUTLET	1 EA		
0043	2077000000-E	815	6" OUTLET PIPE	6 LF		
0044	2190000000-N	828	TEMPORARY STEEL PLATE COVERS FOR MASONRY DRAINAGE STRUCTURE	7 EA		
0045	2253000000-E	840	PIPE COLLARS	5.38 CY		
0046	2275000000-E	SP	FLOWABLE FILL	71 CY		
0047	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	153 EA		
0048	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	147 LF		
0049	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	18 EA		
0050	2366000000-N	840	FRAME WITH TWO GRATES, STD 840.24	7 EA		
0051	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	1 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0052	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	13 EA		
0053	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	46 EA		
0054	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	45 EA		
0055	2396000000-N	840	FRAME WITH COVER, STD 840.54	33 EA		
0056	2440000000-N	852	CONCRETE TRANSITIONAL SECTION FOR CATCH BASIN	1 EA		
0057	2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	11 EA		
0058	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	1,160 LF		
0059	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	13,760 LF		
0060	2580000000-E	846	CONCRETE VALLEY GUTTER	390 LF		
0061	2591000000-E	848	4" CONCRETE SIDEWALK	5,700 SY		
0062	2605000000-N	848	CONCRETE CURB RAMPS	90 EA		
0063	2612000000-E	848	6" CONCRETE DRIVEWAY	980 SY		
0064	2619000000-E	850	4" CONCRETE PAVED DITCH	170 SY		
0065	2655000000-E	852	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	3,300 SY		
0066	2724000000-E	857	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	240 LF		
0067	2738100000-E	SP	GENERIC PAVING ITEM BRICK SIDEWALK	1,170 SF		
0068	2752000000-E	SP	GENERIC PAVING ITEM GRANITE CURB	570 LF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0069	2800000000-N	858	ADJUSTMENT OF CATCH BASINS	3 EA		
0070	2815000000-N	858	ADJUSTMENT OF DROP INLETS	2 EA		
0071	2830000000-N	858	ADJUSTMENT OF MANHOLES	2 EA		
0072	2893000000-N	859	CONVERT EXISTING CATCH BASIN TO JUNCTION BOX WITH MANHOLE	4 EA		
0073	2905000000-N	859	CONVERT EXISTING DROP INLET TO JUNCTION BOX	3 EA		
0074	3001000000-N	SP	IMPACT ATTENUATOR UNITS, TYPE TL-3	2 EA		
0075	3030000000-E	862	STEEL BEAM GUARDRAIL	1,700 LF		
0076	3045000000-E	862	STEEL BEAM GUARDRAIL, SHOP CURVED	155 LF		
0077	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	10 EA		
0078	3180000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE ***** (III, SHOP CURVED)	1 EA		
0079	3195000000-N	862	GUARDRAIL END UNITS, TYPE AT-1	1 EA		
0080	3210000000-N	862	GUARDRAIL END UNITS, TYPE CAT-1	2 EA		
0081	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE III	4 EA		
0082	3288000000-N	SP	GUARDRAIL END UNITS, TYPE TL-2	11 EA		
0083	3317000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE B-77	4 EA		
0084	3360000000-E	863	REMOVE EXISTING GUARDRAIL	1,400 LF		
0085	3533000000-E	866	CHAIN LINK FENCE, *** FABRIC (72")	410 LF		



County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0086	3539000000-E	866	METAL LINE POSTS FOR *** CHAIN LINK FENCE (72")	42 EA		
0087	3545000000-E	866	METAL TERMINAL POSTS FOR *** CHAIN LINK FENCE (72")	52 EA		
0088	3551000000-E	866	METAL GATE POSTS FOR *** CHAIN LINK FENCE, SINGLE GATE (72")	4 EA		
0089	3564000000-E	866	SINGLE GATES, *** HIGH, *** WIDE, *** OPENING (72"-8')	2 EA		
0090	3569000000-E	867	BARBED WIRE FENCE RESET	80 LF		
0091	3575000000-E	SP	GENERIC FENCING ITEM PEDESTRIAN SAFETY RAIL	1,180 LF		
0092	3628000000-E	876	RIP RAP, CLASS I	140 TON		
0093	3649000000-E	876	RIP RAP, CLASS B	5 TON		
0094	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	9,465 SY		
0095	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	1,593 LF		
0096	4096000000-N	904	SIGN ERECTION, TYPE D	12 EA		
0097	4102000000-N	904	SIGN ERECTION, TYPE E	83 EA		
0098	4108000000-N	904	SIGN ERECTION, TYPE F	14 EA		
0099	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	85 EA		
0100	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	308 SF		
0101	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	1,252 SF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0102	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	613 SF		
0103	4415000000-N	1115	FLASHING ARROW BOARD	2 EA		
0104	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	2 EA		
0105	4430000000-N	1130	DRUMS	500 EA		
0106	4445000000-E	1145	BARRICADES (TYPE III)	336 LF		
0107	4447000000-E	SP	PEDESTRIAN CHANNELIZING DEVICES	50 LF		
0108	4455000000-N	1150	FLAGGER	45 DAY		
0109	4465000000-N	1160	TEMPORARY CRASH CUSHIONS	4 EA		
0110	4470000000-N	1160	REMOVE & RESET TEMPORARY CRASH CUSHION	4 EA		
0111	4480000000-N	1165	TMA	4 EA		
0112	4485000000-E	1170	PORTABLE CONCRETE BARRIER	650 LF		
0113	4490000000-E	1170	PORTABLE CONCRETE BARRIER (ANCHORED)	750 LF		
0114	4500000000-E	1170	REMOVE AND RESET PORTABLE CONCRETE BARRIER	650 LF		
0115	4505000000-E	1170	REMOVE & RESET PORTABLE CONCRETE BARRIER (ANCHORED)	750 LF		
0116	4510000000-N	1190	LAW ENFORCEMENT	80 HR		
0117	4516000000-N	1180	SKINNY DRUM	100 EA		
0118	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM AUDIBLE WARNING DEVICES	15 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0119	4600000000-N	SP	GENERIC TRAFFIC CONTROL ITEM PEDESTRIAN TRANSPORT SERVICE (PER TRIP)	1,000 EA		
0120	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	200 EA		
0121	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	14,890 LF		
0122	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	3,200 LF		
0123	4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	1,270 LF		
0124	4709000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	1,185 LF		
0125	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	155 EA		
0126	4726100000-E	1205	HEATED-IN-PLACE THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	26 EA		
0127	4726110000-E	1205	HEATED-IN-PLACE THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	1 EA		
0128	4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (III)	300 LF		
0129	4795000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (24") (III)	620 LF		
0130	4805000000-N	1205	COLD APPLIED PLASTIC PAVEMENT MARKING SYMBOL, TYPE ** (III)	16 EA		
0131	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	55,826 LF		
0132	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	1,475 LF		
0133	4825000000-E	1205	PAINT PAVEMENT MARKING LINES (12")	400 LF		
0134	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	3,850 LF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0135	4840000000-N	1205	PAINT PAVEMENT MARKING CHARACTER	10 EA		
0136	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	217 EA		
0137	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	37,375 LF		
0138	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24")	500 LF		
0139	4875000000-N	1205	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	70 EA		
0140	4905100000-N	SP	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	530 EA		
0141	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0142	5325200000-E	1510	2" WATER LINE	948 LF		
0143	5325400000-E	1510	4" WATER LINE	133 LF		
0144	5325600000-E	1510	6" WATER LINE	1,747 LF		
0145	5325800000-E	1510	8" WATER LINE	8 LF		
0146	5326000000-E	1510	10" WATER LINE	3,576 LF		
0147	5326200000-E	1510	12" WATER LINE	2,750 LF		
0148	5326600000-E	1510	16" WATER LINE	491 LF		
0149	5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	30,660 LB		
0150	5536000000-E	1515	2" VALVE	3 EA		
0151	5538000000-E	1515	4" VALVE	2 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0152	5540000000-E	1515	6" VALVE	15 EA		
0153	5546000000-E	1515	8" VALVE	1 EA		
0154	5552000000-E	1515	10" VALVE	7 EA		
0155	5558000000-E	1515	12" VALVE	18 EA		
0156	5648000000-N	1515	RELOCATE WATER METER	38 EA		
0157	5649000000-N	1515	RECONNECT WATER METER	19 EA		
0158	5656100000-E	1515	RELOCATE *** RPZ BACKFLOW PREVENTION ASSEMBLY (1")	2 EA		
0159	5656210000-E	1515	RELOCATE 2" RPZ BACKFLOW PREVENTION ASSEMBLY	2 EA		
0160	5672000000-N	1515	RELOCATE FIRE HYDRANT	5 EA		
0161	5673000000-E	1515	FIRE HYDRANT LEG	36 LF		
0162	5686000000-E	1515	*** WATER SERVICE LINE (2")	124 LF		
0163	5686500000-E	1515	WATER SERVICE LINE	1,127 LF		
0164	5691000000-E	1520	*** SANITARY GRAVITY SEWER (14")	86 LF		
0165	5691100000-E	1520	4" SANITARY GRAVITY SEWER	60 LF		
0166	5691300000-E	1520	8" SANITARY GRAVITY SEWER	1,707 LF		
0167	5691400000-E	1520	10" SANITARY GRAVITY SEWER	713 LF		
0168	5691500000-E	1520	12" SANITARY GRAVITY SEWER	241 LF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0169	5691700000-E	1520	18" SANITARY GRAVITY SEWER	227 LF		
0170	5692000000-E	1520	30" SANITARY GRAVITY SEWER	280 LF		
0171	5768000000-N	1520	SANITARY SEWER CLEAN-OUT	14 EA		
0172	5768500000-E	1520	SEWER SERVICE LINE	530 LF		
0173	5775000000-E	1525	4' DIA UTILITY MANHOLE	30 EA		
0174	5776000000-E	1525	5' DIA UTILITY MANHOLE	8 EA		
0175	5777000000-E	1525	6' DIA UTILITY MANHOLE	2 EA		
0176	5781000000-E	1525	UTILITY MANHOLE WALL 4' DIA	212 LF		
0177	5782000000-E	1525	UTILITY MANHOLE WALL 5' DIA	50 LF		
0178	5783000000-E	1525	UTILITY MANHOLE WALL 6' DIA	9 LF		
0179	5798000000-E	1530	ABANDON **** UTILITY PIPE (4")	333 LF		
0180	5800000000-E	1530	ABANDON 6" UTILITY PIPE	2,368 LF		
0181	5801000000-E	1530	ABANDON 8" UTILITY PIPE	1,823 LF		
0182	5802000000-E	1530	ABANDON 10" UTILITY PIPE	4,076 LF		
0183	5804000000-E	1530	ABANDON 12" UTILITY PIPE	2,500 LF		
0184	5811000000-E	1530	ABANDON 18" UTILITY PIPE	210 LF		
0185	5814000000-E	1530	ABANDON 30" UTILITY PIPE	170 LF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0186	5816000000-N	1530	ABANDON UTILITY MANHOLE	19 EA		
0187	5835000000-E	1540	*** ENCASEMENT PIPE (48")	80 LF		
0188	5835600000-E	1540	12" ENCASEMENT PIPE	226 LF		
0189	5836000000-E	1540	24" ENCASEMENT PIPE	204 LF		
0190	5872500000-E	1550	BORE AND JACK OF *** (12")	226 LF		
0191	5872500000-E	1550	BORE AND JACK OF *** (24")	204 LF		
0192	5872500000-E	1550	BORE AND JACK OF *** (48")	80 LF		
0193	5872600000-E	1550	DIRECTIONAL DRILLING OF *** (16")	491 LF		
0194	5882000000-N	SP	GENERIC UTILITY ITEM 4" FLEXIBLE COUPLING	2 EA		
0195	5882000000-N	SP	GENERIC UTILITY ITEM 8" FLEXIBLE COUPLING	4 EA		
0196	5882000000-N	SP	GENERIC UTILITY ITEM 8" x 6" FLEXIBLE COUPLING	1 EA		
0197	5888000000-E	SP	GENERIC UTILITY ITEM 2" RIGID PVC CONDUIT, SCH 40 - HEAVY WALL	6,560 LF		
0198	5888000000-E	SP	GENERIC UTILITY ITEM 4" RIGID PVC CONDUIT, SCH 40 - HEAVY WALL	7,247 LF		
0199	5888000000-E	SP	GENERIC UTILITY ITEM 6" RIGID PVC CONDUIT, SCH 40 - HEAVY WALL	2,190 LF		
0200	5912000000-N	SP	GENERIC UTILITY ITEM 9'-4" PVC CONDUIT HANGER SYSTEM RAILROAD BRIDGE	Lump Sum	L.S.	
0201	5912000000-N	SP	GENERIC UTILITY ITEM 9'-4" PVC CONDUIT HANGER SYSTEM RICHLAND CREEK BRIDGE	Lump Sum	L.S.	

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0202	5918000000-N	SP	GENERIC UTILITY ITEM UTILITIES COORDINATION	10,500 HR		
0203	6000000000-E	1605	TEMPORARY SILT FENCE	15,000 LF		
0204	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	2,000 TON		
0205	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	550 TON		
0206	6012000000-E	1610	SEDIMENT CONTROL STONE	2,600 TON		
0207	6015000000-E	1615	TEMPORARY MULCHING	9 ACR		
0208	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	500 LB		
0209	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEEDING	4.5 TON		
0210	6024000000-E	1622	TEMPORARY SLOPE DRAINS	200 LF		
0211	6029000000-E	SP	SAFETY FENCE	1,600 LF		
0212	6030000000-E	1630	SILT EXCAVATION	2,250 CY		
0213	6036000000-E	1631	MATTING FOR EROSION CONTROL	21,500 SY		
0214	6037000000-E	SP	COIR FIBER MAT	100 SY		
0215	6042000000-E	1632	1/4" HARDWARE CLOTH	3,050 LF		
0216	6048000000-E	SP	FLOATING TURBIDITY CURTAIN	250 SY		
0217	6070000000-N	1639	SPECIAL STILLING BASINS	50 EA		
0218	6071012000-E	SP	COIR FIBER WATTLE	975 LF		



County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0219	6071020000-E	SP	POLYACRYLAMIDE (PAM)	200 LB		
0220	6071030000-E	1640	COIR FIBER BAFFLE	775 LF		
0221	6071050000-E	SP	*** SKIMMER (1-1/2")	2 EA		
0222	6084000000-E	1660	SEEDING & MULCHING	9 ACR		
0223	6087000000-E	1660	MOWING	4 ACR		
0224	6090000000-E	1661	SEED FOR REPAIR SEEDING	100 LB		
0225	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25 TON		
0226	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	175 LB		
0227	6108000000-E	1665	FERTILIZER TOPDRESSING	5 TON		
0228	6114500000-N	1667	SPECIALIZED HAND MOWING	10 MHR		
0229	6114800000-N	SP	MANUAL LITTER REMOVAL	5 MHR		
0230	6114900000-E	SP	LITTER DISPOSAL	2 TON		
0231	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	100 EA		
0232	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	30 EA		
0233	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE	330 EA		
0234	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE CLEANOUT	700 EA		
0235	6890000000-E	SP	CONCRETE STEPS	3 CY		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0236	7048500000-E	1705	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION W/COUNTDOWN)	40 EA		
0237	7060000000-E	1705	SIGNAL CABLE	28,000 LF		
0238	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	146 EA		
0239	7132000000-E	1705	VEHICLE SIGNAL HEAD (12", 4 SECTION)	30 EA		
0240	7144000000-E	1705	VEHICLE SIGNAL HEAD (12", 5 SECTION)	12 EA		
0241	7229000000-N	SP	APS DETECTOR STATION	40 EA		
0242	7230000000-N	SP	CENTRAL CONTROL UNIT APS DETECTOR STATION	8 EA		
0243	7252000000-E	1710	MESSENGER CABLE (1/4")	3,700 LF		
0244	7264000000-E	1710	MESSENGER CABLE (3/8")	3,700 LF		
0245	7279000000-E	1715	TRACER WIRE	5,900 LF		
0246	7300000000-E	1715	UNPAVED TRENCHING (*****) (1, 2")	3,300 LF		
0247	7300000000-E	1715	UNPAVED TRENCHING (*****) (2, 2")	3,500 LF		
0248	7301000000-E	1715	DIRECTIONAL DRILL (*****) (2, 2")	3,400 LF		
0249	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	83 EA		
0250	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	19 EA		
0251	7360000000-N	1720	WOOD POLE	55 EA		
0252	7372000000-N	1721	GUY ASSEMBLY	77 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0253	7420000000-E	1722	2" RISER WITH WEATHERHEAD	8 EA		
0254	7444000000-E	1725	INDUCTIVE LOOP SAWCUT	9,100 LF		
0255	7456000000-E	1726	LEAD-IN CABLE (***** (14-2)	31,000 LF		
0256	7516000000-E	1730	COMMUNICATIONS CABLE (** FIBER) (24)	7,000 LF		
0257	7528000000-E	1730	DROP CABLE	1,800 LF		
0258	7540000000-N	1731	SPLICE ENCLOSURE	9 EA		
0259	7552000000-N	1731	INTERCONNECT CENTER	9 EA		
0260	7566000000-N	1733	DELINEATOR MARKER	19 EA		
0261	7575142010-N	1736	900MHZ SERIAL/ETHERNET SPREAD SPECTRUM RADIO	9 EA		
0262	7588000000-N	SP	METAL POLE WITH SINGLE MAST ARM	10 EA		
0263	7590000000-N	SP	METAL POLE WITH DUAL MAST ARM	11 EA		
0264	7613000000-N	SP	SOIL TEST	21 EA		
0265	7614100000-E	SP	DRILLED PIER FOUNDATION	126 CY		
0266	7631000000-N	SP	MAST ARM WITH METAL POLE DESIGN	21 EA		
0267	7636000000-N	1745	SIGN FOR SIGNALS	42 EA		
0268	7642200000-N	1743	TYPE II PEDESTAL WITH FOUNDATION	40 EA		
0269	7684000000-N	1750	SIGNAL CABINET FOUNDATION	8 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0270	7696000000-N	1751	CONTROLLERS WITH CABINET (***** (2070L, BASE MOUNTED)	8 EA		
0271	7780000000-N	1751	DETECTOR CARD (TYPE 2070L)	107 EA		
0272	7901010000-N	1753	CABINET BASE ADAPTER	8 EA		
0273	7960000000-N	SP	METAL POLE FOUNDATION REMOVAL	6 EA		
0274	7972000000-N	SP	METAL POLE REMOVAL	6 EA		
0275	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV WOOD POLE	1 EA		
0276	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL CCTV CAMERA ASSEMBLY	1 EA		
0277	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	9 EA		
0278	7980000000-N	SP	GENERIC SIGNAL ITEM MICROWAVE VEHICLE DETECTION SYSTEM - MULTIPLE ZONES	10 EA		
0279	7980000000-N	SP	GENERIC SIGNAL ITEM PROTECTIVE COATING FOR DUAL MAST ARM POLE (BLACK)	11 EA		
0280	7980000000-N	SP	GENERIC SIGNAL ITEM PROTECTIVE COATING FOR SIGNAL PEDESTAL (BLACK)	40 EA		
0281	7980000000-N	SP	GENERIC SIGNAL ITEM PROTECTIVE COATING FOR SINGLE MAST ARM POLE (BLACK)	10 EA		
<b>WALL ITEMS</b>						
0282	8802010000-E	SP	SOIL NAIL RETAINING WALLS	1,847 SF		
0283	8802015100-N	SP	SOIL NAIL VERIFICATION TESTS	1 EA		
0284	8802015110-N	SP	SOIL NAIL PROOF TESTS	10 EA		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0285	8802030000-E	454	SEGMENTAL GRAVITY RETAINING WALLS	2,203 SF		
0317	8802031000-E	455	PRECAST GRAVITY RETAINING WALLS	1,843 SF		
<b>STRUCTURE ITEMS</b>						
0286	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (24+64.13 -L-)	Lump Sum	L.S.	
0287	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (31+45.00 -L-)	Lump Sum	L.S.	
0288	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0289	8096000000-E	450	PILE EXCAVATION IN SOIL	252 LF		
0290	8097000000-E	450	PILE EXCAVATION NOT IN SOIL	84 LF		
0291	8105540000-E	411	3'-6" DIA DRILLED PIERS IN SOIL	667.3 LF		
0292	8105640000-E	411	3'-6" DIA DRILLED PIERS NOT IN SOIL	364 LF		
0293	8111400000-E	411	PERMANENT STEEL CASING FOR 3'-6" DIA DRILLED PIER	424.4 LF		
0294	8113000000-N	411	SID INSPECTIONS	1 EA		
0295	8115000000-N	411	CSL TESTING	3 EA		
0296	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVATION AT STATION ***** (24+64.13 -L-)	Lump Sum	L.S.	
0297	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVATION AT STATION ***** (31+45.00 -L-)	Lump Sum	L.S.	
0298	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	31,927 SF		
0299	8161000000-E	420	GROOVING BRIDGE FLOORS	28,559 SF		

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0300	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	540 CY		
0301	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (24+64.13 -L-)	Lump Sum	L.S.	
0302	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (31+45.00 -L-)	Lump Sum	L.S.	
0303	8217000000-E	425	REINFORCING STEEL (BRIDGE)	137,264 LB		
0304	8238000000-E	425	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	28,713 LB		
0305	8262000000-E	430	45" PRESTRESSED CONCRETE GIRDERS	3,354.13 LF		
0306	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 12 X 53)	27 EA		
0307	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 14 X 73)	20 EA		
0308	8364000000-E	450	HP 12 X 53 STEEL PILES	1,185 LF		
0309	8384000000-E	450	HP 14 X 73 STEEL PILES	875 LF		
0310	8482000000-E	460	THREE BAR METAL RAIL	679.94 LF		
0311	8524000000-E	SP	*** CHAIN LINK FENCE (104")	120 LF		
0312	8531000000-E	462	4" SLOPE PROTECTION	1,120 SY		
0313	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	210 TON		
0314	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	235 SY		
0315	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	

County: HAYWOOD

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0316	8860000000-N	SP	GENERIC STRUCTURE ITEM STRIP SEAL EXPANSION JOINTS	Lump Sum	L.S.	

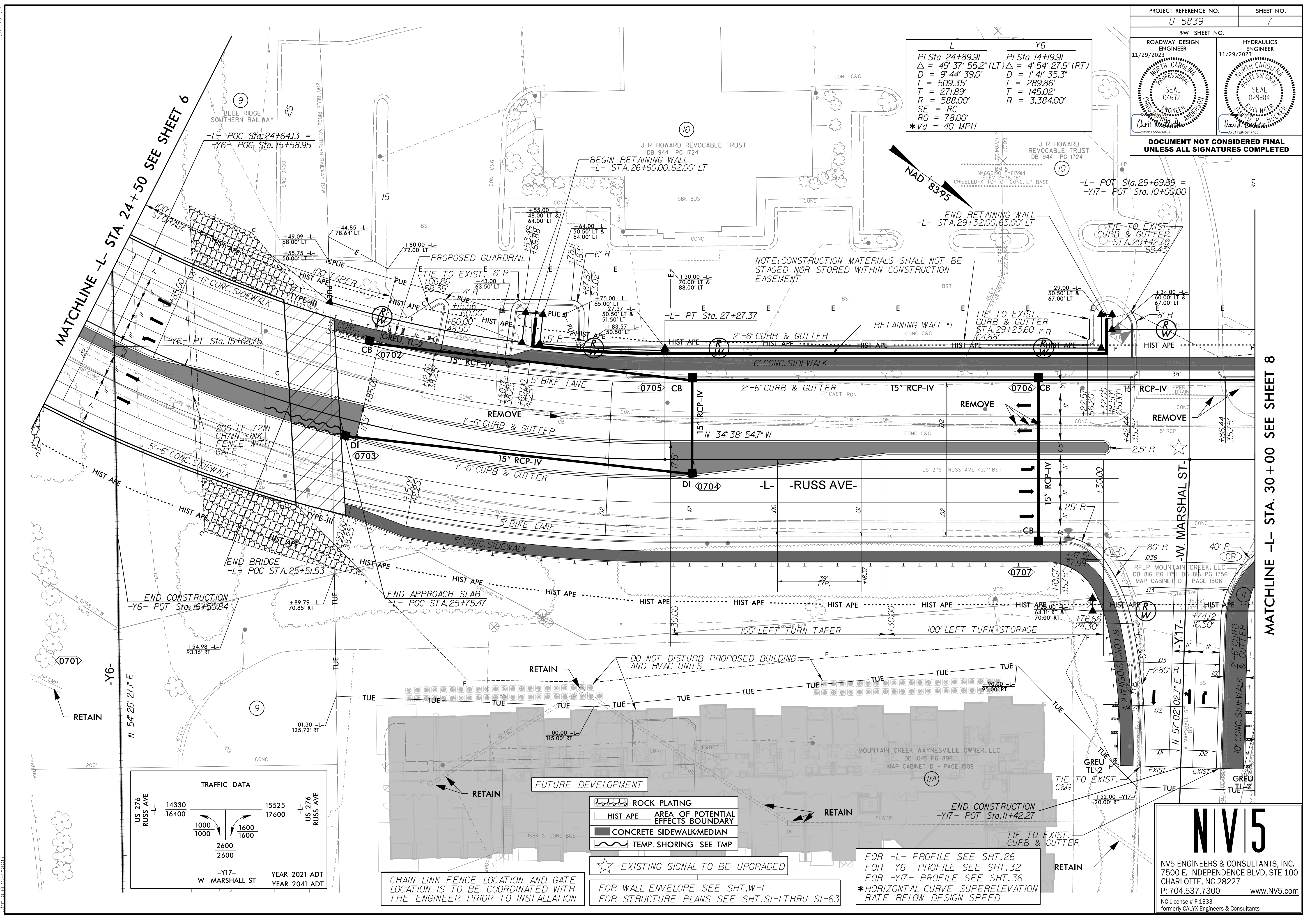
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Total Amount Of Bid For Entire Project :



PROJECT REFERENCE NO. <b>U-5839</b>	SHEET NO. <b>7</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 11/29/2023	HYDRAULICS ENGINEER 11/29/2023
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

-L-	-Y6-
PI Sta 24+89.91	PI Sta 14+19.91
$\Delta = 49^{\circ} 37' 55.2''$ (LT)	$\Delta = 4^{\circ} 54' 27.9''$ (RT)
D = 9' 44' 39.0"	D = 1' 41' 35.3"
L = 509.35'	L = 289.86'
T = 271.89'	T = 145.02'
R = 588.00'	R = 3,384.00'
SE = RC	
RO = 78.00'	
*Vd = 40 MPH	



TRAFFIC DATA			
US 276 RUSS AVE	14330	15525	US 276 RUSS AVE
-L-	16400	17600	-L-
	1000	1600	
	1000	1600	
	2600	2600	
	2600	2600	
-Y17- W MARSHALL ST			
YEAR 2021 ADT		YEAR 2041 ADT	

CHAIN LINK FENCE LOCATION AND GATE LOCATION IS TO BE COORDINATED WITH THE ENGINEER PRIOR TO INSTALLATION

FOR WALL ENVELOPE SEE SHT. W-1  
FOR STRUCTURE PLANS SEE SHT. SI-1 THRU SI-63

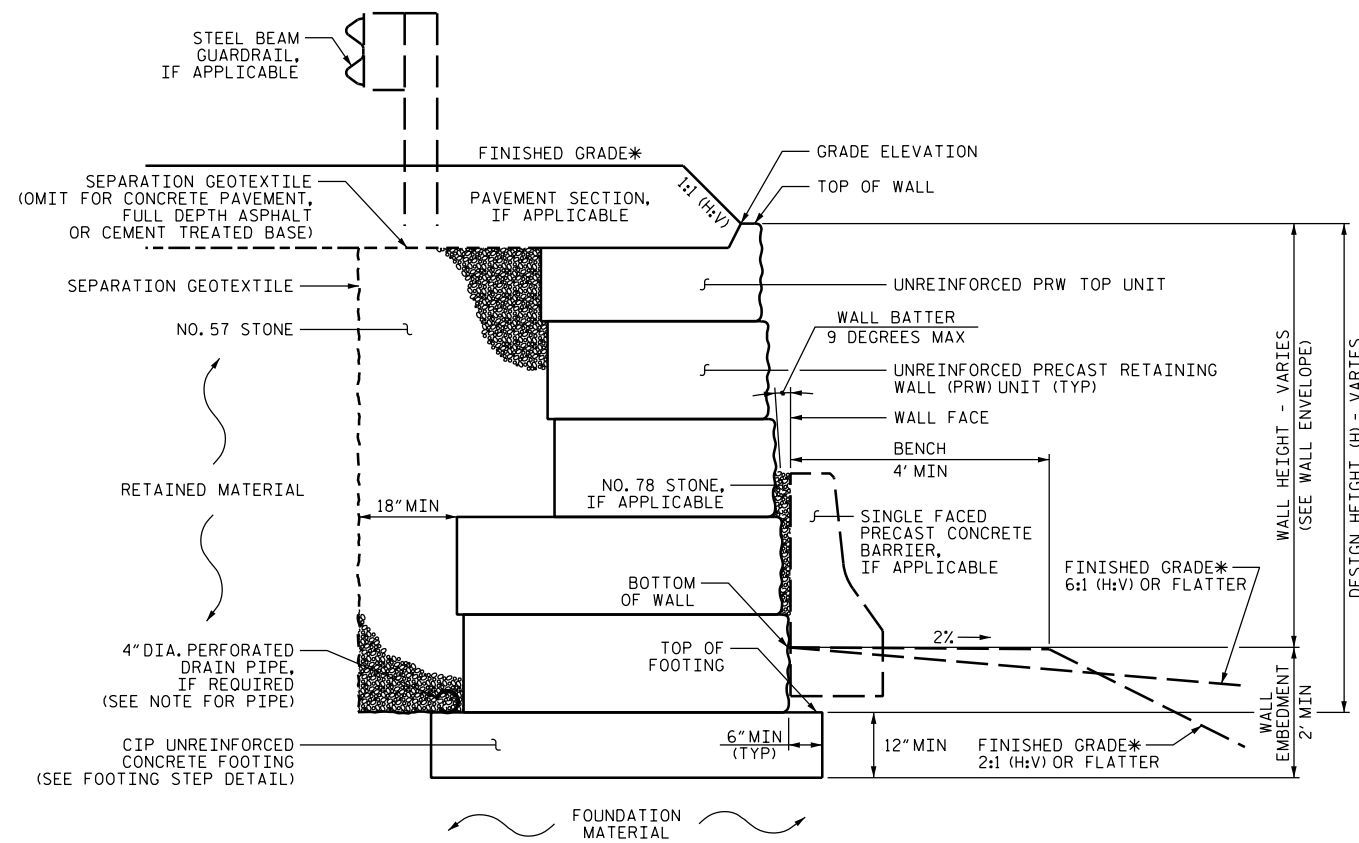
FOR -L- PROFILE SEE SHT. 26  
FOR -Y6- PROFILE SEE SHT. 32  
FOR -Y17- PROFILE SEE SHT. 36  
\*HORIZONTAL CURVE SUPERELEVATION RATE BELOW DESIGN SPEED

**NV5**

NV5 ENGINEERS & CONSULTANTS, INC.  
7500 E. INDEPENDENCE BLVD, STE 100  
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P: 704.537.7300 www.NV5.com

NC License # F-1333  
formerly CALYX Engineers & Consultants





**PRECAST GRAVITY WALL WITH TOP PRW UNIT - TYPICAL SECTION**

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

**NOTES:**

- FOR PRECAST GRAVITY RETAINING WALLS, SEE SECTION 455 OF THE STANDARD SPECIFICATIONS.
- FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.
- SEE SHEET 2C-8 OF THE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS. SUBMIT THE HANDRAIL ATTACHMENT DETAILS WITH THE DESIGN PACKAGE FOR REVIEW.
- A DRAIN PIPE IS NOT REQUIRED FOR RETAINING WALL NO. 1.
- BEFORE BEGINNING PRECAST GRAVITY WALL DESIGN FOR RETAINING WALL NO. 1, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
- DESIGN RETAINING WALL NO. 1 FOR DESIGN HEIGHTS EQUAL TO THE WALL HEIGHT PLUS DEPTH TO TOP OF FOOTING (DIFFERENCE BETWEEN GRADE ELEVATION AND TOP OF FOOTING ELEVATION).
- DESIGN RETAINING WALL NO. 1 FOR THE FOLLOWING:
  - 1) MAXIMUM FACTORED VERTICAL PRESSURE ON FOUNDATION MATERIAL = 1,500 PSF
  - 2) MINIMUM WALL EMBEDMENT DEPTH = 2 FT
  - 3) IN-SITU ASSUMED MATERIAL PARAMETERS:

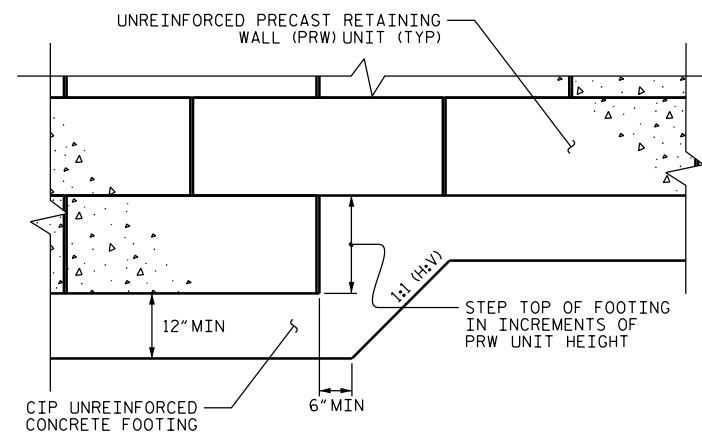
MATERIAL TYPE	UNIT WEIGHT (γ) PCF	FRICTION ANGLE (φ) DEGREES	COHESION (c) PSF
RETAINED	115	31	0
FOUNDATION	120	30	0

DESIGN RETAINING WALL NO. 1 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

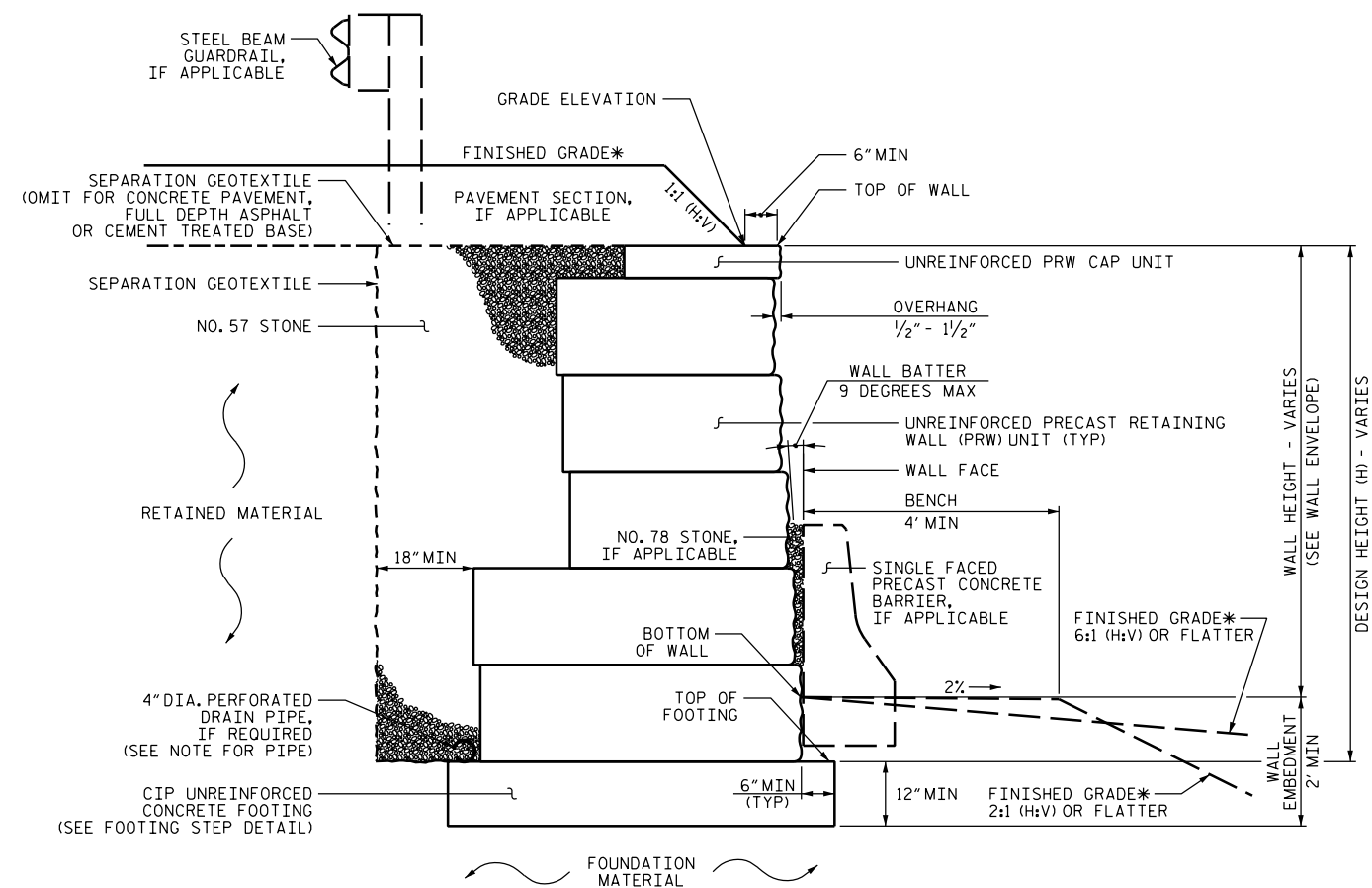
DO NOT PLACE CONCRETE FOR FOOTINGS FOR RETAINING WALL NO. 1 UNTIL EXCAVATION DIMENSIONS AND FOUNDATION MATERIAL ARE APPROVED.

"TEMPORARY SHORING" MAY BE REQUIRED FOR RETAINING WALL NO. 1 IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISION. SEE TRAFFIC CONTROL PLANS.

AT THE CONTRACTOR'S OPTION, "TEMPORARY SHORING FOR WALL CONSTRUCTION" MAY BE USED TO CONSTRUCT RETAINING WALL NO. 1. SEE PRECAST GRAVITY RETAINING WALLS PROVISION FOR TEMPORARY SHORING FOR WALL CONSTRUCTION.



**FOOTING STEP DETAIL**



**PRECAST GRAVITY WALL WITH CAP PRW UNIT - TYPICAL SECTION**

\*SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

GEOTECHNICAL ENGINEER  F29CA6BB8B440F 11/27/2023	ENGINEER _____ SIGNATURE DATE
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

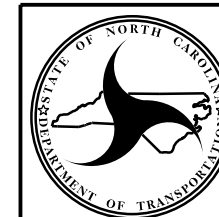
PRECAST GRAVITY WALL QUANTITY	
RETAINING WALL NO.	TOTAL QUANTITY (SQUARE FEET)
1	1843

PROJECT NO.: U-5839  
 HAYWOOD COUNTY  
 STATION: 26+60 -L-

PREPARED BY: J. DAILY DATE: 11/27/23  
 REVIEWED BY: K. HILL DATE: 11/27/23



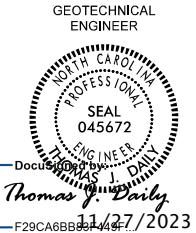
9751 SOUTHERN PINE BLVD  
 CHARLOTTE, NC 28273  
 (704) 523-4726

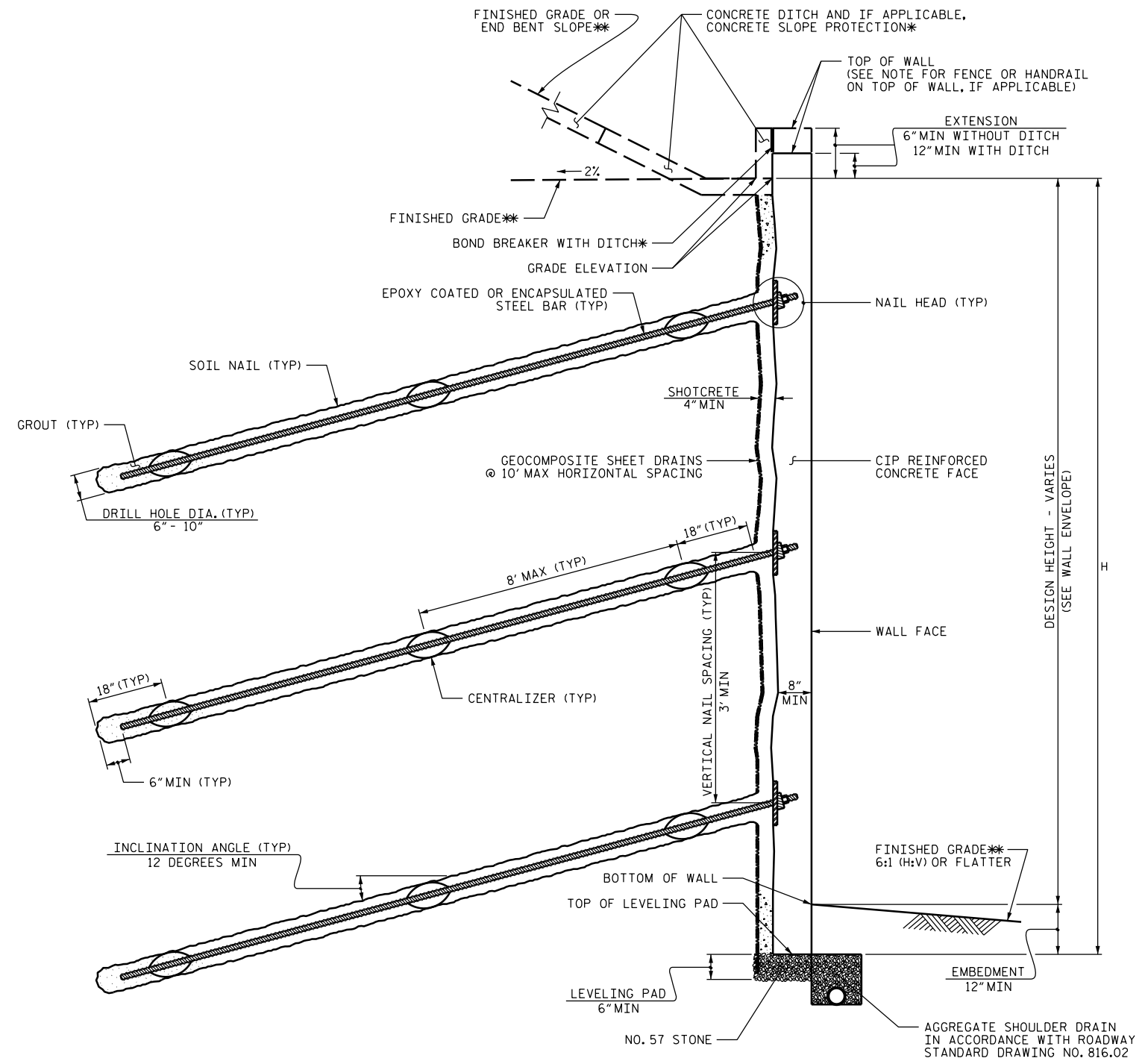


NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**GEOTECHNICAL ENGINEERING UNIT**

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			W-9
2			4			

RETAINING WALL NO. 1  
 PRECAST GRAVITY WALL  
 WITHOUT BACK SLOPE

GEOTECHNICAL ENGINEER  Thomas J. Daily F29CA6BB8444 1/27/2023	ENGINEER     SIGNATURE _____ DATE _____
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**NOTES:**

- FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.
- FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.
- SEE SHEET 2C-8 OF THE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS. SUBMIT THE HANDRAIL ATTACHMENT DETAILS WITH THE DESIGN PACKAGE FOR REVIEW.
- A SIMULATED STONE FORM LINER FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 4.
- BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. 4, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
- DESIGN RETAINING WALL NO. 4 FOR THE FOLLOWING:
  - 1) H = DESIGN HEIGHT + EMBEDMENT
  - 2) DESIGN LIFE = 100 YEARS
  - 3) MINIMUM EMBEDMENT ELEVATION = 2666.4 FT
  - 4) IN-SITU ASSUMED MATERIAL PARAMETERS:
    - UNIT WEIGHT,  $\gamma = 110$  PCF
    - FRICTION ANGLE,  $\phi = 26$  DEGREES
    - COHESION,  $c = 100$  PSF
- DESIGN RETAINING WALL NO. 4 FOR A LIVE LOAD (TRAFFIC) SURCHARGE.
- EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL NO. 4.

ESTIMATED SOIL NAIL WALL QUANTITY			
RETAINING WALL NO.	TOTAL QUANTITY (SQUARE FEET)	SOIL NAIL VERIFICATION TEST	SOIL NAIL PROOF TEST
4	1847	1	10

**SOIL NAIL WALL - TYPICAL SECTION**

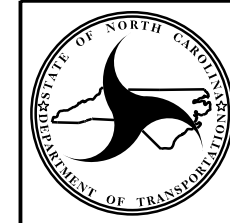
\*SEE CONCRETE DITCH BEHIND WALL DETAILS.  
 \*\*SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.

PROJECT NO.: U-5839  
 HAYWOOD COUNTY  
 STATION: 47+00 -L-

PREPARED BY: J. DAILY	DATE: 5/18/23
REVIEWED BY: K. HILL	DATE: 5/18/23



9751 SOUTHERN PINE BLVD  
 CHARLOTTE, NC 28273  
 (704) 523-4726



**NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS**

**GEOTECHNICAL  
 ENGINEERING UNIT**

REVISIONS						SHEET NO. W-11
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

**RETAINING WALL NO. 4  
 TYPICAL SECTION**