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COMPUTED BY: SGM DATE: 6/27/2019
CHECKED BY: JLT DATE:7/1/2019

PROJECT NO.	SHEET NO.
17BP.14.R.205	3B-1

STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 14+00.00	-L- 18+00.00	529	804	275	
TOTALS:		529	804	275	0
WASTE IN LIEU OF BORROW					
PROJECT TOTALS:		529	804	275	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				14	
GRAND TOTALS:		529	804	289	
SAY:		590		320	

Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for grading.

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	14+65	16+91	LT	220.79			
-L-	16+27	16+75	CL	82.37			
			TOTAL:	303.16			
			SAY:	310			

EST. DDE = 175 CUBIC YARDS

UNDERCUT = EST. 450 CY
SELECT GRANULAR MATERIAL: EST. 400 CY
GEOTEXTILE FOR SOIL STABILIZATION: EST. 900 SY
CLASS IV SUBGRADE STABILIZATION: EST. 200 TONS
SHALLOW UNDERCUT: EST. 100 CY
GEOTEXTILE FOR PAVEMENT STABILIZATION: EST. 500 SY

"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

GUARDRAIL SUMMARY

IN FEET

LINE	BEG. STA.	END STA.	LOC.	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPR. END	WARRANT POINT TRAIL. END	"N" DIST. FROM E.O.L.	TOTAL SHLDR WIDTH	FLAIR LENGTH APPR. END	FLAIR LENGTH TRAIL. END	W APPR. END	W TRAIL. END	ANCHORS III	ANCHORS GREU TL-2	ANCHORS AT-1	ANCHORS III SC		IMP. ATTEN. TYPE 350 EA	G	NG	REMOVE EXISTING GUARDRAIL	REMOVE & RESET EXISTING GUARDRAIL	REMARKS
-L-	15+68.80	17+50.05	LT	125.00	56.25		16+44.69		4'	7'						1	1								
-L-	14+50.00	17+00.00	RT	250.00			15+83.40	.	4'	7'						2									
		SUB-TOTALS		375.00	56.25											3	1								
	LESS ANCHOR DEDUCTIONS																								
	GREU TL-2	3@25.00 ft		75.00																					
	AT-1	1@6.25 ft			6.25																				
	ANCHOR TOTALS			75.00	6.25																				
		GRAND-TOTALS		300.00	50.00											3	1								
		SAY		312.5	50											3	1								

ADDITIONAL GUARDRAIL POSTS = 5 EA

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

COMPUTED BY: Zachary J. Richard, PE DATE: 10/12/2018
CHECKED BY: David B. Petty DATE: 8/14/2019

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| STATION / SIZE / THICKNESS OR GAUGE | LOCATION (LT, RT, OR CL)' | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | .064 | .064 | .064 | .064 | .079 | .079 | .109 | .109 | R.C. PIPE CLASS III 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS IV 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | *** R.C. PIPE (CLASS V) | **** RC PIPE CULVERTS, CONTRACTOR DESIGN | **** RC PIPE CULVERTS, CONTRACTOR DESIGN | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P. | C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (9' THRU 5.0') | TOTAL L.F. OF BARRIER QUANTITY SHALL BE (2)(5) 'A' + (1).3 X COL.'B') LIN. FT. A 5.0' THRU 10.0' | B 10.0' AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSITIONAL SECTION DROP INLET | CATCH BASIN | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | CONC. COLLARS CL. "B" C.Y. STD. 840.72 | PIPE REMOVAL LIN. FT. | REMARKS |
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