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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
HB-0003	3B-1

SUMMARY OF EARTHWORK IN CUBIC YARDS

BEGIN STATION	END STATION	TOTAL UNCLASS.	UNDERCUT	EMBANK. +%	BORROW	WASTE
PHASE 1 (-L- RT)						
-L- 171+40.00 RT	-L- 190+00.00 RT	22,610		53,884	31,274	
-L- 190+00.00 RT	-L- 208+00.00 RT	10,487		14,012	3,525	
-Y1- 10+00.00	-Y1- 20+00.00	9,536		2		9,534
-TMP-DR1- 10+92.38	-TMP-DR1- 14+94.32	1,087		3		1,084
-DR1- 10+25.00	-DR1- 11+50.00	395		9		386
Stage 1 Culvert Surcharge Placement				18,900	18,900	
Stage 1 Culvert Surcharge Removal		18,900				18,900
	SUBTOTAL:	**63,015**		**86,810**	**53,699**	**29,904**
PHASE 2 (-L- MED)						
-L- 171+40.00 MED	-L- 190+00.00 MED	429		359		70
-L- 190+00.00 MED	-L- 208+00.00 MED	445		181		264
Stage 2 Culvert Surcharge Placement				8,300	8,300	
Stage 2 Culvert Surcharge Removal		8,300				8,300
	SUBTOTAL	**9,174**		**8,840**	**8,300**	**8,634**
PHASE 3 (-L- LT)						
-L- 171+40.00 LT	-L- 190+00.00 LT	7,267		3,027		4,240
-L- 190+00.00 LT	-L- 208+00.00 LT	2,596		1,588		1,008
	SUBTOTAL	**9,863**		**4,615**		**5,248**
	TOTAL	**82,052**		**100,265**	**61,999**	**43,786**
MATERIAL FOR SHOULDER CONSTRUCTION				5,750	5,750	
WASTE IN LIEU OF BORROW					-29,904	-29,904
	PROJECT TOTAL	**82,052**		**106,015**	**37,845**	**13,882**
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					1,893	
	GRAND TOTAL	**82,052**			**39,738**	**13,882**
	SAY	**87,000**			**42,000**	

NOTE: 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.

PAVEMENT STRUCTURE VOLUME = 19,997 CUBIC YARDS
EST. DDE = 800 CUBIC YARDS
EST. SHALLOW UNDERCUT = 100 CUBIC YARDS
EST.SHALLOW UNDERCUT BY STATIONS = 0 CUBIC YARDS
TOTAL SHALLOW UNDERCUT = 100 CUBIC YARDS
CLASS IV SUBGRADE STABILIZATION = 200 TONS
PER GEOTECH RECOMMENDATION, EST. 450 CY OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

SUMMARY OF WOVEN WIRE FENCE. 47" FABRIC

$E = \frac{[A - (8B + 16C + 16D)]}{14} - (C + D + 1)$ F = (2B + 3C + 3D)

SURVEY LINE	BEGIN STATION	END STATION	LT. OR RT.	A FABRIC (LF)	B END BRACE	C CORNER BRACE	D LINE BRACE	E 4" POSTS	F 5" POSTS	G DOUBLE GATE
-L-	174+54.01	188+36.50	RT.	1,415.00	2	4	2	86	22	
-L-	188+84.30	200+72.93	RT.	1,260.00	2	4	3	73	25	
-Y1-	11+90.00	12+40.00	LT. / RT.	267.00	2	4		8	16	
-TMP-DR1-	14+15.00		RT.	16.00	2				4	1
-TMP-DR1-	14+15.00		LT	16.00	2				4	
			TOTAL:	2,974.00				167	71	1
			SAY:	3,000.00				170	75	1

SUMMARY OF REMOVAL EXISTING ASPHALT PAVEMENT

LINE	STATION	STATION	LOCATION	LENGTH (FT) OR AREA (SF)	WIDTH (FT)	AREA (SY)
-L-	171+40	174+00	LT	260.00	11	317.78
-L-	174+00	BEGIN BRIDGE	LT	32587.00		3620.78
-L-	END BRIDGE	204+50	LT	27822.00		3091.33
-L-	204+50	208+00	LT	350.00	10	388.89
-L-	171+40	174+00	RT	260.00	10	288.89
-L-	174+00	BEGIN BRIDGE	RT	13443.00		1493.67
-L-	END BRIDGE	204+50	RT	14329.00		1592.11
-L-	204+50	208+00	RT	350.00	10	388.89
-Y1- & -DR1-	10+00	20+00	LT&RT	29455.00		3272.78
					TOTAL	14,137.33
					SAY	14,500

SUMMARY OF SHOULDER BERM GUTTER

LINE	LOCATION	BEGIN STATION	END STATION	LENGTH (FT)
-L-	LT	175+38.00	178+63.00	325
-L-	LT	202+75.00	204+50.00	175
-L-	RT	183+96.00	194+91.00	1095
-L-	RT	203+75.00	204+50.00	75
			TOTAL	1,670.00
			SAY	1,700.00

SUMMARY OF CONCRETE BARRIER

LINE	BEGIN STATION	END STATION	LOCATION	VARIABLE HEIGHT SINGLE SLOPE CONCRETE BARRIER (2'-7" Max. Bifurcation) (LF)	VARIABLE HEIGHT SINGLE SLOPE CONCRETE BARRIER (2'-7" THRU 6'-0" Bifurcation) (LF)	PRECAST REINFORCED CONCRETE BARRIER (STD 857.01) (FT)	*CONC. BARRIER TRANSITION SECTION (EA)
-L-	175+00.00	204+50.00	MEDIAN	2,950.00			2*
-Y1-	12+68.00	14+42.00	LT			174.00	
-Y1-	12+68.00	14+42.00	RT			174.00	
			TOTAL:	2,950.00		348.00	2
			SAY:	3,000.00		360.00	2

* Transition from Existing Barrier to Single Slope Concrete Barrier, See Detail Sheet 2C-3

SUMMARY OF GUARDRAIL

"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 MASH TL-3
NG = NON-GATING IMPACT ATTENUATOR MASH TL-3

SURVEY LINE	BEGIN STATION	END STATION	LOCATION	LENGTH: STRAIGHT	LENGTH: SHOP CURVED	LENGTH: DOUBLE FACED	WARRANT POINT: APPROACH END	WARRANT POINT: TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHLD. WIDTH	FLARE LENGTH: APPROACH END	FLARE LENGTH: TRAILING END	W: APPROACH END	W: TRAILING END	ANCHORS: Type B-77	ANCHORS: GREU TL-3	ANCHORS: GREU TL-2	ANCHORS: CAT-1	ANCHORS: AT-1	IMPACT ATTENUATOR MASH, TL-3: NO.	PERMITTED: G	PERMITTED: NG	25' CLEAR SPAN GUARDRAIL SECTIONS (STD. 862.01) (SHT 10 OF 15)	REMOVE EXISTING GUARDRAIL	REMOVE & RESET EXISTING GUARDRAIL	REMARKS
L	175+32.00	177+80.00	LT	247.25			177+80.00	175+32.00	14	17								1						1492		
L	177+80.00	182+00.00	LT	420			182+00.00	177+80.00	26	29		420		12												
L	182+00.00	193+89.00	LT	1189			192+39.00	182+00.00	26	29	50		1			1										
L	202+68.00	208+00.00	LT	531.25			208+00.00	202+68.00	14	17	125		2.5					1						525		Tie to Existing Guardrail on Approach End
L	172+40.00	177+05.00	RT	468.75			175+00.00	177+05.00	14	17	50		1			1		1						500		
L	182+15.00	194+97.25	RT	1281.25			182+50.00	194+97.25	14	17	50		1			1		1						489		
L	201+50.00	208+00.00	RT	650			203+00.00	208+00.00	14	17	50	175	1	3.5		1								651		Tie to Existing Guardrail on Trailing End
Y1	12+07.50	12+68.00	LT	60.375			12+68.00	12+68.00	4	7		25		0.5	1		1									
Y1	14+42.00	15+11.00	LT	60.375			14+42.00	14+42.00	4	7	25		0.5		1		1									
Y1	22+08.64	25+50.00	LT	350			24+50.00	23+00.00	4	7	50	50	1	1		2										
Y1	12+07.50	12+68.00	RT	60.375			12+68.00	12+68.00	4	7	25		0.5		1		1									
Y1	14+42.00	16+16.89	RT	185.375			14+42.00	16+16.89	4	7		25		0.5	1		1									
			SUBTOTAL	5504																						
	ANCHOR UNIT DEDUCTIONS																									
	Type	Quantity	Deduction																							
	B-77	4	22.875	91.5																						
	GREU-TL3	6	50	300																						
	GREU-TL2	4	25	100																						
	CAT-1	4	6.25	25																						
			TOTAL	4987.5											4	6	4	4						3657		
			SAY:	5000'							ADDITIONAL GUARDRAIL POSTS: SAY 10 EA				4	6	4	4						3700'		