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COMPUTED BY: SMK DATE: 6-10-14
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PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.122	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. +15%	BORROW	WASTE
PHASE I: DETOUR & DRIVES CONSTRUCTION					
-L- STA. 12+00.00	-L- STA. 14+50	39	821	782	
-DRIVE- STA. 10+34.73	-DRIVE- STA. 11+10	3	36	33	
-DRIVE2- STA. 10+10	-DRIVE2- STA. 11+07.97		320	320	
PHASE II: L CONSTRUCTION					
-L- STA. 10+81	-L- STA. 15+51	32	896	864	
PHASE III: DET. REMOVAL & GRADING					
-L- STA. 12+00	-L- STA. 14+50	595	31		564
SUMMARIES SUBTOTAL:		669	2104	1999	564
5% TO REPLACE TOPSOIL				100	
PROJECT TOTALS:		669	2104	2099	564
GRAND TOTALS:		669	2104	2099	564
SAY:		680		2100	

EST. UNDERCUT = 50 CY (CONTINGENCY)
EST. SELECT GRANULAR MATERIAL = 50 CY (CONTINGENCY)
EST. FABRIC FOR SOIL STABILIZATION = 50 SY (CONTINGENCY)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-L-	11+31.00	13+06.00	CL	343.58
-L-	13+10.00	15+01.00	CL	356.36
			TOTAL:	699.94
			SAY:	700.00

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING ASPHALT PAVEMENT WILL BE PAID OR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING".

LIST OF TEMPORARY PIPES, ENDWALLS, ETC. (FOR PIPES 54" & OVER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 54"	60"	66"	72"	78"	84"	BITUMINOUS COATED C.S. PIPE TYPE B 54" .109	54" .138	54" .168	54" SHOP ELON-GATED .138	54" SHOP ELON-GATED .168	60" .138	60" .168	66" .138	66" .168	72" .138	72" .168	STRUCTURAL PLATE PIPE 60" 12	60" 10	60"	66" 12	66" 10	66"	72" 12	72" 10	REINFORCED ENDWALLS WITH R.C. - C.Y.	REINFORCED ENDWALLS WITH C.S. - C.Y.	MASONARY DRAINAGE STRUCTURES CUBIC YARDS	REINF. CONC. FLARED END SECTIONS NO. & SIZE	CORR. STEEL FLARED END SECTIONS NO. & SIZE	REINF. CONC. ELBOWS NO. & SIZE	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	PIPE REMOVAL LIN.FT.	REMARKS
-LDET- STA. 12+56.00	CL				2397.86		0.5%																																		95"x67" METAL ARCH CULVERT, L =32'

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

"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

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS GREU TL-2	ANCHORS AT-1	IMPACT ATTENUATOR TYPE 350 EA	IMPACT ATTENUATOR TYPE 350 G	IMPACT ATTENUATOR TYPE 350 NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	11+94.37	13+19.37	LT.	125.00'	37.50'		13+11.23 (HEADWALL)	12+80.03 (HEADWALL)	3'	6'		25'		0.5'	1	1							10' RADIUS W-BEAM SHOP CURVED SECTION
-L-	11+87.50	14+00.00	RT.	212.50'			13+18.18 (HEADWALL)	13+50.00	3'	6'	25'	25'	0.5'	0.5'	2								
			SUBTOTAL	337.50'	37.50'																		
			ANCHOR DEDUCTION	75.00'	6.25'																		
			TOTAL	262.50'	31.25'																		
			SAY	275.00'	31.25'																		

ANCHOR DEDUCTION
TYPE GREU TL-2: 3 @ 25' = 75.0'
TYPE AT-1: 1 @ 6.25' = 6.25'
GRAND TOTAL = 81.25'
ADDITIONAL GUARDRAIL POSTS = 5

TEMPORARY GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS GREU TL-2	IMPACT ATTENUATOR TYPE 350 EA	IMPACT ATTENUATOR TYPE 350 G	IMPACT ATTENUATOR TYPE 350 NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-LDET-	12+04.90	13+17.40	RT.	112.50'			12+61.06 (HEADWALL)	12+67.40 (HEADWALL)	1'	3'	25'	25'	0.5'	0.5'	2							
-LDET-	11+93.26	13+05.76	LT.	112.50'			12+50.16 (HEADWALL)	12+43.26 (HEADWALL)	1'	3'	25'	25'	0.5'	0.5'	2							
			SUBTOTAL	225.00'																		
			ANCHOR DEDUCTION	100.00'																		
			TOTAL	125.00'																		
			SAY	137.50'																		

ANCHOR DEDUCTION
TYPE GREU TL-2: 4 @ 25' = 100.0'
GRAND TOTAL = 100.0'
ADDITIONAL GUARDRAIL POSTS = 5

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