COMPUTED BY: R.HUNT DATE: 10/13/14
CHECKED BY: J. PACE DATE: 10/13/14

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
B-5119	3B-1

Kimley»Horn

"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			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL BERM WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE GUARDRAIL	REMOVE AND RESET EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350	M-350	B-77	CAT-1	TEMP CAT-1	BIC	AT-1	EA	G	NG				
-L-	17+39.75	18+52.25	LT	112.50					12'	17'		50.00		1			1												CONNECT WITH EXISTING GUARDRAIL
-L-	22+11.58	25+86.58	LT	375.00				25+98.93	12'	17'									1	1							262.50		
-L-	23+92.40	25+04.90	RT	112.50			25+17.74		10'	15'									1	1							112.50		
-L-	25+83.75	27+83.75	RT	200.00			25+83.75		VARIES	VARIES									1	1									
-L-	27+89.21	30+89.21	LT	300.00			27+74.32		VARIES	VARIES	37.50		1					1	1								300.00		
-RP-	1+19.24	11+56.74	RT	1037.50			11+56.74		VARIES	VARIES									1								1012.50		CONNECT WITH EXISTING GUARDRAIL
-RP-	9+26.66	11+89.16	LT	262.50				11+89.16	10'	15'		37.50		1				1	1								225.00		
-RP-	12+99.39	14+61.89	LT	162.50			12+99.39		10'	15'									1	1							137.50		
-RP-	12+56.45	15+68.95	RT	312.50				12+56.45	12'	17'									1	1							162.50		
-Y1-	15+22.50	18+60.00	LT	337.50					EXIST	EXIST									1	1							112.50		CONNECT WITH EXISTING BARRIER
-Y1-	16+15.00	18+90.00	RT	275.00					EXIST	EXIST										1							200.00		CONNECT WITH EXISTING GUARDRAIL
			SUBTOTAL	3487.50																									
	LESS ANCHOR	DEDUCTIONS																											
	GRAU-350	1 @ 50.00	=	- 50.00																									
	CAT-1	7 @ 6.25	=	- 43.75																									
	M-350	2 @ 37.50	=	- 75.00																									
	B-77	9 @ 18.75	=	- 168.75																									
			TOTAL	3150													1	2	9	7							2637.50		
			SAY	3200																							2650		
-DET1-	1+32.80	2+45.30	RT	112.50			2+45.30		4'	7'										1							112.50		TEMPORARY GUARDRAIL
			SUBTOTAL	112.50																									
	LESS ANCHOR	DEDUCTIONS																											
	TEMP CAT-1	1 @ 6.25	=	- 6.25																									
			TOTAL	106.25																1							112.50		
			SAY	125																							125		

ADDITIONAL GUARDRAIL POSTS = 10 EA

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBT+%	BORROW	WASTE
SUMMARY 1				
-L- STA 16+45.00 TO STA 25+28.00 (BEGIN BRIDGE)	654	1778	1124	0
-RP- STA 12+83.00 (END BRIDGE) TO STA 22+20.00	68	3157	3089	0
-DET1- STA 1+32.80 TO STA 4+70.00	27	164	137	0
-DET2- STA 0+00.00 TO STA 7+71.46	156	1507	1351	0
-DET3- STA 1+63.51 TO STA 5+00.00	21	187	166	0
SUMMARY 1 TOTAL	926	6793	5867	0
SUMMARY 2				
-L- STA 27+27.75 (END BRIDGE) TO STA 39+66.00	23	4380	4357	0
-RP- STA 2+09.24 TO STA 11+76.50 (BEGIN BRIDGE)	32	12210	12178	0
SUMMARY 2 TOTAL	55	16590	16535	0
TOTALS	981	23383	22402	0
EST SHOULDER MATERIAL		1080	1080	0
PROJECT TOTALS	981	24463	23482	0
EST. 5% FOR REPLACING TOPSOIL ON BORROW PITS			1174	
GRAND TOTALS	981		24656	0
SAY	1000		24700	

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.

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

CONCRETE BARRIER SUMMARY

LINE	BEGIN STATION	END STATION	LOCATION LT/RT/CL	DOUBLE FACED BARRIER, TYPE T, LF	DOUBLE FACED BARRIER, TYPE T1 (VAR. HEIGHT) LF	DOUBLE FACED BARRIER, TYPE T2 (VAR. HEIGHT) LF
-L-	16+95.00	18+50.00	RT		156.23*	
-L-	27+39.85	31+50.00	RT			409.31*
-L-	31+50.00	32+00.00	RT		50.00	
-L-	32+00.00	34+00.00	RT	200.00		
			TOTAL	200.00	206.23	409.31
			SAY	200	207	410

* = LENGTH MEASURED ALONG CURVE

REMOVAL OF EXISTING ASPHALT PAVEMENT

LINE	STATION TO STATION	NOTES	SQ. YDS.
-L-	20+19.50 TO 25+42.86	REMOVAL OF -DET2- AND -DET3-	719
-RP-	5+75.00 to 6+35.00		206
TOTAL			925
SAY			930

BREAKING OF EXISTING ASPHALT PAVEMENT

LINE	STATION TO STATION	LOCATION	SQ. YDS.
-L-	23+73.00 TO 25+28.00	LT/RT	799
-L-	27+27.75 TO 31+18.00	LT/RT	1973
-RP-	6+35.00 TO 11+41.50	LT/RT	1452
-RP-	13+30.00 TO 14+75.00	LT/RT	400
TOTAL			4624
SAY			4650

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