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COMPUTED BY: DJM **DATE:** 5-12-2016
CHECKED BY: SAD **DATE:** 3-08-2017

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
GUARDRAIL SUMMARY

PROJECT REFERENCE NO.	SHEET NO.
U-3330	3B-1

"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

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350		SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	MEDIAN HAZARD PROTECTION	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	B-77	GRAU 350	M-350	TYPE III	CAT-1	AT-1	TEMP B-77	TEMP GRAU 350	TEMP CAT-1	G	NG				
-L-	30+80.70	38+45.70	LT				NOISE WALL	NOISE WALL	10.5'																	765			BARRIER FOR NOISE WALL
-L- & -Y1RPB-	38+45.70	11+63.85	LT	118.75	112.5		NOISE WALL	N/A	10.5'-12	10.5'-15'	50		1		1	1													
-L-	41+44.78	44+51.84	MED	275			BRIDGE COLUMN	BRIDGE COLUMN	10	15	37.5	37.5	2.25	2.25	4										2			124	MEDIAN BRIDGE PIERS @ -Y1- OVER -L-; SEE SHEET 2C-3
-Y1-	15+90.48	17+46.73	RT	156.25			BRIDGE APPROACH	N/A	7.5	12	50		1			1		1											
-Y1-	15+60.52	17+28.78	MED RT	156.25			BRIDGE APPROACH	N/A	13.5	15	150		10.5		1										1				
-Y1-	15+60.52	17+19.52	MED LT	150			N/A	G/R ON MED RT	1.5	15'-3'					1														
-Y1-	19+27.11	20+83.36	MED LT	156.25			BRIDGE APPROACH	N/A	1.5	15	50		1		1	1											56.5		
-Y1-	19+13.89	20+70.14	LT	156.25			BRIDGE APPROACH	N/A	7.5	12	50		1			1		1											
-Y5- & -L-	12+95.38	60+00.50	LT	100	87.5		N/A	BRIDGE & RET WALL	10	15.5					1					1							174		
-Y4- & -L-	11+48.35	60+00.50	LT & RT	75	112.5		BRIDGE APPROACH	N/A	10	13					1					1							142		
-L-	62+05.50	64+08.35	LT	162.5	50		BRIDGE APPROACH	N/A	10	13					1					1							142		
-L-	62+05.50	68+80.50	RT	675			BRIDGE	68+75	10	13					1				1										
-Y2RPC-	10+70.00	11+81.44	LT	112.5			EXISTING G/R	EXISTING G/R	12	15	50		1			1											112.5		
-L-	75+46.13	77+49.97	RT	206.25			BRIDGE COLUMN	N/A	8	11	50				1	1													
-L-	77+49.97	78+88.56	RT				BRIDGE COLUMN	N/A																		136.5			BRIDGE PIERS FOR -Y2- OVER -L-
-L-	77+36.62	79+00.00	LT				BRIDGE COLUMN	N/A																		166			BRIDGE PIERS FOR -Y2- OVER -L-
-L-	79+00.00	80+76.57	LT	175			BRIDGE COLUMN	N/A	8	11	50		1		1	1													
-Y2RPA-	16+85.00	17+97.50	LT	112.5			17+75	EXISTING G/R	12	15	50		1			1											126.5		
-L-	89+97.91	92+52.39	MED	225			BRIDGE COLUMN	BRIDGE COLUMN	13	16.5	37.5	37.5	2.25	2.25	4										2		652	103	MEDIAN BRIDGE PIERS @ HUNTER HILL RD; SEE SHT 2C-3
-L-	90+18.16	93+61.88	LT	350			91+50	SLOPE PROTECT.	8	11	50		1			1			1										FOR SLOPE PROTECTION; SEE DETAIL SHEET 2C-8
-L- & -Y8-	112+07.82	13+31.08	LT & RT	125	87.5		BOX CULVERT	112+25	8	11									1	1									
-L- & -Y9-	112+68.02	11+10.91	RT	143.75	87.5		BOX CULVERT	RADIUS RETURN	8	11	50		1			1				1									
SUBTOTAL				**3,631.25**	**537.50**										**18**	**10**		**2**	**3**	**5**					**5**	**1067.5**	**1405.5**	**227**	
ANCHOR UNIT DEDUCTIONS																													
	B-77 @ 18.75' EACH			-337.5																									
	GRAU @ 50' EACH			-500																									
	TYPE III @ 18.75' EACH			-37.5																									
	CAT-1 @ 6.25' EACH			-18.75																									
	AT-1 @ 6.25' EACH			-31.25																									
GRAND TOTAL				**2,706.25**	**537.50**										**18**	**10**		**2**	**3**	**5**					**5**	**1067.5**	**1405.5**	**227**	
SAY				**2,850.00**	**575.00**										**18**	**10**		**2**	**3**	**5**					**5**	**1,075.00**	**1,410.00**	**230.00**	
TEMPORARY GUARDRAIL:																													
-DET1-	19+41.63	21+10.38	RT	168.75			G/R ON -DET2- LT	G/R ON -DET2- LT	2	4		50		1							1	1							
-DET2-	19+40.52	21+09.27	LT	168.75			TEMP BRIDGE	N/A	2	4	50		1								1	1							
-DET2-	19+40.52	21+09.27	RT	168.75			TEMP BRIDGE	N/A	4	8	50		1								1	1							
-DET1-	22+96.40	24+65.15	RT	168.75			TEMP BRIDGE	N/A	2	4	50		1								1	1							
-DET2-	22+95.28	24+64.03	LT	168.75			G/R ON -DET1- LT	G/R ON -DET2- LT	2	4		50		1							1	1							
-DET2-	22+95.28	28+57.78	RT	562.5			23+00	28+50	4	8											1		1						
SUBTOTAL				**1,406.25**																	**6**	**5**	**1**						
TEMPORARY ANCHOR UNIT DEDUCTIONS							**TEMP. GR. ANCHORS**																						
	B-77 @ 18.75' EACH			-112.5			TEMP. W-BEAM = 4 EA.																						
	GRAU @ 50' EACH			-250																									
	CAT-1 @ 6.25' EACH			-6.25																									
GRAND TOTAL				**1,037.50**																	**6**	**5**	**1**						
SAY				**1,100.00**																	**6**	**5**	**1**						
	ADDITIONAL GUARDRAIL POSTS = 10																												