

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUARDRAIL SUMMARY

"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 SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350 G NG	SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE 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	XII	CAT-1	VI MOD	BIC	AT-1								
-L2-	205+15	207+25	RT	162.50'	50.00'		205+15	207+25	2	0																				GUARDRAIL TO BE PLACED NEXT TO RETAINING WALL WITH 8' POSTS WITH 6'-3" SPACING (SEE TYPICAL NO. 5, SHEET 2A-2)	
				SUBTOTAL	162.50'	50.00'																									
				LESS ANCHORS	-12.50'																										
				TOTAL	150.00'	50.00'																									

ADDITIONAL EXTRA LENGTH GUARDRAIL POSTS (8' STEEL) = 5 EA

PAVEMENT REMOVAL SUMMARY
IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
L1	110+36	110+59	CL			25.89	
L1	126+39	126+60	CL			18	
L2	205+10	205+25	CL			42.46	
L2	205+35	206+56	RT	207.88			
L2	209+26	211+18	CL			97.75	
L2	211+23	211+92	CL			35.98	
L2	211+97	212+17	CL			9.91	
L2	212+23	212+29	CL			2.75	
L2	212+01	212+35	LT			19.43	
L3	312+71	314+20	CL			68.64	
L3	321+78	323+99	LT	118.58			
L4	408+69	408+99	RT	57.84			
L4	410+04	414+84	CL	183.27			
L4	417+97	418+18	LT			24.65	
L4	417+82	418+08	RT			20.48	
TOTAL:				567.57		365.94	
SAY:				570		370	

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Undercut	Emb. +%	Borrow	Waste
-L1- 106+10 RT	-L1- 109+50 RT	86	264	631	545	264
-L1- 114+00 RT	-L1- 118+50 RT	96	0	306	210	0
-Y2- 12+50	-Y2- 14+50	56	0	6	0	50
SUBTOTALS:		238	264	943	755	314
-L1- 115+00 LT	-L1- 115+50 LT	91	0	17	0	74
-L1- 120+50 LT	-L1- 127+00 LT	634	142	1,149	515	142
-Y1- 11+00.00	-Y1- 15+00.00	419	0	28	0	391
SUBTOTALS:		1,144	142	1,194	515	607
-L1- 106+10.00 CL	-L1- 115+50.00 CL	1,479	0	0	0	1,479
SUBTOTALS:		1,479	0	0	0	1,479
-L1- 116+00.00 CL	-L1- 127+00.00 CL	1,519	0	37	37	1,519
SUBTOTALS:		1,519	0	37	37	1,519
-L2- 205+00.00 RT	-L2- 208+50.00 RT	90	276	699	609	276
-L2- 221+00.00 RT	-L2- 226+15.00 RT	87	0	82	0	5
SUBTOTALS:		177	276	781	609	281
-L2- 214+50.00 LT	-L2- 226+15.00 LT	1,392	344	1,082	0	654
SUBTOTALS:		1,392	344	1,082	0	654
-L2- 205+00.00 CL	-L2- 212+50.00 CL	1,106	0	20	20	1,106
SUBTOTALS:		1,106	0	20	20	1,106
-L2- 213+50.00 CL	-L2- 226+00.00 CL	937	0	107	107	937
SUBTOTALS:		937	0	107	107	937
-L3- 303+20.00 RT	-L3- 306+50.00 RT	2,473	383	440	0	2,416
SUBTOTALS:		2,473	383	440	0	2,416
-L3- 323+50.00 LT	-L3- 326+50.00 LT	64	112	859	795	112
SUBTOTALS:		64	112	859	795	112

Station	Station	Uncl. Excav.	Undercut	Emb. +%	Borrow	Waste
-L3- 303+20.00 CL	-L3- 314+50.00 CL	1,150	0	112	112	1,150
SUBTOTALS:		1,150	0	112	112	1,150
-L3- 315+00.00 CL	-L3- 326+50.00 CL	933	0	296	296	933
SUBTOTALS:		933	0	296	296	933
-L4- 408+40.00 RT	-L4- 412+00.00 RT	396	0	51	0	345
SUBTOTALS:		396	0	51	0	345
-L4- 426+00.00 LT	-L4- 429+65.00 LT	102	0	751	649	0
SUBTOTALS:		102	0	751	649	0
-L4- 401+50.00 CL	-L4- 418+50.00 CL	1,377	0	122	122	1,377
SUBTOTALS:		1,377	0	122	122	1,377
-L4- 419+00.00 CL	-L4- 429+50.00 CL	951	0	75	75	951
SUBTOTALS:		951	0	75	75	951
TOTAL:		15,438	1,521	6,870	4,092	14,181
LOSS DUE TO CLEARING AND GRUBBING		-200	0	0	200	0
ADDITIONAL UNDERCUT		0	500	575	575	500
MATERIAL FOR SHOULDER CONSTRUCTION		0	0	3,243	3,243	0
ADDITIONAL UNSUITABLE WASTE		0	0	0	0	0
WASTE IN LIEU OF BORROW		0	0	0	-3,008	-3,008
PROJECT TOTALS:		15,238	2,021	10,688	5,102	11,673
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT		0	0	0	255	0
GRAND TOTALS:		15,238	2,021	10,688	5,357	11,673
SAY:		15,300			5,400	

EST. DDE = 120 CY
SHALLOW UNDERCUT = 200 CY (PER GEOTECH RECOMMENDATIONS - JUNE 15, 2016)
CLASS IV SUBGRADE STABILIZATION = 300 TONS

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

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.