

COMPUTED BY: CDB DATE: 12-2016
 CHECKED BY: DJM DATE: 12-2016

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA
GUARDRAIL SUMMARY

PROJECT REFERENCE NO. SHEET NO.
 B-5333 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 SHLD. WIDTH	FLARE LENGTH		W		ANCHORS						IMPACT ATTENUATOR TYPE 350		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	TYPE III	CAT-1	VI MOD	BIC					G	NG			
-L-	19+50.39	20+31.64	LT	81.25				20+31.64	20+31.64	VARIES	9	50.00	50.00	1.00	1.00			1	1												
-L-	19+50.39	20+31.64	RT	81.25				20+31.64		VARIES	9	50.00		1.00				1	1												
-L-	22+82.39	23+63.64	LT	81.25				22+82.39		VARIES	9	50.00		1.00				1	1												
-L-	22+82.39	23+63.64	RT	81.25					22+82.39	VARIES	9		50.00	1.00				1	1												
-L-	35+81.06	36+62.31	LT	81.25					36+62.31	VARIES	VARIES		50.00	1.00				1	1												
-L-	36+64.68	37+45.93	RT	81.25				36+64.68		VARIES	VARIES	50.00		1.00				1	1												
-L-	37+95.12	38+76.37	LT	81.25					37+95.12	VARIES	VARIES							1	1												
-L-	37+92.61	38+73.86	RT	81.25					37+92.61	VARIES	VARIES							1	1												
SUBTOTAL				650.00														8	8												
ANCHOR UNIT DEDUCTION																															
GRAU350 TL-3: 8 @ 50.00 = 400.00																															
TYPE III: 8 @ 18.75 = 150.00																															
TOTAL:				550.00																											Field adjustment as needed for Type III Anchor Units
TOTAL				100.00																											
SAY				100.00															8	8											
ADDITIONAL GUARDRAIL POSTS				5 EA																											

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- STA 6+59.00	-L- STA 17+50.00	0	0	0	0
SUBTOTALS:		0	0	0	0
-L- STA 17+50.00	-L- STA 20+30.62 (BRIDGE)	51	294	243	0
SUBTOTALS:		51	294	243	0
-L- STA 22+83.37 (BRIDGE)	-L- STA 24+60.00	42	96	54	0
SUBTOTALS:		42	96	54	0
-L- STA 24+60.00	-L- STA 34+50.00	0	0	0	0
SUBTOTALS:		0	0	0	0
-L- STA 34+50.00	-L- STA 36+62.19 (BRIDGE)	31	116	85	0
SUBTOTALS:		31	116	85	0
-L- STA 37+94.81 (BRIDGE)	-L- STA 41+70.00	230	493	263	0
SUBTOTALS:		230	493	263	0
-L- STA 41+70.00	-L- STA 45+75.00	0	0	0	0
SUBTOTALS:		0	0	0	0
TOTALS:		354	999	645	0
SHOULDER CONSTRUCTION			88	88	
PROJECT TOTALS:		354	1,087	733	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				37	
GRAND TOTALS:		354	1,087	770	0
SAY:		360	780	0	0
CONTINGENCY ITEMS:					
UNDERCUT EXCAVATION = 500 CY					
SELECT GRANULAR MATERIAL = 500 CY					

Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing 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.

SHOULDER BERM GUTTER SUMMARY

LINE	Station	Station	LENGTH
-L-	20+00.00	20+19.64	19.64
-L-	22+94.58	23+14.00	19.42
-L-	36+30.00	36+49.93	19.93
TOTAL:			58.99
SAY:			59.00

PAVEMENT REMOVAL SUMMARY
 IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	19+55.00	20+36.92	CL	228.70			
-L-	22+46.55	23+58.00	CL	309.04			
-L-	35+87.00	36+81.72	CL	266.53			
-L-	37+67.78	39+75.00	CL	579.50			
TOTAL:				1383.77			
SAY:				1390			