

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STV Engineers, Inc. <small>300 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991</small>	PROJECT REFERENCE NO.	SHEET NO.
	B-5818	3B-1
	RW SHEET NO.	

EARTHWORK QUANTITIES ARE CALCULATED BY USING NCDOT - ROADWAY DESIGN GUIDELINES. THESE QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

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

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD'
-L-	17+43	26+61	LT	1,570
-L-	28+97	31+34	LT	500
-L-	31+34	37+95	LT	1,085
TOTAL:				3,155
SAY:				3,200

ESTIMATED SHOULDER BORROW = 450 CY
ESTIMATED DDE = 80 CY

USE SELECT GRANULAR MATERIAL TO BACKFILL UNDERCUT AREAS

EARTHWORK SUMMARY (IN CUBIC YARDS)

CHAIN	FROM STATION	TO STATION	SIDE	EXCAVATION		EMBANKMENT	BORROW	WASTE
				UNCL. EXCAVATION	UNDERCUT	EMBANK. + %		TOTAL
-L-	14+00.00	27+14.00	LT & RT	26,162		7,630		18,532
-L-	28+44.00	41+00.00	LT & RT	2,210	880	12,095	9,885	880
TOTAL				28,372	880	19,724	9,885	19,412
LOSS DUE TO CLEARING & GRUBBING				-500				-500
ADDITIONAL UNDERCUT					450			450
ROCK TO REPLACE EARTH EMBANKMENT							-9,885	-9,885
ADJUST FOR ROCK SWELL						-1,977	-1,977	
ELIMINATE EARTH SHRINKAGE FACTOR SINCE NOW ROCK							1,977	1,977
PROJECT TOTAL				27,872	1,330	17,747		11,455
GRAND TOTAL				27,872	1,330	17,747		11,455
SAY				28,000	1,400			

"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 SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS							IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	B-77	GREU TL-3	GREU TL-2	TYPE III	CAT-1	TEMP GREU TL-2	TEMP TYPE III	AT-1	EA					G	NG
-L-	25+78.64	27+14.00	LT	135.375				27+14.00	4.0 - 6.2	7.0 - 9.2	112.50		2.2			1	1													
-L-	24+16.17	27+14.00	RT	297.875				27+14.00	4.0 - 9.5	7.0 - 12.5	275.00		5.5			1	1													
-L-	28+44.00	31+41.83	LT	297.875				28+44.00	4.0 - 9.2	7.0 - 12.2	262.50		5.2			1	1													
-L-	28+44.00	34+02.48	RT	560.375				28+44.00	4.0 - 8.0	7.0 - 11.0	250.00		2.0			1	1													
TOTAL:				1291.50												4	4													
DEDUCTION FOR ANCHOR UNITS:																														
(4 B-77 @ 22.875')				-91.50																										
(4 GREU TL-3 @ 50')				-200.00																										
TOTAL GUARDRAIL LENGTH:				1000.00																										
SAY:				1000.00 LF																										
ADDITIONAL GUARDRAIL POSTS = 5 EA																														
TEMPORARY GUARDRAIL																														
-L- EX.	29+63.19	32+15.83	LT	252.64																										
TOTAL:				252.64																										
DEDUCTION FOR ANCHOR UNITS:																														
(1 GREU TL-3 @ 50')				-50.00																										
TOTAL GUARDRAIL LENGTH:				202.64																										
SAY:				212.50 LF																										

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