

**SUMMARY OF EARTHWORK**  
 IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- 12+00.00	-L- 18+00.00	730	1767	1037	
SUBTOTAL		730	1767	1037	
LOSS DUE TO CLEARING & GRUBBING		-40		40	
TOTAL		690	1767	1037	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				54	
PROJECT GRAND TOTALS		690	1767	1131	
SAY		750		1200	
EST. UNDERCUT CONTINGENCY = 400 CUBIC YARDS					
GEOTEXTILE FOR SOIL STABILIZATION = 300 SQUARE YARDS					
SELECT GRANULAR MATERIAL = 300 CUBIC YARDS					
DDE = 59 CUBIC YARDS					

**PAVEMENT REMOVAL SUMMARY**

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD <sup>2</sup>
-L-	13+75.00	14+95.68	LT/RT	327.52
-L-	15+24.40	16+50.00	LT/RT	331.52
TOTAL:				659.05
SAY:				700

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, Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

"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	GRAU 350	EA	G	NG										
-L-	-L- 12+57.50	-L- 15+57.50	RT.	300			-L- 13+50.00	-L- 15+57.50	6'	9'	50'	50'	1'	1'	2													
-L-	-L- 14+47.50	-L- 17+47.50	LT.	300			-L- 16+00.00	-L- 14+47.50	6'	9'	50'	50'	1'	1'	2													
TOTALS				600											4													
LESS DEDUCTION FOR ANCHORS																												
GRAU-350 4 @ 50' =				-200																								
PROJECT TOTALS				400											4													
SAY				425																								
ADDITIONAL GUARDRAIL POSTS = 5 EA.																												