COMPUTED BY: PADDY JORDAN DATE: 11–20–2024
CHECKED BY: TIM JORDAN DATE: 11–21–2024

PROJECT REFERENCE	SHEET NO.
17BP.7.R.116	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

GUARDRAIL SUMMARY

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			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	AT–1	GREU TL–3	TYPE III					PERMITTED		
																						NO.	G	NG	
–L–	12+23.39	14+79.64	RT	256.25′				14+79.64	8′	11′		50′		1′		1	1								
–L–	13+78 +/–	14+90.36	LT	100.00′	25.00′		14+90.36		8′	11′					1		1								BREAK FOR DRIVE
–L–	16+69.64	17+27 +/–	RT	25.00′	50.00′		16+69.64		8′	11′					1		1								BREAK FOR YLINE
–L–	16+80.36	17+52 +/–	LT	62.50′	12.50′			16+80.36	8′	11′					1		1								BREAK FOR DRIVE
		SUBTOTAL		468.75′	87.50′																				
		LESS ANCHOR DEDUCTIONS																							
		GREU TL–3 1 x 50.00′ =		–50.00′																					
		B–77 4 x 18.75′ =		–75.00′																					
		AT–1 3 x 6.25′ =		–18.75′																					
		TOTAL		325.00′	87.50′										3	1	4								5 ADDITIONAL GUARDRAIL POSTS

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L– 11+50.00 TO 14+85.00	32		222	190	
–L– 16+75.00 TO 20+00.00	241		565	324	
–Y– 10+12.00 TO 11+50.00	6		47	41	
SUBTOTAL	279		834	555	
MATERIAL FOR SHOULDER CONST.			408	408	
LOSS DUE TO CLEARING & GRUBBING	–100			100	
PROJECT TOTAL	179		1242	1063	
5% TO REPLACE BORROW				54	
GRAND TOTAL	179		1242	1117	
SAY	190			1180	

EST. DDE = 235 CY
EST. SHALLOW UNDERCUT = 100 CY
EST. CLASS IV SUBGRADE STABILIZATION = 200 TONS
PER GEOTECH RECOMMENDATIONS, ESTIMATED 250 CY OF UNDERCUT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SY
–L–	14+10.00	15+02.48	CL	241.44
–L–	16+65.00	17+10.00	CL	142.41
–Y–	10+12.00	12+00.00	CL	163.19
			TOTAL:	547.04
			SAY:	575

SUMMARY OF SHOULDER BERM GUTTER

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH
–L–	14+20.00	14+55.50	RT	35.50′
			TOTAL:	35.50′
			SAY:	40′

NOTE: Earthwork quantities are calculated by the Roadway Design Engineer. 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 Asphalt Pavement will be paid for at the contract Lump Sum price for "Grading".