COMPUTED BY: SGM DATE: 2/18/2024
CHECKED BY: JLT DATE: 2/22/2024

PROJECT NO.	SHEET NO.
U-5809	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 10+17.66	-L- 16+00.00	259	1,013	754	
-RPC- 10+25.00	-RPC- 12+51.20	285	128		157
-RPD- 10+63.84	-RPD- 12+50.00	50	15		35
SUBTOTALS # 1:		**594**	**1,156**	**754**	**192**
-L- 16+00.00	-L- 21+50.00	278	1,096	818	
-RPA- 11+07.66	-RPA- 14+70.00	924	743		181
-RPB- 10+58.00	-RPB- 13+16.13	265	21		244
-Y- 10+83.48	-Y- 13+30.00	69	89	20	
SUBTOTALS # 2:		**1,536**	**1,949**	**838**	**425**
-L- 21+50.00	-L- 34+00.00	1,164	1,075		89
-Y2- 10+70.00	-Y2- 13+95.05	183	238	55	
-Y3- 10+90.00	-Y3- 14+15.00	623	164		459
SUBTOTALS # 3:		**1,970**	**1,477**	**55**	**548**
-L- 34+00.00	-L- 46+00.00	1,334	707		627
-Y4- 10+50.00	-Y4- 15+13.49	572	519		53
-Y5- 10+65.00	-Y5- 15+00.00	600	506		94
SUBTOTALS # 3:		**2,506**	**1,732**	**0**	**774**
TOTALS:		6,606	6,314	1,647	1,939
MATERIAL FOR SHOULDER CONSTRUCTION			782	782	
LOSS DUE TO CLEARING & GRUBBING		-350		350	
WASTE IN LIEU OF BORROW				-1,939	-1,939
PROJECT TOTALS:		6,256	7,096	840	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				42	
GRAND TOTALS:		6,256	7,096	882	
SAY:		**6,500**		**1,000**	

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

Note: Earthwork quantities are calculated by TGS Engineers. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

EST. DDE = 100 CUBIC YARDS
SHALLOW UNDERCUT = 300 CUBIC YARDS
SELECT GRANULAR MATERIAL = 750 CUBIC YARDS
PER GEOTECH RECOMMENDATION, ESTIMATED 750 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

Survey Line	Station	Station	Loc	Asphalt Removal
-L-	10+26	11+10	LT	8.90
-L-	12+98	14+31	LT	56.42
-L-	14+88	16+18	CL	1,382.09
-L-	16+29	19+31	LT	434.95
-L-	16+34	18+79	RT	318.33
-L-	19+50	21+04	CL	1,982.71
-L-	21+82	29+00	CL	1,330.48
-L-	25+99	30+73	RT	102.67
-L-	32+22	33+76	CL	814.84
-L-	34+58	37+15	LT	53.01
-L-	36+75	42+20	CL	993.06
-L-	37+55	39+10	LT	3.17
-L-	39+51	42+31	LT	46.19
-L-	42+97	44+27	CL	693.58
-L-	44+27	45+87	LT	90.58
-L-	44+66	45+96	RT	69.09
RPA	10+96	14+08	LT	866.19
RPB	10+58	11+45	RT	33.79
RPB	10+58	11+20	LT	15.75
RPB	11+44	13+53	LT	733.44
RPC	10+25	10+69	RT	8.69
PRC	10+25	12+44	LT	72.95
RPD	10+11	12+50	RT	299.71
RPD	10+68	10+86	LT	7.56
-Y2-	11+61	13+68	RT	448.46
-Y3-	10+79	12+49	RT	518.74
-Y3-	12+60	13+63	RT	73.05
-Y4-	11+25	15+78	RT	1,505.38
-Y5-	10+38	15+00	RT	1,661.27
TOTAL:				14,616.15
SAY:				**14,630**

"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

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N"	TOTAL	FLARE LENGTH		W		ANCHORS								TERMI		IMPACT				REMOVE	REMARKS
				STRAIGHT	SHOP	DOUBLE	APPROAC	TRAILING	DIST.	SHOUL	APPRO	TRAILI	APPRO	TRAILI	TL-3	III	CAT-1								G	NG				
US 421 WB			RT	193.75													1												20.0	REMOVE EXIST GUARDRAIL ANCHOR
-L-	16+49.00	17+35.00	RT																										86.0	
-L-	18+35.00	19+20.00	LT																										85.0	
		SUB-TOTAL		193.75													1												191.0	
		LESS ANCHOR DEDUCTIONS																												
	TYPE CAT-1	1 @ 6.25		6.25																										
		ANCHOR TOTALS		6.25																										
		GRAND TOTALS		**187.50**													**1**												**191**	
		SAY		**187.5**													1												**191**	

ADDITIONAL GUARDRAIL POST: 3 EA