COMPUTED BY: ____G. Mwebaza_____ DATE: ___05/18/2022___
CHECKED BY: ____A.McMillan _____ DATE: ___12/05/2022__

PROJECT NO.	SHEET NO.
BR-0041	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATION	STATION	UNCL EXCAV.	EMBANK. +%	BORROW	WASTE
-L- Sta. 16+00.00	-L- Sta. 33+83.50 (Begin Bridge)	1,213	5,999	4,786	0
-RPA- Sta. 12+50.00	-RPA- Sta. 13+51.82	265	0	0	265
-RPB- Sta. 15+00.00	-RPB- Sta. 16+31.73	629	24	0	605
-Y1- Sta. 11+00.00	-Y1- Sta. 12+19.22	57	22	0	35
SUBTOTALS:		2,164	6,044	4,786	905
-L- Sta. 35+62.50 (End Bridge)	-L- Sta. 42+00.00	868	4,828	3,960	0
-RPC- Sta. 12+20.00	-RPC- Sta. 13+61.19	416	5	0	411
-RPD- Sta. 11+70.00	-RPD- Sta. 13+75.65	499	47	0	452
SUBTOTALS:		1,783	4,880	3,960	863
-Y- Sta. 15+00.00	-Y- Sta. 26+00.00	8,487	887	0	7,600
-W1- Sta. 00+00	-W1- Sta. 00+25	0	0	0	15
-W2- Sta. 00+0	-W2- Sta. 1+75	0	0	0	100
SUBTOTALS:		8,487	887	0	7,715
PROJECT TOTALS:		12,434	11,811	8,746	9,484
LOSS DUE TO CLEARING & GRUBBING		-1,140			-1,140
MATERIAL FOR SHOULDER CONSTRUCTION			1,980	1,980	
ADDITIONAL UNDERCUT			690	690	575
WASTE IN LIEU OF BORROW				-7,959	-7,959
PROJECT TOTALS:		11,294	14,481	3,457	960
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				173	
GRAND TOTALS:		11,294	14,481	3,630	
SAY:		**11,300**		**3,700**	

DDE = 10 CY

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

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

CONTINGENCY ITEMS PER NCDOT GEOTECHNICAL REPORT - ROADWAY DESIGN AND CONSTRUCTION RECOMMENDATIONS, DATED APRIL 8, 2022:
SELECT GRANULAR MATERIAL = 340 CY
GEOTEXTILE FOR SOIL STABILIZATION = 3,740 SY
SHALLOW UNDERCUT = 1,110 CY
CLASS IV SUBGRADE STABILIZATION = 2,200 TONS
6" PERFORATED SUBDRAIN PIPE = 200 LF
*PER GEOTECH RECOMMENDATION,UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3' OF EMBANKEMENT OR BACKFILL -L- 18+25 TO 22+75 = 90 CY

SUMMARY OF ASPHALT PAVEMENT REMOVAL

IN SQUARE YARDS

SURVEY LINE	BEG. STA.	END STA.	LOCATION	AREA (SY)
-L-	22+68	23+46	LT	81
-L-	24+71	25+55	RT	91
-L-	27+26	27+84	RT	43
-L-	28+03	28+55	RT	49
-L-	26+66	30+69	LT	326
-L-	31+87	32+50	CL	504
-L-	38+00	38+36	CL	314
-L-	39+24	42+00	RT	183
-L-	39+05	42+00	LT	159
-Y-	15+00	26+00	RT	1287
-Y-	15+00	26+00	RT	354
-Y-	15+00	26+00	LT	414
-Y-	15+00	26+00	LT	1155
-RPA-	12+50	13+52	RT	37
-RPA-	12+50	13+52	LT	57
-RPB-	15+00	16+32	RT	44
-RPB-	15+00	16+32	LT	74
-RPC-	12+20	13+61	RT	55
-RPC-	12+20	13+61	LT	63
-RPD-	11+70	13+76	RT	61
-RPD-	11+70	13+76	LT	69
		TOTAL		**5,421**
		SAY:		**5,430**

SUMMARY OF ASPHALT PAVEMENT BREAKING

IN SQUARE YARDS

SURVEY LINE	BEG. STA.	END STA.	LOCATION	AREA (SY)
-L-	32+50	33+52	CL	795
-L-	35+87	38+00	CL	1,683
		TOTAL		**2,478**
		SAY:		**2,480**

SHOULDER BERM GUTTER SUMMARY

IN LINEAR FEET

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH
-Y-	20+98.18	21+21.18	LT	23
		TOTAL		23
		SAY:		**30**

SUMMARY OF CABLE GUIDERAIL

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH		CABLE GUIDERAIL ANCHOR UNIT	REMOVE EXISTING CABLE GUIDERAIL
				SINGLE FACED	DOUBLE		
-Y-	15+00.00	18+12.12	MED-LT	337		3	308
-Y-	20+89.88	26+00.00	MED-RT	535		3	505
			SUBTOTAL:	872		6	813
			ANCHOR UNIT DEDUCTIONS				
			CABLE GUIDERAIL ANCHOR UNIT, 6 @ 25.00' EACH	150			
	ADDITIONAL GUIDERAIL POSTS = 5 EACH						
		TOTAL		722		**6**	**813**

SUMMARY OF GUARDRAIL

"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.
NG = NON-GATING IMPACT ATTENUATOR TYPE 350
G = GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IA TL-3		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	Type III	B-77	GREU, TL-3	GREU, TL-2	CAT-1	AT-1	Type III SC	B-77 SC		G	NG				
-L-	32+19.93	33+99.60 (BRG)	RT	179.67	-	-	3+99.60 (BRG	-	VAR	14	160.92	-	3.22	-	1	-	1	-	-	-	-	-	-	-	-	-	126	-	
-L-	35+78.60 (BRG)	36+70.00	RT	91.4	-	-	-	36+70.00	VAR	14	-	72.65	-	1.45	1	-	-	-	1	-	-	-	-	-	-	-	-	-	
-L-	33+20.00	33+67.40 (BRG)	LT	47.4	-	-	-	33+20.00	VAR	14	-	28.65	-	0.57	1	-	-	-	1	-	-	-	-	-	-	-	-	-	
-L-	35+46.40 (BRG)	37+71.12	LT	224.72	-	-	5+46.40 (BRG	-	VAR	14	50	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	126	-	
-Y-	17+44.97	18+17.73	RT	72.875	-	-	18+30.00	-	VAR	28	50	-	1	-	-	1	1	-	-	-	-	-	-	-	-	209	253	-	
-Y-	18+53.13	19+06.00	MED-RT	52.945	-	-	19+06.00	-	VAR	6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	90	242	-	
-Y-	19+96.00	20+48.88	MED-RT	52.945	-	-	-	19+96.00	VAR	6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	
-Y-	18+53.13	19+00.00	MED-LT	52.945	-	-	-	19+06.00	VAR	6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	90	238	-	
-Y-	19+96.00	20+48.88	MED-LT	52.945	-	-	19+96.00	-	VAR	6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
-Y-	20+98.18	21+71.50	LT	72.875	-	-	22+80.00	-	VAR	28	50	-	1	-	-	1	1	-	-	-	-	-	-	-	-	224	253	-	
			SUBTOTAL	**900.72**											**4**	**6**	**4**		**2**						**2**	**613**	**1,238**		
	ANCHOR UNIT DEDUCTIONS																												
	GREU, TL-3	4 @ 50.00' EACH		-200.00																									
	B-77	6 @ 22.875' EACH		-137.250																									
	TYPE III	4 @ 18.75' EACH		-75.00																									
	CAT-1	2 @ 6.25' EACH		-12.50																									
	ADDITIONAL GUARDRAIL POSTS = 5 EACH																												
			TOTAL	**475.97**											**4**	**6**	**4**		**2**						**2**	**613**	**1,238**		
			SAY	**487.5**											**4**	**6**	**4**		**2**						**2**	**620**	**1,240**		