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COMPUTED BY: __T. Klotz_____ DATE: __03/23/2020____
CHECKED BY: __N. Dean_____ DATE: __03/23/2020_____

PROJECT NO.	SHEET NO.
BR-0042	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- 11+54.68	-L- 18+52.99 (Begin Bridge)	114	6,740	6,627	
-Y1- 11+70.00	-Y1- 12+80.97	3	123	120	
-Y2- 10+12.08	-Y2- 11+45.00	107	250	143	
-Y3- 10+18.54	-Y3- 12+55.00	99	1,081	982	
SUBTOTALS:		323	8,195	7,872	
-L- 20+60.99 (End Bridge)	-L- 29+40.88	1,857	10,670	8,813	554
-Y4- 11+50.00	-Y4- 14+08.71	43	1,418	1,375	
SUBTOTALS:		1,900	12,088	10,188	554
-Y- 10+00.00	-Y- 18+00.00	13,243	488	0	12,755
SUBTOTALS:		13,243	488	0	12,755
PROJECT TOTALS:		15,466	20,771	18,060	13,309
LOSS DUE TO CLEARING & GRUBBING		-925		925	
MATERIAL FOR SHOULDER CONSTRUCTION			600	600	
ADDITIONAL UNDERCUT			540	540	450
WASTE IN LIEU OF BORROW				-12,380	
PROJECT TOTALS:		14,541	21,911	7,746	1,379
EST 5% TO REPLACE TOPSOIL ON BORROW PIT				387	
GRAND TOTALS:		**14,541**		**8,133**	
SAY		**14,600**		**8,200**	
PAVEMENT STRUCTURE VOLUME = 6,750 CY					

DDE = 63 CY

Note: 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.

CONTINGENCY ITEMS PER NCDOT GEOTECHNICAL REPORT - DESIGN AND CONSTRUCTION RECOMMENDATIONS, DATED AUTUST 27,2019:
SELECT GRANULAR MATERIAL = 250 CY
GEOTEXTILE FOR SOIL STABILIZATION = 750 SY
CLASS IV SUBGRADE STABILIZATION = 500 TONS
6" PERFORATED SUBDRAIN PIPE = 200 LF
UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3' OF EMBANKEMENT OR BACKFILL -L- 23+75 TO 25+75 = 250 CY

SHOULDER BERM GUTTER SUMMARY

IN LINEAR FEET

LINE	BEG. STA.	END STA.	LENGTH
-L-	17+84.00	18+25.25 (LT)	41.25
-L-	18+30.00	18+50.93 (RT)	20.93
-L-	20+63.18	20+85.00 (LT)	21.82
-L-	20+88.75	21+81.00 (RT)	92.25
-Y-	14+20.82	14+93.00 (LT)	72.18
-Y-	11+30.00	11+84.00 (RT)	54.00
		TOTAL:	**302.43**
		SAY:	**310**

EXPRESSWAY GUTTER SUMMARY

IN LINEAR FEET

LINE	BEG. STA.	END STA.	LENGTH
-Y-	13+01.02	14+20.00 (RT)	118.98
		TOTAL:	**118.98**
		SAY:	**120**

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

LINE	STATION	STATION	LOCATION	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	13+50	13+86	RT	11.37			
-L-	14+18	18+81	RT	1,223.67			
-L-	21+54	28+98	RT	1,959.33			
-Y4-	11+55	13+89	RT	139.78			
TEMPORARY PAVEMENT							
-Y-	10+00	12+69	RT	89.74			
-Y-	13+90	15+00	RT	36.68			
-Y-	13+90	17+50	LT	120.00			
		TOTAL		**3,580.57**			
		SAY:		**3,590**			

SUMMARY OF CABLE GUIDERAIL

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH SINGLE FACED	LENGTH DOUBLE FACED	CABLE GUIDERAIL ANCHOR UNIT	REMOVE EXISTING CABLE GUIDERAIL
-Y-	10+00.00	11+95.00	LT MED		195	3	277
-Y-	14+64.00	18+00.00	LT MED		336	3	222
		SUBTOTAL:			531	6	499
		ANCHOR UNIT DEDUCTIONS					
	CABLE GUIDERAIL ANCHOR UNIT, 6 @ 25.00' EACH				150		
	ADDITIONAL GUIDERAIL POSTS = 5 EACH						
		TOTAL			**381**	**6**	**499**
		SAY:			**390**	**6**	**500**

SUMMARY OF WOVEN WIRE FENCE, 47" FABRIC

STATION TO STATION	LOCATION	FABRIC (LF)	4" POSTS (EA)	5" POSTS (EA)
-L- 18+71.39 to 19+02.28	RT	161.16	6	10
-L- 17+40.72 to 18+334.59	LT	108.45	6	4
-L- 20+79.39 to 22+69.49	RT	222.43	12	7
-L- 20+42.59 to 21+22.71	LT	87.15	4	4
ADDITIONAL BARBED WIRE = 60 LF				
	TOTAL:	**579.19**	**28**	**25**
	SAY:	**600**	**30**	**30**

"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

SUMMARY OF GUARDRAIL

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS Type III	ANCHORS B-77	ANCHORS GREU, TL-3	ANCHORS GREU, TL-2	ANCHORS CAT-1	ANCHORS AT-1	ANCHORS Type III SC	ANCHORS B-77 SC	ANCHORS	IA TL-3 G	IA TL-3 NG	SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	17+72	18+68 (BRG)	RT	92	50		18+68 (BRG)		VAR	VAR						1				1							152		
-L-	16+50	18+38 (BRG)	LT	189				17+50	8	11		150		3		1	1												
-L-	20+76 (BRG)	22+31	RT	156				20+76 (BRG)	VAR	VAR		50		1		1	1										216		
-L-	20+46 (BRG)	22+77	LT	225	50		20+46 (BRG)		8	11		100		2		1				1									
-Y-	10+80	11+84	RT	105			11+84		24	24		50		1		1	1									117	164		
-Y-	14+21	15+43	LT	122			15+43		24	24		50		1		1	1									114	169		
-Y-	12+35	14+24	RT MED	115			12+92		20	20						2									1	75	156		
-Y-	12+35	14+24	LT MED	115			13+67		20	20						2									1	75	157		
-Y4-	11+50	13+00	LT	150			12+25		6	9							2												
			SUBTOTAL	**1,269**	**100**											**10**	**6**			**2**					**2**	**381**	**1,014**		
	ANCHOR UNIT DEDUCTIONS																												
	GREU, TL-3	6 @ 50.00' EACH		-300.00																									
	B-77	10 @ 22.875' EACH		-228.75																									
	AT-1	2 @ 6.25' EACH		-12.50																									
	ADDITIONAL GUARDRAIL POSTS = 5 EACH																												
			TOTAL	**727.75**	**100**											**10**	**6**			**2**					**2**	**381**	**1,014**		
			SAY	**737.5**	**100**											**10**	**6**			**2**					**2**	**390**	**1,020**		