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PROJECT REFERENCE NO.	SHEET NO.
B-5980	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
PHASE I						
-Y1- 15+00.00	41+72 +/- (BEGIN BRIDGE)	4541	2247	118555	117279	5512
-Y1- 44+03 +/- (END BRIDGE)	45+00.00	23		5288	5264	0
-Y2- 10+12.00	13+59.00	56		1492	1436	0
-Y3- 21+28.22	26+38.18	310		289	0	21
-RPA- 23+00.00	31+43.86	168		48435	48268	0
-RPB- 16+50.00	23+60.76	147		37979	37832	0
-RPD- 15+90.00	18+50.00	25		896	870	0
-DW1- 10+12.00	12+80.00	53		2289	2287	50
	SUBTOTAL	5323	2247	215223	213237	5583
	PHASE I TOTAL	**5323**	**2247**	**215223**	**213216**	**5562**
PHASE II						
-RPC_DET 10+78.93	14+46.64	37		4725	4688	0
-RPD_DET 10+56.17	13+67.94	0		2177	2177	0
-Y1- 45+00.00	52+50.00	1549		4232	3463	780
-Y2- 13+59.00	24+85.00	113		383	330	60
-RPC- 14+00.00	21+57.92	181	905	3265	3084	905
REMOVE '-RPC_DET 10+78.93	14+46.64	2864		0	0	2864
	SUBTOTAL	4744	905	14782	13742	4610
	PHASE II TOTAL	**4744**	**905**	**14782**	**13742**	**4610**
Phase III						
REMOVE '-RPD_DET 10+56.17	13+67.94	1734		0	0	1734
-L1- 27+17.92	43+50.00	7649		1587	0	6062
-RPB- 14+60.11	16+50.00	726		486	0	239
	SUBTOTAL	10109	0	2074	0	8035
	PHASE III TOTAL	**10109**	**0**	**2074**	**0**	**8035**
Phase IV						
-L- 60+35.90	64+50.07	406		44	0	363
-L1- 50+27.00	54+50.00	5607		13269	7661	0
-RPD- 15+90.00	18+50.00	101		3582	3481	0
-RPD- 18+50.00	21+25.00	519		4679	4160	0
	SUBTOTAL	6634	0	21574	15301	363
	PHASE IVTOTAL	**6634**	**0**	**21574**	**14939**	**0**
PROJECT TOTALS:		26,810	3,153	253,653	241,897	18,207
ESTIMATED SHOULDER MATERIAL				1,150	1,150	
LOSS DUE TO CLEARING & GRUBBING		-10,000			10,000	
ADDITIONAL UNDERCUT			2,000	2,500	2,500	2,000
WASTE IN LIEU OF BORROW					-6,099	18,207
PROJECT TOTALS:		16,810	5,153	257,303	249,448	20,207
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					12,472	
GRAND TOTALS:		16,810	5,153	257,303	261,920	20,207
SAY:		**16,900**	**5,200**		**262,000**	

CONTINGENCY ITEMS PER NCDOT GEOTECHNICAL REPORT - DESIGN AND CONSTRUCTION RECOMMENDATIONS, DATED JUNE 11,2019:
EST. DDE = 3,640 CUBIC YARDS
EST. SHALLOW UNDERCUT = 500 CUBIC YARDS
EST.SHALLOW UNDERCUT BY STATIONS =1200 CUBIC YARDS
TOTAL SHALLOW UNDERCUT = 1700 CUBIC YARDS
EST. UNCLASSIFIED EXCAVATION - ACCEPTABLE (NOT TO BE USED IN THE TOP 3 FEET) BY STATIONS = 290 CUBIC YARDS
CLASS IV SUBGRADE STABILIZATION = 3200 TONS
PER GEOTECH RECOMMENDATION, ESTIMATED 2,000 CUBIC YARDS OF UNDERCUT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER.
PAVEMENT STRUCTURE VOLUME (L1, Y1, RPA, RPB) = 977 CUBIC YARDS

SHOULDER BERM GUTTER SUMMARY

IN LINEAR FEET

LINE	Station	Station	LENGTH
-Y1-	41+26	41+49	23.4
-Y1-	41+26	41+50	17.8
-Y1-	44+25	44+44	19.2
-Y1-	44+30	44+44	13.6
		TOTAL:	74
		SAY:	74

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP	REMARKS
-L1-	27+18	41+28	LT	1583.38				
-L1-	20+80	49+00	RT	3132.37				
-L-	60+36	62+64	LT	348.43				
-Y1-	18+00	23+16	RT	1409.87				
-Y1-	44+12	52+27	CL	4622.27				
-Y1-	53+20	55+80	LT	301.26				
-Y2-	14+00	17+14	CL	832.17				
-Y2-	20+36	24+15	CL	1020.94				
-Y3-	23+38	26+38	LT	110.79				EXIST SHOULDER REMOVAL
-Y3-	23+74	26+38	RT	103.16				EXIST SHOULDER REMOVAL
-RPA-	22+13	29+83	LT			4088.91		EXIST LOOP A
-RPC-	14+00	22+41	RT			1595.10		EXIST RAMP C
-RPD-	10+00	22+18	LT			3516.35		EXIST RAMP D
		TOTAL:		13,465.65		9200.37		
		SAY:		13,470		9210		

SUMMARY OF CABLE GUIDERAIL

SURVEY LINE	Station	Station	LOC.	LENGTH SINGLE FACED	LENGTH DOUBLE FACED	CABLE GUIDRAIL ANCHOR UNIT	REMARKS
L1'	35+75.00	45+45.34	LT MED		975.00	2	
		SUBTOTAL:			975	2	
		ANCHOR UNIT DEDUCTIONS					
CABLE GUIDERAIL ANCHOR UNIT @ 25.00' EACH					925		
		TOTAL			925	2	
		SAY:			925	2	

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

LINE	BEG. STA.	END STA.	LOC.	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPR. END	WARRANT POINT TRAIL. END	"N" DIST. FROM E.O.L.	TOTAL SHLDR WIDTH	FLARE LENGTH APPR. END	FLARE LENGTH TRAIL. END	W APPR. END	W TRAIL. END	ANCHORS III	ANCHORS B-77	ANCHORS GREU TL-2	ANCHORS GREU TL-3	ANCHORS CABLE GUIDERAIL	ANCHORS CAT-1	ANCHORS TES	IMP. ATTEN. MIA-2 EA	IMP. ATTEN. MIA-2 G	IMP. ATTEN. MIA-2 NG	REMOVE EXISTING GUARDRAIL	SINGLE FACE CONCRETE BARRIER	REMOVE AND STOCKPILE EXISTING	REMARKS
Y1	40+03.01	41+68.52	RT	87.50	87.5		41+68.52		8	13	127		2			1	1											
Y1	40+99.75	41+74.74	LT	75.00				41+74.74	8	13	27			0.5		1	1											
Y1	43+99.52	44+74.51	RT	75.00			43+99.52		8	13	27			0.5		1	1											
Y1	44+05.74	45+66.10	LT	100.00	87.5			44+05.74	8	13	127		2			1	1											
Y1	46+46.51	49+16.21	RT	275.00			47+10.00	49+00.00	8	13							1			1								
Y2	14+30.00	14+30.00	CL	50.00																								
Y2	24+00.00	24+00.00	CL	50.00																								
RPA	17+75.00	28+56.25	RT	1087.50			19+00.00	28+50.00	12	17	102		2					1		1					1315			
L1	44+50.00	58+10.57	RT MED	1362.50				47+62.78	10	15								1							1840			
L2	44+31.09	57+88.82	LT MED	1362.50			47+41.22		10	15								1							1860			
L	59+00.00	74+09.52	RT MED	1512.50			74+09.52		10	15	300		6		1										1510			
L	59+00.00	74+35.68	LT MED	1537.50				74+35.68	10	13		310		6	1										1540			
L	72+45.71	74+58.17	LT	212.50			74+58.17	72+63.03	2	17	187.5		4		1					1					205			
L	69+43.26	73+95.43	RT	462.50			70+93.22	73+95.37	12	17					1			1							390			
L2	38+65.72	40+19.74	RT	162.50			39+99.19		12	17								1							1550			
Y1	44+18.76	46+13.08	LT																						205			
L1	39+96.77	55+73.50	LT																						632			Three runs of existing guardrail
L2	50+97.91	52+30.04	RT																						132			
Y2	14+49.12	23+16.46	Both												1										935			Remove guardrail all four quadrants
RPC_DET	10+49.73	10+63.03	RT																									
RPD_DET	10+00.00	10+30.00	LT	37.50																								
			SUBTOTAL	**8450.00**	**175.00**										**5**	**4**	**5**	**5**	**0**	**3**	**0**	**0**			**12114.08**			
	ANCHOR UNIT DEDUCTIONS																											
		GREU TL-3 @ 50.00' EACH		-250.00																								
		GREU TL-2 @ 25.00' EACH		-125.00																								
		TYPE III @ 18.75' EACH		-93.75																								
		CAT-1 @ 6.25' EACH		-18.75																								
		Type B-77 @ 22.875'		-91.50																								
			TOTAL	**7871.00**	**175.00**										**5**	**4**	**5**	**5**	**0**	**3**	**0**	**0**			**12115**			
			SAY	**7875.0**	**175.0**										**5**	**4**	**5**	**5**	**0**	**3**	**0**	**0**			**12115**			

(ADDITIONAL POSTS = 10 EACH)