

6/22/20

COMPUTED BY: SMM DATE: 4/3/2020  
 CHECKED BY: JCH DATE: 4/4/2020

# DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <b>W-5600</b>	SHEET NO. <b>3B-1</b>
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107	
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

## SUMMARY OF EARTHWORK IN CUBIC YARDS

CHAIN	STATION	STATION	TOTAL UNCLASS.	UNDERCUT	EMBANK +%	BORROW	WASTE
<b>Phase 1A &amp; 1B Left</b>			0		0	0	0
-L- LT	19+00.00	44+00.00	6,856		418	0	6,438
-L- LT	44+00.00	69+00.00	693		1,056	363	0
-L- LT	69+00.00	104+00.00	803		1,269	466	0
-L- LT	104+00.00	147+00.00	2,744		414	0	2,330
-L- LT	179+00.00	195+50.00	5,922		1,178	0	4,744
-L- LT	227+00.00	254+00.00	2,139		1,931	0	208
-L- LT	254+00.00	281+85.00	3,973		1,090	0	2,883
-Y4-	10+75.00	14+00.00	281		1,083	802	0
-Y9-	14+90.00	20+00.00	900		520	0	380
-Y9RPA-	10+00.00	25+90.00	3,915		41,528	37,613	0
-Y9RPB-	10+00.00	16+05.02	971		9,328	8,357	0
-SR1-	10+00.00	30+09.94	1,126		15,141	14,015	0
-SR1-	30+09.94	67+00.00	1,230		11,940	10,710	0
-SR7-	12+00.00	40+25.00	11,900	1,110	3,793	0	9,217
-SR7-	40+25.00	54+06.67	344	530	4,614	4,381	641
-SR7-	54+06.67	74+60.00	2,109	895	2,466	732	1,270
-SR8-	10+30.00	12+30.00	214	207	274	257	404
-SR9-	10+50.00	12+60.00	876		185	0	691
			0		0	0	0
<b>SUBTOTAL</b>			46,996	2,742	98,228	77,696	29,206
<b>Phase 1A &amp; 1B Right</b>			0		0	0	0
-L- RT	19+00.00	44+00.00	988		760	0	228
-L- RT	44+00.00	69+00.00	879		1,854	975	0
-L- RT	69+00.00	104+00.00	1,819		301	0	1,518
-L- RT	104+00.00	147+00.00	6,297		856	0	5,441
-L- RT	179+00.00	202+00.00	4,364		26,970	22,606	0
-L- RT	195+50.00	202+00.00	0		2,574	2,574	0
-L- RT	202+00.00	217+00.00	510		67,525	67,015	0
-L- RT	226+00.00	254+00.00	1,940		3,256	1,316	0
-L- RT	254+00.00	281+85.00	5,347		551	0	4,796
-Y7LPC-	13+90.00	20+70.00	31,771	1,791	840	0	32,722
Y7RPC-	10+00.00	31+19.32	72,661	4,031	1,391	0	75,301
-Y9-	21+50.00	28+00.00	2,951		995	0	1,956
-Y9RPC-	10+00.00	25+20.00	6,397		7,678	1,281	0
-Y9RPD-	10+00.00	24+00.00	1,397		28,863	27,466	0
-SR2-	16+80.00	36+64.55	2,906		8,030	5,124	0
-SR2-	36+64.55	61+02.99	1,566		13,816	12,250	0
-SR2-	61+02.99	97+30.47	8,447		16,009	8,388	826
-SR3-	9+78.00	41+50.00	1,017		27,299	26,282	0
-SR3-	41+50.00	64+00.00	17,413		5,405	0	12,008
-SR6-	10+30.00	49+40.00	2,446		11,676	9,230	0
-DR1-	10+30.00	11+40.00	306		41	0	265
			0		0	0	0
<b>SUBTOTAL</b>			171,422	5,822	226,690	184,507	135,061
<b>Phase 1C LT</b>			0		0	0	0
-L- LT	147+00.00	156+00.00	463		795	332	0
-L- LT	158+00.00	179+00.00	7,312		2,388	0	4,924
-Y7-	14+20.00	20+50.00	1,600	239	285	0	1,554
-SR4-	10+50.00	18+00.00	1,883	1,122	506	0	2,499
-DR2-	10+50.00	12+70.00	3		2,269	2,266	0
-Y7LPA-	10+00.00	20+65.00	2,106		9,295	7,189	0
-Y7RPA-	10+00.00	28+40.98	6,683		25,081	18,398	0
			0		0	0	0
<b>SUBTOTAL</b>			20,050	1,361	40,619	28,185	8,977
<b>Phase 1C RT</b>			0		0	0	0
-L- RT	147+00.00	156+00.00	6,672		126	0	6,546
-L- RT	158+00.00	179+00.00	2,484		2,720	236	0
-Y7LPC-	10+10.00	13+90.00	11,865		106	0	11,759
-SR5-	10+50.00	15+75.00	932		5,959	5,027	0
			0		0	0	0
<b>SUBTOTAL</b>			21,953	0	8,911	5,263	18,305

<b>Phase 2</b>			0		0	0	0
-L- MED	168+00.00	202+00.00	2,475		9,920	7,445	0
-L-	218+00.00	227+00.00	0		85,831	85,831	0
-L- MED	227+00.00	254+00.00	2,223		4,385	2,162	0
-L- MED	254+00.00	281+85.00	2,613		10	0	2,603
-Y9-	20+00.00	21+50.00	0		484	484	0
-Y9RPB-	16+05.02	24+25.00	1,393		21,371	19,978	0
			0		0	0	0
<b>SUBTOTAL</b>			8,704	0	122,001	115,900	2,603
<b>Phase 3</b>			0		0	0	0
-L- LT	156+00.00	158+00.00	270		0	0	270
-L- MED	19+00.00	44+00.00	1,788		1,184	0	604
-L- MED	44+00.00	69+00.00	1,359		2,213	854	0
-L- MED	69+00.00	97+00.00	1,241		799	0	442
-L- MED	114+00.00	137+00.00	2,242		34	0	2,208
-L- MED	137+00.00	157+00.00	2,227		51	0	2,176
-L- MED	157+00.00	168+00.00	1,144		31	0	1,113
-Y7-	20+50.00	25+99.00	96	4	25,120	25,032	12
-Y7-	28+05.00	39+00.00	4,249		37,345	33,096	0
			0		0	0	0
<b>SUBTOTAL</b>			14,616	4	66,777	58,982	6,825
<b>Phase 4</b>			0		0	0	0
-L- MED	97+00.00	114+00.00	1,607		74	0	1,533
-L- RT	156+00.00	158+00.00	143		0	0	143
-Y5-	12+30.00	12+70.00	49		69	20	0
-Y5-	16+90.00	18+20.00	123		95	0	28
			0		0	0	0
<b>SUBTOTAL</b>			1,922	0	238	20	1,704
<b>TOTAL</b>			285,663	9,929	563,464	470,553	202,681
<b>MATERIAL FOR SHOULDER CONSTRUCTION</b>					29,173	29,173	0
<b>LOSS DUE TO CLEARING &amp; GRUBBING</b>			-2,000		0	2,000	0
<b>ADDITIONAL UNDERCUT CONTINGENCY</b>				3,250	4,063	4,063	3,250
<b>WASTE IN LIEU OF BORROW</b>			0		-139,722	-139,722	0
<b>PROJECT TOTAL</b>			283,663	13,179	596,699	366,066	66,209
<b>EST. 5% TO REPLACE TOP SOIL ON BORROW PIT</b>						18,303	
<b>GRAND TOTAL</b>			283,663	13,179		384,369	
<b>SAY</b>			300,000	14,450		400,000	

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

Pavement Structure Volume (CY) = 147,611

EST. DDE = 35,000 CUBIC YARDS  
 EST. SHALLOW UNDERCUT = 1,000 CUBIC YARDS  
 EST. SHALLOW UNDERCUT BY STATIONS = 150 CUBIC YARDS  
 TOTAL SHALLOW UNDERCUT = 1,150 CUBIC YARDS  
 CLASS IV SUBGRADE STABILIZATION = 2,300 TONS

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