

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
SUMMARY OF EARTHWORK
 IN CUBIC YARDS

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.

Quantities are approximate only. The Resident Engineer will re-cross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

STATION to STATION	UNCLASSIFIED	UNDERCUT	EMBANK. +/-	BORROW	WASTE
PHASE 1					
-L- 10+38.67 TO 19+00.00 LT	118		3,718	3,600	
-Y1A- 26+62.78 TO 32+53.11 LT	116		254	138	
-L- 25+00.00 TO 36+00.00 LT	929		35		894
-Y3- 10+06.00 TO 10+72.48	14		16	2	
-Y4- 10+00.00 TO 10+72.50	86		1		85
-L- 36+00.00 TO 64+00.00 LT	9,783		918		8,865
-Y6- 10+00.00 TO 10+72.46	5		16	11	
-Y6- 10+50.00 TO 11+72.17	257		13		244
-Y7DET- 5+40.00 TO 8+27.57	2,429		2,429		2,429
-Y7- 11+00.00 TO 14+20.20	2,806		7		2,799
-DRIVE2- 10+15.00 TO 11+43.00	510				510
-Y8- 13+00.00 TO 14+36.89	35		40	5	
-L- 133+50.00 TO 160+00.00 LT (INCLUDES -DRIVE4- EARTHWORK)	106,129		243		105,886
-DRIVE5- 10+06.25 TO 10+75.00	115			115	
-Y15- 10+10.00 TO 11+64.69	902			902	
-Y16DET- 11+38.30 TO 17+42.30	6,828		9		6,819
-Y16- 10+40.00 TO 14+52.50	4,451		81		4,370
-L- 160+00.00 TO 182+50.00 LT	23,961		5,288		18,673
-Y17- 11+15.00 TO 18+45.87	4,828		702		4,126
-L- 182+50.00 TO 195+00.00 LT	677		1,179	502	
-Y18- 17+50.00 TO 30+21.37 LT	15,228		446		14,782
-L- 10+50.00 TO 14+65.00 RT	66		97	31	
-Y2- 14+65.00 TO 17+14.58 RT			271	271	
-Y1- 15+00.00 TO 23+50.00 LT	216		791	575	
-Y1- 15+00.00 TO 32+32.91 RT	177		1,418	1,241	
-Y2- 17+93.62 TO 19+30.00 RT	3		125	122	
-Y2- 17+93.62 TO 19+30.00 LT	3		184	181	
-Y1- 24+74.00 TO 29+72.00 MED	71		309	238	
-Y1A- 24+55.44 TO 26+06.00 LT	12		71	59	
-Y2- 15+86.32 TO 17+14.58 LT	14		78	64	
-L- 25+00.00 TO 36+00.00 RT	98		2,414	2,316	
-L- 36+00.00 TO 55+00.00 RT	148		1,693	1,545	
-LDET- 10+00.00 TO 18+72.92	1,452		10,088	8,536	
-L- 64+00.00 TO 90+00.00 RT	9,602		13,767	4,165	
-Y9DET- 10+10.39 TO 14+00.00	588		22		566
-Y9- 10+37.52 TO 13+25.00	4,571				4,571
-DRIVE7- 10+50.00 TO 11+75.00	957				957
-L- 90+00.00 TO 116+75.00 RT	23,175		19,766		3,409
-DRIVE6- 10+37.50 TO 13+33.60	10		3,087	3,077	
-DRIVE8- 10+00.00 TO 11+54.03			998	998	
-Y12- 10+51.20 TO 16+25.02	3,704		36		3,668
-DRIVE3- 10+10.00 TO 13+48.52	754		5		749
-L- 118+00.00 TO 135+00.00 RT	1,528		9,494	7,966	
-L- 177+00.00 TO 182+50.00 RT	203		702	499	
-L- 171+50.00 TO 182+00.00 MED	6		739	733	
-XOVR2- 10+43.29 TO 16+34.43			611	611	
-L- 182+50.00 TO 195+00.00 RT	11,328		64		11,264
PHASE 1 SUBTOTAL	238,893		79,796	37,586	196,683
WASTE TO REPLACE BORROW				-37,586	-37,586
PHASE 1 TOTAL	238,893		79,796	0	159,097
PHASE 2					
-L- 55+00.00 TO 64+00.00 RT	143		6,915	6,772	
-L- 135+00.00 TO 160+00.00 RT	447		4,467	4,020	
-L- 160+00.00 TO 177+00.00 RT	1,576		984		592
-L- MED 170+43.29 TO 176+34.27 LT & RT (-XOVR2- REMOVAL FOR MEDIAN CURB INSTALLATION)	103				103
-Y18- 31+17.25 TO 37+50.00; -Y18- 37+50.00 TO 42+40.00 RT	8,741		342		8,399
-Y18- 38+00.00 TO 42+40.00 LT	113		72		41
-DRIVE1- 10+20.00 TO 11+40.45	59		3		56
-Y19- 10+15.30 TO 13+00.00	1		757	756	
-L- 131+50.00 TO 138+50.00 MED	143		358	215	
-XOVR1- 11+97.97 TO 17+88.43			674	674	
-L- 182+50.00 TO 189+50.00 MED	112		331	219	
-L- 64+00.00 TO 90+00.00 LT	5,100		3,945		1,155
-L- 90+00.00 TO 116+50.00 LT	2,837		4,235	1,398	
-Y10- 11+56.49 TO 12+62.49	205		7		198
-Y11- 12+48.35 TO 13+59.19	24		110	86	
-L- 118+20.00 TO 133+50.00 LT	5,542		2,714		2,828
-Y18- 17+50.00 TO 30+21.37 RT	90		1,206	1,116	
PHASE 2 SUBTOTAL	25,236		27,120	15,256	13,372
WASTE TO REPLACE BORROW				-13,372	-13,372
PHASE 2 TOTAL	25,236		27,120	1,884	0

STATION to STATION	UNCLASSIFIED	UNDERCUT	EMBANK. +/-	BORROW	WASTE
PHASE 3					
-L- MED 131+77.84 TO 137+66.81 LT & RT (-XOVR1- REMOVAL FOR MEDIAN CURB INSTALLATION)	102				102
PHASE 3 SUBTOTAL	102				102
WASTE TO REPLACE BORROW					0
PHASE 3 TOTAL	102				102
PROJECT SUBTOTAL (PHASE 1 + PHASE 2 + PHASE 3)	264,231		106,916	1,884	159,199
ESTIMATED LOSS DUE TO CLEARING & GRUBBING	-6,500				-6,500
ESTIMATED SHOULDER MATERIAL			5,244	5,244	
PROJECT TOTAL	257,731		112,160	7,128	152,699
ESTIMATED 5% FOR REPLACING TOPSOIL ON BORROW PIT				357	
GRAND TOTAL (CUBIC YARDS)	257,731		112,160	7,485	152,699
SAY (CUBIC YARDS)	257,800			7,500	
ESTIMATED DRAINAGE DITCH EXCAVATION = 3,200 CY					
ESTIMATED PAVEMENT STRUCTURE VOLUME: -L- LINE = 21,404 CY -Y- LINES (-Y9-, -Y12-, Y16-, -Y17-, -Y18-) = 2,357 CY					
THE FOLLOWING QUANTITIES ARE PER THE "GEOTECHNICAL REPORT - DESIGN AND CONSTRUCTION RECOMMENDATIONS" LETTER DATED NOVEMBER 27, 2012					
ESTIMATED SELECT GRANULAR MATERIAL = 500 CY (CONTINGENCY, TO BE USED IN THE UNDERCUT FOR EMBANKMENT STABILITY OR UNDERCUT FOR SUBGRADE STABILITY LOCATIONS, AS DIRECTED BY THE ENGINEER.)					
ESTIMATED UNDERCUT = 500 CY (CONTINGENCY, TO BE USED FOR UNDERCUT FOR SLOPE/EMBANKMENT STABILITY, AS DIRECTED BY THE ENGINEER.)					
EARTHWORK TOTALS FOR ALTERNATE PAVEMENT DESIGN (10" DEPTH, ALL ASPHALT PAVEMENT IN PLACE OF ABC)					
PROJECT SUBTOTAL	264,231		106,916	1,884	159,199
ADJUSTMENT FOR ALTERNATE PAVEMENT DESIGN	-7,879		5,552		-7,879
ADJUSTMENT WASTE TO REPLACE BORROW (96% +/- OF ADJUSTMENT BORROW QUANTITY CAN BE REPLACED WITH WASTE)				-5,330	-5,330
ESTIMATED LOSS DUE TO CLEARING & GRUBBING	-6,500				-6,500
ESTIMATED SHOULDER MATERIAL			3,703	3,703	
PROJECT TOTAL	249,852		116,171	5,809	139,490
ESTIMATED 5% FOR REPLACING TOPSOIL ON BORROW PIT				291	
GRAND TOTAL (CUBIC YARDS)	249,852		116,171	6,100	139,490
SAY (CUBIC YARDS)	249,900			6,100	
ESTIMATED PAVEMENT STRUCTURE VOLUME: -L- LINE = 13,707 CY -Y- LINES (-Y9-, -Y12-, Y16-, -Y17-, -Y18-) = 2,357 CY					