

COMPUTED BY: HWB DATE: May-15  
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**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**



PROJECT NO. R-2413CA SHEET NO. 3B-1

**SUMMARY OF EARTHWORK**  
 IN CUBIC METERS

LOCATION	UNCL. EXCAVATION	UNDERCUT	EMBT + %	BORROW	TOTAL WASTE
<b>SUMMARY #1 PHASE 1</b>					
-L REV- 84+00 TO -L REV- 86+18.605 (STEP 1)	10,013		3,522		6,491
-LREV_SB- 86+18.605 TO -LREV_SB- 87+00.000 (STEP 1)	11,126				11,126
-LREV_SB- 91+80.000 TO -LREV_SB- 96+60.000 (STEP 1)			171,731	171,731	
-NC68_SB- 13+60 TO -NC68_SB- 14+09.215 (STEP 1)			23,210	23,210	
-NC68SB_DET- 13+61.670 TO -NC68SB_DET-15+18.666 (STEP 2)	76		19		57
-NC68SB_DET- 15+18.666 TO -NC68SB_DET-17+07.249 (STEP 2)	40		113	73	
-LREV_NB- 87+65.000 TO -LREV_NB- 92+94.000 (STEP 2)	412		162		250
-LREV_NB- 93+26.000 TO -LREV_NB- 97+14.000 (STEP 2)	208		180		28
-LREVENDET- 10+00.000 TO -LREVENDET- 13+60.189 (STEP 2)	180		73		107
-LREV_SB- 90+00 TO -LREV_SB- 90+37.493 (STEP 3)			10,714	10,714	
-LREV_NB- 90+60 TO -LREV_END- 100+00.000 (STEP 3)	995		2,066	1,071	
-NC68NB_DET- 11+75.967 TO -NC68NB_DET-13+18.14 (STEP 3)	61		806	745	
SUBTOTAL: SUMMARY #1 PHASE 1	23,111		212,596	207,544	18,059
WASTE TO BE USED IN LIEU OF BORROW				-18,059	-18,059
TOTAL SUMMARY #1 PHASE 1	23,111		212,596	189,485	
<b>PROJECT SUBTOTAL PHASE 1</b>	23,111		212,596	189,485	
<b>SUMMARY #2 PHASE 2</b>					
-LREV_SB- 87+00.000 TO -LREV_SB- 90+00.000	11,365		23,000	11,635	
-NC68_SB- 10+00.000 TO -NC68_SB- 13+60.000	44		40,210	40,166	
-LREV_SB- 90+81.993 TO -LREV_SB- 91+80.000			25,900	25,900	
-LREV_SB- 96+60.000 TO -LREV_SB- 98+72.769	438		1,783	1,345	
-LREV_END- 98+41.554 TO -LREV_END- 105+65.000	4,656		1,188		3,468
-Y16A- 10+92.331 TO -Y16A- 11+09.036	71		37		34
-Y16B- 10+24.856 TO -Y16B- 10+55.267	37				37
SUBTOTAL: SUMMARY #2 PHASE 2	16,611		92,118	79,046	3,539
WASTE TO BE USED IN LIEU OF BORROW				-3,539	-3,539
<b>PROJECT SUBTOTAL PHASE 2</b>	16,611		92,118	75,507	
<b>SUMMARY #3 PHASE 3</b>					
-LREVSB_XOVR- 99+33.836 TO -LREV_SB- 101+05.157 (STEP 1A)	128				128
-LREV- 75+60.000 TO -LREV- 86+18.605 (STEP 2)	71,774		1,188		70,586
-LREV_NB- 86+18.605 TO -LREV_NB- 90+09.000 (STEP 2)	19,109		7		19,102
-NC68_NB- 10+00.000 TO NC68_NB- 16+00.000 (STEP 2)	677		1,150	473	
-LREV_NB- 92+45.000 TO -LREV_NB- 98+39.270 (STEP 2)	2,215		2,026		189
-LREV_NB- 90+09.000 TO -LREV_SB- 92+45.000 (STEP 3)	373		1,429	1,056	
SUBTOTAL: SUMMARY #3 PHASE 3	94,276		5,800	1,529	90,005
WASTE TO BE USED IN LIEU OF BORROW				-1,529	-1,529
TOTAL SUMMARY #3 PHASE 3	94,276		5,800		88,476
<b>PROJECT SUBTOTAL PHASE 3</b>	94,276		5,800		88,476

LOCATION	UNCL. EXCAVATION	UNDERCUT	EMBT + %	BORROW	TOTAL WASTE
PROJECT SUBTOTAL PHASE 1	23,111		212,596	189,485	
PROJECT SUBTOTAL PHASE 2	16,611		92,118	75,507	
PROJECT SUBTOTAL PHASE 3	94,276		5,800		88,476
<b>SUBTOTAL (PHASES 1-3)</b>	133,998		310,514	264,992	88,476
MATERIAL FOR SHOULDER CONSTRUCTION LOSS DUE TO CLEARING & GRUBBING			17,018	17,018	
PROJECT SUBTOTAL	133,998		327,532	282,010	
ESTIMATE 5% TO REPLACE TOPSOIL IN BORROW PITS				14,101	
<b>GRAND TOTAL (M<sup>3</sup>)</b>	133,998		327,532	296,111	
ENGLISH TOTAL (CY)	175,269			387,313	
<b>ENGLISH SAY (CY)</b>	<b>175,300</b>			<b>387,400</b>	

ADDITIONAL UNDERCUT = 400 CM (523 CY) SAY 530 CY  
 DRAINAGE DITCH EXCAVATION = 350 CM (458 CY) SAY 460 CY  
 SELECT GRANULAR MATERIAL = 400 CM (523 CY) SAY 530 CY  
 PAVEMENT STRUCTURE VOLUME = 17,373 CM 22,723 CY) SAY 22,800 CY

NOTE: ADDITIONAL UNDERCUT AND SELECT GRANULAR MATERIAL CONTINGENCY PER DIVISION GEOTECHNICAL REPORT, 1/29/2015  
 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.