

COMPUTED BY: SCS DATE: 7-10-17

CHECKED BY: GAM DATE: 7-10-17

PROJECT NO.

U-4751

SHEET NO.

3B-1

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

### SUMMARY OF EARTHWORK

In Cubic Yards

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

Chain	Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-Y1-	47+00.00 (RT)	53+00.00 (RT)	234		508	274	0
-Y16-	10+47.65	13+00.00	715		131	0	584
-Y24-	10+55.00	16+64.43	1,075		0	0	1,075
-Y1RPD-	10+39.00	35+18.82	3,995	4,700	49,403	47,800	7,092
		<b>SUBTOTAL 1</b>	<b>6,019</b>	<b>4,700</b>	<b>50,042</b>	<b>48,074</b>	<b>8,751</b>
-L-	10+35.00 (LT)	24+85.00 (LT)	914		709	0	205
-Y1-	12+00.00 (LT)	42+00.00 (LT)	1,517		1,988	471	0
-Y-	10+95.00	21+41.15	521		50	0	471
-Y-	22+67.47	24+35.00	141		35	0	106
-SR1-	11+25.00	18+75.88	1,173		778	0	396
-Y20-	10+51.58	11+32.70	15		17	2	0
		<b>SUBTOTAL 2</b>	<b>4,281</b>		<b>3,576</b>	<b>473</b>	<b>1,178</b>
-L-	10+35.00 (RT)	24+85.00 (RT)	1,395		776	0	619
-Y1-	12+00.00 (RT)	42+00.00 (RT)	598		3,837	3,239	0
-Y25-	10+47.96	11+60.78	21		107	86	0
		<b>SUBTOTAL 3</b>	<b>2,014</b>		<b>4,720</b>	<b>3,325</b>	<b>619</b>
-L-	24+85.00	38+05.70 (Begin Bridge)	617	253	73,914	73,297	253
-Y1-	42+00.00 (RT)	47+00.00 (RT)	211		443	232	0
-Y1-	53+00.00 (RT)	72+00.00 (RT)	298		2,274	1,976	0
-Y10-	10+47.50	12+50.00	0		413	413	0
		<b>SUBTOTAL 4</b>	<b>1,126</b>	<b>253</b>	<b>77,044</b>	<b>75,918</b>	<b>253</b>
-Y1-	72+00.00 (RT)	84+95.00 (RT)	674		219	0	455
-Y13-	23+91.69	25+54.37	73		79	6	0
		<b>SUBTOTAL 5</b>	<b>747</b>		<b>298</b>	<b>6</b>	<b>455</b>
-L-	39+94.45 (End Bridge)	40+50.00	148		10,420	10,272	0
-Y1-	42+00.00 (LT)	72+00.00 (LT)	1,529		2,934	1,405	0
		<b>SUBTOTAL 6</b>	<b>1,677</b>		<b>13,354</b>	<b>11,677</b>	<b>0</b>
		<b>SUBTOTALS 1 THRU 6</b>	<b>15,864</b>	<b>4,953</b>	<b>149,035</b>	<b>139,473</b>	<b>11,256</b>

Chain	Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-Y1-	72+00.00 (LT)	84+95.00 (LT)	563		241	0	322
-Y13-	21+90.00	23+08.69	41		47	6	0
		<b>SUBTOTAL 7</b>	<b>604</b>		<b>288</b>	<b>6</b>	<b>322</b>
-L-	40+50.00	62+51.85 (Begin Bridge)	299	9,488	192,674	192,383	9,496
-Y1RPB-	10+00.00	32+12.98	1,568	71	22,088	20,520	71
-Y1RPA-	10+00.00	21+89.44	1,752		1,199	0	553
-Y1LPB-	10+00.00	24+40.21	1,148		16,993	15,845	0
-Y2-	13+80.00	15+90.00	14		8	0	7
		<b>SUBTOTAL 8</b>	<b>4,781</b>	<b>9,559</b>	<b>232,961</b>	<b>228,748</b>	<b>10,127</b>
-L-	63+57.85 (End Bridge)	91+85.00	1,900	12,649	179,734	179,734	14,549
		<b>SUBTOTAL 9</b>	<b>1,900</b>	<b>12,649</b>	<b>179,734</b>	<b>179,734</b>	<b>14,549</b>
-L-	100+50.00	127+25.00	2,269	56,032	176,863	176,829	58,267
-Y4-	11+70.00	14+94.60	158	719	7,088	7,079	868
-Y4-	16+01.27	18+40.00	5	529	2,007	2,002	529
-Y21-	10+00.00	12+40.76	234		0	0	234
-Y22-	10+00.00	12+45.37	102		3	0	100
		<b>SUBTOTAL 10</b>	<b>2,768</b>	<b>57,280</b>	<b>185,961</b>	<b>185,910</b>	<b>59,998</b>
-L-	129+10.00	159+10.00	11,802	33,309	191,329	191,289	45,071
-Y6-	10+52.51	13+40.00	16	213	5,515	5,515	229
		<b>SUBTOTAL 11</b>	<b>11,818</b>	<b>33,522</b>	<b>196,844</b>	<b>196,804</b>	<b>45,300</b>

Chain	Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-L-	159+10.00	189+10.00	1,217	462	136,604	136,604	1,679
-SR4-	10+54.50	34+59.06	605	3,144	22,645	22,479	3,583
		<b>SUBTOTAL 12</b>	<b>1,822</b>	<b>3,606</b>	<b>159,249</b>	<b>159,083</b>	<b>5,262</b>
-L-	189+10.00	219+10.00	750	257	158,425	158,425	1,007
-Y8RPC-	10+00.00	34+66.23	0		94,920	94,920	0
-Y8RPD-	10+00.00	30+18.70	0		89,064	89,064	0
-Y8RPCA-	47+34.00 (End Const.)	68+92.88	260	864	52,420	52,420	1,124
-Y8RPDB-	10+00.00	34+04.05 (Begin Bridge)	0		197,079	197,079	0
		<b>SUBTOTAL 13</b>	<b>1,010</b>	<b>1,121</b>	<b>591,908</b>	<b>591,908</b>	<b>2,131</b>
		<b>SUBTOTALS 7 THRU 13</b>	<b>24,703</b>	<b>117,737</b>	<b>1,546,945</b>	<b>1,542,193</b>	<b>137,688</b>

Chain	Station	Station	Uncl. Excav.	Undercut	Embank. +%	Borrow	Waste
-Y8-	44+90.00 (TEMP RT)	74+10.00 (TEMP RT)	249		888	639	0
-Y8-	49+11.36 (RT)	69+87.83 (RT)	732	657	7,999	7,267	657
-L-	219+10.00	224+90.53 (Begin Bridge)	0		121,552	121,552	0
		<b>SUBTOTAL 14</b>	<b>981</b>	<b>657</b>	<b>130,439</b>	<b>129,458</b>	<b>657</b>
-Y8-	84+70.00 (TEMP RT)	126+20.00 (TEMP RT)	314		1,925	1,611	0
-Y8-	88+90.00 (RT)	94+75.00 (RT)	326		299	0	27
-Y8-	97+35.00 (RT)	102+30.00 (RT)	252		283	31	0
-Y8-	109+34.55 (RT)	121+98.08 (RT)	619		2,325	1,706	0
		<b>SUBTOTAL 15</b>	<b>1,511</b>		<b>4,832</b>	<b>3,348</b>	<b>27</b>
-Y8-	30+90.00 (TEMP LT)	61+20.00 (TEMP LT)	284		893	609	0
-Y8-	31+20.00 (LT)	61+20.00 (LT)	1,663		5,240	3,577	0
		<b>SUBTOTAL 16</b>	<b>1,947</b>		<b>6,133</b>	<b>4,186</b>	<b>0</b>
-Y8-	61+20.00 (TEMP LT)	76+05.00 (TEMP LT)	170		205	35	0
-Y8-	61+20.00 (LT)	73+27.57 (LT)	773	1,789	6,108	5,381	1,835
		<b>SUBTOTAL 17</b>	<b>943</b>	<b>1,789</b>	<b>6,313</b>	<b>5,416</b>	<b>1,835</b>
-Y8-	76+05.00 (TEMP LT)	106+05.00 (TEMP LT)	286		890	604	0
-Y8-	85+80.13 (LT)	101+85.00 (LT)	975		2,178	1,203	0
-L-	226+96.64 (End Bridge)	231+00.00 (End Const.)	2		101,708	101,706	0
-Y8RPDB-	36+17.30 (End Bridge)	69+87.19	4,669	4,756	117,139	117,047	9,333
-Y8LPB-	10+00.00	25+07.33	0	3,061	119,420	119,420	3,061
		<b>SUBTOTAL 18</b>	<b>5,932</b>	<b>7,817</b>	<b>341,335</b>	<b>339,980</b>	<b>12,394</b>
-L-	91+85.00	100+50.00	543	178	26,463	26,463	721
-L-	127+25.00	129+10.00	194	3,152	8,420	8,420	3,346
-Y3-	12+08.79	14+18.78	9		1,619	1,610	0
-Y3-	15+19.01	16+50.90	13		183	170	0
-Y5-	12+80.00	14+45.84	2	163	529	529	165
-Y5-	15+45.72	17+00.00	6	137	474	474	143
-Y12-	10+49.52	12+55.00	0	37	1,317	1,317	37
		<b>SUBTOTAL 19</b>	<b>767</b>	<b>3,667</b>	<b>39,005</b>	<b>38,983</b>	<b>4,412</b>
		<b>SUBTOTALS 14 THRU 19</b>	<b>12,081</b>	<b>13,930</b>	<b>528,057</b>	<b>521,371</b>	<b>19,325</b>

<b>SUBTOTALS 1 THRU 6</b>	15,864	4,953	149,035	139,473	11,256
<b>SUBTOTALS 7 THRU 13</b>	24,703	117,737	1,546,945	1,542,193	137,688
<b>SUBTOTALS 14 THRU 19</b>	12,081	13,930	528,057	521,371	19,325
<b>SUBTOTALS 1 THRU 19</b>	<b>52,648</b>	<b>136,620</b>	<b>2,224,037</b>	<b>2,203,037</b>	<b>168,269</b>
MATERIAL FOR SHOULDER CONSTRUCTION			13,600	13,600	
ADDITIONAL UNDERCUT		11,000	13,750	13,750	11,000
WASTE IN LIEU OF BORROW				-5,153	-5,153
ADJUSTMENT FOR DETENTION BASIN CONSTRUCTION	43,250				43,250
REDUCTION OF BORROW DUE TO SELECT MATERIAL			-25,500	-25,500	
<b>PROJECT TOTAL</b>	<b>95,898</b>	<b>147,620</b>	<b>2,225,887</b>	<b>2,199,734</b>	<b>217,366</b>
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				109,987	
<b>GRAND TOTAL</b>	<b>95,898</b>	<b>147,620</b>		<b>2,309,721</b>	
<b>SAY</b>	<b>100,000</b>	<b>150,000</b>		<b>2,310,000</b>	
L, SR1, Y, Y16, Y21, Y22, Y24 PAVEMENT STRUCTURE VOLUME = 1,800 CY					

DRAINAGE DITCH EXCAVATION = 41,460 CY  
 CLASS IV SUBGRADE STABILIZATION = 950 TONS  
 6" PERFORATED SUBDRAIN PIPE = 1,000 LF  
 SELECT GRANULAR MATERIAL = 49,000 CY