

6/21/2021

COMPUTED BY: T.N. BEDENBAUGH DATE: 06/30/21
 CHECKED BY: R.E. BROOKS DATE:

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. 17BP.14.R.212 SHEET NO. 3B-1
 HDR Engineering, Inc. of the Carolinas
 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
 N.C.B.E.L.S. License Number: F-0116

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBANK. +15%	BORROW	WASTE
-L- STA. 11+14.45 TO STA. 19+54.88 (BEGIN BRIDGE)	933	1,232	299	0
-L- STA. 20+27.13 (END BRIDGE) TO STA. 28+00.00	86	4,693	4,607	0
SUBTOTAL	1,019	5,925	4,906	0
-Y1- STA. 10+00.00 TO STA. 12+81.54	426	267	0	159
-Y2- STA. 10+15.00 TO STA. 12+00.00	280	374	94	0
SUBTOTAL	706	640	94	159
-DR1- STA. 10+52.00 TO STA. 10+75.00	13	0	0	13
-DR2- STA. 10+19.75 TO STA. 11+50.00	5	154	149	0
SUBTOTAL	18	154	149	13
-YIDET- STA. 10+00.00 TO STA. 13+50.00	29	449	420	0
-YIDET- STA. 14+24.00 TO STA. 15+34.00	0	238	238	0
-YIDET- REMOVAL STA. 10+00.00 TO STA. 13+50.00	90	0	420	90
-YIDET- REMOVAL STA. 14+24.00 TO STA. 15+34.00	149	0	238	149
SUBTOTAL	268	686	657	239
TOTAL	2,011	7,405	5,805	411
MATERIAL FOR SHOULDER CONSTRUCTION		230	230	
WASTE IN LIEU OF BORROW			-411	-411
PROJECT TOTAL	2,011	7,635	5,624	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT			281	
GRAND TOTAL	2,011	7,635	5,905	0
SAY	2,025	7,650	5,925	0

PAVEMENT STRUCTURE VOLUME (PAVEMENT & SHOULDER MATERIAL QUANTITY IN EXC. AREAS FOR -L-, -Y1- & -Y2-) = 895 CUBIC YARDS
 ESTIMATED DDE = 110 CUBIC YARDS
 ESTIMATED SHALLOW UNDERCUT = 100 CUBIC YARDS (CONTINGENCY)
 CLASS IV SUBGRADE STABILIZATION = 200 TONS (CONTINGENCY)
 ESTIMATED SELECT GRANULAR MATERIAL = 400 CY (CONTINGENCY)
 PER GEOTECH RECOMMENDATION, ESTIMATED 450 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

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.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

SUMMARY OF PAVEMENT REMOVAL
 IN SQUARE YARDS

LOCATION	ASPHALT REMOVAL	ASHPALT BREAK UP	CONCRETE REMOVAL	CONCRETE BREAK UP
-L- STA. 12+45 TO 14+03	36			
-L- STA. 15+02 TO Existing Bridge	922			
-L- STA. Existing Bridge TO 24+94	727			
-L- STA. 25+36 TO 27+19	341			
-L- STA. 26+50 TO 27+75	87			
-Y1- STA. 11+20 TO Existing Intersection	828			
-YIDET- STA. 10+00 TO 13+03	549			
-YIDET- STA. 14+26 TO 15+23	254			
TOTAL	3,743			
SAY	3,750			

PARCEL INDEX

PARCEL NO.	PROPERTY OWNERS NAMES
1	JED ALLEN HALEY
1A	ST. JOSEPH'S CATHOLIC CHURCH
2	ANTA, LLC.
3	SMOKY MOUNTAIN PREGNANCY CARE CENTER
4	MICHAEL R. BUCHANAN
5	KENNETH R. WALTERS
6 / 7	JAMES EDWIN BYER
8	COUNTY OF JACKSON
9	WCU STUDENT HOUSING LLC.
10	WILLIAM HARRY KELLER, JR.

GUARDRAIL SUMMARY

"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.
 G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS							IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS							
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	AT-1	GREU, TL-2	M-350	TYPE III	CAT-1	VI MOD	XIII	XI	EA					G	NG					
-L-	19+00	19+56	RT	50			19+56		12	14	50		0.5																						
-L-	20+26	20+80	RT	50				20+26	12	14		50		0.5																					
-L-	19+36	19+56	LT		62.5		19+56		12	14																							See Type III-Shop Curved Attachment to Bridge Detail		
-L-	20+36	20+80	LT	50				20+26	12	14		50		0.5																					
-Y2-	10+62.50	12+00	RT	137.5			11+38		8	11	50		0.5																				Tie to existing guardrail at end of construction limits		
				SUBTOTAL	287.5	62.5																													
				AT-1 @ 6.25'X1		-6.25																													
				GREU, TL-2 @ 25'X4		-100																													
				TYPE III @ 18.75'X4		-56.25																													
				TOTAL	131.25	37.5																													
				SAY	137.5	37.5																													SAY 5 ADDITIONAL GUARDRAIL POSTES

REVISIONS

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