


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.
DF18314.2044195

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. + %	BORROW	WASTE
-L- STA. 11+35.00 TO STA. 13+04.00 (BEGIN BRIDGE)	13	495		0
-L- STA. 13+74.00 (BEGIN BRIDGE) TO STA. 14+20.00	0	87		0
SUBTOTAL	13	582	569	0
-EY- STA. 12+66.00 TO STA. 14+68.00	10	1	0	9
SUBTOTAL	10	1	0	9
-Y2- STA. 10+11.64 TO STA. 10+80.00	6	70	64	0
SUBTOTAL	6	70	64	0
TOTAL	29	653	633	9
MATERIAL FOR SHOULDER CONSTRUCTION				
LOSS DUE TO CLEARING & GRUBBING				
ROCK WASTE TO REPLACE BORROW				
ADJUST FOR ROCK WASTE				
WASTE IN LIEU OF BORROW			-9	-9
PROJECT TOTAL	29	653	624	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT			31	
GRAND TOTAL	29		655	
SAY	30		660	

Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

SUMMARY OF
SHOULDER BERM GUTTER
IN FEET

LOCATION	SIDE	BEGIN STATION	END STATION	LENGTH
-L-	LT	13+86	13+92	6
-L-	RT	13+86	13+92	6
			TOTAL	12
			SAY	20

"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

GUARDRAIL SUMMARY

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-3	TYPE III	TL-2	CAT-1	B-77 SHOP CURVED	XIII	XI	EA	G	NG					
-L-	12 + 41	13 + 04 (BR)	LT	6.25	50		13 + 04	12 + 41	2'-11"	5'-11"							1		1												TYPE III ANCHOR TO BE SHOPPED CURVE
-L- /-Y2-	10 + 53 (-Y2-)	13 + 04 (BR) (-L-)	RT	12.5	37.5		13 + 04 (-L-)	10 + 53 (-Y2-)	4'-5" / 2'	7'-5" / 5'						1		1		1											TYPE III ANCHOR TO BE SHOPPED CURVE
-L- /-EY-	13 + 74 (BR) (-L-)	13 + 10 (-EY-)	LT	25	57.75		13 + 10 (-EY-)	13 + 74 (-L-)	3'-11"	6'-11"		29'		1'				1	1												TYPE III ANCHOR TO BE SHOPPED CURVE
-L- /-EY-	13 + 74 (BR) (-L-)	14 + 59 (-EY-)	RT	25	62.5		13 + 74 (-L-)	14 + 59 (-EY-)	3'-11"	6'-11"		29'		1'				1	1												TYPE III ANCHOR TO BE SHOPPED CURVE
		SUBTOTAL		68.75	207.75																										
		TL-2 @ 25'X2		-50																											
		TYPE III @ 18.75'X4			-75																										
		AT-1 @ 6.25'X1		-6.25																											
		CAT-1 @ 6.25'X1		-6.25																											
		TOTAL		6.25	132.75											1		4	2	1											
		SAY		12.5	150																										