COMPUTED BY: ADS DATE: 5/24/17
CHECKED BY: DCS DATE: 5/24/17

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HDR | ICA
ICA Engineering, Inc.
5121 Kingdom Way,
Suite 100
Raleigh, NC 27607
NC License No: F-0258

PROJECT REFERENCE NO.	SHEET NO.
B-5327	3B-1

SUMMARY OF EARTHWORK
IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
SUMMARY 1					
10+50.00	12+56.25	316	101		215
SUBTOTALS:		316	101		215
SUMMARY 2					
14+68.75	17+00.00	535	199		336
SUBTOTALS:		535	199		336
PROJECT TOTALS:		851	300	0	551
GRAND TOTALS:		851	300	0	551
SAY:		900			

SEE GEOTECHNICAL RECOMMENDATIONS DATED MAY 20, 2016
FOR THE CONTINGENCY QUANTITIES LISTED BELOW:

SELECT GRANULAR MATERIAL (CY) = 150

GEOTEXTILE FOR SOIL STABILIZATION (SY) = 150

UNDERCUT EXCAVATION (CY) = 150

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

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
-L-	10+50.00	12+62.34	CL	447
-L-	14+62.82	17+00.00	CL	508
TOTAL:				955
SAY:				1000

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT	LF
-L-	12+27.50	12+45.38	LT	17.88
-L-	12+27.50	12+45.38	RT	17.88
TOTAL:				35.76
SAY:				40

"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	XI	GREU, TL-2	GREU, MEDIAN	XIII	CAT-1	VI MOD	III	TES	EA	G	NG				
-L-	10+00.00	12+56.25	RT	256.25			12+00.00	12+56.25	5.42	8.42	25		0.5				1					1						267		
-L-	10+00.00	12+56.25	LT	256.25			12+56.25	12+00.00	5.42	8.42		25		0.5			1					1						266		
-L-	14+68.75	17+50.00	RT	281.25			14+68.75	16+50.00	5.42	8.42		25		0.5			1					1						228		
-L-	14+68.75	17+87.50	LT	318.75			16+50.00	14+68.75	5.42	8.42	25		0.5				1					1						326		
	TOTAL			1112.50													4					4								
	ANCHOR UNIT DEDUCTIONS																													
	GRAU-350 (TL-2)	4 @ 25'		100																								1087		
	TYPE III	4 @ 18.75'		75																										
	TOTAL ANCHOR UNIT DEDUCTIONS			175													4					4								
	PROJECT TOTALS			937.5																								1087		NOTE: 5 EACH ADDITIONAL GUARDRAIL POSTS
	SAY			950													4					4						1087		

5/25/2017
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FAL INSTRUMENTS