COMPUTED BY: C. YOKELEY DATE: 11/18/2020 Revised
CHECKED BY: B. EASON DATE: 11/24/2020 Revised

5/9/06

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

PROJECT REFERENCE NO.	SHEET NO.
I-5711	3B-1
R/W SHEET NO.	

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+20%	BORROW	SUITABLE WASTE	UNSUITABLE WASTE
SUMMARY 1 (LEFT SIDE)						
-L- 18+03.85 (LT) TO 25+96.62 (BEG. BRIDGE)	320	–	3,158	2,838	–	–
-Y- 13+72.47 TO 16+87.00	174	–	107	–	67	–
-RPA_Y1- 12+50.00 TO 14+89.10	31	–	1,368	1,337	–	–
SUMMARY 1 SUBTOTAL	525	–	4,633	4,175	67	–
SUMMARY 2 (LEFT SIDE)						
-L- 28+15.65 (LT) (END BRIDGE) TO 50+00.00 (LT)	712	–	4,261	3,649	–	100
-RPD_Y1- 19+80.09 TO 21+42.67	25	–	202	177	–	–
-Y2- 10+50.93 TO 13+05.00	12	–	522	510	–	–
-Y4A- 10+43.17 TO 13+40.00	2,309	1,375	893	–	996	1,795
SUMMARY 2 SUBTOTAL	3,058	1,375	5,878	4,335	996	1,895
SUMMARY 3 (RIGHT SIDE)						
-L- 18+03.85 (RT) TO 25+96.62 (BEG. BRIDGE)	148	–	1,100	952	–	–
-RPB_Y1- 10+75.00 TO 20+72.91	7,820	–	563	–	7,257	–
SUMMARY 3 SUBTOTAL	7,968		1,664	952	7,257	–

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+20%	BORROW	SUITABLE WASTE	UNSUITABLE WASTE
SUMMARY 4 (RIGHT SIDE)						
-L- 28+15.65 (RT) (END BRIDGE) TO 50+00.00 (RT)	1,094	–	1,488	394	–	–
-RPC_Y1- 10+50.00 TO 11+95.54	15	–	114	99	–	–
-Y3- 12+10.00 TO 13+95.01	63	–	37	–	26	–
-Y4- 10+25.52 TO 11+96.20	66	–	29	–	37	–
SUMMARY 4 SUBTOTAL	1,238	–	1,668	493	64	–
TOTAL:	12,789	1,375	13,843	9,955	8,384	1,895
LOSS DUE TO CLEARING AND GRUBBING:	-700	–	–	700	–	–
WASTE IN LIEU OF BORROW:	–	–	–	-1,127	-1,127	–
PROJECT TOTAL:	12,089	1,375	13,843	9,527	7,257	1,895
5% TO REPLACE TOPSOIL (EST):	–	–	–	476	–	–
PROJECT TOTAL:	12,089	1,375	13,843	10,004	7,257	1,895
SAY	12,100	1,375		10,100		

PER GEOTECH RECOMMENDATION, ESTIMATED 1,000CY OF UNDERCUT TO BE USED AT THE DISCRETION OF THE ENGINEER.
PER GEOTECH RECOMMENDATION, ESTIMATED 150CY OF SHALLOW UNDERCUT FROM -L- STA. 41+75 TO 44+25.
EARTHWORK QUANTITIES ARE CALCULATED BY LOCHNER. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
-RPB Y1-	14+21	17+28	RT	124.48
-RPD Y1-	12+87	18+25	RT	157.63
			TOTAL:	282.10
			SAY:	290

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

"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-3	B-77	TYPE III	CAT-1	VI MOD	BIC	AT-1	EA	G	NG				
L	24+60.50	25+96.62	RT	93.75'	43.75'		25+96.62 (BRIDGE)		7'-6"										1				1							
L	28+15.65	29+33.87	LT	68.75'	81.25'			28+15.65 (BRIDGE)	7'-6"										1				1							
L	24+48.06	25+94.81	RT																									178		
L	24+82.04	25+98.38	LT																									116		
L	28+14.08	29+04.40	RT																									91		
L	28+17.61	29+29.63	LT																									153		
L	21+67.80	22+34.00	RT																									67		
L	34+00.00	36+09.80	RT	175.00'	68.75		34+95 (WALL)		12'-0"								1						1							USE 8' GUARDRAIL POSTS (40 EA)
Y1	22+84.00	25+84.00	RT	297.875'			22+84.00 (BRIDGE)		12'	15'	50.0'		1				1	1												
Y1	27+00.00	30+00.00	LT	297.875'				27+00.00 (BRIDGE)	12'	15'		50.0'		1			1	1												
			SUB-TOTAL	933.25'	193.75'																									
	LESS ANCHORS																													
	TYPE III SAU	2	@ 18.75'	-37.50'																										
	AT-1	3	@ 6.25'		-18.75'																									
	GREU TL-3	3	@ 50.0'	-150.0'																										
	B-77	2	@ 22.875'	-45.75'																										
TOTALS				700.00'	175.00'												3	2	2				3					605		
			SAY	700.00'	175.00'																							605		

ADDITIONAL POSTS = 5 EA 8' POSTS (WITH ADDITIONAL) = 41 EA

12/16/2020
12:07:20
BEASON
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