

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
PHASE 1 – DETOUR CONSTRUCTION					
–DET– 13+00.00 TO 28+42.95	973		7,508	6,535	0
PHASE 1 TOTAL	973		7,508	6,535	0
PHASE 2 – MAIN LINE CONSTRUCTION (EXCLUDES RIGHT SIDE SHOULDER AND/OR SLOPES)					
–L– 16+50.00 TO 20+54.00 (BEGIN BRIDGE)	75		1,573	1,498	0
–L– 21+41.00 (END BRIDGE) TO 25+75.00	55		2,349	2,294	0
PHASE 2 TOTAL	130		3,922	3,792	0
PHASE 3 – MAINLINE RIGHT SIDE COMPLETION & DETOUR REMOVAL					
–L– 13+00.00 TO 28+36.00 RT	7,103		488	0	6,615
PHASE 3 TOTAL	7,103		488	0	6,615
PROJECT SUBTOTAL (PHASE 1 + PHASE 2 + PHASE 3)	8,206		11,918	10,327	6,615
ESTIMATED LOSS DUE TO CLEARING AND GRUBBING	-220				-220
ESTIMATED SHOULDER MATERIAL			495	495	
PROJECT TOTAL	7,986		12,413	10,822	6,395
ESTIMATED 5% TO REPLACE TOPSOIL ON BORROW PIT				542	
GRAND TOTAL	7,986		12,413	11,364	6,395
SAY	8,000			11,400	
ESTIMATED DRAINAGE DITCH EXCAVATION = 90 CY					
THE FOLLOWING QUANTITIES ARE PER THE GEOTECHNICAL "ROADWAY RECOMMENDATIONS" LETTER DATED DECEMBER 11, 2018					
ESTIMATED UNDERCUT = 1,900 CY (CONTINGENCY, UNDERCUT FOR EMBT. STABILITY (1,400 CY) AND UNDERCUT FOR SUBGRADE STABILITY (500 CY), AS DIRECTED BY THE ENGINEER.)					
ESTIMATED GEOTEXTILE FOR SOIL STABILIZATION = 1,900 SY (CONTINGENCY, GEOTEXTILE FOR EMBT. STAB. (1,400 CY) AND GEOTEXTILE FOR SUBGRADE STAB. (500 CY), AS DIRECTED BY THE ENGINEER.)					
ESTIMATED SELECT GRANULAR MATERIAL = 1,900 CY (CONTINGENCY, USE FOR EMBT./BACKFILL FOR GEOTEXTILE FOR SOIL STABILIZATION OR BACKFILL IN WATER, AS DIRECTED BY THE ENGINEER.)					

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

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.

SUMMARY OF PAVEMENT REMOVAL

IN SQUARE YARDS

LOCATION	ASPHALT REMOVAL	ASPHALT BREAK-UP	CONCRETE REMOVAL	CONCRETE BREAK-UP
–L– STA. 16+50.00 TO 20+67.00 CL	990.00			
–L– STA. 21+42.00 TO 25+75.00 CL	1,017.33			
–DET– STA. 13+00.00 TO 28+42.95 CL	3,461.89			
TOTAL	5,469.22			
SAY	5,470			

"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.

GUARDRAIL SUMMARY

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			GREU TL-3		TYPE III				EA	G	NG				
–L–	18+14	20+59	LT	243.75				19+25	6' to 8'	11'		100'		2'			1		1										BEGIN GR FLARE –L– 19+15 +/-
–L–	17+67	20+49	RT	281.25			18+75		6' to 8'	11'	100'		2'				1		1										BEGIN GR FLARE –L– 19+18 +/-
–L–	21+45	24+64	LT	318.75			23+50		6' to 8'	11'	100'		2'				1		1										BEGIN GR FLARE –L– 21+90 +/-
–L–	21+36	23+56	RT	218.75				22+50	6' to 8'	11'		100'		2'			1		1										BEGIN GR FLARE –L– 21+80 +/-
SUBTOTAL (LF):				1,062.50									TOTAL (EA)				4		4										
TOTAL DEDUCTION FOR ANCHOR UNITS (LF):				275.00									DEDUCTION PER TYPE (LF)				50.00		18.75										
TOTAL (GUARDRAIL) (LF):				787.50									TOTAL DEDUCTION PER TYPE (LF)				200.00		75.00										
SAY (GUARDRAIL) (LF):				812.50			ADDITIONAL GR POSTS (EA): SAY 10						TOTAL DEDUCTION (LF)				275.00												

TEMPORARY GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		TEMPORARY 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			TEMP. GREU TL-2	TEMP. TYPE B-77					EA	G	NG				
–DET–	17+80	20+74.60	LT	297.875				17+75	2'	4'							1	1											USE PORTABLE CONCRETE BARRIER (ANCHORED)
–DET–	21+24.60	24+81	LT	360.375			23+75		2'	4'							1	1											–DET– STA. 20+74.60 TO 21+24.60 LT SEE TMP PLANS (WZTC PAY ITEM)
–DET–	16+00	20+54.60	RT	460.375			16+75		6'	8'							1	1											USE PORTABLE CONCRETE BARRIER (ANCHORED)
–DET–	21+54.60	22+28	RT	72.875				21+50	6'	8'							1	1											–DET– STA. 20+54.60 TO 21+54.60 RT SEE TMP PLANS (WZTC PAY ITEM)
SUBTOTAL (LF):				1191.50									TOTAL (TEMPORARY) (EA)				4	4											
TOTAL DEDUCTION FOR ANCHOR UNITS (LF):				191.50									DEDUCTION PER TYPE (LF)				25.00	22.875											
TOTAL (TEMPORARY GUARDRAIL) (LF):				1,000.00									TOTAL DEDUCTION PER TYPE (LF)				100.00	91.50											
SAY (TEMPORARY GUARDRAIL) (LF):				1,025.00									TOTAL DEDUCTION (LF)				191.50												

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