DocuSign Envelope ID: FE3787B2-1695-4913-BF26-1AAE33663CB8

COMPUTED BY: BRJ DATE: 2020-02-18
CHECKED BY: TS DATE: 2020-02-18

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
BR-0124	3B-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

EARTHWORK SUMMARY (IN CUBIC YARDS)

CHAIN	FROM STATION	TO STATION	SIDE	UNCL. EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L–	11+45.00	14+35.75 (BR)	LT & RT	8		722	714	
–L–	15+78.25 (BR)	17+80.00	LT & RT	25		108	83	
–Y–	11+80.00	13+42.60	LT & RT	528		446		82
TOTAL				561		1276	797	82
WASTE IN LIEU OF BORROW							–82	–82
PROJECT TOTAL				561		1276	715	
ESTIMATE 5% FOR TOPSOIL ON BORROW PITS							36	
GRAND TOTAL				561		1276	751	
SAY				600			800	

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

ESTIMATED DDE: 11 CY
CONTINGENCY UNDERCUT EXCAVATION: 550 CY
CONTINGENCY SELECT GRANULAR MATERIAL: 400 CY

PAVEMENT MARKING DETAIL

MARKING TYPE	CHAIN	FROM STATION	TO STATION	LENGTH (LF)
P1	–L– (LT)	11+45.00	17+80.00	1270.00
	–L– (RT)	11+45.00	17+80.00	1270.00
	–Y– (LT)	11+80.00	13+42.60	325.20
	–Y– (RT)	11+80.00	13+42.60	325.20
P13	–L–	11+45.00	17+80.00	2540.00
	–Y–	11+80.00	13+42.60	650.40
			TOTAL:	6380.80
			SAY:	6390

P1: 4" White Edge Lines (Two Layers of Paint with Line Factor 1)
P13 : 4" Yellow Double Center Lines (Two Layers of Paint with Line Factor 2)

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SY
–L–	14+15.00	14+35.75	LT/RT	44.29
–L–	15+78.25	15+99.00	LT/RT	45.66
			TOTAL:	89.95
			SAY:	90

SUMMARY OF BREAKING EXISTING ASPHALT PAVEMENT

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SY
–L–	13+00.00	14+15.00	LT/RT	223.40
–Y–	12+75.00	13+42.60	LT/RT	239.64
			TOTAL:	463.04
			SAY:	470

* W MEASURED FROM "N" AT THE BEGINNING OF THE ANCHOR TO "N" AT THE END OF THE ANCHOR.
"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.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH (LF)			WARRANT POINT		"N" DIST. FROM E.O.L. (LF)	TOTAL SHOUL. WIDTH (LF)	FLARE LENGTH (LF)		W* (LF)		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	B–77	GREU TL–3	GREU TL–2	TYPE III	CAT–1	VI MOD	BIC	AT–1	EA	G NG				
–L–	14+09.95	14+35.75	LT	68.75	50.00			14+35.75	3.9 – 4.9	6.9 – 7.9		50		1			1		1									R = 26' FOR SHOP CURVED
–L–	13+54.77	14+35.75	RT	81.25			14+35.75		3.9 – 4.9	6.9 – 7.9	50		1				1		1									
–L–	15+78.25	16+59.50	LT	81.25			15+78.25		3.9 – 4.9	6.9 – 7.9	50		1				1		1									
–L–	15+78.25	16+59.50	RT	81.25				15+78.25	3.9 – 4.9	6.9 – 7.9		50		1			1		1									
		TOTAL:		312.50	50.00																							
		ANCHOR LENGTH DEDUCTIONS:																										
		GREU TL–3 (4 @ 50'):		200.00																								
		TYPE–III (4 @ 18.75'):		75.00																								
		TOTAL ANCHOR LENGTH (DEDUCTIONS):		275.00																								
		TOTAL GUARDRAIL LENGTH:		37.50																								
		SAY:		37.50	50.00		5 ADDITIONAL G/R POSTS										4		4									

11/8/2020
R:\Roadway\Proj\SHT\BR-0124_rdy_psh03B.dgn
phain