PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.109	3-A
R/W SHEET NO.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

"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	GRAU 350 TL-2	M-350	TYPE-III	CAT-1	VI MOD	B-77	AT-1	EA	G	NG				
-L-	11+63.75	12+07.50	LT	43.75'	–	–	–	–	3'	4.45'	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
-L-	11+79.34	12+23.09	RT	43.75'	–	–	–	–	3'	4.45'	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
-L-	12+47.50	12+91.25	LT	43.75'	–	–	–	–	3'	4.45'	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
-L-	12+63.09	13+06.84	RT	43.75'	–	–	–	–	3'	4.45'	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–
-DET-	11+40.00	13+58.75	LT	218.75'	–	–	–	–	2'	3.45'	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–			–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
			SUB-TOTAL	393.75'											DEDUCTIONS FOR GUARDRAIL ANCHOR UNITS															
	DEDUCTIONS FOR GUARDRAIL ANCHOR UNITS			225'											TYPE TL-2			6 @ 25.00' =		150'										
			TOTAL	168.75'											TYPE III			4 @ 18.75' =		75'										
			SAY	168.75'														TOTAL =		225'										
	ADDITIONAL GUARDRAIL POSTS			4 EA																										

SUMMARY OF EARTHWORK (IN CUBIC YARDS)

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
PHASE I					
-DET- 11+30.00	15+80.00	149	692	543	–
		–	–	–	–
PHASE II					
-L- 10+10.00	12+10.00 (BEGIN BRIDGE)	32	79	47	–
-L- 12+60.00 (END BRIDGE)	14+80.00	35	35	0	–
		67	114	47	–
PHASE III - DETOUR REMOVAL					
-L- 10+30.00	14+60.00	567	0	–	567
		–	–	–	–
PROJECT TOTALS:		783	806	590	567
–		–	–	–	–
LOSS DUE TO CLEARING & GRUBBING		-25	–	–	–
–		–	–	–	–
GRAND TOTALS:		758	806	590	567
–		–	–	–	–
SAY:		760	–	590	–

CONTINGENCY ITEMS
UNDERCUT EXCAVATION 50 CY
SELECT GRANULAR MATERIAL 50 CY
INCIDENTAL STONE BASE 50 CY
GEOTEXTILE FOR SOIL STABILIZATION 50 CY
CLASS IV SUBGRADE STABILIZATION 50 CY

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

LIST OF PIPES, ENDWALLS, ETC.

NOTE: INVERT ELEVATIONS INDICATED ARE FOR BID PURPOSES ONLY AND SHALL NOT BE USED FOR PROJECT CONSTRUCTION STAKEOUT.
SEE "STANDARDS SPECIFICATIONS FOR ROADS AND STRUCTURES, SECTION 300-5".

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE .064	.064	.064	.064	.079	.079	.109	.109	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	48"	TEMPORARY PIPE	REMARKS
SIZE / THICKNESS OR GAUGE																																													
-DET- 13+27.44	CL																																											52	SEE SPECIAL PROVISION
SHEET TOTALS																																												52	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

REVISIONS

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LOUIS BERGER
1001 Wade Avenue, Suite 400
Raleigh, NC 27605-3322
License No.: F-0840

ROADWAY PLANS