6/16/99

COMPUTED BY: DNL DATE: 7-28-04
CHECKED BY: DATE:

"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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WBS ELEMENT	SHEET 7 OF 25
3CRJ0101J2	39190
39181	3CR.301024J2

GUARDRAIL SUMMARY

SURVEY LINE	BEG. MP	END MP	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS TYPE 350	ANCHORS M-350	ANCHORS CAT-1	ANCHORS V1	ANCHORS V1 MOD	ANCHORS XI	ANCHORS XI MOD	ANCHORS XIII	ANCHORS AT-1	IMPACT ATTENUATOR TYPE 350 EA	IMPACT ATTENUATOR TYPE 350 G	IMPACT ATTENUATOR TYPE 350 NG	IMPACT ATTENUATOR TYPE 350	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMARKS
NC 87																															
MAP 12	0.36	0.42	LT	175			0.38	0.40	6	9	50	50			2					2											
	0.36	0.42	RT	175			0.38	0.40	6	9	50	50			2					2											
	TOTAL			350											4					4											
															DEDUCTIONS 4 TYPE 350 @ 50' = 200'																
			LESS DEDUCTIONS:	328											4 TYPE B-77 @ 32' = 128'																
			SUBTOTAL:	22											DEDUCTIONS TOTAL = 328'																
			ADDITIONAL GUARD RAIL POST	5																											

STATE OF NORTH CAROLINA
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LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

MILE POST / SIZE / THICKNESS OR GAUGE	LOCATION (RT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"	CORRUGATED ALUMINUM ALLOY PIPE 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	ENDWALLS CU. YDS. C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "X" + (1.3 X COL. "Y") LIN. FT. PER EACH (0' THRU 5.0')	5.0' THRU 10.0' A	10.0' AND ABOVE B	T.B.D.I.	T.B.D.I. FRAME WITH TWO GRATES STD. 840.37	REINF. CONC. FLARED END SECTIONS 18"	CONV. EXST. D.I. TO T.B.D.I.	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
MAP NO. 10																																											
0.47	RT	2	1							84																								1									
1.19	RT	3																															1		1								
2.39	LT	4																															1		1								
2.39	LT	5								12																		1			1	1							0.4465			
1.79	LT	6																															1		1								
1.79	LT	7															100																										
TOTAL										96							100											1			1	4	1	3				0.4465			

ABBREVIATIONS

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

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