9/16/02

COMPUTED BY: DWG DATE: 06/10/04
CHECKED BY: EAD DATE: 09/02/04

PROJECT REFERENCE NO.	SHEET NO.
B-4058	3-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT,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"	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHRWISE) 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	CU. YDS. C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') LIN. *FT. A	LIN. *FT. B	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	T.B.D.I. STD. 840.35	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	CORR. STEEL ELBOWS NO. & SIZE	REMARKS
																.064	.064	.064	.064	.079	.079	.109	.109				R.C.P.	C.S.P.	PER EACH (0' THRU 5.0')	5.0' THRU 10.0'	10.0' AND ABOVE								
–L– 18+40.00	LT	1		531.10	528.30																								1							1	1	
–L– 18+40.00	LT	1	OUT		528.30	525.00											16																					2@15"	
TOTAL																	16												1							1	1	2@15"	

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
T.B.J.B.	TRAFFIC BEARING JUCTION BOX

"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

	BEG. STA.	END STA.	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 TYPE III	IMPACT ATTENUATOR TYPE 350 EA	IMPACT ATTENUATOR TYPE 350 G	IMPACT ATTENUATOR TYPE 350 NG	REMARKS
–L–	13+21.75	15+96.75	RT	275.00			14+50.00		5	8	100		2		1	1				
–L–	17+61.80	20+11.80	RT	250.00				19+00.00	5	8		100		2	1	1				
–L–	17+53.87	20+28.87	LT	275.00			18+50.00		5	8	100		2		1	1				
–L–	13+38.71	15+88.71	LT	250.00				14+50.00	5	8		100		2	1	1				
SUBTOTAL				1050.00											4	4				
		ANCHOR UNIT DEDUCTION																		
		GRAU-350	4 @ 50'	–200.00																
		TYPE III	4 @ 18.75'	–75																
			PROJECT TOTAL	775.00											4	4				
			SAY	800.00																
ADDITIONAL GUARDRAIL POST = 10 EA.																				

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBT+%	BORROW	WASTE
–L– SUMMARY NO. 1				
–L– 12+50.00 TO –L– 16+05.00 (BEGIN BRIDGE)	103	3854	3751	
TOTAL SUMMARY NO. 1	103	3854	3751	
–L– SUMMARY NO. 2				
–L– 17+46.10 (END BRIDGE) TO –L– 21+00.00	38	2496	2458	
TOTAL SUMMARY NO. 2	38	2496	2458	
SUMMARY TOTALS	141	6350	6209	
UNCLASSIFIED STR. EXCAV. IN LIEU OF BORROW			–420	
PROJECT TOTALS	141	6350	5789	
5% TO REPLACE TOPSOIL IN BORROW PIT			290	
PROJECT GRAND TOTAL	141	6350	6079	
SAY	150		6100	
DRAINAGE DITCH EXCAVATION = 49 CY				
SELECT GRANULAR MATERIAL = 100 CY				
UNDERCUT = 200 CY				
FABRIC FOR SOIL STABILIZATION = 100 SY				

SUMMARY OF PAVEMENT REMOVAL
IN SQUARE YARDS

LINE	STATION TO STATION	LOCATION	ASPHALT REMOVAL	ASPHALT BREAK-UP
–L–	13+25.00 TO 13+50.00	CL	55.56	
–L–	13+50.00 TO 15+76.35	CL		503.00
–L–	15+76.35 TO 16+33.08	CL	126.07	
–L–	16+83.80 TO 17+74.22	CL	200.93	
–L–	17+74.22 TO 19+75.00	CL		446.18
–L–	19+75.00 TO 20+12.00	CL	82.22	
		TOTAL	464.78	949.18
		SAY	470 SY	960 SY

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