COMPUTED BY: DK DATE: 4-11-03
CHECKED BY: BK DATE: 5-5-04

PROJECT REFERENCE NO.	SHEET NO.
B-3646	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.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') LIN. FT. PER EACH (0' THRU 5.0')	A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	M.D.I. TYPE "A" STD. 840.17 OR 840.26	M.D.I. TYPE "B" STD. 840.18 OR 840.27	M.D.I. TYPE "D" STD. 840.19 OR 840.28	M.D.I. FRAME WITH GRATE STD. 840.22	M.D.I. FRAME WITH TWO GRATES STD. 840.22	M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	T.B.D.I. STD. 840.35	CONCRETE BRIDGE APPROACH DROP INLET (DETAIL 2-C)	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
																.064	.064	.064	.064	.079	.079	.109	.109																														
17+41.78	LT	1		620.16	617.66	615.80																							1																			1					
17+41.78	LT	1	2													12																																		2@12"				
17+22.40	RT	3		621.03	618.53	617.50																							1																		1			1					
17+22.40	RT	3	4													12																																		2@12"				
TOTAL																24													2																		1			1				4@12"				

"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

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

GUARDRAIL SUMMARY

SURVEY LINE	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 III	ANCHORS TYPE 350	IMPACT ATTENUATOR TYPE 350 EA	G	NG	REMARKS
L	14+91.25	15+60.00	RT	68.75				BRIDGE	5.5	8	50		1		1	1				
L	15+07.59	15+76.34	LT	68.75			BRIDGE		5.5	8		50		1	1	1				
L	17+12.17	17+80.92	RT	68.75			BRIDGE		5.5	8		50		1	1	1				
L	17+31.97	18+00.72	LT	68.75				BRIDGE	5.5	8	50		1		1	1				
TOTAL				275											4	4				

DEDUCTIONS FOR ANCHOR UNITS

TYPE 350	4 @ 50' =	-200
TYPE III	4 @ 18.75' =	-75
	TOTAL	0
	SAY	25

5 ADDITIONAL GUARDRAIL POSTS

* ASPHALT PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

LINE	STATION TO STATION	REMOVAL AREA
-L-	15+25 TO 16+00	150
-L-	16+90 TO 17+75	170
	TOTAL	320
	SAY	340

* SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- STA. 11+00.00 TO 15+78.64 (BEGIN BRIDGE)	358	0	145	0	213
-L- STA. 17+10.23 (END BRIDGE) TO 20+50.00	206	0	162	0	44
PROJECT SUBTOTAL	564	0	307	0	257
LOSS DUE TO CLEARING AND GRUBBING	-75				-75
GRAND TOTAL	489	0	307	0	182
SAY	500				

EST. SHOULDER BORROW = 250 CY
EST. DRAINAGE DITCH EXCAVATION = 35 CY
EST. UNDERCUT EXCAVATION = 500 CY

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

6/21/00
26-MAY-2004 10:22
B3646_RDY_SUM.DGN