COMPUTED BY: Lw DATE: 3/2/04
CHECKED BY: RCK DATE: 5/06/04

"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

PROJECT REFERENCE NO.	SHEET NO.
B-3695	3-A

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: GRAU 350	ANCHORS: III	ANCHORS: AT-1	IMPACT ATTENUATOR TYPE 350: EA	IMPACT ATTENUATOR TYPE 350: G	IMPACT ATTENUATOR TYPE 350: NG	REMARKS
-L-	16+00.00	18+50.00	RT	250			16+75.00(FILL)	18+50.00	6	9	50	50	1	1	2						
-L-	18+90.85	22+40.85	RT	350			18+90.85	21+00.00(FILL)	6	9	50	50	1	1	2						
-L-	17+75.00	23+25.00	LT	550			21+50.00(FILL)	19+00.00(FILL)	6	9	50	50	1	1	2						
			SUBTOTAL	1150											6						
			LESS ANCHORS	300																	
			TOTAL	850																	
ADDITIONAL POSTS = 5 EACH			SAY	850																	

DEDUCTIONS FOR ANCHORS:
GRAU-350 6 @ 50 EA. = 300
TOTAL = 300

EARTHWORK SUMMARY (CY)

LOCATION	UNCLASS. EXC.	UNDERCUT	EMBANK+%	BORROW	WASTE
-L- STA.15+00 TO STA. 24+50	1798		14486	12868	180
PROJECT SUBTOTAL	1798		14486	12868	180
MINUS CULVERT AREA			-910	-910	
LOSS DUE TO CLEAR. & GRUB.	-25			25	
PROJECT TOTAL	1773		13576	11983	180
EST. 5% TO REPLACE TOP SOIL ON BORROW PITS				602	
GRAND TOTAL	1773		13576	12585	180
SAY	1800			12600	

DDE = 760 CY
ESTIMATED UNDERCUT = 200 CY
PAVEMENT VOLUME = 123 CY

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, 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".

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 ELVATION	INVERT ELEVATION	INVERT ELEVATION	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 15"	18"	48"	CORREGATED STEEL PIPE .064 15"	.064 24"	.064 48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	30" 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') PER EACH (0' THRU 5.0')	A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.02 OR STD. 840.01	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	M.D.I. (N.S.) FRAME WITH GRATES WITH STD. 840.29	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	T.B.D.I. STD. 840.35	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
-L- 19+00	LT	1		685.18	682.43													1									1	1						
-L- 20+15	LT	1	2		682.43	680.10	108																										
-L- 20+15	LT	2		683.08	680.10													1									1	1						
-L- 20+15	LT	2	3		680.10	668.40				36																				2@15"				
-L- 20+75	LT	2	4		680.10	680.28	60																										
-L- 20+75	LT	4		683.03	680.28													1									1	1						
-L- 20+75	CL	4	5		680.28	681.26	36																										
-L- 20+75	RT	5		684.01	681.26													1									1	1						
-L- 22+45	CL	6	7		683.00	683.20		52																									
-L- 18+65	RT	8													28																		
TOTAL							204	52		36					28			4									4	4		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

EXISTING ASPHALT PAVEMENT BREAK-UP / REMOVAL

IN SQUARE YARDS

LINE	BEG. STA.	END STA.	LOCATION	ASPHALT BREAK -UP	ASPHALT REMOVAL
-L-	20+95.00	23+00.00	CL	456	
-L-	23+00.00	24+00.00	CL		222
			TOTAL	456	222
			SAY	470	240

6/16/99
25-JUN-2004 12:14
R:\Proj\B3695_rdy_sum.dgn
rklucknan AT