COMPUTED BY: J.LOUGHRY DATE: 08/08/05
CHECKED BY: MRHUSSEY DATE: 08/08/05

PROJECT REFERENCE NO.	SHEET NO.
B-3877	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" .064	15" .064	18" .064	24" .064	30" .079	30" .079	36" .109	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 'A' + (1.3 'X' COL. 'B') LIN. *FT. A: PER EACH (0' THRU 5.0')	LIN. *FT. B: 5.0' THRU 10.0'	LIN. *FT. B: 10.0' AND ABOVE	T. B. M.D.I. STD. 840.35	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	15" BITUMINOUS COATED CORR. STEEL ELBOWS	PIPE REMOVAL LIN.FT.	REMARKS
24+38	LT	1		159.64	156.89																									1		1	1					
	LT	1	2			150.90											40																		2				
27+05	LT	3		165.99	163.24																									1		1	1					
	LT	3	4			151.39											48																		2				
TOTALS																	88													2		2	2		4				

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

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 350	ANCHORS XIII	IMPACT ATTENUATOR TYPE 350 NO.	PERMITTED G	PERMITTED NG	REMARKS
-L-	22+03.76	24+78.76	RT	275			24+78.65		3	8	150		6		1	1				
-L-	23+78.76	24+78.76	LT	100				24+78.65	3	8		81.25		4.6	1	1				
-L-	26+82.65	29+32.65	RT	250				28+00	3	8	150		6		1	1				
-L-	26+82.65	29+57.65	LT	275			27+50		3	8		150		6	1	1				
			TOTAL	900											4	4				
	DEDUCTIONS FOR ANCHORS																			
		4 TYPE 350's @ 50' ea. =		200'																
		4 TYPE III's @ 18.75' ea. =		75'																
		GRAND TOTAL		625			ADDITIONAL GUARDRAIL POSTS = 5ea								4	4				

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- STA. 20+50.00 TO 24+90.65	8		1084	1076	
-L- STA. 26+70.65 TO 31+50.00	508		7745	7239	
SUBTOTAL	516		8829	8313	
LOSS DUE TO CLEARING AND GRUBBING	-100			100	
5 % FOR TOPSOIL ON BORROW PIT				421	
TOTAL	416		8829	8834	
SAY	440			8850	
EST. DDE	350 SY				
EST. UNDERCUT EMBANKMENT STABILITY	200 CY				
EST. UNDERCUT UNSUITABLE SUBGRADE SOIL	200 CY				
SELECT GRANULAR MATERIAL CLASS II OR III	400 CY				
CLASS IV SUBGRADE STABILIZATION MATERIAL	100 TONS				

SUMMARY OF PAVEMENT REMOVAL/BREAKING

IN SQUARE YARDS

STATION TO STATION	PAVEMENT REMOVAL LENGTH	PAVEMENT REMOVAL WIDTH	PAVEMENT REMOVAL SQUARE YARDS	PAVEMENT BREAKING LENGTH	PAVEMENT BREAKING WIDTH	PAVEMENT BREAKING SQUARE YARDS
-L- STA. 23+25.00 TO 25+12.65	187'	18'	374 SY			
-L- STA. 26+32.00 TO 27+00.00	68'	18'	136 SY			
-L- STA. 27+00.00 TO 30+00.00				300'	18'	600 SY
TOTAL			510 SY			600 SY
SAY			525 SY			625 SY

6/21/00

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