6/21/00

COMPUTED BY: JCL DATE: 10/3/03
CHECKED BY: JDG DATE: 03/25/04

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

PROJECT REFERENCE NO. B-3348 | SHEET NO. 3-A

STATION	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. PER EACH (0' THRU 5.0') A	LIN. *FT. 5.0' THRU 10.0' B	LIN. *FT. 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	REMARKS
SIZE																																				
THICKNESS OR GAUGE																																				
11+00 –Y1–	CL	1									40'																									BURY PIPE 1' IN GROUND
12+50 –Y1–	CL	2									40'																									BURY PIPE 1' IN GROUND
15+50 –Y1–	CL	3									36'																									BURY PIPE 1' IN GROUND
TOTAL											116'																									

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 SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W APPROACH END	W TRAILING END	ANCHORS XI MOD	XI	GRAU 350	TYPE 111 SHOP CURVED STRUCTURE ANCHOR UNIT	TYPE III	AT-1	VI MOD	BIC	CAT-1	IMPACT ATTENUATOR TYPE 350 EA	G	NG	REMARKS
–L–/–Y–	17+15.00 –L–	11+48.00 –Y–	Lt.	62.5'	37.5'		11+00.00 –Y–		5'	8'							1			1							
–Y–/–L–	10+55.00 –Y–	18+09.00 –L–	Lt.				18+09.00 –L–		6'	9'								1		1							SPECIAL BRIDGE ANCHOR UNITS ONLY
–Y1–/–L–	10+55.00 –Y1–	18+09.00 –L–	Rt.				18+09.00 –L–		6'	9'								1		1							SPECIAL BRIDGE ANCHOR UNITS ONLY
–L–	18+59.00	19+34.00	Rt.				18+59.00		6'	9'							1		1								
–L–	18+59.00	21+83.94	Lt.	325'			18+59.00	21+83.94	6'	9'									2								
–L–	19+71.44	21+83.94	Rt.	212.5'			19+71.44	21+83.94	6'	9'							1		1								
–L–	23+86.06	28+73.56	Lt.	487.5'			23+86.06		6'	9'									1								
–L–	23+86.06	25+23.56	Rt.	112.5'			23+86.06	23+86.06	6'	9'							1		1								
		TOTAL		1200'	37.5'												4	2	6	3							
DEDUCTION FOR ANCHOR UNITS																											
	3 AT-1 @ 6.25'			–18.75'																							
	4 GRAU-350 @ 50'			–200'																							
	6 TYPE III @ 18.75'			–112.5'																							
		GRAND TOTAL		868.75'	31.25'												4	2	6	3							
		SAY		900'	37.5'				ADDITIONAL GUARDRAIL POSTS 5 EACH																			

SUMMARY OF EARTHWORK (IN CUBIC YARDS)

LOCATION	LOCATION	UNCL EXCAVATION	UNDERCUT	EMBANKMENT +%	BORROW	WASTE
–L– 10+00.00	18+09.00	0	3,005	5,655	5,655	3,005
–Y– 10+13.28	12+10.00	13		85	72	
–Y1– 10+11.23	12+60.00	35	634	1,242	1,207	634
SUBTOTAL		48	3,639	6,982	6,934	3,639
–L– 18+59.00	21+83.94	0	2,376	4,009	4,009	2,376
–DR– 10+13.00	11+40.00	3		268	265	
SUBTOTAL		3	2,376	4,277	4,274	2,376
–L– 23+86.06	31+29.51	5	2,360	3,732	3,727	2,360
SUBTOTAL		5	2,360	3,732	3,727	2,360
TOTAL		56	8,375	14,991	14,935	8,375
WETLAND GRADING		1,934		801		1,133
ADDITIONAL UNDERCUT			500	650	650	500
PROJECT TOTAL		1,990	8,875	16,442	15,585	10,008
DEDUCTION FOR SELECT MATERIAL					–11,538	
5% FOR BORROW PIT					202	
GRAND TOTAL		1,990	8,875	16,442	4,249	10,008
SAY		2,000	8,900		4,300	

PAVEMENT REMOVAL SUMMARY

STATION	STATION	LOCATION	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
12+22.00 –L–	17+50.00 –L–	–LT. –L–	540.6 SY			
10+25.00 –Y–	11+75.00 –Y–	–RT. –Y–	160.5 SY			
18+00.00 –L–	18+14.00 –L–	CL –L–	77.6 SY			
18+50.00 –L–	22+01.50 –L–	–LT. –L–	604.0 SY			
22+54.60 –L–	28+20.00 –L–	–LT. –L–	743.5 SY			
	TOTAL		2126.2 SY			
	SAY		2130 SY			

08-MAR-2005 08:15
i:\proj\b3348.sum
JLansford rd-RD214557