RAL-2UA2440BPJ

COMPUTED BY:	CGM	DATE:	3/06/14
CHECKED BY:	JRR	DATE:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-2579B	3D-11

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

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

LINE & STATION (SIZE / THICKNESS OR GAUGE)	OFFSET	STRUCTURE NUMBER FROM	TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	SIDE DRAIN PIPE (STATEWIDE TIER) (RCP, CSP, CAAP, HDPE, or PVC) 15	18	24	30	36	42	48	DO NOT USE RCP	C. S. PIPE (SE: SHOP ELONGATED) 15 (.064)	18 (.064)	24 (.064)	30 (.064)	36 (.079)	42 (.109)
20+95 -Y4LPD-	LT	0206		891.1	887.2																
		0206	OUT		887.2	875.0			192												
87+44 -Y4-	CL	0208			869.5	866.5															
640+50 -L-	RT	0209		914.0	911.3																
		0209	0210		911.3	910.2															
640+50 -L-	CL	0210		913.0	910.2																
		0210	0211		910.2	910.0															
640+50 -L-	LT	0211		912.8	909.8																
		0211	0212		909.8	909.5	X														
640+50 -L-	LT	0212		915.1	909.5																
		0212	OUT		909.5	868.5			200						X						
644+50 -L-	CL	0213		920.6	917.8																
		0213	0214		917.8	917.5															
644+50 -L-	LT	0214		920.3	917.5																
		0214	OUT		917.5	872.0										300					
55+20 -Y4RPBD-	LT	0215		947.7	945.0																
		0215	0216		945.0	910.6		160							X						
55+20 -Y4RPBD-		0216		913.4	910.6																
		0216	OUT		910.6	880.0										224					
26+00 -Y4RPD-	RT	0217		928.1	925.4																
		0217	0218		925.4	924.6															
26+01 -Y4RPD-	LT	0218		927.8	924.6																
		0218	0219		924.6	900.3															
16+15 -Y4LPD-	RT	0219		903.1	899.6																
		0219	0220		899.6	899.4															
16+15 -Y4LPD-	LT	0220		905.5	899.4																
		0220	OUT		899.4	880.2				120					X						
16+98 -Y4LPD-	RT	0221		894.0	890.5																
		0221	OUT		890.5	880.2															
		221A	0221		892.0	891.0			32												
94+00 -Y4-	LT	0222		889.5	886.8																
		0222	0223		886.8	885.8		68													
94+65 -Y4-	LT	0223		889.4	EX																
94+40 -Y4-	LT	223A		884.0	881.0																
		221B	0221		911.5	890.5															
93+97 -Y4-	RT	0224		876.3	866.0																
		0224	OUT		866.0	857.0				60					X						
		223A	0223		881.0	877.8				44											
93+00 -Y4-	CL	0225		891.6	888.9																
		0225	0226		888.9	887.0		236													
95+35 -Y4-	CL	0226		889.7	EX																
95+35 -Y4-	RT	0227		891.4	EX																
SHEET TOTALS								464	424	224						524					

FROM	TO	R. C. PIPE CLASS III 15	18	24	30	36	42	48	R. C. PIPE CLASS IV 15	18	24	30	42	48	R. C. PIPE CLASS V 24	30	36	8" DIP (DUCTILE IRON PIPE)	42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	48" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	36" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	18" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	30" WELDED STEEL PIPE, 0.500, TRENCLESS INSTALLATION	36" WELDED STEEL PIPE, 0.500, TRENCLESS INSTALLATION	42" WELDED STEEL PIPE, 0.625, TRENCLESS INSTALLATION	48" WELDED STEEL PIPE, 0.625, TRENCLESS INSTALLATION	ENDWALLS STD. 838.01 OR STD. 838.11 OR 838.80 (UNLESS NOTED OTHERWISE) CY
0206																											
0206	OUT																										
0208																										360	4.900
0209																											
0209	0210								84																		
0210																											
0210	0211	84																									
0211																											
0211	0212									68																	
0212																											
0212	OUT																										
0213																											
0213	0214	84																									
0214																											
0214	OUT																										
0215																											
0215	0216																										
0216																											
0216	OUT																										
0217																											
0217	0218	116																									
0218																											
0218	0219								296																		
0219																											
0219	0220										52																
0220																											
0220	OUT																										
0221																											
0221	OUT			200																							
221A	0221																										
0222																											
0222	0223																										
0223																											
223A																											
221B	0221														408												
0224																											
0224	OUT																										
223A	0223																										
0225																											
0225	0226																										
0226																											
0227																											
SHEET TOTALS		284		200					380	68	52				408											360	4.900

FROM	TO	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.D.I. STD. 840.36	STEEL GRATE AND FRAME STD. 840.37	SPRING BOX STD. 840.41	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING O.T.C.B. TO 2GI
0206		1			1	1																					
0206	OUT																										
0208																											
0209		1													1	1											
0209	0210																										
0210		1													1			1									
0210	0211																										
0211		1													1			1									
0211	0212																										
0212		1	0.6												1	1											
0212	OUT																										
0213		1													1			1									
0213	0214																										
0214		1													1			1									
0214	OUT																										
0215		1													1	1											
0215	0216																										
0216		1													1			1									
0216	OUT																										
0217		1													1			1									
0217	0218																										
0218		1									1																
0218	0219																										
0219		1													1			1									
0219	0220																										
0220		1			1			1																			
0220	OUT																										
0221		1													1			1									
0221	OUT																										
221A	0221																										
0222		1													1			1									
0222	0223																										
0223		1																			1				1		
223A		1									1																
221B	0221																										
0224		1	5.0	0.3																	1				1		
0224	OUT																										
223A	0223																										
0225		1													1			1									
0225	0226																										
0226		1													1			1									
0227																									1	1	
SHEET TOTALS		20	5.6	0.3	2	1		1			2				14	3		11			2				3	1	

FROM	TO	15" SIDE DRAIN PIPE ELBOW	18" SIDE DRAIN PIPE ELBOW	24" SIDE DRAIN PIPE ELBOW	30" SIDE DRAIN PIPE ELBOW	36" SIDE DRAIN PIPE ELBOW	15" C.S. PIPE ELBOW	18" C.S. PIPE ELBOW	24" C.S. PIPE ELBOW	42" C.S. PIPE ELBOW	BERM DITCH OUTLET STD. 850.10	MODIFIED CONC. FLUME	PREFORMED SCOUR HOLE (PER EACH)	ENERGY DISSIPATION BASIN	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
0206																			
0206	OUT																		
0208																			
0209																			
0209	0210														6				
0210																			
0210	0211																		
0211												1							Special Detail, See Sheet 2D-6
0211	0212																		
0212																			
0212	OUT		2															50	
0213																			
0213	0214																		
0214																			
0214	OUT																	40	
0215																			
0215	0216	2																	
0216																			
0216	OUT						2												
0217																			
0217	0218																		
0218																			4OTCB
0218	0219																		
0219																			
0219	0220																		
0220																			
0220	OUT			2															
0221																			
0221	OUT																		
221A	0221																		OPEN END
0222																			
0222	0223																		
0223																			
223A																			2 OTCB
221B	0221																		OPEN END
0224																			
0224	OUT																	52	
223A	0223																		
0225																			
0225	0226																		
0226																			
0227																			Special Detail, See Sheet 2D-3
SHEET TOTALS		2	2	2			2					1			6			142	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT