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-2

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	STRUCTURE NUMBER 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
23+20 -Y1RPA-	RT	0015		898.7	895.7																
		0015	0016		895.7	894.9															
23+24 -Y1RPA-	RT	0014																			
		0014	0015		931.6	895.7			80						X						
24+81 -Y1RPA-	RT	0013		902.4	899.7																
		0013	0015		899.7	895.9		168													
24+82 -Y1RPA-	RT	0012																			
		0012	0013		929.3	899.7		68													
486+55 -L-	RT	0036		886.8	877.6																
		0036	0037		877.6	877.3															
13+70 -Y1LPD-	LT	0035		883.5	877.8																
		0035	0036		877.8	877.6						72									
13+70 -Y1LPD-	RT	0034		884.9	881.0																
		0034	0035		881.0	879.5															
13+70 -Y1LPD-	RT	0033		883.8	881.1																
		0033	0034		881.1	881.0		24													
15+30 -Y1LPD-	LT	0032		885.2	880.5																
		0032	0035		880.5	878.8				180											
15+49 -Y1LPD-	RT	0031		885.9	882.1																
		0031	0032		882.1	881.2															
15+60 -Y1LPD-	RT	0030		885.0	882.2																
		0030	0031		882.2	882.1		24													
18+00 -Y1LPD-	RT	0029		894.2	891.1																
		0029	0030		891.1	882.2															
24+90 -Y1RPD-	RT	0027		887.8	883.0																
		0027	0032		883.0	880.5				260											
27+00-Y1RPD-	RT	0026		889.1	886.4																
		0026	0027		886.4	883.8		204													
22+80 -Y1RPD-	RT	0025		888.9	884.8																
		0025	0027		884.8	883.5			212												
22+80 -Y1RPD-	LT	0024		888.1	885.3																
		0024	0025		885.3	885.0															
490+75 -L-	CL	0040		894.5	889.2																
		0040	0037		889.2	878.8			420												
490+75 -L-	LT	0038		892.5	889.5																
		0038	0040		889.5	889.2															
490+75 -L-	RT	0039		892.5	889.8																
		0039	0040		889.8	889.5															
19+21 -Y1RPA-	RT	0041		893.1	888.9																
		0041	0042		888.9	888.6															
19+20 -Y1RPA-	LT	0042		894.6	888.1																
		0042	0044		888.1	887.8				116											
18+10 -Y1RPA-	RT	0043		893.8	891.0																
		0043	0044		891.0	888.5															
							SHEET TOTALS	488	712	556		72									

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
0015																											
0015	0016		76																								
0014																											
0014	0015																										
0013																											
0013	0015																										
0012																											
0012	0013																										
0036																											
0036	0037					92																					
0035																											
0035	0036																										
0034																											
0034	0035								52																		
0033																											
0033	0034																										
0032																											
0032	0035																										
0031																											
0031	0032								72																		
0030																											
0030	0031																										
0029																											
0029	0030	216																									
0027																											
0027	0032																										
0026																											
0026	0027																										
0025																											
0025	0027																										
0024																											
0024	0025	88																									
0040																											
0040	0037																										
0038																											
0038	0040		92																								
0039																											
0039	0040	92																									
0041																											
0041	0042		76																								
0042																											
0042	0044																										
0043																											
0043	0044	76																									
SHEET TOTALS		472	244			92			124																		

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)

FROM	TO	0' THRU 5' EACH	5' THRU 10' (A) LIN. FT.	10' AND ABOVE (B) 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
0015		1													1			1		
0015	0016																			
0014																				
0014	0015																			
0013		1													1			1		
0013	0015																			
0012																				
0012	0013																			
0036		1	4.2											1				1		
0036	0037																			
0035		1	0.7											1				1		
0035	0036																			
0034		1			1	1														
0034	0035																			
0033		1													1			1		
0033	0034																			
0032		1												1				1		
0032	0035																			
0031		1			1			1												
0031	0032																			
0030		1													1			1		
0030	0031																			
0029		1			1			1												
0029	0030																			
0027		1												1			1	1		
0027	0032																			
0026		1													1			1		
0026	0027																			
0025		1												1				1		
0025	0027																			
0024		1													1			1		
0024	0025																			
0040		1	0.3												1			1		
0040	0037																			
0038		1													1			1		
0038	0040																			
0039		1													1			1		
0039	0040																			
0041		1												1			1	1		
0041	0042																			
0042		1	1.5											1				1		
0042	0044																			
0043		1													1			1		
0043	0044																			
SHEET TOTALS		20	6.7		3	1		2						7	10		2	17		

FROM	TO	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	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
0015																										
0015	0016																									
0014																		1								BERM DITCH OUTLET
0014	0015									1																
0013																										
0013	0015																									
0012																		1								BERM DITCH OUTLET
0012	0013								1																	
0036																										SHOULDER DRAIN OUTLET
0036	0037																									
0035																										
0035	0036																									
0034																										
0034	0035																									
0033																										
0033	0034																									
0032																										
0032	0035																									
0031																										
0031	0032																									
0030																										
0030	0031																									
0029																										
0029	0030																									
0027																										3GI
0027	0032																									
0026																										
0026	0027																									
0025																										
0025	0027																									
0024																										
0024	0025																									
0040																										
0040	0037																									
0038																										SHOULDER DRAIN
0038	0040																									
0039																										SHOULDER DRAIN
0039	0040																									
0041																										3GI
0041	0042																									
0042																										
0042	0044																									
0043																										
0043	0044																									
SHEET TOTALS									1	1								2								

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