COMPUTED BY: CGM DATE: 3/06/14

CHECKED BY: JRR DATE:

RAL-2UA2440BPJ

PROJECT NO.	SHEET NO.
U-2579B	3D-5

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**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	R. C. PIPE CLASS III 15	18	24	30	36	42	48
22+05 -Y2-	RT	0082		932.1	929.3																							
		0082	0083		929.3	910.1		68							X													
22+05 -Y2-	LT	0081		938.2	935.4																							
		0081	0082		935.4	929.3																92						
516+00 -L-	LT	0080		915.0	908.4																							
		0080	0084		908.4	908.2				72																		
516+00 -L-	LT	0079		912.2	908.7																							
		0079	0080		908.7	908.4																						
516+33 -L-	LT	0078		936.0	933.3																							
		0078	0079		933.3	909.4		88							X													
516+95 -L-	LT	78A		940.9	937.7																							
		78A	78B		937.7	937.6																						
18+60 -Y2-	RT	78B		941.0	937.6																							
		78B	0078		937.6	933.3		36																				
520+00 -L-	LT	0085		908.0	905.2																							
		0085	0087		905.2	904.3																104						
520+50 -L-	RT	0086		907.3	904.3																							
		0086	0087		904.3	904.0																	96					
520+50 -L-	CL	0087		909.5	904.0																							
		0087	0090		904.0	900.0			500																			
525+50 -L-	LT	0089		905.3	902.5																							
		0089	0090		902.5	900.2																						
525+50 -L-	RT	0088		905.3	902.5																							
		0088	0090		902.5	900.2																						
525+50 -L-	CL	0090		904.2	899.5																							
		0090	0092		899.5	896.1				328																		
528+44 -L-	RT	0091		902.2	899.4																							
		0091	0092		899.4	896.8																						
528+75 -L-	CL	0092		900.8	895.6																							
		0092	0093		895.6	895.3																						
528+75 -L-	LT	0093		901.8	895.3																							
		0093	OUT		895.3	880.4					56				X													
522+87 -L-	CL	87A			882.2	878.2																						
526+83 -L-	CL	0094			878.2	877.4																						
534+49 -L-	LT	0096		892.8	889.8																							
		0096	0097		889.8	889.5																	92					
534+49 -L-	RT	0095		892.8	889.8																							
		0095	0097		889.8	889.5																	92					
534+49 -L-	CL	0097		894.8	889.0																							
		0097	0102		889.0	884.6				520																		
539+72 -L-	RT	0099		887.3	884.3																							
		0099	0102		884.3	884.0																	92					
538+00 -L-	RT	0098		889.1	886.3																							
		0098	0099		886.3	884.6		172																				
SHEET TOTALS								364	500	920	56											196	372					

STRUCTURE NUMBER FROM	TO	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	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
0082																					1						
0082	0083																										
0081																					1						
0081	0082																										
0080																					1	1.6					
0080	0084																										
0079																					1						
0079	0080			84																							
0078																					1						
0078	0079																										
78A																					1						
78A	78B	32																									
78B																					1						
78B	0078																										
0085																					1						
0085	0087																										
0086																					1						
0086	0087																										
0087																					1	0.5					
0087	0090																										
0089																					1						
0089	0090	72																									
0088																					1						
0088	0090	72																									
0090																					1						
0090	0092																										
0091																					1						
0091	0092	80																									
0092																					1	0.2					
0092	0093				72																						
0093																					1	1.5					
0093	OUT																										
87A							268													6.000							
0094							260													6.000							
0096																					1						
0096	0097																										
0095																					1						
0095	0097																										
0097																					1	0.8					
0097	0102																										
0099																					1						
0099	0102																										
0098																					1						
0098	0099																										
SHEET TOTALS		256		84	72		528													12.000	21	4.6					

STRUCTURE NUMBER FROM	TO	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	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
0082								1			1																											
0082	0083																				2																	
0081								1			1																											
0081	0082																																					
0080														1				1																				
0080	0084																																					
0079								1			1																											SHOULDER DRAIN OUTLET
0079	0080																																					
0078								1			1																											
0078	0079																				2																	
78A															1	1																						
78A	78B																																					
78B															1	1																						
78B	0078																																					
0085								1			1																											SHOULDER DRAIN OUTLET
0085	0087																																					
0086								1			1																											SHOULDER DRAIN OUTLET
0086	0087																																					
0087								1			1																											
0087	0090																																					
0089								1	1																													SHOULDER DRAIN OUTLET
0089	0090																																					
0088								1	1																													SHOULDER DRAIN OUTLET
0088	0090																																					
0090							1				1																											
0090	0092																																					
0091								1	1																													SHOULDER DRAIN OUTLET
0091	0092																																					
0092							1				1																											
0092	0093																																					
0093								1	1																													SHOULDER DRAIN OUTLET
0093	OUT																							2														
87A																																						
0094																																						
0096								1			1																											SHOULDER DRAIN OUTLET
0096	0097																																					
0095								1			1																											SHOULDER DRAIN OUTLET
0095	0097																																					
0097							1				1																											
0097	0102																																					
0099								1			1																											SHOULDER DRAIN OUTLET
0099	0102																																					
0098								1			1																											SHOULDER DRAIN OUTLET
0098	0099																																					
SHEET TOTALS							3	15	4		14			1	2	2		1			4			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