RD278038

COMPUTED BY: MTP DATE: 9/4/14

CHECKED BY: SCL DATE: 9/12/14

PROJECT NO.	SHEET NO.
R-4903	3D-2

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 %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	C. S. PIPE 12 .064	15 .064	18 .064	24 .064	30 .079	36 .079	42 .109	48 .109	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	##" R.C. PIPE CULVERTS, CONTRACTOR DESIGN		15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (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	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. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	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/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME WITH TWO GRATES STD. 840.37	TEMP STEEL PLATE COVER MASONRY DRAINAGE	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	ADJUST 2GI	15" DRAINAGE PIPE ELBOW				MODIFIED CONC. FLUME		CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 41+29	LT	0620		114.9																																															1	5.0	0.3					1			1	1																																
		0620	0622		104.6	104.2	0.6																																48																																																					
L 45+00	RT	0621		106.4																																													1	0.8											1								1																				
		0621	0662		100.7	99.9	0.7																																	48																																																		
L 41+32	RT	0622		112.5																																													1	3.3											1								1																				
		0622	0621		104.2	100.7	0.7																																	368																																																		
L 45+00	RT	0623		107.2																																													1			1			1		1																																		
		0623	0624		102.3	102.0	0.4																															48																																																			
L 45+50	RT	0624		106.2																																													1			1			1		1																																		
		0624	0662		102.0	101.4	0.4																															36																																																				
L 40+92	LT	0625		112.1																																													1												1							1	1																			3GI
		0625	0640		107.4	107.2																																	68																																																			
L 45+00	LT	0626		105.6																																													1												1							1	1																			3GI
		0626	0623		102.6	102.3	0.3																															56																																																			
L 51+00	LT	0627		97.9																																													1													1							1																			
		0627	0618		95.2	93.6	1.1																														100																																																					
LPB 11+62	LT	0629		121.9																																													1													1					1																					
		0629	0630		119.1	118.9																							80																																																															
LPB 12+50	LT	0630		122.7																																													1			1			1																																				
		0630	0641		118.6	118.0																															196																																																					
		0631	0642		112.7	112.5																															56																																																				
RMPB 20+05	RT	0631		117.4																																													1																						1			1															
Y02 267+50	RT	0632		112.0																																													1													1					1																					
		0632	0633		109.3	107.0	0.7																						84																																																															
Y02 267+00	RT	0633		109.7																																													1													1					1																					
		0633	1001		106.6	106.3	0.8																							44																																																												
LPB 15+90	LT	0635		114.7																																													1			1			1																																				
		0635	0636		110.3	109.0	0.3																														100																																																						
LPB 17+00	LT	0636		113.6																																													1	2.8		1			1																																				
		0636	0638		105.8	105.4																																136																																																				
LPB 15+96	RT	0637		113.2																																													1													1					1																					
		0637	0635		110.4	110.3																															44																																																					
LPB 18+36	LT	0638		113.5																																													1	3.1		1			1																																				
		0638	0639		105.4	105.3																																28																																																				
RMPB 26+00	LT	0639		114.4																																													1	4.1						1			1	1																																
		0639	0640		105.3	104.9	0.4																															92																																																				
RMPB 26+95	LT	0640		113.5																																													1	3.6						1			1	1																																
		0640	0620		104.9	104.6	0.5																																56																																																						
LPD 13+22	LT	0644		107.0																																																																																										
		0644	0645		105.0	97.6	0.5																														164																																																						
Y02 284+99	LT	0645		102.0																																													1	5.0	1.1																						1							1										
		0645	0646		90.9	90.1																																			84																																																				
RMPD 17+54	LT	0646		99.8																																													1	4.6								1																																		
		0646	0647		90.1	84.8	0.4																																		216																																																					
Y02 284+97	CL	0648		121.4																																																																													1									ADJUST 2GI
Y02 290+00	CL	0650		115.7																																																																												1									ADJUST 2GI
RMPD 16+45	LT	0652		115.3																																													1													1					1																					
		0652	0646		110.5	97.0			128																																																																																					
RMPD 16+50	RT	0653		113.5																																													1													1					1																					
		0653	0652		110.7	110.5																							80																																																																			
SHEET TOTALS									128																					244	44								660	396	172	416	300										23	32.3	1.4	6			6	3	2	1	3	3	4	7					6	2	5		1	1		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