COMPUTED BY: MDB DATE: 04/27/2017

CHECKED BY: WTS DATE: 04/19/2017

PROJECT NO.	SHEET NO.
R-5516	3D-3

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)

SIZE / THICKNESS OR GAUGE

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

LINE & STATION	OFFSET		STRUCTURE NUMBER FROM	TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	C. A. A. PIPE 15 .064	18 .064	24 .064	R. C. PIPE CLASS III 15	18	24	30	R. C. PIPE CLASS IV 15	18	24	30	18" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.5" THICK, GRADE B IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	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	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	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING C.B. TO D.I.	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	ADJUST C.B.	ADJUST D.I.	15" C.A.A. ELBOW	18" C.A.A. ELBOW	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
			0813	0814		21.8	21.1																			80																																																		
L 117+50	10	LT	0815		23.8																														1							1		1	1																															
			0815	0816		20.6	20.2																			48																																																		
L 118+00	2	LT	0816		23.4																														1							1		1	1																															
			0816	0817		20.2	19.1																			48																																																		
L 118+50	10	LT	0817		22.3																														1							1		1	1																															
			0817	0818		19.1	17.6																			100																																																		
L 119+50	10	LT	0818		20.7																														1							1		1	1																															
			0818	0819		17.6	16.8																			48																																																		
L 120+00	4	LT	0819		20.1																														1	2.2						1		1	1																															
			0819	0820		12.9	10.4	0.4														124																																																							
L 108+43	11	RT	0821		28.7																														1							1		1	1																															
			0821	0801		25.0	24.8															40																																																								
Y10A 16+55	30	RT	0823		26.0																																																																					0.4465			
Y10A 16+50	29	RT	0824		28.6																														1			1			1																																						
			0824	0823		24.5	24.5																8																																																						
L 121+55	4	LT	0901		16.8																														1							1		1	1																															
			0901	0902		13.6	13.3																			72																																																			
L 120+84	10	LT	0902		18.4																														1	0.1						1		1	1																															
			0902	0819		13.3	12.9															84																																																								
YEB01 40+91	30	LT	1001		32.9																														1	1.4								1	1																															
			1001	1002		26.5	25.7															60																																																									
YEB01 41+50	42	LT	1002		27.6																														1													1				1																										
			1002	1003		25.7	24.3																			76																																																		
YEB01 48+30	28	LT	1006		25.4																														1												1					1																										
			1006	1007		22.5	20.4																			68																																																		
LRA 19+58	24	RT	1008		40.6																														1												1			1																												
			1008	1009		37.9	26.2												52																																																								2						
YWB01 26+03	43	LT	1050									28																																																																		
YWB01 27+16	45	LT	1051									24																																																																		
YWB01 27+16	42	LT	1052									24																																																																			
YWB01 28+42	45	LT	1053									36																																																																			
YWB01 28+41	42	LT	1054									32																																																																			
YEB01 53+00	35	LT	1101		24.4																														1	0.5											1					1																										
			1101	1104		18.9	17.3																			80																																																		
YEB01 53+50	16	LT	1102		24.2																														1																									1	1																
			1102	1101		19.2	18.9															52																																																									
YEB01 54+50	27	LT	1103		22.4																														1												1					1																										
			1103	1102		19.7	19.2																			100																																																		
YEB01 59+50	27	LT	1105		21.7																														1													1						1																							
			1105	1106		19.6	19.5																			48																																																		
YEB01 59+50	77	LT	1106		22.9																														1													1						1																							
			1106	1107		19.3	18.2																			56																																																		
L 63+25	2552	RT	1120							64																																																																						
Y10A 25+50	29	LT	1201		26.9																																																																									Open End
			1201	1201_OUT		25.4	25.0																				80																																																							
Y10A 27+40	28	LT	1202		28.4																																																																										Open End
			1202	1202_OUT		26.9	24.0																				112																																																							
Y09A 10+50	21	LT	1203		30.8																														1																					1			1																	
SHEET TOTALS										64		144							52			360	8			824	192								19	4.2		1			1	8		9	9		4	3		1		4		2		1			1	1	1									2			0.4465			

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

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