RD-299051

COMPUTED BY: BTV DATE: 6-19-2015

CHECKED BY: VWB DATE: 6-19-2015

PROJECT NO.	SHEET NO.
I-5000	3D-1

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)

Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC); C. S. Pipe sizes with thickness or gauge

LINE & STATION	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe 12	Side Drain 15	Side Drain 18	Side Drain 24	Side Drain 30	Side Drain 36	Side Drain 42	Side Drain 48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C. S. PIPE 12 (.064)	C.S. 15 (.064)	C.S. 18 (.064)	C.S. 24 (.064)	C.S. 30 (.079)	C.S. 36 (.079)	C.S. 42 (.109)	C.S. 48 (.109)
Y1 11+55	44 LT	0400		740.9																							
		0400	0401		737.9	736.4																					
Y1 11+81	44 LT	0401		740.2																							
Y1 13+12	43 LT	0403		734.2																							
		0403	0404		732.7	732.7																					
Y1 13+12	48 LT	0404		738.5																							
		0404	0405		732.1	730.5																					
Y3 11+73	28 RT	0407			727.5	726.7																					
Y3 11+96	33 RT	0409			727.7	724.6																					
Y3 12+71	41 LT	0410			726.0	725.4			36																		
Y3 13+43	29 LT	0412			727.2	726.7			32																		
Y1 20+39	15 LT	0414		730.2																							
		0414	0415		727.0	725.7																					
Y1 20+64	15 LT	0415		730.2																							
Y1 24+14	66 RT	0419		727.6																							
Y1 24+19	80 RT	0420		730.8																							
		0420	0419		727.8	727.6	0.3																				
Y1 24+13	83 RT	0421	0420		728.1	728.1																					
Y1 24+69	58 RT	0422		731.9																							
		0422	0420		728.4	727.8																					
Y1 25+00	4 LT	0423		734.1																							
		0423	0428		730.0	728.6																					
Y1 13+10	44 RT	0425		738.6																							
Y1 23+73	52 LT	0426		730.6																							
Y1 23+05	15 RT	0427		731.7																							
Y1 23+96	15 RT	0428		732.4																							
Y1 17+85	44 LT	0430		731.6																							
Y1 17+74	54 RT	0431		731.6																							
		0431	0432		728.5	728.5																					
Y1 17+74	50 RT	0432		731.6																							
Y1 20+65	44 LT	0433		729.4																							
		0433	0416		722.9	721.0																					
		0434	0433		726.3	725.0																					
Y1 20+39	44 LT	0434		729.3																							
Y1 17+65	44 LT	0435		731.9																							
		0435	0430		728.9	727.6																					
Y1 20+62	44 RT	0436		729.5																							
		0437	0436		726.4	725.2																					
Y1 20+39	44 RT	0437		729.4																							
Y1 20+62	45 RT	0438		731.6																							
		0438	0436		725.3	725.2																					
Y1 23+02	49 LT	0440		730.3																							
Y1 20+39	15 RT	0443		729.8																							
		0443	0444		726.7	726.3																					
Y1 20+63	15 RT	0444		729.8																							
RPD 34+09	72 RT	0500		724.5																							
		0500	0501		719.6	711.0	3.0														76						
Y1 26+00	53 RT	0502		734.0																							
		0502	0422		730.7	728.6																					
Y1 27+50	50 RT	0503		735.5																							
SHEET TOTALS									68												76						

FROM	TO	R. C. PIPE CLASS III 12	III 15	III 18	III 24	III 30	III 36	III 42	III 48	R. C. PIPE CLASS IV 12	IV 15	IV 18	IV 24	IV 30	IV 36	IV 42	IV 48	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY
0400																			
0400	0401										28								
0401																			
0403																			
0403	0404			4															
0404																			
0404	0405				28														
0407					72														
0409			80																
0410																			
0412																			
0414																			
0414	0415										24								
0415																			
0419																			
0420																			
0420	0419											16							
0421	0420										4								
0422																			
0422	0420											52							
0423																			
0423	0428										108								
0425																			
0426																			
0427																			
0428																			
0430																			
0431																			
0431	0432									4									
0432																			
0433																			
0433	0416			48															
0434	0433										24								
0434																			
0435																			
0435	0430										20								
0436																			
0437	0436										20								
0437																			
0438																			
0438	0436		4																
0440																			
0443																			
0443	0444										24								
0444																			
0500																			
0500	0501																		
0502																			
0502	0422										132								
0503																			
SHEET TOTALS			84	52	100					4	384	68							

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B). FRAME, GRATES, AND HOOD STD. 840.03.

FROM	TO	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	GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION: D.I. STD. 852.04 OR STD. 852.06	CONCRETE TRANSITIONAL SECTION: C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	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 W/ 2 GRATES STD. 840.20	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.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.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	36" SIDE DRAIN PIPE ELBOW	PREFORMED SCOUR HOLE (PER EACH)	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
0400		1			1			1																																				
0400	0401																																											
0401		1																					1					1																CONTRACTOR TO VERIFY INVERTS
0403																																									0.4465			
0403	0404																																											
0404		1	1.4		1			1																																				
0404	0405																																											
0407																																												
0409																																												
0410																																												
0412																																												
0414		1							1				1	1																														
0414	0415																																											
0415		1	1.5						1				1	1																														
0419																																									0.4465			
0420		1														1				1																								
0420	0419																																											
0421	0420																																											
0422		1			1			1																																				
0422	0420																																											
0423		1							1				1	1																														
0423	0428																																											
0425																																1												
0426		1	5.0	2.6	1		1																																					
0427		1	0.2						1				1	1																														
0428		1	3.4						1				1	1																														
0430																																1												
0431		1			1		1																																					
0431	0432																																											
0432																																									0.3528			
0433		1	1.5		1		1																																					
0433	0416																																											
0434	0433																																											
0434		1			1	1																																						
0435		1			1			1																																				
0435	0430																																											
0436		1			1			1																																				
0437	0436																																											
0437		1			1	1																																						
0438																																									0.3990			
0438	0436																																											
0440																												1																
0443		1							1				1	1																														
0443	0444																																											
0444		1	0.4						1				1	1																														
0500		1											1	1																														
0500	0501																																	2										
0502		1			1			1																																				
0502	0422																																											
0503		1			1			1																																				
SHEET TOTALS		22	13.4	2.6	12	2	3	7	7				8	8		1				1			1					1	1				2		2						1.6448			

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