RA-1553

COMPUTED BY: BNE DATE: 2/22/2017

CHECKED BY: JGD DATE: 2/22/2017

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2707C	3D-6

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MIN. REQUIRED SLOPE %	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
THICKNESS OR GAUGE																			
494+00 -L-	RT	1309		875.5															
		1309	1310		872.8	870.6													
494+00 -L-	CL	1310		873.3															
		1310	1311		870.3	870.0													
494+00 -L-	LT	1311		875.5															
		1311	1312		870.0	854.0				44						X			
503+50 -L-	RT	1401		887.7															
		1401	1402		885.0	883.7													
502+50 -L-	RT	1402		886.4															
		1402	1403		883.7	881.5													
502+50 -L-	CL	1403		884.2															
		1403	1404		881.5	881.1													
502+50 -L-	LT	1404		886.4															
		1404	1405		881.1	842.0				15						X			
505+00 -L-	RT	1407																	
		1407	1408		864.0	847.7							128						
506+00 -L-	RT	1410		890.9															
		1410	1411		888.2	868.0				56						X			
506+00 -L-	RT	1411																	
527+50 -L-	RT	1601		915.8															
		1601	1603		913.1	912.8													
527+50 -L-	LT	1602		917.0															
		1602	1603		914.3	912.8													
527+50 -L-	CL	1603		916.8															
		1603	1606		912.8	906.9													
523+50 -L-	RT	1604		909.9															
		1604	1606		907.2	906.9													
523+50 -L-	LT	1605		911.9															
		1605	1606		909.2	906.9													
523+50 -L-	CL	1606		911.1															
		1606	1611		906.2	900.7													
520+50 -L-	RT	1607		904.7															
		1607	1608		902.0	901.7													
520+50 -L-	RT	1608		905.8															
		1608	1611		901.7	901.4													
520+50 -L-	LT	1609		904.8															
		1609	1610		902.1	901.8													
520+50 -L-	LT	1610		906.8															
		1610	1611		901.8	901.4													
520+50 -L-	CL	1611		907.3															
		1611	1505		900.2	893.6													
515+00 -L-	RT	1503		897.9															
		1503	1505		895.2	894.8													
515+50 -L-	LT	1504		901.7															
		1504	1505		899.0	894.8													
SHEET TOTALS										71	44			128					

STATION	C.S. PIPE 12"	15"	18"	24"	30"	36"	42"	48"	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"	24" R.C. PIPE (CLASS V)	30" R.C. PIPE (CLASS V)	36" R.C. PIPE (CLASS V)	42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN
THICKNESS OR GAUGE	.064	.064	.064	.064	.079	.079	.109	.109																			
494+00 -L-																											
																		56									
494+00 -L-																											
																			56								
494+00 -L-																											
503+50 -L-																											
																		96									
502+50 -L-																											
																		56									
502+50 -L-																											
																		56									
502+50 -L-																											
505+00 -L-																											
506+00 -L-																											
506+00 -L-																											
527+50 -L-																											
										72																	
527+50 -L-																											
										76																	
527+50 -L-																											
										400																	
523+50 -L-																											
										76																	
523+50 -L-																											
										76																	
523+50 -L-																											
											300																
520+50 -L-																											
										80																	
520+50 -L-																											
										76																	
520+50 -L-																											
										76																	
520+50 -L-																											
										84																	
520+50 -L-																											
												548															
515+00 -L-																											
										92																	
515+50 -L-																											
										104																	
SHEET TOTALS										1212		300	548					264	56								

STATION	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	LIN. FT. A 5.0' THRU 10.0'	LIN. FT. B 10.0' AND ABOVE	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL. "B")	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	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	T.B.D.I. STD. 840.35	T.B.J.B. STD. 840.34	J.B. STD. 840.31 OR 840.32	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO T.B.J.B.	1" STEEL COVER	CONCRETE ENDWALL AND SLUICE GATE STD. 838.02	8" SLUICE GATE	15" SIDE DRAIN PIPE ELBOWS	18" SIDE DRAIN PIPE ELBOWS	24" SIDE DRAIN PIPE ELBOWS	30" SIDE DRAIN PIPE ELBOWS	36" SIDE DRAIN PIPE ELBOWS	BERM DITCH OUTLET STD. 850.10	BERM DITCH OUTLET STD. 850.11	CONCRETE AND BRICK PIPE PLUG STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
494+00 -L-			1												1																																				
																		56																																		
494+00 -L-			1												1																																				
																		56																																		
494+00 -L-			1												1																																				
503+50 -L-			1												1																																				
																		96																																		
502+50 -L-			1												1																																				
																		56																																		
502+50 -L-			1												1																																				
																		56																																		
502+50 -L-			1	0.3											1																																				
505+00 -L-																																																				
506+00 -L-			1												1																																				
506+00 -L-																																																				
527+50 -L-			1												1																																				
										72																																								
527+50 -L-			1												1																																				
										76																																								
527+50 -L-			1												1																																				
										400																																								
523+50 -L-			1												1																																				
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523+50 -L-			1												1																																				
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523+50 -L-			1												1																																				
											300																																								
520+50 -L-			1												1																																				
										80																																								
520+50 -L-			1												1																																				
										76																																								
520+50 -L-			1												1																																				
										84																																								
520+50 -L-			1	2.2											1																																				
												548																																							
515+00 -L-			1												1																																				
										92																																								
515+50 -L-			1												1																																				
										104																																								
SHEET TOTALS			21	2.45						1212		300	548					264	56																																

STATION	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	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	T.B.D.I. STD. 840.35	T.B.J.B. STD. 840.34	J.B. STD. 840.31 OR 840.32	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO T.B.J.B.	1" STEEL COVER	CONCRETE ENDWALL AND SLUICE GATE STD. 838.02	8" SLUICE GATE	15" SIDE DRAIN PIPE ELBOWS	18" SIDE DRAIN PIPE ELBOWS	24" SIDE DRAIN PIPE ELBOWS	30" SIDE DRAIN PIPE ELBOWS	36" SIDE DRAIN PIPE ELBOWS	BERM DITCH OUTLET STD. 850.10	BERM DITCH OUTLET STD. 850.11	CONCRETE AND BRICK PIPE PLUG STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.
494+00 -L-				1		1																						
494+00 -L-				1				1																				
494+00 -L-				1		1																						
503+50 -L-				1		1														2								
502+50 -L-				1		1																						
502+50 -L-				1				1																				
502+50 -L-				1		1																						
505+00 -L-																												
506+00 -L-				1		1																						
506+00 -L-																				2								
527+50 -L-				1				1																				
527+50 -L-				1				1																				
527+50 -L-				1				1																				
523+50 -L-				1				1																				
523+50 -L-				1				1																				
523+50 -L-			1					1																				
520+50 -L-				1				1																				
520+50 -L-			1				1	1																				
520+50 -L-				1				1																				
520+50 -L-				1				1																				
520+50 -L-			1					1																				
515+00 -L-				1				1																				
515+50 -L-				1				1																				
SHEET TOTALS			3	18		6	1	15												2	4							

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINUM 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