COMPUTED BY: KCBE DATE: 6/29/2016

CHECKED BY: RAM DATE: 9/6/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-3100A	3D-7

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	SLOPE CRITICAL	DRAINAGE 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
		1602	1607		935.5	938.2													
L 175+25	RT	1604																	
L 175+50	RT	1605																	
L 175+60	LT	1606		935.6															
		1606	1608		931.6	934.7			96										
L 175+70	RT	1607		941.4															
		1607	1609		938.2	940.2													
L 176+40	LT	1608		938.7															
		1608	1611		934.7	936.7			68										
L 176+59	LT	1609		943.4															
		1609	1610		940.2	941.8													
L 176+92	RT	1610		945															
		1610	1612		941.8	943.5													
L 177+52	RT	1612		946.6															
L 177+09	LT	1611		940.9															
		1611	1613		934.7	941.6			160										
L 178+75	LT	1613		945.6															
L 178+75	LT	1614		965.8															
		1613	1614		941.6	964.5													
L 180+59	RT	1615																	
L 179+32	RT	1615A																	
L 180+80	RT	1616		954.5															
		1616	1617		951.8	949.4													
L 181+45	RT	1617		955.6															
		1617	1618		949.4	949.2													
		1617	1619		949.4	949.6													
L 181+50	LT	1619		951.5															
181+55	LT	1620		966.8															
		1619	1620		949.6	965.5			36							X			
L 183+67	LT	1621		954.3															
L 183+75	LT	1622		968.1															
		1621	1622		952.4	966.8			44							X			
		1621	1623		952.4	952.2													
L 183+65	RT	1623		958.6															
		1623	1624		952	951.8													
		1623	1625		952.2	956													
L 185+04	LT	1625		959.1															
L 186+15	LT	1626		959.7															
		1626	1701		956.6	956.1													
L 187+60	LT	1701		960.6															
		1701	1702		956.1	955.6													
L 188+87	LT	1702		961.3															
		1702	1703		955.6	955.7													
L 188+87	RT	1703		961.4															
		1703	1704		955.7	951.9													
L 189+41	RT	1705			955	952.3													
L 190+00	LT	1706								100									
L 190+40	LT	1707		962.5															
		1707	1708		959.3	959.2													
SHEET TOTALS									404		100								

STATION	C.S. PIPE SIZE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS III SIZE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV SIZE 12"	15"	18"	24"	30"	36"	42"	48"
																		72						
L 175+25																								
L 175+50																								
L 175+60																								
L 175+70																								
																		88						
L 176+40																								
L 176+59																								
																		36						
L 176+92																								
																		56						
L 177+52																								
L 177+09																								
L 178+75																								
L 178+75																								
			48																					
L 180+59																								
L 179+32																								
L 180+80																								
																		64						
L 181+45																								
				52																				
																		76						
L 181+50																								
181+55																								
L 183+67																								
L 183+75																								
																		68						
L 183+65																								
				68																				
			140																					
L 185+04																								
L 186+15																								
																		140						
L 187+60																								
																		124						
L 188+87																								
																		16						
L 188+87																								
																		80						
L 189+41																					172			
L 190+00																								
L 190+40																								
																		16						
SHEET TOTALS			140	48														836	120		172			

STATION	* * * R.C. PIPE (CLASS V)	* * * * RC PIPE CULVERTS, CONTRACTOR DESIGN	* * * * RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (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	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 STD. 832.06	
L 175+25				20												
L 175+50				20												
L 175+60								1								
L 175+70								1							1	
L 176+40								1								
L 176+59								1							1	
L 176+92								1							1	
L 177+52								1							1	
L 177+09								1	1.2							
L 178+75								1								
L 178+75																
L 180+59				20												
L 179+32				20												
L 180+80								1							1	
L 181+45								1	1.2						1	
L 181+50								1								
181+55																
L 183+67								1								
L 183+75																
L 183+65								1	1.6							
L 185+04								1							1	
L 186+15								1							1	
L 187+60								1							1	
L 188+87								1	0.7						1	
L 188+87								1	0.7						1	
L 189+41							3.4									
L 190+00																
L 190+40								1							1	
SHEET TOTALS				80			3.4	19	5.4						12	

STATION	DI. STD. 840.14 OR STD. 840.15	DI. FRAME WITH TWO GRATES 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 WITH TWO GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME WITH TWO GRATES STD. 840.22	G.D.I. (W.S. SAG) FRAME WITH GRATE STD. 840.22	G.D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29	OPEN THROAT C.B. STD. 840.04 OR STA. 840.05	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	G.D.I. (N.S. SAG) FRAME WITH TWO GRATES STD. 840.24	BERM DRAINAGE OUTLET STD. 850.10	CONC. TRANSITIONAL SECTION FOR DI (EA) [SEE DETAIL 2C-2]	CONVERT EXISTING D.I. TO J.B. WITH M.H.	PARALLEL PIPE END SECTION STD. 310.02 15"	18"	24"	C.S. ELBOWS 15"	18"	24"	PREFORMED SCOUR HOLE	FLOWABLE FILL	CONC. AND BRICK PIPE PLUG (C.Y.) STD. 840.71	PIPE REMOVAL LIN. FT.	REMARKS
L 175+25																			1											20				
L 175+50																			1															
L 175+60			1				1	1																										
L 175+70	1	1	1																															
L 176+40			1				1	1																										
L 176+59	1	1	1																															
L 176+92	1	1	1																															
L 177+52	1	1	1																															
L 177+09				1			1	1																										
L 178+75				1			1	1																										
L 178+75																		1																
L 180+59																			1															
L 179+32																																		
L 180+80	1	1	1																															
L 181+45	1	1	1																											52				
L 181+50				1			1																											
181+55																		1																
L 183+67				1			1																											
L 183+75																		1																
L 183+65				1		1													1											52				
L 185+04	1	1	1																															
L 186+15	1	1	1																															
L 187+60	1	1	1																															
L 188+87	1	1	1																															
L 188+87	1	1	1																															
L 189+41																														116				REMOVE JB
L 190+00																																1		
L 190+40	1	1	1																											20				
SHEET TOTALS	12	12	12	4	3	1	6	4									3		1	3		1								344				

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX