COMPUTED BY: GSBLELL DATE: 3/29/2012

CHECKED BY: AJFOSTER DATE: 3/27/2014

PROJECT NO.	SHEET NO.
R-2519B	3D-9

RD266428

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)

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO.		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)												C.S. PIPE								R.C. PIPE CLASS III								R.C. PIPE CLASS IV							
SIZE								12"	15"	18"	24"	30"	36"	42"	48"					12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE		FROM	TO													DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	.064	.064	.064	.064	.079	.079	.109	.109																
-L- STA. 187+03.61	CL	1617		2680.85																																							
-L- STA. 187+03.61	LT	1617	1618		2676.49	2674.63																															76'						
-L- STA. 187+03.61	LT	1618		2680.53																																							
-L- STA. 186+91	LT	1618	1620		2674.63	2670.50																												24'									
-L- STA. 187+57	LT	1605	1618		2675.65	2674.63																												100'									
-L- STA. 187+58	RT	1606							24'																																		
-L- STA. 190+28	LT	1622		2689.80																																							
-L- STA. 189+18	LT	1622	1605		2683.55	2675.65																												212'									
SHEET 17																																											
-L- STA. 191+28.68	LT	1705		2693.55																																							
-L- STA. 189+64.42	LT	1705	1622		2687.65	2683.55																												96'									
-L- STA. 191+53	RT	1702		2697.64																																							
-L- STA. 191+52	RT	1701	1702		2702.71	2692.89																	16'																				
-L- STA. 191+53	RT	1703		2699.68																																							
-L- STA. 191+53	RT	1702	1703		2691.39	2691.19																												48'									
-L- STA. 191+53	RT	1704		2695.43																																							
-L- STA. 191+53	LT	1703	1704		2691.19	2689.18																												68'									
-L- STA. 191+38.5	LT	1704	1705		2689.68	2687.65																												36'									
-L- STA. 193+30	LT	1708		2703.49																																							
-L- STA. 192+42	LT	1708	1704		2695.93	2690.68					172'																																
-L- STA. 194+38	LT	1707		2700.00																																							
-L- STA. 193+84.27	LT	1707	1708		2697.25	2695.93					108'																																
-L- STA. 195+69	LT	1706		2713.00																																							
-L- STA. 195+03.73	LT	1706	1707		2710.00	2696.75																132'																					
-Y18- STA. 13+74	LT	1724							48'																																		
-L- STA. 193+00	RT	1719		2703.24																																							
-L- STA. 192+26	RT	1719	1702		2698.74	2691.89							144'																														
-L- STA. 194+50	RT	1718		2708.68																																							
-L- STA. 193+75	RT	1718	1719		2702.93	2698.74							148'																														
-L- STA. 195+27	RT	1717		2711.35																																							
-L- STA. 194+88.56	RT	1717	1718		2705.60	2702.93							84'																														
-L- STA. 195+21.44	RT	1716	1717		2726.40	2705.60															20'																						
-L- STA. 195+47.56	LT																																										
-L- STA. 196+44	LT																																										
-L- STA. 196+20	RT																																										
-L- STA. 196+43.52	RT	1715		2718.70																																							
-L- STA. 196+11.03	RT	1715	1717		2712.95	2705.60							168'																														
-L- STA. 196+43.52	RT	1714	1715		2724.41	2714.70																		28'																			
-L- STA. 198+40	RT	1712		2723.94																																							
-L- STA. 198+41.69	RT	1713	1712		2728.76	2720.94																	20'																				
-L- STA. 197+67.5	RT	1712	1715		2719.19	2713.95					144'																																
-L- STA. 199+70	RT	1711		2728.22																																							
-L- STA. 199+05	RT	1711	1712		2725.47	2421.19			128'																																		
-L- STA. 199+05	RT	1710		2730.65																																							
-L- STA. 199+05	RT	1710	1711		2726.41	2725.47																															48'						
-L- STA. 201+50	RT	1709		2733.56																																							
-L- STA. 200+60	RT	1709	1710		2729.32	2726.41																															180'						
-L- STA. 202+45.13	RT	1725							84'																																		
-L- STA. 198+05	LT	1720		2725.45																																							
-L- STA. 197+88.53	LT	1720	1721		2722.30	2721.01																															40'						
-L- STA. 198+01.3	LT	1722		2728.30																																							
-L- STA. 197+86.32	LT	1722	1723		2725.55	2722.01			28'																																		
-L- STA. 198+05	LT	1726		2726.70																																							
-L- STA. 198+05	LT	1726	1720		2722.46	2722.30																															44'						
-L- STA. 198+30.31	CL																																										
-L- STA. 203+13.01	LT																																										
-L- STA. 202+91.72	LT	1727		2731.40																																							
-L- STA. 203+21.94	LT	1727	1728		2728.65	2726.57															64'																						
SHEET 18																																											
-L- STA. 204+73	RT	1830									32'																																
-L- STA. 205+62.86	CL	1806		2732.72																																							
-L- STA. 205+62.87	LT	1805	1806		2723.50	2719.01																											76'										
-L- STA. 205+66.9	LT	1807		2721.39																																							
-L- STA. 205+66.10	LT	1806	1807		2728.48	2716.62																											72'										
-L- STA. 205+68.2	LT	1807	1808		2714.62	2714.59																											8'										
-L- STA. 207+94.45	LT	1801							32'																																		
SHEET TOTALS									344'		456'		544'								84'	132'	36'	28'									156'	584'			388'						

STATION	36" R.C. PIPE (CLASS V)	42" R.C. PIPE (CLASS V)	30" WELDED PIPE, .500" THICK, GRADE B	36" WELDED PIPE, .500" THICK, GRADE B	42" WELDED PIPE, .625" THICK, GRADE B	48" WELDED PIPE, .625" THICK, GRADE B	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	ENDWALLS C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') 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	CONCRETE TRANSITIONAL SECTION 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	SPRING BOX STD. 840.41	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	T.B.G.D.I. STD. 840.35	T.B.J.B. STD. 840.34	J.B. STD. 840.31 OR 840.32	PARALLEL PIPE END SECTION STD. 310.02 OR 310.04	M. H. FRAME AND COVER STD. 840.54	OT CATCH BASIN OR STD. 840D04 (SHEET 2C-10)	PREFORMED SCOUR HOLE	FLOWABLE FILL	J.B. STD. 840.52	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	CS PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
-L- STA. 187+03.61									1			1		1			1																							
-L- STA. 187+03.61																																								
-L- STA. 187+03.61									1	3.83																		1		1									58	REMOVE EXIST. 30" C M PIPE
-L- STA. 186+91																																								
-L- STA. 187+57									1												1			1									7							PLUG AND FILL EXIST. 24" C M PIPE
-L- STA. 187+58																																								
-L- STA. 190+28									1	1.25										1				1																
-L- STA. 189+18																																								
SHEET 17																																								
-L- STA. 191+28.68									1	0.9																		1		1										
-L- STA. 189+64.42																																							200	REMOVE EXIST. 30" HDPE PIPE
-L- STA. 191+53									1	1.25										1				1																
-L- STA. 191+52																																				2@24"				
-L- STA. 191+53									1	3.49		1		1			1																							
-L- STA. 191+53																																								
-L- STA. 191+53									1	1.25										1				1																
-L- STA. 191+53																																								PLUG AND FILL EXIST. 30" C M PIPE & REMOVE HW
-L- STA. 191+38.5																																								
-L- STA. 193+30									1	2.56										1				1																
-L- STA. 192+42																																								
-L- STA. 194+38									1																						1									
-L- STA. 193+84.27																																					0.182		40	REMOVE PART OF EXIST. 30" RC PIPE
-L- STA. 195+69									1												1			1																
-L- STA. 195+03.73																																								
-Y18- STA. 13+74																																								
-L- STA. 193+00									1											1				1																
-L- STA. 192+26																																								
-L- STA. 194+50									1	0.75										1				1																
-L- STA. 193+75																																								
-L- STA. 195+27									1	0.75										1				1																
-L- STA. 194+88.56																																								
-L- STA. 195+21.44																																				2@15"				
-L- STA. 195+47.56																																	21							PLUG & FILL EXIST. 36" C M PIPE AND REMOVE HW
-L- STA. 196+44																																	2							PLUG & FILL EXIST. 15" C M PIPE
-L- STA. 196+20																																	2							PLUG & FILL EXIST. 24" C M PIPE
-L- STA. 196+43.52									1	0.75										1				1																
-L- STA. 196+11.03																																							31	REMOVE EXIST. 24" C M PIPE
-L- STA. 196+43.52																																				2@30"				
-L- STA. 198+40									1											1				1																
-L- STA. 198+41.69																																				2@24"				
-L- STA. 197+67.5																																								
-L- STA. 199+70									1												1			1																
-L- STA. 199+05																																								
-L- STA. 199+05									1			1		1			1																							
-L- STA. 199+05																																								
-L- STA. 201+50									1			1		1			1																							
-L- STA. 200+60																																								
-L- STA. 202+45.13																													1											15" PIPE END SECTION
-L- STA. 198+05									1												1				1															
-L- STA. 197+88.53																																								
-L- STA. 198+01.3									1												1			1																
-L- STA. 197+86.32																																								
-L- STA. 198+05									1																			1		1										
-L- STA. 198+05																																								
-L- STA. 198+30.31																																	2							PLUG & FILL EXIST. 15" C M PIPE
-L- STA. 203+13.01																																							37	REMOVE EXIST. 12" R C PIPE
-L- STA. 202+91.72									1												1			1																
-L- STA. 203+21.94																																								
SHEET 18																																								
-L- STA. 204+73																																								
-L- STA. 205+62.86									1	5	3.7																			1					1					
-L- STA. 205+62.87							3.602																																80	REMOVE EXIST. 36" C M PIPE AND HW
-L- STA. 205+66.9									1	1.77																		1		1									42	REMOVE EXIST. 18" HDPE PIPE
-L- STA. 205+66.10																																								
-L- STA. 205+68.2																																								
-L- STA. 207+94.45																																								
SHEET TOTALS							3.602		25	23.55	3.70	4		4			4			9	6			14	1			4	1	5	1		34		1	2@15"4@24"2@30"	0.182		488	

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.)	GRATED DROP INLET (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