COMPUTED BY: GSBLELL DATE: 3/29/2012

CHECKED BY: AJFOSTER DATE: 3/24/2014

RD266410

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2519B	3D-4

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. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)												C.S. PIPE							
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	12"	15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE																				.064	.064	.064	.064	.079	.079	.109	.109
-Y8- STA. 11+72	LT	0909		2486.04																							
-Y8- STA. 11+73	LT	0908	0909		2485.58	2483.29															12'						
-Y8- STA. 11+10	LT	0910		2483.06																							
-Y8- STA. 11+10	CL	0907	0910		2481.85	2480.31																					
-Y8- STA. 11+41	LT	0909	0910		2483.29	2480.31			60'																		
-Y8- STA. 10+57	LT	0911		2484.00																							
-Y8- STA. 10+83	LT	0910	0911		2480.06	2479.80				56'																	
-L- STA. 82+50	RT	0912		2481.30																							
-L- STA. 81+50	RT	0911	0912		2479.80	2478.30				180'																	
-L- STA. 82+87	RT	0912	0940		2478.30	2478.00				68'																	
-L- STA. 83+24	RT	0920		2483.87																							
-L- STA. 83+22	RT	0920	0913		2478.10	2478.00									20'												
-L- STA. 83+62	RT	0920	0945		2478.10	2476.00																					
-L- STA. 81+10	CL	0915		2486.92																							
-L- STA. 80+32	CL	0914	0915		2488.50	2483.17																					
-L- STA. 83+23	CL	0916		2484.37																							
-L- STA. 83+24	LT	0917		2483.82																							
-L- STA. 83+24	LT	0916	0917		2480.60	2479.97																					
-L- STA. 83+35	RT	0916	0920		2479.31	2478.10																					
-L- STA. 83+26	LT	0918		2483.82																							
-L- STA. 83+30	LT	0917	0918		2479.97	2480.07																					
-L- STA. 86+00	LT	0919		2487.40																							
-L- STA. 84+67	LT	0918	0919		2480.07	2483.65																					
-L- STA. 82+16	CL	0915	0916		2483.17	2480.60																					
-L- STA. 84+31	RT	0925		2478.17																							
-L- STA. 84+65	RT	0925	0945		2475.67	2476.80																					
-L- STA. 84+00	RT	0945		2480.64																							
-L- STA. 84+63	RT	0924		2481.32																							
-L- STA. 84+32	RT	0945	0924		2476.00	2473.73																					
-L- STA. 84+63	RT	0926	0924		2478.20	2473.73						80'															
-L- STA. 84+66	LT	0922		2472.66																							
-L- STA. 84+66	CL	0922	0924		2467.86	2473.73																					
-L- STA. 84+66	LT	0921		2448.32																							
-L- STA. 84+66	LT	0922	0921		2467.86	2443.54																				32'		
-L- STA. 85+50	LT	0921	0923		2443.54	2443.50							8'														
-L- STA. 84+67	CL	0927		2487.00																							
-L- STA. 84+37	CL	0927	0916		2480.00	2479.31																					
-L- STA. 84+67	RT	0928		2483.67																							
-L- STA. 86+15	RT	0930		2488.39																							
-L- STA. 86+15	RT	0929			2514.85																						
-L- STA. 86+15	RT	0929	0930		2514.85	2485.39															60'						
-L- STA. 85+82	RT	0930	0928		2484.89	2480.17					64'																
-L- STA. 84+67	RT	0928	0927		2480.17	2480.00																					
-L- STA. 87+00	RT	0931		2488.39																							
-L- STA. 86+57	RT	0931	0930		2484.89	2484.89					84'																
-L- STA. 89+35	RT	0932		2500.42																							
-L- STA. 88+17	RT	0932	0931		2497.42	2485.39				232'																	
-L- STA. 92+00	RT	0933		2512.66																							
-L- STA. 90+67	RT	0933	0932		2509.66	2497.42				260'																	
-L- STA. 89+35	CL	0935		2504.05																							
-L- STA. 89+35	LT	0935	0941		2499.05	2498.96																					
-L- STA. 92+00	CL	0934		2516.77																							
-L- STA. 90+67	CL	0934	0935		2511.77	2499.55																					
-Y9- STA. 11+78	LT	0937									36'																
-Y9- STA. 10+46	CL	0938			2455.60	2455.20																					
-L- STA. 95+00	RT	1014		2520.03																							
-L- STA. 93+50	RT	1014	0933		2517.03	2509.91			296'																		
-L- STA. 92+48	LT																										
-L- STA. 89+35	LT	0941		2504.10																							
-L- STA. 89+35	LT	0941	0936		2498.96	2468.60															72'						
SHEET 10																											
-L- STA. 95+00	LT	1001		2579.80																							
-L- STA. 95+00	LT	1001	1014		2577.63	2517.03															132'						
-L- STA. 96+40	LT	1002		2520.97																							
SHEET TOTALS									356'	796'	184'	80'	8'		20'						276'				32'		

STATION	R.C. PIPE CLASS III								R.C. PIPE CLASS IV								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 CU. YARDS C.S.P.
SIZE	12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"								
-Y8- STA. 11+72																								
-Y8- STA. 11+73																								
-Y8- STA. 11+10																								
-Y8- STA. 11+10										56'														
-Y8- STA. 11+41																								
-Y8- STA. 10+57																								
-Y8- STA. 10+83																								
-L- STA. 82+50																								
-L- STA. 81+50																								
-L- STA. 82+87																								
-L- STA. 83+24																								
-L- STA. 83+22																								
-L- STA. 83+62														76'										
-L- STA. 81+10																								
-L- STA. 80+32										152'														
-L- STA. 83+23																								
-L- STA. 83+24																								
-L- STA. 83+24										52'														
-L- STA. 83+35				32'																				
-L- STA. 83+26																								
-L- STA. 83+30										8'														
-L- STA. 86+00																								
-L- STA. 84+67										264'														
-L- STA. 82+16										212'														
-L- STA. 84+31																								
-L- STA. 84+65											64'													
-L- STA. 84+00																								
-L- STA. 84+63																								
-L- STA. 84+32														60'										
-L- STA. 84+63																								
-L- STA. 84+66																								
-L- STA. 84+66						108'																		
-L- STA. 84+66																								
-L- STA. 84+66																								
-L- STA. 85+50																								
-L- STA. 84+67																								
-L- STA. 84+37				224'																				
-L- STA. 84+67																								
-L- STA. 86+15																								
-L- STA. 86+15																								
-L- STA. 86+15																								
-L- STA. 85+82																								
-L- STA. 84+67				48'																				
-L- STA. 87+00																								
-L- STA. 86+57																								
-L- STA. 89+35																								
-L- STA. 88+17																								
-L- STA. 92+00																								
-L- STA. 90+67																								
-L- STA. 89+35																								
-L- STA. 89+35		30'																						
-L- STA. 92+00																								
-L- STA. 90+67										264'														
-Y9- STA. 11+78																								
-Y9- STA. 10+46				36'																				
-L- STA. 95+00																								
-L- STA. 93+50																								
-L- STA. 92+48																								
-L- STA. 89+35																								
-L- STA. 89+35																								
SHEET 10																								
-L- STA. 95+00																								
-L- STA. 95+00																								
-L- STA. 96+40																								
SHEET TOTALS		30'		340'		108'				1008'	64'			136'										

STATION	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
-Y8- STA. 11+72	1												1			1																
-Y8- STA. 11+73																																
-Y8- STA. 11+10	1												1			1																
-Y8- STA. 11+10																															64'	REMOVE EXIST. 18" CM PIPE
-Y8- STA. 11+41																																
-Y8- STA. 10+57	1												1			1																
-Y8- STA. 10+83																																
-L- STA. 82+50	1												1			1																
-L- STA. 81+50																																
-L- STA. 82+87																																
-L- STA. 83+24	1	0.77																		1												
-L- STA. 83+22																																
-L- STA. 83+62																																
-L- STA. 81+10	1							1		1	1																					
-L- STA. 80+32																																
-L- STA. 83+23	1	0.06		1	1				1																						127'	REMOVE EXIST. DI & 24" RC PIPES
-L- STA. 83+24	1												1				1															
-L- STA. 83+24																																
-L- STA. 83+35																																
-L- STA. 83+26	1												1				1															
-L- STA. 83+30																																
-L- STA. 86+00	1												1				1															
-L- STA. 84+67																																
-L- STA. 82+16																																
-L- STA. 84+31	1																						1									
-L- STA. 84+65																																
-L- STA. 84+00	1	0.75										1				1																
-L- STA. 84+63	1	2.59										1				1																
-L- STA. 84+32																																
-L- STA. 84+63																																
-L- STA. 84+66	1																			1												
-L- STA. 84+66																									12							REMOVE EXIST. HW & 24" CM PIPE
-L- STA. 84+66	1																			1												
-L- STA. 84+66																												2@36"				
-L- STA. 85+50																																
-L- STA. 84+67	1	2		1		1			1																							
-L- STA. 84+37																															65'	REMOVE EXIST 12" CM PIPE
-L- STA. 84+67	1											1				1																
-L- STA. 86+15	1											1				1																
-L- STA. 86+15	1																						1									
-L- STA. 86+15																																
-L- STA. 85+82																																
-L- STA. 84+67																																
-L- STA. 87+00	1											1				1																
-L- STA. 86+57																															37'	REMOVE EXIST. 18" CM PIPE
-L- STA. 89+35	1												1			1																
-L- STA. 88+17																																
-L- STA. 92+00	1												1			1																
-L- STA. 90+67																																
-L- STA. 89+35	1			1			1		1																							
-L- STA. 89+35																									5							PLUG & FILL EXIST. 18" CM PIPE
-L- STA. 92+00	1			1			1		1																							
-L- STA. 90+67																																
-Y9- STA. 11+78																															36'	REMOVE EXIST. 12" HDPE PIPE & REPLACE
-Y9- STA. 10+46																															33'	REMOVE EXIST. 18" RC PIPE & REPLACE
-L- STA. 95+00	1												1			1																
-L- STA. 93+50																																
-L- STA. 92+48																									5							PLUG & FILL EXIST. 18" CM PIPE
-L- STA. 89+35	1	0.14											1			1																
-L- STA. 89+35																																
SHEET 10																												2@15				
-L- STA. 95+00	1																						1									
-L- STA. 95+00																												2@15				
-L- STA. 96+40	1												1			1																
SHEET TOTALS	28	6.31		4	1	1	2	1	4	1	1	5	12			14	3			3			3		22			4@15" 2@36"			362'	

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