COMPUTED BY:	GSBLELL	DATE:	3/29/2012
CHECKED BY:	AJFOSTER	DATE:	2/25/2014

RD258193

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2519B	3D-1

**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 (SIZE / THICKNESS OR GAUGE)	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) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	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"
SHEET 4																																											
-L- STA. 19+25	LT	0401		2541.70																																							
-L- STA. 19+25	LT	0402		2529.76	2527.01																																						
-L- STA. 19+25	LT	0401	0402		2538.82	2527.01															40'																						
-L- STA. 19+78	LT	0403		2528.39																																							
-L- STA. 20+31	LT	0402	0403		2527.01	2525.64			108'																																		
-L- STA. 21+00	LT	0405		2527.11																																							
-L- STA. 20+65	LT	0403	0405		2525.64	2524.36			68'																																		
-L- STA. 21+00	LT	0404		2529.45																																							
-L- STA. 21+26	LT	0404	0405		2525.21	2524.36																															48'						
-L- STA. 21+26	LT	0405	0406		2524.36	2512.81															60'																						
-L- STA. 20+43	RT	0407							52'																																		
-L- STA. 23+05	LT	0408		2498.37																																							
-Y1- STA. 11+86	RT	0408	0409		2494.10	2492.00						20'																															
-L- STA. 25+13	RT	0412		2514.14																																							
-L- STA. 25+50	RT	0412	0416		2510.58	2515.95																															44'						
-L- STA. 25+35	CL	0416		2515.95																																							
-L- STA. 25+35	LT	0416	0413		2510.46	2510.34																															40'						
-L- STA. 25+20	LT	0413		2515.85																																							
-L- STA. 25+34.85	LT	0413	0414		2510.34	2499.74															52'																						
SHEET 5																																											
-L- STA. 26+97	RT	0501							32'																																		
-L- STA. 26+20	CL																																										
-L- STA. 27+96	LT																																										
-L- STA. 26+05	LT	0502							44'																																		
-L- STA. 32+16	LT	0503		2476.76																																							
-L- STA. 32+45	RT	0506		2473.00																																							
-L- STA. 32+70.21	CL	0503	0506		2473.76	2469.10																								136'													
-L- STA. 32+00	RT	0505		2489.84																																							
-L- STA. 31+31	RT	0505	0506		2487.09	2469.35															148'																						
-L- STA. 32+89	RT	0507		2453.32																																							
-L- STA. 32+80	RT	0506	0507		2469.10	2450.30																76'																					
-L- STA. 32+60	RT	0507	0508		2449.80	2449.72					28'																																
-L- STA. 32+90	CL	0504		2480.35																																							
-L- STA. 35+00	CL	0509		2469.22																																							
-L- STA. 33+80	CL	0504	0509		2475.35	2463.78																															240'						
-L- STA. 35+00	LT	0510		2463.98																																							
-L- STA. 35+00	LT	0509	0510		2463.78	2461.23																															68'						
-L- STA. 37+00	CL	0511		2460.62																																							
-L- STA. 36+01	LT	0512		2459.76																																							
-L- STA. 36+01	LT	0510	0512		2460.98	2456.00																																192'					
-L- STA. 37+00	LT	0511	0512		2456.38	2457.01																															48'						
-L- STA. 36+90	LT	0513		2462.80																																							
-L- STA. 36+95	LT	0513	0512		2460.05	2457.01																															36'						
-L- STA. 37+50	LT	0514		2456.83																																							
-L- STA. 38+01	LT	0512	0514		2456.00	2453.83																																96'					
SHEET 6																																											
-L- STA. 38+31	LT	0601		2454.95																																							
-L- STA. 38+77	LT	0602		2454.00																																							
-L- STA. 38+54	LT	0601	0602		2452.20	2451.25																															48'						
-L- STA. 39+00	LT	0603		2454.71																																							
-L- STA. 38+89	LT	0602	0603		2451.25	2451.16																															32'						
-L- STA. 38+50	LT	0514	0603		2453.33	2451.16																																	96'				
-L- STA. 39+80	LT	0604		2453.79																																							
-L- STA. 39+40	LT	0603	0604		2451.16	2450.29																																	80'				
-L- STA. 41+10	LT	0605		2451.10																																							
-L- STA. 40+45	LT	0604	0605		2450.29	2447.60																																	128'				
SHEET TOTALS									304'		28'	20'									300'	76'								136'							604'	288'	304'				

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.	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'	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	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
SHEET 4																																								
-L- STA. 19+25									1												1			1																
-L- STA. 19+25									1												1			1																
-L- STA. 19+25																																				2@15"				
-L- STA. 19+78									1												1			1																
-L- STA. 20+31																																								
-L- STA. 21+00									1												1			1																
-L- STA. 20+65																																							58'	
-L- STA. 21+00									1			1		1			1																							
-L- STA. 21+26																																								
-L- STA. 21+26																																				2@15"				
-L- STA. 20+43																																								
-L- STA. 23+05									1																				1												
-Y1- STA. 11+86																																							72'	REMOVE EXIST. CMP 30" PIPE
-L- STA. 25+13									1												1				1															
-L- STA. 25+50																																								
-L- STA. 25+35									1	0.49																			1		1									
-L- STA. 25+35																																								
-L- STA. 25+20									1	0.51											1				1															
-L- STA. 25+34.85																																				2@15"				
SHEET 5																																								
-L- STA. 26+97																																							23'	REMOVE EXIST. CMP 15" PIPE
-L- STA. 26+20																																							34'	REMOVE EXIST. CMP 18" PIPE
-L- STA. 27+96																																							27'	REMOVE EXIST. CMP 18" PIPE
-L- STA. 26+05																														1										
-L- STA. 32+16									1												1			1																
-L- STA. 32+45									1																						1					1				
-L- STA. 32+70.21																																							70'	REMOVE EXIST. CMP 15" PIPE AND HW
-L- STA. 32+00									1												1			1																
-L- STA. 31+31																																							42'	REMOVE EXIST. CMP 15" PIPE
-L- STA. 32+89									1																							1								
-L- STA. 32+80																																							50'	REMOVE EXIST. CMP 18" PIPES
-L- STA. 32+60																																								
-L- STA. 32+90									1			1			1		1																							
-L- STA. 35+00									1	0.44		1			1		1																							
-L- STA. 33+80																																								
-L- STA. 35+00									1												1			1																
-L- STA. 35+00																																								
-L- STA. 37+00									1			1			1		1																							
-L- STA. 36+01									1												1				1															
-L- STA. 36+01																																								
-L- STA. 37+00																																								
-L- STA. 36+90									1												1			1																
-L- STA. 36+95																																								
-L- STA. 37+50									1											1					1															
-L- STA. 38+01																																							39'	REMOVE EXIST. CMP 15" PIPE
SHEET 6																																								
-L- STA. 38+31									1												1				1															
-L- STA. 38+77									1												1			1																
-L- STA. 38+54																																								
-L- STA. 39+00									1											1					1															
-L- STA. 38+89																																								
-L- STA. 38+50																																							28'	REMOVE EXIST. CMP 18" PIPE
-L- STA. 39+80									1											1					1															
-L- STA. 39+40																																								
-L- STA. 41+10									1											1				1																
-L- STA. 40+45																																								
SHEET TOTALS									25	1.44		4		1	3		4			4	13			10	7			2	1	2	1				1	6@15"			443'	

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