COMPUTED BY: EGH DATE: 10/24/2014

CHECKED BY: SNM DATE: 10/27/2014

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2915A	3D-5

R0248621

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)

LINE & STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	SLOPE CRITICAL %	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											
Y2 11+20	RT	708		3013.25															
		708	709		3013.25	2984.05			64							X			
Y2 10+80	RT	709		2986.00															
		709	710		2983.83	2983.50													
Y2 10+99	CL																		
L 68+88	LT	801		2968.00															
L 69+05	CL																		
L 69+45	RT	802		2971.85															
		802	801		2969.10	2965.00													
L 71+40	RT	803		2968.57															
		803	804		2965.57	2964.75													
L 69+47	CL																		
L 71+47	LT																		
L 72+00	RT	804		2967.75															
		804	807		2964.55	2956.20													
L 72+00	RT	805		2978.50															
		805	804		2978.50	2964.75				32						X			
L 72+06	LT																		
L 72+23	LT																		
L 75+26	RT	808		2960.00															
		808	807		2955.00	2953.50													
L 75+34	RT	807		2962.00															
		807	806		2951.26	2950.60													
L 75+95	LT																		
L 75+95	LT	809	OUT																
L 76+45	LT																		
L 76+45	LT	810	OUT																
L 76+62	LT																		
L 78+19	LT																		
L 78+24	RT	811																	
L 78+25	RT	811	OUT		2957.10	2956.80			24										
L 79+04	RT	812																	
L 79+44	CL	812	813		2950.83	2944.00													
L 79+16	CL																		
L 79+23	CL																		
L 79+93	CL																		
L 80+20	LT																		
L 80+86	LT																		
L 80+86	LT	814	OUT																
L 81+72	LT	917	OUT		2949.56	2949.47			20										
L 82+45	LT	918																	
L 82+19	LT	918	OUT		2949.90	2949.70			52										
L 82+03	CL																		
L 84+40	CL																		
L 84+45	RT																		
L 84+45	LT																		
L 82+00	RT	903		2953.80															
		903	904		2951.05	2950.00													
L 83+67	RT	904		2953.00															
		904	905		2949.75	2949.40													
						SHEET TOTAL			160	32									

LINE & STATION	C.S.P. 12	15	18	24	30	36	42	48	R.C.P. CLASS III 12	15	18	24	30	36	42	48	R.C.P. CLASS IV 12	15	18	24	30	36	42	48	** " R.C. PIPE (CLASS V)	15" RC PIPE CULVERTS, CONTRACTOR DESIGN	18" RC PIPE CULVERTS, CONTRACTOR DESIGN	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE
	THICKNESS OR GAUGE	0.064	0.064	0.064	0.079	0.079	0.109	0.109																					
Y2 11+20	RT																												
Y2 10+80	RT																												
											68																		
Y2 10+99	CL																												
L 68+88	LT																												
L 69+05	CL																												
L 69+45	RT																												
									200																				
L 71+40	RT																												
											60																		
L 69+47	CL																												
L 71+47	LT																												
L 72+00	RT																												
											336																		
L 72+00	RT																												
																		2											
L 72+06	LT																												
L 72+23	LT																												
L 75+26	RT																												
														32															
L 75+34	RT																												
														132															
L 75+95	LT																												
L 75+95	LT													20															
L 76+45	LT																												
L 76+45	LT													40															
L 76+62	LT																												
L 78+19	LT																												
L 78+24	RT																												
L 78+25	RT																												
L 79+04	RT																												
L 79+44	CL														156														
L 79+16	CL																												
L 79+23	CL																												
L 79+93	CL																												
L 80+20	LT																												
L 80+86	LT																												
L 80+86	LT														20														
L 81+72	LT																												
L 82+45	LT																												
L 82+19	LT																												
L 82+03	CL																												
L 84+40	CL																												
L 84+45	RT																												
L 84+45	LT																												
L 82+00	RT																												
									172																				
L 83+67	RT																												
											72																		
	SHEET TOTAL								372	536				224	176														

LINE & STATION	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 *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0')	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 STD. 852.06 OR 852.04	CATCH BASIN STD. 852.05	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. FRAME WITH TWO GRATES STD. 840.20 WIDE/FLAT	G.D.I. FRAME WITH TWO GRATES STD. 840.22 WIDE/SAG	G.D.I. FRAME WITH TWO GRATES STD. 840.29 NARROW/FLAT	G.D.I. FRAME WITH TWO GRATES STD. 840.24 NARROW/SAG	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	MANHOLE FRAME AND COVER STD. 840.54	BERM DRAINAGE OUTLET (BDO) STD. 850.10	BERM DRAINAGE OUTLET (BDO) STD. 850.11	CONCRETE MEDIAN DI TYPE-A, EXTRA DEPTH (SEE DETAIL 2C-7)	FLOWABLE FILL (C.Y.)	15" SIDE DRAIN PIPE ELBOWS	18" SIDE DRAIN PIPE ELBOWS NO. & SIZE	24" SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PSH (PREFORMED SCOUR HOLE (QTY. EACH)	PIPE REMOVAL LIN. FT.	15" PIPE END SECTION	18" PIPE END SECTION	REMARKS
Y2 11+20																									1														15" BERM DITCH OUTLET PIPE
																													2										
Y2 10+80			1												1																								
Y2 10+99																																					38		REMOVE 18" CMP
L 68+88			1	0.20										1					1																			
L 69+05																																					136		REMOVE PART OF 18" RCP
L 69+45			1											1																									
L 71+40			1											1																									
L 69+47																																					40		REMOVE 18" CMP
L 71+47																																					49		REMOVE 12" RCP
L 72+00			1											1					1																			
L 72+00																									1														18" BERM DITCH OUTLET PIPE
																															2								
L 72+06																																					38		REMOVE 18" CMP
L 72+23																																		0.05					PLUG & ABANDON 15" RCP
L 75+26		4.5																																					
																																					136		REMOVE 15" RCP
L 75+34			1	5.00	0.74									1					1																			
																																					50		REMOVE 42" RCP
L 75+95																																					17		REMOVE 30" CMP
L 75+95																																							
L 76+45																																					41		REMOVE 24" CMP
L 76+45																																							
L 76+62																																					40		REMOVE 18" CMP
L 78+19																																					40		REMOVE 18" CMP
L 78+24																																						1	
L 78+25																																							
L 79+04		6.0																																					STD. 838.01
L 79+44																																							
L 79+16																																					99		REMOVE 42" RCP
L 79+23																																					74		REMOVE 42" RCP & 19' HW
L 79+93																																					49		REMOVE 24" CMP
L 80+20																																					20		REMOVE 48" CMP
L 80+86																																					21		REMOVE 36" CMP
L 80+86																																							
L 81+72																																							
L 82+45																																						1	
L 82+19																																							
L 82+03																																					41		REMOVE 15" HDPE
L 84+40																																					56		REMOVE 15" RCP
L 84+45																																					55		REMOVE PART OF 30" CMP
L 84+45																																					226		REMOVE 36" RCP & DI
L 82+00			1											1					1																			
L 83+67			1											1					1																			
	SHEET TOTAL	10.5	8	5.2	0.7									1	6	1		6	2					2				2	2		0.045		1266	2				

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