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-3

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											
		444	426		3031.50	2986.40			104							X			
L 21+95	RT	448		3012.10															
		448	425		3007.00	3002.00													
L 28+50	LT	430		2989.69															
		430	432		2984.10	2983.30													
L 28+50	RT	431		2987.57															
		431	430		2984.60	2984.30													
L 28+50	RT	463		2987.03															
		463	0431		2984.90	2984.80													
L 30+00	LT	432		2987.62															
		432	501		2982.80	2982.20													
L 30+00	RT	433		2986.60															
		433	432		2983.50	2983.00	0												
L 30+00	RT	434		3018.00															
		434	464		3018.00	2984.20	4			80						X			
L 30+00	RT	464		2986.06															
		464	0433		2984.00	2983.80													
SR2 21+21	RT	460		3011.77															
SR2 21+12	LT	459		3015.77															
		459	0460		3010.64	3007.00													
SR2 13+06	LT	408	OUT		3011.00	3009.40			52										
SR1 27+14	CL	471			2986.90	2986.10													
SR1 27+19	LT	472			2985.90	2984.30													
L 31+00	LT	501		2987.00															
		501	504		2982.00	2981.20													
L 31+00	RT	502		2985.98															
		502	501		2983.00	2982.70													
L 31+00	RT	503		2985.44															
		503	502		2983.30	2983.20													
L 32+50	LT																		
L 32+00	LT	504		2986.22															
		504	509		2980.70	2980.20													
L 32+00	RT	505		2985.20															
		505	504		2982.00	2981.70													
L 32+00	RT	506		2984.66															
		506	505		2982.30	2982.20													
L 32+00	RT	507		3048.00															
		507	506		3048.00	2982.50				136						X			
L 33+00	LT	509		2985.31															
		509	508		2979.80	2979.50													
L 33+00		510		2984.29															
		510	509		2981.30	2981.00													
L 33+00	RT	511		2983.75															
		511	510		2981.60	2981.50													
L 34+50	LT	512		2984.11															
		512	513		2981.11	2979.49													
L 34+50	RT	513		2982.24															
		513	516		2979.49	2973.54													
L 34+50	RT	514		2981.70															
		514	513		2979.78	2979.69													
						SHEET TOTAL			156	216									

LINE & 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	** " 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																					
L 21+95																													
											64																		
L 28+50																													
									148																				
L 28+50																													
									52																				
L 28+50																													
									8																				
L 30+00																													
												100																	
L 30+00																													
												52																	
L 30+00																													
SR2 21+21																													
SR2 21+12																													
														52															
SR2 13+06																													
SR1 27+14																		40											
SR1 27+19																		100											
L 31+00																													
												100																	
L 31+00																													
									52																				
L 31+00																													
									8																				
L 32+50																													
L 32+00																													
												100																	
L 32+00																													
											52																		
L 32+00																													
											8																		
L 32+00																													
L 33+00																													
									52																				
L 33+00																													
									8																				
L 34+50																													
									52																				
L 34+50																													
									264																				
L 34+50																													
									8																				
									652	132	252	156		52				140											

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. 852.04 OR 852.06	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 (840D17)	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
																													2									
L 21+95			1	0.10										1			1																					
L 28+50			1	0.59												1						1																	TB 2GI
L 28+50			1											1				1																					
L 28+50			1												1		1																						
L 30+00			1													1						1																	TB 2GI
L 30+00			1											1		1																							
L 30+00																												1											18" BERM DITCH OUTLET PIPE
																																	2						
L 30+00			1											1		1																							
SR2 21+21		5																																					STD. 838.01
SR2 21+12		5																																					STD. 838.01
SR2 13+06																																							
SR1 27+14																																							
SR1 27+19																																							
L 31+00			1													1																							
L 31+00			1											1		1																							
L 31+00			1												1		1																						
L 32+50																																				0			PLUG AND FILL W/ FLOWABLE FILL
L 32+00			1	0.52												1						1																	TB 2GI
L 32+00			1											1		1																							
L 32+00			1												1		1																						
L 33+00			1											1		1																							
L 33+00			1												1		1																						
L 34+50			1													1						1																	TB 2GI
L 34+50			1											1		1																							
L 34+50			1												1		1																						
		9	19	1.7										7	6	11	7	1				6		2					2	4		0.07						

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