RD248621

COMPUTED BY: NM DATE: 3/24/2016

CHECKED BY: WJW DATE: 3/24/2016

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
B-4929	3D-2

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 / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	DRAINAGE 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 0.064	15 0.064	18 0.064	24 0.064	30 0.079	36 0.079	42 0.109	48 0.109
		707	706		4.40	3.40																					
		708	706		3.80	3.40																					
Y4 12+64	19 RT	708		7.10																							
Y4 12+50	18 LT	709		7.20																							
		709	708		4.00	3.80																					
		710	711		3.30	2.90																					
Y5 15+34	21 LT	710		6.37																							
		711	712		2.90	2.25																					
RA2 12+04	2 RT	711		7.25																							
Y3 14+76	23 LT	712		7.50																							
		712	713		2.00	1.20																					
Y3 13+70	25 LT	713		5.50																							
		713	715		1.20	0.90																					
Y3 13+05	28 LT	714		4.60																							
		714	713		1.60	1.20																					
Y3 13+70	27 RT	715		5.50																							
		715	718		0.90	0.80																					
SL1 10+85	2 RT	716		8.10																							
		716	715		4.90	1.20																					
Y3 12+90	40 RT	717		4.40																							
		717	715		1.20	1.00																					
Y3 13+72	52 RT	718		6.70																							
		718	719		0.80	0.70																					
Y3 14+41	78 RT	720		6.00																							
		720	718		3.00	1.00																					
SL2 10+73	43 RT	721		6.00																							
		721	722		3.00	1.50																					
L2 56+80	37 RT	722		3.75																							
		722	723		1.50	1.20																					
Y1 47+02	26 LT	724		4.30																							
		724	905		1.65	1.25																					
Y1 48+72	40 LT	725		3.50																							
Y1 49+24	36 LT	726		3.50																							
		727	712		2.40	2.25																					
Y3 14+90	45 LT	727		5.60																							
Y3 12+70	8 RT	728		5.00																							
		728	717		1.30	1.20																					
Y1 48+00	45 LT	729		4.35																							
		729	730		1.10	0.55																					
Y3 11+62	35 RT	730		3.40																							
Y1 42+35	28 LT	902		4.30																							
		902	904		0.75	0.30																					
Y1 43+73	30 LT	904		3.80																							
		904	901		0.20	0.00																					
Y1 45+65	31 LT	905		3.60																							
		905	904		1.25	0.70																					
Y1 41+20	35 LT	906		4.00																							
		906	902		1.40	0.75																					
Y1 42+38	24 RT	907		3.70		1.85																					
L1DET 12+50	22 RT	426T	411		5.65	4.70																					
SHEET TOTAL																											

LINE & STATION	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	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	MASONRY DRAINAGE STRUCTURE CY	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.
										52													
										84													
Y4 12+64																							
Y4 12+50																							
										40													
										84													
Y5 15+34																							
										136													
RA2 12+04																							
Y3 14+76																							
											92												
Y3 13+70																							
											52												
Y3 13+05																							
										56													
Y3 13+70																							
											28												
SL1 10+85																							
										112													
Y3 12+90																							
										92													
Y3 13+72																							
											12												
Y3 14+41																							
										96													
SL2 10+73																							
										104													
L2 56+80																							
										112													
Y1 47+02																							
											140												
Y1 48+72																							
Y1 49+24																							
										24													
Y3 14+90																							
Y3 12+70																							
										36													
Y1 48+00																							
										40													
Y3 11+62																							
Y1 42+35																							
										140													
Y1 43+73																							
											136												
Y1 45+65																							
											192												
Y1 41+20																							
										116													
Y1 42+38																							
L1DET 12+50										52													
SHEET TOTAL										1376	652												

LINE & STATION	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'	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 D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME W/ TWO GRATES 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. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 3 GRATES STD. 840.22	J.B. STD. 840.31 OR 840.32	T.B.J.B. STD. 840.34	T.B.G.D.I. STD. 840.36	STEEL FRAME AND TWO GRATES STD. 840.37	STEEL FRAME AND GRATE STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD.53	M.H. FRAME AND COVER STD. 840.54
Y4 12+64	1			1		1																			
Y4 12+50	1			1			1																		
Y5 15+34	1																				1	1			
RA2 12+04	1			1	1																				
Y3 14+76	1	0.50		1		1																			
Y3 13+70	1			1		1																			
Y3 13+05	1			1		1																			
Y3 13+70	1			1			1																		
SL1 10+85	1			1			1																		
Y3 12+90	1			1			1																		
Y3 13+72	1	0.90																	1						1
Y3 14+41	1																								
SL2 10+73	1																								
L2 56+80	1									1	1														
Y1 47+02	1			1	1																				
Y1 48+72	1																			1					1
Y1 49+24	1																				1	1			
Y3 14+90	1									1	1														
Y3 12+70	1							1		1	1														
Y1 48+00	1			1			1																		
Y3 11+62	1																				1	1			
Y1 42+35	1																		1						1
Y1 43+73	1													1	1										
Y1 45+65	1													1	1										
Y1 41+20	1													1	1										
Y1 42+38	1													1	1										
L1DET 12+50																									
SHEET TOTAL	26	1.40		11	2	4	5	1		3	3			4	4				2	1	3	3			3

LINE & STATION	CONVERT EXISTING D.I. TO C.B.	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING D.I. TO T.B.J.B.	CONVERT EXISTING J.B. TO 2 G.I.	ADJUST EXISTING MANHOLE	ADJUST D.I.	REBUILD D.I.	15" C.S. ELBOW	18" C.S. ELBOW	24"C.S. ELBOW	SPECIAL CONCRETE MEDIAN 2GI	BERM DITCH OUTLET STD. 850.10 (PER EACH)	PREFORMED SCOUR HOLE (PER EACH)	FLOWABLE FILL, C.Y.	CONC. COLLARS CL. "B" C.Y. STD. 840.72	CONC. & BRICK PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN. FT.	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	PIPE CLEANOUT	REMARKS
Y4 12+64																				
Y4 12+50																				
Y5 15+34																				
RA2 12+04																				
Y3 14+76																				
Y3 13+70																				
Y3 13+05																				
Y3 13+70																				
SL1 10+85																				
Y3 12+90																				
Y3 13+72																				
Y3 14+41																		1		EMERGENCY OUTLET CONTROL STRUCTURE
SL2 10+73																		1		EMERGENCY OUTLET CONTROL STRUCTURE
L2 56+80																				
Y1 47+02																				
Y1 48+72																				REMOVE EXISTING DI
Y1 49+24																				
Y3 14+90																				
Y3 12+70																				
Y1 48+00																				
Y3 11+62																				
Y1 42+35																				
Y1 43+73																				
Y1 45+65																				
Y1 41+20																				
Y1 42+38																				
L1DET 12+50																	52			TEMPORARY PIPE FOR DETOUR, SEE SHEET 2B-7
SHEET TOTAL																	52	2		

ABBREVIATIONS

C.A.A	CORRUGATED ALUMINUM INLET
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
P.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT