RALL329

COMPUTED BY:	Matthew D. Stratton, EI	DATE:	4/22/2024
CHECKED BY:	Paul Cameron, PE	DATE:	4/22/2024

PROJECT NO.	SHEET NO.
U-5813	3D-8

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

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	TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) 15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	HDPE 12	15	18	24	30	36	42	48
			1217	1227		850.5	847.6																					
L 109+79	8	RT	1218		855.5																							
			1218	12115		852.8	852.2																					
RPBC 15+95	14	LT	1220		850.5																							
			1220	1213		846.0	845.0	0.3																				
L 113+58	7	RT	1221		847.8																							
			1221	1209		841.3	840.5	0.3																				
LPC 12+88	52	LT	1222		817.6																							
LPA 18+45	18	RT	1223		836.4																							
			1223	1234		833.3	833.0																					
LPA 10+92	12	RT	1224		827.2																							
LPA 12+15	16	RT	1225		828.7																							
			1225	1224		823.6	822.7	0.4																				
LPC 12+45	18	RT	1226		818.0																							
			1226	1222		810.0	809.2	0.4																				
LPC 18+07	29	LT	1227		850.7																							
			1227	1245		847.6	846.2																					
RPDA 11+25	42	RT	1228		832.0																							
			1228	1342		828.8	826.7	1.4																				
Y17 18+83	21	LT	1230	OUT		871.1	866.6		56											X								
L 118+38	33	LT	1232		838.8																							
			1232	1207		831.1	830.9																					
RPDA 11+25	34	LT	1233		832.7																							
			1233	1228		829.3	828.8																					
L 117+96	33	LT	1234		839.4																							
			1234	1232		833.0	832.7																					
RPD_REV 16+69	0	RT	1235	OUT		815.8	813.7																					
RPDA 14+50	5	LT	1238	OUT		835.5	835.0																					
L 119+44	222	RT	1239		821.5																							
			1239	1240		814.0	813.1																					
L 119+66	140	RT	1242		820.2																							
			1242	1239		815.0	814.0	0.6																				
RPDA 10+83	60	RT	1243		832.3																							
			1243	1228		829.5	829.0																					
L 107+00	49	LT	1244		857.6																							
			1244	12116		851.0	846.8	1.2																				
RPC_REV 23+22	26	LT	1245		856.0																							
			1245	1246		846.2	846.0																					
RPC_REV 23+01	47	LT	1246		857.0																							
			1246	12117		844.8	844.5			68																		
LPA 19+53	16	RT	1247		840.0																							
			1247	1223		836.0	833.3																					
L 109+79	68	LT	1249		851.0																							
			1249	1215		847.5	847.3	0.6																				
Y 29+69	26	RT	1250		881.6																							
			1250	1277		873.5	868.0	0.6																				
Y 29+65	26	LT	1251		880.6																							
			1251	1250		876.0	873.8	1.3																				
Y17 15+25	3	LT	1252	OUT		883.8	883.5																					
Y 31+38	6	RT	1253		878.9																							
								SHEET TOTALS	56	68																		

LINE & STATION	FROM	TO	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	30" WELDED STEEL PIPE 0.500" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.500" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	
	1217	1227		48																			
L 109+79	1218															1							
	1218	12115		28																			
RPBC 15+95	1220															1			1		1		
	1220	1213		52																			
L 113+58	1221															1	1.5						
	1221	1209			40																		
LPC 12+88	1222															1	3.4						
LPA 18+45	1223															1			1			1	
	1223	1234		56																			
LPA 10+92	1224															1							
LPA 12+15	1225															1	0.1						
	1225	1224		116																			
LPC 12+45	1226															1	3.0		1			1	
	1226	1222						84															
LPC 18+07	1227															1							
	1227	1245		76																			
RPDA 11+25	1228															1							
	1228	1342		104																			
Y17 18+83	1230	OUT																					
L 118+38	1232															1	2.7		1			1	
	1232	1207			28																		
RPDA 11+25	1233															1							
	1233	1228		76																			
L 117+96	1234															1	1.4		1			1	
	1234	1232		60																			
RPD_REV 16+69	1235	OUT					100																
RPDA 14+50	1238	OUT			88																		
L 119+44	1239															1	2.5						
	1239	1240						160															
L 119+66	1242															1	0.2						
	1242	1239					84																
RPDA 10+83	1243															1							
	1243	1228		44																			
L 107+00	1244															1	1.6		1			1	
	1244	12116				240																	
RPC_REV 23+22	1245															1	4.8						
	1245	1246		28																			
RPC_REV 23+01	1246															1	5.0	2.3	1		1		
	1246	12117																					
LPA 19+53	1247															1			1			1	
	1247	1223		96																			
L 109+79	1249															1							
	1249	1215		20																			
Y 29+69	1250															1	3.1		1		1		
	1250	1277			80																		
Y 29+65	1251															1			1	1			
	1251	1250		52																			
Y17 15+25	1252	OUT			60																		
Y 31+38	1253															1	1.5						
SHEET TOTALS				856	296	240	184	244								24	30.8	2.3	10	1	3	6	

LINE & STATION	FROM	TO	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.2	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.2	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.2
	1217	1227																
L 109+79	1218																	
	1218	12115																
RPBC 15+95	1220																	
	1220	1213																
L 113+58	1221		1			1	1											
	1221	1209																
LPC 12+88	1222																	
LPA 18+45	1223																	
	1223	1234																
LPA 10+92	1224																	
LPA 12+15	1225																	
	1225	1224																
LPC 12+45	1226																	
	1226	1222																
LPC 18+07	1227								1					1				
	1227	1245																
RPDA 11+25	1228								1			1						
	1228	1342																
Y17 18+83	1230	OUT																
L 118+38	1232																	
	1232	1207																
RPDA 11+25	1233								1					1				
	1233	1228																
L 117+96	1234																	
	1234	1232																
RPD_REV 16+69	1235	OUT																
RPDA 14+50	1238	OUT																
L 119+44	1239							1						1				
	1239	1240																
L 119+66	1242							1						1				
	1242	1239																
RPDA 10+83	1243								1			1						
	1243	1228																
L 107+00	1244																	
	1244	12116																
RPC_REV 23+22	1245		1															
	1245	1246																
RPC_REV 23+01	1246																	
	1246	12117																
LPA 19+53	1247																	
	1247	1223																
L 109+79	1249								1					1				
	1249	1215																
Y 29+69	1250																	
	1250	1277																
Y 29+65	1251																	
	1251	1250																
Y17 15+25	1252	OUT																
Y 31+38	1253		1			1	1											
SHEET TOTALS			3			2	2	2	5			2		5				

LINE & STATION	FROM	TO	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME WITH TWO GRATES STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING OTCB TO J.B.	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING C.B. TO D.I.	CONVERT EXISTING D.I. TO J.B.	ADJUST C.B.	15" SIDE DRAIN ELBOW	18" SIDE DRAIN ELBOW	24" SIDE DRAIN ELBOW	30" SIDE DRAIN ELBOW	36" SIDE DRAIN ELBOW	TEMP STEEL PLATE (SEE SHEET 2C-4)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
	1217	1227																						
L 109+79	1218					1	1													1				
	1218	12115																						
RPBC 15+95	1220																						30	Remove 15" RCP
	1220	1213																						
L 113+58	1221																			1				
	1221	1209																						
LPC 12+88	1222		1						1															
LPA 18+45	1223																						132	Remove 15" RCP
	1223	1234																						
LPA 10+92	1224					1	1																132	Remove 15" RCP
LPA 12+15	1225					1	1																	
	1225	1224																						
LPC 12+45	1226																						255	Remove 36" RCP
	1226	1222																					9	Remove 15" RCP
LPC 18+07	1227																							
	1227	1245																						
RPDA 11+25	1228																							
	1228	1342																						
Y17 18+83	1230	OUT																						
L 118+38	1232																							
	1232	1207																						
RPDA 11+25	1233																							
	1233	1228																						
L 117+96	1234																							
	1234	1232																						
RPD_REV 16+69	1235	OUT																						
RPDA 14+50	1238	OUT																					137	Remove 18" RCP
L 119+44	1239																						8	Remove 18" HDPE
	1239	1240																						
L 119+66	1242																							
	1242	1239																						
RPDA 10+83	1243																						123	Remove 18" RCP
	1243	1228																						
L 107+00	1244																							
	1244	12116																						
RPC_REV 23+22	1245					1	1													1				
	1245	1246																						
RPC_REV 23+01	1246																							
	1246	12117																						
LPA 19+53	1247																							
	1247	1223																						
L 109+79	1249																							
	1249	1215																						
Y 29+69	1250																							
	1250	1277																						
Y 29+65	1251																							
	1251	1250																						
Y17 15+25	1252	OUT																						
Y 31+38	1253																			1				
SHEET TOTALS			1			4	4		1											4			826	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.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