COMPUTED BY:	BJF	DATE:	10/25/2022
CHECKED BY:	ARV	DATE:	10/26/2022

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-5751	3D-1

RD248621

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	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %
L 15+00	CL	501		83.98			
		501	506		81.23	80.42	
L 24+75	CL	504		85.20			
		504	505		82.45	80.00	
L 16+01	CL	506		84.37			
Y1C 43+79	CL	601		104.22			
		601	602		101.05	100.49	
Y1C 42+65	2 RT	602		107.14			
		602	604		100.39	100.03	
Y1C 42+64	14 LT	603		106.86			
		603	602		104.11	104.02	
RAB 14+70	3 RT	604		108.99			
		604	605		99.93	99.71	
Y1C 41+90	42 RT	605		108.84			
		605	651		99.61	81.10	
RAB 13+02	2 RT	606		110.69			
		606	613		107.94	104.80	
Y1RPA 25+65	19 RT	607		107.20			
		607	652		104.45	80.20	
Y1RPB 22+02	17 LT	608		107.10			
		608	650		104.35	81.00	
RAB 10+99	2 RT	609		109.70			
		609	610		106.95	106.18	
Y1B 39+81	14 LT	610		110.30			
		610	613		106.08	105.92	
Y1B 39+29	19 LT	611		110.59			
		611	610		107.84	107.58	
Y1B 39+29	19 RT	612		110.59			
		612	613		107.84	107.58	
Y1B 39+81	14 RT	613		110.30			
		613	614		104.70	81.00	
Y1B 36+70	19 LT	615		110.57			
		615	617		107.82	107.56	
Y1B 36+70	19 RT	616		110.57			
		616	618		107.82	107.57	
Y1B 36+19	14 LT	617		110.35			
		617	653		104.60	80.80	
Y1B 36+19	14 RT	618		110.35			
		618	617		107.47	107.30	
Y1RPC 26+19	18 RT	619		106.30			
		619	654		103.55	80.00	
RCD 13+16	2 RT	620		110.20			
		620	617		107.45	104.70	
RCD 14+25	10 RT	621		107.70			
		621	622		104.95	104.57	
RCD 10+02	3 RT	622		107.64			
		622	625		104.47	104.27	
RCD 11+19	2 RT	623		109.40			
		623	624		106.65	104.25	
Y1RPD 21+84	18 LT	624		106.90			

FROM	TO	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC)						C.S. PIPE							R.C. PIPE CLASS III							R.C. PIPE CLASS IV							R.C. PIPE CLASS V							
SIZE		15	18	24	30	36	42	15	18	24	30	36	42	48	15	18	24	30	36	42	48	15	18	24	30	36	42	48	12	15	18	24	30	36	42	48
THICKNESS OR GAUGE								0.064	0.064	0.064	0.079	0.079	0.109	0.109																						
501	506														104																					
601	602																					112														
602	604														72																					
603	602																													20						
604	605														44																					
605	651							100																												
606	613																					108														
607	652							96																												
608	650							128																												
609	610																					156														
610	613																													32						
611	610																					52														
612	613																													52						
613	614							108																												
615	617																													52						
616	618																													52						
617	653							116																												
618	617																													36						
619	654							92																												
620	617																					108														
621	622																													52						
622	625																													40						
623	624																													52						
SHEET TOTAL								640							220							536								388						

LINE & STATION	FROM	TO	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	15" WELDED STEEL PIPE 0.25" THICK, GRADE B	42" WELDED STEEL PIPE 0.625" THICK, GRADE B	48" WELDED STEEL PIPE 0.625" 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 *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
L 15+00	501									1						
L 24+75	504									1						
	504	505			92											
Y1C 43+79	601									1						
Y1C 42+65	602									1	1.75					
Y1C 42+64	603									1						
RAB 14+70	604									1	4.06					
Y1C 41+90	605									1	4.23					
RAB 13+02	606									1						
Y1RPA 25+65	607									1						
Y1RPB 22+02	608									1						
RAB 10+99	609									1						
Y1B 39+81	610									1						
Y1B 39+29	611									1						
Y1B 39+29	612									1						
Y1B 39+81	613									1	0.60					
Y1B 36+70	615									1						
Y1B 36+70	616									1						
Y1B 36+19	617									1	0.75					
Y1B 36+19	618									1						
Y1RPC 26+19	619									1						
RCD 13+16	620									1						
RCD 14+25	621									1						
RCD 10+02	622									1						
RCD 11+19	623									1						
Y1RPD 21+84	624									1						
SHEET TOTAL					92					25	11.39					

LINE & STATION	FROM	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 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	SPECIAL DETAIL 2GI-A (SEE DETAIL 2D-4)	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	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	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	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	PARALLEL PIPE END SECTION STD. 310.04	CONVERT EXISTING C.B. TO J.B.	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO 2 G.I.	CONVERT C.B. TO D.I.	ADJUST EXISTING MANHOLE	ADJUST EXISTING C.B.	ADJUST D.I.	ADJUST 2GI
L 15+00	501						1				1																		
L 24+75	504						1				1																		
L 16+01	506																											1	
Y1C 43+79	601	1		1	1																								
Y1C 42+65	602	1		1	1																								
Y1C 42+64	603															1	1												
RAB 14+70	604	1		1	1																								
Y1C 41+90	605															1	1												
RAB 13+02	606															1	1												
Y1RPA 25+65	607						1			1																			
Y1RPB 22+02	608															1	1												
RAB 10+99	609															1	1												
Y1B 39+81	610															1	1												
Y1B 39+29	611						1			1																			
Y1B 39+29	612						1			1																			
Y1B 39+81	613															1	1												
Y1B 36+70	615						1			1																			
Y1B 36+70	616						1			1																			
Y1B 36+19	617															1	1												
Y1B 36+19	618															1	1												
Y1RPC 26+19	619						1			1																			
RCD 13+16	620															1	1												
RCD 14+25	621															1	1												
RCD 10+02	622	1		1	1																								
RCD 11+19	623															1	1												
Y1RPD 21+84	624															1	1												
SHEET TOTAL		4		4	4		8			6	2					13	13											1	

FROM	TO	15" C.S. ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	30" C.S. ELBOW	36" C.S. ELBOW	42" C.S. ELBOW	48" C.S. ELBOW	BERM DITCH OUTLET STD. 850.10 (PER EACH)	BERM DITCH OUTLET STD. 850.11 (PER EACH)	CONC. COLLARS CL. "B" C.Y. STD. 840.72	FLOWABLE FILL, C.Y.		PIPE REMOVAL LIN. FT.	REMARKS
605	651	2													
607	652	2													
608	650	2													
613	614	2													
617	653	2													
619	654	2													
SHEET TOTAL		12													

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