COMPUTED BY: LMJ	DATE: 3/9/2022	PROJECT NO.	SHEET NO.
CHECKED BY: WKJ	DATE: 5/4/2022	I-5987A	3D-18

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	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) SIZE 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																		
		2101	2102		149.10	146.40		28										
LA2 352+12	73 RT	2101		153.20														
		2103	2104		148.80	148.80												
LA2 350+25	5 LT	2103		152.80														
		2104	2105		148.80	144.10												
LA2 350+25	2 RT	2104		152.90														
		2106	2107		139.90	139.10	.3											
LA2 347+78	105 RT	2106		143.40														
LA2 347+78	105 LT	2107		142.60														
		2109	2110		146.50	146.50												
LA2 345+68	5 LT	2109		150.50														
		2110	2116		146.50	146.10												
LA2 345+68	2 RT	2110		150.60														
		2111	2112		146.70	146.70												
LA2 344+00	5 LT	2111		150.70														
		2112	2114		146.70	146.30												
LA2 344+00	2 RT	2112		150.70														
		2113	2114		146.50	146.50												
LA2 344+68	5 LT	2113		150.50														
		2114	2116		146.30	146.10												
LA2 344+68	2 RT	2114		150.50														
		2115	2116		146.50	146.40												
LA2 345+05	5 LT	2115		150.50														
		2116	2117		146.10	142.70	.5											
LA2 345+05	2 RT	2116		150.50														
		2118	2119		140.80	139.80												
LA2 342+97	97 RT	2118		144.80														
LA2 342+97	98 LT	2119		143.80														
		2120	2121		146.80	146.70												
LA2 346+50	5 LT	2120		150.80														
		2121	2122		146.70	143.20												
LA2 346+50	2 RT	2121		150.90														
		2201	2202		146.30	144.00		28										
LA2 365+97	73 RT	2201		151.30														
		2203	2204		147.20	147.10												
LA2 366+62	73 RT	2203		151.20														
		2204	2205		146.20	143.30		32										
LA2 366+80	73 RT	2204		151.20														
		2206	2207		148.20	148.20												
LA2 365+07	2 RT	2206		152.30														
		2207	2208		148.00	144.00												
LA2 365+07	5 LT	2207		152.30														
LA2 366+07	CL																	
LA2 365+14	CL																	
		2209	2210		147.90	147.90												
LA2 366+47	2 RT	2209		151.90														
		2210	2212		147.90	147.80												
LA2 366+46	5 LT	2210		151.90														
		2211	2212		147.90	147.90												
LA2 366+73	2 RT	2211		151.90														
						SHEET TOTAL		88										

LINE & STATION	C. S. PIPE SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS III SIZE 15	18	24	30	36	42	48	R. C. PIPE CLASS IV SIZE 15	18	24	30	36	42	48
THICKNESS OR GAUGE	0.064	0.064	0.064	0.079	0.079	0.109	0.109														
LA2 352+12																					
															8						
LA2 350+25																					
LA2 350+25																					
LA2 347+78																					
LA2 347+78																					
															8						
LA2 345+68																					
															60						
LA2 345+68																					
															8						
LA2 344+00																					
															68						
LA2 344+00																					
															8						
LA2 344+68																					
															36						
LA2 344+68																					
															8						
LA2 345+05																					
LA2 345+05																					
LA2 342+97																					
LA2 342+97																					
															8						
LA2 346+50																					
LA2 346+50																					
LA2 365+97																					
															16						
LA2 366+62																					
LA2 366+80																					
															8						
LA2 365+07																					
LA2 365+07																					
LA2 366+07																					
LA2 365+14																					
															8						
LA2 366+47																					
															24						
LA2 366+46																					
															8						
LA2 366+73																					
SHEET TOTAL															276						

LINE & STATION	16" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B IN SOIL	16" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	18" WELDED STEEL PIPE 0.25" THICK, GRADE B NOT IN SOIL	24" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	30" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	36" WELDED STEEL PIPE 0.50" THICK, GRADE B NOT IN SOIL	42" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	48" WELDED STEEL PIPE 0.625" THICK, GRADE B NOT IN SOIL	ENDWALLS STD. 838.01 OR STD.838.11 (UNLESS OTHERWISE NOTED) CY	REINFORCED ENDWALLS CY	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. 852.06	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. 840.19 OR 840.28	G.D.I. TYPE "D" STD. 840.19 OR 840.28	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. (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.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME AND TWO GRATES STD. 840.37	M.H. STD. 840.51, STD. 840.52, OR STD.53	M.H. FRAME AND COVER STD. 840.54	TEMP STEEL PLATE COVER MASONARY DRAINAGE	15" C.S. ELBOW	15" SIDE DRAIN PIPE ELBOW	FLOWABLE FILL, C.Y.	PIPE REMOVAL LIN. FT.	REMARKS
LA2 352+12																								1																				1	1						
LA2 350+25																								1																				1	1						
	52							52																																											
LA2 350+25																								1																				1	1						
						108							108																																						
LA2 347+78																				5																															
LA2 347+78																				5																															
															8																																				
LA2 345+68																								1																				1	1						
															60																																				
LA2 345+68																								1																				1	1						
															8																																				
LA2 344+00																								1																				1	1						
															68																																				
LA2 344+00																								1																				1	1						
															8																																				
LA2 344+68																								1																				1	1						
															36																																				
LA2 344+68																								1																				1	1						
															8																																				
LA2 345+05																								1																				1	1						
	52							52																																											
LA2 345+05																								1																				1	1						
							100							100																																			18.0	
LA2 342+97																				6																															
LA2 342+97																				6																															
															8																																				
LA2 346+50																								1																				1	1						
	52							52																																											
LA2 346+50																								1																				1	1						
LA2 365+97																								1																				1	1						
															16																																				
LA2 366+62																								1																				1	1						
LA2 366+80																								1																				1	1						
															8																																				
LA2 365+07																								1																				1	1						
		52							52																																							6.0		
LA2 365+07																								1																				1	1						
LA2 366+07																																																			126
LA2 365+14																																																			126
															8																																				
LA2 366+47																								1																				1	1						
															24																																				
LA2 366+46																								1																				1	1						
															8																																				
LA2 366+73																								1																				1	1						
SHEET TOTAL	156	52				108	100	156	52				108	100	21			21																										21	21					65.0	252

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