DocuSign Envelope ID: E5B797FE-D01D-4EB4-B7A7-8D808375578F

Z9831

COMPUTED BY: VHB DATE: 04/08/2022

CHECKED BY: VHB DATE: 04/08/2022

PROJECT NO.	SHEET NO.
R-5819/R-5820	3D-2

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) 12	15	18	24	30	36	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	C. S. PIPE 12 .064	15 .064	18 .064
L 83+99	122	LT	1006																			
Y2 42+59	16	LT	1101		83.3																	
			1101	1702		80.6	65.8															
Y2 42+59	14	RT	1102		83.3																	
			1102	1703		80.6	65.8															
Y2 38+70	16	LT	1103		84.5																	
			1103	1105		81.2	71.8															
Y2 38+70	14	RT	1104		84.5																	
			1104	1106		81.2	71.8															
Y2 36+00	16	LT	1105		75.1																	
			1105	1603		71.8	60.1															
Y2 36+00	14	RT	1106		75.1																	
			1106	1604		71.8	60.1															
L 90+60	0	CL	1107		57.1																	
			1107	1108		54.4	50.1															
L 95+50	0	CL	1109																			
Y1A 12+00	27	LT	1302		59.2																	
Y1A 13+16	35	LT	1303		58.0																	
			1303	1304		56.5	56.5															
Y1A 13+16	23	LT	1304		59.6																	
			1304	1302		56.3	55.8	0.5														
Y1A 14+00	19	LT	1305		60.1																	
			1305	1304		56.5	56.3															
Y1A 14+00	52	RT	1306		59.1																	
			1306	1305		56.6	56.5															
Y1A 15+88	31	LT	1307		61.3																	
Y3ROUND 12+45	34	LT	1308		61.5																	
			1308	1313		55.8	55.5															
Y3ROUND 12+05	44	LT	1309		61.6																	
			1309	1308		56.0	55.8															
Y3 18+55	34	RT	1310		62.9																	
			1310	1309		56.3	56.0															
Y3ROUND 13+05	25	LT	1313		62.7																	
			1313	1314		55.5	55.3															
Y3 16+00	11	RT	1314		61.5																	
			1314	1315		55.3	55.0															
Y3 15+40	14	RT	1315		60.6																	
			1315	1312		55.0	54.9															
Y3 18+50	11	LT	1317		63.5																	
			1317	1310		56.4	56.3															
Y3 19+15	14	LT	1318		63.2																	
			1318	1317		56.6	56.4															
Y3 19+21	24	LT	1319		62.9																	
			1319	1318		56.7	56.6	0.6														
Y3 19+28	24	LT	1320		57.7																	
			1320	1319		56.7	56.7															
Y3 14+50	33	LT	1323		59.1																	
			1323	1322		55.6	55.0	1.4			36											
Y3 15+23	34	LT	1324		59.9																	
			1324	1342		55.8	55.7															
SHEET TOTALS											36											

FROM	TO	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	R. C. PIPE CLASS V 12	15	18	24	30	36	60	STRUCTURAL PLATE PIPE 60	66
1006											16															
1101																										
1101	1702										388															
1102																										
1102	1703										388															
1103																										
1103	1105										268															
1104																										
1104	1106										268															
1105																										
1105	1603										272															
1106																										
1106	1604										272															
1107																										
1107	1108																									
1109																										
1302																										
1303																										
1303	1304																			12						
1304																										
1304	1302																			112						
1305																										
1305	1304																			80						
1306																										
1306	1305																			72						
1307																										
1308																										
1308	1313																						88			
1309																										
1309	1308																						68			
1310																										
1310	1309																						68			
1313																										
1313	1314																						64			
1314																										
1314	1315																						60			
1315																										
1315	1312																						32			
1317																										
1317	1310																						44			
1318																										
1318	1317																						64			
1319																										
1319	1318																					12				
1320																										
1320	1319																					8				
1323																										
1323	1322																									
1324																										
1324	1342																			36						
SHEET TOTALS											1872									312		20	488			

FROM	TO	15" WELDED STEEL PIPE 0.250" THICK, GRADE B IN SOIL	15" WELDED STEEL PIPE 0.250" THICK, GRADE B NOT IN SOIL	18" WELDED STEEL PIPE 0.250" THICK, GRADE B IN SOIL	18" WELDED STEEL PIPE 0.250" 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		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05
1006																		
1101									1									
1101	1702																	
1102									1									
1102	1703																	
1103									1									
1103	1105																	
1104									1									
1104	1106																	
1105									1									
1105	1603																	
1106									1									
1106	1604																	
1107									1									
1107	1108	74	74															
1109																		
1302									1			1		1				
1303																		
1303	1304																	
1304									1			1		1				
1304	1302																	
1305									1			1		1				
1305	1304																	
1306									1									
1306	1305																	
1307																		
1308									1	0.7		1		1				
1308	1313																	
1309									1	0.6		1	1					
1309	1308																	
1310									1	1.6		1			1			
1310	1309																	
1313									1	2.2		1			1			
1313	1314																	
1314									1	1.2		1			1			
1314	1315																	
1315									1	0.6		1			1			
1315	1312																	
1317									1	2.1		1			1			
1317	1310																	
1318									1	1.6		1			1			
1318	1317																	
1319									1	1.2		1	1					
1319	1318																	
1320																		
1320	1319																	
1323									1			1	1					
1323	1322																	
1324									1			1	1					
1324	1342																	
SHEET TOTALS		74	74						22	11.8		14	4	4	6			

FROM	TO	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	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	J.B. STD. 840.31 OR STD. 840.32	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING D.I. TO J.B.	ADJUST D.I.		15" SIDE DRAIN PIPE ELBOW	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
1006																							
1101						1						1											
1101	1702																						
1102						1						1											
1102	1703																						
1103						1						1											
1103	1105																						
1104						1						1											
1104	1106																						
1105						1						1											
1105	1603																						
1106						1						1											
1106	1604																						
1107					1			1															
1107	1108																						
1109																1							
1302																							
1303																							OEP
1303	1304																						
1304																							
1304	1302																						
1305																							
1305	1304																						
1306		1	1																				
1306	1305																						
1307														1	1								
1308																							
1308	1313																						
1309																							
1309	1308																						
1310																							
1310	1309																						
1313																							
1313	1314																						
1314																							
1314	1315																						
1315																							
1315	1312																						
1317																							
1317	1310																						
1318																							
1318	1317																						
1319																							
1319	1318																						
1320																				0.6560			
1320	1319																						
1323																							
1323	1322																						
1324																							
1324	1342																						
SHEET TOTALS		1	1		1	6		1				6		1	1	1				0.6560			

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