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CHECKED BY: A. VOGT DATE: 12/15/2017

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-5105	3D-1

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)

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12"	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																			
-L- 17+97	LT	0438							24										
-L- 17+35	RT	0401																	
-L- 18+22	RT	0402		2126.9															
	RT	0402	0405		2120.7	2119.3													
-L- 18+68	RT	0405		2121.5															
	RT	0405	0406		2119.3	2118.7													
-Y2- 11+25	RT	0440											24						
-Y2- 11+20	LT	0426		2115.7															
	LT	0426	0425		2110.4	2110.0						80							
-Y2- 12+00	LT	0425		2120.3															
	LT	0425	0424		2110.0	2107.9													
	LT	0427	0425		2115.4	2114.8				60									
-Y2- 12+63	LT	0427		2120.3															
	LT	0437	0427	2117.0	2115.7	2115.5				36									
-Y2- 14+33	LT	0441							32										
-Y2- 15+20	LT	0429		2126.5															
	LT	0429	0428		2123.0	2122.5			20										
-Y2- 15+40	LT	0430		2126.5															
	LT	0430	0429		2123.3	2123.0													
	LT	0431	0430	2125.7	2124.4	2123.3			24										
-L- 21+60	RT	0436		2117.1															
	RT	0436	0426		2112.4	2110.9					48								
-L- 22+13	RT	0415		2117.8															
	RT	0415	0436		2113.1	2112.4					56								
-L- 22+40	RT	0416		2118.5															
	RT	0416	0415		2113.2	2113.1					28								
-L- 22+85	RT	0417		2120.6															
	RT	0417	0416		2115.7	2113.2					56								
-L- 24+64	RT	0419		2123.2															
	RT	0419	0417		2119.5	2115.7													
-L- 24+86	RT	0434		2123.7															
	RT	0434	0419		2119.9	2119.5													
-L- 25+55	RT	0418		2125.9															
	RT	0418	0434		2122.2	2119.9													
	LT	0414	0412	2124.6	2123.4	2118.0													
-L- 23+82	LT	0413		2120.8															
	LT	0413	0412		2118.1	2118.0			16										
-L- 23+82	LT	0412		2121.1															
	LT	0412	0411		2118.0	2116.5													
-L- 22+85	LT	0411		2119.5															
	CL	0411	0417		2116.3	2116.2													
-L- 21+92	LT	0410		2119.0															
		0410	0408		2116.0	2113.9													
-L- 21+70	CL	0409		2119.8															
		0409	0408		2116.6	2115.8													
-L- 21+60	LT	0408		2119.1															
		0408	0407		2113.9	2112.5													
-Y1- 19+88	LT	0422		2118.4															
	LT	0422	0423		2112.4	2112.3						40							
	CL	0421	0422	2118.6	2116.1	2113.0													
-Y1- 19+30	RT	0439								28									
-Y1- 17+27	RT	0432		2122.9															
	RT	0432	0433		2120.1	2120.0													
SHEET TOTALS								0	116	124	188	120	24	0	0	0	0	0	0

STATION	C.S. PIPE SIZE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS III SIZE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV SIZE 12"	15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE	.064	.064	.064	.064	.079	.079	.109	.109																
-L- 17+97																								
-L- 17+35																								
-L- 18+22																								
																						44		
-L- 18+68																								
																						56		
-Y2- 11+25																								
-Y2- 11+20																								
-Y2- 12+00																								
																					72			
-Y2- 12+63																								
-Y2- 14+33																								
-Y2- 15+20																								
'-Y2- 15+40																								
																		20						
-L- 21+60																								
'-L- 22+13																								
-L- 22+40																								
-L- 22+85																								
-L- 24+64																								
																				180				
-L- 24+86																								
																				20				
-L- 25+55																								
																				68				
																	160							
-L- 23+82																								
-L- 23+82																								
																	96							
-L- 22+85																								
																		28						
-L- 21+92																								
																	28							
-L- 21+70																								
																	24							
-L- 21+60																								
																	28							
-Y1- 19+88																								
-Y1- 19+30																								
-Y1- 17+27																								
																	32							
SHEET TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	388	28	268	72	100	0	0

STATION	30" R.C. PIPE (CLASS V)	***** RC PIPE CULVERTS, CONTRACTOR DESIGN	***** RC PIPE CULVERTS, CONTRACTOR DESIGN	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.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	5.0' THRU 10.0'	10.0' AND ABOVE	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A	B	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 DROP INLET STD. 852.04 OR STD. 852.06	CATCH BASIN STD. 852.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME WITH 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. FRAME WITH GRATE STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	TBJB STD. 840.34	M.H. FRAME & COVER STD. 840.54			SIDE DRAIN PIPE ELBOWS NO. & SIZE	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
-L- 17+97																																								
-L- 17+35																																							40.14	CONVERT DI TO CB
-L- 18+22								1	1.19																			1	1									250.58	
-L- 18+68								1				1			1																									
-Y2- 11+25																																								
-Y2- 11+20								1	0.25															1						1										
-Y2- 12+00								1	5	0.23	1			1																										
-Y2- 12+63								1			1	1																												
-Y2- 14+33																																								
-Y2- 15+20								1			1			1																								40.28	
'-Y2- 15+40								1			1				1																									
																																						32.08	
-L- 21+60								1																1						1										
'-L- 22+13								1																1						1										
-L- 22+40								1	0.26															1						1										
-L- 22+85								1			1			1																										
																																						34.45	
-L- 24+64								1			1			1																										
																																						131.7	
-L- 24+86								1			1			1																										
-L- 25+55								1			1			1																										
-L- 23+82								1																1						1									158.48	
-L- 23+82								1			1		1																											
-L- 22+85								1			1		1																									108.92	
-L- 21+92								1			1	1																												
-L- 21+70								1									1		1	1																		141.93	
-L- 21+60								1	0.19		1			1																								40.34	
-Y1- 19+88								1	0.98		1	1																										55.01	
																																						30.07	
-Y1- 19+30	64																																							
-Y1- 17+27								1																1						1										
SHEET TOTALS	64	0	0	0	0	0	0	22	7.87	0.23	14	3	4	7	1	0	2	6	0	0	0	0	0	1	5	0	1	1	0	0	0	0	0	0	0	0	1063.98	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX