RALD084

COMPUTED BY: BRC DATE: 1/8/15

CHECKED BY: JAB DATE: 10/27/16

PROJECT NO.	SHEET NO.
R-5023B	3D-1

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)

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)

LINE & STATION / SIZE / THICKNESS OR GAUGE	OFFSET		STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CAAP, or HDPE) 12	15	18	24	30	36	42	48	54	DO NOT USE RCP	DO NOT USE CAAP	DO NOT USE HDPE	C. A. A. PIPE 12 .064	15 .064	18 .064	24 .064		30 .079			36 .079			42 .109	48 .109	54	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	54	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	54		66" x 51" C.A. PIPE ARCH CULVERTS, 0.138" THICK	42" x 29" C.A. PIPE ARCH CULVERTS, 0.138" THICK		15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE		ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	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		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. (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	FRAME WITH NARROW SLOT GRATES STD. 840.29	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	15" PIPE END SECTION	18" PIPE END SECTION	24" PIPE END SECTION		FLOWABLE FILL CY	PIPE REMOVAL LIN. FT.	REMARKS
			IN	0401		32.7	32.4			12																																																																											
			IN	0401		33.9	32.4				40																																																																						1					
L 11+02	31	LT	0401		36.1																																																									1															1				1							
			IN	0403		42.6	41.5			12																																																																													
			IN	0403		41.9	41.5				4																																																																				1					
L 14+81	35	LT	0403		45.7																																																								1															1				1							
			0403	0402		41.5	39.1				100																																																																											
L 13+80	36	LT	0402		41.7																																																								1													1	1												
			0402	OUT		39.1	37.9				52																																																																											
			0404	OUT		46.5	46.4			44																																																																										
L 17+46	30	LT	0404		48.5																																																								1													1	1												
			0501	0404		47.1	46.5			88																																																																										
L 18+37	30	LT	0501		49.0																																																								1													1	1												
L 17+21	32	RT	0405																																																						80																											1						
L 20+73	34	LT	0502																																																					20																											1						
L 21+35	34	LT	0503																																																					32																											1						
			0504	OUT		44.4	43.7																																										88																																														
L 24+87	35	RT	0505																																																					48																											1						
L 22+66	40	LT	0506																																																					32																											1						
L 30+51	33	LT	0601																																																					28																											1						
			IN	0602		43.3	43.0			80																																																																												
			0602	OUT		43.0	42.2			72																																																																											
L 33+29	33	LT	0602		44.9																																																								1													1	1												
L 31+22	33	RT	0603																																																					32																											1						
L 27+96	33	LT	0604																																																					24																											1						
L 36+55	42	LT	0703																																																					24																											1						
L 37+23	40	LT	0704																																																					24																											1						
L 38+06	39	LT	0705																																																					28																											1						
L 40+94	36	LT	0706																																																					24																											1						
L 41+57	35	LT	0707																																																					24																											1						
L 40+97	41	RT	0708																																																					36																											1						
L 38+58	41	RT	0709																																																						24																											1					
L 38+09	41	RT	0710																																																						24																											1					
L 36+80	40	RT	0711																																																						24																											1					
L 35+36	41	RT	0712																																																						32																											1					
L 39+53	39	RT	0713																																																						40																											1					
L 43+30	33	LT	0801																																																					28																											1						
L 45+18	33	LT	0802																																																					24																											1						
L 46+83	33	LT	0803																																																					24																											1						
L 47+58	34	LT	0804																																																					32																											1						
L 48+53	34	LT	0805																																																					24																											1						
L 49+09	35	LT	0806																																																					24																											1						
L 49+82	35	LT	0807																																																					24																											1						
L 49+37	37	RT	0808																																																						24																											1					
L 47+60	37	RT	0809																																																					24																											1						
L 46+24	36	RT	0810																																																					28																											1						
L 43+86	33	RT	0811																																																					32																											1						
L 50+76	36	LT	0901																																																					32																											1						
L 51+98	36	LT	0902																																																					28																											1						
L 55+63	40	LT	0903																																																						36																											1					
							SHEET TOTALS			308	196																																							88											780	204				6												4	4	2				2	26	9					

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