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TICIVILWORK717

COMPUTED BY: MSP DATE: 6/30/2017

CHECKED BY: EV DATE: 6/30/2017

PROJECT NO.	SHEET NO.
U-4751	3D-11

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	STRUCTURE NUMBER 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 CSP	DO NOT USE HDPE	DO NOT USE PVC	CAAP 12 .064	CAAP 15 .064	CAAP 18 .064
			2625	2622		42.1	41.9													
Y 17+66	82	RT	2632		46.2															
			2632	2637		42.9	42.7													
Y 18+05	45	RT	2633		47.1															
			2633	2602		43.2	43.0													
Y 17+41	32	RT	2634																	
Y 15+58	36	RT	2635		46.9															
			2635	2636		43.2	43.1													
Y 15+58	30	RT	2636																	
Y 17+40	64	RT	2637		45.7															
			2637	2602		42.7	42.5													
Y1RPD 21+68	42	RT	2701		31.7															
			2701	2702		24.9	24.6													
Y1RPD 21+75	60	LT	2703																	
			2703	2701		28.2	24.9													
Y1RPD 23+40	2	RT	2706		36.5															
			2706	2711		32.2	31.0													
Y1RPD 25+40	2	RT	2707		39.6															
			2707	2712		35.4	34.6													
Y1RPD 27+40	2	RT	2708		45.2															
			2708	2713		41.0	38.1													
Y1RPD 24+50	2	RT	2715		37.5															
			2715	2706		33.2	32.2													
Y1RPD 19+64	243	LT	2716		34.0															
			2716	2717		29.0	28.3						232		X	X	X			
Y1RPD 21+24	78	LT	2717		32.6															
			2717	2718		28.3	28.2						44		X	X	X			
Y1 63+00	50	LT	2801		45.4															
			2801	2802		38.1	37.7													
Y1 64+45	50	LT	2802		44.8															
			2802	2803		37.2	36.9													
Y1 65+50	50	LT	2803		44.3															
			2803	2804		36.9	36.3													
Y1 67+40	50	LT	2804		43.3															
			2804	2805		36.3	35.9													
Y1 68+85	50	LT	2805		42.6															
			2805	2806		35.9	33.4													
Y1 70+45	50	LT	2806		41.8															
			2806	2814		31.9	30.9													
Y1 72+04	50	LT	2807		41.2															
			2807	2851		36.7	36.6													
Y1 74+00	50	LT	2808		41.7															
			2808	2807		37.2	36.7													
Y1 63+00	49	RT	2809		45.4															
			2809	2810		39.1	38.6													
Y1 64+58	49	RT	2810		44.8															
			2810	2811		38.6	38.3													
Y1 65+60	49	RT	2811		44.3															
			2811	2812		38.3	37.8													
Y1 67+30	49	RT	2812		43.4															
SHEET TOTALS													276							

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	42	48
2625	2622											72													
2632																									
2632	2637										32														
2633																									
2633	2602											64													
2634																									
2635																									
2635	2636										8														
2636																									
2637																									
2637	2602										20														
2701																									
2701	2702																48								
2703																									
2703	2701																104								
2706																									
2706	2711										64														
2707																									
2707	2712										64														
2708																									
2708	2713										72														
2715																									
2715	2706										108														
2716																									
2716	2717																								
2717																									
2717	2718																								
2801																									
2801	2802												144												
2802																									
2802	2803													104											
2803																									
2803	2804													188											
2804																									
2804	2805													144											
2805																									
2805	2806													160											
2806																									
2806	2814																100								
2807																									
2807	2851											24													
2808																									
2808	2807											196													
2809																									
2809	2810												156												
2810																									
2810	2811												100												
2811																									
2811	2812												168												
2812																									
SHEET TOTALS											368	356	568	596			252								

FROM	TO	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	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	Pipe Clean Out	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16
2625	2622																	
2632					1												1	1
2632	2637																	
2633					1			1			1							
2633	2602																	
2634																		
2635					1			1			1							
2635	2636																	
2636																		
2637					1												1	1
2637	2602																	
2701					1	1.8												
2701	2702																	
2703		6.000																
2703	2701																	
2706					1								1				1	1
2706	2711																	
2707					1								1				1	1
2707	2712																	
2708					1								1				1	1
2708	2713																	
2715					1								1				1	1
2715	2706																	
2716					1													
2716	2717																	
2717					1													
2717	2718																	
2801					1	2.3		1			1							
2801	2802																	
2802					1	2.6		1			1							
2802	2803																	
2803					1	2.4		1			1							
2803	2804																	
2804					1	2.0		1			1							
2804	2805																	
2805					1	1.7		1			1							
2805	2806																	
2806					1	4.9		1			1							
2806	2814																	
2807					1			1	1									
2807	2851																	
2808					1			1		1								
2808	2807																	
2809					1	1.3		1		1								
2809	2810																	
2810					1	1.2		1		1								
2810	2811																	
2811					1	1.0		1		1								
2811	2812																	
2812					1	0.6		1		1								
SHEET TOTALS		6.000			23	21.8		14	1	5	8		4				6	6

FROM	TO	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. (W.S. FLAT) FRAME W/ GRATE STD. 840.20	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	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	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	SPECIAL TBJB W/MH	ADJUST C.B.	ADJUST D.I.	15" CAAP ELBOW	18" CAAP ELBOW	8" SLUICE GATE	MODIFIED CONC. FLUME	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
2625	2622																											
2632																												
2632	2637																											
2633																												
2633	2602																											
2634																									0.5526			PIPE COLLAR
2635																												
2635	2636																											
2636																									0.3990			PIPE COLLAR
2637																												
2637	2602																											
2701		1								1																		
2701	2702																											
2703																												HEADWALL
2703	2701																											
2706																												
2706	2711																											
2707																												
2707	2712																											
2708																												
2708	2713																											
2715																												
2715	2706																											
2716												1				1												
2716	2717																											
2717												1				1												
2717	2718																											
2801																												
2801	2802																											
2802																												
2802	2803																											
2803																												
2803	2804																											
2804																												
2804	2805																											
2805																												
2805	2806																											
2806																												
2806	2814																											
2807																												
2807	2851																											
2808																												
2808	2807																											
2809																												
2809	2810																											
2810																												
2810	2811																											
2811																												
2811	2812																											
2812																												
SHEET TOTALS		1								1		2				2									0.9516			

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