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TICIVILWORK717

COMPUTED BY:	MSP	DATE:	6/30/2017
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-4751	3D-4

**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 CSP	DO NOT USE HDPE	DO NOT USE PVC	CAAP 12 (.064)	15 (.064)	18 (.064)
Y1 51+00	49 RT	0634		45.6															
		0634	0631		40.2	39.4													
Y1 52+42	49 RT	0635		45.2															
		0635	0634		40.4	40.2													
Y1 53+50	49 RT	0636		45.6															
		0636	0635		42.3	41.7													
Y1 57+00	49 RT	0637		45.9															
		0637	0638		41.7	41.4													
Y1 58+10	49 RT	0638		45.6															
		0638	0639		41.4	41.2													
Y1 58+74	49 RT	0639		45.5															
		0639	0640		40.9	40.5													
Y1 60+00	50 RT	0640		45.7															
		0640	2809		40.5	39.6													
L 33+25	10 RT	0641		59.4															
		0641	0526		54.9	52.2													
L 34+00	10 RT	0642		62.5															
		0642	0641		58.0	54.9													
L 36+00	10 RT	0643		69.6															
		0643	0642		65.1	58.0													
L 41+50	10 RT	0644		69.4															
		0644	0645		63.8	53.4													
L 44+50	10 RT	0645		58.2															
		0645	0646		53.4	49.2													
L 45+75	10 RT	0646		54.0															
		0646	0622		49.2	46.7													
L 40+50	56 LT	0647		68.8															
		0647	0684		64.3	64.1													
Y1LPB 12+60	15 LT	0648		60.4															
		0648	0627		56.0	42.4												88	
Y1LPB 16+00	14 LT	0649		47.9															
		0649	0686		44.6	43.4													
Y1LPB 19+50	14 LT	0650		46.1															
		0650	0688		42.9	42.3													
Y1LPB 22+86	14 LT	0651		44.6															
		0651	0652		41.4	41.0													
Y1 42+00	54 LT	0652		47.0															
		0652	0691		40.2	39.9													
Y1 56+50	71 LT	0653		45.2															
		0653	0663		42.2	41.8													
L 39+90	56 LT	0654		70.0															
		0654	0647		65.7	64.6													
Y1RPD 31+00	2 RT	0655		49.3															
		0655	0656		45.1	44.5													
Y1RPD 31+50	2 RT	0656		48.7															
		0656	0674		44.5	43.2													
Y1RPD 33+00	24 RT	0657		46.1															
		0657	0633		41.3	40.6													
Y1 34+80	49 RT	0658		47.4															
		0658	0619		41.6	41.3													
						SHEET TOTALS												88	

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
0634																									
0634	0631														368										
0635																									
0635	0634													140											
0636																									
0636	0635										108														
0637																									
0637	0638										108														
0638																									
0638	0639										64														
0639																									
0639	0640											124													
0640																									
0640	2809											300													
0641																									
0641	0526										64														
0642																									
0642	0641										72														
0643																									
0643	0642										200														
0644																									
0644	0645											304													
0645																									
0645	0646											128													
0646																									
0646	0622											68													
0647																									
0647	0684											64													
0648																									
0648	0627																								
0649																									
0649	0686										32														
0650																									
0650	0688										28														
0651																									
0651	0652										28														
0652																									
0652	0691												100												
0653																									
0653	0663										20														
0654																									
0654	0647										56														
0655																									
0655	0656										48														
0656																									
0656	0674										40														
0657																									
0657	0633											120													
0658																									
0658	0619												100												
SHEET TOTALS											868	1108	200	140	368										

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
0634					1	0.4		1		1								
0634	0631																	
0635					1			1	1									
0635	0634																	
0636					1			1			1							
0636	0635																	
0637					1			1		1								
0637	0638																	
0638					1			1		1								
0638	0639																	
0639					1			1	1									
0639	0640																	
0640					1	0.2		1			1							
0640	2809																	
0641					1			1		1								
0641	0526																	
0642					1			1		1								
0642	0641																	
0643					1			1		1								
0643	0642																	
0644					1	0.6		1			1							
0644	0645																	
0645					1			1			1							
0645	0646																	
0646					1			1			1							
0646	0622																	
0647					1			1			1							
0647	0684																	
0648					1			1			1							
0648	0627																	
0649					1			1			1							
0649	0686																	
0650					1			1			1							
0650	0688																	
0651					1			1	1									
0651	0652																	
0652					1	1.8												
0652	0691																	
0653					1			1	1									
0653	0663																	
0654					1			1			1							
0654	0647																	
0655					1								1				1	1
0655	0656																	
0656					1								1				1	1
0656	0674																	
0657					1			1		1								
0657	0633																	
0658					1	0.8		1		1								
0658	0619																	
SHEET TOTALS					25	3.8		22	4	8	10		2				2	2

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
0634																												
0634	0631																											
0635																												
0635	0634																											
0636																												
0636	0635																											
0637																												
0637	0638																											
0638																												
0638	0639																											
0639																												
0639	0640																											
0640																												
0640	2809																											
0641																												
0641	0526																											
0642																												
0642	0641																											
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0645	0646																											
0646																												
0646	0622																											
0647																												
0647	0684																											
0648																												
0648	0627																											
0649																												
0649	0686																											
0650																												
0650	0688																											
0651																												
0651	0652																											
0652																1	1											4' DIA STRUCTURE
0652	0691																											
0653																												
0653	0663																											
0654																												
0654	0647																											
0655																												
0655	0656																											
0656																												
0656	0674																											
0657																												
0657	0633																											
0658																												
0658	0619																											
SHEET TOTALS																1	1											

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