BELAM-NEW

COMPUTED BY:	DJS	**DATE:**	04/04/2023
CHECKED BY:	BNE	**DATE:**	04/04/2023

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2707E	3D-5

**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	OFFSET	STRUCTURE NUMBER		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE)											C. S. PIPE			
SIZE		FROM	TO	FT.	FT.	FT.	%	15	18	24	30	36	42	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE HDPE	DO NOT USE PVC	DO NOT USE PP PIPE	15	18	24	36
THICKNESS OR GAUGE																			.064	.064	.064	.079
SR7 27+00	35 LT	0718		766.7																		
		0718	0719		764.0	750.0	1.2	48						X								
SR7 26+00	46 RT	0720		760.0																		
		0720	0721		760.0	749.1																
SR7 25+83	44 LT	0721		755.0																		
		0721	0722		746.8	746.7																
SR7 33+70	36 LT	0723						36														
SR7 29+25	36 LT	0724						32														
L 920+34	0 CL	0801		824.8																		
		0801	0802		821.6	821.5																
L 920+34	5 RT	0802		821.5																		
L 920+41	73 RT	0803		830.0																		
		0803	0806		819.7	807.0			76					X								
L 921+05	124 RT	0804		803.0																		
		0804	0806		803.0	802.0																
		0805	0806		827.4	807.0	0.4		104					X								
L 921+03	110 RT	0806		811.0																		
		0806	0807		802.0	787.4																
L 921+38	95 LT	0807		788.2																		
		0807	0813		787.4	776.6																
L 920+60	58 LT	0808		825.0																		
		0808	0809		822.3	822.2																
L 921+00	58 LT	0809		826.1																		
		0809	0810		822.2	812.1		40						X								
SR7 37+00	58 RT	0811		811.3																		
		0811	0812		811.3	803.5	0.3															
SR7 37+00	56 LT	0812		806.5																		
		0812	0813		803.5	779.1	1.7		84					X								
SR7 37+83	87 LT	0813		783.0																		
		0813	0814		773.1	773.0																
L 923+57	0 CL	0815		832.7																		
L 923+55	71 LT	0816		820.8																		
		0816	0817		820.8	819.5																
SR7 43+48	0 CL	0818			832.3	824.5																
L 926.60	102 RT	0819		843.5																		
		0819	0820		843.5	837.4			24					X								
L 926+60	77 RT	0820		839.8																		
		0820	0821		837.4	837.2																
L 926+59	58 RT	0821		836.5																		
L 930+31	79 RT	0822		846.1																		
		0822	0823		843.9	843.8																
L 930+23	56 RT	0823		843.8																		
L 930+01	0 CL	0824		847.3																		
L 926+59	1 RT	0825		841.5																		
L 926+50	64 LT	0826		842.0																		
		0826	0827		832.4	824.4			44					X								
SR7 42+50	47 RT	0827		827.4																		
		0827	0828		824.4	815.1																
L 924+00	58 LT	0829		835.7																		
		0829	0830		833.0	822.0		36						X								
SHEET TOTALS								192	332													

FROM	TO	R. C. PIPE CLASS III							R. C. PIPE CLASS IV							R. C. PIPE CLASS V		42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	48" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	16" WELDED STEEL PIPE 0.281" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	18" WELDED STEEL PIPE 0.312" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	30" WELDED STEEL PIPE 0.500" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	42" WELDED STEEL PIPE 0.625" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	48" WELDED STEEL PIPE 0.688" THICK, GRADE B (50% IN SOIL, 50% NOT IN SOIL)	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)
		15	18	24	30	36	42	48	15	18	24	30	36	42	48	30	48								CY
0718																									
0718	0719																								
0720																									4.500
0720	0721													92											
0721																									
0721	0722													16											
0723																									
0724																									
0801																									
0801	0802		4																						
0802																									
0803																									
0803	0806																								
0804																									6.000
0804	0806							16																	
0805	0806																								
0806																									
0806	0807																								208	
0807																									
0807	0813																156								
0808																									
0808	0809								36																
0809																									
0809	0810																								
0811																									
0811	0812		116																						
0812																									
0812	0813																								
0813																									
0813	0814							16																	
0815																									
0816																									
0816	0817	24																							
0818			96																						
0819																									
0819	0820																								
0820																									
0820	0821		20																						
0821																									
0822																									
0822	0823		24																						
0823																									
0824																									
0825																									
0826																									
0826	0827																								
0827																									
0827	0828		120																						
0829																									
0829	0830																								
SHEET TOTALS		24	380					32	36					108			156							208	10.500

FROM	TO	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B))			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE				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. (W.S. FLAT) FRAME WITH 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/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29
		0' THRU 5'	A 5' THRU 10'	B 10' AND ABOVE		E	F	G												
		EACH	LIN. FT.	LIN. FT.																
0718		1											1						1	
0718	0719																			
0720																				
0720	0721																			
0721		1	3.2																	
0721	0722																			
0723																				
0724																				
0801		1											1					1		
0801	0802																			
0802																				
0803		1	5.0	0.3																
0803	0806																			
0804																				
0804	0806																			
0805	0806																			
0806		1	4.0																	
0806	0807																			
0807																				
0807	0813																			
0808		1											1			1				
0808	0809																			
0809		1											1			1				
0809	0810																			
0811																				
0811	0812																			
0812		1											1						1	
0812	0813																			
0813		1	4.9																	
0813	0814																			
0815																	1			
0816																				
0816	0817																			
0818																				
0819																				
0819	0820																			
0820		1												1				1		
0820	0821																			
0821																				
0822		1												1				1		
0822	0823																			
0823																				
0824																		1		
0825																		1		
0826		1	4.6																	
0826	0827																			
0827		1											1						1	
0827	0828																			
0829		1											1			1				
0829	0830																			
SHEET TOTALS		14	21.7	0.3									7	2		3	1	5	3	

FROM	TO	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	SPRING BOX STD. 840.41	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING D.I. TO J.B. w/ MH	ADJUST D.I.	15" SIDE DRAIN PIPE ELBOW	18" SIDE DRAIN PIPE ELBOW	24" SIDE DRAIN PIPE ELBOW	30" SIDE DRAIN PIPE ELBOW	36" SIDE DRAIN PIPE ELBOW	18" SLUICE GATE (25" SIZE SLUICE GATE)	24" SLUICE GATE (32" SIZE SLUICE GATE)	30" SLUICE GATE (38.75" SIZE SLUICE GATE)	BERM DITCH OUTLET STD. 850.10	BERM DITCH OUTLET STD. 850.11	ENERGY DISSIPATION BASIN	FLOWABLE FILL	CONCRETE COLLARS CL. "B" STD. 840.72	CONCRETE AND BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
																				CY	CY	CY	LIN. FT.	
0718																								
0718	0719								2														
0720																								
0720	0721																							
0721		1				1																	
0721	0722																							
0723																								
0724																								
0801																								
0801	0802																							
0802																					0.4465			
0803		1				1																	
0803	0806									2													
0804																								
0804	0806																							
0805	0806									2													
0806		1				1																	
0806	0807																							
0807																					1.0126			
0807	0813																							
0808																								
0808	0809																							
0809																								
0809	0810								2														
0811																								
0811	0812																							
0812																								
0812	0813									2													
0813		1				1																	
0813	0814																							
0815								1															
0816																					0.3990			
0816	0817																							
0818																								
0819																	1							
0819	0820									1													
0820																								
0820	0821																							
0821																					0.4465			
0822																								
0822	0823																							
0823																					0.4465			
0824								1															
0825								1															
0826		1				1																	
0826	0827									2													
0827																								
0827	0828																							
0829																								
0829	0830								2														
SHEET TOTALS		5				5		3	6	9							1				2.7511			

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