RA-1553

COMPUTED BY: BNE	DATE: 2/22/2017
CHECKED BY: JGD	DATE: 2/22/2017

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-2707C	3D-2

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

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	MIN. REQUIRED SLOPE %	SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
26+70 -Y2-	LT	421																	
26+90 -Y2-	RT	422																	
		422	423		710.6	709.8													
26+92 -Y2-	RT	423		712.5															
		423	424		709.8	709.7													
32+62 -Y2-	RT	425							20										
32+26 -Y2-	RT	426							24										
16+02 -Y2-	CL	427							24										
412+50 -L-	RT	601		772.7															
		601	602		770.0	769.7													
412+50 -L-	CL	602		773.5															
		602	605		769.7	764.1													
409+50 -L-	RT	603		767.1															
		603	605		764.4	764.1													
409+50 -L-	LT	604		767.1															
		604	605		764.4	764.1													
409+50 -L-	CL	605		767.9															
		605	509		763.9	754.6													
404+00 -L-	RT	508		759.9															
		508	509		757.1	754.9													
404+00 -L-	CL	509		757.6															
		509	510		754.1	753.8													
404+00 -L-	LT	510		759.9															
		510	512		753.8	750.3													
401+03 -L-	LT	511		754.2															
		511	512		751.5	751.0													
402+50 -L-	LT	512		757.0															
		512	513		750.3	707.3					108					X			
413+03 -L-	LT	607		776.8															
		607	608		774.1	746.0			96							X			
420+00 -L-	RT	701		786.0															
		701	703		783.3	782.1													
420+00 -L-	LT	702		785.1															
		702	703		782.4	782.1													
420+00 -L-	CL	703		785.9															
		703	610		781.9	776.9													
416+50 -L-	LT	609		780.1															
		609	610		777.4	777.1													
416+50 -L-	CL	610		780.9															
		610	611		776.4	775.4													
516+50 -L-	RT	611		780.1															
		611	613		775.4	766.0													
415+69 -L-	RT	612																	
		612	613		766.0	765.0													
415+60 -L-	RT	613		771.0															
		613	614		765.0	745.6													
413+80 -L-	LT	614		751.0															
		614	615		741.7	741.5													
SHEET TOTALS									164		108								

STATION	LOC.	FROM	TO	C.S. PIPE 12" (.064)	15" (.064)	18" (.064)	24" (.064)	30" (.079)	36" (.079)	42" (.109)	48" (.109)	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"
26+70 -Y2-	LT	421																									
26+90 -Y2-	RT	422																									
		422	423																				12				
26+92 -Y2-	RT	423																									
		423	424																				24				
32+62 -Y2-	RT	425																									
32+26 -Y2-	RT	426																									
16+02 -Y2-	CL	427																									
412+50 -L-	RT	601																									
		601	602										76														
412+50 -L-	CL	602																									
		602	605										296														
409+50 -L-	RT	603																									
		603	605										76														
409+50 -L-	LT	604																									
		604	605										76														
409+50 -L-	CL	605																									
		605	509											548													
404+00 -L-	RT	508																									
		508	509																		56						
404+00 -L-	CL	509																									
		509	510																				56				
404+00 -L-	LT	510																									
		510	512																				152				
401+03 -L-	LT	511																									
		511	512																		144						
402+50 -L-	LT	512																									
		512	513																								
413+03 -L-	LT	607																									
		607	608																								
420+00 -L-	RT	701																									
		701	703										76														
420+00 -L-	LT	702																									
		702	703										76														
420+00 -L-	CL	703																									
		703	610											348													
416+50 -L-	LT	609																									
		609	610										76														
416+50 -L-	CL	610																									
		610	611												76												
516+50 -L-	RT	611																									
		611	613												92												
415+69 -L-	RT	612																									
		612	613																								
415+60 -L-	RT	613																									
		613	614																								
413+80 -L-	LT	614																									
		614	615																								
SHEET TOTALS													752	896	168						200		244				

STATION	LOC.	FROM	TO	24" R.C. PIPE (CLASS V)	30" R.C. PIPE (CLASS V)	36" R.C. PIPE (CLASS V)	42" R.C. PIPE CULVERTS, CONTRACTOR DESIGN	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YARDS R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	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	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16
26+70 -Y2-	LT	421																		
26+90 -Y2-	RT	422																		
		422	423																	
26+92 -Y2-	RT	423								1										
		423	424																	
32+62 -Y2-	RT	425																		
32+26 -Y2-	RT	426																		
16+02 -Y2-	CL	427																		
412+50 -L-	RT	601								1										
		601	602																	
412+50 -L-	CL	602								1										
		602	605																	
409+50 -L-	RT	603								1										
		603	605																	
409+50 -L-	LT	604								1										
		604	605																	
409+50 -L-	CL	605								1										
		605	509																	
404+00 -L-	RT	508								1										
		508	509																	
404+00 -L-	CL	509								1										
		509	510																	
404+00 -L-	LT	510								1	1.1									
		510	512																	
401+03 -L-	LT	511								1										
		511	512																	
402+50 -L-	LT	512								1	1.8									
		512	513																	
413+03 -L-	LT	607								1										
		607	608																	
420+00 -L-	RT	701								1										
		701	703																	
420+00 -L-	LT	702								1										
		702	703																	
420+00 -L-	CL	703								1										
		703	610																	
416+50 -L-	LT	609								1										
		609	610																	
416+50 -L-	CL	610								1										
		610	611																	
516+50 -L-	RT	611								1										
		611	613																	
415+69 -L-	RT	612						3.4												
		612	613			12														
415+60 -L-	RT	613								1	1.0									
		613	614			272														
413+80 -L-	LT	614								1	4.3									
		614	615			24														
SHEET TOTALS						308		3.4		20	8.1									

STATION	LOC.	FROM	TO	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. (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	T.B.D.I. STD. 840.35	T.B.J.B. STD. 840.34	J.B. STD. 840.31 OR 840.32	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO T.B.J.B.	1" STEEL COVER	CONCRETE ENDWALL AND SLUICE GATE STD. 838.02	8" SLUICE GATE	15" SIDE DRAIN PIPE ELBOWS	18" SIDE DRAIN PIPE ELBOWS	24" SIDE DRAIN PIPE ELBOWS	30" SIDE DRAIN PIPE ELBOWS	36" SIDE DRAIN PIPE ELBOWS	BERM DITCH OUTLET STD. 850.10	BERM DITCH OUTLET STD. 850.11	CONCRETE AND BRICK PIPE PLUG STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
26+70 -Y2-	LT	421																										0.5526		
26+90 -Y2-	RT	422																										0.5526		
		422	423																											
26+92 -Y2-	RT	423				1				1																				
		423	424																											
32+62 -Y2-	RT	425																												
32+26 -Y2-	RT	426																												
16+02 -Y2-	CL	427																												
412+50 -L-	RT	601			1				1																					
		601	602																											
412+50 -L-	CL	602			1				1																					
		602	605																											
409+50 -L-	RT	603			1				1																					
		603	605																											
409+50 -L-	LT	604			1				1																					
		604	605																											
409+50 -L-	CL	605			1				1																					
		605	509																											
404+00 -L-	RT	508			1		1																							
		508	509																											
404+00 -L-	CL	509			1				1																					
		509	510																											
404+00 -L-	LT	510		1			1																							
		510	512																											
401+03 -L-	LT	511			1		1																							
		511	512																											
402+50 -L-	LT	512		1			1																							
		512	513																			2								
413+03 -L-	LT	607			1		1																							
		607	608																	2										
420+00 -L-	RT	701			1				1																					
		701	703																											
420+00 -L-	LT	702			1				1																					
		702	703																											
420+00 -L-	CL	703			1				1																					
		703	610																											
416+50 -L-	LT	609			1				1																					
		609	610																											
416+50 -L-	CL	610			1				1																					
		610	611																											
516+50 -L-	RT	611		1					1																					
		611	613																											
415+69 -L-	RT	612																												
		612	613																											
415+60 -L-	RT	613												1	1															
		613	614																											
413+80 -L-	LT	614												1	1															
		614	615																											
SHEET TOTALS				3	14	1	5		12	1				2	2					2		2						1.1052		

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINUM 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