RAL-WS033

COMPUTED BY: SLK DATE: 12/31/2013

CHECKED BY: GSP DATE: 12/31/2013

PROJECT NO.	SHEET NO.
U-3615B	3D-14

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)

STATION (SIZE / THICKNESS OR GAUGE)	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE 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
-L- 315+00	CL	198		876.16	873.16														
-L- 315+00	RT	198	199		873.16	872.92													
-L- 315+00	RT	199		875.03	871.78														
-L- 315+50	RT	199	191		871.78	869.6													
-L- 316+08	LT	196		876.06	873.06														
-L- 316+50	RT	196	197		873.06	872.79													
-L- 316+50	RT	197		876.66	872.79														
-L- 315+00	RT	197	199		872.79	871.78													
-L- 317+48	LT	194		878.08	875.08														
-L- 317+50	RT	194	195		875.08	874.84													
-L- 317+50	RT	195		878.08	874.84														
-L- 316+50	RT	195	197		874.84	873.66													
-L- 318+81	RT	193		879.97	876.73														
-L- 317+56	RT	193	195		876.73	874.84													
-L- 318+81	LT	192		879.97	876.97														
-L- 318+81	RT	192	193		876.97	876.33													
-L- 315+41	LT	254		870.77	867.77														
-L- 315+30	LT	254	EX		867.77	866													
-L- 315+24	CL	IN			865.05														
-L- 314+98	RT	IN	304		865.05	862													
-L- 317+63	RT	303		873.8	870.15														
-L- 315+00	RT	303	304		870.15	862			264										
-L- 317+63	RT	302	303		870.91	870.15													
-L- 322+50	LT	202		880.68	877.68														
-L- 322+50	RT	202	201		877.68	877.44													
-L- 322+50	RT	201		880.68	877.44														
-L- 324+00	RT	201	203		877.44	876.77													
-L- 324+00	RT	203		880.01	876.77														
-L- 326+00	RT	203	205		876.77	874.92													
-L- 324+00	LT	204		880.01	877.01														
-L- 324+00	RT	204	203		877.01	876.77													
-L- 326+29	LT	206		877.39	874.39														
-L- 326+29	RT	206	205		874.19	873.94													
-L- 326+29	RT	205		877.39	873.94														
-L- 327+00	RT	205	207		873.94	872.64													
-L- 327+00	RT	207		875.89	872.64														
-L- 328+00	RT	207	209		872.64	870.13													
-L- 328+00	LT	208		873.38	870.38														
-L- 328+00	RT	208	209		870.38	870.13													
-L- 328+00	RT	209		873.38	870.13														
-L- 329+31	RT	209	211		870.13	866.37													
-L- 329+31	LT	211		869.62	866.37														
-L- 329+27	RT	211	212		866.37	865.56				36									
SHEET TOTALS									264	36									

STATION	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"
-L- 315+00																								
-L- 315+00																		52						
-L- 315+00																								
-L- 315+50																			148					
-L- 316+08																								
-L- 316+50																		92						
-L- 316+50																								
-L- 315+00																			152					
-L- 317+48																								
-L- 317+50																		80						
-L- 317+50																								
-L- 316+50																		104						
-L- 318+81																								
-L- 317+56																		132						
-L- 318+81																								
-L- 318+81																		80						
-L- 315+41																								
-L- 315+30											48													
-L- 315+24																								
-L- 314+98											76													
-L- 317+63																								
-L- 315+00																								
-L- 317+63																		116						
-L- 322+50																								
-L- 322+50																		80						
-L- 322+50																								
-L- 324+00																		152						
-L- 324+00																								
-L- 326+00																		228						
-L- 324+00																								
-L- 324+00																		80						
-L- 326+29																								
-L- 326+29																		80						
-L- 326+29																								
-L- 327+00																			72					
-L- 327+00																								
-L- 328+00																			100					
-L- 328+00																								
-L- 328+00																		80						
-L- 328+00																								
-L- 329+31																			132					
-L- 329+31																								
-L- 329+27																								
SHEET TOTALS											124							1356	604					

STATION	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (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	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. (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	M.H. FRAME AND COVER STD. 840.54	GENEREC PIPE ITEM - REMOVE AND RESET FES	CONVERT EXISTING D.I. TO J.B.	ADJUST C.B.	15" SLUICE GATE	18" SLUICE GATE	24" SLUICE GATE	30" SLUICE GATE	MODIFIED CONCRETE FLUME	PREFORMED SCOUR HOLE	FLOWABLE FILL CY	CONC. & BRICK PIPE PLUG STD. 840.71 CY	CONC. COLLARS CL. "B" STD. 840.72 CY	PIPE REMOVAL LIN. FT.	REMARKS
-L- 315+00					1			1			1		1																								
-L- 315+00																																					
-L- 315+00					1			1			1																										
-L- 315+50																																					
-L- 316+08					1			1		1																											
-L- 316+50																																					
-L- 316+50					1			1			1																										
-L- 315+00																																					
-L- 317+48					1			1		1																											
-L- 317+50																																					
-L- 317+50					1			1			1																										
-L- 316+50																																					
-L- 318+81					1			1			1																										
-L- 317+56																																					
-L- 318+81					1			1		1																											
-L- 318+81																																		0.045			15" CONC
-L- 315+41					1												1		1																		
-L- 315+30																																			0.4465	24	15" CONC
-L- 315+24																																			0.4465		
-L- 314+98																																					
-L- 317+63					1																1		1														
-L- 315+00																																					
-L- 317+63																																		0.045			15" CONC
-L- 322+50					1			1			1																										
-L- 322+50																																					
-L- 322+50					1			1		1																											
-L- 324+00																																					
-L- 324+00					1			1		1																										186	12" CONC
-L- 326+00																																					
-L- 324+00					1			1			1																										
-L- 324+00																																					
-L- 326+29					1			1			1																							0.045		20	15" CONC
-L- 326+29																																					
-L- 326+29					1			1		1																											
-L- 327+00																																					
-L- 327+00					1			1		1																											
-L- 328+00																																					
-L- 328+00					1			1			1																									119	15" CONC, REMOVE CB
-L- 328+00																																					
-L- 328+00					1			1		1																											
-L- 329+31																																				174	15" CONC, REMOVE DI
-L- 329+31					1			1		1																											
-L- 329+27																																					
SHEET TOTALS					20			18		9	9		1				1		1		1		1											0.135	0.893	523	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX