RAL-WS033

COMPUTED BY: SLK DATE: 12/31/2013

CHECKED BY: GSP DATE: 12/31/2013

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-3615B	3D-1

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	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- 172+23	RT	291A			853.3														
-L- 172+24	RT	IN	OUT		853.3	852.64													
-L- 172+24	LT	291			852.6														
-L- 172+24	LT	IN	OUT		852.6	851.04													
-L- 176+43	RT	235		860.0	857.0														
-L- 176+40	LT	235	236		857.0	853.50													
-L- 176+40	LT		236																
-L- 178+00	RT	19		858.97	855.8														
-L- 178+00	LT	19	20		855.8	856.86													
-L- 178+00	LT	20		860.03	856.86														
-L- 180+00	LT	20	21		857.74	854.74													
-L- 180+00	LT	21		857.74	854.74														
-L- 180+00	RT	21	22		854.74	853.51													
-L- 180+00	RT	22		856.68	853.51														
-L- 180+00	RT	29		856.78	853.78														
-L- 179+95	RT	29	22																
-Y30- 20+89	RT	22	22A		853.51	849.12													
-Y30- 20+89	RT	22A		858.8	849.12														
-Y30- 21+00	LT	22A	27		849.12	848.02													
-Y30- 21+00	LT	27		856.2	848.02														
-Y30- 20+77	LT	27	34A		848.02	838.96				76						X			
-Y30- 14+79	LT	37E																	
-Y30- 21+59	RT	36		857.3	854.05														
-Y30- 20+66	RT	36	36A		854.05	851.14													
-Y30- 20+73	RT	36B		855.25	853														
-Y30- 20+73	RT	36B	36A		853	851.14													
-Y30- 20+66	RT	36A		854.77	851.14														
-Y30- 18+71	RT	36A	37		850.89	843.5													
-Y30- 15+35	LT	37F																	
-Y30- 18+12	LT	37C		853.8	850.63														
-Y30- 18+12	LT	37C	37A		850.63	85059													
-Y30- 18+02	LT	37A		853.78	850.29														
-Y30- 17+95	LT	37A	37B		850	844			52							X			
-Y30- 17+95	LT		37B																
-L- 181+80	LT	30A		854.33	851.33														
-L- 182+50	LT	30A	30		851.33	849.13													
-L- 182+50	LT	30		852.13	849.13														
-L- 182+50	CL	30	34		849.13	848.79													
-L- 182+36	RT	34		851.79	839.09														
-L- 182+35	RT	34	34B		839.09	838.96					60								
-L- 183+60	RT	32A		847.91	839.46														
-L- 182+36	RT	32A	34		839.46	839.09													
-L- 185+40	RT	32		842.98	839.98														
-L- 183+00	RT	32	32A		839.98	839.46													
-L- 185+40	RT	31		844.43	841.68														
-L- 185+40	RT	31	32		841.68	839.98													
SHEET TOTALS									52	76	60								

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- 172+23																								
-L- 172+24												36												
-L- 172+24																								
-L- 172+24												16												
-L- 176+43																								
-L- 176+40											88													
-L- 176+40																								
-L- 178+00																								
-L- 178+00																		52						
-L- 178+00																								
-L- 180+00																		200						
-L- 180+00																								
-L- 180+00																		60						
-L- 180+00																								
-L- 180+00																								
-L- 179+95																		8						
-Y30- 20+89																		80						
-Y30- 20+89																								
-Y30- 21+00																		100						
-Y30- 21+00																								
-Y30- 20+77																								
-Y30- 14+79											32													
-Y30- 21+59																								
-Y30- 20+66																		96						
-Y30- 20+73																								
-Y30- 20+73																		28						
-Y30- 20+66																								
-Y30- 18+71																			180					
-Y30- 15+35											32													
-Y30- 18+12																								
-Y30- 18+12																		12						
-Y30- 18+02																								
-Y30- 17+95																								
-Y30- 17+95																								
-L- 181+80																								
-L- 182+50																		76						
-L- 182+50																								
-L- 182+50																		56						
-L- 182+36																								
-L- 182+35																								
-L- 183+60																								
-L- 182+36																			120					
-L- 185+40																								
-L- 183+00																		172						
-L- 185+40																								
-L- 185+40																		32						
SHEET TOTALS											152	52						972	300					

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
-L- 172+23													
-L- 172+24													
-L- 172+24													
-L- 172+24													
-L- 176+43					1								
-L- 176+40													
-L- 176+40													
-L- 178+00					1			1		1			
-L- 178+00													
-L- 178+00					1			1			1		
-L- 180+00													
-L- 180+00					1			1			1		
-L- 180+00													
-L- 180+00					1			1		1			
-L- 180+00					1			1		1			
-L- 179+95													
-Y30- 20+89													
-Y30- 20+89					1	4.7							
-Y30- 21+00													
-Y30- 21+00					1	3.2		1		1			
-Y30- 20+77													
-Y30- 14+79													
-Y30- 21+59					1			1			1		
-Y30- 20+66													
-Y30- 20+73					1								
-Y30- 20+73													
-Y30- 20+66					1			1			1		
-Y30- 18+71													
-Y30- 15+35													
-Y30- 18+12					1			1		1			
-Y30- 18+12													
-Y30- 18+02					1			1	1				
-Y30- 17+95													
-Y30- 17+95													
-L- 181+80					1			1			1		
-L- 182+50													
-L- 182+50					1			1			1		
-L- 182+50													
-L- 182+36					1	5	2.7	1		1			
-L- 182+35													
-L- 183+60					1	3		1		1			
-L- 182+36													
-L- 185+40					1			1		1			
-L- 183+00													
-L- 185+40					1							1	
-L- 185+40													
SHEET TOTALS					19	15.9	2.7	15	1	8	6	1	

STATION	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
-L- 172+23																			
-L- 172+24																			
-L- 172+24																			
-L- 172+24																			
-L- 176+43				1		1													
-L- 176+40																			
-L- 176+40																			1
-L- 178+00																			
-L- 178+00																			
-L- 178+00																			
-L- 180+00																			
-L- 180+00																			
-L- 180+00																			
-L- 180+00																			
-L- 180+00																			
-L- 179+95																			
-Y30- 20+89																			
-Y30- 20+89								1		1									
-Y30- 21+00																			
-Y30- 21+00																			
-Y30- 20+77																			
-Y30- 14+79																			
-Y30- 21+59																			
-Y30- 20+66																			
-Y30- 20+73				1		1													
-Y30- 20+73																			
-Y30- 20+66																			
-Y30- 18+71																			
-Y30- 15+35																			
-Y30- 18+12																			
-Y30- 18+12																			
-Y30- 18+02																			
-Y30- 17+95																			
-Y30- 17+95																			1
-L- 181+80																			
-L- 182+50																			
-L- 182+50																			
-L- 182+50																			
-L- 182+36																			
-L- 182+35																			
-L- 183+60																			
-L- 182+36																			
-L- 185+40																			
-L- 183+00																			
-L- 185+40				1			1												
-L- 185+40																			
SHEET TOTALS				3		2	1	1		1									2

STATION	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- 172+23					
-L- 172+24			0.5526		
-L- 172+24					
-L- 172+24			0.5526	24	REMOVE 24" CONC
-L- 176+43					
-L- 176+40					
-L- 176+40					
-L- 178+00					
-L- 178+00					
-L- 178+00					
-L- 180+00					
-L- 180+00					
-L- 180+00					
-L- 180+00				45	REMOVE 18" CONC, REMOVE CB
-L- 180+00					
-L- 179+95					
-Y30- 20+89					
-Y30- 20+89					
-Y30- 21+00					
-Y30- 21+00					
-Y30- 20+77					
-Y30- 14+79					
-Y30- 21+59					
-Y30- 20+66					
-Y30- 20+73					
-Y30- 20+73					
-Y30- 20+66				256	REMOVE 18" CONC, REMOVE 3 CBs
-Y30- 18+71					
-Y30- 15+35					
-Y30- 18+12					
-Y30- 18+12					
-Y30- 18+02					
-Y30- 17+95					
-Y30- 17+95					
-L- 181+80					
-L- 182+50					
-L- 182+50					
-L- 182+50					
-L- 182+36					
-L- 182+35					
-L- 183+60					
-L- 182+36					
-L- 185+40					
-L- 183+00					
-L- 185+40					
-L- 185+40					
SHEET TOTALS			1.1052	325	

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