RAL-WS033

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-3615B	3D-2

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
-L- 185+78	RT	IN			838.23		
-L- 186+1	LT	IN	292		838.23	836.9	
-L- 183+11	RT	34C					
-L- 183+73	RT	34D					
-L- 186+75	RT	28		842.03	839.03		
-L- 186+57	RT	28	28B		839.03	838.72	
-L- 188+20	RT	38A		843.86	840.86		
-L- 188+00	RT	38A	38		840.86	840.46	
-L- 188+00	RT	38		843.46	840.46		
-L- 188+00	CL	38	39		840.46	840.12	
-L- 188+00	CL	39		844.64	840.04		
-L- 189+54	LT	39	41		840.04	839.47	
-L- 189+54	LT	41			846.39	836	
-L- 189+54	LT	41	OUT		836	835.5	
-L- 190+71	LT	41B					
-L- 191+90	LT	41C					
-L- 192+19	LT	41D					
-L- 193+35	RT	43		845.64	842.64		
-L- 193+35	LT	43	42		842.64	842.36	
-L- 193+35	LT	42		846.42	842.36		
-L- 195+50	LT	42	45		842.36	838.13	
-L- 194+70	RT	44		843.03	840.03		
-L- 195+50	RT	44	46		840.03	838.13	
-L- 195+50	RT	46		841.13	838.13		
-L- 195+50	LT	46	45		841.61	837.98	
-L- 195+50	LT	45		841.61	837.98		
-L- 198+50	LT	45	47		837.98	831.86	
-L- 198+50	RT	48		834.49	831.49		
-L- 198+50	LT	48	47		831.49	831.33	
-L- 198+50	LT	47		834.86	831.33		
-L- 199+80	LT	47	49		831.24	829.37	
-L- 199+50	RT	49A		833.47	830.47		
-L- 199+80	RT	49A	50		830.47	830.38	
-L- 199+80	RT	50		833.45	830.38		
-L- 199+80	LT	50	49		830.38	830.08	
-L- 199+80	LT	49		833.96	829.37		
-L- 200+50	LT	49	53		829.37	827.48	
SHEET TOTALS							

DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC)

STATION	FROM	TO	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- 185+78	IN													
-L- 186+1	IN	292												
-L- 183+11	34C													
-L- 183+73	34D					60								
-L- 186+75	28													
-L- 186+57	28	28B		28										
-L- 188+20	38A													
-L- 188+00	38A	38												
-L- 188+00	38													
-L- 188+00	38	39												
-L- 188+00	39													
-L- 189+54	39	41												
-L- 189+54	41													
-L- 189+54	41	OUT		52										
-L- 190+71	41B			52										
-L- 191+90	41C													
-L- 192+19	41D			68										
-L- 193+35	43													
-L- 193+35	43	42												
-L- 193+35	42													
-L- 195+50	42	45												
-L- 194+70	44													
-L- 195+50	44	46												
-L- 195+50	46													
-L- 195+50	46	45												
-L- 195+50	45													
-L- 198+50	45	47												
-L- 198+50	48													
-L- 198+50	48	47												
-L- 198+50	47													
-L- 199+80	47	49												
-L- 199+50	49A													
-L- 199+80	49A	50												
-L- 199+80	50													
-L- 199+80	50	49												
-L- 199+80	49													
-L- 200+50	49	53												
SHEET TOTALS				200		60								

C.S. PIPE (thickness or gauge in parentheses) and R.C. PIPE CLASS III

STATION	FROM	TO	CSP 12" (.064)	CSP 15" (.064)	CSP 18" (.064)	CSP 24" (.064)	CSP 30" (.079)	CSP 36" (.079)	CSP 42" (.109)	CSP 48" (.109)	RCP III 12"	RCP III 15"	RCP III 18"	RCP III 24"	RCP III 30"	RCP III 36"	RCP III 42"	RCP III 48"
-L- 185+78	IN																	
-L- 186+1	IN	292													112			
-L- 183+11	34C																	
-L- 183+73	34D																	
-L- 186+75	28																	
-L- 186+57	28	28B																
-L- 188+20	38A																	
-L- 188+00	38A	38																
-L- 188+00	38																	
-L- 188+00	38	39																
-L- 188+00	39																	
-L- 189+54	39	41																
-L- 189+54	41																	
-L- 189+54	41	OUT																
-L- 190+71	41B																	
-L- 191+90	41C																	
-L- 192+19	41D																	
-L- 193+35	43																	
-L- 193+35	43	42																
-L- 193+35	42																	
-L- 195+50	42	45																
-L- 194+70	44																	
-L- 195+50	44	46																
-L- 195+50	46																	
-L- 195+50	46	45																
-L- 195+50	45																	
-L- 198+50	45	47																
-L- 198+50	48																	
-L- 198+50	48	47																
-L- 198+50	47																	
-L- 199+80	47	49																
-L- 199+50	49A																	
-L- 199+80	49A	50																
-L- 199+80	50																	
-L- 199+80	50	49																
-L- 199+80	49																	
-L- 200+50	49	53																
SHEET TOTALS															112			

R.C. PIPE CLASS IV, SIDE DRAIN PIPE and ENDWALLS (STD. 838.01, 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE), CU. YARDS)

STATION	FROM	TO	RCP IV 12"	RCP IV 15"	RCP IV 18"	RCP IV 24"	RCP IV 30"	RCP IV 36"	RCP IV 42"	RCP IV 48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS R.C.P.	ENDWALLS C.S.P.
-L- 185+78	IN													
-L- 186+1	IN	292												
-L- 183+11	34C												1.5	
-L- 183+73	34D													
-L- 186+75	28													
-L- 186+57	28	28B												
-L- 188+20	38A													
-L- 188+00	38A	38		20										
-L- 188+00	38													
-L- 188+00	38	39		44										
-L- 188+00	39													
-L- 189+54	39	41		140										
-L- 189+54	41													
-L- 189+54	41	OUT												
-L- 190+71	41B													
-L- 191+90	41C												0.7	
-L- 192+19	41D													
-L- 193+35	43													
-L- 193+35	43	42		60										
-L- 193+35	42													
-L- 195+50	42	45		212										
-L- 194+70	44													
-L- 195+50	44	46		80										
-L- 195+50	46													
-L- 195+50	46	45		52										
-L- 195+50	45													
-L- 198+50	45	47		152										
-L- 198+50	48													
-L- 198+50	48	47		56										
-L- 198+50	47													
-L- 199+80	47	49		128										
-L- 199+50	49A													
-L- 199+80	49A	50		32										
-L- 199+80	50													
-L- 199+80	50	49		72										
-L- 199+80	49													
-L- 200+50	49	53			168									
SHEET TOTALS				1048	168								2.2	

QUANTITIES FOR DRAINAGE STRUCTURES (*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B')), FRAME, GRATES, AND HOOD STANDARD 840.03, CONCRETE TRANSITIONAL SECTION

STATION	FROM	TO	PER EACH (0' THRU 5.0')	LIN. FT. A: 5.0' THRU 10.0'	LIN. FT. B: 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	TYPE OF GRATE E	TYPE OF GRATE F	TYPE OF GRATE G	DROP INLET	CATCH BASIN
-L- 185+78	IN										
-L- 186+1	IN	292									
-L- 183+11	34C										
-L- 183+73	34D										
-L- 186+75	28		1			1	1				
-L- 186+57	28	28B									
-L- 188+20	38A		1			1		1			
-L- 188+00	38A	38									
-L- 188+00	38		1			1			1		
-L- 188+00	38	39									
-L- 188+00	39		1			1			1		
-L- 189+54	39	41									
-L- 189+54	41		1	1.8		1		1			
-L- 189+54	41	OUT									
-L- 190+71	41B										
-L- 191+90	41C										
-L- 192+19	41D										
-L- 193+35	43		1			1		1			
-L- 193+35	43	42									
-L- 193+35	42		1			1			1		
-L- 195+50	42	45									
-L- 194+70	44		1			1		1			
-L- 195+50	44	46									
-L- 195+50	46		1			1		1			
-L- 195+50	46	45									
-L- 195+50	45		1			1			1		
-L- 198+50	45	47									
-L- 198+50	48		1			1		1			
-L- 198+50	48	47									
-L- 198+50	47		1			1			1		
-L- 199+80	47	49									
-L- 199+50	49A		1			1		1			
-L- 199+80	49A	50									
-L- 199+80	50		1			1	1				
-L- 199+80	50	49									
-L- 199+80	49		1			1	1				
-L- 200+50	49	53									
SHEET TOTALS			15	1.8		15	3	7	5		

STATION	FROM	TO	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- 185+78	IN																				
-L- 186+1	IN	292																			
-L- 183+11	34C																	1			
-L- 183+73	34D																				
-L- 186+75	28																				
-L- 186+57	28	28B																			
-L- 188+20	38A																				
-L- 188+00	38A	38																			
-L- 188+00	38																				
-L- 188+00	38	39																			
-L- 188+00	39																				
-L- 189+54	39	41																			
-L- 189+54	41																				
-L- 189+54	41	OUT																			
-L- 190+71	41B																				
-L- 191+90	41C															1					
-L- 192+19	41D																				
-L- 193+35	43																				
-L- 193+35	43	42																			
-L- 193+35	42																				
-L- 195+50	42	45																			
-L- 194+70	44																				
-L- 195+50	44	46																			
-L- 195+50	46																				
-L- 195+50	46	45																			
-L- 195+50	45																				
-L- 198+50	45	47																			
-L- 198+50	48																				
-L- 198+50	48	47																			
-L- 198+50	47																				
-L- 199+80	47	49																			
-L- 199+50	49A																				
-L- 199+80	49A	50																			
-L- 199+80	50																				
-L- 199+80	50	49																			
-L- 199+80	49																				
-L- 200+50	49	53																			
SHEET TOTALS																1		1			

STATION	FROM	TO	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- 185+78	IN						
-L- 186+1	IN	292					
-L- 183+11	34C						
-L- 183+73	34D						
-L- 186+75	28					128	REMOVE 18" CONC
-L- 186+57	28	28B					
-L- 188+20	38A						
-L- 188+00	38A	38					
-L- 188+00	38						
-L- 188+00	38	39					
-L- 188+00	39						
-L- 189+54	39	41					
-L- 189+54	41						
-L- 189+54	41	OUT					
-L- 190+71	41B						
-L- 191+90	41C						
-L- 192+19	41D						
-L- 193+35	43						
-L- 193+35	43	42					
-L- 193+35	42						
-L- 195+50	42	45					
-L- 194+70	44						
-L- 195+50	44	46					
-L- 195+50	46						
-L- 195+50	46	45					
-L- 195+50	45						
-L- 198+50	45	47					
-L- 198+50	48						
-L- 198+50	48	47					
-L- 198+50	47						
-L- 199+80	47	49					
-L- 199+50	49A						
-L- 199+80	49A	50					
-L- 199+80	50						
-L- 199+80	50	49					
-L- 199+80	49						
-L- 200+50	49	53					
SHEET TOTALS						128	

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