COMPUTED BY: E. PHIPPS DATE: 6-25-04
CHECKED BY: J. RECK DATE: 6-25-04

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

KCI Associates of North Carolina, P.A.
RALEIGH OFFICE
ENGINEERS ● PLANNERS ● ECOLOGISTS
SUITE 200, LANDMARK CENTER I
4601 SIX FORKS RD.
RALEIGH, N.C. 27609-5210
(919) 783-9214

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2562C	3-K

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 1200 mm & 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	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 300	375	450	600	750	900	1050	1200	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 300 (1.63)	400 (1.63)	450 (1.63)	600 (1.63)	800 (2.01)	900 (2.01)	1000 (2.77)	1200 (2.77)
180+80	CL	197		43.333																			
		197	195		41.117	40.937	Y							60									
182+20	CL	198		43.640																			
		198	197		41.687	41.264	Y						140.4										
182+48	RT	199		43.545																			
		199	199A		42.961	42.910	Y		18														
182+50	RT	EX																					
182+78	RT	199A		43.520																			
		199A	200		42.910	42.765			10.8														
182+80	RT	EX																					
182+85	CL	EX																					
182+90	RT	200		43.350																			
		200	202		42.690	42.317				22.8													
182+90	CL	202		43.620																			
		202	198		41.867	41.687	Y						60										
182+90	RT	201		43.124																			
		201	202		42.464	42.317				24													
183+40	CL	203		44.366																			
		203	202		42.766	42.017						50.4											
184+11	CL	206		45.230																			
		206	203		43.451	42.766						72											
184+19	LT	205		44.470																			
		205	206		43.886	43.826	Y		20.4														
184+11	RT	204	EX		44.232	44.181				6													
184+15	CL	EX																					
184+70	CL	207		47.120																			
		207	206		44.810	43.451	Y					60											
185+00	RT	EX																					
185+22	RT	EX																					
185+30	RT	EX																					
185+42	CL	209		46.970																			
		209	207		45.030	44.810	Y					73.2											
		208	209		45.100	45.030	Y					20.4											
185+70	RT	210	OUT																				
185+70	RT	EX																					
186+12	LT	211	OUT									7.2											
186+12	LT	EX																					
188+68	RT	212	EX		45.932	45.460				9.6													
188+68	LT	212A	OUT		45.401	45.370				9.6													
189+90	RT	213	OUT																				
189+90	RT	EX																					
SHEET TOTAL									49.2	72		283.2	200.4	60									
GRAND TOTAL									2990.4	1408.8	1428	807.6	588	319.2	136.8		36						

STATION	STRUCTURE NO. FROM	STRUCTURE NO. TO	375mm SIDE DRAIN PIPE	450mm SIDE DRAIN PIPE	600mm SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. METERS R.C.P.	C.S.P.	QUANTITIES: STRUCTURES PER EACH (0 THRU 1.50)	FOR DRAINAGE *TOTAL M FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') METERS A 1.50 THRU 3.00	B 3.00 AND ABOVE	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	M.D.I. TYPE "A" STD. 840.17 OR 840.26	M.D.I. TYPE "B" STD. 840.18 OR 840.27	M.D.I. TYPE "D" STD. 840.19 OR 840.28	M.D.I. FRAME WITH GRATE STD. 840.22	M.D.I. FRAME WITH TWO GRATES STD. 840.22	M.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	750MM FES	450MM FES	375MM FES	M.D.I. TYPE "D" SPECIAL (SEE SHT 2-P)	M.D.I. TYPE "B" SPECIAL (SEE SHT 2-P)	T.B.J.B. STD. 840.34	M.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.29	CONCRETE APRON STD. 852.06	CONVERT T.B.J.B. TO M.D.I. TYPE "A" STD. 840.17 OR 840.26 (SEE Sht. 2-Q)						FLOWABLE FILL, M3		375 MM PARALLEL PES 310.02	450 MM PARALLEL PES 310.02	CORR. STEEL ELBOW 400 MM	CONC. COLLARS, CL. "B" m^3 STD. 840.72	CONC. & BRICK PIPE PLUG m^3 STD. 840.71	PIPE REMOVAL (meters)	REMARKS
180+80	197							1	0.72				1						1																								
	197	195																																									
182+20	198							1	0.45				1						1																								
	198	197																																									
182+48	199							1							1				1																								
	199	199A																																									
182+50	EX																																									7	
182+78	199A							1							1				1																								
	199A	200																																									
182+80	EX																																									7	
182+85	EX																																									17	
182+90	200							1							1				1																								
	200	202																																									
182+90	202							1	0.25				1						1																								
	202	198																																									
182+90	201							1							1				1																								
	201	202																																									
183+40	203							1	0.10				1						1																								
	203	202																																									
184+11	206							1	0.28				1						1																								
	206	203																																									
184+19	205							1							1				1																								
	205	206																																									
184+11	204	EX																																									PIPE CLEANOUT
184+15	EX																																									5	
184+70	207							1	0.81				1						1																								
	207	206																																									
185+00	EX																																									7	
185+22	EX																																									6	
185+30	EX																																									6	
185+42	209							1	0.44				1						1																								
	209	207																																									
	208	209																			1																						
185+70	210	OUT	8.4																																		2						
185+70	EX																																									6	
186+12	211	OUT																																									
186+12	EX																																									9	
188+68	212	EX																				1																	0.33			PIPE CLEANOUT
188+68	212A	OUT																																					0.33			
189+90	213	OUT	14.4																																								
189+90	EX																																									13	
SHEET TOTAL			22.8					12	3.05				7		5				12		1	1															2			0.66		83	
GRAND TOTAL			79.2	86.4	15.4	4.6		176	18.15	2.06	2	2	33	48	78			2	169	3	1	4	1	7	4	1	1	1	1						152		7	10	4	2.64	1.19	871	
									20.828																																		

ABBREVIATIONS

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