6/29/05

COMPUTED BY: D.M.W. DATE: 9/2004
CHECKED BY: W.C.B. DATE: 12/2004

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

METRIC

PROJECT REFERENCE NO.	SHEET NO.
R-2552C	3-A

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 1200 mm & UNDER)

STATION	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) SIZE	300	375	450	600	750	900	1050	1200
								THICKNESS OR GAUGE								
L2LT 108+74	LT	1A														
L2LT 108+51	RT	1		61.48	59.6											
L2LT 108+51	RT	1	2		59.6	53.5								49.2		
L2LT 109+00	RT	2		55.2	52.55											
L2LT 109+00	RT	2	3		53.55	53.5								4.8		
L2RT 108+51	LT	4	5		–	62.28					13.2					
L2RT 108+65	RT	5		63.2	62.13											
L2RT 108+65	RT	5	6		62.13	61.82						30.0				
L2RT 108+77.5	RT	6		63.42	61.82											
L2RT 108+77.5	RT	6	7		62.17	65.76										
L2RT 108+77.5	RT	6	8		61.82	61.15							36.0			
L2RT 109+15	RT	8		63.5	61.15											
L2RT 109+15	RT	8	9		61.15	54.8										
L2RT 108+77.5	LT	10		63.93	63.12											
L2RT 108+77.5	LT	10	11		63.12	62.85				75.6						
L2RT 109+54	LT	11		64.62	62.85											
L2RT 109+54	LT	11	12		62.85	56.0										
L2RT 109+54	LT	12		57.1	56											
L2RT 109+54	LT	12	13		56	54.5				26.4						
L2RT 109+79	LT	13			–	–										
L2LT 109+95	LT	14			–	–										
L2LT 109+95	LT	14	15		54.4	63.11										
L2LT 110+37	LT	15		63.92	63.11											
L2LT 111+16	LT	16		65.19	64.28											
L2LT 111+16	LT	16	17		64.28					20.4						
L2LT 111+15	RT	17		66.1	64.25											
L2LT 111+15	RT	17	18		64.25	57.8										
L2RT 111+12	LT	19	20		57.84	67.63										
L2RT 111+12	LT	20		68.44	67.63											
L2LT 112+70	LT	21		70.95	70.14											
L2LT 112+70	LT	21	22		70.14	70				25.2						
L2LT 112+70	RT	22		71.11	70											
L2LT 112+70	RT	22	23		70	65										
L2RT 112+45	LT	24	25		65	70.56										
L2RT 112+75	LT	25		71.2	70.56											
L2LT 114+00	LT	26		75.95	75.14	75										
L2LT 114+00	LT	26	27		75.14					25.2						
L2LT 114+00	RT	27		76.11	75											
L2LT 114+00	RT	27	28		75	–				18.0						
L2RT 113+93	LT	29	30		74.8	72.8						40.8				
L2RT 113+95	LT	31	32		–	76.4				26.4						
L2RT 114+20	LT	32		77.21	76.4											
L2LT 114+82	LT	33	34		85.4	78.29										
L2LT 114+82	LT	34		79.1	78.29											
L2LT 114+82	LT	34	35		78.29	77.75				26.4						
L2LT 114+72	RT	35		78.83	77.75											
L2LT 114+72	RT	35	36		77.75	77.6					28.8					
L2RT 114+71	LT	36		78.8	77.6											
L2RT 114+71	LT	36	37		77.6	77.3						27.6				
L2RT 114+71	RT	37		79.13	77.3											
L2RT 114+71	RT	37	38		77.3	75						27.6				
SHEET TOTAL										243.6	42.0	126.0	36.0	54.0		

BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) SIZE	300	400	450	600	800	900	1000	1200
THICKNESS OR GAUGE	1.63	1.63	1.63	1.63	2.01	2.01	2.01	2.01
L2LT 108+74								
L2LT 108+51								
L2LT 108+51								
L2LT 109+00								
L2LT 109+00								
L2RT 108+51								
L2RT 108+65								
L2RT 108+65								
L2RT 108+77.5								
L2RT 108+77.5								
L2RT 108+77.5								
L2RT 109+15								
L2RT 109+15								
L2RT 108+77.5								
L2RT 108+77.5								
L2RT 109+54								
L2RT 109+54								
L2RT 109+54								
L2RT 109+54								
L2RT 109+79								
L2LT 109+95								
L2LT 109+95								
L2LT 110+37								
L2LT 111+16								
L2LT 111+16								
L2LT 111+15								
L2LT 111+15								
L2RT 111+12								
L2RT 111+12								
L2LT 112+70								
L2LT 112+70								
L2LT 112+70								
L2LT 112+70								
L2RT 112+45								
L2RT 112+75								
L2LT 114+00								
L2LT 114+00								
L2LT 114+00								
L2LT 114+00								
L2RT 113+93								
L2RT 113+95								
L2RT 114+20								
L2LT 114+82								
L2LT 114+82								
L2LT 114+82								
L2LT 114+72								
L2LT 114+72								
L2RT 114+71								
L2RT 114+71								
L2RT 114+71								
L2RT 114+71								
SHEET TOTAL								

C.S. PLAIN PIPE SIZE	400	450
THICKNESS OR GAUGE	1.63	1.63
L2LT 108+74		
L2LT 108+51		
L2LT 108+51		
L2LT 109+00		
L2LT 109+00		
L2RT 108+51		
L2RT 108+65		
L2RT 108+65		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 109+15		
L2RT 109+15		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 109+54		
L2RT 109+54		
L2RT 109+54		
L2RT 109+54		
L2RT 109+79		
L2LT 109+95		
L2LT 109+95		
L2LT 110+37		
L2LT 111+16		
L2LT 111+16		
L2LT 111+15		
L2LT 111+15		
L2RT 111+12		
L2RT 111+12		
L2LT 112+70		
L2LT 112+70		
L2LT 112+70		
L2LT 112+70		
L2RT 112+45		
L2RT 112+75		
L2LT 114+00		
L2LT 114+00		
L2LT 114+00		
L2LT 114+00		
L2RT 113+93		
L2RT 113+95		
L2RT 114+20		
L2LT 114+82		
L2LT 114+82		
L2LT 114+82		
L2LT 114+72		
L2LT 114+72		
L2RT 114+71		
L2RT 114+71		
L2RT 114+71		
L2RT 114+71		
SHEET TOTAL		

BITUMINOUS COATED C.S. PIPE TYPE A SIZE	400	450	600	800	900
THICKNESS OR GAUGE	1.63	1.63	1.63	2.01	2.01
L2LT 108+74					
L2LT 108+51					
L2LT 108+51					
L2LT 109+00					
L2LT 109+00					
L2RT 108+51					
L2RT 108+65					
L2RT 108+65					
L2RT 108+77.5					
L2RT 108+77.5	14.4				
L2RT 108+77.5					
L2RT 109+15					
L2RT 109+15				51.6	
L2RT 108+77.5					
L2RT 108+77.5					
L2RT 109+54					
L2RT 109+54	16.8				
L2RT 109+54					
L2RT 109+54					
L2RT 109+79					
L2LT 109+95					
L2LT 109+95	44.4				
L2LT 110+37					
L2LT 111+16					
L2LT 111+16					
L2LT 111+15					
L2LT 111+15	28.8				
L2RT 111+12	38.4				
L2RT 111+12					
L2LT 112+70					
L2LT 112+70					
L2LT 112+70					
L2LT 112+70	28.8				
L2RT 112+45	31.2				
L2RT 112+75					
L2LT 114+00					
L2LT 114+00					
L2LT 114+00					
L2LT 114+00					
L2RT 113+93					
L2RT 113+95					
L2RT 114+20					
L2LT 114+82	21.6				
L2LT 114+82					
L2LT 114+82					
L2LT 114+72					
L2LT 114+72					
L2RT 114+71					
L2RT 114+71					
L2RT 114+71					
L2RT 114+71					
SHEET TOTAL	224.4			51.6	

ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE)	375mm SIDE DRAIN PIPE	450mm SIDE DRAIN PIPE	600mm SIDE DRAIN PIPE
L2LT 108+74			
L2LT 108+51			
L2LT 108+51			
L2LT 109+00			
L2LT 109+00			
L2RT 108+51			
L2RT 108+65			
L2RT 108+65			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 109+15			
L2RT 109+15			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 109+54			
L2RT 109+54			
L2RT 109+54			
L2RT 109+54			
L2RT 109+79			
L2LT 109+95			
L2LT 109+95			
L2LT 110+37			
L2LT 111+16			
L2LT 111+16			
L2LT 111+15			
L2LT 111+15			
L2RT 111+12			
L2RT 111+12			
L2LT 112+70			
L2LT 112+70			
L2LT 112+70			
L2LT 112+70			
L2RT 112+45			
L2RT 112+75			
L2LT 114+00			
L2LT 114+00			
L2LT 114+00			
L2LT 114+00			
L2RT 113+93			
L2RT 113+95			
L2RT 114+20			
L2LT 114+82			
L2LT 114+82			
L2LT 114+82			
L2LT 114+72			
L2LT 114+72			
L2RT 114+71			
L2RT 114+71			
L2RT 114+71			
L2RT 114+71			
SHEET TOTAL			1.5

(UNLESS NOTED OTHERWISE)	R.C.P. (CM)	C.S.P. (CM)
L2LT 108+74		
L2LT 108+51		
L2LT 108+51		
L2LT 109+00		
L2LT 109+00		
L2RT 108+51		
L2RT 108+65		
L2RT 108+65		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 109+15		
L2RT 109+15		
L2RT 108+77.5		
L2RT 108+77.5		
L2RT 109+54		
L2RT 109+54		
L2RT 109+54		
L2RT 109+54		
L2RT 109+79		
L2LT 109+95		
L2LT 109+95		
L2LT 110+37		
L2LT 111+16		
L2LT 111+16		
L2LT 111+15		
L2LT 111+15		
L2RT 111+12		
L2RT 111+12		
L2LT 112+70		
L2LT 112+70		
L2LT 112+70		
L2LT 112+70		
L2RT 112+45		
L2RT 112+75		
L2LT 114+00		
L2LT 114+00		
L2LT 114+00		
L2LT 114+00		
L2RT 113+93		
L2RT 113+95		
L2RT 114+20		
L2LT 114+82		
L2LT 114+82		
L2LT 114+82		
L2LT 114+72		
L2LT 114+72		
L2RT 114+71		
L2RT 114+71		
L2RT 114+71		
L2RT 114+71		
SHEET TOTAL	1.5	

QUANTITIES: STRUCTURES FOR DRAINAGE "TOTAL M FOR PAY QUANTITY SHALL BE COL. 1 + (3 X COL. 2)" METERS	PER EACH (0 THRU 1.50)	A 1.50 THRU 3.00	B 3.00 AND ABOVE
L2LT 108+74			
L2LT 108+51	1	0.38	
L2LT 108+51			
L2LT 109+00	1		
L2LT 109+00			
L2RT 108+51			
L2RT 108+65	1		
L2RT 108+65			
L2RT 108+77.5	1	0.1	
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 109+15	1	0.85	
L2RT 109+15	1.5		
L2RT 108+77.5	1		
L2RT 108+77.5			
L2RT 109+54	1	0.27	
L2RT 109+54			
L2RT 109+54			
L2RT 109+54			
L2RT 109+79			
L2LT 109+95			
L2LT 109+95			
L2LT 110+37	1		
L2LT 111+16	1		
L2LT 111+16			
L2LT 111+15	1	0.35	
L2LT 111+15			
L2RT 111+12			
L2RT 111+12	1		
L2LT 112+70	1		
L2LT 112+70			
L2LT 112+70	1		
L2LT 112+70			
L2RT 112+45			
L2RT 112+75	1		
L2LT 114+00	1		
L2LT 114+00			
L2LT 114+00	1		
L2LT 114+00			
L2RT 113+93			
L2RT 113+95			
L2RT 114+20	1		
L2LT 114+82			
L2LT 114+82	1		
L2LT 114+82			
L2LT 114+72	1		
L2LT 114+72			
L2RT 114+71	1		
L2RT 114+71			
L2RT 114+71	1	0.33	
L2RT 114+71			
SHEET TOTAL	22	2.28	

FRAME, GRATES, AND HOOD STD. 840.03 TYPE OF GRATE	E	F	G
L2LT 108+74			
L2LT 108+51			
L2LT 108+51			
L2LT 109+00			
L2LT 109+00			
L2RT 108+51			
L2RT 108+65			
L2RT 108+65			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 109+15			
L2RT 109+15			
L2RT 108+77.5			
L2RT 108+77.5			
L2RT 109+54			
L2RT 109+54			
L2RT 109+54			
L2RT 109+54			
L2RT 109+79			
L2LT 109+95			
L2LT 109+95			
L2LT 110+37			
L2LT 111+16			
L2LT 111+16			
L2LT 111+15			
L2LT 111+15			
L2RT 111+12			
L2RT 111+12			
L2LT 112+70			
L2LT 112+70			
L2LT 112+70			
L2LT 112+70			
L2RT 112+45			
L2RT 112+75			
L2LT 114+00			
L2LT 114+00			
L2LT 114+00			
L2LT 114+00			
L2RT 113+93			
L2RT 113+95			
L2RT 114+20			
L2LT 114+82			
L2LT 114+82			
L2LT 114+82			
L2LT 114+72			
L2LT 114+72			
L2RT 114+71			
L2RT 114+71			
L2RT 114+71			
L2RT 114+71			
SHEET TOTAL			

D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	B.A.D.I. (SEE SHEET 2-P)	T.B.D.I. STD. 840.36	T.B.D.I. FRAME WITH STEEL GRATE STD. 840.37	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 TWO FLAT GRATES STD. 840.20
L2LT 108+74								
L2LT 108+51					1			
L2LT 108+51								
L2LT 109+00								
L2LT 109+00								
L2RT 108+51								
L2RT 108+65						1		
L2RT 108+65								
L2RT 108+77.5					1			
L2RT 108+77.5								
L2RT 108+77.5								
L2RT 109+15					1			
L2RT 109+15								
L2RT 108+77.5						1		1
L2RT 108+77.5								
L2RT 109+54						1		1
L2RT 109+54								
L2RT 109+54								
L2RT 109+54								
L2RT 109+79								
L2LT 109+95								
L2LT 109+95								
L2LT 110+37						1		1
L2LT 111+16						1		
L2LT 111+16								
L2LT 111+15								
L2LT 111+15								
L2RT 111+12				1	1			
L2RT 111+12								
L2LT 112+70						1		
L2LT 112+70								
L2LT 112+70						1		
L2LT 112+70								
L2RT 112+45								
L2RT 112+75								
L2LT 114+00						1		
L2LT 114+00								
L2LT 114+00						1		
L2LT 114+00								
L2RT 113+93								
L2RT 113+95								
L2RT 114+20						1		
L2LT 114+82								
L2LT 114+82						1		
L2LT 114+82								
L2LT 114+72						1		
L2LT 114+72								
L2RT 114+71						1		
L2RT 114+71								
L2RT 114+71					1			
L2RT 114+71								
SHEET TOTAL				1	4	13		3

M.D.I. FRAME WITH SAG GRATE STD. 840.22	M.D.I. FRAME WITH TWO SAG GRATES STD. 840.22	M.D.I. (N.S.) FRAME WITH SAG GRATE STD. 840.24	M.D.I. (N.S.) FRAME WITH TWO SAG GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	C.B. STD. 840.01 OR 840.02	O.T.C.B. STD. 840.04 OR 840.05	M.H. STD. 840.51, 840.52 OR 840.53	M.H. FRAME AND COVER STD. 840.54	T.B.J.B. STD. 840.34
L2LT 108+74									
L2LT 108+51	1								
L2LT 108+51									
L2LT 109+00				1				1	
L2LT 109+00									
L2RT 108+51									
L2RT 108+65	1								
L2RT 108+65									
L2RT 108+77.5	1								
L2RT 108+77.5									
L2RT 108+77.5									
L2RT 109+15	1								
L2RT 109+15									
L2RT 108+77.5									
L2RT 108+77.5									
L2RT 109+54									
L2RT 109+54									
L2RT 109+54				1				1	
L2RT 109+54									
L2RT 109+79									
L2LT 109+95									
L2LT 109+95									
L2LT 110+37									
L2LT 111+16		1							
L2LT 111+16									
L2LT 111+15				1				1	
L2LT 111+15									
L2RT 111+12									
L2RT 111+12									
L2LT 112+70		1							
L2LT 112+70									
L2LT 112+70		1							
L2LT 112+70									
L2RT 112+45									
L2RT 112+75				1					
L2LT 114+00		1							
L2LT 114+00									
L2LT 114+00		1							
L2LT 114+00									
L2RT 113+93									
L2RT 113+95									
L2RT 114+20		1							
L2LT 114+82									
L2LT 114+82		1							
L2LT 114+82									
L2LT 114+72		1							
L2LT 114+72									
L2RT 114+71		1							
L2RT 114+71									
L2RT 114+71		1							
L2RT 114+71									
SHEET TOTAL	14		3		1		3		

B00 x 800 x 800mm PERF. C.S.P. TEE RISER 2.01mm THICK	CONVERT EXISTING D.I. OR C.B. TO J.B. (SEE SHEET 2-AC)	375mm BORE AND JACK SPIRAL WELDED STEEL (7mm THICK)	450mm BORE AND JACK SPIRAL WELDED STEEL (8mm THICK)	600mm BORE AND JACK SPIRAL WELDED STEEL (13mm THICK)	ADJUST EXISTING 2GI	MODIFIED CONCRETE FLUME (SEE SHEET 2-AA)	PREFORMED SCOUR HOLE (SEE REMARKS)	C.S. ELBOWS NO.	C.S. ELBOWS SIZE	CONC. COLLARS CL. "B" M3 STD. 840.72	CONC. & BRICK PIPE PLUG, M3 STD. 840.71	PIPE REMOVAL (METERS)	REMARKS
						1							
													connects to existing system
													connects to existing system
								1	400				
								2	400				
						1							(SEE SHEET 4)
						1							(SEE SHEET 4)
								2	400				