

TABLE OF REINFORCEMENT REQUIREMENTS

NOMINAL SPAN	EQUIVALENT DIAMETER (A)	f _c (ksi)		As, ADDITIONAL REINFORCEMENT																		
				INNER CAGE			OUTER CAGE			U - INNER CAGE						V - OUTER CAGE						
		CLASS			IIA	IIIA	IVA	IIA	IIIA	IVA	DIM.	TOP			BOTTOM			DIM.	IIA	IIIA	IVA	
		IIA	IIIA	IVA								IIA	IIIA	IVA	IIA	IIIA	IVA					
IN.	IN.	IIA	IIIA	IVA	IIA	IIIA	IVA	IIA	IIIA	IVA	DIM.	IIA	IIIA	IVA	IIA	IIIA	IVA	DIM.	IIA	IIIA	IVA	
22	18	4			.42																	
28	24	4			.42																	
36	30	4			.22			.17			1' 2"	.22			.06			2' 9"	.17			
44	36	4			.21			.17			1' 5"	.21			.08			3' 3"	.17			
51	42	4			.26			.19			1' 7"	.26			.08			3' 6"	.19			
58	48	4			.24			.19			1' 10"	.24			.09			4' 0"	.19			
65	54	4			.24			.19			2' 0"	.24			.09			4' 6"	.19			
73	60	5	5	5	.24	.35	.54	.18	.35	.53	2' 4"	.24	.11	.15	.11	.35	.54	5' 0"	.18	.35	.53	
88	72	5	5	5	.23	.43	.63	.21	.42	.61	2' 9"	.23	.12	.17	.19	.43	.63	6' 0"	.21	.42	.61	
102	84	5	5	5	.23	.50	.73	.23	.49	.71	3' 3"	.23	.13	.19	.23	.49	.73	7' 0"	.23	.48	.71	
115	90	5	5	5	.28	.54	.88	.28	.54	.85	3' 7"	.19	.16	.21	.28	.54	.88	8' 0"	.28	.54	.85	
122	96	5	5	5	.30	.54	.90	.30	.54	.89	3' 10"	.18	.16	.22	.30	.54	.90	8' 6"	.30	.54	.89	
138	108	5	5	5	.35	.63	1.03	.36	.62	1.00	4' 4"	.12	.18	.28	.35	.62	1.03	9' 6"	.36	.61	1.00	
154	120	5	5	5	.39	.66	1.06	.38	.66	1.02	4' 10"	.08	.18	.27	.39	.66	1.06	10' 6"	.38	.65	1.02	
169	132	5	5		.50	.90		.49	.90		5' 2"	.07	.23		.50	.90		11' 0"	.49	.87		

TABLE OF DIMENSIONS

NOMINAL SPAN	EQUIVALENT DIAMETER (A)	WATER AREA	RISE	SPAN	DIMENSION REQUIREMENTS IN INCHES												APPROX. WT./FT.
					t	a	b	c	j	e	f	g	R ₁	R ₂	R ₃	LB.	
IN.	IN.	S.F.	IN.	IN.	t	a	b	c	j	e	f	g	R ₁	R ₂	R ₃	LB.	
22	18	1.7	13-1/2	22	2-1/2	1-3/8	3/8	3/4	2	1-1/8	3/8	1	27-1/2	13-3/4	5-1/4	175	
28	24	2.8	18	28-1/2	3-1/2	1-5/8	1/2	1-3/8	3	1-3/8	1/2	1-5/8	40-11/16	14-3/4	4-5/8	320	
36	30	4.4	22-1/2	36-1/4	4	1-13/16	5/8	1-9/16	3-1/2	1-9/16	5/8	1-13/16	51	18-3/4	6-1/8	455	
44	36	6.4	26-5/8	43-3/4	4-1/2	2	3/4	1-3/4	4	1-3/4	3/4	2	62	22-1/2	6-1/2	610	
51	42	8.8	31-5/16	51-1/8	4-1/2	2	3/4	1-3/4	4	1-3/4	3/4	2	73	26-1/4	7-3/4	740	
58	48	11.4	36	58-1/2	5	2-1/4	3/4	2	5	2	3/4	2-1/4	84	30	8-7/8	895	
65	54	14.0	40	65	5-1/2	2-1/2	3/4	2-1/4	5	2-1/4	3/4	2-1/2	92-1/2	33-3/8	10	1095	
73	60	17.7	45	73	6	3-5/16	3/4	1-15/16	5	2-3/4	3/4	2-1/2	105	37-1/2	11	1345	
88	72	25.6	54	88	7	3-13/16	1	2-3/16	6	3-1/4	1	2-3/4	126	45	13-5/16	1885	
102	84	34.6	62	102	8	4-1/8	1	2-7/8	6	3-1/2	1	3-1/2	162-1/2	52	14-1/2	2490	
115	90	44.5	72	115-1/2	8-1/2	4-1/4	1	3-1/4	7	3-3/4	1	3-3/4	183	59	18	2900	
122	96	51.7	77-1/2	122-3/8	9	4-1/2	1	3-1/2	7	4	1	4	218	62	20	3510	
138	108	66.0	87-1/8	138-1/2	10	5	1	4	7	4-1/2	1	4-1/2	269	70	22	4400	
154	120	81.8	96-7/8	154	11	5-1/2	1	4-1/2	7	5	1	5	301-3/8	78	24	5400	
169	132	99.1	106-1/2	168-3/4	10	5	1	4	7	4-1/2	1	4-1/2	329	85-5/8	26-7/8	5390	

(A) EQUIVALENT DIAMETER EQUALS DIAMETER OF CIRCULAR PIPE WITH APPROXIMATELY EQUIVALENT CROSS SECTION AREA.

MNDOT SPEC. REF. 2501
MNDOT 3014J1, 3014J2
3 OF 3
NOT TO SCALE



DRW: CXD DATE: 4/03
APP: HRS DATE: 12/06

RC PIPE-ARCH

STANDARD PLATE NO. SEWR-4006