FOUNDATION DATA FOR STEEL SUPPORTS

oundation		Foundation	,		Vertica	l Reinforcing Stee			Horizontal Tie		Foundation		Foundation	1		Vertica	ļF
Diameter	Depth	Conc. Vol. for 1 Post	Conc. Vol. for 2 Posts	Length of	Size	No. Bars	No. Bars	Size	No. Bars	No. Bars	Diameter	Depth	Conc. Vol. for 1 Post	Conc. Vol. for 2 Posts	Length of	Size	
	· ·	(CU YDS)	(CU YDS)	Each Bar		for 1 Post	for 2 Posts		for 1 Post	for 2 Posts			(CU YDS)	(CU YDS)	Each Bar		1
1' - 4''	4' - 6"	0.23	0.47	4' - 2''	5	6	12	3	6	12	2'- 4"	4' - 6''	0.71	1.43	4' - 2''	6	1
1' - 4''	5' - 0"	0.26	0.52	4' - 8''	5	6	12	3	7	14	2'- 4"	5' - 0''	0.79	1.58	4' - 8''	6	ļ
1' - 4''	5' - 6"	0.28	0.57	5' - 2''	5	6	12	3	8	16	2'- 4"	5' - 6''	0.87	1.74	5' - 2"	6	_
1' - 4''	6' - 0"	0.31	0.62	5' - 8"	5	6	12	3	8	16	2'- 4"	6' - 0''	0.95	1.90	5' - 8"	6	Ļ
1' - 4''	6' - 6"	0.34	0.67	6' - 2''	5	6	12	3	9	18	2'- 4"	6' - 6''	1.03	2.06	6' - 2''	6	Ļ
1' - 4"	7' - 0"	0.36	0.72	6' - 8''	5	6	12	3	9	18	2'- 4"	7' - 0''	1.11	2.22	6' - 8''	6	1
1' - 4''	7' - 6"	0.39	0.78	7' - 2''	5	6	12	3	10	20	2'- 4"	7' - 6''	1.19	2.38	7' - 2''	6	Ļ
1' - 4''	8' - 0"	0.41	0.83	7' - 8''	5	6	12	3	11	22	2'- 4"	8' - 0''	1.27	2.53	7' - 8''	6	1
1' - 4"	8'-6"	0.44	0.88	8' - 2''	5	6	12	3	11	22	2' - 4"	8' - 6"	1.35	2.69	8' - 2"	6	╞
1' - 4''	9' - 0"	0.47	0.93	8' - 8''	5	6	12	3	12	24	2'- 4"	9' - 0''	1.43	2.85	8' - 8''	6	+
1' - 4"	9' - 6"	0.49	0.98	9' - 2''	5	6	12	3	12	24	2'- 4"	9' - 6''	1.50	3.01	9' - 2''	6	1
1' - 4"	10' - 0"	0.52	1.03	9' - 8''	5	6	12	3	13	26	2' - 4"	10' - 0''	1.58	3.17	9' - 8"	6	+
1' - 4''	10' - 6"	0.54	1.09	10' - 2''	5	6	12	3	14	28	2'- 4"	10' - 6''	1.66	3.33	10' - 2''	6	1
1' - 4"	11' - 0"	0.57	1.14	10' - 8''	5	6	12	3	14	28	2'- 4"	11' - 0"	1.74	3.48	10' - 8"	6	╞
1' - 4"	11' - 6"	0.59	1.19	11' - 2''	5	6	12	3	15	30	2'- 4"	11' - 6''	1.82	3.64	11' - 2''	6	╞
1' - 4''	12'- 0"	0.62	1.24	11' - 8''	5	6	12	3	15	30	2'- 4"	12' - 0''	1.90	3.80	11' - 8"	6	_
	1										2'- 4"	12' - 6''	1.98	3.96	12' - 2"	6	1
Foundation		Foundation	1		Vertica	Reinforcing Stee			Horizontal Tie		2'- 4''	13' - 0''	2.06	4.12	12' - 8"	6	-
Diameter	Depth	Conc. Vol. for 1 Post	Conc. Vol. for 2 Posts	Length of	Size	No. Bars	No. Bars	Size	No. Bars	No. Bars	2'- 4"	13' - 6"	2.14	4.28	13' - 2"	6	Ļ
		(CU YDS)	(CU YDS)	Each Bar		for 1 Post	for 2 Posts		for 1 Post	for 2 Posts	2'- 4"	14' - 0''	2.22	4.43	13' - 8''	6	Ļ
1' - 9"	4' - 6"	0.40	0.80	4' - 2''	5	10	20	3	6	12	2' - 4''	14' - 6"	2.30	4.59	14' - 2''	6	_
1' - 9"	5' - 0"	0.45	0.89	4' - 8''	5	10	20	3	7	14	2'- 4"	15' - 0"	2.38	4.75	14' - 8''	6	+
1' - 9"	5' - 6"	0.49	0.98	5' - 2"	5	10	20	3	8	16	2' - 4''	15' - 6"	2.45	4.91	15' - 2"	6	╞
1' - 9"	6' - 0"	0.53	1.07	5' - 8''	5	10	20	3	8	16	2'- 4"	16' - 0''	2.53	5.07	15' - 8"	6	Ļ
1' - 9"	6' - 6"	0.58	1.16	6' - 2''	5	10	20	3	9	18	2'- 4"	16' - 6''	2.61	5.23	16' - 2"	6	Ļ
1' - 9"	7' - 0"	0.62	1.25	6' - 8''	5	10	20	3	9	18	2' - 4"	17' - 0"	2.69	5.38	16' - 8"	6	+
1' - 9"	7' - 6"	0.67	1.34	7' - 2''	5	10	20	3	10	20	2' - 4"	17' - 6"	2.77	5.54	17' - 2"	6	+
1' - 9"	8' - 0"	0.71	1.43	7' - 8"	5	10	20	3	11	22	2'- 4''	18' - 0''	2.85	5.70	17' - 8''	6	
1' - 9"	8' - 6"	0.76	1.51	8' - 2''	5	10	20	3	11	22							_
1' - 9"	9' - 0"	0.80	1.60	8' - 8''	5	10	20	3	12	24	Foundation		Foundation			Vertica	H
1' - 9"	9' - 6"	0.85	1.69	9' - 2"	5	10	20	3	12	24	Diameter	Depth	Conc. Vol. for 1 Post	Conc. Vol. for 2 Posts	Length of	Size	
1' - 9"	10' - 0"	0.89	1.78	9' - 8''	5	10	20	3	13	26		4 61	(CU YDS)	(CU YDS)	Each Bar	<u> </u>	╞
1' - 9''	10' - 6"	0.94	1.87	10' - 2"	5	10	20	3	14	28	2' - 6"	4' - 6"	0.82	1.64	4' - 2''	6	Ļ
1' - 9"	11'- 0"	0.98	1.96	10' - 8"	5	10	20	3	14	28	2' - 6''	5' - 0''	0.91	1.82	4' - 8''	6	╇
1' - 9"	11' - 6"	1.02	2.05 2.14	11' - 2''	5	10	20	3	15	30	2' - 6''	5' - 6"	1.00	2.00	5' - 2"	6	╞
1' - 9''	12'- 0"	1.07		11' - 8''	5	10	20	3	15	30	2'- 6"	6' - 0'' 6' - 6''	1.09	2.18	5' - 8"	6	╀
			2.14								2'- 6''				6' - 2''	6	╀
	1		2.14							-			1.18	2.36		6	╀
Foundation		Foundation	,		Vertica	Reinforcing Stee			Horizontal Tie		2'- 6"	7'- 0''	1.27	2.55	6' - 8''		
Foundation Diameter	Depth	Conc. Vol. for 1 Post	Conc. Vol. for 2 Posts	Length of	Vertica Size	No. Bars	No. Bars	Size	No. Bars	No. Bars	2'- 6''	7' - 0'' 7' - 6''	1.27 1.36	2.55 2.73	7' - 2''	6	+-
Diameter		Conc. Vol. for 1 Post (CU YDS)	Conc. Vol. for 2 Posts (CU YDS)	Each Bar	Size	No. Bars for 1 Post	No. Bars for 2 Posts		No. Bars for 1 Post	No. Bars for 2 Posts	2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0''	1.27 1.36 1.45	2.55 2.73 2.91	7' - 2'' 7' - 8''	6	Ļ
Diameter 2' - 0''	4' - 6"	Conc. Vol. for 1 Post (CU YDS) 0.52	Conc. Vol. for 2 Posts (CU YDS) 1.05	Each Bar 4' - 2''	Size 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3	No. Bars for 1 Post 6	No. Bars for 2 Posts 12	2' - 6'' 2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 8' - 6''	1.27 1.36 1.45 1.55	2.55 2.73 2.91 3.09	7' - 2'' 7' - 8'' 8' - 2''	6 6	
Diameter 2' - 0'' 2' - 0''	4' - 6'' 5' - 0''	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16	Each Bar 4' - 2'' 4' - 8''	Size 6 6	No. Bars for 1 Post 10 10	No. Bars for 2 Posts 20 20	3	No. Bars for 1 Post 6 7	No. Bars for 2 Posts 12 14	2' - 6'' 2' - 6'' 2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 8' - 6'' 9' - 0''	1.27 1.36 1.45 1.55 1.64	2.55 2.73 2.91 3.09 3.27	7' - 2'' 7' - 8'' 8' - 2'' 8' - 8''	6 6 6	
Diameter 2' - 0'' 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28	Each Bar 4' - 2'' 4' - 8'' 5' - 2''	Size 6 6 6	No. Bars for 1 Post 10 10 10	No. Bars for 2 Posts 20 20 20 20	3 3 3	No. Bars for 1 Post 6 7 8	No. Bars for 2 Posts 12 14 16	2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 8' - 6'' 9' - 0'' 9' - 6''	1.27 1.36 1.45 1.55 1.64 1.73	2.55 2.73 2.91 3.09 3.27 3.45	7' - 2'' 7' - 8'' 8' - 2'' 8' - 8'' 9' - 2''	6 6 6 6	
Diameter 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6" 6' - 0"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 5' - 8''	Size 6 6 6 6	No. Bars for 1 Post 10 10 10 10	No. Bars for 2 Posts 20 20 20 20 20 20 20	3 3 3 3	No. Bars for 1 Post 6 7 8 8 8	No. Bars for 2 Posts 12 14 16 16	2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 8' - 6'' 9' - 0'' 9' - 6'' 10' - 0''	1.27 1.36 1.45 1.55 1.64 1.73 1.82	2.55 2.73 2.91 3.09 3.27 3.45 3.64	7' - 2'' 7' - 8'' 8' - 2'' 8' - 8'' 9' - 2'' 9' - 8''	6 6 6 6 6	
Diameter 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6" 6' - 0" 6' - 6"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 5' - 8'' 6' - 2''	Size 6 6 6 6 6	No. Bars for 1 Post 10 10 10 10 10 10 10	No. Bars for 2 Posts 20 20 20 20 20 20 20 20 20	3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 8 9	No. Bars for 2 Posts 12 14 16 18	2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 9' - 0'' 9' - 6'' 10' - 0'' 10' - 6''	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82	7' - 2'' 7' - 8'' 8' - 2'' 9' - 2'' 9' - 2'' 9' - 8'' 10' - 2''	6 6 6 6 6 6	
Diameter 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6" 6' - 0" 6' - 6" 7' - 0"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 5' - 8'' 6' - 2'' 6' - 8''	Size 6 6 6 6 6 6	No. Bars for 1 Post 10 10 10 10 10 10 10 10 10 10 10 10	No. Bars for 2 Posts 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9	No. Bars for 2 Posts 12 14 16 18 18	2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 9' - 0'' 9' - 6'' 10' - 0'' 10' - 6'' 11' - 0''	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00	7' - 2" 7' - 8" 8' - 2" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8"	6 6 6 6 6 6 6 6	
Diameter 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6" 6' - 0" 6' - 6" 7' - 0" 7' - 0"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.64 0.70 0.76 0.81 0.87	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 5' - 8'' 6' - 2'' 6' - 8'' 7' - 2''	Size 6 6 6 6 6 6 6	No. Bars for 1 Post 10 10 10 10 10 10 10 10 10 10 10 10 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10	No. Bars for 2 Posts 12 14 16 18 18 20	2' - 6'' 2' - 6''	7' - 0'' 7' - 6'' 8' - 0'' 9' - 0'' 9' - 6'' 10' - 0'' 10' - 6'' 11' - 0'' 11' - 6''	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18	7' - 2" 7' - 8" 8' - 2" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2"	6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0'' 2' - 0''	4' - 6" 5' - 0" 5' - 6" 6' - 0" 6' - 6" 7' - 0" 7' - 6" 8' - 0"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86	Each Bar 4' - 2'' 5' - 2'' 5' - 8'' 6' - 2'' 6' - 8'' 7' - 2'' 7' - 8''	Size 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 10 11	No. Bars for 2 Posts 12 14 16 18 20 22	2' - 6" 2' - 6"	7' - 0'' 7' - 6'' 8' - 0'' 9' - 0'' 9' - 6'' 10' - 0'' 10' - 6'' 11' - 0'' 11' - 6'' 12' - 0''	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36	7' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8"	6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	4' - 6" 5' - 0" 5' - 6" 6' - 0" 6' - 6" 7' - 0" 7' - 6" 8' - 0" 8' - 6"	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.81 0.87 0.93 0.99	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 6' - 8" 7' - 2" 7' - 8" 8' - 2"	Size 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11	No. Bars for 2 Posts 12 14 16 18 20 22 22	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 6'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 6'' \\ 11' & 6'' \\ 12' & 0'' \\ 12' & 6'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55	7' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 2" 10' - 2" 10' - 2" 11' - 2" 11' - 8" 12' - 2"	6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 6'' \\ 8' - 0'' \\ 8' - 6'' \\ 9' - 0'' \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 8" 7' - 2" 7' - 8" 8' - 8" 8' - 8"	Size 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 11 12	No. Bars for 2 Posts 12 14 16 18 20 22 22 22 24	2' - 6'' 2' - 6''	$\begin{array}{c} 7' \cdot 0'' \\ 7' \cdot 6'' \\ 8' \cdot 0'' \\ 8' \cdot 6'' \\ 9' \cdot 0'' \\ 9' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 6'' \\ 11' \cdot 0'' \\ 11' \cdot 6'' \\ 11' \cdot 6'' \\ 12' \cdot 6'' \\ 13' \cdot 0'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73	7' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 8"	6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 6'' \\ 8' - 0'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 8" 7' - 2" 7' - 8" 8' - 2" 8' - 2" 8' - 8" 9' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 10 11 11 11 12 12	No. Bars for 2 Posts 12 14 16 18 20 22 22 24	2' - 6'' 2' - 6''	$\begin{array}{c} 7' \cdot 0'' \\ 7' \cdot 6'' \\ 8' \cdot 0'' \\ 8' \cdot 6'' \\ 9' \cdot 0'' \\ 9' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 6'' \\ 11' \cdot 0'' \\ 11' \cdot 6'' \\ 11' \cdot 6'' \\ 12' \cdot 0'' \\ 12' \cdot 0'' \\ 13' \cdot 0'' \\ 13' \cdot 6'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91	7' - 2" 7' - 8" 8' - 2" 8' - 8" 9' - 2" 9' - 2" 10' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 8" 13' - 2"	6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{1} - 6^{\prime\prime} \\ 5^{\prime} - 0^{\prime\prime} \\ 5^{\prime} - 6^{\prime\prime} \\ 6^{\prime} - 0^{\prime\prime} \\ 6^{\prime} - 6^{\prime\prime} \\ 7^{\prime} - 0^{\prime\prime} \\ 7^{\prime} - 6^{\prime\prime} \\ 8^{\prime} - 0^{\prime\prime} \\ 8^{\prime} - 6^{\prime\prime} \\ 8^{\prime} - 6^{\prime\prime} \\ 9^{\prime} - 0^{\prime\prime} \\ 9^{\prime} - 6^{\prime\prime} \\ 10^{\prime} - 0^{\prime\prime} \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 6' - 2'' 6' - 8'' 7' - 2'' 7' - 8'' 8' - 2'' 8' - 2'' 8' - 8'' 9' - 2'' 9' - 8''	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 11 12 12 12 13	No. Bars for 2 Posts 12 14 16 18 20 22 24 24 26	2' - 6" 2' - 6"	$\begin{array}{c} 7' \cdot 0'' \\ 7' \cdot 6'' \\ 8' \cdot 0'' \\ 8' \cdot 6'' \\ 9' \cdot 0'' \\ 9' \cdot 0'' \\ 9' \cdot 6'' \\ 10' \cdot 0'' \\ 10' \cdot 6'' \\ 11' \cdot 0'' \\ 11' \cdot 6'' \\ 11' \cdot 6'' \\ 12' \cdot 0'' \\ 12' \cdot 6'' \\ 13' \cdot 6'' \\ 13' \cdot 6'' \\ 14' \cdot 0'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.73 4.91 5.09	7' - 2" 7' - 8" 8' - 2" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 2" 13' - 2" 13' - 8"	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{'}-6^{''}\\ 5^{'}-6^{''}\\ 6^{'}-0^{''}\\ 6^{'}-6^{''}\\ 7^{'}-0^{''}\\ 7^{'}-6^{''}\\ 8^{'}-0^{''}\\ 8^{'}-6^{''}\\ 8^{'}-6^{''}\\ 9^{'}-6^{''}\\ 9^{'}-6^{''}\\ 10^{'}-0^{''}\\ 10^{'}-6^{''}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 6' - 2'' 6' - 8'' 7' - 2'' 7' - 8'' 8' - 2'' 8' - 8'' 8' - 2'' 9' - 8'' 9' - 2'' 9' - 8'' 10' - 2''	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 10 11 11 11 12 12 12 13 14	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28	2' - 6" 2' - 6"	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 6'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 6'' \\ 11' & 6'' \\ 12' & 0'' \\ 12' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 14' & 0'' \\ 14' & 6'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27	7' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 2" 10' - 2" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 13' - 2" 13' - 8" 14' - 2"	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{1}-6^{\prime\prime\prime}\\ 5^{\prime\prime}-6^{\prime\prime\prime}\\ 6^{\prime\prime}-0^{\prime\prime}\\ 6^{\prime\prime}-6^{\prime\prime}\\ 6^{\prime\prime}-6^{\prime\prime}\\ 7^{\prime\prime}-0^{\prime\prime}\\ 7^{\prime\prime}-6^{\prime\prime}\\ 8^{\prime\prime}-6^{\prime\prime}\\ 8^{\prime\prime}-6^{\prime\prime}\\ 9^{\prime\prime}-0^{\prime\prime}\\ 9^{\prime\prime}-6^{\prime\prime}\\ 10^{\prime\prime}-0^{\prime\prime}\\ 10^{\prime\prime}-6^{\prime\prime}\\ 11^{\prime\prime}-0^{\prime\prime}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56	Each Bar 4' - 2'' 4' - 8'' 5' - 2'' 6' - 2'' 6' - 8'' 7' - 2'' 7' - 8'' 8' - 2'' 8' - 8'' 9' - 2'' 9' - 2'' 9' - 2'' 10' - 2'' 10' - 8''	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 10 11 11 11 12 12 13 14 14	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28	2' - 6" 2' - 6"	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 0'' \\ 9' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 6'' \\ 12' & 0'' \\ 12' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 14' & 0'' \\ 14' & 6'' \\ 15' & 0'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45	7' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 2" 10' - 2" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 8" 13' - 2" 13' - 8" 14' - 2" 14' - 8"	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 0'' \\ 7' - 6'' \\ 8' - 6'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 9' - 6'' \\ 10' - 6'' \\ 10' - 6'' \\ 11' - 6'' \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 8" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 9 10 11 11 11 12 12 12 13 14 14 14	No. Bars for 2 Posts 12 14 16 18 20 22 22 24 26 28 30	2' - 6" 2' - 6"	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 0'' \\ 11' & 6'' \\ 12' & 6'' \\ 12' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 6'' \\ 14' & 0'' \\ 14' & 6'' \\ 15' & 0'' \\ 15' & 6'' \\ 15' & 6'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.36 4.35 4.73 4.91 5.09 5.27 5.45 5.64	7' - 2" 7' - 8" 8' - 2" 9' - 8" 9' - 2" 10' - 2" 10' - 8" 10' - 2" 11' - 8" 12' - 2" 12' - 8" 13' - 2" 14' - 8" 15' - 2"	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{'}-6^{''}\\ 5^{'}-0^{''}\\ 5^{'}-6^{''}\\ 6^{'}-0^{''}\\ 6^{'}-6^{''}\\ 7^{'}-0^{''}\\ 7^{'}-6^{''}\\ 8^{'}-6^{''}\\ 8^{'}-6^{''}\\ 9^{'}-0^{''}\\ 9^{'}-6^{''}\\ 9^{'}-0^{''}\\ 9^{'}-6^{''}\\ 10^{'}-6^{''}\\ 10^{'}-6^{''}\\ 11^{'}-0^{''}\\ 11^{'}-6^{''}\\ 12^{'}-0^{''}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 2" 8' - 2" 9' - 2" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 11 12 12 12 13 14 14 15 15	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28 30 30	$\begin{array}{c} 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \\ 2' - 6'' \end{array}$	$\begin{array}{c} 7' \cdot 0'' \\ 7' \cdot 6'' \\ 8' \cdot 0'' \\ 8' \cdot 0'' \\ 9' \cdot 0'' \\ 9' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 6'' \\ 11' \cdot 0'' \\ 11' \cdot 6'' \\ 11' \cdot 6'' \\ 12' \cdot 6'' \\ 13' \cdot 0'' \\ 13' \cdot 6'' \\ 13' \cdot 0'' \\ 13' \cdot 6'' \\ 14' \cdot 0'' \\ 14' \cdot 6'' \\ 15' \cdot 6'' \\ 15' \cdot 6'' \\ 16' \cdot 0'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 11' \cdot 8'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 14' \cdot 2'' \\ 14' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 8'' \end{array}$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{'}-6^{''}\\ 5^{'}-6^{''}\\ 6^{'}-0^{''}\\ 6^{'}-6^{''}\\ 7^{'}-6^{''}\\ 7^{'}-6^{''}\\ 8^{'}-0^{''}\\ 8^{'}-6^{''}\\ 9^{'}-0^{''}\\ 9^{'}-6^{''}\\ 10^{'}-0^{''}\\ 10^{'}-6^{''}\\ 11^{'}-0^{''}\\ 11^{'}-6^{''}\\ 12^{'}-0^{''}\\ 12^{'}-6^{''}\\ 12^{'}-6^{''}\\ 12^{'}-6^{''}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.34 1.40 1.45	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 9' - 2" 9' - 2" 9' - 2" 10' - 2" 10' - 2" 11' - 8" 12' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 12 12 12 13 14 14 15 15 16	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28 30 30 32	2' - 6'' 2' - 6''	$\begin{array}{c} 7' \cdot 0'' \\ 7' \cdot 6'' \\ 8' \cdot 0'' \\ 8' \cdot 0'' \\ 9' \cdot 0'' \\ 9' \cdot 0'' \\ 10' \cdot 0'' \\ 10' \cdot 0'' \\ 11' \cdot 0'' \\ 11' \cdot 0'' \\ 11' \cdot 0'' \\ 11' \cdot 6'' \\ 11' \cdot 0'' \\ 12' \cdot 0'' \\ 12' \cdot 0'' \\ 13' \cdot 0'' \\ 15' \cdot 0'' \\ 15' \cdot 0'' \\ 15' \cdot 0'' \\ 15' \cdot 0'' \\ 16' \cdot 0'' \\ 16' \cdot 0'' \\ 16' \cdot 0'' \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 2'' \\ 9' \cdot 2'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 8'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 12' \cdot 2'' \\ 12' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 14' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 2'' \\ 15' \cdot 2'' \\ 16' \cdot 2'' \end{array}$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{'}-6^{''}\\ 5^{'}-6^{''}\\ 6^{'}-0^{''}\\ 6^{'}-6^{''}\\ 7^{'}-0^{''}\\ 7^{'}-6^{''}\\ 8^{'}-0^{''}\\ 8^{'}-0^{''}\\ 8^{'}-6^{''}\\ 9^{'}-0^{''}\\ 9^{'}-6^{''}\\ 10^{'}-6^{''}\\ 10^{'}-6^{''}\\ 10^{'}-6^{''}\\ 11^{'}-0^{''}\\ 11^{'}-6^{''}\\ 12^{'}-6^{''}\\ 12^{'}-6^{''}\\ 13^{'}-0^{''}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91 3.03	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 8" 7' - 2" 7' - 8" 8' - 2" 8' - 8" 8' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 11 12 12 13 14 14 14 15 15 16 17	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28 30 30 32 34	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 6'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 6'' \\ 11' & 6'' \\ 12' & 0'' \\ 12' & 0'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 13' & 0'' \\ 15' & 6'' \\ 15' & 0'' \\ 16' & 6'' \\ 17' & 0'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00 6.18	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 8'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 12' \cdot 2'' \\ 12' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 14' \cdot 8'' \\ 14' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 2'' \\ 15' \cdot 2'' \\ 15' \cdot 2'' \\ 16' \cdot 2'' \\ 16' \cdot 8'' \end{array}$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4^{1}-6^{\prime\prime}\\ 5^{\prime}-0^{\prime\prime}\\ 5^{\prime}-6^{\prime\prime}\\ 6^{\prime}-0^{\prime\prime}\\ 6^{\prime}-6^{\prime\prime}\\ 7^{\prime}-0^{\prime\prime}\\ 7^{\prime}-6^{\prime\prime}\\ 8^{\prime}-0^{\prime\prime}\\ 8^{\prime}-6^{\prime\prime}\\ 9^{\prime}-0^{\prime\prime}\\ 9^{\prime}-6^{\prime\prime}\\ 10^{\prime}-6^{\prime\prime}\\ 10^{\prime}-6^{\prime\prime}\\ 10^{\prime}-6^{\prime\prime}\\ 11^{\prime}-6^{\prime\prime}\\ 11^{\prime}-6^{\prime\prime}\\ 12^{\prime}-6^{\prime\prime}\\ 12^{\prime}-6^{\prime\prime}\\ 13^{\prime}-6^{\prime\prime}\\ 13^{\prime}-6^{\prime\prime}\\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51 1.57	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.24 2.33 2.44 2.56 2.68 2.79 2.91 3.03 3.14	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 8" 7' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 13' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 10 11 11 12 12 12 13 14 14 14 15 15 16 17 17	No. Bars for 2 Posts 12 14 16 18 20 22 24 26 28 30 30 32 34	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 0'' \\ 9' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 10' & 0'' \\ 11' & 0'' \\ 11' & 0'' \\ 11' & 0'' \\ 12' & 0'' \\ 12' & 0'' \\ 12' & 0'' \\ 13' &$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09 3.18	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00 6.18 6.36	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 9' \cdot 2'' \\ 9' \cdot 8'' \\ 10' \cdot 2'' \\ 10' \cdot 8'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 12' \cdot 2'' \\ 13' \cdot 2'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 14' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 8'' \\ 16' \cdot 2'' \\ 16' \cdot 8'' \\ 17' \cdot 2'' \end{array}$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 0'' \\ 8' - 6'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 10' - 0'' \\ 10' - 6'' \\ 11' - 0'' \\ 11' - 6'' \\ 11' - 6'' \\ 12' - 6'' \\ 13' - 0'' \\ 13' - 6'' \\ 14' - 0'' \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51 1.57 1.63	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91 3.03 3.14 3.26	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 10' - 2" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 8" 13' - 2" 13' - 8"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 9 10 11 11 11 12 12 12 13 14 14 14 15 15 16 17 17 17	No. Bars for 2 Posts 12 14 16 18 20 22 22 24 26 28 30 30 32 34 36	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & - 6'' \\ 8' & - 0'' \\ 8' & - 0'' \\ 9' & - 0'' \\ 10' & - 0'' \\ 10' & - 6'' \\ 11' & - 0'' \\ 11' & - 0'' \\ 11' & - 6'' \\ 12' & - 6'' \\ 12' & - 6'' \\ 13' & - 0'' \\ 13' & - 0'' \\ 13' & - 0'' \\ 13' & - 0'' \\ 15' & - 0'' \\ 15' & - 0'' \\ 15' & - 0'' \\ 15' & - 0'' \\ 16' & - 0'' \\ 17' & - 0'' \\ 18' & - 0'' \\ 18' & - 0'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09 3.18 3.27	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00 6.18 6.36 6.54	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 9' \cdot 8'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 8'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 11' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 8'' \\ 15' \cdot 2'' \\ 15' \cdot 8'' \\ 15' \cdot 2'' \\ 17' \cdot 8'' \\ 17' \cdot 2'' \\ 17' \cdot 8'' \end{array}$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 6'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 10' - 0'' \\ 10' - 6'' \\ 10' - 6'' \\ 11' - 6'' \\ 11' - 6'' \\ 12' - 6'' \\ 13' - 0'' \\ 13' - 6'' \\ 14' - 0'' \\ 14' - 6'' \\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51 1.57 1.63 1.69	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91 3.03 3.14 3.26 3.37	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 8" 9' - 2" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 8" 13' - 8" 14' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 12 12 12 13 14 14 14 15 15 16 17 17 17 18 18	No. Bars for 2 Posts 12 14 16 18 20 22 22 24 26 28 30 30 32 34 36 36	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 0'' \\ 11' & 6'' \\ 12' & 6'' \\ 12' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 15' & 0'' \\ 15' & 0'' \\ 15' & 6'' \\ 15' & 6'' \\ 16' & 0'' \\ 16' & 6'' \\ 17' & 0'' \\ 17' & 0'' \\ 18' & 0'' \\ 18' & 0'' \\ 18' & 6'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09 3.18 3.27 3.36	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00 6.18 6.36 6.54 6.73	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 15' $	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 0'' \\ 8' - 6'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 10' - 0'' \\ 10' - 6'' \\ 11' - 0'' \\ 11' - 6'' \\ 11' - 6'' \\ 12' - 6'' \\ 13' - 0'' \\ 13' - 6'' \\ 14' - 0'' \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51 1.57 1.63	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91 3.03 3.14 3.26	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 7' - 8" 8' - 2" 10' - 2" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 8" 13' - 2" 13' - 8"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 9 10 11 11 11 12 12 12 13 14 14 14 15 15 16 17 17 17	No. Bars for 2 Posts 12 14 16 18 20 22 22 24 26 28 30 30 32 34 36	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 0'' \\ 8' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 0'' \\ 11' & 6'' \\ 12' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 13' & 0'' \\ 14' & 0'' \\ 14' & 0'' \\ 15' &$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09 3.18 3.27 3.36 3.45	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.64 5.82 6.00 6.18 6.36 6.54 6.73 6.91	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 8'' \\ 11' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 13' \cdot 2'' \\ 15' \cdot$	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
Diameter 2' - 0" 2' - 0"	$\begin{array}{c} 4' - 6'' \\ 5' - 0'' \\ 5' - 6'' \\ 6' - 0'' \\ 6' - 6'' \\ 7' - 0'' \\ 7' - 6'' \\ 8' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 9' - 0'' \\ 9' - 6'' \\ 10' - 0'' \\ 10' - 6'' \\ 10' - 6'' \\ 11' - 6'' \\ 11' - 6'' \\ 12' - 6'' \\ 13' - 0'' \\ 13' - 6'' \\ 14' - 0'' \\ 14' - 6'' \\ \end{array}$	Conc. Vol. for 1 Post (CU YDS) 0.52 0.58 0.64 0.70 0.76 0.81 0.87 0.93 0.99 1.05 1.11 1.16 1.22 1.28 1.34 1.40 1.45 1.51 1.57 1.63 1.69	Conc. Vol. for 2 Posts (CU YDS) 1.05 1.16 1.28 1.40 1.51 1.63 1.75 1.86 1.98 2.09 2.21 2.33 2.44 2.56 2.68 2.79 2.91 3.03 3.14 3.26 3.37	Each Bar 4' - 2" 4' - 8" 5' - 2" 6' - 2" 6' - 2" 7' - 2" 7' - 8" 8' - 8" 9' - 2" 8' - 8" 9' - 2" 9' - 8" 10' - 2" 10' - 8" 11' - 2" 11' - 8" 12' - 2" 12' - 8" 13' - 8" 14' - 2"	Size 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	No. Bars for 1 Post 10	No. Bars for 2 Posts 20	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	No. Bars for 1 Post 6 7 8 8 9 9 9 10 11 11 12 12 12 13 14 14 14 15 15 16 17 17 17 18 18	No. Bars for 2 Posts 12 14 16 18 20 22 22 24 26 28 30 30 32 34 36 36	2' - 6'' 2' - 6''	$\begin{array}{c} 7' & 0'' \\ 7' & 6'' \\ 8' & 0'' \\ 8' & 6'' \\ 9' & 0'' \\ 9' & 0'' \\ 10' & 0'' \\ 10' & 6'' \\ 11' & 0'' \\ 11' & 0'' \\ 11' & 6'' \\ 12' & 6'' \\ 12' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 13' & 6'' \\ 13' & 0'' \\ 15' & 0'' \\ 15' & 0'' \\ 15' & 6'' \\ 15' & 6'' \\ 16' & 0'' \\ 16' & 6'' \\ 17' & 0'' \\ 17' & 0'' \\ 18' & 0'' \\ 18' & 0'' \\ 18' & 6'' \\ \end{array}$	1.27 1.36 1.45 1.55 1.64 1.73 1.82 1.91 2.00 2.09 2.18 2.27 2.36 2.45 2.55 2.64 2.73 2.82 2.91 3.00 3.09 3.18 3.27 3.36	2.55 2.73 2.91 3.09 3.27 3.45 3.64 3.82 4.00 4.18 4.36 4.55 4.73 4.91 5.09 5.27 5.45 5.64 5.82 6.00 6.18 6.36 6.54 6.73	$\begin{array}{c} 7' \cdot 2'' \\ 7' \cdot 8'' \\ 8' \cdot 2'' \\ 8' \cdot 8'' \\ 9' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 10' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 11' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 2'' \\ 12' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 13' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 13' \cdot 8'' \\ 14' \cdot 2'' \\ 15' $	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	***************************************

NOTES:

1. Use Grade 60 reinforcing steel.

D-754-5

ical	Reinforcing Steel		Horizontal Tie Bars				
	No. Bars	No. Bars	Size	No. Bars	No. Bars		
	for 1 Post	for 2 Posts	5120	for 1 Post	for 2 Posts		
	14	28	3	6	12		
	14	28	3	7	14		
	14	28	3	8	16		
	14	28	3	8	16		
	14	28	3	9	18		
	14	28	3	9	18		
	14	28	3	10	20		
	14	28	3	11	22		
	14	28	3	11	22		
	14	28	3	12	24		
	14	28	3	12	24		
	14	28	3	13	26		
	14	28	3	14	28		
	14	28	3	14	28		
	14	28	3	15	30		
	14	28	3	15	30		
	14	28	3	16	32		
	14	28	3	17	34		
	14	28	3	17	34		
	14	28	3	18	36		
	14	28	3	18	36		
	14	28	3	19	38		
	14	28	3	20	40		
	14	28	3	20	40		
	14	28	3	21	42		
	14	28	3	21	42		
	14	28	3	22	44		
	14	28	3	23	46		

cal	Reinforcing Steel		Horizontal Tie Bars				
	No. Bars	No. Bars	Size	No. Bars	No. Bars		
	for 1 Post	for 2 Posts	Size	for 1 Post	for 2 Posts		
	16	32	3	6	12		
	16	32	3	7	14		
	16	32	3	8	16		
	16	32	3	8	16		
	16	32	3	9	18		
	16	32	3	9	18		
	16	32	3	10	20		
	16	32	3	11	22		
	16	32	3	11	22		
Ĩ	16	32	3	12	24		
Ī	16	32	3	12	24		
	16	32	3	13	26		
	16	32	3	14	28		
	16	32	3	14	28		
I	16	32	3	15	30		
	16	32	3	15	30		
	16	32	3	16	32		
	16	32	3	17	34		
	16	32	3	17	34		
	16	32	3	18	36		
	16	32	3	18	36		
	16	32	3	19	38		
	16	32	3	20	40		
	16	32	3	20	40		
	16	32	3	21	42		
	16	32	3	21	42		
	16	32	3	22	44		
	16	32	3	23	46		
	16	32	3	23	46		
	16	32	3	24	48		
	16	32	3	24	48		
	16	32	3	25	50		

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