

DESCRIPTION	REVISIONS	DATE
RE - ISSUE		

DES. NO.	FILL	SPAN	HEIGHT	AREA SQ. FT.	DIMENSIONS										REINFORCING STEEL						QUANTITIES PER LINEAR FOOT OF BARREL	
					T ₁	T ₁ +1"	T ₂	V	P	A BARS		B BARS		C BARS		NO.	STEEL LBS.	CONC. CU. YD.				
										SIZE	SPAC.	LGTH.	SIZE	SPAC.	LGTH.				SIZE	SPAC.		
1	2'-20'	2'	2'	4	6"	7"	6"	3'-1"	3'-0"	#4	9"	2'-8"	#4	9"	3'-8"	#4	18"	12	19,298	0.194		
2	2'-20'	3'	2'	6	6"	7"	6"	3'-1"	4'-0"	#4	5 1/2"	3'-8"	#4	9"	4'-2"	#4	18"	12	26,128	0.235		
3	2'-20'	3'	3'	9	6"	7"	6"	4'-1"	4'-0"	#4	5 1/2"	3'-8"	#4	9"	5'-2"	#4	18"	12	27,910	0.272		
4	2'-20'	4'	2'	8	7"	8"	6"	3'-3"	5'-0"	#5	6 3/4"	4'-8"	#4	9"	4'-10"	#4	18"	14	35,931	0.306		
5	2'-20'	4'	3'	12	7"	8"	6"	4'-3"	5'-0"	#5	6 3/4"	4'-8"	#4	9"	5'-10"	#4	18"	14	37,713	0.343		
6	2'-20'	4'	4'	16	7"	8"	6"	5'-3"	5'-0"	#5	6 3/4"	4'-8"	#4	9"	6'-10"	#4	18"	16	40,830	0.380		
7	2'-18"	5'	2'	10	8"	9"	6"	3'-5"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	5'-6"	#4	18"	16	46,279	0.389		
8	2'-18"	5'	3'	15	8"	9"	6"	4'-5"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	6'-6"	#4	18"	16	48,061	0.426		
9	2'-18"	5'	4'	20	8"	9"	6"	5'-5"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	7'-6"	#4	18"	18	51,178	0.463		
10	2'-18"	5'	5'	25	8"	9"	7"	6'-5"	6'-2"	#5	5 1/2"	5'-10"	#4	9"	8'-6"	#4	18"	20	55,052	0.540		
11	2'-18"	5'	6'	30	8"	9"	8"	7'-5"	6'-4"	#5	5 1/2"	6'-0"	#5	9"	9'-6"	#4	18"	20	67,091	0.629		
12	2'-18"	5'	7'	35	8"	9"	9"	8'-5"	6'-6"	#5	5 1/2"	6'-2"	#5	9"	10'-6"	#4	18"	22	71,971	0.730		
13	20'	5'	2'	10	8 1/2"	9 1/2"	6"	3'-6"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	5'-7"	#4	18"	16	46,427	0.407		
14	20'	5'	3'	15	8 1/2"	9 1/2"	6"	4'-6"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	6'-7"	#4	18"	16	48,209	0.444		
15	20'	5'	4'	20	8 1/2"	9 1/2"	6"	5'-6"	6'-0"	#5	5 1/2"	5'-8"	#4	9"	7'-7"	#4	18"	18	51,326	0.482		
16	20'	5'	5'	25	8 1/2"	9 1/2"	7"	6'-6"	6'-2"	#5	5 1/2"	5'-10"	#5	9"	8'-7"	#4	18"	20	63,783	0.559		
17	20'	5'	6'	30	8 1/2"	9 1/2"	8"	7'-6"	6'-4"	#5	5 1/2"	6'-0"	#5	9"	9'-7"	#4	18"	20	67,322	0.648		
18	20'	5'	7'	35	8 1/2"	9 1/2"	9"	8'-6"	6'-6"	#5	5 1/2"	6'-2"	#5	9"	10'-7"	#4	18"	22	72,202	0.750		
19	2'-16'	6'	3'	18	9"	10"	6"	4'-7"	7'-0"	#6	7"	6'-8"	#4	9"	7'-2"	#4	18"	16	57,787	0.522		
20	2'-16'	6'	4'	24	9"	10"	6"	5'-7"	7'-0"	#6	7"	6'-8"	#4	9"	8'-2"	#4	18"	18	60,904	0.559		
21	2'-16'	6'	5'	30	9"	10"	7"	6'-7"	7'-2"	#6	7"	6'-10"	#4	9"	9'-2"	#4	18"	20	64,878	0.636		
22	2'-16'	6'	6'	36	9"	10"	8"	7'-7"	7'-4"	#6	7"	7'-0"	#5	9"	10'-2"	#4	18"	20	77,686	0.726		
23	2'-16'	6'	7'	42	9"	10"	9"	8'-7"	7'-6"	#6	7"	7'-2"	#5	9"	11'-2"	#4	18"	22	82,661	0.829		
24	2'-16'	6'	8'	48	9"	10"	10"	9'-7"	7'-8"	#6	7"	7'-4"	#5	8 1/2"	12'-2"	#4	18"	24	89,627	0.943		
25	18'	6'	3'	18	9 1/2"	10 1/2"	6"	4'-8"	7'-0"	#6	6 3/4"	6'-8"	#4	9"	7'-3"	#4	18"	16	60,576	0.543		
26	18'	6'	4'	24	9 1/2"	10 1/2"	6"	5'-8"	7'-0"	#6	6 3/4"	6'-8"	#4	9"	8'-3"	#4	18"	18	63,693	0.580		
27	18'	6'	5'	30	9 1/2"	10 1/2"	7"	6'-8"	7'-2"	#6	6 3/4"	6'-10"	#4	9"	9'-3"	#4	18"	20	67,733	0.658		
28	18'	6'	6'	36	9 1/2"	10 1/2"	8"	7'-8"	7'-4"	#6	6 3/4"	7'-0"	#5	9"	10'-3"	#4	18"	20	80,689	0.749		
29	18'	6'	7'	42	9 1/2"	10 1/2"	9"	8'-8"	7'-6"	#6	6 3/4"	7'-2"	#5	9"	11'-3"	#4	18"	22	85,731	0.852		
30	18'	6'	8'	48	9 1/2"	10 1/2"	10"	9'-8"	7'-8"	#6	6 3/4"	7'-4"	#5	8"	12'-3"	#4	18"	24	89,627	0.943		
31	20'	6'	3'	18	10"	11"	6"	4'-9"	7'-0"	#6	6 1/2"	6'-8"	#4	9"	7'-4"	#4	18"	16	60,721	0.565		
32	20'	6'	4'	24	10"	11"	6"	5'-9"	7'-0"	#6	6 1/2"	6'-8"	#4	9"	8'-4"	#4	18"	18	63,838	0.602		
33	20'	6'	5'	30	10"	11"	7"	6'-9"	7'-2"	#6	6 1/2"	6'-10"	#5	9"	9'-4"	#4	18"	20	77,213	0.681		
34	20'	6'	6'	36	10"	11"	8"	7'-9"	7'-4"	#6	6 1/2"	7'-0"	#5	9"	10'-4"	#4	18"	20	80,923	0.772		
35	20'	6'	7'	42	10"	11"	9"	8'-9"	7'-6"	#6	6 1/2"	7'-2"	#5	9"	11'-4"	#4	18"	22	85,963	0.875		
36	20'	6'	8'	48	10"	11"	10 1/2"	9'-9"	7'-9"	#6	6 1/2"	7'-5"	#5	8"	12'-4"	#4	18"	24	99,183	1.021		
37	2'-14'	8'	3'	24	11"	12"	6"	4'-11"	9'-0"	#7	7 1/2"	8'-8"	#4	9"	8'-6"	#4	18"	20	85,189	0.750		
38	2'-14'	8'	4'	32	11"	12"	6"	5'-11"	9'-0"	#7	7 1/2"	8'-8"	#4	9"	9'-6"	#4	18"	22	88,307	0.787		
39	2'-14'	8'	5'	40	11"	12"	7"	6'-11"	9'-2"	#7	7 1/2"	8'-10"	#4	9"	10'-6"	#4	18"	24	92,512	0.867		
40	2'-14'	8'	6'	48	11"	12"	8"	7'-11"	9'-4"	#7	7 1/2"	9'-0"	#4	9"	11'-6"	#4	18"	24	95,385	0.959		
41	2'-14'	8'	7'	56	11"	12"	9"	8'-11"	9'-6"	#7	7 1/2"	9'-2"	#5	9"	12'-6"	#4	18"	26	112,094	1.063		
42	2'-14'	8'	8'	64	11"	12"	10"	9'-11"	9'-8"	#7	7 1/2"	9'-4"	#5	9"	13'-6"	#4	18"	26	115,963	1.180		
43	16'	8'	3'	24	11 1/2"	12 1/2"	6"	5'-0"	9'-0"	#7	7"	8'-8"	#4	9"	8'-7"	#4	18"	20	89,384	0.778		
44	16'	8'	4'	32	11 1/2"	12 1/2"	6"	6'-0"	9'-0"	#7	7"	8'-8"	#4	9"	9'-7"	#4	18"	22	92,502	0.815		
45	16'	8'	5'	40	11 1/2"	12 1/2"	7"	7'-0"	9'-2"	#7	7"	8'-10"	#5	9"	10'-7"	#4	18"	24	107,371	0.895		
46	16'	8'	6'	48	11 1/2"	12 1/2"	8"	8'-0"	9'-4"	#7	7"	9'-0"	#5	9"	11'-7"	#4	18"	24	111,318	0.988		
47	16'	8'	7'	56	11 1/2"	12 1/2"	9"	9'-0"	9'-6"	#7	7"	9'-2"	#5	9"	12'-7"	#4	18"	26	116,606	1.093		
48	16'	8'	8'	64	11 1/2"	12 1/2"	10"	10'-0"	9'-8"	#7	7"	9'-4"	#5	9"	13'-7"	#4	18"	26	120,555	1.210		
49	18'	8'	3'	24	12"	13"	6"	5'-1"	9'-0"	#7	7"	8'-8"	#4	9"	8'-8"	#4	18"	20	89,534	0.806		
50	18'	8'	4'	32	12"	13"	7"	6'-1"	9'-2"	#7	7"	8'-10"	#4	9"	9'-8"	#4	18"	22	93,819	0.880		
51	18'	8'	5'	40	12"	13"	8"	7'-1"	9'-4"	#7	7"	9'-0"	#4	9"	10'-8"	#4	18"	24	98,106	0.967		
52	18'	8'	6'	48	12"	13"	9"	8'-1"	9'-6"	#7	7"	9'-2"	#5	9"	11'-8"	#4	18"	24	112,720	1.066		
53	18'	8'	7'	56	12"	13"	10"	9'-1"	9'-8"	#7	7"	9'-4"	#5	9"	12'-8"	#4	18"	26	118,006	1.178		
54	18'	8'	8'	64	12"	13"	11"	10'-1"	9'-10"	#7	7"	9'-6"	#5	9"	13'-8"	#4	18"	26	121,956	1.302		

DES. NO.	FILL	SPAN	HEIGHT	AREA SQ. FT.	DIMENSIONS										REINFORCING STEEL						QUANTITIES PER LINEAR FOOT OF BARREL	
					T ₁	T ₁ +1"	T ₂	V	P	A BARS		B BARS		C BARS		NO.	STEEL LBS.	CONC. CU. YD.				
										SIZE	SPAC.	LGTH.	SIZE	SPAC.	LGTH.				SIZE	SPAC.		
55	20'	8'	3'	24	12 1/2"	13 1/2"	6"	5'-2"	9'-0"	#7	6 1/2"	8'-8"	#5	9"	8'-9"	#4	18"	20	103,105	0.833		
56	20'	8'	4'	32	12 1/2"	13 1/2"	7"	6'-2"	9'-2"	#7	6 1/2"	8'-10"	#5	9"	9'-9"	#4	18"	22	108,480	0.908		
57	20'	8'	5'	40	12 1/2"	13 1/2"	8"	7'-2"	9'-4"	#7	6 1/2"	9'-0"	#5	9"	10'-9"	#4	18"	24	113,856	0.996		
58	20'	8'	6'	48	12 1/2"	13 1/2"	9"	8'-2"	9'-6"	#7	6 1/2"	9'-2"	#5	9"	11'-9"	#4	18"	24	117,895	1.096		
59	20'	8'	7'	56	12 1/2"	13 1/2"	10"	9'-2"	9'-8"	#7	6 1/2"	9'-4"	#5	9"	12'-9"	#4	18"	26	123,271	1.208		
60	20'	8'	8'	64	12 1/2"	13 1/2"	11"	10'-2"	9'-10"	#7	6 1/2"	9'-6"	#5	9"	13'-9"	#4	18"	26	127,308	1.332		
61	2'-10'	10'	4'	40	12"	13"	8"	6'-1"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	10'-8"	#4	18"	24	118,051	1.072		
62	2'-10'	10'	5'	50	12"	13"	8"	7'-1"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	11'-8"	#4	18"	26	121,168	1.121		
63	2'-10'	10'	6'	60	12"	13"	8"	8'-1"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	12'-8"	#4	18"	26	122,951	1.171		
64	2'-10'	10'	7'	70	12"	13"	9"	9'-1"	11'-4"	#7	6 1/2"	11'-2"	#4	9"	13'-8"	#4	18"	28	127,323	1.276		
65	2'-10'	10'	8'	80	12"	13"	10"	10'-1"	11'-4"	#7	6 1/2"	11'-4"	#4	9"	14'-8"	#4	18"	30	131,698	1.394		
66	2'-10'	10'	9'	90	12"	13"	10"	11'-1"	11'-4"	#7	6 1/2"	11'-4"	#5	9"	15'-8"	#4	18"	30	149,446	1.456		
67	2'-10'	10'	10'	100	12"	13"	12"	12'-1"	12'-0"	#7	6 1/2"	11'-8"	#5	9"	16'-8"	#4	18"	32	155,778	1.667		
68	12'	10'	4'	40	12 1/2"	13 1/2"	8"	6'-4"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	10'-9"	#4	18"	24	118,198	1.107		
69	12'	10'	5'	50	12 1/2"	13 1/2"	8"	7'-2"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	11'-9"	#4	18"	26	121,317	1.156		
70	12'	10'	6'	60	12 1/2"	13 1/2"	8"	8'-2"	11'-4"	#7	6 1/2"	11'-0"	#4	9"	12'-9"	#4	18"	26	123,099	1.206		
71	12'	10'	7'	70	12 1/2"	13 1/2"	8"	9'-2"	11'-4"	#7	6 1/2"	11'-0										