Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	ble 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footing					
	Soil Bearing		red Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity		Stress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 10" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	0F 2	(19,190)	122.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9" E/W
	_	85.3	(19,190)	123.7	(27,820)	42 X 42 X 9	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
			( -,,		(,,		3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
		210.7	(47.200)	20F.C	(68.710)	CC!! » CC!! » 13!!	11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	•						2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)						5 - 10M	@ 9" E/W
cre		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
20 MPa concrete		110 6	(22.420)	2155	(40.450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
ас		148.6	(33,420)	215.5	(48,450)	48" x 48" x 11"	4 - 15M	@ 14" E/W
AP.		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6'' E/W
0			( , ,		(- //		5 - 15M	@ 12" E/W @ 9" E/W
2		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M 2 - 15M	@ 9" E/W @ 18" E/W
	-						4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	125 (2.610)	104 5	(22.500)	151.5	(24.070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" X 36" X 9"	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7'' E/W
	-		(=-,==-,		(10,010)		3 - 15M	@ 18" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7" E/W
							3 - 10M	@ 14" E/W @ 9" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W
	-	07.0	(10.500)	120.2	(20, 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W
		87.0	(19,580)	126.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
			(,,		(10,000)		3 - 15M	@ 15" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M 3 - 15M	@ 7" E/W
							8 - 10M	@ 18" E/W @ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		111.1	(25.000)	161.6	(26.240)	2411 2411 4011	4 - 10M	@ 6" E/W
	_	111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	3 - 15M	@ 9'' E/W
	300 (6,270)	174.1	(39,160)	252.5	5 (56,780)	30" x 30" x 11"	5 - 10M	@ 6" E/W
			(,200,		(), 00)		4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M	@ 6" E/W
							4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018

- 1. Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- 5. Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

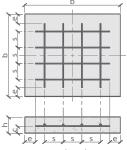
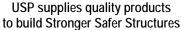
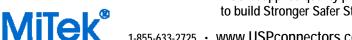


Figure 1. Rebar layout



Oct. 31, 2016





Use in conjunction with USP Adjustable Support Columns JP, T2JP series

	Ta	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	crete Stre	ngth
			Max. Footin					
	Bearing		ed Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
	pacity		tress Design)		tes Design)	Dimensions		pecifications
kPa	a (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
			,		,		2 - 15M	@ 19.5" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	4 - 10M	@ 10" E/W
							2 - 15M	@ 19.5" E/V
		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	5 - 10M	@ 9" E/W
75	(1 570)						3 - 15M 6 - 10M	@ 18" E/W @ 8" E/W
/3	(1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	3 - 15M	
							7 - 10M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	4 - 15M	@ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/V
							11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•	50.0					3 - 10M	@ 12" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•	02.6	(10.000)	121.2	(27.200)	201 - 201 - 01	4 - 10M	@ 10" E/W
	100 (2,090) -	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	2 - 15M	@ 19.5" E/V
100		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
		113.6	(23,380)	103.0	(37,100)	42 X 42 X 9	3 - 15M	@ 18" E/W
		148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
		140.0	(33,420)	213.3	(40,430)	40 X 40 X 10	4 - 15M	@ 14" E/W
		188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	8 - 10M	@ 6.5" E/W
							4 - 15M	@ 16" E/W
		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
							2 - 15M	@ 19.5" E/V
125	(2.610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M 3 - 15M	@ 7.5" E/W
123	(2,610)						6 - 10M	@ 15" E/W @ 7" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	3 - 15M	@ 7 L/W @ 18" E/W
	•						7 - 10M	@ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	4 - 15M	@ 14" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•						3 - 10M	@ 12" E/W
		87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•	125.4	(20, 200)	101.0	(40,000)	2011 2011 011	5 - 10M	@ 7.5" E/W
150	(3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 9"	3 - 15M	@ 15" E/W
	•	170.7	(20.200)	247 5	/FF 6F0\	42" x 42" x 11"	6 - 10M	@ 7" E/W
	_	170.7	(38,380)	247.5	(55,650)	42 X 42 X 11	3 - 15M	@ 18" E/W
	•	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	8 - 10M	@ 6" E/W
		£££.3	(50,150)	323.3	(72,000)	-FU A +U A 12	4 - 15M	@ 14" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 9"	4 - 10M	@ 6'' E/W
			(==,000)		(==,0.0)		3 - 15M	@ 9" E/W
300	(6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 10M	@ 8" E/W
	(-,,		(,)		(//		3 - 15M	@ 12" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 12"	6 - 10M	@ 6" E/W
1			. ,,	-	. , -,	-	4 - 15M	@ 10" E/W





#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- Refer to Table 2 for footing size
   (b x b x h) and rebar spacing (s).
   Footing height (h) indicates the
   depth of footing below the
   column base plate. Rebar edge
   distance (e) and depth of concrete
   below rebar (c) shall be no less than 3".

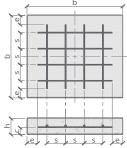


Figure 1. Rebar layout



Oct. 31, 2016



MiTek®

Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	ble 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footin					
	Soil Bearing		ed Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity		tress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•						4 - 10M	@ 10" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	85.3	(10.100)	123.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9" E/W
		65.5	(19,190)	123.7	(27,820)	42 842 89	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8" E/W
	•						3 - 15M	@ 19.5" E/W @ 8" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
	•	210.7	(47.200)	20F.C	(68.710)	CC!! » CC!! » 13!!	11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	-						2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)						5 - 10M	@ 9" E/W
cre	100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
20 MPa concrete		148.6	(22.420)	215.5	(40.450)	48" x 48" x 10"	7 - 10M	@ 7" E/W
ac		146.0	(33,420)	213.3	(48,450)	48" x 48" x 11"	4 - 15M	@ 14" E/W
A P		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6" E/W
0							5 - 15M	@ 12" E/W @ 9" E/W
7		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M 2 - 15M	@ 18" E/W
	•						4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	125 (2.610)	104 F	(22 500)	151 5	(24.070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	30 X 30 X 9	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7" E/W
							3 - 15M	@ 18" E/W @ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7'' E/W @ 14'' E/W
							3 - 10M	@ 9" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W
	•	87.0	(10 590)	126.2	(28 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W
	-	67.0	(19,580)	120.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
							3 - 15M	@ 15" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M 3 - 15M	@ 7" E/W @ 18" E/W
	•						8 - 10M	@ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		111 /	(2E 060)	161 6	(26.240)	24" x 24" x 10"	4 - 10M	@ 6" E/W
		111.4	(25,060)	161.6	(36,340)	24 X 24 X 1U	3 - 15M	@ 9" E/W
	300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	5 - 10M	@ 6" E/W
	, -,		. ,,	-	, ,,	-	4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M 4 - 15M	@ 6" E/W @ 10" E/W
							4 - 131/1	₩ IU E/VV

Exp. Dec. 31, 2018

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal
  Portland cement, Type 10 or
  Type 50 as required, slump +/75 mm (3"), entrained air 4-7%,
  maximum aggregate 20 mm (3/4")
  diameter, minimum strength of
  20 MPa (2,900 psi) at 28 days.
- Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

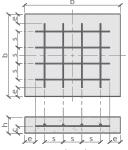
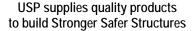


Figure 1. Rebar layout



Oct. 31, 2016





Use in conjunction with USP Adjustable Support Columns JP, T2JP series

	Ta	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	crete Stre	ngth
			Max. Footin					
	Bearing		ed Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
	pacity		tress Design)		tes Design)	Dimensions		pecifications
kPa	a (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
			,		,		2 - 15M	@ 19.5" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	4 - 10M	@ 10" E/W
							2 - 15M	@ 19.5" E/V
		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	5 - 10M	@ 9" E/W
75	(1 570)						3 - 15M 6 - 10M	@ 18" E/W @ 8" E/W
/3	(1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	3 - 15M	
							7 - 10M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	4 - 15M	@ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/V
							11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•	50.0					3 - 10M	@ 12" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•	02.6	(10.000)	121.2	(27.200)	201 - 201 - 01	4 - 10M	@ 10" E/W
	100 (2,090) -	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	2 - 15M	@ 19.5" E/V
100		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
		113.6	(23,380)	103.0	(37,100)	42 X 42 X 9	3 - 15M	@ 18" E/W
		148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
		140.0	(33,420)	213.3	(40,430)	40 X 40 X 10	4 - 15M	@ 14" E/W
		188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	8 - 10M	@ 6.5" E/W
							4 - 15M	@ 16" E/W
		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
							2 - 15M	@ 19.5" E/V
125	(2.610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M 3 - 15M	@ 7.5" E/W
123	(2,610)						6 - 10M	@ 15" E/W @ 7" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	3 - 15M	@ 7 L/W @ 18" E/W
	•						7 - 10M	@ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	4 - 15M	@ 14" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•						3 - 10M	@ 12" E/W
		87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•	125.4	(20, 200)	101.0	(40,000)	2011 2011 011	5 - 10M	@ 7.5" E/W
150	(3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 9"	3 - 15M	@ 15" E/W
	•	170.7	(20.200)	247 5	/FF 6F0\	42" x 42" x 11"	6 - 10M	@ 7" E/W
	_	170.7	(38,380)	247.5	(55,650)	42 X 42 X 11	3 - 15M	@ 18" E/W
	•	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	8 - 10M	@ 6" E/W
		£££.3	(50,150)	323.3	(72,000)	-FU A +U A 12	4 - 15M	@ 14" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 9"	4 - 10M	@ 6'' E/W
			(==,000)		(==,0.0)		3 - 15M	@ 9" E/W
300	(6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 10M	@ 8" E/W
	(-,,		(,)		(//		3 - 15M	@ 12" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 12"	6 - 10M	@ 6" E/W
1			. ,,	-	. , -,	-	4 - 15M	@ 10" E/W





#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- Refer to Table 2 for footing size
   (b x b x h) and rebar spacing (s).
   Footing height (h) indicates the
   depth of footing below the
   column base plate. Rebar edge
   distance (e) and depth of concrete
   below rebar (c) shall be no less than 3".

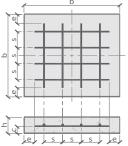


Figure 1. Rebar layout







Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	able 1. Co	oncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footir	<u> </u>				
	Soil Bearing		red Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
	Capacity	(Working S	Stress Design)	(Limit Sta	tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
							2 - 15M	@ 19.5" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	4 - 10M 2 - 15M	@ 10" E/W @ 19.5" E/W
							5 - 10M	@ 9'' E/W
		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	3 - 15M	@ 18" E/W
	75 (1,570)				(		6 - 10M	@ 8" E/W
	, , ,	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	3 - 15M	@ 19.5" E/W
		141.0	(21.720)	204 5	(45,000)	F4" v F4" v 10"	7 - 10M	@ 8" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	4 - 15M	@ 16" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
		17 4.1	(33,100)	232.3	(50,700)	00 X 00 X 11	5 - 15M	@ 13.5" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	11 - 10M	@ 6" E/W
							6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
) te	100 (2,090)	442.0	(25.500)	465.0	(27.400)	4211 4211 011	5 - 10M	@ 9" E/W
cre		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
on		148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
a		2.0.0	(33):20)	210.0	(10)100)	48" x 48" x 11"	4 - 15M	@ 14" E/W
Ν		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6" E/W
20 MPa concrete							5 - 15M 3 - 10M	@ 12" E/W @ 9" E/W
2		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 15M	@ 18" E/W
			(				4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
	123 (2,010)	104.5	(23,300)	131.3	(34,070)	30 × 30 × 3	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7" E/W
					,	4011 4011 4411	3 - 15M	@ 18" E/W @ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7" E/W @ 14" E/W
							3 - 10M	@ 9" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W
		07.0	(40.500)	426.2	(20, 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W
		87.0	(19,580)	126.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
	150 (5,150)	123.4	(20,200)	101.0	(40,000)	30 X30 X10	3 - 15M	@ 15" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M	@ 7" E/W
							3 - 15M 8 - 10M	@ 18" E/W @ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
							4 - 10M	@ 6" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	3 - 15M	@ 9" E/W
	300 (6,270)	17/1	(20.160)	2525	(E6 700)	20" v 20" v 11"	5 - 10M	@ 6" E/W
	300 (0,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M	@ 6" E/W
			(==,555)		(,)		4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018

- 1. Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- 5. Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

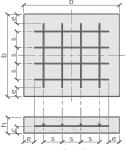
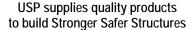


Figure 1. Rebar layout









Use in conjunction with USP Adjustable Support Columns JP, T2JP series

Т	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	ncrete Stre	ngth
		Max. Footin					
Soil Bearing	Unfactor	ed Load, P <sub>s</sub>	Factore	d Load, P <sub>f</sub>	Min. Footing		
Capacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions	Rebar S	pecifications
kPa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	43.5	(0.700)	62.1	(14 200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	45.5	(9,790)	63.1	(14,200)	30 X 30 X 9	2 - 15M	@ 19.5" E/\
	62.7	(14.100)	00.0	(20.440)	36" x 36" x 9"	4 - 10M	@ 10" E/W
	62.7	(14,100)	90.9	(20,440)	30 X 30 X 9	2 - 15M	@ 19.5" E/\
	85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
	65.5	(19,190)	123.7	(27,820)	42 842 89	3 - 15M	@ 18" E/W
75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
	111.4	(23,000)	101.0	(30,340)	40 740 73	3 - 15M	@ 19.5" E/\
	141.0	(21 720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8'' E/W
	141.0	(31,720)	204.3	(43,990)	34 X 34 X 10	4 - 15M	@ 16" E/W
	174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
	174.1	(33,100)	232.3	(30,780)	00 X 00 X 11	5 - 15M	@ 13.5" E/\
	210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	11 - 10M	@ 6'' E/W
	210.7	(47,300)	303.0	(00,710)	00 X 00 X 12	6 - 15M	@ 12" E/W
	37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
		(13,030)	04.1	(10,550)	30 X30 X3	2 - 15M	@ 19.5" E/\
	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	4 - 10M	@ 10'' E/W
		(10,000)	121.2	(27,200)	30 X30 X3	2 - 15M	@ 19.5" E/
100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
		(23,300)	103.0	(37,100)	42 X 42 X 5	3 - 15M	@ 18" E/W
	148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
		(33,420)	213.3	(40,430)	40 X 40 X 10	4 - 15M	@ 14" E/W
	188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	8 - 10M	@ 6.5'' E/W
		(,,				4 - 15M	@ 16" E/W
	46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8'' E/W
						2 - 15M	@ 19.5" E/\
	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
125 (2,610)		,,				3 - 15M	@ 15" E/W
	142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7'' E/W
						3 - 15M	@ 18" E/W
	185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	7 - 10M	@ 7" E/W
		(10 =00)		(10.170)		4 - 15M	@ 14" E/W
1	55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
1	87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	3 - 10M	@ 12" E/W
		·				2 - 15M	@ 19.5" E/V
150 (2.120)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 9"	5 - 10M	
150 (3,130)						3 - 15M	@ 15" E/W
	170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M	@ 7" E/W
						3 - 15M	@ 18" E/W
1	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	8 - 10M	@ 6" E/W
-						4 - 15M 4 - 10M	@ 14" E/W @ 6" E/W
1	111.4	(25,060)	161.6	(36,340)	24" x 24" x 9"	4 - 10M 3 - 15M	@ 6 E/W @ 9'' E/W
1						4 - 10M	@ 8" E/W
300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	3 - 15M	@ 12" E/W
						6 - 10M	@ 6" E/W
	250.8	(56,390)	363.7	(81,770)	36" x 36" x 12"	4 - 15M	@ 10" E/W
<u> </u>						4 - 131/1	@ 10 E/W





#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 2 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

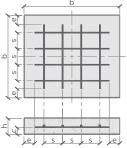


Figure 1. Rebar layout





Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	able 1. Co	ncrete Foot	nmendatio	ns, 20 MPa Cor	crete Stre	ngth	
			Max. Footin					
	Soil Bearing		ed Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
	Capacity	-	Stress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M 2 - 15M	@ 12" E/W @ 19.5" E/W
	•						4 - 10M	@ 19.5 L/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	05.0	(40.400)	422.7	(27.020)	4211 4211 011	5 - 10M	@ 9" E/W
		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8" E/W
		111.7	(23,000)	101.0	(30,340)	40 X 40 X 3	3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8'' E/W
					,		4 - 15M	@ 16" E/W @ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M 5 - 15M	@ 6.5" E/W @ 13.5" E/W
	•						11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0		84.1		30" x 30" x 9"	3 - 10M	@ 12" E/W
		36.0	(13,050)	04.1	(18,930)	30 X 30 X 9	2 - 15M	@ 19.5" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	4 - 10M	@ 10" E/W
e			(10,000)		(27,200)		3 - 15M	@ 15" E/W
ret	100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9" E/W
nc						48" x 48" x 10"	3 - 15M 7 - 10M	@ 18" E/W @ 7" E/W
CO		148.6	(33,420)	215.5	(48,450)	48" x 48" x 11"	4 - 15M	@ 14" E/W
20 MPa concrete		100.1	(42.200)	272.7	(64.220)		9 - 10M	@ 6" E/W
Σ		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	5 - 15M	@ 12" E/W
20		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M	@ 9'' E/W
		-101	(10,110)	07.5	(13,140)	24 724 73	2 - 15M	@ 18" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
							2 - 15M 5 - 10M	@ 19.5" E/W @ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	3 - 10M	@ 7.5 L/W @ 15" E/W
							6 - 10M	@ 7" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	3 - 15M	@ 18" E/W
	•	185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	7 - 10M	@ 7" E/W
		103.0	(41,770)	203.4	(00,370)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	3 - 10M	@ 9'' E/W
					,		2 - 15M	@ 18" E/W @ 8" E/W
		87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	4 - 10M 3 - 15M	@ 8" E/W @ 12" E/W
	,						5 - 10M	@ 7.5" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	3 - 15M	@ 15" E/W
		170.7	(20, 200)	247.5	(FF (FO)	42" - 42" - 11"	6 - 10M	@ 7" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	3 - 15M	@ 18" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	8 - 10M	@ 6" E/W
			(33)133)	520.5	(, 2,000)		4 - 15M	@ 14" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	4 - 10M	@ 6" E/W
							3 - 15M 5 - 10M	@ 9" E/W @ 6" E/W
	300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 15M	@ 8" E/W
		2500	(56.333)	262 -	(04 == 0)	2611 2611 1211	6 - 10M	@ 6" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	4 - 15M	@ 10" E/W
								Evn Dog 21 2010

Exp. Dec. 31, 2018

### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

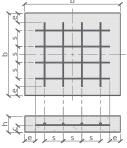
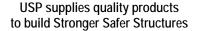


Figure 1. Rebar layout

#### APEGNB Certificate No. F0649



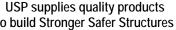


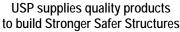


Use in conjunction with USP Adjustable Support Columns JP, T2JP series

Та	ible 2. Co			nmendatio	ns, 25 MPa Cor	ncrete Stre	ength
		Max. Footin					
Soil Bearing		ed Load, P <sub>s</sub>	Factore	d Load, P <sub>f</sub>	Min. Footing		
Capacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions	Rebar S	pecifications
kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
<u>-</u>	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
<u>-</u>	43.5	(3,730)	03.1	(14,200)	30 X 30 X 3	2 - 15M	@ 19.5" E/\
	62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	4 - 10M	@ 10'' E/W
<u>.</u>	02.7	(14,100)	30.3	(20,440)	30 X 30 X 3	2 - 15M	@ 19.5" E/\
	85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
<u>-</u>	05.5	(13,130)	123.7	(27,020)	42 842 83	3 - 15M	@ 18" E/W
75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
<u>-</u>	111.4	(23,000)	101.0	(30,340)	40 740 73	3 - 15M	@ 19.5" E/\
	141.0	(21 720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8'' E/W
_	141.0	(31,720)	204.3	(43,990)	34 X 34 X 10	4 - 15M	@ 16" E/W
	174.1	(20.160)	252.5	(56.790)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
	1/4.1	(39,160)	232.3	(56,780)	00 X 00 X 11	5 - 15M	@ 13.5" E/\
-	210.7	(47,380)	305.6	(69.710)	66" x 66" x 12"	11 - 10M	@ 6'' E/W
	210.7	(47,360)	303.0	(68,710)	00 X 00 X 12	6 - 15M	@ 12" E/W
,	37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
-	E9.0	(12.050)	04.1	(19.020)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	58.0	(13,050)	84.1	(18,930)	30 X 30 X 9	2 - 15M	@ 19.5" E/\
-	93.6	(10.000)	121.2	(27.200)	2011 11 2011 11 011	4 - 10M	@ 10" E/W
	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	2 - 15M	@ 19.5" E/\
100 (2,090)	442.0	(25.500)	165.0	(27.400)	4211 4211 011	5 - 10M	@ 9" E/W
.,,,	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
-	140.6	(22.420)	245.5	(40.450)	4011 4011 4011	7 - 10M	@ 7" E/W
-	148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	4 - 15M	@ 14" E/W
	100.1	(42.200)	272.7	(64.220)	54U 54U 44U	8 - 10M	@ 6.5" E/W
	188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	4 - 15M	@ 16" E/W
	46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
-	70.5		105.2		2011 2011 011	4 - 10M	@ 8" E/W
	72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/\
-	404.5	(22.500)	454.5	(24.070)	2611 2611 011	5 - 10M	@ 7.5" E/W
125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	3 - 15M	@ 15" E/W
-	442.2	(24.000)	206.2	(46.270)	4211 4211 4211	6 - 10M	@ 7" E/W
	142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	3 - 15M	@ 18" E/W
-	105.0	(44.770)	250.4	(60.570)	4011 4011 4411	7 - 10M	@ 7" E/W
	185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	4 - 15M	@ 14" E/W
	55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
-	07.0		126.2		2011 2011 011	3 - 10M	@ 12" E/W
	87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	2 - 15M	@ 19.5" E/\
-	425.4	(20.200)	101.0	(40,000)	2611 2611 011	5 - 10M	@ 7.5" E/W
150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 9"	3 - 15M	@ 15" E/W
• • • •		<i>(</i> )				6 - 10M	@ 7" E/W
	170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	3 - 15M	@ 18" E/W
=		(=0.400)		( <b>70</b> 505)		8 - 10M	@ 6" E/W
	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
						4 - 10M	@ 6" E/W
	111.4	(25,060)	161.6	(36,340)	24" x 24" x 9"	3 - 15M	@ 9" E/W
-						4 - 10M	@ 8'' F/W
300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 10M 3 - 15M	@ 8" E/W @ 12" F/W
300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11" 36" x 36" x 12"	4 - 10M 3 - 15M 6 - 10M	@ 8" E/W @ 12" E/W @ 6" E/W

Exp. Dec. 31, 2018







#### Notes:

- 1. Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- 5. Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 2 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

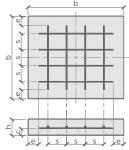


Figure 1. Rebar layout

**APEGNB** Certificate No. F0649





Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	ble 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footing					
	Soil Bearing		red Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity		Stress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 10'' E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	0F 2	(19,190)	122.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9" E/W
	_	85.3	(19,190)	123.7	(27,820)	42 X 42 X 9	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
			( -,,		(,,		3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
		210.7	(47.200)	20F.C	(68.710)	CC!! » CC!! » 13!!	11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	•						2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)						5 - 10M	@ 9" E/W
cre		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
20 MPa concrete		110 6	(22.420)	2155	(40.450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
ас		148.6	(33,420)	215.5	(48,450)	48" x 48" x 11"	4 - 15M	@ 14" E/W
AP.		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6'' E/W
0			( , ,		(- //		5 - 15M	@ 12" E/W @ 9" E/W
2		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M 2 - 15M	@ 9" E/W @ 18" E/W
	-						4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	125 (2.610)	104 5	(22.500)	151.5	(24.070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" X 36" X 9"	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7'' E/W
	-		(=-,==-,		(10,010)		3 - 15M	@ 18" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7" E/W
							3 - 10M	@ 14" E/W @ 9" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W
	-	07.0	(10 500)	120.2	(20, 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W
		87.0	(19,580)	126.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
			(,,		(10,000)		3 - 15M	@ 15" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M 3 - 15M	@ 7" E/W
							8 - 10M	@ 18" E/W @ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		111.1	(25.000)	161.6	(26.240)	2411 2411 4011	4 - 10M	@ 6" E/W
	_	111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	3 - 15M	@ 9'' E/W
	300 (6,270)	174.1	(39,160)	252.5	5 (56,780)	30" x 30" x 11"	5 - 10M	@ 6" E/W
			(,200,		(), 00)	J X.22	4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M	@ 6" E/W
							4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018

#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal
  Portland cement, Type 10 or
  Type 50 as required, slump +/75 mm (3"), entrained air 4-7%,
  maximum aggregate 20 mm (3/4")
  diameter, minimum strength of
  20 MPa (2,900 psi) at 28 days.
- Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- Refer to Table 1 for footing size
   (b x b x h) and rebar spacing (s).
   Footing height (h) indicates the
   depth of footing below the
   column base plate. Rebar edge
   distance (e) and depth of concrete
   below rebar (c) shall be no less than 3".

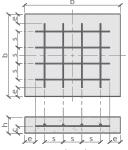


Figure 1. Rebar layout





Use in conjunction with USP Adjustable Support Columns JP, T2JP series

- 10	able 2. Co			nmendatio	ns, 25 MPa Cor	icrete stre	ingui
		Max. Footin					
Soil Bearing		ed Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
Capacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions		specifications
kPa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	43.3	(3,730)	03.1	(14,200)	30 X 30 X 3	2 - 15M	@ 19.5" E/
	62.7	(14 100)	00.0	(20.440)	20" " 20" " 0"	4 - 10M	@ 10" E/W
	62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/
	05.2	(40.400)	422.7	(27.020)	4211 4211 011	5 - 10M	@ 9" E/W
	85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	3 - 15M	@ 18'' E/W
75 (1,570)	444.4	(25.000)	464.6	(26.240)	4011 4011 011	6 - 10M	@ 8" E/W
	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	3 - 15M	@ 19.5" E/
						7 - 10M	@ 8" E/W
	141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	4 - 15M	@ 16" E/W
						9 - 10M	@ 6.5" E/V
	174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/
						11 - 10M	@ 6" E/W
	210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
	37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	37.1	(8,330)	33.6	(12,110)	24 X 24 X 3	3 - 10M	@ 13 E/W
	58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 12 L/W
						4 - 10M	@ 19.5 L/ @ 10'' E/W
	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"		
100 (2.000)						2 - 15M	@ 19.5" E/ @ 9" E/W
100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	
						3 - 15M	@ 18" E/W
	148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7" E/W
-						4 - 15M	@ 14" E/W
	188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	8 - 10M	@ 6.5" E/V
		(10.110)		(1= 110)		4 - 15M	@ 16" E/W
	46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
						2 - 15M	@ 19.5" E/
	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/V
125 (2,610)		( -,,		(- ,,		3 - 15M	@ 15" E/W
	142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7" E/W
		(======================================		(10)210)		3 - 15M	@ 18" E/W
	185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	7 - 10M	@ 7" E/W
						4 - 15M	@ 14" E/W
	55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	3 - 10M	@ 12" E/W
		(15,500)	120.2	(20,550)	30 X30 X3	2 - 15M	@ 19.5" E/
	125.4	(28,200)	181.8	(40,880)	36" x 36" x 9"	5 - 10M	@ 7.5'' E/V
150 (3,130)	123.4	(20,200)	101.0	(40,000)	30 X30 X3	3 - 15M	@ 15" E/W
	170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M	@ 7" E/W
	170.7	(30,300)	247.5	(55,050)	42 X 42 X 11	3 - 15M	@ 18'' E/W
	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	8 - 10M	@ 6" E/W
	444.3	(30,130)	343.3	(72,000)	+0 A +0 A 12	4 - 15M	@ 14" E/W
	111 /	(25.060)	161.6	(36.240)	24" x 24" x 9"	4 - 10M	@ 6" E/W
-	111.4	(25,060)	161.6	(36,340)	<u> </u>	3 - 15M	@ 9" E/W
		(20.460)	252.5	(56,780)	30" x 30" x 11"	4 - 10M	@ 8" E/W
200 (6.270)	1744			(5b /X(I)	311. A 311. A 11.		
300 (6,270)	174.1	(39,160)	252.5	(30,700)	30 × 30 × 11	3 - 15M	@ 12'' E/W
300 (6,270)	250.8	(56,390)	363.7	(81,770)	36" x 36" x 12"	3 - 15M 6 - 10M	@ 12" E/W @ 6" E/W





#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 2 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

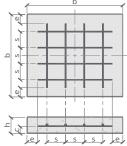


Figure 1. Rebar layout





Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	able 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footing					
	Soil Bearing		ed Load, P <sub>s</sub>		d Load, P <sub>f</sub>	Min. Footing		
	Capacity	-	stress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
	•	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•						4 - 10M	@ 19.5 L/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	05.0	(40.400)	422.7	(27.020)	4211 4211 011	5 - 10M	@ 9" E/W
		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
		111.4	(23,000)	101.0	(30,340)	40 740 73	3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8" E/W
			(- , -,		( -,,		4 - 15M	@ 16" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
	•						5 - 15M 11 - 10M	@ 13.5" E/W @ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	-						3 - 10M	@ 12" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	-						4 - 10M	@ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
ste	100 (2,090)	442.0	(25 500)	465.0	(27.400)	4211 4211 011	5 - 10M	@ 9'' E/W
Cre	· · · · · · · · · · · · · · · · · · ·	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
o		148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
20 MPa concrete		140.0	(33,420)	213.3	(48,430)	48" x 48" x 11"	4 - 15M	@ 14" E/W
/IP		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6" E/W
0			( :=,== ;		(=,===,		5 - 15M	@ 12" E/W
7		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M	@ 9" E/W
	•						2 - 15M 4 - 10M	@ 18" E/W @ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	-						5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	3 - 15M	@ 15" E/W
	•		(24.222)		(15.0=0)		6 - 10M	@ 7" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	3 - 15M	@ 18" E/W
	•	185.8	(41.770)	269.4	(60 F70)	48" x 48" x 11"	7 - 10M	@ 7'' E/W
		105.0	(41,770)	209.4	(60,570)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	3 - 10M	@ 9'' E/W
			(12,000)		(10)170)		2 - 15M	@ 18" E/W
		87.0	(19,580)	126.2	(28,390)	30" x 30" x 9"	4 - 10M	@ 8" E/W
							3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
	•						3 - 15M 6 - 10M	@ 15" E/W @ 7" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	3 - 15M	@ 18" E/W
	-						8 - 10M	@ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
			/				4 - 10M	@ 6" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	3 - 15M	@ 9'' E/W
	200 (6.270)	17/1	(20.160)	252 5	/E6 700\	20" v 20" v 11"	5 - 10M	@ 6" E/W
	300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	4 - 15M	@ 8" E/W
	•	250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M	@ 6" E/W
		230.0	(30,330)	303.7	(01,770)	20 X 20 X T2	4 - 15M	@ 10" E/W
								Fun Dog 21 2010

Exp. Dec. 31, 2018

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- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

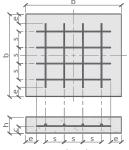


Figure 1. Rebar layout

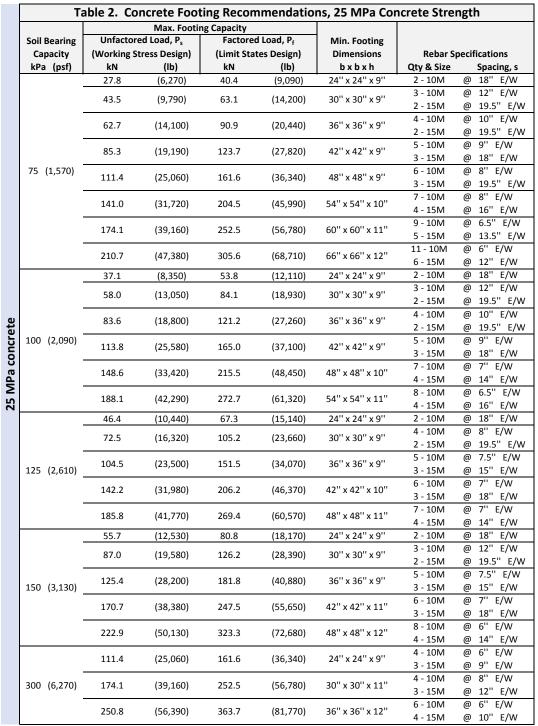


Oct. 31, 2016





Use in conjunction with USP Adjustable Support Columns JP, T2JP series



Exp. Dec. 31, 2018



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   Footing height (h) indicates the
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   distance (e) and depth of concrete
   below rebar (c) shall be no less than 3".

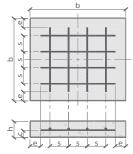
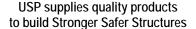


Figure 1. Rebar layout



Oct. 31, 2016





Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	ble 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footin					
	Soil Bearing		ed Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity		tress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•						4 - 10M	@ 10" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	85.3	(10.100)	123.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9" E/W
		65.5	(19,190)	123.7	(27,820)	42 842 89	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8" E/W
	•						3 - 15M	@ 19.5" E/W @ 8" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
	•	210.7	(47.200)	20F.C	(68.710)	CC!! » CC!! » 13!!	11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	•						2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)						5 - 10M	@ 9" E/W
cre	100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
20 MPa concrete		148.6	(22.420)	215.5	(40.450)	48" x 48" x 10"	7 - 10M	@ 7" E/W
ac		146.0	(33,420)	213.3	(48,450)	48" x 48" x 11"	4 - 15M	@ 14" E/W
A P		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6" E/W
0							5 - 15M	@ 12" E/W @ 9" E/W
7		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	3 - 10M 2 - 15M	@ 18" E/W
	•						4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	125 (2.610)	104 E	(22 500)	151 5	(24.070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	30 X 30 X 9	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7" E/W
							3 - 15M	@ 18" E/W @ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7'' E/W @ 14'' E/W
							3 - 10M	@ 9" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W
	•	87.0	(10 590)	126.2	(28 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W
	-	67.0	(19,580)	120.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
							3 - 15M	@ 15" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M 3 - 15M	@ 7" E/W @ 18" E/W
	•						8 - 10M	@ 6" E/W
		222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		111 /	(2E 060)	161 6	(26.240)	24" x 24" x 10"	4 - 10M	@ 6" E/W
		111.4	(25,060)	161.6	(36,340)	24 X 24 X 1U	3 - 15M	@ 9" E/W
	300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	5 - 10M	@ 6" E/W
	, -,		. ,,	-	, ,,	-	4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M 4 - 15M	@ 6" E/W @ 10" E/W
							4 - 131/1	₩ IU E/VV

Exp. Dec. 31, 2018

### Notes:

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- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- Refer to Table 1 for footing size (b x b x h) and rebar spacing (s).
   Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

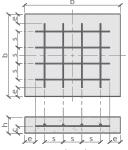


Figure 1. Rebar layout



Oct. 31, 2016





Use in conjunction with USP Adjustable Support Columns JP, T2JP series

	Ta	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	ncrete Stre	ngth
			Max. Footin	g Capacity				
Soil	l Bearing	Unfactor	ed Load, P <sub>s</sub>	Factore	d Load, P <sub>f</sub>	Min. Footing		
Ca	apacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions	Rebar S	pecifications
	Pa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
	., ,	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•						3 - 10M	@ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•	62.7	(4.4.400)	00.0	(20.440)	2011 2011 011	4 - 10M	@ 10" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	·-	85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
		63.3	(19,190)	123.7	(27,820)	42 842 89	3 - 15M	@ 18" E/W
75	(1,570)	111.4	(25,060)	161.6	(36,340)	48'' x 48'' x 9''	6 - 10M	@ 8" E/W
		111.1	(23,000)	101.0	(30,340)	40 X 40 X 5	3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8'' E/W
		1.1.0	(31), 23)	205	(13,330)	31 X31 X20	4 - 15M	@ 16" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
			(,,				5 - 15M	@ 13.5" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	11 - 10M	@ 6" E/W
		27.4		<b>52.0</b>			6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		58.0	(13,050) 8	84.1	(18,930)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 19.3 L/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
100	(2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9" E/W
	100 (2,030)						3 - 15M	@ 18" E/W
		148.6	(33,420)	215.5			7 - 10M	@ 7" E/W
					(48,450)	48" x 48" x 10"	4 - 15M	@ 14" E/W
	•	100 1	(42.200)	272.7	(61.330)	E4!! v E4!! v 44!!	8 - 10M	@ 6.5" E/W
		188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	4 - 15M	@ 16" E/W
		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8'' E/W
	-						2 - 15M	@ 19.5" E/W
		104.5	(23,500)	151.5		36" x 36" x 9"	5 - 10M	@ 7.5'' E/W
125	(2,610)						3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10" 48" x 48" x 11"	6 - 10M	@ 7" E/W
							3 - 15M	@ 18" E/W @ 7" E/W
		185.8	(41,770)	269.4	(60,570)		7 - 10M 4 - 15M	@ 7" E/W @ 14" E/W
		55.7	(12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	•						3 - 10M	@ 12" E/W
		87.0	87.0 (19,580)	126.2	(28,390)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
	•					5 - 10M	@ 7.5" E/W	
150	(3,130)	125.4	125.4 (28,200) 170.7 (38,380) 222.9 (50,130)	247.5	(40,880)	36" x 36" x 9"	3 - 15M	@ 15" E/W
	130 (3,130)	470.7				42" x 42" x 11" 48" x 48" x 12"	6 - 10M	@ 7" E/W
		1/0./					3 - 15M	@ 18" E/W
		222 D					8 - 10M	@ 6'' E/W
<u></u>		222.9	(50,130)	323.3	(72,680)	+0 X +0 X 1Z	4 - 15M	@ 14" E/W
		111 /	111.4 (25,060)	161.6	(36,340)	24" x 24" x 9"	4 - 10M	@ 6" E/W
		111.4		101.0	(30,340)	44 A44 AJ	3 - 15M	@ 9" E/W
300	(6.270)	174.1	174.1 (39,160) 252.5	252.5	(56,780)	30" x 30" x 11"	4 - 10M	@ 8" E/W
	300 (6,270)		232.3	(30,700)	20 V 20 V II	3 - 15M	@ 12" E/W	
			250.8 (56,390) 36	363.7	(81,770)	36" x 36" x 12"	6 - 10M	@ 6" E/W
				(,)		\- /··-/		4 - 15M





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- 6. Refer to Table 2 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

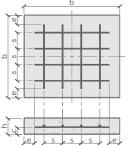


Figure 1. Rebar layout

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PROF

**PEO** 



Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	T	able 1. C	oncrete Foo	ting Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
				ng Capacity				
	Soil Bearing		red Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity	-	Stress Design)	-	tes Design)	Dimensions	-	pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 10" E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
		85.3	(19,190)	123.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
			(13,130)	123.7	(27,820)	42 142 13	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8" E/W
							3 - 15M	@ 19.5" E/W @ 8" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
		-					9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
		210.7	(47.290)	305.6	(68,710)	66" x 66" x 12"	11 - 10M	@ 6" E/W
			(47,380)	303.0	(08,710)		6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
		-					2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)		(22 200)	4.5= 0	(0= +00)		5 - 10M	@ 9" E/W
cre		113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
o		148.6	(33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
20 MPa concrete			(33,420)	213.3	(40,430)	48" x 48" x 11"	4 - 15M	@ 14" E/W
A N		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6" E/W @ 12" E/W
0							5 - 15M 3 - 10M	@ 12" E/W @ 9" E/W
7		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 15M	@ 18" E/W
		72.5	(16.220)	105.2	(22.660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)	30 X 30 X 9	2 - 15M	@ 19.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	5 - 10M	@ 7.5" E/W
			(==,===,		(0.70.07		3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M 3 - 15M	@ 7" E/W @ 18" E/W
						48" x 48" x 11"	7 - 10M	@ 7" E/W
		185.8	(41,770)	269.4	(60,570)	48" x 48" x 12"	4 - 15M	@ 14" E/W
		55.7	FF 7 (12 F20)	80.8	(18,170)	24" x 24" x 9"	3 - 10M	@ 9" E/W
			(12,530)	80.8	(10,170)	24 824 89	2 - 15M	@ 18" E/W
		87.0 (19,580)	(19,580)	126.2	(28,390)	30" x 30" x 9"	4 - 10M	@ 8" E/W
		-					3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M 3 - 15M	@ 7.5" E/W @ 15" E/W
		•					6 - 10M	@ 7" E/W
		170.7	(38,380)	247.5	(55,650)	42" x 42" x 11"	3 - 15M	@ 18" E/W
		222.0	(EO 120)	222.2	(72 690)	48" x 48" x 12"	8 - 10M	@ 6" E/W
		222.9	(50,130)	323.3	(72,680)	70 A 40 A 12	4 - 15M	@ 14" E/W
		111.4	(25,060)	161.6	(36,340)	24" x 24" x 10"	4 - 10M	@ 6" E/W
	300 (6,270)		,,,				3 - 15M 5 - 10M	@ 9'' E/W @ 6'' E/W
		174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	5 - 10M 4 - 15M	@ 6'' E/W @ 8'' E/W
			/FC 2001 255 =			0.011 0.011 1.011	6 - 10M	@ 6" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018

### USP supplies quality products to build Stronger Safer Structures

#### Notes:

- 1. Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- 5. Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 1 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

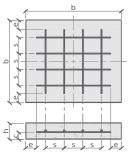


Figure 1. Rebar layout

**APEPEI** Permit No. A195

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2016



Oct. 31, 2016 DATE:

LICENSED PROFESSIONAL ENGINEER
PROVINCE OF PRINCE EDWARD ISLAND



Use in conjunction with USP Adjustable Support Columns JP, T2JP series

188.1 (42,290) 272.7 (61,320) 54" x 54" x 11" 4 - 15M @ 16" E/W  4 - 15M @ 16" E/W  7 - 10M @ 8" E/W  7 - 10M @ 8" E/W  2 - 15M @ 19.5" E/W  2 - 15M @ 19.5" E/W  3 - 15M @ 15" E/W  4 - 10M @ 7" E/W  3 - 15M @ 15" E/W  4 - 10M @ 7" E/W  3 - 15M @ 18" E/W  4 - 15M @ 15" E/W  4 - 15M @ 14" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W  4 - 15M @ 14" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 10M @ 12" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 15M @ 19.5" E/W  170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 6 - 10M @ 7" E/W  3 - 15M @ 15" E/W  222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 6 - 10M @ 6" E/W  3 - 15M @ 14" E/W  4 - 15M @ 15" E/W  3 - 15M @ 15" E/W  3 - 15M @ 19" E/W  3 - 15M @ 19" E/W  3 - 15M @ 19" E/W  3 - 15M @ 12" E/W  4 - 10M @ 8" E/W  3 - 15M @ 12" E/W  4 - 10M @ 8" E/W  3 - 15M @ 12" E/W  4 - 10M @ 8" E/W  3 - 15M @ 12" E/W  6 - 10M @ 6" E/W	Т	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	crete Stre	ngth
Capacity RPa   District   Capacity RPa   District   D								
	Soil Bearing			Factore	d Load, P <sub>f</sub>	Min. Footing		
	Capacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions		pecifications
	kPa (psf)	kN		kN				
19.5   19.7   19.5   19.7   19.5		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"		
		43.5	(9.790)	63.1	(14.200)	30" x 30" x 9"		
			(-,,					
Total   Tota		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"		
The color of the								
The color of the		85.3	(19,190)	123.7	(27,820)	42" x 42" x 9"		
111.4	75 (4.570)							
141.0   (31,720)   204.5   (45,990)   54" x 54" x 10"   7 - 10M   6 8" E/W   4 - 15M   61" E/W   5 - 15M   61" E/W   5 - 15M   61" E/W   5 - 15M   61" E/W   6 - 15M	/5 (1,5/0)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"		
141.0								
174.1   (39,160)   252.5   (56,780)   60" x 60" x 11"   9 - 10M   @ 6.5"   E/N     210.7		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"		
174.1   (39,160)   252.5   (56,780)   60"x60"x11"   5-15M   @ 13.5" E/N     210.7   (47,380)   305.6   (68,710)   66"x66"x12"   6-15M   @ 12" E/W     37.1   (8,350)   53.8   (12,110)   24"x24"x9"   2-10M   @ 18" E/W     58.0   (13,050)   84.1   (18,930)   30"x30"x9"   3-10M   @ 12" E/W     83.6   (18,800)   121.2   (27,260)   36"x36"x9"   4-10M   @ 10" E/W     113.8   (25,580)   165.0   (37,100)   42"x42"x9"   5-10M   @ 18" E/W     148.6   (33,420)   215.5   (48,450)   48"x48"x10"   7-10M   @ 7" E/W     148.1   (42,290)   272.7   (61,320)   54"x54"x11"   4-15M   @ 16" E/W     125   (2,610)   104.5   (23,500)   151.5   (34,070)   36"x36"x9"   2-15M   @ 19.5" E/W     142.2   (31,980)   206.2   (46,370)   42"x42"x10"   3-15M   @ 18" E/W     185.8   (41,770)   269.4   (60,570)   48"x48"x11"   4-15M   @ 18" E/W     185.8   (41,770)   269.4   (60,570)   48"x48"x11"   4-15M   @ 18" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   2-10M   @ 18" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 12" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x9"   3-15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42"x42"x11"   6-10M   @ 6" E/W     300   (6,270)   174.1   (39,160)   252.5   (56,780)   30"x30"x11"   3-15M   @ 16" E/W     300   (6,270)   174.1   (39,160)   252.5   (56,780)   30"x30"x11"   3-15M   @ 12" E/W     250.8   (56,390)   363.7   (81,770)   36"x36"x12"   6-10M   @ 6" E/W								
100   (2,090)   113.8   (25,580)   165.0   (37,100)   42" x 42" x 9"   3-15M   6 15" E/W		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"		-
100 (2,090)   113.8 (25,580)   165.0 (37,100)   42" x 42" x 9"   2 - 10M (2,090)   2 - 15M (2,090)   113.8 (25,580)   165.0 (37,100)   42" x 42" x 9"   2 - 10M (2,090)   2 - 15M (2,090)   113.8 (25,580)   165.0 (37,100)   42" x 42" x 9"   3 - 10M (2,090)   2 - 15M (2,090)   2 - 1								
37.1		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"		
100 (2,090)   113.8   (25,580)   165.0   (37,100)   42" x 42" x 9"   3 - 10M   @ 12" E/W   2 - 15M   @ 19.5" E/W   2 - 15M   @ 19.5" E/W   3 - 15M   @ 19.5" E/W   4 - 15M   @ 19.5" E/W   4 - 15M   @ 14" E/W   4 - 15M   @ 14" E/W   4 - 15M   @ 14" E/W   4 - 15M   @ 16" E/W   6 - 10M   @ 6" E/W   6 -		27 1	(8 350)	53.8	(12 110)	24" v 24" v 9"		
100 (2,090)   83.6 (13,050)   84.1 (18,930)   30" x 30" x 9"   2-15M @ 19.5" E/N		37.1	(8,330)	33.6	(12,110)			
100 (2,090)   83.6		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"		-
100 (2,090)   113.8   (25,580)   165.0   (37,100)   42" x 42" x 9"   5 - 10M   @ 9" E/W     148.6   (33,420)   215.5   (48,450)   48" x 48" x 10"   7 - 10M   @ 7" E/W     188.1   (42,290)   272.7   (61,320)   54" x 54" x 11"   8 - 10M   @ 6.5" E/W     188.1   (42,290)   272.7   (61,320)   54" x 54" x 11"   8 - 10M   @ 6.5" E/W     188.1   (42,290)   272.7   (61,320)   54" x 54" x 11"   8 - 10M   @ 6.5" E/W     19.5" E/W   2 - 10M   @ 18" E/W     104.5   (23,500)   105.2   (23,660)   30" x 30" x 9"   2 - 15M   @ 19.5" E/W     142.2   (31,980)   206.2   (46,370)   36" x 36" x 9"   3 - 15M   @ 15" E/W     185.8   (41,770)   269.4   (60,570)   48" x 48" x 11"   7 - 10M   @ 7" E/W     185.8   (41,770)   269.4   (60,570)   48" x 48" x 11"   4 - 15M   @ 7" E/W     185.8   (41,770)   269.4   (60,570)   48" x 48" x 11"   4 - 15M   @ 14" E/W     185.8   (41,780)   126.2   (28,390)   30" x 30" x 9"   3 - 10M   @ 12" E/W     187.0   (19,580)   126.2   (28,390)   30" x 30" x 9"   3 - 10M   @ 12" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 11"   6 - 10M   @ 7.5" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 11"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 11"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 11"   3 - 15M   @ 16" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 11"   3 - 15M   @ 16" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 10M   @ 6" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 10M   @ 6" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   42" x 42" x 9"   3 - 15M   @ 15" E/W     170.7   (38,380)   247.5   (55,650)   30" x 3				121.2	(27,260)			
100 (2,090)   113.8		83.6	(18,800)			36" x 36" x 9"		
113.8 (25,580) 165.0 (37,100) 42" x 42" x 9" 3 - 15M @ 18" E/W  148.6 (33,420) 215.5 (48,450) 48" x 48" x 10" 7 - 10M @ 7" E/W  188.1 (42,290) 272.7 (61,320) 54" x 54" x 11" 8 - 10M @ 6.5" E/M  4 - 15M @ 14" E/W  188.1 (10,440) 67.3 (15,140) 24" x 24" x 9" 2 - 10M @ 18" E/W  72.5 (16,320) 105.2 (23,660) 30" x 30" x 9" 2 - 10M @ 18" E/W  104.5 (23,500) 151.5 (34,070) 36" x 36" x 9" 5 - 10M @ 7" E/W  142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 5 - 10M @ 7" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W  185.8 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 10M @ 12" E/W  150 (3,130) 125.4 (28,200) 181.8 (40,880) 36" x 36" x 9" 3 - 15M @ 15" E/W  170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 3 - 15M @ 15" E/W  111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 3 - 15M @ 15" E/W  111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 3 - 15M @ 18" E/W  110.4 (25,080) 363.7 (81,770) 36" x 36" x 12" 4-10M @ 6" E/W  170.7 (39,160) 252.5 (56,780) 30" x 30" x 11" 4-10M @ 6" E/W  170.7 (38,150) 252.5 (56,780) 30" x 30" x 11" 4-10M @ 6" E/W  170.7 (38,150) 252.5 (56,780) 30" x 30" x 11" 4-10M @ 6" E/W  170.7 (38,150) 252.5 (56,780) 30" x 30" x 11" 4-10M @ 6" E/W	100 (2.090)			165.0	(37,100)			
148.6 (33,420) 215.5 (48,450) 48" x 48" x 10" 7 - 10M @ 7" E/W 4 - 15M @ 14" E/W 188.1 (42,290) 272.7 (61,320) 54" x 54" x 11" 8 - 10M @ 6.5" E/W 4 - 15M @ 16" E/W 2 - 10M @ 18" E/W 2 - 15M @ 19.5" E/W 3 - 15M @ 15" E/W 142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 6 - 10M @ 7" E/W 4 - 15M @ 18" E/W 185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W 4 - 15M @ 14" E/W 185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W 4 - 15M @ 14" E/W 15" E/W 4 - 15M @ 14" E/W 15" E/W	( , , , , , , , ,	113.8	(25,580)			42" x 42" x 9"		
188.1 (42,290) 272.7 (61,320) 54" x 54" x 11" 8 - 10M @ 6.5" e/W  4 - 15M @ 14" e/W  8 - 10M @ 6.5" e/W  4 - 15M @ 16" e/W  8 - 10M @ 6.5" e/W  4 - 15M @ 16" e/W  8 - 10M @ 6.5" e/W  2 - 10M @ 18" e/W  72.5 (16,320) 105.2 (23,660) 30" x 30" x 9" 4 - 10M @ 8" e/W  2 - 15M @ 19.5" e/W  2 - 15M @ 19.5" e/W  3 - 15M @ 15" e/W  104.5 (23,500) 151.5 (34,070) 36" x 36" x 9" 5 - 10M @ 7.5" e/W  142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 6 - 10M @ 7" e/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" e/W  4 - 15M @ 14" e/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" e/W  4 - 15M @ 14" e/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 10M @ 18" e/W  2 - 15M @ 19.5" e/W  125.4 (28,200) 181.8 (40,880) 36" x 36" x 9" 5 - 10M @ 7.5" e/W  170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 6 - 10M @ 7" e/W  222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8 - 10M @ 6" e/W  111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 4 - 10M @ 6" e/W  3 - 15M @ 14" e/W  3 - 15M @ 14" e/W  3 - 15M @ 14" e/W  4 - 15M @ 14" e/W  3 - 15M @ 14" e/W  3 - 15M @ 14" e/W  4 - 10M @ 6" e/W  3 - 15M @ 12" e/W		148.6	(33,420)	245.5	/+0 +=0\			
188.1 (42,290) 272.7 (61,320) 54" x 54" x 11"				215.5	(40,450)	48" x 48" x 10"	4 - 15M	@ 14" E/W
46.4 (10,440) 67.3 (15,140) 24"x 24"x 9" 2-10M @ 18" E/W  72.5 (16,320) 105.2 (23,660) 30"x 30"x 9" 2-15M @ 19.5" E/W  104.5 (23,500) 151.5 (34,070) 36"x 36"x 9" 5-10M @ 7.5" E/W  142.2 (31,980) 206.2 (46,370) 42"x 42"x 10" 3-15M @ 18" E/W  185.8 (41,770) 269.4 (60,570) 48"x 48"x 11" 7-10M @ 7" E/W  185.7 (12,530) 80.8 (18,170) 24"x 24"x 9" 2-10M @ 18" E/W  87.0 (19,580) 126.2 (28,390) 30"x 30"x 9" 2-15M @ 19.5" E/W  125.4 (28,200) 181.8 (40,880) 36"x 36"x 9" 3-15M @ 15" E/W  170.7 (38,380) 247.5 (55,650) 42"x 42"x 11" 6-10M @ 7" E/W  222.9 (50,130) 323.3 (72,680) 48"x 48"x 12" 8-10M @ 18" E/W  111.4 (25,060) 161.6 (36,340) 24"x 24"x 9" 3-15M @ 18" E/W  3-15M @ 18" E/W  4-15M @ 15" E/W  3-15M @ 18" E/W  4-15M @ 18" E/W  4-15M @ 18" E/W  3-15M @ 15" E/W  3-15M @ 18" E/W  3-15M @ 12" E/W  3-15M @ 14" E/W  3-15M @ 18" E/W  3-15M @ 12" E/W		100.1	(42.200)	272.7	(61.330)	E4!! v E4!! v 14!!	8 - 10M	@ 6.5" E/W
125 (2,610)  104.5 (23,500) 151.5 (34,070) 36" x 36" x 9" 5-10M @ 7.5" E/W 3-15M @ 15" E/W 42" x 10" 6-10M @ 7" E/W 3-15M @ 18" E/W 42" x 10" 6-10M @ 7" E/W 3-15M @ 18" E/W 42" x 10" 6-10M @ 7" E/W 4-15M @ 14" E/W 42" x 10" 6-10M @ 7" E/W 4-15M @ 14" E/W 42" x 10" 6-10M @ 7" E/W 4-15M @ 14" E/W 42" x 10" 6-10M @ 7" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 15" E		188.1	(42,290)	2/2./	(61,320)	54 X 54 X 11	4 - 15M	@ 16" E/W
125 (2,610)  104.5		46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
125 (2,610)  104.5		72.5	(16,320)	105.2	(23,660)	30" × 30" × 9"	4 - 10M	@ 8" E/W
125 (2,610)  104.5 (23,500) 151.5 (34,070) 36" x 36" x 9" 3.15M @ 15" E/W  142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 6-10M @ 7" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7-10M @ 7" E/W  4.15M @ 14" E/W  55.7 (12,530) 80.8 (18,170) 24" x 24" x 9" 2-10M @ 18" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3-10M @ 12" E/W  2-15M @ 19.5" E/W  2-15M @ 19.5" E/W  3-15M @ 15" E/W  3-15M @ 15" E/W  3-15M @ 15" E/W  3-15M @ 14" E/W  3-15M @ 15" E/W  3-15M @ 15" E/W  3-15M @ 14" E/W  3-15M @ 18" E/W  3-15M @ 14" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 12" E/W		72.5		103.2		30 × 30 × 3	2 - 15M	@ 19.5" E/V
125 (2,610)  142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 6-10M @ 7" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7-10M @ 7" E/W  55.7 (12,530) 80.8 (18,170) 24" x 24" x 9" 2-10M @ 18" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3-10M @ 12" E/W  125.4 (28,200) 181.8 (40,880) 36" x 36" x 9" 5-10M @ 7.5" E/W  170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 6-10M @ 7" E/W  222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8-10M @ 6" E/W  4-15M @ 14" E/W  4-15M @ 14" E/W  3-15M @ 15" E/W  3-15M @ 18" E/W  3-15M @ 14" E/W  3-15M @ 9" E/W  3-15M @ 12" E/W  3-15M @ 12" E/W  3-15M @ 12" E/W  3-15M @ 12" E/W		104 5	(23 500)	151 5	(34 070)	36" x 36" x 9"		@ 7.5" E/W
142.2 (31,980) 206.2 (46,370) 42" x 42" x 10" 3 - 15M @ 18" E/W  185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7 - 10M @ 7" E/W  4 - 15M @ 14" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 10M @ 12" E/W  2 - 15M @ 19.5" E/W  2 - 15M @ 19.5" E/W  3 - 15M @ 15" E/W  3 - 15M @ 18" E/W  3 - 15M @ 16" E/W  4 - 15M @ 14" E/W  4 - 15M @ 14" E/W  3 - 15M @ 14" E/W  4 - 15M @ 14" E/W  3 - 15M @ 14" E/W  4 - 15M @ 14" E/W  3 - 15M @ 14" E/W  4 - 15M @ 14" E/W  3 - 15M @ 9" E/W  3 - 15M @ 12" E/W	125 (2,610)		(23,300)	131.3	(34,070)			
185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 7-10M @ 7" E/W 4-15M @ 14" E/W  55.7 (12,530) 80.8 (18,170) 24" x 24" x 9" 2-10M @ 18" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3-10M @ 12" E/W  125.4 (28,200) 181.8 (40,880) 36" x 36" x 9" 5-10M @ 7.5" E/W  170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 6-10M @ 7" E/W  222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8-10M @ 6" E/W 4-15M @ 14" E/W  111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 3-15M @ 9" E/W		142.2	(31.980)	206.2	(46.370)	42" x 42" x 10"		
185.8 (41,770) 269.4 (60,570) 48" x 48" x 11" 4 - 15M @ 14" E/W  55.7 (12,530) 80.8 (18,170) 24" x 24" x 9" 2 - 10M @ 18" E/W  87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3 - 10M @ 19.5" E/W  2 - 15M @ 19.5" E/W  2 - 15M @ 19.5" E/W  3 - 15M @ 15" E/W  3 - 15M @ 18" E/W  3 - 15M @ 18" E/W  3 - 15M @ 18" E/W  4 - 15M @ 14" E/W  3 - 15M @ 14" E/W  4 - 15M @ 14" E/W  4 - 15M @ 14" E/W  3 - 15M @ 14" E/W  3 - 15M @ 14" E/W  4 - 10M @ 6" E/W  3 - 15M @ 9" E/W  3 - 15M @ 12" E/W  3 - 15M @ 12" E/W  3 - 15M @ 12" E/W			(- ,,					
150 (3,130)    150 (3,130)   252.5   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   247.5   250.8   247.5   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   250.8   260.8   260.8   247.5   2		185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"		
150 (3,130) 87.0 (19,580) 126.2 (28,390) 30" x 30" x 9" 3-10M @ 12" E/W 2-15M @ 19.5" E/W 3-15M @ 15" E/W 3-15M @ 18" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 3-15M @ 9" E/W 3-15M @ 12" E/W				20.0		2411 2411 011		
150 (3,130)   125.4   (28,200)   181.8   (40,880)   36" x 36" x 9"   2 - 15M   @ 19.5" E/N		55./	(12,530)	80.8	(18,1/0)	24" x 24" x 9"		
150 (3,130)  125.4 (28,200) 181.8 (40,880) 36" x 36" x 9" 5-10M @ 7.5" E/W 3-15M @ 15" E/W 3-15M @ 15" E/W 3-15M @ 15" E/W 3-15M @ 15" E/W 3-15M @ 18" E/W 3-15M @ 18" E/W 3-15M @ 18" E/W 3-15M @ 18" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 3-15M @ 9" E/W 3-15M @ 12" E/W 3-15M @ 12		87.0 (19,580) 126.2 (28,390)	(28,390)	(28,390) 30" x 30" x 9"				
150 (3,130)   125.4								
170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 6-10M @ 7" E/W 3-15M @ 18" E/W 222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8-10M @ 6" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 6" E/W 3-15M @ 9" E/W 3-15M @ 12" E/W 3-15M @ 12	150 (2.120)	125.4	125.4 (28,200)	181.8	(40,880)	36" x 36" x 9"		-
170.7 (38,380) 247.5 (55,650) 42" x 42" x 11" 3-15M @ 18" E/W  222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8-10M @ 6" E/W  4-15M @ 14" E/W  4-15M @ 14" E/W  4-10M @ 6" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 9" E/W  3-15M @ 12" E/W  250.8 (56,390) 363.7 (81,770) 36" x 36" x 12" 6-10M @ 6" E/W	150 (3,130)							
222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 8-10M @ 6" E/W 4-15M @ 14" E/W 4-15M @ 14" E/W 4-15M @ 6" E/W 3-15M @ 9" E/W 3-15M @ 9" E/W 3-15M @ 9" E/W 3-15M @ 12" E/W 3-15M @ 12" E/W 3-15M @ 12" E/W 3-15M @ 12" E/W		170.7	170.7 (38,380)	247.5	(55,650)	42" x 42" x 11"		-
222.9 (50,130) 323.3 (72,680) 48" x 48" x 12" 4 - 15M @ 14" E/W  111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 4 - 10M @ 6" E/W 3 - 15M @ 9" E/W  300 (6,270) 174.1 (39,160) 252.5 (56,780) 30" x 30" x 11" 4 - 10M @ 8" E/W 3 - 15M @ 12" E/W  250.8 (56,390) 363.7 (81,770) 36" x 36" x 12" 6 - 10M @ 6" E/W								
111.4 (25,060) 161.6 (36,340) 24" x 24" x 9" 4-10M @ 6" E/W 3-15M @ 9" E/W 3-15M @ 9" E/W 4-10M @ 8" E/W 3-15M @ 12" E/W 3-15M @ 6"		222.9 (50,130	(50,130)	323.3	(72,680)	48" x 48" x 12"		
300 (6,270) 174.1 (39,160) 252.5 (56,780) 30" x 30" x 11" 3 - 15M @ 9" E/W 3 - 15M @ 12" E/W 3 - 15M @ 12" E/W 250.8 (56,390) 363.7 (81,770) 36" x 36" x 15" 6 - 10M @ 6" E/W 250.8			(0= 000)		(25.245)			
300 (6,270) 174.1 (39,160) 252.5 (56,780) 30" x 30" x 11" 4-10M @ 8" E/W 3-15M @ 12" E/W 250.8 (56,390) 363.7 (81,770) 36" x 36" x 12" 6-10M @ 6" E/W		111.4	(25,060) 161.6	161.6	(36,340)	24'' x 24'' x 9''		
250.8 (56.390) 363.7 (81.770) 36" x 36" x 12" 6 - 10M @ 6" E/W	200 (6.276)	474.4		252.5	/F.C. 700\	2011 2011 4411		
250.8 (56.390) 363.7 (81.770) 36" x 36" x 12"	300 (6,270)	1/4.1	(39,160)	252.5	(56,780)	30" X 30" X 11"	3 - 15M	@ 12" E/W
250.8 (56,390) 363.7 (81,770) 36 X 36 X 12 <u>4 -</u> 15M @ 10'' F/W		250.0	/F.C. 200\	262.7	(01.770)	2011 11 2011 11 12 11		
4 15W @ 10 C/W		250.8	(56,390)	363./	(81,//0)	36" X 36" X 12"	4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018



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#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- 6. Refer to Table 2 for footing size (b x b x h) and rebar spacing (s). Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

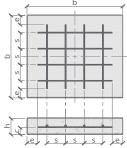


Figure 1. Rebar layout

APEPEI Permit No. A195

THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF PRINCE EDWARD ISLAND VALID FOR THE YEAR 2016

> J. W. F. Ting No. 1246

**DATE:** Oct. 31, 2016

LICENSED
PROFESSIONAL ENGINEER
PROVINCE OF
PRINCE EDWARD ISLAND

Use in conjunction with USP Adjustable Support Columns JP, T2JP series



	Ta	ble 1. Co	ncrete Foot	ing Recon	nmendatio	ns, 20 MPa Cor	crete Stre	ngth
			Max. Footing					
	Soil Bearing		red Load, P <sub>s</sub>		l Load, P <sub>f</sub>	Min. Footing		
	Capacity		Stress Design)		tes Design)	Dimensions		pecifications
	kPa (psf)	kN	(lb)	kN	(lb)	b x b x h	Qty & Size	Spacing, s
		27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M 3 - 10M	@ 18" E/W @ 12" E/W
		43.5	(9,790)	63.1	(14,200)	30" x 30" x 9"	2 - 15M	@ 19.5" E/W
							4 - 10M	@ 10'' E/W
		62.7	(14,100)	90.9	(20,440)	36" x 36" x 9"	2 - 15M	@ 19.5" E/W
	•	0F 2	(19,190)	122.7	(27.020)	42" x 42" x 9"	5 - 10M	@ 9" E/W
	_	85.3	(19,190)	123.7	(27,820)	42 X 42 X 9	3 - 15M	@ 18" E/W
	75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
			( -,,		(,,		3 - 15M	@ 19.5" E/W
		141.0	(31,720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M 4 - 15M	@ 8" E/W @ 16" E/W
	•						9 - 10M	@ 6.5" E/W
		174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	5 - 15M	@ 13.5" E/W
		210.7	(47.200)	20F.C	(68.710)	CC!! » CC!! » 13!!	11 - 10M	@ 6" E/W
		210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	6 - 15M	@ 12" E/W
		37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
		58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	•						2 - 15M 4 - 10M	@ 19.5" E/W @ 10" E/W
		83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	3 - 15M	@ 15" E/W
te	100 (2,090)		(25,580)	165.0			5 - 10M	@ 9" E/W
cre		113.8			(37,100)	42" x 42" x 9"	3 - 15M	@ 18" E/W
20 MPa concrete		110 6	(22.420)	2155	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
ас	<u>.</u>	148.6	(33,420)	215.5	.23.3 (70,730)	48" x 48" x 11"	4 - 15M	@ 14" E/W
AP.		188.1	(42,290)	272.7	(61,320)	54" x 54" x 12"	9 - 10M	@ 6'' E/W
0					(15,140)	24" x 24" x 9"	5 - 15M	@ 12" E/W @ 9" E/W
2		46.4	(10,440)	67.3			3 - 10M 2 - 15M	@ 9" E/W @ 18" E/W
	-					30" x 30" x 9"	4 - 10M	@ 8" E/W
		72.5	(16,320)	105.2	(23,660)		2 - 15M	@ 19.5" E/W
	125 (2.610)	1015	(22 500)	454.5	(24.070)	2611 2611 011	5 - 10M	@ 7.5" E/W
	125 (2,610)	104.5	(23,500)	151.5	(34,070)	36" x 36" x 9"	3 - 15M	@ 15" E/W
		142.2	(31,980)	206.2	(46,370) (60,570)	42" x 42" x 10"	6 - 10M	@ 7'' E/W
	-		(=-,==-,				3 - 15M	@ 18" E/W
		185.8	(41,770)	269.4		48" x 48" x 11" 48" x 48" x 12"	7 - 10M 4 - 15M	@ 7" E/W
							3 - 10M	@ 14" E/W @ 9" E/W
		55.7 (12,530)	80.8	(18,170)	24" x 24" x 9"	2 - 15M	@ 18" E/W	
	-	07.0	97.0 (10.590) 136.3	(20, 200)	30" x 30" x 9"	4 - 10M	@ 8" E/W	
		87.0	(19,580)	126.2	(28,390)	30 X 30 X 9	3 - 15M	@ 12" E/W
	150 (3,130)	125.4	(28,200)	181.8	(40,880)	36" x 36" x 10"	5 - 10M	@ 7.5" E/W
	130 (3,130)	170.7 (38,380)	(,,		(10,000)		3 - 15M	@ 15" E/W
			(38,380)	247.5	(55,650)	42" x 42" x 11"	6 - 10M 3 - 15M	@ 7" E/W
							8 - 10M	@ 18" E/W @ 6" E/W
			323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W	
		111.1	111.4 (25,060) 161.6	40: -	(26.240)	2411 2411 4011	4 - 10M	@ 6" E/W
	_	111.4		(36,340)	24" x 24" x 10"	3 - 15M	@ 9'' E/W	
	300 (6,270)	) 174.1 (39,160) 252.5	(56,780)	30" x 30" x 11"	5 - 10M	@ 6" E/W		
					(30,700)	30 × 30 × 11	4 - 15M	@ 8" E/W
		250.8	(56,390)	363.7	(81,770)	36" x 36" x 13"	6 - 10M	@ 6" E/W
							4 - 15M	@ 10" E/W

Exp. Dec. 31, 2018

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- Refer to Table 1 for footing size (b x b x h) and rebar spacing (s).
   Footing height (h) indicates the depth of footing below the column base plate. Rebar edge distance (e) and depth of concrete below rebar (c) shall be no less than 3".

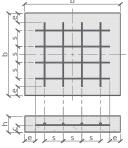
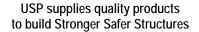


Figure 1. Rebar layout

APEGS Certificate No. C0940







Use in conjunction with USP Adjustable Support Columns JP, T2JP series

1	able 2. Co	ncrete Foot	ing Recon	nmendatio	ns, 25 MPa Cor	ncrete Stre	ngth
		Max. Footin					
Soil Bearing	Unfactored Load, P <sub>s</sub>		Factored Load, P <sub>f</sub>		Min. Footing		
Capacity	(Working S	tress Design)	(Limit Sta	tes Design)	Dimensions	Rebar 9	pecifications
kPa (psf)	kN	(lb)	kN	(lb)	bxbxh	Qty & Size	Spacing, s
	27.8	(6,270)	40.4	(9,090)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	43.5	(0.700)	62.1	(14 200)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	45.5	(9,790)	63.1	(14,200)	30 X 30 X 9	2 - 15M	@ 19.5" E/\
	62.7	(14.100)	00.0	(20,440)	36" x 36" x 9"	4 - 10M	@ 10" E/W
	62.7	(14,100)	90.9	(20,440)	30 X 30 X 9	2 - 15M	@ 19.5" E/\
	85.3	(10 100)	123.7	(27.920)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
	65.5	(19,190)	123.7	(27,820)	42 X42 X9	3 - 15M	@ 18" E/W
75 (1,570)	111.4	(25,060)	161.6	(36,340)	48" x 48" x 9"	6 - 10M	@ 8'' E/W
		(23,000)	101.0	(30,340)	40 740 73	3 - 15M	@ 19.5" E/\
	141.0	(21 720)	204.5	(45,990)	54" x 54" x 10"	7 - 10M	@ 8'' E/W
	141.0	(31,720)	204.3	(43,990)	34 X 34 X 10	4 - 15M	@ 16" E/W
	174.1	(39,160)	252.5	(56,780)	60" x 60" x 11"	9 - 10M	@ 6.5" E/W
	174.1	(33,100)	232.3	(30,780)	00 X 00 X 11	5 - 15M	@ 13.5" E/\
	210.7	(47,380)	305.6	(68,710)	66" x 66" x 12"	11 - 10M	@ 6'' E/W
	210.7	(47,300)	303.0	(00,710)	00 X 00 X 12	6 - 15M	@ 12" E/W
	37.1	(8,350)	53.8	(12,110)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	58.0	(13,050)	84.1	(18,930)	30" x 30" x 9"	3 - 10M	@ 12" E/W
	30.0	(13,030)	04.1	(18,930)	30 X 30 X 3	2 - 15M	@ 19.5" E/\
	83.6	(18,800)	121.2	(27,260)	36" x 36" x 9"	4 - 10M	@ 10'' E/W
		(10,000)	121.2	(27,200)	30 X 30 X 3	2 - 15M	@ 19.5" E/\
100 (2,090)	113.8	(25,580)	165.0	(37,100)	42" x 42" x 9"	5 - 10M	@ 9'' E/W
		( -,,				3 - 15M	@ 18" E/W
	148.6	.48.6 (33,420)	215.5	(48,450)	48" x 48" x 10"	7 - 10M	@ 7'' E/W
						4 - 15M	@ 14" E/W
	188.1	(42,290)	272.7	(61,320)	54" x 54" x 11"	8 - 10M	@ 6.5" E/W
						4 - 15M	@ 16" E/W
	46.4	(10,440)	67.3	(15,140)	24" x 24" x 9"	2 - 10M	@ 18" E/W
	72.5	(16,320)	105.2	(23,660)	30" x 30" x 9"	4 - 10M	@ 8" E/W
					36" x 36" x 9"	2 - 15M	@ 19.5" E/
425 (2.640)	104.5	(23,500)	151.5	(34,070)		5 - 10M	@ 7.5" E/W
125 (2,610)						3 - 15M	@ 15" E/W
	142.2	(31,980)	206.2	(46,370)	42" x 42" x 10"	6 - 10M	@ 7" E/W
						3 - 15M	@ 18" E/W
	185.8	(41,770)	269.4	(60,570)	48" x 48" x 11"	7 - 10M	@ 7" E/W @ 14" E/W
	EF 7	(12 520)	90.0	(10 170)	24" x 24" x 9"	4 - 15M 2 - 10M	
1	55.7	(12,530)	80.8	(18,170)	24 X 24 X 9	3 - 10M	@ 18" E/W @ 12" E/W
	87.0 (19,580)	126.2	(28,390)	30" x 30" x 9"	2 - 15M	@ 12 L/W	
						5 - 10M	@ 7.5" E/W
150 (3.130)	125.4 (28,200)	181.8	(40,880)	36" x 36" x 9"	3 - 10M	@ 7.5 L/W	
150 (3,130)	-		30) 247.5 (55,650) 42" x 42" x 11"		6 - 10M	@ 7" E/W	
	170.7	(38,380)		(55,650)	42" x 42" x 11"	3 - 15M	@ 18" E/W
						8 - 10M	@ 6" E/W
	222.9	(50,130)	323.3	(72,680)	48" x 48" x 12"	4 - 15M	@ 14" E/W
-						4 - 10M	@ 6" E/W
1	111.4	(25,060)	161.6	(36,340)	24" x 24" x 9"	3 - 15M	@ 9" E/W
	•					4 - 10M	@ 8" E/W
300 (6,270)	174.1	(39,160)	252.5	(56,780)	30" x 30" x 11"	3 - 15M	@ 12" E/W
					6 - 10M	@ 6" E/W	
	250.8	(56,390)	363.7	(81,770)	36" x 36" x 12"	4 - 15M	@ 10" E/W
						- TOIVI	ى 10 L/VV





#### Notes:

- Footing design is in accordance with CAN/CSA A23.3, and meets or exceeds the prescriptive requirements of NBCC-2015 Part 9 and its provincial counterparts.
- 2. Soil bearing capacity and load(s) to be supported by the footing shall be verified by an engineer.
- 3. Concrete shall be normal Portland cement, Type 10 or Type 50 as required, slump +/-75 mm (3"), entrained air 4-7%, maximum aggregate 20 mm (3/4") diameter, minimum strength of 20 MPa (2,900 psi) at 28 days.
- 4. Rebar shall be Grade 400, tied at all intersections, and placed in conformance with Figure 1.
- Column shall be installed at the centre of the footing; eccentric loading reduces the footing capacity. Design is based on USP Support Column steel base plate sizes of 3.5" x 6" and 4.5" x 6".
- Refer to Table 2 for footing size
   (b x b x h) and rebar spacing (s).

   Footing height (h) indicates the
   depth of footing below the
   column base plate. Rebar edge
   distance (e) and depth of concrete
   below rebar (c) shall be no less than 3".

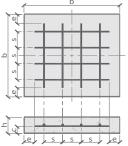


Figure 1. Rebar layout



