

SELF-SUPPORTING TOWERS





STANDARD G-SERIES SELF-SUPPORTING



G-SERIES SELF-SUPPORTING

GENERAL USE

The self-supporting G-Series towers offer an easy, low-cost solution to get light weight antennas in the air quickly. By using the G-Series tower as a self-supporting structure, you minimize land area usage. They are functional in a wide variety of wind speeds. See ROHN's standard designs to help identify the right structure for your project. These are the same sturdy, robust tower sections that ROHN has fabricated for years. Each larger model allows for more loading capacity.

FEATURES

- Completely hot-dip galvanized after fabrication
- Cross bracing is formed by a continuous solid rod bracing fashioned into a zig-zag pattern for strength
- Pre-engineered loading charts meet varying individual specs and site conditions
- Typical uses include: small dishes, broadband, security and two-way communication
- All towers have 'fixed' bases

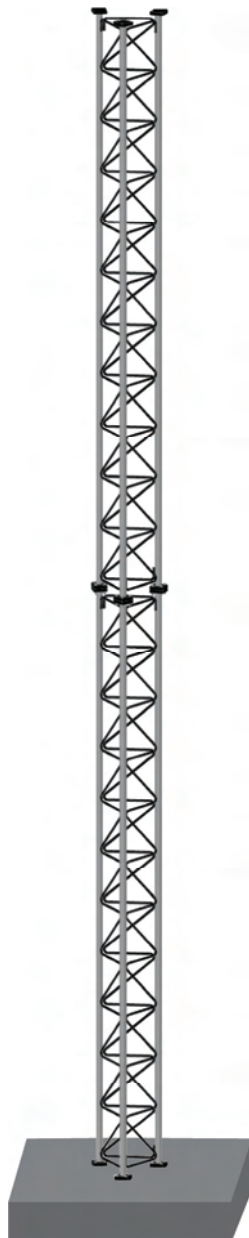
KITS

The kit part numbers for ROHN Self-Supporting G-Series towers include:

- Short base for embedment in concrete
- Rev F ground kit
- All tower sections and connection hardware
- Tapered top (25G and 45G towers)
- Top plate (55G towers)
- Cap plate kit (65G towers)



Typical Self-Supporting
25G, 45G and 55G Tower



Typical Self-Supporting
45GSR and 65G Tower

Per Rev G requirements, any structure greater than 10' requires a climber safety device. Please see page 209 for ordering information.

G SERIES**REV. F ALLOWABLE ANTENNA AREAS (SQ. FT.)****70 MPH**
Fastest Mile

70 MPH Fastest Mile Wind Speed - No Ice								
Height	25G		45G		55G		65G	
	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.
10'	19.7	25SS010	42.5	45SS010	75.0	55SS010	95.0	65SS010
20'	14.2	25SS020	22.0	45SS020	43.0	55SS020	95.0	65SS020
30'	6.4	25SS030	12.0	45SS030	26.0	55SS030	76.2	65SS030
35'	3.6	25SS035	8.7	45SS035	21.9	55SS035	61.2	65SS035
40'	1.5	25SS040	5.1	45SS040	15.0	55SS040	48.8	65SS040
45'			2.3	45SS045	11.4	55SS045	39.0	65SS045
50'					6.5	55SS050	29.3	65SS050
55'					4.0	55SS055	24.4	65SS055
60'					0.8	55SS060	18.4	65SS060
70'							8.7	65SS070
80'							0.9	65SS080

80 MPH
Fastest Mile

80 MPH Fastest Mile Wind Speed - No Ice								
Height	25G		45G		55G		65G	
	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.
10'	14.3	25SS010	30.0	45SS010	57.0	55SS010	95.0	65SS010
20'	9.0	25SS020	16.0	45SS020	30.0	55SS020	85.0	65SS020
30'	3.7	25SS030	7.5	45SS030	17.0	55SS030	55.8	65SS030
35'	1.4	25SS035	4.7	45SS035	14.5	55SS035	44.0	65SS035
40'			1.4	45SS040	8.0	55SS040	34.1	65SS040
45'					5.9	55SS045	26.2	65SS045
50'					1.5	55SS050	19.7	65SS050
55'							14.5	65SS055
60'							9.4	65SS060
70'							1.3	65SS070

90 MPH
Fastest Mile

90 MPH Fastest Mile Wind Speed - No Ice								
Height	25G		45G		55G		65G	
	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.	FT ²	Part No.
10'	10.5	25SS010	25.0	45SS010	45.0	55SS010	95.0	65SS010
20'	6.9	25SS020	11.0	45SS020	23.0	55SS020	65.0	65SS020
30'	1.7	25SS030	4.0	45SS030	12.0	55SS030	40.0	65SS030
35'			1.9	45SS035	9.4	55SS035	32.2	65SS035
40'					4.0	55SS040	24.1	65SS040
45'					2.2	55SS045	17.7	65SS045
50'							14.5	65SS050
55'							7.7	65SS055
60'							3.3	65SS060

Note: Antenna areas, ft.², assume all round antenna members.

NO ICE



G SERIES

REV. G EFFECTIVE PROJECTED AREA (SQ. FT.)

90 MPH
3-Second Gust

90 MPH 3-Second Gust Wind Speed															
Height	25G			45G			45GSR			55G			65G		
	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.
	Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C	
10'	26.8	21.3	25SS010	60.0	47.5	45SS010	95	84	45SR010	80	79	55SS010	95	95	65SS010
20'	18.5	13.4	25SS020	31.3	22.7	45SS020	95	71	45SR020	56	42	55SS020	95	95	65SS020
30'	7.9	4.1	25SS030	16.1	8.4	45SS030	87	58	45SR030	34	21	55SS030	95	71	65SS030
35'	4.4	1.2	25SS035	9.8	3.8	45SS035	76	52	45SR035	25	14	55SS035	80	54	65SS035
40'	1.3	-	25SS040	4.9	-	45SS040	60	40	45SR040	17	8	55SS040	62	41	65SS040
45'				0.7	-	45SS045	48	31	45SR045	11	3	55SS045	48	30	65SS045
50'							38	23	45SR050	5	-	55SS050	37	21	65SS050
55'							29	16	45SR055				28	14	65SS055
60'							22	11	45SR060				20	7	65SS060

100 MPH
3-Second Gust

100 MPH 3-Second Gust Wind Speed															
Height	25G			45G			45GSR			55G			65G		
	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.
	Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C	
10'	20.7	16.4	25SS010	47.4	39.5	45SS010	82	66	45SR010	78	63	55SS010	95	95	65SS010
20'	14.0	9.9	25SS020	23.2	16.9	45SS020	74	55	45SR020	43	32	55SS020	95	95	65SS020
30'	5.3	2.2	25SS030	9.7	4.8	45SS030	66	43	45SR030	24	14	55SS030	81	55	65SS030
35'	2.1	-	25SS035	5.1	0.7	45SS035	59	38	45SR035	17	8	55SS035	61	40	65SS035
40'				1.2	-	45SS040	46	30	45SR040	10	3	55SS040	47	29	65SS040
45'							35	22	45SR045	5	-	55SS045	35	20	65SS045
50'							27	15	45SR050				26	13	65SS050
55'							20	9	45SR055				17	6	65SS055
60'							13	4	45SR060				11	1	65SS060

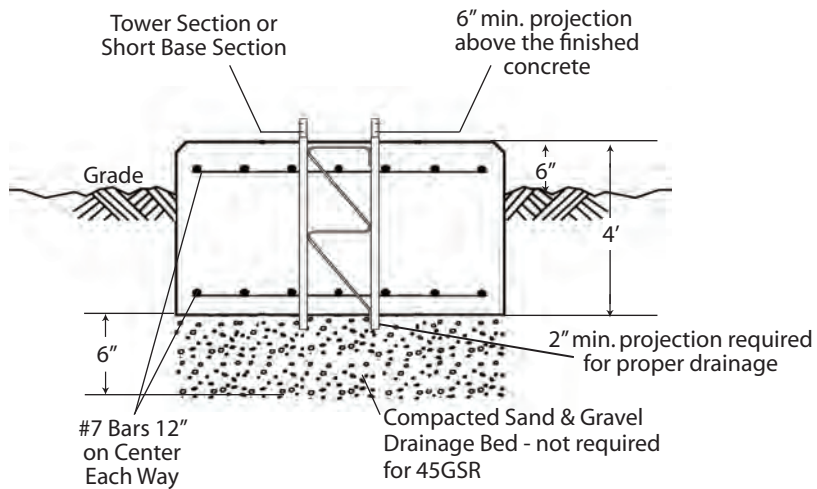
110 MPH
3-Second Gust

110 MPH 3-Second Gust Wind Speed															
Height	25G			45G			45GSR			55G			65G		
	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.	EPA		Part No.
	Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C		Exp.B	Exp.C	
10'	16.5	12.7	25SS010	39.4	31.9	45SS010	67	53	45SR010	63	51	55SS010	95	95	65SS010
20'	10.6	7.2	25SS020	18.3	12.3	45SS020	59	43	45SR020	34	25	55SS020	95	81	65SS020
30'	3.1	0.4	25SS030	6.5	1.9	45SS030	51	32	45SR030	17	9	55SS030	65	43	65SS030
35'				1.7	-	45SS035	45	27	45SR035	11	4	55SS035	48	30	65SS035
40'							35	22	45SR040	5	-	55SS040	35	21	65SS040
45'							26	15	45SR045				25	13	65SS045
50'							19	9	45SR050				17	7	65SS050
55'							13	4	45SR055				10	-	65SS055
60'							7	-	45SR060				4	-	65SS060

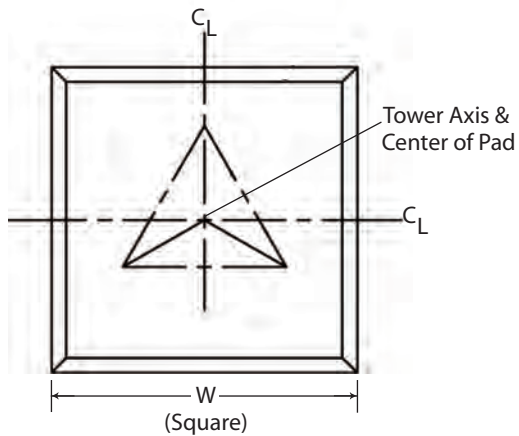
Note: Antenna areas, ft.², assume all round antenna members.

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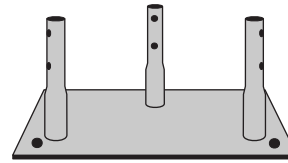
SELF-SUPPORTING G-SERIES FOUNDATIONS



ELEVATION VIEW
25G (shown), 45G & 55G
SELF-SUPPORTING TOWER FOUNDATION



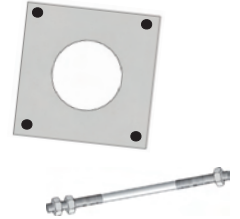
PLAN VIEW



CONCRETE BASE PLATE WITH ANCHORS
25GSSB

FOR USE WITH SELF-SUPPORTING 25G TOWERS.

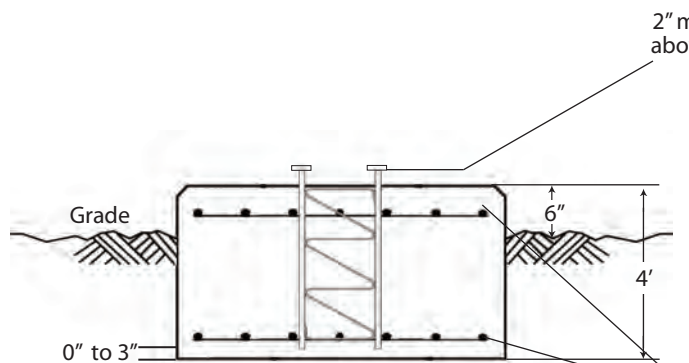
ALTERNATIVE TO USING SHORT BASE.
BASE BOLTS & TEMPLATE MUST BE ORDERED SEPARATELY.



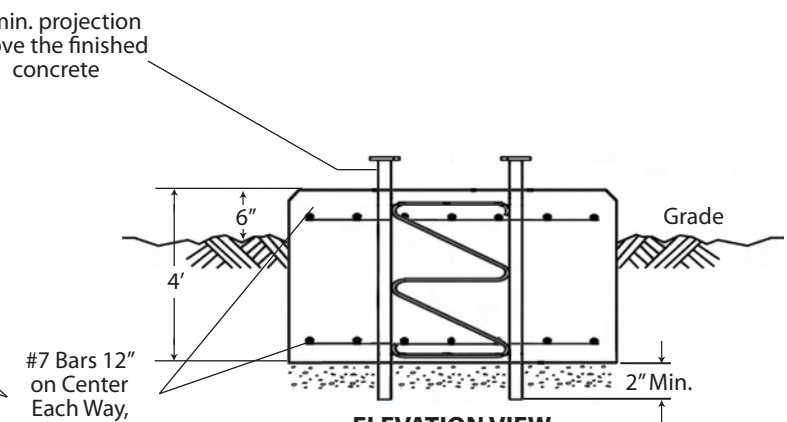
BASE BOLTS & TEMPLATE
KH8175A

FOR USE WITH 25GSSB IN SELF-SUPPORTING 25G TOWER APPLICATIONS. KIT INCLUDES (1) TEMPLATE & (4) BASE BOLTS.

Tower	Mat Width (W)	Concrete Volume (Cu. Yds.)
25G	4' - 0"	2.4
45G	5' - 3"	4.1
55G	6' - 0"	5.3
45GSR 65G	7' - 9"	8.9



ELEVATION VIEW
45GSR
SELF-SUPPORTING TOWER FOUNDATION



ELEVATION VIEW
65G
SELF-SUPPORTING TOWER FOUNDATION



SELF-SUPPORTING G-SERIES DESIGN NOTES

1. Tower designs are in accordance with approved national standard ANSI/EIA-222-F and ANSI/TIA-222G, Structure Class I, Exposures B and C, Topographic Category I.
2. All towers must have "fixed" bases. Pinned bases may not be used.
3. Designs assume transmission lines symmetrically placed as follows:
 - 25G Tower - One 5/8" Line on each face (Total =3)
 - 45G Tower - One 7/8" Line and one 1/2" line on each face (Total = 3 @ 7/8" & 3 @ 1/2")
 - 55G & 65G Towers - Two 7/8" Lines on each face (Total =6)
4. Antennas and mounts assumed symmetrically placed at tower apex.
5. Rev F tabulated allowable antenna areas assume all round antenna members.
6. Allowable flat-plate antenna areas, based on EIA RS-222-C, may be obtained by multiplying Rev. F Antenna areas shown by 0.6.
7. Standard foundation designs are based on Rev. F normal soil and Rev. G presumptive clay soil parameters.

Refer to pages 147-153 for General Installation and Foundation Notes.

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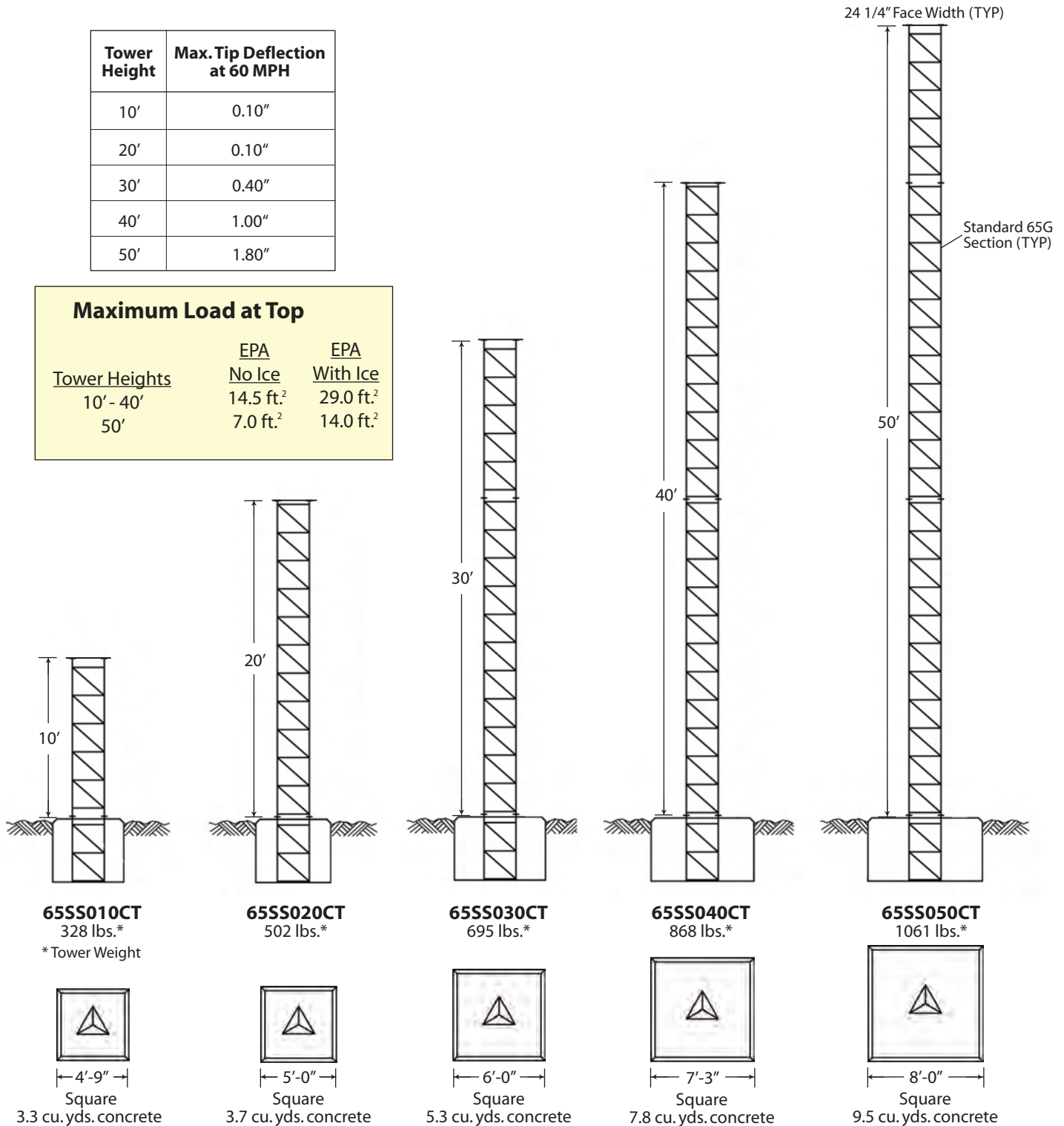
STANDARD 65G SELF-SUPPORTING CAMERA TOWERS (all-welded)

REV. G: 110 MPH 3-SEC GUST WIND SPEED (NO ICE),
40 MPH 3-SEC GUST WIND SPEED (3/4" ICE),
CLASS II, EXPOSURE C, TOPO CATEGORY 1
SEISMIC COEFFICIENT $S_s \leq 1.0$

Tower Height	Max. Tip Deflection at 60 MPH
10'	0.10"
20'	0.10"
30'	0.40"
40'	1.00"
50'	1.80"

Maximum Load at Top

Tower Heights	EPA No Ice	EPA With Ice
10' - 40'	14.5 ft. ²	29.0 ft. ²
50'	7.0 ft. ²	14.0 ft. ²



Includes short base section, tower sections, Rev G grounding material and 3/16" top mounting plate with attachment hardware.

Per Rev. G requirements, any structure greater than 10' requires a climber safety device.

Please see page 173 for ordering information.

Diagram illustrating the cross-section of a square tower with internal bracing. The tower is labeled "W" Square. The width of the tower is $W/2$. The internal bracing consists of a central point connected to the midpoints of the four sides, forming a triangle. The distance from the center to the midpoint of the top side is $W/2$. The distance from the center to the midpoint of the bottom side is $1' - 2''$. The distance from the center to the midpoint of the left side is $1' - 9''$. The distance from the center to the midpoint of the right side is $2' - 1/4''$. The tower axis is indicated by a line passing through the center.

[illegible]

ANTI-CLIMB PANELS VW915A ORDERED SEPARATELY	CLIMBING HARNESS TTFBH-4D JOURNEYMAN HARNESS TTFBH-C/P PROFESSIONAL HARNESS	SAFETY CABLE SLIDER WITH CARABINEER TT-WG-500-W/SMC	SAFETY CABLE SYSTEM TT05065 FITS ALL TOWER HEIGHTS
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1. Tower designs are in accordance with ANSI/TIA/222-G.
2. Camera and mount assumed symmetrically placed at tower top.
3. Tower design assumes one 7/8" line on each tower face.
4. Assembly drawings and standard foundation details are provided with the tower.
5. Standard foundation illustrated is for general information only and is based on Rev G presumptive clay soil parameters.



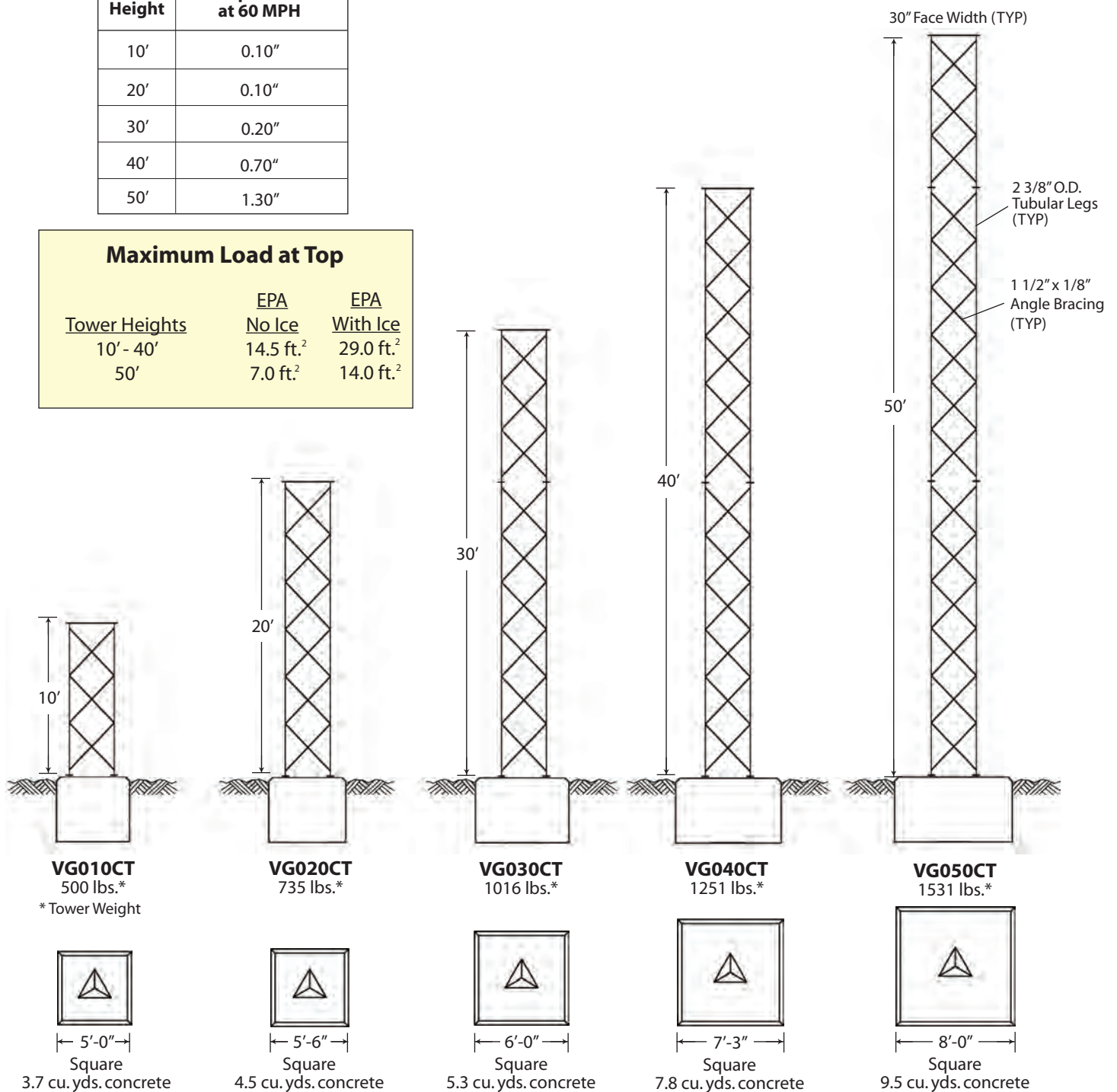
STANDARD VG SELF-SUPPORTING CAMERA TOWERS (field bolted)

REV. G: 110 MPH 3-SEC GUST WIND SPEED (NO ICE),
40 MPH 3-SEC GUST WIND SPEED (3/4" ICE),
CLASS II, EXPOSURE C, TOPO CATEGORY 1
SEISMIC COEFFICIENT $S_s \leq 1.0$

Tower Height	Max. Tip Deflection at 60 MPH
10'	0.10"
20'	0.10"
30'	0.20"
40'	0.70"
50'	1.30"

Maximum Load at Top

Tower Heights	EPA No Ice	EPA With Ice
10' - 40'	14.5 ft. ²	29.0 ft. ²
50'	7.0 ft. ²	14.0 ft. ²

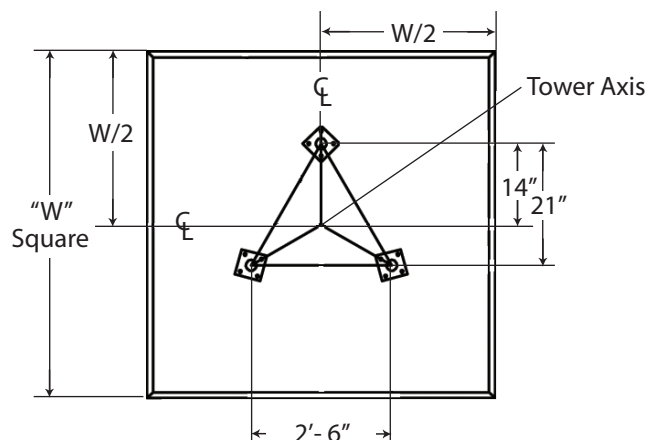


Includes anchor bolts, templates, tower sections, Rev G grounding material, 1/2" top mounting plate with attachment hardware and step bolts.

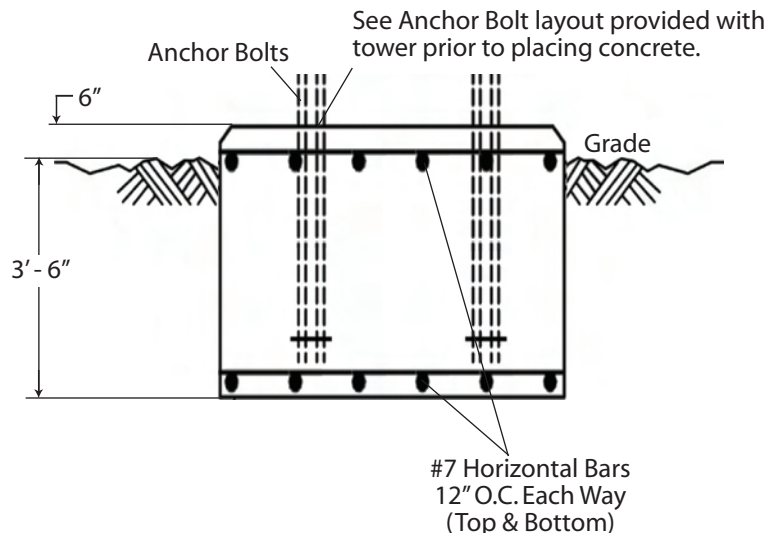
Per Rev. G requirements, any structure greater than 10' requires a climber safety device.

See page 175 for ordering information.

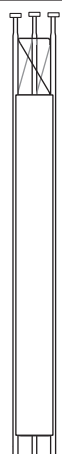
VG CAMERA TOWERS STANDARD FOUNDATION DETAILS



See tower elevation page for "W" dimensions.



ACCESSORIES

 ANTI-CLIMB PANELS VW917A ORDERED SEPARATELY	 CLIMBING HARNESS TTFBH-4D JOURNEYMAN HARNESS TTFBH-C/P PROFESSIONAL HARNESS	 SAFETY CABLE SLIDER WITH CARABINEER TT-WG-500-W/SMC	SAFETY CABLE SYSTEM TT050SSL FITS ALL TOWER HEIGHTS
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GENERAL NOTES

1. Tower designs are in accordance with ANSI/TIA/222-G.
2. Camera and mount assumed symmetrically placed at tower top.
3. Tower design assumes one 7/8" line on each tower face.
4. Assembly drawings and standard foundation details are provided with the tower.
5. Standard foundation illustrated is for general information only and is based on Rev G presumptive clay soil parameters.

Refer to pages 147-153 for Foundation General Notes.